N42237.AR.001195
NSB KINGS BAY
5090.3a

INTERIM MEASURE PHASE I ACTIVITIES EVALUATION AND RECOMMENDATIONS REPORT SITE 11 OLD CAMDEN COUNTY LANDFILL VOLUME II OF II NSB KINGS BAY GA
11/1/1994
TETRA TECH

INTERIM MEASURES PHASE I ACTIVITIES: EVALUATION AND RECOMMENDATIONS REPORT SITE 11, OLD CAMDEN COUNTY LANDFILL NAVAL SUBMARINE BASE KINGS BAY, GEORGIA

VOLUME II OF II

NAVY CLEAN - DISTRICT I
UNIT IDENTIFICATION NO. N42237
CONTRACT NO. N62467-89-D-0317

NOVEMBER 1994

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
29419-9010

APPENDIX F

WATER LEVEL DATA

STAGE 1

NSB Kings Bay Site 11, IM Phase I Operations: Stage 1 Test

E.Time minutes	RW-P2 ft	drawdown ft	corr.dd ft	RW-P5 ft	drawdown ft	corr.dd ft	PS-5 ft	drawdown ft	corr.dd ft	PD-6 ft	drawdown ft	corr.dd ft
0	3.705	0.56	0.56	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.0083	2.64	-0.50	-0.50	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.0166	3.479	0.34	0.34	2.48	-0.01	-0.01	6.276	0.01	0.01	8.007	-0.01	-0.01
0.025	3.045	-0.10	-0.10	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.0333	3.46	0.32	0.32	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.0416	3.168	0.03	0.03	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.05	3.497	0.36	0.36	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.0583	3.337	0.20	0.20	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.0666	3.479	0.34	0.34	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.075	3.479	0.34	0.34	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.0833	3.516	0.38	0.38	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.0916	3.545	0.41	0.41	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.1	3.582	0.44	0.44	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.1083	3.61	0.47	0.47	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.1166	3.724	0.58	0.58	2.471	-0.02	-0.02	6.282	0.01	0.01	8.007	-0.01	-0.01
0.125	3.78	0.64	0.64	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.1333	3.761	0.62	0.62	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.1416	3.837	0.70	0.70	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.15	3.903	0.76	0.76	2.48	-0.01	-0.01	6.279	0.01	0.01	8.013	-0.01	-0.01
0.1583	3.931	0.79	0.79	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.1666	4.006	0.87	0.87	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.175	4.053	0.91	0.91	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.1833	4.034	0.89	0.89	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.1916	4.157	1.02	1.02	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.2	4.213	1.07	1.07	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.2083	4.27	1.13	1.13	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.2166	4.317	1.18	1.18	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.225	4.364	1.22	1.22	2.48	-0.01	-0.01	6.279	0.01	0.01	8.013	-0.01	-0.01
0.2333	4.421	1.28	1.28	2.48	-0.01	-0.01	6.279	0.01	0.01	8.013	-0.01	-0.01
0.2416	4.477	1.34	1.34	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.25	4.581	1.44	1.44	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01
0.2583	4.505	1.37	1.37	2.48	-0.01	-0.01	6.279	0.01	0.01	8.013	-0.01	-0.01
0.2666	4.656	1.52	1.52	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.275	4.675	1.54	1.54	2.471	-0.02	-0.02	6.282	0.01	0.01	8.013	-0.01	-0.01
0.2833	4.722	1.58	1.58	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.2916	4.779	1.64	1.64	2.48	-0.01	-0.01	6.282	0.01	0.01	8.013	-0.01	-0.01
0.3	4.826	1.69	1.69	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.3083	4.882	1.74	1.74	2.471	-0.02	-0.02	6.279	0.01	0.01	8.013	-0.01	-0.01
0.3166	4.91	1.77	1.77	2.471	-0.02	-0.02	6.279	0.01	0.01	8.007	-0.01	-0.01

0.325	4.976	1.84	1.84	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.3333	5.023	1.88	1.88	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.35	5.127	1.99	1.99	2.48	−0.01	−0.01	6.282	0.01	0.01	8.007	−0.01	−0.01
0.3666	5.212	2.07	2.07	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.3833	5.315	2.18	2.18	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.4	5.41	2.27	2.27	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.4166	5.513	2.37	2.37	2.48	−0.01	−0.01	6.279	0.01	0.01	8.013	−0.01	−0.01
0.4333	5.589	2.45	2.45	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.45	5.692	2.55	2.55	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.4666	5.777	2.64	2.64	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.4833	5.871	2.73	2.73	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.5	5.956	2.82	2.82	2.471	−0.02	−0.02	6.282	0.01	0.01	8.007	−0.01	−0.01
0.5166	6.041	2.90	2.90	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.5333	6.126	2.99	2.99	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.55	6.22	3.08	3.08	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.5666	6.314	3.17	3.17	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.5833	6.399	3.26	3.26	2.48	−0.01	−0.01	6.279	0.01	0.01	8.007	−0.01	−0.01
0.6	6.483	3.34	3.34	2.48	−0.01	−0.01	6.279	0.01	0.01	8.007	−0.01	−0.01
0.6166	6.568	3.43	3.43	2.471	−0.02	−0.02	6.279	0.01	0.01	8.007	−0.01	−0.01
0.6333	6.644	3.50	3.50	2.48	−0.01	−0.01	6.279	0.01	0.01	8.007	−0.01	−0.01
0.65	6.738	3.60	3.60	2.471	−0.02	−0.02	6.279	0.01	0.01	8.007	−0.01	−0.01
0.6666	6.813	3.67	3.67	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.6833	6.898	3.76	3.76	2.471	−0.02	−0.02	6.282	0.01	0.01	8.013	−0.01	−0.01
0.7	6.983	3.84	3.84	2.471	−0.02	−0.02	6.279	0.01	0.01	8.007	−0.01	−0.01
0.7166	7.058	3.92	3.92	2.471	−0.02	−0.02	6.282	0.01	0.01	8.007	−0.01	−0.01
0.7333	7.133	3.99	3.99	2.48	−0.01	−0.01	6.279	0.01	0.01	8.013	−0.01	−0.01
0.75	7.209	4.07	4.07	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.7666	7.294	4.15	4.15	2.48	−0.01	−0.01	6.279	0.01	0.01	8.013	−0.01	−0.01
0.7833	7.369	4.23	4.23	2.471	−0.02	−0.02	6.282	0.01	0.01	8.007	−0.01	−0.01
0.8	7.444	4.30	4.30	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.8166	7.52	4.38	4.38	2.48	−0.01	−0.01	6.279	0.01	0.01	8.013	−0.01	−0.01
0.8333	7.595	4.46	4.46	2.48	−0.01	−0.01	6.282	0.01	0.01	8.013	−0.01	−0.01
0.85	7.67	4.53	4.53	2.48	−0.01	−0.01	6.282	0.01	0.01	8.013	−0.01	−0.01
0.8666	7.746	4.61	4.61	2.471	−0.02	−0.02	6.282	0.01	0.01	8.013	−0.01	−0.01
0.8833	7.821	4.68	4.68	2.48	−0.01	−0.01	6.279	0.01	0.01	8.013	−0.01	−0.01
0.9	7.896	4.76	4.76	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01
0.9166	7.962	4.82	4.82	2.48	−0.01	−0.01	6.282	0.01	0.01	8.007	−0.01	−0.01
0.9333	8.038	4.90	4.90	2.48	−0.01	−0.01	6.279	0.01	0.01	8.013	−0.01	−0.01
0.95	8.113	4.97	4.97	2.48	−0.01	−0.01	6.279	0.01	0.01	8.013	−0.01	−0.01
0.9666	8.179	5.04	5.04	2.471	−0.02	−0.02	6.282	0.01	0.01	8.013	−0.01	−0.01
0.9833	8.254	5.11	5.11	2.471	−0.02	−0.02	6.279	0.01	0.01	8.013	−0.01	−0.01

1	8.32	5.18	5.18	2.48	−0.01	−0.01	6.279	0.01	0.01	8.007	−0.01	−0.01
1.2	9.102	5.96	5.96	2.48	−0.01	−0.01	6.279	0.01	0.01	8.007	−0.01	−0.01
1.4	9.846	6.71	6.71	2.48	−0.01	−0.01	6.276	0.01	0.01	8.007	−0.01	−0.01
1.6	10.496	7.36	7.36	2.48	−0.01	−0.01	6.276	0.01	0.01	8.007	−0.01	−0.01
1.8	11.061	7.92	7.92	2.49	0.00	0.00	6.276	0.01	0.01	8.007	−0.01	−0.01
2	11.589	8.45	8.45	2.49	0.00	0.00	6.276	0.01	0.01	8	−0.02	−0.02
2.2	12.05	8.91	8.91	2.49	0.00	0.00	6.304	0.03	0.03	8.007	−0.01	−0.01
2.4	12.474	9.33	9.33	2.49	0.00	0.00	6.304	0.03	0.03	8.007	−0.01	−0.01
2.6	12.879	9.74	9.74	2.49	0.00	0.00	6.308	0.04	0.04	8.007	−0.01	−0.01
2.8	13.218	10.08	10.08	2.499	0.01	0.01	6.308	0.04	0.04	8	−0.02	−0.02
3	13.538	10.40	10.40	2.499	0.01	0.01	6.308	0.04	0.04	8	−0.02	−0.02
3.2	13.821	10.68	10.68	2.499	0.01	0.01	6.304	0.03	0.03	8	−0.02	−0.02
3.4	14.085	10.95	10.95	2.499	0.01	0.01	6.304	0.03	0.03	8.007	−0.01	−0.01
3.6	14.32	11.18	11.18	2.499	0.01	0.01	6.304	0.03	0.03	8.013	−0.01	−0.01
3.8	14.527	11.39	11.39	2.499	0.01	0.01	6.409	0.14	0.14	8.007	−0.01	−0.01
4	14.735	11.60	11.60	2.508	0.02	0.02	6.412	0.14	0.14	8	−0.02	−0.02
4.2	14.904	11.76	11.76	2.508	0.02	0.02	6.435	0.16	0.16	8	−0.02	−0.02
4.4	15.036	11.90	11.90	2.508	0.02	0.02	6.435	0.16	0.16	8.007	−0.01	−0.01
4.6	15.177	12.04	12.04	2.508	0.02	0.02	6.438	0.17	0.17	8	−0.02	−0.02
4.8	15.29	12.15	12.15	2.508	0.02	0.02	6.508	0.24	0.24	8.007	−0.01	−0.01
5	15.413	12.27	12.27	2.518	0.03	0.03	6.508	0.24	0.24	8.007	−0.01	−0.01
5.2	15.497	12.36	12.36	2.518	0.03	0.03	6.511	0.24	0.24	8	−0.02	−0.02
5.4	15.592	12.45	12.45	2.518	0.03	0.03	6.511	0.24	0.24	8	−0.02	−0.02
5.6	15.676	12.54	12.54	2.518	0.03	0.03	6.511	0.24	0.24	8	−0.02	−0.02
5.8	15.761	12.62	12.62	2.518	0.03	0.03	6.511	0.24	0.24	8	−0.02	−0.02
6	15.818	12.68	12.68	2.518	0.03	0.03	6.511	0.24	0.24	8	−0.02	−0.02
6.2	15.893	12.75	12.75	2.518	0.03	0.03	6.511	0.24	0.24	8.007	−0.01	−0.01
6.4	15.95	12.81	12.81	2.518	0.03	0.03	6.552	0.28	0.28	8.007	−0.01	−0.01
6.6	16.006	12.87	12.87	2.527	0.04	0.04	6.552	0.28	0.28	8	−0.02	−0.02
6.8	16.063	12.92	12.92	2.518	0.03	0.03	6.552	0.28	0.28	8.007	−0.01	−0.01
7	16.1	12.96	12.96	2.518	0.03	0.03	6.552	0.28	0.28	8	−0.02	−0.02
7.2	16.147	13.01	13.01	2.527	0.04	0.04	6.593	0.32	0.32	8	−0.02	−0.02
7.4	16.176	13.04	13.04	2.527	0.04	0.04	6.593	0.32	0.32	8	−0.02	−0.02
7.6	16.213	13.07	13.07	2.527	0.04	0.04	6.596	0.33	0.33	8	−0.02	−0.02
7.8	16.242	13.10	13.10	2.527	0.04	0.04	6.596	0.33	0.33	8	−0.02	−0.02
8	16.298	13.16	13.16	2.527	0.04	0.04	6.596	0.33	0.33	8	−0.02	−0.02
8.2	16.326	13.19	13.19	2.527	0.04	0.04	6.596	0.33	0.33	7.994	−0.03	−0.03
8.4	16.336	13.20	13.20	2.527	0.04	0.04	6.641	0.37	0.37	7.994	−0.03	−0.03
8.6	16.364	13.22	13.22	2.527	0.04	0.04	6.641	0.37	0.37	8	−0.02	−0.02
8.8	16.383	13.24	13.24	2.527	0.04	0.04	6.641	0.37	0.37	8	−0.02	−0.02
9	16.402	13.26	13.26	2.527	0.04	0.04	6.641	0.37	0.37	8	−0.02	−0.02

9.2	16.43	13.29	13.29	2.527	0.04	0.04	6.641	0.37	0.37	8	−0.02	−0.02
9.4	16.458	13.32	13.32	2.527	0.04	0.04	6.644	0.37	0.37	8	−0.02	−0.02
9.6	16.477	13.34	13.34	2.527	0.04	0.04	6.644	0.37	0.37	7.994	−0.03	−0.03
9.8	16.486	13.35	13:35	2.527	0.04	0.04	6.676	0.41	0.41	7.994	−0.03	−0.03
10	16.505	13.37	13.37	2.537	0.05	0.05	6.676	0.41	0.41	7.994	−0.03	−0.03
12	16.628	13.49	13.49	2.546	0.06	0.06	6.679	0.41	0.41	7.994	−0.03	−0.03
14	16.703	13.56	13.56	2.546	0.06	0.06	6.78	0.51	0.51	7.994	−0.03	−0.03
16	16.75	13.61	13.61	2.556	0.07	0.07	6.78	0.51	0.51	8	−0.02	−0.02
18	16.788	13.65	13.65	2.556	0.07	0.07	6.815	0.55	0.55	8	−0.02	−0.02
20	16.826	13.69	13.69	2.556	0.07	0.07	6.815	0.55	0.55	8	−0.02	−0.02
22	16.863	13.72	13.72	2.565	0.08	0.08	6.879	0.61	0.61	8.007	−0.01	−0.01
24	16.891	13.75	13.75	2.565	0.08	0.08	6.879	0.61	0.61	8.007	−0.01	−0.01
26	16.901	13.76	13.76	2.565	0.08	0.08	6.879	0.61	0.61	8.007	−0.01	−0.01
28	16.92	13.78	13.78	2.565	0.08	0.08	6.879	0.61	0.61	8.013	−0.01	−0.01
30	16.929	13.79	13.79	2.565	0.08	0.08	6.949	0.68	0.68	8.02	0.00	0.00
32	16.957	13.82	13.82	2.565	0.08	0.08	6.964	0.69	0.69	8.02	0.00	0.00
34	16.957	13.82	13.82	2.574	0.08	0.08	6.961	0.69	0.69	8.02	0.00	0.00
36	16.976	13.84	13.84	2.574	0.08	0.08	6.958	0.69	0.69	8.02	0.00	0.00
38	16.986	13.85	13.85	2.565	0.08	0.08	6.964	0.69	0.69	8.026	0.01	0.01
40	16.995	13.86	13.86	2.565	0.08	0.08	6.961	0.69	0.69	8.032	0.01	0.01
42	16.995	13.86	13.86	2.574	0.08	0.08	6.961	0.69	0.69	8.026	0.01	0.01
44	17.023	13.88	13.88	2.584	0.09	0.09	6.958	0.69	0.69	8.026	0.01	0.01
46	17.023	13.88	13.88	2.574	0.08	0.08	6.955	0.69	0.69	8.039	0.02	0.02
48	17.033	13.89	13.89	2.584	0.09	0.09	6.952	0.68	0.68	8.039	0.02	0.02
50	17.042	13.90	13.90	2.584	0.09	0.09	6.952	0.68	0.68	8.039	0.02	0.02
52	17.052	13.91	13.91	2.584	0.09	0.09	6.964	0.69	0.69	8.039	0.02	0.02
54	17.052	13.91	13.91	2.584	0.09	0.09	6.977	0.71	0.71	8.045	0.02	0.03
56	17.052	13.91	13.91	2.584	0.09	0.09	6.98	0.71	0.71	8.039	0.02	0.02
58	17.061	13.92	13.92	2.584	0.09	0.09	6.98	0.71	0.71	8.032	0.01	0.01
60	17.07	13.93	13.93	2.584	0.09	0.10	6.983	0.71	0.72	8.032	0.01	0.01
62	17.07	13.93	13.93	2.584	0.09	0.10	6.98	0.71	0.71	8.045	0.02	0.03
64	17.08	13.94	13.94	2.593	0.10	0.11	7.044	0.77	0.78	8.058	0.04	0.04
66	17.08	13.94	13.94	2.593	0.10	0.11	7.047	0.78	0.78	8.064	0.04	0.05
68	17.08	13.94	13.94	2.593	0.10	0.11	7.047	0.78	0.78	8.058	0.04	0.04
70	17.099	13.96	13.96	2.593	0.10	0.11	7.037	0.77	0.77	8.051	0.03	0.03
72	17.099	13.96	13.96	2.593	0.10	0.11	7.034	0.76	0.77	8.058	0.04	0.04
74	17.099	13.96	13.96	2.593	0.10	0.11	7.037	0.77	0.77	8.064	0.04	0.05
76	17.108	13.97	13.97	2.603	0.11	0.12	7.041	0.77	0.77	8.064	0.04	0.05
78	17.117	13.98	13.98	2.603	0.11	0.12	7.041	0.77	0.77	8.07	0.05	0.05
80	17.099	13.96	13.96	2.603	0.11	0.12	7.034	0.76	0.77	8.07	0.05	0.05
82	17.127	13.99	13.99	2.603	0.11	0.12	7.037	0.77	0.77	8.064	0.04	0.05

84	17.117	13.98	13.98	2.603	0.11	0.12	7.034	0.76	0.77	8.07	0.05	0.05
86	17.117	13.98	13.98	2.603	0.11	0.12	7.034	0.76	0.77	8.077	0.06	0.06
88	17.127	13.99	13.99	2.603	0.11	0.12	7.034	0.76	0.77	8.077	0.06	0.06
90	17.136	14.00	14.00	2.603	0.11	0.11	7.037	0.77	0.77	8.083	0.06	0.06
92	17.127	13.99	13.99	2.612	0.12	0.12	7.047	0.78	0.78	8.083	0.06	0.06
94	17.136	14.00	14.00	2.603	0.11	0.11	7.047	0.78	0.78	8.083	0.06	0.06
96	17.136	14.00	14.00	2.612	0.12	0.12	7.041	0.77	0.77	8.089	0.07	0.07
98	17.146	14.01	14.01	2.612	0.12	0.12	7.034	0.76	0.77	8.089	0.07	0.07
100	17.136	14.00	14.00	2.612	0.12	0.12	7.028	0.76	0.76	8.089	0.07	0.07
120	17.146	14.01	14.01	2.622	0.13	0.14	7.053	0.78	0.79	8.102	0.08	0.09
140	17.165	14.03	14.03	2.622	0.13	0.14	7.107	0.84	0.84	8.121	0.10	0.11
160	17.183	14.04	14.05	2.631	0.14	0.15	7.091	0.82	0.83	8.134	0.11	0.12
180	17.183	14.04	14.05	2.631	0.14	0.15	7.091	0.82	0.83	8.147	0.13	0.13
200	17.23	14.09	14.10	2.64	0.15	0.16	7.082	0.81	0.82	8.153	0.13	0.14
220	17.202	14.06	14.07	2.64	0.15	0.16	7.155	0.89	0.89	8.166	0.15	0.15
240	17.23	14.09	14.09	2.64	0.15	0.15	7.155	0.89	0.89	8.172	0.15	0.16
260	17.24	14.10	14.11	2.64	0.15	0.16	7.142	0.87	0.88	8.185	0.16	0.17
280	17.212	14.07	14.08	2.64	0.15	0.16	7.129	0.86	0.87	8.191	0.17	0.18
300	17.212	14.07	14.08	2.64	0.15	0.16	7.114	0.84	0.85	8.198	0.18	0.19
320	17.24	14.10	14.11	2.64	0.15	0.16	7.101	0.83	0.84	8.204	0.18	0.19
340	17.268	14.13	14.14	2.64	0.15	0.16	7.107	0.84	0.85	8.21	0.19	0.20
360	17.249	14.11	14.12	2.64	0.15	0.16	7.104	0.83	0.84	8.217	0.20	0.20
380	17.287	14.15	14.15	2.65	0.16	0.16	7.107	0.84	0.84	8.217	0.20	0.20
400	17.278	14.14	14.14	2.659	0.17	0.17	7.12	0.85	0.85	8.223	0.20	0.20
420	17.296	14.16	14.16	2.65	0.16	0.16	7.164	0.89	0.89	8.223	0.20	0.20
440	17.306	14.17	14.16	2.659	0.17	0.17	7.164	0.89	0.89	8.229	0.21	0.21
460	17.278	14.14	14.13	2.659	0.17	0.17	7.164	0.89	0.89	8.236	0.22	0.21
480	17.296	14.16	14.15	2.659	0.17	0.17	7.145	0.88	0.87	8.236	0.22	0.21
500	17.315	14.18	14.17	2.65	0.16	0.16	7.136	0.87	0.86	8.242	0.22	0.22
520	17.344	14.20	14.20	2.659	0.17	0.17	7.136	0.87	0.86	8.242	0.22	0.22
540	17.362	14.22	14.22	2.659	0.17	0.16	7.133	0.86	0.86	8.242	0.22	0.22
560	17.391	14.25	14.25	2.659	0.17	0.17	7.114	0.84	0.84	8.242	0.22	0.22
580	17.419	14.28	14.28	2.659	0.17	0.17	7.114	0.84	0.84	8.248	0.23	0.23
600	17.457	14.32	14.32	2.659	0.17	0.17	7.139	0.87	0.87	8.248	0.23	0.23
620	17.447	14.31	14.31	2.65	0.16	0.16	7.158	0.89	0.89	8.255	0.23	0.24
640	17.466	14.33	14.33	2.659	0.17	0.17	7.142	0.87	0.88	8.248	0.23	0.23
660	17.466	14.33	14.34	2.65	0.16	0.17	7.11	0.84	0.85	8.255	0.23	0.25
680	17.475	14.34	14.35	2.65	0.16	0.18	7.117	0.85	0.86	8.255	0.23	0.25
700	17.485	14.35	14.36	2.65	0.16	0.18	7.079	0.81	0.83	8.255	0.23	0.25
720	17.504	14.36	14.39	2.65	0.16	0.18	7.117	0.85	0.87	8.248	0.23	0.25
740	17.513	14.37	14.39	2.65	0.16	0.18	7.11	0.84	0.86	8.255	0.23	0.26

760	17.522	14.38	14.40	2.65	0.16	0.18	7.095	0.82	0.85	8.255	0.23	0.26
780	17.532	14.39	14.42	2.65	0.16	0.18	7.095	0.82	0.85	8.248	0.23	0.25
800	17.532	14.39	14.42	2.65	0.16	0.19	7.088	0.82	0.84	8.255	0.23	0.26
820	17.551	14.41	14.44	2.659	0.17	0.19	7.098	0.83	0.85	8.255	0.23	0.26
840	17.56	14.42	14.44	2.659	0.17	0.19	7.082	0.81	0.84	8.255	0.23	0.26
860	17.532	14.39	14.41	2.659	0.17	0.19	7.079	0.81	0.83	8.255	0.23	0.26
880	17.551	14.41	14.43	2.659	0.17	0.19	7.155	0.89	0.91	8.255	0.23	0.26
900	17.315	14.18	14.20	2.659	0.17	0.19	7.139	0.87	0.89	8.255	0.23	0.26
920	17.447	14.31	14.33	2.669	0.18	0.20	7.145	0.88	0.89	8.255	0.23	0.25
940	17.466	14.33	14.34	2.669	0.18	0.20	7.148	0.88	0.90	8.255	0.23	0.25
960	17.466	14.33	14.34	2.669	0.18	0.19	7.158	0.89	0.90	8.255	0.23	0.25
980	17.475	14.34	14.35	2.669	0.18	0.19	7.155	0.89	0.90	8.255	0.23	0.25
1000	17.457	14.32	14.33	2.678	0.19	0.20	7.148	0.88	0.89	8.261	0.24	0.25
1030	17.466	14.33	14.34	2.678	0.19	0.20	7.158	0.89	0.90	8.267	0.25	0.26
1060	17.504	14.36	14.37	2.688	0.20	0.21	7.148	0.88	0.89	8.267	0.25	0.26
1090	17.494	14.35	14.36	2.688	0.20	0.20	7.158	0.89	0.89	8.274	0.25	0.26
1120	17.522	14.38	14.39	2.688	0.20	0.20	7.155	0.89	0.89	8.274	0.25	0.26
1150	17.532	14.39	14.39	2.688	0.20	0.20	7.145	0.88	0.88	8.28	0.26	0.26
1180	17.57	14.43	14.43	2.688	0.20	0.20	7.142	0.87	0.88	8.286	0.27	0.27
1210	17.598	14.46	14.46	2.697	0.21	0.21	7.136	0.87	0.87	8.28	0.26	0.26
1240	17.607	14.47	14.47	2.697	0.21	0.21	7.133	0.86	0.86	8.28	0.26	0.26
1270	17.626	14.49	14.49	2.706	0.22	0.22	7.11	0.84	0.84	8.306	0.29	0.29
1300	17.635	14.50	14.50	2.697	0.21	0.21	7.155	0.89	0.89	8.274	0.25	0.26
1330	17.626	14.49	14.49	2.697	0.21	0.21	7.133	0.86	0.87	8.293	0.27	0.28
1360	17.654	14.51	14.53	2.697	0.21	0.22	7.196	0.93	0.94	8.293	0.27	0.28
1390	17.645	14.51	14.52	2.706	0.22	0.23	7.171	0.90	0.91	8.293	0.27	0.29
1420	17.692	14.55	14.57	2.697	0.21	0.23	7.145	0.88	0.89	8.286	0.27	0.28
1450	17.692	14.55	14.57	2.706	0.22	0.24	7.123	0.85	0.88	8.299	0.28	0.30
1480	17.711	14.57	14.60	2.697	0.21	0.23	7.126	0.86	0.88	8.28	0.26	0.29
1510	17.739	14.60	14.63	2.706	0.22	0.24	7.136	0.87	0.89	8.286	0.27	0.29
1540	17.749	14.61	14.63	2.706	0.22	0.24	7.161	0.89	0.92	8.293	0.27	0.30
1570	17.767	14.63	14.65	2.706	0.22	0.24	7.152	0.88	0.91	8.286	0.27	0.29
1600	17.786	14.65	14.67	2.716	0.23	0.25	7.148	0.88	0.91	8.286	0.27	0.29
1630	17.777	14.64	14.66	2.716	0.23	0.25	7.139	0.87	0.90	8.286	0.27	0.29
1660	17.805	14.67	14.69	2.716	0.23	0.25	7.155	0.89	0.91	8.286	0.27	0.29
1690	17.805	14.67	14.70	2.716	0.23	0.26	7.139	0.87	0.90	8.293	0.27	0.30
1720	17.814	14.67	14.70	2.716	0.23	0.25	7.148	0.88	0.91	8.286	0.27	0.29
1750	17.833	14.69	14.72	2.725	0.23	0.26	7.142	0.87	0.90	8.293	0.27	0.30
1780	17.852	14.71	14.74	2.725	0.23	0.26	7.161	0.89	0.92	8.293	0.27	0.30
1810	17.871	14.73	14.76	2.725	0.23	0.26	7.152	0.88	0.91	8.299	0.28	0.30
1840	17.88	14.74	14.76	2.725	0.23	0.26	7.161	0.89	0.92	8.299	0.28	0.30

1870	17.89	14.75	14.78	2.725	0.23	0.26	7.145	0.88	0.90	8.299	0.28	0.31
1900	17.899	14.76	14.79	2.725	0.23	0.26	7.237	0.97	0.99	8.299	0.28	0.31
1930	17.918	14.78	14.81	2.725	0.23	0.26	7.212	0.94	0.97	8.299	0.28	0.31
1960	17.918	14.78	14.81	2.725	0.23	0.26	7.199	0.93	0.96	8.299	0.28	0.31
1990	17.918	14.78	14.80	2.725	0.23	0.26	7.212	0.94	0.97	8.299	0.28	0.30
2020	17.927	14.79	14.82	2.716	0.23	0.25	7.19	0.92	0.95	8.306	0.29	0.31
2050	17.927	14.79	14.82	2.725	0.23	0.27	7.177	0.91	0.94	8.299	0.28	0.31
2080	17.946	14.81	14.84	2.716	0.23	0.26	7.155	0.89	0.92	8.299	0.28	0.31
2110	17.937	14.80	14.84	2.716	0.23	0.26	7.139	0.87	0.91	8.299	0.28	0.32
2140	17.946	14.81	14.84	2.725	0.23	0.27	7.158	0.89	0.93	8.299	0.28	0.32
2170	17.965	14.83	14.87	2.725	0.23	0.28	7.145	0.88	0.92	8.299	0.28	0.32
2200	17.956	14.82	14.86	2.716	0.23	0.27	7.168	0.90	0.94	8.299	0.28	0.32
2230	17.975	14.84	14.88	2.716	0.23	0.27	7.139	0.87	0.92	8.299	0.28	0.33
2260	17.993	14.85	14.90	2.725	0.23	0.28	7.161	0.89	0.94	8.299	0.28	0.33
2290	17.984	14.84	14.89	2.725	0.23	0.28	7.145	0.88	0.92	8.299	0.28	0.32
2320	17.984	14.84	14.89	2.725	0.23	0.28	7.139	0.87	0.92	8.299	0.28	0.33
2350	17.993	14.85	14.90	2.735	0.24	0.29	7.215	0.95	0.99	8.306	0.29	0.33
2380	17.965	14.83	14.87	2.725	0.23	0.28	7.212	0.94	0.98	8.299	0.28	0.32
2410	17.975	14.84	14.88	2.735	0.24	0.29	7.215	0.95	0.99	8.299	0.28	0.32
2440	17.984	14.84	14.88	2.735	0.24	0.29	7.212	0.94	0.98	8.306	0.29	0.33
2470	17.975	14.84	14.88	2.744	0.25	0.29	7.206	0.94	0.98	8.306	0.29	0.33
2500	17.993	14.85	14.88	2.754	0.26	0.29	7.26	0.99	1.02	8.299	0.28	0.31
2530	17.984	14.84	14.87	2.754	0.26	0.29	7.263	0.99	1.02	8.274	0.25	0.28
2560	17.975	14.84	14.86	2.706	0.22	0.24	7.25	0.98	1.00	8.255	0.23	0.26
2590	17.956	14.82	14.83	2.669	0.18	0.19	7.26	0.99	1.00	8.248	0.23	0.24
2620	17.965	14.83	14.84	2.64	0.15	0.17	7.291	1.02	1.04	8.236	0.22	0.23
2650	17.918	14.78	14.79	2.612	0.12	0.13	7.263	0.99	1.00	8.223	0.20	0.21
2680	17.871	14.73	14.76	2.556	0.07	0.09	7.193	0.92	0.95	8.21	0.19	0.21
2710	17.862	14.72	14.75	2.518	0.03	0.06	7.168	0.90	0.93	8.191	0.17	0.20
2740	17.824	14.68	14.72	2.499	0.01	0.05	7.142	0.87	0.91	8.178	0.16	0.20
2770	17.833	14.69	14.73	2.461	−0.03	0.01	7.142	0.87	0.91	8.166	0.15	0.19
2800	17.814	14.67	14.72	2.452	−0.04	0.00	7.139	0.87	0.91	8.159	0.14	0.18
2830	17.805	14.67	14.71	2.433	−0.06	−0.02	7.133	0.86	0.90	8.14	0.12	0.16
2860	17.814	14.67	14.72	2.414	−0.08	−0.03	7.104	0.83	0.88	8.128	0.11	0.15
2890	17.805	14.67	14.71	2.405	−0.09	−0.04	7.085	0.82	0.86	8.102	0.08	0.13
2920	17.805	14.67	14.71	2.386	−0.10	−0.06	7.072	0.80	0.85	8.089	0.07	0.12
2950	17.805	14.67	14.71	2.386	−0.10	−0.06	7.075	0.80	0.85	8.077	0.06	0.11
2980	17.814	14.67	14.72	2.376	−0.11	−0.06	7.075	0.80	0.85	8.064	0.04	0.09
3010	17.796	14.66	14.71	2.376	−0.11	−0.06	7.06	0.79	0.84	8.045	0.02	0.07
3040	17.814	14.67	14.72	2.367	−0.12	−0.07	7.05	0.78	0.83	8.032	0.01	0.06
3070	17.786	14.65	14.70	2.357	−0.13	−0.08	7.041	0.77	0.82	8.032	0.01	0.06

3100	17.814	14.67	14.73	2.357	−0.13	−0.08	7.028	0.76	0.81	8.007	−0.01	0.04
3130	17.796	14.66	14.71	2.357	−0.13	−0.08	7.025	0.76	0.81	8	−0.02	0.03
3160	17.786	14.65	14.70	2.357	−0.13	−0.08	7.025	0.76	0.81	7.988	−0.03	0.02
3190	17.796	14.66	14.70	2.367	−0.12	−0.07	7.031	0.76	0.81	7.981	−0.04	0.01
3220	17.814	14.67	14.72	2.367	−0.12	−0.08	7.05	0.78	0.82	7.969	−0.05	−0.01
3250	17.805	14.67	14.70	2.376	−0.11	−0.07	7.066	0.80	0.84	7.969	−0.05	−0.01
3280	17.814	14.67	14.71	2.376	−0.11	−0.08	7.085	0.82	0.85	7.962	−0.06	−0.02
3310	17.843	14.70	14.73	2.376	−0.11	−0.08	7.095	0.82	0.85	7.956	−0.06	−0.03
3340	17.852	14.71	14.74	2.376	−0.11	−0.09	7.104	0.83	0.86	7.956	−0.06	−0.04
3370	17.862	14.72	14.75	2.376	−0.11	−0.09	7.098	0.83	0.85	7.95	−0.07	−0.04
3400	17.871	14.73	14.76	2.386	−0.10	−0.08	7.095	0.82	0.85	7.943	−0.08	−0.05
3430	17.862	14.72	14.74	2.376	−0.11	−0.09	7.104	0.83	0.86	7.943	−0.08	−0.06
3460	17.871	14.73	14.75	2.386	−0.10	−0.08	7.107	0.84	0.86	7.937	−0.08	−0.06
3490	17.862	14.72	14.74	2.386	−0.10	−0.08	7.098	0.83	0.85	7.93	−0.09	−0.07
3520	17.89	14.75	14.77	2.386	−0.10	−0.08	7.098	0.83	0.85	7.93	−0.09	−0.07
3550	17.88	14.74	14.76	2.386	−0.10	−0.08	7.095	0.82	0.84	7.924	−0.10	−0.08
3580	17.871	14.73	14.75	2.386	−0.10	−0.08	7.091	0.82	0.84	7.924	−0.10	−0.08
3610	17.909	14.77	14.79	2.386	−0.10	−0.08	7.082	0.81	0.83	7.918	−0.10	−0.08
3640	17.862	14.72	14.74	2.386	−0.10	−0.08	7.075	0.80	0.83	7.911	−0.11	−0.09
3670	17.899	14.76	14.78	2.386	−0.10	−0.08	7.079	0.81	0.83	7.911	−0.11	−0.09
3700	17.927	14.79	14.81	2.395	−0.10	−0.08	7.072	0.80	0.82	7.911	−0.11	−0.09
3730	17.927	14.79	14.81	2.395	−0.10	−0.08	7.075	0.80	0.82	7.905	−0.12	−0.10
3760	17.918	14.78	14.79	2.405	−0.09	−0.07	7.075	0.80	0.82	7.905	−0.12	−0.10
3790	17.927	14.79	14.80	2.395	−0.10	−0.08	7.075	0.80	0.82	7.905	−0.12	−0.10
3820	17.946	14.81	14.82	2.405	−0.09	−0.07	7.088	0.82	0.83	7.905	−0.12	−0.10
3850	17.937	14.80	14.81	2.405	−0.09	−0.07	7.098	0.83	0.84	7.905	−0.12	−0.10
3880	17.965	14.83	14.83	2.414	−0.08	−0.07	7.091	0.82	0.83	7.899	−0.12	−0.11
3910	17.956	14.82	14.83	2.414	−0.08	−0.07	7.098	0.83	0.84	7.905	−0.12	−0.10
3940	17.965	14.83	14.83	2.423	−0.07	−0.06	7.101	0.83	0.84	7.905	−0.12	−0.11
3970	17.965	14.83	14.83	2.423	−0.07	−0.06	7.107	0.84	0.84	7.905	−0.12	−0.11
4000	17.956	14.82	14.82	2.433	−0.06	−0.06	7.129	0.86	0.86	7.911	−0.11	−0.11
4030	17.993	14.85	14.85	2.442	−0.05	−0.05	7.11	0.84	0.84	7.911	−0.11	−0.11
4060	18.022	14.88	14.88	2.442	−0.05	−0.05	7.129	0.86	0.86	7.911	−0.11	−0.11
4090	18.022	14.88	14.88	2.442	−0.05	−0.05	7.123	0.85	0.85	7.918	−0.10	−0.11
4120	18.003	14.86	14.86	2.452	−0.04	−0.04	7.107	0.84	0.83	7.911	−0.11	−0.11
4150	18.031	14.89	14.89	2.452	−0.04	−0.04	7.101	0.83	0.83	7.905	−0.12	−0.12
4180	18.022	14.88	14.88	2.452	−0.04	−0.04	7.104	0.83	0.83	7.905	−0.12	−0.12
4210	18.031	14.89	14.89	2.452	−0.04	−0.04	7.079	0.81	0.81	7.918	−0.10	−0.10
4240	18.022	14.88	14.88	2.452	−0.04	−0.04	7.072	0.80	0.80	7.924	−0.10	−0.09
4270	18.04	14.90	14.91	2.452	−0.04	−0.03	7.05	0.78	0.79	7.918	−0.10	−0.10
4300	18.05	14.91	14.92	2.452	−0.04	−0.03	7.025	0.76	0.76	7.899	−0.12	−0.11

4330	18.05	14.91	14.92	2.452	−0.04	−0.02	7.015	0.74	0.76	7.905	−0.12	−0.10
4360	18.05	14.91	14.93	2.452	−0.04	−0.02	6.999	0.73	0.75	7.905	−0.12	−0.10
4390	18.012	14.87	14.89	2.452	−0.04	−0.02	6.98	0.71	0.73	7.905	−0.12	−0.10
4420	18.022	14.88	14.90	2.461	−0.03	−0.01	6.987	0.72	0.74	7.905	−0.12	−0.10
4450	17.965	14.83	14.85	2.461	−0.03	−0.01	6.974	0.70	0.72	7.905	−0.12	−0.09
4480	18.022	14.88	14.90	2.461	−0.03	−0.01	6.971	0.70	0.72	7.899	−0.12	−0.10
4510	18.022	14.88	14.90	2.471	−0.02	0.00	7.088	0.82	0.84	7.905	−0.12	−0.09
4540	18.031	14.89	14.91	2.471	−0.02	0.00	7.075	0.80	0.82	7.905	−0.12	−0.10
4570	17.984	14.84	14.86	2.48	−0.01	0.01	7.079	0.81	0.83	7.905	−0.12	−0.10
4600	18.031	14.89	14.91	2.48	−0.01	0.01	7.072	0.80	0.82	7.905	−0.12	−0.10
4630	18.012	14.87	14.89	2.48	−0.01	0.01	7.072	0.80	0.82	7.911	−0.11	−0.09
4660	18.031	14.89	14.91	2.49	0.00	0.02	7.085	0.82	0.83	7.905	−0.12	−0.10
4690	18.031	14.89	14.90	2.48	−0.01	0.00	7.075	0.80	0.82	7.911	−0.11	−0.10
4720	18.022	14.88	14.90	2.49	0.00	0.01	7.072	0.80	0.82	7.911	−0.11	−0.10
4750	18.031	14.89	14.91	2.49	0.00	0.01	7.063	0.79	0.81	7.911	−0.11	−0.09
4780	18.022	14.88	14.90	2.49	0.00	0.02	7.047	0.78	0.79	7.911	−0.11	−0.09
4810	18.04	14.90	14.92	2.49	0.00	0.02	7.041	0.77	0.79	7.911	−0.11	−0.09
4840	18.022	14.88	14.90	2.49	0.00	0.02	7.009	0.74	0.76	7.911	−0.11	−0.09
4870	18.003	14.86	14.89	2.48	−0.01	0.02	7.012	0.74	0.77	7.911	−0.11	−0.08
4900	18.012	14.87	14.90	2.48	−0.01	0.02	6.996	0.73	0.75	7.911	−0.11	−0.08
4930	18.031	14.89	14.92	2.48	−0.01	0.02	6.964	0.69	0.73	7.911	−0.11	−0.08
4960	18.022	14.88	14.92	2.471	−0.02	0.02	6.939	0.67	0.71	7.911	−0.11	−0.07
4990	18.022	14.88	14.92	2.48	−0.01	0.03	6.926	0.66	0.70	7.911	−0.11	−0.07
5020	18.04	14.90	14.94	2.48	−0.01	0.03	6.917	0.65	0.69	7.911	−0.11	−0.06
5050	18.031	14.89	14.94	2.48	−0.01	0.04	6.904	0.63	0.68	7.911	−0.11	−0.06
5080	18.031	14.89	14.94	2.48	−0.01	0.04	6.879	0.61	0.66	7.911	−0.11	−0.06
5110	18.031	14.89	14.94	2.48	−0.01	0.04	6.879	0.61	0.66	7.905	−0.12	−0.07
5140	18.04	14.90	14.95	2.49	0.00	0.05	6.863	0.59	0.64	7.911	−0.11	−0.06
5170	18.05	14.91	14.96	2.49	0.00	0.05	6.863	0.59	0.64	7.905	−0.12	−0.07
5200	18.05	14.91	14.96	2.49	0.00	0.05	6.863	0.59	0.64	7.905	−0.12	−0.06
5230	18.05	14.91	14.96	2.499	0.01	0.06	6.876	0.61	0.66	7.911	−0.11	−0.06
5260	18.05	14.91	14.96	2.499	0.01	0.06	6.857	0.59	0.64	7.911	−0.11	−0.06
5290	18.059	14.92	14.97	2.499	0.01	0.06	6.866	0.60	0.64	7.911	−0.11	−0.06
5320	18.05	14.91	14.96	2.508	0.02	0.06	6.863	0.59	0.64	7.911	−0.11	−0.06
5350	18.022	14.88	14.92	2.508	0.02	0.06	6.857	0.59	0.63	7.911	−0.11	−0.07
5380	18.069	14.93	14.97	2.508	0.02	0.06	6.869	0.60	0.64	7.918	−0.10	−0.06
5410	18.059	14.92	14.96	2.508	0.02	0.06	6.866	0.60	0.64	7.918	−0.10	−0.06
5440	18.04	14.90	14.94	2.518	0.03	0.07	6.86	0.59	0.63	7.918	−0.10	−0.06
5470	18.069	14.93	14.97	2.527	0.04	0.08	6.869	0.60	0.64	7.93	−0.09	−0.05
5500	18.088	14.95	14.99	2.527	0.04	0.08	6.879	0.61	0.65	7.924	−0.10	−0.06
5530	18.097	14.96	15.00	2.527	0.04	0.08	6.847	0.58	0.62	7.937	−0.08	−0.04

5560	18.106	14.97	15.01	2.527	0.04	0.08	6.853	0.58	0.62	7.937	−0.08	−0.04
5590	18.059	14.92	14.96	2.537	0.05	0.09	6.828	0.56	0.60	7.937	−0.08	−0.04
5620	18.059	14.92	14.96	2.537	0.05	0.09	6.818	0.55	0.59	7.937	−0.08	−0.04
5650	18.059	14.92	14.96	2.537	0.05	0.09	6.799	0.53	0.57	7.93	−0.09	−0.04
5680	18.05	14.91	14.96	2.537	0.05	0.10	6.78	0.51	0.56	7.937	−0.08	−0.03
5710	18.069	14.93	14.98	2.537	0.05	0.10	6.752	0.48	0.53	7.93	−0.09	−0.04
5740	18.05	14.91	14.97	2.546	0.06	0.11	6.745	0.47	0.53	7.937	−0.08	−0.03
5770	18.059	14.92	14.98	2.537	0.05	0.11	6.726	0.46	0.51	7.924	−0.10	−0.04
5800	18.059	14.92	14.98	2.546	0.06	0.12	6.717	0.45	0.51	7.93	−0.09	−0.03
5830	18.088	14.95	15.01	2.546	0.06	0.12	6.698	0.43	0.49	7.937	−0.08	−0.02
5860	18.04	14.90	14.97	2.546	0.06	0.12	6.682	0.41	0.48	7.937	−0.08	−0.01
5890	18.078	14.94	15.01	2.546	0.06	0.13	6.688	0.42	0.49	7.937	−0.08	−0.01
5920	18.078	14.94	15.01	2.546	0.06	0.13	6.714	0.44	0.51	7.937	−0.08	−0.01
5950	18.069	14.93	15.00	2.556	0.07	0.14	6.736	0.47	0.54	7.937	−0.08	−0.01
5980	18.116	14.98	15.05	2.556	0.07	0.14	6.752	0.48	0.55	7.937	−0.08	−0.01
6010	18.097	14.96	15.03	2.556	0.07	0.14	6.761	0.49	0.56	7.937	−0.08	−0.01
6040	18.097	14.96	15.02	2.565	0.08	0.14	6.78	0.51	0.58	7.943	−0.08	−0.01
6070	18.125	14.99	15.05	2.565	0.08	0.14	6.799	0.53	0.59	7.937	−0.08	−0.02
6100	18.125	14.99	15.04	2.574	0.08	0.14	6.803	0.53	0.59	7.95	−0.07	−0.01
6130	18.097	14.96	15.01	2.574	0.08	0.14	6.799	0.53	0.59	7.95	−0.07	−0.01
6160	18.125	14.99	15.04	2.584	0.09	0.15	6.815	0.55	0.60	7.956	−0.06	−0.01
6190	18.144	15.00	15.05	2.584	0.09	0.14	7.237	0.97	1.02	7.956	−0.06	−0.01
6220	18.116	14.98	15.02	2.584	0.09	0.14	7.228	0.96	1.01	7.956	−0.06	−0.02
6250	18.125	14.99	15.03	2.584	0.09	0.14	7.221	0.95	1.00	7.956	−0.06	−0.02
6280	18.144	15.00	15.05	2.584	0.09	0.14	7.209	0.94	0.99	7.962	−0.06	−0.01
6310	18.153	15.01	15.06	2.584	0.09	0.14	7.19	0.92	0.97	7.962	−0.06	−0.01
6340	18.163	15.02	15.07	2.584	0.09	0.14	7.19	0.92	0.97	7.962	−0.06	−0.01
6370	18.144	15.00	15.06	2.584	0.09	0.15	7.18	0.91	0.96	7.962	−0.06	−0.01
6400	18.116	14.98	15.03	2.584	0.09	0.15	7.158	0.89	0.94	7.969	−0.05	0.00
6430	18.135	15.00	15.05	2.584	0.09	0.15	7.148	0.88	0.93	7.962	−0.06	−0.00
6460	18.097	14.96	15.01	2.584	0.09	0.15	7.139	0.87	0.92	7.969	−0.05	0.00
6490	18.135	15.00	15.06	2.584	0.09	0.15	7.12	0.85	0.91	7.969	−0.05	0.01
6520	18.153	15.01	15.08	2.584	0.09	0.16	7.098	0.83	0.89	7.969	−0.05	0.01
6550	18.116	14.98	15.04	2.574	0.08	0.15	7.075	0.80	0.87	7.962	−0.06	0.01
6580	18.116	14.98	15.04	2.584	0.09	0.16	7.056	0.79	0.85	7.969	−0.05	0.02
6610	18.144	15.00	15.07	2.584	0.09	0.16	7.066	0.80	0.86	7.969	−0.05	0.02
6640	18.172	15.03	15.10	2.584	0.09	0.16	7.066	0.80	0.86	7.969	−0.05	0.01
6670	18.097	14.96	15.02	2.593	0.10	0.17	7.06	0.79	0.85	7.969	−0.05	0.01
6700	18.078	14.94	15.00	2.593	0.10	0.16	7.075	0.80	0.87	7.969	−0.05	0.01
6730	18.097	14.96	15.01	2.603	0.11	0.17	7.072	0.80	0.86	7.975	−0.05	0.01
6760	18.558	15.42	15.47	2.603	0.11	0.17	7.069	0.80	0.85	7.975	−0.05	0.01

6790	18.558	15.42	15.47	2.612	0.12	0.17	7.075	0.80	0.86	7.975	−0.05	0.01
6820	18.568	15.43	15.48	2.612	0.12	0.17	7.085	0.82	0.86	7.988	−0.03	0.02
6850	18.558	15.42	15.47	2.622	0.13	0.18	7.085	0.82	0.86	7.988	−0.03	0.02
6880	18.568	15.43	15.47	2.631	0.14	0.18	7.101	0.83	0.87	7.988	−0.03	0.01
6910	18.587	15.45	15.49	2.631	0.14	0.18	7.082	0.81	0.85	7.994	−0.03	0.02
6940	18.606	15.47	15.51	2.631	0.14	0.18	7.082	0.81	0.85	7.994	−0.03	0.01
6970	18.606	15.47	15.51	2.631	0.14	0.18	7.072	0.80	0.84	8.02	0.00	0.04
7000	18.587	15.45	15.49	2.631	0.14	0.18	7.053	0.78	0.83	7.988	−0.03	0.01
7030	18.568	15.43	15.47	2.64	0.15	0.20	7.044	0.77	0.82	8.026	0.01	0.05
7060	18.596	15.46	15.50	2.631	0.14	0.19	7.015	0.74	0.79	8.007	−0.01	0.03
7090	18.587	15.45	15.50	2.64	0.15	0.20	7.006	0.74	0.78	8.02	0.00	0.05
7120	18.596	15.46	15.51	2.64	0.15	0.20	6.977	0.71	0.76	7.994	−0.03	0.03
7150	18.596	15.46	15.51	2.64	0.15	0.21	6.961	0.69	0.75	8.032	0.01	0.07
7180	18.577	15.44	15.50	2.64	0.15	0.21	6.949	0.68	0.74	7.994	−0.03	0.03
7210	18.615	15.48	15.53	2.65	0.16	0.22	6.968	0.70	0.76	8.013	−0.01	0.05
7240	18.596	15.46	15.50	2.659	0.17	0.22	6.983	0.71	0.76	8.02	0.00	0.05
7270	18.606	15.47	15.51	2.659	0.17	0.22	6.971	0.70	0.75	8.026	0.01	0.05
7300	18.624	15.48	15.53	2.659	0.17	0.22	6.955	0.69	0.73	8.02	0.00	0.05
7330	18.596	15.46	15.50	2.659	0.17	0.22	6.964	0.69	0.74	8.02	0.00	0.05
7360	18.624	15.48	15.53	2.659	0.17	0.22	6.955	0.69	0.73	8.026	0.01	0.05
7390	18.624	15.48	15.53	2.659	0.17	0.22	6.945	0.68	0.72	8.026	0.01	0.05
7420	18.615	15.48	15.52	2.669	0.18	0.23	6.952	0.68	0.73	8.026	0.01	0.05
7450	18.606	15.47	15.51	2.669	0.18	0.23	6.939	0.67	0.72	8.026	0.01	0.05
7480	18.606	15.47	15.51	2.669	0.18	0.22	6.942	0.67	0.72	8.032	0.01	0.06
7510	18.615	15.48	15.51	2.678	0.19	0.23	6.949	0.68	0.72	8.032	0.01	0.05
7540	18.615	15.48	15.51	2.678	0.19	0.22	6.974	0.70	0.74	8.032	0.01	0.05
7570	18.634	15.49	15.53	2.678	0.19	0.22	6.968	0.70	0.73	8.039	0.02	0.05
7600	18.643	15.50	15.54	2.688	0.20	0.23	6.971	0.70	0.73	8.039	0.02	0.05
7630	18.606	15.47	15.49	2.678	0.19	0.21	6.964	0.69	0.72	8.045	0.02	0.05
7660	18.634	15.49	15.52	2.688	0.20	0.23	6.996	0.73	0.75	8.045	0.02	0.05
7690	18.624	15.48	15.52	2.688	0.20	0.23	6.974	0.70	0.74	8.051	0.03	0.06
7720	18.624	15.48	15.51	2.688	0.20	0.23	6.983	0.71	0.74	8.045	0.02	0.05
7750	18.606	15.47	15.50	2.678	0.19	0.22	6.958	0.69	0.72	8.045	0.02	0.06
7780	18.615	15.48	15.50	2.688	0.20	0.23	6.955	0.69	0.71	8.051	0.03	0.06
7810	18.587	15.45	15.47	2.697	0.21	0.23	6.974	0.70	0.73	8.051	0.03	0.05
7840	18.606	15.47	15.49	2.688	0.20	0.22	6.968	0.70	0.72	8.051	0.03	0.05
7870	18.606	15.47	15.49	2.688	0.20	0.23	6.942	0.67	0.70	8.051	0.03	0.06
7900	18.634	15.49	15.52	2.688	0.20	0.22	6.958	0.69	0.71	8.058	0.04	0.06
7930	18.606	15.47	15.49	2.697	0.21	0.23	6.968	0.70	0.72	8.051	0.03	0.05
7960	18.596	15.46	15.48	2.697	0.21	0.23	6.952	0.68	0.71	8.045	0.02	0.05
7990	18.596	15.46	15.48	2.688	0.20	0.22	6.936	0.67	0.69	8.045	0.02	0.04

8020	18.587	15.45	15.47	2.688	0.20	0.22	6.923	0.65	0.68	8.039	0.02	0.04
8050	18.577	15.44	15.47	2.678	0.19	0.22	6.891	0.62	0.65	8.032	0.01	0.05
8080	18.577	15.44	15.46	2.688	0.20	0.22	6.93	0.66	0.68	8.032	0.01	0.04
8110	18.606	15.47	15.48	2.688	0.20	0.21	6.926	0.66	0.67	8.032	0.01	0.03
8140	18.558	15.42	15.43	2.688	0.20	0.21	6.93	0.66	0.67	8.032	0.01	0.03
8170	18.577	15.44	15.44	2.697	0.21	0.21	6.958	0.69	0.69	8.026	0.01	0.01
8200	18.596	15.46	15.45	2.697	0.21	0.21	6.971	0.70	0.70	8.026	0.01	0.00
8230	18.643	15.50	15.50	2.697	0.21	0.20	6.983	0.71	0.71	8.026	0.01	−0.00
8260	18.615	15.48	15.46	2.697	0.21	0.20	6.99	0.72	0.71	8.026	0.01	−0.00
8290	18.643	15.50	15.49	2.706	0.22	0.20	7.022	0.75	0.74	8.026	0.01	−0.01
8320	18.606	15.47	15.44	2.706	0.22	0.19	7.031	0.76	0.74	8.026	0.01	−0.02
8350	18.615	15.48	15.45	2.706	0.22	0.19	7.05	0.78	0.75	8.032	0.01	−0.02
8380	18.662	15.52	15.49	2.716	0.23	0.19	7.056	0.79	0.75	8.026	0.01	−0.03
8410	18.587	15.45	15.41	2.716	0.23	0.19	7.069	0.80	0.77	8.032	0.01	−0.02
8440	18.568	15.43	15.39	2.716	0.23	0.19	7.053	0.78	0.75	8.026	0.01	−0.03
8470	18.615	15.48	15.44	2.706	0.22	0.18	7.053	0.78	0.75	8.032	0.01	−0.02
8500	18.606	15.47	15.43	2.706	0.22	0.18	7.041	0.77	0.74	8.032	0.01	−0.02
8530	18.615	15.48	15.44	2.706	0.22	0.18	7.025	0.76	0.72	8.032	0.01	−0.02
8560	18.587	15.45	15.41	2.716	0.23	0.19	7.031	0.76	0.73	8.039	0.02	−0.02
8590	18.634	15.49	15.46	2.706	0.22	0.18	7.015	0.74	0.71	8.032	0.01	−0.02
8620	18.596	15.46	15.42	2.706	0.22	0.18	7.009	0.74	0.71	8.032	0.01	−0.02
8650	18.624	15.48	15.45	2.706	0.22	0.18	6.983	0.71	0.68	8.026	0.01	−0.03
8680	18.606	15.47	15.44	2.706	0.22	0.19	6.98	0.71	0.68	8.026	0.01	−0.02
8710	18.634	15.49	15.46	2.706	0.22	0.19	6.961	0.69	0.66	8.026	0.01	−0.02
8740	18.634	15.49	15.46	2.706	0.22	0.19	6.968	0.70	0.67	8.032	0.01	−0.02
8770	18.643	15.50	15.47	2.716	0.23	0.20	6.971	0.70	0.67	8.026	0.01	−0.02
8800	18.634	15.49	15.46	2.716	0.23	0.20	6.952	0.68	0.65	8.026	0.01	−0.02
8830	18.653	15.51	15.48	2.716	0.23	0.19	6.961	0.69	0.66	8.032	0.01	−0.02
8860	18.643	15.50	15.47	2.716	0.23	0.19	6.974	0.70	0.67	8.026	0.01	−0.03
8890	18.681	15.54	15.50	2.725	0.23	0.20	6.983	0.71	0.67	8.032	0.01	−0.03
8920	18.653	15.51	15.47	2.725	0.23	0.19	6.996	0.73	0.68	8.032	0.01	−0.03
8950	18.662	15.52	15.47	2.735	0.24	0.20	7.006	0.74	0.69	8.032	0.01	−0.04
8980	18.653	15.51	15.46	2.735	0.24	0.19	7.009	0.74	0.69	8.032	0.01	−0.04
9010	18.681	15.54	15.49	2.735	0.24	0.19	7.031	0.76	0.71	8.039	0.02	−0.04
9040	18.672	15.53	15.47	2.744	0.25	0.19	7.044	0.77	0.71	8.039	0.02	−0.04
9070	18.672	15.53	15.47	2.735	0.24	0.18	7.05	0.78	0.72	8.045	0.02	−0.04
9100	18.69	15.55	15.48	2.735	0.24	0.18	7.053	0.78	0.72	8.045	0.02	−0.04
9130	18.662	15.52	15.46	2.735	0.24	0.18	7.047	0.78	0.71	8.051	0.03	−0.04
9160	18.653	15.51	15.45	2.735	0.24	0.18	7.041	0.77	0.70	8.051	0.03	−0.04
9190	18.653	15.51	15.44	2.735	0.24	0.18	7.041	0.77	0.70	8.051	0.03	−0.04
9220	18.653	15.51	15.44	2.735	0.24	0.18	7.041	0.77	0.70	8.058	0.04	−0.03

9250	18.634	15.49	15.42	2.735	0.24	0.18	7.034	0.76	0.69	8.058	0.04	−0.03
9280	18.624	15.48	15.42	2.735	0.24	0.18	7.009	0.74	0.67	8.058	0.04	−0.03
9310	18.643	15.50	15.44	2.735	0.24	0.18	7.009	0.74	0.67	8.058	0.04	−0.03
9340	18.624	15.48	15.42	2.735	0.24	0.18	6.999	0.73	0.66	8.058	0.04	−0.03
9370	18.624	15.48	15.42	2.735	0.24	0.18	6.993	0.72	0.66	8.064	0.04	−0.02
9400	18.596	15.46	15.39	2.735	0.24	0.18	6.983	0.71	0.65	8.064	0.04	−0.02
9430	18.587	15.45	15.38	2.735	0.24	0.18	6.977	0.71	0.64	8.064	0.04	−0.02
9460	18.596	15.46	15.39	2.735	0.24	0.18	6.977	0.71	0.64	8.064	0.04	−0.02
9490	18.587	15.45	15.38	2.744	0.25	0.19	6.987	0.72	0.65	8.064	0.04	−0.02
9520	18.596	15.46	15.39	2.744	0.25	0.19	6.968	0.70	0.63	8.064	0.04	−0.02
9550	18.587	15.45	15.38	2.744	0.25	0.18	6.98	0.71	0.64	8.07	0.05	−0.02
9580	18.606	15.47	15.39	2.754	0.26	0.19	6.983	0.71	0.64	8.07	0.05	−0.02
9610	18.606	15.47	15.39	2.754	0.26	0.19	6.987	0.72	0.64	8.077	0.06	−0.02
9640	18.662	15.52	15.45	2.754	0.26	0.19	6.993	0.72	0.65	8.077	0.06	−0.02
9670	18.634	15.49	15.41	2.754	0.26	0.18	6.996	0.73	0.64	8.077	0.06	−0.02
9700	18.662	15.52	15.44	2.754	0.26	0.18	6.987	0.72	0.63	8.077	0.06	−0.03
9730	18.653	15.51	15.43	2.754	0.26	0.18	6.987	0.72	0.63	8.083	0.06	−0.02
9760	18.672	15.53	15.45	2.754	0.26	0.18	6.974	0.70	0.62	8.089	0.07	−0.01
9790	18.672	15.53	15.45	2.763	0.27	0.19	6.999	0.73	0.64	8.096	0.08	−0.01
9820	18.662	15.52	15.43	2.773	0.28	0.19	6.996	0.73	0.64	8.089	0.07	−0.02
9850	18.653	15.51	15.42	2.773	0.28	0.19	6.993	0.72	0.63	8.102	0.08	−0.01
9880	18.634	15.49	15.41	2.773	0.28	0.19	6.974	0.70	0.62	8.096	0.08	−0.01
9910	18.643	15.50	15.42	2.763	0.27	0.19	6.961	0.69	0.60	8.102	0.08	−0.00
9940	18.662	15.52	15.43	2.773	0.28	0.20	6.955	0.69	0.60	8.102	0.08	−0.01
9970	18.681	15.54	15.46	2.773	0.28	0.20	6.942	0.67	0.59	8.109	0.09	0.00
10000	18.634	15.49	15.41	2.773	0.28	0.20	6.939	0.67	0.59	8.109	0.09	0.01
10030	18.643	15.50	15.42	2.763	0.27	0.19	6.91	0.64	0.56	8.109	0.09	0.01
10060	18.643	15.50	15.43	2.763	0.27	0.20	6.876	0.61	0.53	8.102	0.08	0.01

8020	6.577	0.05	0.07	11.401	−0.21	−0.18	14.74	0.04	0.10	0.01	0.03
8050	6.568	0.04	0.07	11.401	−0.21	−0.18	14.73	0.05	0.13	0.01	0.03
8080	6.571	0.04	0.07	11.401	−0.21	−0.18	14.74	0.04	0.09	0.01	0.02
8110	6.571	0.04	0.06	11.401	−0.21	−0.19	14.75	0.03	0.06	0.01	0.02
8140	6.571	0.04	0.05	11.401	−0.21	−0.20	14.76	0.02	0.05	0.01	0.01
8170	6.574	0.04	0.05	11.401	−0.21	−0.20	14.77	0.01	0.02	0.00	0.01
8200	6.577	0.05	0.05	11.401	−0.21	−0.21	14.78	−0.00	−0.00	−0.00	−0.00
8230	6.574	0.04	0.04	11.401	−0.21	−0.22	14.79	−0.01	−0.02	−0.00	−0.01
8260	6.574	0.04	0.03	11.401	−0.21	−0.22	14.80	−0.02	−0.04	−0.00	−0.01
8290	6.577	0.05	0.03	11.392	−0.22	−0.23	14.81	−0.03	−0.06	−0.01	−0.02
8320	6.58	0.05	0.03	11.401	−0.21	−0.23	14.82	−0.03	−0.08	−0.01	−0.02
8350	6.587	0.06	0.03	11.411	−0.20	−0.23	14.83	−0.05	−0.10	−0.01	−0.03
8380	6.59	0.06	0.03	11.401	−0.21	−0.24	14.83	−0.05	−0.12	−0.01	−0.03
8410	6.593	0.06	0.03	11.401	−0.21	−0.24	14.84	−0.06	−0.13	−0.01	−0.03
8440	6.593	0.06	0.03	11.401	−0.21	−0.24	14.84	−0.06	−0.13	−0.01	−0.03
8470	6.587	0.06	0.02	11.401	−0.21	−0.24	14.84	−0.06	−0.14	−0.01	−0.04
8500	6.587	0.06	0.02	11.401	−0.21	−0.24	14.84	−0.06	−0.13	−0.01	−0.03
8530	6.58	0.05	0.02	11.401	−0.21	−0.24	14.84	−0.06	−0.13	−0.01	−0.03
8560	6.593	0.06	0.03	11.42	−0.19	−0.22	14.84	−0.06	−0.13	−0.01	−0.03
8590	6.574	0.04	0.01	11.411	−0.20	−0.23	14.84	−0.06	−0.13	−0.01	−0.03
8620	6.577	0.05	0.01	11.411	−0.20	−0.23	14.84	−0.06	−0.13	−0.01	−0.03
8650	6.568	0.04	0.01	11.401	−0.21	−0.24	14.83	−0.05	−0.12	−0.01	−0.03
8680	6.564	0.03	0.00	11.401	−0.21	−0.24	14.83	−0.05	−0.11	−0.01	−0.03
8710	6.571	0.04	0.01	11.401	−0.21	−0.24	14.83	−0.05	−0.12	−0.01	−0.03
8740	6.58	0.05	0.02	11.411	−0.20	−0.23	14.83	−0.05	−0.11	−0.01	−0.03
8770	6.583	0.05	0.02	11.401	−0.21	−0.24	14.83	−0.05	−0.12	−0.01	−0.03
8800	6.587	0.06	0.03	11.401	−0.21	−0.24	14.83	−0.05	−0.11	−0.01	−0.03
8830	6.593	0.06	0.03	11.401	−0.21	−0.24	14.83	−0.05	−0.12	−0.01	−0.03
8860	6.596	0.07	0.03	11.401	−0.21	−0.24	14.84	−0.06	−0.13	−0.01	−0.03
8890	6.599	0.07	0.03	11.401	−0.21	−0.25	14.84	−0.06	−0.15	−0.01	−0.04
8920	6.606	0.08	0.03	11.401	−0.21	−0.25	14.85	−0.07	−0.17	−0.02	−0.04
8950	6.609	0.08	0.03	11.401	−0.21	−0.26	14.86	−0.08	−0.18	−0.02	−0.05
8980	6.615	0.08	0.03	11.401	−0.21	−0.26	14.87	−0.09	−0.20	−0.02	−0.05
9010	6.621	0.09	0.04	11.401	−0.21	−0.26	14.87	−0.09	−0.21	−0.02	−0.05
9040	6.625	0.09	0.03	11.411	−0.20	−0.26	14.88	−0.10	−0.23	−0.02	−0.06
9070	6.628	0.10	0.04	11.411	−0.20	−0.26	14.88	−0.10	−0.24	−0.02	−0.06
9100	6.631	0.10	0.03	11.411	−0.20	−0.27	14.89	−0.11	−0.26	−0.03	−0.07
9130	6.628	0.10	0.03	11.411	−0.20	−0.27	14.89	−0.11	−0.25	−0.03	−0.07
9160	6.628	0.10	0.03	11.411	−0.20	−0.27	14.89	−0.11	−0.26	−0.03	−0.07
9190	6.634	0.10	0.03	11.411	−0.20	−0.27	14.90	−0.12	−0.27	−0.03	−0.07
9220	6.631	0.10	0.03	11.42	−0.19	−0.26	14.90	−0.12	−0.27	−0.03	−0.07

6790	6.533	0.00	0.06	11.363	−0.25	−0.19	14.69	0.09	0.20	0.02	0.05
6820	6.542	0.01	0.06	11.363	−0.25	−0.20	14.70	0.08	0.19	0.02	0.05
6850	6.545	0.01	0.06	11.363	−0.25	−0.20	14.70	0.08	0.18	0.02	0.05
6880	6.542	0.01	0.06	11.363	−0.25	−0.20	14.71	0.07	0.17	0.02	0.04
6910	6.549	0.02	0.06	11.363	−0.25	−0.21	14.71	0.07	0.16	0.02	0.04
6940	6.549	0.02	0.06	11.373	−0.24	−0.20	14.71	0.07	0.16	0.02	0.04
6970	6.583	0.05	0.10	11.42	−0.19	−0.15	14.71	0.07	0.16	0.02	0.04
7000	6.517	−0.01	0.03	11.345	−0.26	−0.22	14.71	0.07	0.17	0.02	0.04
7030	6.577	0.05	0.09	11.411	−0.20	−0.15	14.70	0.08	0.18	0.02	0.05
7060	6.545	0.01	0.06	11.382	−0.23	−0.18	14.70	0.08	0.18	0.02	0.05
7090	6.571	0.04	0.09	11.392	−0.22	−0.17	14.70	0.08	0.19	0.02	0.05
7120	6.514	−0.02	0.04	11.345	−0.26	−0.21	14.69	0.09	0.21	0.02	0.05
7150	6.561	0.03	0.09	11.42	−0.19	−0.13	14.68	0.10	0.22	0.02	0.06
7180	6.523	−0.01	0.05	11.345	−0.26	−0.20	14.68	0.10	0.23	0.02	0.06
7210	6.549	0.02	0.08	11.392	−0.22	−0.16	14.68	0.10	0.23	0.02	0.06
7240	6.561	0.03	0.08	11.401	−0.21	−0.16	14.70	0.08	0.18	0.02	0.05
7270	6.568	0.04	0.09	11.411	−0.20	−0.15	14.70	0.08	0.18	0.02	0.05
7300	6.568	0.04	0.08	11.392	−0.22	−0.17	14.70	0.08	0.18	0.02	0.05
7330	6.571	0.04	0.09	11.401	−0.21	−0.16	14.70	0.08	0.19	0.02	0.05
7360	6.574	0.04	0.09	11.392	−0.22	−0.17	14.70	0.08	0.18	0.02	0.05
7390	6.571	0.04	0.09	11.392	−0.22	−0.17	14.70	0.08	0.18	0.02	0.05
7420	6.577	0.05	0.09	11.392	−0.22	−0.17	14.70	0.08	0.18	0.02	0.05
7450	6.577	0.05	0.09	11.392	−0.22	−0.17	14.70	0.08	0.18	0.02	0.05
7480	6.583	0.05	0.10	11.401	−0.21	−0.16	14.71	0.07	0.17	0.02	0.05
7510	6.59	0.06	0.10	11.401	−0.21	−0.17	14.71	0.07	0.15	0.02	0.04
7540	6.596	0.07	0.10	11.401	−0.21	−0.17	14.72	0.06	0.13	0.01	0.03
7570	6.596	0.07	0.10	11.401	−0.21	−0.18	14.72	0.06	0.13	0.01	0.03
7600	6.602	0.07	0.11	11.411	−0.20	−0.17	14.72	0.06	0.13	0.01	0.03
7630	6.602	0.07	0.10	11.411	−0.20	−0.17	14.74	0.04	0.10	0.01	0.03
7660	6.602	0.07	0.10	11.411	−0.20	−0.17	14.73	0.05	0.11	0.01	0.03
7690	6.596	0.07	0.10	11.42	−0.19	−0.16	14.73	0.05	0.12	0.01	0.03
7720	6.596	0.07	0.09	11.411	−0.20	−0.17	14.74	0.05	0.10	0.01	0.03
7750	6.596	0.07	0.10	11.42	−0.19	−0.16	14.73	0.05	0.12	0.01	0.03
7780	6.599	0.07	0.10	11.42	−0.19	−0.16	14.73	0.05	0.11	0.01	0.03
7810	6.602	0.07	0.09	11.42	−0.19	−0.17	14.74	0.04	0.09	0.01	0.02
7840	6.602	0.07	0.09	11.42	−0.19	−0.17	14.75	0.03	0.08	0.01	0.02
7870	6.596	0.07	0.09	11.42	−0.19	−0.16	14.74	0.05	0.10	0.01	0.03
7900	6.606	0.08	0.10	11.43	−0.18	−0.16	14.74	0.04	0.08	0.01	0.02
7930	6.602	0.07	0.09	11.42	−0.19	−0.17	14.75	0.03	0.08	0.01	0.02
7960	6.596	0.07	0.09	11.42	−0.19	−0.17	14.74	0.04	0.09	0.01	0.02
7990	6.587	0.06	0.08	11.411	−0.20	−0.18	14.75	0.03	0.08	0.01	0.02

5560	6.476	−0.05	−0.01	11.345	−0.26	−0.23	14.71	0.07	0.15	0.02	0.04
5590	6.479	−0.05	−0.01	11.354	−0.26	−0.22	14.71	0.07	0.15	0.02	0.04
5620	6.479	−0.05	−0.01	11.345	−0.26	−0.22	14.71	0.07	0.16	0.02	0.04
5650	6.46	−0.07	−0.02	11.335	−0.27	−0.23	14.71	0.07	0.17	0.02	0.05
5680	6.472	−0.06	−0.01	11.335	−0.27	−0.23	14.70	0.08	0.18	0.02	0.05
5710	6.46	−0.07	−0.02	11.335	−0.27	−0.22	14.69	0.09	0.20	0.02	0.05
5740	6.463	−0.07	−0.01	11.345	−0.26	−0.21	14.69	0.09	0.22	0.02	0.06
5770	6.45	−0.08	−0.02	11.316	−0.29	−0.24	14.68	0.10	0.22	0.02	0.06
5800	6.46	−0.07	−0.01	11.326	−0.28	−0.22	14.68	0.10	0.24	0.02	0.06
5830	6.463	−0.07	−0.00	11.326	−0.28	−0.22	14.67	0.11	0.25	0.03	0.07
5860	6.463	−0.07	0.00	11.326	−0.28	−0.22	14.67	0.11	0.26	0.03	0.07
5890	6.472	−0.06	0.01	11.326	−0.28	−0.21	14.66	0.12	0.27	0.03	0.07
5920	6.472	−0.06	0.01	11.335	−0.27	−0.20	14.66	0.12	0.27	0.03	0.07
5950	6.479	−0.05	0.02	11.326	−0.28	−0.21	14.66	0.12	0.27	0.03	0.07
5980	6.482	−0.05	0.02	11.326	−0.28	−0.21	14.66	0.12	0.27	0.03	0.07
6010	6.485	−0.05	0.03	11.335	−0.27	−0.20	14.66	0.12	0.27	0.03	0.07
6040	6.488	−0.04	0.03	11.326	−0.28	−0.22	14.67	0.11	0.26	0.03	0.07
6070	6.495	−0.04	0.03	11.335	−0.27	−0.21	14.68	0.10	0.24	0.02	0.06
6100	6.504	−0.03	0.03	11.335	−0.27	−0.22	14.68	0.10	0.23	0.02	0.06
6130	6.507	−0.02	0.03	11.335	−0.27	−0.22	14.69	0.09	0.22	0.02	0.06
6160	6.51	−0.02	0.03	11.345	−0.26	−0.21	14.69	0.09	0.20	0.02	0.05
6190	6.51	−0.02	0.03	11.335	−0.27	−0.23	14.70	0.08	0.19	0.02	0.05
6220	6.514	−0.02	0.03	11.335	−0.27	−0.23	14.70	0.08	0.18	0.02	0.05
6250	6.514	−0.02	0.03	11.345	−0.26	−0.22	14.70	0.08	0.19	0.02	0.05
6280	6.514	−0.02	0.03	11.345	−0.26	−0.22	14.70	0.08	0.19	0.02	0.05
6310	6.514	−0.02	0.03	11.345	−0.26	−0.22	14.70	0.08	0.19	0.02	0.05
6340	6.514	−0.02	0.03	11.354	−0.26	−0.21	14.70	0.08	0.19	0.02	0.05
6370	6.514	−0.02	0.04	11.345	−0.26	−0.21	14.69	0.09	0.20	0.02	0.05
6400	6.51	−0.02	0.03	11.354	−0.26	−0.20	14.69	0.09	0.21	0.02	0.05
6430	6.51	−0.02	0.03	11.345	−0.26	−0.21	14.69	0.09	0.21	0.02	0.05
6460	6.51	−0.02	0.04	11.354	−0.26	−0.20	14.69	0.09	0.21	0.02	0.06
6490	6.507	−0.02	0.04	11.354	−0.26	−0.20	14.68	0.10	0.23	0.02	0.06
6520	6.507	−0.02	0.04	11.354	−0.26	−0.19	14.67	0.11	0.25	0.02	0.06
6550	6.504	−0.03	0.04	11.354	−0.26	−0.19	14.67	0.11	0.26	0.03	0.07
6580	6.507	−0.02	0.04	11.354	−0.26	−0.19	14.67	0.11	0.26	0.03	0.07
6610	6.51	−0.02	0.05	11.354	−0.26	−0.19	14.67	0.11	0.25	0.03	0.07
6640	6.514	−0.02	0.05	11.354	−0.26	−0.19	14.67	0.11	0.25	0.03	0.07
6670	6.517	−0.01	0.05	11.354	−0.26	−0.19	14.67	0.11	0.25	0.02	0.06
6700	6.52	−0.01	0.05	11.354	−0.26	−0.19	14.68	0.10	0.24	0.02	0.06
6730	6.523	−0.01	0.05	11.354	−0.26	−0.20	14.68	0.10	0.22	0.02	0.06
6760	6.526	−0.00	0.05	11.354	−0.26	−0.20	14.69	0.09	0.21	0.02	0.05

4330	6.403	−0.13	−0.11	11.345	−0.26	−0.25	14.76	0.02	0.06	0.01	0.01
4360	6.409	−0.12	−0.10	11.345	−0.26	−0.25	14.75	0.03	0.06	0.01	0.02
4390	6.409	−0.12	−0.10	11.345	−0.26	−0.25	14.75	0.03	0.07	0.01	0.02
4420	6.418	−0.11	−0.09	11.345	−0.26	−0.25	14.75	0.03	0.07	0.01	0.02
4450	6.415	−0.12	−0.09	11.345	−0.26	−0.24	14.75	0.03	0.08	0.01	0.02
4480	6.422	−0.11	−0.09	11.335	−0.27	−0.26	14.75	0.03	0.08	0.01	0.02
4510	6.428	−0.10	−0.08	11.345	−0.26	−0.24	14.75	0.03	0.08	0.01	0.02
4540	6.428	−0.10	−0.08	11.335	−0.27	−0.26	14.75	0.03	0.08	0.01	0.02
4570	6.431	−0.10	−0.08	11.345	−0.26	−0.25	14.75	0.03	0.07	0.01	0.02
4600	6.434	−0.10	−0.08	11.335	−0.27	−0.26	14.75	0.03	0.07	0.01	0.02
4630	6.438	−0.09	−0.07	11.335	−0.27	−0.26	14.75	0.03	0.07	0.01	0.02
4660	6.441	−0.09	−0.07	11.335	−0.27	−0.26	14.75	0.03	0.06	0.01	0.02
4690	6.444	−0.09	−0.07	11.335	−0.27	−0.26	14.76	0.02	0.05	0.01	0.01
4720	6.447	−0.08	−0.07	11.335	−0.27	−0.26	14.76	0.02	0.05	0.01	0.01
4750	6.444	−0.09	−0.07	11.345	−0.26	−0.25	14.76	0.02	0.06	0.01	0.01
4780	6.444	−0.09	−0.07	11.335	−0.27	−0.26	14.75	0.03	0.06	0.01	0.02
4810	6.444	−0.09	−0.07	11.335	−0.27	−0.26	14.75	0.03	0.07	0.01	0.02
4840	6.441	−0.09	−0.07	11.335	−0.27	−0.25	14.74	0.04	0.09	0.01	0.02
4870	6.441	−0.09	−0.06	11.335	−0.27	−0.25	14.74	0.04	0.10	0.01	0.03
4900	6.438	−0.09	−0.06	11.335	−0.27	−0.25	14.73	0.05	0.11	0.01	0.03
4930	6.434	−0.10	−0.06	11.335	−0.27	−0.24	14.73	0.05	0.13	0.01	0.03
4960	6.431	−0.10	−0.06	11.326	−0.28	−0.24	14.72	0.06	0.15	0.02	0.04
4990	6.431	−0.10	−0.06	11.326	−0.28	−0.24	14.71	0.07	0.16	0.02	0.04
5020	6.434	−0.10	−0.05	11.335	−0.27	−0.23	14.71	0.07	0.17	0.02	0.04
5050	6.434	−0.10	−0.05	11.326	−0.28	−0.24	14.71	0.07	0.17	0.02	0.05
5080	6.428	−0.10	−0.05	11.326	−0.28	−0.23	14.70	0.08	0.19	0.02	0.05
5110	6.434	−0.10	−0.05	11.326	−0.28	−0.23	14.70	0.08	0.19	0.02	0.05
5140	6.434	−0.10	−0.05	11.326	−0.28	−0.23	14.70	0.08	0.19	0.02	0.05
5170	6.438	−0.09	−0.04	11.316	−0.29	−0.24	14.70	0.08	0.19	0.02	0.05
5200	6.438	−0.09	−0.04	11.316	−0.29	−0.24	14.69	0.09	0.20	0.02	0.05
5230	6.444	−0.09	−0.04	11.316	−0.29	−0.24	14.70	0.08	0.19	0.02	0.05
5260	6.444	−0.09	−0.04	11.316	−0.29	−0.25	14.70	0.08	0.18	0.02	0.05
5290	6.444	−0.09	−0.04	11.316	−0.29	−0.25	14.70	0.08	0.18	0.02	0.05
5320	6.45	−0.08	−0.03	11.316	−0.29	−0.25	14.71	0.07	0.17	0.02	0.05
5350	6.453	−0.08	−0.03	11.326	−0.28	−0.24	14.71	0.07	0.16	0.02	0.04
5380	6.457	−0.07	−0.03	11.316	−0.29	−0.25	14.71	0.07	0.15	0.02	0.04
5410	6.46	−0.07	−0.03	11.326	−0.28	−0.24	14.71	0.07	0.15	0.02	0.04
5440	6.466	−0.06	−0.02	11.326	−0.28	−0.24	14.72	0.06	0.15	0.02	0.04
5470	6.476	−0.05	−0.01	11.345	−0.26	−0.23	14.72	0.06	0.15	0.02	0.04
5500	6.466	−0.06	−0.02	11.335	−0.27	−0.24	14.72	0.06	0.15	0.02	0.04
5530	6.476	−0.05	−0.01	11.345	−0.26	−0.23	14.72	0.06	0.15	0.02	0.04

3100	6.409	−0.12	−0.07	11.515	−0.09	−0.04	14.69	0.09	0.20	0.02	0.05
3130	6.406	−0.12	−0.07	11.515	−0.09	−0.04	14.69	0.09	0.20	0.02	0.05
3160	6.406	−0.12	−0.07	11.496	−0.11	−0.06	14.69	0.09	0.20	0.02	0.05
3190	6.409	−0.12	−0.07	11.486	−0.12	−0.08	14.70	0.08	0.18	0.02	0.05
3220	6.409	−0.12	−0.08	11.486	−0.12	−0.08	14.71	0.07	0.17	0.02	0.04
3250	6.415	−0.12	−0.08	11.477	−0.13	−0.09	14.71	0.07	0.15	0.02	0.04
3280	6.415	−0.12	−0.08	11.468	−0.14	−0.11	14.72	0.06	0.13	0.01	0.03
3310	6.418	−0.11	−0.08	11.458	−0.15	−0.12	14.73	0.05	0.11	0.01	0.03
3340	6.415	−0.12	−0.09	11.458	−0.15	−0.13	14.74	0.04	0.10	0.01	0.03
3370	6.412	−0.12	−0.09	11.449	−0.16	−0.14	14.74	0.04	0.10	0.01	0.03
3400	6.412	−0.12	−0.09	11.439	−0.17	−0.15	14.74	0.04	0.09	0.01	0.02
3430	6.412	−0.12	−0.10	11.439	−0.17	−0.15	14.74	0.04	0.08	0.01	0.02
3460	6.409	−0.12	−0.10	11.43	−0.18	−0.16	14.74	0.04	0.08	0.01	0.02
3490	6.409	−0.12	−0.10	11.42	−0.19	−0.17	14.75	0.03	0.08	0.01	0.02
3520	6.406	−0.12	−0.10	11.42	−0.19	−0.17	14.75	0.03	0.07	0.01	0.02
3550	6.406	−0.12	−0.10	11.411	−0.20	−0.18	14.75	0.03	0.08	0.01	0.02
3580	6.403	−0.13	−0.11	11.411	−0.20	−0.18	14.75	0.03	0.08	0.01	0.02
3610	6.403	−0.13	−0.11	11.401	−0.21	−0.19	14.74	0.04	0.08	0.01	0.02
3640	6.403	−0.13	−0.10	11.392	−0.22	−0.20	14.74	0.04	0.09	0.01	0.02
3670	6.403	−0.13	−0.11	11.392	−0.22	−0.20	14.75	0.03	0.08	0.01	0.02
3700	6.403	−0.13	−0.11	11.382	−0.23	−0.21	14.75	0.03	0.08	0.01	0.02
3730	6.406	−0.12	−0.11	11.382	−0.23	−0.21	14.75	0.03	0.07	0.01	0.02
3760	6.409	−0.12	−0.11	11.373	−0.24	−0.22	14.75	0.03	0.06	0.01	0.02
3790	6.409	−0.12	−0.11	11.373	−0.24	−0.22	14.76	0.02	0.06	0.01	0.02
3820	6.409	−0.12	−0.11	11.373	−0.24	−0.22	14.76	0.02	0.06	0.01	0.01
3850	6.412	−0.12	−0.11	11.373	−0.24	−0.22	14.76	0.02	0.05	0.00	0.01
3880	6.412	−0.12	−0.11	11.373	−0.24	−0.23	14.77	0.01	0.03	0.00	0.01
3910	6.415	−0.12	−0.10	11.373	−0.24	−0.23	14.76	0.02	0.04	0.00	0.01
3940	6.422	−0.11	−0.10	11.373	−0.24	−0.23	14.77	0.01	0.03	0.00	0.01
3970	6.428	−0.10	−0.10	11.373	−0.24	−0.23	14.77	0.01	0.01	0.00	0.00
4000	6.431	−0.10	−0.10	11.373	−0.24	−0.24	14.78	0.00	0.01	0.00	0.00
4030	6.431	−0.10	−0.10	11.373	−0.24	−0.24	14.78	0.00	0.01	0.00	0.00
4060	6.441	−0.09	−0.09	11.363	−0.25	−0.25	14.79	−0.01	−0.01	−0.00	−0.00
4090	6.438	−0.09	−0.10	11.373	−0.24	−0.24	14.79	−0.01	−0.01	−0.00	−0.00
4120	6.434	−0.10	−0.10	11.363	−0.25	−0.25	14.79	−0.01	−0.02	−0.00	−0.00
4150	6.438	−0.09	−0.10	11.363	−0.25	−0.25	14.79	−0.01	−0.01	−0.00	−0.00
4180	6.438	−0.09	−0.10	11.354	−0.26	−0.26	14.79	−0.01	−0.02	−0.00	−0.01
4210	6.422	−0.11	−0.11	11.363	−0.25	−0.25	14.78	−0.00	−0.00	−0.00	−0.00
4240	6.438	−0.09	−0.09	11.382	−0.23	−0.23	14.78	0.00	0.00	0.00	0.00
4270	6.428	−0.10	−0.10	11.373	−0.24	−0.23	14.77	0.01	0.02	0.00	0.01
4300	6.39	−0.14	−0.13	11.335	−0.27	−0.27	14.77	0.01	0.03	0.00	0.01

1870	6.758	0.23	0.26	11.742	0.13	0.16	14.74	0.05	0.10	0.01	0.03
1900	6.761	0.23	0.26	11.751	0.14	0.17	14.74	0.05	0.10	0.01	0.03
1930	6.758	0.23	0.26	11.751	0.14	0.17	14.74	0.05	0.10	0.01	0.03
1960	6.758	0.23	0.26	11.751	0.14	0.17	14.74	0.05	0.10	0.01	0.03
1990	6.764	0.23	0.26	11.751	0.14	0.17	14.74	0.04	0.10	0.01	0.03
2020	6.758	0.23	0.26	11.751	0.14	0.17	14.73	0.05	0.11	0.01	0.03
2050	6.755	0.22	0.26	11.751	0.14	0.17	14.73	0.05	0.12	0.01	0.03
2080	6.755	0.22	0.26	11.751	0.14	0.17	14.72	0.06	0.13	0.01	0.03
2110	6.752	0.22	0.26	11.751	0.14	0.18	14.72	0.06	0.15	0.01	0.04
2140	6.755	0.22	0.26	11.742	0.13	0.17	14.72	0.06	0.14	0.01	0.04
2170	6.752	0.22	0.26	11.751	0.14	0.18	14.71	0.07	0.15	0.02	0.04
2200	6.752	0.22	0.27	11.742	0.13	0.18	14.71	0.07	0.17	0.02	0.04
2230	6.748	0.22	0.27	11.742	0.13	0.18	14.70	0.08	0.18	0.02	0.05
2260	6.752	0.22	0.27	11.751	0.14	0.19	14.70	0.08	0.18	0.02	0.05
2290	6.755	0.22	0.27	11.751	0.14	0.19	14.70	0.08	0.18	0.02	0.05
2320	6.758	0.23	0.27	11.751	0.14	0.19	14.70	0.08	0.18	0.02	0.05
2350	6.761	0.23	0.27	11.761	0.15	0.19	14.71	0.07	0.16	0.02	0.04
2380	6.764	0.23	0.27	11.761	0.15	0.19	14.71	0.07	0.16	0.02	0.04
2410	6.764	0.23	0.28	11.77	0.16	0.20	14.71	0.07	0.16	0.02	0.04
2440	6.764	0.23	0.27	11.77	0.16	0.20	14.71	0.07	0.16	0.02	0.04
2470	6.767	0.24	0.28	11.77	0.16	0.20	14.71	0.07	0.15	0.02	0.04
2500	6.774	0.24	0.27	11.77	0.16	0.19	14.73	0.05	0.11	0.01	0.03
2530	6.755	0.22	0.25	11.742	0.13	0.16	14.74	0.04	0.10	0.01	0.03
2560	6.726	0.20	0.22	11.723	0.11	0.13	14.74	0.04	0.08	0.01	0.02
2590	6.713	0.18	0.20	11.714	0.10	0.12	14.76	0.02	0.05	0.01	0.01
2620	6.685	0.15	0.17	11.714	0.10	0.12	14.76	0.02	0.06	0.01	0.02
2650	6.656	0.13	0.14	11.695	0.09	0.10	14.76	0.02	0.04	0.00	0.01
2680	6.602	0.07	0.10	11.685	0.08	0.10	14.74	0.04	0.09	0.01	0.02
2710	6.571	0.04	0.07	11.676	0.07	0.10	14.73	0.05	0.12	0.01	0.03
2740	6.545	0.01	0.05	11.666	0.06	0.09	14.72	0.06	0.15	0.01	0.04
2770	6.52	−0.01	0.03	11.657	0.05	0.09	14.71	0.07	0.16	0.02	0.04
2800	6.514	−0.02	0.03	11.657	0.05	0.09	14.71	0.07	0.16	0.02	0.04
2830	6.498	−0.03	0.01	11.638	0.03	0.07	14.71	0.07	0.16	0.02	0.04
2860	6.485	−0.05	−0.00	11.638	0.03	0.07	14.71	0.07	0.17	0.02	0.04
2890	6.457	−0.07	−0.03	11.61	0.00	0.05	14.70	0.08	0.18	0.02	0.05
2920	6.447	−0.08	−0.03	11.6	−0.01	0.04	14.70	0.08	0.19	0.02	0.05
2950	6.441	−0.09	−0.04	11.591	−0.02	0.03	14.70	0.08	0.19	0.02	0.05
2980	6.434	−0.10	−0.05	11.572	−0.04	0.01	14.70	0.08	0.19	0.02	0.05
3010	6.428	−0.10	−0.05	11.553	−0.06	−0.01	14.70	0.08	0.19	0.02	0.05
3040	6.422	−0.11	−0.06	11.543	−0.07	−0.02	14.70	0.08	0.19	0.02	0.05
3070	6.418	−0.11	−0.06	11.543	−0.07	−0.01	14.69	0.09	0.20	0.02	0.05

760	6.713	0.18	0.20	11.695	0.09	0.11	14.74	0.04	0.08	0.01	0.02
780	6.713	0.18	0.21	11.695	0.09	0.11	14.74	0.04	0.09	0.01	0.02
800	6.717	0.19	0.21	11.695	0.09	0.11	14.74	0.04	0.10	0.01	0.03
820	6.717	0.19	0.21	11.704	0.09	0.12	14.74	0.04	0.10	0.01	0.03
840	6.72	0.19	0.21	11.704	0.09	0.12	14.74	0.04	0.09	0.01	0.02
860	6.723	0.19	0.21	11.704	0.09	0.12	14.74	0.04	0.08	0.01	0.02
880	6.726	0.20	0.22	11.714	0.10	0.13	14.74	0.04	0.08	0.01	0.02
900	6.717	0.19	0.21	11.704	0.09	0.11	14.75	0.03	0.08	0.01	0.02
920	6.72	0.19	0.21	11.714	0.10	0.12	14.75	0.03	0.07	0.01	0.02
940	6.723	0.19	0.21	11.714	0.10	0.12	14.75	0.03	0.07	0.01	0.02
960	6.726	0.20	0.21	11.714	0.10	0.12	14.76	0.02	0.06	0.01	0.01
980	6.733	0.20	0.22	11.723	0.11	0.13	14.76	0.02	0.05	0.01	0.01
1000	6.736	0.21	0.22	11.723	0.11	0.13	14.76	0.02	0.05	0.01	0.01
1030	6.742	0.21	0.22	11.733	0.12	0.13	14.76	0.02	0.04	0.00	0.01
1060	6.745	0.21	0.22	11.733	0.12	0.13	14.77	0.01	0.03	0.00	0.01
1090	6.745	0.21	0.22	11.733	0.12	0.13	14.77	0.01	0.02	0.00	0.01
1120	6.748	0.22	0.22	11.742	0.13	0.14	14.77	0.01	0.02	0.00	0.00
1150	6.748	0.22	0.22	11.742	0.13	0.13	14.78	0.00	0.01	0.00	0.00
1180	6.761	0.23	0.24	11.742	0.13	0.14	14.77	0.01	0.02	0.00	0.00
1210	6.739	0.21	0.21	11.723	0.11	0.12	14.78	0.00	0.01	0.00	0.00
1240	6.733	0.20	0.20	11.733	0.12	0.12	14.78	0.00	0.01	0.00	0.00
1270	6.767	0.24	0.24	11.77	0.16	0.16	14.78	0.00	0.01	0.00	0.00
1300	6.736	0.21	0.21	11.723	0.11	0.12	14.77	0.01	0.03	0.00	0.01
1330	6.733	0.20	0.21	11.742	0.13	0.14	14.77	0.01	0.03	0.00	0.01
1360	6.733	0.20	0.21	11.751	0.14	0.15	14.76	0.02	0.04	0.00	0.01
1390	6.742	0.21	0.23	11.751	0.14	0.15	14.76	0.02	0.05	0.01	0.01
1420	6.736	0.21	0.22	11.742	0.13	0.15	14.75	0.03	0.07	0.01	0.02
1450	6.742	0.21	0.23	11.761	0.15	0.17	14.74	0.04	0.09	0.01	0.02
1480	6.717	0.19	0.21	11.733	0.12	0.15	14.73	0.05	0.11	0.01	0.03
1510	6.736	0.21	0.23	11.742	0.13	0.16	14.74	0.04	0.10	0.01	0.03
1540	6.739	0.21	0.23	11.742	0.13	0.16	14.74	0.04	0.10	0.01	0.03
1570	6.739	0.21	0.24	11.733	0.12	0.15	14.74	0.05	0.10	0.01	0.03
1600	6.742	0.21	0.24	11.733	0.12	0.15	14.74	0.05	0.10	0.01	0.03
1630	6.745	0.21	0.24	11.742	0.13	0.16	14.74	0.05	0.10	0.01	0.03
1660	6.748	0.22	0.24	11.742	0.13	0.16	14.74	0.04	0.10	0.01	0.03
1690	6.745	0.21	0.25	11.742	0.13	0.16	14.73	0.05	0.12	0.01	0.03
1720	6.755	0.22	0.25	11.742	0.13	0.16	14.74	0.05	0.10	0.01	0.03
1750	6.758	0.23	0.25	11.742	0.13	0.16	14.74	0.04	0.10	0.01	0.03
1780	6.761	0.23	0.26	11.742	0.13	0.16	14.74	0.04	0.09	0.01	0.02
1810	6.761	0.23	0.26	11.742	0.13	0.16	14.74	0.04	0.09	0.01	0.02
1840	6.761	0.23	0.26	11.742	0.13	0.16	14.74	0.04	0.09	0.01	0.02

84	6.634	0.10	0.11	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
86	6.637	0.11	0.11	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
88	6.637	0.11	0.11	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
90	6.641	0.11	0.11	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
92	6.644	0.11	0.12	11.647	0.04	0.04	14.78	0.00	0.01	0.00	0.00
94	6.641	0.11	0.11	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
96	6.647	0.12	0.12	11.647	0.04	0.04	14.78	0.00	0.01	0.00	0.00
98	6.647	0.12	0.12	11.647	0.04	0.04	14.78	0.00	0.01	0.00	0.00
100	6.65	0.12	0.12	11.647	0.04	0.04	14.78	0.00	0.01	0.00	0.00
120	6.656	0.13	0.13	11.647	0.04	0.04	14.77	0.01	0.02	0.00	0.01
140	6.666	0.14	0.14	11.647	0.04	0.04	14.77	0.01	0.03	0.00	0.01
160	6.675	0.15	0.15	11.647	0.04	0.04	14.77	0.01	0.03	0.00	0.01
180	6.679	0.15	0.16	11.657	0.05	0.05	14.77	0.01	0.03	0.00	0.01
200	6.688	0.16	0.16	11.657	0.05	0.05	14.77	0.01	0.02	0.00	0.01
220	6.694	0.16	0.17	11.657	0.05	0.05	14.77	0.01	0.02	0.00	0.01
240	6.698	0.17	0.17	11.657	0.05	0.05	14.77	0.01	0.02	0.00	0.00
260	6.701	0.17	0.18	11.666	0.06	0.06	14.77	0.01	0.02	0.00	0.01
280	6.704	0.17	0.18	11.666	0.06	0.06	14.77	0.01	0.02	0.00	0.01
300	6.707	0.18	0.18	11.666	0.06	0.06	14.77	0.01	0.03	0.00	0.01
320	6.704	0.17	0.18	11.666	0.06	0.06	14.77	0.01	0.03	0.00	0.01
340	6.71	0.18	0.19	11.666	0.06	0.06	14.77	0.01	0.03	0.00	0.01
360	6.717	0.19	0.19	11.676	0.07	0.07	14.77	0.01	0.02	0.00	0.01
380	6.723	0.19	0.19	11.676	0.07	0.07	14.78	0.00	0.00	0.00	0.00
400	6.726	0.20	0.20	11.676	0.07	0.07	14.78	0.00	0.00	0.00	0.00
420	6.729	0.20	0.20	11.685	0.08	0.07	14.78	−0.00	−0.00	−0.00	−0.00
440	6.729	0.20	0.20	11.685	0.08	0.07	14.79	−0.01	−0.01	−0.00	−0.00
460	6.729	0.20	0.20	11.685	0.08	0.07	14.79	−0.01	−0.01	−0.00	−0.00
480	6.729	0.20	0.20	11.685	0.08	0.07	14.78	−0.00	−0.01	−0.00	−0.00
500	6.729	0.20	0.20	11.685	0.08	0.07	14.78	−0.00	−0.00	−0.00	−0.00
520	6.729	0.20	0.20	11.695	0.09	0.08	14.78	−0.00	−0.00	−0.00	−0.00
540	6.733	0.20	0.20	11.685	0.08	0.07	14.79	−0.01	−0.02	−0.00	−0.00
560	6.729	0.20	0.20	11.685	0.08	0.07	14.78	−0.00	−0.01	−0.00	−0.00
580	6.729	0.20	0.20	11.695	0.09	0.08	14.78	−0.00	−0.01	−0.00	−0.00
600	6.726	0.20	0.20	11.695	0.09	0.09	14.78	0.00	0.00	0.00	0.00
620	6.726	0.20	0.20	11.695	0.09	0.09	14.77	0.01	0.02	0.00	0.00
640	6.723	0.19	0.20	11.695	0.09	0.09	14.77	0.01	0.02	0.00	0.00
660	6.72	0.19	0.20	11.695	0.09	0.10	14.76	0.02	0.04	0.00	0.01
680	6.717	0.19	0.20	11.695	0.09	0.10	14.75	0.03	0.06	0.01	0.02
700	6.713	0.18	0.20	11.695	0.09	0.10	14.75	0.03	0.06	0.01	0.02
720	6.713	0.18	0.20	11.695	0.09	0.11	14.75	0.03	0.08	0.01	0.02
740	6.713	0.18	0.20	11.695	0.09	0.11	14.74	0.04	0.08	0.01	0.02

9.2	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
9.4	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
9.6	6.504	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
9.8	6.504	−0.03	−0.03	11.61	0.00	0.00	14.78	0.00	0.00	0.00	0.00
10	6.504	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
12	6.51	−0.02	−0.02	11.61	0.00	0.00	14.78	0.00	0.00	0.00	0.00
14	6.514	−0.02	−0.02	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
16	6.517	−0.01	−0.01	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
18	6.523	−0.01	−0.01	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
20	6.533	0.00	0.00	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
22	6.539	0.01	0.01	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
24	6.542	0.01	0.01	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
26	6.545	0.01	0.01	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
28	6.555	0.02	0.02	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
30	6.571	0.04	0.04	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
32	6.568	0.04	0.04	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
34	6.571	0.04	0.04	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
36	6.574	0.04	0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
38	6.583	0.05	0.05	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
40	6.583	0.05	0.05	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
42	6.58	0.05	0.05	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
44	6.587	0.06	0.06	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
46	6.593	0.06	0.06	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
48	6.596	0.07	0.07	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
50	6.602	0.07	0.07	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
52	6.602	0.07	0.07	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
54	6.602	0.07	0.07	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
56	6.599	0.07	0.07	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
58	6.587	0.06	0.06	11.61	0.00	0.00	14.78	0.00	0.00	0.00	0.00
60	6.593	0.06	0.07	11.619	0.01	0.01	14.78	0.00	0.01	0.00	0.00
62	6.596	0.07	0.07	11.628	0.02	0.02	14.78	0.00	0.01	0.00	0.00
64	6.609	0.08	0.08	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
66	6.615	0.08	0.09	11.657	0.05	0.05	14.78	0.00	0.01	0.00	0.00
68	6.618	0.09	0.09	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
70	6.612	0.08	0.08	11.619	0.01	0.01	14.78	0.00	0.01	0.00	0.00
72	6.621	0.09	0.09	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
74	6.621	0.09	0.09	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
76	6.625	0.09	0.10	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
78	6.631	0.10	0.10	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
80	6.625	0.09	0.10	11.638	0.03	0.03	14.78	0.00	0.01	0.00	0.00
82	6.631	0.10	0.10	11.628	0.02	0.02	14.78	0.00	0.01	0.00	0.00

1	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
1.2	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
1.4	6.501	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
1.6	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
1.8	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
2	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
2.2	6.495	−0.04	−0.04	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
2.4	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
2.6	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
2.8	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
3	6.498	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
3.2	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
3.4	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
3.6	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
3.8	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
4	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
4.2	6.501	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
4.4	6.501	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
4.6	6.501	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
4.8	6.501	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
5	6.501	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
5.2	6.504	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
5.4	6.504	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
5.6	6.507	−0.02	−0.02	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
5.8	6.507	−0.02	−0.02	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
6	6.504	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
6.2	6.507	−0.02	−0.02	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
6.4	6.504	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
6.6	6.507	−0.02	−0.02	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
6.8	6.504	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
7	6.504	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
7.2	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
7.4	6.504	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
7.6	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
7.8	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
8	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
8.2	6.498	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
8.4	6.498	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
8.6	6.498	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
8.8	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00
9	6.501	−0.03	−0.03	11.619	0.01	0.01	14.78	0.00	0.00	0.00	0.00

0.325	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.3333	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.35	6.491	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.3666	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.3833	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.4	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.4166	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.4333	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.45	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.4666	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.4833	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.5	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.5166	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.5333	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.55	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.5666	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.5833	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.6	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.6166	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.6333	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.65	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.6666	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.6833	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.7	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.7166	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.7333	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.75	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.7666	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.7833	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.8	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.8166	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.8333	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.85	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.8666	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.8833	6.495	−0.04	−0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.9	6.498	−0.03	−0.03	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
0.9166	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.9333	6.498	−0.03	−0.03	11.638	0.03	0.03	14.78	0.00	0.00	0.00	0.00
0.95	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.9666	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.9833	6.498	−0.03	−0.03	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00

NSB Kings Bay Site 11, IM Phase I Operations: Stage 1 Test

E.Time minutes	MW11-3B ft	drawdown ft	corr.dd ft	MW11-13B ft	drawdown ft	corr.dd ft	Baro.Rdg. psi	Baro.chng. psi	Baro.chng. ft. H2O	.10 chng ft. H2O	.26 chng ft. H2O
0	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0083	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0166	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.025	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0333	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0416	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.05	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0583	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0666	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.075	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0833	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.0916	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1083	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1166	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.125	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1333	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1416	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.15	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1583	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1666	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.175	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1833	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.1916	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2083	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2166	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.225	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2333	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2416	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.25	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2583	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2666	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.275	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2833	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.2916	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.3	6.491	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.3083	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00
0.3166	6.495	-0.04	-0.04	11.628	0.02	0.02	14.78	0.00	0.00	0.00	0.00

9250	6.631	0.10	0.03	11.42	−0.19	−0.26	14.90	−0.12	−0.27	−0.03	−0.07
9280	6.628	0.10	0.03	11.42	−0.19	−0.26	14.89	−0.11	−0.26	−0.03	−0.07
9310	6.628	0.10	0.03	11.42	−0.19	−0.26	14.89	−0.11	−0.25	−0.03	−0.07
9340	6.625	0.09	0.03	11.42	−0.19	−0.26	14.89	−0.11	−0.25	−0.03	−0.07
9370	6.628	0.10	0.03	11.42	−0.19	−0.26	14.89	−0.11	−0.25	−0.03	−0.07
9400	6.625	0.09	0.03	11.42	−0.19	−0.26	14.89	−0.11	−0.25	−0.03	−0.07
9430	6.628	0.10	0.03	11.42	−0.19	−0.25	14.89	−0.11	−0.25	−0.02	−0.06
9460	6.631	0.10	0.03	11.43	−0.18	−0.25	14.89	−0.11	−0.26	−0.03	−0.07
9490	6.634	0.10	0.04	11.43	−0.18	−0.25	14.89	−0.11	−0.26	−0.03	−0.07
9520	6.634	0.10	0.04	11.43	−0.18	−0.25	14.89	−0.11	−0.26	−0.03	−0.07
9550	6.637	0.11	0.04	11.43	−0.18	−0.25	14.90	−0.12	−0.27	−0.03	−0.07
9580	6.641	0.11	0.04	11.43	−0.18	−0.25	14.90	−0.12	−0.29	−0.03	−0.07
9610	6.641	0.11	0.04	11.43	−0.18	−0.26	14.91	−0.13	−0.29	−0.03	−0.08
9640	6.644	0.11	0.04	11.43	−0.18	−0.26	14.91	−0.13	−0.30	−0.03	−0.08
9670	6.65	0.12	0.04	11.43	−0.18	−0.26	14.92	−0.14	−0.31	−0.03	−0.08
9700	6.65	0.12	0.04	11.439	−0.17	−0.25	14.92	−0.14	−0.32	−0.03	−0.08
9730	6.653	0.12	0.04	11.449	−0.16	−0.24	14.92	−0.14	−0.32	−0.03	−0.08
9760	6.653	0.12	0.04	11.449	−0.16	−0.24	14.92	−0.14	−0.31	−0.03	−0.08
9790	6.675	0.15	0.06	11.468	−0.14	−0.23	14.92	−0.14	−0.33	−0.03	−0.09
9820	6.656	0.13	0.04	11.449	−0.16	−0.25	14.93	−0.15	−0.34	−0.03	−0.09
9850	6.669	0.14	0.05	11.468	−0.14	−0.23	14.93	−0.15	−0.34	−0.03	−0.09
9880	6.653	0.12	0.03	11.458	−0.15	−0.24	14.93	−0.15	−0.34	−0.03	−0.09
9910	6.653	0.12	0.04	11.458	−0.15	−0.24	14.92	−0.14	−0.33	−0.03	−0.09
9940	6.653	0.12	0.04	11.458	−0.15	−0.24	14.93	−0.15	−0.33	−0.03	−0.09
9970	6.66	0.13	0.05	11.468	−0.14	−0.23	14.92	−0.14	−0.33	−0.03	−0.08
10000	6.656	0.13	0.04	11.468	−0.14	−0.23	14.92	−0.14	−0.32	−0.03	−0.08
10030	6 653	0.12	0.04	11.468	−0.14	−0.22	14.91	−0.13	−0.30	−0.03	−0.08
10060	6.65	0.12	0.04	11.477	−0.13	−0.21	14.91	−0.13	−0.29	−0.03	−0.08

NSB Kings Bay Site 11, IM Phase I Operations: Stage 1 Test

E.Time minutes	RW-P1 ft	drawdown ft	corr.dd ft	PS-1 ft	drawdown ft	corr.dd ft	PS-2 ft	drawdown ft	corr.dd ft	PS-3 ft	drawdown ft	corr.dd ft
0	5.35	0.00	0.00	5.83	0.00	0.00	6.533	0.00	0.00	7.283	-0.01	-0.01
30	5.35	0.00	0.00	5.836	0.01	0.01	6.539	0.01	0.01	7.302	0.01	0.01
60	5.368	0.02	0.02	5.849	0.02	0.02	6.552	0.02	0.02	7.312	0.02	0.02
90	5.387	0.04	0.04	5.874	0.04	0.05	6.574	0.04	0.05	7.343	0.05	0.05
120	5.397	0.05	0.05	5.887	0.06	0.06	6.59	0.06	0.07	7.359	0.07	0.07
150	5.406	0.06	0.06	5.899	0.07	0.08	6.596	0.07	0.07	7.369	0.08	0.09
180	5.425	0.08	0.08	5.906	0.08	0.08	6.606	0.08	0.08	7.378	0.09	0.10
210	5.434	0.08	0.09	5.912	0.08	0.09	6.615	0.08	0.09	7.388	0.10	0.10
240	5.434	0.08	0.09	5.925	0.10	0.10	6.622	0.09	0.10	7.394	0.10	0.11
270	5.444	0.09	0.10	5.925	0.10	0.10	6.625	0.09	0.10	7.397	0.11	0.11
300	5.434	0.08	0.09	5.931	0.10	0.11	6.628	0.10	0.11	7.401	0.11	0.12
330	5.444	0.09	0.10	5.931	0.10	0.11	6.631	0.10	0.11	7.401	0.11	0.12
360	5.453	0.10	0.11	5.937	0.11	0.11	6.634	0.10	0.11	7.41	0.12	0.13
390	5.463	0.11	0.11	5.944	0.11	0.11	6.644	0.11	0.11	7.42	0.13	0.13
420	5.463	0.11	0.11	5.944	0.11	0.11	6.644	0.11	0.11	7.42	0.13	0.13
450	5.463	0.11	0.11	5.944	0.11	0.11	6.647	0.12	0.11	7.42	0.13	0.13
480	5.463	0.11	0.11	5.944	0.11	0.11	6.644	0.11	0.11	7.42	0.13	0.13
510	5.453	0.10	0.10	5.944	0.11	0.11	6.641	0.11	0.11	7.417	0.13	0.13
540	5.463	0.11	0.11	5.944	0.11	0.11	6.647	0.12	0.11	7.423	0.13	0.13
570	5.463	0.11	0.11	5.944	0.11	0.11	6.644	0.11	0.11	7.42	0.13	0.13
600	5.453	0.10	0.10	5.937	0.11	0.11	6.641	0.11	0.11	7.413	0.12	0.12
630	5.453	0.10	0.11	5.937	0.11	0.11	6.634	0.10	0.11	7.41	0.12	0.12
660	5.444	0.09	0.11	5.925	0.10	0.11	6.628	0.10	0.11	7.404	0.11	0.13
690	5.434	0.08	0.10	5.925	0.10	0.11	6.628	0.10	0.11	7.401	0.11	0.13
720	5.434	0.08	0.11	5.925	0.10	0.12	6.625	0.09	0.12	7.401	0.11	0.13
750	5.444	0.09	0.12	5.925	0.10	0.12	6.625	0.09	0.12	7.401	0.11	0.13
780	5.444	0.09	0.12	5.925	0.10	0.12	6.625	0.09	0.12	7.397	0.11	0.13
810	5.444	0.09	0.12	5.925	0.10	0.12	6.625	0.09	0.12	7.401	0.11	0.14
840	5.444	0.09	0.12	5.931	0.10	0.13	6.631	0.10	0.13	7.404	0.11	0.14
870	5.453	0.10	0.12	5.937	0.11	0.13	6.634	0.10	0.13	7.407	0.12	0.14
900	5.453	0.10	0.12	5.937	0.11	0.13	6.637	0.11	0.13	7.41	0.12	0.14
930	5.463	0.11	0.13	5.937	0.11	0.13	6.641	0.11	0.13	7.413	0.12	0.14
960	5.463	0.11	0.13	5.944	0.11	0.13	6.644	0.11	0.13	7.417	0.13	0.14
990	5.453	0.10	0.12	5.944	0.11	0.13	6.647	0.12	0.13	7.42	0.13	0.14
1020	5.463	0.11	0.12	5.95	0.12	0.13	6.65	0.12	0.13	7.426	0.14	0.15
1050	5.463	0.11	0.12	5.95	0.12	0.13	6.65	0.12	0.13	7.426	0.14	0.15
1080	5.472	0.12	0.13	5.956	0.13	0.13	6.656	0.13	0.13	7.429	0.14	0.15
1110	5.472	0.12	0.13	5.956	0.13	0.13	6.656	0.13	0.13	7.436	0.15	0.15
1140	5.482	0.13	0.13	5.963	0.13	0.14	6.66	0.13	0.13	7.436	0.15	0.15

1170	5.482	0.13	0.14	5.956	0.13	0.13	6.656	0.13	0.13	7.442	0.15	0.16
1200	5.482	0.13	0.13	5.963	0.13	0.14	6.66	0.13	0.13	7.439	0.15	0.15
1230	5.491	0.14	0.14	5.969	0.14	0.14	6.663	0.13	0.13	7.423	0.13	0.13
1260	5.491	0.14	0.14	5.969	0.14	0.14	6.66	0.13	0.13	7.363	0.07	0.08
1290	5.491	0.14	0.15	5.963	0.13	0.14	6.656	0.13	0.13	7.267	−0.02	−0.02
1320	5.491	0.14	0.15	5.956	0.13	0.13	6.653	0.12	0.13	7.197	−0.09	−0.09
1350	5.482	0.13	0.14	5.956	0.13	0.14	6.65	0.12	0.13	7.185	−0.11	−0.09
1380	5.482	0.13	0.15	5.956	0.13	0.14	6.65	0.12	0.13	7.169	−0.12	−0.11
1410	5.482	0.13	0.15	5.956	0.13	0.14	6.644	0.11	0.13	7.143	−0.15	−0.13
1440	5.482	0.13	0.15	5.95	0.12	0.14	6.641	0.11	0.13	7.07	−0.22	−0.20
1470	5.472	0.12	0.15	5.95	0.12	0.15	6.637	0.11	0.13	7.039	−0.25	−0.22
1500	5.482	0.13	0.16	5.956	0.13	0.15	6.644	0.11	0.14	7.032	−0.26	−0.23
1530	5.482	0.13	0.16	5.956	0.13	0.15	6.647	0.12	0.14	7.029	−0.26	−0.24
1560	5.482	0.13	0.16	5.956	0.13	0.15	6.647	0.12	0.14	7.026	−0.26	−0.24
1590	5.482	0.13	0.16	5.956	0.13	0.15	6.65	0.12	0.15	7.026	−0.26	−0.24
1620	5.482	0.13	0.16	5.956	0.13	0.15	6.65	0.12	0.15	7.023	−0.27	−0.24
1650	5.482	0.13	0.16	5.963	0.13	0.16	6.653	0.12	0.15	7.588	0.30	0.32
1680	5.482	0.13	0.16	5.956	0.13	0.16	6.647	0.12	0.15	7.578	0.29	0.32
1710	5.491	0.14	0.17	5.963	0.13	0.16	6.656	0.13	0.15	7.588	0.30	0.33
1740	5.491	0.14	0.17	5.969	0.14	0.16	6.656	0.13	0.15	7.591	0.30	0.33
1770	5.491	0.14	0.17	5.969	0.14	0.16	6.66	0.13	0.15	7.591	0.30	0.33
1800	5.491	0.14	0.17	5.969	0.14	0.16	6.66	0.13	0.15	7.594	0.30	0.33
1830	5.491	0.14	0.17	5.969	0.14	0.16	6.66	0.13	0.15	7.591	0.30	0.33
1860	5.491	0.14	0.17	5.963	0.13	0.16	6.656	0.13	0.15	7.588	0.30	0.33
1890	5.482	0.13	0.16	5.969	0.14	0.17	6.656	0.13	0.15	7.585	0.30	0.32
1920	5.491	0.14	0.17	5.969	0.14	0.17	6.656	0.13	0.15	7.588	0.30	0.33
1950	5.491	0.14	0.17	5.969	0.14	0.17	6.656	0.13	0.15	7.588	0.30	0.33
1980	5.491	0.14	0.17	5.969	0.14	0.16	6.66	0.13	0.16	7.588	0.30	0.32
2010	5.491	0.14	0.17	5.963	0.13	0.16	6.653	0.12	0.15	7.585	0.30	0.32
2040	5.482	0.13	0.16	5.963	0.13	0.16	6.65	0.12	0.15	7.582	0.29	0.32
2070	5.482	0.13	0.17	5.963	0.13	0.17	6.65	0.12	0.15	7.578	0.29	0.32
2100	5.482	0.13	0.17	5.956	0.13	0.16	6.644	0.11	0.15	7.575	0.28	0.32
2130	5.482	0.13	0.17	5.963	0.13	0.17	6.65	0.12	0.16	7.578	0.29	0.33
2160	5.482	0.13	0.17	5.956	0.13	0.17	6.65	0.12	0.16	7.578	0.29	0.33
2190	5.482	0.13	0.18	5.956	0.13	0.17	6.647	0.12	0.16	7.575	0.28	0.33
2220	5.472	0.12	0.17	5.95	0.12	0.17	6.641	0.11	0.16	7.572	0.28	0.33
2250	5.482	0.13	0.18	5.956	0.13	0.17	6.647	0.12	0.16	7.575	0.28	0.33
2280	5.482	0.13	0.18	5.956	0.13	0.17	6.65	0.12	0.17	7.578	0.29	0.33
2310	5.482	0.13	0.18	5.956	0.13	0.17	6.65	0.12	0.17	7.578	0.29	0.33
2340	5.482	0.13	0.17	5.963	0.13	0.18	6.653	0.12	0.17	7.585	0.30	0.34
2370	5.491	0.14	0.18	5.963	0.13	0.17	6.66	0.13	0.17	7.588	0.30	0.34

2400	5.482	0.13	0.17	5.963	0.13	0.18	6.656	0.13	0.17	7.588	0.30	0.34
2430	5.491	0.14	0.18	5.969	0.14	0.18	6.66	0.13	0.17	7.588	0.30	0.34
2460	5.491	0.14	0.18	5.969	0.14	0.18	6.66	0.13	0.17	7.591	0.30	0.34
2490	5.5	0.15	0.18	5.988	0.16	0.19	6.676	0.15	0.17	7.61	0.32	0.35
2520	5.491	0.14	0.17	5.969	0.14	0.17	6.656	0.13	0.15	7.588	0.30	0.32
2550	5.463	0.11	0.13	5.937	0.11	0.13	6.625	0.09	0.12	7.563	0.27	0.29
2580	5.444	0.09	0.11	5.925	0.10	0.11	6.599	0.07	0.08	7.547	0.26	0.27
2610	5.416	0.07	0.08	5.887	0.06	0.07	6.552	0.02	0.04	7.509	0.22	0.23
2640	5.378	0.03	0.04	5.849	0.02	0.03	6.514	−0.02	−0.01	7.477	0.19	0.20
2670	5.331	−0.02	0.01	5.791	−0.04	−0.01	6.453	−0.08	−0.05	7.417	0.13	0.15
2700	5.283	−0.07	−0.03	5.747	−0.08	−0.05	6.402	−0.13	−0.10	7.375	0.09	0.12
2730	5.255	−0.09	−0.06	5.715	−0.11	−0.08	6.371	−0.16	−0.12	7.347	0.06	0.09
2760	5.227	−0.12	−0.08	5.69	−0.14	−0.10	6.339	−0.19	−0.15	7.321	0.03	0.07
2790	5.217	−0.13	−0.09	5.671	−0.16	−0.12	6.323	−0.21	−0.17	7.305	0.01	0.06
2820	5.199	−0.15	−0.11	5.658	−0.17	−0.13	6.307	−0.22	−0.18	7.29	0.00	0.04
2850	5.18	−0.17	−0.13	5.639	−0.19	−0.15	6.288	−0.24	−0.20	7.27	−0.02	0.02
2880	5.17	−0.18	−0.13	5.626	−0.20	−0.16	6.272	−0.26	−0.21	7.251	−0.04	0.01
2910	5.151	−0.20	−0.15	5.614	−0.22	−0.17	6.263	−0.27	−0.22	7.242	−0.05	0.00
2940	5.142	−0.21	−0.16	5.607	−0.22	−0.17	6.253	−0.28	−0.23	7.232	−0.06	−0.01
2970	5.142	−0.21	−0.16	5.595	−0.24	−0.19	6.244	−0.29	−0.24	7.226	−0.06	−0.01
3000	5.133	−0.22	−0.17	5.588	−0.24	−0.19	6.241	−0.29	−0.24	7.22	−0.07	−0.02
3030	5.123	−0.23	−0.18	5.582	−0.25	−0.20	6.231	−0.30	−0.25	7.213	−0.08	−0.03
3060	5.123	−0.23	−0.17	5.576	−0.25	−0.20	6.228	−0.30	−0.25	7.207	−0.08	−0.03
3090	5.114	−0.24	−0.18	5.576	−0.25	−0.20	6.222	−0.31	−0.26	7.201	−0.09	−0.04
3120	5.104	−0.25	−0.19	5.569	−0.26	−0.21	6.218	−0.31	−0.26	7.197	−0.09	−0.04
3150	5.104	−0.25	−0.19	5.569	−0.26	−0.21	6.218	−0.31	−0.26	7.194	−0.10	−0.04
3180	5.114	−0.24	−0.19	5.569	−0.26	−0.21	6.218	−0.31	−0.26	7.197	−0.09	−0.04
3210	5.114	−0.24	−0.19	5.569	−0.26	−0.22	6.218	−0.31	−0.27	7.201	−0.09	−0.04
3240	5.114	−0.24	−0.20	5.576	−0.25	−0.21	6.222	−0.31	−0.27	7.204	−0.09	−0.05
3270	5.114	−0.24	−0.20	5.576	−0.25	−0.22	6.225	−0.31	−0.27	7.204	−0.09	−0.05
3300	5.114	−0.24	−0.21	5.576	−0.25	−0.22	6.228	−0.30	−0.27	7.204	−0.09	−0.06
3330	5.104	−0.25	−0.22	5.576	−0.25	−0.23	6.225	−0.31	−0.28	7.204	−0.09	−0.06
3360	5.104	−0.25	−0.22	5.569	−0.26	−0.24	6.222	−0.31	−0.28	7.204	−0.09	−0.06
3390	5.104	−0.25	−0.22	5.569	−0.26	−0.24	6.222	−0.31	−0.28	7.201	−0.09	−0.06
3420	5.104	−0.25	−0.22	5.569	−0.26	−0.24	6.222	−0.31	−0.29	7.201	−0.09	−0.07
3450	5.104	−0.25	−0.22	5.563	−0.27	−0.25	6.218	−0.31	−0.29	7.197	−0.09	−0.07
3480	5.104	−0.25	−0.23	5.563	−0.27	−0.25	6.218	−0.31	−0.29	7.194	−0.10	−0.08
3510	5.095	−0.26	−0.24	5.563	−0.27	−0.25	6.215	−0.32	−0.30	7.194	−0.10	−0.08
3540	5.104	−0.25	−0.23	5.563	−0.27	−0.25	6.215	−0.32	−0.30	7.191	−0.10	−0.08
3570	5.085	−0.26	−0.24	5.557	−0.27	−0.25	6.212	−0.32	−0.30	7.188	−0.10	−0.08
3600	5.085	−0.26	−0.24	5.55	−0.28	−0.26	6.209	−0.32	−0.30	7.185	−0.11	−0.08

3630	5.085	−0.26	−0.24	5.55	−0.28	−0.26	6.206	−0.32	−0.30	7.185	−0.11	−0.08
3660	5.085	−0.26	−0.25	5.557	−0.27	−0.25	6.212	−0.32	−0.30	7.188	−0.10	−0.08
3690	5.085	−0.26	−0.25	5.557	−0.27	−0.25	6.212	−0.32	−0.30	7.188	−0.10	−0.08
3720	5.095	−0.26	−0.24	5.557	−0.27	−0.25	6.212	−0.32	−0.30	7.191	−0.10	−0.08
3750	5.095	−0.26	−0.24	5.563	−0.27	−0.25	6.215	−0.32	−0.30	7.191	−0.10	−0.08
3780	5.085	−0.26	−0.25	5.557	−0.27	−0.26	6.215	−0.32	−0.30	7.191	−0.10	−0.08
3810	5.095	−0.26	−0.24	5.557	−0.27	−0.26	6.215	−0.32	−0.30	7.191	−0.10	−0.08
3840	5.095	−0.26	−0.24	5.557	−0.27	−0.26	6.215	−0.32	−0.30	7.194	−0.10	−0.08
3870	5.095	−0.26	−0.25	5.563	−0.27	−0.26	6.222	−0.31	−0.30	7.197	−0.09	−0.08
3900	5.095	−0.26	−0.24	5.557	−0.27	−0.26	6.218	−0.31	−0.30	7.194	−0.10	−0.09
3930	5.095	−0.26	−0.25	5.563	−0.27	−0.26	6.225	−0.31	−0.30	7.204	−0.09	−0.08
3960	5.104	−0.25	−0.24	5.576	−0.25	−0.25	6.231	−0.30	−0.30	7.21	−0.08	−0.08
3990	5.114	−0.24	−0.23	5.576	−0.25	−0.25	6.231	−0.30	−0.30	7.213	−0.08	−0.08
4020	5.114	−0.24	−0.23	5.576	−0.25	−0.25	6.231	−0.30	−0.30	7.21	−0.08	−0.08
4050	5.123	−0.23	−0.23	5.588	−0.24	−0.25	6.241	−0.29	−0.29	7.22	−0.07	−0.07
4080	5.123	−0.23	−0.23	5.582	−0.25	−0.25	6.237	−0.29	−0.30	7.216	−0.07	−0.08
4110	5.123	−0.23	−0.23	5.582	−0.25	−0.25	6.237	−0.29	−0.30	7.22	−0.07	−0.07
4140	5.123	−0.23	−0.23	5.588	−0.24	−0.25	6.237	−0.29	−0.30	7.213	−0.08	−0.08
4170	5.133	−0.22	−0.22	5.588	−0.24	−0.25	6.244	−0.29	−0.29	7.22	−0.07	−0.08
4200	5.123	−0.23	−0.23	5.582	−0.25	−0.25	6.234	−0.30	−0.30	7.213	−0.08	−0.08
4230	5.123	−0.23	−0.23	5.582	−0.25	−0.25	6.231	−0.30	−0.30	7.204	−0.09	−0.08
4260	5.114	−0.24	−0.23	5.576	−0.25	−0.25	6.228	−0.30	−0.30	7.194	−0.10	−0.09
4290	5.123	−0.23	−0.22	5.576	−0.25	−0.25	6.228	−0.30	−0.29	7.201	−0.09	−0.08
4320	5.114	−0.24	−0.22	5.576	−0.25	−0.24	6.225	−0.31	−0.29	7.194	−0.10	−0.08
4350	5.114	−0.24	−0.22	5.569	−0.26	−0.24	6.222	−0.31	−0.29	7.194	−0.10	−0.08
4380	5.114	−0.24	−0.22	5.576	−0.25	−0.24	6.222	−0.31	−0.29	7.197	−0.09	−0.07
4410	5.114	−0.24	−0.22	5.576	−0.25	−0.24	6.225	−0.31	−0.29	7.197	−0.09	−0.07
4440	5.114	−0.24	−0.22	5.576	−0.25	−0.23	6.222	−0.31	−0.29	7.197	−0.09	−0.07
4470	5.123	−0.23	−0.21	5.576	−0.25	−0.23	6.228	−0.30	−0.28	7.204	−0.09	−0.07
4500	5.114	−0.24	−0.22	5.582	−0.25	−0.23	6.225	−0.31	−0.28	7.204	−0.09	−0.07
4530	5.114	−0.24	−0.22	5.582	−0.25	−0.23	6.228	−0.30	−0.28	7.207	−0.08	−0.06
4560	5.123	−0.23	−0.21	5.582	−0.25	−0.23	6.228	−0.30	−0.28	7.207	−0.08	−0.06
4590	5.114	−0.24	−0.22	5.582	−0.25	−0.23	6.231	−0.30	−0.28	7.21	−0.08	−0.06
4620	5.123	−0.23	−0.21	5.582	−0.25	−0.23	6.231	−0.30	−0.28	7.21	−0.08	−0.06
4650	5.133	−0.22	−0.20	5.588	−0.24	−0.23	6.237	−0.29	−0.28	7.216	−0.07	−0.06
4680	5.133	−0.22	−0.20	5.588	−0.24	−0.23	6.241	−0.29	−0.28	7.223	−0.07	−0.05
4710	5.123	−0.23	−0.21	5.588	−0.24	−0.23	6.241	−0.29	−0.28	7.22	−0.07	−0.06
4740	5.123	−0.23	−0.21	5.588	−0.24	−0.23	6.241	−0.29	−0.27	7.22	−0.07	−0.06
4770	5.123	−0.23	−0.21	5.588	−0.24	−0.23	6.241	−0.29	−0.27	7.22	−0.07	−0.05
4800	5.123	−0.23	−0.21	5.588	−0.24	−0.22	6.241	−0.29	−0.27	7.22	−0.07	−0.05
4830	5.123	−0.23	−0.20	5.588	−0.24	−0.22	6.241	−0.29	−0.27	7.216	−0.07	−0.05

4860	5.133	−0.22	−0.19	5.595	−0.24	−0.21	6.244	−0.29	−0.26	7.22	−0.07	−0.04
4890	5.123	−0.23	−0.20	5.582	−0.25	−0.22	6.237	−0.29	−0.26	7.213	−0.08	−0.05
4920	5.114	−0.24	−0.20	5.582	−0.25	−0.21	6.234	−0.30	−0.26	7.21	−0.08	−0.05
4950	5.114	−0.24	−0.20	5.576	−0.25	−0.21	6.225	−0.31	−0.27	7.204	−0.09	−0.05
4980	5.114	−0.24	−0.20	5.576	−0.25	−0.21	6.228	−0.30	−0.26	7.207	−0.08	−0.04
5010	5.104	−0.25	−0.20	5.576	−0.25	−0.21	6.225	−0.31	−0.26	7.204	−0.09	−0.04
5040	5.114	−0.24	−0.19	5.576	−0.25	−0.21	6.228	−0.30	−0.26	7.207	−0.08	−0.04
5070	5.114	−0.24	−0.19	5.576	−0.25	−0.20	6.222	−0.31	−0.26	7.201	−0.09	−0.04
5100	5.114	−0.24	−0.19	5.576	−0.25	−0.20	6.225	−0.31	−0.26	7.207	−0.08	−0.03
5130	5.114	−0.24	−0.19	5.582	−0.25	−0.20	6.228	−0.30	−0.25	7.207	−0.08	−0.03
5160	5.114	−0.24	−0.19	5.582	−0.25	−0.20	6.231	−0.30	−0.25	7.21	−0.08	−0.03
5190	5.114	−0.24	−0.18	5.582	−0.25	−0.20	6.231	−0.30	−0.25	7.21	−0.08	−0.03
5220	5.123	−0.23	−0.18	5.588	−0.24	−0.19	6.234	−0.30	−0.25	7.213	−0.08	−0.03
5250	5.123	−0.23	−0.18	5.588	−0.24	−0.19	6.237	−0.29	−0.24	7.216	−0.07	−0.03
5280	5.123	−0.23	−0.18	5.588	−0.24	−0.19	6.237	−0.29	−0.25	7.216	−0.07	−0.03
5310	5.133	−0.22	−0.17	5.595	−0.24	−0.19	6.244	−0.29	−0.24	7.223	−0.07	−0.02
5340	5.133	−0.22	−0.17	5.601	−0.23	−0.19	6.247	−0.28	−0.24	7.226	−0.06	−0.02
5370	5.142	−0.21	−0.17	5.601	−0.23	−0.19	6.25	−0.28	−0.24	7.232	−0.06	−0.02
5400	5.133	−0.22	−0.18	5.601	−0.23	−0.19	6.253	−0.28	−0.24	7.232	−0.06	−0.02
5430	5.142	−0.21	−0.17	5.607	−0.22	−0.18	6.253	−0.28	−0.24	7.232	−0.06	−0.02
5460	5.142	−0.21	−0.17	5.607	−0.22	−0.18	6.256	−0.27	−0.23	7.239	−0.05	−0.01
5490	5.151	−0.20	−0.16	5.607	−0.22	−0.18	6.256	−0.27	−0.23	7.239	−0.05	−0.01
5520	5.151	−0.20	−0.16	5.614	−0.22	−0.18	6.26	−0.27	−0.23	7.242	−0.05	−0.01
5550	5.151	−0.20	−0.16	5.614	−0.22	−0.18	6.26	−0.27	−0.23	7.242	−0.05	−0.01
5580	5.161	−0.19	−0.15	5.614	−0.22	−0.18	6.26	−0.27	−0.23	7.242	−0.05	−0.01
5610	5.161	−0.19	−0.15	5.614	−0.22	−0.17	6.26	−0.27	−0.23	7.239	−0.05	−0.01
5640	5.161	−0.19	−0.14	5.607	−0.22	−0.18	6.256	−0.27	−0.23	7.226	−0.06	−0.02
5670	5.161	−0.19	−0.14	5.614	−0.22	−0.17	6.256	−0.27	−0.23	7.232	−0.06	−0.01
5700	5.161	−0.19	−0.14	5.614	−0.22	−0.16	6.256	−0.27	−0.22	7.226	−0.06	−0.01
5730	5.161	−0.19	−0.13	5.62	−0.21	−0.15	6.253	−0.28	−0.22	7.223	−0.07	−0.01
5760	5.161	−0.19	−0.13	5.614	−0.22	−0.16	6.253	−0.28	−0.22	7.226	−0.06	−0.01
5790	5.161	−0.19	−0.13	5.614	−0.22	−0.15	6.25	−0.28	−0.22	7.223	−0.07	−0.01
5820	5.161	−0.19	−0.12	5.62	−0.21	−0.14	6.342	−0.19	−0.12	7.277	−0.01	0.05
5850	5.161	−0.19	−0.12	5.614	−0.22	−0.15	6.345	−0.19	−0.12	7.28	−0.01	0.06
5880	5.17	−0.18	−0.11	5.614	−0.22	−0.15	6.349	−0.18	−0.11	7.28	−0.01	0.06
5910	5.161	−0.19	−0.12	5.62	−0.21	−0.14	6.352	−0.18	−0.11	7.283	−0.01	0.06
5940	5.17	−0.18	−0.11	5.62	−0.21	−0.14	6.355	−0.18	−0.10	7.286	−0.00	0.07
5970	5.17	−0.18	−0.11	5.626	−0.20	−0.13	6.358	−0.17	−0.10	7.293	0.00	0.07
6000	5.17	−0.18	−0.11	5.626	−0.20	−0.13	6.361	−0.17	−0.10	7.296	0.01	0.08
6030	5.18	−0.17	−0.10	5.639	−0.19	−0.12	6.364	−0.17	−0.10	7.299	0.01	0.08
6060	5.18	−0.17	−0.11	5.639	−0.19	−0.13	6.371	−0.16	−0.10	7.309	0.02	0.08

6090	5.189	−0.16	−0.10	5.645	−0.18	−0.13	6.38	−0.15	−0.09	7.315	0.03	0.08
6120	5.199	−0.15	−0.09	5.652	−0.18	−0.12	6.387	−0.14	−0.09	7.321	0.03	0.09
6150	5.199	−0.15	−0.10	5.658	−0.17	−0.12	6.393	−0.14	−0.08	7.324	0.03	0.09
6180	5.208	−0.14	−0.09	5.664	−0.17	−0.12	6.396	−0.13	−0.08	7.331	0.04	0.09
6210	5.208	−0.14	−0.09	5.664	−0.17	−0.12	6.402	−0.13	−0.08	7.334	0.04	0.09
6240	5.208	−0.14	−0.09	5.664	−0.17	−0.12	6.399	−0.13	−0.08	7.334	0.04	0.09
6270	5.208	−0.14	−0.09	5.658	−0.17	−0.12	6.396	−0.13	−0.09	7.334	0.04	0.09
6300	5.199	−0.15	−0.10	5.658	−0.17	−0.12	6.396	−0.13	−0.09	7.331	0.04	0.09
6330	5.199	−0.15	−0.10	5.658	−0.17	−0.12	6.393	−0.14	−0.09	7.328	0.04	0.09
6360	5.189	−0.16	−0.11	5.652	−0.18	−0.13	6.387	−0.14	−0.09	7.321	0.03	0.08
6390	5.189	−0.16	−0.11	5.652	−0.18	−0.12	6.387	−0.14	−0.09	7.321	0.03	0.08
6420	5.189	−0.16	−0.11	5.652	−0.18	−0.12	6.387	−0.14	−0.09	7.324	0.03	0.09
6450	5.189	−0.16	−0.11	5.652	−0.18	−0.12	6.387	−0.14	−0.09	7.321	0.03	0.09
6480	5.189	−0.16	−0.10	5.645	−0.18	−0.12	6.387	−0.14	−0.08	7.318	0.03	0.09
6510	5.18	−0.17	−0.11	5.645	−0.18	−0.12	6.38	−0.15	−0.09	7.315	0.03	0.09
6540	5.18	−0.17	−0.10	5.639	−0.19	−0.12	6.38	−0.15	−0.08	7.315	0.03	0.09
6570	5.18	−0.17	−0.10	5.645	−0.18	−0.12	6.38	−0.15	−0.08	7.318	0.03	0.10
6600	5.189	−0.16	−0.09	5.645	−0.18	−0.12	6.387	−0.14	−0.08	7.321	0.03	0.10
6630	5.189	−0.16	−0.10	5.652	−0.18	−0.11	6.387	−0.14	−0.08	7.324	0.03	0.10
6660	5.189	−0.16	−0.10	5.652	−0.18	−0.11	6.39	−0.14	−0.08	7.328	0.04	0.10
6690	5.199	−0.15	−0.09	5.658	−0.17	−0.11	6.393	−0.14	−0.08	7.328	0.04	0.10
6720	5.199	−0.15	−0.09	5.664	−0.17	−0.11	6.399	−0.13	−0.07	7.34	0.05	0.11
6750	5.208	−0.14	−0.09	5.664	−0.17	−0.11	6.402	−0.13	−0.07	7.34	0.05	0.10
6780	5.208	−0.14	−0.09	5.671	−0.16	−0.11	6.406	−0.12	−0.07	7.347	0.06	0.11
6810	5.217	−0.13	−0.08	5.677	−0.15	−0.10	6.409	−0.12	−0.07	7.35	0.06	0.11
6840	5.217	−0.13	−0.09	5.677	−0.15	−0.11	6.415	−0.12	−0.07	7.353	0.06	0.11
6870	5.227	−0.12	−0.08	5.684	−0.15	−0.10	6.418	−0.11	−0.07	7.353	0.06	0.11
6900	5.227	−0.12	−0.08	5.69	−0.14	−0.10	6.422	−0.11	−0.07	7.366	0.08	0.12
6930	5.227	−0.12	−0.08	5.684	−0.15	−0.11	6.422	−0.11	−0.07	7.356	0.07	0.11
6960	5.227	−0.12	−0.08	5.69	−0.14	−0.10	6.422	−0.11	−0.07	7.359	0.07	0.11
6990	5.227	−0.12	−0.08	5.69	−0.14	−0.10	6.422	−0.11	−0.06	7.359	0.07	0.11
7020	5.236	−0.11	−0.07	5.69	−0.14	−0.09	6.422	−0.11	−0.06	7.369	0.08	0.13
7050	5.236	−0.11	−0.07	5.69	−0.14	−0.09	6.418	−0.11	−0.06	7.356	0.07	0.11
7080	5.236	−0.11	−0.07	5.684	−0.15	−0.10	6.409	−0.12	−0.07	7.337	0.05	0.10
7110	5.236	−0.11	−0.06	5.69	−0.14	−0.09	6.418	−0.11	−0.06	7.34	0.05	0.10
7140	5.236	−0.11	−0.06	5.684	−0.15	−0.09	6.418	−0.11	−0.05	7.369	0.08	0.14
7170	5.236	−0.11	−0.05	5.684	−0.15	−0.09	6.425	−0.11	−0.04	7.359	0.07	0.13
7200	5.236	−0.11	−0.05	5.696	−0.13	−0.07	6.425	−0.11	−0.05	7.353	0.06	0.12
7230	5.255	−0.09	−0.05	5.715	−0.11	−0.07	6.441	−0.09	−0.04	7.372	0.08	0.13
7260	5.255	−0.09	−0.05	5.709	−0.12	−0.07	6.441	−0.09	−0.04	7.375	0.09	0.13
7290	5.255	−0.09	−0.05	5.709	−0.12	−0.07	6.441	−0.09	−0.04	7.375	0.09	0.13

7320	5.246	−0.10	−0.06	5.703	−0.13	−0.08	6.437	−0.09	−0.04	7.375	0.09	0.13
7350	5.255	−0.09	−0.05	5.709	−0.12	−0.07	6.444	−0.09	−0.04	7.378	0.09	0.14
7380	5.255	−0.09	−0.05	5.709	−0.12	−0.07	6.444	−0.09	−0.04	7.378	0.09	0.14
7410	5.255	−0.09	−0.05	5.715	−0.11	−0.07	6.45	−0.08	−0.03	7.382	0.09	0.14
7440	5.255	−0.09	−0.05	5.709	−0.12	−0.07	6.447	−0.08	−0.04	7.382	0.09	0.14
7470	5.255	−0.09	−0.05	5.715	−0.11	−0.07	6.45	−0.08	−0.03	7.385	0.10	0.14
7500	5.265	−0.09	−0.05	5.722	−0.11	−0.07	6.456	−0.07	−0.03	7.394	0.10	0.14
7530	5.265	−0.09	−0.05	5.728	−0.10	−0.07	6.463	−0.07	−0.03	7.397	0.11	0.14
7560	5.274	−0.08	−0.04	5.728	−0.10	−0.07	6.463	−0.07	−0.03	7.401	0.11	0.14
7590	5.265	−0.09	−0.05	5.728	−0.10	−0.07	6.463	−0.07	−0.03	7.397	0.11	0.14
7620	5.283	−0.07	−0.04	5.734	−0.10	−0.07	6.476	−0.05	−0.03	7.41	0.12	0.15
7650	5.274	−0.08	−0.05	5.728	−0.10	−0.07	6.469	−0.06	−0.03	7.404	0.11	0.14
7680	5.265	−0.09	−0.05	5.722	−0.11	−0.08	6.463	−0.07	−0.03	7.397	0.11	0.14
7710	5.274	−0.08	−0.05	5.734	−0.10	−0.07	6.472	−0.06	−0.03	7.407	0.12	0.14
7740	5.265	−0.09	−0.05	5.722	−0.11	−0.08	6.463	−0.07	−0.04	7.397	0.11	0.14
7770	5.274	−0.08	−0.05	5.728	−0.10	−0.07	6.469	−0.06	−0.03	7.404	0.11	0.14
7800	5.274	−0.08	−0.05	5.741	−0.09	−0.07	6.476	−0.05	−0.03	7.41	0.12	0.14
7830	5.274	−0.08	−0.05	5.734	−0.10	−0.07	6.472	−0.06	−0.04	7.407	0.12	0.14
7860	5.265	−0.09	−0.06	5.722	−0.11	−0.08	6.463	−0.07	−0.04	7.397	0.11	0.13
7890	5.274	−0.08	−0.05	5.734	−0.10	−0.07	6.472	−0.06	−0.04	7.407	0.12	0.14
7920	5.274	−0.08	−0.05	5.728	−0.10	−0.08	6.472	−0.06	−0.04	7.407	0.12	0.14
7950	5.255	−0.09	−0.07	5.722	−0.11	−0.08	6.46	−0.07	−0.05	7.397	0.11	0.13
7980	5.255	−0.09	−0.08	5.722	−0.11	−0.09	6.456	−0.07	−0.05	7.394	0.10	0.12
8010	5.246	−0.10	−0.08	5.703	−0.13	−0.10	6.437	−0.09	−0.07	7.378	0.09	0.11
8040	5.227	−0.12	−0.09	5.684	−0.15	−0.11	6.418	−0.11	−0.08	7.359	0.07	0.10
8070	5.236	−0.11	−0.09	5.69	−0.14	−0.12	6.418	−0.11	−0.09	7.366	0.08	0.10
8100	5.236	−0.11	−0.10	5.69	−0.14	−0.12	6.422	−0.11	−0.09	7.369	0.08	0.10
8130	5.227	−0.12	−0.11	5.69	−0.14	−0.13	6.418	−0.11	−0.10	7.363	0.07	0.09
8160	5.236	−0.11	−0.11	5.696	−0.13	−0.13	6.422	−0.11	−0.10	7.369	0.08	0.08
8190	5.236	−0.11	−0.12	5.696	−0.13	−0.14	6.422	−0.11	−0.11	7.372	0.08	0.08
8220	5.236	−0.11	−0.12	5.696	−0.13	−0.14	6.422	−0.11	−0.11	7.372	0.08	0.08
8250	5.236	−0.11	−0.12	5.69	−0.14	−0.15	6.422	−0.11	−0.12	7.369	0.08	0.07
8280	5.236	−0.11	−0.13	5.696	−0.13	−0.15	6.425	−0.11	−0.12	7.375	0.09	0.07
8310	5.236	−0.11	−0.14	5.696	−0.13	−0.16	6.428	−0.10	−0.12	7.378	0.09	0.07
8340	5 236	−0.11	−0.14	5.703	−0.13	−0.15	6.431	−0.10	−0.13	7.382	0.09	0.06
8370	5.246	−0.10	−0.14	5.703	−0.13	−0.16	6.431	−0.10	−0.13	7.375	0.09	0.05
8400	5.246	−0.10	−0.14	5.703	−0.13	−0.16	6.431	−0.10	−0.13	7.385	0.10	0.06
8430	5.246	−0.10	−0.14	5.703	−0.13	−0.16	6.428	−0.10	−0.14	7.382	0.09	0.06
8460	5.246	−0.10	−0.14	5.703	−0.13	−0.16	6.431	−0.10	−0.13	7.382	0.09	0.06
8490	5.246	−0.10	−0.14	5.696	−0.13	−0.17	6.428	−0.10	−0.14	7.382	0.09	0.06
8520	5.246	−0.10	−0.14	5.696	−0.13	−0.17	6.425	−0.11	−0.14	7.375	0.09	0.05

8550	5.255	−0.09	−0.13	5.696	−0.13	−0.17	6.428	−0.10	−0.14	7.375	0.09	0.05
8580	5.255	−0.09	−0.13	5.696	−0.13	−0.17	6.428	−0.10	−0.14	7.375	0.09	0.05
8610	5.246	−0.10	−0.14	5.696	−0.13	−0.17	6.428	−0.10	−0.14	7.372	0.08	0.05
8640	5.255	−0.09	−0.13	5.696	−0.13	−0.17	6.428	−0.10	−0.13	7.372	0.08	0.05
8670	5.246	−0.10	−0.13	5.696	−0.13	−0.16	6.425	−0.11	−0.13	7.366	0.08	0.05
8700	5.246	−0.10	−0.13	5.696	−0.13	−0.16	6.428	−0.10	−0.13	7.372	0.08	0.05
8730	5.246	−0.10	−0.13	5.703	−0.13	−0.16	6.428	−0.10	−0.13	7.372	0.08	0.05
8760	5.246	−0.10	−0.13	5.703	−0.13	−0.16	6.431	−0.10	−0.13	7.375	0.09	0.05
8790	5.246	−0.10	−0.13	5.696	−0.13	−0.16	6.431	−0.10	−0.13	7.378	0.09	0.06
8820	5.265	−0.09	−0.12	5.709	−0.12	−0.15	6.441	−0.09	−0.12	7.382	0.09	0.06
8850	5.255	−0.09	−0.13	5.709	−0.12	−0.16	6.444	−0.09	−0.12	7.385	0.10	0.06
8880	5.255	−0.09	−0.13	5.715	−0.11	−0.15	6.447	−0.08	−0.12	7.388	0.10	0.06
8910	5.265	−0.09	−0.13	5.722	−0.11	−0.15	6.453	−0.08	−0.12	7.394	0.10	0.06
8940	5.265	−0.09	−0.13	5.728	−0.10	−0.15	6.456	−0.07	−0.12	7.401	0.11	0.06
8970	5.265	−0.09	−0.14	5.728	−0.10	−0.15	6.46	−0.07	−0.12	7.404	0.11	0.06
9000	5.265	−0.09	−0.14	5.728	−0.10	−0.16	6.463	−0.07	−0.12	7.407	0.12	0.06
9030	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.469	−0.06	−0.12	7.413	0.12	0.06
9060	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.469	−0.06	−0.12	7.41	0.12	0.06
9090	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.472	−0.06	−0.12	7.417	0.13	0.06
9120	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.472	−0.06	−0.12	7.413	0.12	0.06
9150	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.472	−0.06	−0.13	7.417	0.13	0.06
9180	5.274	−0.08	−0.15	5.741	−0.09	−0.16	6.476	−0.05	−0.12	7.42	0.13	0.06
9210	5.274	−0.08	−0.15	5.741	−0.09	−0.16	6.476	−0.05	−0.12	7.42	0.13	0.06
9240	5.274	−0.08	−0.15	5.734	−0.10	−0.17	6.476	−0.05	−0.12	7.417	0.13	0.06
9270	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.476	−0.05	−0.12	7.417	0.13	0.06
9300	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.472	−0.06	−0.12	7.413	0.12	0.06
9330	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.476	−0.05	−0.12	7.417	0.13	0.06
9360	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.476	−0.05	−0.12	7.42	0.13	0.06
9390	5.274	−0.08	−0.14	5.741	−0.09	−0.15	6.479	−0.05	−0.12	7.42	0.13	0.06
9420	5.274	−0.08	−0.14	5.734	−0.10	−0.16	6.479	−0.05	−0.12	7.42	0.13	0.07
9450	5.283	−0.07	−0.13	5.741	−0.09	−0.16	6.482	−0.05	−0.11	7.423	0.13	0.07
9480	5.283	−0.07	−0.14	5.741	−0.09	−0.16	6.485	−0.05	−0.11	7.426	0.14	0.07
9510	5.283	−0.07	−0.14	5.747	−0.08	−0.15	6.485	−0.05	−0.11	7.426	0.14	0.07
9540	5.283	−0.07	−0.14	5.747	−0.08	−0.15	6.488	−0.04	−0.11	7.429	0.14	0.07
9570	5.293	−0.06	−0.13	5.753	−0.08	−0.15	6.495	−0.04	−0.11	7.436	0.15	0.07
9600	5.293	−0.06	−0.13	5.76	−0.07	−0.15	6.495	−0.04	−0.11	7.436	0.15	0.07
9630	5.293	−0.06	−0.13	5.753	−0.08	−0.15	6.498	−0.03	−0.11	7.439	0.15	0.07
9660	5.302	−0.05	−0.13	5.76	−0.07	−0.15	6.504	−0.03	−0.11	7.445	0.16	0.07
9690	5.302	−0.05	−0.13	5.766	−0.06	−0.15	6.504	−0.03	−0.11	7.448	0.16	0.08
9720	5.302	−0.05	−0.13	5.76	−0.07	−0.15	6.504	−0.03	−0.11	7.448	0.16	0.07
9750	5.302	−0.05	−0.13	5.76	−0.07	−0.15	6.504	−0.03	−0.11	7.448	0.16	0.08

9780	5.312	−0.04	−0.12	5.772	−0.06	−0.14	6.51	−0.02	−0.11	7.455	0.16	0.08
9810	5.321	−0.03	−0.12	5.779	−0.05	−0.14	6.517	−0.01	−0.10	7.467	0.18	0.09
9840	5.321	−0.03	−0.12	5.779	−0.05	−0.14	6.514	−0.02	−0.10	7.455	0.16	0.08
9870	5.321	−0.03	−0.12	5.779	−0.05	−0.14	6.517	−0.01	−0.10	7.461	0.17	0.08
9900	5.321	−0.03	−0.12	5.779	−0.05	−0.14	6.514	−0.02	−0.10	7.451	0.16	0.07
9930	5.331	−0.02	−0.11	5.785	−0.05	−0.13	6.517	−0.01	−0.10	7.458	0.17	0.08
9960	5.321	−0.03	−0.11	5.779	−0.05	−0.14	6.517	−0.01	−0.10	7.455	0.16	0.08
9990	5.321	−0.03	−0.11	5.772	−0.06	−0.14	6.514	−0.02	−0.10	7.455	0.16	0.08
10020	5.321	−0.03	−0.11	5.772	−0.06	−0.14	6.51	−0.02	−0.10	7.451	0.16	0.08
10050	5.321	−0.03	−0.10	5.772	−0.06	−0.13	6.51	−0.02	−0.10	7.451	0.16	0.09
10080	5.321	−0.03	−0.10	5.772	−0.06	−0.13	6.51	−0.02	−0.09	7.448	0.16	0.08
10110	5.312	−0.04	−0.11	5.766	−0.06	−0.13	6.501	−0.03	−0.10	7.436	0.15	0.08
10140	5.283	−0.07	−0.13	5.734	−0.10	−0.16	6.479	−0.05	−0.11	7.404	0.11	0.05
10170	5.265	−0.09	−0.14	5.715	−0.11	−0.17	6.463	−0.07	−0.13	7.382	0.09	0.03
10200	5.255	−0.09	−0.15	5.709	−0.12	−0.18	6.453	−0.08	−0.13	7.369	0.08	0.02
10230	5.255	−0.09	−0.15	5.709	−0.12	−0.18	6.45	−0.08	−0.14	7.366	0.08	0.02
10260	5.246	−0.10	−0.16	5.696	−0.13	−0.19	6.444	−0.09	−0.14	7.356	0.07	0.01
10290	5.246	−0.10	−0.16	5.696	−0.13	−0.19	6.441	−0.09	−0.15	7.356	0.07	0.01
10320	5.236	−0.11	−0.17	5.684	−0.15	−0.20	6.434	−0.10	−0.15	7.347	0.06	0.00
10350	5.217	−0.13	−0.18	5.677	−0.15	−0.20	6.425	−0.11	−0.15	7.337	0.05	0.00
10380	5.227	−0.12	−0.17	5.684	−0.15	−0.20	6.431	−0.10	−0.15	7.343	0.05	0.00
10410	5.227	−0.12	−0.17	5.677	−0.15	−0.20	6.428	−0.10	−0.15	7.34	0.05	0.00
10440	5.227	−0.12	−0.17	5.684	−0.15	−0.20	6.428	−0.10	−0.15	7.34	0.05	0.00
10470	5.227	−0.12	−0.17	5.684	−0.15	−0.20	6.428	−0.10	−0.15	7.343	0.05	0.00
10500	5.217	−0.13	−0.18	5.677	−0.15	−0.20	6.425	−0.11	−0.15	7.337	0.05	−0.00
10530	5.227	−0.12	−0.17	5.684	−0.15	−0.20	6.428	−0.10	−0.15	7.343	0.05	0.00
10560	5.227	−0.12	−0.17	5.677	−0.15	−0.20	6.428	−0.10	−0.15	7.337	0.05	−0.00
10590	5.217	−0.13	−0.18	5.677	−0.15	−0.20	6.425	−0.11	−0.15	7.337	0.05	0.00
10620	5.217	−0.13	−0.18	5.677	−0.15	−0.20	6.425	−0.11	−0.15	7.337	0.05	0.00
10650	5.217	−0.13	−0.18	5.677	−0.15	−0.20	6.425	−0.11	−0.15	7.334	0.04	0.00
10680	5.217	−0.13	−0.17	5.671	−0.16	−0.20	6.425	−0.11	−0.15	7.334	0.04	0.00
10710	5.217	−0.13	−0.17	5.671	−0.16	−0.20	6.422	−0.11	−0.15	7.331	0.04	0.00
10740	5.217	−0.13	−0.17	5.671	−0.16	−0.20	6.422	−0.11	−0.15	7.334	0.04	0.00
10770	5.217	−0.13	−0.17	5.671	−0.16	−0.20	6.425	−0.11	−0.14	7.334	0.04	0.01
10800	5.217	−0.13	−0.17	5.677	−0.15	−0.19	6.425	−0.11	−0.14	7.337	0.05	0.01
10830	5.217	−0.13	−0.17	5.677	−0.15	−0.19	6.425	−0.11	−0.14	7.337	0.05	0.01
10860	5.217	−0.13	−0.17	5.671	−0.16	−0.19	6.422	−0.11	−0.14	7.331	0.04	0.01
10890	5.217	−0.13	−0.16	5.671	−0.16	−0.19	6.422	−0.11	−0.14	7.331	0.04	0.01
10920	5.208	−0.14	−0.17	5.664	−0.17	−0.19	6.418	−0.11	−0.14	7.331	0.04	0.01
10950	5.217	−0.13	−0.16	5.671	−0.16	−0.19	6.425	−0.11	−0.13	7.334	0.04	0.02
10980	5.217	−0.13	−0.16	5.677	−0.15	−0.18	6.428	−0.10	−0.13	7.337	0.05	0.02

11010	5.217	−0.13	−0.16	5.677	−0.15	−0.18	6.428	−0.10	−0.13	7.337	0.05	0.02
11040	5.217	−0.13	−0.16	5.677	−0.15	−0.18	6.428	−0.10	−0.13	7.337	0.05	0.02
11070	5.217	−0.13	−0.16	5.677	−0.15	−0.18	6.428	−0.10	−0.13	7.337	0.05	0.02
11100	5.227	−0.12	−0.15	5.684	−0.15	−0.17	6.434	−0.10	−0.12	7.343	0.05	0.03
11130	5.227	−0.12	−0.15	5.684	−0.15	−0.17	6.434	−0.10	−0.12	7.343	0.05	0.03
11160	5.227	−0.12	−0.15	5.684	−0.15	−0.17	6.434	−0.10	−0.12	7.35	0.06	0.03
11190	5.236	−0.11	−0.14	5.69	−0.14	−0.17	6.437	−0.09	−0.12	7.347	0.06	0.03
11220	5.236	−0.11	−0.14	5.69	−0.14	−0.17	6.441	−0.09	−0.12	7.356	0.07	0.04
11250	5.246	−0.10	−0.13	5.696	−0.13	−0.16	6.444	−0.09	−0.11	7.356	0.07	0.04
11280	5.246	−0.10	−0.13	5.703	−0.13	−0.16	6.447	−0.08	−0.11	7.359	0.07	0.04
11310	5.246	−0.10	−0.13	5.703	−0.13	−0.16	6.447	−0.08	−0.11	7.356	0.07	0.04
11340	5.246	−0.10	−0.13	5.703	−0.13	−0.15	6.444	−0.09	−0.11	7.359	0.07	0.04
11370	5.255	−0.09	−0.12	5.696	−0.13	−0.16	6.444	−0.09	−0.11	7.353	0.06	0.04
11400	5.246	−0.10	−0.12	5.696	−0.13	−0.15	6.441	−0.09	−0.11	7.347	0.06	0.04
11430	5.246	−0.10	−0.12	5.69	−0.14	−0.16	6.437	−0.09	−0.11	7.35	0.06	0.04
11460	5.246	−0.10	−0.11	5.69	−0.14	−0.15	6.437	−0.09	−0.10	7.334	0.04	0.03
11490	5.246	−0.10	−0.11	5.69	−0.14	−0.15	6.437	−0.09	−0.10	7.347	0.06	0.05
11520	5.246	−0.10	−0.11	5.696	−0.13	−0.14	6.437	−0.09	−0.10	7.35	0.06	0.06
11550	5.246	−0.10	−0.10	5.696	−0.13	−0.13	6.437	−0.09	−0.09	7.343	0.05	0.05
11580	5.246	−0.10	−0.10	5.696	−0.13	−0.13	6.437	−0.09	−0.09	7.347	0.06	0.06
11610	5.246	−0.10	−0.10	5.696	−0.13	−0.13	6.441	−0.09	−0.08	7.343	0.05	0.06
11640	5.246	−0.10	−0.10	5.696	−0.13	−0.13	6.447	−0.08	−0.08	7.35	0.06	0.07
11670	5.255	−0.09	−0.09	5.703	−0.13	−0.12	6.45	−0.08	−0.07	7.356	0.07	0.07
11700	5.255	−0.09	−0.09	5.703	−0.13	−0.12	6.453	−0.08	−0.07	7.359	0.07	0.07
11730	5.255	−0.09	−0.09	5.703	−0.13	−0.12	6.453	−0.08	−0.07	7.359	0.07	0.08
11760	5.255	−0.09	−0.09	5.709	−0.12	−0.12	6.46	−0.07	−0.07	7.363	0.07	0.08
11790	5.255	−0.09	−0.09	5.709	−0.12	−0.12	6.46	−0.07	−0.07	7.366	0.08	0.08
11820	5.255	−0.09	−0.09	5.715	−0.11	−0.11	6.463	−0.07	−0.06	7.366	0.08	0.08
11850	5.265	−0.09	−0.08	5.715	−0.11	−0.11	6.466	−0.06	−0.06	7.372	0.08	0.08
11880	5.265	−0.09	−0.09	5.722	−0.11	−0.11	6.469	−0.06	−0.06	7.375	0.09	0.09
11910	5.265	−0.09	−0.09	5.722	−0.11	−0.11	6.476	−0.05	−0.06	7.382	0.09	0.09
11940	5.274	−0.08	−0.08	5.728	−0.10	−0.11	6.479	−0.05	−0.06	7.385	0.10	0.09
11970	5.274	−0.08	−0.09	5.728	−0.10	−0.11	6.482	−0.05	−0.06	7.388	0.10	0.09
12000	5.274	−0.08	−0.09	5.728	−0.10	−0.11	6.482	−0.05	−0.06	7.388	0.10	0.09
12030	5.274	−0.08	−0.09	5.728	−0.10	−0.11	6.482	−0.05	−0.06	7.388	0.10	0.09
12060	5.274	−0.08	−0.09	5.728	−0.10	−0.11	6.479	−0.05	−0.06	7.385	0.10	0.09
12090	5.265	−0.09	−0.09	5.728	−0.10	−0.11	6.479	−0.05	−0.06	7.385	0.10	0.09
12120	5.265	−0.09	−0.09	5.722	−0.11	−0.12	6.479	−0.05	−0.06	7.385	0.10	0.09
12150	5.265	−0.09	−0.09	5.722	−0.11	−0.12	6.479	−0.05	−0.06	7.382	0.09	0.08
12180	5.265	−0.09	−0.09	5.722	−0.11	−0.12	6.479	−0.05	−0.06	7.385	0.10	0.09
12210	5.265	−0.09	−0.09	5.722	−0.11	−0.12	6.479	−0.05	−0.06	7.385	0.10	0.09

12240	5.265	−0.09	−0.09	5.722	−0.11	−0.12	6.479	−0.05	−0.06	7.385	0.10	0.09
12270	5.265	−0.09	−0.09	5.722	−0.11	−0.12	6.479	−0.05	−0.06	7.385	0.10	0.09
12300	5.265	−0.09	−0.09	5.722	−0.11	−0.12	6.479	−0.05	−0.06	7.382	0.09	0.08
12330	5.265	−0.09	−0.09	5.728	−0.10	−0.11	6.482	−0.05	−0.06	7.388	0.10	0.09
12360	5.274	−0.08	−0.09	5.728	−0.10	−0.11	6.485	−0.05	−0.06	7.388	0.10	0.09
12390	5.274	−0.08	−0.09	5.734	−0.10	−0.11	6.488	−0.04	−0.05	7.391	0.10	0.09
12420	5.274	−0.08	−0.09	5.741	−0.09	−0.10	6.491	−0.04	−0.05	7.397	0.11	0.09
12450	5.274	−0.08	−0.09	5.734	−0.10	−0.11	6.491	−0.04	−0.06	7.397	0.11	0.09
12480	5.283	−0.07	−0.09	5.741	−0.09	−0.11	6.498	−0.03	−0.05	7.404	0.11	0.09
12510	5.274	−0.08	−0.10	5.741	−0.09	−0.11	6.498	−0.03	−0.05	7.407	0.12	0.09
12540	5.283	−0.07	−0.09	5.747	−0.08	−0.11	6.504	−0.03	−0.05	7.413	0.12	0.10
12570	5.293	−0.06	−0.08	5.747	−0.08	−0.11	6.507	−0.02	−0.05	7.413	0.12	0.10
12600	5.293	−0.06	−0.09	5.753	−0.08	−0.11	6.514	−0.02	−0.05	7.42	0.13	0.10
12630	5.302	−0.05	−0.08	5.76	−0.07	−0.10	6.517	−0.01	−0.04	7.426	0.14	0.10
12660	5.312	−0.04	−0.07	5.766	−0.06	−0.10	6.517	−0.01	−0.05	7.429	0.14	0.11
12690	5.312	−0.04	−0.07	5.772	−0.06	−0.09	6.52	−0.01	−0.05	7.432	0.14	0.11
12720	5.321	−0.03	−0.07	5.772	−0.06	−0.10	6.523	−0.01	−0.04	7.436	0.15	0.11
12750	5.321	−0.03	−0.07	5.772	−0.06	−0.10	6.523	−0.01	−0.04	7.429	0.14	0.10
12780	5.321	−0.03	−0.07	5.772	−0.06	−0.09	6.523	−0.01	−0.04	7.432	0.14	0.11
12810	5.321	−0.03	−0.07	5.772	−0.06	−0.09	6.523	−0.01	−0.04	7.432	0.14	0.11
12840	5.321	−0.03	−0.07	5.772	−0.06	−0.09	6.523	−0.01	−0.04	7.429	0.14	0.10
12870	5.321	−0.03	−0.06	5.766	−0.06	−0.10	6.52	−0.01	−0.04	7.426	0.14	0.10
12900	5.321	−0.03	−0.06	5.772	−0.06	−0.09	6.517	−0.01	−0.04	7.423	0.13	0.10
12930	5.321	−0.03	−0.06	5.772	−0.06	−0.09	6.52	−0.01	−0.04	7.423	0.13	0.10
12960	5.321	−0.03	−0.06	5.766	−0.06	−0.09	6.517	−0.01	−0.04	7.417	0.13	0.10
12990	5.321	−0.03	−0.06	5.772	−0.06	−0.09	6.52	−0.01	−0.04	7.42	0.13	0.10
13020	5.321	−0.03	−0.05	5.772	−0.06	−0.08	6.523	−0.01	−0.03	7.42	0.13	0.10
13050	5.321	−0.03	−0.05	5.772	−0.06	−0.08	6.52	−0.01	−0.04	7.42	0.13	0.10
13080	5.321	−0.03	−0.05	5.772	−0.06	−0.08	6.523	−0.01	−0.03	7.426	0.14	0.11
13110	5.321	−0.03	−0.05	5.772	−0.06	−0.08	6.523	−0.01	−0.03	7.426	0.14	0.11
13140	5.321	−0.03	−0.05	5.779	−0.05	−0.08	6.526	−0.00	−0.03	7.429	0.14	0.11
13170	5.321	−0.03	−0.05	5.779	−0.05	−0.08	6.526	−0.00	−0.03	7.432	0.14	0.12
13200	5.321	−0.03	−0.06	5.779	−0.05	−0.08	6.533	0.00	−0.03	7.436	0.15	0.12
13230	5.321	−0.03	−0.06	5.779	−0.05	−0.08	6.533	0.00	−0.03	7.436	0.15	0.12
13260	5.331	−0.02	−0.05	5.785	−0.05	−0.08	6.533	0.00	−0.03	7.436	0.15	0.12
13290	5.331	−0.02	−0.05	5.785	−0.05	−0.08	6.536	0.01	−0.03	7.439	0.15	0.12
13320	5.331	−0.02	−0.05	5.785	−0.05	−0.08	6.536	0.01	−0.03	7.442	0.15	0.12
13350	5.331	−0.02	−0.05	5.785	−0.05	−0.08	6.539	0.01	−0.03	7.445	0.16	0.12
13380	5.331	−0.02	−0.06	5.785	−0.05	−0.08	6.542	0.01	−0.02	7.445	0.16	0.12
13410	5.331	−0.02	−0.06	5.791	−0.04	−0.08	6.545	0.01	−0.03	7.448	0.16	0.12
13440	5.331	−0.02	−0.06	5.791	−0.04	−0.08	6.545	0.01	−0.03	7.448	0.16	0.12

13470	5.331	−0.02	−0.06	5.791	−0.04	−0.08	6.545	0.01	−0.03	7.451	0.16	0.12
13500	5.331	−0.02	−0.06	5.791	−0.04	−0.08	6.545	0.01	−0.03	7.448	0.16	0.12
13530	5.331	−0.02	−0.06	5.785	−0.05	−0.09	6.542	0.01	−0.03	7.445	0.16	0.11
13560	5.331	−0.02	−0.06	5.785	−0.05	−0.09	6.542	0.01	−0.03	7.445	0.16	0.11
13590	5.321	−0.03	−0.07	5.785	−0.05	−0.09	6.539	0.01	−0.03	7.445	0.16	0.11
13620	5.321	−0.03	−0.07	5.785	−0.05	−0.08	6.539	0.01	−0.03	7.442	0.15	0.11
13650	5.321	−0.03	−0.07	5.785	−0.05	−0.08	6.542	0.01	−0.03	7.445	0.16	0.12
13680	5.321	−0.03	−0.07	5.785	−0.05	−0.08	6.542	0.01	−0.03	7.445	0.16	0.12
13710	5.331	−0.02	−0.06	5.785	−0.05	−0.08	6.542	0.01	−0.03	7.445	0.16	0.12
13740	5.331	−0.02	−0.06	5.785	−0.05	−0.08	6.542	0.01	−0.03	7.448	0.16	0.12
13770	5.321	−0.03	−0.07	5.785	−0.05	−0.08	6.549	0.02	−0.02	7.448	0.16	0.12
13800	5.331	−0.02	−0.06	5.791	−0.04	−0.08	6.549	0.02	−0.02	7.451	0.16	0.12
13830	5.331	−0.02	−0.06	5.798	−0.03	−0.08	6.552	0.02	−0.02	7.455	0.16	0.12
13860	5.331	−0.02	−0.06	5.798	−0.03	−0.08	6.558	0.03	−0.02	7.458	0.17	0.12
13890	5.34	−0.01	−0.06	5.804	−0.03	−0.08	6.561	0.03	−0.02	7.464	0.17	0.12
13920	5.35	0.00	−0.05	5.804	−0.03	−0.08	6.568	0.04	−0.02	7.467	0.18	0.12
13950	5.34	−0.01	−0.07	5.81	−0.02	−0.08	6.568	0.04	−0.02	7.471	0.18	0.13
13980	5.35	0.00	−0.06	5.81	−0.02	−0.08	6.571	0.04	−0.02	7.477	0.19	0.13
14010	5.359	0.01	−0.05	5.817	−0.01	−0.07	6.577	0.05	−0.01	7.486	0.20	0.13
14040	5.359	0.01	−0.05	5.823	−0.01	−0.07	6.58	0.05	−0.01	7.49	0.20	0.14
14070	5.368	0.02	−0.05	5.823	−0.01	−0.07	6.58	0.05	−0.02	7.493	0.20	0.14
14100	5.378	0.03	−0.04	5.83	0.00	−0.07	6.583	0.05	−0.01	7.493	0.20	0.14
14130	5.378	0.03	−0.04	5.836	0.01	−0.06	6.583	0.05	−0.01	7.493	0.20	0.14
14160	5.387	0.04	−0.03	5.836	0.01	−0.06	6.587	0.06	−0.01	7.496	0.21	0.14
14190	5.387	0.04	−0.03	5.842	0.01	−0.06	6.587	0.06	−0.01	7.493	0.20	0.13
14220	5.387	0.04	−0.03	5.842	0.01	−0.06	6.587	0.06	−0.01	7.493	0.20	0.13
14250	5.387	0.04	−0.03	5.836	0.01	−0.06	6.583	0.05	−0.01	7.49	0.20	0.13
14280	5.387	0.04	−0.03	5.83	0.00	−0.07	6.583	0.05	−0.01	7.486	0.20	0.13
14310	5.387	0.04	−0.03	5.836	0.01	−0.06	6.583	0.05	−0.01	7.486	0.20	0.13
14340	5.387	0.04	−0.02	5.83	0.00	−0.06	6.58	0.05	−0.01	7.486	0.20	0.13
14370	5.387	0.04	−0.02	5.83	0.00	−0.06	6.583	0.05	−0.01	7.48	0.19	0.13
14400	5.387	0.04	−0.02	5.83	0.00	−0.05	6.58	0.05	−0.00	7.48	0.19	0.14
14430	5.387	0.04	−0.02	5.836	0.01	−0.05	6.58	0.05	−0.00	7.48	0.19	0.14
14460	5.387	0.04	−0.02	5.836	0.01	−0.05	6.583	0.05	0.00	7.483	0.19	0.14
14490	5.387	0.04	−0.01	5.836	0.01	−0.04	6.583	0.05	0.00	7.48	0.19	0.14
14520	5.387	0.04	−0.01	5.836	0.01	−0.04	6.59	0.06	0.01	7.486	0.20	0.15
14550	5.387	0.04	−0.01	5.836	0.01	−0.04	6.59	0.06	0.01	7.49	0.20	0.15
14580	5.387	0.04	−0.01	5.842	0.01	−0.04	6.593	0.06	0.01	7.493	0.20	0.15
14610	5.387	0.04	−0.01	5.842	0.01	−0.04	6.593	0.06	0.01	7.496	0.21	0.15
14640	5.387	0.04	−0.01	5.842	0.01	−0.04	6.593	0.06	0.01	7.493	0.20	0.15
14670	5.387	0.04	−0.01	5.842	0.01	−0.04	6.596	0.07	0.01	7.496	0.21	0.15

14700	5.387	0.04	−0.01	5.842	0.01	−0.04	6.596	0.07	0.02	7.496	0.21	0.16
14730	5.387	0.04	−0.01	5.842	0.01	−0.04	6.596	0.07	0.02	7.499	0.21	0.16
14760	5.387	0.04	−0.01	5.842	0.01	−0.04	6.599	0.07	0.02	7.496	0.21	0.16
14790	5.387	0.04	−0.01	5.842	0.01	−0.04	6.599	0.07	0.02	7.499	0.21	0.16
14820	5.387	0.04	−0.01	5.842	0.01	−0.04	6.603	0.07	0.02	7.502	0.21	0.16
14850	5.387	0.04	−0.01	5.842	0.01	−0.04	6.603	0.07	0.02	7.502	0.21	0.16
14880	5.387	0.04	−0.01	5.842	0.01	−0.04	6.603	0.07	0.02	7.502	0.21	0.16
14910	5.387	0.04	−0.01	5.842	0.01	−0.04	6.599	0.07	0.02	7.502	0.21	0.16
14940	5.378	0.03	−0.02	5.842	0.01	−0.04	6.599	0.07	0.02	7.499	0.21	0.16
14970	5.378	0.03	−0.02	5.842	0.01	−0.03	6.596	0.07	0.02	7.499	0.21	0.16
15000	5.378	0.03	−0.02	5.842	0.01	−0.03	6.596	0.07	0.02	7.496	0.21	0.16
15030	5.378	0.03	−0.01	5.836	0.01	−0.04	6.596	0.07	0.02	7.496	0.21	0.16
15060	5.378	0.03	−0.01	5.836	0.01	−0.03	6.593	0.06	0.02	7.496	0.21	0.17
15090	5.378	0.03	−0.01	5.83	0.00	−0.04	6.593	0.06	0.03	7.493	0.20	0.17
15120	5.368	0.02	−0.02	5.83	0.00	−0.03	6.59	0.06	0.03	7.49	0.20	0.17
15150	5.368	0.02	−0.01	5.83	0.00	−0.03	6.59	0.06	0.03	7.486	0.20	0.16
15180	5.368	0.02	−0.01	5.83	0.00	−0.03	6.59	0.06	0.03	7.486	0.20	0.17
15210	5.368	0.02	−0.01	5.836	0.01	−0.02	6.593	0.06	0.03	7.493	0.20	0.17
15240	5.378	0.03	−0.00	5.836	0.01	−0.02	6.593	0.06	0.03	7.493	0.20	0.17
15270	5.368	0.02	−0.01	5.836	0.01	−0.02	6.596	0.07	0.04	7.496	0.21	0.18
15300	5.378	0.03	−0.00	5.836	0.01	−0.03	6.599	0.07	0.04	7.499	0.21	0.18
15330	5.378	0.03	−0.00	5.836	0.01	−0.03	6.599	0.07	0.04	7.502	0.21	0.18
15360	5 378	0.03	−0.01	5.849	0.02	−0.02	6.606	0.08	0.04	7.509	0.22	0.18
15390	5.378	0.03	−0.01	5.842	0.01	−0.02	6.606	0.08	0.04	7.505	0.22	0.18
15420	5.387	0.04	−0.00	5.849	0.02	−0.02	6.612	0.08	0.04	7.515	0.22	0.19
15450	5.387	0.04	−0.00	5.855	0.03	−0.01	6.615	0.08	0.05	7.518	0.23	0.19
15480	5.397	0.05	0.01	5.861	0.03	−0.01	6.615	0.08	0.05	7.524	0.23	0.20
15510	5.406	0.06	0.02	5.861	0.03	−0.01	6.622	0.09	0.05	7.528	0.24	0.20
15540	5.406	0.06	0.02	5.868	0.04	−0.00	6.622	0.09	0.05	7.531	0.24	0.20
15570	5.406	0.06	0.02	5.874	0.04	0.00	6.625	0.09	0.06	7.528	0.24	0.20
15600	5.416	0.07	0.03	5.874	0.04	0.00	6.625	0.09	0.06	7.512	0.22	0.18
15630	5.416	0.07	0.03	5.868	0.04	0.00	6.625	0.09	0.06	7.509	0.22	0.18
15660	5.416	0.07	0.03	5.868	0.04	0.01	6.622	0.09	0.06	7.524	0.23	0.20
15690	5.416	0.07	0.04	5.868	0.04	0.01	6.625	0.09	0.07	7.534	0.24	0.21
15720	5.416	0.07	0.04	5.861	0.03	0.01	6.612	0.08	0.06	7.502	0.21	0.19
15750	5.416	0.07	0.05	5.861	0.03	0.01	6.612	0.08	0.06	7.499	0.21	0.19
15780	5.416	0.07	0.05	5.861	0.03	0.02	6.609	0.08	0.07	7.493	0.20	0.19
15810	5.416	0.07	0.06	5.861	0.03	0.02	6.609	0.08	0.07	7.496	0.21	0.20
15840	5.416	0.07	0.06	5.861	0.03	0.03	6.609	0.08	0.08	7.496	0.21	0.20
15870	5.416	0.07	0.07	5.855	0.03	0.03	6.606	0.08	0.08	7.493	0.20	0.21
15900	5.416	0.07	0.07	5.855	0.03	0.03	6.615	0.08	0.09	7.505	0.22	0.22

15930	5.406	0.06	0.07	5.855	0.03	0.04	6.615	0.08	0.10	7.502	0.21	0.22
15960	5.406	0.06	0.07	5.855	0.03	0.04	6.615	0.08	0.10	7.502	0.21	0.23
15990	5.406	0.06	0.08	5.855	0.03	0.04	6.612	0.08	0.10	7.505	0.22	0.23
16020	5.406	0.06	0.08	5.861	0.03	0.05	6.615	0.08	0.11	7.509	0.22	0.24
16050	5.406	0.06	0.08	5.861	0.03	0.05	6.618	0.09	0.11	7.512	0.22	0.24
16080	5.416	0.07	0.09	5.868	0.04	0.06	6.622	0.09	0.11	7.515	0.22	0.25
16110	5.425	0.08	0.09	5.874	0.04	0.06	6.631	0.10	0.12	7.521	0.23	0.25
16140	5.425	0.08	0.09	5.88	0.05	0.07	6.634	0.10	0.12	7.528	0.24	0.26
16170	5.434	0.08	0.10	5.88	0.05	0.07	6.637	0.11	0.12	7.531	0.24	0.26
16200	5.434	0.08	0.10	5.88	0.05	0.07	6.637	0.11	0.12	7.534	0.24	0.26
16230	5.434	0.08	0.10	5.887	0.06	0.07	6.644	0.11	0.13	7.54	0.25	0.26
16260	5.434	0.08	0.10	5.887	0.06	0.07	6.644	0.11	0.13	7.537	0.25	0.26
16290	5.425	0.08	0.09	5.887	0.06	0.07	6.644	0.11	0.13	7.537	0.25	0.26
16320	5.434	0.08	0.10	5.88	0.05	0.06	6.641	0.11	0.12	7.537	0.25	0.26
16350	5.434	0.08	0.09	5.893	0.06	0.07	6.65	0.12	0.13	7.547	0.26	0.26
16380	5.444	0.09	0.10	5.893	0.06	0.07	6.65	0.12	0.12	7.55	0.26	0.26
16410	5.425	0.08	0.08	5.88	0.05	0.06	6.641	0.11	0.12	7.537	0.25	0.26
16440	5.425	0.08	0.08	5.887	0.06	0.06	6.644	0.11	0.12	7.54	0.25	0.26
16470	5.425	0.08	0.09	5.868	0.04	0.05	6.631	0.10	0.12	7.524	0.23	0.25
16500	5.406	0.06	0.08	5.855	0.03	0.05	6.618	0.09	0.11	7.512	0.22	0.25
16530	5.416	0.07	0.09	5.868	0.04	0.06	6.628	0.10	0.12	7.521	0.23	0.25
16560	5.406	0.06	0.08	5.861	0.03	0.06	6.622	0.09	0.12	7.518	0.23	0.26
16590	5.406	0.06	0.09	5.861	0.03	0.06	6.622	0.09	0.12	7.518	0.23	0.26
16620	5.406	0.06	0.09	5.868	0.04	0.07	6.625	0.09	0.13	7.518	0.23	0.26
16650	5.416	0.07	0.10	5.868	0.04	0.07	6.628	0.10	0.13	7.521	0.23	0.26
16680	5.416	0.07	0.10	5.868	0.04	0.07	6.631	0.10	0.13	7.528	0.24	0.27
16710	5.416	0.07	0.10	5.874	0.04	0.07	6.634	0.10	0.13	7.528	0.24	0.27
16740	5.416	0.07	0.09	5.874	0.04	0.07	6.637	0.11	0.13	7.534	0.24	0.27
16770	5.425	0.08	0.10	5.88	0.05	0.08	6.637	0.11	0.13	7.534	0.24	0.27
16800	5.425	0.08	0.10	5.88	0.05	0.08	6.641	0.11	0.14	7.537	0.25	0.27
16830	5.425	0.08	0.10	5.887	0.06	0.08	6.647	0.12	0.14	7.544	0.25	0.28
16860	5.425	0.08	0.09	5.887	0.06	0.08	6.653	0.12	0.14	7.55	0.26	0.28
16890	5.434	0.08	0.10	5.899	0.07	0.08	6.66	0.13	0.15	7.556	0.27	0.28
16920	5.444	0.09	0.11	5.899	0.07	0.08	6.663	0.13	0.15	7.559	0.27	0.28
16950	5.444	0.09	0.11	5.899	0.07	0.08	6.656	0.13	0.14	7.556	0.27	0.28
16980	5.444	0.09	0.11	5.899	0.07	0.08	6.66	0.13	0.14	7.563	0.27	0.29
17010	5.453	0.10	0.12	5.906	0.08	0.09	6.663	0.13	0.15	7.563	0.27	0.29
17040	5.453	0.10	0.12	5.906	0.08	0.09	6.656	0.13	0.14	7.553	0.26	0.28
17070	5.453	0.10	0.11	5.912	0.08	0.09	6.663	0.13	0.14	7.563	0.27	0.28
17100	5.453	0.10	0.11	5.912	0.08	0.09	6.669	0.14	0.15	7.578	0.29	0.30
17130	5.453	0.10	0.12	5.906	0.08	0.09	6.663	0.13	0.15	7.572	0.28	0.29

17160	5.453	0.10	0.12	5.906	0.08	0.09	6.656	0.13	0.14	7.559	0.27	0.29
17190	5.453	0.10	0.12	5.899	0.07	0.09	6.653	0.12	0.14	7.54	0.25	0.27
17220	5.453	0.10	0.12	5.906	0.08	0.10	6.66	0.13	0.15	7.566	0.28	0.30
17250	5.453	0.10	0.13	5.899	0.07	0.09	6.656	0.13	0.15	7.55	0.26	0.28
17280	5.463	0.11	0.14	5.906	0.08	0.10	6.66	0.13	0.15	7.556	0.27	0.29
17310	5.463	0.11	0.14	5.906	0.08	0.10	6.656	0.13	0.15	7.55	0.26	0.29
17340	5.463	0.11	0.14	5.912	0.08	0.11	6.666	0.14	0.16	7.553	0.26	0.29
17370	5.463	0.11	0.14	5.912	0.08	0.11	6.666	0.14	0.16	7.559	0.27	0.30
17400	5.463	0.11	0.14	5.912	0.08	0.11	6.666	0.14	0.16	7.556	0.27	0.29
17430	5.463	0.11	0.14	5.918	0.09	0.12	6.676	0.15	0.17	7.569	0.28	0.31
17460	5.472	0.12	0.15	5.918	0.09	0.11	6.676	0.15	0.17	7.569	0.28	0.31
17490	5.463	0.11	0.14	5.918	0.09	0.12	6.676	0.15	0.17	7.569	0.28	0.31
17520	5.463	0.11	0.14	5.918	0.09	0.12	6.672	0.14	0.17	7.563	0.27	0.30
17550	5.463	0.11	0.14	5.918	0.09	0.11	6.679	0.15	0.17	7.572	0.28	0.31
17580	5.463	0.11	0.14	5.918	0.09	0.12	6.676	0.15	0.17	7.569	0.28	0.31
17610	5.472	0.12	0.15	5.925	0.10	0.12	6.682	0.15	0.18	7.572	0.28	0.31
17640	5.472	0.12	0.15	5.925	0.10	0.12	6.682	0.15	0.18	7.575	0.28	0.31
17670	5.472	0.12	0.14	5.925	0.10	0.12	6.682	0.15	0.17	7.578	0.29	0.31
17700	5.472	0.12	0.14	5.925	0.10	0.12	6.685	0.15	0.18	7.578	0.29	0.31
17730	5.472	0.12	0.14	5.925	0.10	0.12	6.682	0.15	0.17	7.575	0.28	0.31
17760	5.463	0.11	0.13	5.918	0.09	0.11	6.679	0.15	0.17	7.572	0.28	0.30
17790	5.453	0.10	0.13	5.918	0.09	0.11	6.676	0.15	0.17	7.569	0.28	0.30
17820	5.463	0.11	0.13	5.918	0.09	0.11	6.676	0.15	0.17	7.572	0.28	0.30
17850	5.463	0.11	0.13	5.918	0.09	0.11	6.676	0.15	0.17	7.572	0.28	0.30
17880	5.453	0.10	0.12	5.918	0.09	0.11	6.676	0.15	0.17	7.569	0.28	0.30
17910	5.453	0.10	0.12	5.912	0.08	0.10	6.676	0.15	0.17	7.572	0.28	0.30
17940	5.453	0.10	0.13	5.912	0.08	0.11	6.669	0.14	0.16	7.563	0.27	0.30
17970	5.453	0.10	0.13	5.906	0.08	0.10	6.669	0.14	0.16	7.566	0.28	0.30
18000	5.444	0.09	0.12	5.906	0.08	0.11	6.663	0.13	0.16	7.559	0.27	0.30
18030	5.444	0.09	0.13	5.906	0.08	0.11	6.666	0.14	0.17	7.559	0.27	0.30
18060	5.444	0.09	0.13	5.906	0.08	0.11	6.666	0.14	0.17	7.563	0.27	0.31
18090	5.444	0.09	0.13	5.906	0.08	0.11	6.669	0.14	0.17	7.563	0.27	0.31
18120	5.463	0.11	0.14	5.912	0.08	0.11	6.672	0.14	0.17	7.569	0.28	0.31
18150	5.453	0.10	0.13	5.918	0.09	0.12	6.676	0.15	0.17	7.572	0.28	0.31
18180	5.463	0.11	0.14	5.918	0.09	0.12	6.679	0.15	0.18	7.572	0.28	0.31
18210	5.472	0.12	0.15	5.925	0.10	0.12	6.682	0.15	0.18	7.578	0.29	0.31
18240	5.472	0.12	0.14	5.925	0.10	0.12	6.685	0.15	0.18	7.582	0.29	0.31
18270	5.472	0.12	0.14	5.931	0.10	0.12	6.688	0.16	0.18	7.585	0.30	0.32
18300	5.472	0.12	0.14	5.931	0.10	0.12	6.695	0.16	0.18	7.591	0.30	0.32
18330	5.482	0.13	0.15	5.937	0.11	0.12	6.701	0.17	0.19	7.598	0.31	0.32
18360	5.491	0.14	0.15	5.944	0.11	0.13	6.704	0.17	0.19	7.604	0.31	0.33

18390	5.5	0.15	0.16	5.956	0.13	0.14	6.71	0.18	0.19	7.613	0.32	0.33
18420	5.51	0.16	0.17	5.956	0.13	0.13	6.71	0.18	0.19	7.617	0.33	0.33
18450	5.51	0.16	0.17	5.956	0.13	0.13	6.71	0.18	0.19	7.61	0.32	0.33
18480	5.51	0.16	0.17	5.963	0.13	0.14	6.714	0.18	0.19	7.617	0.33	0.33
18510	5.51	0.16	0.16	5.963	0.13	0.14	6.707	0.18	0.18	7.594	0.30	0.31
18540	5.51	0.16	0.17	5.956	0.13	0.13	6.71	0.18	0.19	7.62	0.33	0.34
18570	5.5	0.15	0.16	5.95	0.12	0.13	6.704	0.17	0.18	7.588	0.30	0.31
18600	5.5	0.15	0.16	5.95	0.12	0.13	6.701	0.17	0.18	7.585	0.30	0.31
18630	5.5	0.15	0.16	5.95	0.12	0.13	6.704	0.17	0.19	7.598	0.31	0.32

NSB Kings Bay Site 11, IM Phase I Operations: Stage 1 Test

E.Time minutes	MW11-2 ft	drawdown ft	corr.dd ft	MW11-10B ft	drawdown ft	corr.dd ft	PS-4 ft	drawdown ft	corr.dd ft	Baro.Rdg. psi	Baro.chng. psi	Baro.chng. ft. H2O	.10 chng ft. H2O	.26 chng ft. H2O
0	7.15	0.00	0.00	9.944	−0.03	−0.03	9.654	−0.02	−0.02	14.78	0.00	0.00	0.00	0.00
30	7.153	0.00	0.00	10.004	0.03	0.03	9.73	0.06	0.06	14.78	0.00	0.00	0.00	0.00
60	7.15	0.00	0.00	9.928	−0.04	−0.04	9.673	0.00	0.01	14.78	0.00	0.01	0.00	0.00
90	7.153	0.00	0.00	10.017	0.05	0.05	9.758	0.09	0.09	14.78	0.00	0.01	0.00	0.00
120	7.153	0.00	0.01	10.03	0.06	0.07	9.771	0.10	0.11	14.77	0.01	0.02	0.00	0.01
150	7.156	0.01	0.01	10.045	0.07	0.08	9.787	0.12	0.12	14.77	0.01	0.03	0.00	0.01
180	7.156	0.01	0.01	10.052	0.08	0.09	9.79	0.12	0.13	14.77	0.01	0.03	0.00	0.01
210	7.156	0.01	0.01	10.061	0.09	0.10	9.796	0.13	0.13	14.77	0.01	0.02	0.00	0.01
240	7.159	0.01	0.01	10.068	0.10	0.10	9.802	0.13	0.14	14.77	0.01	0.02	0.00	0.00
270	7.156	0.01	0.01	10.074	0.10	0.11	9.809	0.14	0.15	14.77	0.01	0.02	0.00	0.01
300	7.156	0.01	0.01	10.077	0.11	0.11	9.809	0.14	0.15	14.77	0.01	0.03	0.00	0.01
330	7.159	0.01	0.01	10.08	0.11	0.12	9.812	0.14	0.15	14.77	0.01	0.03	0.00	0.01
360	7.162	0.01	0.01	10.087	0.12	0.12	9.818	0.15	0.15	14.77	0.01	0.02	0.00	0.01
390	7.162	0.01	0.01	10.096	0.13	0.13	9.824	0.15	0.15	14.78	0.00	0.00	0.00	0.00
420	7.159	0.01	0.01	10.102	0.13	0.13	9.831	0.16	0.16	14.78	−0.00	−0.00	−0.00	−0.00
450	7.162	0.01	0.01	10.099	0.13	0.13	9.828	0.16	0.15	14.79	−0.01	−0.01	−0.00	−0.00
480	7.162	0.01	0.01	10.099	0.13	0.13	9.834	0.16	0.16	14.78	−0.00	−0.01	−0.00	−0.00
510	7.162	0.01	0.01	10.096	0.13	0.12	9.828	0.16	0.16	14.78	−0.00	−0.00	−0.00	−0.00
540	7.165	0.01	0.01	10.106	0.14	0.13	9.834	0.16	0.16	14.79	−0.01	−0.02	−0.00	−0.00
570	7.165	0.01	0.01	10.102	0.13	0.13	9.834	0.16	0.16	14.78	−0.00	−0.01	−0.00	−0.00
600	7.162	0.01	0.01	10.096	0.13	0.13	9.828	0.16	0.16	14.78	0.00	0.00	0.00	0.00
630	7.162	0.01	0.01	10.096	0.13	0.13	9.828	0.16	0.16	14.77	0.01	0.02	0.00	0.00
660	7.156	0.01	0.01	10.099	0.13	0.14	9.834	0.16	0.18	14.76	0.02	0.04	0.00	0.01
690	7.153	0.00	0.01	10.09	0.12	0.14	9.824	0.15	0.17	14.75	0.03	0.06	0.01	0.02
720	7.153	0.00	0.01	10.087	0.12	0.14	9.818	0.15	0.17	14.75	0.03	0.08	0.01	0.02
750	7.153	0.00	0.01	10.09	0.12	0.14	9.824	0.15	0.18	14.74	0.04	0.08	0.01	0.02
780	7.156	0.01	0.02	10.083	0.11	0.14	9.818	0.15	0.17	14.74	0.04	0.09	0.01	0.02
810	7.156	0.01	0.02	10.09	0.12	0.15	9.824	0.15	0.18	14.74	0.04	0.10	0.01	0.03
840	7.159	0.01	0.02	10.09	0.12	0.14	9.824	0.15	0.18	14.74	0.04	0.09	0.01	0.02
870	7.162	0.01	0.02	10.093	0.12	0.14	9.828	0.16	0.18	14.74	0.04	0.08	0.01	0.02
900	7.162	0.01	0.02	10.096	0.13	0.15	9.828	0.16	0.18	14.75	0.03	0.08	0.01	0.02
930	7.165	0.01	0.02	10.093	0.12	0.14	9.824	0.15	0.17	14.75	0.03	0.07	0.01	0.02
960	7.165	0.01	0.02	10.099	0.13	0.14	9.831	0.16	0.18	14.76	0.02	0.06	0.01	0.01
990	7.168	0.02	0.02	10.106	0.14	0.15	9.84	0.17	0.18	14.76	0.02	0.05	0.01	0.01
1020	7.168	0.02	0.02	10.121	0.15	0.16	9.853	0.18	0.19	14.76	0.02	0.04	0.00	0.01
1050	7.172	0.02	0.03	10.115	0.14	0.15	9.85	0.18	0.19	14.77	0.01	0.03	0.00	0.01
1080	7.172	0.02	0.02	10.121	0.15	0.16	9.856	0.19	0.19	14.77	0.01	0.02	0.00	0.01
1110	7.175	0.03	0.03	10.128	0.16	0.16	9.866	0.20	0.20	14.77	0.01	0.02	0.00	0.00
1140	7.175	0.03	0.03	10.128	0.16	0.16	9.862	0.19	0.19	14.78	0.00	0.01	0.00	0.00
1170	7.175	0.03	0.03	10.153	0.18	0.19	9.891	0.22	0.23	14.77	0.01	0.02	0.00	0.00
1200	7.181	0.03	0.03	10.182	0.21	0.21	9.913	0.24	0.25	14.78	0.00	0.01	0.00	0.00
1230	7.178	0.03	0.03	10.185	0.22	0.22	9.923	0.25	0.25	14.78	0.00	0.01	0.00	0.00
1260	7.178	0.03	0.03	10.109	0.14	0.14	9.853	0.18	0.19	14.78	0.00	0.01	0.00	0.00

1290	7.178	0.03	0.03	10.112	0.14	0.15	9.837	0.17	0.17	14.77	0.01	0.03	0.00	0.01
1320	7.175	0.03	0.03	10.061	0.09	0.10	9.799	0.13	0.14	14.77	0.01	0.03	0.00	0.01
1350	7.178	0.03	0.03	10.118	0.15	0.16	9.859	0.19	0.20	14.76	0.02	0.04	0.00	0.01
1380	7.178	0.03	0.03	10.109	0.14	0.15	9.85	0.18	0.19	14.76	0.02	0.05	0.01	0.01
1410	7.178	0.03	0.03	10.131	0.16	0.18	9.872	0.20	0.22	14.75	0.03	0.07	0.01	0.02
1440	7.175	0.03	0.03	10.096	0.13	0.15	9.843	0.17	0.20	14.74	0.04	0.09	0.01	0.02
1470	7.175	0.03	0.04	10.106	0.14	0.16	9.856	0.19	0.21	14.73	0.05	0.11	0.01	0.03
1500	7.178	0.03	0.04	10.074	0.10	0.13	9.821	0.15	0.18	14.74	0.04	0.10	0.01	0.03
1530	7.181	0.03	0.04	10.099	0.13	0.15	9.843	0.17	0.20	14.74	0.04	0.10	0.01	0.03
1560	7.181	0.03	0.04	10.128	0.16	0.19	9.866	0.20	0.22	14.74	0.05	0.10	0.01	0.03
1590	7.181	0.03	0.04	10.14	0.17	0.20	9.875	0.20	0.23	14.74	0.05	0.10	0.01	0.03
1620	7.181	0.03	0.04	10.109	0.14	0.17	9.847	0.18	0.20	14.74	0.05	0.10	0.01	0.03
1650	7.181	0.03	0.04	10.112	0.14	0.17	9.85	0.18	0.21	14.74	0.04	0.10	0.01	0.03
1680	7.178	0.03	0.04	10.109	0.14	0.17	9.843	0.17	0.20	14.73	0.05	0.12	0.01	0.03
1710	7.184	0.03	0.04	10.115	0.14	0.17	9.853	0.18	0.21	14.74	0.05	0.10	0.01	0.03
1740	7.184	0.03	0.04	10.121	0.15	0.18	9.859	0.19	0.21	14.74	0.04	0.10	0.01	0.03
1770	7.184	0.03	0.04	10.125	0.15	0.18	9.862	0.19	0.22	14.74	0.04	0.09	0.01	0.02
1800	7.187	0.04	0.05	10.128	0.16	0.18	9.866	0.20	0.22	14.74	0.04	0.09	0.01	0.02
1830	7.187	0.04	0.05	10.128	0.16	0.18	9.862	0.19	0.22	14.74	0.04	0.09	0.01	0.02
1860	7.184	0.03	0.04	10.128	0.16	0.19	9.862	0.19	0.22	14.74	0.05	0.10	0.01	0.03
1890	7.187	0.04	0.05	10.128	0.16	0.19	9.862	0.19	0.22	14.74	0.05	0.10	0.01	0.03
1920	7.184	0.03	0.04	10.125	0.15	0.18	9.862	0.19	0.22	14.74	0.05	0.10	0.01	0.03
1950	7.187	0.04	0.05	10.125	0.15	0.18	9.859	0.19	0.22	14.74	0.05	0.10	0.01	0.03
1980	7.191	0.04	0.05	10.128	0.16	0.18	9.862	0.19	0.22	14.74	0.04	0.10	0.01	0.03
2010	7.184	0.03	0.05	10.128	0.16	0.19	9.862	0.19	0.22	14.73	0.05	0.11	0.01	0.03
2040	7.184	0.03	0.05	10.125	0.15	0.19	9.862	0.19	0.22	14.73	0.05	0.12	0.01	0.03
2070	7.184	0.03	0.05	10.115	0.14	0.18	9.853	0.18	0.22	14.72	0.06	0.13	0.01	0.03
2100	7.181	0.03	0.05	10.118	0.15	0.19	9.856	0.19	0.22	14.72	0.06	0.15	0.01	0.04
2130	7.187	0.04	0.05	10.115	0.14	0.18	9.853	0.18	0.22	14.72	0.06	0.14	0.01	0.04
2160	7.184	0.03	0.05	10.121	0.15	0.19	9.859	0.19	0.23	14.71	0.07	0.15	0.02	0.04
2190	7.184	0.03	0.05	10.118	0.15	0.19	9.859	0.19	0.23	14.71	0.07	0.17	0.02	0.04
2220	7.181	0.03	0.05	10.115	0.14	0.19	9.853	0.18	0.23	14.70	0.08	0.18	0.02	0.05
2250	7.184	0.03	0.05	10.121	0.15	0.20	9.859	0.19	0.24	14.70	0.08	0.18	0.02	0.05
2280	7.187	0.04	0.05	10.128	0.16	0.20	9.866	0.20	0.24	14.70	0.08	0.18	0.02	0.05
2310	7.187	0.04	0.05	10.125	0.15	0.20	9.862	0.19	0.24	14.70	0.08	0.18	0.02	0.05
2340	7.191	0.04	0.06	10.131	0.16	0.20	9.869	0.20	0.24	14.71	0.07	0.16	0.02	0.04
2370	7.191	0.04	0.06	10.134	0.16	0.20	9.869	0.20	0.24	14.71	0.07	0.16	0.02	0.04
2400	7.191	0.04	0.06	10.131	0.16	0.20	9.872	0.20	0.24	14.71	0.07	0.16	0.02	0.04
2430	7.191	0.04	0.06	10.134	0.16	0.20	9.872	0.20	0.24	14.71	0.07	0.16	0.02	0.04
2460	7.194	0.04	0.06	10.134	0.16	0.20	9.872	0.20	0.24	14.71	0.07	0.15	0.02	0.04
2490	7.2	0.05	0.06	10.147	0.18	0.20	9.885	0.22	0.24	14.73	0.05	0.11	0.01	0.03
2520	7.197	0.05	0.06	10.131	0.16	0.19	9.869	0.20	0.23	14.74	0.04	0.10	0.01	0.03
2550	7.178	0.03	0.04	10.112	0.14	0.16	9.853	0.18	0.20	14.74	0.04	0.08	0.01	0.02
2580	7.15	0.00	0.01	10.112	0.14	0.16	9.853	0.18	0.20	14.76	0.02	0.05	0.01	0.01
2610	7.137	−0.01	−0.01	10.099	0.13	0.14	9.847	0.18	0.19	14.76	0.02	0.06	0.01	0.02

2640	7.137	−0.01	−0.01	10.087	0.12	0.13	9.834	0.16	0.17	14.76	0.02	0.04	0.00	0.01
2670	7.118	−0.03	−0.02	10.052	0.08	0.11	9.805	0.14	0.16	14.74	0.04	0.09	0.01	0.02
2700	7.115	−0.04	−0.02	10.023	0.05	0.09	9.777	0.11	0.14	14.73	0.05	0.12	0.01	0.03
2730	7.099	−0.05	−0.04	10.011	0.04	0.08	9.771	0.10	0.14	14.72	0.06	0.15	0.01	0.04
2760	7.09	−0.06	−0.04	9.988	0.02	0.06	9.752	0.08	0.12	14.71	0.07	0.16	0.02	0.04
2790	7.083	−0.07	−0.05	9.982	0.01	0.05	9.742	0.07	0.11	14.71	0.07	0.16	0.02	0.04
2820	7.08	−0.07	−0.05	9.985	0.01	0.06	9.755	0.09	0.13	14.71	0.07	0.16	0.02	0.04
2850	7.071	−0.08	−0.06	9.985	0.01	0.06	9.761	0.09	0.13	14.71	0.07	0.17	0.02	0.04
2880	7.061	−0.09	−0.07	9.935	−0.03	0.01	9.707	0.04	0.08	14.70	0.08	0.18	0.02	0.05
2910	7.058	−0.09	−0.07	9.944	−0.03	0.02	9.72	0.05	0.10	14.70	0.08	0.19	0.02	0.05
2940	7.052	−0.10	−0.08	9.925	−0.05	0.00	9.704	0.03	0.08	14.70	0.08	0.19	0.02	0.05
2970	7.048	−0.10	−0.08	9.919	−0.05	−0.00	9.688	0.02	0.07	14.70	0.08	0.19	0.02	0.05
3000	7.045	−0.11	−0.09	9.919	−0.05	−0.00	9.695	0.02	0.07	14.70	0.08	0.19	0.02	0.05
3030	7.039	−0.11	−0.09	9.909	−0.06	−0.01	9.688	0.02	0.07	14.70	0.08	0.19	0.02	0.05
3060	7.033	−0.12	−0.10	9.916	−0.05	−0.00	9.695	0.02	0.08	14.69	0.09	0.20	0.02	0.05
3090	7.03	−0.12	−0.10	9.903	−0.07	−0.01	9.685	0.02	0.07	14.69	0.09	0.20	0.02	0.05
3120	7.03	−0.12	−0.10	9.897	−0.07	−0.02	9.676	0.01	0.06	14.69	0.09	0.20	0.02	0.05
3150	7.026	−0.12	−0.10	9.887	−0.08	−0.03	9.666	−0.00	0.05	14.69	0.09	0.20	0.02	0.05
3180	7.026	−0.12	−0.11	9.9	−0.07	−0.02	9.679	0.01	0.06	14.70	0.08	0.18	0.02	0.05
3210	7.026	−0.12	−0.11	9.894	−0.08	−0.03	9.676	0.01	0.05	14.71	0.07	0.17	0.02	0.04
3240	7.026	−0.12	−0.11	9.913	−0.06	−0.02	9.695	0.02	0.06	14.71	0.07	0.15	0.02	0.04
3270	7.026	−0.12	−0.11	9.903	−0.07	−0.03	9.682	0.01	0.05	14.72	0.06	0.13	0.01	0.03
3300	7.026	−0.12	−0.11	9.906	−0.06	−0.03	9.688	0.02	0.05	14.73	0.05	0.11	0.01	0.03
3330	7.023	−0.13	−0.12	9.903	−0.07	−0.04	9.688	0.02	0.04	14.74	0.04	0.10	0.01	0.03
3360	7.02	−0.13	−0.12	9.903	−0.07	−0.04	9.682	0.01	0.04	14.74	0.04	0.10	0.01	0.03
3390	7.017	−0.13	−0.12	9.897	−0.07	−0.05	9.673	0.00	0.03	14.74	0.04	0.09	0.01	0.02
3420	7.017	−0.13	−0.12	9.906	−0.06	−0.04	9.685	0.02	0.04	14.74	0.04	0.08	0.01	0.02
3450	7.017	−0.13	−0.12	9.897	−0.07	−0.05	9.676	0.01	0.03	14.74	0.04	0.08	0.01	0.02
3480	7.014	−0.14	−0.13	9.894	−0.08	−0.06	9.676	0.01	0.03	14.75	0.03	0.08	0.01	0.02
3510	7.014	−0.14	−0.13	9.894	−0.08	−0.06	9.676	0.01	0.03	14.75	0.03	0.07	0.01	0.02
3540	7.014	−0.14	−0.13	9.894	−0.08	−0.06	9.673	0.00	0.02	14.75	0.03	0.08	0.01	0.02
3570	7.011	−0.14	−0.13	9.89	−0.08	−0.06	9.673	0.00	0.02	14.75	0.03	0.08	0.01	0.02
3600	7.007	−0.14	−0.13	9.887	−0.08	−0.06	9.654	−0.02	0.01	14.74	0.04	0.08	0.01	0.02
3630	7.004	−0.15	−0.14	9.884	−0.09	−0.06	9.654	−0.02	0.01	14.74	0.04	0.09	0.01	0.02
3660	7.007	−0.14	−0.14	9.887	−0.08	−0.06	9.657	−0.01	0.01	14.75	0.03	0.08	0.01	0.02
3690	7.004	−0.15	−0.14	9.887	−0.08	−0.06	9.657	−0.01	0.01	14.75	0.03	0.08	0.01	0.02
3720	7.007	−0.14	−0.14	9.89	−0.08	−0.06	9.66	−0.01	0.01	14.75	0.03	0.07	0.01	0.02
3750	7.004	−0.15	−0.14	9.894	−0.08	−0.06	9.66	−0.01	0.01	14.75	0.03	0.06	0.01	0.02
3780	7.004	−0.15	−0.14	9.89	−0.08	−0.06	9.66	−0.01	0.01	14.76	0.02	0.06	0.01	0.02
3810	7.004	−0.15	−0.14	9.89	−0.08	−0.07	9.66	−0.01	0.00	14.76	0.02	0.06	0.01	0.01
3840	7.004	−0.15	−0.14	9.897	−0.07	−0.06	9.66	−0.01	0.00	14.76	0.02	0.05	0.00	0.01
3870	7.004	−0.15	−0.14	9.897	−0.07	−0.06	9.663	−0.01	0.00	14.77	0.01	0.03	0.00	0.01
3900	7.004	−0.15	−0.14	9.9	−0.07	−0.06	9.67	0.00	0.01	14.76	0.02	0.04	0.00	0.01
3930	7.004	−0.15	−0.14	9.916	−0.05	−0.05	9.682	0.01	0.02	14.77	0.01	0.03	0.00	0.01
3960	7.007	−0.14	−0.14	9.916	−0.05	−0.05	9.682	0.01	0.02	14.77	0.01	0.01	0.00	0.00

3990	7.011	−0.14	−0.14	9.928	−0.04	−0.04	9.701	0.03	0.03	14.78	0.00	0.01	0.00	0.00
4020	7.007	−0.14	−0.14	9.919	−0.05	−0.05	9.688	0.02	0.02	14.78	0.00	0.01	0.00	0.00
4050	7.014	−0.14	−0.14	9.925	−0.05	−0.05	9.692	0.02	0.02	14.79	−0.01	−0.01	−0.00	−0.00
4080	7.014	−0.14	−0.14	9.928	−0.04	−0.05	9.707	0.04	0.03	14.79	−0.01	−0.01	−0.00	−0.00
4110	7.014	−0.14	−0.14	9.947	−0.02	−0.03	9.726	0.06	0.05	14.79	−0.01	−0.02	−0.00	−0.00
4140	7.014	−0.14	−0.14	9.906	−0.06	−0.07	9.676	0.01	0.00	14.79	−0.01	−0.01	−0.00	−0.00
4170	7.017	−0.13	−0.14	9.919	−0.05	−0.06	9.679	0.01	0.00	14.79	−0.01	−0.02	−0.00	−0.01
4200	7.014	−0.14	−0.14	9.922	−0.05	−0.05	9.701	0.03	0.03	14.78	−0.00	−0.00	−0.00	−0.00
4230	7.011	−0.14	−0.14	9.919	−0.05	−0.05	9.704	0.03	0.04	14.78	0.00	0.00	0.00	0.00
4260	7.011	−0.14	−0.14	9.846	−0.12	−0.12	9.616	−0.05	−0.05	14.77	0.01	0.02	0.00	0.01
4290	7.011	−0.14	−0.14	9.909	−0.06	−0.05	9.679	0.01	0.02	14.77	0.01	0.03	0.00	0.01
4320	7.007	−0.14	−0.14	9.89	−0.08	−0.07	9.67	0.00	0.01	14.76	0.02	0.06	0.01	0.01
4350	7.007	−0.14	−0.14	9.897	−0.07	−0.06	9.67	0.00	0.02	14.75	0.03	0.06	0.01	0.02
4380	7.007	−0.14	−0.14	9.894	−0.08	−0.06	9.663	−0.01	0.01	14.75	0.03	0.07	0.01	0.02
4410	7.007	−0.14	−0.14	9.89	−0.08	−0.06	9.66	−0.01	0.01	14.75	0.03	0.07	0.01	0.02
4440	7.007	−0.14	−0.14	9.884	−0.09	−0.07	9.657	−0.01	0.01	14.75	0.03	0.08	0.01	0.02
4470	7.014	−0.14	−0.13	9.89	−0.08	−0.06	9.666	−0.00	0.02	14.75	0.03	0.08	0.01	0.02
4500	7.011	−0.14	−0.13	9.887	−0.08	−0.06	9.66	−0.01	0.01	14.75	0.03	0.08	0.01	0.02
4530	7.017	−0.13	−0.13	9.89	−0.08	−0.06	9.66	−0.01	0.01	14.75	0.03	0.08	0.01	0.02
4560	7.014	−0.14	−0.13	9.887	−0.08	−0.06	9.654	−0.02	0.00	14.75	0.03	0.07	0.01	0.02
4590	7.014	−0.14	−0.13	9.9	−0.07	−0.05	9.666	−0.00	0.01	14.75	0.03	0.07	0.01	0.02
4620	7.014	−0.14	−0.13	9.897	−0.07	−0.05	9.66	−0.01	0.01	14.75	0.03	0.07	0.01	0.02
4650	7.017	−0.13	−0.13	9.909	−0.06	−0.05	9.673	0.00	0.02	14.75	0.03	0.06	0.01	0.02
4680	7.02	−0.13	−0.12	9.916	−0.05	−0.04	9.679	0.01	0.02	14.76	0.02	0.05	0.01	0.01
4710	7.017	−0.13	−0.13	9.913	−0.06	−0.04	9.679	0.01	0.02	14.76	0.02	0.05	0.01	0.01
4740	7.017	−0.13	−0.13	9.909	−0.06	−0.05	9.676	0.01	0.02	14.76	0.02	0.06	0.01	0.01
4770	7.017	−0.13	−0.13	9.916	−0.05	−0.04	9.679	0.01	0.03	14.75	0.03	0.06	0.01	0.02
4800	7.014	−0.14	−0.13	9.916	−0.05	−0.03	9.679	0.01	0.03	14.75	0.03	0.07	0.01	0.02
4830	7.014	−0.14	−0.13	9.909	−0.06	−0.04	9.676	0.01	0.03	14.74	0.04	0.09	0.01	0.02
4860	7.011	−0.14	−0.13	9.909	−0.06	−0.04	9.673	0.00	0.03	14.74	0.04	0.10	0.01	0.03
4890	7.007	−0.14	−0.13	9.9	−0.07	−0.04	9.666	−0.00	0.02	14.73	0.05	0.11	0.01	0.03
4920	7.007	−0.14	−0.13	9.903	−0.07	−0.03	9.673	0.00	0.04	14.73	0.05	0.13	0.01	0.03
4950	7.004	−0.15	−0.13	9.9	−0.07	−0.03	9.666	−0.00	0.04	14.72	0.06	0.15	0.02	0.04
4980	7.004	−0.15	−0.13	9.897	−0.07	−0.03	9.666	−0.00	0.04	14.71	0.07	0.16	0.02	0.04
5010	7.004	−0.15	−0.13	9.894	−0.08	−0.03	9.663	−0.01	0.04	14.71	0.07	0.17	0.02	0.04
5040	7.004	−0.15	−0.13	9.897	−0.07	−0.03	9.666	−0.00	0.04	14.71	0.07	0.17	0.02	0.05
5070	7.001	−0.15	−0.13	9.894	−0.08	−0.03	9.663	−0.01	0.04	14.70	0.08	0.19	0.02	0.05
5100	7.001	−0.15	−0.13	9.897	−0.07	−0.02	9.666	−0.00	0.05	14.70	0.08	0.19	0.02	0.05
5130	7.001	−0.15	−0.13	9.9	−0.07	−0.02	9.67	0.00	0.05	14.70	0.08	0.19	0.02	0.05
5160	7.004	−0.15	−0.13	9.9	−0.07	−0.02	9.67	0.00	0.05	14.70	0.08	0.19	0.02	0.05
5190	7.004	−0.15	−0.13	9.897	−0.07	−0.02	9.67	0.00	0.05	14.69	0.09	0.20	0.02	0.05
5220	7.007	−0.14	−0.12	9.903	−0.07	−0.02	9.673	0.00	0.05	14.70	0.08	0.19	0.02	0.05
5250	7.011	−0.14	−0.12	9.906	−0.06	−0.02	9.676	0.01	0.05	14.70	0.08	0.18	0.02	0.05
5280	7.011	−0.14	−0.12	9.906	−0.06	−0.02	9.679	0.01	0.06	14.70	0.08	0.18	0.02	0.05
5310	7.014	−0.14	−0.12	9.909	−0.06	−0.02	9.682	0.01	0.06	14.71	0.07	0.17	0.02	0.05

5340	7.014	−0.14	−0.12	9.916	−0.05	−0.01	9.685	0.02	0.06	14.71	0.07	0.16	0.02	0.04
5370	7.017	−0.13	−0.12	9.922	−0.05	−0.01	9.692	0.02	0.06	14.71	0.07	0.15	0.02	0.04
5400	7.017	−0.13	−0.12	9.932	−0.04	0.00	9.704	0.03	0.07	14.71	0.07	0.15	0.02	0.04
5430	7.02	−0.13	−0.11	9.919	−0.05	−0.01	9.688	0.02	0.06	14.72	0.06	0.15	0.02	0.04
5460	7.02	−0.13	−0.11	9.941	−0.03	0.01	9.714	0.04	0.08	14.72	0.06	0.15	0.02	0.04
5490	7.023	−0.13	−0.11	9.944	−0.03	0.01	9.717	0.05	0.09	14.72	0.06	0.15	0.02	0.04
5520	7.023	−0.13	−0.11	9.944	−0.03	0.01	9.714	0.04	0.08	14.72	0.06	0.15	0.02	0.04
5550	7.026	−0.12	−0.11	9.96	−0.01	0.03	9.739	0.07	0.11	14.71	0.07	0.15	0.02	0.04
5580	7.03	−0.12	−0.10	9.922	−0.05	−0.01	9.682	0.01	0.05	14.71	0.07	0.15	0.02	0.04
5610	7.026	−0.12	−0.11	9.951	−0.02	0.02	9.726	0.06	0.10	14.71	0.07	0.16	0.02	0.04
5640	7.026	−0.12	−0.11	9.935	−0.03	0.01	9.711	0.04	0.09	14.71	0.07	0.17	0.02	0.05
5670	7.026	−0.12	−0.11	9.865	−0.11	−0.06	9.638	−0.03	0.02	14.70	0.08	0.18	0.02	0.05
5700	7.026	−0.12	−0.10	9.9	−0.07	−0.02	9.67	0.00	0.05	14.69	0.09	0.20	0.02	0.05
5730	7.02	−0.13	−0.11	9.887	−0.08	−0.03	9.66	−0.01	0.05	14.69	0.09	0.22	0.02	0.06
5760	7.026	−0.12	−0.10	9.913	−0.06	0.00	9.688	0.02	0.08	14.68	0.10	0.22	0.02	0.06
5790	7.026	−0.12	−0.10	9.928	−0.04	0.02	9.973	0.30	0.36	14.68	0.10	0.24	0.02	0.06
5820	7.023	−0.13	−0.10	9.903	−0.07	−0.00	9.948	0.28	0.34	14.67	0.11	0.25	0.03	0.07
5850	7.026	−0.12	−0.10	9.947	−0.02	0.05	9.983	0.31	0.38	14.67	0.11	0.26	0.03	0.07
5880	7.03	−0.12	−0.09	9.935	−0.03	0.03	9.983	0.31	0.38	14.66	0.12	0.27	0.03	0.07
5910	7.03	−0.12	−0.09	9.903	−0.07	0.00	9.948	0.28	0.35	14.66	0.12	0.27	0.03	0.07
5940	7.03	−0.12	−0.09	9.916	−0.05	0.02	9.957	0.29	0.36	14.66	0.12	0.27	0.03	0.07
5970	7.033	−0.12	−0.09	9.909	−0.06	0.01	9.951	0.28	0.35	14.66	0.12	0.27	0.03	0.07
6000	7.033	−0.12	−0.09	9.919	−0.05	0.02	9.954	0.28	0.35	14.66	0.12	0.27	0.03	0.07
6030	7.039	−0.11	−0.08	9.916	−0.05	0.01	9.954	0.28	0.35	14.67	0.11	0.26	0.03	0.07
6060	7.042	−0.11	−0.08	9.925	−0.05	0.02	9.964	0.29	0.36	14.68	0.10	0.24	0.02	0.06
6090	7.045	−0.11	−0.08	9.941	−0.03	0.03	9.976	0.31	0.37	14.68	0.10	0.23	0.02	0.06
6120	7.048	−0.10	−0.08	9.938	−0.03	0.02	9.973	0.30	0.36	14.69	0.09	0.22	0.02	0.06
6150	7.055	−0.10	−0.07	9.947	−0.02	0.03	9.983	0.31	0.37	14.69	0.09	0.20	0.02	0.05
6180	7.052	−0.10	−0.08	9.951	−0.02	0.03	9.983	0.31	0.36	14.70	0.08	0.19	0.02	0.05
6210	7.055	−0.10	−0.08	9.947	−0.02	0.03	9.979	0.31	0.36	14.70	0.08	0.18	0.02	0.05
6240	7.052	−0.10	−0.08	9.954	−0.02	0.03	9.989	0.32	0.37	14.70	0.08	0.19	0.02	0.05
6270	7.052	−0.10	−0.08	9.954	−0.02	0.03	9.986	0.32	0.36	14.70	0.08	0.19	0.02	0.05
6300	7.055	−0.10	−0.08	9.951	−0.02	0.03	9.986	0.32	0.36	14.70	0.08	0.19	0.02	0.05
6330	7.055	−0.10	−0.08	9.951	−0.02	0.03	9.986	0.32	0.37	14.70	0.08	0.19	0.02	0.05
6360	7.052	−0.10	−0.08	9.947	−0.02	0.03	9.979	0.31	0.36	14.69	0.09	0.20	0.02	0.05
6390	7.052	−0.10	−0.08	9.954	−0.02	0.04	9.986	0.32	0.37	14.69	0.09	0.21	0.02	0.05
6420	7.052	−0.10	−0.08	9.957	−0.01	0.04	9.992	0.32	0.38	14.69	0.09	0.21	0.02	0.05
6450	7.052	−0.10	−0.08	9.947	−0.02	0.03	9.983	0.31	0.37	14.69	0.09	0.21	0.02	0.06
6480	7.048	−0.10	−0.08	9.951	−0.02	0.04	9.986	0.32	0.38	14.68	0.10	0.23	0.02	0.06
6510	7.048	−0.10	−0.08	9.947	−0.02	0.04	9.979	0.31	0.37	14.67	0.11	0.25	0.02	0.06
6540	7.045	−0.11	−0.08	9.941	−0.03	0.04	9.979	0.31	0.38	14.67	0.11	0.26	0.03	0.07
6570	7.048	−0.10	−0.08	9.944	−0.03	0.04	9.983	0.31	0.38	14.67	0.11	0.26	0.03	0.07
6600	7.052	−0.10	−0.07	9.947	−0.02	0.04	9.983	0.31	0.38	14.67	0.11	0.25	0.03	0.07
6630	7.052	−0.10	−0.07	9.951	−0.02	0.05	9.986	0.32	0.38	14.67	0.11	0.25	0.03	0.07
6660	7.052	−0.10	−0.07	9.951	−0.02	0.05	9.992	0.32	0.39	14.67	0.11	0.25	0.02	0.06

6690	7.055	−0.10	−0.07	9.954	−0.02	0.05	9.992	0.32	0.38	14.68	0.10	0.24	0.02	0.06
6720	7.058	−0.09	−0.07	9.957	−0.01	0.04	9.992	0.32	0.38	14.68	0.10	0.22	0.02	0.06
6750	7.061	−0.09	−0.07	9.963	−0.01	0.05	10.002	0.33	0.39	14.69	0.09	0.21	0.02	0.05
6780	7.064	−0.09	−0.07	9.97	0.00	0.05	10.008	0.34	0.39	14.69	0.09	0.20	0.02	0.05
6810	7.067	−0.08	−0.06	9.979	0.01	0.06	10.017	0.35	0.40	14.70	0.08	0.19	0.02	0.05
6840	7.067	−0.08	−0.06	9.979	0.01	0.06	10.017	0.35	0.39	14.70	0.08	0.18	0.02	0.05
6870	7.071	−0.08	−0.06	9.957	−0.01	0.03	9.986	0.32	0.36	14.71	0.07	0.17	0.02	0.04
6900	7.074	−0.08	−0.06	10.007	0.04	0.08	10.046	0.38	0.42	14.71	0.07	0.16	0.02	0.04
6930	7.074	−0.08	−0.06	9.963	−0.01	0.03	9.992	0.32	0.36	14.71	0.07	0.16	0.02	0.04
6960	7.077	−0.07	−0.06	9.97	0.00	0.04	10.002	0.33	0.37	14.71	0.07	0.16	0.02	0.04
6990	7.074	−0.08	−0.06	9.963	−0.01	0.04	10.002	0.33	0.38	14.71	0.07	0.17	0.02	0.04
7020	7.08	−0.07	−0.05	10.049	0.08	0.13	10.09	0.42	0.47	14.70	0.08	0.18	0.02	0.05
7050	7.074	−0.08	−0.06	9.982	0.01	0.06	10.017	0.35	0.39	14.70	0.08	0.18	0.02	0.05
7080	7.071	−0.08	−0.06	9.764	−0.21	−0.16	9.802	0.13	0.18	14.70	0.08	0.19	0.02	0.05
7110	7.077	−0.07	−0.05	9.894	−0.08	−0.02	9.938	0.27	0.32	14.69	0.09	0.21	0.02	0.05
7140	7.08	−0.07	−0.05	10.087	0.12	0.18	10.125	0.45	0.51	14.68	0.10	0.22	0.02	0.06
7170	7.083	−0.07	−0.04	10.045	0.07	0.14	10.09	0.42	0.48	14.68	0.10	0.23	0.02	0.06
7200	7.083	−0.07	−0.04	9.96	−0.01	0.05	10.002	0.33	0.39	14.68	0.10	0.23	0.02	0.06
7230	7.093	−0.06	−0.04	9.985	0.01	0.06	10.027	0.36	0.40	14.70	0.08	0.18	0.02	0.05
7260	7.09	−0.06	−0.04	9.985	0.01	0.06	10.024	0.35	0.40	14.70	0.08	0.18	0.02	0.05
7290	7.093	−0.06	−0.04	9.97	0.00	0.05	10.011	0.34	0.39	14.70	0.08	0.18	0.02	0.05
7320	7.093	−0.06	−0.04	9.979	0.01	0.06	10.014	0.34	0.39	14.70	0.08	0.19	0.02	0.05
7350	7.093	−0.06	−0.04	10.007	0.04	0.08	10.043	0.37	0.42	14.70	0.08	0.18	0.02	0.05
7380	7.096	−0.05	−0.04	9.96	−0.01	0.04	9.992	0.32	0.37	14.70	0.08	0.18	0.02	0.05
7410	7.096	−0.05	−0.04	9.998	0.03	0.07	10.03	0.36	0.41	14.70	0.08	0.18	0.02	0.05
7440	7.099	−0.05	−0.03	9.992	0.02	0.07	10.027	0.36	0.40	14.70	0.08	0.18	0.02	0.05
7470	7.102	−0.05	−0.03	9.995	0.02	0.07	10.027	0.36	0.40	14.71	0.07	0.17	0.02	0.05
7500	7.105	−0.05	−0.03	10.001	0.03	0.07	10.033	0.36	0.40	14.71	0.07	0.15	0.02	0.04
7530	7.108	−0.04	−0.03	10.001	0.03	0.07	10.033	0.36	0.40	14.72	0.06	0.13	0.01	0.03
7560	7.108	−0.04	−0.03	10.004	0.03	0.07	10.036	0.37	0.40	14.72	0.06	0.13	0.01	0.03
7590	7.112	−0.04	−0.03	10.011	0.04	0.07	10.043	0.37	0.41	14.72	0.06	0.13	0.01	0.03
7620	7.115	−0.04	−0.03	10.02	0.05	0.08	10.049	0.38	0.40	14.74	0.04	0.10	0.01	0.03
7650	7.115	−0.04	−0.02	10.014	0.04	0.07	10.043	0.37	0.40	14.73	0.05	0.11	0.01	0.03
7680	7.108	−0.04	−0.03	10.004	0.03	0.07	10.036	0.37	0.40	14.73	0.05	0.12	0.01	0.03
7710	7.115	−0.04	−0.02	10.017	0.05	0.07	10.046	0.38	0.40	14.74	0.05	0.10	0.01	0.03
7740	7.115	−0.04	−0.02	10.007	0.04	0.07	10.04	0.37	0.40	14.73	0.05	0.12	0.01	0.03
7770	7.118	−0.03	−0.02	10.011	0.04	0.07	10.04	0.37	0.40	14.73	0.05	0.11	0.01	0.03
7800	7.124	−0.03	−0.02	10.017	0.05	0.07	10.049	0.38	0.40	14.74	0.04	0.09	0.01	0.02
7830	7.124	−0.03	−0.02	10.017	0.05	0.07	10.049	0.38	0.40	14.75	0.03	0.08	0.01	0.02
7860	7.118	−0.03	−0.02	10.014	0.04	0.07	10.043	0.37	0.40	14.74	0.05	0.10	0.01	0.03
7890	7.118	−0.03	−0.02	10.02	0.05	0.07	10.052	0.38	0.40	14.74	0.04	0.08	0.01	0.02
7920	7.118	−0.03	−0.02	10.02	0.05	0.07	10.052	0.38	0.40	14.75	0.03	0.08	0.01	0.02
7950	7.118	−0.03	−0.02	10.011	0.04	0.07	10.046	0.38	0.40	14.74	0.04	0.09	0.01	0.02
7980	7.124	−0.03	−0.02	10.007	0.04	0.06	10.04	0.37	0.39	14.75	0.03	0.08	0.01	0.02
8010	7.121	−0.03	−0.02	10.001	0.03	0.06	10.033	0.36	0.39	14.74	0.04	0.10	0.01	0.03

8040	7.115	−0.04	−0.02	9.988	0.02	0.05	10.027	0.36	0.39	14.73	0.05	0.13	0.01	0.03
8070	7.124	−0.03	−0.02	9.998	0.03	0.05	10.036	0.37	0.39	14.74	0.04	0.09	0.01	0.02
8100	7.131	−0.02	−0.01	10.001	0.03	0.05	10.036	0.37	0.38	14.75	0.03	0.06	0.01	0.02
8130	7.131	−0.02	−0.01	10.001	0.03	0.04	10.036	0.37	0.38	14.76	0.02	0.05	0.01	0.01
8160	7.137	−0.01	−0.01	10.004	0.03	0.04	10.043	0.37	0.38	14.77	0.01	0.02	0.00	0.01
8190	7.14	−0.01	−0.01	10.007	0.04	0.04	10.046	0.38	0.37	14.78	−0.00	−0.00	−0.00	−0.00
8220	7.14	−0.01	−0.01	10.011	0.04	0.03	10.049	0.38	0.37	14.79	−0.01	−0.02	−0.00	−0.01
8250	7.143	−0.01	−0.01	10.004	0.03	0.02	10.036	0.37	0.36	14.80	−0.02	−0.04	−0.00	−0.01
8280	7.143	−0.01	−0.01	10.02	0.05	0.03	10.058	0.39	0.37	14.81	−0.03	−0.06	−0.01	−0.02
8310	7.15	0.00	−0.01	10.026	0.06	0.03	10.068	0.40	0.38	14.82	−0.03	−0.08	−0.01	−0.02
8340	7.153	0.00	−0.01	10.02	0.05	0.02	10.062	0.39	0.36	14.83	−0.05	−0.10	−0.01	−0.03
8370	7.15	0.00	−0.01	10.026	0.06	0.02	10.068	0.40	0.37	14.83	−0.05	−0.12	−0.01	−0.03
8400	7.156	0.01	−0.01	10.026	0.06	0.02	10.055	0.39	0.35	14.84	−0.06	−0.13	−0.01	−0.03
8430	7.153	0.00	−0.01	10.026	0.06	0.02	10.065	0.39	0.36	14.84	−0.06	−0.13	−0.01	−0.03
8460	7.156	0.01	−0.01	10.033	0.06	0.03	10.071	0.40	0.37	14.84	−0.06	−0.14	−0.01	−0.04
8490	7.162	0.01	−0.00	10.03	0.06	0.03	10.071	0.40	0.37	14.84	−0.06	−0.13	−0.01	−0.03
8520	7.156	0.01	−0.01	10.036	0.07	0.03	10.09	0.42	0.39	14.84	−0.06	−0.13	−0.01	−0.03
8550	7.156	0.01	−0.01	10.023	0.05	0.02	10.074	0.40	0.37	14.84	−0.06	−0.13	−0.01	−0.03
8580	7.156	0.01	−0.01	9.995	0.02	−0.01	10.036	0.37	0.33	14.84	−0.06	−0.13	−0.01	−0.03
8610	7.156	0.01	−0.01	10.02	0.05	0.02	10.068	0.40	0.36	14.84	−0.06	−0.13	−0.01	−0.03
8640	7.156	0.01	−0.01	9.992	0.02	−0.01	10.036	0.37	0.33	14.83	−0.05	−0.12	−0.01	−0.03
8670	7.153	0.00	−0.01	9.985	0.01	−0.01	10.024	0.35	0.32	14.83	−0.05	−0.11	−0.01	−0.03
8700	7.159	0.01	−0.00	10.004	0.03	0.00	10.046	0.38	0.35	14.83	−0.05	−0.12	−0.01	−0.03
8730	7.156	0.01	−0.01	9.992	0.02	−0.01	10.043	0.37	0.34	14.83	−0.05	−0.11	−0.01	−0.03
8760	7.159	0.01	−0.00	10.02	0.05	0.02	10.062	0.39	0.36	14.83	−0.05	−0.12	−0.01	−0.03
8790	7.159	0.01	−0.00	9.998	0.03	−0.00	10.043	0.37	0.34	14.83	−0.05	−0.11	−0.01	−0.03
8820	7.159	0.01	−0.00	10.004	0.03	0.00	10.046	0.38	0.34	14.83	−0.05	−0.12	−0.01	−0.03
8850	7.162	0.01	−0.00	10.011	0.04	0.01	10.055	0.39	0.35	14.84	−0.06	−0.13	−0.01	−0.03
8880	7.168	0.02	0.00	10.004	0.03	−0.00	10.043	0.37	0.33	14.84	−0.06	−0.15	−0.01	−0.04
8910	7.168	0.02	0.00	10.011	0.04	−0.00	10.049	0.38	0.34	14.85	−0.07	−0.17	−0.02	−0.04
8940	7.172	0.02	0.00	10.02	0.05	0.00	10.055	0.39	0.34	14.86	−0.08	−0.18	−0.02	−0.05
8970	7.172	0.02	0.00	10.023	0.05	0.00	10.062	0.39	0.34	14.87	−0.09	−0.20	−0.02	−0.05
9000	7.175	0.03	0.00	10.03	0.06	0.01	10.068	0.40	0.34	14.87	−0.09	−0.21	−0.02	−0.05
9030	7.178	0.03	0.00	10.036	0.07	0.01	10.071	0.40	0.34	14.88	−0.10	−0.23	−0.02	−0.06
9060	7.178	0.03	0.00	10.039	0.07	0.01	10.074	0.40	0.34	14.88	−0.10	−0.24	−0.02	−0.06
9090	7.178	0.03	0.00	10.045	0.07	0.01	10.081	0.41	0.34	14.89	−0.11	−0.26	−0.03	−0.07
9120	7.178	0.03	0.00	10.045	0.07	0.01	10.081	0.41	0.34	14.89	−0.11	−0.25	−0.03	−0.07
9150	7.175	0.03	−0.00	10.042	0.07	0.00	10.081	0.41	0.34	14.89	−0.11	−0.26	−0.03	−0.07
9180	7.178	0.03	0.00	10.052	0.08	0.01	10.087	0.42	0.35	14.90	−0.12	−0.27	−0.03	−0.07
9210	7.175	0.03	−0.00	10.049	0.08	0.01	10.087	0.42	0.35	14.90	−0.12	−0.27	−0.03	−0.07
9240	7.178	0.03	0.00	10.042	0.07	0.00	10.081	0.41	0.34	14.90	−0.12	−0.27	−0.03	−0.07
9270	7.175	0.03	−0.00	10.042	0.07	0.00	10.081	0.41	0.34	14.89	−0.11	−0.26	−0.03	−0.07
9300	7.175	0.03	−0.00	10.039	0.07	0.00	10.077	0.41	0.34	14.89	−0.11	−0.25	−0.03	−0.07
9330	7.172	0.02	−0.00	10.039	0.07	0.00	10.077	0.41	0.34	14.89	−0.11	−0.25	−0.03	−0.07
9360	7.172	0.02	−0.00	10.042	0.07	0.01	10.081	0.41	0.35	14.89	−0.11	−0.25	−0.03	−0.07

9390	7.172	0.02	−0.00	10.045	0.07	0.01	10.084	0.41	0.35	14.89	−0.11	−0.25	−0.03	−0.07
9420	7.175	0.03	0.00	10.045	0.07	0.01	10.084	0.41	0.35	14.89	−0.11	−0.25	−0.02	−0.06
9450	7.175	0.03	−0.00	10.045	0.07	0.01	10.084	0.41	0.35	14.89	−0.11	−0.26	−0.03	−0.07
9480	7.175	0.03	−0.00	10.049	0.08	0.01	10.09	0.42	0.35	14.89	−0.11	−0.26	−0.03	−0.07
9510	7.175	0.03	−0.00	10.049	0.08	0.01	10.09	0.42	0.35	14.89	−0.11	−0.26	−0.03	−0.07
9540	7.178	0.03	0.00	10.049	0.08	0.01	10.087	0.42	0.35	14.90	−0.12	−0.27	−0.03	−0.07
9570	7.181	0.03	0.00	10.055	0.09	0.01	10.096	0.43	0.35	14.90	−0.12	−0.29	−0.03	−0.07
9600	7.181	0.03	0.00	10.058	0.09	0.01	10.096	0.43	0.35	14.91	−0.13	−0.29	−0.03	−0.08
9630	7.181	0.03	0.00	10.061	0.09	0.01	10.1	0.43	0.35	14.91	−0.13	−0.30	−0.03	−0.08
9660	7.184	0.03	0.00	10.068	0.10	0.02	10.106	0.44	0.35	14.92	−0.14	−0.31	−0.03	−0.08
9690	7.184	0.03	0.00	10.071	0.10	0.02	10.109	0.44	0.36	14.92	−0.14	−0.32	−0.03	−0.08
9720	7.184	0.03	0.00	10.071	0.10	0.02	10.109	0.44	0.36	14.92	−0.14	−0.32	−0.03	−0.08
9750	7.184	0.03	0.00	10.077	0.11	0.03	10.115	0.44	0.36	14.92	−0.14	−0.31	−0.03	−0.08
9780	7.187	0.04	0.00	10.083	0.11	0.03	10.122	0.45	0.37	14.92	−0.14	−0.33	−0.03	−0.09
9810	7.194	0.04	0.01	10.109	0.14	0.05	10.15	0.48	0.39	14.93	−0.15	−0.34	−0.03	−0.09
9840	7.187	0.04	0.00	10.058	0.09	−0.00	10.093	0.42	0.33	14.93	−0.15	−0.34	−0.03	−0.09
9870	7.191	0.04	0.01	10.096	0.13	0.04	10.131	0.46	0.37	14.93	−0.15	−0.34	−0.03	−0.09
9900	7.191	0.04	0.01	10.074	0.10	0.02	10.119	0.45	0.36	14.92	−0.14	−0.33	−0.03	−0.09
9930	7.191	0.04	0.01	10.068	0.10	0.01	10.109	0.44	0.35	14.93	−0.15	−0.33	−0.03	−0.09
9960	7.191	0.04	0.01	10.074	0.10	0.02	10.119	0.45	0.36	14.92	−0.14	−0.33	−0.03	−0.08
9990	7.191	0.04	0.01	10.083	0.11	0.03	10.122	0.45	0.37	14.92	−0.14	−0.32	−0.03	−0.08
10020	7.191	0.04	0.01	10.052	0.08	0.00	10.093	0.42	0.34	14.91	−0.13	−0.30	−0.03	−0.08
10050	7.187	0.04	0.01	10.061	0.09	0.02	10.106	0.44	0.36	14.91	−0.13	−0.29	−0.03	−0.08
10080	7.184	0.03	0.01	10.071	0.10	0.03	10.109	0.44	0.37	14.90	−0.12	−0.28	−0.03	−0.07
10110	7.187	0.04	0.01	10.036	0.07	−0.00	10.052	0.38	0.31	14.90	−0.12	−0.27	−0.03	−0.07
10140	7.181	0.03	0.01	10.001	0.03	−0.03	10.005	0.34	0.27	14.88	−0.10	−0.24	−0.02	−0.06
10170	7.184	0.03	0.01	9.979	0.01	−0.05	9.983	0.31	0.25	14.88	−0.10	−0.22	−0.02	−0.06
10200	7.184	0.03	0.01	9.963	−0.01	−0.06	9.967	0.30	0.24	14.88	−0.10	−0.22	−0.02	−0.06
10230	7.187	0.04	0.01	9.954	−0.02	−0.07	9.957	0.29	0.23	14.88	−0.10	−0.23	−0.02	−0.06
10260	7.187	0.04	0.02	9.954	−0.02	−0.07	9.957	0.29	0.23	14.88	−0.10	−0.22	−0.02	−0.06
10290	7.194	0.04	0.02	9.944	−0.03	−0.08	9.948	0.28	0.22	14.88	−0.10	−0.22	−0.02	−0.06
10320	7.187	0.04	0.02	9.938	−0.03	−0.09	9.941	0.27	0.22	14.87	−0.09	−0.21	−0.02	−0.05
10350	7.181	0.03	0.01	9.925	−0.05	−0.09	9.929	0.26	0.21	14.86	−0.08	−0.18	−0.02	−0.05
10380	7.191	0.04	0.02	9.925	−0.05	−0.10	9.929	0.26	0.21	14.87	−0.09	−0.20	−0.02	−0.05
10410	7.187	0.04	0.02	9.932	−0.04	−0.09	9.932	0.26	0.21	14.86	−0.08	−0.19	−0.02	−0.05
10440	7.187	0.04	0.02	9.932	−0.04	−0.09	9.935	0.27	0.22	14.86	−0.08	−0.19	−0.02	−0.05
10470	7.191	0.04	0.02	9.941	−0.03	−0.08	9.945	0.27	0.22	14.87	−0.09	−0.20	−0.02	−0.05
10500	7.187	0.04	0.02	9.928	−0.04	−0.09	9.932	0.26	0.21	14.86	−0.08	−0.18	−0.02	−0.05
10530	7.191	0.04	0.02	9.932	−0.04	−0.09	9.935	0.27	0.22	14.86	−0.08	−0.19	−0.02	−0.05
10560	7.187	0.04	0.02	9.925	−0.05	−0.09	9.929	0.26	0.21	14.86	−0.08	−0.18	−0.02	−0.05
10590	7.187	0.04	0.02	9.922	−0.05	−0.09	9.926	0.26	0.21	14.86	−0.08	−0.18	−0.02	−0.05
10620	7.187	0.04	0.02	9.922	−0.05	−0.09	9.926	0.26	0.21	14.86	−0.08	−0.18	−0.02	−0.05
10650	7.187	0.04	0.02	9.922	−0.05	−0.09	9.926	0.26	0.21	14.85	−0.07	−0.16	−0.02	−0.04
10680	7.187	0.04	0.02	9.925	−0.05	−0.09	9.929	0.26	0.22	14.85	−0.07	−0.16	−0.02	−0.04
10710	7.187	0.04	0.02	9.928	−0.04	−0.08	9.932	0.26	0.22	14.85	−0.07	−0.15	−0.02	−0.04

10740	7.187	0.04	0.02	9.928	−0.04	−0.08	9.932	0.26	0.22	14.85	−0.07	−0.15	−0.02	−0.04
10770	7.187	0.04	0.02	9.928	−0.04	−0.08	9.929	0.26	0.22	14.84	−0.06	−0.15	−0.01	−0.04
10800	7.187	0.04	0.02	9.925	−0.05	−0.08	9.929	0.26	0.22	14.84	−0.06	−0.15	−0.01	−0.04
10830	7.187	0.04	0.02	9.941	−0.03	−0.07	9.941	0.27	0.23	14.84	−0.06	−0.14	−0.01	−0.04
10860	7.184	0.03	0.02	9.916	−0.05	−0.09	9.919	0.25	0.22	14.83	−0.05	−0.12	−0.01	−0.03
10890	7.184	0.03	0.02	9.919	−0.05	−0.08	9.923	0.25	0.22	14.83	−0.05	−0.11	−0.01	−0.03
10920	7.184	0.03	0.02	9.922	−0.05	−0.07	9.929	0.26	0.23	14.82	−0.04	−0.10	−0.01	−0.03
10950	7.184	0.03	0.02	9.925	−0.05	−0.07	9.929	0.26	0.23	14.83	−0.05	−0.10	−0.01	−0.03
10980	7.187	0.04	0.03	9.922	−0.05	−0.08	9.923	0.25	0.23	14.83	−0.05	−0.11	−0.01	−0.03
11010	7.187	0.04	0.03	9.922	−0.05	−0.08	9.926	0.26	0.23	14.83	−0.05	−0.10	−0.01	−0.03
11040	7.187	0.04	0.03	9.928	−0.04	−0.07	9.932	0.26	0.23	14.83	−0.05	−0.10	−0.01	−0.03
11070	7.187	0.04	0.03	9.925	−0.05	−0.07	9.932	0.26	0.24	14.82	−0.04	−0.10	−0.01	−0.03
11100	7.191	0.04	0.03	9.935	−0.03	−0.06	9.935	0.27	0.24	14.83	−0.05	−0.10	−0.01	−0.03
11130	7.191	0.04	0.03	9.935	−0.03	−0.06	9.935	0.27	0.24	14.83	−0.05	−0.11	−0.01	−0.03
11160	7.191	0.04	0.03	9.944	−0.03	−0.05	9.948	0.28	0.25	14.82	−0.04	−0.10	−0.01	−0.03
11190	7.191	0.04	0.03	9.938	−0.03	−0.06	9.938	0.27	0.24	14.82	−0.04	−0.10	−0.01	−0.03
11220	7.194	0.04	0.03	9.938	−0.03	−0.06	9.948	0.28	0.25	14.83	−0.05	−0.11	−0.01	−0.03
11250	7.197	0.05	0.04	9.951	−0.02	−0.05	9.954	0.28	0.26	14.83	−0.05	−0.11	−0.01	−0.03
11280	7.197	0.05	0.04	9.941	−0.03	−0.06	9.941	0.27	0.24	14.83	−0.05	−0.11	−0.01	−0.03
11310	7.197	0.05	0.04	9.944	−0.03	−0.05	9.951	0.28	0.25	14.83	−0.05	−0.11	−0.01	−0.03
11340	7.197	0.05	0.04	9.973	0.00	−0.02	9.97	0.30	0.27	14.83	−0.05	−0.10	−0.01	−0.03
11370	7.197	0.05	0.04	9.928	−0.04	−0.06	9.941	0.27	0.25	14.82	−0.04	−0.09	−0.01	−0.02
11400	7.197	0.05	0.04	9.928	−0.04	−0.06	9.935	0.27	0.25	14.81	−0.03	−0.07	−0.01	−0.02
11430	7.197	0.05	0.04	9.947	−0.02	−0.04	9.948	0.28	0.26	14.81	−0.03	−0.06	−0.01	−0.02
11460	7.194	0.04	0.04	9.846	−0.12	−0.13	9.869	0.20	0.19	14.80	−0.02	−0.04	−0.00	−0.01
11490	7.197	0.05	0.04	9.998	0.03	0.02	10.002	0.33	0.33	14.79	−0.01	−0.03	−0.00	−0.01
11520	7.197	0.05	0.05	9.973	0.00	0.00	9.995	0.32	0.32	14.78	−0.00	−0.01	−0.00	−0.00
11550	7.197	0.05	0.05	9.925	−0.05	−0.04	9.941	0.27	0.27	14.78	0.00	0.00	0.00	0.00
11580	7.197	0.05	0.05	9.925	−0.05	−0.04	9.926	0.26	0.26	14.78	0.00	0.01	0.00	0.00
11610	7.197	0.05	0.05	9.928	−0.04	−0.04	9.929	0.26	0.26	14.77	0.01	0.02	0.00	0.01
11640	7.2	0.05	0.05	9.916	−0.05	−0.05	9.923	0.25	0.26	14.77	0.01	0.02	0.00	0.01
11670	7.2	0.05	0.05	9.916	−0.05	−0.05	9.923	0.25	0.26	14.77	0.01	0.02	0.00	0.01
11700	7.2	0.05	0.05	9.925	−0.05	−0.04	9.932	0.26	0.27	14.77	0.01	0.02	0.00	0.01
11730	7.203	0.05	0.06	9.922	−0.05	−0.04	9.926	0.26	0.26	14.77	0.01	0.02	0.00	0.01
11760	7.206	0.06	0.06	9.925	−0.05	−0.04	9.926	0.26	0.26	14.77	0.01	0.02	0.00	0.00
11790	7.206	0.06	0.06	9.925	−0.05	−0.04	9.923	0.25	0.26	14.77	0.01	0.02	0.00	0.00
11820	7.206	0.06	0.06	9.932	−0.04	−0.03	9.929	0.26	0.26	14.77	0.01	0.02	0.00	0.00
11850	7.206	0.06	0.06	9.938	−0.03	−0.03	9.935	0.27	0.27	14.78	0.00	0.01	0.00	0.00
11880	7.209	0.06	0.06	9.944	−0.03	−0.03	9.938	0.27	0.27	14.78	0.00	0.00	0.00	0.00
11910	7.209	0.06	0.06	9.951	−0.02	−0.02	9.948	0.28	0.28	14.78	−0.00	−0.01	−0.00	−0.00
11940	7.209	0.06	0.06	9.954	−0.02	−0.02	9.948	0.28	0.27	14.79	−0.01	−0.02	−0.00	−0.01
11970	7.213	0.06	0.06	9.963	−0.01	−0.02	9.96	0.29	0.28	14.80	−0.02	−0.04	−0.00	−0.01
12000	7.213	0.06	0.06	9.957	−0.01	−0.02	9.951	0.28	0.27	14.80	−0.02	−0.04	−0.00	−0.01
12030	7.213	0.06	0.06	9.957	−0.01	−0.02	9.951	0.28	0.27	14.80	−0.02	−0.04	−0.00	−0.01
12060	7.213	0.06	0.06	9.957	−0.01	−0.02	9.951	0.28	0.27	14.80	−0.02	−0.04	−0.00	−0.01

12090	7.213	0.06	0.06	9.957	−0.01	−0.02	9.954	0.28	0.27	14.80	−0.02	−0.03	−0.00	−0.01
12120	7.209	0.06	0.06	9.957	−0.01	−0.02	9.954	0.28	0.28	14.79	−0.01	−0.03	−0.00	−0.01
12150	7.213	0.06	0.06	9.957	−0.01	−0.02	9.954	0.28	0.28	14.79	−0.01	−0.03	−0.00	−0.01
12180	7.213	0.06	0.06	9.957	−0.01	−0.02	9.954	0.28	0.27	14.80	−0.02	−0.03	−0.00	−0.01
12210	7.213	0.06	0.06	9.96	−0.01	−0.02	9.96	0.29	0.28	14.80	−0.02	−0.03	−0.00	−0.01
12240	7.213	0.06	0.06	9.957	−0.01	−0.02	9.954	0.28	0.27	14.80	−0.02	−0.04	−0.00	−0.01
12270	7.213	0.06	0.06	9.957	−0.01	−0.02	9.954	0.28	0.27	14.80	−0.02	−0.03	−0.00	−0.01
12300	7.213	0.06	0.06	9.957	−0.01	−0.02	9.957	0.29	0.28	14.79	−0.01	−0.03	−0.00	−0.01
12330	7.216	0.07	0.06	9.96	−0.01	−0.02	9.957	0.29	0.28	14.80	−0.02	−0.03	−0.00	−0.01
12360	7.216	0.07	0.06	9.963	−0.01	−0.02	9.964	0.29	0.28	14.80	−0.02	−0.04	−0.00	−0.01
12390	7.219	0.07	0.06	9.96	−0.01	−0.02	9.957	0.29	0.27	14.80	−0.02	−0.05	−0.00	−0.01
12420	7.219	0.07	0.06	9.973	0.00	−0.01	9.973	0.30	0.29	14.81	−0.03	−0.06	−0.01	−0.02
12450	7.219	0.07	0.06	9.973	0.00	−0.01	9.97	0.30	0.28	14.81	−0.03	−0.07	−0.01	−0.02
12480	7.222	0.07	0.06	9.97	0.00	−0.02	9.97	0.30	0.28	14.81	−0.03	−0.08	−0.01	−0.02
12510	7.222	0.07	0.06	9.982	0.01	−0.01	9.983	0.31	0.29	14.82	−0.04	−0.09	−0.01	−0.02
12540	7.222	0.07	0.06	9.988	0.02	−0.01	9.986	0.32	0.29	14.82	−0.04	−0.10	−0.01	−0.03
12570	7.225	0.07	0.06	9.995	0.02	−0.00	9.992	0.32	0.30	14.82	−0.04	−0.10	−0.01	−0.03
12600	7.225	0.07	0.06	10.004	0.03	0.00	10.002	0.33	0.30	14.83	−0.05	−0.11	−0.01	−0.03
12630	7.228	0.08	0.07	10.004	0.03	0.00	10.008	0.34	0.31	14.83	−0.05	−0.12	−0.01	−0.03
12660	7.232	0.08	0.07	10.02	0.05	0.02	10.017	0.35	0.31	14.84	−0.06	−0.13	−0.01	−0.03
12690	7.232	0.08	0.07	10.02	0.05	0.01	10.017	0.35	0.31	14.84	−0.06	−0.14	−0.01	−0.04
12720	7.235	0.09	0.07	10.017	0.05	0.01	10.014	0.34	0.31	14.84	−0.06	−0.15	−0.01	−0.04
12750	7.235	0.09	0.07	10.017	0.05	0.01	10.024	0.35	0.32	14.84	−0.06	−0.15	−0.01	−0.04
12780	7.235	0.09	0.07	10.011	0.04	0.00	10.021	0.35	0.31	14.84	−0.06	−0.14	−0.01	−0.04
12810	7.238	0.09	0.07	10.039	0.07	0.03	10.046	0.38	0.34	14.84	−0.06	−0.14	−0.01	−0.04
12840	7.238	0.09	0.07	10.007	0.04	0.00	10.011	0.34	0.30	14.84	−0.06	−0.14	−0.01	−0.04
12870	7.235	0.09	0.07	10.004	0.03	0.00	10.011	0.34	0.31	14.84	−0.06	−0.13	−0.01	−0.03
12900	7.238	0.09	0.08	9.976	0.01	−0.03	9.983	0.31	0.28	14.83	−0.05	−0.12	−0.01	−0.03
12930	7.238	0.09	0.08	10.007	0.04	0.01	10.002	0.33	0.30	14.83	−0.05	−0.12	−0.01	−0.03
12960	7.235	0.09	0.07	9.982	0.01	−0.02	9.989	0.32	0.29	14.83	−0.05	−0.10	−0.01	−0.03
12990	7.238	0.09	0.08	9.982	0.01	−0.02	9.986	0.32	0.29	14.83	−0.05	−0.10	−0.01	−0.03
13020	7.238	0.09	0.08	9.988	0.02	−0.01	9.986	0.32	0.29	14.82	−0.04	−0.10	−0.01	−0.03
13050	7.238	0.09	0.08	9.982	0.01	−0.01	9.983	0.31	0.29	14.82	−0.04	−0.10	−0.01	−0.03
13080	7.238	0.09	0.08	9.985	0.01	−0.01	9.983	0.31	0.29	14.82	−0.04	−0.10	−0.01	−0.03
13110	7.238	0.09	0.08	9.988	0.02	−0.01	9.986	0.32	0.29	14.82	−0.04	−0.09	−0.01	−0.02
13140	7.241	0.09	0.08	9.988	0.02	−0.01	9.989	0.32	0.29	14.82	−0.04	−0.10	−0.01	−0.03
13170	7.241	0.09	0.08	9.985	0.01	−0.01	9.979	0.31	0.28	14.82	−0.04	−0.10	−0.01	−0.03
13200	7.244	0.09	0.08	9.988	0.02	−0.01	9.983	0.31	0.28	14.83	−0.05	−0.11	−0.01	−0.03
13230	7.244	0.09	0.08	9.988	0.02	−0.01	9.983	0.31	0.28	14.83	−0.05	−0.11	−0.01	−0.03
13260	7.244	0.09	0.08	9.988	0.02	−0.01	9.983	0.31	0.28	14.83	−0.05	−0.12	−0.01	−0.03
13290	7.244	0.09	0.08	9.998	0.03	−0.00	9.989	0.32	0.29	14.83	−0.05	−0.12	−0.01	−0.03
13320	7.247	0.10	0.08	10.001	0.03	−0.00	9.992	0.32	0.29	14.83	−0.05	−0.12	−0.01	−0.03
13350	7.247	0.10	0.08	10.004	0.03	−0.00	9.995	0.32	0.29	14.84	−0.06	−0.13	−0.01	−0.03
13380	7.247	0.10	0.08	10.007	0.04	0.00	9.998	0.33	0.29	14.84	−0.06	−0.14	−0.01	−0.04
13410	7.25	0.10	0.08	10.011	0.04	0.00	10.002	0.33	0.29	14.85	−0.07	−0.16	−0.02	−0.04

13440	7.25	0.10	0.08	10.011	0.04	−0.00	10.002	0.33	0.29	14.85	−0.07	−0.16	−0.02	−0.04
13470	7.25	0.10	0.08	10.014	0.04	0.00	10.002	0.33	0.29	14.85	−0.07	−0.16	−0.02	−0.04
13500	7.25	0.10	0.08	10.011	0.04	−0.00	10.005	0.34	0.29	14.85	−0.07	−0.16	−0.02	−0.04
13530	7.25	0.10	0.08	10.011	0.04	−0.00	10.002	0.33	0.29	14.85	−0.07	−0.16	−0.02	−0.04
13560	7.25	0.10	0.08	10.011	0.04	−0.00	10.005	0.34	0.29	14.85	−0.07	−0.16	−0.02	−0.04
13590	7.25	0.10	0.08	10.007	0.04	−0.00	10.002	0.33	0.29	14.85	−0.07	−0.15	−0.02	−0.04
13620	7.25	0.10	0.08	10.011	0.04	0.00	10.005	0.34	0.30	14.85	−0.07	−0.15	−0.02	−0.04
13650	7.25	0.10	0.08	10.011	0.04	0.00	10.002	0.33	0.29	14.85	−0.07	−0.15	−0.02	−0.04
13680	7.25	0.10	0.09	10.011	0.04	0.00	10.005	0.34	0.30	14.84	−0.06	−0.15	−0.01	−0.04
13710	7.25	0.10	0.09	10.011	0.04	0.00	10.005	0.34	0.30	14.84	−0.06	−0.15	−0.01	−0.04
13740	7.254	0.10	0.09	10.011	0.04	0.00	10.005	0.34	0.30	14.84	−0.06	−0.15	−0.01	−0.04
13770	7.254	0.10	0.09	10.014	0.04	0.00	10.008	0.34	0.30	14.85	−0.07	−0.15	−0.02	−0.04
13800	7.254	0.10	0.09	10.017	0.05	0.01	10.011	0.34	0.30	14.85	−0.07	−0.16	−0.02	−0.04
13830	7.254	0.10	0.09	10.017	0.05	0.00	10.011	0.34	0.30	14.85	−0.07	−0.17	−0.02	−0.04
13860	7.257	0.11	0.09	10.023	0.05	0.01	10.014	0.34	0.30	14.86	−0.08	−0.18	−0.02	−0.05
13890	7.257	0.11	0.09	10.026	0.06	0.01	10.021	0.35	0.30	14.86	−0.08	−0.19	−0.02	−0.05
13920	7.26	0.11	0.09	10.03	0.06	0.01	10.024	0.35	0.30	14.87	−0.09	−0.21	−0.02	−0.05
13950	7.26	0.11	0.09	10.033	0.06	0.01	10.027	0.36	0.30	14.87	−0.09	−0.21	−0.02	−0.06
13980	7.26	0.11	0.09	10.052	0.08	0.02	10.049	0.38	0.32	14.88	−0.10	−0.22	−0.02	−0.06
14010	7.266	0.12	0.09	10.058	0.09	0.03	10.049	0.38	0.32	14.88	−0.10	−0.24	−0.02	−0.06
14040	7.266	0.12	0.09	10.061	0.09	0.03	10.052	0.38	0.32	14.89	−0.11	−0.24	−0.02	−0.06
14070	7.266	0.12	0.09	10.068	0.10	0.03	10.062	0.39	0.33	14.89	−0.11	−0.25	−0.03	−0.07
14100	7.269	0.12	0.09	10.074	0.10	0.04	10.068	0.40	0.33	14.89	−0.11	−0.25	−0.03	−0.07
14130	7.273	0.12	0.10	10.068	0.10	0.03	10.068	0.40	0.33	14.89	−0.11	−0.26	−0.03	−0.07
14160	7.273	0.12	0.10	10.068	0.10	0.03	10.062	0.39	0.32	14.90	−0.12	−0.27	−0.03	−0.07
14190	7.273	0.12	0.10	10.074	0.10	0.03	10.071	0.40	0.33	14.90	−0.12	−0.27	−0.03	−0.07
14220	7.273	0.12	0.10	10.058	0.09	0.02	10.062	0.39	0.32	14.90	−0.12	−0.27	−0.03	−0.07
14250	7.273	0.12	0.10	10.074	0.10	0.04	10.068	0.40	0.33	14.89	−0.11	−0.26	−0.03	−0.07
14280	7.273	0.12	0.10	10.071	0.10	0.03	10.068	0.40	0.33	14.89	−0.11	−0.25	−0.03	−0.07
14310	7.276	0.13	0.10	10.061	0.09	0.03	10.055	0.39	0.32	14.89	−0.11	−0.24	−0.02	−0.06
14340	7.276	0.13	0.10	10.039	0.07	0.01	10.03	0.36	0.30	14.88	−0.10	−0.24	−0.02	−0.06
14370	7.273	0.12	0.10	10.055	0.09	0.03	10.055	0.39	0.33	14.88	−0.10	−0.23	−0.02	−0.06
14400	7.273	0.12	0.10	10.039	0.07	0.01	10.03	0.36	0.31	14.87	−0.09	−0.21	−0.02	−0.05
14430	7.276	0.13	0.11	10.026	0.06	0.00	10.027	0.36	0.30	14.87	−0.09	−0.21	−0.02	−0.05
14460	7.273	0.12	0.10	10.036	0.07	0.01	10.03	0.36	0.31	14.87	−0.09	−0.20	−0.02	−0.05
14490	7.276	0.13	0.11	10.052	0.08	0.03	10.049	0.38	0.33	14.86	−0.08	−0.19	−0.02	−0.05
14520	7.279	0.13	0.11	10.042	0.07	0.02	10.033	0.36	0.31	14.86	−0.08	−0.19	−0.02	−0.05
14550	7.276	0.13	0.11	10.039	0.07	0.02	10.033	0.36	0.31	14.86	−0.08	−0.19	−0.02	−0.05
14580	7.276	0.13	0.11	10.036	0.07	0.02	10.033	0.36	0.31	14.86	−0.08	−0.19	−0.02	−0.05
14610	7.279	0.13	0.11	10.036	0.07	0.01	10.027	0.36	0.31	14.87	−0.09	−0.20	−0.02	−0.05
14640	7.279	0.13	0.11	10.036	0.07	0.01	10.027	0.36	0.31	14.87	−0.09	−0.20	−0.02	−0.05
14670	7.279	0.13	0.11	10.039	0.07	0.02	10.027	0.36	0.31	14.87	−0.09	−0.20	−0.02	−0.05
14700	7.279	0.13	0.11	10.033	0.06	0.01	10.014	0.34	0.29	14.86	−0.08	−0.19	−0.02	−0.05
14730	7.279	0.13	0.11	10.045	0.07	0.03	10.033	0.36	0.31	14.86	−0.08	−0.19	−0.02	−0.05
14760	7.279	0.13	0.11	10.064	0.09	0.05	10.058	0.39	0.34	14.86	−0.08	−0.18	−0.02	−0.05

14790	7.282	0.13	0.11	10.045	0.07	0.03	10.033	0.36	0.31	14.86	−0.08	−0.19	−0.02	−0.05
14820	7.282	0.13	0.11	10.055	0.09	0.04	10.04	0.37	0.32	14.86	−0.08	−0.19	−0.02	−0.05
14850	7.282	0.13	0.11	10.049	0.08	0.03	10.036	0.37	0.31	14.87	−0.09	−0.20	−0.02	−0.05
14880	7.282	0.13	0.11	10.052	0.08	0.03	10.04	0.37	0.32	14.87	−0.09	−0.20	−0.02	−0.05
14910	7.282	0.13	0.11	10.052	0.08	0.03	10.036	0.37	0.32	14.86	−0.08	−0.19	−0.02	−0.05
14940	7.282	0.13	0.11	10.049	0.08	0.03	10.04	0.37	0.32	14.86	−0.08	−0.18	−0.02	−0.05
14970	7.282	0.13	0.11	10.052	0.08	0.04	10.036	0.37	0.32	14.86	−0.08	−0.18	−0.02	−0.05
15000	7.282	0.13	0.11	10.049	0.08	0.03	10.036	0.37	0.32	14.85	−0.07	−0.17	−0.02	−0.04
15030	7.279	0.13	0.11	10.049	0.08	0.04	10.036	0.37	0.32	14.85	−0.07	−0.16	−0.02	−0.04
15060	7.279	0.13	0.11	10.045	0.07	0.04	10.036	0.37	0.33	14.85	−0.07	−0.15	−0.02	−0.04
15090	7.279	0.13	0.11	10.045	0.07	0.04	10.033	0.36	0.33	14.84	−0.06	−0.14	−0.01	−0.04
15120	7.279	0.13	0.12	10.045	0.07	0.04	10.033	0.36	0.33	14.84	−0.06	−0.13	−0.01	−0.03
15150	7.279	0.13	0.12	10.042	0.07	0.04	10.033	0.36	0.33	14.83	−0.05	−0.12	−0.01	−0.03
15180	7.279	0.13	0.12	10.042	0.07	0.04	10.033	0.36	0.33	14.83	−0.05	−0.11	−0.01	−0.03
15210	7.282	0.13	0.12	10.045	0.07	0.05	10.036	0.37	0.34	14.83	−0.05	−0.11	−0.01	−0.03
15240	7.282	0.13	0.12	10.045	0.07	0.05	10.036	0.37	0.34	14.83	−0.05	−0.11	−0.01	−0.03
15270	7.282	0.13	0.12	10.049	0.08	0.05	10.04	0.37	0.34	14.83	−0.05	−0.12	−0.01	−0.03
15300	7.282	0.13	0.12	10.052	0.08	0.05	10.043	0.37	0.34	14.83	−0.05	−0.12	−0.01	−0.03
15330	7.282	0.13	0.12	10.052	0.08	0.05	10.043	0.37	0.34	14.83	−0.05	−0.12	−0.01	−0.03
15360	7.285	0.13	0.12	10.058	0.09	0.05	10.049	0.38	0.34	14.84	−0.06	−0.14	−0.01	−0.04
15390	7.285	0.13	0.12	10.061	0.09	0.06	10.049	0.38	0.34	14.84	−0.06	−0.13	−0.01	−0.03
15420	7.288	0.14	0.12	10.08	0.11	0.07	10.071	0.40	0.36	14.84	−0.06	−0.15	−0.01	−0.04
15450	7.288	0.14	0.12	10.083	0.11	0.08	10.068	0.40	0.36	14.84	−0.06	−0.15	−0.01	−0.04
15480	7.288	0.14	0.12	10.09	0.12	0.08	10.077	0.41	0.37	14.84	−0.06	−0.14	−0.01	−0.04
15510	7.292	0.14	0.13	10.093	0.12	0.08	10.084	0.41	0.37	14.85	−0.07	−0.15	−0.02	−0.04
15540	7.295	0.15	0.13	10.096	0.13	0.09	10.09	0.42	0.38	14.85	−0.07	−0.15	−0.02	−0.04
15570	7.295	0.15	0.13	10.083	0.11	0.07	10.068	0.40	0.36	14.85	−0.07	−0.15	−0.02	−0.04
15600	7.288	0.14	0.12	10.007	0.04	−0.00	10.005	0.34	0.30	14.85	−0.07	−0.15	−0.02	−0.04
15630	7.295	0.15	0.13	10.004	0.03	−0.00	9.986	0.32	0.28	14.84	−0.06	−0.14	−0.01	−0.04
15660	7.292	0.14	0.13	10.09	0.12	0.09	10.084	0.41	0.38	14.83	−0.05	−0.12	−0.01	−0.03
15690	7.298	0.15	0.14	10.134	0.16	0.13	10.125	0.45	0.43	14.83	−0.05	−0.11	−0.01	−0.03
15720	7.285	0.13	0.13	9.954	−0.02	−0.04	9.954	0.28	0.26	14.82	−0.04	−0.09	−0.01	−0.02
15750	7.292	0.14	0.13	9.97	0.00	−0.02	9.967	0.30	0.28	14.81	−0.03	−0.07	−0.01	−0.02
15780	7.285	0.13	0.13	9.9	−0.07	−0.08	9.891	0.22	0.21	14.80	−0.02	−0.05	−0.00	−0.01
15810	7.288	0.14	0.14	10.007	0.04	0.03	10.002	0.33	0.32	14.79	−0.01	−0.03	−0.00	−0.01
15840	7.285	0.13	0.13	9.875	−0.10	−0.10	9.872	0.20	0.20	14.78	−0.00	−0.01	−0.00	−0.00
15870	7.288	0.14	0.14	9.957	−0.01	−0.01	9.951	0.28	0.29	14.77	0.01	0.02	0.00	0.00
15900	7.292	0.14	0.14	10.074	0.10	0.11	10.071	0.40	0.41	14.77	0.01	0.03	0.00	0.01
15930	7.292	0.14	0.15	10.055	0.09	0.10	10.052	0.38	0.39	14.76	0.02	0.04	0.00	0.01
15960	7.288	0.14	0.14	10.064	0.09	0.11	10.055	0.39	0.40	14.76	0.02	0.06	0.01	0.02
15990	7.288	0.14	0.15	10.052	0.08	0.10	10.043	0.37	0.39	14.75	0.03	0.07	0.01	0.02
16020	7.292	0.14	0.15	10.036	0.07	0.09	10.03	0.36	0.38	14.75	0.03	0.08	0.01	0.02
16050	7.292	0.14	0.15	10.045	0.07	0.10	10.036	0.37	0.39	14.74	0.04	0.09	0.01	0.02
16080	7.292	0.14	0.15	10.045	0.07	0.10	10.03	0.36	0.38	14.74	0.04	0.09	0.01	0.02
16110	7.295	0.15	0.15	10.055	0.09	0.10	10.046	0.38	0.40	14.75	0.03	0.08	0.01	0.02

16140	7.295	0.15	0.15	10.052	0.08	0.10	10.036	0.37	0.38	14.75	0.03	0.07	0.01	0.02
16170	7.298	0.15	0.15	10.061	0.09	0.11	10.046	0.38	0.39	14.75	0.03	0.06	0.01	0.02
16200	7.298	0.15	0.15	10.068	0.10	0.11	10.058	0.39	0.40	14.76	0.02	0.06	0.01	0.02
16230	7.301	0.15	0.16.	10.071	0.10	0.11	10.055	0.39	0.40	14.76	0.02	0.05	0.00	0.01
16260	7.301	0.15	0.16	10.068	0.10	0.11	10.049	0.38	0.39	14.76	0.02	0.05	0.00	0.01
16290	7.301	0.15	0.16	10.068	0.10	0.11	10.049	0.38	0.39	14.76	0.02	0.05	0.00	0.01
16320	7.301	0.15	0.16	10.074	0.10	0.12	10.058	0.39	0.40	14.76	0.02	0.05	0.01	0.01
16350	7.304	0.15	0.16	10.09	0.12	0.13	10.071	0.40	0.41	14.77	0.01	0.03	0.00	0.01
16380	7.304	0.15	0.16	10.087	0.12	0.12	10.068	0.40	0.40	14.77	0.01	0.02	0.00	0.00
16410	7.298	0.15	0.15	10.08	0.11	0.12	10.065	0.39	0.40	14.77	0.01	0.03	0.00	0.01
16440	7.301	0.15	0.15	10.08	0.11	0.12	10.068	0.40	0.41	14.77	0.01	0.03	0.00	0.01
16470	7.295	0.15	0.15	10.074	0.10	0.12	10.062	0.39	0.41	14.75	0.03	0.06	0.01	0.02
16500	7.285	0.13	0.15	10.068	0.10	0.12	10.055	0.39	0.41	14.74	0.04	0.10	0.01	0.03
16530	7.298	0.15	0.16	10.071	0.10	0.12	10.055	0.39	0.41	14.74	0.04	0.08	0.01	0.02
16560	7.292	0.14	0.15	10.068	0.10	0.13	10.055	0.39	0.41	14.73	0.05	0.11	0.01	0.03
16590	7.295	0.15	0.16	10.058	0.09	0.12	10.043	0.37	0.40	14.73	0.05	0.12	0.01	0.03
16620	7.295	0.15	0.16	10.055	0.09	0.12	10.043	0.37	0.40	14.73	0.05	0.12	0.01	0.03
16650	7.298	0.15	0.16	10.061	0.09	0.12	10.049	0.38	0.41	14.73	0.05	0.12	0.01	0.03
16680	7.298	0.15	0.16	10.068	0.10	0.13	10.052	0.38	0.41	14.73	0.05	0.12	0.01	0.03
16710	7.301	0.15	0.16	10.071	0.10	0.13	10.055	0.39	0.41	14.73	0.05	0.11	0.01	0.03
16740	7.304	0.15	0.16	10.074	0.10	0.13	10.055	0.39	0.41	14.74	0.04	0.10	0.01	0.03
16770	7.304	0.15	0.16	10.074	0.10	0.13	10.058	0.39	0.41	14.74	0.04	0.10	0.01	0.03
16800	7.304	0.15	0.16	10.08	0.11	0.14	10.065	0.39	0.42	14.74	0.04	0.10	0.01	0.03
16830	7.307	0.16	0.17	10.093	0.12	0.14	10.077	0.41	0.43	14.74	0.04	0.08	0.01	0.02
16860	7.307	0.16	0.16	10.106	0.14	0.16	10.087	0.42	0.44	14.75	0.03	0.07	0.01	0.02
16890	7.31	0.16	0.17	10.106	0.14	0.15	10.087	0.42	0.43	14.76	0.02	0.06	0.01	0.02
16920	7.314	0.16	0.17	10.109	0.14	0.15	10.093	0.42	0.44	14.76	0.02	0.05	0.00	0.01
16950	7.31	0.16	0.17	10.099	0.13	0.14	10.084	0.41	0.43	14.76	0.02	0.05	0.01	0.01
16980	7.314	0.16	0.17	10.118	0.15	0.16	10.103	0.43	0.45	14.76	0.02	0.05	0.01	0.01
17010	7.317	0.17	0.17	10.118	0.15	0.16	10.106	0.44	0.45	14.76	0.02	0.05	0.00	0.01
17040	7.31	0.16	0.16	10.068	0.10	0.11	10.049	0.38	0.39	14.76	0.02	0.05	0.00	0.01
17070	7.317	0.17	0.17	10.115	0.14	0.16	10.1	0.43	0.44	14.76	0.02	0.04	0.00	0.01
17100	7.323	0.17	0.18	10.169	0.20	0.21	10.166	0.50	0.51	14.76	0.02	0.04	0.00	0.01
17130	7.32	0.17	0.17	10.15	0.18	0.19	10.138	0.47	0.48	14.76	0.02	0.05	0.00	0.01
17160	7.317	0.17	0.17	10.15	0.18	0.20	10.131	0.46	0.48	14.75	0.03	0.07	0.01	0.02
17190	7.317	0.17	0.18	10.144	0.17	0.20	10.157	0.49	0.51	14.75	0.03	0.08	0.01	0.02
17220	7.32	0.17	0.18	10.194	0.22	0.25	10.191	0.52	0.54	14.74	0.04	0.08	0.01	0.02
17250	7.32	0.17	0.18	10.039	0.07	0.09	10.033	0.36	0.39	14.74	0.04	0.09	0.01	0.02
17280	7.32	0.17	0.18	10.096	0.13	0.15	10.093	0.42	0.45	14.74	0.04	0.09	0.01	0.02
17310	7.32	0.17	0.18	10.096	0.13	0.15	10.09	0.42	0.45	14.74	0.05	0.10	0.01	0.03
17340	7.32	0.17	0.18	10.099	0.13	0.15	10.106	0.44	0.46	14.74	0.04	0.10	0.01	0.03
17370	13.621	6.47	6.48	10.096	0.13	0.15	10.09	0.42	0.45	14.74	0.05	0.10	0.01	0.03
17400	13.605	6.46	6.47	10.033	0.06	0.09	10.027	0.36	0.39	14.73	0.05	0.11	0.01	0.03
17430	13.699	6.55	6.56	10.096	0.13	0.15	10.09	0.42	0.45	14.74	0.05	0.10	0.01	0.03
17460	13.851	6.70	6.71	10.093	0.12	0.15	10.087	0.42	0.44	14.74	0.04	0.10	0.01	0.03

17490	14.043	6.89	6.90	10.099	0.13	0.16	10.084	0.41	0.44	14.74	0.05	0.10	0.01	0.03
17520	14.197	7.05	7.06	10.093	0.12	0.15	10.081	0.41	0.44	14.73	0.05	0.11	0.01	0.03
17550	14.351	7.20	7.21	10.093	0.12	0.15	10.077	0.41	0.43	14.74	0.04	0.10	0.01	0.03
17580	14.216	7.07	7.08	10.093	0.12	0.15	10.077	0.41	0.43	14.74	0.05	0.10	0.01	0.03
17610	14.404	7.25	7.26	10.099	0.13	0.16	10.081	0.41	0.44	14.74	0.04	0.10	0.01	0.03
17640	14.187	7.04	7.05	10.106	0.14	0.16	10.087	0.42	0.44	14.74	0.04	0.09	0.01	0.02
17670	14.319	7.17	7.18	10.109	0.14	0.16	10.09	0.42	0.44	14.74	0.04	0.09	0.01	0.02
17700	14.386	7.24	7.24	10.112	0.14	0.16	10.096	0.43	0.45	14.75	0.03	0.08	0.01	0.02
17730	14.389	7.24	7.25	10.112	0.14	0.16	10.093	0.42	0.44	14.75	0.03	0.08	0.01	0.02
17760	14.039	6.89	6.90	10.112	0.14	0.16	10.093	0.42	0.44	14.74	0.04	0.08	0.01	0.02
17790	14.039	6.89	6.90	10.109	0.14	0.16	10.09	0.42	0.44	14.74	0.04	0.09	0.01	0.02
17820	14.039	6.89	6.90	10.112	0.14	0.16	10.096	0.43	0.45	14.75	0.03	0.08	0.01	0.02
17850	14.039	6.89	6.90	10.112	0.14	0.16	10.096	0.43	0.45	14.75	0.03	0.08	0.01	0.02
17880	14.039	6.89	6.90	10.112	0.14	0.16	10.096	0.43	0.45	14.75	0.03	0.08	0.01	0.02
17910	14.039	6.89	6.90	10.112	0.14	0.16	10.096	0.43	0.45	14.75	0.03	0.08	0.01	0.02
17940	14.039	6.89	6.90	10.106	0.14	0.16	10.09	0.42	0.45	14.74	0.04	0.10	0.01	0.03
17970	14.039	6.89	6.90	10.109	0.14	0.16	10.093	0.42	0.45	14.74	0.04	0.10	0.01	0.03
18000	14.039	6.89	6.90	10.102	0.13	0.16	10.087	0.42	0.45	14.73	0.05	0.12	0.01	0.03
18030	14.043	6.89	6.91	10.102	0.13	0.16	10.087	0.42	0.45	14.73	0.05	0.12	0.01	0.03
18060	14.043	6.89	6.91	10.109	0.14	0.17	10.09	0.42	0.45	14.73	0.05	0.12	0.01	0.03
18090	14.043	6.89	6.91	10.106	0.14	0.17	10.09	0.42	0.45	14.73	0.05	0.12	0.01	0.03
18120	14.039	6.89	6.90	10.109	0.14	0.17	10.093	0.42	0.45	14.73	0.05	0.12	0.01	0.03
18150	14.043	6.89	6.90	10.118	0.15	0.18	10.106	0.44	0.46	14.73	0.05	0.11	0.01	0.03
18180	14.043	6.89	6.90	10.112	0.14	0.17	10.096	0.43	0.45	14.73	0.05	0.11	0.01	0.03
18210	14.043	6.89	6.90	10.118	0.15	0.17	10.106	0.44	0.46	14.74	0.04	0.10	0.01	0.03
18240	14.043	6.89	6.90	10.118	0.15	0.17	10.106	0.44	0.46	14.74	0.04	0.09	0.01	0.02
18270	14.043	6.89	6.90	10.121	0.15	0.17	10.106	0.44	0.46	14.75	0.03	0.08	0.01	0.02
18300	14.043	6.89	6.90	10.144	0.17	0.19	10.134	0.46	0.48	14.75	0.03	0.07	0.01	0.02
18330	14.039	6.89	6.89	10.153	0.18	0.20	10.138	0.47	0.48	14.76	0.02	0.06	0.01	0.02
18360	7.238	0.09	0.09	10.153	0.18	0.20	10.138	0.47	0.48	14.76	0.02	0.05	0.00	0.01
18390	7.187	0.04	0.04	20.055	10.09	10.09	10.182	0.51	0.52	14.77	0.01	0.03	0.00	0.01
18420	7.131	−0.02	−0.02	20.058	10.09	10.10	10.172	0.50	0.51	14.77	0.01	0.03	0.00	0.01
18450	7.055	−0.10	−0.09	20.068	10.10	10.11	10.15	0.48	0.49	14.77	0.01	0.03	0.00	0.01
18480	7.298	0.15	0.15	20.09	10.12	10.13	10.169	0.50	0.51	14.77	0.01	0.02	0.00	0.01
18510	7.292	0.14	0.14	10.064	0.09	0.10	10.033	0.36	0.37	14.77	0.01	0.02	0.00	0.00
18540	7.295	0.15	0.15	10.28	0.31	0.32	10.258	0.59	0.59	14.77	0.01	0.03	0.00	0.01
18570	7.292	0.14	0.15	10.093	0.12	0.13	10.065	0.39	0.40	14.77	0.01	0.03	0.00	0.01
18600	7.288	0.14	0.14	10.049	0.08	0.09	10.04	0.37	0.38	14.76	0.02	0.04	0.00	0.01
18630	7.298	0.15	0.15	10.163	0.19	0.21	10.153	0.48	0.50	14.76	0.02	0.06	0.01	0.01

NSB Kings Bay Site 11, IM Phase I Operations: Stage 2 Test

E. Time (min)	RW-P2 (ft)	drawdown (ft)	corr. dd (ft)	RW-P5 (ft)	drawdown (ft)	corr. dd (ft)	PS-5 (ft)	drawdown (ft)	corr. dd (ft)	PD-6 (ft)	drawdown (ft)	corr. dd (ft)
0	3.82	0.50	0.50	3.56	0.84	0.84	6.40	-0.05	-0.05	8.13	0.00	0.00
0.0083	3.01	-0.31	-0.31	2.78	0.06	0.06	6.40	-0.05	-0.05	8.13	0.00	0.00
0.0166	3.30	-0.02	-0.02	2.80	0.08	0.08	6.40	-0.05	-0.05	8.13	0.00	0.00
0.025	3.61	0.29	0.29	2.94	0.22	0.22	6.40	-0.05	-0.05	8.13	0.00	0.00
0.0333	3.52	0.20	0.20	2.98	0.26	0.26	6.40	-0.05	-0.05	8.14	0.01	0.01
0.0416	3.57	0.25	0.25	3.02	0.30	0.30	6.40	-0.05	-0.05	8.13	0.00	0.00
0.05	3.68	0.36	0.36	3.08	0.36	0.36	6.40	-0.05	-0.05	8.14	0.01	0.01
0.0583	3.67	0.35	0.35	3.13	0.41	0.41	6.40	-0.05	-0.05	8.14	0.01	0.01
0.0666	3.78	0.46	0.46	3.15	0.43	0.43	6.40	-0.05	-0.05	8.13	0.00	0.00
0.075	3.73	0.41	0.41	3.23	0.51	0.51	6.40	-0.05	-0.05	8.13	0.00	0.00
0.0833	3.83	0.51	0.51	3.28	0.56	0.56	6.40	-0.05	-0.05	8.13	0.00	0.00
0.0916	3.87	0.55	0.55	3.32	0.60	0.60	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1	3.88	0.56	0.56	3.35	0.63	0.63	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1083	3.93	0.61	0.61	3.40	0.68	0.68	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1166	3.96	0.64	0.64	3.47	0.74	0.75	6.40	-0.05	-0.05	8.13	0.00	0.00
0.125	3.99	0.67	0.67	3.50	0.78	0.78	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1333	4.03	0.71	0.71	3.53	0.81	0.81	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1416	4.02	0.70	0.70	3.60	0.88	0.88	6.40	-0.05	-0.05	8.13	0.00	0.00
0.15	4.10	0.78	0.78	3.65	0.93	0.93	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1583	4.10	0.78	0.78	3.67	0.95	0.95	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1666	4.15	0.83	0.83	3.67	0.95	0.95	6.40	-0.05	-0.05	8.13	0.00	0.00
0.175	4.16	0.84	0.84	3.81	1.09	1.09	6.40	-0.05	-0.05	8.13	0.00	0.00
0.1833	4.20	0.88	0.88	3.79	1.07	1.07	6.40	-0.05	-0.05	8.12	-0.01	-0.01
0.1916	4.21	0.89	0.90	3.82	1.10	1.10	6.40	-0.05	-0.05	8.13	0.00	0.00
0.2	4.25	0.93	0.93	3.87	1.15	1.15	6.40	-0.05	-0.05	8.12	-0.01	-0.01
0.2083	4.27	0.95	0.95	3.91	1.19	1.19	6.40	-0.05	-0.05	8.12	-0.01	-0.01
0.2166	4.29	0.97	0.97	3.96	1.24	1.24	6.40	-0.05	-0.05	8.13	0.00	0.00
0.225	4.32	1.00	1.00	3.98	1.26	1.26	6.40	-0.05	-0.05	8.12	-0.01	-0.01
0.2333	4.36	1.04	1.04	4.01	1.29	1.29	6.40	-0.05	-0.05	8.13	0.00	0.00
0.2416	4.36	1.04	1.04	4.06	1.34	1.34	6.40	-0.05	-0.05	8.13	0.00	0.00
0.25	4.40	1.08	1.08	4.10	1.38	1.38	6.40	-0.05	-0.05	8.13	0.00	0.00
0.2583	4.41	1.09	1.09	4.14	1.42	1.42	6.40	-0.05	-0.05	8.13	0.00	0.00
0.2666	4.45	1.13	1.13	4.15	1.43	1.43	6.40	-0.05	-0.05	8.13	0.00	0.00
0.275	4.49	1.17	1.17	4.20	1.48	1.48	6.40	-0.05	-0.05	8.13	0.00	0.00
0.2833	4.50	1.18	1.18	4.24	1.52	1.52	6.40	-0.05	-0.05	8.12	-0.01	-0.01
0.2916	4.54	1.22	1.22	4.25	1.53	1.53	6.40	-0.05	-0.05	8.13	0.00	0.00
0.3	4.55	1.23	1.23	4.30	1.58	1.58	6.40	-0.05	-0.05	8.13	0.00	0.00
0.3083	4.56	1.24	1.24	4.32	1.60	1.60	6.40	-0.05	-0.05	8.13	0.00	0.00
0.3166	4.59	1.27	1.27	4.34	1.62	1.62	6.40	-0.05	-0.05	8.13	0.00	0.00

0.325	4.61	1.29	1.29	4.39	1.67	1.67	6.40	−0.05	−0.05	8.13	0.00	0.00
0.3333	4.65	1.33	1.33	4.42	1.70	1.70	6.40	−0.05	−0.05	8.13	0.00	0.00
0.35	4.70	1.38	1.39	4.46	1.74	1.74	6.40	−0.05	−0.05	8.13	0.00	0.00
0.3666	4.74	1.42	1.42	4.51	1.79	1.79	6.40	−0.05	−0.05	8.12	−0.01	−0.01
0.3833	4.77	1.45	1.45	4.58	1.86	1.86	6.40	−0.05	−0.05	8.13	0.00	0.00
0.4	4.84	1.52	1.52	4.65	1.93	1.93	6.40	−0.05	−0.05	8.13	0.00	0.00
0.4166	4.88	1.56	1.56	4.71	1.99	1.99	6.40	−0.05	−0.05	8.13	0.00	0.00
0.4333	4.94	1.62	1.62	4.74	2.02	2.02	6.40	−0.05	−0.05	8.13	0.00	0.00
0.45	4.98	1.66	1.66	4.80	2.08	2.08	6.40	−0.05	−0.05	8.13	0.00	0.00
0.4666	5.02	1.70	1.70	4.86	2.14	2.14	6.40	−0.05	−0.05	8.13	0.00	0.00
0.4833	5.06	1.74	1.74	4.92	2.20	2.20	6.40	−0.05	−0.05	8.13	0.00	0.00
0.5	5.11	1.79	1.79	4.97	2.25	2.25	6.40	−0.05	−0.05	8.13	0.00	0.00
0.5166	5.19	1.87	1.87	5.03	2.31	2.31	6.40	−0.05	−0.05	8.13	0.00	0.00
0.5333	5.20	1.88	1.88	5.09	2.37	2.37	6.40	−0.05	−0.05	8.13	0.00	0.00
0.55	5.25	1.93	1.93	5.15	2.43	2.43	6.40	−0.05	−0.05	8.13	0.00	0.00
0.5666	5.29	1.97	1.97	5.18	2.46	2.46	6.40	−0.05	−0.05	8.13	0.00	0.00
0.5833	5.34	2.02	2.02	5.23	2.51	2.51	6.40	−0.05	−0.05	8.13	0.00	0.00
0.6	5.38	2.06	2.06	5.30	2.58	2.58	6.40	−0.05	−0.05	8.12	−0.01	−0.01
0.6166	5.42	2.10	2.10	5.35	2.63	2.63	6.40	−0.05	−0.05	8.12	−0.01	−0.01
0.6333	5.47	2.15	2.15	5.37	2.65	2.65	6.40	−0.05	−0.05	8.12	−0.01	−0.01
0.65	5.50	2.18	2.18	5.43	2.71	2.71	6.40	−0.05	−0.05	8.13	0.00	0.00
0.6666	5.53	2.21	2.21	5.47	2.75	2.75	6.41	−0.04	−0.04	8.13	0.00	0.00
0.6833	5.59	2.27	2.27	5.52	2.80	2.80	6.40	−0.05	−0.05	8.13	0.00	0.00
0.7	5.61	2.29	2.29	5.54	2.82	2.82	6.41	−0.04	−0.04	8.13	0.00	0.00
0.7166	5.67	2.35	2.35	5.60	2.88	2.88	6.41	−0.04	−0.04	8.13	0.00	0.00
0.7333	5.68	2.36	2.36	5.61	2.89	2.89	6.40	−0.05	−0.05	8.13	0.00	0.00
0.75	5.74	2.42	2.42	5.66	2.94	2.94	6.41	−0.04	−0.04	8.14	0.01	0.01
0.7666	5.79	2.47	2.47	5.69	2.97	2.97	6.40	−0.05	−0.05	8.14	0.01	0.01
0.7833	5.83	2.51	2.51	5.71	2.99	2.99	6.41	−0.04	−0.04	8.13	0.00	0.00
0.8	5.84	2.52	2.52	5.72	3.00	3.00	6.40	−0.05	−0.05	8.12	−0.01	−0.01
0.8166	5.89	2.57	2.57	5.75	3.03	3.03	6.41	−0.04	−0.04	8.13	0.00	0.00
0.8333	5.92	2.60	2.60	5.79	3.07	3.07	6.41	−0.04	−0.04	8.14	0.01	0.01
0.85	5.98	2.66	2.66	5.80	3.08	3.08	6.41	−0.04	−0.04	8.13	0.00	0.00
0.8666	6.01	2.69	2.70	5.82	3.10	3.10	6.41	−0.04	−0.04	8.13	0.00	0.00
0.8833	6.04	2.72	2.72	5.84	3.12	3.12	6.41	−0.04	−0.04	8.13	0.00	0.00
0.9	6.07	2.75	2.75	5.85	3.13	3.13	6.41	−0.04	−0.04	8.13	0.00	0.00
0.9166	6.12	2.80	2.80	5.86	3.14	3.14	6.41	−0.04	−0.04	8.12	−0.01	−0.01
0.9333	6.16	2.84	2.84	5.89	3.17	3.17	6.41	−0.04	−0.04	8.12	−0.01	−0.01
0.95	6.18	2.86	2.86	5.91	3.19	3.19	6.41	−0.04	−0.04	8.12	−0.01	−0.01
0.9666	6.22	2.90	2.90	5.92	3.20	3.20	6.41	−0.04	−0.04	8.14	0.01	0.01
0.9833	6.27	2.95	2.95	5.92	3.20	3.20	6.41	−0.04	−0.04	8.13	0.00	0.00

1	6.28	2.96	2.96	5.96	3.24	3.24	6.40	−0.05	−0.05	8.13	0.00	0.00
1.2	6.67	3.35	3.35	6.10	3.38	3.38	6.41	−0.04	−0.04	8.13	0.00	0.00
1.4	7.07	3.75	3.75	6.28	3.56	3.56	6.40	−0.05	−0.05	8.13	0.00	0.00
1.6	7.42	4.10	4:10	6.36	3.64	3.64	6.40	−0.05	−0.05	8.13	0.00	−0.00
1.8	7.78	4.46	4.46	6.46	3.74	3.74	6.41	−0.04	−0.04	8.13	0.00	0.00
2	8.08	4.76	4.76	6.59	3.87	3.87	6.41	−0.04	−0.04	8.12	−0.01	−0.01
2.2	8.35	5.03	5.03	6.62	3.90	3.90	6.41	−0.04	−0.04	8.13	0.00	0.00
2.4	8.59	5.27	5.27	6.70	3.98	3.98	6.41	−0.04	−0.05	8.12	−0.01	−0.01
2.6	8.82	5.50	5.50	6.73	4.01	4.01	6.41	−0.04	−0.05	8.12	−0.01	−0.01
2.8	9.03	5.71	5.71	6.79	4.07	4.07	6.41	−0.04	−0.04	8.12	−0.01	−0.01
3	9.24	5.92	5.92	6.84	4.12	4.12	6.41	−0.04	−0.04	8.12	−0.01	−0.01
3.2	9.39	6.07	6.07	6.88	4.16	4.16	6.41	−0.04	−0.04	8.13	0.00	0.00
3.4	9.53	6.21	6.21	6.90	4.18	4.18	6.41	−0.04	−0.04	8.12	−0.01	−0.01
3.6	9.67	6.35	6.35	6.96	4.24	4.24	6.41	−0.04	−0.04	8.12	−0.01	−0.01
3.8	9.84	6.52	6.52	6.99	4.27	4.27	6.41	−0.04	−0.04	8.13	0.00	0.00
4	9.94	6.62	6.62	6.98	4.26	4.26	6.41	−0.04	−0.04	8.13	0.00	0.00
4.2	10.05	6.73	6.73	7.01	4.29	4.29	6.41	−0.04	−0.04	8.13	0.00	0.00
4.4	10.14	6.82	6.82	7.04	4.32	4.32	6.41	−0.04	−0.04	8.13	0.00	0.00
4.6	10.22	6.90	6.90	7.07	4.35	4.35	6.41	−0.04	−0.04	8.13	0.00	0.00
4.8	10.32	7.00	7.00	7.13	4.41	4.41	6.42	−0.03	−0.03	8.12	−0.01	−0.01
5	10.38	7.06	7.06	7.18	4.46	4.46	6.42	−0.03	−0.03	8.12	−0.01	−0.01
5.2	10.46	7.14	7.14	7.24	4.52	4.52	6.41	−0.04	−0.04	8.12	−0.01	−0.01
5.4	10.53	7.21	7.21	7.27	4.55	4.55	6.41	−0.04	−0.04	8.12	−0.01	−0.01
5.6	10.57	7.25	7.25	7.31	4.59	4.59	6.41	−0.04	−0.04	8.12	−0.01	−0.01
5.8	10.63	7.31	7.31	7.33	4.61	4.61	6.41	−0.04	−0.04	8.12	−0.01	−0.01
6	10.69	7.37	7.37	7.36	4.64	4.64	6.41	−0.04	−0.04	8.13	0.00	0.00
6.2	10.74	7.42	7.42	7.38	4.66	4.66	6.41	−0.04	−0.04	8.12	−0.01	−0.01
6.4	10.75	7.43	7.43	7.37	4.65	4.65	6.41	−0.04	−0.04	8.13	0.00	0.00
6.6	10.80	7.48	7.48	7.41	4.69	4.69	6.44	−0.01	−0.01	8.12	−0.01	−0.01
6.8	10.83	7.51	7.51	7.46	4.74	4.74	6.44	−0.01	−0.01	8.12	−0.01	−0.01
7	10.86	7.54	7.54	7.46	4.74	4.74	6.44	−0.01	−0.01	8.13	0.00	0.00
7.2	10.89	7.57	7.57	7.47	4.75	4.75	6.44	−0.01	−0.01	8.13	0.00	0.00
7.4	10.93	7.61	7.61	7.46	4.74	4.74	6.63	0.18	0.19	8.13	0.00	0.00
7.6	10.96	7.64	7.64	7.50	4.78	4.78	6.63	0.18	0.19	8.13	0.00	0.00
7.8	10.98	7.66	7.66	7.55	4.83	4.83	6.63	0.18	0.19	8.12	−0.01	−0.01
8	11.01	7.69	7.69	7.64	4.92	4.92	6.64	0.19	0.19	8.12	−0.01	−0.01
8.2	11.02	7.70	7.70	7.68	4.96	4.96	6.64	0.19	0.19	8.13	0.00	0.00
8.4	11.03	7.71	7.72	7.79	5.07	5.07	6.63	0.18	0.19	8.13	0.00	0.00
8.6	11.05	7.73	7.73	7.83	5.11	5.11	6.63	0.18	0.19	8.13	0.00	0.00
8.8	11.08	7.76	7.76	7.91	5.19	5.19	6.63	0.18	0.19	8.13	0.00	0.00
9	11.10	7.78	7.78	7.94	5.22	5.22	6.64	0.19	0.19	8.12	−0.01	−0.01

9.2	11.09	7.77	7.77	7.96	5.24	5.24	6.63	0.18	0.19	8.13	0.00	0.00
9.4	11.11	7.79	7.79	7.97	5.25	5.25	6.63	0.18	0.19	8.12	−0.01	−0.01
9.6	11.13	7.81	7.81	8.05	5.33	5.33	6.64	0.19	0.19	8.12	−0.01	−0.01
9.8	11.14	7.82	7.82	8.05	5.33	5.33	6.64	0.19	0.19	8.12	−0.01	−0.01
10	11.16	7.84	7.84	8.09	5.37	5.37	6.64	0.19	0.19	8.12	−0.01	−0.01
12	11.24	7.92	7.92	8.32	5.60	5.60	6.65	0.20	0.20	8.12	−0.01	−0.01
14	11.29	7.97	7.97	8.57	5.85	5.85	6.65	0.20	0.20	8.12	−0.01	−0.01
16	11.35	8.03	8.03	8.63	5.91	5.91	6.64	0.19	0.19	8.12	−0.01	−0.01
18	11.38	8.06	8.06	8.69	5.97	5.97	6.63	0.18	0.18	8.13	0.00	0.00
20	11.41	8.09	8.09	8.70	5.98	5.98	6.63	0.18	0.18	8.12	−0.01	−0.01
22	11.48	8.16	8.16	8.74	6.02	6.02	6.62	0.17	0.18	8.12	−0.01	−0.01
24	11.46	8.14	8.14	8.75	6.03	6.03	6.65	0.20	0.20	8.13	0.00	0.00
26	11.46	8.14	8.14	9.95	7.23	7.23	6.65	0.20	0.20	8.13	0.00	0.00
28	11.51	8.19	8.19	11.18	8.46	8.46	6.65	0.20	0.20	8.13	0.00	0.00
30	11.52	8.20	8.21	11.61	8.89	8.89	6.65	0.20	0.20	8.12	−0.01	−0.01
32	11.55	8.23	8.23	11.58	8.86	8.86	6.85	0.40	0.40	8.13	0.00	0.00
34	11.57	8.25	8.25	11.01	8.29	8.29	6.85	0.40	0.40	8.12	−0.01	−0.01
36	11.57	8.25	8.25	10.82	8.10	8.10	6.86	0.41	0.41	8.14	0.01	0.01
38	11.59	8.27	8.27	10.79	8.07	8.07	6.85	0.40	0.40	8.14	0.01	0.01
40	11.58	8.26	8.26	10.82	8.10	8.10	6.84	0.39	0.40	8.14	0.01	0.01
42	11.63	8.31	8.31	10.81	8.09	8.09	6.85	0.40	0.40	8.14	0.01	0.01
44	11.63	8.31	8.31	10.85	8.13	8.13	6.84	0.39	0.40	8.14	0.01	0.02
46	11.64	8.32	8.32	10.87	8.15	8.15	6.84	0.39	0.39	8.14	0.01	0.02
48	11.65	8.33	8.33	10.89	8.17	8.17	6.83	0.38	0.39	8.14	0.01	0.02
50	11.66	8.34	8.34	10.90	8.18	8.18	6.83	0.38	0.39	8.14	0.01	0.02
52	11.66	8.34	8.34	10.91	8.19	8.19	6.83	0.38	0.39	8.14	0.01	0.02
54	11.67	8.35	8.35	10.93	8.21	8.21	6.83	0.38	0.38	8.15	0.02	0.03
56	11.68	8.36	8.37	10.96	8.24	8.25	6.82	0.37	0.38	8.15	0.02	0.03
58	11.68	8.36	8.37	10.96	8.24	8.25	6.82	0.37	0.37	8.14	0.01	0.02
60	11.68	8.36	8.37	10.99	8.27	8.27	6.82	0.37	0.38	8.15	0.02	0.03
62	11.72	8.40	8.41	11.01	8.29	8.29	6.82	0.37	0.38	8.16	0.02	0.03
64	11.69	8.37	8.38	11.03	8.31	8.31	6.82	0.37	0.38	8.16	0.02	0.03
66	11.72	8.40	8.41	11.05	8.33	8.33	6.82	0.37	0.38	8.15	0.02	0.03
68	11.74	8.42	8.43	11.10	8.38	8.38	6.82	0.37	0.38	8.15	0.02	0.03
70	11.73	8.41	8.42	11.10	8.38	8.38	6.83	0.38	0.38	8.16	0.02	0.03
72	11.75	8.43	8.44	11.12	8.40	8.41	6.83	0.38	0.38	8.16	0.03	0.04
74	11.73	8.41	8.42	11.12	8.40	8.41	6.83	0.38	0.38	8.16	0.03	0.04
76	11.75	8.43	8.44	11.15	8.43	8.43	6.82	0.37	0.38	8.16	0.02	0.03
78	11.74	8.42	8.43	11.17	8.45	8.45	6.83	0.38	0.38	8.16	0.03	0.04
80	11.77	8.45	8.46	11.19	8.47	8.47	6.83	0.38	0.39	8.17	0.04	0.05
82	11.77	8.45	8.46	11.21	8.49	8.49	6.82	0.37	0.38	8.17	0.04	0.05

84	11.78	8.46	8.47	11.21	8.49	8.49	6.83	0.38	0.38	8.18	0.05	0.06
86	11.78	8.46	8.47	11.25	8.53	8.53	6.83	0.38	0.39	8.17	0.04	0.05
88	11.79	8.47	8.48	11.24	8.52	8.52	6.83	0.38	0.39	8.17	0.04	0.05
90	11.78	8.46	8.47	11.26	8.54	8.54	6.82	0.37	0.38	8.17	0.04	0.05
92	11.81	8.49	8.49	11.27	8.55	8.55	6.81	0.36	0.37	8.17	0.04	0.05
94	11.80	8.48	8.49	11.30	8.58	8.59	6.82	0.37	0.38	8.18	0.05	0.06
96	11.82	8.50	8.51	11.32	8.60	8.61	6.81	0.36	0.37	8.17	0.04	0.05
98	11.82	8.50	8.51	11.31	8.59	8.60	6.81	0.36	0.37	8.17	0.04	0.05
100	11.83	8.51	8.51	11.34	8.62	8.62	6.81	0.36	0.37	8.18	0.05	0.06
120	11.88	8.56	8.57	11.50	8.78	8.78	6.83	0.38	0.39	8.19	0.06	0.07
140	11.91	8.59	8.60	11.65	8.93	8.94	6.81	0.36	0.37	8.20	0.07	0.08
160	11.94	8.62	8.63	11.77	9.05	9.06	6.83	0.38	0.39	8.21	0.08	0.10
180	11.97	8.65	8.66	11.92	9.20	9.20	6.82	0.37	0.38	8.21	0.08	0.09
200	12.00	8.68	8.69	12.07	9.35	9.35	6.81	0.36	0.37	8.22	0.09	0.10
220	12.05	8.73	8.75	12.15	9.43	9.44	6.81	0.36	0.38	8.22	0.09	0.10
240	12.05	8.73	8.75	12.29	9.57	9.58	6.81	0.36	0.38	8.23	0.10	0.11
260	12.04	8.72	8.73	12.42	9.70	9.70	6.82	0.37	0.38	8.23	0.10	0.11
280	12.09	8.77	8.78	12.50	9.78	9.78	6.82	0.37	0.38	8.24	0.11	0.12
300	12.13	8.81	8.82	12.60	9.88	9.88	6.82	0.37	0.38	8.24	0.11	0.12
320	12.12	8.80	8.81	12.66	9.94	9.95	6.81	0.36	0.37	8.24	0.11	0.13
340	12.15	8.83	8.84	12.74	10.02	10.02	6.98	0.53	0.55	8.24	0.11	0.13
360	12.17	8.85	8.87	12.82	10.10	10.11	6.98	0.53	0.54	8.26	0.13	0.14
380	12.20	8.88	8.90	12.93	10.21	10.22	6.98	0.53	0.54	8.26	0.13	0.14
400	12.16	8.84	8.86	13.04	10.32	10.32	6.97	0.52	0.54	8.26	0.13	0.14
420	12.19	8.87	8.88	13.10	10.38	10.39	7.00	0.55	0.56	8.26	0.13	0.14
440	12.22	8.90	8.91	13.22	10.50	10.50	6.99	0.54	0.55	8.26	0.13	0.14
460	12.26	8.94	8.95	13.30	10.58	10.59	7.01	0.56	0.56	8.26	0.13	0.14
480	12.27	8.95	8.96	13.39	10.67	10.67	6.99	0.54	0.55	8.27	0.14	0.15
500	12.30	8.98	8.99	13.43	10.71	10.72	6.99	0.54	0.55	8.27	0.14	0.15
520	12.29	8.97	8.98	13.50	10.78	10.78	7.00	0.55	0.56	8.28	0.15	0.16
540	12.31	8.99	9.00	13.58	10.86	10.86	6.97	0.52	0.53	8.28	0.15	0.16
560	12.31	8.99	9.00	13.66	10.94	10.95	6.98	0.53	0.55	8.28	0.15	0.16
580	12.31	8.99	9.00	13.73	11.01	11.01	6.97	0.52	0.54	8.28	0.15	0.16
600	12.32	9.00	9.02	13.77	11.05	11.06	6.98	0.53	0.54	8.28	0.15	0.16
620	12.28	8.96	8.97	13.86	11.14	11.14	6.96	0.51	0.53	8.28	0.15	0.16
640	12.33	9.01	9.03	13.92	11.20	11.20	6.96	0.51	0.53	8.28	0.15	0.16
660	12.32	9.00	9.02	13.96	11.24	11.25	6.96	0.51	0.52	8.28	0.15	0.16
680	12.32	9.00	9.01	14.06	11.34	11.34	6.95	0.50	0.51	8.28	0.15	0.17
700	12.35	9.03	9.05	14.14	11.42	11.43	6.95	0.50	0.52	8.28	0.15	0.17
720	12.35	9.03	9.05	14.25	11.53	11.53	6.95	0.50	0.52	8.28	0.15	0.17
740	12.34	9.02	9.04	14.29	11.57	11.58	6.94	0.49	0.51	8.28	0.15	0.17

760	12.38	9.06	9.08	14.32	11.60	11.61	6.94	0.49	0.51	8.28	0.15	0.17
780	12.38	9.06	9.08	14.41	11.69	11.69	6.94	0.49	0.51	8.28	0.15	0.17
800	12.37	9.05	9.07	14.48	11.76	11.77	6.94	0.49	0.51	8.28	0.15	0.17
820	12.39	9.07	9.09	14.59	11.87	11.88	6.95	0.50	0.52	8.28	0.15	0.17
840	12.40	9.08	9.10	14.74	12.02	12.02	6.94	0.49	0.51	8.29	0.16	0.18
860	12.40	9.08	9.10	14.77	12.05	12.06	6.96	0.51	0.53	8.29	0.16	0.18
880	12.41	9.09	9.11	14.84	12.12	12.13	6.96	0.51	0.52	8.29	0.16	0.17
900	12.43	9.11	9.12	14.93	12.21	12.22	6.97	0.52	0.53	8.29	0.16	0.17
920	12.44	9.12	9.13	15.02	12.30	12.30	6.97	0.52	0.53	8.30	0.16	0.18
940	12.45	9.13	9.14	15.10	12.38	12.39	6.98	0.53	0.54	8.30	0.16	0.18
960	12.47	9.15	9.15	15.16	12.44	12.44	6.98	0.53	0.54	8.30	0.16	0.17
980	12.50	9.18	9.19	15.23	12.51	12.51	6.99	0.54	0.55	8.30	0.17	0.18
1000	12.49	9.17	9.17	15.29	12.57	12.57	6.99	0.54	0.55	8.30	0.17	0.18
1030	12.49	9.17	9.17	15.41	12.69	12.70	7.01	0.56	0.56	8.31	0.18	0.18
1060	12.51	9.19	9.19	15.52	12.80	12.80	7.02	0.57	0.57	8.31	0.18	0.18
1090	12.51	9.19	9.19	15.62	12.90	12.90	7.04	0.59	0.58	8.32	0.19	0.19
1120	12.53	9.21	9.21	15.73	13.01	13.00	7.03	0.58	0.58	8.31	0.18	0.18
1150	12.53	9.21	9.21	15.79	13.07	13.07	7.03	0.58	0.57	8.32	0.19	0.18
1180	12.55	9.23	9.22	15.86	13.14	13.13	7.04	0.59	0.58	8.32	0.19	0.18
1210	12.55	9.23	9.22	15.91	13.19	13.18	7.03	0.58	0.57	8.33	0.20	0.20
1240	12.58	9.26	9.26	16.04	13.32	13.32	7.02	0.57	0.57	8.33	0.20	0.19
1270	12.58	9.26	9.26	16.14	13.42	13.42	7.00	0.55	0.55	8.33	0.20	0.20
1300	12.57	9.25	9.25	16.22	13.50	13.50	6.99	0.54	0.54	8.34	0.21	0.21
1330	12.57	9.25	9.25	16.26	13.54	13.54	6.98	0.53	0.54	8.33	0.20	0.21
1360	12.57	9.25	9.26	16.35	13.63	13.63	6.96	0.51	0.52	8.33	0.20	0.20
1390	12.58	9.26	9.27	16.43	13.71	13.72	7.00	0.55	0.56	8.33	0.20	0.21
1420	12.61	9.29	9.30	16.57	13.85	13.86	7.00	0.55	0.56	8.33	0.20	0.21
1450	12.63	9.31	9.32	16.66	13.94	13.94	7.00	0.55	0.56	8.34	0.21	0.22
1480	12.61	9.29	9.30	16.73	14.01	14.02	6.98	0.53	0.54	8.33	0.20	0.22
1510	12.61	9.29	9.31	16.81	14.09	14.10	6.96	0.51	0.53	8.33	0.20	0.22
1540	12.64	9.32	9.33	16.90	14.18	14.19	6.96	0.51	0.53	8.34	0.21	0.23
1570	12.64	9.32	9.34	16.96	14.24	14.25	6.96	0.51	0.53	8.34	0.21	0.23
1600	12.63	9.31	9.33	17.05	14.33	14.33	6.96	0.51	0.53	8.33	0.20	0.22
1630	12.66	9.34	9.36	17.16	14.44	14.45	6.95	0.50	0.52	8.34	0.21	0.23
1660	12.65	9.33	9.36	17.20	14.48	14.49	6.94	0.49	0.51	8.33	0.20	0.23
1690	12.67	9.35	9.37	17.29	14.57	14.58	6.94	0.49	0.51	8.33	0.20	0.22
1720	12.68	9.36	9.38	17.38	14.66	14.66	6.95	0.50	0.52	8.33	0.20	0.22
1750	12.67	9.35	9.37	17.38	14.66	14.66	6.95	0.50	0.51	8.34	0.21	0.23
1780	12.67	9.35	9.37	17.44	14.72	14.73	6.97	0.52	0.54	8.34	0.21	0.22
1810	12.67	9.35	9.36	17.47	14.75	14.75	6.99	0.54	0.55	8.34	0.21	0.22
1840	12.71	9.39	9.40	17.49	14.77	14.77	6.99	0.54	0.55	8.35	0.22	0.23

1870	12.72	9.40	9.41	17.56	14.84	14.84	7.00	0.55	0.55	8.35	0.22	0.22
1900	12.71	9.39	9.40	17.54	14.82	14.82	7.00	0.55	0.55	8.35	0.22	0.22
1930	12.71	9.39	9.39	17.56	14.84	14.84	7.01	0.56	0.56	8.35	0.22	0.23
1960	12.70	9.38	9.38	17.69	14.97	14.97	7.00	0.55	0.55	8.35	0.22	0.22
1990	12.72	9.40	9.40	17.72	15.00	15.00	7.00	0.55	0.55	8.35	0.22	0.23
2020	12.70	9.38	9.38	14.92	12.20	12.20	7.01	0.56	0.56	8.35	0.22	0.22
2050	12.72	9.40	9.40	14.81	12.09	12.09	7.01	0.56	0.56	8.35	0.22	0.22
2080	12.73	9.41	9.41	14.89	12.17	12.17	7.00	0.55	0.55	8.35	0.22	0.22
2110	12.71	9.39	9.39	14.92	12.20	12.20	7.00	0.55	0.55	8.35	0.22	0.22
2140	12.72	9.40	9.41	14.91	12.19	12.20	6.98	0.53	0.53	8.35	0.22	0.23
2170	12.75	9.43	9.44	14.93	12.21	12.22	6.98	0.53	0.54	8.35	0.22	0.23
2200	12.71	9.39	9.40	14.94	12.22	12.23	6.96	0.51	0.52	8.35	0.22	0.23
2230	12.75	9.43	9.43	14.97	12.25	12.25	6.98	0.53	0.54	8.35	0.22	0.23
2260	12.74	9.42	9.42	14.99	12.27	12.27	6.99	0.54	0.54	8.35	0.22	0.23
2290	12.73	9.41	9.41	15.04	12.32	12.32	7.00	0.55	0.55	8.35	0.22	0.22
2320	12.77	9.45	9.44	15.07	12.35	12.34	7.01	0.56	0.55	8.36	0.23	0.22
2350	12.75	9.43	9.42	15.06	12.34	12.33	7.01	0.56	0.55	8.35	0.22	0.22
2380	12.75	9.43	9.42	15.08	12.36	12.36	7.02	0.57	0.56	8.36	0.23	0.22
2410	12.78	9.46	9.44	15.12	12.40	12.40	7.04	0.59	0.58	8.36	0.23	0.21
2440	12.80	9.48	9.45	15.12	12.40	12.39	7.07	0.62	0.60	8.37	0.23	0.21
2470	12.81	9.49	9.47	15.14	12.42	12.41	7.08	0.63	0.60	8.37	0.23	0.21
2500	12.81	9.49	9.45	15.18	12.46	12.45	7.10	0.65	0.62	8.37	0.23	0.20
2530	12.80	9.48	9.44	15.18	12.46	12.45	7.10	0.65	0.62	8.37	0.24	0.21
2560	12.81	9.49	9.46	15.22	12.50	12.48	7.11	0.66	0.62	8.38	0.25	0.21
2590	12.81	9.49	9.46	15.17	12.45	12.44	7.11	0.66	0.63	8.37	0.24	0.20
2620	12.83	9.51	9.47	15.23	12.51	12.49	7.12	0.67	0.63	8.37	0.24	0.20
2650	12.82	9.50	9.46	15.24	12.52	12.50	7.12	0.67	0.63	8.38	0.25	0.21
2680	12.81	9.49	9.44	15.26	12.54	12.53	7.12	0.67	0.63	8.38	0.25	0.21
2710	12.82	9.50	9.46	15.25	12.53	12.52	7.13	0.68	0.64	8.40	0.27	0.23
2740	12.81	9.49	9.46	15.30	12.58	12.57	7.09	0.64	0.61	8.38	0.25	0.22
2770	12.85	9.53	9.50	15.30	12.58	12.57	7.09	0.64	0.61	8.40	0.27	0.23
2800	12.83	9.51	9.48	15.33	12.61	12.60	7.08	0.63	0.59	8.41	0.28	0.25
2830	12.81	9.49	9.46	15.33	12.61	12.60	7.07	0.62	0.59	8.40	0.27	0.24
2860	12.85	9.53	9.50	15.35	12.63	12.62	7.06	0.61	0.58	8.39	0.26	0.23
2890	12.83	9.51	9.49	15.39	12.67	12.66	7.04	0.59	0.57	8.40	0.27	0.24
2920	12.86	9.54	9.52	15.41	12.69	12.68	7.04	0.59	0.56	8.39	0.26	0.24
2950	12.84	9.52	9.50	15.43	12.71	12.70	7.03	0.58	0.56	8.39	0.26	0.24
2980	12.85	9.53	9.51	15.47	12.75	12.74	7.03	0.58	0.55	8.38	0.25	0.23
3010	12.87	9.55	9.53	15.50	12.78	12.77	7.03	0.58	0.56	8.39	0.26	0.24
3040	12.86	9.54	9.52	15.51	12.79	12.78	7.03	0.58	0.55	8.40	0.27	0.24
3070	12.89	9.57	9.54	15.52	12.80	12.79	7.05	0.60	0.57	8.39	0.26	0.23

3100	12.89	9.57	9.54	15.56	12.84	12.82	7.06	0.61	0.58	8.40	0.27	0.24
3130	12.90	9.58	9.54	15.61	12.89	12.88	7.08	0.63	0.59	8.40	0.27	0.23
3160	12.89	9.57	9.53	15.59	12.87	12.86	7.09	0.64	0.60	8.40	0.27	0.23
3190	12.90	9.58	9.53	15.59	12.87	12.86	7.11	0.66	0.62	8.40	0.27	0.22
3220	12.92	9.60	9.55	15.64	12.92	12.90	7.12	0.67	0.62	8.40	0.27	0.23
3250	12.91	9.59	9.54	15.70	12.98	12.96	7.13	0.68	0.62	8.40	0.27	0.22
3280	12.93	9.61	9.55	15.73	13.01	12.98	7.15	0.70	0.64	8.40	0.27	0.22
3310	12.93	9.61	9.55	15.75	13.03	13.01	7.17	0.72	0.66	8.41	0.28	0.22
3340	12.92	9.60	9.54	15.75	13.03	13.01	7.18	0.73	0.66	8.41	0.28	0.22
3370	12.92	9.60	9.53	15.76	13.04	13.02	7.17	0.72	0.66	8.41	0.28	0.22
3400	12.92	9.60	9.53	15.81	13.09	13.07	7.18	0.73	0.67	8.41	0.28	0.22
3430	12.94	9.62	9.55	15.79	13.07	13.05	7.16	0.71	0.65	8.41	0.28	0.22
3460	12.93	9.61	9.54	15.83	13.11	13.08	7.17	0.72	0.65	8.42	0.29	0.22
3490	12.93	9.61	9.54	15.86	13.14	13.11	7.17	0.72	0.66	8.41	0.28	0.22
3520	12.94	9.62	9.56	15.87	13.15	13.12	7.17	0.72	0.66	8.42	0.29	0.22
3550	12.91	9.59	9.53	15.86	13.14	13.11	7.15	0.70	0.64	8.41	0.28	0.22
3580	12.93	9.61	9.55	15.87	13.15	13.12	7.14	0.69	0.63	8.42	0.29	0.23
3610	12.92	9.60	9.54	15.89	13.17	13.14	7.14	0.69	0.63	8.42	0.29	0.23
3640	12.90	9.58	9.52	15.90	13.18	13.15	7.14	0.69	0.63	8.42	0.29	0.23
3670	12.92	9.60	9.54	15.91	13.19	13.16	7.13	0.68	0.62	8.42	0.29	0.23
3700	12.94	9.62	9.56	15.95	13.23	13.21	7.13	0.68	0.62	8.42	0.29	0.23
3730	12.95	9.63	9.57	15.98	13.26	13.24	7.14	0.69	0.63	8.42	0.29	0.23
3760	12.93	9.61	9.54	15.98	13.26	13.24	7.16	0.71	0.65	8.42	0.29	0.22
3790	12.95	9.63	9.56	16.00	13.28	13.25	7.15	0.70	0.64	8.42	0.29	0.22
3820	12.95	9.63	9.56	16.03	13.31	13.28	7.16	0.71	0.64	8.42	0.29	0.22
3850	12.97	9.65	9.57	16.05	13.33	13.30	7.17	0.72	0.65	8.42	0.29	0.22
3880	12.97	9.65	9.57	16.06	13.34	13.31	7.18	0.73	0.65	8.43	0.30	0.22
3910	12.97	9.65	9.58	16.12	13.40	13.37	7.18	0.73	0.65	8.43	0.30	0.22
3940	13.01	9.69	9.61	16.16	13.44	13.41	7.17	0.72	0.64	8.43	0.30	0.22
3970	13.01	9.69	9.61	16.17	13.45	13.42	7.20	0.75	0.67	8.44	0.31	0.22
4000	12.98	9.66	9.58	16.20	13.48	13.44	7.21	0.76	0.67	8.42	0.29	0.21
4030	13.02	9.70	9.61	16.24	13.52	13.49	7.21	0.76	0.67	8.42	0.29	0.20
4060	13.01	9.69	9.60	16.19	13.47	13.43	7.24	0.79	0.69	8.44	0.31	0.22
4090	13.01	9.69	9.60	16.29	13.57	13.53	7.23	0.78	0.68	8.45	0.32	0.22
4120	13.00	9.68	9.59	16.29	13.57	13.53	7.24	0.79	0.69	8.45	0.32	0.22
4150	12.98	9.66	9.57	16.27	13.55	13.52	7.22	0.77	0.68	8.45	0.32	0.23
4180	12.98	9.66	9.57	16.26	13.54	13.51	7.21	0.76	0.67	8.41	0.28	0.19
4210	12.99	9.67	9.58	16.32	13.60	13.56	7.21	0.76	0.67	8.46	0.33	0.24
4240	13.01	9.69	9.60	16.34	13.62	13.58	7.20	0.75	0.66	8.46	0.33	0.24
4270	13.01	9.69	9.60	16.34	13.62	13.58	7.19	0.74	0.65	8.45	0.32	0.22
4300	12.99	9.67	9.58	16.38	13.66	13.62	7.18	0.73	0.64	8.45	0.32	0.23

4330	12.99	9.67	9.59	16.39	13.67	13.63	7.18	0.73	0.64	8.47	0.34	0.26
4360	13.02	9.70	9.61	16.43	13.71	13.68	7.18	0.73	0.64	8.45	0.32	0.24
4390	13.02	9.70	9.62	16.48	13.76	13.73	7.16	0.71	0.63	8.45	0.32	0.24
4420	13.04	9.72	9.64	16.51	13.79	13.76	7.16	0.71	0.62	8.44	0.31	0.23
4450	13.03	9.71	9.63	16.56	13.84	13.80	7.16	0.71	0.63	8.46	0.33	0.25
4480	13.02	9.70	9.62	16.60	13.88	13.85	7.16	0.71	0.63	8.45	0.32	0.23
4510	13.03	9.71	9.62	16.66	13.94	13.91	7.17	0.72	0.63	8.45	0.32	0.23
4540	13.04	9.72	9.63	16.65	13.93	13.90	7.16	0.71	0.63	8.45	0.32	0.24
4570	13.04	9.72	9.63	16.68	13.96	13.92	7.23	0.78	0.69	8.44	0.31	0.22
4600	13.04	9.72	9.63	16.72	14.00	13.96	7.24	0.79	0.70	8.44	0.31	0.22
4630	13.05	9.73	9.64	16.74	14.02	13.99	7.22	0.77	0.68	8.44	0.31	0.23
4660	13.03	9.71	9.63	16.74	14.02	13.99	7.21	0.76	0.68	8.44	0.31	0.23
4690	13.08	9.76	9.67	16.76	14.04	14.01	7.22	0.77	0.68	8.44	0.31	0.23
4720	13.07	9.75	9.66	16.84	14.12	14.08	7.22	0.77	0.69	8.44	0.31	0.22
4750	13.06	9.74	9.65	16.81	14.09	14.06	7.21	0.76	0.68	8.44	0.31	0.22
4780	13.09	9.77	9.68	16.87	14.15	14.11	7.20	0.75	0.66	8.44	0.31	0.23
4810	13.06	9.74	9.65	16.84	14.12	14.09	7.20	0.75	0.67	8.44	0.31	0.23
4840	13.07	9.75	9.67	16.84	14.12	14.09	7.20	0.75	0.66	8.44	0.31	0.23
4870	13.06	9.74	9.66	16.87	14.15	14.11	7.18	0.73	0.65	8.45	0.32	0.24
4900	13.06	9.74	9.66	16.89	14.17	14.13	7.18	0.73	0.65	8.45	0.32	0.24
4930	13.08	9.76	9.68	16.94	14.22	14.19	7.16	0.71	0.64	8.45	0.32	0.24
4960	13.07	9.75	9.67	16.96	14.24	14.21	7.15	0.70	0.63	8.44	0.31	0.24
4990	13.07	9.75	9.67	16.55	13.83	13.80	7.14	0.69	0.62	8.44	0.31	0.24
5020	13.09	9.77	9.69	16.49	13.77	13.74	7.14	0.69	0.62	8.45	0.32	0.24
5050	13.07	9.75	9.68	16.50	13.78	13.75	7.11	0.66	0.59	8.44	0.31	0.24
5080	13.06	9.74	9.67	16.47	13.75	13.72	7.13	0.68	0.61	8.44	0.31	0.24
5110	13.07	9.75	9.68	16.47	13.75	13.72	7.11	0.66	0.59	8.44	0.31	0.24
5140	13.10	9.78	9.71	16.46	13.74	13.71	7.11	0.66	0.59	8.45	0.32	0.25
5170	13.08	9.76	9.69	16.48	13.76	13.73	7.12	0.67	0.60	8.44	0.31	0.24
5200	13.09	9.77	9.70	16.45	13.73	13.70	7.11	0.66	0.59	8.44	0.31	0.24
5230	13.11	9.79	9.71	16.47	13.75	13.72	7.12	0.67	0.59	8.45	0.32	0.24
5260	13.07	9.75	9.67	16.50	13.78	13.75	7.12	0.67	0.59	8.44	0.31	0.24
5290	13.11	9.79	9.71	16.58	13.86	13.83	7.13	0.68	0.60	8.45	0.32	0.25
5320	13.12	9.80	9.71	16.55	13.83	13.79	7.14	0.69	0.61	8.45	0.32	0.24
5350	13.13	9.81	9.72	16.57	13.85	13.81	7.16	0.71	0.62	8.46	0.33	0.24
5380	13.13	9.81	9.71	16.58	13.86	13.83	7.16	0.71	0.62	8.46	0.33	0.24
5410	13.12	9.80	9.70	16.56	13.84	13.80	7.17	0.72	0.62	8.47	0.34	0.25
5440	13.11	9.79	9.69	16.78	14.06	14.03	7.18	0.73	0.64	8.48	0.35	0.26
5470	13.14	9.82	9.73	16.76	14.04	14.01	7.19	0.74	0.65	8.48	0.35	0.25
5500	13.13	9.81	9.71	16.77	14.05	14.01	7.20	0.75	0.65	8.49	0.35	0.26
5530	13.16	9.84	9.74	16.80	14.08	14.04	7.19	0.74	0.64	8.49	0.35	0.26

5560	13.13	9.81	9.70	16.81	14.09	14.05	7.18	0.73	0.63	8.49	0.35	0.25
5590	13.14	9.82	9.72	16.84	14.12	14.08	7.18	0.73	0.63	8.49	0.36	0.26
5620	13.14	9.82	9.73	16.82	14.10	14.06	7.18	0.73	0.63	8.50	0.37	0.27
5650	13.13	9.81	9.72	16.88	14.16	14.12	7.16	0.71	0.61	8.49	0.35	0.26
5680	13.12	9.80	9.70	16.87	14.15	14.11	7.16	0.71	0.61	8.47	0.34	0.25
5710	13.12	9.80	9.70	16.80	14.08	14.04	7.15	0.70	0.61	8.49	0.35	0.26
5740	13.14	9.82	9.73	16.82	14.10	14.06	7.13	0.68	0.58	8.49	0.35	0.26
5770	13.14	9.82	9.73	16.74	14.02	13.99	7.12	0.67	0.58	8.49	0.35	0.26
5800	13.14	9.82	9.74	16.73	14.01	13.97	7.11	0.66	0.58	8.49	0.35	0.27
5830	13.13	9.81	9.73	16.72	14.00	13.96	7.11	0.66	0.57	8.48	0.35	0.26
5860	13.15	9.83	9.75	16.74	14.02	13.99	7.09	0.64	0.56	8.48	0.35	0.27
5890	13.17	9.85	9.77	16.84	14.12	14.09	7.08	0.63	0.55	8.48	0.35	0.27
5920	13.14	9.82	9.74	16.85	14.13	14.10	7.08	0.63	0.55	8.48	0.35	0.27
5950	13.15	9.83	9.75	16.84	14.12	14.09	7.08	0.63	0.55	8.48	0.35	0.27
5980	13.17	9.85	9.77	16.82	14.10	14.07	7.08	0.63	0.54	8.48	0.35	0.27
6010	13.15	9.83	9.75	16.79	14.07	14.04	7.11	0.66	0.58	8.48	0.35	0.27
6040	13.16	9.84	9.76	16.76	14.04	14.01	7.10	0.65	0.57	8.48	0.35	0.27
6070	13.17	9.85	9.77	16.80	14.08	14.05	7.11	0.66	0.58	8.48	0.35	0.27
6100	13.18	9.86	9.78	17.49	14.77	14.74	7.09	0.64	0.57	8.48	0.35	0.27
6130	13.18	9.86	9.78	17.60	14.88	14.85	7.09	0.64	0.57	8.48	0.35	0.27
6160	13.18	9.86	9.78	17.65	14.93	14.90	7.15	0.70	0.62	8.48	0.35	0.27
6190	13.20	9.88	9.80	17.64	14.92	14.89	7.14	0.69	0.62	8.49	0.35	0.28
6220	13.19	9.87	9.79	17.64	14.92	14.89	7.13	0.68	0.61	8.49	0.35	0.28
6250	13.20	9.88	9.81	17.64	14.92	14.89	7.13	0.68	0.60	8.49	0.35	0.28
6280	13.19	9.87	9.80	17.58	14.86	14.83	7.11	0.66	0.59	8.49	0.35	0.28
6310	13.21	9.89	9.82	17.50	14.78	14.75	7.11	0.66	0.59	8.49	0.35	0.28
6340	13.21	9.89	9.82	17.49	14.77	14.74	7.10	0.65	0.58	8.49	0.35	0.28
6370	13.20	9.88	9.81	17.51	14.79	14.76	7.26	0.81	0.74	8.49	0.35	0.28
6400	13.16	9.84	9.77	17.42	14.70	14.68	7.25	0.80	0.73	8.49	0.36	0.29
6430	13.22	9.90	9.83	17.41	14.69	14.67	7.23	0.78	0.71	8.49	0.35	0.29
6460	13.21	9.89	9.83	17.38	14.66	14.63	7.21	0.76	0.69	8.49	0.35	0.29
6490	13.17	9.85	9.79	17.32	14.60	14.57	7.20	0.75	0.68	8.48	0.35	0.29
6520	13.19	9.87	9.81	17.33	14.61	14.58	7.19	0.74	0.68	8.49	0.35	0.29
6550	13.21	9.89	9.83	17.29	14.57	14.55	7.17	0.72	0.66	8.49	0.35	0.30
6580	13.20	9.88	9.82	17.29	14.57	14.55	7.16	0.71	0.65	8.48	0.35	0.29
6610	13.18	9.86	9.80	17.32	14.60	14.58	7.15	0.70	0.64	8.48	0.35	0.29
6640	13.22	9.90	9.84	17.33	14.61	14.59	7.15	0.70	0.64	8.49	0.35	0.30
6670	13.21	9.89	9.83	17.28	14.56	14.54	7.14	0.69	0.64	8.49	0.35	0.30
6700	13.20	9.88	9.82	17.21	14.49	14.46	7.15	0.70	0.64	8.49	0.35	0.29
6730	13.20	9.88	9.82	17.21	14.49	14.46	7.16	0.71	0.65	8.49	0.35	0.29
6760	13.24	9.92	9.85	17.21	14.49	14.46	7.17	0.72	0.65	8.49	0.36	0.29

6790	13.21	9.89	9.82	17.19	14.47	14.44	7.18	0.73	0.65	8.49	0.36	0.29
6820	13.23	9.91	9.84	17.11	14.39	14.36	7.17	0.72	0.65	8.50	0.37	0.29
6850	13.23	9.91	9.84	17.08	14.36	14.33	7.16	0.71	0.64	8.50	0.37	0.29
6880	13.23	9.91	9.83	17.07	14.35	14.32	7.17	0.72	0.65	8.51	0.38	0.30
6910	13.25	9.93	9.85	17.08	14.36	14.33	7.17	0.72	0.64	8.51	0.38	0.30
6940	13.26	9.94	9.86	17.13	14.41	14.38	7.18	0.73	0.64	8.51	0.38	0.29
6970	13.25	9.93	9.84	17.06	14.34	14.30	7.17	0.72	0.64	8.51	0.38	0.29
7000	13.25	9.93	9.84	17.05	14.33	14.29	7.16	0.71	0.63	8.51	0.38	0.30
7030	13.25	9.93	9.84	17.02	14.30	14.26	7.16	0.71	0.63	8.51	0.38	0.29
7060	13.24	9.92	9.83	17.03	14.31	14.27	7.15	0.70	0.62	8.52	0.39	0.30
7090	13.27	9.95	9.86	16.98	14.26	14.23	7.14	0.69	0.61	8.52	0.39	0.30
7120	13.26	9.94	9.86	16.97	14.25	14.22	7.19	0.74	0.66	8.51	0.38	0.30
7150	13.28	9.96	9.88	16.89	14.17	14.14	7.18	0.73	0.65	8.51	0.38	0.30
7180	13.25	9.93	9.85	16.84	14.12	14.09	7.15	0.70	0.63	8.52	0.39	0.31
7210	13.26	9.94	9.86	16.78	14.06	14.03	7.14	0.69	0.62	8.51	0.38	0.31
7240	13.24	9.92	9.85	16.75	14.03	14.01	7.13	0.68	0.61	8.51	0.38	0.31
7270	13.27	9.95	9.88	16.73	14.01	13.99	7.14	0.69	0.62	8.51	0.38	0.31
7300	13.30	9.98	9.91	16.73	14.01	13.98	7.14	0.69	0.62	8.51	0.38	0.32
7330	13.28	9.96	9.89	16.71	13.99	13.96	7.13	0.68	0.62	8.52	0.39	0.32
7360	13.28	9.96	9.90	16.66	13.94	13.92	7.13	0.68	0.62	8.51	0.38	0.32
7390	13.27	9.95	9.89	16.61	13.89	13.87	7.14	0.69	0.63	8.51	0.38	0.32
7420	13.27	9.95	9.89	16.58	13.86	13.84	7.18	0.73	0.67	8.51	0.38	0.32
7450	13.28	9.96	9.90	16.56	13.84	13.81	7.17	0.72	0.66	8.51	0.38	0.32
7480	13.29	9.97	9.91	16.41	13.69	13.67	7.16	0.71	0.65	8.51	0.38	0.32
7510	13.29	9.97	9.91	16.51	13.79	13.77	7.15	0.70	0.64	8.51	0.38	0.32
7540	13.28	9.96	9.90	16.49	13.77	13.75	7.15	0.70	0.64	8.51	0.38	0.32
7570	13.30	9.98	9.91	16.48	13.76	13.74	7.15	0.70	0.64	8.52	0.39	0.33
7600	13.30	9.98	9.91	16.48	13.76	13.74	7.16	0.71	0.64	8.52	0.39	0.32
7630	13.30	9.98	9.91	16.47	13.75	13.72	7.16	0.71	0.64	8.52	0.39	0.32
7660	13.30	9.98	9.92	16.46	13.74	13.71	7.17	0.72	0.65	8.52	0.39	0.32
7690	13.31	9.99	9.93	16.46	13.74	13.72	7.14	0.69	0.63	8.52	0.39	0.32
7720	13.30	9.98	9.92	16.41	13.69	13.67	7.26	0.81	0.74	8.52	0.39	0.33
7750	13.31	9.99	9.92	16.44	13.72	13.70	7.24	0.79	0.72	8.52	0.39	0.32
7780	13.31	9.99	9.93	16.43	13.71	13.69	7.22	0.77	0.71	8.52	0.39	0.33
7810	13.33	10.01	9.95	16.45	13.73	13.71	7.20	0.75	0.69	8.52	0.39	0.33
7840	13.31	9.99	9.93	16.45	13.73	13.71	7.20	0.75	0.68	8.52	0.39	0.33
7870	13.31	9.99	9.93	16.40	13.68	13.65	7.18	0.73	0.67	8.52	0.39	0.33
7900	13.30	9.98	9.92	16.37	13.65	13.62	7.17	0.72	0.66	8.52	0.39	0.33
7930	13.30	9.98	9.92	16.32	13.60	13.58	7.14	0.69	0.63	8.52	0.39	0.33
7960	13.33	10.01	9.95	16.33	13.61	13.59	7.32	0.87	0.81	8.52	0.39	0.34
7990	13.33	10.01	9.95	16.25	13.53	13.51	7.30	0.85	0.79	8.52	0.39	0.34

8020	13.31	9.99	9.93	16.19	13.47	13.44	7.29	0.84	0.78	8.52	0.39	0.34
8050	13.34	10.02	9.96	15.99	13.27	13.25	7.28	0.83	0.77	8.53	0.40	0.34
8080	13.32	10.00	9.95	16.07	13.35	13.32	7.27	0.82	0.76	8.52	0.39	0.34
8110	13.31	9.99	9.93	16.11	13.39	13.37	7.27	0.82	0.76	8.53	0.40	0.34
8140	13.31	9.99	9.93	16.18	13.46	13.43	7.27	0.82	0.75	8.53	0.40	0.34
8170	13.33	10.01	9.95	16.23	13.51	13.48	7.27	0.82	0.75	8.54	0.41	0.34
8200	13.32	10.00	9.93	16.14	13.42	13.39	7.26	0.81	0.74	8.54	0.41	0.34
8230	13.35	10.03	9.96	16.08	13.36	13.34	7.27	0.82	0.75	8.54	0.41	0.34
8260	13.36	10.04	9.97	16.17	13.45	13.42	7.27	0.82	0.75	8.55	0.42	0.34
8290	13.35	10.03	9.95	16.03	13.31	13.28	7.27	0.82	0.74	8.55	0.42	0.34
8320	13.36	10.04	9.96	15.94	13.22	13.19	7.27	0.82	0.74	8.55	0.42	0.34
8350	13.35	10.03	9.95	15.86	13.14	13.11	7.26	0.81	0.73	8.56	0.43	0.34
8380	13.35	10.03	9.95	15.96	13.24	13.21	7.27	0.82	0.74	8.56	0.43	0.35
8410	13.35	10.03	9.95	15.95	13.23	13.20	7.25	0.80	0.72	8.54	0.41	0.33
8440	13.36	10.04	9.95	15.77	13.05	13.02	7.25	0.80	0.71	8.59	0.46	0.38
8470	13.35	10.03	9.95	15.63	12.91	12.88	7.23	0.78	0.70	8.56	0.43	0.35
8500	13.32	10.00	9.92	15.73	13.01	12.97	7.22	0.77	0.69	8.56	0.43	0.34
8530	13.34	10.02	9.94	16.07	13.35	13.32	7.20	0.75	0.67	8.57	0.44	0.36
8560	13.36	10.04	9.96	15.66	12.94	12.91	7.19	0.74	0.66	8.57	0.44	0.36
8590	13.37	10.05	9.97	15.65	12.93	12.90	7.18	0.73	0.65	8.56	0.43	0.35
8620	13.36	10.04	9.96	15.67	12.95	12.92	7.27	0.82	0.74	8.57	0.44	0.37
8650	13.37	10.05	9.97	15.68	12.96	12.93	7.25	0.80	0.72	8.57	0.44	0.36
8680	13.37	10.05	9.98	15.68	12.96	12.93	7.24	0.79	0.72	8.56	0.43	0.36
8710	13.38	10.06	9.99	15.71	12.99	12.96	7.21	0.76	0.69	8.57	0.44	0.36
8740	13.34	10.02	9.95	15.70	12.98	12.95	7.20	0.75	0.68	8.57	0.44	0.37
8770	13.39	10.07	10.00	15.69	12.97	12.94	7.19	0.74	0.67	8.57	0.44	0.37
8800	13.38	10.06	9.99	15.68	12.96	12.93	7.21	0.76	0.68	8.56	0.43	0.36
8830	13.37	10.05	9.98	15.72	13.00	12.97	7.21	0.76	0.69	8.57	0.44	0.37
8860	13.38	10.06	9.99	15.75	13.03	13.01	7.31	0.86	0.79	8.56	0.43	0.36
8890	13.38	10.06	9.99	15.80	13.08	13.05	7.31	0.86	0.78	8.57	0.44	0.37
8920	13.39	10.07	10.00	15.74	13.02	13.00	7.30	0.85	0.78	8.57	0.44	0.37
8950	13.38	10.06	9.99	15.83	13.11	13.08	7.29	0.84	0.76	8.57	0.44	0.37
8980	13.38	10.06	9.98	15.86	13.14	13.11	7.29	0.84	0.76	8.57	0.44	0.36
9010	13.41	10.09	10.01	15.90	13.18	13.15	7.27	0.82	0.74	8.57	0.44	0.36
9040	13.40	10.08	10.00	15.93	13.21	13.18	7.27	0.82	0.74	8.57	0.44	0.37
9070	13.40	10.08	10.00	15.98	13.26	13.23	7.27	0.82	0.74	8.57	0.44	0.37
9100	13.43	10.11	10.03	16.01	13.29	13.26	7.27	0.82	0.74	8.57	0.44	0.37
9130	13.41	10.09	10.01	16.02	13.30	13.27	7.26	0.81	0.73	8.58	0.45	0.37
9160	13.40	10.08	10.00	16.02	13.30	13.27	7.24	0.79	0.71	8.58	0.45	0.38
9190	13.41	10.09	10.01	16.03	13.31	13.28	7.22	0.77	0.70	8.59	0.46	0.38
9220	13.41	10.09	10.02	16.06	13.34	13.31	7.21	0.76	0.68	8.58	0.45	0.38

STAGE 2

9250	13.43	10.11	10.04	16.06	13.34	13.31	7.21	0.76	0.69	8.58	0.45	0.38
9280	13.42	10.10	10.03	16.11	13.39	13.37	7.21	0.76	0.69	8.58	0.45	0.38
9310	13.43	10.11	10.04	16.27	13.55	13.53	7.44	0.99	0.92	8.57	0.44	0.38
9340	13.43	10.11	10.04	16.76	14.04	14.02	7.44	0.99	0.92	8.57	0.44	0.38
9370	13.43	10.11	10.04	17.15	14.43	14.40	7.41	0.96	0.90	8.57	0.44	0.38
9400	13.41	10.09	10.03	17.62	14.90	14.88	7.40	0.95	0.89	8.57	0.44	0.38
9430	13.43	10.11	10.04	17.91	15.19	15.17	7.39	0.94	0.88	8.57	0.44	0.38
9460	13.42	10.10	10.03	17.39	14.67	14.65	7.38	0.93	0.86	8.57	0.44	0.38
9490	13.42	10.10	10.03	17.72	15.00	14.98	7.37	0.92	0.86	8.57	0.44	0.38
9520	13.43	10.11	10.04	17.44	14.72	14.70	7.36	0.91	0.84	8.58	0.45	0.39
9550	13.43	10.11	10.04	17.52	14.80	14.77	7.35	0.90	0.84	8.58	0.45	0.38
9580	13.41	10.09	10.02	17.39	14.67	14.64	7.36	0.91	0.84	8.59	0.46	0.39
9610	13.44	10.12	10.05	17.18	14.46	14.43	7.34	0.89	0.82	8.59	0.46	0.39
9640	13.44	10.12	10.04	17.33	14.61	14.58	7.35	0.90	0.82	8.59	0.46	0.38
9670	13.45	10.13	10.05	17.24	14.52	14.49	7.35	0.90	0.82	8.59	0.46	0.38
9700	13.46	10.14	10.06	17.12	14.40	14.37	7.36	0.91	0.83	8.59	0.46	0.38
9730	13.45	10.13	10.04	17.20	14.48	14.44	7.35	0.90	0.82	8.60	0.47	0.39
9760	13.44	10.12	10.04	17.14	14.42	14.39	7.33	0.88	0.80	8.59	0.46	0.38
9790	13.46	10.14	10.06	17.14	14.42	14.39	7.33	0.88	0.80	8.59	0.46	0.38
9820	14.19	10.87	10.78	17.16	14.44	14.41	7.35	0.90	0.81	8.61	0.48	0.39
9850	14.31	10.99	10.91	17.04	14.32	14.28	7.32	0.87	0.78	8.60	0.47	0.39
9880	14.37	11.05	10.96	17.02	14.30	14.26	7.32	0.87	0.78	8.61	0.48	0.40
9910	14.30	10.98	10.90	16.94	14.22	14.19	7.31	0.86	0.77	8.62	0.49	0.40
9940	12.98	9.66	9.58	16.97	14.25	14.22	7.28	0.83	0.74	8.61	0.48	0.40
9970	13.00	9.68	9.60	16.92	14.20	14.17	7.26	0.81	0.73	8.61	0.48	0.40
10000	12.98	9.66	9.59	17.00	14.28	14.25	7.22	0.77	0.70	8.59	0.46	0.38
10030	13.31	9.99	9.92	16.86	14.14	14.11	7.21	0.76	0.68	8.59	0.46	0.39
10060	13.53	10.21	10.14	17.00	14.28	14.25	7.35	0.90	0.83	8.61	0.48	0.41

NSB Kings Bay Site 11, IM Phase I Operations: Stage 2 Test

E. Time (min)	PS-2 (ft)	drawdown (ft)	corr. dd (ft)	PS-3 (ft)	drawdown (ft)	corr. dd (ft)	E. Time (min)	MW11-2 (ft)	drawdown (ft)	corr. dd (ft)	MW11-10E (ft)	drawdown (ft)	corr. dd (ft)
0	6.68	-0.01	-0.01	7.42	-0.01	-0.01	0	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0083	6.68	-0.01	-0.01	7.42	-0.01	-0.01	0.0083	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0166	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.0166	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.025	6.68	-0.01	-0.01	7.42	-0.01	-0.01	0.025	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0333	6.68	-0.01	-0.01	7.42	-0.01	-0.01	0.0333	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0416	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.0416	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.05	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.05	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0583	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.0583	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0666	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.0666	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.075	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.075	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0833	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.0833	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.0916	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.0916	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1	7.34	-0.09	-0.09	10.12	-0.04	-0.04
0.1083	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1083	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1166	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1166	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.125	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.125	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1333	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1333	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1416	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1416	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.15	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.15	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1583	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1583	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1666	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1666	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.175	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.175	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1833	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1833	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.1916	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.1916	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2083	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2083	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2166	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2166	7.34	-0.09	-0.09	10.12	-0.04	-0.04
0.225	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.225	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2333	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2333	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2416	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2416	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.25	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.25	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2583	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2583	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2666	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2666	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.275	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.275	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2833	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2833	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.2916	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.2916	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.3	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.3	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.3083	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.3083	7.34	-0.09	-0.09	10.13	-0.03	-0.03
0.3166	6.69	-0.00	-0.00	7.42	-0.01	-0.01	0.3166	7.34	-0.09	-0.09	10.13	-0.03	-0.03

0.325	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.325	7.34	−0.09	−0.09	10.13	−0.03	−0.03
0.3333	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.3333	7.34	−0.09	−0.09	10.13	−0.03	−0.03
0.35	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.35	7.34	−0.09	−0.09	10.12	−0.04	−0.04
0.3666	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.3666	7.34	−0.09	−0.09	10.12	−0.04	−0.04
0.3833	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.3833	7.34	−0.09	−0.09	10.12	−0.04	−0.04
0.4	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.4	7.34	−0.09	−0.09	10.12	−0.04	−0.04
0.4166	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.4166	7.34	−0.09	−0.09	10.12	−0.05	−0.04
0.4333	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.4333	7.34	−0.09	−0.09	10.12	−0.05	−0.05
0.45	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.45	7.34	−0.09	−0.09	10.12	−0.05	−0.04
0.4666	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.4666	7.34	−0.09	−0.09	10.11	−0.05	−0.05
0.4833	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.4833	7.34	−0.09	−0.09	10.11	−0.05	−0.05
0.5	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.5	7.34	−0.09	−0.09	10.11	−0.05	−0.05
0.5166	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.5166	7.34	−0.09	−0.09	10.11	−0.05	−0.05
0.5333	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.5333	7.34	−0.09	−0.09	10.10	−0.06	−0.06
0.55	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.55	7.34	−0.09	−0.09	10.10	−0.06	−0.06
0.5666	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.5666	7.34	−0.09	−0.09	10.10	−0.06	−0.06
0.5833	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.5833	7.34	−0.09	−0.09	10.09	−0.07	−0.07
0.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.6	7.34	−0.09	−0.09	10.09	−0.07	−0.07
0.6166	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.6166	7.34	−0.09	−0.09	10.09	−0.07	−0.07
0.6333	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.6333	7.34	−0.09	−0.09	10.09	−0.07	−0.07
0.65	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.65	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.6666	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.6666	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.6833	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.6833	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.7	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.7	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.7166	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.7166	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.7333	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.7333	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.75	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.75	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.7666	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.7666	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.7833	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.7833	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.8	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.8	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.8166	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.8166	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.8333	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.8333	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.85	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.85	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.8666	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.8666	7.34	−0.09	−0.09	10.08	−0.08	−0.07
0.8833	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.8833	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.9	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.9	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.9166	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.9166	7.34	−0.09	−0.09	10.08	−0.08	−0.07
0.9333	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.9333	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.95	6.68	−0.01	−0.01	7.42	−0.01	−0.01	0.95	7.34	−0.09	−0.09	10.08	−0.08	−0.07
0.9666	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.9666	7.34	−0.09	−0.09	10.08	−0.08	−0.08
0.9833	6.69	−0.00	−0.00	7.42	−0.01	−0.01	0.9833	7.34	−0.09	−0.09	10.09	−0.07	−0.07

1	6.68	−0.01	−0.01	7.42	−0.01	−0.01	1	7.34	−0.09	−0.09	10.09	−0.07	−0.07
1.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	1.2	7.34	−0.09	−0.09	10.10	−0.06	−0.06
1.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	1.4	7.34	−0.09	−0.09	10.10	−0.06	−0.06
1.6	6.68	−0.01	−0.01	7.42	−0.01	−0.01	1.6	7.34	−0.09	−0.09	10.11	−0.05	−0.05
1.8	6.68	−0.01	−0.01	7.42	−0.01	−0.01	1.8	7.34	−0.09	−0.09	10.12	−0.04	−0.04
2	6.68	−0.01	−0.01	7.42	−0.01	−0.01	2	7.34	−0.09	−0.09	10.13	−0.03	−0.03
2.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	2.2	7.34	−0.09	−0.09	10.13	−0.03	−0.03
2.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	2.4	7.34	−0.09	−0.09	10.14	−0.02	−0.02
2.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	2.6	7.34	−0.09	−0.09	10.13	−0.03	−0.03
2.8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	2.8	7.34	−0.09	−0.09	10.12	−0.04	−0.04
3	6.69	−0.00	−0.00	7.42	−0.01	−0.01	3	7.34	−0.09	−0.09	10.12	−0.04	−0.04
3.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	3.2	7.34	−0.09	−0.09	10.11	−0.05	−0.05
3.4	6.69	0.00	−0.00	7.42	−0.01	−0.01	3.4	7.34	−0.09	−0.09	10.11	−0.05	−0.05
3.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	3.6	7.34	−0.09	−0.09	10.11	−0.05	−0.05
3.8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	3.8	7.34	−0.09	−0.09	10.11	−0.05	−0.05
4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	4	7.34	−0.09	−0.09	10.12	−0.05	−0.05
4.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	4.2	7.34	−0.09	−0.09	10.12	−0.04	−0.04
4.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	4.4	7.34	−0.09	−0.09	10.13	−0.03	−0.03
4.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	4.6	7.34	−0.09	−0.09	10.13	−0.03	−0.03
4.8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	4.8	7.34	−0.09	−0.09	10.13	−0.03	−0.03
5	6.69	−0.00	−0.00	7.42	−0.01	−0.01	5	7.34	−0.09	−0.09	10.13	−0.03	−0.03
5.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	5.2	7.34	−0.09	−0.09	10.13	−0.03	−0.02
5.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	5.4	7.34	−0.09	−0.09	10.14	−0.02	−0.02
5.6	6.69	0.00	0.00	7.42	−0.01	−0.01	5.6	7.34	−0.09	−0.09	10.13	−0.03	−0.03
5.8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	5.8	7.34	−0.09	−0.09	10.13	−0.03	−0.03
6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	6	7.34	−0.09	−0.09	10.13	−0.03	−0.03
6.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	6.2	7.34	−0.09	−0.09	10.14	−0.02	−0.02
6.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	6.4	7.34	−0.09	−0.09	10.14	−0.02	−0.02
6.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	6.6	7.34	−0.09	−0.09	10.15	−0.01	−0.01
6.8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	6.8	7.34	−0.09	−0.09	10.14	−0.02	−0.02
7	6.68	−0.01	−0.01	7.42	−0.01	−0.01	7	7.34	−0.09	−0.09	10.14	−0.02	−0.02
7.2	6.68	−0.01	−0.01	7.42	−0.01	−0.01	7.2	7.34	−0.09	−0.09	10.13	−0.03	−0.02
7.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	7.4	7.34	−0.09	−0.09	10.13	−0.03	−0.03
7.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	7.6	7.34	−0.09	−0.09	10.13	−0.03	−0.03
7.8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	7.8	7.34	−0.09	−0.09	10.13	−0.03	−0.03
8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	8	7.34	−0.09	−0.09	10.14	−0.02	−0.02
8.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	8.2	7.34	−0.09	−0.09	10.14	−0.02	−0.01
8.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	8.4	7.34	−0.09	−0.09	10.15	−0.01	−0.01
8.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	8.6	7.34	−0.09	−0.09	10.15	−0.01	−0.01
8.8	6.69	0.00	0.00	7.42	−0.01	−0.01	8.8	7.34	−0.09	−0.09	10.15	−0.01	−0.01
9	6.69	−0.00	−0.00	7.42	−0.01	−0.01	9	7.34	−0.09	−0.09	10.14	−0.02	−0.01

9.2	6.69	−0.00	−0.00	7.42	−0.01	−0.01	9.2	7.34	−0.09	−0.09	10.14	−0.02	−0.02
9.4	6.69	−0.00	−0.00	7.42	−0.01	−0.01	9.4	7.34	−0.09	−0.09	10.14	−0.02	−0.02
9.6	6.69	−0.00	−0.00	7.42	−0.01	−0.01	9.6	7.34	−0.09	−0.09	10.15	−0.01	−0.01
9.8	6.69	−0.00	−0.00	7.42	−0.01	−0.01	9.8	7.34	−0.09	−0.09	10.15	−0.01	−0.01
10	6.69	−0.00	−0.00	7.43	−0.00	−0.00	10	7.34	−0.09	−0.09	10.15	−0.01	−0.01
12	6.69	−0.00	−0.00	7.42	−0.01	−0.01	12	7.34	−0.09	−0.09	10.11	−0.05	−0.05
14	6.69	−0.00	−0.00	7.42	−0.01	−0.01	14	7.34	−0.09	−0.09	10.15	−0.01	−0.01
16	6.69	0.00	0.00	7.43	−0.00	−0.00	16	7.34	−0.09	−0.09	10.12	−0.04	−0.04
18	6.69	−0.00	−0.00	7.43	−0.00	−0.00	18	7.34	−0.09	−0.09	10.11	−0.05	−0.05
20	6.69	−0.00	−0.00	7.43	−0.00	−0.00	20	7.34	−0.09	−0.09	10.13	−0.03	−0.03
22	6.69	0.00	0.00	7.43	0.00	0.00	22	7.34	−0.09	−0.09	10.13	−0.03	−0.02
24	6.69	0.00	0.00	7.43	0.00	0.00	24	7.34	−0.09	−0.09	10.13	−0.03	−0.03
26	6.69	0.00	0.00	7.43	0.00	0.00	26	7.35	−0.08	−0.08	10.13	−0.03	−0.03
28	6.69	−0.00	−0.00	7.43	−0.00	−0.00	28	7.34	−0.09	−0.09	10.17	0.01	0.01
30	6.69	0.00	0.00	7.43	0.00	0.00	30	7.34	−0.09	−0.09	10.13	−0.03	−0.03
32	6.69	0.00	0.00	7.43	0.00	0.00	32	7.34	−0.09	−0.09	10.16	0.00	0.00
34	6.69	0.00	0.00	7.42	−0.01	−0.01	34	7.34	−0.09	−0.09	10.07	−0.09	−0.09
36	6.69	0.00	0.00	7.43	0.00	0.00	36	7.34	−0.09	−0.09	10.15	−0.01	−0.01
38	6.69	0.00	0.00	7.43	0.00	0.00	38	7.34	−0.09	−0.09	10.13	−0.03	−0.02
40	6.69	0.00	0.01	7.43	0.00	0.01	40	7.34	−0.09	−0.09	10.17	0.01	0.01
42	6.69	0.00	0.01	7.43	0.00	0.01	42	7.34	−0.09	−0.09	10.16	0.00	0.00
44	6.69	0.00	0.00	7.43	0.00	0.00	44	7.34	−0.09	−0.09	10.18	0.02	0.02
46	6.69	0.00	0.01	7.43	0.00	0.01	46	7.34	−0.09	−0.09	10.15	−0.01	−0.01
48	6.70	0.01	0.01	7.43	0.00	0.01	48	7.34	−0.09	−0.09	10.15	−0.01	−0.00
50	6.69	0.00	0.01	7.43	0.00	0.00	50	7.34	−0.09	−0.09	10.14	−0.02	−0.01
52	6.69	0.00	0.01	7.43	0.00	0.01	52	7.34	−0.09	−0.09	10.14	−0.02	−0.01
54	6.70	0.01	0.01	7.43	0.00	0.01	54	7.34	−0.09	−0.09	10.16	0.00	0.01
56	6.70	0.01	0.01	7.43	0.00	0.01	56	7.34	−0.09	−0.09	10.17	0.01	0.02
58	6.70	0.01	0.01	7.44	0.01	0.02	58	7.34	−0.09	−0.09	10.14	−0.02	−0.01
60	6.70	0.01	0.01	7.44	0.01	0.01	60	7.34	−0.09	−0.09	10.15	−0.01	−0.00
62	6.70	0.01	0.01	7.44	0.01	0.02	62	7.34	−0.09	−0.09	10.16	0.00	0.01
64	6.70	0.01	0.02	7.44	0.01	0.02	64	7.34	−0.09	−0.09	10.15	−0.01	−0.00
66	6.70	0.01	0.02	7.44	0.01	0.02	66	7.34	−0.09	−0.09	10.15	−0.01	−0.01
68	6.70	0.01	0.02	7.45	0.02	0.02	68	7.34	−0.09	−0.09	10.16	0.00	0.01
70	6.70	0.01	0.02	7.45	0.02	0.02	70	7.34	−0.09	−0.09	10.17	0.01	0.02
72	6.70	0.01	0.02	7.45	0.02	0.02	72	7.34	−0.09	−0.09	10.17	0.01	0.01
74	6.70	0.01	0.02	7.45	0.02	0.02	74	7.34	−0.09	−0.09	10.16	0.00	0.01
76	6.70	0.01	0.02	7.45	0.02	0.02	76	7.34	−0.09	−0.09	10.15	−0.01	0.00
78	6.71	0.01	0.02	7.45	0.02	0.03	78	7.34	−0.09	−0.09	10.16	0.00	0.01
80	6.71	0.01	0.02	7.45	0.02	0.03	80	7.34	−0.09	−0.09	10.17	0.01	0.02
82	6.71	0.01	0.02	7.45	0.02	0.03	82	7.34	−0.09	−0.09	10.17	0.01	0.01

84	6.71	0.01	0.02	7.45	0.02	0.03	84	7.34	−0.09	−0.09	10.17	0.01	0.02
86	6.71	0.01	0.02	7.45	0.02	0.03	86	7.34	−0.09	−0.09	10.15	−0.01	−0.00
88	6.71	0.02	0.03	7.45	0.02	0.03	88	7.34	−0.09	−0.09	10.16	0.00	0.01
90	6.71	0.02	0.03	7.45	0.02	0.03	90	7.34	−0.09	−0.09	10.15	−0.01	−0.00
92	6.71	0.02	0.03	7.46	0.03	0.03	92	7.34	−0.09	−0.09	10.14	−0.02	−0.01
94	6.71	0.02	0.03	7.46	0.03	0.03	94	7.34	−0.09	−0.09	10.19	0.03	0.03
96	6.71	0.02	0.03	7.45	0.02	0.03	96	7.34	−0.09	−0.09	10.13	−0.03	−0.02
98	6.71	0.02	0.03	7.46	0.03	0.03	98	7.34	−0.09	−0.09	10.16	0.00	0.01
100	6.71	0.02	0.03	7.46	0.03	0.03	100	7.34	−0.09	−0.09	10.18	0.02	0.02
120	6.72	0.03	0.04	7.47	0.04	0.05	120	7.34	−0.09	−0.08	10.19	0.03	0.04
140	6.72	0.03	0.04	7.47	0.04	0.05	140	7.34	−0.09	−0.09	10.21	0.05	0.06
160	6.73	0.04	0.05	7.47	0.04	0.06	160	7.34	−0.09	−0.08	10.18	0.02	0.04
180	6.73	0.04	0.05	7.48	0.05	0.06	180	7.34	−0.09	−0.09	10.19	0.03	0.04
200	6.74	0.05	0.06	7.49	0.06	0.07	200	7.34	−0.09	−0.08	10.19	0.03	0.04
220	6.74	0.05	0.06	7.49	0.06	0.07	220	7.34	−0.09	−0.08	10.19	0.03	0.04
240	6.74	0.05	0.06	7.49	0.06	0.07	240	7.34	−0.09	−0.08	10.19	0.03	0.05
260	6.75	0.06	0.07	7.50	0.07	0.08	260	7.34	−0.09	−0.09	10.20	0.04	0.05
280	6.75	0.06	0.07	7.50	0.07	0.08	280	7.34	−0.09	−0.08	10.20	0.04	0.05
300	6.76	0.07	0.08	7.51	0.08	0.09	300	7.34	−0.09	−0.08	10.20	0.04	0.06
320	6.76	0.07	0.08	7.51	0.08	0.09	320	7.34	−0.09	−0.08	10.20	0.04	0.06
340	6.76	0.07	0.08	7.51	0.08	0.09	340	7.34	−0.09	−0.08	10.20	0.04	0.06
360	6.76	0.07	0.08	7.51	0.08	0.09	360	7.34	−0.09	−0.08	10.20	0.04	0.06
380	6.76	0.07	0.08	7.51	0.08	0.09	380	7.34	−0.09	−0.08	10.21	0.05	0.06
400	6.76	0.07	0.09	7.52	0.09	0.10	400	7.34	−0.09	−0.08	10.21	0.05	0.06
420	6.77	0.08	0.09	7.52	0.09	0.10	420	7.34	−0.09	−0.08	10.22	0.06	0.07
440	6.77	0.08	0.09	7.52	0.09	0.10	440	7.34	−0.09	−0.09	10.22	0.06	0.07
460	6.77	0.08	0.09	7.52	0.09	0.10	460	7.33	−0.10	−0.09	10.22	0.06	0.07
480	6.77	0.08	0.09	7.52	0.09	0.10	480	7.33	−0.10	−0.09	10.22	0.06	0.07
500	6.77	0.08	0.09	7.52	0.09	0.10	500	7.33	−0.10	−0.09	10.22	0.06	0.07
520	6.76	0.07	0.09	7.52	0.09	0.10	520	7.34	−0.09	−0.09	10.22	0.06	0.07
540	6.76	0.07	0.09	7.51	0.08	0.10	540	7.34	−0.09	−0.09	10.21	0.05	0.07
560	6.76	0.07	0.09	7.52	0.09	0.10	560	7.33	−0.10	−0.09	10.21	0.05	0.06
580	6.76	0.07	0.08	7.51	0.08	0.10	580	7.33	−0.10	−0.09	10.21	0.05	0.07
600	6.76	0.07	0.08	7.51	0.08	0.10	600	7.34	−0.09	−0.09	10.22	0.06	0.08
620	6.76	0.07	0.09	7.51	0.08	0.10	620	7.33	−0.10	−0.09	10.21	0.05	0.07
640	6.76	0.07	0.09	7.51	0.08	0.10	640	7.33	−0.10	−0.09	10.21	0.05	0.07
660	6.76	0.07	0.09	7.51	0.08	0.10	660	7.33	−0.10	−0.09	10.20	0.04	0.06
680	6.76	0.07	0.09	7.51	0.08	0.10	680	7.33	−0.10	−0.09	10.21	0.05	0.07
700	6.76	0.07	0.09	7.51	0.08	0.10	700	7.34	−0.09	−0.09	10.21	0.05	0.06
720	6.76	0.07	0.09	7.51	0.08	0.10	720	7.34	−0.09	−0.09	10.22	0.06	0.07
740	6.75	0.06	0.08	7.51	0.08	0.10	740	7.33	−0.10	−0.09	10.22	0.06	0.08

760	6.75	0.06	0.08	7.51	0.08	0.10	760	7.33	−0.10	−0.09	10.21	0.05	0.07
780	6.76	0.07	0.09	7.51	0.08	0.10	780	7.34	−0.09	−0.09	10.21	0.05	0.07
800	6.76	0.07	0.09	7.51	0.08	0.10	800	7.33	−0.10	−0.09	10.21	0.05	0.08
820	6.76	0.07	0.09	7.51	0.08	0.10	820	7.33	−0.10	−0.09	10.21	0.05	0.07
840	6.76	0.07	0.09	7.51	0.08	0.10	840	7.34	−0.09	−0.09	10.22	0.06	0.08
860	6.76	0.07	0.09	7.52	0.09	0.10	860	7.34	−0.09	−0.09	10.21	0.05	0.07
880	6.77	0.08	0.10	7.52	0.09	0.10	880	7.34	−0.09	−0.08	10.22	0.06	0.08
900	6.77	0.08	0.09	7.52	0.09	0.11	900	7.34	−0.09	−0.08	10.22	0.06	0.08
920	6.77	0.08	0.10	7.53	0.10	0.11	920	7.34	−0.09	−0.08	10.23	0.07	0.08
940	6.78	0.09	0.10	7.53	0.10	0.11	940	7.34	−0.09	−0.09	10.23	0.07	0.08
960	6.78	0.09	0.10	7.53	0.10	0.11	960	7.34	−0.09	−0.09	10.24	0.07	0.08
980	6.78	0.09	0.10	7.53	0.10	0.11	980	7.34	−0.09	−0.09	10.24	0.08	0.09
1000	6.78	0.09	0.09	7.53	0.10	0.11	1000	7.34	−0.09	−0.08	10.23	0.07	0.08
1030	6.78	0.09	0.10	7.54	0.11	0.11	1030	7.34	−0.09	−0.09	10.25	0.09	0.09
1060	6.79	0.10	0.10	7.55	0.12	0.12	1060	7.35	−0.08	−0.08	10.26	0.10	0.10
1090	6.80	0.11	0.11	7.56	0.13	0.12	1090	7.35	−0.08	−0.09	10.28	0.12	0.11
1120	6.80	0.11	0.10	7.56	0.13	0.12	1120	7.35	−0.08	−0.08	10.27	0.11	0.10
1150	6.80	0.11	0.10	7.55	0.12	0.11	1150	7.35	−0.08	−0.08	10.25	0.09	0.08
1180	6.80	0.11	0.11	7.56	0.13	0.12	1180	7.35	−0.08	−0.08	10.26	0.10	0.09
1210	6.80	0.11	0.11	7.56	0.13	0.12	1210	7.35	−0.08	−0.08	10.28	0.12	0.12
1240	6.80	0.11	0.11	7.56	0.13	0.12	1240	7.35	−0.08	−0.08	10.27	0.11	0.10
1270	6.79	0.10	0.10	7.54	0.11	0.11	1270	7.35	−0.08	−0.08	10.24	0.07	0.07
1300	6.79	0.10	0.10	7.55	0.12	0.12	1300	7.35	−0.08	−0.08	10.31	0.15	0.15
1330	6.79	0.09	0.10	7.53	0.10	0.11	1330	7.35	−0.08	−0.08	10.23	0.07	0.07
1360	6.78	0.09	0.10	7.53	0.10	0.10	1360	7.35	−0.08	−0.08	10.25	0.09	0.09
1390	6.79	0.09	0.11	7.53	0.10	0.11	1390	7.35	−0.08	−0.07	10.21	0.05	0.06
1420	6.79	0.09	0.11	7.53	0.10	0.11	1420	7.35	−0.08	−0.08	10.23	0.07	0.08
1450	6.79	0.10	0.11	7.54	0.11	0.12	1450	7.35	−0.08	−0.07	10.23	0.07	0.08
1480	6.79	0.09	0.11	7.54	0.11	0.12	1480	7.35	−0.08	−0.07	10.26	0.10	0.12
1510	6.79	0.09	0.11	7.53	0.10	0.12	1510	7.35	−0.08	−0.07	10.21	0.05	0.07
1540	6.79	0.10	0.12	7.54	0.11	0.13	1540	7.35	−0.08	−0.07	10.28	0.12	0.13
1570	6.79	0.10	0.12	7.54	0.11	0.13	1570	7.35	−0.08	−0.07	10.24	0.08	0.10
1600	6.79	0.10	0.12	7.54	0.11	0.13	1600	7.35	−0.08	−0.07	10.22	0.06	0.08
1630	6.79	0.10	0.12	7.54	0.11	0.13	1630	7.35	−0.08	−0.07	10.24	0.08	0.10
1660	6.79	0.10	0.13	7.54	0.11	0.13	1660	7.35	−0.08	−0.07	10.22	0.06	0.09
1690	6.80	0.11	0.13	7.55	0.12	0.14	1690	7.36	−0.07	−0.07	10.23	0.07	0.09
1720	6.80	0.11	0.13	7.55	0.12	0.14	1720	7.36	−0.07	−0.07	10.23	0.07	0.09
1750	6.80	0.11	0.13	7.55	0.12	0.14	1750	7.36	−0.07	−0.07	10.25	0.09	0.10
1780	6.81	0.12	0.13	7.56	0.13	0.15	1780	7.36	−0.07	−0.07	10.25	0.09	0.11
1810	6.81	0.12	0.13	7.56	0.13	0.14	1810	7.36	−0.07	−0.07	10.25	0.09	0.10
1840	6.81	0.12	0.13	7.56	0.13	0.14	1840	7.36	−0.07	−0.07	10.27	0.11	0.12

1870	6.81	0.12	0.13	7.57	0.14	0.14	1870	7.35	−0.08	−0.08	10.26	0.10	0.11
1900	6.81	0.12	0.13	7.57	0.14	0.14	1900	7.36	−0.07	−0.07	10.27	0.11	0.11
1930	6.81	0.12	0.13	7.57	0.14	0.14	1930	7.36	−0.07	−0.07	10.26	0.10	0.11
1960	6.82	0.13	0.13	7.57	0.14	0.14	1960	7.36	−0.07	−0.07	10.27	0.11	0.11
1990	6.81	0.12	0.13	7.57	0.14	0.14	1990	7.36	−0.07	−0.07	10.26	0.10	0.11
2020	6.82	0.13	0.13	7.57	0.14	0.14	2020	7.37	−0.07	−0.07	10.27	0.11	0.11
2050	6.82	0.13	0.12	7.57	0.14	0.14	2050	7.36	−0.07	−0.07	10.27	0.11	0.11
2080	6.81	0.12	0.12	7.56	0.13	0.13	2080	7.36	−0.07	−0.07	10.26	0.10	0.10
2110	6.81	0.12	0.12	7.56	0.13	0.13	2110	7.37	−0.07	−0.06	10.26	0.10	0.10
2140	6.80	0.11	0.12	7.55	0.12	0.13	2140	7.36	−0.07	−0.07	10.25	0.09	0.10
2170	6.80	0.11	0.12	7.56	0.13	0.13	2170	7.36	−0.07	−0.07	10.25	0.09	0.10
2200	6.80	0.11	0.12	7.55	0.12	0.13	2200	7.36	−0.07	−0.06	10.25	0.09	0.10
2230	6.81	0.12	0.13	7.56	0.13	0.14	2230	7.37	−0.06	−0.06	10.26	0.10	0.11
2260	6.81	0.12	0.13	7.57	0.14	0.14	2260	7.37	−0.06	−0.06	10.26	0.10	0.11
2290	6.82	0.13	0.13	7.57	0.14	0.14	2290	7.37	−0.06	−0.06	10.27	0.11	0.11
2320	6.82	0.13	0.13	7.58	0.15	0.14	2320	7.37	−0.06	−0.06	10.27	0.11	0.11
2350	6.82	0.13	0.13	7.57	0.14	0.14	2350	7.37	−0.06	−0.06	10.27	0.11	0.11
2380	6.83	0.14	0.13	7.58	0.15	0.14	2380	7.37	−0.06	−0.06	10.27	0.11	0.10
2410	6.83	0.14	0.12	7.59	0.16	0.14	2410	7.37	−0.06	−0.06	10.28	0.12	0.11
2440	6.84	0.15	0.12	7.59	0.16	0.14	2440	7.37	−0.06	−0.06	10.29	0.13	0.11
2470	6.84	0.15	0.12	7.60	0.16	0.14	2470	7.37	−0.06	−0.07	10.29	0.13	0.11
2500	6.85	0.15	0.12	7.60	0.17	0.14	2500	7.38	−0.05	−0.06	10.29	0.13	0.10
2530	6.85	0.15	0.12	7.60	0.17	0.13	2530	7.38	−0.05	−0.07	10.30	0.14	0.10
2560	6.85	0.15	0.12	7.60	0.17	0.13	2560	7.38	−0.05	−0.07	10.30	0.14	0.10
2590	6.85	0.15	0.12	7.61	0.18	0.14	2590	7.38	−0.05	−0.07	10.31	0.15	0.11
2620	6.85	0.15	0.12	7.60	0.17	0.13	2620	7.38	−0.05	−0.06	10.28	0.12	0.08
2650	6.85	0.15	0.11	7.60	0.17	0.13	2650	7.38	−0.05	−0.06	10.32	0.16	0.12
2680	6.84	0.15	0.11	7.60	0.16	0.12	2680	7.39	−0.04	−0.06	10.27	0.11	0.07
2710	6.84	0.15	0.11	7.59	0.16	0.12	2710	7.38	−0.05	−0.06	10.23	0.07	0.03
2740	6.84	0.15	0.11	7.60	0.17	0.13	2740	7.38	−0.05	−0.06	10.32	0.15	0.12
2770	6.84	0.15	0.12	7.60	0.16	0.13	2770	7.39	−0.04	−0.06	10.31	0.15	0.12
2800	6.84	0.15	0.12	7.60	0.16	0.13	2800	7.39	−0.04	−0.06	10.32	0.16	0.13
2830	6.84	0.15	0.12	7.59	0.16	0.13	2830	7.38	−0.05	−0.06	10.28	0.12	0.09
2860	6.84	0.15	0.12	7.59	0.16	0.13	2860	7.38	−0.05	−0.06	10.29	0.13	0.10
2890	6.84	0.15	0.12	7.59	0.16	0.13	2890	7.39	−0.04	−0.05	10.31	0.15	0.12
2920	6.84	0.15	0.13	7.59	0.16	0.13	2920	7.39	−0.04	−0.05	10.30	0.14	0.11
2950	6.84	0.15	0.13	7.59	0.16	0.13	2950	7.39	−0.04	−0.05	10.28	0.12	0.10
2980	6.84	0.15	0.13	7.59	0.16	0.13	2980	7.39	−0.04	−0.05	10.28	0.12	0.09
3010	6.85	0.15	0.13	7.59	0.16	0.14	3010	7.39	−0.04	−0.05	10.29	0.13	0.10
3040	6.85	0.16	0.13	7.60	0.17	0.14	3040	7.39	−0.04	−0.05	10.30	0.14	0.11
3070	6.87	0.18	0.15	7.60	0.17	0.14	3070	7.39	−0.04	−0.05	10.29	0.13	0.10

3100	6.86	0.16	0.13	7.60	0.17	0.14	3100	7.39	−0.04	−0.05	10.29	0.13	0.10
3130	6.86	0.17	0.13	7.61	0.18	0.14	3130	7.40	−0.03	−0.04	10.29	0.13	0.09
3160	6.86	0.17	0.13	7.61	0.18	0.14	3160	7.40	−0.03	−0.05	10.29	0.13	0.09
3190	6.87	0.18	0.13	7.62	0.19	0.14	3190	7.40	−0.03	−0.05	10.30	0.14	0.09
3220	6.87	0.18	0.13	7.62	0.19	0.14	3220	7.40	−0.03	−0.05	10.31	0.15	0.10
3250	6.87	0.18	0.13	7.62	0.19	0.14	3250	7.40	−0.03	−0.05	10.31	0.15	0.10
3280	6.87	0.18	0.13	7.63	0.20	0.14	3280	7.40	−0.03	−0.05	10.32	0.15	0.10
3310	6.87	0.18	0.12	7.63	0.20	0.14	3310	7.40	−0.03	−0.05	10.32	0.16	0.10
3340	6.87	0.18	0.12	7.63	0.20	0.14	3340	7.40	−0.03	−0.05	10.32	0.16	0.10
3370	6.87	0.18	0.12	7.63	0.20	0.13	3370	7.40	−0.03	−0.05	10.32	0.16	0.09
3400	6.87	0.18	0.12	7.63	0.20	0.13	3400	7.40	−0.03	−0.06	10.32	0.15	0.09
3430	6.87	0.18	0.11	7.62	0.19	0.13	3430	7.40	−0.03	−0.05	10.32	0.15	0.09
3460	6.87	0.18	0.11	7.62	0.19	0.13	3460	7.40	−0.03	−0.05	10.32	0.15	0.09
3490	6.87	0.18	0.11	7.62	0.19	0.13	3490	7.40	−0.03	−0.05	10.32	0.15	0.09
3520	6.86	0.17	0.11	7.62	0.19	0.13	3520	7.40	−0.03	−0.05	10.31	0.15	0.09
3550	6.86	0.17	0.11	7.61	0.18	0.12	3550	7.40	−0.03	−0.05	10.31	0.15	0.09
3580	6.86	0.17	0.11	7.61	0.18	0.13	3580	7.40	−0.03	−0.05	10.31	0.15	0.09
3610	6.86	0.17	0.11	7.61	0.18	0.12	3610	7.40	−0.03	−0.05	10.31	0.15	0.09
3640	6.86	0.17	0.11	7.61	0.18	0.13	3640	7.41	−0.02	−0.05	10.31	0.15	0.09
3670	6.86	0.17	0.11	7.61	0.18	0.13	3670	7.41	−0.02	−0.05	10.31	0.15	0.09
3700	6.86	0.17	0.12	7.62	0.19	0.13	3700	7.41	−0.02	−0.05	10.32	0.16	0.10
3730	6.87	0.18	0.12	7.62	0.19	0.13	3730	7.41	−0.02	−0.05	10.33	0.17	0.11
3760	6.87	0.18	0.12	7.63	0.20	0.13	3760	7.41	−0.02	−0.05	10.32	0.16	0.09
3790	6.87	0.18	0.12	7.63	0.20	0.13	3790	7.41	−0.02	−0.04	10.33	0.17	0.10
3820	6.88	0.19	0.12	7.63	0.20	0.13	3820	7.41	−0.02	−0.05	10.33	0.17	0.10
3850	6.88	0.19	0.12	7.63	0.20	0.13	3850	7.41	−0.02	−0.05	10.33	0.17	0.10
3880	6.88	0.19	0.12	7.64	0.21	0.13	3880	7.41	−0.02	−0.05	10.34	0.18	0.11
3910	6.89	0.20	0.12	7.64	0.21	0.13	3910	7.42	−0.01	−0.04	10.34	0.18	0.10
3940	6.89	0.20	0.12	7.65	0.22	0.14	3940	7.42	−0.01	−0.04	10.34	0.18	0.10
3970	6.89	0.20	0.12	7.65	0.22	0.14	3970	7.42	−0.01	−0.05	10.36	0.20	0.12
4000	6.89	0.20	0.12	7.65	0.22	0.13	4000	7.42	−0.01	−0.05	10.32	0.15	0.07
4030	6.90	0.21	0.12	7.65	0.22	0.13	4030	7.42	−0.01	−0.05	10.33	0.17	0.08
4060	6.91	0.22	0.12	7.66	0.23	0.14	4060	7.43	−0.00	−0.04	10.39	0.23	0.13
4090	6.90	0.21	0.12	7.66	0.23	0.13	4090	7.43	−0.00	−0.04	10.38	0.22	0.12
4120	6.90	0.21	0.12	7.66	0.23	0.13	4120	7.43	−0.00	−0.04	10.38	0.22	0.12
4150	6.90	0.21	0.11	7.66	0.23	0.13	4150	7.42	−0.01	−0.04	10.40	0.24	0.14
4180	6.90	0.21	0.11	7.64	0.21	0.12	4180	7.43	−0.00	−0.04	10.29	0.13	0.03
4210	6.90	0.21	0.12	7.65	0.22	0.13	4210	7.43	−0.00	−0.04	10.36	0.20	0.11
4240	6.90	0.21	0.12	7.66	0.23	0.14	4240	7.43	−0.00	−0.04	10.41	0.25	0.15
4270	6.90	0.21	0.12	7.65	0.22	0.13	4270	7.43	−0.00	−0.04	10.34	0.18	0.08
4300	6.90	0.21	0.12	7.65	0.22	0.13	4300	7.43	−0.00	−0.04	10.33	0.17	0.08

4330	6.90	0.21	0.12	7.66	0.23	0.14	4330	7.43	0.00	−0.03	10.45	0.29	0.20
4360	6.89	0.20	0.12	7.64	0.21	0.13	4360	7.43	−0.00	−0.04	10.34	0.18	0.09
4390	6.90	0.21	0.12	7.65	0.22	0.13	4390	7.43	0.00	−0.03	10.34	0.18	0.10
4420	6.89	0.20	0.12	7.64	0.21	0.13	4420	7.43	−0.00	−0.03	10.32	0.15	0.07
4450	6.90	0.21	0.12	7.65	0.22	0.13	4450	7.43	0.00	−0.03	10.40	0.24	0.16
4480	6.90	0.21	0.12	7.65	0.22	0.14	4480	7.43	0.00	−0.03	10.33	0.17	0.09
4510	6.90	0.21	0.12	7.65	0.22	0.14	4510	7.43	0.00	−0.03	10.35	0.19	0.10
4540	6.90	0.21	0.12	7.65	0.22	0.14	4540	7.43	0.00	−0.03	10.35	0.19	0.10
4570	6.90	0.21	0.13	7.66	0.23	0.14	4570	7.43	0.00	−0.03	10.35	0.19	0.10
4600	6.90	0.21	0.12	7.66	0.23	0.14	4600	7.43	0.00	−0.03	10.35	0.19	0.10
4630	6.90	0.21	0.13	7.66	0.23	0.14	4630	7.43	0.00	−0.03	10.35	0.19	0.10
4660	6.90	0.21	0.13	7.65	0.22	0.14	4660	7.43	0.00	−0.03	10.34	0.18	0.10
4690	6.91	0.22	0.13	7.66	0.23	0.14	4690	7.43	0.00	−0.03	10.36	0.20	0.11
4720	6.91	0.22	0.13	7.66	0.23	0.14	4720	7.44	0.01	−0.03	10.36	0.20	0.11
4750	6.91	0.22	0.14	7.66	0.23	0.14	4750	7.43	0.00	−0.03	10.36	0.20	0.11
4780	6.91	0.22	0.13	7.66	0.23	0.14	4780	7.43	0.00	−0.03	10.36	0.20	0.11
4810	6.91	0.22	0.13	7.66	0.23	0.15	4810	7.43	0.00	−0.03	10.36	0.20	0.11
4840	6.91	0.22	0.13	7.66	0.23	0.15	4840	7.43	0.00	−0.03	10.35	0.19	0.11
4870	6.91	0.22	0.13	7.66	0.23	0.15	4870	7.43	0.00	−0.03	10.36	0.20	0.11
4900	6.91	0.22	0.13	7.66	0.23	0.14	4900	7.43	0.00	−0.03	10.35	0.19	0.11
4930	6.90	0.21	0.13	7.65	0.22	0.14	4930	7.43	0.00	−0.03	10.35	0.19	0.11
4960	6.90	0.21	0.13	7.65	0.22	0.15	4960	7.43	0.00	−0.02	10.35	0.19	0.12
4990	6.90	0.21	0.14	7.66	0.23	0.16	4990	7.44	0.01	−0.02	10.35	0.19	0.12
5020	6.90	0.21	0.14	7.65	0.22	0.15	5020	7.44	0.01	−0.02	10.36	0.20	0.13
5050	6.90	0.21	0.14	7.65	0.22	0.15	5050	7.44	0.01	−0.02	10.35	0.19	0.12
5080	6.90	0.21	0.14	7.66	0.23	0.15	5080	7.44	0.01	−0.02	10.35	0.19	0.12
5110	6.90	0.21	0.14	7.65	0.22	0.15	5110	7.44	0.01	−0.02	10.35	0.19	0.12
5140	6.90	0.21	0.14	7.66	0.23	0.16	5140	7.44	0.01	−0.02	10.36	0.20	0.13
5170	6.90	0.21	0.14	7.66	0.23	0.16	5170	7.44	0.01	−0.01	10.35	0.19	0.12
5200	6.90	0.21	0.14	7.66	0.23	0.16	5200	7.44	0.01	−0.01	10.36	0.20	0.12
5230	6.91	0.22	0.14	7.66	0.23	0.16	5230	7.44	0.01	−0.01	10.36	0.20	0.13
5260	6.91	0.22	0.15	7.66	0.23	0.16	5260	7.45	0.02	−0.01	10.35	0.19	0.12
5290	6.92	0.22	0.15	7.67	0.24	0.16	5290	7.45	0.02	−0.01	10.37	0.21	0.13
5320	6.92	0.23	0.15	7.68	0.25	0.16	5320	7.45	0.02	−0.01	10.37	0.21	0.13
5350	6.92	0.23	0.15	7.68	0.25	0.17	5350	7.45	0.02	−0.01	10.39	0.23	0.14
5380	6.92	0.23	0.14	7.69	0.26	0.17	5380	7.45	0.02	−0.01	10.39	0.23	0.14
5410	6.93	0.24	0.15	7.69	0.26	0.17	5410	7.45	0.02	−0.01	10.40	0.24	0.15
5440	6.93	0.24	0.15	7.69	0.26	0.17	5440	7.46	0.03	−0.01	10.40	0.24	0.15
5470	6.94	0.25	0.15	7.70	0.27	0.17	5470	7.46	0.03	−0.01	10.44	0.28	0.18
5500	6.94	0.25	0.15	7.71	0.28	0.18	5500	7.46	0.03	−0.01	10.40	0.24	0.14
5530	6.94	0.25	0.15	7.70	0.27	0.17	5530	14.10	6.67	6.63	10.42	0.26	0.16

5560	6.94	0.25	0.15	7.70	0.27	0.17	5560	13.81	6.38	6.34	10.44	0.28	0.18
5590	6.94	0.25	0.15	7.70	0.27	0.17	5590	7.55	0.12	0.08	10.42	0.26	0.16
5620	6.93	0.24	0.15	7.69	0.26	0.16	5620	7.54	0.11	0.07	10.35	0.19	0.10
5650	6.94	0.25	0.15	7.69	0.26	0.16	5650	7.55	0.12	0.08	10.40	0.24	0.14
5680	6.94	0.25	0.15	7.70	0.27	0.17	5680	7.55	0.12	0.08	10.37	0.21	0.11
5710	6.94	0.25	0.15	7.69	0.26	0.16	5710	7.54	0.11	0.07	10.38	0.22	0.12
5740	6.94	0.25	0.16	7.69	0.26	0.17	5740	7.55	0.12	0.08	10.40	0.24	0.14
5770	6.94	0.25	0.16	7.69	0.26	0.17	5770	7.55	0.12	0.08	10.38	0.22	0.12
5800	6.93	0.24	0.16	7.68	0.25	0.16	5800	7.54	0.11	0.08	10.36	0.20	0.11
5830	6.93	0.24	0.16	7.68	0.25	0.16	5830	7.54	0.11	0.08	10.34	0.18	0.10
5860	6.93	0.24	0.16	7.68	0.25	0.17	5860	7.55	0.12	0.08	10.36	0.20	0.12
5890	6.94	0.25	0.16	7.69	0.26	0.17	5890	7.55	0.12	0.08	10.35	0.19	0.11
5920	6.94	0.25	0.16	7.69	0.26	0.18	5920	7.55	0.12	0.08	10.36	0.20	0.12
5950	6.94	0.25	0.17	7.69	0.26	0.18	5950	7.55	0.12	0.09	10.38	0.22	0.13
5980	6.94	0.25	0.16	7.69	0.26	0.18	5980	7.55	0.12	0.08	10.37	0.21	0.13
6010	6.94	0.25	0.17	7.69	0.26	0.18	6010	7.55	0.12	0.09	10.38	0.22	0.13
6040	6.94	0.25	0.17	7.69	0.26	0.18	6040	7.55	0.12	0.08	10.38	0.22	0.14
6070	6.94	0.25	0.17	7.69	0.26	0.18	6070	7.55	0.12	0.08	10.38	0.22	0.14
6100	6.94	0.25	0.17	7.69	0.26	0.18	6100	7.55	0.12	0.09	10.38	0.22	0.14
6130	6.94	0.25	0.17	7.69	0.26	0.19	6130	7.55	0.12	0.09	10.38	0.22	0.15
6160	6.94	0.25	0.17	7.70	0.27	0.19	6160	7.55	0.12	0.09	10.38	0.22	0.15
6190	6.95	0.26	0.18	7.70	0.27	0.19	6190	7.55	0.12	0.09	10.39	0.23	0.16
6220	6.95	0.26	0.18	7.70	0.27	0.19	6220	7.55	0.12	0.09	10.39	0.23	0.16
6250	6.95	0.26	0.18	7.70	0.27	0.19	6250	7.55	0.12	0.09	10.39	0.23	0.16
6280	6.95	0.26	0.19	7.70	0.27	0.20	6280	7.55	0.12	0.09	10.39	0.23	0.16
6310	6.95	0.26	0.19	7.70	0.27	0.20	6310	7.55	0.12	0.09	10.39	0.23	0.16
6340	6.95	0.26	0.18	7.70	0.27	0.20	6340	7.55	0.12	0.09	10.39	0.23	0.16
6370	6.95	0.26	0.19	7.70	0.27	0.20	6370	7.55	0.12	0.09	10.39	0.23	0.16
6400	6.94	0.25	0.18	7.70	0.27	0.20	6400	7.55	0.12	0.09	10.39	0.23	0.16
6430	6.94	0.25	0.18	7.70	0.27	0.20	6430	7.55	0.12	0.09	10.39	0.23	0.16
6460	6.94	0.25	0.19	7.69	0.26	0.20	6460	7.55	0.12	0.09	10.38	0.22	0.16
6490	6.94	0.25	0.19	7.69	0.26	0.20	6490	7.55	0.12	0.09	10.38	0.22	0.16
6520	6.94	0.25	0.19	7.69	0.26	0.20	6520	7.55	0.12	0.09	10.38	0.22	0.16
6550	6.93	0.24	0.19	7.69	0.26	0.20	6550	7.55	0.12	0.10	10.38	0.22	0.17
6580	6.94	0.25	0.19	7.69	0.26	0.20	6580	7.55	0.12	0.10	10.38	0.22	0.17
6610	6.94	0.25	0.19	7.69	0.26	0.21	6610	7.55	0.12	0.10	10.39	0.23	0.17
6640	6.94	0.25	0.19	7.69	0.26	0.21	6640	7.55	0.12	0.10	10.39	0.23	0.17
6670	6.94	0.25	0.19	7.70	0.27	0.21	6670	7.55	0.12	0.10	10.39	0.23	0.17
6700	6.95	0.26	0.20	7.70	0.27	0.21	6700	7.55	0.12	0.10	10.39	0.23	0.17
6730	6.95	0.26	0.20	7.71	0.28	0.21	6730	7.55	0.12	0.10	10.40	0.24	0.18
6760	6.96	0.27	0.20	7.71	0.28	0.21	6760	7.55	0.12	0.10	10.42	0.26	0.19

6790	6.96	0.27	0.20	7.72	0.29	0.22	6790	7.56	0.13	0.10	10.42	0.26	0.19
6820	6.96	0.27	0.20	7.73	0.30	0.22	6820	7.56	0.13	0.10	10.43	0.27	0.20
6850	6.96	0.27	0.20	7.73	0.30	0.22	6850	7.56	0.13	0.10	10.44	0.28	0.20
6880	6.97	0.28	0.20	7.73	0.30	0.22	6880	7.56	0.13	0.10	10.44	0.28	0.20
6910	6.97	0.28	0.20	7.73	0.30	0.22	6910	7.56	0.13	0.10	10.42	0.26	0.18
6940	6.97	0.28	0.20	7.73	0.30	0.22	6940	7.56	0.13	0.10	10.44	0.28	0.20
6970	6.97	0.28	0.20	7.73	0.30	0.21	6970	7.57	0.14	0.10	10.43	0.27	0.18
7000	6.98	0.28	0.20	7.73	0.30	0.22	7000	7.57	0.14	0.11	10.46	0.30	0.21
7030	6.98	0.28	0.20	7.73	0.30	0.22	7030	7.57	0.14	0.11	10.42	0.26	0.17
7060	6.98	0.29	0.20	7.73	0.30	0.22	7060	7.57	0.14	0.11	10.45	0.29	0.20
7090	6.98	0.28	0.20	7.73	0.30	0.22	7090	7.57	0.14	0.11	10.45	0.29	0.21
7120	6.98	0.28	0.21	7.72	0.29	0.21	7120	7.57	0.14	0.11	10.39	0.23	0.16
7150	6.98	0.28	0.21	7.73	0.30	0.22	7150	7.57	0.14	0.11	10.43	0.27	0.19
7180	6.98	0.28	0.21	7.73	0.30	0.22	7180	7.57	0.14	0.11	10.44	0.28	0.20
7210	6.98	0.28	0.21	7.73	0.30	0.23	7210	7.57	0.14	0.11	10.41	0.25	0.18
7240	6.97	0.28	0.21	7.72	0.29	0.22	7240	7.57	0.14	0.11	10.41	0.25	0.18
7270	6.97	0.28	0.21	7.72	0.29	0.22	7270	7.57	0.14	0.11	10.42	0.26	0.19
7300	6.97	0.28	0.21	7.72	0.29	0.22	7300	7.57	0.14	0.11	10.41	0.25	0.18
7330	6.97	0.28	0.22	7.72	0.29	0.23	7330	7.57	0.14	0.12	10.42	0.26	0.19
7360	6.97	0.28	0.22	7.72	0.29	0.23	7360	7.57	0.14	0.12	10.40	0.24	0.18
7390	6.97	0.28	0.22	7.73	0.30	0.23	7390	7.57	0.14	0.12	10.41	0.25	0.19
7420	6.97	0.28	0.22	7.73	0.30	0.23	7420	7.57	0.14	0.12	10.41	0.25	0.19
7450	6.97	0.28	0.22	7.73	0.30	0.24	7450	7.58	0.15	0.12	10.41	0.25	0.19
7480	6.98	0.28	0.23	7.72	0.29	0.23	7480	7.57	0.14	0.12	10.41	0.25	0.19
7510	6.98	0.28	0.23	7.73	0.30	0.24	7510	7.57	0.14	0.12	10.41	0.25	0.19
7540	6.99	0.30	0.24	7.74	0.31	0.25	7540	7.57	0.14	0.12	10.42	0.26	0.20
7570	6.99	0.30	0.24	7.74	0.31	0.25	7570	7.57	0.14	0.12	10.43	0.27	0.20
7600	6.99	0.30	0.24	7.75	0.32	0.25	7600	7.58	0.15	0.12	10.43	0.27	0.21
7630	7.00	0.31	0.24	7.75	0.32	0.26	7630	7.58	0.15	0.12	10.44	0.28	0.21
7660	7.00	0.31	0.24	7.75	0.32	0.26	7660	7.58	0.15	0.12	10.44	0.28	0.21
7690	7.00	0.31	0.24	7.75	0.32	0.26	7690	7.58	0.15	0.12	10.44	0.28	0.21
7720	7.00	0.31	0.24	7.75	0.32	0.26	7720	7.58	0.15	0.12	10.44	0.28	0.21
7750	7.00	0.31	0.24	7.75	0.32	0.25	7750	7.58	0.15	0.12	10.44	0.28	0.21
7780	6.99	0.30	0.23	7.75	0.32	0.25	7780	7.58	0.15	0.12	10.44	0.28	0.21
7810	6.99	0.30	0.23	7.74	0.31	0.25	7810	7.58	0.15	0.12	10.44	0.28	0.21
7840	6.99	0.30	0.23	7.74	0.31	0.25	7840	7.58	0.15	0.12	10.44	0.28	0.21
7870	6.99	0.30	0.23	7.74	0.31	0.25	7870	7.58	0.15	0.12	10.44	0.28	0.21
7900	6.98	0.29	0.23	7.74	0.31	0.25	7900	7.58	0.15	0.12	10.44	0.28	0.21
7930	6.98	0.29	0.23	7.74	0.31	0.25	7930	7.58	0.15	0.12	10.43	0.27	0.21
7960	6.98	0.29	0.23	7.73	0.30	0.25	7960	7.58	0.15	0.12	10.44	0.28	0.22
7990	6.98	0.29	0.23	7.74	0.31	0.25	7990	7.58	0.15	0.12	10.43	0.27	0.21

8020	6.98	0.29	0.23	7.74	0.31	0.25	8020	7.58	0.15	0.13	10.44	0.28	0.22
8050	6.98	0.29	0.23	7.74	0.31	0.25	8050	7.58	0.15	0.13	10.44	0.28	0.22
8080	6.98	0.29	0.23	7.74	0.31	0.25	8080	7.58	0.15	0.13	10.44	0.28	0.22
8110	6.99	0.30	0.24	7.74	0.31	0.25	8110	7.58	0.15	0.13	10.44	0.28	0.22
8140	6.99	0.30	0.24	7.75	0.32	0.25	8140	7.58	0.15	0.13	10.44	0.28	0.22
8170	6.99	0.30	0.24	7.75	0.32	0.26	8170	7.58	0.15	0.13	10.45	0.29	0.23
8200	7.00	0.31	0.24	7.76	0.33	0.26	8200	7.59	0.16	0.13	10.46	0.30	0.23
8230	7.00	0.31	0.24	7.77	0.34	0.26	8230	7.59	0.16	0.13	10.47	0.31	0.24
8260	7.01	0.32	0.24	7.77	0.34	0.26	8260	7.59	0.16	0.13	10.48	0.32	0.24
8290	7.00	0.31	0.24	7.77	0.34	0.26	8290	7.59	0.16	0.13	10.47	0.31	0.23
8320	7.01	0.32	0.24	7.77	0.34	0.26	8320	7.59	0.16	0.13	10.46	0.30	0.22
8350	7.01	0.32	0.24	7.77	0.34	0.26	8350	7.59	0.16	0.13	10.47	0.31	0.23
8380	7.01	0.32	0.24	7.78	0.35	0.27	8380	7.60	0.17	0.14	10.51	0.35	0.27
8410	7.01	0.32	0.23	7.77	0.34	0.25	8410	7.59	0.16	0.13	10.43	0.27	0.18
8440	7.02	0.33	0.24	7.79	0.36	0.27	8440	7.61	0.18	0.14	10.59	0.43	0.34
8470	7.01	0.32	0.24	7.78	0.35	0.26	8470	7.60	0.17	0.14	10.50	0.34	0.25
8500	7.01	0.32	0.24	7.77	0.34	0.25	8500	7.60	0.16	0.13	10.44	0.28	0.20
8530	7.01	0.32	0.24	7.77	0.34	0.26	8530	7.60	0.17	0.14	10.49	0.33	0.25
8560	7.01	0.32	0.24	7.77	0.34	0.26	8560	7.60	0.16	0.13	10.50	0.34	0.26
8590	7.01	0.32	0.24	7.77	0.34	0.26	8590	7.60	0.16	0.13	10.44	0.28	0.21
8620	7.01	0.32	0.25	7.77	0.34	0.26	8620	7.60	0.16	0.14	10.48	0.32	0.24
8650	7.01	0.32	0.25	7.77	0.34	0.26	8650	7.60	0.16	0.14	10.45	0.29	0.22
8680	7.01	0.32	0.25	7.76	0.33	0.26	8680	7.60	0.16	0.14	10.46	0.30	0.23
8710	7.01	0.32	0.25	7.77	0.34	0.27	8710	7.60	0.17	0.14	10.45	0.29	0.22
8740	7.01	0.32	0.25	7.77	0.34	0.26	8740	7.60	0.17	0.14	10.48	0.32	0.24
8770	7.01	0.32	0.25	7.77	0.34	0.27	8770	7.60	0.17	0.14	10.44	0.28	0.21
8800	7.01	0.32	0.25	7.77	0.34	0.27	8800	7.60	0.17	0.14	10.46	0.30	0.23
8830	7.01	0.32	0.25	7.77	0.34	0.27	8830	7.60	0.17	0.14	10.46	0.30	0.23
8860	7.01	0.32	0.25	7.77	0.34	0.27	8860	7.60	0.17	0.14	10.46	0.30	0.23
8890	7.02	0.33	0.26	7.78	0.35	0.27	8890	7.61	0.18	0.15	10.46	0.30	0.22
8920	7.02	0.33	0.26	7.78	0.35	0.28	8920	7.61	0.18	0.15	10.46	0.30	0.23
8950	7.02	0.33	0.26	7.78	0.35	0.28	8950	7.61	0.18	0.15	10.47	0.31	0.23
8980	7.03	0.34	0.27	7.79	0.36	0.28	8980	7.61	0.18	0.15	10.47	0.31	0.23
9010	7.04	0.35	0.27	7.79	0.36	0.28	9010	7.61	0.18	0.15	10.47	0.31	0.23
9040	7.04	0.35	0.27	7.80	0.37	0.29	9040	7.61	0.18	0.15	10.48	0.32	0.24
9070	7.04	0.35	0.27	7.80	0.37	0.29	9070	7.61	0.18	0.15	10.49	0.33	0.25
9100	7.03	0.34	0.26	7.79	0.36	0.28	9100	7.61	0.18	0.15	10.49	0.33	0.25
9130	7.03	0.34	0.26	7.79	0.36	0.28	9130	7.61	0.18	0.15	10.48	0.32	0.24
9160	7.03	0.34	0.26	7.79	0.36	0.28	9160	7.61	0.18	0.15	10.48	0.32	0.24
9190	7.02	0.33	0.26	7.79	0.36	0.28	9190	7.61	0.18	0.15	10.48	0.32	0.25
9220	7.02	0.33	0.26	7.78	0.35	0.28	9220	7.61	0.18	0.15	10.48	0.32	0.25

9250	7.02	0.33	0.26	7.78	0.35	0.28	9250	7.61	0.18	0.15	10.48	0.32	0.25
9280	7.02	0.33	0.26	7.78	0.35	0.28	9280	7.61	0.18	0.15	10.48	0.32	0.25
9310	7.02	0.33	0.26	7.78	0.35	0.28	9310	7.61	0.18	0.15	10.48	0.32	0.25
9340	7.02	0.33	0.26	7.78	0.35	0.28	9340	7.61	0.18	0.15	10.47	0.31	0.25
9370	7.02	0.33	0.26	7.78	0.35	0.28	9370	7.61	0.18	0.15	10.47	0.31	0.25
9400	7.02	0.33	0.26	7.78	0.35	0.29	9400	7.61	0.18	0.15	10.47	0.31	0.25
9430	7.02	0.33	0.27	7.78	0.35	0.29	9430	7.61	0.18	0.15	10.47	0.31	0.25
9460	7.02	0.33	0.27	7.79	0.36	0.29	9460	7.61	0.18	0.16	10.48	0.32	0.25
9490	7.02	0.33	0.27	7.79	0.36	0.29	9490	7.61	0.18	0.16	10.48	0.32	0.25
9520	7.02	0.33	0.27	7.79	0.36	0.29	9520	7.61	0.18	0.16	10.48	0.32	0.25
9550	7.03	0.34	0.27	7.79	0.36	0.29	9550	7.61	0.18	0.16	10.48	0.32	0.25
9580	7.03	0.34	0.27	7.80	0.37	0.30	9580	7.61	0.18	0.16	10.50	0.34	0.27
9610	7.03	0.34	0.27	7.80	0.37	0.29	9610	7.61	0.18	0.16	10.49	0.33	0.26
9640	7.04	0.35	0.27	7.80	0.37	0.29	9640	7.61	0.18	0.16	10.49	0.33	0.26
9670	7.04	0.35	0.27	7.80	0.37	0.30	9670	7.62	0.19	0.16	10.49	0.33	0.25
9700	7.05	0.36	0.27	7.81	0.38	0.30	9700	7.62	0.19	0.16	10.51	0.35	0.27
9730	7.05	0.36	0.27	7.81	0.38	0.30	9730	7.62	0.19	0.16	10.50	0.34	0.26
9760	7.04	0.35	0.27	7.80	0.37	0.29	9760	7.62	0.19	0.16	10.51	0.35	0.27
9790	7.04	0.35	0.27	7.81	0.38	0.30	9790	7.62	0.19	0.16	10.52	0.36	0.28
9820	7.05	0.36	0.27	7.82	0.39	0.30	9820	7.63	0.20	0.16	10.54	0.38	0.30
9850	7.05	0.36	0.27	7.81	0.38	0.30	9850	7.62	0.19	0.16	10.51	0.35	0.27
9880	7.05	0.36	0.27	7.82	0.39	0.30	9880	7.63	0.20	0.16	10.53	0.37	0.29
9910	7.05	0.36	0.27	7.80	0.37	0.28	9910	7.62	0.19	0.16	10.49	0.33	0.24
9940	7.05	0.36	0.28	7.81	0.38	0.30	9940	7.63	0.20	0.17	10.53	0.37	0.29
9970	7.05	0.36	0.28	7.80	0.37	0.29	9970	7.62	0.19	0.16	10.53	0.37	0.29
10000	7.04	0.35	0.27	7.80	0.37	0.29	10000	7.62	0.19	0.16	10.41	0.25	0.17
10030	7.04	0.35	0.28	7.80	0.37	0.30	10030	7.62	0.19	0.16	10.47	0.31	0.24
10060	7.04	0.35	0.28	7.80	0.37	0.30	10060	7.63	0.20	0.17	10.48	0.32	0.25

NSB Kings Bay Site 11, IM Phase I Operations: Stage 2 Test

E. Time (min)	PS-4 (ft)	drawdown (ft)	corr. dd (ft)	BARO (psi)	Baro.chng. (psi)	Baro.chng. (ft H2O)	.10 chng. (ft H2O)	.26 chng. (ft H2O)
0	8.82	-0.04	-0.04	14.743	0.00	0.00	0.00	0.00
0.0083	8.82	-0.04	-0.04	14.743	0.00	0.00	0.00	0.00
0.0166	8.82	-0.04	-0.04	14.742	0.00	0.00	0.00	0.00
0.025	8.82	-0.04	-0.04	14.742	0.00	0.00	0.00	0.00
0.0333	8.82	-0.04	-0.04	14.742	0.00	0.00	0.00	0.00
0.0416	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.05	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.0583	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.0666	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.075	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.0833	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.0916	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.1	8.82	-0.05	-0.04	14.742	0.00	0.00	0.00	0.00
0.1083	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.1166	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.125	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.1333	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.1416	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.15	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.1583	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.1666	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.175	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.1833	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.1916	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.2	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.2083	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.2166	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.225	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.2333	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.2416	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.25	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.2583	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.2666	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.275	8.81	-0.05	-0.05	14.741	0.00	0.00	0.00	0.00
0.2833	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.2916	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.3	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.3083	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00
0.3166	8.81	-0.05	-0.05	14.742	0.00	0.00	0.00	0.00

0.325	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
0.3333	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
0.35	8.81	−0.05	−0.05	14.741	0.00	0.00	0.00	0.00
0.3666	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
0.3833	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
0.4	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
0.4166	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
0.4333	8.81	−0.05	−0.05	14.743	0.00	0.00	0.00	0.00
0.45	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
0.4666	8.80	−0.06	−0.06	14.743	0.00	0.00	0.00	0.00
0.4833	8.80	−0.06	−0.06	14.742	0.00	0.00	0.00	0.00
0.5	8.80	−0.06	−0.06	14.743	0.00	0.00	0.00	0.00
0.5166	8.80	−0.06	−0.06	14.743	0.00	0.00	0.00	0.00
0.5333	8.80	−0.06	−0.06	14.742	0.00	0.00	0.00	0.00
0.55	8.79	−0.07	−0.07	14.742	0.00	0.00	0.00	0.00
0.5666	8.79	−0.07	−0.07	14.742	0.00	0.00	0.00	0.00
0.5833	8.79	−0.07	−0.07	14.742	0.00	0.00	0.00	0.00
0.6	8.79	−0.07	−0.07	14.742	0.00	0.00	0.00	0.00
0.6166	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.6333	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.65	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.6666	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.6833	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.7	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.7166	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.7333	8.77	−0.09	−0.09	14.743	0.00	0.00	0.00	0.00
0.75	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.7666	8.77	−0.09	−0.09	14.743	0.00	0.00	0.00	0.00
0.7833	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.8	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.8166	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.8333	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.85	8.77	−0.09	−0.08	14.741	0.00	0.00	0.00	0.00
0.8666	8.77	−0.09	−0.08	14.741	0.00	0.00	0.00	0.00
0.8833	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.9	8.77	−0.09	−0.09	14.742	0.00	0.00	0.00	0.00
0.9166	8.77	−0.09	−0.08	14.741	0.00	0.00	0.00	0.00
0.9333	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.95	8.78	−0.08	−0.08	14.741	0.00	0.00	0.00	0.00
0.9666	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
0.9833	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00

1	8.78	−0.08	−0.08	14.742	0.00	0.00	0.00	0.00
1.2	8.80	−0.06	−0.06	14.743	0.00	0.00	0.00	0.00
1.4	8.80	−0.06	−0.06	14.743	0.00	0.00	0.00	0.00
1.6	8.81	−0.05	−0.05	14.744	−0.00	−0.00	−0.00	−0.00
1.8	8.81	−0.05	−0.05	14.743	0.00	0.00	0.00	0.00
2	8.82	−0.04	−0.04	14.743	0.00	0.00	0.00	0.00
2.2	8.83	−0.03	−0.03	14.743	0.00	0.00	0.00	0.00
2.4	8.83	−0.03	−0.03	14.744	−0.00	−0.00	−0.00	−0.00
2.6	8.83	−0.03	−0.03	14.744	−0.00	−0.00	−0.00	−0.00
2.8	8.82	−0.04	−0.04	14.743	0.00	0.00	0.00	0.00
3	8.82	−0.05	−0.05	14.743	0.00	0.00	0.00	0.00
3.2	8.81	−0.05	−0.05	14.743	0.00	0.00	0.00	0.00
3.4	8.81	−0.05	−0.05	14.744	−0.00	−0.00	−0.00	−0.00
3.6	8.81	−0.05	−0.05	14.743	0.00	0.00	0.00	0.00
3.8	8.82	−0.04	−0.04	14.742	0.00	0.00	0.00	0.00
4	8.82	−0.04	−0.04	14.743	0.00	0.00	0.00	0.00
4.2	8.82	−0.04	−0.04	14.743	0.00	0.00	0.00	0.00
4.4	8.82	−0.05	−0.04	14.742	0.00	0.00	0.00	0.00
4.6	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
4.8	8.81	−0.05	−0.05	14.742	0.00	0.00	0.00	0.00
5	8.82	−0.05	−0.04	14.741	0.00	0.00	0.00	0.00
5.2	8.82	−0.04	−0.04	14.741	0.00	0.00	0.00	0.00
5.4	8.83	−0.03	−0.03	14.741	0.00	0.00	0.00	0.00
5.6	8.83	−0.03	−0.03	14.741	0.00	0.00	0.00	0.00
5.8	8.83	−0.03	−0.03	14.741	0.00	0.00	0.00	0.00
6	8.83	−0.03	−0.03	14.741	0.00	0.00	0.00	0.00
6.2	8.83	−0.03	−0.03	14.741	0.00	0.00	0.00	0.00
6.4	8.83	−0.03	−0.03	14.742	0.00	0.00	0.00	0.00
6.6	8.84	−0.02	−0.02	14.742	0.00	0.00	0.00	0.00
6.8	8.84	−0.02	−0.02	14.742	0.00	0.00	0.00	0.00
7	8.83	−0.03	−0.03	14.742	0.00	0.00	0.00	0.00
7.2	8.83	−0.03	−0.02	14.741	0.00	0.00	0.00	0.00
7.4	8.83	−0.03	−0.02	14.741	0.00	0.00	0.00	0.00
7.6	8.83	−0.03	−0.02	14.741	0.00	0.00	0.00	0.00
7.8	8.83	−0.03	−0.02	14.741	0.00	0.00	0.00	0.00
8	8.84	−0.02	−0.02	14.741	0.00	0.00	0.00	0.00
8.2	8.85	−0.01	−0.01	14.741	0.00	0.00	0.00	0.00
8.4	8.86	−0.00	−0.00	14.74	0.00	0.01	0.00	0.00
8.6	8.86	−0.00	−0.00	14.74	0.00	0.01	0.00	0.00
8.8	8.85	−0.01	−0.01	14.741	0.00	0.00	0.00	0.00
9	8.83	−0.03	−0.02	14.741	0.00	0.00	0.00	0.00

9.2	8.83	−0.03	−0.03	14.74	0.00	0.01	0.00	0.00
9.4	8.82	−0.04	−0.04	14.741	0.00	0.00	0.00	0.00
9.6	8.83	−0.03	−0.03	14.74	0.00	0.01	0.00	0.00
9.8	8.83	−0.03	−0.03	14.74	0.00	0.01	0.00	0.00
10	8.83	−0.03	−0.03	14.74	0.00	0.01	0.00	0.00
12	8.81	−0.05	−0.05	14.741	0.00	0.00	0.00	0.00
14	8.85	−0.01	−0.01	14.742	0.00	0.00	0.00	0.00
16	8.83	−0.03	−0.03	14.742	0.00	0.00	0.00	0.00
18	8.83	−0.03	−0.03	14.743	0.00	0.00	0.00	0.00
20	8.83	−0.03	−0.02	14.741	0.00	0.00	0.00	0.00
22	8.84	−0.02	−0.02	14.741	0.00	0.00	0.00	0.00
24	8.84	−0.02	−0.02	14.741	0.00	0.00	0.00	0.00
26	8.84	−0.02	−0.01	14.741	0.00	0.00	0.00	0.00
28	8.88	0.02	0.02	14.741	0.00	0.00	0.00	0.00
30	8.84	−0.02	−0.02	14.741	0.00	0.00	0.00	0.00
32	8.88	0.02	0.02	14.74	0.00	0.01	0.00	0.00
34	8.79	−0.07	−0.07	14.74	0.00	0.01	0.00	0.00
36	8.88	0.02	0.02	14.74	0.00	0.01	0.00	0.00
38	8.84	−0.02	−0.02	14.74	0.00	0.01	0.00	0.00
40	8.88	0.02	0.02	14.739	0.00	0.01	0.00	0.00
42	8.88	0.02	0.02	14.739	0.00	0.01	0.00	0.00
44	8.89	0.03	0.04	14.737	0.01	0.01	0.00	0.00
46	8.86	0.00	0.01	14.736	0.01	0.02	0.00	0.00
48	8.88	0.02	0.02	14.733	0.01	0.02	0.00	0.01
50	8.86	−0.00	0.00	14.735	0.01	0.02	0.00	0.00
52	8.86	−0.00	0.00	14.733	0.01	0.02	0.00	0.01
54	8.88	0.02	0.03	14.732	0.01	0.03	0.00	0.01
56	8.89	0.03	0.04	14.732	0.01	0.03	0.00	0.01
58	8.86	−0.00	0.00	14.732	0.01	0.03	0.00	0.01
60	8.87	0.01	0.02	14.731	0.01	0.03	0.00	0.01
62	8.89	0.03	0.04	14.731	0.01	0.03	0.00	0.01
64	8.87	0.01	0.02	14.731	0.01	0.03	0.00	0.01
66	8.86	0.00	0.01	14.731	0.01	0.03	0.00	0.01
68	8.88	0.02	0.02	14.732	0.01	0.03	0.00	0.01
70	8.89	0.03	0.03	14.731	0.01	0.03	0.00	0.01
72	8.89	0.03	0.04	14.731	0.01	0.03	0.00	0.01
74	8.89	0.03	0.03	14.73	0.01	0.03	0.00	0.01
76	8.87	0.01	0.02	14.731	0.01	0.03	0.00	0.01
78	8.88	0.02	0.02	14.73	0.01	0.03	0.00	0.01
80	8.89	0.03	0.04	14.729	0.01	0.03	0.00	0.01
82	8.87	0.01	0.02	14.729	0.01	0.03	0.00	0.01

84	8.90	0.04	0.04	14.73	0.01	0.03	0.00	0.01
86	8.87	0.01	0.02	14.729	0.01	0.03	0.00	0.01
88	8.89	0.03	0.04	14.729	0.01	0.03	0.00	0.01
90	8.87	0.01	0.02	14.729	0.01	0.03	0.00	0.01
92	8.85	−0.01	0.00	14.729	0.01	0.03	0.00	0.01
94	8.91	0.05	0.06	14.729	0.01	0.03	0.00	0.01
96	8.86	0.00	0.01	14.728	0.01	0.03	0.00	0.01
98	8.88	0.02	0.03	14.727	0.02	0.04	0.00	0.01
100	8.90	0.04	0.05	14.727	0.02	0.04	0.00	0.01
120	8.91	0.05	0.06	14.728	0.01	0.03	0.00	0.01
140	8.92	0.06	0.08	14.723	0.02	0.05	0.00	0.01
160	8.90	0.04	0.05	14.721	0.02	0.05	0.01	0.01
180	8.90	0.04	0.05	14.725	0.02	0.04	0.00	0.01
200	8.91	0.05	0.06	14.725	0.02	0.04	0.00	0.01
220	8.90	0.04	0.06	14.719	0.02	0.06	0.01	0.01
240	8.91	0.05	0.06	14.719	0.02	0.06	0.01	0.01
260	8.92	0.06	0.07	14.723	0.02	0.05	0.00	0.01
280	8.92	0.06	0.07	14.724	0.02	0.04	0.00	0.01
300	8.92	0.06	0.07	14.724	0.02	0.04	0.00	0.01
320	8.92	0.06	0.07	14.72	0.02	0.05	0.01	0.01
340	8.92	0.06	0.07	14.719	0.02	0.06	0.01	0.01
360	8.92	0.06	0.08	14.717	0.03	0.06	0.01	0.02
380	8.93	0.07	0.08	14.719	0.02	0.06	0.01	0.01
400	8.92	0.06	0.07	14.721	0.02	0.05	0.01	0.01
420	8.94	0.08	0.09	14.725	0.02	0.04	0.00	0.01
440	8.93	0.07	0.08	14.727	0.02	0.04	0.00	0.01
460	8.94	0.08	0.08	14.728	0.01	0.03	0.00	0.01
480	8.94	0.08	0.09	14.726	0.02	0.04	0.00	0.01
500	8.94	0.08	0.09	14.724	0.02	0.04	0.00	0.01
520	8.93	0.07	0.08	14.723	0.02	0.05	0.00	0.01
540	8.93	0.07	0.09	14.719	0.02	0.06	0.01	0.01
560	8.93	0.07	0.09	14.719	0.02	0.06	0.01	0.01
580	8.94	0.08	0.09	14.717	0.03	0.06	0.01	0.02
600	8.94	0.08	0.10	14.717	0.03	0.06	0.01	0.02
620	8.93	0.07	0.09	14.716	0.03	0.06	0.01	0.02
640	8.94	0.08	0.09	14.714	0.03	0.07	0.01	0.02
660	8.93	0.07	0.08	14.714	0.03	0.07	0.01	0.02
680	8.93	0.07	0.09	14.714	0.03	0.07	0.01	0.02
700	8.93	0.07	0.09	14.714	0.03	0.07	0.01	0.02
720	8.94	0.08	0.10	14.714	0.03	0.07	0.01	0.02
740	8.94	0.08	0.10	14.707	0.04	0.08	0.01	0.02

760	8.94	0.08	0.10	14.707	0.04	0.08	0.01	0.02
780	8.94	0.08	0.10	14.708	0.03	0.08	0.01	0.02
800	8.94	0.08	0.10	14.706	0.04	0.09	0.01	0.02
820	8.94	0.08	0.10	14.707	0.04	0.08	0.01	0.02
840	8.94	0.08	0.10	14.708	0.03	0.08	0.01	0.02
860	8.94	0.08	0.10	14.712	0.03	0.07	0.01	0.02
880	8.94	0.08	0.10	14.715	0.03	0.06	0.01	0.02
900	8.95	0.09	0.10	14.717	0.03	0.06	0.01	0.02
920	8.95	0.09	0.10	14.721	0.02	0.05	0.01	0.01
940	8.95	0.09	0.10	14.726	0.02	0.04	0.00	0.01
960	8.96	0.10	0.11	14.729	0.01	0.03	0.00	0.01
980	8.96	0.10	0.11	14.73	0.01	0.03	0.00	0.01
1000	8.95	0.09	0.10	14.732	0.01	0.03	0.00	0.01
1030	8.97	0.11	0.12	14.737	0.01	0.01	0.00	0.00
1060	8.98	0.12	0.12	14.743	0.00	0.00	0.00	0.00
1090	9.00	0.14	0.13	14.75	−0.01	−0.02	−0.00	−0.00
1120	8.99	0.13	0.12	14.75	−0.01	−0.02	−0.00	−0.00
1150	8.97	0.11	0.10	14.754	−0.01	−0.03	−0.00	−0.01
1180	8.98	0.12	0.11	14.757	−0.01	−0.03	−0.00	−0.01
1210	9.01	0.15	0.15	14.754	−0.01	−0.03	−0.00	−0.01
1240	9.00	0.14	0.14	14.749	−0.01	−0.01	−0.00	−0.00
1270	8.97	0.11	0.11	14.744	−0.00	−0.00	−0.00	−0.00
1300	9.04	0.18	0.18	14.739	0.00	0.01	0.00	0.00
1330	8.95	0.09	0.10	14.735	0.01	0.02	0.00	0.00
1360	8.99	0.13	0.13	14.73	0.01	0.03	0.00	0.01
1390	8.95	0.09	0.10	14.725	0.02	0.04	0.00	0.01
1420	8.97	0.11	0.12	14.724	0.02	0.04	0.00	0.01
1450	8.97	0.11	0.13	14.723	0.02	0.05	0.00	0.01
1480	9.00	0.14	0.16	14.715	0.03	0.06	0.01	0.02
1510	8.94	0.08	0.10	14.713	0.03	0.07	0.01	0.02
1540	9.01	0.15	0.17	14.714	0.03	0.07	0.01	0.02
1570	8.98	0.12	0.14	14.709	0.03	0.08	0.01	0.02
1600	8.96	0.10	0.12	14.71	0.03	0.08	0.01	0.02
1630	8.97	0.11	0.13	14.707	0.04	0.08	0.01	0.02
1660	8.95	0.09	0.11	14.704	0.04	0.09	0.01	0.02
1690	8.95	0.09	0.12	14.707	0.04	0.08	0.01	0.02
1720	8.96	0.10	0.12	14.708	0.03	0.08	0.01	0.02
1750	8.97	0.11	0.13	14.712	0.03	0.07	0.01	0.02
1780	8.98	0.12	0.14	14.718	0.02	0.06	0.01	0.02
1810	8.98	0.12	0.13	14.725	0.02	0.04	0.00	0.01
1840	9.00	0.14	0.14	14.727	0.02	0.04	0.00	0.01

1870	8.99	0.13	0.14	14.732	0.01	0.03	0.00	0.01
1900	9.00	0.14	0.14	14.735	0.01	0.02	0.00	0.00
1930	8.99	0.13	0.14	14.737	0.01	0.01	0.00	0.00
1960	8.99	0.13	0.13	14.739	0.00	0.01	0.00	0.00
1990	8.99	0.13	0.14	14.737	0.01	0.01	0.00	0.00
2020	9.00	0.14	0.14	14.743	0.00	0.00	0.00	0.00
2050	9.00	0.14	0.14	14.747	−0.00	−0.01	−0.00	−0.00
2080	8.99	0.13	0.13	14.742	0.00	0.00	0.00	0.00
2110	8.99	0.13	0.13	14.742	0.00	0.00	0.00	0.00
2140	8.99	0.13	0.13	14.73	0.01	0.03	0.00	0.01
2170	8.99	0.13	0.13	14.731	0.01	0.03	0.00	0.01
2200	8.98	0.12	0.13	14.725	0.02	0.04	0.00	0.01
2230	8.99	0.13	0.14	14.733	0.01	0.02	0.00	0.01
2260	8.99	0.13	0.14	14.738	0.01	0.01	0.00	0.00
2290	9.01	0.15	0.15	14.743	0.00	0.00	0.00	0.00
2320	9.01	0.15	0.14	14.751	−0.01	−0.02	−0.00	−0.00
2350	9.00	0.14	0.14	14.751	−0.01	−0.02	−0.00	−0.00
2380	9.00	0.14	0.13	14.76	−0.02	−0.04	−0.00	−0.01
2410	9.01	0.15	0.14	14.769	−0.03	−0.06	−0.01	−0.02
2440	9.02	0.16	0.14	14.779	−0.04	−0.08	−0.01	−0.02
2470	9.03	0.17	0.14	14.786	−0.04	−0.10	−0.01	−0.03
2500	9.02	0.16	0.13	14.793	−0.05	−0.12	−0.01	−0.03
2530	9.03	0.17	0.14	14.798	−0.06	−0.13	−0.01	−0.03
2560	9.03	0.17	0.14	14.803	−0.06	−0.14	−0.01	−0.04
2590	9.03	0.17	0.13	14.803	−0.06	−0.14	−0.01	−0.04
2620	9.02	0.16	0.12	14.807	−0.06	−0.15	−0.01	−0.04
2650	9.06	0.20	0.16	14.81	−0.07	−0.15	−0.02	−0.04
2680	8.99	0.13	0.09	14.811	−0.07	−0.16	−0.02	−0.04
2710	8.95	0.09	0.05	14.808	−0.07	−0.15	−0.02	−0.04
2740	9.05	0.19	0.15	14.804	−0.06	−0.14	−0.01	−0.04
2770	9.05	0.19	0.16	14.799	−0.06	−0.13	−0.01	−0.03
2800	9.06	0.20	0.17	14.798	−0.06	−0.13	−0.01	−0.03
2830	9.02	0.16	0.13	14.792	−0.05	−0.11	−0.01	−0.03
2860	9.04	0.18	0.15	14.789	−0.05	−0.11	−0.01	−0.03
2890	9.04	0.18	0.15	14.786	−0.04	−0.10	−0.01	−0.03
2920	9.04	0.18	0.15	14.784	−0.04	−0.09	−0.01	−0.02
2950	9.03	0.17	0.14	14.782	−0.04	−0.09	−0.01	−0.02
2980	9.02	0.16	0.13	14.782	−0.04	−0.09	−0.01	−0.02
3010	9.03	0.17	0.15	14.783	−0.04	−0.09	−0.01	−0.02
3040	9.04	0.18	0.15	14.785	−0.04	−0.10	−0.01	−0.03
3070	9.02	0.16	0.13	14.788	−0.05	−0.10	−0.01	−0.03

3100	9.02	0.16	0.13	14.794	−0.05	−0.12	−0.01	−0.03
3130	9.02	0.16	0.12	14.803	−0.06	−0.14	−0.01	−0.04
3160	9.02	0.16	0.12	14.809	−0.07	−0.15	−0.02	−0.04
3190	9.03	0.17	0.13	14.818	−0.07	−0.17	−0.02	−0.05
3220	9.04	0.18	0.13	14.822	−0.08	−0.18	−0.02	−0.05
3250	9.04	0.18	0.13	14.83	−0.09	−0.20	−0.02	−0.05
3280	9.05	0.19	0.13	14.838	−0.10	−0.22	−0.02	−0.06
3310	9.05	0.19	0.13	14.842	−0.10	−0.23	−0.02	−0.06
3340	9.05	0.19	0.13	14.845	−0.10	−0.24	−0.02	−0.06
3370	9.05	0.19	0.13	14.848	−0.11	−0.24	−0.02	−0.06
3400	9.05	0.19	0.12	14.849	−0.11	−0.24	−0.02	−0.06
3430	9.05	0.19	0.12	14.848	−0.11	−0.24	−0.02	−0.06
3460	9.05	0.19	0.12	14.849	−0.11	−0.24	−0.02	−0.06
3490	9.05	0.19	0.13	14.848	−0.11	−0.24	−0.02	−0.06
3520	9.05	0.19	0.12	14.845	−0.10	−0.24	−0.02	−0.06
3550	9.05	0.19	0.13	14.843	−0.10	−0.23	−0.02	−0.06
3580	9.05	0.19	0.13	14.84	−0.10	−0.22	−0.02	−0.06
3610	9.05	0.19	0.13	14.84	−0.10	−0.22	−0.02	−0.06
3640	9.05	0.19	0.13	14.84	−0.10	−0.22	−0.02	−0.06
3670	9.05	0.19	0.13	14.84	−0.10	−0.22	−0.02	−0.06
3700	9.07	0.21	0.15	14.84	−0.10	−0.22	−0.02	−0.06
3730	9.06	0.20	0.14	14.842	−0.10	−0.23	−0.02	−0.06
3760	9.06	0.20	0.13	14.848	−0.11	−0.24	−0.02	−0.06
3790	9.07	0.20	0.14	14.855	−0.11	−0.26	−0.03	−0.07
3820	9.07	0.20	0.13	14.861	−0.12	−0.27	−0.03	−0.07
3850	9.07	0.21	0.14	14.863	−0.12	−0.28	−0.03	−0.07
3880	9.08	0.22	0.15	14.867	−0.12	−0.29	−0.03	−0.07
3910	9.08	0.22	0.14	14.872	−0.13	−0.30	−0.03	−0.08
3940	9.08	0.22	0.15	14.874	−0.13	−0.30	−0.03	−0.08
3970	9.09	0.23	0.15	14.882	−0.14	−0.32	−0.03	−0.08
4000	9.05	0.19	0.10	14.887	−0.14	−0.33	−0.03	−0.09
4030	9.07	0.20	0.11	14.894	−0.15	−0.35	−0.03	−0.09
4060	9.13	0.27	0.18	14.9	−0.16	−0.36	−0.04	−0.09
4090	9.13	0.27	0.17	14.904	−0.16	−0.37	−0.04	−0.10
4120	9.13	0.27	0.17	14.904	−0.16	−0.37	−0.04	−0.10
4150	9.14	0.28	0.18	14.9	−0.16	−0.36	−0.04	−0.09
4180	9.02	0.16	0.06	14.898	−0.15	−0.36	−0.04	−0.09
4210	9.11	0.25	0.16	14.898	−0.15	−0.36	−0.04	−0.09
4240	9.17	0.31	0.22	14.897	−0.15	−0.36	−0.04	−0.09
4270	9.08	0.22	0.13	14.897	−0.15	−0.36	−0.04	−0.09
4300	9.08	0.22	0.13	14.892	−0.15	−0.34	−0.03	−0.09

4330	9.19	0.33	0.24	14.889	−0.15	−0.34	−0.03	−0.09
4360	9.08	0.22	0.14	14.887	−0.14	−0.33	−0.03	−0.09
4390	9.08	0.22	0.14	14.884	−0.14	−0.33	−0.03	−0.08
4420	9.05	0.19	0.11	14.883	−0.14	−0.32	−0.03	−0.08
4450	9.14	0.28	0.20	14.883	−0.14	−0.32	−0.03	−0.08
4480	9.08	0.22	0.13	14.886	−0.14	−0.33	−0.03	−0.09
4510	9.09	0.23	0.14	14.887	−0.14	−0.33	−0.03	−0.09
4540	9.09	0.23	0.15	14.887	−0.14	−0.33	−0.03	−0.09
4570	9.08	0.22	0.14	14.887	−0.14	−0.33	−0.03	−0.09
4600	9.09	0.23	0.14	14.888	−0.15	−0.33	−0.03	−0.09
4630	9.09	0.23	0.14	14.886	−0.14	−0.33	−0.03	−0.09
4660	9.08	0.22	0.14	14.881	−0.14	−0.32	−0.03	−0.08
4690	9.09	0.23	0.15	14.884	−0.14	−0.33	−0.03	−0.08
4720	9.10	0.24	0.15	14.888	−0.15	−0.33	−0.03	−0.09
4750	9.09	0.23	0.15	14.887	−0.14	−0.33	−0.03	−0.09
4780	9.09	0.23	0.15	14.885	−0.14	−0.33	−0.03	−0.09
4810	9.10	0.24	0.15	14.884	−0.14	−0.33	−0.03	−0.08
4840	9.09	0.23	0.15	14.881	−0.14	−0.32	−0.03	−0.08
4870	9.10	0.24	0.16	14.878	−0.14	−0.31	−0.03	−0.08
4900	9.09	0.23	0.15	14.877	−0.13	−0.31	−0.03	−0.08
4930	9.09	0.23	0.15	14.872	−0.13	−0.30	−0.03	−0.08
4960	9.09	0.23	0.16	14.867	−0.12	−0.29	−0.03	−0.07
4990	9.09	0.23	0.16	14.865	−0.12	−0.28	−0.03	−0.07
5020	9.10	0.24	0.16	14.863	−0.12	−0.28	−0.03	−0.07
5050	9.09	0.23	0.16	14.86	−0.12	−0.27	−0.03	−0.07
5080	9.09	0.23	0.16	14.86	−0.12	−0.27	−0.03	−0.07
5110	9.09	0.23	0.16	14.86	−0.12	−0.27	−0.03	−0.07
5140	9.10	0.24	0.17	14.859	−0.12	−0.27	−0.03	−0.07
5170	9.09	0.23	0.16	14.859	−0.12	−0.27	−0.03	−0.07
5200	9.10	0.24	0.17	14.862	−0.12	−0.27	−0.03	−0.07
5230	9.10	0.24	0.17	14.863	−0.12	−0.28	−0.03	−0.07
5260	9.10	0.24	0.16	14.869	−0.13	−0.29	−0.03	−0.08
5290	9.11	0.25	0.17	14.874	−0.13	−0.30	−0.03	−0.08
5320	9.11	0.25	0.17	14.882	−0.14	−0.32	−0.03	−0.08
5350	9.13	0.27	0.18	14.889	−0.15	−0.34	−0.03	−0.09
5380	9.13	0.27	0.17	14.893	−0.15	−0.35	−0.03	−0.09
5410	9.14	0.28	0.19	14.898	−0.15	−0.36	−0.04	−0.09
5440	9.14	0.28	0.19	14.898	−0.15	−0.36	−0.04	−0.09
5470	9.19	0.33	0.23	14.903	−0.16	−0.37	−0.04	−0.10
5500	9.15	0.29	0.19	14.908	−0.16	−0.38	−0.04	−0.10
5530	9.16	0.30	0.20	14.909	−0.17	−0.38	−0.04	−0.10

5560	9.18	0.32	0.22	14.912	−0.17	−0.39	−0.04	−0.10
5590	9.17	0.31	0.21	14.911	−0.17	−0.39	−0.04	−0.10
5620	9.10	0.24	0.15	14.906	−0.16	−0.38	−0.04	−0.10
5650	9.14	0.28	0.18	14.907	−0.16	−0.38	−0.04	−0.10
5680	9.11	0.25	0.15	14.906	−0.16	−0.38	−0.04	−0.10
5710	9.13	0.27	0.17	14.904	−0.16	−0.37	−0.04	−0.10
5740	9.14	0.28	0.18	14.901	−0.16	−0.36	−0.04	−0.09
5770	9.14	0.28	0.19	14.895	−0.15	−0.35	−0.04	−0.09
5800	9.12	0.26	0.17	14.888	−0.15	−0.33	−0.03	−0.09
5830	9.09	0.23	0.14	14.886	−0.14	−0.33	−0.03	−0.09
5860	9.11	0.25	0.16	14.882	−0.14	−0.32	−0.03	−0.08
5890	9.10	0.24	0.15	14.882	−0.14	−0.32	−0.03	−0.08
5920	9.09	0.23	0.15	14.881	−0.14	−0.32	−0.03	−0.08
5950	9.12	0.26	0.18	14.881	−0.14	−0.32	−0.03	−0.08
5980	9.11	0.25	0.17	14.88	−0.14	−0.32	−0.03	−0.08
6010	9.12	0.26	0.17	14.878	−0.14	−0.31	−0.03	−0.08
6040	9.12	0.26	0.18	14.876	−0.13	−0.31	−0.03	−0.08
6070	9.12	0.26	0.18	14.875	−0.13	−0.30	−0.03	−0.08
6100	9.12	0.26	0.18	14.874	−0.13	−0.30	−0.03	−0.08
6130	9.13	0.27	0.19	14.872	−0.13	−0.30	−0.03	−0.08
6160	9.12	0.26	0.18	14.872	−0.13	−0.30	−0.03	−0.08
6190	9.13	0.27	0.19	14.873	−0.13	−0.30	−0.03	−0.08
6220	9.13	0.27	0.19	14.871	−0.13	−0.30	−0.03	−0.08
6250	9.13	0.27	0.19	14.867	−0.12	−0.29	−0.03	−0.07
6280	9.13	0.27	0.19	14.866	−0.12	−0.28	−0.03	−0.07
6310	9.13	0.27	0.20	14.864	−0.12	−0.28	−0.03	−0.07
6340	9.13	0.27	0.20	14.864	−0.12	−0.28	−0.03	−0.07
6370	9.14	0.28	0.20	14.86	−0.12	−0.27	−0.03	−0.07
6400	9.14	0.28	0.21	14.858	−0.11	−0.27	−0.03	−0.07
6430	9.13	0.27	0.20	14.855	−0.11	−0.26	−0.03	−0.07
6460	9.12	0.26	0.20	14.851	−0.11	−0.25	−0.02	−0.06
6490	9.12	0.26	0.20	14.848	−0.11	−0.24	−0.02	−0.06
6520	9.13	0.27	0.20	14.843	−0.10	−0.23	−0.02	−0.06
6550	9.12	0.26	0.20	14.839	−0.10	−0.22	−0.02	−0.06
6580	9.12	0.26	0.20	14.838	−0.10	−0.22	−0.02	−0.06
6610	9.13	0.27	0.21	14.838	−0.10	−0.22	−0.02	−0.06
6640	9.13	0.27	0.21	14.839	−0.10	−0.22	−0.02	−0.06
6670	9.13	0.27	0.21	14.841	−0.10	−0.23	−0.02	−0.06
6700	9.14	0.28	0.21	14.844	−0.10	−0.23	−0.02	−0.06
6730	9.14	0.28	0.22	14.85	−0.11	−0.25	−0.02	−0.06
6760	9.16	0.30	0.23	14.855	−0.11	−0.26	−0.03	−0.07

6790	9.16	0.30	0.23	14.862	−0.12	−0.27	−0.03	−0.07
6820	9.17	0.31	0.24	14.865	−0.12	−0.28	−0.03	−0.07
6850	9.18	0.32	0.25	14.866	−0.12	−0.28	−0.03	−0.07
6880	9.18	0.32	0.25	14.871	−0.13	−0.30	−0.03	−0.08
6910	9.16	0.30	0.22	14.876	−0.13	−0.31	−0.03	−0.08
6940	9.18	0.32	0.24	14.878	−0.14	−0.31	−0.03	−0.08
6970	9.17	0.31	0.23	14.883	−0.14	−0.32	−0.03	−0.08
7000	9.19	0.33	0.25	14.884	−0.14	−0.33	−0.03	−0.08
7030	9.16	0.30	0.22	14.882	−0.14	−0.32	−0.03	−0.08
7060	9.19	0.33	0.25	14.883	−0.14	−0.32	−0.03	−0.08
7090	9.20	0.34	0.26	14.88	−0.14	−0.32	−0.03	−0.08
7120	9.14	0.28	0.21	14.874	−0.13	−0.30	−0.03	−0.08
7150	9.17	0.31	0.23	14.871	−0.13	−0.30	−0.03	−0.08
7180	9.19	0.33	0.25	14.865	−0.12	−0.28	−0.03	−0.07
7210	9.16	0.30	0.23	14.863	−0.12	−0.28	−0.03	−0.07
7240	9.17	0.31	0.24	14.856	−0.11	−0.26	−0.03	−0.07
7270	9.17	0.31	0.24	14.853	−0.11	−0.25	−0.03	−0.07
7300	9.16	0.30	0.24	14.849	−0.11	−0.24	−0.02	−0.06
7330	9.16	0.30	0.24	14.848	−0.11	−0.24	−0.02	−0.06
7360	9.14	0.28	0.22	14.844	−0.10	−0.23	−0.02	−0.06
7390	9.15	0.29	0.23	14.843	−0.10	−0.23	−0.02	−0.06
7420	9.15	0.29	0.23	14.843	−0.10	−0.23	−0.02	−0.06
7450	9.15	0.29	0.23	14.843	−0.10	−0.23	−0.02	−0.06
7480	9.15	0.29	0.23	14.842	−0.10	−0.23	−0.02	−0.06
7510	9.15	0.29	0.23	14.84	−0.10	−0.22	−0.02	−0.06
7540	9.15	0.29	0.24	14.841	−0.10	−0.23	−0.02	−0.06
7570	9.16	0.30	0.24	14.843	−0.10	−0.23	−0.02	−0.06
7600	9.17	0.31	0.24	14.849	−0.11	−0.24	−0.02	−0.06
7630	9.17	0.31	0.24	14.854	−0.11	−0.26	−0.03	−0.07
7660	9.17	0.31	0.24	14.856	−0.11	−0.26	−0.03	−0.07
7690	9.17	0.31	0.25	14.855	−0.11	−0.26	−0.03	−0.07
7720	9.17	0.31	0.25	14.856	−0.11	−0.26	−0.03	−0.07
7750	9.18	0.32	0.25	14.858	−0.11	−0.27	−0.03	−0.07
7780	9.17	0.31	0.25	14.854	−0.11	−0.26	−0.03	−0.07
7810	9.17	0.31	0.25	14.851	−0.11	−0.25	−0.02	−0.06
7840	9.17	0.31	0.25	14.85	−0.11	−0.25	−0.02	−0.06
7870	9.17	0.31	0.25	14.847	−0.10	−0.24	−0.02	−0.06
7900	9.17	0.31	0.25	14.844	−0.10	−0.23	−0.02	−0.06
7930	9.17	0.31	0.25	14.842	−0.10	−0.23	−0.02	−0.06
7960	9.18	0.32	0.26	14.841	−0.10	−0.23	−0.02	−0.06
7990	9.17	0.31	0.25	14.84	−0.10	−0.22	−0.02	−0.06

8020	9.18	0.32	0.26	14.841	−0.10	−0.23	−0.02	−0.06
8050	9.18	0.32	0.26	14.84	−0.10	−0.22	−0.02	−0.06
8080	9.18	0.32	0.26	14.839	−0.10	−0.22	−0.02	−0.06
8110	9.18	0.32	0.26	14.841	−0.10	−0.23	−0.02	−0.06
8140	9.18	0.32	0.26	14.848	−0.11	−0.24	−0.02	−0.06
8170	9.19	0.33	0.27	14.851	−0.11	−0.25	−0.02	−0.06
8200	9.20	0.34	0.27	14.858	−0.11	−0.27	−0.03	−0.07
8230	9.21	0.35	0.28	14.864	−0.12	−0.28	−0.03	−0.07
8260	9.20	0.34	0.27	14.867	−0.12	−0.29	−0.03	−0.07
8290	9.20	0.34	0.27	14.87	−0.13	−0.29	−0.03	−0.08
8320	9.20	0.34	0.26	14.874	−0.13	−0.30	−0.03	−0.08
8350	9.20	0.34	0.26	14.877	−0.13	−0.31	−0.03	−0.08
8380	9.26	0.40	0.31	14.881	−0.14	−0.32	−0.03	−0.08
8410	9.17	0.31	0.23	14.883	−0.14	−0.32	−0.03	−0.08
8440	9.35	0.49	0.40	14.887	−0.14	−0.33	−0.03	−0.09
8470	9.23	0.37	0.29	14.883	−0.14	−0.32	−0.03	−0.08
8500	9.19	0.33	0.25	14.878	−0.14	−0.31	−0.03	−0.08
8530	9.24	0.38	0.30	14.876	−0.13	−0.31	−0.03	−0.08
8560	9.24	0.38	0.30	14.875	−0.13	−0.30	−0.03	−0.08
8590	9.19	0.33	0.25	14.874	−0.13	−0.30	−0.03	−0.08
8620	9.23	0.37	0.29	14.872	−0.13	−0.30	−0.03	−0.08
8650	9.20	0.34	0.26	14.872	−0.13	−0.30	−0.03	−0.08
8680	9.20	0.34	0.27	14.866	−0.12	−0.28	−0.03	−0.07
8710	9.20	0.34	0.27	14.865	−0.12	−0.28	−0.03	−0.07
8740	9.22	0.36	0.29	14.864	−0.12	−0.28	−0.03	−0.07
8770	9.18	0.32	0.25	14.863	−0.12	−0.28	−0.03	−0.07
8800	9.20	0.34	0.27	14.861	−0.12	−0.27	−0.03	−0.07
8830	9.20	0.34	0.27	14.862	−0.12	−0.27	−0.03	−0.07
8860	9.20	0.34	0.27	14.862	−0.12	−0.27	−0.03	−0.07
8890	9.20	0.34	0.27	14.863	−0.12	−0.28	−0.03	−0.07
8920	9.20	0.34	0.27	14.863	−0.12	−0.28	−0.03	−0.07
8950	9.20	0.34	0.27	14.863	−0.12	−0.28	−0.03	−0.07
8980	9.20	0.34	0.27	14.867	−0.12	−0.29	−0.03	−0.07
9010	9.21	0.35	0.27	14.87	−0.13	−0.29	−0.03	−0.08
9040	9.21	0.35	0.28	14.871	−0.13	−0.30	−0.03	−0.08
9070	9.22	0.36	0.28	14.873	−0.13	−0.30	−0.03	−0.08
9100	9.22	0.36	0.28	14.873	−0.13	−0.30	−0.03	−0.08
9130	9.22	0.36	0.28	14.872	−0.13	−0.30	−0.03	−0.08
9160	9.21	0.35	0.28	14.869	−0.13	−0.29	−0.03	−0.08
9190	9.22	0.36	0.28	14.869	−0.13	−0.29	−0.03	−0.08
9220	9.22	0.36	0.28	14.864	−0.12	−0.28	−0.03	−0.07

9250	9.21	0.35	0.28	14.858	−0.11	−0.27	−0.03	−0.07
9280	9.22	0.36	0.29	14.854	−0.11	−0.26	−0.03	−0.07
9310	9.21	0.35	0.29	14.853	−0.11	−0.25	−0.03	−0.07
9340	9.21	0.35	0.29	14.852	−0.11	−0.25	−0.03	−0.07
9370	9.21	0.35	0.29	14.85	−0.11	−0.25	−0.02	−0.06
9400	9.21	0.35	0.29	14.847	−0.10	−0.24	−0.02	−0.06
9430	9.21	0.35	0.29	14.848	−0.11	−0.24	−0.02	−0.06
9460	9.23	0.37	0.30	14.851	−0.11	−0.25	−0.02	−0.06
9490	9.22	0.36	0.30	14.851	−0.11	−0.25	−0.02	−0.06
9520	9.22	0.36	0.30	14.852	−0.11	−0.25	−0.03	−0.07
9550	9.22	0.36	0.29	14.853	−0.11	−0.25	−0.03	−0.07
9580	9.24	0.38	0.31	14.859	−0.12	−0.27	−0.03	−0.07
9610	9.23	0.37	0.30	14.861	−0.12	−0.27	−0.03	−0.07
9640	9.23	0.37	0.30	14.865	−0.12	−0.28	−0.03	−0.07
9670	9.23	0.37	0.29	14.873	−0.13	−0.30	−0.03	−0.08
9700	9.26	0.40	0.31	14.877	−0.13	−0.31	−0.03	−0.08
9730	9.24	0.38	0.30	14.881	−0.14	−0.32	−0.03	−0.08
9760	9.25	0.39	0.31	14.875	−0.13	−0.30	−0.03	−0.08
9790	9.25	0.39	0.31	14.876	−0.13	−0.31	−0.03	−0.08
9820	9.29	0.43	0.34	14.887	−0.14	−0.33	−0.03	−0.09
9850	9.26	0.40	0.32	14.884	−0.14	−0.33	−0.03	−0.08
9880	9.28	0.42	0.33	14.888	−0.15	−0.33	−0.03	−0.09
9910	9.25	0.39	0.30	14.886	−0.14	−0.33	−0.03	−0.09
9940	9.28	0.42	0.34	14.877	−0.13	−0.31	−0.03	−0.08
9970	9.25	0.39	0.31	14.874	−0.13	−0.30	−0.03	−0.08
10000	9.15	0.29	0.21	14.867	−0.12	−0.29	−0.03	−0.07
10030	9.20	0.34	0.27	14.862	−0.12	−0.27	−0.03	−0.07
10060	9.24	0.38	0.31	14.859	−0.12	−0.27	−0.03	−0.07

NSB Kings Bay Site 11, IM Phase I Operations: Stage 2 Test

E. Time (min)	MW11-3B (ft)	drawdown (ft)	corr. dd (ft)	MW11-13E (ft)	drawdown	corr. dd	RW-P1 (ft)	drawdown (ft)	corr. dd (ft)	PS-1 (ft)	drawdown (ft)	corr. dd (ft)
0	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0083	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0166	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.025	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0333	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0416	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.05	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0583	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0666	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.075	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0833	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.0916	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1083	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1166	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.125	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1333	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1416	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.15	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1583	6.67	-0.02	-0.02	11.68	0.02	0.02	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1666	6.67	-0.02	-0.02	11.67	0.01	0.01	5.47	-0.01	-0.01	5.94	-0.01	-0.01
0.175	6.67	-0.02	-0.02	11.67	0.01	0.01	5.47	-0.01	-0.01	5.94	-0.01	-0.01
0.1833	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.1916	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.2	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.2083	6.67	-0.02	-0.02	11.67	0.01	0.01	5.47	-0.01	-0.01	5.94	-0.01	-0.01
0.2166	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.225	6.67	-0.02	-0.02	11.67	0.01	0.01	5.47	-0.01	-0.01	5.94	-0.01	-0.01
0.2333	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.2416	6.67	-0.02	-0.02	11.67	0.01	0.01	5.47	-0.01	-0.01	5.94	-0.01	-0.01
0.25	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.2583	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.2666	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.275	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.2833	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.2916	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.3	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.3083	6.67	-0.02	-0.02	11.67	0.01	0.01	5.46	-0.02	-0.02	5.94	-0.01	-0.01
0.3166	6.67	-0.02	-0.02	11.67	0.01	0.01	5.47	-0.01	-0.01	5.94	-0.01	-0.01

1

0.325	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
0.3333	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.35	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.3666	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.3833	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.4	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.4166	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.4333	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.45	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.4666	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.4833	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.5	6.66	−0.03	−0.03	11.66	0.00	0.00	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.5166	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.5333	6.66	−0.03	−0.03	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
0.55	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.5666	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.5833	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.95	0.00	0.00
0.6	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.6166	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.6333	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.65	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.6666	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.6833	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.7	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.7166	6.66	−0.03	−0.03	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
0.7333	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.75	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.7666	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.7833	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.8	6.66	−0.03	−0.03	11.68	0.02	0.02	5.46	−0.02	−0.02	5.95	0.00	0.00
0.8166	6.66	−0.03	−0.03	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
0.8333	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.85	6.66	−0.03	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.8666	6.66	−0.03	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
0.8833	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.95	0.00	0.00
0.9	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.9166	6.66	−0.03	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.9333	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.95	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
0.9666	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
0.9833	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01

1	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
1.2	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
1.4	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
1.6	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
1.8	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
2	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
2.2	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
2.4	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
2.6	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
2.8	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
3	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
3.2	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
3.4	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
3.6	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
3.8	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
4	6.66	−0.03	−0.03	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
4.2	6.66	−0.03	−0.03	11.68	0.02	0.02	5.46	−0.02	−0.02	5.94	−0.01	−0.01
4.4	6.66	−0.03	−0.03	11.68	0.02	0.02	5.46	−0.02	−0.02	5.94	−0.01	−0.01
4.6	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
4.8	6.66	−0.03	−0.03	11.66	0.00	0.00	5.46	−0.02	−0.02	5.94	−0.01	−0.01
5	6.66	−0.03	−0.03	11.66	0.00	0.00	5.47	−0.01	−0.01	5.94	−0.01	−0.01
5.2	6.66	−0.03	−0.03	11.66	0.00	0.00	5.46	−0.02	−0.02	5.94	−0.01	−0.01
5.4	6.66	−0.03	−0.03	11.66	0.00	0.00	5.46	−0.02	−0.02	5.94	−0.01	−0.01
5.6	6.66	−0.03	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
5.8	6.67	−0.02	−0.02	11.67	0.01	0.01	5.46	−0.02	−0.02	5.94	−0.01	−0.01
6	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
6.2	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
6.4	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
6.6	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
6.8	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
7	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
7.2	6.67	−0.02	−0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
7.4	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
7.6	6.67	−0.02	−0.02	11.68	0.02	0.02	5.47	−0.01	−0.01	5.94	−0.01	−0.01
7.8	6.67	−0.02	−0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
8	6.68	−0.01	−0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
8.2	6.68	−0.01	−0.01	11.68	0.02	0.02	5.47	−0.01	−0.01	5.94	−0.01	−0.01
8.4	6.68	−0.01	−0.01	11.68	0.02	0.02	5.47	−0.01	−0.01	5.94	−0.01	−0.01
8.6	6.68	−0.01	−0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
8.8	6.68	−0.01	−0.01	11.68	0.02	0.02	5.47	−0.01	−0.01	5.94	−0.01	−0.01
9	6.68	−0.01	−0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01

9.2	6.67	−0.02	−0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
9.4	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
9.6	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
9.8	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
10	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.95	0.00	0.00
12	6.67	−0.02	−0.02	11.66	0.00	0.00	5.47	−0.01	−0.01	5.94	−0.01	−0.01
14	6.67	−0.02	−0.02	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
16	6.68	−0.01	−0.01	11.66	0.00	0.00	5.47	−0.01	−0.01	5.94	−0.01	−0.01
18	6.68	−0.01	−0.01	11.68	0.02	0.02	5.47	−0.01	−0.01	5.94	−0.01	−0.01
20	6.68	−0.01	−0.01	11.66	0.00	0.00	5.47	−0.01	−0.01	5.94	−0.01	−0.01
22	6.69	−0.00	−0.00	11.66	0.00	0.00	5.47	−0.01	−0.01	5.94	−0.01	−0.01
24	6.68	−0.01	−0.01	11.68	0.02	0.02	5.46	−0.02	−0.02	5.94	−0.01	−0.01
26	6.69	0.00	0.00	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
28	6.69	0.00	0.00	11.68	0.02	0.02	5.47	−0.01	−0.01	5.94	−0.01	−0.01
30	6.70	0.01	0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.94	−0.01	−0.01
32	6.70	0.01	0.01	11.67	0.01	0.01	5.47	−0.01	−0.01	5.95	0.00	0.00
34	6.68	−0.01	−0.01	11.65	−0.01	−0.01	5.47	−0.01	−0.01	5.95	0.00	0.00
36	6.71	0.02	0.02	11.69	0.03	0.03	5.48	0.00	0.00	5.95	0.00	0.00
38	6.71	0.02	0.02	11.68	0.02	0.02	5.47	−0.01	−0.01	5.95	0.00	0.00
40	6.71	0.02	0.02	11.68	0.02	0.02	5.48	0.00	0.00	5.95	0.00	0.00
42	6.71	0.02	0.02	11.69	0.03	0.03	5.48	0.00	0.00	5.95	0.00	0.00
44	6.71	0.02	0.03	11.68	0.02	0.02	5.48	0.00	0.00	5.94	−0.01	−0.00
46	6.71	0.02	0.03	11.67	0.01	0.01	5.48	0.00	0.00	5.95	0.00	0.00
48	6.72	0.03	0.03	11.69	0.03	0.03	5.48	0.00	0.01	5.95	0.00	0.01
50	6.72	0.03	0.03	11.67	0.01	0.01	5.48	0.00	0.00	5.95	0.00	0.00
52	6.72	0.03	0.03	11.68	0.02	0.02	5.47	−0.01	−0.00	5.95	0.00	0.01
54	6.72	0.03	0.03	11.68	0.02	0.02	5.47	−0.01	−0.00	5.95	0.00	0.01
56	6.72	0.03	0.03	11.68	0.02	0.02	5.47	−0.01	−0.00	5.95	0.00	0.01
58	6.72	0.03	0.03	11.67	0.01	0.02	5.48	0.00	0.01	5.96	0.01	0.01
60	6.72	0.03	0.04	11.68	0.02	0.03	5.48	0.00	0.01	5.95	0.00	0.01
62	6.72	0.03	0.04	11.69	0.03	0.04	5.48	0.00	0.01	5.95	0.00	0.01
64	6.72	0.03	0.04	11.69	0.03	0.04	5.48	0.00	0.01	5.96	0.01	0.01
66	6.73	0.04	0.05	11.67	0.01	0.02	5.48	0.00	0.01	5.96	0.01	0.01
68	6.73	0.04	0.05	11.68	0.02	0.02	5.48	0.00	0.01	5.96	0.01	0.01
70	6.73	0.04	0.05	11.68	0.02	0.03	5.48	0.00	0.01	5.96	0.01	0.01
72	6.73	0.04	0.05	11.69	0.03	0.04	5.48	0.00	0.01	5.96	0.01	0.01
74	6.74	0.05	0.05	11.69	0.03	0.04	5.49	0.01	0.02	5.96	0.01	0.02
76	6.73	0.04	0.05	11.67	0.01	0.02	5.49	0.01	0.02	5.96	0.01	0.02
78	6.74	0.05	0.06	11.68	0.02	0.03	5.48	0.00	0.01	5.96	0.01	0.01
80	6.74	0.05	0.06	11.69	0.03	0.04	5.48	0.00	0.01	5.96	0.01	0.02
82	6.74	0.05	0.06	11.69	0.03	0.04	5.48	0.00	0.01	5.96	0.01	0.02

84	6.74	0.05	0.06	11.70	0.04	0.04	5.49	0.01	0.02	5.96	0.01	0.02
86	6.74	0.05	0.06	11.69	0.03	0.04	5.49	0.01	0.02	5.96	0.01	0.02
88	6.75	0.06	0.07	11.68	0.02	0.03	5.49	0.01	0.02	5.96	0.01	0.02
90	6.75	0.06	0.07	11.68	0.02	0.03	5.49	0.01	0.02	5.96	0.01	0.02
92	6.75	0.06	0.07	11.68	0.02	0.03	5.49	0.01	0.02	5.97	0.02	0.03
94	6.75	0.06	0.07	11.70	0.04	0.05	5.49	0.01	0.02	5.96	0.01	0.02
96	6.75	0.06	0.07	11.69	0.03	0.04	5.49	0.01	0.02	5.97	0.02	0.03
98	6.75	0.06	0.07	11.69	0.03	0.04	5.49	0.01	0.02	5.97	0.02	0.03
100	6.75	0.06	0.07	11.70	0.04	0.05	5.49	0.01	0.02	5.97	0.02	0.03
120	6.77	0.08	0.09	11.70	0.04	0.05	5.50	0.02	0.03	5.98	0.03	0.03
140	6.78	0.09	0.10	11.69	0.03	0.04	5.50	0.02	0.03	5.98	0.03	0.04
160	6.78	0.09	0.10	11.70	0.04	0.05	5.51	0.03	0.04	5.98	0.03	0.04
180	6.78	0.09	0.10	11.70	0.04	0.05	5.51	0.03	0.04	5.99	0.04	0.05
200	6.78	0.09	0.10	11.69	0.03	0.04	5.52	0.04	0.05	5.99	0.04	0.05
220	6.78	0.09	0.11	11.69	0.03	0.04	5.52	0.04	0.05	5.99	0.04	0.05
240	6.79	0.09	0.11	11.70	0.04	0.05	5.52	0.04	0.05	5.99	0.04	0.06
260	6.79	0.10	0.11	11.70	0.04	0.05	5.53	0.05	0.06	6.01	0.06	0.07
280	6.79	0.10	0.11	11.70	0.04	0.05	5.54	0.06	0.07	6.01	0.06	0.07
300	6.80	0.11	0.12	11.70	0.04	0.05	5.54	0.06	0.07	6.01	0.06	0.07
320	6.80	0.11	0.12	11.70	0.04	0.05	5.53	0.05	0.06	6.01	0.06	0.07
340	6.80	0.11	0.12	11.70	0.04	0.05	5.54	0.06	0.07	6.01	0.06	0.07
360	6.80	0.11	0.13	11.71	0.05	0.06	5.54	0.06	0.07	6.01	0.06	0.07
380	6.80	0.11	0.13	11.71	0.05	0.06	5.54	0.06	0.07	6.01	0.06	0.08
400	6.81	0.12	0.13	11.71	0.05	0.06	5.54	0.06	0.07	6.01	0.06	0.08
420	6.81	0.12	0.13	11.71	0.05	0.06	5.55	0.07	0.08	6.02	0.07	0.08
440	6.81	0.12	0.13	11.71	0.05	0.06	5.55	0.07	0.08	6.03	0.08	0.09
460	6.81	0.12	0.13	11.71	0.05	0.06	5.55	0.07	0.08	6.03	0.08	0.09
480	6.82	0.13	0.14	11.72	0.06	0.07	5.55	0.07	0.08	6.02	0.07	0.08
500	6.81	0.12	0.13	11.71	0.05	0.06	5.55	0.07	0.08	6.02	0.07	0.08
520	6.81	0.12	0.14	11.71	0.05	0.06	5.55	0.07	0.08	6.02	0.07	0.08
540	6.81	0.12	0.13	11.71	0.05	0.06	5.54	0.06	0.07	6.01	0.06	0.08
560	6.81	0.12	0.13	11.71	0.05	0.06	5.54	0.06	0.07	6.02	0.07	0.08
580	6.81	0.12	0.14	11.72	0.06	0.07	5.54	0.06	0.07	6.01	0.06	0.08
600	6.81	0.12	0.14	11.72	0.06	0.07	5.54	0.06	0.07	6.01	0.06	0.08
620	6.81	0.12	0.14	11.71	0.05	0.06	5.54	0.06	0.07	6.01	0.06	0.08
640	6.81	0.12	0.14	11.71	0.05	0.06	5.54	0.06	0.07	6.01	0.06	0.08
660	6.81	0.12	0.14	11.72	0.06	0.07	5.54	0.06	0.07	6.01	0.06	0.08
680	6.81	0.12	0.14	11.72	0.06	0.07	5.54	0.06	0.07	6.03	0.08	0.09
700	6.81	0.12	0.14	11.71	0.05	0.06	5.54	0.06	0.07	6.01	0.06	0.08
720	6.82	0.13	0.14	11.72	0.06	0.07	5.54	0.06	0.07	6.01	0.06	0.08
740	6.81	0.12	0.14	11.72	0.06	0.08	5.53	0.05	0.07	6.01	0.06	0.08

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760	6.81	0.12	0.14	11.72	0.06	0.08	5.53	0.05	0.07	6.01	0.06	0.08
780	6.82	0.13	0.15	11.72	0.06	0.08	5.53	0.05	0.07	6.01	0.06	0.08
800	6.82	0.13	0.15	11.72	0.06	0.08	5.53	0.05	0.07	6.01	0.06	0.09
820	6.82	0.13	0.15	11.73	0.07	0.09	5.53	0.05	0.07	6.01	0.06	0.08
840	6.82	0.13	0.15	11.73	0.07	0.09	5.54	0.06	0.08	6.01	0.06	0.08
860	6.82	0.13	0.15	11.73	0.07	0.08	5.54	0.06	0.07	6.02	0.07	0.09
880	6.83	0.14	0.15	11.73	0.07	0.08	5.54	0.06	0.07	6.02	0.07	0.09
900	6.83	0.14	0.15	11.74	0.07	0.09	5.55	0.07	0.08	6.03	0.08	0.09
920	6.83	0.14	0.16	11.74	0.07	0.09	5.55	0.07	0.08	6.03	0.08	0.09
940	6.84	0.15	0.16	11.75	0.09	0.10	5.55	0.07	0.08	6.03	0.08	0.09
960	6.84	0.15	0.16	11.75	0.09	0.09	5.56	0.07	0.08	6.03	0.08	0.09
980	6.84	0.15	0.16	11.75	0.09	0.09	5.55	0.07	0.07	6.03	0.08	0.08
1000	6.84	0.15	0.16	11.75	0.09	0.09	5.56	0.07	0.08	6.03	0.08	0.09
1030	6.85	0.16	0.16	11.75	0.09	0.10	5.56	0.07	0.08	6.03	0.08	0.09
1060	6.86	0.17	0.17	11.76	0.10	0.10	5.56	0.08	0.08	6.05	0.10	0.10
1090	6.86	0.17	0.17	11.77	0.11	0.11	5.57	0.09	0.09	6.06	0.11	0.10
1120	6.86	0.17	0.17	11.76	0.10	0.10	5.58	0.10	0.10	6.05	0.10	0.10
1150	6.86	0.17	0.16	11.76	0.10	0.10	5.58	0.10	0.10	6.06	0.11	0.10
1180	6.86	0.17	0.16	11.77	0.11	0.10	5.59	0.11	0.10	6.06	0.11	0.10
1210	6.86	0.17	0.16	11.78	0.12	0.12	5.58	0.10	0.10	6.06	0.11	0.10
1240	6.87	0.18	0.17	11.77	0.11	0.11	5.58	0.10	0.10	6.06	0.11	0.10
1270	6.85	0.15	0.15	11.77	0.11	0.11	5.58	0.10	0.10	6.05	0.10	0.10
1300	6.86	0.17	0.18	11.80	0.14	0.14	5.57	0.09	0.10	6.05	0.10	0.10
1330	6.84	0.15	0.15	11.77	0.11	0.12	5.57	0.09	0.10	6.05	0.10	0.10
1360	6.84	0.15	0.16	11.77	0.11	0.12	5.57	0.09	0.10	6.05	0.10	0.10
1390	6.82	0.13	0.14	11.77	0.11	0.12	5.57	0.09	0.10	6.05	0.10	0.11
1420	6.83	0.14	0.15	11.77	0.11	0.12	5.57	0.09	0.11	6.05	0.10	0.11
1450	6.84	0.15	0.16	11.78	0.12	0.14	5.57	0.09	0.11	6.05	0.10	0.11
1480	6.84	0.15	0.17	11.78	0.12	0.14	5.57	0.09	0.11	6.05	0.10	0.11
1510	6.84	0.15	0.16	11.77	0.11	0.13	5.57	0.09	0.11	6.05	0.10	0.11
1540	6.85	0.16	0.18	11.79	0.13	0.15	5.57	0.09	0.11	6.05	0.10	0.12
1570	6.85	0.16	0.18	11.79	0.13	0.15	5.57	0.09	0.11	6.05	0.10	0.12
1600	6.85	0.16	0.18	11.77	0.11	0.13	5.57	0.09	0.11	6.05	0.10	0.12
1630	6.85	0.16	0.18	11.77	0.11	0.13	5.57	0.09	0.12	6.05	0.10	0.12
1660	6.85	0.16	0.18	11.77	0.11	0.14	5.57	0.09	0.12	6.05	0.10	0.12
1690	6.85	0.16	0.19	11.77	0.11	0.13	5.57	0.09	0.12	6.05	0.10	0.12
1720	6.85	0.16	0.19	11.77	0.11	0.13	5.57	0.09	0.12	6.05	0.10	0.12
1750	6.86	0.17	0.19	11.77	0.11	0.13	5.58	0.10	0.12	6.06	0.11	0.13
1780	6.87	0.18	0.19	11.77	0.11	0.13	5.58	0.10	0.12	6.06	0.11	0.13
1810	6.87	0.18	0.19	11.77	0.11	0.12	5.58	0.10	0.11	6.07	0.12	0.13
1840	6.87	0.18	0.19	11.77	0.11	0.12	5.58	0.10	0.11	6.06	0.11	0.12

1870	6.87	0.18	0.19	11.77	0.11	0.12	5.58	0.10	0.11	6.07	0.12	0.13
1900	6.88	0.19	0.19	11.77	0.11	0.12	5.58	0.10	0.11	6.07	0.12	0.12
1930	6.88	0.19	0.19	11.77	0.11	0.12	5.58	0.10	0.11	6.06	0.11	0.12
1960	6.88	0.19	0.19	11.77	0.11	0.12	5.59	0.11	0.12	6.07	0.12	0.12
1990	6.88	0.19	0.19	11.77	0.11	0.12	5.59	0.11	0.12	6.07	0.12	0.12
2020	6.88	0.19	0.19	11.77	0.11	0.11	5.58	0.10	0.10	6.07	0.12	0.12
2050	6.88	0.19	0.19	11.78	0.12	0.12	5.59	0.11	0.11	6.07	0.12	0.12
2080	6.87	0.18	0.18	11.77	0.11	0.11	5.58	0.10	0.10	6.06	0.11	0.11
2110	6.87	0.18	0.18	11.77	0.11	0.11	5.58	0.10	0.10	6.06	0.11	0.11
2140	6.86	0.17	0.18	11.77	0.11	0.12	5.57	0.09	0.10	6.05	0.10	0.11
2170	6.87	0.18	0.18	11.77	0.11	0.12	5.57	0.09	0.10	6.06	0.11	0.11
2200	6.86	0.17	0.18	11.77	0.11	0.12	5.57	0.09	0.10	6.05	0.10	0.11
2230	6.87	0.18	0.19	11.78	0.12	0.13	5.58	0.10	0.11	6.06	0.11	0.12
2260	6.87	0.18	0.19	11.78	0.12	0.13	5.58	0.10	0.11	6.07	0.12	0.12
2290	6.88	0.19	0.19	11.79	0.13	0.13	5.58	0.10	0.10	6.07	0.12	0.12
2320	6.88	0.19	0.19	11.79	0.13	0.13	5.59	0.11	0.11	6.08	0.13	0.12
2350	6.88	0.19	0.19	11.79	0.13	0.13	5.59	0.11	0.11	6.08	0.13	0.12
2380	6.88	0.19	0.18	11.79	0.13	0.12	5.59	0.11	0.10	6.08	0.13	0.12
2410	6.89	0.20	0.19	11.80	0.14	0.13	5.60	0.12	0.11	6.08	0.13	0.12
2440	6.90	0.21	0.18	11.81	0.15	0.13	5.60	0.12	0.10	6.09	0.14	0.12
2470	6.90	0.21	0.18	11.81	0.15	0.13	5.61	0.13	0.11	6.10	0.15	0.12
2500	6.90	0.21	0.18	11.81	0.15	0.12	5.61	0.13	0.10	6.10	0.15	0.12
2530	6.90	0.21	0.18	11.82	0.16	0.13	5.61	0.13	0.10	6.10	0.15	0.11
2560	6.91	0.22	0.18	11.82	0.16	0.12	5.61	0.13	0.10	6.10	0.15	0.11
2590	6.91	0.22	0.18	11.81	0.15	0.11	5.61	0.13	0.10	6.10	0.15	0.11
2620	6.91	0.22	0.18	11.82	0.16	0.12	5.62	0.14	0.10	6.10	0.15	0.11
2650	6.91	0.22	0.18	11.84	0.18	0.14	5.62	0.14	0.10	6.10	0.15	0.11
2680	6.90	0.21	0.17	11.83	0.17	0.13	5.62	0.14	0.10	6.10	0.15	0.11
2710	6.92	0.23	0.19	11.86	0.20	0.16	5.62	0.14	0.10	6.10	0.15	0.11
2740	6.92	0.22	0.19	11.83	0.17	0.13	5.62	0.14	0.10	6.10	0.15	0.11
2770	6.91	0.22	0.18	11.85	0.19	0.16	5.61	0.13	0.10	6.10	0.15	0.11
2800	6.91	0.22	0.18	11.87	0.21	0.17	5.62	0.14	0.11	6.10	0.15	0.11
2830	6.91	0.22	0.19	11.85	0.19	0.16	5.62	0.14	0.11	6.10	0.15	0.12
2860	6.89	0.20	0.18	11.84	0.18	0.15	5.62	0.14	0.11	6.10	0.15	0.12
2890	6.89	0.20	0.17	11.84	0.18	0.15	5.62	0.14	0.12	6.10	0.15	0.12
2920	6.89	0.20	0.17	11.84	0.18	0.15	5.62	0.14	0.12	6.10	0.15	0.13
2950	6.89	0.20	0.18	11.83	0.17	0.15	5.62	0.14	0.12	6.10	0.15	0.12
2980	6.90	0.21	0.18	11.83	0.17	0.15	5.62	0.14	0.12	6.10	0.15	0.12
3010	6.90	0.21	0.19	11.83	0.17	0.15	5.62	0.14	0.12	6.10	0.15	0.13
3040	6.91	0.22	0.20	11.84	0.18	0.15	5.62	0.14	0.12	6.10	0.15	0.13
3070	6.92	0.22	0.20	11.83	0.17	0.14	5.62	0.14	0.11	6.11	0.16	0.13

3100	6.92	0.22	0.19	11.83	0.17	0.14	5.63	0.15	0.12	6.11	0.16	0.13
3130	6.92	0.23	0.19	11.83	0.17	0.13	5.63	0.15	0.11	6.12	0.16	0.13
3160	6.92	0.23	0.19	11.83	0.17	0.13	5.63	0.15	0.11	6.12	0.17	0.13
3190	6.93	0.24	0.19	11.83	0.17	0.12	5.64	0.16	0.11	6.12	0.17	0.13
3220	6.93	0.24	0.19	11.84	0.18	0.13	5.64	0.16	0.11	6.12	0.17	0.12
3250	6.93	0.24	0.19	11.84	0.18	0.13	5.64	0.16	0.11	6.13	0.18	0.12
3280	6.94	0.25	0.19	11.84	0.18	0.12	5.65	0.17	0.11	6.13	0.18	0.12
3310	6.94	0.25	0.19	11.84	0.18	0.12	5.64	0.16	0.10	6.13	0.18	0.12
3340	6.94	0.25	0.19	11.84	0.18	0.12	5.64	0.16	0.10	6.13	0.18	0.12
3370	6.94	0.25	0.18	11.84	0.18	0.12	5.64	0.16	0.10	6.13	0.18	0.11
3400	6.94	0.25	0.18	11.84	0.18	0.12	5.64	0.16	0.10	6.12	0.17	0.11
3430	6.93	0.24	0.18	11.84	0.18	0.12	5.63	0.15	0.09	6.12	0.17	0.11
3460	6.93	0.24	0.18	11.84	0.18	0.12	5.64	0.16	0.10	6.12	0.16	0.10
3490	6.93	0.24	0.18	11.84	0.18	0.12	5.63	0.15	0.09	6.12	0.16	0.10
3520	6.93	0.24	0.18	11.84	0.18	0.12	5.63	0.15	0.09	6.12	0.16	0.10
3550	6.93	0.24	0.18	11.84	0.18	0.12	5.62	0.14	0.08	6.11	0.16	0.10
3580	6.93	0.24	0.18	11.83	0.17	0.11	5.62	0.14	0.08	6.11	0.16	0.10
3610	6.93	0.24	0.18	11.84	0.18	0.12	5.62	0.14	0.08	6.11	0.16	0.10
3640	6.93	0.24	0.18	11.84	0.18	0.12	5.62	0.14	0.08	6.11	0.16	0.10
3670	6.93	0.24	0.18	11.84	0.18	0.12	5.62	0.14	0.08	6.12	0.16	0.11
3700	6.93	0.24	0.19	11.85	0.19	0.13	5.62	0.14	0.08	6.11	0.16	0.10
3730	6.94	0.25	0.19	11.85	0.19	0.13	5.63	0.15	0.09	6.12	0.16	0.11
3760	6.94	0.25	0.19	11.85	0.19	0.13	5.63	0.15	0.09	6.12	0.17	0.11
3790	6.94	0.25	0.19	11.86	0.20	0.13	5.64	0.16	0.09	6.13	0.18	0.11
3820	6.94	0.25	0.18	11.86	0.20	0.13	5.64	0.16	0.09	6.13	0.18	0.11
3850	6.95	0.26	0.18	11.87	0.21	0.14	5.64	0.16	0.09	6.13	0.18	0.10
3880	6.95	0.26	0.19	11.88	0.22	0.14	5.65	0.17	0.09	6.13	0.18	0.11
3910	6.95	0.26	0.19	11.88	0.22	0.14	5.65	0.17	0.09	6.13	0.18	0.11
3940	6.96	0.27	0.19	11.88	0.22	0.14	5.66	0.18	0.10	6.14	0.19	0.11
3970	6.97	0.28	0.19	11.89	0.23	0.14	5.66	0.18	0.10	6.15	0.20	0.11
4000	6.96	0.27	0.18	11.86	0.20	0.11	5.67	0.19	0.10	6.15	0.20	0.12
4030	6.96	0.27	0.18	11.87	0.21	0.12	5.68	0.20	0.11	6.15	0.20	0.11
4060	6.97	0.28	0.19	11.90	0.24	0.14	5.68	0.20	0.10	6.16	0.21	0.11
4090	6.97	0.28	0.19	11.91	0.25	0.15	5.68	0.20	0.10	6.15	0.20	0.11
4120	6.98	0.29	0.19	11.90	0.24	0.14	5.68	0.20	0.10	6.15	0.20	0.11
4150	6.98	0.28	0.19	11.90	0.24	0.14	5.68	0.20	0.10	6.15	0.20	0.11
4180	6.92	0.23	0.14	11.83	0.17	0.08	5.68	0.20	0.10	6.15	0.20	0.11
4210	6.96	0.27	0.17	11.91	0.25	0.15	5.68	0.20	0.10	6.15	0.20	0.11
4240	6.97	0.28	0.19	11.89	0.23	0.13	5.68	0.20	0.11	6.15	0.20	0.11
4270	6.96	0.27	0.18	11.91	0.25	0.15	5.68	0.20	0.11	6.15	0.20	0.11
4300	6.95	0.26	0.17	11.88	0.22	0.13	5.68	0.20	0.11	6.15	0.20	0.11

4330	6.97	0.28	0.19	11.93	0.27	0.18	5.67	0.19	0.10	6.15	0.20	0.12
4360	6.95	0.26	0.18	11.89	0.23	0.14	5.67	0.19	0.10	6.15	0.20	0.11
4390	6.95	0.26	0.18	11.90	0.24	0.15	5.67	0.19	0.10	6.15	0.20	0.11
4420	6.96	0.27	0.18	11.88	0.22	0.13	5.68	0.20	0.11	6.15	0.20	0.11
4450	6.96	0.27	0.19	11.91	0.25	0.16	5.67	0.19	0.10	6.15	0.20	0.11
4480	6.96	0.27	0.19	11.89	0.23	0.14	5.68	0.20	0.11	6.15	0.20	0.12
4510	6.97	0.28	0.19	11.89	0.23	0.14	5.68	0.20	0.11	6.15	0.20	0.12
4540	6.97	0.28	0.19	11.89	0.23	0.14	5.67	0.19	0.10	6.15	0.20	0.12
4570	6.97	0.28	0.19	11.89	0.23	0.14	5.68	0.20	0.11	6.15	0.20	0.12
4600	6.97	0.28	0.19	11.89	0.23	0.14	5.68	0.20	0.11	6.15	0.20	0.12
4630	6.97	0.28	0.19	11.89	0.23	0.14	5.67	0.19	0.10	6.15	0.20	0.12
4660	6.97	0.28	0.20	11.89	0.23	0.14	5.68	0.20	0.12	6.15	0.20	0.12
4690	6.97	0.28	0.20	11.89	0.23	0.14	5.68	0.20	0.11	6.15	0.20	0.12
4720	6.98	0.28	0.20	11.89	0.23	0.14	5.68	0.20	0.11	6.17	0.22	0.13
4750	6.98	0.28	0.20	11.89	0.23	0.14	5.68	0.20	0.11	6.16	0.21	0.12
4780	6.98	0.28	0.20	11.89	0.23	0.14	5.68	0.20	0.11	6.16	0.21	0.12
4810	6.98	0.28	0.20	11.89	0.23	0.14	5.68	0.20	0.11	6.16	0.21	0.12
4840	6.97	0.28	0.20	11.89	0.23	0.14	5.68	0.20	0.12	6.15	0.20	0.12
4870	6.97	0.28	0.20	11.89	0.23	0.15	5.67	0.19	0.11	6.16	0.21	0.13
4900	6.97	0.28	0.20	11.89	0.23	0.15	5.68	0.20	0.12	6.15	0.20	0.12
4930	6.97	0.28	0.20	11.89	0.23	0.15	5.67	0.19	0.11	6.15	0.20	0.13
4960	6.97	0.28	0.20	11.88	0.22	0.14	5.67	0.19	0.11	6.15	0.20	0.12
4990	6.97	0.28	0.20	11.89	0.23	0.15	5.67	0.19	0.11	6.15	0.20	0.12
5020	6.97	0.28	0.21	11.89	0.23	0.15	5.68	0.20	0.13	6.15	0.20	0.12
5050	6.97	0.28	0.21	11.88	0.22	0.15	5.67	0.19	0.12	6.15	0.20	0.13
5080	6.97	0.28	0.21	11.89	0.23	0.16	5.68	0.20	0.13	6.15	0.20	0.13
5110	6.97	0.28	0.21	11.89	0.23	0.16	5.67	0.19	0.12	6.15	0.20	0.13
5140	6.97	0.28	0.21	11.89	0.23	0.16	5.67	0.19	0.12	6.15	0.20	0.13
5170	6.97	0.28	0.21	11.89	0.23	0.16	5.68	0.20	0.13	6.15	0.20	0.13
5200	6.98	0.28	0.21	11.89	0.23	0.16	5.68	0.20	0.13	6.15	0.20	0.13
5230	6.98	0.29	0.22	11.90	0.24	0.16	5.68	0.20	0.13	6.16	0.21	0.14
5260	6.98	0.29	0.22	11.90	0.24	0.16	5.68	0.20	0.12	6.16	0.21	0.13
5290	6.99	0.30	0.22	11.91	0.25	0.17	5.69	0.21	0.13	6.17	0.22	0.14
5320	7.00	0.31	0.22	11.91	0.25	0.16	5.70	0.22	0.13	6.17	0.22	0.14
5350	7.00	0.31	0.23	11.93	0.27	0.18	5.70	0.22	0.13	6.18	0.23	0.14
5380	7.01	0.32	0.23	54.82	43.16	43.07	5.70	0.22	0.13	6.18	0.23	0.14
5410	7.01	0.32	0.23	54.83	43.17	43.08	5.71	0.23	0.13	6.18	0.23	0.14
5440	7.01	0.32	0.23	54.85	43.19	43.10	5.71	0.23	0.13	6.18	0.23	0.14
5470	7.02	0.33	0.24	12.08	0.42	0.32	5.72	0.24	0.14	6.19	0.24	0.14
5500	7.03	0.34	0.24	12.01	0.35	0.25	5.72	0.24	0.14	6.19	0.24	0.14
5530	7.01	0.32	0.22	11.96	0.30	0.20	5.73	0.24	0.15	6.20	0.25	0.15

5560	7.02	0.33	0.22	11.96	0.30	0.20	5.73	0.24	0.14	6.20	0.25	0.15
5590	7.03	0.34	0.24	11.96	0.30	0.20	5.73	0.24	0.14	6.20	0.25	0.15
5620	7.01	0.32	0.22	11.96	0.30	0.20	5.72	0.24	0.14	6.19	0.24	0.14
5650	7.02	0.33	0.23	11.95	0.29	0.19	5.73	0.24	0.15	6.19	0.24	0.14
5680	6.98	0.29	0.19	11.91	0.25	0.15	5.73	0.24	0.15	6.20	0.25	0.15
5710	7.01	0.32	0.23	11.93	0.27	0.18	5.73	0.24	0.15	6.20	0.25	0.15
5740	7.01	0.32	0.23	11.94	0.28	0.19	5.73	0.24	0.15	6.20	0.25	0.15
5770	7.00	0.31	0.22	11.94	0.28	0.19	5.73	0.24	0.15	6.19	0.24	0.15
5800	6.99	0.30	0.21	11.93	0.27	0.19	5.73	0.24	0.16	6.19	0.24	0.15
5830	7.00	0.31	0.22	11.93	0.27	0.18	5.73	0.24	0.16	6.19	0.24	0.16
5860	7.00	0.31	0.22	11.93	0.27	0.18	5.72	0.24	0.15	6.18	0.23	0.15
5890	7.00	0.31	0.22	11.92	0.26	0.17	5.72	0.24	0.15	6.19	0.24	0.16
5920	7.01	0.32	0.23	11.92	0.26	0.17	5.72	0.24	0.15	6.19	0.24	0.16
5950	7.01	0.32	0.23	11.92	0.26	0.17	5.72	0.24	0.15	6.19	0.24	0.16
5980	7.01	0.32	0.23	11.93	0.27	0.18	5.72	0.24	0.15	6.19	0.24	0.16
6010	7.01	0.32	0.24	11.93	0.27	0.18	5.72	0.24	0.15	6.19	0.24	0.16
6040	7.00	0.31	0.23	11.93	0.27	0.19	5.72	0.24	0.16	6.19	0.24	0.16
6070	7.01	0.32	0.24	11.93	0.27	0.19	5.72	0.24	0.16	6.19	0.24	0.16
6100	7.01	0.32	0.24	11.93	0.27	0.19	5.72	0.24	0.16	6.19	0.24	0.16
6130	7.01	0.32	0.24	11.93	0.27	0.19	5.72	0.24	0.16	6.19	0.24	0.16
6160	7.01	0.32	0.24	11.93	0.27	0.20	5.72	0.24	0.16	6.19	0.24	0.16
6190	7.02	0.33	0.25	11.93	0.27	0.19	5.72	0.24	0.16	6.19	0.24	0.16
6220	7.01	0.32	0.25	11.93	0.27	0.20	5.73	0.24	0.17	6.20	0.25	0.17
6250	7.01	0.32	0.25	11.93	0.27	0.20	5.72	0.24	0.16	6.20	0.25	0.17
6280	7.01	0.32	0.25	11.93	0.27	0.20	5.72	0.24	0.16	6.20	0.25	0.17
6310	7.01	0.32	0.25	11.93	0.27	0.20	5.72	0.24	0.16	6.20	0.25	0.17
6340	7.02	0.33	0.25	11.93	0.27	0.20	5.72	0.24	0.16	6.20	0.25	0.17
6370	7.01	0.32	0.25	11.93	0.27	0.19	5.72	0.24	0.16	6.20	0.25	0.18
6400	7.01	0.32	0.25	11.93	0.27	0.20	5.72	0.24	0.17	6.19	0.24	0.17
6430	7.01	0.32	0.26	11.93	0.27	0.20	5.72	0.24	0.17	6.19	0.24	0.17
6460	7.01	0.32	0.25	11.93	0.27	0.20	5.72	0.24	0.17	6.19	0.24	0.18
6490	7.01	0.32	0.25	11.93	0.27	0.20	5.71	0.23	0.16	6.18	0.23	0.17
6520	7.01	0.32	0.26	11.93	0.27	0.20	5.71	0.23	0.17	6.18	0.23	0.17
6550	7.01	0.32	0.26	11.92	0.26	0.20	5.71	0.23	0.17	6.18	0.23	0.18
6580	7.01	0.32	0.26	11.92	0.26	0.20	5.71	0.23	0.17	6.18	0.23	0.18
6610	7.01	0.32	0.26	11.92	0.26	0.20	5.71	0.23	0.17	6.18	0.23	0.18
6640	7.01	0.32	0.27	11.92	0.26	0.20	5.71	0.23	0.17	6.19	0.24	0.18
6670	7.02	0.33	0.27	11.92	0.26	0.20	5.71	0.23	0.17	6.19	0.24	0.18
6700	7.02	0.33	0.27	11.92	0.26	0.19	5.72	0.24	0.17	6.19	0.24	0.18
6730	7.03	0.34	0.27	11.92	0.26	0.19	5.72	0.24	0.17	6.20	0.25	0.18
6760	7.04	0.35	0.28	11.93	0.27	0.20	5.73	0.24	0.18	6.20	0.25	0.19

6790	7.04	0.35	0.28	11.93	0.27	0.19	5.73	0.24	0.17	6.21	0.26	0.19
6820	7.05	0.36	0.29	11.93	0.27	0.20	5.73	0.25	0.18	6.21	0.26	0.19
6850	7.05	0.36	0.29	11.93	0.27	0.20	5.73	0.25	0.18	6.22	0.27	0.19
6880	7.05	0.36	0.29	11.94	0.28	0.21	5.74	0.26	0.19	6.22	0.27	0.19
6910	7.05	0.36	0.28	11.93	0.27	0.19	5.75	0.27	0.19	6.22	0.27	0.19
6940	7.05	0.36	0.28	11.93	0.27	0.19	5.75	0.27	0.19	6.23	0.28	0.20
6970	7.05	0.36	0.28	11.93	0.27	0.18	5.75	0.27	0.19	6.23	0.28	0.19
7000	7.06	0.37	0.28	11.93	0.27	0.19	5.76	0.28	0.20	6.24	0.29	0.20
7030	7.06	0.37	0.28	11.93	0.27	0.18	5.76	0.28	0.20	6.24	0.29	0.20
7060	7.05	0.36	0.27	11.94	0.28	0.20	5.76	0.28	0.20	6.24	0.29	0.20
7090	7.05	0.36	0.28	11.94	0.28	0.20	5.76	0.28	0.20	6.23	0.28	0.20
7120	7.04	0.34	0.27	11.93	0.27	0.19	5.76	0.28	0.20	6.24	0.29	0.21
7150	7.04	0.35	0.28	11.94	0.28	0.21	5.76	0.28	0.21	6.23	0.28	0.20
7180	7.05	0.36	0.28	11.94	0.28	0.21	5.76	0.28	0.21	6.23	0.28	0.21
7210	7.04	0.34	0.27	11.93	0.27	0.19	5.76	0.28	0.21	6.23	0.28	0.21
7240	7.02	0.33	0.26	11.93	0.27	0.21	5.76	0.28	0.21	6.23	0.28	0.21
7270	7.03	0.34	0.27	11.93	0.27	0.20	5.76	0.28	0.22	6.22	0.27	0.21
7300	7.03	0.34	0.28	11.93	0.27	0.21	5.75	0.27	0.21	6.22	0.27	0.21
7330	7.04	0.35	0.28	11.93	0.27	0.21	5.75	0.27	0.21	6.22	0.27	0.21
7360	7.04	0.35	0.29	11.93	0.27	0.21	5.75	0.27	0.21	6.22	0.27	0.21
7390	7.04	0.35	0.29	11.93	0.27	0.21	5.75	0.27	0.21	6.22	0.27	0.21
7420	7.04	0.35	0.29	11.93	0.27	0.20	5.75	0.27	0.21	6.23	0.28	0.22
7450	7.05	0.36	0.29	11.93	0.27	0.20	5.75	0.27	0.21	6.23	0.28	0.22
7480	7.05	0.36	0.30	11.93	0.27	0.21	5.75	0.27	0.21	6.23	0.28	0.22
7510	7.05	0.36	0.30	11.93	0.27	0.22	5.75	0.27	0.21	6.23	0.28	0.22
7540	7.05	0.36	0.30	11.93	0.27	0.22	5.76	0.28	0.22	6.24	0.29	0.23
7570	7.05	0.36	0.30	11.93	0.27	0.21	5.76	0.28	0.22	6.24	0.29	0.23
7600	7.05	0.36	0.30	11.93	0.27	0.21	5.77	0.29	0.23	6.25	0.30	0.23
7630	7.06	0.37	0.30	11.93	0.27	0.21	5.77	0.29	0.23	6.25	0.30	0.23
7660	7.06	0.37	0.30	11.94	0.28	0.22	5.77	0.29	0.22	6.25	0.30	0.23
7690	7.06	0.37	0.30	11.94	0.28	0.22	5.77	0.29	0.22	6.25	0.30	0.23
7720	7.06	0.37	0.30	11.94	0.28	0.22	5.77	0.29	0.22	6.25	0.30	0.23
7750	7.06	0.37	0.30	11.94	0.28	0.21	5.77	0.29	0.22	6.25	0.30	0.23
7780	7.06	0.37	0.30	11.94	0.28	0.22	5.76	0.28	0.22	6.24	0.29	0.23
7810	7.06	0.37	0.30	11.94	0.28	0.22	5.76	0.28	0.22	6.24	0.29	0.23
7840	7.06	0.37	0.30	11.94	0.28	0.22	5.76	0.28	0.22	6.24	0.29	0.22
7870	7.06	0.37	0.30	11.94	0.28	0.22	5.76	0.28	0.22	6.24	0.29	0.22
7900	7.06	0.37	0.31	11.94	0.28	0.22	5.75	0.27	0.21	6.23	0.28	0.22
7930	7.05	0.36	0.30	11.94	0.28	0.22	5.75	0.27	0.21	6.23	0.28	0.22
7960	7.05	0.36	0.31	11.95	0.29	0.23	5.75	0.27	0.21	6.23	0.28	0.22
7990	7.05	0.36	0.31	11.95	0.29	0.23	5.75	0.27	0.21	6.23	0.28	0.22

8020	7.06	0.37	0.31	11.95	0.29	0.23	5.75	0.27	0.21	6.23	0.28	0.22
8050	7.06	0.37	0.31	11.95	0.29	0.23	5.75	0.27	0.21	6.24	0.29	0.23
8080	7.06	0.37	0.31	11.96	0.30	0.24	5.75	0.27	0.22	6.23	0.28	0.22
8110	7.06	0.37	0.32	11.96	0.30	0.24	5.76	0.28	0.22	6.23	0.28	0.22
8140	7.07	0.38	0.31	11.97	0.31	0.25	5.76	0.28	0.22	6.24	0.29	0.23
8170	7.07	0.38	0.32	11.97	0.31	0.25	5.76	0.28	0.22	6.25	0.30	0.23
8200	7.08	0.39	0.32	11.98	0.32	0.25	5.77	0.29	0.22	6.25	0.30	0.23
8230	7.09	0.40	0.32	11.99	0.33	0.26	5.78	0.30	0.23	6.25	0.30	0.23
8260	7.10	0.41	0.33	12.00	0.34	0.27	5.78	0.30	0.23	6.25	0.30	0.23
8290	7.10	0.41	0.33	12.00	0.34	0.26	5.79	0.31	0.23	6.26	0.31	0.23
8320	7.09	0.40	0.32	11.99	0.33	0.25	5.79	0.31	0.23	6.26	0.31	0.23
8350	7.09	0.40	0.32	11.99	0.33	0.25	5.79	0.31	0.23	6.27	0.32	0.24
8380	7.09	0.40	0.32	12.01	0.35	0.27	5.79	0.31	0.23	6.27	0.32	0.23
8410	7.08	0.39	0.31	11.97	0.31	0.23	5.79	0.31	0.23	6.27	0.32	0.23
8440	7.12	0.43	0.34	12.06	0.40	0.31	5.80	0.32	0.23	6.27	0.32	0.24
8470	7.10	0.41	0.33	12.01	0.35	0.27	5.80	0.32	0.24	6.27	0.32	0.23
8500	7.09	0.40	0.32	11.99	0.33	0.25	5.80	0.32	0.24	6.27	0.32	0.24
8530	7.10	0.41	0.33	12.02	0.36	0.28	5.80	0.32	0.24	6.27	0.32	0.24
8560	7.10	0.41	0.33	12.03	0.37	0.29	5.80	0.32	0.24	6.27	0.32	0.24
8590	7.09	0.40	0.32	11.99	0.33	0.25	5.81	0.33	0.25	6.27	0.32	0.24
8620	7.08	0.39	0.31	12.02	0.36	0.28	5.80	0.32	0.24	6.27	0.32	0.24
8650	7.08	0.39	0.31	12.01	0.35	0.27	5.81	0.33	0.25	6.27	0.32	0.25
8680	7.07	0.38	0.31	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.24
8710	7.08	0.39	0.31	12.01	0.35	0.28	5.80	0.32	0.25	6.27	0.32	0.24
8740	7.08	0.39	0.32	12.01	0.35	0.28	5.79	0.31	0.24	6.27	0.32	0.24
8770	7.09	0.40	0.32	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
8800	7.09	0.40	0.33	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
8830	7.09	0.40	0.33	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
8860	7.09	0.40	0.33	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
8890	7.09	0.40	0.33	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
8920	7.10	0.41	0.33	12.00	0.34	0.27	5.81	0.33	0.26	6.27	0.32	0.25
8950	7.10	0.41	0.33	12.00	0.34	0.27	5.81	0.33	0.26	6.27	0.32	0.25
8980	7.10	0.41	0.34	12.00	0.34	0.27	5.81	0.33	0.26	6.28	0.33	0.26
9010	7.11	0.42	0.34	12.00	0.34	0.26	5.82	0.34	0.26	6.29	0.34	0.26
9040	7.11	0.42	0.34	12.00	0.34	0.26	5.82	0.34	0.26	6.29	0.34	0.26
9070	7.11	0.42	0.34	12.00	0.34	0.26	5.82	0.34	0.26	6.29	0.34	0.26
9100	7.11	0.42	0.34	12.00	0.34	0.26	5.81	0.33	0.25	6.29	0.34	0.26
9130	7.11	0.42	0.34	12.01	0.35	0.27	5.81	0.33	0.25	6.28	0.33	0.25
9160	7.11	0.42	0.34	12.01	0.35	0.27	5.81	0.33	0.25	6.28	0.33	0.25
9190	7.11	0.42	0.34	12.01	0.35	0.27	5.80	0.32	0.24	6.28	0.33	0.25
9220	7.11	0.42	0.34	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25

9250	7.10	0.41	0.34	12.01	0.35	0.28	5.80	0.32	0.25	6.27	0.32	0.25
9280	7.10	0.41	0.34	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
9310	7.10	0.41	0.34	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
9340	7.10	0.41	0.35	12.00	0.34	0.27	5.80	0.32	0.25	6.27	0.32	0.25
9370	7.10	0.41	0.34	12.01	0.35	0.29	5.80	0.32	0.26	6.27	0.32	0.25
9400	7.10	0.41	0.34	12.00	0.34	0.28	5.80	0.32	0.26	6.27	0.32	0.25
9430	7.10	0.41	0.35	12.01	0.35	0.29	5.80	0.32	0.26	6.27	0.32	0.25
9460	7.10	0.41	0.35	12.01	0.35	0.29	5.80	0.32	0.26	6.27	0.32	0.26
9490	7.11	0.42	0.35	12.02	0.36	0.29	5.80	0.32	0.26	6.27	0.32	0.26
9520	7.11	0.42	0.35	12.02	0.36	0.29	5.80	0.32	0.25	6.27	0.32	0.26
9550	7.11	0.42	0.35	12.02	0.36	0.29	5.81	0.33	0.26	6.28	0.33	0.26
9580	7.12	0.42	0.36	12.03	0.37	0.30	5.81	0.33	0.26	6.29	0.34	0.27
9610	7.12	0.42	0.35	12.03	0.37	0.30	5.82	0.34	0.27	6.29	0.34	0.27
9640	7.12	0.43	0.35	12.03	0.37	0.30	5.81	0.33	0.26	6.29	0.34	0.26
9670	7.12	0.43	0.35	12.03	0.37	0.29	5.82	0.34	0.26	6.29	0.34	0.26
9700	7.13	0.44	0.36	12.04	0.38	0.30	5.83	0.35	0.27	6.30	0.35	0.27
9730	7.13	0.44	0.35	12.04	0.38	0.30	5.83	0.35	0.27	6.30	0.35	0.27
9760	7.12	0.43	0.35	12.04	0.38	0.30	5.82	0.34	0.26	6.29	0.34	0.26
9790	7.13	0.44	0.36	12.04	0.38	0.30	5.83	0.35	0.27	6.30	0.35	0.27
9820	7.14	0.45	0.36	12.06	0.40	0.31	5.84	0.36	0.27	6.31	0.36	0.27
9850	7.13	0.44	0.36	12.05	0.39	0.30	5.84	0.36	0.27	6.30	0.35	0.26
9880	7.14	0.45	0.36	12.06	0.40	0.31	5.85	0.37	0.28	6.31	0.36	0.27
9910	7.12	0.43	0.35	12.07	0.41	0.32	5.85	0.37	0.28	6.31	0.36	0.27
9940	7.13	0.44	0.36	12.05	0.39	0.31	5.85	0.37	0.29	6.31	0.36	0.27
9970	7.12	0.43	0.35	12.05	0.39	0.31	5.85	0.37	0.29	6.30	0.35	0.27
10000	7.09	0.40	0.32	12.01	0.35	0.28	5.84	0.36	0.28	6.29	0.34	0.27
10030	7.11	0.42	0.34	12.01	0.35	0.28	5.84	0.36	0.29	6.30	0.35	0.28
10060	7.10	0.41	0.34	12.05	0.39	0.32	5.83	0.35	0.28	6.30	0.35	0.28

STAGE 3

E. Time	RW-1	dd	corr. dd	PS-1	dd	corr. dd	PS-2	dd	corr. dd	PS-3	dd	corr. dd
0	5.78	0.30	0.30	6.26	0.31	0.31	7.02	0.33	0.33	7.76	0.33	0.33
0.0083	5.78	0.30	0.30	6.26	0.31	0.31	7.01	0.32	0.32	7.76	0.33	0.33
0.0166	5.79	0.31	0.31	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.025	5.79	0.31	0.31	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.0333	5.79	0.31	0.31	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.0416	5.79	0.31	0.31	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.05	7.43	1.95	1.95	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.0583	5.55	0.07	0.07	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.0666	5.67	0.19	0.19	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.075	6.02	0.54	0.54	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.0833	6.05	0.57	0.57	6.26	0.31	0.31	7.02	0.33	0.33	7.76	0.33	0.33
0.0916	6.05	0.57	0.57	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1	6.09	0.61	0.61	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1083	6.15	0.67	0.67	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1166	6.19	0.71	0.71	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.125	6.23	0.75	0.75	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1333	6.28	0.80	0.80	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1416	6.32	0.84	0.84	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.15	6.36	0.88	0.88	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1583	6.40	0.92	0.92	6.27	0.32	0.32	7.01	0.32	0.32	7.76	0.33	0.33
0.1666	6.44	0.96	0.96	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.175	6.49	1.01	1.01	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1833	6.53	1.05	1.05	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.1916	6.56	1.08	1.08	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2	6.61	1.13	1.13	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2083	6.65	1.17	1.17	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2166	6.69	1.21	1.21	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.225	6.72	1.24	1.24	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2333	6.76	1.28	1.28	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2416	6.81	1.33	1.33	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.25	6.85	1.37	1.37	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2583	6.89	1.41	1.41	6.27	0.32	0.32	7.02	0.33	0.33	7.77	0.34	0.34
0.2666	6.93	1.45	1.45	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.275	6.97	1.49	1.49	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2833	7.01	1.53	1.53	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.2916	7.04	1.56	1.56	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.3	7.08	1.60	1.60	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.3083	7.11	1.63	1.63	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.3166	7.15	1.67	1.67	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.325	7.20	1.72	1.72	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.3333	7.23	1.75	1.75	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.35	7.30	1.82	1.82	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.3666	7.38	1.90	1.90	6.27	0.32	0.32	7.02	0.33	0.33	7.77	0.34	0.34
0.3833	7.45	1.97	1.97	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.4	7.51	2.03	2.03	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33

0.4166	7.59	2.11	2.11	6.28	0.33	0.33	7.02	0.33	0.33	7.76	0.33	0.33
0.4333	7.65	2.17	2.17	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.45	7.72	2.24	2.24	6.28	0.33	0.33	7.02	0.33	0.33	7.76	0.33	0.33
0.4666	7.80	2.32	2.32	6.27	0.32	0.32	7.02	0.33	0.33	7.76	0.33	0.33
0.4833	7.87	2.38	2.39	6.28	0.33	0.33	7.02	0.33	0.33	7.76	0.33	0.33
0.5	7.93	2.45	2.45	6.28	0.33	0.33	7.02	0.33	0.33	7.76	0.33	0.33
0.5166	8.02	2.54	2.54	6.28	0.33	0.33	7.02	0.33	0.33	7.76	0.33	0.33
0.5333	8.07	2.59	2.59	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.55	8.13	2.65	2.65	6.28	0.33	0.33	7.02	0.33	0.33	7.76	0.33	0.33
0.5666	8.20	2.72	2.72	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.5833	8.26	2.78	2.78	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.6	8.34	2.86	2.86	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.6166	8.40	2.92	2.92	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.6333	8.46	2.98	2.98	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.65	8.52	3.04	3.04	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.6666	8.57	3.09	3.09	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.6833	8.63	3.15	3.15	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.7	8.70	3.22	3.22	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.7166	8.77	3.29	3.29	6.29	0.34	0.34	7.02	0.33	0.33	7.76	0.33	0.33
0.7333	8.83	3.35	3.35	6.30	0.35	0.35	7.02	0.33	0.33	7.76	0.33	0.33
0.75	8.87	3.39	3.39	6.30	0.35	0.35	7.02	0.33	0.33	7.76	0.33	0.33
0.7666	8.94	3.46	3.46	6.30	0.35	0.35	7.02	0.33	0.33	7.76	0.33	0.33
0.7833	9.00	3.52	3.52	6.30	0.35	0.35	7.02	0.33	0.33	7.76	0.33	0.33
0.8	9.04	3.56	3.56	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.8166	9.11	3.63	3.63	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.8333	9.16	3.68	3.68	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.85	9.22	3.74	3.74	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.8666	9.28	3.80	3.80	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.8833	9.34	3.86	3.86	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.9	9.38	3.90	3.90	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.9166	9.44	3.96	3.96	6.31	0.36	0.36	7.02	0.33	0.33	7.76	0.33	0.33
0.9333	9.49	4.01	4.01	6.32	0.37	0.37	7.02	0.33	0.33	7.77	0.34	0.34
0.95	9.53	4.05	4.05	6.32	0.37	0.37	7.02	0.33	0.33	7.76	0.33	0.33
0.9666	9.58	4.10	4.10	6.32	0.37	0.37	7.02	0.33	0.33	7.76	0.33	0.33
0.9833	9.65	4.17	4.17	6.32	0.37	0.37	7.02	0.33	0.33	7.77	0.34	0.34
1	9.69	4.21	4.21	6.32	0.37	0.37	7.02	0.33	0.33	7.76	0.33	0.33
1.2	10.39	4.91	4.91	6.34	0.39	0.39	7.03	0.34	0.34	7.77	0.34	0.34
1.4	10.95	5.47	5.47	6.36	0.41	0.41	7.03	0.34	0.34	7.77	0.34	0.34
1.6	11.40	5.92	5.92	6.38	0.43	0.43	7.03	0.34	0.34	7.77	0.34	0.34
1.8	11.81	6.33	6.33	6.40	0.45	0.45	7.04	0.35	0.35	7.78	0.35	0.35
2	12.17	6.69	6.69	6.42	0.47	0.47	7.04	0.35	0.35	7.78	0.35	0.35
2.2	12.49	7.01	7.01	6.44	0.49	0.49	7.04	0.35	0.35	7.78	0.35	0.35
2.4	12.77	7.29	7.29	6.45	0.50	0.50	7.05	0.36	0.36	7.79	0.36	0.36
2.6	13.03	7.55	7.55	6.47	0.52	0.52	7.05	0.36	0.36	7.79	0.36	0.36
2.8	13.28	7.80	7.80	6.48	0.53	0.53	7.06	0.37	0.37	7.80	0.37	0.37
3	13.49	8.01	8.01	6.50	0.55	0.55	7.06	0.37	0.37	7.80	0.37	0.37
3.2	13.68	8.20	8.20	6.52	0.57	0.57	7.06	0.37	0.37	7.80	0.37	0.37

3.4	13.87	8.39	8.39	6.53	0.58	0.58	7.07	0.38	0.38	7.81	0.38	0.38
3.6	14.03	8.55	8.55	6.55	0.60	0.59	7.08	0.39	0.39	7.81	0.38	0.38
3.8	14.17	8.69	8.69	6.56	0.61	0.61	7.08	0.39	0.39	7.82	0.39	0.39
4	14.30	8.82	8.82	6.57	0.62	0.62	7.09	0.40	0.40	7.82	0.39	0.39
4.2	14.41	8.93	8.93	6.58	0.63	0.63	7.09	0.40	0.40	7.83	0.40	0.40
4.4	14.51	9.03	9.03	6.60	0.65	0.65	7.10	0.41	0.41	7.83	0.40	0.40
4.6	14.61	9.13	9.13	6.60	0.65	0.65	7.10	0.41	0.41	7.84	0.41	0.41
4.8	14.70	9.22	9.22	6.62	0.67	0.67	7.11	0.42	0.42	7.85	0.42	0.42
5	14.80	9.32	9.32	6.63	0.68	0.68	7.11	0.42	0.42	7.85	0.42	0.42
5.2	14.85	9.37	9.37	6.64	0.69	0.69	7.12	0.43	0.43	7.86	0.43	0.43
5.4	14.96	9.48	9.48	6.65	0.70	0.70	7.12	0.43	0.43	7.86	0.43	0.43
5.6	14.98	9.50	9.49	6.65	0.70	0.70	7.12	0.43	0.43	7.87	0.43	0.43
5.8	15.04	9.56	9.56	6.67	0.72	0.72	7.13	0.44	0.44	7.87	0.44	0.44
6	15.08	9.60	9.60	6.67	0.72	0.72	7.13	0.44	0.44	7.87	0.44	0.44
6.2	15.15	9.67	9.67	6.68	0.73	0.73	7.14	0.45	0.45	7.88	0.45	0.45
6.4	15.17	9.69	9.69	6.69	0.74	0.74	7.14	0.45	0.45	7.88	0.45	0.45
6.6	15.21	9.73	9.73	6.70	0.75	0.75	7.15	0.46	0.46	7.88	0.45	0.45
6.8	15.24	9.76	9.76	6.71	0.76	0.75	7.15	0.46	0.46	7.89	0.46	0.46
7	15.29	9.81	9.81	6.71	0.76	0.76	7.16	0.47	0.47	7.90	0.47	0.47
7.2	15.31	9.83	9.83	6.72	0.77	0.77	7.16	0.47	0.47	7.90	0.47	0.47
7.4	15.33	9.85	9.85	6.72	0.77	0.77	7.17	0.48	0.48	7.91	0.48	0.48
7.6	15.36	9.88	9.88	6.73	0.78	0.78	7.17	0.48	0.48	7.91	0.48	0.48
7.8	15.37	9.89	9.89	6.74	0.79	0.79	7.18	0.49	0.49	7.91	0.48	0.48
8	15.40	9.92	9.92	6.74	0.79	0.79	7.18	0.49	0.49	7.92	0.49	0.48
8.2	15.42	9.94	9.94	6.75	0.80	0.80	7.18	0.49	0.49	7.92	0.49	0.49
8.4	15.44	9.96	9.96	6.75	0.80	0.80	7.19	0.49	0.49	7.93	0.50	0.50
8.6	15.45	9.97	9.97	6.76	0.81	0.81	7.19	0.50	0.50	7.93	0.50	0.50
8.8	15.45	9.97	9.97	6.76	0.81	0.81	7.19	0.50	0.50	7.94	0.51	0.51
9	15.48	10.00	10.00	6.77	0.82	0.82	7.19	0.50	0.50	7.93	0.50	0.50
9.2	15.48	10.00	10.00	6.78	0.83	0.83	7.20	0.51	0.51	7.94	0.51	0.51
9.4	15.49	10.01	10.01	6.78	0.83	0.82	7.20	0.51	0.51	7.95	0.52	0.52
9.6	15.50	10.02	10.02	6.78	0.83	0.83	7.21	0.52	0.52	7.95	0.52	0.52
9.8	15.52	10.04	10.04	6.79	0.84	0.84	7.21	0.52	0.52	7.95	0.52	0.52
10	15.53	10.05	10.05	6.79	0.84	0.84	7.22	0.53	0.53	7.96	0.53	0.53
12	15.62	10.14	10.14	6.83	0.88	0.88	7.25	0.56	0.56	7.99	0.56	0.56
14	15.65	10.17	10.17	6.87	0.92	0.92	7.28	0.59	0.59	8.02	0.59	0.59
16	15.69	10.21	10.21	6.90	0.95	0.94	7.31	0.62	0.62	8.05	0.62	0.62
18	15.74	10.26	10.26	6.92	0.97	0.97	7.33	0.64	0.64	8.07	0.64	0.64
20	15.78	10.30	10.30	6.95	1.00	0.99	7.36	0.67	0.66	8.10	0.67	0.66
22	15.81	10.33	10.33	6.97	1.02	1.02	7.38	0.69	0.69	8.12	0.69	0.69
24	15.82	10.34	10.34	6.99	1.04	1.04	7.40	0.71	0.70	8.14	0.71	0.71
26	15.86	10.38	10.38	7.01	1.06	1.06	7.42	0.73	0.72	8.16	0.73	0.73
28	15.88	10.40	10.40	7.03	1.08	1.08	7.44	0.74	0.74	8.18	0.75	0.75
30	15.90	10.42	10.42	7.05	1.10	1.10	7.45	0.76	0.76	8.20	0.77	0.77
32	15.93	10.45	10.45	7.06	1.11	1.11	7.47	0.78	0.78	8.21	0.78	0.78
34	15.95	10.47	10.47	7.08	1.13	1.13	7.48	0.79	0.79	8.23	0.80	0.80
36	15.97	10.49	10.49	7.09	1.14	1.14	7.50	0.81	0.81	8.25	0.82	0.82

38	15.98	10.50	10.50	7.11	1.16	1.16	7.51	0.82	0.82	8.26	0.83	0.83
40	16.00	10.52	10.53	7.12	1.17	1.17	7.52	0.83	0.84	8.27	0.84	0.84
42	16.04	10.56	10.56	7.13	1.18	1.18	7.54	0.85	0.85	8.29	0.86	0.86
44	16.03	10.55	10.55	7.14	1.19	1.19	7.55	0.86	0.86	8.30	0.87	0.87
46	16.06	10.58	10.58	7.16	1.21	1.21	7.56	0.87	0.87	8.31	0.88	0.88
48	16.07	10.59	10.59	7.17	1.22	1.22	7.58	0.88	0.89	8.33	0.90	0.90
50	16.09	10.61	10.61	7.18	1.23	1.23	7.59	0.90	0.90	8.34	0.91	0.91
52	16.11	10.63	10.63	7.19	1.24	1.24	7.60	0.91	0.91	8.35	0.92	0.92
54	16.12	10.64	10.64	7.20	1.25	1.25	7.61	0.92	0.92	8.36	0.93	0.93
56	16.14	10.66	10.66	7.21	1.26	1.26	7.62	0.93	0.93	8.37	0.94	0.94
58	16.14	10.66	10.67	7.22	1.27	1.27	7.63	0.94	0.94	8.38	0.95	0.96
60	16.16	10.68	10.69	7.23	1.28	1.29	7.64	0.95	0.95	8.39	0.96	0.96
62	16.17	10.69	10.70	7.24	1.29	1.29	7.65	0.96	0.96	8.40	0.97	0.98
64	16.19	10.71	10.72	7.25	1.30	1.30	7.65	0.96	0.97	8.41	0.98	0.99
66	16.20	10.72	10.72	7.26	1.31	1.31	7.66	0.97	0.97	8.43	1.00	1.00
68	16.21	10.73	10.73	7.26	1.31	1.32	7.67	0.98	0.99	8.45	1.01	1.02
70	16.23	10.75	10.75	7.28	1.33	1.33	7.68	0.99	0.99	8.46	1.03	1.03
72	16.23	10.75	10.75	7.28	1.33	1.34	7.69	1.00	1.00	8.47	1.04	1.04
74	16.24	10.76	10.76	7.29	1.34	1.34	7.70	1.01	1.01	8.47	1.04	1.04
76	16.27	10.79	10.79	7.30	1.35	1.35	7.70	1.01	1.02	8.48	1.05	1.05
78	16.28	10.80	10.80	7.31	1.36	1.36	7.71	1.02	1.03	8.49	1.06	1.06
80	16.28	10.80	10.80	7.31	1.36	1.36	7.72	1.03	1.03	8.50	1.07	1.07
82	16.28	10.80	10.80	7.32	1.37	1.37	7.73	1.04	1.04	8.50	1.07	1.08
84	16.30	10.82	10.82	7.33	1.38	1.38	7.73	1.04	1.04	8.51	1.08	1.09
86	16.31	10.83	10.84	7.33	1.38	1.39	7.74	1.05	1.05	8.52	1.09	1.09
88	16.33	10.85	10.86	7.35	1.40	1.40	7.75	1.06	1.06	8.53	1.10	1.10
90	16.33	10.85	10.86	7.35	1.40	1.40	7.75	1.06	1.07	8.53	1.10	1.11
92	16.34	10.86	10.87	7.35	1.40	1.41	7.76	1.07	1.07	8.54	1.11	1.11
94	16.36	10.88	10.89	7.36	1.41	1.41	7.77	1.08	1.08	8.54	1.11	1.12
96	16.35	10.87	10.88	7.36	1.41	1.41	7.77	1.08	1.08	8.55	1.12	1.12
98	16.36	10.88	10.89	7.37	1.42	1.42	7.77	1.08	1.09	8.55	1.12	1.13
100	16.37	10.89	10.90	7.37	1.42	1.43	7.78	1.09	1.09	8.56	1.13	1.14
120	16.47	10.99	10.99	7.42	1.47	1.47	7.83	1.14	1.14	8.61	1.18	1.19
140	16.51	11.03	11.04	7.45	1.50	1.51	7.85	1.16	1.17	8.64	1.21	1.22
160	16.60	11.12	11.13	7.49	1.54	1.55	7.88	1.19	1.20	8.68	1.25	1.26
180	16.64	11.16	11.17	7.51	1.56	1.57	7.91	1.22	1.23	8.70	1.27	1.28
200	16.70	11.22	11.23	7.52	1.57	1.59	7.92	1.23	1.25	8.72	1.29	1.30
220	16.72	11.24	11.25	7.54	1.59	1.60	7.94	1.25	1.26	8.73	1.30	1.32
240	16.77	11.29	11.30	7.55	1.60	1.61	7.96	1.27	1.28	8.75	1.32	1.33
260	16.79	11.31	11.32	7.56	1.61	1.62	7.96	1.27	1.29	8.75	1.32	1.34
280	16.83	11.35	11.37	7.57	1.62	1.63	7.97	1.28	1.30	8.77	1.34	1.35
300	16.83	11.35	11.37	7.57	1.62	1.64	7.98	1.29	1.31	8.78	1.35	1.36
320	16.83	11.35	11.37	7.58	1.63	1.65	7.99	1.30	1.31	8.79	1.36	1.37
340	16.88	11.40	11.41	7.59	1.64	1.65	7.99	1.30	1.32	8.79	1.36	1.38
360	16.89	11.41	11.42	7.59	1.64	1.66	8.00	1.31	1.32	8.80	1.37	1.38
380	16.91	11.43	11.44	7.59	1.64	1.66	8.00	1.31	1.33	8.80	1.37	1.39
400	16.95	11.47	11.48	7.61	1.66	1.67	8.01	1.32	1.34	8.81	1.38	1.39

420	16.97	11.49	11.51	7.61	1.66	1.67	8.02	1.33	1.34	8.82	1.39	1.40
440	16.99	11.51	11.53	7.61	1.66	1.68	8.02	1.33	1.35	8.82	1.39	1.40
460	16.99	11.51	11.53	7.61	1.66	1.68	8.02	1.33	1.35	8.82	1.39	1.41
480	17.02	11.54	11.56	7.62	1.67	1.68	8.03	1.34	1.35	8.83	1.40	1.41
500	17.03	11.55	11.57	7.62	1.67	1.68	8.03	1.34	1.35	8.83	1.40	1.41
520	17.05	11.57	11.58	7.63	1.68	1.69	8.03	1.34	1.36	8.84	1.41	1.42
540	17.06	11.58	11.59	7.63	1.68	1.69	8.04	1.35	1.36	8.84	1.41	1.42
560	17.08	11.60	11.61	7.63	1.68	1.69	8.04	1.35	1.36	8.84	1.41	1.42
580	17.11	11.63	11.64	7.63	1.68	1.69	8.04	1.35	1.36	8.84	1.41	1.42
600	17.12	11.64	11.64	7.64	1.69	1.70	8.05	1.36	1.37	8.85	1.42	1.43
620	17.13	11.65	11.65	7.64	1.69	1.70	8.05	1.36	1.37	8.85	1.42	1.43
640	17.14	11.66	11.67	7.64	1.69	1.70	8.05	1.36	1.36	8.85	1.42	1.43
660	17.17	11.69	11.70	7.64	1.69	1.70	8.05	1.36	1.37	8.85	1.42	1.43
680	17.15	11.67	11.68	7.64	1.69	1.69	8.05	1.36	1.36	8.85	1.42	1.43
700	17.19	11.71	11.72	7.64	1.69	1.69	8.05	1.36	1.36	8.85	1.42	1.42
720	17.18	11.70	11.71	7.63	1.68	1.69	8.04	1.35	1.36	8.84	1.41	1.42
740	17.19	11.71	11.72	7.62	1.67	1.68	8.03	1.34	1.35	8.83	1.40	1.41
760	17.20	11.72	11.74	7.61	1.66	1.67	8.02	1.33	1.34	8.82	1.39	1.41
780	17.19	11.71	11.73	7.60	1.65	1.67	8.01	1.32	1.34	8.81	1.38	1.40
800	17.22	11.74	11.76	7.61	1.66	1.67	8.01	1.32	1.34	8.82	1.39	1.40
820	17.20	11.72	11.74	7.60	1.65	1.67	8.00	1.31	1.33	8.81	1.38	1.40
840	17.21	11.73	11.75	7.59	1.64	1.66	8.00	1.31	1.33	8.81	1.38	1.40
860	17.22	11.74	11.76	7.59	1.64	1.66	7.99	1.30	1.33	8.80	1.37	1.40
880	17.24	11.76	11.78	7.59	1.64	1.66	7.99	1.30	1.32	8.80	1.37	1.39
900	17.25	11.77	11.79	7.58	1.63	1.66	7.98	1.29	1.32	8.80	1.37	1.39
920	17.26	11.78	11.81	7.57	1.62	1.65	7.98	1.29	1.32	8.79	1.36	1.39
940	17.28	11.80	11.83	7.57	1.62	1.66	7.98	1.29	1.32	8.79	1.36	1.39
960	17.28	11.80	11.83	7.57	1.62	1.66	7.98	1.29	1.32	8.79	1.36	1.39
980	17.29	11.81	11.84	7.57	1.62	1.66	7.98	1.29	1.32	8.79	1.36	1.39
1000	17.29	11.81	11.84	7.56	1.61	1.65	7.97	1.28	1.32	8.78	1.35	1.38
1030	17.31	11.83	11.87	7.57	1.62	1.66	7.97	1.28	1.32	8.78	1.35	1.39
1060	17.34	11.86	11.90	7.57	1.62	1.66	7.98	1.29	1.33	8.78	1.35	1.39
1090	17.36	11.88	11.92	7.57	1.62	1.66	7.97	1.28	1.32	8.78	1.35	1.39
1120	17.37	11.89	11.93	7.57	1.62	1.66	7.98	1.29	1.33	8.78	1.35	1.39
1150	17.38	11.90	11.94	7.57	1.62	1.66	7.98	1.29	1.33	8.78	1.35	1.39
1180	17.40	11.92	11.96	7.57	1.62	1.66	7.98	1.29	1.33	8.79	1.36	1.40
1210	17.42	11.94	11.97	7.57	1.62	1.66	7.98	1.29	1.33	8.79	1.36	1.40
1240	17.41	11.93	11.96	7.57	1.62	1.66	7.98	1.29	1.33	8.79	1.36	1.39
1270	17.43	11.95	11.98	7.57	1.62	1.66	7.98	1.29	1.33	8.79	1.36	1.39
1300	17.43	11.95	11.98	7.57	1.62	1.66	7.98	1.29	1.33	8.79	1.36	1.39
1330	17.45	11.97	12.00	7.57	1.62	1.66	7.98	1.29	1.33	8.79	1.36	1.40
1360	17.46	11.98	12.01	7.57	1.62	1.66	7.98	1.29	1.33	8.79	1.36	1.40
1390	17.47	11.99	12.03	7.58	1.63	1.67	7.99	1.30	1.33	8.79	1.36	1.40
1420	17.47	11.99	12.02	7.59	1.64	1.67	7.99	1.30	1.33	8.80	1.37	1.40
1450	17.51	12.03	12.06	7.59	1.64	1.67	7.99	1.30	1.33	8.80	1.37	1.40
1480	17.52	12.04	12.07	7.58	1.63	1.66	7.99	1.30	1.33	8.80	1.37	1.40
1510	17.53	12.05	12.08	7.58	1.63	1.66	7.99	1.30	1.33	8.80	1.37	1.40

1540	17.54	12.06	12.09	7.58	1.63	1.66	7.99	1.30	1.34	8.80	1.37	1.40
1570	17.56	12.08	12.11	7.58	1.63	1.66	7.99	1.30	1.33	8.80	1.37	1.40
1600	17.55	12.07	12.10	7.58	1.63	1.66	7.99	1.30	1.33	8.80	1.37	1.40
1630	17.59	12.11	12.14	7.58	1.63	1.66	7.99	1.30	1.34	8.80	1.37	1.40
1660	17.61	12.13	12.16	7.57	1.62	1.66	7.98	1.29	1.32	8.79	1.36	1.39
1690	17.58	12.10	12.13	7.56	1.61	1.64	7.97	1.28	1.31	8.76	1.33	1.36
1720	17.58	12.10	12.13	7.54	1.59	1.62	7.95	1.26	1.29	8.74	1.31	1.34
1750	17.58	12.10	12.13	7.53	1.58	1.61	7.94	1.25	1.28	8.74	1.31	1.34
1780	17.60	12.12	12.14	7.55	1.60	1.62	7.96	1.27	1.29	8.76	1.33	1.35
1810	17.62	12.14	12.16	7.56	1.61	1.63	7.98	1.29	1.31	8.78	1.35	1.37
1840	17.64	12.16	12.18	7.57	1.62	1.64	7.99	1.30	1.32	8.79	1.36	1.38
1870	17.67	12.19	12.21	7.58	1.63	1.65	7.99	1.30	1.32	8.80	1.37	1.39
1900	17.70	12.22	12.23	7.59	1.64	1.66	8.00	1.31	1.33	8.81	1.38	1.39
1930	17.70	12.22	12.23	7.59	1.64	1.66	8.01	1.32	1.33	8.81	1.38	1.39
1960	17.73	12.25	12.26	7.60	1.65	1.66	8.01	1.32	1.33	8.82	1.39	1.40
1990	17.72	12.24	12.25	7.61	1.66	1.67	8.02	1.33	1.34	8.82	1.39	1.40
2020	17.74	12.26	12.27	7.61	1.66	1.67	8.02	1.33	1.34	8.82	1.39	1.40
2050	17.77	12.29	12.29	7.61	1.66	1.67	8.02	1.33	1.34	8.83	1.40	1.40
2080	17.77	12.29	12.29	7.61	1.66	1.67	8.03	1.34	1.34	8.83	1.40	1.41
2110	17.77	12.29	12.29	7.62	1.67	1.68	8.03	1.34	1.34	8.82	1.39	1.40
2140	17.78	12.30	12.30	7.62	1.67	1.68	8.03	1.34	1.34	8.82	1.39	1.40
2170	17.80	12.32	12.32	7.62	1.67	1.68	8.03	1.34	1.35	8.83	1.40	1.41
2200	17.80	12.32	12.33	7.62	1.67	1.68	8.03	1.34	1.35	8.83	1.40	1.41
2230	17.80	12.32	12.34	7.62	1.67	1.68	8.03	1.34	1.36	8.84	1.41	1.43
2260	17.82	12.34	12.36	7.62	1.67	1.69	8.03	1.34	1.36	8.83	1.40	1.41
2290	17.83	12.35	12.37	7.62	1.67	1.69	8.03	1.34	1.36	8.84	1.41	1.42
2320	17.84	12.36	12.38	7.63	1.68	1.70	8.04	1.35	1.37	8.84	1.41	1.43
2350	17.83	12.35	12.37	7.63	1.68	1.70	8.04	1.35	1.37	8.84	1.41	1.43
2380	17.86	12.38	12.40	7.63	1.68	1.70	8.04	1.35	1.37	8.83	1.40	1.42
2410	17.86	12.38	12.40	7.63	1.68	1.69	8.04	1.35	1.37	8.84	1.41	1.43
2440	17.85	12.37	12.39	7.63	1.68	1.70	8.05	1.36	1.37	8.85	1.42	1.43
2470	17.86	12.38	12.40	7.63	1.68	1.70	8.05	1.36	1.37	8.85	1.42	1.43
2500	17.85	12.37	12.39	7.63	1.68	1.70	8.04	1.35	1.37	8.84	1.41	1.43
2530	17.86	12.38	12.40	7.63	1.68	1.70	8.04	1.35	1.37	8.84	1.41	1.43
2560	17.84	12.36	12.38	7.63	1.68	1.69	8.04	1.35	1.37	8.84	1.41	1.43
2590	17.85	12.37	12.39	7.63	1.68	1.70	8.05	1.36	1.37	8.85	1.42	1.43
2620	17.86	12.38	12.40	7.63	1.68	1.70	8.05	1.36	1.37	8.85	1.42	1.43
2650	17.87	12.39	12.40	7.64	1.69	1.70	8.05	1.36	1.37	8.86	1.42	1.44
2680	17.89	12.41	12.42	7.64	1.69	1.70	8.05	1.36	1.37	8.86	1.42	1.43
2710	17.92	12.44	12.44	7.65	1.70	1.71	8.06	1.37	1.38	8.86	1.43	1.44
2740	17.93	12.45	12.45	7.65	1.70	1.70	8.07	1.38	1.38	8.87	1.44	1.44
2770	17.94	12.46	12.46	7.65	1.70	1.70	8.07	1.38	1.38	8.87	1.44	1.44
2800	17.95	12.47	12.47	7.64	1.69	1.69	8.06	1.37	1.37	8.86	1.43	1.43
2830	17.96	12.48	12.48	7.64	1.69	1.70	8.06	1.37	1.37	8.86	1.43	1.43
2860	17.96	12.48	12.48	7.64	1.69	1.70	8.06	1.37	1.37	8.86	1.43	1.43
2890	17.95	12.47	12.47	7.64	1.69	1.70	8.06	1.37	1.37	8.86	1.43	1.43
2920	17.96	12.48	12.48	7.64	1.69	1.70	8.06	1.37	1.37	8.86	1.43	1.43

2950	17.95	12.47	12.47	7.64	1.69	1.70	8.06	1.37	1.37	8.86	1.43	1.44
2980	17.95	12.47	12.47	7.64	1.69	1.70	8.05	1.36	1.37	8.86	1.42	1.43
3010	17.96	12.48	12.49	7.64	1.69	1.70	8.05	1.36	1.37	8.86	1.42	1.44
3040	17.95	12.47	12.48	7.63	1.68	1.70	8.05	1.36	1.37	8.85	1.42	1.43
3070	17.96	12.48	12.50	7.63	1.68	1.70	8.05	1.36	1.38	8.85	1.42	1.44
3100	17.95	12.47	12.48	7.63	1.68	1.70	8.05	1.36	1.38	8.85	1.42	1.44
3130	17.95	12.47	12.48	7.64	1.69	1.70	8.05	1.36	1.38	8.86	1.42	1.44
3160	17.95	12.47	12.48	7.64	1.69	1.70	8.06	1.37	1.38	8.86	1.43	1.44
3190	17.94	12.46	12.47	7.64	1.69	1.71	8.06	1.37	1.39	8.86	1.43	1.45
3220	17.93	12.45	12.46	7.64	1.69	1.71	8.06	1.37	1.38	8.86	1.43	1.44
3250	18.00	12.52	12.53	7.64	1.69	1.70	8.06	1.37	1.38	8.86	1.43	1.44
3280	17.99	12.51	12.52	7.65	1.70	1.71	8.07	1.38	1.39	8.87	1.44	1.45
3310	17.98	12.50	12.51	7.66	1.71	1.71	8.07	1.38	1.39	8.88	1.45	1.45
3340	18.00	12.52	12.52	7.66	1.71	1.71	8.08	1.39	1.39	8.88	1.45	1.45
3370	17.98	12.50	12.50	7.66	1.71	1.71	8.08	1.39	1.39	8.88	1.45	1.45
3400	18.07	12.59	12.59	7.66	1.71	1.71	8.08	1.39	1.39	8.88	1.45	1.45
3430	18.05	12.57	12.57	7.66	1.71	1.71	8.07	1.38	1.38	8.88	1.45	1.45
3460	18.02	12.54	12.54	7.66	1.71	1.71	8.07	1.38	1.38	8.88	1.45	1.45
3490	18.00	12.52	12.52	7.66	1.71	1.71	8.08	1.39	1.39	8.89	1.46	1.46
3520	18.09	12.61	12.60	7.67	1.72	1.72	8.08	1.39	1.39	8.89	1.46	1.46
3550	18.08	12.60	12.59	7.67	1.72	1.72	8.08	1.39	1.39	8.89	1.46	1.46
3580	18.07	12.59	12.59	7.66	1.71	1.71	8.08	1.39	1.39	8.88	1.45	1.45
3610	18.06	12.58	12.58	7.66	1.71	1.72	8.08	1.39	1.39	8.88	1.45	1.45
3640	18.05	12.57	12.58	7.66	1.71	1.72	8.07	1.38	1.39	8.88	1.45	1.46
3670	18.04	12.56	12.57	7.66	1.71	1.72	8.08	1.39	1.40	8.88	1.45	1.46
3700	18.07	12.59	12.60	7.66	1.71	1.72	8.07	1.38	1.40	8.87	1.44	1.45
3730	18.06	12.58	12.60	7.66	1.71	1.72	8.08	1.39	1.40	8.87	1.44	1.46
3760	18.06	12.58	12.60	7.66	1.71	1.74	8.08	1.39	1.41	8.88	1.45	1.47
3790	18.10	12.62	12.64	7.66	1.71	1.74	8.08	1.39	1.41	8.87	1.44	1.47
3820	18.09	12.61	12.63	7.67	1.72	1.74	8.09	1.40	1.42	8.88	1.45	1.48
3850	18.09	12.61	12.63	7.67	1.72	1.74	8.09	1.40	1.42	8.89	1.46	1.48
3880	18.13	12.65	12.68	7.66	1.71	1.74	8.09	1.40	1.42	8.88	1.45	1.48
3910	18.13	12.65	12.68	7.66	1.71	1.74	8.09	1.40	1.42	8.88	1.45	1.48
3940	18.11	12.63	12.65	7.66	1.71	1.74	8.08	1.39	1.42	8.88	1.45	1.48
3970	18.11	12.63	12.66	7.66	1.71	1.74	8.08	1.39	1.42	8.88	1.45	1.48
4000	18.15	12.67	12.70	7.66	1.71	1.74	8.08	1.39	1.42	8.89	1.46	1.49
4030	18.12	12.64	12.67	7.66	1.71	1.74	8.09	1.40	1.43	8.89	1.46	1.49
4060	18.13	12.65	12.67	7.68	1.73	1.75	8.11	1.42	1.45	8.90	1.47	1.49
4090	18.13	12.65	12.67	7.68	1.73	1.75	8.11	1.42	1.44	8.91	1.48	1.50
4120	18.18	12.70	12.72	7.68	1.73	1.75	8.11	1.41	1.44	8.90	1.47	1.50
4150	18.16	12.68	12.70	7.68	1.73	1.75	8.11	1.42	1.44	8.91	1.48	1.50
4180	18.19	12.71	12.73	7.68	1.73	1.75	8.11	1.42	1.44	8.91	1.48	1.50
4210	18.17	12.69	12.71	7.68	1.73	1.75	8.11	1.42	1.43	8.91	1.48	1.50
4240	18.18	12.70	12.71	7.68	1.73	1.75	8.11	1.42	1.43	8.91	1.48	1.50
4270	18.16	12.68	12.69	7.68	1.73	1.74	8.11	1.42	1.43	8.91	1.48	1.49
4300	18.16	12.68	12.69	7.69	1.74	1.75	8.12	1.42	1.43	8.92	1.49	1.49
4330	18.21	12.73	12.73	7.69	1.74	1.74	8.12	1.43	1.43	8.92	1.49	1.49

4360	18.19	12.71	12.72	7.68	1.73	1.74	8.11	1.41	1.42	8.91	1.48	1.49
4390	18.17	12.69	12.70	7.68	1.73	1.74	8.10	1.41	1.42	8.90	1.47	1.49
4420	18.16	12.68	12.69	7.68	1.73	1.74	8.10	1.41	1.42	8.90	1.47	1.49
4450	18.21	12.73	12.74	7.68	1.73	1.74	8.10	1.41	1.43	8.90	1.47	1.49
4480	18.21	12.73	12.74	7.68	1.73	1.74	8.10	1.41	1.42	8.90	1.47	1.49
4510	18.19	12.71	12.72	7.68	1.73	1.74	8.10	1.41	1.43	8.91	1.48	1.49
4540	18.25	12.77	12.78	7.68	1.73	1.74	8.10	1.41	1.43	8.90	1.47	1.49
4570	18.23	12.75	12.76	7.68	1.73	1.74	8.11	1.42	1.43	8.91	1.48	1.49
4600	18.22	12.74	12.75	7.68	1.73	1.74	8.11	1.42	1.43	8.91	1.48	1.49
4630	18.25	12.77	12.78	7.68	1.73	1.74	8.10	1.41	1.42	8.91	1.48	1.49
4660	18.23	12.75	12.76	7.68	1.73	1.74	8.10	1.41	1.42	8.91	1.48	1.49
4690	18.21	12.73	12.74	7.68	1.73	1.74	8.10	1.41	1.42	8.91	1.48	1.49
4720	18.18	12.70	12.72	7.68	1.73	1.74	8.10	1.41	1.42	8.90	1.47	1.49
4750	18.22	12.74	12.76	7.66	1.71	1.73	8.09	1.40	1.42	8.90	1.47	1.49
4780	18.22	12.74	12.76	7.68	1.73	1.74	8.10	1.41	1.43	8.91	1.48	1.50
4810	18.24	12.76	12.77	7.68	1.73	1.74	8.10	1.41	1.43	8.91	1.48	1.50
4840	18.24	12.76	12.77	7.68	1.73	1.74	8.10	1.41	1.43	8.92	1.49	1.50
4870	18.26	12.78	12.79	7.68	1.73	1.75	8.11	1.42	1.43	8.92	1.49	1.50
4900	18.26	12.78	12.79	7.69	1.74	1.75	8.12	1.43	1.44	8.93	1.50	1.51
4930	18.30	12.82	12.83	7.70	1.75	1.75	8.12	1.43	1.44	8.93	1.50	1.51
4960	18.28	12.80	12.80	7.70	1.75	1.75	8.12	1.43	1.44	8.93	1.50	1.51
4990	18.29	12.81	12.81	7.70	1.75	1.75	8.12	1.43	1.44	8.94	1.51	1.51
5020	18.28	12.80	12.80	7.69	1.74	1.75	8.12	1.42	1.43	8.92	1.49	1.50
5050	18.33	12.85	12.86	7.70	1.75	1.75	8.12	1.43	1.44	8.93	1.50	1.50
5080	18.30	12.82	12.83	7.70	1.75	1.76	8.12	1.43	1.44	8.93	1.50	1.50
5110	18.36	12.88	12.89	7.70	1.75	1.75	8.13	1.44	1.45	8.93	1.50	1.51
5140	18.33	12.85	12.86	7.70	1.75	1.76	8.12	1.43	1.44	8.93	1.50	1.51
5170	18.32	12.84	12.85	7.70	1.75	1.76	8.13	1.44	1.45	8.93	1.50	1.51
5200	18.32	12.84	12.86	7.70	1.75	1.76	8.12	1.43	1.45	8.92	1.49	1.51
5230	18.29	12.81	12.83	7.70	1.75	1.77	8.13	1.44	1.45	8.93	1.50	1.51
5260	18.34	12.86	12.88	7.70	1.75	1.77	8.13	1.44	1.46	8.93	1.50	1.52
5290	18.33	12.85	12.87	7.70	1.75	1.77	8.13	1.44	1.46	8.93	1.50	1.52
5320	18.31	12.83	12.85	7.70	1.75	1.77	8.13	1.44	1.46	8.94	1.51	1.53
5350	18.37	12.89	12.91	7.71	1.76	1.78	8.13	1.44	1.46	8.93	1.50	1.52
5380	18.35	12.87	12.89	7.71	1.76	1.78	8.14	1.45	1.47	8.94	1.51	1.53
5410	18.33	12.85	12.87	7.71	1.76	1.78	8.14	1.45	1.47	8.95	1.52	1.53
5440	18.38	12.90	12.91	7.71	1.76	1.78	8.15	1.46	1.47	8.95	1.52	1.53
5470	18.35	12.87	12.88	7.72	1.77	1.78	8.15	1.46	1.47	8.96	1.53	1.54
5500	18.38	12.90	12.91	7.72	1.77	1.78	8.15	1.46	1.47	8.96	1.53	1.53
5530	18.43	12.95	12.95	7.73	1.78	1.78	8.16	1.47	1.47	8.96	1.53	1.53
5560	18.41	12.93	12.93	7.73	1.78	1.78	8.16	1.47	1.47	8.96	1.53	1.54
5590	18.40	12.92	12.92	7.73	1.78	1.78	8.16	1.47	1.47	8.97	1.54	1.54
5620	18.38	12.90	12.90	7.73	1.78	1.78	8.16	1.47	1.47	8.97	1.54	1.53
5650	18.41	12.93	12.92	7.73	1.78	1.77	8.17	1.48	1.47	8.97	1.54	1.53
5680	18.42	12.94	12.93	7.73	1.78	1.77	8.16	1.47	1.47	8.97	1.54	1.53
5710	18.40	12.92	12.91	7.73	1.78	1.77	8.17	1.48	1.47	8.97	1.54	1.53
5740	18.42	12.94	12.92	7.73	1.78	1.77	8.17	1.48	1.47	8.97	1.54	1.53

5770	18.40	12.92	12.91	7.73	1.78	1.77	8.17	1.48	1.46	8.97	1.54	1.53
5800	18.38	12.90	12.89	7.72	1.77	1.76	8.16	1.47	1.46	8.96	1.53	1.52
5830	18.41	12.93	12.92	7.72	1.77	1.76	8.16	1.47	1.45	8.96	1.53	1.52
5860	18.39	12.91	12.90	7.72	1.77	1.76	8.16	1.47	1.46	8.96	1.53	1.52
5890	18.42	12.94	12.93	7.71	1.76	1.75	8.16	1.47	1.46	8.96	1.53	1.52
5920	18.41	12.93	12.92	7.71	1.76	1.76	8.15	1.46	1.45	8.96	1.53	1.52
5950	18.43	12.95	12.94	7.71	1.76	1.76	8.15	1.46	1.45	8.96	1.53	1.52
5980	18.42	12.94	12.93	7.71	1.76	1.75	8.15	1.46	1.45	8.96	1.53	1.52
6010	18.41	12.93	12.92	7.71	1.76	1.76	8.15	1.46	1.45	8.95	1.52	1.51
6040	18.38	12.90	12.89	7.71	1.76	1.75	8.15	1.46	1.45	8.96	1.53	1.52
6070	18.44	12.96	12.94	7.73	1.78	1.76	8.16	1.47	1.46	8.96	1.53	1.52
6100	18.46	12.98	12.97	7.73	1.78	1.76	8.17	1.48	1.46	8.97	1.54	1.52
6130	18.46	12.98	12.96	7.73	1.78	1.76	8.17	1.48	1.46	8.98	1.55	1.53
6160	18.45	12.97	12.94	7.73	1.78	1.76	8.18	1.49	1.46	8.98	1.55	1.53
6190	18.42	12.94	12.91	7.73	1.78	1.76	8.17	1.48	1.46	8.98	1.55	1.52
6220	18.46	12.98	12.94	7.74	1.79	1.76	8.18	1.49	1.45	8.98	1.55	1.52
6250	18.46	12.98	12.94	7.74	1.79	1.76	8.18	1.49	1.45	8.99	1.56	1.53
6280	18.44	12.96	12.93	7.74	1.79	1.76	8.18	1.49	1.46	8.99	1.56	1.53
6310	18.48	13.00	12.97	7.75	1.80	1.76	8.18	1.49	1.46	8.99	1.56	1.53
6340	18.48	13.00	12.97	7.75	1.80	1.77	8.18	1.49	1.46	8.99	1.56	1.53
6370	18.53	13.05	13.01	7.75	1.80	1.77	8.19	1.50	1.46	9.00	1.57	1.53
6400	18.49	13.01	12.97	7.75	1.80	1.76	8.19	1.50	1.46	9.00	1.57	1.53
6430	18.54	13.06	13.02	7.75	1.80	1.76	8.19	1.50	1.46	8.99	1.56	1.52
6460	18.52	13.04	13.00	7.75	1.80	1.77	8.19	1.50	1.46	9.00	1.57	1.53
6490	18.49	13.01	12.98	7.75	1.80	1.77	8.19	1.50	1.47	9.00	1.57	1.54
6520	18.51	13.03	13.00	7.75	1.80	1.77	8.19	1.50	1.47	9.00	1.57	1.53
6550	18.54	13.06	13.03	7.75	1.80	1.77	8.19	1.50	1.47	8.98	1.55	1.52
6580	18.58	13.10	13.07	7.75	1.80	1.78	8.19	1.50	1.47	8.99	1.56	1.53
6610	18.54	13.06	13.04	7.75	1.80	1.78	8.18	1.49	1.47	8.99	1.56	1.54
6640	18.54	13.06	13.04	7.75	1.80	1.78	8.18	1.49	1.47	8.99	1.56	1.54
6670	18.55	13.07	13.05	7.75	1.80	1.78	8.18	1.49	1.47	8.98	1.55	1.53
6700	18.54	13.06	13.05	7.74	1.79	1.78	8.18	1.49	1.47	8.97	1.54	1.53
6730	18.53	13.05	13.04	7.75	1.80	1.78	8.18	1.49	1.48	8.98	1.55	1.54
6760	18.50	13.02	13.01	7.74	1.79	1.78	8.18	1.49	1.48	8.99	1.56	1.54
6790	18.56	13.08	13.07	7.75	1.80	1.79	8.18	1.49	1.48	8.99	1.56	1.55
6820	18.59	13.11	13.10	7.75	1.80	1.79	8.18	1.49	1.49	8.99	1.56	1.55
6850	18.58	13.10	13.09	7.75	1.80	1.79	8.19	1.50	1.49	8.99	1.56	1.55
6880	18.56	13.08	13.07	7.75	1.80	1.79	8.19	1.50	1.49	8.99	1.56	1.55
6910	18.59	13.11	13.10	7.75	1.80	1.79	8.19	1.50	1.50	9.00	1.57	1.56
6940	18.58	13.10	13.09	7.76	1.81	1.80	8.20	1.51	1.50	9.00	1.57	1.56
6970	18.58	13.10	13.09	7.76	1.81	1.80	8.20	1.51	1.50	9.00	1.57	1.56
7000	18.61	13.13	13.11	7.76	1.81	1.80	8.20	1.51	1.50	9.01	1.58	1.57
7030	18.57	13.09	13.08	7.76	1.81	1.80	8.20	1.51	1.50	9.01	1.58	1.57
7060	18.57	13.09	13.08	7.76	1.81	1.80	8.20	1.51	1.50	9.00	1.57	1.56
7090	18.60	13.12	13.11	7.76	1.81	1.80	8.20	1.51	1.50	9.00	1.57	1.56
7120	18.58	13.10	13.09	7.76	1.81	1.80	8.20	1.51	1.50	9.00	1.57	1.56
7150	18.57	13.09	13.08	7.75	1.80	1.79	8.19	1.50	1.49	9.00	1.57	1.56

7180	18.58	13.10	13.09	7.75	1.80	1.79	8.19	1.50	1.49	9.00	1.57	1.56
7210	18.62	13.14	13.13	7.75	1.80	1.79	8.19	1.50	1.49	9.00	1.57	1.56
7240	18.59	13.11	13.10	7.75	1.80	1.79	8.19	1.50	1.49	9.00	1.57	1.56
7270	18.60	13.12	13.11	7.74	1.79	1.78	8.18	1.49	1.49	9.00	1.57	1.56
7300	18.62	13.14	13.13	7.75	1.80	1.79	8.18	1.49	1.49	8.99	1.56	1.56
7330	18.59	13.11	13.10	7.74	1.79	1.79	8.18	1.49	1.49	8.99	1.56	1.55
7360	18.62	13.14	13.13	7.75	1.80	1.79	8.19	1.50	1.49	8.99	1.56	1.56
7390	18.62	13.14	13.13	7.75	1.80	1.79	8.19	1.50	1.49	9.00	1.57	1.56
7420	18.59	13.11	13.10	7.75	1.80	1.79	8.19	1.50	1.49	9.00	1.57	1.56
7450	18.63	13.15	13.15	7.75	1.80	1.80	8.19	1.50	1.49	9.00	1.57	1.56
7480	18.62	13.14	13.13	7.75	1.80	1.80	8.19	1.50	1.49	9.00	1.57	1.56
7510	18.65	13.17	13.16	7.75	1.80	1.79	8.20	1.51	1.50	9.00	1.57	1.56
7540	18.64	13.16	13.15	7.76	1.81	1.80	8.20	1.51	1.50	9.01	1.58	1.56
7570	18.66	13.18	13.17	7.76	1.81	1.79	8.20	1.51	1.50	9.01	1.58	1.56
7600	18.63	13.15	13.14	7.77	1.82	1.80	8.20	1.51	1.50	9.02	1.59	1.57
7630	18.68	13.20	13.18	7.77	1.82	1.80	8.21	1.52	1.50	9.02	1.59	1.57
7660	18.65	13.17	13.15	7.77	1.82	1.80	8.21	1.52	1.50	9.02	1.59	1.57
7690	18.66	13.18	13.16	7.77	1.82	1.80	8.21	1.52	1.50	9.02	1.59	1.57
7720	18.63	13.15	13.13	7.77	1.82	1.80	8.21	1.52	1.50	9.02	1.59	1.57
7750	18.69	13.21	13.19	7.78	1.83	1.80	8.21	1.52	1.50	9.03	1.60	1.57
7780	18.64	13.16	13.14	7.78	1.83	1.80	8.21	1.52	1.50	9.03	1.60	1.58
7810	18.71	13.23	13.20	7.78	1.83	1.81	8.22	1.53	1.50	9.03	1.60	1.58
7840	18.70	13.22	13.19	7.78	1.83	1.81	8.22	1.53	1.50	9.03	1.60	1.58
7870	18.67	13.19	13.16	7.78	1.83	1.81	8.21	1.52	1.50	9.03	1.60	1.57
7900	18.70	13.22	13.19	7.78	1.83	1.80	8.22	1.53	1.50	9.03	1.60	1.57
7930	18.70	13.22	13.20	7.78	1.83	1.81	8.22	1.53	1.50	9.03	1.60	1.57
7960	18.72	13.24	13.21	7.78	1.83	1.81	8.21	1.52	1.50	9.03	1.60	1.57
7990	18.70	13.22	13.20	7.78	1.83	1.81	8.22	1.53	1.51	9.03	1.60	1.58
8020	18.69	13.21	13.19	7.78	1.83	1.81	8.22	1.53	1.50	9.03	1.60	1.57
8050	18.73	13.25	13.23	7.78	1.83	1.81	8.22	1.53	1.51	9.03	1.60	1.58
8080	18.73	13.25	13.23	7.78	1.83	1.82	8.22	1.53	1.51	9.02	1.59	1.57
8110	18.72	13.24	13.22	7.78	1.83	1.82	8.22	1.53	1.52	9.03	1.60	1.58
8140	18.71	13.23	13.22	7.79	1.84	1.83	8.22	1.53	1.52	9.03	1.60	1.59
8170	18.74	13.26	13.24	7.79	1.84	1.83	8.23	1.54	1.52	9.03	1.60	1.59
8200	18.72	13.24	13.23	7.79	1.84	1.83	8.23	1.54	1.53	9.03	1.60	1.59
8230	18.76	13.28	13.26	7.79	1.84	1.83	8.23	1.54	1.53	9.04	1.61	1.59
8260	18.75	13.27	13.25	7.80	1.85	1.83	8.24	1.54	1.53	9.05	1.62	1.60
8290	18.78	13.30	13.28	7.80	1.85	1.83	8.24	1.55	1.53	9.05	1.62	1.60
8320	18.77	13.29	13.27	7.80	1.85	1.83	8.24	1.55	1.54	9.05	1.62	1.61
8350	18.75	13.27	13.25	7.80	1.85	1.84	8.25	1.56	1.54	9.05	1.62	1.61
8380	18.79	13.31	13.29	7.80	1.85	1.84	8.25	1.56	1.54	9.06	1.63	1.61
8410	18.77	13.29	13.27	7.80	1.85	1.83	8.25	1.56	1.54	9.06	1.63	1.61
8440	18.75	13.27	13.25	7.81	1.86	1.84	8.25	1.56	1.54	9.06	1.63	1.61
8470	18.81	13.33	13.31	7.80	1.85	1.83	8.25	1.56	1.53	9.06	1.63	1.60
8500	18.79	13.31	13.28	7.80	1.85	1.82	8.25	1.56	1.53	9.05	1.62	1.60
8530	18.76	13.28	13.25	7.80	1.85	1.82	8.24	1.55	1.53	9.05	1.62	1.60
8560	18.80	13.32	13.30	7.79	1.84	1.82	8.24	1.54	1.53	9.05	1.62	1.60

8590	18.78	13.30	13.28	7.79	1.84	1.82	8.23	1.54	1.52	9.04	1.61	1.59
8620	18.77	13.29	13.27	7.78	1.83	1.82	8.23	1.54	1.52	9.04	1.61	1.59
8650	18.76	13.28	13.26	7.78	1.83	1.82	8.23	1.54	1.52	9.04	1.61	1.59
8680	18.79	13.31	13.30	7.78	1.83	1.81	8.23	1.54	1.52	9.04	1.61	1.59
8710	18.79	13.31	13.29	7.77	1.82	1.81	8.22	1.53	1.52	9.03	1.60	1.59
8740	18.76	13.28	13.27	7.77	1.82	1.81	8.22	1.53	1.52	9.03	1.60	1.59
8770	18.81	13.33	13.33	7.77	1.82	1.81	8.22	1.53	1.52	9.02	1.59	1.59
8800	18.79	13.31	13.30	7.77	1.82	1.81	8.22	1.53	1.52	9.02	1.59	1.59
8830	18.78	13.30	13.29	7.77	1.82	1.81	8.22	1.53	1.52	9.03	1.60	1.59
8860	18.77	13.29	13.28	7.77	1.82	1.82	8.22	1.53	1.52	9.03	1.60	1.59
8890	18.79	13.31	13.31	7.77	1.82	1.82	8.22	1.53	1.52	9.03	1.60	1.59
8920	18.78	13.30	13.29	7.77	1.82	1.81	8.22	1.53	1.53	9.03	1.60	1.60
8950	18.77	13.29	13.28	7.78	1.83	1.82	8.23	1.54	1.53	9.04	1.61	1.60
8980	18.82	13.34	13.33	7.78	1.83	1.82	8.24	1.54	1.53	9.05	1.62	1.60
9010	18.82	13.34	13.33	7.80	1.85	1.83	8.24	1.55	1.54	9.05	1.62	1.61
9040	18.80	13.32	13.31	7.80	1.85	1.83	8.25	1.56	1.54	9.06	1.63	1.61
9070	18.85	13.37	13.35	7.80	1.85	1.83	8.25	1.56	1.54	9.06	1.63	1.61
9100	18.84	13.36	13.34	7.80	1.85	1.83	8.25	1.56	1.54	9.07	1.64	1.62
9130	18.82	13.34	13.32	7.81	1.86	1.84	8.25	1.56	1.54	9.07	1.64	1.62
9160	18.87	13.39	13.37	7.81	1.86	1.83	8.25	1.56	1.54	9.07	1.64	1.61
9190	18.84	13.36	13.34	7.81	1.86	1.83	8.25	1.56	1.54	9.07	1.64	1.62
9220	18.85	13.37	13.34	7.81	1.86	1.83	8.25	1.56	1.54	9.07	1.64	1.61
9250	18.84	13.36	13.33	7.81	1.86	1.83	8.25	1.56	1.54	9.07	1.64	1.61
9280	18.88	13.40	13.37	7.81	1.86	1.83	8.25	1.56	1.53	9.08	1.65	1.62
9310	18.86	13.38	13.35	7.81	1.86	1.83	8.25	1.56	1.53	9.06	1.63	1.61
9340	18.85	13.37	13.35	7.80	1.85	1.83	8.25	1.56	1.53	9.06	1.63	1.60
9370	18.90	13.42	13.40	7.80	1.85	1.83	8.25	1.56	1.53	9.06	1.63	1.61
9400	18.88	13.40	13.38	7.80	1.85	1.83	8.24	1.55	1.53	9.06	1.63	1.61
9430	18.91	13.43	13.41	7.80	1.85	1.84	8.24	1.55	1.54	9.06	1.63	1.61
9460	18.92	13.44	13.42	7.80	1.85	1.84	8.24	1.55	1.53	9.05	1.62	1.60
9490	18.91	13.43	13.42	7.80	1.85	1.84	8.24	1.55	1.54	9.05	1.62	1.61
9520	18.94	13.46	13.45	7.80	1.85	1.84	8.24	1.55	1.54	9.05	1.62	1.61
9550	18.91	13.43	13.42	7.80	1.85	1.84	8.24	1.55	1.54	9.05	1.62	1.61
9580	18.89	13.41	13.40	7.80	1.85	1.84	8.24	1.55	1.55	9.05	1.62	1.61
9610	18.93	13.45	13.44	7.80	1.85	1.85	8.25	1.56	1.55	9.06	1.63	1.62
9640	18.89	13.41	13.41	7.80	1.85	1.85	8.25	1.56	1.55	9.06	1.63	1.62
9670	18.91	13.43	13.43	7.80	1.85	1.85	8.25	1.56	1.56	9.06	1.63	1.63
9700	18.94	13.46	13.46	7.80	1.85	1.85	8.25	1.56	1.56	9.06	1.63	1.63
9730	18.94	13.46	13.46	7.81	1.86	1.86	8.25	1.56	1.56	9.06	1.63	1.63
9760	18.96	13.48	13.49	7.81	1.86	1.86	8.25	1.56	1.56	9.06	1.63	1.63
9790	18.94	13.46	13.46	7.81	1.86	1.86	8.25	1.56	1.56	9.06	1.63	1.63
9820	18.95	13.47	13.47	7.81	1.86	1.86	8.25	1.56	1.56	9.06	1.63	1.63
9850	18.96	13.48	13.48	7.82	1.87	1.86	8.26	1.57	1.57	9.07	1.64	1.63
9880	18.95	13.47	13.47	7.82	1.87	1.86	8.26	1.57	1.56	9.07	1.64	1.63
9910	19.00	13.52	13.51	7.82	1.87	1.86	8.26	1.57	1.56	9.07	1.64	1.63
9940	18.99	13.51	13.50	7.81	1.86	1.85	8.26	1.57	1.56	9.07	1.64	1.63
9970	18.96	13.48	13.48	7.80	1.85	1.85	8.25	1.56	1.55	9.06	1.63	1.62

10000	18.98	13.50	13.50	7.80	1.85	1.84	8.25	1.56	1.55	9.06	1.63	1.62
10030	18.97	13.49	13.49	7.80	1.85	1.84	8.25	1.56	1.55	9.06	1.63	1.62
10060	18.95	13.47	13.47	7.79	1.84	1.84	8.24	1.55	1.55	9.05	1.62	1.62
10090	18.97	13.49	13.49	7.79	1.84	1.84	8.24	1.55	1.54	9.05	1.62	1.61
10120	18.95	13.47	13.47	7.79	1.84	1.84	8.24	1.54	1.54	9.05	1.62	1.61
10150	18.95	13.47	13.47	7.78	1.83	1.83	8.23	1.54	1.54	9.04	1.61	1.61
10180	18.95	13.47	13.48	7.78	1.83	1.84	8.23	1.54	1.55	9.04	1.61	1.61
10210	18.95	13.47	13.48	7.78	1.83	1.83	8.23	1.54	1.55	9.04	1.61	1.62
10240	18.95	13.47	13.48	7.78	1.83	1.83	8.23	1.54	1.55	9.04	1.61	1.61
10270	18.95	13.47	13.48	7.78	1.83	1.84	8.23	1.54	1.55	9.04	1.61	1.62
10300	18.97	13.49	13.50	7.78	1.83	1.84	8.23	1.54	1.55	9.04	1.61	1.62
10330	18.96	13.48	13.49	7.78	1.83	1.84	8.23	1.54	1.55	9.04	1.61	1.62
10360	18.98	13.50	13.51	7.78	1.83	1.83	8.23	1.54	1.54	9.03	1.60	1.61
10390	18.95	13.47	13.48	7.77	1.82	1.82	8.21	1.52	1.53	9.02	1.59	1.59
10420	18.95	13.47	13.47	7.76	1.81	1.81	8.21	1.52	1.52	9.01	1.58	1.58
10450	18.97	13.49	13.50	7.75	1.80	1.81	8.20	1.51	1.52	9.00	1.57	1.57
10480	19.01	13.53	13.53	7.75	1.80	1.80	8.20	1.51	1.51	9.00	1.57	1.57
10510	18.99	13.51	13.51	7.76	1.81	1.81	8.21	1.52	1.51	9.01	1.58	1.57
10540	19.00	13.52	13.52	7.76	1.81	1.80	8.21	1.52	1.51	9.01	1.58	1.58
10570	19.02	13.54	13.54	7.76	1.81	1.80	8.20	1.51	1.51	9.01	1.58	1.58
10600	19.01	13.53	13.53	7.75	1.80	1.80	8.20	1.51	1.51	9.01	1.58	1.57
10630	18.98	13.50	13.50	7.76	1.81	1.80	8.20	1.51	1.51	9.01	1.58	1.57
10660	19.02	13.54	13.53	7.76	1.81	1.80	8.20	1.51	1.50	9.01	1.58	1.57
10690	19.00	13.52	13.52	7.77	1.82	1.81	8.20	1.51	1.51	9.01	1.58	1.58
10720	18.98	13.50	13.50	7.75	1.80	1.80	8.20	1.51	1.50	9.01	1.58	1.57
10750	19.02	13.54	13.54	7.73	1.78	1.77	8.15	1.46	1.46	8.95	1.52	1.52
10780	18.95	13.47	13.47	7.66	1.71	1.71	8.07	1.38	1.38	8.89	1.46	1.46
10810	18.92	13.44	13.44	7.62	1.67	1.67	8.02	1.33	1.34	8.83	1.40	1.40
10840	18.88	13.40	13.41	7.59	1.64	1.65	8.00	1.31	1.31	8.80	1.37	1.38
10870	18.87	13.39	13.40	7.59	1.64	1.65	8.01	1.32	1.33	8.84	1.41	1.42
10900	18.91	13.43	13.44	7.64	1.69	1.70	8.08	1.39	1.40	8.87	1.44	1.45
10930	18.96	13.48	13.50	7.67	1.72	1.74	8.12	1.42	1.44	8.91	1.48	1.49
10960	18.97	13.49	13.51	7.69	1.74	1.76	8.14	1.45	1.46	8.93	1.50	1.52
10990	18.99	13.51	13.53	7.71	1.76	1.78	8.15	1.46	1.48	8.94	1.51	1.53
11020	18.97	13.49	13.51	7.66	1.71	1.73	8.07	1.38	1.40	8.88	1.45	1.47
11050	18.93	13.45	13.47	7.63	1.68	1.70	8.04	1.35	1.37	8.85	1.42	1.44
11080	18.92	13.44	13.46	7.61	1.66	1.68	8.03	1.34	1.36	8.84	1.41	1.43
11110	18.92	13.44	13.46	7.67	1.72	1.74	8.12	1.43	1.45	8.91	1.48	1.50
11140	6.57	1.09	1.11	7.05	1.10	1.12	7.80	1.11	1.13	8.60	1.17	1.19
11170	18.46	12.98	13.00	7.57	1.62	1.64	8.03	1.34	1.36	8.83	1.40	1.42
11200	18.57	13.09	13.11	7.66	1.71	1.73	8.13	1.44	1.46	8.93	1.50	1.52
11230	9.10	3.62	3.64	7.45	1.50	1.53	8.08	1.39	1.41	8.90	1.47	1.49
11260	17.24	11.76	11.78	7.37	1.42	1.43	7.89	1.20	1.22	8.70	1.27	1.29
11290	7.19	1.71	1.72	7.26	1.31	1.32	7.96	1.27	1.28	8.77	1.34	1.36
11320	18.31	12.83	12.85	7.60	1.65	1.66	8.06	1.37	1.39	8.87	1.44	1.45
11350	18.49	13.01	13.03	7.70	1.75	1.76	8.15	1.46	1.48	8.96	1.53	1.55
11380	18.55	13.07	13.08	7.75	1.80	1.81	8.20	1.51	1.52	9.01	1.58	1.60

11410	18.58	13.10	13.11	7.78	1.83	1.85	8.24	1.54	1.56	9.05	1.62	1.63
11440	18.60	13.12	13.13	7.80	1.85	1.86	8.25	1.56	1.57	9.06	1.63	1.65
11470	18.62	13.14	13.15	7.81	1.86	1.87	8.26	1.57	1.59	9.08	1.65	1.66
11500	18.67	13.19	13.21	7.83	1.88	1.89	8.28	1.59	1.60	9.09	1.66	1.67
11530	18.65	13.17	13.19	7.83	1.88	1.89	8.28	1.59	1.61	9.09	1.66	1.68
11560	18.65	13.17	13.19	7.84	1.89	1.90	8.29	1.60	1.61	9.10	1.67	1.68
11590	18.65	13.17	13.19	7.84	1.89	1.90	8.29	1.60	1.62	9.10	1.67	1.69
11620	18.66	13.18	13.20	7.84	1.89	1.91	8.29	1.60	1.62	9.10	1.67	1.69
11650	18.70	13.22	13.24	7.84	1.89	1.92	8.29	1.60	1.62	9.11	1.68	1.70
11680	18.69	13.21	13.24	7.84	1.89	1.92	8.29	1.60	1.63	9.11	1.68	1.70
11710	18.68	13.20	13.23	7.84	1.89	1.92	8.30	1.61	1.63	9.11	1.68	1.71
11740	17.58	12.10	12.13	7.59	1.64	1.67	8.11	1.42	1.45	8.93	1.50	1.52
11770	18.52	13.04	13.07	7.75	1.80	1.84	8.21	1.52	1.55	9.02	1.59	1.62
11800	18.57	13.09	13.12	7.79	1.84	1.87	8.25	1.56	1.59	9.06	1.63	1.66
11830	18.59	13.11	13.13	7.82	1.87	1.89	8.27	1.58	1.60	9.08	1.65	1.68
11860	18.62	13.14	13.16	7.83	1.88	1.90	8.28	1.59	1.62	9.10	1.67	1.69
11890	18.63	13.15	13.17	7.84	1.89	1.91	8.30	1.61	1.63	9.11	1.68	1.70
11920	18.68	13.20	13.22	7.85	1.90	1.92	8.31	1.62	1.63	9.13	1.70	1.71
11950	18.69	13.21	13.22	7.86	1.91	1.92	8.31	1.62	1.64	9.13	1.70	1.71
11980	18.70	13.22	13.23	7.86	1.91	1.92	8.31	1.62	1.64	9.13	1.70	1.71
12010	18.75	13.27	13.28	7.86	1.91	1.92	8.31	1.62	1.64	9.13	1.70	1.71
12040	18.76	13.28	13.29	7.86	1.91	1.92	8.31	1.62	1.64	9.13	1.70	1.72
12070	9.03	3.55	3.56	7.63	1.68	1.69	8.25	1.56	1.58	9.08	1.65	1.67
12100	18.58	13.10	13.11	7.78	1.83	1.85	8.24	1.54	1.56	9.06	1.63	1.64
12130	18.60	13.12	13.13	7.80	1.85	1.86	8.25	1.56	1.57	9.06	1.63	1.64
12160	18.63	13.15	13.17	7.80	1.85	1.87	8.25	1.56	1.57	9.05	1.62	1.63
12190	18.62	13.14	13.16	7.80	1.85	1.86	8.24	1.55	1.57	9.04	1.61	1.63
12220	18.62	13.14	13.16	7.79	1.84	1.85	8.24	1.54	1.56	9.03	1.60	1.62
12250	7.09	1.61	1.63	7.35	1.40	1.42	8.06	1.37	1.39	8.86	1.43	1.45
12280	6.54	1.06	1.07	7.03	1.08	1.10	7.78	1.09	1.10	8.57	1.14	1.16
12310	6.39	0.91	0.94	6.88	0.93	0.95	7.63	0.94	0.96	8.41	0.98	1.01
12340	6.31	0.83	0.85	6.79	0.84	0.87	7.54	0.85	0.88	8.32	0.89	0.91
12370	6.24	0.76	0.79	6.72	0.77	0.80	7.48	0.79	0.82	8.25	0.82	0.85
12400	6.21	0.73	0.76	6.67	0.72	0.76	7.43	0.74	0.78	8.20	0.77	0.81
12430	6.18	0.70	0.74	6.65	0.70	0.74	7.41	0.72	0.76	8.18	0.75	0.78
12460	6.16	0.68	0.72	6.63	0.68	0.72	7.39	0.70	0.74	8.15	0.72	0.76
12490	6.14	0.66	0.70	6.62	0.67	0.71	7.38	0.69	0.73	8.14	0.71	0.75
12520	6.13	0.65	0.69	6.61	0.66	0.70	7.37	0.68	0.72	8.13	0.70	0.74
12550	6.13	0.65	0.69	6.60	0.65	0.69	7.37	0.68	0.71	8.13	0.70	0.73
12580	6.12	0.64	0.68	6.60	0.65	0.69	7.36	0.67	0.71	8.12	0.69	0.72
12610	6.12	0.64	0.68	6.60	0.65	0.69	7.36	0.67	0.70	8.11	0.68	0.72
12640	6.11	0.63	0.67	6.58	0.63	0.67	7.35	0.66	0.70	8.11	0.68	0.72
12670	6.10	0.62	0.66	6.58	0.63	0.67	7.35	0.66	0.70	8.11	0.68	0.72
12700	6.11	0.63	0.67	6.59	0.64	0.68	7.35	0.66	0.70	8.11	0.68	0.71
12730	6.10	0.62	0.66	6.58	0.63	0.67	7.35	0.66	0.69	8.11	0.68	0.71
12760	6.10	0.62	0.66	6.58	0.63	0.67	7.34	0.65	0.69	8.10	0.67	0.70
12790	6.10	0.62	0.66	6.57	0.62	0.66	7.33	0.64	0.68	8.09	0.66	0.70

12820	6.10	0.62	0.66	6.58	0.63	0.66	7.34	0.65	0.68	8.10	0.67	0.70
12850	6.09	0.61	0.65	6.57	0.62	0.66	7.34	0.65	0.68	8.09	0.66	0.70
12880	6.09	0.61	0.65	6.57	0.62	0.65	7.33	0.64	0.67	8.09	0.66	0.69
12910	6.09	0.61	0.65	6.56	0.61	0.64	7.33	0.64	0.67	8.08	0.65	0.69
12940	6.08	0.60	0.64	6.55	0.60	0.64	7.32	0.63	0.67	8.08	0.65	0.69
12970	6.08	0.60	0.64	6.55	0.60	0.64	7.32	0.63	0.67	8.08	0.65	0.69
13000	6.08	0.60	0.65	6.55	0.60	0.64	7.32	0.63	0.67	8.07	0.64	0.68
13030	6.07	0.59	0.64	6.54	0.59	0.64	7.31	0.61	0.66	8.06	0.63	0.68
13060	6.07	0.59	0.65	6.53	0.58	0.64	7.30	0.61	0.66	8.06	0.63	0.68
13090	6.07	0.59	0.65	6.53	0.58	0.63	7.30	0.61	0.67	8.05	0.62	0.68
13120	6.07	0.59	0.65	6.53	0.58	0.64	7.30	0.61	0.67	8.06	0.63	0.68
13150	6.07	0.59	0.65	6.53	0.58	0.64	7.30	0.61	0.67	8.05	0.62	0.68
13180	6.07	0.59	0.65	6.53	0.58	0.64	7.30	0.61	0.67	8.06	0.63	0.69
13210	6.08	0.60	0.66	6.53	0.58	0.64	7.31	0.61	0.67	8.06	0.63	0.69
13240	6.09	0.61	0.67	6.54	0.59	0.65	7.31	0.62	0.67	8.07	0.64	0.69
13270	6.09	0.61	0.67	6.55	0.60	0.65	7.31	0.62	0.68	8.07	0.64	0.69
13300	6.10	0.62	0.67	6.55	0.60	0.65	7.32	0.63	0.68	8.07	0.64	0.69
13330	6.10	0.62	0.67	6.55	0.60	0.65	7.32	0.63	0.68	8.07	0.64	0.69
13360	6.11	0.63	0.68	6.56	0.61	0.66	7.32	0.63	0.68	8.08	0.65	0.69
13390	6.12	0.64	0.68	6.56	0.61	0.65	7.32	0.63	0.68	8.08	0.65	0.69
13420	6.13	0.65	0.69	6.56	0.61	0.65	7.32	0.63	0.68	8.08	0.65	0.69
13450	6.13	0.65	0.69	6.56	0.61	0.65	7.32	0.63	0.67	8.08	0.65	0.69
13480	6.13	0.65	0.69	6.55	0.60	0.65	7.32	0.63	0.67	8.07	0.64	0.69
13510	16.35	10.87	10.92	6.99	1.04	1.09	7.48	0.79	0.84	8.24	0.81	0.86
13540	17.04	11.56	11.61	7.30	1.35	1.40	7.78	1.09	1.13	8.56	1.13	1.18
13570	17.33	11.85	11.90	7.45	1.50	1.55	7.93	1.24	1.29	8.73	1.30	1.35
13600	17.53	12.05	12.10	7.56	1.61	1.66	8.03	1.34	1.39	8.82	1.39	1.44
13630	17.68	12.20	12.25	7.63	1.68	1.73	8.10	1.41	1.46	8.90	1.47	1.52
13660	17.78	12.30	12.35	7.69	1.74	1.79	8.14	1.45	1.51	8.97	1.54	1.59
13690	17.87	12.39	12.44	7.72	1.77	1.82	8.18	1.49	1.54	8.98	1.55	1.60
13720	17.96	12.48	12.53	7.75	1.80	1.85	8.20	1.51	1.57	9.02	1.59	1.65
13750	18.00	12.52	12.59	7.77	1.82	1.88	8.22	1.53	1.59	9.05	1.62	1.68
13780	18.04	12.56	12.62	7.78	1.83	1.90	8.24	1.54	1.61	9.05	1.62	1.68
13810	18.09	12.61	12.67	7.80	1.85	1.92	8.25	1.56	1.62	9.06	1.63	1.69
13840	18.13	12.65	12.71	7.82	1.87	1.93	8.26	1.57	1.64	9.08	1.65	1.71
13870	18.14	12.66	12.73	7.81	1.86	1.93	8.26	1.57	1.64	9.08	1.65	1.72
13900	18.17	12.69	12.77	7.82	1.87	1.94	8.27	1.58	1.65	9.08	1.65	1.73
13930	18.18	12.70	12.78	7.82	1.87	1.95	8.28	1.59	1.66	9.09	1.66	1.74
13960	18.21	12.73	12.81	7.83	1.88	1.96	8.28	1.59	1.67	9.10	1.67	1.74
13990	18.23	12.75	12.83	7.84	1.89	1.97	8.29	1.60	1.68	9.11	1.68	1.76
14020	18.24	12.76	12.84	7.85	1.90	1.98	8.30	1.61	1.69	9.12	1.69	1.76
14050	18.26	12.78	12.85	7.86	1.91	1.99	8.31	1.62	1.69	9.13	1.70	1.77
14080	18.28	12.80	12.87	7.87	1.92	1.99	8.31	1.62	1.70	9.13	1.70	1.78
14110	18.29	12.81	12.88	7.87	1.92	1.99	8.32	1.63	1.70	9.14	1.71	1.78
14140	18.31	12.83	12.90	7.87	1.92	1.99	8.33	1.64	1.71	9.14	1.71	1.78
14170	18.31	12.83	12.90	7.88	1.93	2.00	8.33	1.64	1.71	9.15	1.72	1.79
14200	18.31	12.83	12.90	7.87	1.92	1.98	8.32	1.63	1.69	9.13	1.70	1.77

14230	18.31	12.83	12.90	7.87	1.92	1.98	8.31	1.62	1.69	9.13	1.70	1.77
14260	18.37	12.89	12.95	7.87	1.92	1.98	8.31	1.62	1.68	9.14	1.71	1.77
14290	18.36	12.88	12.94	7.87	1.92	1.97	8.31	1.62	1.68	9.13	1.70	1.76
14320	18.36	12.88	12.94	7.85	1.90	1.96	8.30	1.61	1.67	9.13	1.70	1.75
14350	18.39	12.91	12.97	7.85	1.90	1.96	8.30	1.61	1.66	9.12	1.69	1.74
14380	18.38	12.90	12.96	7.84	1.89	1.95	8.29	1.60	1.66	9.11	1.68	1.74
14410	18.39	12.91	12.97	7.84	1.89	1.95	8.29	1.60	1.65	9.11	1.68	1.74
14440	18.38	12.90	12.96	7.84	1.89	1.95	8.28	1.59	1.65	9.11	1.68	1.74
14470	18.42	12.94	13.00	7.83	1.88	1.94	8.28	1.59	1.65	9.10	1.67	1.73
14500	18.41	12.93	12.99	7.82	1.87	1.94	8.27	1.58	1.64	9.09	1.66	1.73
14530	18.40	12.92	12.98	7.82	1.87	1.93	8.26	1.57	1.64	9.09	1.66	1.73
14560	18.41	12.93	12.99	7.82	1.87	1.93	8.26	1.57	1.64	9.09	1.66	1.73
14590	18.42	12.94	13.00	7.82	1.87	1.93	8.26	1.57	1.64	9.09	1.66	1.72
14620	18.42	12.94	13.00	7.82	1.87	1.93	8.27	1.58	1.64	9.09	1.66	1.72
14650	18.42	12.94	13.00	7.82	1.87	1.93	8.27	1.58	1.64	9.09	1.66	1.72
14680	18.46	12.98	13.03	7.83	1.88	1.94	8.27	1.58	1.64	9.10	1.67	1.73
14710	18.47	12.99	13.05	7.83	1.88	1.93	8.27	1.58	1.64	9.11	1.68	1.73
14740	18.48	13.00	13.05	7.84	1.89	1.93	8.28	1.59	1.64	9.11	1.68	1.73
14770	18.53	13.05	13.09	7.84	1.89	1.93	8.28	1.59	1.63	9.11	1.68	1.73
14800	18.52	13.04	13.08	7.84	1.89	1.93	8.28	1.59	1.63	9.12	1.69	1.73
14830	18.51	13.03	13.07	7.84	1.89	1.93	8.28	1.59	1.63	9.12	1.69	1.72
14860	18.48	13.00	13.03	7.84	1.89	1.92	8.29	1.60	1.63	9.12	1.69	1.72
14890	18.47	12.99	13.02	7.84	1.89	1.92	8.28	1.59	1.62	9.12	1.69	1.72
14920	18.52	13.04	13.07	7.84	1.89	1.91	8.28	1.59	1.62	9.12	1.69	1.71
14950	18.52	13.04	13.06	7.84	1.89	1.91	8.29	1.60	1.62	9.12	1.69	1.71
14980	18.47	12.99	13.01	7.84	1.89	1.91	8.29	1.60	1.62	9.12	1.69	1.71
15010	18.52	13.04	13.06	7.84	1.89	1.91	8.29	1.60	1.61	9.12	1.69	1.71
15040	18.54	13.06	13.07	7.84	1.89	1.91	8.29	1.60	1.61	9.12	1.69	1.70
15070	18.52	13.04	13.06	7.84	1.89	1.90	8.28	1.59	1.61	9.11	1.68	1.70
15100	18.50	13.02	13.04	7.83	1.88	1.90	8.28	1.59	1.61	9.11	1.68	1.70
15130	18.56	13.08	13.10	7.83	1.88	1.90	8.28	1.59	1.61	9.11	1.68	1.70
15160	18.55	13.07	13.09	7.83	1.88	1.90	8.21	1.52	1.54	9.10	1.67	1.69
15190	18.54	13.06	13.08	7.84	1.89	1.90	8.28	1.59	1.60	9.11	1.68	1.69
15220	18.56	13.08	13.10	7.83	1.88	1.90	8.28	1.59	1.61	9.10	1.67	1.69
15250	18.56	13.08	13.10	7.83	1.88	1.90	8.27	1.58	1.60	9.10	1.67	1.69
15280	18.58	13.10	13.12	7.83	1.88	1.90	8.27	1.58	1.61	9.10	1.67	1.69
15310	18.57	13.09	13.11	7.82	1.87	1.90	8.27	1.58	1.61	9.10	1.67	1.69
15340	18.57	13.09	13.11	7.83	1.88	1.90	8.27	1.58	1.61	9.10	1.67	1.69
15370	18.56	13.08	13.10	7.83	1.88	1.90	8.28	1.59	1.61	9.10	1.67	1.70
15400	18.60	13.12	13.14	7.84	1.89	1.91	8.28	1.59	1.61	9.10	1.67	1.69
15430	18.60	13.12	13.14	7.84	1.89	1.91	8.28	1.59	1.61	9.11	1.68	1.70
15460	18.59	13.11	13.13	7.84	1.89	1.91	8.28	1.59	1.61	9.11	1.68	1.70
15490	18.63	13.15	13.18	7.84	1.89	1.91	8.28	1.59	1.61	9.11	1.68	1.70
15520	18.63	13.15	13.18	7.84	1.89	1.91	8.28	1.59	1.61	9.11	1.68	1.70
15550	18.62	13.14	13.16	7.84	1.89	1.91	8.28	1.59	1.61	9.11	1.68	1.70
15580	18.67	13.19	13.21	7.84	1.89	1.91	8.28	1.59	1.61	9.11	1.68	1.70
15610	18.64	13.16	13.18	7.84	1.89	1.91	8.29	1.60	1.61	9.12	1.69	1.70

15640	18.64	13.16	13.18	7.84	1.89	1.91	8.29	1.60	1.62	9.12	1.69	1.70
15670	18.68	13.20	13.22	7.85	1.90	1.91	8.29	1.60	1.62	9.12	1.69	1.70
15700	18.70	13.22	13.23	7.85	1.90	1.91	8.30	1.61	1.62	9.12	1.69	1.70
15730	18.68	13.20	13.21	7.85	1.90	1.91	8.30	1.61	1.62	9.12	1.69	1.70
15760	18.72	13.24	13.25	7.85	1.90	1.91	8.30	1.61	1.62	9.12	1.69	1.70
15790	18.70	13.22	13.24	7.85	1.90	1.91	8.29	1.60	1.62	9.12	1.69	1.70
15820	18.69	13.21	13.23	7.84	1.89	1.91	8.29	1.60	1.62	9.12	1.69	1.70
15850	18.73	13.25	13.26	7.84	1.89	1.91	8.29	1.60	1.62	9.12	1.69	1.70
15880	18.74	13.26	13.28	7.84	1.89	1.91	8.29	1.60	1.62	9.12	1.69	1.70
15910	18.73	13.25	13.27	7.84	1.89	1.91	8.29	1.60	1.62	9.12	1.69	1.71
15940	18.72	13.24	13.26	7.84	1.89	1.91	8.29	1.60	1.62	9.11	1.68	1.70
15970	18.75	13.27	13.29	7.84	1.89	1.92	8.29	1.60	1.62	9.11	1.68	1.70
16000	18.75	13.27	13.29	7.84	1.89	1.91	8.29	1.60	1.62	9.11	1.68	1.71
16030	18.72	13.24	13.27	7.84	1.89	1.92	8.29	1.60	1.62	9.12	1.69	1.71
16060	18.76	13.28	13.30	7.84	1.89	1.92	8.29	1.60	1.63	9.12	1.69	1.71
16090	18.74	13.26	13.28	7.84	1.89	1.92	8.29	1.60	1.63	9.12	1.69	1.72
16120	18.73	13.25	13.27	7.84	1.89	1.92	8.29	1.60	1.63	9.12	1.69	1.71
16150	18.79	13.31	13.33	7.85	1.90	1.92	8.29	1.60	1.63	9.12	1.69	1.72
16180	18.77	13.29	13.31	7.85	1.90	1.92	8.29	1.60	1.63	9.12	1.69	1.71
16210	18.77	13.29	13.31	7.85	1.90	1.92	8.30	1.61	1.63	9.13	1.70	1.72
16240	18.74	13.26	13.27	7.85	1.90	1.92	8.30	1.61	1.63	9.13	1.70	1.72
16270	18.79	13.31	13.32	7.85	1.90	1.92	8.31	1.62	1.63	9.13	1.70	1.71
16300	18.78	13.30	13.31	7.85	1.90	1.92	8.30	1.61	1.62	9.13	1.70	1.71
16330	18.79	13.31	13.32	7.85	1.90	1.91	8.30	1.61	1.62	9.13	1.70	1.71
16360	18.80	13.32	13.33	7.84	1.89	1.90	8.29	1.60	1.61	9.11	1.68	1.69
16390	18.80	13.32	13.33	7.83	1.88	1.89	8.27	1.58	1.59	9.09	1.66	1.66
16420	18.78	13.30	13.30	7.82	1.87	1.88	8.26	1.57	1.58	9.09	1.66	1.67
16450	18.79	13.31	13.31	7.82	1.87	1.87	8.26	1.57	1.57	9.08	1.65	1.65
16480	18.79	13.31	13.31	7.83	1.88	1.88	8.27	1.58	1.58	9.10	1.67	1.67
16510	18.79	13.31	13.32	7.84	1.89	1.89	8.28	1.59	1.59	9.10	1.67	1.67
16540	18.85	13.37	13.37	7.85	1.90	1.90	8.29	1.60	1.60	9.12	1.69	1.69
16570	18.83	13.35	13.35	7.85	1.90	1.91	8.29	1.60	1.60	9.11	1.68	1.68
16600	18.83	13.35	13.36	7.85	1.90	1.90	8.29	1.60	1.60	9.09	1.66	1.67
16630	18.88	13.40	13.40	7.84	1.89	1.90	8.29	1.60	1.60	9.10	1.67	1.68
16660	18.86	13.38	13.39	7.84	1.89	1.90	8.29	1.60	1.61	9.11	1.68	1.69
16690	18.84	13.36	13.37	7.84	1.89	1.90	8.28	1.59	1.60	9.09	1.66	1.67
16720	18.88	13.40	13.41	7.83	1.88	1.89	8.27	1.58	1.60	9.09	1.66	1.67
16750	18.86	13.38	13.40	7.82	1.87	1.88	8.26	1.57	1.58	9.06	1.63	1.65
16780	18.84	13.36	13.38	7.81	1.86	1.88	8.25	1.56	1.58	9.06	1.63	1.65
16810	18.88	13.40	13.42	7.80	1.85	1.87	8.25	1.56	1.58	9.06	1.63	1.65
16840	18.86	13.38	13.40	7.80	1.85	1.87	8.25	1.56	1.58	9.06	1.63	1.65
16870	18.86	13.38	13.40	7.80	1.85	1.88	8.25	1.56	1.58	9.06	1.63	1.65
16900	18.84	13.36	13.39	7.80	1.85	1.88	8.24	1.55	1.58	9.05	1.62	1.65
16930	18.89	13.41	13.43	7.80	1.85	1.87	8.24	1.55	1.58	9.06	1.63	1.65
16960	18.88	13.40	13.42	7.80	1.85	1.87	8.24	1.55	1.58	9.05	1.62	1.65
16990	18.85	13.37	13.39	7.80	1.85	1.88	8.25	1.56	1.58	9.06	1.63	1.65
17020	18.86	13.38	13.40	7.80	1.85	1.88	8.25	1.56	1.58	9.06	1.63	1.65

17050	18.89	13.41	13.43	7.81	1.86	1.88	8.25	1.56	1.58	9.06	1.63	1.65
17080	18.90	13.42	13.44	7.81	1.86	1.88	8.25	1.56	1.58	9.06	1.63	1.65
17110	18.89	13.41	13.43	7.81	1.86	1.88	8.25	1.56	1.58	9.06	1.63	1.65
17140	18.91	13.43	13.45	7.81	1.86	1.88	8.25	1.56	1.58	9.06	1.63	1.65
17170	18.89	13.41	13.43	7.80	1.85	1.87	8.25	1.56	1.58	9.06	1.63	1.65
17200	18.88	13.40	13.42	7.80	1.85	1.87	8.25	1.56	1.58	9.06	1.63	1.65
17230	18.89	13.41	13.43	7.80	1.85	1.88	8.25	1.56	1.58	9.06	1.63	1.65
17260	18.89	13.41	13.43	7.80	1.85	1.87	8.25	1.56	1.58	9.05	1.62	1.64
17290	18.88	13.40	13.42	7.80	1.85	1.87	8.24	1.55	1.58	9.05	1.62	1.64
17320	18.92	13.44	13.46	7.80	1.85	1.87	8.24	1.55	1.58	9.05	1.62	1.64
17350	18.90	13.42	13.45	7.79	1.84	1.87	8.24	1.55	1.58	9.05	1.62	1.64
17380	18.88	13.40	13.43	7.79	1.84	1.87	8.24	1.54	1.57	9.05	1.62	1.65
17410	18.89	13.41	13.44	7.79	1.84	1.87	8.24	1.54	1.57	9.05	1.62	1.65
17440	18.92	13.44	13.47	7.79	1.84	1.87	8.24	1.54	1.58	9.05	1.62	1.65
17470	18.89	13.41	13.44	7.79	1.84	1.87	8.24	1.55	1.58	9.05	1.62	1.65
17500	18.93	13.45	13.48	7.79	1.84	1.87	8.24	1.55	1.58	9.05	1.62	1.65
17530	18.93	13.45	13.48	7.79	1.84	1.87	8.24	1.55	1.58	9.05	1.62	1.65
17560	18.92	13.44	13.47	7.79	1.84	1.87	8.24	1.55	1.58	9.05	1.62	1.65
17590	18.91	13.43	13.46	7.80	1.85	1.88	8.24	1.55	1.58	9.05	1.62	1.65
17620	18.91	13.43	13.46	7.80	1.85	1.88	8.24	1.55	1.58	9.05	1.62	1.65
17650	18.94	13.46	13.48	7.80	1.85	1.87	8.25	1.56	1.59	9.06	1.63	1.66
17680	18.96	13.48	13.51	7.80	1.85	1.88	8.25	1.56	1.58	9.06	1.63	1.66
17710	18.95	13.47	13.50	7.81	1.86	1.88	8.25	1.56	1.59	9.07	1.64	1.66
17740	18.95	13.47	13.49	7.82	1.87	1.89	8.27	1.58	1.60	9.09	1.66	1.68
17770	18.98	13.50	13.52	7.84	1.89	1.91	8.28	1.59	1.61	9.10	1.67	1.69
17800	19.00	13.52	13.54	7.85	1.90	1.92	8.29	1.60	1.62	9.11	1.68	1.70
17830	18.99	13.51	13.53	7.85	1.90	1.92	8.29	1.60	1.62	9.11	1.68	1.70
17860	18.98	13.50	13.52	7.84	1.89	1.91	8.28	1.59	1.61	9.10	1.67	1.69
17890	19.00	13.52	13.54	7.80	1.85	1.87	8.23	1.54	1.55	9.06	1.63	1.65
17920	18.99	13.51	13.53	7.81	1.86	1.88	8.25	1.56	1.58	9.07	1.64	1.66
17950	18.99	13.51	13.53	7.82	1.87	1.89	8.25	1.56	1.58	9.06	1.63	1.65
17980	19.03	13.55	13.57	7.82	1.87	1.89	8.26	1.57	1.59	9.08	1.65	1.67
18010	19.01	13.53	13.56	7.82	1.87	1.90	8.26	1.57	1.59	9.08	1.65	1.67
18040	19.01	13.53	13.56	7.82	1.87	1.90	8.26	1.57	1.59	9.07	1.64	1.67
18070	19.01	13.53	13.56	7.82	1.87	1.90	8.26	1.57	1.60	9.08	1.65	1.67
18100	19.04	13.56	13.58	7.82	1.87	1.90	8.26	1.57	1.59	9.07	1.64	1.66
18130	19.02	13.54	13.57	7.82	1.87	1.90	8.26	1.57	1.60	9.07	1.64	1.67
18160	19.07	13.59	13.62	7.82	1.87	1.90	8.26	1.57	1.60	9.07	1.64	1.67
18190	19.06	13.58	13.61	7.82	1.87	1.90	8.26	1.57	1.60	9.07	1.64	1.67
18220	19.03	13.55	13.58	7.82	1.87	1.91	8.26	1.57	1.60	9.07	1.64	1.67
18250	19.04	13.56	13.59	7.82	1.87	1.91	8.26	1.57	1.61	9.07	1.64	1.68
18280	19.09	13.61	13.64	7.83	1.88	1.91	8.26	1.57	1.61	9.08	1.65	1.68
18310	19.06	13.58	13.61	7.83	1.88	1.91	8.26	1.57	1.61	9.08	1.65	1.68
18340	19.04	13.56	13.59	7.82	1.87	1.91	8.26	1.57	1.60	9.07	1.64	1.68
18370	19.07	13.59	13.62	7.81	1.86	1.89	8.23	1.54	1.58	9.06	1.63	1.67
18400	19.04	13.56	13.60	7.80	1.85	1.89	8.23	1.54	1.57	9.06	1.63	1.66
18430	19.03	13.55	13.58	7.80	1.85	1.89	8.23	1.54	1.57	9.06	1.63	1.66

18460	19.01	13.53	13.56	7.80	1.85	1.89	8.23	1.54	1.57	9.06	1.63	1.66
18490	19.06	13.58	13.61	7.80	1.85	1.88	8.22	1.53	1.56	9.06	1.63	1.66
18520	19.04	13.56	13.59	7.80	1.85	1.88	8.22	1.53	1.56	9.06	1.63	1.66
18550	19.02	13.54	13.57	7.80	1.85	1.87	8.22	1.53	1.56	9.06	1.63	1.65
18580	19.05	13.57	13.60	7.79	1.84	1.87	8.22	1.53	1.56	9.05	1.62	1.65
18610	19.03	13.55	13.58	7.79	1.84	1.87	8.22	1.53	1.55	9.05	1.62	1.65
18640	19.03	13.55	13.58	7.78	1.83	1.86	8.21	1.52	1.55	9.05	1.62	1.64
18670	19.06	13.58	13.61	7.78	1.83	1.86	8.21	1.52	1.55	9.04	1.61	1.64
18700	19.04	13.56	13.59	7.78	1.83	1.86	8.21	1.52	1.55	9.04	1.61	1.64
18730	19.03	13.55	13.58	7.77	1.82	1.85	8.20	1.51	1.54	9.03	1.60	1.63
18760	19.08	13.60	13.63	7.77	1.82	1.86	8.20	1.51	1.54	9.03	1.60	1.63
18790	19.05	13.57	13.60	7.77	1.82	1.85	8.20	1.51	1.55	9.03	1.60	1.63
18820	19.05	13.57	13.61	7.77	1.82	1.85	8.19	1.50	1.54	9.02	1.59	1.63
18850	19.04	13.56	13.60	7.77	1.82	1.85	8.20	1.51	1.54	9.03	1.60	1.63
18880	19.07	13.59	13.63	7.77	1.82	1.85	8.20	1.51	1.54	9.02	1.59	1.63
18910	19.06	13.58	13.62	7.77	1.82	1.85	8.20	1.51	1.55	9.02	1.59	1.63
18940	19.04	13.56	13.60	7.77	1.82	1.85	8.20	1.51	1.55	9.02	1.59	1.63
18970	19.08	13.60	13.63	7.77	1.82	1.85	8.20	1.51	1.54	9.03	1.60	1.63
19000	19.06	13.58	13.61	7.77	1.82	1.86	8.20	1.51	1.54	9.03	1.60	1.63
19030	19.06	13.58	13.61	7.77	1.82	1.85	8.20	1.51	1.55	9.03	1.60	1.63
19060	19.09	13.61	13.64	7.77	1.82	1.85	8.20	1.51	1.54	9.03	1.60	1.63
19090	19.09	13.61	13.64	7.78	1.83	1.86	8.21	1.52	1.55	9.04	1.61	1.64
19120	19.10	13.62	13.64	7.78	1.83	1.85	8.21	1.52	1.55	9.04	1.61	1.64
19150	19.12	13.64	13.67	7.79	1.84	1.86	8.22	1.53	1.55	9.05	1.62	1.64
19180	19.11	13.63	13.64	7.79	1.84	1.86	8.22	1.53	1.55	9.06	1.63	1.64
19210	19.10	13.62	13.63	7.79	1.84	1.86	8.22	1.53	1.55	9.06	1.63	1.64
19240	19.11	13.63	13.64	7.80	1.85	1.86	8.22	1.53	1.54	9.05	1.62	1.63
19270	19.14	13.66	13.68	7.80	1.85	1.87	8.22	1.53	1.55	9.05	1.62	1.63
19300	19.14	13.66	13.67	7.80	1.85	1.86	8.23	1.54	1.55	9.05	1.62	1.63
19330	19.15	13.67	13.68	7.84	1.89	1.89	8.27	1.58	1.59	9.09	1.66	1.67
19360	19.21	13.73	13.74	7.85	1.90	1.91	8.29	1.60	1.61	9.11	1.68	1.69
19390	19.20	13.72	13.73	7.85	1.90	1.92	8.29	1.60	1.61	9.11	1.68	1.69
19420	19.20	13.72	13.73	7.85	1.90	1.92	8.29	1.60	1.62	9.10	1.67	1.69
19450	19.21	13.73	13.74	7.86	1.91	1.92	8.30	1.61	1.63	9.12	1.69	1.70
19480	19.24	13.76	13.77	7.87	1.92	1.93	8.30	1.61	1.63	9.12	1.69	1.71
19510	19.22	13.74	13.75	7.87	1.92	1.93	8.30	1.61	1.63	9.09	1.66	1.68
19540	19.23	13.75	13.76	7.87	1.92	1.94	8.31	1.62	1.63	9.13	1.70	1.72
19570	19.28	13.80	13.81	7.87	1.92	1.93	8.31	1.62	1.64	9.12	1.69	1.71
19600	19.25	13.77	13.79	7.87	1.92	1.94	8.31	1.62	1.64	9.12	1.69	1.71
19630	19.25	13.77	13.79	7.87	1.92	1.94	8.31	1.62	1.64	9.12	1.69	1.71
19660	19.24	13.76	13.78	7.87	1.92	1.94	8.31	1.62	1.64	9.13	1.70	1.72
19690	19.27	13.79	13.81	7.87	1.92	1.95	8.31	1.62	1.64	9.13	1.70	1.72
19720	19.25	13.77	13.79	7.88	1.93	1.95	8.31	1.62	1.65	9.14	1.71	1.73
19750	19.26	13.78	13.80	7.88	1.93	1.95	8.32	1.63	1.65	9.14	1.71	1.73
19780	19.29	13.81	13.84	7.88	1.93	1.95	8.32	1.63	1.66	9.14	1.71	1.73
19810	19.28	13.80	13.82	7.89	1.94	1.96	8.33	1.64	1.66	9.15	1.72	1.74
19840	19.28	13.80	13.82	7.90	1.95	1.98	8.35	1.66	1.68	9.17	1.74	1.76

19870	19.28	13.80	13.82	7.92	1.97	1.99	8.36	1.67	1.69	9.18	1.75	1.77
19900	19.32	13.84	13.86	7.92	1.97	1.99	8.37	1.67	1.69	9.19	1.76	1.78
19930	19.30	13.82	13.84	7.92	1.97	1.99	8.37	1.68	1.70	9.20	1.77	1.78
19960	19.30	13.82	13.84	7.93	1.98	2.00	8.38	1.69	1.70	9.20	1.77	1.78
19990	19.34	13.86	13.87	7.93	1.98	1.99	8.38	1.69	1.70	9.20	1.77	1.78
20020	19.34	13.86	13.87	7.93	1.98	1.99	8.38	1.69	1.70	9.20	1.77	1.79
20050	19.30	13.82	13.83	7.94	1.99	2.00	8.38	1.69	1.70	9.20	1.77	1.78
20080	19.30	13.82	13.83	7.94	1.99	2.00	8.38	1.69	1.70	9.20	1.77	1.78
20110	19.33	13.85	13.86	7.93	1.98	1.99	8.38	1.69	1.70	9.20	1.77	1.78
20140	19.33	13.85	13.86	7.93	1.98	1.99	8.38	1.69	1.70	9.20	1.77	1.78
20170	19.29	13.81	13.83	7.93	1.98	1.99	8.38	1.69	1.70	9.20	1.77	1.78
20200	19.30	13.82	13.83	7.93	1.98	1.99	8.38	1.69	1.70	9.20	1.77	1.78
20230	19.32	13.84	13.85	7.93	1.98	1.99	8.37	1.68	1.69	9.19	1.76	1.78
20260	19.31	13.83	13.85	7.92	1.97	1.99	8.37	1.68	1.70	9.19	1.76	1.78
20290	19.30	13.82	13.84	7.92	1.97	1.99	8.37	1.68	1.70	9.19	1.76	1.78
20320	19.35	13.87	13.89	7.92	1.97	1.99	8.37	1.68	1.70	9.19	1.76	1.78
20350	19.33	13.85	13.87	7.93	1.98	2.00	8.38	1.69	1.70	9.20	1.77	1.79
20380	19.32	13.84	13.86	7.93	1.98	2.00	8.38	1.69	1.71	9.20	1.77	1.79
20410	19.37	13.89	13.91	7.94	1.99	2.00	8.38	1.69	1.71	9.20	1.77	1.79
20440	19.36	13.88	13.90	7.94	1.99	2.00	8.38	1.69	1.71	9.21	1.78	1.80
20470	19.36	13.88	13.89	7.94	1.99	2.01	8.39	1.70	1.71	9.21	1.78	1.80
20500	19.36	13.88	13.89	7.95	2.00	2.01	8.40	1.71	1.72	9.22	1.79	1.80
20530	19.40	13.92	13.93	7.96	2.01	2.01	8.40	1.71	1.72	9.22	1.79	1.80
20560	19.38	13.90	13.90	7.96	2.01	2.01	8.40	1.71	1.72	9.23	1.80	1.80
20590	19.38	13.90	13.90	7.96	2.01	2.01	8.40	1.71	1.71	9.24	1.81	1.81
20620	19.35	13.87	13.87	7.96	2.01	2.01	8.40	1.71	1.71	9.24	1.81	1.81
20650	19.41	13.93	13.93	7.96	2.01	2.01	8.40	1.71	1.71	9.24	1.81	1.81
20680	19.42	13.94	13.93	7.97	2.02	2.02	8.41	1.72	1.72	9.25	1.82	1.82
20710	19.42	13.94	13.93	7.97	2.02	2.01	8.41	1.72	1.72	9.26	1.83	1.82
20740	19.40	13.92	13.91	7.97	2.02	2.02	8.41	1.72	1.72	9.25	1.82	1.81
20770	19.39	13.91	13.90	7.97	2.02	2.02	8.41	1.72	1.72	9.24	1.81	1.80
20800	19.42	13.94	13.93	7.97	2.02	2.02	8.42	1.73	1.72	9.25	1.82	1.81
20830	19.42	13.94	13.93	7.98	2.03	2.02	8.42	1.73	1.72	9.25	1.82	1.82
20860	19.41	13.93	13.92	7.98	2.03	2.02	8.42	1.73	1.72	9.26	1.83	1.82
20890	19.45	13.97	13.96	7.99	2.04	2.03	8.43	1.74	1.73	9.26	1.83	1.82
20920	19.43	13.95	13.94	7.99	2.04	2.03	8.42	1.73	1.72	9.26	1.83	1.82
20950	19.43	13.95	13.94	7.98	2.03	2.02	8.42	1.73	1.72	9.23	1.80	1.79
20980	19.45	13.97	13.96	7.98	2.03	2.03	8.42	1.73	1.72	9.24	1.81	1.80
21010	19.42	13.94	13.93	7.98	2.03	2.03	8.42	1.73	1.72	9.25	1.82	1.81
21040	19.41	13.93	13.93	7.97	2.02	2.02	8.41	1.72	1.72	9.24	1.81	1.81
21070	19.41	13.93	13.93	7.97	2.02	2.02	8.41	1.72	1.72	9.23	1.80	1.80
21100	19.43	13.95	13.95	7.97	2.02	2.03	8.41	1.72	1.72	9.24	1.81	1.81
21130	19.42	13.94	13.94	7.97	2.02	2.03	8.42	1.73	1.73	9.24	1.81	1.81
21160	19.42	13.94	13.94	7.97	2.02	2.03	8.41	1.72	1.73	9.24	1.81	1.81
21190	19.45	13.97	13.97	7.97	2.02	2.03	8.42	1.73	1.73	9.24	1.81	1.82
21220	19.45	13.97	13.97	7.97	2.02	2.03	8.42	1.73	1.73	9.25	1.82	1.82
21250	19.45	13.97	13.97	7.98	2.03	2.03	8.42	1.73	1.74	9.25	1.82	1.82

21280	19.47	13.99	14.00	7.98	2.03	2.03	8.43	1.74	1.74	9.26	1.83	1.83
21310	19.47	13.99	13.99	7.99	2.04	2.04	8.43	1.74	1.74	9.26	1.83	1.83
21340	19.43	13.95	13.94	7.99	2.04	2.04	8.43	1.74	1.73	9.26	1.83	1.83
21370	19.44	13.96	13.95	7.98	2.03	2.03	8.43	1.74	1.73	9.26	1.83	1.83
21400	19.46	13.98	13.98	7.99	2.04	2.03	8.43	1.74	1.73	9.26	1.83	1.83
21430	19.44	13.96	13.95	7.99	2.04	2.03	8.43	1.74	1.73	9.26	1.83	1.82
21460	19.44	13.96	13.95	7.99	2.04	2.03	8.43	1.74	1.73	9.26	1.83	1.82
21490	19.46	13.98	13.97	7.99	2.04	2.03	8.43	1.74	1.73	9.26	1.83	1.82
21520	19.45	13.97	13.96	7.98	2.03	2.02	8.43	1.74	1.73	9.26	1.83	1.82
21550	19.46	13.98	13.97	7.98	2.03	2.02	8.42	1.73	1.72	9.26	1.83	1.82
21580	19.45	13.97	13.97	7.97	2.02	2.02	8.42	1.73	1.72	9.25	1.82	1.81
21610	19.45	13.97	13.96	7.97	2.02	2.02	8.42	1.73	1.72	9.25	1.82	1.81
21640	19.44	13.96	13.95	7.97	2.02	2.02	8.42	1.73	1.72	9.25	1.82	1.82
21670	19.47	13.99	13.99	7.97	2.02	2.01	8.42	1.73	1.72	9.25	1.82	1.81
21700	19.46	13.98	13.99	7.97	2.02	2.02	8.41	1.72	1.72	9.24	1.81	1.81
21730	19.45	13.97	13.97	7.96	2.01	2.01	8.41	1.72	1.72	9.24	1.81	1.81
21760	19.47	13.99	14.00	7.97	2.02	2.02	8.41	1.72	1.73	9.24	1.81	1.82
21790	19.45	13.97	13.98	7.97	2.02	2.02	8.41	1.72	1.73	9.25	1.82	1.82
21820	19.44	13.96	13.96	7.97	2.02	2.02	8.42	1.73	1.73	9.25	1.82	1.82
21850	19.43	13.95	13.95	7.97	2.02	2.02	8.41	1.72	1.73	9.24	1.81	1.82
21880	19.48	14.00	14.01	7.97	2.02	2.03	8.42	1.73	1.73	9.25	1.82	1.82
21910	19.45	13.97	13.98	7.98	2.03	2.03	8.42	1.73	1.73	9.25	1.82	1.82
21940	19.45	13.97	13.98	7.97	2.02	2.03	8.42	1.73	1.73	9.25	1.82	1.82
21970	19.51	14.03	14.03	7.98	2.03	2.03	8.43	1.74	1.74	9.26	1.83	1.83
22000	19.48	14.00	14.00	7.98	2.03	2.03	8.43	1.74	1.74	9.26	1.83	1.83
22030	19.49	14.01	14.01	7.99	2.04	2.03	8.44	1.75	1.74	9.27	1.84	1.83
22060	19.49	14.01	14.00	7.99	2.04	2.03	8.44	1.75	1.74	9.28	1.85	1.84
22090	19.48	14.00	13.99	8.00	2.05	2.04	8.45	1.75	1.74	9.29	1.86	1.84
22120	19.53	14.05	14.03	8.01	2.06	2.04	8.45	1.75	1.74	9.27	1.84	1.83
22150	19.53	14.05	14.03	8.01	2.06	2.04	8.45	1.76	1.74	9.28	1.85	1.83
22180	19.52	14.04	14.02	8.02	2.07	2.05	8.46	1.77	1.74	9.30	1.87	1.85
22210	19.52	14.04	14.01	8.02	2.07	2.04	8.46	1.77	1.74	9.30	1.87	1.84
22240	19.56	14.08	14.05	8.02	2.07	2.04	8.46	1.77	1.74	9.30	1.87	1.84
22270	19.54	14.06	14.03	8.02	2.07	2.04	8.46	1.77	1.74	9.30	1.87	1.84
22300	19.53	14.05	14.02	8.01	2.06	2.03	8.45	1.76	1.73	9.29	1.86	1.83
22330	19.57	14.09	14.06	8.01	2.06	2.03	8.44	1.75	1.72	9.27	1.84	1.81
22360	19.53	14.05	14.02	7.97	2.02	1.99	8.39	1.70	1.67	9.22	1.79	1.77
22390	19.47	13.99	13.97	7.92	1.97	1.94	8.32	1.63	1.60	9.16	1.73	1.70
22420	19.43	13.95	13.92	7.87	1.92	1.90	8.28	1.59	1.56	9.11	1.68	1.66
22450	19.43	13.95	13.92	7.86	1.91	1.89	8.27	1.58	1.56	9.10	1.67	1.65
22480	19.40	13.92	13.90	7.87	1.92	1.90	8.28	1.59	1.57	9.11	1.68	1.66
22510	19.39	13.91	13.89	7.85	1.90	1.89	8.27	1.58	1.56	9.10	1.67	1.65
22540	19.43	13.95	13.93	7.84	1.89	1.87	8.25	1.56	1.54	9.09	1.66	1.64
22570	19.39	13.91	13.89	7.85	1.90	1.89	8.28	1.59	1.57	9.11	1.68	1.66
22600	19.38	13.90	13.88	7.87	1.92	1.91	8.30	1.61	1.59	9.13	1.70	1.68
22630	19.40	13.92	13.90	7.89	1.94	1.93	8.32	1.63	1.61	9.16	1.73	1.71
22660	13.92	8.44	8.42	7.87	1.92	1.90	8.36	1.67	1.66	9.19	1.76	1.75

22690	18.33	12.85	12.84	7.71	1.76	1.74	8.22	1.53	1.51	9.04	1.61	1.59
22720	19.12	13.64	13.63	7.89	1.94	1.92	8.34	1.65	1.64	9.17	1.74	1.72
22750	6.99	1.51	1.49	7.45	1.50	1.48	8.18	1.49	1.47	9.01	1.58	1.56
22780	8.45	2.97	2.95	7.29	1.34	1.32	8.02	1.33	1.31	8.84	1.41	1.39
22810	6.64	1.16	1.13	7.14	1.19	1.17	7.87	1.18	1.16	8.69	1.26	1.23
22840	9.12	3.64	3.61	7.08	1.13	1.10	7.79	1.10	1.07	8.60	1.17	1.14
22870	7.13	1.65	1.62	7.24	1.29	1.26	7.94	1.25	1.22	8.75	1.32	1.29
22900	6.55	1.07	1.04	7.05	1.10	1.06	7.78	1.09	1.06	8.60	1.17	1.13
22930	6.47	0.99	0.96	6.97	1.02	0.98	7.71	1.01	0.98	8.52	1.09	1.05
22960	6.42	0.94	0.91	6.91	0.96	0.93	7.65	0.96	0.93	8.47	1.04	1.00
22990	17.27	11.79	11.75	7.19	1.24	1.21	7.72	1.03	1.00	8.52	1.09	1.06
23020	18.88	13.40	13.37	7.52	1.57	1.54	7.97	1.28	1.25	8.79	1.36	1.32
23050	19.28	13.80	13.76	7.72	1.77	1.74	8.17	1.48	1.44	8.98	1.55	1.52
23080	19.45	13.97	13.94	7.84	1.89	1.86	8.28	1.59	1.56	9.10	1.67	1.64
23110	19.55	14.07	14.04	7.92	1.97	1.94	8.35	1.66	1.63	9.18	1.75	1.72
23140	19.62	14.14	14.12	7.96	2.01	1.98	8.40	1.71	1.68	9.23	1.80	1.77
23170	19.68	14.20	14.18	8.00	2.05	2.03	8.43	1.74	1.72	9.26	1.83	1.81
23200	19.76	14.28	14.25	8.03	2.08	2.05	8.46	1.77	1.74	9.29	1.86	1.83
23230	19.78	14.30	14.27	8.04	2.09	2.07	8.47	1.78	1.76	9.31	1.88	1.86
23260	19.83	14.35	14.33	8.06	2.11	2.09	8.49	1.80	1.78	9.33	1.90	1.87
23290	19.85	14.37	14.35	8.08	2.13	2.11	8.50	1.81	1.79	9.34	1.91	1.89
23320	19.86	14.38	14.36	8.09	2.14	2.12	8.51	1.82	1.80	9.35	1.92	1.89
23350	19.86	14.38	14.36	8.10	2.15	2.12	8.52	1.83	1.81	9.36	1.93	1.90
23380	19.86	14.38	14.35	8.10	2.15	2.13	8.53	1.84	1.81	9.37	1.94	1.91
23410	19.94	14.46	14.42	8.11	2.16	2.13	8.54	1.85	1.82	9.38	1.95	1.92
23440	19.93	14.45	14.41	8.12	2.17	2.14	8.55	1.86	1.82	9.39	1.96	1.92
23470	19.93	14.45	14.41	8.13	2.18	2.14	8.55	1.86	1.83	9.39	1.96	1.93
23500	19.94	14.46	14.43	8.13	2.18	2.15	8.55	1.86	1.83	9.39	1.96	1.93
23530	19.98	14.50	14.47	8.13	2.18	2.15	8.55	1.86	1.83	9.40	1.97	1.94
23560	19.99	14.51	14.48	8.14	2.19	2.16	8.56	1.87	1.84	9.40	1.97	1.94
23590	19.99	14.51	14.48	8.15	2.20	2.16	8.56	1.87	1.84	9.41	1.98	1.94
23620	19.98	14.50	14.46	8.15	2.20	2.16	8.57	1.88	1.84	9.42	1.99	1.95
23650	20.03	14.55	14.51	8.15	2.20	2.16	8.57	1.87	1.84	9.42	1.99	1.95
23680	20.02	14.54	14.50	8.16	2.21	2.17	8.57	1.88	1.84	9.42	1.99	1.95
23710	20.02.	14.54	14.50	8.15	2.20	2.17	8.57	1.88	1.84	9.42	1.99	1.95
23740	20.03	14.55	14.52	8.16	2.21	2.17	8.57	1.88	1.84	9.41	1.98	1.95
23770	20.02	14.54	14.51	8.15	2.20	2.17	8.57	1.87	1.84	9.41	1.98	1.95
23800	20.07	14.59	14.56	8.16	2.21	2.18	8.57	1.88	1.85	9.41	1.98	1.95
23830	20.05	14.57	14.54	8.15	2.20	2.18	8.57	1.88	1.85	9.41	1.98	1.96
23860	20.05	14.57	14.54	8.16	2.21	2.18	8.57	1.88	1.86	9.41	1.98	1.95
23890	20.04	14.56	14.53	8.16	2.21	2.18	8.57	1.88	1.86	9.41	1.98	1.95
23920	20.10	14.62	14.59	8.16	2.21	2.19	8.58	1.88	1.86	9.42	1.99	1.96
23950	20.08	14.60	14.58	8.16	2.21	2.19	8.57	1.88	1.86	9.41	1.98	1.96
23980	20.08	14.60	14.58	8.16	2.21	2.20	8.58	1.89	1.87	9.42	1.99	1.97
24010	20.08	14.60	14.58	8.16	2.21	2.20	8.58	1.89	1.87	9.42	1.99	1.97
24040	20.10	14.62	14.60	8.16	2.21	2.20	8.58	1.89	1.88	9.42	1.99	1.97
24070	20.09	14.61	14.59	8.16	2.21	2.20	8.58	1.89	1.88	9.42	1.99	1.97

24100	20.08	14.60	14.58	8.16	2.21	2.20	8.59	1.90	1.88	9.42	1.99	1.98
24130	20.09	14.61	14.59	8.16	2.21	2.20	8.58	1.89	1.88	9.42	1.99	1.98
24160	20.08	14.60	14.58	8.16	2.21	2.20	8.58	1.89	1.88	9.42	1.99	1.98
24190	20.12	14.64	14.63	8.17	2.22	2.21	8.59	1.90	1.89	9.42	1.99	1.98
24220	20.11	14.63	14.62	8.18	2.23	2.21	8.60	1.91	1.89	9.43	2.00	1.99
24250	20.11	14.63	14.61	8.18	2.23	2.21	8.61	1.92	1.90	9.43	2.00	1.98
24280	20.11	14.63	14.61	8.18	2.23	2.21	8.61	1.92	1.90	9.43	2.00	1.99
24310	20.14	14.66	14.64	8.18	2.23	2.21	8.61	1.92	1.90	9.44	2.01	1.99
24340	20.13	14.65	14.63	8.18	2.23	2.21	8.61	1.92	1.90	9.44	2.01	1.99
24370	20.13	14.65	14.63	8.18	2.23	2.21	8.61	1.92	1.90	9.43	2.00	1.98
24400	20.11	14.63	14.61	8.17	2.22	2.20	8.60	1.91	1.89	9.43	2.00	1.98
24430	20.15	14.67	14.65	8.17	2.22	2.20	8.59	1.90	1.88	9.43	2.00	1.98
24460	20.13	14.65	14.63	8.17	2.22	2.20	8.59	1.90	1.88	9.43	2.00	1.98
24490	20.12	14.64	14.63	8.17	2.22	2.20	8.59	1.90	1.88	9.43	2.00	1.98
24520	20.12	14.64	14.63	8.16	2.21	2.20	8.59	1.90	1.88	9.42	1.99	1.98
24550	20.15	14.67	14.66	8.16	2.21	2.20	8.58	1.89	1.88	9.42	1.99	1.98
24580	20.14	14.66	14.65	8.16	2.21	2.20	8.58	1.89	1.88	9.42	1.99	1.98
24610	20.11	14.63	14.63	8.16	2.21	2.20	8.58	1.89	1.89	9.43	2.00	1.99
24640	20.15	14.67	14.67	8.16	2.21	2.21	8.58	1.89	1.89	9.43	2.00	1.99
24670	20.16	14.68	14.68	8.16	2.21	2.21	8.58	1.89	1.89	9.43	2.00	1.99
24700	20.15	14.67	14.67	8.16	2.21	2.21	8.58	1.89	1.89	9.42	1.99	1.99
24730	20.13	14.65	14.65	8.16	2.21	2.21	8.58	1.89	1.89	9.42	1.99	1.99
24760	20.16	14.68	14.68	8.16	2.21	2.21	8.59	1.90	1.90	9.43	2.00	2.00
24790	20.16	14.68	14.68	8.16	2.21	2.21	8.59	1.90	1.90	9.43	2.00	2.00
24820	20.20	14.72	14.72	8.17	2.22	2.22	8.59	1.90	1.90	9.43	2.00	2.00
24850	20.20	14.72	14.72	8.18	2.23	2.22	8.61	1.92	1.91	9.44	2.01	2.00
24880	20.17	14.69	14.69	8.18	2.23	2.22	8.61	1.92	1.92	9.44	2.01	2.01
24910	20.19	14.71	14.70	8.18	2.23	2.23	8.62	1.93	1.92	9.45	2.02	2.01
24940	20.19	14.71	14.70	8.18	2.23	2.23	8.62	1.93	1.92	9.45	2.02	2.02
24970	20.19	14.71	14.70	8.19	2.24	2.23	8.62	1.93	1.92	9.45	2.02	2.01
25000	20.17	14.69	14.68	8.19	2.24	2.23	8.62	1.93	1.92	9.45	2.02	2.01
25030	20.21	14.73	14.72	8.19	2.24	2.23	8.62	1.93	1.92	9.46	2.03	2.02
25060	20.21	14.73	14.72	8.18	2.23	2.22	8.62	1.93	1.92	9.45	2.02	2.01
25090	20.24	14.76	14.75	8.19	2.24	2.23	8.62	1.93	1.92	9.45	2.02	2.00
25120	20.23	14.75	14.74	8.19	2.24	2.23	8.62	1.93	1.92	9.45	2.02	2.01
25150	20.22	14.74	14.73	8.18	2.23	2.23	8.62	1.93	1.92	9.46	2.03	2.02
25180	20.27	14.79	14.78	8.19	2.24	2.23	8.62	1.93	1.92	9.44	2.01	2.00
25210	20.25	14.77	14.77	8.18	2.23	2.23	8.62	1.93	1.93	9.44	2.01	2.01
25240	20.25	14.77	14.77	8.18	2.23	2.23	8.57	1.88	1.88	9.44	2.01	2.01
25270	20.23	14.75	14.75	8.11	2.16	2.16	8.50	1.81	1.81	9.36	1.93	1.93
25300	20.17	14.69	14.69	8.08	2.13	2.13	8.45	1.76	1.77	9.31	1.88	1.88
25330	20.12	14.64	14.65	8.06	2.11	2.11	8.44	1.75	1.75	9.30	1.87	1.87
25360	20.14	14.66	14.67	8.04	2.09	2.10	8.42	1.73	1.74	9.28	1.85	1.85
25390	20.11	14.63	14.63	8.02	2.07	2.08	8.40	1.71	1.72	9.25	1.82	1.83
25420	20.12	14.64	14.65	8.01	2.06	2.07	8.39	1.70	1.71	9.25	1.82	1.83
25450	20.11	14.63	14.64	8.01	2.06	2.07	8.40	1.71	1.72	9.25	1.82	1.83
25480	20.10	14.62	14.63	8.04	2.09	2.10	8.44	1.75	1.76	9.28	1.85	1.86

25510	20.17	14.69	14.70	8.09	2.14	2.15	8.50	1.81	1.82	9.33	1.90	1.92
25540	20.19	14.71	14.73	8.11	2.16	2.18	8.53	1.84	1.86	9.36	1.93	1.95
25570	20.25	14.77	14.79	8.13	2.18	2.20	8.55	1.86	1.88	9.38	1.95	1.97
25600	20.25	14.77	14.78	8.15	2.20	2.22	8.58	1.88	1.90	9.41	1.98	1.99
25630	20.24	14.76	14.77	8.17	2.22	2.24	8.60	1.91	1.92	9.42	1.99	2.01
25660	20.28	14.80	14.81	8.18	2.23	2.25	8.62	1.93	1.94	9.43	2.00	2.02
25690	20.28	14.80	14.81	8.19	2.24	2.25	8.63	1.94	1.95	9.45	2.02	2.03
25720	20.28	14.80	14.80	8.20	2.25	2.25	8.63	1.94	1.95	9.45	2.02	2.03
25750	20.28	14.80	14.81	8.20	2.25	2.26	8.64	1.95	1.96	9.46	2.03	2.04
25780	20.31	14.83	14.84	8.20	2.25	2.26	8.64	1.95	1.95	9.46	2.03	2.04
25810	20.29	14.81	14.82	8.20	2.25	2.26	8.64	1.95	1.96	9.46	2.03	2.04
25840	20.28	14.80	14.82	8.20	2.25	2.27	8.63	1.94	1.95	9.46	2.03	2.04
25870	20.31	14.83	14.85	8.20	2.25	2.26	8.63	1.94	1.95	9.46	2.03	2.04
25900	20.28	14.80	14.82	8.19	2.24	2.26	8.63	1.94	1.95	9.45	2.02	2.04
25930	20.28	14.80	14.82	8.19	2.24	2.26	8.62	1.93	1.95	9.45	2.02	2.04
25960	20.31	14.83	14.85	8.19	2.24	2.26	8.62	1.93	1.95	9.45	2.02	2.04
25990	20.29	14.81	14.84	8.19	2.24	2.26	8.62	1.93	1.96	9.45	2.02	2.04
26020	20.28	14.80	14.82	8.19	2.24	2.27	8.62	1.93	1.95	9.45	2.02	2.04
26050	20.31	14.83	14.86	8.18	2.23	2.26	8.62	1.93	1.96	9.45	2.02	2.04
26080	20.31	14.83	14.86	8.19	2.24	2.27	8.62	1.93	1.96	9.45	2.02	2.05
26110	20.30	14.82	14.85	8.19	2.24	2.27	8.63	1.94	1.97	9.45	2.02	2.05
26140	20.31	14.83	14.86	8.19	2.24	2.27	8.63	1.94	1.97	9.45	2.02	2.05
26170	20.30	14.82	14.86	8.18	2.23	2.27	8.62	1.93	1.97	9.45	2.02	2.05
26200	20.36	14.88	14.91	8.20	2.25	2.28	8.63	1.94	1.97	9.46	2.03	2.06
26230	20.34	14.86	14.89	8.20	2.25	2.28	8.64	1.95	1.98	9.46	2.03	2.06
26260	20.34	14.86	14.88	8.21	2.26	2.28	8.64	1.95	1.97	9.47	2.04	2.06
26290	20.31	14.83	14.85	8.21	2.26	2.28	8.64	1.95	1.97	9.47	2.04	2.06
26320	20.35	14.87	14.89	8.21	2.26	2.28	8.64	1.95	1.97	9.47	2.04	2.06
26350	20.32	14.84	14.86	8.21	2.26	2.28	8.64	1.95	1.97	9.47	2.04	2.06
26380	20.31	14.83	14.85	8.21	2.26	2.28	8.64	1.95	1.97	9.47	2.04	2.06
26410	20.34	14.86	14.88	8.21	2.26	2.28	8.64	1.95	1.97	9.47	2.04	2.06
26440	20.35	14.87	14.89	8.22	2.27	2.28	8.65	1.96	1.98	9.48	2.05	2.07
26470	20.34	14.86	14.88	8.22	2.27	2.28	8.65	1.96	1.98	9.48	2.05	2.07
26500	20.34	14.86	14.88	8.22	2.27	2.28	8.65	1.96	1.98	9.48	2.05	2.07
26530	20.37	14.89	14.91	8.22	2.27	2.29	8.65	1.96	1.98	9.48	2.05	2.07
26560	20.37	14.89	14.91	8.22	2.27	2.29	8.65	1.96	1.98	9.48	2.05	2.07
26590	20.36	14.88	14.90	8.22	2.27	2.29	8.65	1.96	1.98	9.46	2.03	2.06
26620	20.38	14.90	14.92	8.22	2.27	2.30	8.65	1.96	1.98	9.47	2.04	2.06
26650	20.39	14.91	14.93	8.22	2.27	2.30	8.66	1.97	1.99	9.49	2.06	2.09
26680	20.37	14.89	14.92	8.23	2.28	2.31	8.66	1.97	1.99	9.48	2.05	2.07
26710	20.36	14.88	14.91	8.23	2.28	2.31	8.66	1.97	2.00	9.50	2.07	2.10
26740	20.40	14.92	14.95	8.23	2.28	2.31	8.66	1.97	2.01	9.49	2.06	2.09
26770	20.38	14.90	14.93	8.23	2.28	2.31	8.66	1.97	2.00	9.49	2.06	2.09
26800	20.37	14.89	14.93	8.23	2.28	2.31	8.66	1.97	2.01	9.49	2.06	2.10
26830	20.40	14.92	14.96	8.23	2.28	2.32	8.66	1.97	2.01	9.48	2.05	2.09
26860	20.39	14.91	14.95	8.23	2.28	2.32	8.65	1.96	2.01	9.48	2.05	2.09
26890	20.38	14.90	14.94	8.22	2.27	2.32	8.66	1.97	2.01	9.48	2.05	2.09

26920	20.41	14.93	14.97	8.23	2.28	2.32	8.66	1.97	2.02	9.49	2.06	2.10
26950	20.41	14.93	14.97	8.23	2.28	2.32	8.66	1.97	2.02	9.48	2.05	2.10
26980	19.49	14.01	14.06	8.13	2.18	2.22	8.58	1.89	1.94	9.42	1.99	2.04
27010	20.44	14.96	15.01	8.18	2.23	2.28	8.61	1.92	1.97	9.44	2.01	2.06
27040	20.50	15.02	15.07	8.21	2.26	2.31	8.64	1.95	2.00	9.47	2.04	2.09
27070	20.50	15.02	15.06	8.23	2.28	2.32	8.66	1.97	2.01	9.48	2.05	2.10
27100	20.50	15.02	15.06	8.23	2.28	2.32	8.67	1.98	2.02	9.50	2.07	2.10
27130	20.49	15.01	15.05	8.23	2.28	2.32	8.67	1.98	2.02	9.49	2.06	2.10
27160	20.48	15.00	15.04	8.24	2.29	2.33	8.67	1.98	2.02	9.50	2.07	2.11
27190	20.50	15.02	15.06	8.24	2.29	2.33	8.68	1.99	2.02	9.50	2.07	2.11
27220	20.47	14.99	15.03	8.24	2.29	2.33	8.67	1.98	2.02	9.50	2.07	2.10
27250	20.47	14.99	15.03	8.23	2.28	2.32	8.67	1.98	2.01	9.50	2.07	2.10
27280	20.49	15.01	15.04	8.24	2.29	2.32	8.67	1.98	2.01	9.50	2.07	2.10
27310	20.48	15.00	15.03	8.24	2.29	2.32	8.67	1.98	2.01	9.50	2.07	2.10
27340	20.44	14.96	15.00	8.24	2.29	2.32	8.67	1.98	2.01	9.50	2.07	2.10
27370	20.47	14.99	15.02	8.23	2.28	2.32	8.67	1.98	2.01	9.49	2.06	2.09
27400	20.47	14.99	15.03	8.23	2.28	2.32	8.67	1.98	2.01	9.49	2.06	2.09
27430	20.44	14.96	15.00	8.23	2.28	2.31	8.66	1.97	2.01	9.50	2.07	2.10
27460	20.45	14.97	15.01	8.22	2.27	2.31	8.66	1.97	2.01	9.49	2.06	2.10
27490	20.49	15.01	15.05	8.23	2.28	2.32	8.66	1.97	2.01	9.49	2.06	2.10
27520	20.48	15.00	15.04	8.23	2.28	2.32	8.66	1.97	2.01	9.50	2.07	2.11
27550	20.48	15.00	15.04	8.23	2.28	2.32	8.67	1.98	2.02	9.50	2.07	2.11
27580	20.46	14.98	15.02	8.23	2.28	2.32	8.67	1.98	2.02	9.50	2.07	2.11
27610	20.46	14.98	15.02	8.23	2.28	2.32	8.67	1.98	2.02	9.50	2.07	2.11
27640	20.49	15.01	15.05	8.23	2.28	2.32	8.67	1.98	2.02	9.50	2.07	2.11
27670	20.50	15.02	15.05	8.24	2.29	2.32	8.68	1.99	2.02	9.51	2.08	2.11
27700	20.48	15.00	15.03	8.24	2.29	2.32	8.68	1.99	2.02	9.51	2.08	2.11
27730	20.49	15.01	15.04	8.24	2.29	2.32	8.68	1.99	2.02	9.51	2.08	2.11
27760	20.46	14.98	15.01	8.24	2.29	2.32	8.68	1.99	2.02	9.51	2.08	2.11
27790	20.47	14.99	15.02	8.24	2.29	2.32	8.68	1.99	2.02	9.51	2.08	2.11
27820	20.51	15.03	15.06	8.25	2.30	2.33	8.69	2.00	2.02	9.52	2.09	2.11
27850	20.50	15.02	15.05	8.25	2.30	2.33	8.69	2.00	2.02	9.52	2.09	2.11
27880	20.51	15.03	15.05	8.26	2.31	2.33	8.69	2.00	2.02	9.52	2.09	2.12
27910	20.50	15.02	15.04	8.25	2.30	2.33	8.69	2.00	2.02	9.52	2.09	2.11
27940	20.51	15.03	15.05	8.27	2.32	2.33	8.70	2.00	2.02	9.52	2.09	2.11
27970	19.28	13.80	13.82	8.22	2.27	2.29	8.68	1.99	2.00	9.51	2.08	2.09
28000	19.24	13.76	13.77	8.18	2.23	2.25	8.64	1.95	1.97	9.48	2.05	2.07
28030	19.22	13.74	13.75	8.17	2.22	2.24	8.63	1.94	1.96	9.46	2.03	2.05
28060	19.23	13.75	13.77	8.16	2.21	2.23	8.62	1.93	1.95	9.45	2.02	2.04
28090	19.25	13.77	13.79	8.15	2.20	2.22	8.62	1.93	1.94	9.45	2.02	2.03
28120	19.22	13.74	13.75	8.15	2.20	2.22	8.61	1.92	1.94	9.44	2.01	2.03
28150	19.20	13.72	13.74	8.14	2.19	2.21	8.60	1.91	1.93	9.45	2.02	2.04
28180	19.25	13.77	13.79	8.14	2.19	2.21	8.59	1.90	1.92	9.43	2.00	2.02
28210	19.24	13.76	13.78	8.14	2.19	2.21	8.59	1.90	1.92	9.43	2.00	2.02
28240	19.24	13.76	13.78	8.13	2.18	2.21	8.59	1.90	1.92	9.43	2.00	2.02
28270	19.22	13.74	13.76	8.13	2.18	2.21	8.59	1.90	1.92	9.43	2.00	2.02
28300	19.21	13.73	13.75	8.13	2.18	2.21	8.58	1.89	1.92	9.42	1.99	2.02

28330	19.25	13.77	13.79	8.13	2.18	2.21	8.59	1.90	1.93	9.43	2.00	2.02
28360	19.24	13.76	13.78	8.13	2.18	2.21	8.59	1.90	1.92	9.43	2.00	2.02
28390	19.23	13.75	13.78	8.13	2.18	2.21	8.58	1.89	1.92	9.42	1.99	2.02
28420	19.24	13.76	13.78	8.13	2.18	2.21	8.59	1.90	1.93	9.43	2.00	2.02
28450	19.22	13.74	13.76	8.14	2.19	2.21	8.59	1.90	1.93	9.43	2.00	2.03
28480	19.37	13.89	13.91	8.14	2.19	2.21	8.60	1.91	1.93	9.43	2.00	2.03
28510	19.30	13.82	13.84	8.14	2.19	2.21	8.60	1.91	1.93	9.43	2.00	2.02
28540	19.28	13.80	13.81	8.14	2.19	2.21	8.61	1.92	1.94	9.44	2.01	2.03
28570	19.29	13.81	13.83	8.15	2.20	2.21	8.61	1.92	1.94	9.44	2.01	2.03
28600	19.32	13.84	13.86	8.15	2.20	2.21	8.61	1.92	1.94	9.44	2.01	2.03
28630	19.30	13.82	13.83	8.15	2.20	2.21	8.62	1.93	1.94	9.44	2.01	2.02
28660	19.29	13.81	13.83	8.15	2.20	2.21	8.61	1.92	1.93	9.44	2.01	2.02
28690	19.29	13.81	13.83	8.15	2.20	2.21	8.61	1.92	1.94	9.44	2.01	2.02
28720	19.29	13.81	13.83	8.15	2.20	2.21	8.61	1.92	1.93	9.44	2.01	2.02
28750	19.29	13.81	13.83	8.14	2.19	2.20	8.61	1.92	1.93	9.44	2.01	2.02
28780	19.31	13.83	13.84	8.14	2.19	2.20	8.61	1.92	1.93	9.44	2.01	2.02
28810	19.29	13.81	13.83	8.14	2.19	2.20	8.59	1.90	1.92	9.43	2.00	2.02
28840	19.28	13.80	13.81	8.13	2.18	2.20	8.59	1.90	1.92	9.43	2.00	2.01
28870	19.31	13.83	13.85	8.13	2.18	2.20	8.59	1.90	1.92	9.43	2.00	2.01
28900	19.29	13.81	13.84	8.13	2.18	2.20	8.58	1.89	1.91	9.42	1.99	2.01
28930	19.28	13.80	13.82	8.13	2.18	2.20	8.58	1.89	1.91	9.42	1.99	2.02
28960	19.28	13.80	13.82	8.13	2.18	2.20	8.58	1.89	1.92	9.42	1.99	2.02
28990	19.32	13.84	13.87	8.13	2.18	2.20	8.58	1.89	1.92	9.42	1.99	2.02
29020	19.32	13.84	13.87	8.13	2.18	2.21	8.59	1.90	1.92	9.43	2.00	2.02
29050	19.30	13.82	13.85	8.13	2.18	2.21	8.59	1.90	1.93	9.43	2.00	2.02
29080	19.29	13.81	13.84	8.14	2.19	2.21	8.59	1.90	1.93	9.43	2.00	2.02
29110	19.32	13.84	13.87	8.14	2.19	2.21	8.60	1.91	1.93	9.43	2.00	2.03
29140	19.31	13.83	13.86	8.14	2.19	2.21	8.60	1.91	1.94	9.43	2.00	2.02
29170	19.31	13.83	13.86	8.14	2.19	2.21	8.60	1.91	1.93	9.44	2.01	2.03
29200	19.34	13.86	13.88	8.14	2.19	2.21	8.61	1.92	1.94	9.44	2.01	2.04
29230	19.34	13.86	13.88	8.14	2.19	2.21	8.61	1.92	1.94	9.45	2.02	2.04
29260	19.33	13.85	13.87	8.15	2.20	2.22	8.62	1.93	1.95	9.46	2.03	2.05
29290	19.37	13.89	13.91	8.15	2.20	2.22	8.62	1.93	1.95	9.45	2.02	2.04
29320	19.35	13.87	13.89	8.15	2.20	2.22	8.62	1.93	1.95	9.46	2.03	2.05
29350	19.34	13.86	13.88	8.15	2.20	2.22	8.62	1.93	1.94	9.46	2.03	2.04
29380	19.34	13.86	13.88	8.15	2.20	2.22	8.62	1.93	1.94	9.45	2.02	2.03
29410	19.37	13.89	13.90	8.15	2.20	2.22	8.62	1.93	1.94	9.46	2.03	2.04
29440	19.37	13.89	13.90	8.16	2.21	2.22	8.63	1.94	1.95	9.47	2.04	2.06
29470	19.37	13.89	13.90	8.16	2.21	2.22	8.62	1.93	1.95	9.46	2.03	2.05
29500	19.35	13.87	13.89	8.15	2.20	2.22	8.62	1.93	1.95	9.46	2.03	2.05
29530	19.39	13.91	13.93	8.15	2.20	2.22	8.62	1.93	1.95	9.46	2.03	2.05
29560	19.38	13.90	13.92	8.16	2.21	2.23	8.63	1.94	1.95	9.46	2.03	2.05
29590	19.37	13.89	13.92	8.15	2.20	2.23	8.61	1.92	1.95	9.43	2.00	2.03
29620	19.35	13.87	13.89	8.16	2.21	2.23	8.62	1.93	1.96	9.44	2.01	2.04
29650	19.37	13.89	13.92	8.15	2.20	2.23	8.61	1.92	1.96	9.44	2.01	2.04
29680	19.36	13.88	13.92	8.15	2.20	2.23	8.60	1.91	1.95	9.44	2.01	2.04
29710	19.35	13.87	13.91	8.13	2.18	2.23	8.59	1.90	1.94	9.43	2.00	2.04

29740	19.34	13.86	13.91	8.13	2.18	2.23	8.59	1.90	1.95	9.43	2.00	2.05
29770	19.36	13.88	13.93	8.14	2.19	2.24	8.60	1.91	1.95	9.43	2.00	2.05
29800	19.35	13.87	13.92	8.13	2.18	2.24	8.59	1.90	1.95	9.43	2.00	2.05
29830	19.37	13.89	13.93	8.16	2.21	2.25	8.63	1.94	1.98	9.46	2.03	2.06
29860	19.40	13.92	13.95	8.16	2.21	2.24	8.62	1.93	1.97	9.45	2.02	2.06
29890	19.37	13.89	13.93	8.14	2.19	2.23	8.61	1.92	1.95	9.44	2.01	2.05
29920	19.34	13.86	13.91	8.11	2.16	2.22	8.57	1.88	1.93	9.41	1.98	2.03
29950	19.32	13.84	13.89	8.12	2.17	2.22	8.57	1.88	1.93	9.41	1.98	2.03
29980	19.33	13.85	13.90	8.13	2.18	2.22	8.58	1.89	1.94	9.42	1.99	2.04
30010	19.35	13.87	13.92	8.13	2.18	2.22	8.58	1.88	1.93	9.42	1.99	2.04
30040	19.36	13.88	13.93	8.12	2.17	2.22	8.58	1.88	1.93	9.42	1.99	2.04
30070	19.03	13.55	13.60	8.11	2.16	2.21	8.57	1.88	1.93	9.42	1.99	2.04
30100	19.03	13.55	13.60	8.10	2.15	2.20	8.56	1.87	1.92	9.41	1.98	2.03
30130	19.04	13.56	13.61	8.10	2.15	2.20	8.55	1.86	1.91	9.40	1.97	2.02
30160	19.01	13.53	13.59	8.08	2.13	2.19	8.55	1.86	1.91	9.39	1.96	2.02
30190	18.98	13.50	13.56	8.09	2.14	2.19	8.55	1.86	1.91	9.39	1.96	2.02
30220	18.97	13.49	13.55	8.08	2.13	2.19	8.54	1.85	1.91	9.39	1.96	2.02
30250	19.01	13.53	13.59	8.08	2.13	2.19	8.54	1.85	1.91	9.39	1.96	2.02
30280	18.99	13.51	13.58	8.08	2.13	2.19	8.53	1.84	1.91	9.38	1.95	2.01
30310	18.98	13.50	13.57	8.07	2.12	2.19	8.53	1.84	1.91	9.38	1.95	2.01
30340	19.00	13.52	13.60	8.06	2.11	2.19	8.53	1.84	1.91	9.37	1.94	2.02
30370	19.01	13.53	13.60	8.07	2.12	2.19	8.53	1.84	1.91	9.38	1.95	2.02
30400	19.00	13.52	13.60	8.06	2.11	2.19	8.52	1.83	1.91	9.38	1.95	2.03
30430	19.02	13.54	13.62	8.07	2.12	2.20	8.53	1.84	1.91	9.38	1.95	2.03
30460	19.01	13.53	13.61	8.06	2.11	2.19	8.52	1.83	1.92	9.38	1.95	2.03
30490	18.99	13.51	13.60	8.06	2.11	2.20	8.52	1.83	1.92	9.38	1.95	2.03
30520	18.97	13.49	13.58	8.06	2.11	2.20	8.52	1.83	1.92	9.37	1.94	2.03
30550	19.00	13.52	13.61	8.06	2.11	2.20	8.52	1.83	1.92	9.38	1.95	2.03
30580	19.01	13.53	13.61	8.08	2.13	2.21	8.53	1.84	1.93	9.38	1.95	2.03
30610	19.02	13.54	13.62	8.08	2.13	2.21	8.54	1.85	1.93	9.39	1.96	2.04
30640	19.01	13.53	13.61	8.08	2.13	2.21	8.54	1.85	1.93	9.39	1.96	2.04
30670	19.04	13.56	13.64	8.08	2.13	2.20	8.54	1.85	1.93	9.39	1.96	2.04
30700	19.03	13.55	13.63	8.08	2.13	2.21	8.54	1.85	1.93	9.39	1.96	2.04
30730	19.02	13.54	13.62	8.08	2.13	2.21	8.54	1.85	1.93	9.39	1.96	2.04
30760	19.03	13.55	13.62	8.09	2.14	2.21	8.55	1.86	1.93	9.40	1.97	2.04
30790	19.06	13.58	13.65	8.09	2.14	2.21	8.55	1.86	1.93	9.40	1.97	2.04
30820	19.05	13.57	13.64	8.10	2.15	2.21	8.55	1.86	1.93	9.40	1.97	2.04
30850	19.04	13.56	13.63	8.10	2.15	2.21	8.55	1.86	1.93	9.40	1.97	2.04
30880	19.02	13.54	13.61	8.10	2.15	2.21	8.55	1.86	1.93	9.40	1.97	2.04
30910	19.05	13.57	13.64	8.10	2.15	2.21	8.55	1.86	1.93	9.41	1.98	2.05
30940	19.05	13.57	13.64	8.10	2.15	2.21	8.55	1.86	1.93	9.39	1.96	2.03
30970	19.02	13.54	13.61	8.10	2.15	2.21	8.55	1.86	1.93	9.41	1.98	2.05
31000	19.08	13.60	13.67	8.10	2.15	2.22	8.55	1.86	1.93	9.41	1.98	2.05
31030	19.06	13.58	13.65	8.10	2.15	2.22	8.56	1.87	1.94	9.40	1.97	2.04
31060	19.06	13.58	13.65	8.10	2.15	2.22	8.56	1.87	1.94	9.41	1.98	2.05
31090	19.03	13.55	13.62	8.10	2.15	2.22	8.56	1.87	1.94	9.40	1.97	2.04
31120	19.08	13.60	13.67	8.10	2.15	2.22	8.56	1.87	1.94	9.40	1.97	2.04

31150	19.07	13.59	13.66	8.11	2.16	2.23	8.57	1.87	1.94	9.42	1.99	2.05
31180	19.06	13.58	13.65	8.11	2.16	2.22	8.57	1.87	1.94	9.41	1.98	2.05
31210	19.09	13.61	13.67	8.11	2.16	2.23	8.57	1.88	1.95	9.42	1.99	2.06
31240	19.10	13.62	13.68	8.12	2.17	2.23	8.58	1.88	1.95	9.42	1.99	2.05
31270	19.09	13.61	13.67	8.13	2.18	2.24	8.58	1.89	1.96	9.43	2.00	2.06
31300	19.07	13.59	13.65	8.13	2.18	2.24	8.59	1.90	1.96	9.43	2.00	2.06
31330	19.10	13.62	13.67	8.13	2.18	2.24	8.59	1.90	1.96	9.43	2.00	2.06
31360	19.10	13.62	13.67	8.13	2.18	2.24	8.60	1.91	1.97	9.44	2.01	2.07
31390	19.08	13.60	13.65	8.13	2.18	2.24	8.61	1.92	1.97	9.44	2.01	2.07
31420	19.12	13.64	13.69	8.14	2.19	2.24	8.61	1.92	1.97	9.45	2.02	2.07
31450	19.11	13.63	13.67	8.15	2.20	2.24	8.62	1.93	1.98	9.45	2.02	2.07
31480	19.12	13.64	13.68	8.15	2.20	2.24	8.62	1.93	1.97	9.45	2.02	2.06
31510	19.10	13.62	13.66	8.15	2.20	2.23	8.62	1.93	1.97	9.46	2.03	2.06
31540	19.12	13.64	13.67	8.15	2.20	2.24	8.62	1.93	1.97	9.46	2.03	2.06
31570	19.11	13.63	13.66	8.14	2.19	2.23	8.62	1.93	1.97	9.45	2.02	2.06
31600	19.10	13.62	13.66	8.14	2.19	2.23	8.62	1.93	1.97	9.45	2.02	2.05
31630	19.09	13.61	13.65	8.15	2.20	2.24	8.62	1.93	1.97	9.45	2.02	2.06
31660	19.12	13.64	13.68	8.14	2.19	2.23	8.62	1.93	1.97	9.45	2.02	2.06
31690	19.09	13.61	13.65	8.14	2.19	2.23	8.62	1.93	1.97	9.46	2.03	2.07
31720	19.07	13.59	13.63	8.14	2.19	2.23	8.62	1.93	1.97	9.45	2.02	2.06
31750	19.12	13.64	13.68	8.14	2.19	2.23	8.61	1.92	1.97	9.45	2.02	2.06
31780	19.12	13.64	13.68	8.14	2.19	2.23	8.62	1.93	1.97	9.45	2.02	2.06
31810	19.11	13.63	13.67	8.13	2.18	2.23	8.61	1.92	1.96	9.45	2.02	2.06
31840	19.10	13.62	13.66	8.14	2.19	2.23	8.62	1.93	1.97	9.45	2.02	2.06
31870	19.12	13.64	13.68	8.15	2.20	2.24	8.62	1.93	1.97	9.46	2.03	2.07
31900	19.13	13.65	13.69	8.14	2.19	2.23	8.62	1.93	1.97	9.45	2.02	2.06
31930	19.10	13.62	13.66	8.13	2.18	2.23	8.61	1.92	1.96	9.45	2.02	2.06
31960	19.09	13.61	13.65	8.14	2.19	2.23	8.61	1.92	1.97	9.45	2.02	2.06
31990	19.12	13.64	13.68	8.15	2.20	2.23	8.62	1.93	1.97	9.46	2.03	2.07
32020	19.13	13.65	13.69	8.15	2.20	2.23	8.63	1.94	1.97	9.46	2.03	2.07
32050	19.12	13.64	13.67	8.15	2.20	2.23	8.63	1.94	1.97	9.47	2.04	2.07
32080	19.14	13.66	13.69	8.16	2.21	2.24	8.63	1.94	1.97	9.47	2.04	2.07
32110	19.12	13.64	13.67	8.16	2.21	2.23	8.64	1.95	1.97	9.47	2.04	2.07
32140	19.14	13.66	13.69	8.16	2.21	2.24	8.64	1.95	1.97	9.48	2.05	2.07
32170	19.16	13.68	13.71	8.16	2.21	2.24	8.64	1.95	1.97	9.48	2.05	2.07
32200	19.17	13.69	13.71	8.17	2.22	2.24	8.64	1.95	1.97	9.48	2.05	2.07
32230	19.16	13.68	13.70	8.17	2.22	2.24	8.64	1.95	1.97	9.49	2.06	2.08
32260	19.19	13.71	13.73	8.18	2.23	2.24	8.65	1.96	1.97	9.49	2.06	2.08
32290	19.17	13.69	13.71	8.17	2.22	2.24	8.64	1.95	1.97	9.49	2.06	2.07
32320	19.16	13.68	13.70	8.16	2.21	2.23	8.64	1.95	1.97	9.48	2.05	2.07
32350	19.15	13.67	13.69	8.17	2.22	2.24	8.64	1.95	1.97	9.48	2.05	2.07
32380	19.19	13.71	13.73	8.17	2.22	2.24	8.64	1.95	1.97	9.48	2.05	2.07
32410	19.18	13.70	13.72	8.17	2.22	2.24	8.64	1.95	1.97	9.48	2.05	2.07
32440	19.15	13.67	13.69	8.16	2.21	2.24	8.64	1.95	1.97	9.48	2.05	2.07
32470	19.16	13.68	13.71	8.16	2.21	2.24	8.64	1.95	1.97	9.47	2.04	2.07
32500	19.17	13.69	13.72	8.16	2.21	2.24	8.64	1.95	1.98	9.47	2.04	2.07
32530	19.14	13.66	13.69	8.16	2.21	2.24	8.64	1.95	1.97	9.47	2.04	2.07

32560	19.18	13.70	13.73	8.16	2.21	2.24	8.64	1.95	1.97	9.46	2.03	2.06
32590	19.20	13.72	13.75	8.17	2.22	2.25	8.64	1.95	1.98	9.47	2.04	2.07
32620	19.17	13.69	13.72	8.17	2.22	2.25	8.64	1.95	1.98	9.47	2.04	2.07
32650	19.17	13.69	13.72	8.17	2.22	2.25	8.64	1.95	1.98	9.47	2.04	2.07
32680	19.21	13.73	13.76	8.18	2.23	2.26	8.64	1.95	1.98	9.48	2.05	2.08
32710	19.20	13.72	13.75	8.18	2.23	2.26	8.65	1.96	1.99	9.49	2.06	2.08
32740	19.19	13.71	13.73	8.19	2.24	2.26	8.66	1.97	1.99	9.49	2.06	2.08
32770	19.18	13.70	13.72	8.20	2.25	2.27	8.67	1.98	2.00	9.50	2.07	2.09
32800	7.53	2.05	2.06	7.80	1.85	1.87	8.49	1.80	1.82	9.35	1.92	1.93
32830	18.82	13.34	13.35	8.10	2.15	2.16	8.56	1.87	1.88	9.40	1.97	1.98
32860	18.88	13.40	13.41	8.13	2.18	2.19	8.61	1.92	1.93	9.44	2.01	2.02
32890	12.17	6.69	6.69	8.06	2.11	2.11	8.61	1.92	1.92	9.45	2.02	2.02
32920	18.77	13.29	13.29	8.04	2.09	2.10	8.51	1.82	1.83	9.36	1.93	1.93
32950	18.85	13.37	13.37	8.10	2.15	2.15	8.57	1.88	1.88	9.41	1.98	1.99
32980	14.71	9.23	9.23	7.78	1.83	1.84	8.39	1.70	1.71	9.24	1.81	1.81
33010	18.77	13.29	13.29	8.06	2.11	2.11	8.53	1.84	1.84	9.37	1.94	1.94
33040	15.75	10.27	10.27	7.79	1.84	1.84	8.37	1.68	1.68	9.21	1.78	1.79
33070	18.67	13.19	13.19	8.04	2.09	2.09	8.51	1.82	1.82	9.35	1.92	1.92
33100	18.15	12.67	12.67	7.90	1.95	1.95	8.40	1.71	1.71	9.25	1.82	1.81
33130	10.31	4.83	4.83	7.89	1.94	1.94	8.47	1.78	1.78	9.32	1.88	1.89
33160	18.44	12.96	12.96	7.96	2.01	2.01	8.44	1.75	1.75	9.27	1.84	1.85
33190	7.27	1.79	1.79	7.63	1.68	1.68	8.33	1.64	1.64	9.18	1.75	1.75
33220	18.46	12.98	12.98	7.98	2.03	2.04	8.45	1.76	1.77	9.29	1.86	1.87
33250	16.50	11.02	11.03	7.77	1.82	1.82	8.33	1.64	1.64	9.16	1.73	1.74
33280	18.41	12.93	12.94	7.99	2.04	2.05	8.47	1.78	1.79	9.31	1.88	1.89
33310	17.84	12.36	12.37	7.86	1.91	1.92	8.37	1.67	1.68	9.20	1.77	1.78
33340	18.38	12.90	12.91	8.01	2.06	2.06	8.48	1.79	1.80	9.32	1.89	1.90
33370	17.79	12.31	12.31	7.87	1.92	1.92	8.37	1.68	1.69	9.21	1.78	1.78
33400	18.37	12.89	12.89	8.02	2.07	2.07	8.49	1.80	1.80	9.33	1.90	1.90
33430	18.08	12.60	12.60	7.91	1.96	1.96	8.40	1.71	1.71	9.24	1.81	1.81
33460	18.40	12.92	12.92	8.03	2.08	2.08	8.50	1.81	1.81	9.34	1.91	1.91
33490	18.31	12.83	12.83	8.00	2.05	2.05	8.48	1.79	1.78	9.32	1.89	1.88
33520	18.42	12.94	12.93	8.08	2.13	2.12	8.55	1.86	1.85	9.39	1.96	1.95
33550	18.46	12.98	12.97	8.11	2.16	2.15	8.58	1.89	1.88	9.43	2.00	1.99
33580	18.47	12.99	12.98	8.14	2.19	2.18	8.62	1.93	1.92	9.46	2.03	2.01
33610	18.54	13.06	13.05	8.16	2.21	2.19	8.64	1.95	1.93	9.48	2.05	2.04
33640	18.58	13.10	13.08	8.17	2.22	2.21	8.64	1.95	1.94	9.49	2.06	2.05
33670	18.56	13.08	13.06	8.18	2.23	2.21	8.65	1.96	1.95	9.50	2.07	2.05
33700	18.55	13.07	13.05	8.18	2.23	2.21	8.66	1.97	1.95	9.50	2.07	2.06
33730	18.58	13.10	13.08	8.19	2.24	2.22	8.66	1.97	1.95	9.51	2.08	2.06
33760	18.60	13.12	13.10	8.20	2.25	2.23	8.66	1.97	1.96	9.51	2.08	2.06
33790	18.61	13.13	13.11	8.20	2.25	2.23	8.66	1.97	1.96	9.51	2.08	2.07
33820	18.62	13.14	13.13	8.20	2.25	2.23	8.66	1.97	1.96	9.50	2.07	2.06
33850	18.62	13.14	13.13	8.19	2.24	2.23	8.66	1.97	1.97	9.50	2.07	2.06
33880	18.60	13.12	13.11	8.19	2.24	2.24	8.66	1.97	1.97	9.51	2.08	2.07
33910	18.63	13.15	13.15	8.19	2.24	2.24	8.66	1.97	1.97	9.50	2.07	2.07
33940	18.64	13.16	13.16	8.19	2.24	2.24	8.66	1.97	1.97	9.49	2.06	2.06

33970	18.63	13.15	13.16	8.20	2.25	2.25	8.67	1.98	1.98	9.50	2.07	2.07
34000	18.63	13.15	13.16	8.19	2.24	2.25	8.67	1.98	1.98	9.50	2.07	2.08
34030	18.61	13.13	13.14	8.20	2.25	2.26	8.66	1.97	1.98	9.50	2.07	2.08
34060	18.65	13.17	13.18	8.20	2.25	2.26	8.67	1.98	1.99	9.50	2.07	2.08
34090	18.65	13.17	13.19	8.20	2.25	2.26	8.67	1.98	1.99	9.50	2.07	2.09
34120	18.66	13.18	13.20	8.20	2.25	2.26	8.67	1.98	2.00	9.51	2.08	2.09
34150	18.65	13.17	13.19	8.20	2.25	2.27	8.67	1.98	2.00	9.51	2.08	2.10
34180	18.65	13.17	13.19	8.20	2.25	2.27	8.68	1.99	2.00	9.52	2.09	2.10
34210	18.67	13.19	13.21	8.21	2.26	2.27	8.68	1.99	2.00	9.52	2.09	2.10
34240	18.69	13.21	13.22	8.22	2.27	2.28	8.68	1.99	2.01	9.52	2.09	2.10
34270	18.68	13.20	13.21	8.22	2.27	2.28	8.69	2.00	2.01	9.52	2.09	2.10
34300	18.68	13.20	13.21	8.22	2.27	2.28	8.69	2.00	2.01	9.53	2.10	2.11
34330	18.67	13.19	13.20	8.22	2.27	2.28	8.70	2.00	2.01	9.53	2.10	2.11
34360	18.70	13.22	13.23	8.22	2.27	2.28	8.69	2.00	2.01	9.53	2.10	2.11
34390	18.71	13.23	13.23	8.22	2.27	2.28	8.69	2.00	2.01	9.53	2.10	2.10
34420	18.69	13.21	13.21	8.22	2.27	2.27	8.69	2.00	2.00	9.53	2.10	2.10
34450	18.69	13.21	13.21	8.22	2.27	2.27	8.69	2.00	2.00	9.53	2.10	2.11
34480	18.68	13.20	13.21	8.22	2.27	2.27	8.69	2.00	2.00	9.53	2.10	2.11
34510	18.71	13.23	13.24	8.22	2.27	2.27	8.69	2.00	2.00	9.53	2.10	2.11
34540	18.70	13.22	13.23	8.22	2.27	2.27	8.69	2.00	2.00	9.53	2.10	2.11
34570	18.69	13.21	13.22	8.21	2.26	2.27	8.68	1.99	2.00	9.53	2.10	2.10
34600	18.70	13.22	13.23	8.21	2.26	2.27	8.68	1.99	2.00	9.52	2.09	2.10
34630	18.69	13.21	13.22	8.21	2.26	2.27	8.68	1.99	2.00	9.52	2.09	2.10
34660	18.71	13.23	13.24	8.20	2.25	2.26	8.68	1.99	2.00	9.52	2.09	2.10
34690	18.71	13.23	13.24	8.20	2.25	2.27	8.68	1.99	2.00	9.52	2.09	2.10
34720	18.70	13.22	13.24	8.21	2.26	2.27	8.68	1.99	2.00	9.52	2.09	2.10
34750	18.69	13.21	13.23	8.20	2.25	2.27	8.68	1.99	2.00	9.52	2.09	2.10
34780	18.73	13.25	13.26	8.21	2.26	2.28	8.68	1.99	2.01	9.52	2.09	2.11
34810	18.72	13.24	13.25	8.21	2.26	2.27	8.69	2.00	2.01	9.53	2.10	2.11
34840	18.72	13.24	13.25	8.22	2.27	2.28	8.69	2.00	2.01	9.53	2.10	2.11
34870	18.73	13.25	13.26	8.22	2.27	2.27	8.69	2.00	2.01	9.53	2.10	2.11
34900	18.77	13.29	13.29	8.22	2.27	2.27	8.69	2.00	2.01	9.53	2.10	2.11
34930	18.76	13.28	13.28	8.22	2.27	2.28	8.69	2.00	2.01	9.53	2.10	2.11
34960	18.74	13.26	13.26	8.22	2.27	2.28	8.69	2.00	2.01	9.54	2.11	2.12
34990	18.75	13.27	13.27	8.22	2.27	2.28	8.70	2.00	2.01	9.54	2.11	2.12
35020	18.74	13.26	13.26	8.23	2.28	2.28	8.70	2.01	2.01	9.55	2.12	2.12
35050	18.77	13.29	13.29	8.23	2.28	2.28	8.71	2.02	2.02	9.55	2.12	2.12
35080	18.77	13.29	13.29	8.23	2.28	2.29	8.70	2.01	2.02	9.55	2.12	2.13
35110	18.77	13.29	13.29	8.23	2.28	2.29	8.70	2.01	2.02	9.55	2.12	2.13
35140	18.77	13.29	13.29	8.23	2.28	2.29	8.71	2.02	2.02	9.55	2.12	2.12
35170	18.77	13.29	13.29	8.24	2.29	2.30	8.71	2.02	2.02	9.56	2.13	2.13
35200	18.79	13.31	13.32	8.23	2.28	2.29	8.71	2.02	2.02	9.56	2.13	2.13
35230	18.79	13.31	13.32	8.23	2.28	2.29	8.70	2.01	2.02	9.55	2.12	2.13
35260	18.79	13.31	13.32	8.23	2.28	2.29	8.69	2.00	2.01	9.52	2.09	2.10
35290	18.77	13.29	13.31	8.23	2.28	2.30	8.70	2.01	2.03	9.53	2.10	2.12
35320	18.80	13.32	13.35	8.23	2.28	2.30	8.69	2.00	2.03	9.53	2.10	2.12
35350	18.81	13.33	13.36	8.22	2.27	2.30	8.69	2.00	2.03	9.54	2.11	2.14

35380	18.79	13.31	13.35	8.22	2.27	2.31	8.69	2.00	2.03	9.53	2.10	2.13
35410	18.79	13.31	13.35	8.22	2.27	2.31	8.69	2.00	2.04	9.53	2.10	2.14
35440	18.82	13.34	13.38	8.22	2.27	2.31	8.69	2.00	2.04	9.52	2.09	2.13
35470	18.80	13.32	13.37	8.23	2.28	2.32	8.70	2.01	2.05	9.54	2.11	2.15
35500	18.81	13.33	13.38	8.23	2.28	2.32	8.70	2.00	2.05	9.54	2.11	2.15
35530	18.82	13.34	13.39	8.23	2.28	2.33	8.70	2.01	2.06	9.54	2.11	2.16
35560	18.83	13.35	13.40	8.24	2.29	2.34	8.71	2.02	2.07	9.55	2.12	2.16
35590	18.86	13.38	13.43	8.23	2.28	2.33	8.71	2.02	2.06	9.55	2.12	2.17
35620	18.85	13.37	13.42	8.24	2.29	2.34	8.71	2.02	2.07	9.55	2.12	2.17
35650	18.85	13.37	13.42	8.24	2.29	2.34	8.71	2.02	2.07	9.55	2.12	2.17
35680	18.83	13.35	13.40	8.24	2.29	2.34	8.71	2.02	2.07	9.55	2.12	2.17
35710	18.82	13.34	13.40	8.24	2.29	2.34	8.71	2.02	2.07	9.55	2.12	2.18
35740	18.82	13.34	13.39	8.25	2.30	2.35	8.72	2.03	2.08	9.56	2.13	2.18
35770	18.87	13.39	13.44	8.25	2.30	2.35	8.72	2.03	2.08	9.56	2.13	2.18
35800	18.87	13.39	13.44	8.26	2.31	2.36	8.73	2.04	2.09	9.57	2.14	2.19
35830	18.87	13.39	13.44	8.26	2.31	2.36	8.73	2.04	2.09	9.57	2.14	2.19
35860	18.86	13.38	13.43	8.26	2.31	2.36	8.73	2.04	2.09	9.57	2.14	2.19
35890	18.84	13.36	13.41	8.25	2.30	2.35	8.73	2.04	2.09	9.57	2.14	2.18
35920	18.88	13.40	13.45	8.25	2.30	2.35	8.72	2.03	2.08	9.56	2.13	2.18
35950	18.87	13.39	13.44	8.25	2.30	2.35	8.72	2.03	2.08	9.56	2.13	2.18
35980	18.85	13.37	13.43	8.25	2.30	2.35	8.71	2.02	2.08	9.56	2.13	2.18
36010	18.85	13.37	13.42	8.25	2.30	2.35	8.72	2.03	2.08	9.56	2.13	2.18
36040	18.82	13.34	13.39	8.25	2.30	2.35	8.72	2.03	2.08	9.56	2.13	2.18
36070	18.85	13.37	13.43	8.25	2.30	2.35	8.71	2.02	2.08	9.56	2.13	2.18
36100	18.84	13.36	13.42	8.24	2.29	2.35	8.71	2.02	2.08	9.56	2.13	2.18
36130	18.84	13.36	13.42	8.23	2.28	2.35	8.71	2.02	2.08	9.55	2.12	2.18
36160	18.84	13.36	13.42	8.23	2.28	2.35	8.71	2.02	2.08	9.55	2.12	2.19
36190	18.83	13.35	13.42	8.23	2.28	2.35	8.71	2.02	2.08	9.55	2.12	2.19
36220	18.88	13.40	13.46	8.24	2.29	2.35	8.71	2.02	2.08	9.56	2.13	2.19
36250	18.87	13.39	13.45	8.23	2.28	2.35	8.71	2.02	2.08	9.55	2.12	2.19
36280	18.89	13.41	13.47	8.24	2.29	2.35	8.71	2.02	2.08	9.56	2.13	2.19
36310	18.85	13.37	13.43	8.25	2.30	2.36	8.71	2.02	2.09	9.56	2.13	2.19
36340	18.85	13.37	13.43	8.25	2.30	2.36	8.71	2.02	2.09	9.56	2.13	2.19
36370	18.89	13.41	13.46	8.25	2.30	2.36	8.72	2.03	2.09	9.57	2.14	2.20
36400	18.88	13.40	13.45	8.25	2.30	2.36	8.72	2.03	2.09	9.57	2.14	2.20
36430	18.87	13.39	13.45	8.25	2.30	2.36	8.72	2.03	2.09	9.57	2.14	2.19
36460	18.86	13.38	13.44	8.25	2.30	2.35	8.72	2.03	2.09	9.57	2.14	2.20
36490	18.85	13.37	13.43	8.25	2.30	2.35	8.72	2.03	2.08	9.57	2.14	2.20
36520	18.89	13.41	13.47	8.25	2.30	2.36	8.72	2.03	2.09	9.57	2.14	2.19
36550	18.89	13.41	13.46	8.26	2.31	2.37	8.72	2.03	2.09	9.58	2.15	2.20
36580	18.89	13.41	13.47	8.25	2.30	2.36	8.72	2.03	2.09	9.58	2.15	2.21
36610	18.89	13.41	13.47	8.25	2.30	2.36	8.72	2.03	2.09	9.57	2.14	2.20
36640	18.88	13.40	13.46	8.25	2.30	2.36	8.72	2.03	2.09	9.56	2.13	2.19
36670	18.93	13.45	13.51	8.25	2.30	2.36	8.72	2.03	2.10	9.57	2.14	2.20
36700	18.94	13.46	13.53	8.25	2.30	2.37	8.72	2.03	2.10	9.59	2.16	2.23
36730	18.93	13.45	13.52	8.24	2.29	2.37	8.71	2.02	2.09	9.56	2.13	2.20
36760	18.92	13.44	13.52	8.25	2.30	2.38	8.71	2.02	2.10	9.56	2.13	2.21

36790	18.92	13.44	13.52	8.26	2.31	2.39	8.72	2.03	2.11	9.57	2.14	2.22
36820	18.92	13.44	13.52	8.26	2.31	2.39	8.72	2.03	2.12	9.57	2.14	2.22
36850	18.96	13.48	13.57	8.26	2.31	2.39	8.72	2.03	2.11	9.56	2.13	2.21
36880	18.95	13.47	13.56	8.25	2.30	2.39	8.71	2.02	2.11	9.56	2.13	2.22
36910	18.95	13.47	13.56	8.26	2.31	2.40	8.73	2.04	2.13	9.57	2.14	2.23
36940	18.94	13.46	13.55	8.26	2.31	2.40	8.73	2.04	2.13	9.57	2.14	2.23
36970	18.92	13.44	13.53	8.27	2.32	2.41	8.73	2.04	2.13	9.57	2.14	2.23
37000	18.93	13.45	13.54	8.27	2.32	2.41	8.73	2.04	2.13	9.58	2.15	2.24
37030	18.97	13.49	13.58	8.27	2.32	2.41	8.74	2.05	2.14	9.58	2.15	2.24
37060	18.95	13.47	13.56	8.28	2.33	2.42	8.74	2.05	2.14	9.59	2.16	2.24
37090	18.95	13.47	13.56	8.29	2.34	2.42	8.75	2.06	2.15	9.59	2.16	2.25
37120	18.95	13.47	13.56	8.29	2.34	2.43	8.75	2.06	2.15	9.60	2.17	2.26
37150	18.94	13.46	13.54	8.30	2.35	2.43	8.76	2.07	2.15	9.61	2.18	2.26
37180	18.98	13.50	13.58	8.30	2.35	2.42	8.76	2.07	2.15	9.61	2.18	2.26
37210	18.97	13.49	13.56	8.30	2.35	2.42	8.77	2.08	2.15	9.61	2.18	2.25
37240	18.97	13.49	13.56	8.30	2.35	2.42	8.77	2.08	2.14	9.61	2.18	2.25
37270	18.97	13.49	13.56	8.30	2.35	2.42	8.77	2.08	2.14	9.62	2.19	2.25
37300	18.98	13.50	13.56	8.30	2.35	2.41	8.77	2.08	2.14	9.62	2.19	2.25
37330	18.96	13.48	13.54	8.30	2.35	2.41	8.77	2.08	2.13	9.62	2.19	2.25
37360	18.95	13.47	13.53	8.30	2.35	2.41	8.77	2.08	2.13	9.62	2.19	2.24
37390	19.01	13.53	13.58	8.30	2.35	2.40	8.77	2.08	2.13	9.62	2.19	2.24
37420	18.99	13.51	13.57	8.29	2.34	2.39	8.76	2.07	2.12	9.61	2.18	2.23
37450	18.98	13.50	13.56	8.29	2.34	2.40	8.76	2.07	2.12	9.61	2.18	2.23
37480	18.97	13.49	13.55	8.29	2.34	2.39	8.75	2.06	2.12	9.60	2.17	2.23
37510	18.96	13.48	13.54	8.29	2.34	2.39	8.75	2.06	2.12	9.60	2.17	2.23
37540	18.96	13.48	13.54	8.28	2.33	2.39	8.75	2.06	2.12	9.59	2.16	2.22
37570	18.95	13.47	13.53	8.29	2.34	2.39	8.75	2.06	2.12	9.60	2.17	2.23
37600	18.99	13.51	13.57	8.29	2.34	2.39	8.75	2.06	2.12	9.60	2.17	2.23
37630	18.98	13.50	13.56	8.29	2.34	2.39	8.75	2.06	2.12	9.60	2.17	2.23
37660	18.97	13.49	13.55	8.29	2.34	2.39	8.75	2.06	2.12	9.60	2.17	2.23
37690	18.97	13.49	13.55	8.29	2.34	2.40	8.76	2.07	2.12	9.60	2.17	2.23
37720	18.96	13.48	13.54	8.29	2.34	2.39	8.76	2.07	2.12	9.61	2.18	2.23
37750	18.95	13.47	13.52	8.29	2.34	2.39	8.76	2.07	2.12	9.61	2.18	2.23
37780	18.95	13.47	13.52	8.29	2.34	2.39	8.76	2.07	2.12	9.61	2.18	2.23
37810	18.95	13.47	13.51	8.29	2.34	2.39	8.77	2.08	2.12	9.62	2.19	2.23
37840	19.01	13.53	13.57	8.30	2.35	2.40	8.77	2.08	2.12	9.62	2.19	2.24
37870	19.00	13.52	13.56	8.30	2.35	2.40	8.77	2.08	2.12	9.62	2.19	2.24
37900	18.99	13.51	13.55	8.31	2.36	2.40	8.78	2.08	2.13	9.63	2.20	2.24
37930	18.99	13.51	13.55	8.30	2.35	2.39	8.77	2.08	2.12	9.63	2.20	2.24
37960	18.99	13.51	13.55	8.31	2.36	2.40	8.78	2.08	2.13	9.63	2.20	2.24
37990	19.04	13.56	13.60	8.32	2.37	2.40	8.78	2.08	2.12	9.63	2.20	2.24
38020	7.45	1.97	2.00	7.86	1.91	1.94	8.55	1.86	1.90	9.43	2.00	2.03
38050	7.16	1.68	1.71	7.63	1.68	1.71	8.32	1.63	1.66	9.18	1.75	1.78
38080	7.03	1.55	1.58	7.48	1.53	1.56	8.19	1.50	1.53	9.04	1.61	1.65
38110	6.93	1.45	1.49	7.39	1.44	1.47	8.11	1.41	1.45	8.98	1.55	1.58
38140	6.87	1.39	1.42	7.33	1.38	1.41	8.04	1.35	1.38	8.87	1.44	1.48
38170	6.83	1.35	1.39	7.28	1.33	1.37	7.99	1.30	1.34	8.84	1.41	1.45

38200	16.93	11.45	11.49	7.61	1.66	1.70	8.12	1.43	1.47	8.94	1.51	1.55
38230	17.97	12.49	12.53	7.87	1.92	1.96	8.35	1.66	1.70	9.17	1.74	1.78
38260	18.23	12.75	12.79	8.01	2.06	2.09	8.48	1.79	1.83	9.34	1.91	1.94
38290	18.37	12.89	12.93	8.07	2.12	2.16	8.53	1.84	1.89	9.38	1.95	1.99
38320	18.42	12.94	12.98	8.11	2.16	2.21	8.59	1.90	1.94	9.43	2.00	2.04
38350	18.46	12.98	13.02	8.15	2.20	2.24	8.63	1.94	1.98	9.46	2.03	2.07
38380	18.49	13.01	13.06	8.17	2.22	2.27	8.65	1.96	2.01	9.48	2.05	2.10
38410	18.49	13.01	13.06	8.19	2.24	2.29	8.67	1.98	2.03	9.50	2.07	2.12
38440	18.49	13.01	13.06	8.20	2.25	2.30	8.68	1.99	2.04	9.51	2.08	2.13
38470	18.51	13.03	13.08	8.22	2.27	2.32	8.70	2.01	2.05	9.53	2.10	2.15
38500	18.56	13.08	13.12	8.23	2.28	2.32	8.71	2.02	2.06	9.54	2.11	2.16
38530	18.56	13.08	13.12	8.24	2.29	2.34	8.72	2.03	2.07	9.55	2.12	2.16
38560	18.56	13.08	13.12	8.25	2.30	2.34	8.73	2.04	2.08	9.56	2.13	2.17
38590	18.55	13.07	13.11	8.25	2.30	2.35	8.73	2.04	2.09	9.56	2.13	2.18
38620	18.55	13.07	13.11	8.26	2.31	2.35	8.74	2.05	2.09	9.57	2.14	2.18
38650	18.54	13.06	13.10	8.26	2.31	2.35	8.74	2.05	2.08	9.57	2.14	2.18
38680	18.55	13.07	13.10	8.27	2.32	2.35	8.74	2.05	2.09	9.58	2.15	2.18
38710	18.60	13.12	13.15	8.27	2.32	2.35	8.74	2.05	2.09	9.58	2.15	2.18
38740	18.57	13.09	13.12	8.27	2.32	2.35	8.74	2.05	2.08	9.58	2.15	2.18
38770	18.54	13.06	13.09	8.27	2.32	2.35	8.74	2.05	2.08	9.58	2.15	2.18
38800	18.56	13.08	13.11	8.27	2.32	2.35	8.74	2.05	2.08	9.58	2.15	2.18
38830	18.55	13.07	13.10	8.26	2.31	2.34	8.73	2.04	2.07	9.57	2.14	2.17
38860	18.59	13.11	13.14	8.26	2.31	2.34	8.73	2.04	2.07	9.57	2.14	2.17
38890	18.57	13.09	13.12	8.26	2.31	2.34	8.73	2.04	2.07	9.57	2.14	2.17
38920	18.57	13.09	13.12	8.25	2.30	2.34	8.73	2.04	2.07	9.56	2.13	2.17
38950	18.55	13.07	13.11	8.25	2.30	2.34	8.72	2.03	2.07	9.57	2.14	2.17
38980	18.55	13.07	13.11	8.25	2.30	2.34	8.72	2.03	2.07	9.57	2.14	2.17
39010	18.58	13.10	13.13	8.25	2.30	2.33	8.72	2.03	2.07	9.57	2.14	2.17
39040	18.58	13.10	13.13	8.25	2.30	2.33	8.72	2.03	2.07	9.57	2.14	2.17
39070	18.57	13.09	13.13	8.25	2.30	2.34	8.72	2.03	2.07	9.57	2.14	2.17
39100	18.57	13.09	13.12	8.25	2.30	2.34	8.73	2.04	2.07	9.57	2.14	2.18
39130	18.58	13.10	13.13	8.25	2.30	2.34	8.73	2.04	2.07	9.57	2.14	2.18
39160	18.55	13.07	13.10	8.25	2.30	2.34	8.73	2.04	2.07	9.57	2.14	2.18
39190	18.54	13.06	13.09	8.26	2.31	2.34	8.73	2.04	2.07	9.57	2.14	2.18
39220	18.55	13.07	13.10	8.27	2.32	2.35	8.74	2.05	2.08	9.58	2.15	2.18
39250	18.60	13.12	13.14	8.27	2.32	2.34	8.74	2.05	2.08	9.59	2.16	2.18
39280	18.60	13.12	13.14	8.27	2.32	2.35	8.75	2.06	2.08	9.59	2.16	2.18
39310	18.60	13.12	13.14	8.28	2.33	2.35	8.75	2.06	2.08	9.59	2.16	2.19
39340	7.26	1.78	1.80	7.73	1.78	1.80	8.44	1.75	1.77	9.30	1.87	1.89
39370	17.81	12.33	12.35	7.94	1.99	2.01	8.43	1.74	1.76	9.29	1.86	1.88
39400	18.29	12.81	12.83	8.10	2.15	2.16	8.56	1.87	1.89	9.42	1.99	2.01
39430	18.39	12.91	12.93	8.16	2.21	2.23	8.64	1.95	1.97	9.47	2.04	2.06
39460	18.42	12.94	12.95	8.19	2.24	2.26	8.67	1.98	2.00	9.51	2.08	2.10
39490	18.48	13.00	13.02	8.22	2.27	2.28	8.69	2.00	2.02	9.53	2.10	2.12
39520	18.49	13.01	13.03	8.23	2.28	2.30	8.71	2.02	2.03	9.54	2.11	2.13
39550	18.49	13.01	13.03	8.25	2.30	2.31	8.72	2.03	2.04	9.56	2.13	2.14
39580	18.48	13.00	13.02	8.25	2.30	2.31	8.72	2.03	2.04	9.56	2.13	2.14

39610	18.47	12.99	13.01	8.25	2.30	2.32	8.72	2.03	2.05	9.56	2.13	2.15
39640	18.46	12.98	13.00	8.25	2.30	2.32	8.73	2.04	2.06	9.57	2.14	2.16
39670	18.46	12.98	13.00	8.25	2.30	2.32	8.73	2.04	2.06	9.57	2.14	2.15
39700	18.50	13.02	13.04	8.26	2.31	2.33	8.73	2.04	2.06	9.57	2.14	2.16
39730	18.48	13.00	13.02	8.26	2.31	2.33	8.73	2.04	2.06	9.57	2.14	2.16
39760	18.48	13.00	13.02	8.26	2.31	2.33	8.73	2.04	2.06	9.58	2.15	2.17
39790	18.48	13.00	13.03	8.26	2.31	2.33	8.73	2.04	2.06	9.57	2.14	2.17
39820	18.47	12.99	13.02	8.26	2.31	2.34	8.73	2.04	2.06	9.57	2.14	2.16
39850	18.52	13.04	13.07	8.26	2.31	2.34	8.73	2.04	2.07	9.57	2.14	2.17
39880	18.49	13.01	13.04	8.27	2.32	2.34	8.74	2.05	2.07	9.58	2.15	2.17
39910	18.49	13.01	13.04	8.27	2.32	2.35	8.75	2.06	2.08	9.58	2.15	2.18
39940	18.50	13.02	13.05	8.28	2.33	2.36	8.75	2.06	2.09	9.59	2.16	2.19
39970	18.50	13.02	13.05	8.28	2.33	2.36	8.75	2.06	2.09	9.59	2.16	2.19
40000	18.47	12.99	13.02	8.29	2.34	2.36	8.76	2.07	2.09	9.59	2.16	2.19
40030	18.49	13.01	13.04	8.29	2.34	2.37	8.76	2.07	2.09	9.59	2.16	2.19
40060	18.48	13.00	13.03	8.29	2.34	2.36	8.76	2.07	2.10	9.60	2.17	2.19
40090	18.46	12.98	12.99	8.29	2.34	2.36	8.76	2.07	2.09	9.60	2.17	2.19
40120	18.46	12.98	13.00	8.29	2.34	2.36	8.76	2.07	2.09	9.60	2.17	2.19
40150	18.46	12.98	12.99	8.29	2.34	2.36	8.76	2.07	2.09	9.60	2.17	2.19
40180	18.44	12.96	12.97	8.30	2.35	2.36	8.77	2.08	2.09	9.60	2.17	2.19
40210	18.46	12.98	13.00	8.29	2.34	2.35	8.77	2.08	2.09	9.60	2.17	2.19
40240	18.46	12.98	13.00	8.29	2.34	2.35	8.76	2.07	2.08	9.60	2.17	2.18
40270	18.44	12.96	12.97	8.29	2.34	2.35	8.76	2.07	2.08	9.60	2.17	2.18
40300	18.42	12.94	12.95	8.29	2.34	2.35	8.76	2.07	2.08	9.60	2.17	2.18
40330	18.43	12.95	12.96	8.29	2.34	2.35	8.76	2.07	2.08	9.59	2.16	2.18
40360	18.45	12.97	12.98	8.28	2.33	2.34	8.75	2.06	2.08	9.59	2.16	2.17
40390	18.46	12.98	12.99	8.28	2.33	2.35	8.75	2.06	2.08	9.59	2.16	2.17
40420	18.44	12.96	12.97	8.28	2.33	2.35	8.75	2.06	2.07	9.59	2.16	2.17
40450	18.42	12.94	12.96	8.28	2.33	2.35	8.75	2.06	2.08	9.59	2.16	2.18
40480	18.40	12.92	12.94	8.27	2.32	2.34	8.75	2.06	2.08	9.59	2.16	2.18
40510	18.45	12.97	12.98	8.28	2.33	2.35	8.75	2.06	2.08	9.59	2.16	2.18
40540	18.44	12.96	12.97	8.28	2.33	2.35	8.75	2.06	2.08	9.59	2.16	2.18
40570	18.44	12.96	12.97	8.28	2.33	2.35	8.75	2.06	2.08	9.59	2.16	2.18
40600	18.42	12.94	12.95	8.28	2.33	2.35	8.75	2.06	2.08	9.60	2.17	2.18
40630	18.42	12.94	12.95	8.28	2.33	2.35	8.76	2.07	2.08	9.60	2.17	2.18
40660	18.42	12.94	12.95	8.29	2.34	2.35	8.76	2.07	2.09	9.60	2.17	2.19
40690	18.46	12.98	12.99	8.29	2.34	2.35	8.77	2.08	2.09	9.61	2.18	2.19
40720	18.45	12.97	12.97	8.30	2.35	2.36	8.77	2.08	2.09	9.62	2.19	2.20
40750	18.43	12.95	12.95	8.30	2.35	2.35	8.77	2.08	2.08	9.62	2.19	2.20
40780	18.45	12.97	12.97	8.30	2.35	2.36	8.77	2.08	2.09	9.62	2.19	2.20
40810	18.43	12.95	12.95	8.31	2.36	2.36	8.78	2.08	2.09	9.63	2.20	2.20
40840	18.47	12.99	12.99	8.31	2.36	2.36	8.78	2.08	2.08	9.63	2.20	2.20
40870	18.47	12.99	12.99	8.31	2.36	2.36	8.78	2.09	2.09	9.63	2.20	2.19
40900	18.47	12.99	12.99	8.31	2.36	2.36	8.78	2.08	2.08	9.63	2.20	2.19
40930	18.46	12.98	12.98	8.31	2.36	2.36	8.77	2.08	2.08	9.61	2.18	2.17
40960	18.46	12.98	12.97	8.31	2.36	2.36	8.78	2.09	2.08	9.64	2.21	2.20
40990	18.50	13.02	13.02	8.31	2.36	2.36	8.77	2.08	2.08	9.63	2.20	2.19

41020	18.48	13.00	13.00	8.31	2.36	2.36	8.77	2.08	2.08	9.62	2.19	2.19
41050	18.47	12.99	13.00	8.31	2.36	2.36	8.77	2.08	2.08	9.62	2.19	2.19
41080	18.46	12.98	12.99	8.30	2.35	2.36	8.77	2.08	2.08	9.61	2.18	2.19
41110	18.46	12.98	12.99	8.30	2.35	2.36	8.77	2.08	2.09	9.62	2.19	2.19
41140	18.47	12.99	13.00	8.31	2.36	2.37	8.77	2.08	2.09	9.61	2.18	2.19
41170	18.46	12.98	12.99	8.30	2.35	2.36	8.77	2.08	2.09	9.61	2.18	2.19
41200	18.49	13.01	13.02	8.30	2.35	2.37	8.77	2.08	2.09	9.61	2.18	2.19
41230	18.48	13.00	13.02	8.30	2.35	2.37	8.77	2.08	2.09	9.61	2.18	2.19
41260	18.47	12.99	13.01	8.30	2.35	2.37	8.77	2.08	2.09	9.61	2.18	2.20
41290	18.48	13.00	13.02	8.30	2.35	2.37	8.77	2.08	2.10	9.61	2.18	2.20
41320	18.46	12.98	13.00	8.30	2.35	2.37	8.77	2.08	2.10	9.61	2.18	2.20
41350	18.45	12.97	12.98	8.31	2.36	2.38	8.78	2.08	2.10	9.62	2.19	2.21
41380	18.46	12.98	13.00	8.31	2.36	2.38	8.78	2.08	2.11	9.62	2.19	2.21
41410	18.52	13.04	13.06	8.31	2.36	2.38	8.78	2.09	2.11	9.62	2.19	2.21
41440	18.57	13.09	13.11	8.32	2.37	2.39	8.78	2.09	2.11	9.62	2.19	2.21
41470	18.58	13.10	13.12	8.32	2.37	2.39	8.78	2.09	2.11	9.63	2.20	2.22
41500	18.58	13.10	13.12	8.32	2.37	2.39	8.79	2.10	2.12	9.63	2.20	2.22
41530	18.56	13.08	13.10	8.32	2.37	2.39	8.79	2.10	2.12	9.63	2.20	2.22
41560	18.56	13.08	13.10	8.33	2.38	2.40	8.79	2.10	2.12	9.64	2.21	2.22
41590	18.55	13.07	13.09	8.33	2.38	2.40	8.80	2.11	2.12	9.64	2.21	2.23
41620	18.54	13.06	13.08	8.33	2.38	2.40	8.79	2.10	2.12	9.64	2.21	2.23
41650	18.53	13.05	13.07	8.32	2.37	2.39	8.79	2.10	2.12	9.64	2.21	2.22
41680	18.54	13.06	13.08	8.32	2.37	2.39	8.79	2.10	2.12	9.63	2.20	2.22
41710	18.52	13.04	13.06	8.32	2.37	2.39	8.79	2.10	2.12	9.63	2.20	2.22
41740	18.59	13.11	13.13	8.32	2.37	2.40	8.79	2.10	2.12	9.63	2.20	2.22
41770	18.57	13.09	13.11	8.32	2.37	2.40	8.79	2.10	2.12	9.63	2.20	2.22
41800	18.57	13.09	13.12	8.32	2.37	2.40	8.79	2.10	2.13	9.63	2.20	2.22
41830	18.53	13.05	13.08	8.32	2.37	2.40	8.79	2.10	2.13	9.63	2.20	2.23
41860	18.53	13.05	13.08	8.32	2.37	2.40	8.78	2.09	2.13	9.63	2.20	2.23
41890	18.53	13.05	13.09	8.32	2.37	2.40	8.78	2.09	2.13	9.63	2.20	2.24
41920	18.52	13.04	13.08	8.32	2.37	2.41	8.79	2.10	2.14	9.64	2.21	2.24
41950	18.52	13.04	13.08	8.32	2.37	2.40	8.79	2.10	2.14	9.63	2.20	2.24
41980	18.57	13.09	13.13	8.32	2.37	2.40	8.79	2.10	2.13	9.63	2.20	2.24
42010	18.57	13.09	13.13	8.32	2.37	2.41	8.79	2.10	2.14	9.64	2.21	2.25
42040	18.56	13.08	13.11	8.32	2.37	2.41	8.79	2.10	2.14	9.64	2.21	2.25
42070	18.55	13.07	13.10	8.33	2.38	2.41	8.79	2.10	2.14	9.65	2.22	2.25
42100	18.54	13.06	13.09	8.33	2.38	2.41	8.80	2.11	2.14	9.65	2.22	2.25
42130	18.55	13.07	13.10	8.34	2.39	2.41	8.80	2.11	2.14	9.65	2.22	2.25
42160	18.53	13.05	13.08	8.34	2.39	2.41	8.80	2.11	2.14	9.65	2.22	2.25
42190	18.53	13.05	13.08	8.33	2.38	2.41	8.80	2.11	2.14	9.65	2.22	2.25
42220	18.56	13.08	13.11	8.34	2.39	2.41	8.80	2.11	2.14	9.65	2.22	2.25
42250	18.60	13.12	13.14	8.34	2.39	2.41	8.80	2.11	2.14	9.66	2.23	2.25
42280	18.58	13.10	13.12	8.34	2.39	2.41	8.80	2.11	2.13	9.65	2.22	2.25
42310	18.57	13.09	13.12	8.34	2.39	2.41	8.80	2.11	2.14	9.66	2.23	2.25
42340	18.56	13.08	13.10	8.34	2.39	2.41	8.80	2.11	2.14	9.66	2.23	2.25
42370	18.57	13.09	13.11	8.34	2.39	2.41	8.80	2.11	2.14	9.65	2.22	2.25
42400	18.56	13.08	13.10	8.34	2.39	2.41	8.80	2.11	2.14	9.66	2.23	2.25

42430	18.57	13.09	13.12	8.34	2.39	2.41	8.80	2.11	2.14	9.66	2.23	2.26
42460	18.56	13.08	13.11	8.33	2.38	2.41	8.80	2.11	2.14	9.64	2.21	2.24
42490	18.59	13.11	13.14	8.33	2.38	2.41	8.79	2.10	2.14	9.65	2.22	2.25
42520	18.58	13.10	13.14	8.32	2.37	2.41	8.79	2.10	2.14	9.62	2.19	2.23
42550	18.57	13.09	13.13	8.32	2.37	2.42	8.79	2.10	2.14	9.65	2.22	2.26
42580	18.58	13.10	13.14	8.32	2.37	2.42	8.79	2.10	2.15	9.62	2.19	2.24
42610	18.56	13.08	13.13	8.32	2.37	2.43	8.79	2.10	2.15	9.64	2.21	2.26
42640	18.57	13.09	13.14	8.32	2.37	2.42	8.79	2.10	2.15	9.64	2.21	2.26
42670	18.59	13.11	13.17	8.32	2.37	2.43	8.79	2.10	2.16	9.63	2.20	2.26
42700	18.60	13.12	13.18	8.32	2.37	2.44	8.79	2.10	2.17	9.63	2.20	2.27
42730	18.60	13.12	13.18	8.32	2.37	2.44	8.79	2.10	2.17	9.64	2.21	2.27
42760	18.63	13.15	13.22	8.32	2.37	2.44	8.79	2.10	2.17	9.64	2.21	2.27
42790	18.62	13.14	13.21	8.33	2.38	2.45	8.80	2.11	2.18	9.64	2.21	2.28
42820	18.62	13.14	13.21	8.34	2.39	2.46	8.80	2.11	2.18	9.65	2.22	2.29
42850	18.62	13.14	13.21	8.34	2.39	2.46	8.81	2.12	2.19	9.66	2.23	2.30
42880	18.61	13.13	13.19	8.34	2.39	2.46	8.81	2.12	2.19	9.66	2.23	2.30
42910	18.62	13.14	13.20	8.35	2.40	2.47	8.82	2.13	2.20	9.66	2.23	2.30
42940	18.64	13.16	13.23	8.34	2.39	2.46	8.82	2.13	2.20	9.66	2.23	2.30
42970	18.67	13.19	13.26	8.34	2.39	2.46	8.82	2.13	2.19	9.66	2.23	2.30
43000	18.67	13.19	13.26	8.35	2.40	2.46	8.82	2.13	2.19	9.67	2.24	2.30
43030	18.66	13.18	13.24	8.35	2.40	2.46	8.82	2.13	2.19	9.67	2.24	2.31
43060	18.67	13.19	13.25	8.35	2.40	2.46	8.83	2.13	2.20	9.67	2.24	2.30
43090	18.67	13.19	13.25	8.35	2.40	2.46	8.82	2.13	2.19	9.67	2.24	2.30
43120	18.67	13.19	13.25	8.35	2.40	2.46	8.82	2.13	2.19	9.67	2.24	2.30
43150	18.65	13.17	13.23	8.34	2.39	2.45	8.82	2.13	2.19	9.67	2.24	2.30
43180	18.69	13.21	13.27	8.34	2.39	2.45	8.82	2.13	2.18	9.67	2.24	2.30
43210	18.67	13.19	13.25	8.34	2.39	2.45	8.81	2.12	2.18	9.66	2.23	2.29
43240	18.66	13.18	13.24	8.34	2.39	2.45	8.81	2.12	2.18	9.66	2.23	2.29
43270	18.64	13.16	13.23	8.33	2.38	2.44	8.81	2.12	2.18	9.66	2.23	2.29
43300	18.63	13.15	13.22	8.33	2.38	2.44	8.80	2.11	2.18	9.66	2.23	2.29
43330	18.62	13.14	13.21	8.33	2.38	2.45	8.80	2.11	2.18	9.65	2.22	2.29
43360	18.61	13.13	13.20	8.32	2.37	2.44	8.80	2.11	2.18	9.65	2.22	2.29
43390	18.68	13.20	13.27	8.32	2.37	2.44	8.80	2.11	2.18	9.65	2.22	2.29
43420	18.64	13.16	13.23	8.33	2.38	2.45	8.81	2.12	2.19	9.66	2.23	2.29
43450	18.63	13.15	13.22	8.34	2.39	2.46	8.81	2.12	2.19	9.66	2.23	2.30
43480	18.62	13.14	13.21	8.34	2.39	2.45	8.81	2.12	2.19	9.66	2.23	2.30
43510	18.62	13.14	13.20	8.34	2.39	2.46	8.81	2.12	2.19	9.66	2.23	2.30
43540	18.62	13.14	13.20	8.34	2.39	2.45	8.82	2.13	2.19	9.66	2.23	2.30
43570	18.62	13.14	13.20	8.35	2.40	2.46	8.82	2.13	2.19	9.67	2.24	2.30
43600	18.62	13.14	13.19	8.36	2.40	2.46	8.83	2.13	2.19	9.68	2.25	2.30
43630	18.64	13.16	13.22	8.36	2.40	2.46	8.83	2.14	2.19	9.68	2.25	2.31
43660	18.65	13.17	13.22	8.36	2.40	2.46	8.83	2.14	2.19	9.68	2.25	2.30
43690	18.65	13.17	13.22	8.36	2.40	2.46	8.83	2.14	2.19	9.68	2.25	2.30
43720	18.65	13.17	13.22	8.36	2.40	2.45	8.83	2.14	2.19	9.69	2.26	2.31
43750	18.64	13.16	13.21	8.36	2.41	2.46	8.84	2.15	2.19	9.69	2.26	2.31
43780	18.63	13.15	13.20	8.37	2.42	2.46	8.84	2.15	2.19	9.70	2.27	2.31
43810	18.66	13.18	13.22	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30

43840	18.67	13.19	13.23	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
43870	18.70	13.22	13.26	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
43900	18.65	13.17	13.21	8.37	2.42	2.46	8.84	2.15	2.18	9.69	2.26	2.29
43930	18.65	13.17	13.21	8.37	2.42	2.46	8.84	2.15	2.18	9.69	2.26	2.30
43960	18.64	13.16	13.20	8.36	2.41	2.45	8.83	2.14	2.18	9.68	2.25	2.29
43990	18.64	13.16	13.20	8.37	2.42	2.46	8.84	2.15	2.19	9.68	2.25	2.29
44020	18.69	13.21	13.25	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.29
44050	18.68	13.20	13.24	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44080	18.66	13.18	13.22	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44110	18.67	13.19	13.23	8.37	2.42	2.46	8.84	2.15	2.19	9.68	2.25	2.29
44140	18.67	13.19	13.23	8.37	2.42	2.46	8.84	2.15	2.19	9.68	2.25	2.29
44170	18.66	13.18	13.22	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44200	18.65	13.17	13.21	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44230	18.64	13.16	13.20	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44260	18.69	13.21	13.25	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44290	18.67	13.19	13.23	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44320	18.68	13.20	13.24	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44350	18.66	13.18	13.22	8.37	2.42	2.46	8.84	2.15	2.19	9.69	2.26	2.30
44380	18.64	13.16	13.20	8.37	2.42	2.47	8.84	2.15	2.20	9.69	2.26	2.30
44410	18.65	13.17	13.21	8.37	2.42	2.46	8.85	2.16	2.20	9.70	2.27	2.31
44440	18.65	13.17	13.21	8.38	2.43	2.47	8.85	2.16	2.20	9.70	2.27	2.31
44470	18.65	13.17	13.21	8.38	2.43	2.46	8.85	2.16	2.20	9.71	2.28	2.31
44500	18.70	13.22	13.25	8.38	2.43	2.46	8.86	2.17	2.20	9.71	2.28	2.31
44530	18.68	13.20	13.24	8.37	2.42	2.46	8.85	2.16	2.20	9.71	2.28	2.31
44560	18.66	13.18	13.22	8.38	2.43	2.46	8.85	2.16	2.20	9.71	2.28	2.31
44590	18.67	13.19	13.23	8.38	2.43	2.46	8.85	2.16	2.20	9.71	2.28	2.31
44620	18.66	13.18	13.22	8.38	2.43	2.46	8.85	2.16	2.20	9.71	2.28	2.31
44650	18.65	13.17	13.21	8.38	2.43	2.46	8.85	2.16	2.19	9.71	2.28	2.31
44680	18.64	13.16	13.20	8.38	2.43	2.46	8.85	2.16	2.19	9.70	2.27	2.31
44710	18.63	13.15	13.19	8.37	2.42	2.46	8.85	2.16	2.19	9.70	2.27	2.31
44740	18.68	13.20	13.24	8.37	2.42	2.46	8.84	2.15	2.19	9.70	2.27	2.30
44770	18.69	13.21	13.25	8.37	2.42	2.46	8.84	2.15	2.19	9.70	2.27	2.30
44800	18.66	13.18	13.22	8.37	2.42	2.46	8.84	2.15	2.19	9.70	2.27	2.31
44830	18.66	13.18	13.22	8.37	2.42	2.46	8.85	2.16	2.19	9.70	2.27	2.30
44860	18.65	13.17	13.21	8.37	2.42	2.46	8.84	2.15	2.19	9.70	2.27	2.30
44890	18.64	13.16	13.20	8.36	2.41	2.45	8.84	2.15	2.19	9.69	2.26	2.30
44920	18.63	13.15	13.19	8.37	2.42	2.46	8.84	2.15	2.19	9.70	2.27	2.31
44950	18.64	13.16	13.20	8.37	2.42	2.46	8.85	2.16	2.20	9.70	2.27	2.31
44980	18.69	13.21	13.24	8.38	2.43	2.46	8.85	2.16	2.20	9.71	2.28	2.31
45010	18.68	13.20	13.23	8.38	2.43	2.46	8.85	2.16	2.20	9.71	2.28	2.31
45040	18.67	13.19	13.22	8.39	2.44	2.46	8.86	2.17	2.20	9.72	2.29	2.31
45070	18.68	13.20	13.23	8.39	2.44	2.47	8.86	2.17	2.20	9.72	2.29	2.31
45100	18.66	13.18	13.21	8.39	2.44	2.46	8.86	2.17	2.20	9.72	2.29	2.31
45130	18.68	13.20	13.22	8.39	2.44	2.47	8.87	2.18	2.20	9.73	2.30	2.32
45160	18.68	13.20	13.22	8.40	2.45	2.47	8.87	2.18	2.20	9.73	2.30	2.32
45190	18.74	13.26	13.28	8.40	2.45	2.47	8.87	2.18	2.20	9.72	2.29	2.31
45220	18.72	13.24	13.26	8.40	2.45	2.47	8.87	2.18	2.20	9.72	2.29	2.31

45250	18.72	13.24	13.26	8.41	2.46	2.47	8.87	2.18	2.20	9.73	2.30	2.32
45280	18.72	13.24	13.25	8.41	2.46	2.47	8.88	2.19	2.20	9.73	2.30	2.32
45310	18.72	13.24	13.26	8.41	2.46	2.47	8.87	2.18	2.20	9.72	2.29	2.31
45340	18.71	13.23	13.25	8.40	2.45	2.47	8.87	2.18	2.20	9.72	2.29	2.31
45370	18.71	13.23	13.25	8.40	2.45	2.47	8.87	2.18	2.20	9.72	2.29	2.31
45400	18.70	13.22	13.24	8.40	2.45	2.47	8.87	2.18	2.20	9.72	2.29	2.31
45430	18.70	13.22	13.24	8.41	2.46	2.48	8.87	2.18	2.20	9.72	2.29	2.31
45460	18.69	13.21	13.23	8.41	2.46	2.47	8.87	2.18	2.20	9.72	2.29	2.30
45490	18.70	13.22	13.24	8.41	2.46	2.48	8.87	2.18	2.20	9.72	2.29	2.31
45520	18.75	13.27	13.29	8.40	2.45	2.47	8.87	2.18	2.20	9.72	2.29	2.31
45550	18.74	13.26	13.28	8.40	2.45	2.48	8.86	2.17	2.20	9.71	2.28	2.31
45580	18.72	13.24	13.27	8.40	2.45	2.48	8.87	2.18	2.20	9.72	2.29	2.32
45610	18.72	13.24	13.27	8.40	2.45	2.48	8.87	2.18	2.21	9.72	2.29	2.32
45640	18.71	13.23	13.26	8.41	2.46	2.49	8.87	2.18	2.21	9.72	2.29	2.32
45670	18.71	13.23	13.26	8.41	2.46	2.48	8.88	2.19	2.21	9.73	2.30	2.33
45700	18.69	13.21	13.24	8.41	2.46	2.49	8.88	2.19	2.22	9.72	2.29	2.32
45730	18.69	13.21	13.24	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.33
45760	18.67	13.19	13.22	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.33
45790	18.66	13.18	13.21	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.33
45820	18.69	13.21	13.24	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.33
45850	18.67	13.19	13.22	8.40	2.45	2.48	8.87	2.18	2.22	9.73	2.30	2.33
45880	18.69	13.21	13.24	8.41	2.46	2.49	8.88	2.19	2.22	9.74	2.31	2.34
45910	18.68	13.20	13.23	8.41	2.46	2.49	8.88	2.19	2.22	9.74	2.31	2.34
45940	18.68	13.20	13.23	8.42	2.47	2.50	8.89	2.20	2.22	9.74	2.31	2.34
45970	18.67	13.19	13.22	8.41	2.46	2.49	8.88	2.19	2.22	9.74	2.31	2.34
46000	18.64	13.16	13.19	8.41	2.46	2.49	8.88	2.19	2.22	9.74	2.31	2.34
46030	18.63	13.15	13.19	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.34
46060	18.63	13.15	13.19	8.41	2.46	2.50	8.88	2.19	2.22	9.74	2.31	2.34
46090	18.63	13.15	13.18	8.42	2.47	2.50	8.89	2.20	2.23	9.74	2.31	2.34
46120	18.67	13.19	13.22	8.41	2.46	2.49	8.88	2.19	2.22	9.74	2.31	2.34
46150	18.66	13.18	13.21	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.34
46180	18.65	13.17	13.21	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.33
46210	18.65	13.17	13.21	8.40	2.45	2.48	8.88	2.19	2.22	9.73	2.30	2.34
46240	18.62	13.14	13.18	8.40	2.45	2.48	8.87	2.18	2.22	9.73	2.30	2.33
46270	18.62	13.14	13.18	8.40	2.45	2.48	8.87	2.18	2.22	9.73	2.30	2.33
46300	18.62	13.14	13.18	8.40	2.45	2.48	8.87	2.18	2.22	9.73	2.30	2.33
46330	18.62	13.14	13.17	8.40	2.45	2.48	8.87	2.18	2.22	9.73	2.30	2.33
46360	18.60	13.12	13.15	8.40	2.45	2.48	8.88	2.19	2.22	9.73	2.30	2.33
46390	18.62	13.14	13.17	8.41	2.46	2.49	8.88	2.19	2.22	9.73	2.30	2.33
46420	18.33	12.85	12.88	8.39	2.44	2.47	8.87	2.18	2.21	9.73	2.30	2.33
46450	18.23	12.75	12.77	8.38	2.43	2.45	8.87	2.18	2.20	9.72	2.29	2.32
46480	18.30	12.82	12.85	8.39	2.44	2.46	8.87	2.18	2.20	9.73	2.30	2.32
46510	18.19	12.71	12.74	8.38	2.43	2.45	8.86	2.17	2.20	9.72	2.29	2.32
46540	18.13	12.65	12.67	8.38	2.43	2.45	8.87	2.18	2.20	9.72	2.29	2.32
46570	18.09	12.61	12.63	8.38	2.43	2.45	8.87	2.18	2.20	9.72	2.29	2.31
46600	18.06	12.58	12.60	8.37	2.42	2.45	8.87	2.18	2.20	9.72	2.29	2.32
46630	18.01	12.53	12.55	8.37	2.42	2.45	8.86	2.17	2.19	9.72	2.29	2.32

46660	17.96	12.48	12.51	8.37	2.42	2.44	8.86	2.17	2.19	9.72	2.29	2.31
46690	17.94	12.46	12.48	8.37	2.42	2.44	8.85	2.16	2.19	9.72	2.29	2.31
46720	17.86	12.38	12.41	8.36	2.41	2.44	8.85	2.16	2.19	9.72	2.29	2.31
46750	17.84	12.36	12.39	8.36	2.41	2.44	8.85	2.16	2.19	9.71	2.28	2.31
46780	17.80	12.32	12.34	8.36	2.41	2.44	8.85	2.16	2.19	9.70	2.27	2.30
46810	17.81	12.33	12.36	8.36	2.40	2.43	8.85	2.16	2.19	9.71	2.28	2.30
46840	17.77	12.29	12.32	8.36	2.40	2.44	8.85	2.16	2.19	9.70	2.27	2.30
46870	17.69	12.21	12.24	8.35	2.40	2.43	8.84	2.15	2.19	9.70	2.27	2.30
46900	17.65	12.17	12.21	8.34	2.39	2.43	8.84	2.15	2.19	9.69	2.26	2.30
46930	17.63	12.15	12.19	8.34	2.39	2.43	8.84	2.15	2.19	9.68	2.25	2.30
46960	17.56	12.08	12.12	8.34	2.39	2.43	8.84	2.15	2.19	9.68	2.25	2.30
46990	17.53	12.05	12.10	8.34	2.39	2.43	8.84	2.15	2.19	9.68	2.25	2.30
47020	17.50	12.02	12.07	8.34	2.39	2.43	8.84	2.15	2.19	9.68	2.25	2.30
47050	17.46	11.98	12.02	8.34	2.39	2.44	8.84	2.15	2.20	9.69	2.26	2.31
47080	17.49	12.01	12.06	8.34	2.39	2.44	8.84	2.15	2.20	9.70	2.27	2.32
47110	17.50	12.02	12.07	8.34	2.39	2.44	8.84	2.15	2.20	9.70	2.27	2.31
47140	17.49	12.01	12.05	8.36	2.40	2.44	8.86	2.17	2.20	9.72	2.29	2.32
47170	17.50	12.02	12.07	8.34	2.39	2.44	8.84	2.15	2.20	9.70	2.27	2.31
47200	17.49	12.01	12.04	8.37	2.42	2.44	8.87	2.18	2.21	9.73	2.30	2.33
47230	17.45	11.97	11.99	8.36	2.40	2.43	8.86	2.17	2.20	9.72	2.29	2.32
47260	17.40	11.92	11.94	8.36	2.40	2.43	8.86	2.17	2.19	9.72	2.29	2.31
47290	17.37	11.89	11.92	8.34	2.39	2.42	8.85	2.16	2.19	9.71	2.28	2.30
47320	17.30	11.82	11.84	8.34	2.39	2.42	8.84	2.15	2.18	9.70	2.27	2.30
47350	17.25	11.77	11.80	8.33	2.38	2.41	8.84	2.15	2.18	9.70	2.27	2.30
47380	17.24	11.76	11.79	8.32	2.37	2.41	8.83	2.14	2.17	9.69	2.26	2.29
47410	17.20	11.72	11.76	8.31	2.36	2.40	8.83	2.13	2.17	9.68	2.25	2.29
47440	17.17	11.69	11.73	8.31	2.36	2.40	8.83	2.13	2.17	9.68	2.25	2.29
47470	17.13	11.65	11.68	8.31	2.36	2.40	8.83	2.13	2.17	9.68	2.25	2.29
47500	17.11	11.63	11.67	8.30	2.35	2.39	8.82	2.13	2.17	9.68	2.25	2.29
47530	17.10	11.62	11.66	8.30	2.35	2.39	8.82	2.13	2.17	9.68	2.25	2.29
47560	17.07	11.59	11.63	8.30	2.35	2.39	8.82	2.13	2.17	9.67	2.24	2.28
47590	17.04	11.56	11.60	8.30	2.35	2.39	8.82	2.13	2.17	9.67	2.24	2.28
47620	17.00	11.52	11.57	8.30	2.35	2.39	8.82	2.13	2.17	9.67	2.24	2.28
47650	16.95	11.47	11.51	8.29	2.34	2.39	8.81	2.12	2.17	9.67	2.24	2.28
47680	16.97	11.49	11.54	8.29	2.34	2.39	8.81	2.12	2.17	9.67	2.24	2.28
47710	16.94	11.46	11.50	8.29	2.34	2.39	8.81	2.12	2.16	9.67	2.24	2.28
47740	16.91	11.43	11.47	8.29	2.34	2.38	8.81	2.12	2.17	9.66	2.23	2.28
47770	16.90	11.42	11.46	8.29	2.34	2.39	8.81	2.12	2.16	9.66	2.23	2.28
47800	16.84	11.36	11.41	8.29	2.34	2.38	8.81	2.12	2.16	9.66	2.23	2.28
47830	16.86	11.38	11.43	8.29	2.34	2.38	8.81	2.12	2.17	9.66	2.23	2.28
47860	16.79	11.31	11.35	8.29	2.34	2.38	8.81	2.12	2.17	9.66	2.23	2.28
47890	16.74	11.26	11.30	8.29	2.34	2.38	8.82	2.13	2.17	9.67	2.24	2.28
47920	16.72	11.24	11.28	8.30	2.35	2.39	8.83	2.13	2.17	9.68	2.25	2.29
47950	16.69	11.21	11.25	8.29	2.34	2.38	8.82	2.13	2.17	9.67	2.24	2.28
47980	16.70	11.22	11.26	8.30	2.35	2.39	8.82	2.13	2.17	9.68	2.25	2.29
48010	16.70	11.22	11.26	8.30	2.35	2.38	8.82	2.13	2.17	9.68	2.25	2.29
48040	16.65	11.17	11.21	8.29	2.34	2.38	8.82	2.13	2.17	9.68	2.25	2.28

48070	16.64	11.16	11.19	8.29	2.34	2.38	8.82	2.13	2.16	9.67	2.24	2.28
48100	12.68	7.20	7.24	8.03	2.08	2.11	8.70	2.00	2.04	9.55	2.12	2.16
48130	18.91	13.43	13.47	8.36	2.41	2.45	8.84	2.15	2.19	9.70	2.27	2.31
48160	18.94	13.46	13.49	8.41	2.46	2.49	8.87	2.18	2.22	9.73	2.30	2.34
48190	18.99	13.51	13.55	8.43	2.48	2.52	8.89	2.20	2.24	9.75	2.32	2.36
48220	18.97	13.49	13.54	8.43	2.48	2.52	8.89	2.20	2.25	9.75	2.32	2.37
48250	18.96	13.48	13.53	8.44	2.49	2.54	8.90	2.21	2.26	9.77	2.34	2.38
48280	18.95	13.47	13.52	8.44	2.49	2.54	8.91	2.21	2.27	9.77	2.34	2.39
48310	18.95	13.47	13.52	8.44	2.49	2.55	8.91	2.22	2.27	9.77	2.34	2.39
48340	18.94	13.46	13.51	8.44	2.49	2.55	8.91	2.22	2.27	9.77	2.34	2.39
48370	18.92	13.44	13.50	8.45	2.50	2.56	8.91	2.22	2.28	9.77	2.34	2.40
48400	18.90	13.42	13.48	8.44	2.49	2.56	8.91	2.22	2.28	9.77	2.34	2.40
48430	18.94	13.46	13.52	8.46	2.51	2.57	8.91	2.22	2.28	9.77	2.34	2.40
48460				7.92	1.97	2.04	8.63	1.94	2.01	9.49	2.06	2.13
48490				7.73	1.78	1.85	8.43	1.74	1.81	9.31	1.88	1.95
48520				7.64	1.69	1.76	8.34	1.65	1.72	9.20	1.77	1.84
48550				7.56	1.61	1.69	8.26	1.57	1.65	9.13	1.70	1.77
48580				8.01	2.06	2.13	8.48	1.79	1.87	9.34	1.91	1.98
48610				8.17	2.22	2.30	8.65	1.96	2.04	9.50	2.07	2.14
48640				8.26	2.31	2.38	8.74	2.05	2.12	9.59	2.16	2.23
48670				7.91	1.96	2.03	8.61	1.92	1.99	9.47	2.04	2.11
48700				7.71	1.76	1.82	8.41	1.72	1.79	9.28	1.85	1.92
48730				7.61	1.66	1.72	8.31	1.62	1.68	9.18	1.75	1.81
48760				7.54	1.59	1.65	8.24	1.55	1.62	9.11	1.68	1.74
48790				7.49	1.54	1.60	8.20	1.51	1.57	9.06	1.63	1.69
48820				7.47	1.52	1.58	8.17	1.48	1.54	9.03	1.60	1.66
48850				7.44	1.49	1.55	8.15	1.46	1.52	9.01	1.58	1.64
48880				7.42	1.47	1.53	8.13	1.44	1.50	8.99	1.56	1.62
48910				7.40	1.45	1.51	8.12	1.43	1.49	8.98	1.55	1.61
48940				7.40	1.45	1.51	8.11	1.41	1.48	8.96	1.53	1.60
48970				7.39	1.44	1.50	8.10	1.41	1.47	8.96	1.53	1.59
49000				7.38	1.43	1.49	8.09	1.40	1.46	8.94	1.51	1.58
49030				7.37	1.42	1.49	8.08	1.39	1.46	8.93	1.50	1.57
49060				7.37	1.42	1.48	8.08	1.39	1.46	8.93	1.50	1.57
49090				7.36	1.41	1.48	8.07	1.38	1.45	8.93	1.50	1.57
49120				7.36	1.41	1.48	8.07	1.38	1.45	8.93	1.50	1.56
49150				7.36	1.41	1.48	8.07	1.38	1.45	8.93	1.50	1.56
49180				7.35	1.40	1.47	8.07	1.38	1.45	8.92	1.49	1.56
49210				7.35	1.40	1.47	8.07	1.38	1.45	8.92	1.49	1.56
49240				7.35	1.40	1.47	8.07	1.38	1.45	8.92	1.49	1.56
49270				7.35	1.40	1.47	8.07	1.38	1.45	8.93	1.50	1.56
49300				7.37	1.42	1.48	8.08	1.39	1.45	8.93	1.50	1.56
49330				7.37	1.42	1.47	8.08	1.39	1.45	8.93	1.50	1.56
49360				7.37	1.42	1.47	8.08	1.39	1.45	8.93	1.50	1.56
49390				7.37	1.42	1.47	8.08	1.39	1.45	8.93	1.50	1.56
49420				7.37	1.42	1.47	8.08	1.39	1.45	8.94	1.51	1.56
49450				7.89	1.94	1.99	8.38	1.69	1.75	9.24	1.81	1.86

49480	8.06	2.11	2.16	8.55	1.86	1.91	9.41	1.98	2.03
49510	8.16	2.21	2.26	8.66	1.97	2.02	9.52	2.09	2.14
49540	8.23	2.28	2.34	8.73	2.04	2.09	9.59	2.16	2.21
49570	8.29	2.34	2.39	8.78	2.08	2.14	9.63	2.20	2.25
49600	8.32	2.37	2.42	8.81	2.12	2.17	9.67	2.24	2.29
49630	8.35	2.40	2.45	8.84	2.15	2.20	9.69	2.26	2.31
49660	8.37	2.42	2.48	8.85	2.16	2.21	9.70	2.27	2.32
49690	8.39	2.44	2.49	8.87	2.18	2.23	9.72	2.29	2.35
49720	8.40	2.45	2.50	8.88	2.19	2.24	9.74	2.31	2.36
49750	8.41	2.46	2.52	8.89	2.20	2.25	9.75	2.32	2.38
49780	8.42	2.47	2.53	8.89	2.20	2.26	9.75	2.32	2.38
49810	8.43	2.48	2.54	8.90	2.21	2.27	9.75	2.32	2.38
49840	8.43	2.48	2.54	8.90	2.21	2.27	9.76	2.33	2.39
49870	8.43	2.48	2.55	8.90	2.21	2.28	9.76	2.33	2.40
49900	8.43	2.48	2.55	8.91	2.21	2.28	9.76	2.33	2.40
49930	8.44	2.49	2.56	8.91	2.22	2.29	9.77	2.34	2.41
49960	8.44	2.49	2.56	8.91	2.22	2.30	9.78	2.35	2.42
49990	8.44	2.49	2.57	8.92	2.23	2.30	9.78	2.35	2.42
50020	8.45	2.50	2.57	8.92	2.23	2.31	9.78	2.35	2.42
50050	8.46	2.51	2.58	8.93	2.24	2.31	9.79	2.36	2.43
50080	8.46	2.51	2.58	8.94	2.25	2.32	9.80	2.37	2.44
50110	8.48	2.53	2.59	8.95	2.26	2.33	9.81	2.38	2.45
50140	8.48	2.53	2.60	8.96	2.27	2.34	9.82	2.39	2.45
50170	8.48	2.53	2.60	8.96	2.27	2.33	9.82	2.39	2.45
50200	8.48	2.53	2.60	8.96	2.27	2.33	9.82	2.39	2.45
50230	8.49	2.54	2.60	8.96	2.27	2.33	9.82	2.39	2.45
50260	8.48	2.53	2.59	8.96	2.27	2.33	9.82	2.39	2.45
50290	8.48	2.53	2.59	8.96	2.27	2.33	9.82	2.39	2.45
50320	8.48	2.53	2.58	8.95	2.26	2.32	9.81	2.38	2.44
50350	8.48	2.53	2.59	8.95	2.26	2.32	9.81	2.38	2.44
50380	8.47	2.52	2.58	8.95	2.26	2.32	9.81	2.38	2.44
50410	8.46	2.51	2.57	8.94	2.25	2.31	9.80	2.37	2.44
50440	8.46	2.51	2.57	8.94	2.25	2.31	9.80	2.37	2.43
50470	8.46	2.51	2.58	8.94	2.25	2.31	9.80	2.37	2.43
50500	8.46	2.51	2.58	8.94	2.25	2.32	9.80	2.37	2.44
50530	8.48	2.53	2.59	8.95	2.26	2.33	9.81	2.38	2.45
50560	8.46	2.51	2.58	8.95	2.26	2.33	9.81	2.38	2.45
50590	8.48	2.53	2.60	8.96	2.27	2.34	9.82	2.39	2.46
50620	8.49	2.54	2.61	8.96	2.27	2.34	9.83	2.40	2.46
50650	8.49	2.54	2.61	8.97	2.28	2.34	9.83	2.40	2.47
50680	8.49	2.54	2.61	8.97	2.28	2.34	9.83	2.40	2.47
50710	8.49	2.54	2.61	8.96	2.27	2.34	9.83	2.40	2.46
50740	8.49	2.54	2.60	8.97	2.28	2.34	9.83	2.40	2.47
50770	8.49	2.54	2.60	8.97	2.28	2.34	9.83	2.40	2.46
50800	8.49	2.54	2.60	8.97	2.28	2.34	9.84	2.41	2.47
50830	8.50	2.55	2.61	8.97	2.28	2.34	9.84	2.41	2.47
50860	8.51	2.56	2.62	8.98	2.29	2.35	9.85	2.42	2.48

50890	8.50	2.55	2.61	8.98	2.29	2.35	9.85	2.42	2.48
50920	8.50	2.55	2.61	8.97	2.28	2.34	9.85	2.42	2.48
50950	8.50	2.55	2.61	8.97	2.28	2.34	9.85	2.42	2.47
50980	8.51	2.56	2.62	8.98	2.29	2.35	9.85	2.42	2.48
51010	8.51	2.56	2.62	8.97	2.28	2.34	9.83	2.40	2.46
51040	8.51	2.56	2.62	8.98	2.29	2.34	9.84	2.41	2.46
51070	8.50	2.55	2.61	8.97	2.28	2.34	9.85	2.42	2.48
51100	8.50	2.55	2.61	8.97	2.28	2.34	9.84	2.41	2.47
51130	8.19	2.24	2.30	8.86	2.17	2.23	9.73	2.30	2.36
51160	7.88	1.93	1.99	8.58	1.89	1.95	9.46	2.03	2.09
51190	8.25	2.30	2.37	8.73	2.04	2.11	9.59	2.16	2.22
51220	8.34	2.39	2.45	8.83	2.13	2.20	9.68	2.25	2.32
51250	8.39	2.44	2.51	8.87	2.18	2.25	9.72	2.29	2.36
51280	8.42	2.47	2.54	8.90	2.21	2.28	9.75	2.32	2.39
51310	8.43	2.48	2.55	8.91	2.22	2.29	9.77	2.34	2.41
51340	8.45	2.50	2.58	8.92	2.23	2.31	9.79	2.36	2.43
51370	8.45	2.50	2.58	8.93	2.24	2.32	9.79	2.36	2.44
51400	8.50	2.55	2.64	8.94	2.25	2.33	9.80	2.37	2.46
51430	8.09	2.14	2.23	8.77	2.08	2.17	9.64	2.21	2.30
51460	8.45	2.50	2.59	8.90	2.21	2.30	9.77	2.34	2.42
51490	8.50	2.55	2.64	8.95	2.26	2.35	9.82	2.39	2.48
51520	8.53	2.58	2.66	8.97	2.28	2.36	9.84	2.41	2.49
51550	8.55	2.60	2.68	8.99	2.30	2.39	9.86	2.43	2.52
51580	8.55	2.60	2.69	8.99	2.30	2.39	9.86	2.43	2.52
51610	8.56	2.61	2.70	9.00	2.31	2.40	9.88	2.45	2.53
51640	8.57	2.62	2.70	9.02	2.33	2.41	9.88	2.45	2.54
51670	8.58	2.63	2.71	9.01	2.32	2.40	9.88	2.45	2.53
51700	8.58	2.63	2.71	9.03	2.33	2.42	9.89	2.46	2.54
51730	8.58	2.63	2.71	9.02	2.33	2.41	9.89	2.46	2.54
51760	8.58	2.63	2.72	9.03	2.34	2.42	9.90	2.47	2.55
51790	8.58	2.63	2.71	9.02	2.33	2.41	9.89	2.46	2.55
51820	8.58	2.63	2.72	9.04	2.35	2.43	9.90	2.47	2.55
51850	8.58	2.63	2.71	9.02	2.33	2.42	9.89	2.46	2.54
51880	8.58	2.63	2.72	9.03	2.34	2.43	9.90	2.47	2.56
51910	8.57	2.62	2.71	9.01	2.32	2.41	9.88	2.45	2.54
51940	8.58	2.63	2.72	9.03	2.33	2.43	9.89	2.46	2.56
51970	8.57	2.62	2.72	9.01	2.32	2.42	9.88	2.45	2.55
52000	8.58	2.63	2.74	9.03	2.34	2.44	9.89	2.46	2.57
52030	8.59	2.64	2.74	9.03	2.34	2.44	9.90	2.47	2.57
52060	8.59	2.64	2.74	9.04	2.35	2.45	9.90	2.47	2.58
52090	8.60	2.65	2.75	9.04	2.35	2.46	9.91	2.48	2.58
52120	8.59	2.64	2.75	9.03	2.34	2.45	9.90	2.47	2.58
52150	8.60	2.65	2.75	9.04	2.35	2.46	9.91	2.48	2.59
52180	8.60	2.65	2.75	9.04	2.35	2.45	9.91	2.48	2.58
52210	8.60	2.65	2.76	9.05	2.36	2.46	9.92	2.49	2.59
52240	8.60	2.65	2.75	9.04	2.35	2.45	9.91	2.48	2.58
52270	8.61	2.66	2.76	9.05	2.36	2.47	9.92	2.49	2.59

52300	8.61	2.66	2.76	9.05	2.36	2.46	9.92	2.49	2.59
52330	8.62	2.67	2.77	9.06	2.37	2.47	9.93	2.50	2.60
52360	8.62	2.67	2.76	9.05	2.36	2.45	9.93	2.50	2.60
52390	8.62	2.67	2.76	9.06	2.37	2.46	9.94	2.51	2.61
52420	8.63	2.68	2.77	9.07	2.38	2.47	9.94	2.51	2.60
52450	8.62	2.67	2.76	9.05	2.36	2.45	9.92	2.49	2.58
52480	8.63	2.68	2.77	9.07	2.38	2.46	9.93	2.50	2.59
52510	8.63	2.68	2.77	9.08	2.39	2.47	9.95	2.52	2.60
52540	8.62	2.67	2.76	9.06	2.37	2.45	9.94	2.51	2.59
52570	8.62	2.67	2.76	9.07	2.38	2.46	9.93	2.50	2.59
52600	8.61	2.66	2.75	9.05	2.36	2.44	9.92	2.49	2.58
52630	8.62	2.67	2.75	9.06	2.37	2.46	9.93	2.50	2.59
52660	8.61	2.66	2.75	9.04	2.35	2.44	9.92	2.49	2.58
52690	8.62	2.67	2.75	9.05	2.36	2.45	9.92	2.49	2.58
52720	8.62	2.67	2.76	9.05	2.36	2.45	9.92	2.49	2.58
52750	8.62	2.67	2.76	9.05	2.36	2.45	9.92	2.49	2.58
52780	8.62	2.67	2.76	9.06	2.37	2.46	9.93	2.50	2.59
52810	8.61	2.66	2.75	9.05	2.36	2.45	9.92	2.49	2.58
52840	8.62	2.67	2.76	9.06	2.37	2.46	9.93	2.50	2.59
52870	8.62	2.67	2.76	9.06	2.37	2.46	9.93	2.50	2.59
52900	8.62	2.67	2.76	9.06	2.37	2.46	9.93	2.50	2.58
52930	8.63	2.68	2.77	9.07	2.38	2.47	9.94	2.51	2.59
52960	8.62	2.67	2.76	9.05	2.36	2.45	9.92	2.49	2.58
52990	8.63	2.68	2.77	9.07	2.38	2.47	9.94	2.51	2.59
53020	8.18	2.23	2.31	8.87	2.18	2.26	9.74	2.31	2.39
53050	7.91	1.96	2.04	8.63	1.94	2.02	9.50	2.07	2.15
53080	7.78	1.83	1.91	8.48	1.79	1.87	9.36	1.93	2.00
53110	7.70	1.75	1.82	8.40	1.71	1.79	9.27	1.84	1.92
53140	7.64	1.69	1.76	8.35	1.66	1.73	9.21	1.78	1.86
53170	7.59	1.64	1.72	8.31	1.62	1.69	9.17	1.74	1.82
53200	7.56	1.61	1.69	8.27	1.58	1.66	9.13	1.70	1.78
53230	7.53	1.58	1.66	8.25	1.56	1.63	9.11	1.68	1.76
53260	7.51	1.56	1.64	8.23	1.54	1.62	9.09	1.66	1.74
53290	7.49	1.54	1.62	8.21	1.52	1.60	9.07	1.64	1.72
53320	7.49	1.54	1.62	8.20	1.51	1.59	9.06	1.63	1.71
53350	7.47	1.52	1.60	8.19	1.50	1.58	9.05	1.62	1.70
53380	7.46	1.51	1.60	8.18	1.49	1.58	9.04	1.61	1.70
53410	7.46	1.51	1.60	8.18	1.49	1.58	9.04	1.61	1.69
53440	7.46	1.51	1.60	8.18	1.49	1.58	9.03	1.60	1.69
53470	7.46	1.51	1.60	8.18	1.49	1.58	9.04	1.61	1.69
53500	7.45	1.50	1.59	8.18	1.49	1.58	9.03	1.60	1.69
53530	7.45	1.50	1.59	8.18	1.49	1.57	9.03	1.60	1.69
53560	7.45	1.50	1.59	8.18	1.49	1.57	9.03	1.60	1.68
53590	7.45	1.50	1.59	8.18	1.49	1.57	9.03	1.60	1.69
53620	7.46	1.51	1.59	8.18	1.49	1.56	9.03	1.60	1.68
53650	7.45	1.50	1.58	8.18	1.49	1.56	9.03	1.60	1.68
53680	7.45	1.50	1.58	8.18	1.49	1.56	9.04	1.61	1.68

53710	7.46	1.51	1.58	8.18	1.49	1.56	9.04	1.61	1.68
53740	7.87	1.92	1.99	8.37	1.67	1.75	9.21	1.78	1.86
53770	8.13	2.18	2.25	8.62	1.93	2.00	9.47	2.04	2.11
53800	8.23	2.28	2.35	8.71	2.02	2.09	9.57	2.14	2.21
53830	8.34	2.39	2.46	8.82	2.13	2.19	9.67	2.24	2.31
53860	8.42	2.47	2.53	8.90	2.21	2.27	9.75	2.32	2.39
53890	8.47	2.52	2.58	8.94	2.25	2.32	9.80	2.37	2.43
53920	8.51	2.56	2.62	8.97	2.28	2.35	9.85	2.42	2.48

E. Time	MW11-2	dd	corr. dd	MW11-10B	dd	corr. dd	PS-4	dd	corr. dd	BARO	chng
0	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.0083	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.0166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.025	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.0333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.0416	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.05	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.0583	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.0666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.075	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.0833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.0916	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.1	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.1083	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.1166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.125	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.1333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.1416	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.15	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.1583	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.1666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.175	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.1833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.1916	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2083	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.2166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.225	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2416	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.25	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2583	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.275	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.2916	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.3	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.3083	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.3166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.325	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.3333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.35	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.3666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.3833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00
0.4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	-0.00

0.4166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.29	14.81	−0.00
0.4333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.45	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.4666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.4833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.5	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.5166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.5333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.55	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.5666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.5833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.6	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.6166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.6333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.65	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.6666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.6833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.7	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.7166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.7333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.75	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.7666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.7833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.8	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.8166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.8333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.85	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
0.8666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.8833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.9	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.9166	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.9333	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.95	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.9666	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
0.9833	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
1	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
1.2	7.64	0.30	0.30	10.43	0.27	0.27	9.14	0.28	0.28	14.81	−0.00
1.4	7.64	0.30	0.30	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
1.6	7.64	0.30	0.30	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
1.8	7.64	0.30	0.30	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
2	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
2.2	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
2.4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
2.6	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
2.8	7.63	0.29	0.29	10.43	0.27	0.27	9.15	0.29	0.29	14.81	0.00
3	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
3.2	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00

3.4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
3.6	7.63	0.29	0.29	10.43	0.27	0.27	9.15	0.29	0.28	14.81	0.01
3.8	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
4.2	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
4.4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
4.6	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
4.8	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
5	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
5.2	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
5.4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
5.6	7.63	0.29	0.29	10.44	0.28	0.27	9.14	0.28	0.28	14.81	0.00
5.8	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
6	7.63	0.29	0.29	10.44	0.28	0.28	9.14	0.28	0.28	14.81	0.00
6.2	7.64	0.30	0.30	10.43	0.27	0.27	9.15	0.29	0.29	14.81	0.00
6.4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
6.6	7.63	0.29	0.29	10.44	0.28	0.27	9.14	0.28	0.28	14.81	0.00
6.8	7.63	0.29	0.29	10.43	0.27	0.27	9.15	0.29	0.29	14.81	0.00
7	7.63	0.29	0.29	10.43	0.27	0.27	9.15	0.29	0.29	14.81	0.00
7.2	7.63	0.29	0.29	10.43	0.27	0.27	9.15	0.29	0.29	14.81	0.00
7.4	7.63	0.29	0.29	10.43	0.27	0.27	9.14	0.28	0.28	14.81	0.00
7.6	7.63	0.29	0.29	10.44	0.28	0.27	9.14	0.28	0.28	14.81	0.00
7.8	7.63	0.29	0.29	10.43	0.27	0.27	9.15	0.29	0.29	14.81	0.00
8	7.63	0.29	0.29	10.44	0.28	0.27	9.15	0.29	0.29	14.81	0.00
8.2	7.63	0.29	0.29	10.43	0.27	0.27	9.15	0.29	0.29	14.81	0.00
8.4	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
8.6	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
8.8	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
9	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
9.2	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
9.4	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
9.6	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
9.8	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
10	7.63	0.29	0.29	10.44	0.28	0.28	9.15	0.29	0.29	14.81	0.00
12	7.63	0.29	0.29	10.44	0.28	0.28	9.16	0.30	0.30	14.81	0.00
14	7.63	0.29	0.29	10.44	0.28	0.28	9.16	0.30	0.29	14.81	0.01
16	7.63	0.29	0.29	10.45	0.29	0.29	9.16	0.30	0.30	14.81	0.00
18	7.63	0.29	0.29	10.45	0.29	0.29	9.17	0.31	0.31	14.81	0.00
20	7.63	0.29	0.29	10.46	0.30	0.30	9.17	0.31	0.31	14.81	0.01
22	7.63	0.29	0.29	10.47	0.31	0.31	9.18	0.32	0.32	14.81	0.01
24	7.63	0.29	0.29	10.47	0.31	0.31	9.19	0.33	0.32	14.81	0.01
26	7.64	0.30	0.30	10.48	0.32	0.32	9.19	0.33	0.33	14.81	0.01
28	7.63	0.29	0.29	10.49	0.33	0.32	9.20	0.34	0.34	14.81	0.01
30	7.63	0.29	0.29	10.49	0.33	0.33	9.20	0.34	0.34	14.81	0.00
32	7.63	0.29	0.29	10.50	0.34	0.34	9.21	0.35	0.35	14.81	0.00
34	7.63	0.29	0.29	10.51	0.35	0.35	9.22	0.36	0.36	14.81	−0.00
36	7.63	0.29	0.29	10.51	0.35	0.35	9.22	0.36	0.36	14.81	−0.00

38	7.63	0.29	0.29	10.51	0.35	0.36	9.22	0.36	0.37	14.81	−0.01
40	7.63	0.29	0.29	10.52	0.36	0.36	9.23	0.37	0.37	14.81	−0.01
42	7.63	0.29	0.29	10.53	0.37	0.37	9.24	0.38	0.38	14.81	−0.01
44	7.63	0.29	0.29	10.54	0.38	0.38	9.24	0.38	0.38	14.81	−0.01
46	7.63	0.29	0.29	10.54	0.38	0.38	9.25	0.39	0.40	14.81	−0.01
48	7.63	0.29	0.29	10.55	0.39	0.39	9.25	0.39	0.40	14.81	−0.01
50	7.63	0.29	0.29	10.56	0.40	0.40	9.26	0.40	0.40	14.81	−0.01
52	7.63	0.29	0.29	10.57	0.40	0.41	9.26	0.40	0.41	14.81	−0.01
54	7.63	0.29	0.29	10.57	0.41	0.41	9.27	0.41	0.42	14.81	−0.01
56	7.63	0.29	0.29	10.58	0.42	0.42	9.28	0.42	0.42	14.80	−0.01
58	7.63	0.29	0.29	10.58	0.42	0.42	9.28	0.42	0.42	14.80	−0.01
60	7.63	0.29	0.29	10.58	0.42	0.43	9.28	0.42	0.43	14.80	−0.01
62	7.63	0.29	0.29	10.59	0.43	0.44	9.29	0.43	0.43	14.81	−0.01
64	7.64	0.30	0.30	10.60	0.44	0.44	9.30	0.44	0.44	14.81	−0.01
66	7.63	0.29	0.29	10.61	0.45	0.45	9.30	0.44	0.45	14.81	−0.01
68	7.63	0.29	0.29	10.61	0.45	0.46	9.31	0.45	0.45	14.80	−0.01
70	7.63	0.29	0.29	10.62	0.45	0.46	9.31	0.45	0.45	14.80	−0.01
72	7.64	0.30	0.30	10.62	0.46	0.47	9.32	0.46	0.46	14.80	−0.01
74	7.63	0.29	0.29	10.63	0.47	0.47	9.32	0.46	0.47	14.80	−0.01
76	7.63	0.29	0.29	10.63	0.47	0.47	9.32	0.46	0.47	14.80	−0.01
78	7.64	0.30	0.30	10.63	0.47	0.48	9.33	0.47	0.47	14.80	−0.01
80	7.63	0.29	0.29	10.64	0.48	0.49	9.33	0.47	0.47	14.80	−0.02
82	7.63	0.29	0.29	10.64	0.48	0.49	9.33	0.47	0.48	14.80	−0.01
84	7.64	0.30	0.30	10.65	0.49	0.49	9.34	0.48	0.48	14.81	−0.01
86	7.64	0.30	0.30	10.66	0.50	0.50	9.34	0.48	0.49	14.81	−0.01
88	7.64	0.30	0.30	10.66	0.50	0.51	9.35	0.49	0.49	14.81	−0.01
90	7.63	0.29	0.29	10.67	0.51	0.51	9.35	0.49	0.50	14.80	−0.02
92	7.63	0.29	0.29	10.67	0.51	0.51	9.35	0.49	0.50	14.80	−0.02
94	7.63	0.29	0.29	10.67	0.51	0.51	9.35	0.49	0.50	14.80	−0.02
96	7.63	0.29	0.29	10.68	0.52	0.52	9.36	0.50	0.50	14.80	−0.02
98	7.63	0.29	0.29	10.68	0.52	0.53	9.37	0.51	0.51	14.80	−0.02
100	7.63	0.29	0.30	10.68	0.52	0.53	9.37	0.51	0.51	14.80	−0.03
120	7.63	0.29	0.30	10.72	0.56	0.56	9.39	0.53	0.54	14.80	−0.03
140	7.63	0.29	0.30	10.74	0.58	0.59	9.41	0.55	0.57	14.79	−0.04
160	7.64	0.30	0.30	10.76	0.60	0.61	9.44	0.58	0.59	14.79	−0.04
180	7.64	0.30	0.30	10.78	0.62	0.63	9.45	0.59	0.60	14.79	−0.04
200	7.64	0.30	0.30	10.80	0.64	0.65	9.46	0.60	0.62	14.79	−0.05
220	7.64	0.30	0.30	10.81	0.65	0.67	9.47	0.61	0.63	14.79	−0.05
240	7.64	0.30	0.30	10.82	0.66	0.68	9.48	0.62	0.64	14.79	−0.05
260	7.64	0.30	0.30	10.83	0.67	0.69	9.48	0.62	0.65	14.78	−0.06
280	7.64	0.30	0.31	10.84	0.68	0.70	9.49	0.63	0.65	14.78	−0.06
300	7.64	0.30	0.31	10.85	0.69	0.70	9.50	0.64	0.66	14.78	−0.06
320	7.64	0.30	0.30	10.86	0.70	0.71	9.51	0.65	0.67	14.79	−0.06
340	7.64	0.30	0.31	10.87	0.71	0.72	9.51	0.65	0.67	14.79	−0.06
360	7.64	0.30	0.31	10.87	0.71	0.72	9.52	0.66	0.68	14.79	−0.06
380	7.64	0.30	0.31	10.87	0.71	0.73	9.52	0.66	0.68	14.79	−0.06
400	7.65	0.31	0.31	10.88	0.72	0.73	9.53	0.67	0.69	14.79	−0.05

420	7.65	0.31	0.31	10.89	0.73	0.74	9.53	0.67	0.69	14.79	−0.04
440	7.65	0.31	0.31	10.89	0.73	0.74	9.54	0.68	0.70	14.79	−0.05
460	7.64	0.30	0.31	10.89	0.73	0.75	9.54	0.68	0.70	14.78	−0.06
480	7.65	0.31	0.31	10.90	0.74	0.75	9.54	0.68	0.70	14.79	−0.06
500	7.65	0.31	0.31	10.90	0.74	0.76	9.54	0.68	0.70	14.79	−0.06
520	7.65	0.31	0.31	10.91	0.75	0.76	9.55	0.69	0.71	14.79	−0.06
540	7.65	0.31	0.32	10.91	0.75	0.76	9.56	0.70	0.71	14.79	−0.04
560	7.65	0.31	0.32	10.92	0.76	0.77	9.56	0.70	0.71	14.79	−0.04
580	7.66	0.32	0.32	10.91	0.75	0.76	9.55	0.69	0.70	14.79	−0.04
600	7.66	0.32	0.32	10.92	0.76	0.77	9.56	0.70	0.71	14.80	−0.03
620	7.66	0.32	0.32	10.93	0.77	0.78	9.57	0.71	0.72	14.80	−0.03
640	7.66	0.32	0.32	10.91	0.75	0.75	9.55	0.69	0.70	14.80	−0.03
660	7.66	0.32	0.32	10.91	0.75	0.76	9.55	0.69	0.70	14.80	−0.02
680	7.66	0.32	0.32	10.92	0.76	0.77	9.56	0.70	0.71	14.80	−0.03
700	7.66	0.32	0.32	10.91	0.75	0.76	9.55	0.69	0.70	14.80	−0.03
720	7.66	0.32	0.32	10.91	0.75	0.76	9.55	0.69	0.70	14.80	−0.03
740	7.66	0.32	0.32	10.91	0.75	0.76	9.55	0.69	0.70	14.79	−0.04
760	7.66	0.32	0.32	10.90	0.74	0.76	9.55	0.69	0.71	14.78	−0.06
780	7.66	0.32	0.32	10.90	0.74	0.76	9.54	0.68	0.71	14.78	−0.08
800	7.66	0.32	0.32	10.89	0.73	0.75	9.54	0.68	0.70	14.78	−0.06
820	7.66	0.32	0.32	10.90	0.74	0.76	9.55	0.69	0.71	14.78	−0.07
840	7.66	0.32	0.33	10.91	0.75	0.77	9.56	0.70	0.72	14.78	−0.07
860	7.66	0.32	0.33	10.90	0.74	0.76	9.55	0.69	0.72	14.78	−0.08
880	7.66	0.32	0.33	10.90	0.74	0.76	9.54	0.68	0.71	14.77	−0.09
900	7.66	0.32	0.33	10.88	0.72	0.74	9.52	0.66	0.69	14.77	−0.10
920	7.66	0.32	0.33	10.88	0.72	0.75	9.53	0.67	0.71	14.76	−0.11
940	7.66	0.32	0.33	10.88	0.72	0.75	9.53	0.67	0.71	14.76	−0.12
960	7.66	0.32	0.33	10.89	0.73	0.76	9.54	0.68	0.72	14.76	−0.12
980	7.66	0.32	0.33	10.88	0.72	0.75	9.52	0.66	0.71	14.75	−0.13
1000	7.66	0.32	0.34	10.88	0.72	0.75	9.52	0.66	0.71	14.75	−0.15
1030	7.66	0.32	0.33	10.88	0.72	0.76	9.52	0.66	0.72	14.74	−0.16
1060	7.66	0.32	0.34	10.88	0.72	0.76	9.52	0.66	0.72	14.74	−0.15
1090	7.67	0.32	0.34	10.88	0.72	0.76	9.53	0.67	0.73	14.74	−0.16
1120	7.67	0.32	0.34	10.88	0.72	0.76	9.53	0.67	0.72	14.74	−0.16
1150	7.67	0.32	0.34	10.88	0.72	0.76	9.53	0.67	0.72	14.74	−0.16
1180	7.67	0.33	0.34	10.89	0.73	0.76	9.54	0.68	0.73	14.75	−0.14
1210	7.67	0.33	0.34	10.89	0.73	0.76	9.53	0.67	0.73	14.75	−0.15
1240	7.67	0.33	0.35	10.89	0.73	0.76	9.53	0.67	0.72	14.75	−0.14
1270	7.67	0.33	0.34	10.89	0.73	0.76	9.53	0.67	0.72	14.75	−0.14
1300	7.67	0.33	0.35	10.89	0.73	0.76	9.53	0.67	0.72	14.75	−0.14
1330	7.67	0.33	0.35	10.89	0.73	0.77	9.54	0.68	0.73	14.75	−0.14
1360	7.67	0.33	0.35	10.89	0.73	0.77	9.54	0.68	0.73	14.75	−0.14
1390	7.67	0.33	0.35	10.89	0.73	0.77	9.54	0.68	0.72	14.75	−0.13
1420	7.68	0.34	0.35	10.90	0.74	0.77	9.54	0.68	0.72	14.76	−0.12
1450	7.68	0.34	0.35	10.90	0.74	0.77	9.55	0.69	0.73	14.76	−0.12
1480	7.68	0.34	0.35	10.90	0.74	0.77	9.55	0.69	0.73	14.76	−0.12
1510	7.68	0.34	0.35	10.90	0.74	0.77	9.55	0.69	0.73	14.76	−0.12

1540	7.68	0.34	0.35	10.90	0.74	0.77	9.55	0.69	0.73	14.76	−0.12
1570	7.68	0.34	0.35	10.90	0.74	0.77	9.55	0.69	0.73	14.76	−0.12
1600	7.68	0.34	0.35	10.90	0.74	0.77	9.55	0.69	0.73	14.76	−0.13
1630	7.68	0.34	0.36	10.90	0.74	0.77	9.55	0.69	0.73	14.76	−0.12
1660	7.68	0.34	0.36	10.89	0.73	0.76	9.54	0.68	0.72	14.76	−0.12
1690	7.69	0.35	0.36	10.88	0.72	0.75	9.52	0.66	0.70	14.76	−0.12
1720	7.68	0.34	0.36	10.86	0.70	0.73	9.51	0.65	0.69	14.76	−0.12
1750	7.69	0.35	0.36	10.86	0.70	0.73	9.51	0.65	0.69	14.76	−0.11
1780	7.69	0.35	0.36	10.88	0.72	0.74	9.52	0.66	0.70	14.77	−0.09
1810	7.69	0.35	0.36	10.89	0.73	0.75	9.54	0.68	0.71	14.77	−0.08
1840	7.69	0.35	0.36	10.90	0.74	0.76	9.55	0.69	0.72	14.78	−0.08
1870	7.69	0.35	0.36	10.91	0.75	0.77	9.56	0.70	0.72	14.78	−0.07
1900	7.70	0.36	0.36	10.92	0.76	0.77	9.57	0.71	0.73	14.79	−0.05
1930	7.70	0.36	0.36	10.91	0.75	0.77	9.56	0.70	0.72	14.79	−0.05
1960	7.70	0.36	0.36	10.93	0.77	0.78	9.58	0.72	0.73	14.79	−0.04
1990	7.70	0.36	0.36	10.92	0.76	0.77	9.57	0.71	0.72	14.79	−0.04
2020	7.70	0.36	0.37	10.92	0.76	0.77	9.56	0.70	0.71	14.80	−0.03
2050	7.71	0.37	0.37	10.95	0.79	0.80	9.60	0.74	0.75	14.80	−0.03
2080	7.71	0.37	0.37	10.95	0.79	0.80	9.61	0.75	0.76	14.80	−0.03
2110	7.71	0.37	0.37	10.90	0.74	0.75	9.55	0.69	0.70	14.80	−0.03
2140	7.71	0.37	0.37	10.90	0.74	0.75	9.55	0.69	0.70	14.80	−0.03
2170	7.71	0.37	0.37	10.93	0.77	0.77	9.57	0.71	0.73	14.80	−0.03
2200	7.71	0.37	0.37	10.93	0.77	0.78	9.57	0.71	0.72	14.79	−0.04
2230	7.71	0.37	0.37	10.98	0.82	0.83	9.63	0.77	0.78	14.79	−0.05
2260	7.71	0.37	0.38	10.91	0.75	0.77	9.57	0.71	0.73	14.78	−0.06
2290	7.71	0.37	0.38	10.97	0.81	0.83	9.62	0.76	0.78	14.78	−0.07
2320	7.71	0.37	0.38	10.99	0.83	0.85	9.64	0.78	0.81	14.78	−0.08
2350	7.71	0.37	0.38	10.91	0.75	0.77	9.56	0.70	0.73	14.78	−0.08
2380	7.71	0.37	0.38	10.94	0.78	0.80	9.58	0.72	0.75	14.77	−0.08
2410	7.71	0.37	0.38	10.92	0.76	0.78	9.56	0.70	0.72	14.78	−0.08
2440	7.72	0.38	0.38	10.94	0.78	0.79	9.58	0.72	0.75	14.78	−0.06
2470	7.72	0.38	0.38	10.94	0.78	0.80	9.59	0.73	0.75	14.78	−0.06
2500	7.72	0.38	0.38	10.94	0.78	0.80	9.58	0.72	0.75	14.78	−0.07
2530	7.72	0.38	0.38	10.93	0.77	0.79	9.58	0.72	0.74	14.78	−0.07
2560	7.72	0.38	0.39	10.94	0.78	0.79	9.58	0.72	0.74	14.78	−0.07
2590	7.72	0.38	0.39	10.94	0.78	0.79	9.58	0.72	0.74	14.78	−0.06
2620	7.72	0.38	0.39	10.94	0.78	0.79	9.59	0.73	0.75	14.78	−0.06
2650	7.73	0.38	0.39	10.95	0.79	0.80	9.59	0.73	0.75	14.79	−0.04
2680	7.73	0.38	0.39	10.95	0.79	0.80	9.59	0.73	0.75	14.79	−0.04
2710	7.73	0.39	0.39	10.96	0.80	0.80	9.60	0.74	0.74	14.80	−0.02
2740	7.73	0.39	0.39	10.96	0.80	0.80	9.61	0.75	0.75	14.81	0.00
2770	7.73	0.39	0.39	10.96	0.80	0.80	9.61	0.75	0.75	14.81	0.00
2800	7.73	0.39	0.39	10.96	0.80	0.80	9.61	0.75	0.75	14.81	0.00
2830	7.73	0.39	0.39	10.96	0.80	0.80	9.60	0.74	0.74	14.81	−0.00
2860	7.73	0.39	0.39	10.95	0.79	0.80	9.60	0.74	0.74	14.81	−0.00
2890	7.73	0.39	0.39	10.95	0.79	0.80	9.60	0.74	0.75	14.81	−0.01
2920	7.73	0.39	0.39	10.96	0.80	0.80	9.60	0.74	0.75	14.81	−0.01

2950	7.73	0.39	0.39	10.96	0.80	0.81	9.61	0.75	0.75	14.80	−0.02
2980	7.73	0.39	0.39	10.95	0.79	0.80	9.59	0.73	0.74	14.80	−0.03
3010	7.73	0.39	0.40	10.95	0.79	0.80	9.60	0.74	0.75	14.79	−0.04
3040	7.73	0.39	0.40	10.95	0.79	0.80	9.59	0.73	0.75	14.79	−0.06
3070	7.73	0.39	0.40	10.95	0.79	0.80	9.59	0.73	0.76	14.78	−0.06
3100	7.73	0.39	0.40	10.95	0.79	0.81	9.60	0.74	0.76	14.78	−0.07
3130	7.73	0.39	0.40	10.95	0.79	0.81	9.60	0.74	0.76	14.78	−0.06
3160	7.74	0.40	0.40	10.95	0.79	0.81	9.60	0.74	0.76	14.78	−0.06
3190	7.74	0.40	0.40	10.96	0.80	0.81	9.60	0.74	0.76	14.79	−0.06
3220	7.74	0.40	0.41	10.96	0.80	0.81	9.60	0.74	0.76	14.79	−0.05
3250	7.74	0.40	0.40	10.97	0.81	0.82	9.61	0.75	0.77	14.79	−0.04
3280	7.74	0.40	0.41	10.98	0.82	0.83	9.63	0.77	0.77	14.80	−0.03
3310	7.74	0.40	0.40	10.98	0.82	0.82	9.63	0.77	0.77	14.81	−0.01
3340	7.75	0.41	0.41	10.98	0.82	0.82	9.63	0.77	0.77	14.81	−0.00
3370	7.75	0.41	0.41	10.98	0.82	0.82	9.63	0.77	0.77	14.81	0.00
3400	7.75	0.41	0.41	10.98	0.82	0.82	9.63	0.77	0.77	14.81	0.00
3430	7.75	0.41	0.41	10.98	0.82	0.82	9.63	0.77	0.77	14.81	0.00
3460	7.75	0.41	0.41	11.00	0.84	0.84	9.65	0.79	0.79	14.81	0.00
3490	7.76	0.42	0.42	11.02	0.86	0.86	9.67	0.81	0.81	14.81	0.00
3520	7.76	0.42	0.41	11.01	0.85	0.84	9.66	0.80	0.79	14.82	0.01
3550	7.76	0.42	0.41	11.01	0.85	0.84	9.65	0.79	0.78	14.82	0.02
3580	7.76	0.42	0.42	11.00	0.84	0.84	9.65	0.79	0.79	14.81	−0.00
3610	7.75	0.41	0.41	10.98	0.82	0.82	9.62	0.76	0.76	14.80	−0.02
3640	7.75	0.41	0.42	11.00	0.84	0.85	9.65	0.79	0.80	14.80	−0.03
3670	7.76	0.42	0.42	11.01	0.85	0.86	9.67	0.81	0.82	14.79	−0.04
3700	7.75	0.41	0.42	10.90	0.74	0.76	9.56	0.70	0.72	14.79	−0.06
3730	7.76	0.42	0.42	10.91	0.75	0.76	9.55	0.69	0.71	14.78	−0.07
3760	7.76	0.42	0.43	11.03	0.87	0.90	9.70	0.84	0.87	14.77	−0.09
3790	7.76	0.42	0.43	10.92	0.76	0.78	9.57	0.71	0.74	14.77	−0.09
3820	7.76	0.42	0.43	10.94	0.78	0.81	9.60	0.74	0.77	14.77	−0.09
3850	7.76	0.42	0.43	10.98	0.82	0.84	9.62	0.76	0.79	14.77	−0.09
3880	7.76	0.42	0.43	10.95	0.79	0.82	9.60	0.74	0.77	14.77	−0.09
3910	7.76	0.42	0.43	10.97	0.81	0.84	9.62	0.76	0.80	14.77	−0.10
3940	7.76	0.42	0.43	10.97	0.81	0.84	9.61	0.75	0.79	14.76	−0.11
3970	7.76	0.42	0.43	10.97	0.81	0.84	9.62	0.76	0.80	14.76	−0.12
4000	7.77	0.43	0.44	10.98	0.82	0.85	9.62	0.76	0.80	14.76	−0.12
4030	7.76	0.42	0.43	10.98	0.82	0.85	9.63	0.77	0.81	14.76	−0.12
4060	7.77	0.43	0.44	10.99	0.83	0.86	9.63	0.77	0.81	14.76	−0.11
4090	7.77	0.43	0.44	11.00	0.84	0.86	9.64	0.78	0.81	14.78	−0.08
4120	7.77	0.43	0.44	11.00	0.84	0.86	9.64	0.78	0.81	14.77	−0.09
4150	7.77	0.43	0.44	11.00	0.84	0.86	9.64	0.78	0.81	14.78	−0.08
4180	7.77	0.43	0.44	11.00	0.84	0.86	9.64	0.78	0.81	14.78	−0.08
4210	7.78	0.43	0.44	11.01	0.85	0.86	9.65	0.79	0.81	14.78	−0.06
4240	7.78	0.43	0.44	11.01	0.85	0.86	9.65	0.79	0.81	14.79	−0.05
4270	7.78	0.44	0.44	11.01	0.85	0.86	9.65	0.79	0.81	14.79	−0.04
4300	7.78	0.44	0.44	11.01	0.85	0.86	9.65	0.79	0.80	14.80	−0.03
4330	7.78	0.44	0.44	11.01	0.85	0.86	9.66	0.80	0.80	14.80	−0.02

4360	7.78	0.44	0.44	11.00	0.84	0.85	9.65	0.79	0.80	14.79	−0.04
4390	7.78	0.44	0.44	11.01	0.85	0.86	9.65	0.79	0.80	14.79	−0.05
4420	7.78	0.44	0.44	11.00	0.84	0.85	9.65	0.79	0.80	14.79	−0.05
4450	7.78	0.44	0.45	11.00	0.84	0.85	9.65	0.79	0.81	14.79	−0.05
4480	7.78	0.44	0.45	11.00	0.84	0.86	9.65	0.79	0.81	14.78	−0.06
4510	7.78	0.44	0.45	11.01	0.85	0.86	9.65	0.79	0.81	14.79	−0.05
4540	7.78	0.44	0.45	11.01	0.85	0.86	9.65	0.79	0.81	14.79	−0.06
4570	7.78	0.44	0.45	11.01	0.85	0.86	9.66	0.80	0.81	14.79	−0.04
4600	7.78	0.44	0.45	11.01	0.85	0.86	9.66	0.80	0.81	14.80	−0.03
4630	7.78	0.44	0.45	11.01	0.85	0.86	9.66	0.80	0.81	14.79	−0.04
4660	7.78	0.44	0.45	11.01	0.85	0.86	9.66	0.80	0.81	14.79	−0.05
4690	7.79	0.45	0.45	11.01	0.85	0.86	9.66	0.80	0.81	14.79	−0.05
4720	7.79	0.45	0.45	11.01	0.85	0.87	9.66	0.80	0.82	14.79	−0.06
4750	7.79	0.45	0.46	11.01	0.85	0.87	9.65	0.79	0.82	14.78	−0.08
4780	7.79	0.45	0.46	11.02	0.86	0.87	9.67	0.81	0.83	14.78	−0.06
4810	7.79	0.45	0.46	11.02	0.86	0.88	9.67	0.81	0.83	14.78	−0.06
4840	7.79	0.45	0.46	11.03	0.87	0.89	9.68	0.82	0.85	14.78	−0.06
4870	7.79	0.45	0.46	11.01	0.85	0.87	9.66	0.80	0.82	14.78	−0.06
4900	7.80	0.46	0.46	11.06	0.90	0.91	9.70	0.84	0.86	14.79	−0.04
4930	7.80	0.46	0.46	11.05	0.89	0.90	9.70	0.84	0.85	14.80	−0.03
4960	7.80	0.46	0.46	11.04	0.88	0.89	9.69	0.83	0.84	14.80	−0.03
4990	7.80	0.46	0.47	11.10	0.94	0.95	9.75	0.89	0.90	14.80	−0.03
5020	7.80	0.46	0.46	11.02	0.86	0.86	9.67	0.81	0.82	14.80	−0.03
5050	7.80	0.46	0.46	11.08	0.92	0.93	9.73	0.87	0.88	14.80	−0.03
5080	7.80	0.46	0.46	10.99	0.83	0.84	9.65	0.79	0.80	14.80	−0.03
5110	7.80	0.46	0.47	11.03	0.87	0.88	9.69	0.83	0.84	14.80	−0.03
5140	7.81	0.47	0.47	10.97	0.81	0.82	9.59	0.73	0.75	14.79	−0.04
5170	7.81	0.47	0.47	11.01	0.85	0.86	9.66	0.80	0.82	14.79	−0.04
5200	7.80	0.46	0.47	11.03	0.87	0.89	9.68	0.82	0.83	14.79	−0.05
5230	7.81	0.47	0.47	11.00	0.84	0.85	9.65	0.79	0.81	14.78	−0.06
5260	7.81	0.47	0.47	11.09	0.93	0.94	9.74	0.88	0.90	14.78	−0.07
5290	7.81	0.47	0.48	11.03	0.87	0.89	9.68	0.82	0.85	14.78	−0.07
5320	7.81	0.47	0.48	11.03	0.87	0.89	9.68	0.82	0.84	14.78	−0.07
5350	7.81	0.47	0.48	11.03	0.87	0.89	9.68	0.82	0.84	14.78	−0.08
5380	7.81	0.47	0.48	11.03	0.87	0.89	9.67	0.81	0.84	14.78	−0.07
5410	7.82	0.48	0.48	11.03	0.87	0.89	9.68	0.82	0.84	14.78	−0.06
5440	7.82	0.48	0.48	11.04	0.88	0.89	9.68	0.82	0.84	14.79	−0.05
5470	7.82	0.48	0.48	11.04	0.88	0.89	9.69	0.83	0.84	14.79	−0.04
5500	7.82	0.48	0.48	11.05	0.89	0.90	9.69	0.83	0.84	14.80	−0.03
5530	7.83	0.48	0.49	11.05	0.89	0.90	9.69	0.83	0.84	14.80	−0.02
5560	7.82	0.48	0.48	11.06	0.90	0.90	9.69	0.83	0.84	14.81	−0.01
5590	7.82	0.48	0.48	11.06	0.90	0.90	9.70	0.84	0.84	14.81	0.00
5620	7.82	0.48	0.48	11.06	0.90	0.90	9.70	0.84	0.84	14.81	0.01
5650	7.82	0.48	0.48	11.07	0.90	0.90	9.71	0.85	0.84	14.82	0.01
5680	7.83	0.48	0.48	11.06	0.90	0.89	9.70	0.84	0.83	14.82	0.02
5710	7.83	0.49	0.49	11.07	0.91	0.90	9.71	0.85	0.84	14.83	0.04
5740	7.83	0.49	0.48	11.07	0.90	0.89	9.71	0.85	0.83	14.83	0.05

5770	7.83	0.49	0.48	11.07	0.91	0.90	9.71	0.85	0.83	14.83	0.05
5800	7.83	0.49	0.48	11.06	0.90	0.89	9.70	0.84	0.83	14.83	0.04
5830	7.83	0.49	0.49	11.06	0.90	0.89	9.70	0.84	0.83	14.83	0.04
5860	7.83	0.49	0.49	11.07	0.90	0.89	9.70	0.84	0.83	14.83	0.04
5890	7.83	0.49	0.49	11.07	0.90	0.90	9.71	0.85	0.83	14.83	0.03
5920	7.83	0.49	0.49	11.06	0.90	0.89	9.70	0.84	0.83	14.82	0.03
5950	7.84	0.49	0.49	11.06	0.90	0.89	9.70	0.84	0.83	14.82	0.03
5980	7.84	0.49	0.49	11.07	0.90	0.90	9.71	0.85	0.84	14.83	0.03
6010	7.84	0.49	0.49	11.06	0.90	0.89	9.71	0.85	0.84	14.82	0.03
6040	7.84	0.49	0.49	11.06	0.90	0.89	9.71	0.85	0.83	14.83	0.04
6070	7.84	0.50	0.49	11.07	0.91	0.90	9.72	0.86	0.84	14.84	0.06
6100	7.84	0.50	0.49	11.07	0.91	0.89	9.71	0.85	0.83	14.84	0.07
6130	7.84	0.50	0.50	11.08	0.92	0.89	9.72	0.86	0.83	14.85	0.09
6160	7.84	0.50	0.49	11.09	0.93	0.91	9.74	0.88	0.84	14.85	0.10
6190	7.84	0.50	0.49	11.09	0.93	0.90	9.73	0.87	0.83	14.85	0.10
6220	7.85	0.51	0.50	11.10	0.94	0.91	9.74	0.88	0.84	14.86	0.12
6250	7.85	0.51	0.50	11.11	0.95	0.92	9.76	0.90	0.85	14.86	0.12
6280	7.85	0.51	0.50	11.12	0.96	0.93	9.76	0.90	0.86	14.86	0.12
6310	7.85	0.51	0.50	11.09	0.93	0.90	9.73	0.87	0.82	14.86	0.12
6340	7.86	0.52	0.50	11.11	0.95	0.92	9.76	0.90	0.85	14.87	0.14
6370	7.86	0.52	0.50	11.13	0.97	0.93	9.78	0.92	0.87	14.87	0.14
6400	7.86	0.52	0.50	11.08	0.92	0.89	9.73	0.87	0.81	14.87	0.14
6430	7.86	0.52	0.50	11.06	0.90	0.86	9.70	0.84	0.79	14.87	0.14
6460	7.86	0.52	0.51	11.13	0.97	0.93	9.77	0.91	0.86	14.87	0.14
6490	7.86	0.52	0.51	11.13	0.97	0.93	9.77	0.91	0.86	14.87	0.14
6520	7.86	0.52	0.51	11.09	0.93	0.90	9.75	0.89	0.84	14.87	0.13
6550	7.86	0.52	0.51	11.01	0.85	0.82	9.67	0.81	0.77	14.86	0.12
6580	7.86	0.52	0.51	11.10	0.94	0.91	9.74	0.88	0.85	14.85	0.10
6610	7.86	0.52	0.51	11.08	0.92	0.90	9.73	0.87	0.83	14.85	0.09
6640	7.86	0.52	0.51	11.12	0.96	0.94	9.76	0.90	0.87	14.84	0.07
6670	7.86	0.52	0.51	11.10	0.94	0.93	9.75	0.89	0.87	14.84	0.07
6700	7.86	0.52	0.52	11.08	0.92	0.90	9.73	0.87	0.85	14.83	0.05
6730	7.86	0.52	0.52	11.08	0.92	0.91	9.73	0.87	0.85	14.83	0.04
6760	7.86	0.52	0.52	11.07	0.91	0.90	9.72	0.86	0.85	14.83	0.04
6790	7.86	0.52	0.52	11.08	0.92	0.91	9.73	0.87	0.85	14.83	0.03
6820	7.86	0.52	0.52	11.08	0.92	0.91	9.72	0.86	0.85	14.82	0.03
6850	7.87	0.53	0.52	11.08	0.92	0.91	9.72	0.86	0.85	14.82	0.03
6880	7.87	0.53	0.52	11.08	0.92	0.91	9.72	0.86	0.85	14.82	0.03
6910	7.87	0.53	0.52	11.09	0.93	0.92	9.73	0.87	0.86	14.82	0.03
6940	7.87	0.53	0.53	11.10	0.94	0.93	9.74	0.88	0.86	14.83	0.04
6970	7.87	0.53	0.53	11.10	0.94	0.93	9.74	0.88	0.86	14.83	0.03
7000	7.87	0.53	0.53	11.10	0.94	0.93	9.74	0.88	0.86	14.83	0.04
7030	7.87	0.53	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.83	0.04
7060	7.87	0.53	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.83	0.04
7090	7.87	0.53	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.83	0.04
7120	7.87	0.53	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.83	0.04
7150	7.88	0.54	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.83	0.04

7180	7.88	0.54	0.53	11.10	0.94	0.93	9.75	0.89	0.87	14.83	0.04
7210	7.88	0.54	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.83	0.04
7240	7.88	0.54	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.82	0.03
7270	7.88	0.54	0.53	11.10	0.94	0.93	9.74	0.88	0.87	14.82	0.02
7300	7.88	0.54	0.53	11.10	0.94	0.93	9.74	0.88	0.88	14.82	0.02
7330	7.88	0.54	0.53	11.10	0.94	0.93	9.74	0.88	0.88	14.82	0.01
7360	7.88	0.54	0.54	11.10	0.94	0.93	9.75	0.89	0.88	14.82	0.02
7390	7.88	0.54	0.54	11.10	0.94	0.94	9.75	0.89	0.88	14.82	0.02
7420	7.88	0.54	0.54	11.10	0.94	0.94	9.75	0.89	0.88	14.82	0.02
7450	7.88	0.54	0.54	11.11	0.95	0.94	9.75	0.89	0.88	14.82	0.02
7480	7.89	0.55	0.54	11.11	0.95	0.94	9.75	0.89	0.88	14.82	0.03
7510	7.89	0.55	0.54	11.11	0.95	0.94	9.75	0.89	0.88	14.83	0.04
7540	7.89	0.55	0.54	11.12	0.96	0.94	9.76	0.90	0.88	14.83	0.05
7570	7.89	0.55	0.54	11.12	0.96	0.94	9.76	0.90	0.88	14.84	0.06
7600	7.89	0.55	0.55	11.13	0.97	0.96	9.78	0.92	0.90	14.84	0.07
7630	7.89	0.55	0.55	11.14	0.98	0.96	9.78	0.92	0.90	14.84	0.07
7660	7.90	0.55	0.55	11.14	0.98	0.96	9.79	0.93	0.90	14.84	0.08
7690	7.90	0.55	0.55	11.15	0.99	0.97	9.79	0.93	0.90	14.84	0.08
7720	7.90	0.56	0.55	11.15	0.99	0.97	9.79	0.93	0.90	14.85	0.08
7750	7.90	0.56	0.55	11.16	1.00	0.98	9.81	0.95	0.92	14.85	0.09
7780	7.90	0.56	0.55	11.15	0.99	0.97	9.80	0.94	0.91	14.85	0.10
7810	7.90	0.56	0.55	11.16	1.00	0.97	9.81	0.95	0.91	14.85	0.10
7840	7.90	0.56	0.55	11.15	0.99	0.96	9.80	0.94	0.90	14.86	0.10
7870	7.90	0.56	0.55	11.13	0.97	0.94	9.79	0.93	0.89	14.85	0.10
7900	7.90	0.56	0.55	11.14	0.98	0.96	9.80	0.94	0.91	14.85	0.10
7930	7.90	0.56	0.55	11.15	0.99	0.97	9.80	0.94	0.90	14.85	0.09
7960	7.90	0.56	0.55	11.13	0.97	0.95	9.80	0.94	0.90	14.85	0.09
7990	7.91	0.57	0.56	11.14	0.98	0.96	9.80	0.94	0.91	14.85	0.09
8020	7.91	0.57	0.56	11.14	0.98	0.96	9.78	0.92	0.89	14.85	0.09
8050	7.91	0.57	0.56	11.15	0.99	0.97	9.79	0.93	0.91	14.84	0.07
8080	7.91	0.57	0.56	11.14	0.98	0.96	9.79	0.93	0.91	14.84	0.06
8110	7.91	0.57	0.56	11.12	0.96	0.94	9.77	0.91	0.89	14.84	0.06
8140	7.91	0.57	0.57	11.13	0.97	0.95	9.78	0.92	0.90	14.83	0.05
8170	7.91	0.57	0.57	11.13	0.97	0.96	9.77	0.91	0.90	14.83	0.05
8200	7.91	0.57	0.57	11.13	0.97	0.96	9.78	0.92	0.90	14.83	0.05
8230	7.91	0.57	0.57	11.13	0.97	0.96	9.77	0.91	0.89	14.83	0.04
8260	7.91	0.57	0.57	11.13	0.97	0.96	9.78	0.92	0.90	14.83	0.05
8290	7.91	0.57	0.57	11.13	0.97	0.96	9.77	0.91	0.89	14.83	0.05
8320	7.91	0.57	0.57	11.13	0.97	0.96	9.77	0.91	0.90	14.83	0.05
8350	7.92	0.58	0.57	11.13	0.97	0.96	9.77	0.91	0.89	14.83	0.05
8380	7.92	0.58	0.57	11.14	0.98	0.97	9.78	0.92	0.89	14.84	0.06
8410	7.92	0.58	0.57	11.15	0.99	0.97	9.79	0.93	0.90	14.84	0.07
8440	7.92	0.58	0.57	11.15	0.99	0.97	9.79	0.93	0.90	14.84	0.08
8470	7.92	0.58	0.57	11.15	0.99	0.97	9.79	0.93	0.90	14.85	0.08
8500	7.92	0.58	0.57	11.15	0.99	0.97	9.79	0.93	0.90	14.85	0.09
8530	7.92	0.58	0.57	11.15	0.99	0.97	9.79	0.93	0.90	14.85	0.09
8560	7.92	0.58	0.58	11.15	0.99	0.97	9.79	0.93	0.90	14.84	0.08

8590	7.92	0.58	0.58	11.15	0.99	0.97	9.79	0.93	0.90	14.84	0.07
8620	7.92	0.58	0.58	11.15	0.99	0.97	9.79	0.93	0.90	14.84	0.07
8650	7.92	0.58	0.58	11.15	0.99	0.97	9.79	0.93	0.91	14.84	0.06
8680	7.92	0.58	0.58	11.14	0.98	0.97	9.79	0.93	0.91	14.83	0.05
8710	7.93	0.59	0.58	11.14	0.98	0.97	9.78	0.92	0.91	14.83	0.04
8740	7.92	0.58	0.58	11.14	0.98	0.97	9.78	0.92	0.91	14.83	0.03
8770	7.93	0.59	0.58	11.14	0.98	0.97	9.78	0.92	0.91	14.82	0.03
8800	7.93	0.59	0.58	11.14	0.98	0.97	9.78	0.92	0.91	14.82	0.03
8830	7.93	0.59	0.58	11.14	0.98	0.97	9.78	0.92	0.91	14.82	0.03
8860	7.93	0.59	0.58	11.14	0.98	0.98	9.78	0.92	0.92	14.82	0.02
8890	7.93	0.59	0.59	11.14	0.98	0.98	9.78	0.92	0.92	14.82	0.02
8920	7.93	0.59	0.59	11.14	0.98	0.97	9.79	0.93	0.92	14.82	0.03
8950	7.93	0.59	0.59	11.15	0.99	0.98	9.79	0.93	0.92	14.83	0.04
8980	7.93	0.59	0.59	11.16	1.00	0.98	9.80	0.94	0.93	14.83	0.04
9010	7.94	0.60	0.59	11.16	1.00	0.98	9.81	0.95	0.92	14.84	0.06
9040	7.94	0.60	0.59	11.17	1.01	0.99	9.81	0.95	0.93	14.84	0.06
9070	7.94	0.60	0.59	11.17	1.01	0.99	9.81	0.95	0.93	14.84	0.07
9100	7.94	0.60	0.59	11.18	1.02	1.00	9.82	0.96	0.93	14.85	0.08
9130	7.94	0.60	0.59	11.19	1.03	1.01	9.84	0.98	0.95	14.85	0.09
9160	7.94	0.60	0.59	11.17	1.01	0.98	9.81	0.95	0.92	14.85	0.09
9190	7.95	0.61	0.60	11.21	1.05	1.03	9.86	1.00	0.97	14.85	0.10
9220	7.95	0.61	0.59	11.19	1.03	1.00	9.83	0.97	0.93	14.86	0.11
9250	7.95	0.61	0.60	11.22	1.06	1.03	9.88	1.02	0.98	14.86	0.11
9280	7.95	0.61	0.60	11.25	1.09	1.06	9.90	1.04	1.01	14.86	0.10
9310	7.95	0.61	0.60	11.18	1.02	1.00	9.84	0.98	0.94	14.85	0.10
9340	7.95	0.61	0.60	11.18	1.02	1.00	9.84	0.98	0.94	14.85	0.09
9370	7.95	0.61	0.60	11.19	1.03	1.01	9.84	0.98	0.95	14.84	0.08
9400	7.95	0.61	0.60	11.16	1.00	0.98	9.81	0.95	0.93	14.84	0.07
9430	7.95	0.61	0.60	11.19	1.03	1.01	9.84	0.98	0.95	14.84	0.06
9460	7.95	0.61	0.60	11.16	1.00	0.99	9.81	0.95	0.93	14.83	0.05
9490	7.95	0.61	0.61	11.18	1.02	1.00	9.82	0.96	0.95	14.83	0.04
9520	7.95	0.61	0.61	11.16	1.00	0.99	9.81	0.95	0.93	14.82	0.03
9550	7.95	0.61	0.61	11.15	0.99	0.99	9.81	0.95	0.94	14.82	0.02
9580	7.96	0.61	0.61	11.16	1.00	1.00	9.81	0.95	0.95	14.82	0.01
9610	7.96	0.61	0.61	11.16	1.00	0.99	9.81	0.95	0.94	14.82	0.01
9640	7.96	0.61	0.61	11.15	0.99	0.99	9.80	0.94	0.94	14.81	0.01
9670	7.96	0.61	0.61	11.15	0.99	0.99	9.79	0.93	0.93	14.81	0.01
9700	7.96	0.61	0.61	11.16	1.00	1.00	9.81	0.95	0.95	14.81	0.00
9730	7.96	0.62	0.62	11.16	1.00	1.00	9.80	0.94	0.94	14.81	−0.00
9760	7.96	0.62	0.62	11.16	1.00	1.00	9.80	0.94	0.94	14.81	−0.01
9790	7.96	0.62	0.62	11.16	1.00	1.00	9.80	0.94	0.94	14.81	−0.00
9820	7.96	0.62	0.62	11.16	1.00	1.00	9.81	0.95	0.95	14.81	0.00
9850	7.96	0.62	0.62	11.17	1.01	1.00	9.81	0.95	0.94	14.82	0.02
9880	7.96	0.62	0.62	11.17	1.01	1.01	9.81	0.95	0.95	14.82	0.02
9910	7.96	0.62	0.62	11.18	1.02	1.01	9.81	0.95	0.94	14.82	0.03
9940	7.96	0.62	0.62	11.18	1.02	1.01	9.82	0.96	0.94	14.83	0.04
9970	7.96	0.62	0.62	11.17	1.01	1.00	9.81	0.95	0.94	14.82	0.03

10000	7.97	0.63	0.62	11.17	1.01	1.00	9.81	0.95	0.94	14.82	0.02
10030	7.97	0.63	0.62	11.17	1.01	1.00	9.81	0.95	0.94	14.82	0.02
10060	7.96	0.62	0.62	11.17	1.01	1.00	9.81	0.95	0.94	14.82	0.01
10090	7.97	0.63	0.63	11.17	1.01	1.00	9.81	0.95	0.94	14.82	0.01
10120	7.97	0.63	0.63	11.16	1.00	1.00	9.81	0.95	0.94	14.81	0.01
10150	7.97	0.63	0.63	11.16	1.00	1.00	9.81	0.95	0.95	14.81	−0.01
10180	7.97	0.63	0.63	11.16	1.00	1.00	9.81	0.95	0.95	14.80	−0.01
10210	7.97	0.63	0.63	11.16	1.00	1.01	9.80	0.94	0.95	14.80	−0.02
10240	7.97	0.63	0.63	11.16	1.00	1.00	9.80	0.94	0.95	14.80	−0.03
10270	7.97	0.63	0.63	11.16	1.00	1.01	9.81	0.95	0.96	14.80	−0.03
10300	7.97	0.63	0.63	11.16	1.00	1.01	9.81	0.95	0.96	14.80	−0.03
10330	7.97	0.63	0.63	11.16	1.00	1.01	9.81	0.95	0.95	14.80	−0.03
10360	7.97	0.63	0.63	11.16	1.00	1.00	9.80	0.94	0.95	14.80	−0.02
10390	7.97	0.63	0.64	11.15	0.99	0.99	9.79	0.93	0.93	14.80	−0.02
10420	7.97	0.63	0.64	11.14	0.98	0.98	9.78	0.92	0.93	14.80	−0.01
10450	7.98	0.64	0.64	11.14	0.98	0.98	9.78	0.92	0.93	14.81	−0.01
10480	7.98	0.64	0.64	11.14	0.98	0.98	9.79	0.93	0.93	14.81	−0.00
10510	7.97	0.63	0.63	11.15	0.99	0.99	9.80	0.94	0.93	14.81	0.01
10540	7.97	0.63	0.63	11.15	0.99	0.99	9.80	0.94	0.93	14.82	0.01
10570	7.98	0.64	0.64	11.15	0.99	0.99	9.80	0.94	0.94	14.82	0.01
10600	7.98	0.64	0.64	11.16	1.00	0.99	9.81	0.95	0.94	14.82	0.01
10630	7.98	0.64	0.64	11.16	1.00	1.00	9.81	0.95	0.94	14.82	0.02
10660	7.98	0.64	0.64	11.16	1.00	1.00	9.81	0.95	0.94	14.82	0.02
10690	7.99	0.65	0.64	11.22	1.06	1.05	9.87	1.01	1.00	14.82	0.03
10720	7.99	0.65	0.64	11.19	1.03	1.03	9.86	0.99	0.99	14.82	0.02
10750	7.98	0.64	0.64	11.11	0.95	0.95	9.77	0.91	0.91	14.82	0.01
10780	7.98	0.64	0.64	11.07	0.91	0.91	9.74	0.88	0.88	14.81	−0.00
10810	7.98	0.64	0.64	10.99	0.83	0.83	9.64	0.78	0.79	14.80	−0.02
10840	7.97	0.63	0.64	11.07	0.91	0.92	9.75	0.89	0.90	14.80	−0.03
10870	7.99	0.65	0.65	11.20	1.04	1.05	9.87	1.01	1.03	14.79	−0.04
10900	7.99	0.65	0.65	11.08	0.92	0.94	9.74	0.88	0.90	14.79	−0.05
10930	7.99	0.65	0.65	11.08	0.92	0.94	9.75	0.89	0.91	14.78	−0.06
10960	7.98	0.64	0.65	11.08	0.92	0.93	9.74	0.88	0.91	14.78	−0.07
10990	7.99	0.65	0.65	11.09	0.93	0.95	9.75	0.89	0.92	14.78	−0.07
11020	7.99	0.65	0.65	11.10	0.94	0.95	9.75	0.89	0.92	14.78	−0.07
11050	7.99	0.65	0.66	11.08	0.92	0.94	9.74	0.88	0.91	14.78	−0.08
11080	7.99	0.65	0.66	11.07	0.90	0.93	9.73	0.87	0.90	14.77	−0.08
11110	7.99	0.65	0.66	11.08	0.92	0.95	9.75	0.89	0.92	14.77	−0.08
11140	7.99	0.65	0.66	11.06	0.90	0.92	9.73	0.87	0.89	14.78	−0.08
11170	7.99	0.65	0.66	11.05	0.89	0.91	9.72	0.86	0.89	14.77	−0.08
11200	7.99	0.65	0.66	11.08	0.92	0.95	9.75	0.89	0.92	14.78	−0.08
11230	8.00	0.66	0.66	11.12	0.96	0.98	9.77	0.91	0.94	14.78	−0.08
11260	8.00	0.66	0.66	11.08	0.92	0.94	9.74	0.88	0.91	14.78	−0.07
11290	8.00	0.66	0.66	11.09	0.93	0.94	9.75	0.89	0.91	14.79	−0.06
11320	8.00	0.66	0.66	11.09	0.93	0.94	9.75	0.89	0.91	14.79	−0.06
11350	8.00	0.66	0.66	11.12	0.96	0.97	9.78	0.92	0.93	14.79	−0.05
11380	8.00	0.66	0.66	11.14	0.98	1.00	9.80	0.94	0.96	14.79	−0.04

11410	8.00	0.66	0.66	11.16	1.00	1.02	9.81	0.95	0.97	14.79	−0.05
11440	8.00	0.66	0.67	11.18	1.02	1.03	9.82	0.96	0.98	14.79	−0.05
11470	8.00	0.66	0.67	11.18	1.02	1.04	9.83	0.97	0.99	14.79	−0.06
11500	8.00	0.66	0.67	11.20	1.04	1.05	9.84	0.98	1.00	14.79	−0.06
11530	8.00	0.66	0.67	11.20	1.04	1.06	9.85	0.99	1.01	14.78	−0.06
11560	8.00	0.66	0.67	11.20	1.04	1.06	9.85	0.99	1.01	14.78	−0.06
11590	8.00	0.66	0.67	11.20	1.04	1.06	9.85	0.99	1.01	14.78	−0.07
11620	8.00	0.66	0.67	11.20	1.04	1.06	9.84	0.98	1.01	14.77	−0.08
11650	8.00	0.66	0.67	11.21	1.05	1.07	9.85	0.99	1.02	14.77	−0.09
11680	8.01	0.67	0.67	11.21	1.05	1.08	9.86	0.99	1.03	14.77	−0.10
11710	8.00	0.66	0.67	11.22	1.06	1.08	9.86	1.00	1.04	14.76	−0.11
11740	8.01	0.67	0.68	11.19	1.03	1.05	9.83	0.97	1.01	14.76	−0.11
11770	8.01	0.67	0.68	11.17	1.01	1.04	9.82	0.96	1.00	14.76	−0.13
11800	8.01	0.67	0.68	11.19	1.03	1.06	9.83	0.97	1.01	14.76	−0.12
11830	8.01	0.67	0.68	11.20	1.04	1.07	9.85	0.99	1.02	14.76	−0.11
11860	8.01	0.67	0.68	11.21	1.05	1.07	9.85	0.99	1.03	14.77	−0.09
11890	8.01	0.67	0.68	11.22	1.06	1.08	9.87	1.01	1.04	14.78	−0.08
11920	8.01	0.67	0.68	11.23	1.07	1.09	9.87	1.01	1.04	14.78	−0.06
11950	8.02	0.68	0.68	11.24	1.08	1.09	9.88	1.02	1.04	14.79	−0.04
11980	8.02	0.68	0.68	11.24	1.08	1.09	9.89	1.03	1.04	14.79	−0.05
12010	8.02	0.68	0.68	11.25	1.09	1.10	9.89	1.03	1.05	14.79	−0.05
12040	8.02	0.68	0.68	11.25	1.09	1.10	9.89	1.03	1.05	14.79	−0.05
12070	8.02	0.68	0.68	11.25	1.09	1.11	9.90	1.04	1.06	14.79	−0.06
12100	8.02	0.68	0.68	11.23	1.07	1.08	9.87	1.01	1.03	14.79	−0.06
12130	8.02	0.68	0.69	11.19	1.03	1.05	9.84	0.98	1.00	14.79	−0.06
12160	8.02	0.68	0.69	11.19	1.03	1.04	9.83	0.97	0.99	14.79	−0.06
12190	8.02	0.68	0.69	11.17	1.01	1.03	9.82	0.96	0.98	14.79	−0.06
12220	8.02	0.68	0.69	11.17	1.01	1.02	9.81	0.95	0.97	14.79	−0.05
12250	8.02	0.68	0.69	11.15	0.99	1.01	9.80	0.94	0.96	14.78	−0.06
12280	8.02	0.68	0.69	11.08	0.92	0.94	9.73	0.87	0.90	14.78	−0.07
12310	8.02	0.68	0.69	11.01	0.85	0.87	9.67	0.81	0.84	14.78	−0.08
12340	8.02	0.68	0.69	10.95	0.79	0.82	9.63	0.77	0.80	14.77	−0.09
12370	8.02	0.68	0.69	10.93	0.77	0.80	9.62	0.76	0.80	14.76	−0.11
12400	8.02	0.68	0.69	10.87	0.71	0.75	9.56	0.70	0.75	14.75	−0.15
12430	8.02	0.68	0.70	10.84	0.68	0.72	9.53	0.67	0.73	14.75	−0.15
12460	8.02	0.68	0.70	10.82	0.66	0.71	9.53	0.67	0.72	14.74	−0.16
12490	8.02	0.68	0.70	10.82	0.65	0.70	9.51	0.65	0.71	14.74	−0.16
12520	8.02	0.68	0.70	10.81	0.65	0.68	9.51	0.65	0.70	14.75	−0.15
12550	8.02	0.68	0.70	10.80	0.64	0.67	9.50	0.64	0.69	14.75	−0.15
12580	8.02	0.68	0.70	10.79	0.63	0.67	9.50	0.64	0.69	14.75	−0.15
12610	8.02	0.68	0.70	10.78	0.62	0.66	9.49	0.63	0.68	14.75	−0.15
12640	8.02	0.68	0.70	10.78	0.62	0.66	9.49	0.63	0.68	14.74	−0.16
12670	8.02	0.68	0.70	10.78	0.62	0.66	9.49	0.63	0.68	14.75	−0.14
12700	8.03	0.69	0.70	10.79	0.63	0.66	9.49	0.63	0.68	14.75	−0.13
12730	8.03	0.69	0.70	10.79	0.63	0.66	9.49	0.63	0.68	14.75	−0.13
12760	8.02	0.68	0.70	10.78	0.62	0.65	9.48	0.62	0.67	14.75	−0.15
12790	8.02	0.68	0.70	10.77	0.61	0.65	9.48	0.62	0.67	14.74	−0.15

12820	8.03	0.69	0.70	10.78	0.62	0.66	9.49	0.63	0.67	14.76	−0.13
12850	8.03	0.69	0.70	10.77	0.61	0.64	9.48	0.62	0.66	14.76	−0.13
12880	8.03	0.69	0.70	10.77	0.61	0.64	9.48	0.62	0.67	14.75	−0.13
12910	8.03	0.69	0.70	10.77	0.61	0.65	9.48	0.62	0.67	14.75	−0.14
12940	8.02	0.68	0.70	10.76	0.60	0.64	9.47	0.61	0.66	14.75	−0.15
12970	8.02	0.68	0.70	10.77	0.61	0.65	9.47	0.61	0.67	14.75	−0.15
13000	8.02	0.68	0.70	10.76	0.60	0.64	9.47	0.61	0.67	14.74	−0.17
13030	8.02	0.68	0.70	10.76	0.60	0.64	9.46	0.60	0.67	14.73	−0.18
13060	8.02	0.68	0.70	10.75	0.59	0.64	9.46	0.60	0.67	14.72	−0.20
13090	8.02	0.68	0.70	10.75	0.59	0.64	9.45	0.59	0.67	14.72	−0.22
13120	8.02	0.68	0.70	10.75	0.59	0.64	9.45	0.59	0.67	14.71	−0.22
13150	8.02	0.68	0.70	10.74	0.58	0.64	9.45	0.59	0.67	14.71	−0.23
13180	8.02	0.68	0.70	10.75	0.59	0.65	9.46	0.60	0.69	14.71	−0.23
13210	8.02	0.68	0.71	10.76	0.60	0.65	9.46	0.60	0.68	14.71	−0.23
13240	8.02	0.68	0.71	10.76	0.60	0.65	9.47	0.61	0.68	14.72	−0.21
13270	8.03	0.69	0.71	10.76	0.60	0.65	9.47	0.61	0.68	14.72	−0.21
13300	8.03	0.69	0.71	10.76	0.60	0.65	9.47	0.61	0.68	14.73	−0.19
13330	8.03	0.69	0.71	10.77	0.61	0.66	9.48	0.62	0.69	14.73	−0.20
13360	8.03	0.69	0.71	10.77	0.61	0.66	9.48	0.62	0.68	14.73	−0.18
13390	8.03	0.69	0.71	10.77	0.61	0.66	9.48	0.62	0.68	14.74	−0.17
13420	8.03	0.69	0.71	10.77	0.61	0.66	9.48	0.62	0.68	14.74	−0.16
13450	8.03	0.69	0.71	10.77	0.61	0.65	9.48	0.62	0.68	14.74	−0.16
13480	8.03	0.69	0.71	10.77	0.61	0.66	9.48	0.62	0.68	14.74	−0.17
13510	8.03	0.69	0.71	10.79	0.63	0.68	9.50	0.64	0.70	14.74	−0.17
13540	8.03	0.69	0.71	10.90	0.74	0.79	9.62	0.76	0.82	14.73	−0.18
13570	8.03	0.69	0.71	11.02	0.86	0.91	9.71	0.85	0.92	14.73	−0.18
13600	8.03	0.69	0.71	11.00	0.84	0.88	9.67	0.81	0.87	14.73	−0.19
13630	8.03	0.69	0.71	11.05	0.89	0.94	9.71	0.85	0.92	14.73	−0.19
13660	8.04	0.70	0.72	11.16	1.00	1.06	9.83	0.97	1.04	14.72	−0.20
13690	8.04	0.70	0.72	11.11	0.95	1.00	9.77	0.91	0.98	14.72	−0.21
13720	8.04	0.70	0.72	11.19	1.03	1.09	9.85	0.99	1.07	14.71	−0.22
13750	8.04	0.70	0.72	11.22	1.06	1.13	9.88	1.02	1.11	14.71	−0.24
13780	8.03	0.69	0.72	11.21	1.05	1.12	9.86	1.00	1.09	14.70	−0.25
13810	8.04	0.70	0.72	11.12	0.96	1.02	9.75	0.89	0.98	14.70	−0.25
13840	8.04	0.70	0.72	11.19	1.03	1.09	9.83	0.97	1.06	14.70	−0.25
13870	8.04	0.70	0.73	11.20	1.04	1.11	9.84	0.98	1.08	14.69	−0.27
13900	8.04	0.70	0.73	11.19	1.03	1.11	9.83	0.97	1.08	14.69	−0.29
13930	8.04	0.70	0.73	11.21	1.05	1.13	9.85	0.99	1.10	14.68	−0.30
13960	8.04	0.70	0.73	11.20	1.04	1.12	9.84	0.98	1.08	14.68	−0.30
13990	8.04	0.70	0.73	11.20	1.04	1.12	9.84	0.98	1.09	14.68	−0.30
14020	8.05	0.71	0.74	11.22	1.06	1.14	9.85	0.99	1.10	14.68	−0.30
14050	8.04	0.70	0.73	11.23	1.07	1.14	9.86	1.00	1.11	14.68	−0.30
14080	8.05	0.71	0.73	11.23	1.07	1.15	9.87	1.01	1.11	14.69	−0.29
14110	8.05	0.71	0.74	11.24	1.08	1.15	9.87	1.01	1.11	14.69	−0.28
14140	8.05	0.71	0.74	11.25	1.09	1.16	9.88	1.02	1.12	14.69	−0.27
14170	8.05	0.71	0.74	11.26	1.10	1.16	9.88	1.02	1.12	14.70	−0.26
14200	8.05	0.71	0.74	11.24	1.08	1.15	9.87	1.01	1.10	14.70	−0.26

14230	8.05	0.71	0.74	11.25	1.09	1.15	9.88	1.02	1.11	14.70	−0.25
14260	8.06	0.72	0.74	11.25	1.09	1.15	9.88	1.02	1.10	14.71	−0.23
14290	8.06	0.72	0.74	11.25	1.09	1.15	9.88	1.02	1.10	14.72	−0.22
14320	8.06	0.72	0.74	11.25	1.09	1.14	9.88	1.02	1.10	14.71	−0.22
14350	8.06	0.72	0.74	11.24	1.08	1.14	9.87	1.01	1.10	14.71	−0.23
14380	8.06	0.72	0.74	11.24	1.08	1.14	9.87	1.01	1.09	14.71	−0.23
14410	8.06	0.72	0.74	11.24	1.08	1.14	9.87	1.01	1.09	14.71	−0.22
14440	8.06	0.72	0.74	11.23	1.07	1.13	9.87	1.01	1.09	14.71	−0.23
14470	8.06	0.72	0.75	11.23	1.07	1.13	9.87	1.01	1.09	14.71	−0.23
14500	8.06	0.72	0.74	11.23	1.07	1.13	9.86	1.00	1.09	14.70	−0.24
14530	8.06	0.72	0.75	11.22	1.06	1.13	9.86	1.00	1.09	14.70	−0.25
14560	8.06	0.72	0.75	11.23	1.07	1.13	9.86	1.00	1.09	14.70	−0.25
14590	8.06	0.72	0.75	11.23	1.07	1.13	9.86	1.00	1.09	14.70	−0.25
14620	8.07	0.72	0.75	11.23	1.07	1.13	9.86	1.00	1.09	14.71	−0.24
14650	8.07	0.72	0.75	11.23	1.07	1.13	9.87	1.01	1.09	14.71	−0.23
14680	8.07	0.73	0.75	11.23	1.07	1.13	9.86	1.00	1.08	14.72	−0.22
14710	8.07	0.73	0.75	11.24	1.08	1.13	9.87	1.01	1.09	14.72	−0.21
14740	8.07	0.73	0.75	11.24	1.08	1.13	9.88	1.02	1.08	14.73	−0.18
14770	8.07	0.73	0.75	11.24	1.08	1.13	9.88	1.02	1.08	14.74	−0.17
14800	8.08	0.73	0.75	11.24	1.08	1.12	9.89	1.03	1.08	14.74	−0.15
14830	8.08	0.73	0.75	11.25	1.09	1.12	9.88	1.02	1.07	14.75	−0.14
14860	8.08	0.74	0.75	11.25	1.09	1.12	9.88	1.02	1.07	14.76	−0.12
14890	8.08	0.74	0.75	11.25	1.09	1.12	9.89	1.03	1.07	14.76	−0.11
14920	8.08	0.74	0.75	11.25	1.09	1.12	9.89	1.03	1.07	14.76	−0.11
14950	8.08	0.74	0.75	11.25	1.09	1.11	9.89	1.03	1.06	14.77	−0.09
14980	8.08	0.74	0.75	11.25	1.09	1.11	9.89	1.03	1.06	14.78	−0.08
15010	8.08	0.74	0.75	11.26	1.10	1.11	9.89	1.03	1.06	14.78	−0.07
15040	8.08	0.74	0.75	11.25	1.09	1.11	9.89	1.03	1.05	14.78	−0.06
15070	8.08	0.74	0.75	11.25	1.09	1.10	9.89	1.03	1.05	14.78	−0.06
15100	8.08	0.74	0.75	11.24	1.08	1.10	9.88	1.02	1.05	14.78	−0.07
15130	8.08	0.74	0.75	11.25	1.09	1.10	9.88	1.02	1.05	14.78	−0.08
15160	8.08	0.74	0.75	11.25	1.09	1.11	9.88	1.02	1.05	14.78	−0.08
15190	8.08	0.74	0.75	11.25	1.09	1.11	9.89	1.03	1.06	14.78	−0.07
15220	8.08	0.74	0.75	11.25	1.09	1.10	9.88	1.02	1.05	14.78	−0.08
15250	8.08	0.74	0.75	11.24	1.08	1.10	9.88	1.02	1.05	14.77	−0.08
15280	8.09	0.75	0.76	11.24	1.08	1.10	9.88	1.02	1.05	14.77	−0.09
15310	8.09	0.75	0.76	11.24	1.08	1.10	9.87	1.01	1.05	14.77	−0.09
15340	8.09	0.75	0.76	11.24	1.08	1.10	9.88	1.02	1.06	14.77	−0.10
15370	8.09	0.75	0.76	11.24	1.08	1.11	9.88	1.02	1.06	14.77	−0.09
15400	8.09	0.75	0.76	11.24	1.08	1.10	9.88	1.02	1.05	14.77	−0.09
15430	8.09	0.75	0.76	11.25	1.09	1.11	9.89	1.03	1.06	14.77	−0.08
15460	8.09	0.75	0.76	11.25	1.09	1.11	9.88	1.02	1.05	14.77	−0.09
15490	8.09	0.75	0.76	11.25	1.09	1.11	9.89	1.03	1.06	14.77	−0.09
15520	8.09	0.75	0.76	11.24	1.08	1.10	9.88	1.02	1.05	14.78	−0.08
15550	8.09	0.75	0.76	11.25	1.09	1.11	9.89	1.03	1.06	14.78	−0.08
15580	8.10	0.76	0.77	11.25	1.09	1.11	9.88	1.02	1.05	14.78	−0.08
15610	8.10	0.76	0.76	11.25	1.09	1.11	9.89	1.03	1.06	14.78	−0.07

15640	8.10	0.76	0.76	11.25	1.09	1.10	9.89	1.03	1.05	14.78	−0.06
15670	8.10	0.76	0.76	11.26	1.10	1.11	9.90	1.04	1.06	14.79	−0.06
15700	8.10	0.76	0.77	11.26	1.10	1.11	9.90	1.04	1.06	14.79	−0.05
15730	8.10	0.76	0.77	11.26	1.10	1.11	9.90	1.04	1.06	14.79	−0.05
15760	8.10	0.76	0.77	11.26	1.10	1.11	9.89	1.03	1.05	14.79	−0.05
15790	8.10	0.76	0.77	11.25	1.09	1.11	9.89	1.03	1.05	14.78	−0.06
15820	8.10	0.76	0.77	11.26	1.10	1.11	9.90	1.04	1.06	14.78	−0.06
15850	8.10	0.76	0.77	11.26	1.10	1.11	9.89	1.03	1.06	14.78	−0.06
15880	8.10	0.76	0.77	11.25	1.09	1.11	9.89	1.03	1.06	14.78	−0.07
15910	8.10	0.76	0.77	11.25	1.09	1.11	9.90	1.04	1.07	14.78	−0.08
15940	8.10	0.76	0.77	11.25	1.09	1.11	9.89	1.03	1.06	14.77	−0.09
15970	8.10	0.76	0.77	11.25	1.09	1.11	9.89	1.03	1.06	14.77	−0.09
16000	8.10	0.76	0.77	11.25	1.09	1.11	9.88	1.02	1.06	14.77	−0.10
16030	8.11	0.77	0.78	11.25	1.09	1.11	9.89	1.03	1.06	14.77	−0.10
16060	8.11	0.77	0.78	11.25	1.09	1.12	9.89	1.03	1.07	14.77	−0.10
16090	8.11	0.77	0.78	11.25	1.09	1.12	9.89	1.03	1.07	14.77	−0.10
16120	8.11	0.77	0.78	11.25	1.09	1.12	9.89	1.03	1.07	14.77	−0.10
16150	8.11	0.77	0.78	11.26	1.10	1.12	9.90	1.04	1.07	14.77	−0.09
16180	8.11	0.77	0.78	11.26	1.10	1.12	9.90	1.04	1.07	14.77	−0.09
16210	8.11	0.77	0.78	11.26	1.10	1.12	9.91	1.05	1.07	14.78	−0.08
16240	8.11	0.77	0.78	11.27	1.11	1.13	9.91	1.05	1.08	14.78	−0.07
16270	8.12	0.78	0.78	11.27	1.11	1.12	9.91	1.05	1.07	14.79	−0.05
16300	8.12	0.78	0.78	11.28	1.12	1.13	9.93	1.07	1.08	14.79	−0.04
16330	8.12	0.78	0.78	11.28	1.12	1.13	9.92	1.06	1.08	14.79	−0.04
16360	8.12	0.78	0.78	11.26	1.10	1.11	9.89	1.03	1.04	14.79	−0.04
16390	8.12	0.78	0.78	11.24	1.08	1.09	9.88	1.02	1.03	14.80	−0.03
16420	8.12	0.78	0.78	11.27	1.11	1.12	9.91	1.05	1.06	14.80	−0.03
16450	8.12	0.78	0.78	11.27	1.11	1.11	9.92	1.06	1.06	14.81	−0.01
16480	8.13	0.78	0.79	11.27	1.11	1.11	9.90	1.04	1.05	14.81	−0.01
16510	8.12	0.78	0.78	11.24	1.08	1.08	9.87	1.01	1.02	14.81	−0.01
16540	8.13	0.79	0.79	11.32	1.16	1.16	9.98	1.12	1.12	14.80	−0.01
16570	8.13	0.79	0.79	11.29	1.13	1.13	9.96	1.10	1.11	14.81	−0.01
16600	8.13	0.78	0.79	11.19	1.03	1.03	9.83	0.97	0.97	14.80	−0.01
16630	8.13	0.79	0.79	11.24	1.08	1.09	9.89	1.03	1.04	14.80	−0.02
16660	8.14	0.80	0.80	11.30	1.14	1.15	9.94	1.08	1.09	14.80	−0.03
16690	8.13	0.78	0.79	11.19	1.03	1.04	9.86	0.99	1.01	14.79	−0.04
16720	8.13	0.79	0.79	11.26	1.10	1.12	9.91	1.05	1.06	14.79	−0.05
16750	8.13	0.79	0.79	11.17	1.01	1.02	9.81	0.95	0.97	14.78	−0.06
16780	8.13	0.79	0.80	11.20	1.04	1.06	9.85	0.99	1.01	14.78	−0.07
16810	8.13	0.79	0.80	11.20	1.04	1.07	9.84	0.98	1.01	14.77	−0.08
16840	8.13	0.79	0.80	11.20	1.04	1.06	9.84	0.98	1.02	14.77	−0.09
16870	8.13	0.79	0.80	11.19	1.03	1.06	9.84	0.98	1.01	14.77	−0.09
16900	8.13	0.79	0.80	11.20	1.04	1.06	9.84	0.98	1.01	14.77	−0.09
16930	8.13	0.79	0.80	11.20	1.04	1.06	9.84	0.98	1.01	14.77	−0.09
16960	8.14	0.80	0.80	11.20	1.04	1.07	9.84	0.98	1.02	14.77	−0.09
16990	8.14	0.80	0.80	11.20	1.04	1.07	9.84	0.98	1.02	14.77	−0.09
17020	8.14	0.80	0.80	11.20	1.04	1.07	9.85	0.99	1.02	14.77	−0.09

17050	8.14	0.80	0.81	11.22	1.06	1.08	9.86	0.99	1.03	14.77	−0.09
17080	8.14	0.80	0.81	11.22	1.06	1.08	9.85	0.99	1.02	14.78	−0.07
17110	8.14	0.80	0.81	11.22	1.06	1.08	9.86	0.99	1.02	14.78	−0.07
17140	8.14	0.80	0.81	11.22	1.06	1.08	9.85	0.99	1.01	14.78	−0.07
17170	8.14	0.80	0.81	11.21	1.05	1.07	9.85	0.99	1.02	14.78	−0.08
17200	8.14	0.80	0.81	11.21	1.05	1.07	9.85	0.99	1.02	14.77	−0.08
17230	8.14	0.80	0.81	11.21	1.05	1.08	9.85	0.99	1.02	14.77	−0.09
17260	8.14	0.80	0.81	11.21	1.05	1.07	9.85	0.99	1.02	14.77	−0.08
17290	8.14	0.80	0.81	11.21	1.05	1.07	9.85	0.99	1.02	14.77	−0.09
17320	8.14	0.80	0.81	11.21	1.05	1.07	9.85	0.99	1.02	14.77	−0.09
17350	8.14	0.80	0.81	11.21	1.05	1.07	9.85	0.99	1.03	14.77	−0.10
17380	8.14	0.80	0.82	11.21	1.05	1.08	9.85	0.99	1.03	14.76	−0.11
17410	8.14	0.80	0.82	11.20	1.04	1.07	9.85	0.99	1.03	14.76	−0.11
17440	8.14	0.80	0.82	11.21	1.05	1.08	9.85	0.99	1.03	14.76	−0.12
17470	8.14	0.80	0.82	11.21	1.05	1.08	9.85	0.99	1.03	14.76	−0.12
17500	8.15	0.81	0.82	11.21	1.05	1.08	9.85	0.99	1.03	14.76	−0.12
17530	8.15	0.81	0.82	11.21	1.05	1.08	9.85	0.99	1.03	14.76	−0.13
17560	8.15	0.81	0.82	11.21	1.05	1.08	9.85	0.99	1.03	14.76	−0.12
17590	8.15	0.81	0.82	11.21	1.05	1.08	9.85	0.99	1.04	14.76	−0.13
17620	8.15	0.81	0.82	11.21	1.05	1.08	9.86	0.99	1.04	14.76	−0.12
17650	8.15	0.81	0.82	11.22	1.06	1.09	9.87	1.01	1.04	14.76	−0.11
17680	8.15	0.81	0.82	11.23	1.07	1.09	9.87	1.01	1.05	14.77	−0.10
17710	8.15	0.81	0.82	11.24	1.08	1.10	9.88	1.02	1.05	14.77	−0.09
17740	8.15	0.81	0.82	11.25	1.09	1.11	9.89	1.03	1.06	14.77	−0.09
17770	8.16	0.82	0.83	11.26	1.10	1.12	9.90	1.04	1.07	14.77	−0.08
17800	8.16	0.82	0.83	11.27	1.11	1.13	9.92	1.06	1.08	14.78	−0.08
17830	8.16	0.82	0.83	11.29	1.13	1.15	9.93	1.07	1.10	14.78	−0.07
17860	8.16	0.82	0.83	11.28	1.12	1.14	9.92	1.06	1.08	14.78	−0.08
17890	8.16	0.82	0.83	11.32	1.16	1.18	9.99	1.13	1.15	14.78	−0.07
17920	8.16	0.82	0.83	11.28	1.12	1.14	9.93	1.07	1.10	14.78	−0.08
17950	8.16	0.82	0.82	11.18	1.02	1.04	9.81	0.95	0.97	14.78	−0.08
17980	8.17	0.83	0.83	11.27	1.11	1.13	9.91	1.05	1.08	14.77	−0.09
18010	8.16	0.82	0.83	11.25	1.09	1.11	9.90	1.04	1.07	14.77	−0.09
18040	8.16	0.82	0.83	11.23	1.07	1.10	9.87	1.01	1.05	14.77	−0.09
18070	8.17	0.83	0.84	11.24	1.08	1.10	9.88	1.02	1.06	14.77	−0.09
18100	8.16	0.82	0.83	11.20	1.04	1.07	9.85	0.99	1.02	14.77	−0.09
18130	8.17	0.83	0.84	11.24	1.08	1.10	9.90	1.04	1.08	14.76	−0.11
18160	8.17	0.83	0.84	11.25	1.09	1.11	9.89	1.03	1.07	14.76	−0.11
18190	8.17	0.83	0.84	11.21	1.05	1.08	9.87	1.01	1.05	14.76	−0.12
18220	8.17	0.83	0.84	11.22	1.06	1.09	9.86	1.00	1.05	14.75	−0.13
18250	8.17	0.83	0.85	11.22	1.06	1.09	9.86	1.00	1.05	14.75	−0.13
18280	8.17	0.83	0.84	11.23	1.07	1.10	9.87	1.01	1.05	14.75	−0.13
18310	8.17	0.83	0.85	11.22	1.06	1.09	9.86	1.00	1.05	14.75	−0.13
18340	8.17	0.83	0.85	11.23	1.07	1.10	9.87	1.01	1.06	14.75	−0.13
18370	8.17	0.83	0.85	11.23	1.07	1.11	9.88	1.02	1.07	14.75	−0.13
18400	8.18	0.84	0.85	11.24	1.08	1.12	9.89	1.03	1.08	14.75	−0.14
18430	8.18	0.84	0.85	11.24	1.08	1.12	9.89	1.03	1.08	14.75	−0.13

18460	8.18	0.84	0.85	11.25	1.09	1.12	9.89	1.03	1.08	14.76	−0.13
18490	8.18	0.84	0.85	11.26	1.10	1.13	9.90	1.04	1.08	14.76	−0.12
18520	8.18	0.84	0.85	11.25	1.09	1.12	9.89	1.03	1.07	14.76	−0.11
18550	8.18	0.84	0.85	11.25	1.09	1.12	9.90	1.04	1.08	14.76	−0.11
18580	8.18	0.84	0.85	11.25	1.09	1.12	9.90	1.04	1.08	14.76	−0.11
18610	8.18	0.84	0.85	11.25	1.09	1.12	9.89	1.03	1.07	14.76	−0.11
18640	8.18	0.84	0.85	11.25	1.09	1.11	9.89	1.03	1.07	14.76	−0.11
18670	8.18	0.84	0.85	11.25	1.09	1.11	9.89	1.03	1.07	14.76	−0.11
18700	8.18	0.84	0.85	11.24	1.08	1.11	9.89	1.03	1.07	14.76	−0.11
18730	8.18	0.84	0.85	11.24	1.08	1.11	9.89	1.03	1.07	14.76	−0.12
18760	8.18	0.84	0.86	11.24	1.08	1.11	9.89	1.03	1.07	14.75	−0.13
18790	8.18	0.84	0.86	11.24	1.08	1.11	9.88	1.02	1.07	14.75	−0.14
18820	8.19	0.85	0.86	11.23	1.07	1.11	9.88	1.02	1.08	14.75	−0.14
18850	8.19	0.85	0.86	11.24	1.08	1.11	9.88	1.02	1.08	14.75	−0.14
18880	8.19	0.85	0.86	11.24	1.08	1.11	9.88	1.02	1.08	14.75	−0.15
18910	8.19	0.85	0.86	11.23	1.07	1.11	9.88	1.02	1.08	14.75	−0.15
18940	8.19	0.85	0.86	11.24	1.08	1.11	9.89	1.03	1.08	14.75	−0.15
18970	8.19	0.85	0.86	11.24	1.08	1.11	9.89	1.03	1.08	14.75	−0.14
19000	8.19	0.85	0.86	11.24	1.08	1.11	9.89	1.03	1.08	14.75	−0.14
19030	8.19	0.85	0.86	11.24	1.08	1.12	9.89	1.03	1.08	14.76	−0.13
19060	8.19	0.85	0.86	11.24	1.08	1.11	9.89	1.03	1.08	14.76	−0.13
19090	8.19	0.85	0.86	11.25	1.09	1.12	9.90	1.04	1.08	14.76	−0.11
19120	8.20	0.85	0.87	11.26	1.10	1.12	9.91	1.05	1.09	14.77	−0.10
19150	8.20	0.86	0.87	11.27	1.11	1.13	9.92	1.06	1.09	14.78	−0.08
19180	8.20	0.86	0.86	11.27	1.11	1.13	9.93	1.07	1.09	14.78	−0.07
19210	8.20	0.86	0.87	11.27	1.11	1.13	9.92	1.06	1.08	14.78	−0.06
19240	8.20	0.85	0.86	11.23	1.07	1.08	9.87	1.01	1.03	14.79	−0.05
19270	8.20	0.86	0.87	11.28	1.12	1.13	9.92	1.06	1.08	14.79	−0.05
19300	8.20	0.86	0.86	11.18	1.02	1.03	9.81	0.95	0.97	14.79	−0.04
19330	8.20	0.86	0.86	11.23	1.07	1.08	9.86	1.00	1.01	14.80	−0.03
19360	8.21	0.87	0.87	11.32	1.15	1.17	9.98	1.12	1.13	14.79	−0.04
19390	8.20	0.86	0.87	11.30	1.14	1.15	9.94	1.08	1.10	14.79	−0.04
19420	8.20	0.86	0.87	11.21	1.05	1.06	9.87	1.01	1.03	14.79	−0.05
19450	8.21	0.87	0.87	11.28	1.12	1.14	9.93	1.07	1.09	14.79	−0.05
19480	8.21	0.87	0.87	11.29	1.13	1.14	9.94	1.08	1.10	14.78	−0.06
19510	8.20	0.86	0.87	11.11	0.95	0.97	9.76	0.90	0.92	14.78	−0.06
19540	8.21	0.87	0.88	11.36	1.20	1.22	10.00	1.14	1.16	14.78	−0.06
19570	8.21	0.87	0.88	11.26	1.10	1.12	9.92	1.06	1.08	14.78	−0.07
19600	8.21	0.87	0.88	11.27	1.11	1.13	9.93	1.07	1.10	14.78	−0.08
19630	8.21	0.87	0.88	11.28	1.12	1.14	9.92	1.06	1.09	14.78	−0.08
19660	8.21	0.87	0.88	11.30	1.14	1.16	9.95	1.09	1.12	14.77	−0.08
19690	8.21	0.87	0.88	11.26	1.10	1.13	9.91	1.05	1.08	14.77	−0.09
19720	8.22	0.88	0.89	11.28	1.12	1.15	9.92	1.06	1.09	14.77	−0.09
19750	8.22	0.88	0.89	11.29	1.13	1.15	9.93	1.07	1.10	14.78	−0.08
19780	8.22	0.88	0.89	11.28	1.12	1.14	9.92	1.06	1.09	14.77	−0.08
19810	8.22	0.88	0.89	11.28	1.12	1.14	9.92	1.06	1.09	14.77	−0.09
19840	8.22	0.88	0.89	11.29	1.13	1.15	9.93	1.07	1.10	14.77	−0.08

19870	8.22	0.88	0.89	11.30	1.14	1.16	9.94	1.08	1.11	14.78	−0.08
19900	8.22	0.88	0.89	11.31	1.15	1.17	9.95	1.09	1.12	14.78	−0.07
19930	8.22	0.88	0.89	11.32	1.16	1.17	9.96	1.10	1.12	14.78	−0.06
19960	8.22	0.88	0.89	11.32	1.16	1.18	9.96	1.10	1.12	14.79	−0.06
19990	8.22	0.88	0.89	11.33	1.17	1.18	9.96	1.10	1.12	14.79	−0.05
20020	8.22	0.88	0.89	11.33	1.17	1.18	9.97	1.11	1.12	14.79	−0.05
20050	8.22	0.88	0.89	11.33	1.17	1.18	9.97	1.11	1.12	14.79	−0.04
20080	8.23	0.89	0.89	11.33	1.17	1.18	9.97	1.11	1.12	14.79	−0.04
20110	8.23	0.89	0.89	11.33	1.17	1.19	9.97	1.11	1.12	14.79	−0.04
20140	8.23	0.89	0.89	11.33	1.17	1.19	9.97	1.11	1.12	14.79	−0.04
20170	8.23	0.89	0.89	11.33	1.17	1.19	9.97	1.11	1.12	14.79	−0.04
20200	8.23	0.89	0.89	11.33	1.17	1.19	9.97	1.11	1.12	14.79	−0.04
20230	8.23	0.89	0.89	11.33	1.17	1.19	9.97	1.11	1.13	14.79	−0.05
20260	8.23	0.89	0.89	11.33	1.17	1.19	9.97	1.11	1.13	14.79	−0.06
20290	8.23	0.89	0.90	11.33	1.17	1.19	9.97	1.11	1.13	14.78	−0.06
20320	8.23	0.89	0.90	11.33	1.17	1.19	9.97	1.11	1.13	14.78	−0.07
20350	8.23	0.89	0.90	11.33	1.17	1.19	9.97	1.11	1.13	14.78	−0.07
20380	8.23	0.89	0.90	11.33	1.17	1.19	9.97	1.11	1.14	14.78	−0.08
20410	8.23	0.89	0.90	11.34	1.18	1.20	9.98	1.12	1.14	14.78	−0.07
20440	8.23	0.89	0.90	11.34	1.18	1.20	9.98	1.12	1.14	14.78	−0.06
20470	8.23	0.89	0.90	11.35	1.19	1.20	9.99	1.13	1.15	14.79	−0.05
20500	8.23	0.89	0.90	11.35	1.19	1.20	9.99	1.13	1.15	14.79	−0.04
20530	8.24	0.90	0.90	11.36	1.20	1.21	10.00	1.14	1.15	14.80	−0.03
20560	8.24	0.90	0.90	11.38	1.22	1.22	10.01	1.15	1.16	14.81	−0.01
20590	8.24	0.90	0.90	11.38	1.22	1.22	10.02	1.16	1.16	14.81	0.00
20620	8.24	0.90	0.90	11.38	1.22	1.22	10.02	1.16	1.16	14.81	0.01
20650	8.24	0.90	0.90	11.38	1.22	1.22	10.03	1.17	1.17	14.81	0.01
20680	8.25	0.90	0.90	11.41	1.25	1.25	10.06	1.20	1.20	14.81	0.01
20710	8.25	0.90	0.90	11.40	1.24	1.24	10.05	1.19	1.18	14.82	0.02
20740	8.24	0.90	0.90	11.37	1.21	1.20	10.00	1.14	1.13	14.82	0.02
20770	8.24	0.90	0.90	11.28	1.12	1.11	9.92	1.06	1.05	14.82	0.02
20800	8.25	0.91	0.91	11.39	1.23	1.23	10.04	1.18	1.17	14.82	0.02
20830	8.25	0.91	0.91	11.38	1.22	1.22	10.03	1.17	1.16	14.82	0.02
20860	8.25	0.91	0.91	11.39	1.23	1.23	10.03	1.17	1.16	14.82	0.02
20890	8.26	0.92	0.92	11.48	1.32	1.31	10.16	1.30	1.29	14.82	0.03
20920	8.26	0.92	0.91	11.41	1.25	1.24	10.05	1.19	1.18	14.82	0.03
20950	8.25	0.90	0.90	11.22	1.06	1.05	9.85	0.99	0.98	14.82	0.03
20980	8.25	0.91	0.91	11.38	1.22	1.22	10.03	1.17	1.17	14.82	0.02
21010	8.26	0.92	0.91	11.38	1.22	1.22	10.02	1.16	1.16	14.82	0.02
21040	8.25	0.91	0.91	11.38	1.22	1.22	10.03	1.17	1.17	14.81	0.00
21070	8.26	0.92	0.92	11.31	1.15	1.15	9.96	1.10	1.10	14.81	0.00
21100	8.26	0.92	0.92	11.38	1.22	1.22	10.03	1.17	1.17	14.81	−0.01
21130	8.26	0.92	0.92	11.37	1.21	1.21	10.00	1.14	1.14	14.81	−0.00
21160	8.26	0.92	0.92	11.33	1.17	1.18	9.97	1.11	1.11	14.81	−0.01
21190	8.26	0.92	0.92	11.37	1.21	1.21	10.00	1.14	1.15	14.80	−0.01
21220	8.26	0.92	0.92	11.37	1.21	1.21	10.00	1.14	1.15	14.80	−0.01
21250	8.26	0.92	0.92	11.37	1.21	1.21	10.01	1.15	1.15	14.81	−0.01

21280	8.26	0.92	0.92	11.37	1.21	1.22	10.01	1.15	1.15	14.81	−0.01
21310	8.26	0.92	0.92	11.38	1.22	1.22	10.01	1.15	1.15	14.81	0.00
21340	8.26	0.92	0.92	11.38	1.22	1.22	10.01	1.15	1.15	14.81	0.01
21370	8.26	0.92	0.92	11.38	1.22	1.22	10.02	1.16	1.15	14.82	0.02
21400	8.26	0.92	0.92	11.38	1.22	1.22	10.02	1.16	1.15	14.82	0.03
21430	8.26	0.92	0.92	11.39	1.23	1.22	10.02	1.16	1.15	14.82	0.03
21460	8.27	0.93	0.92	11.38	1.22	1.21	10.02	1.16	1.15	14.83	0.03
21490	8.27	0.93	0.92	11.39	1.23	1.22	10.02	1.16	1.15	14.83	0.04
21520	8.27	0.93	0.92	11.39	1.23	1.22	10.02	1.16	1.15	14.83	0.04
21550	8.27	0.93	0.92	11.39	1.23	1.22	10.02	1.16	1.15	14.83	0.04
21580	8.27	0.93	0.92	11.38	1.22	1.22	10.02	1.16	1.15	14.82	0.03
21610	8.27	0.93	0.93	11.38	1.22	1.21	10.02	1.16	1.15	14.82	0.02
21640	8.27	0.93	0.92	11.38	1.22	1.22	10.02	1.16	1.15	14.82	0.02
21670	8.27	0.93	0.93	11.38	1.22	1.22	10.02	1.16	1.16	14.82	0.01
21700	8.27	0.93	0.93	11.38	1.22	1.22	10.02	1.16	1.16	14.81	−0.00
21730	8.27	0.93	0.93	11.38	1.22	1.22	10.01	1.15	1.16	14.80	−0.01
21760	8.27	0.93	0.93	11.38	1.22	1.22	10.02	1.16	1.16	14.80	−0.02
21790	8.27	0.93	0.93	11.38	1.22	1.22	10.02	1.16	1.17	14.80	−0.02
21820	8.27	0.93	0.93	11.38	1.22	1.22	10.02	1.16	1.16	14.80	−0.01
21850	8.27	0.93	0.94	11.38	1.22	1.23	10.02	1.16	1.17	14.80	−0.02
21880	8.27	0.93	0.94	11.38	1.22	1.23	10.02	1.16	1.17	14.80	−0.02
21910	8.27	0.93	0.93	11.39	1.23	1.23	10.03	1.17	1.17	14.81	−0.01
21940	8.27	0.93	0.94	11.39	1.23	1.23	10.03	1.17	1.17	14.81	−0.01
21970	8.28	0.94	0.94	11.40	1.24	1.24	10.04	1.18	1.18	14.81	−0.00
22000	8.28	0.94	0.94	11.41	1.25	1.24	10.05	1.19	1.19	14.81	0.01
22030	8.28	0.94	0.94	11.42	1.26	1.25	10.06	1.20	1.19	14.82	0.03
22060	8.28	0.94	0.94	11.42	1.26	1.25	10.06	1.20	1.19	14.83	0.04
22090	8.28	0.94	0.94	11.44	1.28	1.26	10.08	1.22	1.20	14.83	0.05
22120	8.28	0.94	0.94	11.39	1.23	1.22	10.03	1.17	1.15	14.84	0.06
22150	8.29	0.95	0.94	11.41	1.25	1.23	10.05	1.19	1.16	14.84	0.08
22180	8.29	0.95	0.94	11.47	1.31	1.29	10.12	1.26	1.22	14.85	0.09
22210	8.29	0.95	0.94	11.46	1.30	1.28	10.11	1.24	1.21	14.86	0.10
22240	8.30	0.96	0.94	11.49	1.33	1.30	10.15	1.29	1.25	14.86	0.12
22270	8.30	0.96	0.94	11.47	1.31	1.28	10.10	1.24	1.20	14.86	0.12
22300	8.29	0.95	0.94	11.44	1.28	1.25	10.09	1.23	1.19	14.86	0.11
22330	8.29	0.95	0.94	11.43	1.27	1.25	10.08	1.22	1.18	14.85	0.10
22360	8.30	0.96	0.95	11.41	1.25	1.22	10.06	1.20	1.16	14.85	0.10
22390	8.29	0.95	0.94	11.39	1.23	1.21	10.06	1.20	1.17	14.85	0.10
22420	8.30	0.96	0.95	11.38	1.22	1.19	10.03	1.17	1.14	14.85	0.09
22450	8.30	0.96	0.95	11.35	1.19	1.17	10.01	1.15	1.12	14.85	0.08
22480	8.30	0.96	0.95	11.35	1.19	1.17	10.00	1.14	1.12	14.84	0.07
22510	8.30	0.96	0.95	11.34	1.18	1.16	10.01	1.15	1.12	14.84	0.07
22540	8.30	0.96	0.95	11.32	1.16	1.14	9.95	1.09	1.07	14.84	0.07
22570	8.30	0.96	0.95	11.32	1.16	1.15	9.99	1.13	1.10	14.84	0.07
22600	8.30	0.96	0.95	11.34	1.18	1.16	10.00	1.14	1.11	14.84	0.06
22630	8.30	0.96	0.96	11.35	1.19	1.17	10.00	1.14	1.12	14.84	0.06
22660	8.30	0.96	0.96	11.36	1.20	1.18	10.01	1.15	1.13	14.84	0.06

22690	8.30	0.96	0.96	11.32	1.16	1.15	9.98	1.12	1.09	14.84	0.06
22720	8.31	0.97	0.96	11.33	1.17	1.16	9.99	1.13	1.10	14.84	0.07
22750	8.31	0.97	0.96	11.35	1.19	1.17	9.99	1.13	1.11	14.84	0.08
22780	8.31	0.97	0.96	11.30	1.14	1.11	9.95	1.09	1.06	14.85	0.09
22810	8.31	0.97	0.96	11.23	1.07	1.05	9.90	1.04	1.00	14.85	0.10
22840	8.31	0.97	0.96	11.18	1.02	0.99	9.86	0.99	0.95	14.86	0.11
22870	8.31	0.97	0.96	11.18	1.02	0.99	9.86	1.00	0.95	14.86	0.12
22900	8.31	0.97	0.95	11.17	1.01	0.97	9.85	0.99	0.94	14.87	0.13
22930	8.31	0.97	0.95	11.13	0.97	0.93	9.81	0.95	0.91	14.87	0.13
22960	8.31	0.97	0.95	11.10	0.94	0.90	9.79	0.93	0.88	14.87	0.13
22990	8.31	0.97	0.96	11.07	0.91	0.88	9.77	0.91	0.86	14.87	0.13
23020	8.31	0.97	0.96	11.13	0.97	0.93	9.82	0.96	0.92	14.87	0.13
23050	8.31	0.97	0.96	11.20	1.04	1.01	9.89	1.03	0.98	14.86	0.12
23080	8.31	0.97	0.96	11.27	1.11	1.08	9.94	1.08	1.04	14.86	0.11
23110	8.31	0.97	0.96	11.32	1.16	1.13	9.98	1.12	1.08	14.86	0.10
23140	8.31	0.97	0.96	11.35	1.19	1.16	10.01	1.15	1.11	14.85	0.10
23170	8.31	0.97	0.96	11.38	1.22	1.19	10.03	1.17	1.14	14.85	0.09
23200	8.31	0.97	0.96	11.40	1.24	1.21	10.05	1.19	1.15	14.85	0.09
23230	8.31	0.97	0.96	11.41	1.25	1.23	10.06	1.20	1.17	14.85	0.08
23260	8.31	0.97	0.96	11.43	1.27	1.24	10.07	1.21	1.18	14.85	0.08
23290	8.32	0.97	0.97	11.44	1.28	1.25	10.08	1.22	1.19	14.84	0.08
23320	8.32	0.97	0.97	11.45	1.29	1.27	10.09	1.23	1.20	14.85	0.09
23350	8.32	0.97	0.97	11.45	1.29	1.27	10.09	1.23	1.20	14.85	0.09
23380	8.32	0.97	0.97	11.46	1.30	1.27	10.10	1.24	1.20	14.85	0.10
23410	8.32	0.98	0.97	11.49	1.33	1.29	10.12	1.26	1.22	14.86	0.12
23440	8.32	0.98	0.97	11.49	1.33	1.29	10.12	1.26	1.22	14.86	0.12
23470	8.32	0.98	0.97	11.50	1.34	1.31	10.14	1.28	1.23	14.86	0.12
23500	8.32	0.98	0.97	11.50	1.34	1.31	10.14	1.28	1.23	14.86	0.12
23530	8.32	0.98	0.97	11.50	1.34	1.31	10.13	1.27	1.23	14.86	0.12
23560	8.32	0.98	0.97	11.51	1.35	1.31	10.15	1.29	1.24	14.87	0.13
23590	8.32	0.98	0.97	11.50	1.34	1.31	10.14	1.28	1.23	14.87	0.14
23620	8.33	0.99	0.98	11.54	1.38	1.34	10.18	1.32	1.27	14.87	0.15
23650	8.32	0.98	0.97	11.50	1.34	1.30	10.12	1.26	1.21	14.87	0.15
23680	8.33	0.99	0.98	11.49	1.33	1.29	10.12	1.26	1.21	14.87	0.15
23710	8.33	0.99	0.98	11.52	1.36	1.32	10.16	1.30	1.25	14.87	0.14
23740	8.33	0.99	0.98	11.49	1.33	1.29	10.13	1.27	1.22	14.87	0.13
23770	8.33	0.99	0.98	11.53	1.37	1.34	10.17	1.31	1.27	14.86	0.12
23800	8.33	0.99	0.98	11.50	1.34	1.31	10.15	1.29	1.25	14.86	0.11
23830	8.33	0.99	0.98	11.51	1.35	1.32	10.15	1.29	1.25	14.85	0.10
23860	8.33	0.99	0.98	11.51	1.35	1.33	10.15	1.29	1.25	14.85	0.09
23890	8.33	0.99	0.98	11.44	1.28	1.26	10.07	1.21	1.18	14.85	0.09
23920	8.34	1.00	0.99	11.53	1.37	1.35	10.18	1.32	1.28	14.85	0.09
23950	8.34	1.00	0.99	11.42	1.26	1.24	10.06	1.20	1.17	14.84	0.08
23980	8.34	1.00	0.99	11.51	1.35	1.33	10.14	1.28	1.26	14.84	0.07
24010	8.34	1.00	0.99	11.51	1.35	1.33	10.14	1.28	1.26	14.84	0.06
24040	8.34	1.00	0.99	11.50	1.34	1.32	10.13	1.27	1.25	14.84	0.06
24070	8.34	1.00	0.99	11.50	1.34	1.32	10.13	1.27	1.25	14.84	0.06

24100	8.34	1.00	0.99	11.50	1.34	1.32	10.13	1.27	1.25	14.84	0.06
24130	8.34	1.00	1.00	11.50	1.34	1.32	10.13	1.27	1.25	14.83	0.05
24160	8.34	1.00	1.00	11.50	1.34	1.33	10.13	1.27	1.25	14.83	0.05
24190	8.34	1.00	1.00	11.50	1.34	1.32	10.13	1.27	1.25	14.83	0.05
24220	8.35	1.01	1.00	11.51	1.35	1.33	10.14	1.28	1.25	14.84	0.06
24250	8.35	1.01	1.00	11.51	1.35	1.33	10.14	1.28	1.26	14.84	0.06
24280	8.35	1.01	1.00	11.51	1.35	1.34	10.15	1.29	1.26	14.84	0.06
24310	8.35	1.01	1.00	11.51	1.35	1.33	10.14	1.28	1.25	14.84	0.07
24340	8.35	1.01	1.00	11.52	1.36	1.34	10.15	1.29	1.26	14.84	0.08
24370	8.35	1.01	1.00	11.51	1.35	1.33	10.15	1.29	1.26	14.84	0.08
24400	8.35	1.01	1.00	11.51	1.35	1.33	10.14	1.28	1.26	14.84	0.08
24430	8.35	1.01	1.00	11.52	1.36	1.34	10.15	1.29	1.26	14.84	0.07
24460	8.35	1.01	1.00	11.51	1.35	1.33	10.15	1.29	1.26	14.84	0.07
24490	8.35	1.01	1.01	11.51	1.35	1.34	10.15	1.29	1.26	14.84	0.07
24520	8.35	1.01	1.01	11.51	1.35	1.34	10.14	1.28	1.26	14.84	0.06
24550	8.35	1.01	1.01	11.51	1.35	1.34	10.14	1.28	1.26	14.83	0.05
24580	8.35	1.01	1.01	11.51	1.35	1.34	10.14	1.28	1.27	14.83	0.04
24610	8.36	1.02	1.01	11.51	1.35	1.34	10.14	1.28	1.27	14.82	0.03
24640	8.35	1.01	1.01	11.51	1.35	1.34	10.14	1.28	1.27	14.82	0.02
24670	8.36	1.02	1.01	11.51	1.35	1.34	10.14	1.28	1.28	14.82	0.01
24700	8.36	1.02	1.02	11.50	1.34	1.34	10.14	1.28	1.28	14.81	0.00
24730	8.36	1.02	1.02	11.51	1.35	1.35	10.14	1.28	1.28	14.81	0.00
24760	8.36	1.02	1.02	11.51	1.35	1.35	10.15	1.29	1.29	14.81	0.00
24790	8.36	1.02	1.02	11.52	1.36	1.36	10.15	1.29	1.29	14.81	0.00
24820	8.36	1.02	1.02	11.52	1.36	1.36	10.15	1.29	1.29	14.81	0.01
24850	8.36	1.02	1.02	11.52	1.36	1.36	10.16	1.30	1.29	14.82	0.01
24880	8.36	1.02	1.02	11.54	1.38	1.37	10.17	1.31	1.30	14.82	0.02
24910	8.36	1.02	1.02	11.54	1.38	1.37	10.18	1.32	1.31	14.82	0.02
24940	8.37	1.02	1.02	11.55	1.39	1.38	10.18	1.32	1.31	14.82	0.03
24970	8.37	1.02	1.02	11.54	1.38	1.37	10.17	1.31	1.30	14.82	0.03
25000	8.37	1.02	1.02	11.53	1.37	1.36	10.17	1.31	1.29	14.83	0.04
25030	8.37	1.03	1.02	11.55	1.39	1.38	10.17	1.31	1.30	14.83	0.04
25060	8.37	1.02	1.02	11.55	1.39	1.38	10.18	1.32	1.30	14.83	0.04
25090	8.37	1.03	1.02	11.53	1.37	1.36	10.17	1.31	1.29	14.83	0.04
25120	8.37	1.03	1.02	11.52	1.36	1.35	10.14	1.28	1.27	14.83	0.03
25150	8.37	1.03	1.03	11.57	1.40	1.40	10.20	1.34	1.33	14.82	0.02
25180	8.37	1.03	1.03	11.52	1.36	1.35	10.16	1.30	1.29	14.82	0.02
25210	8.37	1.03	1.03	11.52	1.36	1.36	10.16	1.30	1.30	14.81	0.00
25240	8.38	1.04	1.04	11.59	1.43	1.43	10.23	1.37	1.37	14.81	0.00
25270	8.37	1.03	1.03	11.56	1.40	1.40	10.19	1.33	1.33	14.81	0.00
25300	8.38	1.04	1.04	11.55	1.39	1.39	10.22	1.36	1.36	14.81	−0.00
25330	8.38	1.04	1.04	11.52	1.36	1.36	10.15	1.29	1.29	14.81	−0.01
25360	8.38	1.04	1.04	11.52	1.36	1.37	10.18	1.32	1.32	14.80	−0.02
25390	8.38	1.04	1.04	11.45	1.29	1.30	10.11	1.24	1.25	14.80	−0.02
25420	8.38	1.04	1.04	11.45	1.29	1.30	10.11	1.25	1.26	14.80	−0.03
25450	8.38	1.04	1.04	11.48	1.32	1.33	10.14	1.28	1.29	14.80	−0.03
25480	8.38	1.04	1.04	11.44	1.28	1.29	10.10	1.24	1.26	14.79	−0.04

25510	8.38	1.04	1.05	11.45	1.29	1.30	10.10	1.24	1.25	14.79	−0.04
25540	8.38	1.04	1.05	11.47	1.31	1.33	10.12	1.26	1.28	14.78	−0.06
25570	8.38	1.04	1.05	11.48	1.32	1.34	10.12	1.26	1.29	14.78	−0.08
25600	8.38	1.04	1.05	11.49	1.33	1.35	10.13	1.27	1.29	14.78	−0.06
25630	8.38	1.04	1.05	11.51	1.35	1.36	10.14	1.28	1.30	14.79	−0.06
25660	8.38	1.04	1.05	11.52	1.36	1.37	10.15	1.29	1.31	14.79	−0.05
25690	8.39	1.05	1.05	11.53	1.37	1.38	10.16	1.30	1.31	14.79	−0.04
25720	8.39	1.05	1.05	11.54	1.38	1.38	10.17	1.31	1.32	14.80	−0.03
25750	8.39	1.05	1.05	11.54	1.38	1.39	10.17	1.31	1.32	14.80	−0.03
25780	8.39	1.05	1.05	11.54	1.38	1.39	10.17	1.31	1.32	14.80	−0.03
25810	8.39	1.05	1.05	11.54	1.38	1.39	10.17	1.31	1.33	14.79	−0.04
25840	8.39	1.05	1.05	11.54	1.38	1.39	10.17	1.31	1.33	14.79	−0.05
25870	8.39	1.05	1.06	11.54	1.38	1.39	10.17	1.31	1.33	14.79	−0.06
25900	8.39	1.05	1.06	11.54	1.38	1.40	10.17	1.31	1.33	14.78	−0.06
25930	8.39	1.05	1.06	11.54	1.38	1.40	10.17	1.31	1.33	14.78	−0.08
25960	8.39	1.05	1.06	11.54	1.38	1.40	10.17	1.31	1.34	14.78	−0.08
25990	8.39	1.05	1.06	11.53	1.37	1.40	10.17	1.31	1.34	14.77	−0.09
26020	8.39	1.05	1.06	11.53	1.37	1.40	10.17	1.31	1.34	14.77	−0.10
26050	8.39	1.05	1.06	11.53	1.37	1.40	10.17	1.31	1.35	14.76	−0.11
26080	8.39	1.05	1.06	11.54	1.38	1.41	10.17	1.31	1.35	14.76	−0.12
26110	8.39	1.05	1.06	11.54	1.38	1.41	10.17	1.31	1.35	14.76	−0.12
26140	8.39	1.05	1.07	11.54	1.38	1.41	10.17	1.31	1.36	14.76	−0.12
26170	8.39	1.05	1.07	11.54	1.38	1.41	10.18	1.32	1.36	14.75	−0.13
26200	8.40	1.06	1.07	11.54	1.38	1.41	10.17	1.31	1.36	14.76	−0.12
26230	8.40	1.06	1.07	11.55	1.39	1.42	10.18	1.32	1.36	14.76	−0.11
26260	8.40	1.06	1.07	11.56	1.40	1.42	10.19	1.33	1.36	14.77	−0.09
26290	8.40	1.06	1.07	11.56	1.40	1.42	10.19	1.33	1.36	14.78	−0.08
26320	8.40	1.06	1.07	11.57	1.41	1.43	10.20	1.34	1.36	14.78	−0.07
26350	8.40	1.06	1.07	11.57	1.41	1.42	10.20	1.34	1.36	14.78	−0.06
26380	8.40	1.06	1.07	11.56	1.40	1.42	10.19	1.33	1.35	14.78	−0.06
26410	8.40	1.06	1.07	11.56	1.40	1.42	10.20	1.34	1.37	14.78	−0.08
26440	8.41	1.07	1.07	11.57	1.41	1.43	10.20	1.34	1.36	14.78	−0.07
26470	8.41	1.07	1.08	11.59	1.43	1.45	10.23	1.37	1.40	14.78	−0.08
26500	8.41	1.07	1.08	11.60	1.44	1.46	10.24	1.38	1.40	14.78	−0.07
26530	8.41	1.07	1.08	11.59	1.43	1.45	10.22	1.36	1.39	14.78	−0.07
26560	8.41	1.07	1.08	11.59	1.43	1.45	10.23	1.37	1.40	14.78	−0.08
26590	8.41	1.07	1.08	11.59	1.43	1.46	10.26	1.40	1.43	14.77	−0.09
26620	8.41	1.07	1.08	11.50	1.34	1.36	10.14	1.28	1.31	14.77	−0.09
26650	8.42	1.07	1.09	11.61	1.45	1.48	10.24	1.38	1.42	14.77	−0.10
26680	8.41	1.07	1.08	11.52	1.36	1.39	10.15	1.29	1.33	14.76	−0.11
26710	8.42	1.08	1.09	11.63	1.47	1.50	10.28	1.42	1.46	14.76	−0.12
26740	8.42	1.07	1.09	11.63	1.47	1.50	10.27	1.41	1.45	14.76	−0.13
26770	8.42	1.08	1.09	11.63	1.47	1.51	10.29	1.43	1.48	14.75	−0.13
26800	8.42	1.07	1.09	11.63	1.47	1.51	10.27	1.41	1.46	14.75	−0.14
26830	8.42	1.07	1.09	11.55	1.39	1.43	10.18	1.32	1.38	14.74	−0.15
26860	8.42	1.07	1.09	11.49	1.33	1.37	10.12	1.26	1.31	14.74	−0.16
26890	8.42	1.08	1.10	11.57	1.41	1.45	10.21	1.35	1.41	14.74	−0.17

26920	8.42	1.08	1.10	11.55	1.39	1.44	10.18	1.32	1.38	14.74	−0.17
26950	8.42	1.08	1.10	11.56	1.40	1.44	10.19	1.33	1.40	14.73	−0.18
26980	8.42	1.08	1.10	11.55	1.39	1.44	10.18	1.32	1.39	14.73	−0.18
27010	8.42	1.08	1.10	11.55	1.39	1.44	10.18	1.32	1.39	14.73	−0.19
27040	8.42	1.08	1.10	11.56	1.40	1.44	10.19	1.33	1.40	14.73	−0.18
27070	8.43	1.09	1.10	11.56	1.40	1.44	10.19	1.33	1.39	14.74	−0.17
27100	8.43	1.09	1.10	11.57	1.41	1.45	10.20	1.34	1.39	14.75	−0.15
27130	8.43	1.09	1.10	11.57	1.41	1.45	10.20	1.34	1.40	14.74	−0.15
27160	8.43	1.09	1.10	11.58	1.42	1.45	10.20	1.34	1.39	14.75	−0.14
27190	8.43	1.09	1.10	11.58	1.42	1.46	10.21	1.35	1.40	14.75	−0.13
27220	8.43	1.09	1.10	11.58	1.42	1.45	10.21	1.35	1.40	14.75	−0.13
27250	8.43	1.09	1.10	11.58	1.42	1.45	10.21	1.35	1.40	14.75	−0.13
27280	8.43	1.09	1.10	11.58	1.42	1.45	10.21	1.35	1.40	14.75	−0.13
27310	8.43	1.09	1.10	11.58	1.42	1.46	10.22	1.36	1.40	14.76	−0.12
27340	8.43	1.09	1.10	11.58	1.42	1.46	10.22	1.36	1.40	14.76	−0.12
27370	8.43	1.09	1.10	11.58	1.42	1.46	10.22	1.36	1.40	14.76	−0.12
27400	8.43	1.09	1.11	11.58	1.42	1.45	10.21	1.35	1.40	14.75	−0.13
27430	8.43	1.09	1.10	11.58	1.42	1.45	10.21	1.35	1.40	14.75	−0.14
27460	8.43	1.09	1.11	11.57	1.41	1.45	10.20	1.34	1.40	14.74	−0.15
27490	8.43	1.09	1.11	11.58	1.42	1.46	10.21	1.35	1.41	14.74	−0.15
27520	8.43	1.09	1.11	11.58	1.42	1.46	10.22	1.36	1.41	14.74	−0.15
27550	8.43	1.09	1.11	11.58	1.42	1.46	10.21	1.35	1.40	14.74	−0.15
27580	8.43	1.09	1.11	11.58	1.42	1.46	10.22	1.36	1.41	14.74	−0.15
27610	8.44	1.10	1.11	11.58	1.42	1.46	10.22	1.36	1.41	14.74	−0.15
27640	8.44	1.10	1.11	11.59	1.43	1.47	10.22	1.36	1.41	14.75	−0.14
27670	8.44	1.10	1.11	11.59	1.43	1.46	10.22	1.36	1.41	14.75	−0.13
27700	8.44	1.10	1.11	11.59	1.43	1.46	10.23	1.37	1.41	14.76	−0.12
27730	8.44	1.10	1.11	11.60	1.44	1.47	10.23	1.37	1.41	14.76	−0.12
27760	8.44	1.10	1.11	11.60	1.44	1.47	10.23	1.37	1.41	14.76	−0.12
27790	8.44	1.10	1.12	11.60	1.44	1.47	10.23	1.37	1.41	14.76	−0.12
27820	8.44	1.10	1.11	11.60	1.44	1.47	10.23	1.37	1.40	14.77	−0.10
27850	8.44	1.10	1.11	11.60	1.44	1.46	10.23	1.37	1.40	14.77	−0.10
27880	8.45	1.11	1.12	11.61	1.45	1.47	10.24	1.38	1.42	14.77	−0.09
27910	8.45	1.11	1.12	11.61	1.45	1.47	10.24	1.38	1.41	14.77	−0.09
27940	8.45	1.11	1.11	11.60	1.44	1.45	10.23	1.37	1.39	14.78	−0.07
27970	8.45	1.11	1.12	11.60	1.44	1.45	10.24	1.38	1.40	14.78	−0.06
28000	8.45	1.11	1.12	11.61	1.45	1.47	10.25	1.39	1.41	14.78	−0.06
28030	8.45	1.11	1.12	11.59	1.43	1.45	10.23	1.37	1.39	14.78	−0.06
28060	8.45	1.11	1.12	11.58	1.42	1.44	10.23	1.37	1.39	14.78	−0.07
28090	8.45	1.11	1.12	11.59	1.43	1.45	10.23	1.37	1.39	14.78	−0.07
28120	8.45	1.11	1.12	11.58	1.42	1.43	10.22	1.36	1.38	14.78	−0.06
28150	8.46	1.12	1.12	11.61	1.45	1.47	10.26	1.40	1.43	14.78	−0.08
28180	8.46	1.12	1.12	11.54	1.38	1.40	10.18	1.32	1.35	14.77	−0.09
28210	8.46	1.12	1.12	11.58	1.42	1.45	10.23	1.37	1.40	14.77	−0.09
28240	8.46	1.12	1.13	11.57	1.41	1.43	10.21	1.35	1.38	14.77	−0.09
28270	8.46	1.12	1.13	11.56	1.40	1.42	10.20	1.34	1.38	14.77	−0.09
28300	8.46	1.12	1.13	11.56	1.40	1.42	10.20	1.34	1.38	14.77	−0.10

28330	8.46	1.12	1.13	11.56	1.40	1.43	10.21	1.35	1.38	14.77	−0.10
28360	8.46	1.12	1.13	11.57	1.40	1.43	10.21	1.35	1.38	14.76	−0.11
28390	8.46	1.12	1.13	11.56	1.40	1.43	10.21	1.35	1.39	14.76	−0.11
28420	8.46	1.12	1.13	11.57	1.40	1.43	10.21	1.35	1.38	14.77	−0.10
28450	8.46	1.12	1.13	11.57	1.41	1.44	10.21	1.35	1.39	14.77	−0.09
28480	8.46	1.12	1.13	11.57	1.41	1.43	10.21	1.35	1.38	14.77	−0.09
28510	8.47	1.13	1.13	11.57	1.41	1.44	10.21	1.35	1.38	14.78	−0.08
28540	8.47	1.13	1.13	11.58	1.42	1.44	10.22	1.36	1.38	14.78	−0.08
28570	8.47	1.13	1.13	11.58	1.42	1.44	10.22	1.36	1.38	14.78	−0.06
28600	8.47	1.13	1.13	11.58	1.42	1.44	10.22	1.36	1.38	14.79	−0.05
28630	8.47	1.13	1.13	11.59	1.43	1.44	10.23	1.37	1.38	14.79	−0.04
28660	8.47	1.13	1.13	11.59	1.43	1.44	10.23	1.37	1.38	14.79	−0.04
28690	8.47	1.13	1.13	11.58	1.42	1.44	10.23	1.37	1.38	14.79	−0.05
28720	8.47	1.13	1.13	11.59	1.43	1.44	10.23	1.37	1.38	14.79	−0.04
28750	8.47	1.13	1.14	11.58	1.42	1.44	10.23	1.37	1.38	14.79	−0.04
28780	8.47	1.13	1.14	11.59	1.43	1.44	10.23	1.37	1.38	14.79	−0.04
28810	8.47	1.13	1.14	11.58	1.42	1.44	10.22	1.36	1.38	14.79	−0.05
28840	8.47	1.13	1.14	11.58	1.42	1.44	10.22	1.36	1.38	14.78	−0.06
28870	8.47	1.13	1.14	11.58	1.42	1.44	10.22	1.36	1.39	14.78	−0.07
28900	8.47	1.13	1.14	11.57	1.41	1.44	10.22	1.36	1.39	14.78	−0.08
28930	8.47	1.13	1.14	11.57	1.41	1.43	10.22	1.36	1.39	14.77	−0.09
28960	8.47	1.13	1.14	11.57	1.41	1.44	10.22	1.36	1.39	14.77	−0.10
28990	8.47	1.13	1.14	11.57	1.41	1.44	10.22	1.36	1.39	14.77	−0.10
29020	8.48	1.14	1.15	11.57	1.41	1.44	10.22	1.36	1.40	14.77	−0.10
29050	8.48	1.14	1.14	11.58	1.42	1.44	10.23	1.37	1.40	14.77	−0.10
29080	8.48	1.14	1.14	11.58	1.42	1.44	10.23	1.37	1.40	14.77	−0.09
29110	8.48	1.14	1.15	11.58	1.42	1.45	10.23	1.37	1.40	14.77	−0.09
29140	8.48	1.14	1.15	11.58	1.42	1.44	10.23	1.37	1.40	14.77	−0.09
29170	8.48	1.14	1.15	11.58	1.42	1.45	10.23	1.37	1.40	14.77	−0.09
29200	8.48	1.14	1.15	11.59	1.43	1.45	10.24	1.38	1.41	14.77	−0.09
29230	8.48	1.14	1.15	11.59	1.43	1.45	10.24	1.38	1.41	14.77	−0.08
29260	8.49	1.14	1.15	11.64	1.48	1.50	10.30	1.44	1.46	14.78	−0.07
29290	8.48	1.14	1.15	11.59	1.43	1.45	10.24	1.38	1.40	14.78	−0.07
29320	8.49	1.15	1.15	11.65	1.49	1.50	10.31	1.45	1.47	14.78	−0.06
29350	8.48	1.14	1.15	11.59	1.43	1.44	10.23	1.37	1.39	14.78	−0.06
29380	8.49	1.14	1.15	11.58	1.42	1.44	10.24	1.38	1.40	14.79	−0.06
29410	8.48	1.14	1.15	11.56	1.40	1.41	10.18	1.32	1.34	14.79	−0.06
29440	8.49	1.15	1.16	11.69	1.53	1.54	10.31	1.45	1.47	14.79	−0.06
29470	8.49	1.15	1.16	11.66	1.50	1.51	10.32	1.46	1.48	14.78	−0.06
29500	8.49	1.15	1.16	11.63	1.47	1.49	10.27	1.41	1.43	14.78	−0.07
29530	8.49	1.15	1.16	11.63	1.47	1.49	10.27	1.41	1.44	14.78	−0.08
29560	8.49	1.15	1.16	11.61	1.45	1.47	10.25	1.39	1.42	14.78	−0.07
29590	8.49	1.14	1.16	11.52	1.36	1.39	10.15	1.29	1.33	14.76	−0.11
29620	8.49	1.15	1.16	11.55	1.39	1.42	10.20	1.34	1.38	14.77	−0.09
29650	8.49	1.15	1.16	11.58	1.42	1.45	10.23	1.37	1.41	14.76	−0.13
29680	8.49	1.15	1.16	11.57	1.41	1.45	10.22	1.36	1.41	14.75	−0.14
29710	8.49	1.15	1.17	11.57	1.41	1.46	10.22	1.36	1.42	14.74	−0.16

29740	8.49	1.15	1.17	11.57	1.41	1.45	10.22	1.36	1.42	14.73	−0.18
29770	8.49	1.15	1.17	11.57	1.41	1.46	10.22	1.36	1.42	14.73	−0.18
29800	8.49	1.15	1.17	11.57	1.41	1.47	10.22	1.36	1.43	14.72	−0.20
29830	8.50	1.16	1.17	11.59	1.43	1.47	10.24	1.38	1.43	14.75	−0.14
29860	8.50	1.16	1.17	11.59	1.43	1.47	10.24	1.38	1.42	14.75	−0.13
29890	8.50	1.16	1.17	11.58	1.42	1.46	10.23	1.37	1.42	14.75	−0.15
29920	8.49	1.15	1.17	11.57	1.40	1.46	10.21	1.35	1.43	14.72	−0.20
29950	8.49	1.15	1.17	11.57	1.40	1.46	10.21	1.35	1.42	14.73	−0.20
29980	8.50	1.16	1.18	11.57	1.41	1.46	10.22	1.36	1.43	14.73	−0.19
30010	8.50	1.16	1.18	11.57	1.41	1.46	10.22	1.36	1.43	14.73	−0.18
30040	8.50	1.16	1.18	11.58	1.42	1.47	10.23	1.37	1.43	14.73	−0.18
30070	8.50	1.16	1.18	11.58	1.42	1.47	10.23	1.37	1.43	14.73	−0.18
30100	8.50	1.16	1.18	11.58	1.42	1.46	10.23	1.37	1.43	14.73	−0.18
30130	8.50	1.16	1.18	11.57	1.41	1.46	10.22	1.36	1.43	14.73	−0.19
30160	8.50	1.16	1.18	11.57	1.40	1.46	10.22	1.36	1.43	14.72	−0.21
30190	8.50	1.16	1.18	11.56	1.40	1.46	10.22	1.36	1.43	14.72	−0.21
30220	8.50	1.16	1.18	11.56	1.40	1.46	10.22	1.36	1.44	14.72	−0.22
30250	8.50	1.16	1.18	11.56	1.40	1.46	10.21	1.35	1.44	14.71	−0.23
30280	8.50	1.16	1.19	11.56	1.40	1.46	10.21	1.35	1.44	14.70	−0.24
30310	8.50	1.16	1.19	11.55	1.39	1.46	10.21	1.35	1.44	14.70	−0.27
30340	8.50	1.16	1.19	11.55	1.39	1.46	10.21	1.35	1.45	14.69	−0.28
30370	8.50	1.16	1.19	11.55	1.39	1.46	10.21	1.35	1.45	14.69	−0.28
30400	8.50	1.16	1.19	11.55	1.39	1.46	10.20	1.34	1.45	14.68	−0.30
30430	8.50	1.16	1.19	11.55	1.39	1.47	10.21	1.35	1.45	14.68	−0.30
30460	8.50	1.16	1.20	11.55	1.39	1.47	10.20	1.34	1.46	14.67	−0.31
30490	8.50	1.16	1.20	11.55	1.39	1.47	10.20	1.34	1.46	14.67	−0.32
30520	8.50	1.16	1.20	11.54	1.38	1.47	10.20	1.34	1.46	14.66	−0.34
30550	8.51	1.17	1.20	11.55	1.39	1.47	10.20	1.34	1.46	14.66	−0.34
30580	8.51	1.17	1.20	11.56	1.40	1.48	10.21	1.35	1.46	14.67	−0.32
30610	8.51	1.17	1.20	11.56	1.40	1.48	10.22	1.36	1.47	14.68	−0.31
30640	8.51	1.17	1.20	11.57	1.40	1.48	10.22	1.36	1.47	14.68	−0.30
30670	8.51	1.17	1.20	11.57	1.40	1.48	10.22	1.36	1.47	14.68	−0.30
30700	8.51	1.17	1.20	11.57	1.41	1.49	10.23	1.37	1.47	14.68	−0.30
30730	8.51	1.17	1.20	11.57	1.41	1.49	10.23	1.37	1.48	14.68	−0.30
30760	8.51	1.17	1.20	11.57	1.40	1.48	10.22	1.36	1.46	14.69	−0.28
30790	8.51	1.17	1.20	11.58	1.42	1.49	10.23	1.37	1.47	14.69	−0.28
30820	8.52	1.18	1.20	11.58	1.42	1.49	10.24	1.38	1.48	14.70	−0.27
30850	8.52	1.18	1.20	11.57	1.41	1.48	10.23	1.37	1.47	14.70	−0.26
30880	8.52	1.18	1.20	11.58	1.42	1.49	10.24	1.38	1.47	14.70	−0.26
30910	8.52	1.18	1.21	11.60	1.44	1.51	10.27	1.41	1.50	14.70	−0.27
30940	8.52	1.18	1.20	11.54	1.38	1.45	10.19	1.33	1.43	14.70	−0.27
30970	8.53	1.19	1.21	11.58	1.42	1.49	10.23	1.37	1.46	14.69	−0.27
31000	8.52	1.18	1.21	11.61	1.45	1.52	10.26	1.40	1.49	14.69	−0.27
31030	8.52	1.18	1.21	11.59	1.43	1.50	10.25	1.39	1.49	14.69	−0.27
31060	8.53	1.19	1.21	11.65	1.49	1.56	10.32	1.46	1.56	14.70	−0.27
31090	8.52	1.18	1.21	11.58	1.42	1.49	10.24	1.38	1.48	14.69	−0.27
31120	8.53	1.19	1.21	11.58	1.42	1.49	10.24	1.38	1.48	14.69	−0.27

31150	8.53	1.19	1.21	11.63	1.47	1.53	10.29	1.43	1.52	14.70	−0.26
31180	8.53	1.19	1.21	11.56	1.40	1.46	10.22	1.36	1.45	14.70	−0.26
31210	8.53	1.19	1.21	11.56	1.40	1.46	10.22	1.36	1.45	14.70	−0.26
31240	8.53	1.19	1.21	11.58	1.42	1.48	10.24	1.38	1.47	14.70	−0.25
31270	8.53	1.19	1.21	11.59	1.43	1.49	10.24	1.38	1.47	14.71	−0.24
31300	8.53	1.19	1.21	11.60	1.44	1.50	10.25	1.39	1.47	14.71	−0.23
31330	8.53	1.19	1.21	11.60	1.44	1.49	10.25	1.39	1.47	14.71	−0.22
31360	8.53	1.19	1.21	11.60	1.44	1.50	10.25	1.39	1.47	14.72	−0.22
31390	8.53	1.19	1.21	11.60	1.44	1.50	10.26	1.40	1.47	14.72	−0.21
31420	8.54	1.19	1.21	11.61	1.45	1.50	10.26	1.40	1.47	14.73	−0.19
31450	8.54	1.19	1.21	11.61	1.45	1.50	10.26	1.40	1.47	14.73	−0.18
31480	8.54	1.19	1.21	11.62	1.46	1.50	10.27	1.41	1.47	14.74	−0.16
31510	8.54	1.19	1.21	11.62	1.46	1.49	10.27	1.41	1.46	14.74	−0.15
31540	8.54	1.20	1.21	11.62	1.46	1.50	10.27	1.41	1.46	14.75	−0.14
31570	8.54	1.19	1.21	11.62	1.46	1.49	10.27	1.41	1.46	14.74	−0.15
31600	8.54	1.20	1.21	11.62	1.46	1.50	10.27	1.41	1.46	14.74	−0.15
31630	8.54	1.20	1.21	11.62	1.46	1.50	10.27	1.41	1.46	14.74	−0.15
31660	8.54	1.20	1.21	11.62	1.46	1.50	10.27	1.41	1.46	14.74	−0.15
31690	8.54	1.20	1.22	11.62	1.46	1.50	10.27	1.41	1.46	14.74	−0.15
31720	8.54	1.20	1.21	11.62	1.46	1.50	10.27	1.41	1.47	14.74	−0.16
31750	8.54	1.20	1.22	11.61	1.45	1.50	10.26	1.40	1.46	14.74	−0.17
31780	8.54	1.20	1.22	11.62	1.46	1.50	10.27	1.41	1.47	14.74	−0.16
31810	8.54	1.20	1.22	11.62	1.46	1.50	10.27	1.41	1.47	14.74	−0.17
31840	8.54	1.20	1.22	11.62	1.46	1.50	10.27	1.41	1.47	14.74	−0.17
31870	8.55	1.21	1.22	11.62	1.46	1.50	10.27	1.41	1.46	14.74	−0.15
31900	8.55	1.21	1.22	11.62	1.46	1.50	10.27	1.41	1.47	14.74	−0.16
31930	8.55	1.21	1.22	11.61	1.45	1.49	10.26	1.40	1.46	14.74	−0.17
31960	8.55	1.21	1.22	11.62	1.46	1.50	10.27	1.41	1.47	14.74	−0.16
31990	8.55	1.21	1.22	11.63	1.47	1.51	10.29	1.43	1.48	14.75	−0.14
32020	8.55	1.21	1.22	11.64	1.48	1.51	10.29	1.43	1.47	14.76	−0.12
32050	8.55	1.21	1.22	11.64	1.48	1.51	10.29	1.43	1.47	14.76	−0.12
32080	8.55	1.21	1.22	11.64	1.48	1.50	10.29	1.43	1.47	14.76	−0.11
32110	8.55	1.21	1.22	11.64	1.48	1.51	10.30	1.44	1.47	14.77	−0.10
32140	8.55	1.21	1.22	11.65	1.49	1.51	10.30	1.44	1.48	14.77	−0.09
32170	8.55	1.21	1.22	11.65	1.49	1.52	10.30	1.44	1.48	14.77	−0.09
32200	8.56	1.22	1.23	11.66	1.50	1.52	10.31	1.45	1.48	14.78	−0.08
32230	8.56	1.22	1.22	11.67	1.51	1.53	10.32	1.46	1.48	14.78	−0.06
32260	8.56	1.22	1.23	11.68	1.52	1.54	10.34	1.48	1.50	14.79	−0.06
32290	8.56	1.22	1.23	11.66	1.50	1.52	10.32	1.46	1.48	14.78	−0.06
32320	8.56	1.22	1.23	11.68	1.52	1.54	10.35	1.49	1.51	14.78	−0.07
32350	8.56	1.22	1.23	11.67	1.51	1.53	10.33	1.47	1.50	14.78	−0.07
32380	8.56	1.22	1.23	11.66	1.50	1.52	10.32	1.46	1.48	14.78	−0.07
32410	8.56	1.22	1.22	11.66	1.50	1.52	10.33	1.47	1.50	14.78	−0.07
32440	8.56	1.22	1.23	11.67	1.51	1.53	10.34	1.48	1.51	14.77	−0.08
32470	8.56	1.22	1.23	11.64	1.48	1.51	10.31	1.45	1.48	14.77	−0.10
32500	8.57	1.23	1.24	11.72	1.56	1.58	10.40	1.54	1.57	14.77	−0.10
32530	8.57	1.23	1.24	11.61	1.45	1.48	10.27	1.41	1.45	14.76	−0.11

32560	8.56	1.22	1.24	11.56	1.40	1.42	10.21	1.35	1.39	14.76	−0.11
32590	8.57	1.23	1.24	11.67	1.51	1.54	10.34	1.48	1.52	14.76	−0.11
32620	8.57	1.23	1.24	11.68	1.52	1.55	10.36	1.50	1.54	14.76	−0.12
32650	8.57	1.23	1.24	11.64	1.48	1.51	10.29	1.43	1.47	14.76	−0.12
32680	8.57	1.23	1.24	11.64	1.48	1.51	10.30	1.44	1.48	14.76	−0.12
32710	8.57	1.23	1.24	11.65	1.49	1.52	10.31	1.45	1.49	14.76	−0.11
32740	8.57	1.23	1.24	11.64	1.48	1.51	10.30	1.44	1.47	14.77	−0.09
32770	8.57	1.23	1.24	11.65	1.49	1.51	10.30	1.44	1.47	14.78	−0.08
32800	8.57	1.23	1.24	11.65	1.49	1.51	10.30	1.44	1.46	14.79	−0.06
32830	8.57	1.23	1.24	11.62	1.46	1.47	10.27	1.41	1.43	14.79	−0.04
32860	8.58	1.24	1.24	11.63	1.47	1.48	10.29	1.43	1.44	14.80	−0.03
32890	8.58	1.24	1.24	11.64	1.48	1.49	10.30	1.44	1.44	14.80	−0.03
32920	8.58	1.24	1.24	11.61	1.45	1.46	10.27	1.41	1.41	14.80	−0.01
32950	8.58	1.24	1.24	11.62	1.46	1.46	10.28	1.42	1.42	14.81	−0.01
32980	8.58	1.24	1.24	11.62	1.46	1.46	10.27	1.41	1.41	14.81	−0.00
33010	8.58	1.24	1.24	11.60	1.44	1.44	10.26	1.40	1.40	14.81	−0.00
33040	8.58	1.24	1.24	11.60	1.44	1.44	10.25	1.39	1.40	14.81	−0.00
33070	8.58	1.24	1.24	11.59	1.43	1.43	10.25	1.39	1.39	14.81	0.01
33100	8.58	1.24	1.24	11.58	1.42	1.42	10.24	1.38	1.38	14.81	0.00
33130	8.58	1.24	1.24	11.58	1.42	1.42	10.24	1.38	1.38	14.81	−0.00
33160	8.58	1.24	1.24	11.56	1.40	1.40	10.23	1.37	1.37	14.81	−0.01
33190	8.58	1.24	1.24	11.57	1.41	1.41	10.23	1.37	1.38	14.80	−0.01
33220	8.58	1.24	1.25	11.56	1.40	1.40	10.22	1.36	1.37	14.80	−0.02
33250	8.58	1.24	1.25	11.56	1.40	1.41	10.22	1.36	1.37	14.80	−0.03
33280	8.58	1.24	1.25	11.56	1.40	1.41	10.23	1.37	1.38	14.80	−0.03
33310	8.58	1.24	1.25	11.56	1.40	1.40	10.22	1.36	1.37	14.80	−0.03
33340	8.58	1.24	1.25	11.57	1.40	1.41	10.23	1.37	1.38	14.80	−0.03
33370	8.58	1.24	1.25	11.56	1.40	1.41	10.23	1.37	1.38	14.80	−0.03
33400	8.59	1.25	1.25	11.57	1.41	1.42	10.24	1.38	1.38	14.80	−0.02
33430	8.59	1.25	1.25	11.57	1.40	1.41	10.23	1.37	1.37	14.81	−0.01
33460	8.59	1.25	1.25	11.58	1.42	1.42	10.24	1.38	1.39	14.81	−0.00
33490	8.59	1.25	1.24	11.59	1.43	1.42	10.25	1.39	1.39	14.82	0.01
33520	8.59	1.25	1.25	11.62	1.46	1.45	10.29	1.43	1.42	14.82	0.03
33550	8.59	1.25	1.25	11.64	1.48	1.47	10.30	1.44	1.43	14.83	0.03
33580	8.59	1.25	1.25	11.66	1.50	1.49	10.32	1.46	1.44	14.83	0.04
33610	8.60	1.26	1.25	11.68	1.52	1.50	10.34	1.48	1.46	14.83	0.05
33640	8.60	1.26	1.25	11.69	1.53	1.51	10.35	1.49	1.46	14.84	0.06
33670	8.60	1.26	1.25	11.69	1.53	1.52	10.35	1.49	1.47	14.84	0.06
33700	8.60	1.26	1.25	11.69	1.53	1.52	10.35	1.49	1.47	14.84	0.06
33730	8.60	1.26	1.25	11.72	1.56	1.54	10.37	1.51	1.49	14.84	0.06
33760	8.60	1.26	1.25	11.69	1.53	1.52	10.35	1.49	1.47	14.84	0.06
33790	8.60	1.26	1.26	11.70	1.54	1.52	10.36	1.50	1.48	14.83	0.05
33820	8.60	1.26	1.25	11.64	1.48	1.47	10.30	1.44	1.42	14.83	0.04
33850	8.60	1.26	1.26	11.69	1.53	1.52	10.35	1.49	1.48	14.82	0.03
33880	8.60	1.26	1.26	11.71	1.55	1.54	10.36	1.50	1.49	14.82	0.01
33910	8.60	1.26	1.26	11.69	1.53	1.53	10.35	1.49	1.49	14.81	−0.00
33940	8.60	1.26	1.26	11.67	1.51	1.51	10.33	1.47	1.47	14.81	−0.01

33970	8.61	1.26	1.27	11.67	1.51	1.51	10.33	1.47	1.48	14.81	−0.01
34000	8.61	1.26	1.27	11.69	1.53	1.53	10.35	1.49	1.50	14.80	−0.03
34030	8.61	1.26	1.27	11.66	1.50	1.51	10.32	1.46	1.47	14.79	−0.04
34060	8.61	1.26	1.27	11.68	1.52	1.53	10.34	1.48	1.50	14.79	−0.04
34090	8.61	1.26	1.27	11.67	1.51	1.52	10.33	1.47	1.49	14.79	−0.05
34120	8.61	1.26	1.27	11.68	1.52	1.53	10.33	1.47	1.50	14.78	−0.06
34150	8.61	1.27	1.27	11.68	1.52	1.53	10.33	1.47	1.49	14.78	−0.06
34180	8.61	1.27	1.27	11.68	1.52	1.54	10.33	1.47	1.49	14.79	−0.06
34210	8.61	1.27	1.27	11.69	1.53	1.54	10.34	1.48	1.50	14.79	−0.06
34240	8.61	1.27	1.28	11.69	1.53	1.54	10.34	1.48	1.50	14.79	−0.05
34270	8.61	1.27	1.28	11.69	1.53	1.54	10.34	1.48	1.50	14.79	−0.05
34300	8.61	1.27	1.28	11.69	1.53	1.54	10.34	1.48	1.50	14.79	−0.04
34330	8.61	1.27	1.28	11.70	1.54	1.54	10.35	1.49	1.49	14.80	−0.03
34360	8.61	1.27	1.28	11.70	1.54	1.55	10.35	1.49	1.50	14.80	−0.03
34390	8.61	1.27	1.28	11.70	1.54	1.55	10.35	1.49	1.50	14.80	−0.01
34420	8.61	1.27	1.28	11.71	1.55	1.55	10.36	1.50	1.51	14.80	−0.02
34450	8.62	1.28	1.28	11.71	1.55	1.55	10.36	1.50	1.50	14.80	−0.02
34480	8.61	1.27	1.28	11.70	1.54	1.55	10.35	1.49	1.50	14.80	−0.02
34510	8.62	1.28	1.28	11.70	1.54	1.55	10.35	1.49	1.50	14.80	−0.02
34540	8.62	1.28	1.28	11.70	1.54	1.55	10.35	1.49	1.50	14.80	−0.02
34570	8.62	1.28	1.28	11.70	1.54	1.55	10.35	1.49	1.50	14.80	−0.03
34600	8.62	1.28	1.28	11.70	1.54	1.55	10.35	1.49	1.50	14.80	−0.03
34630	8.62	1.28	1.28	11.70	1.54	1.55	10.36	1.50	1.51	14.79	−0.04
34660	8.62	1.28	1.29	11.70	1.54	1.55	10.35	1.49	1.50	14.79	−0.04
34690	8.62	1.28	1.28	11.70	1.54	1.55	10.35	1.49	1.51	14.79	−0.05
34720	8.62	1.28	1.29	11.70	1.54	1.55	10.35	1.49	1.51	14.79	−0.06
34750	8.62	1.28	1.29	11.70	1.54	1.55	10.35	1.49	1.52	14.78	−0.06
34780	8.62	1.28	1.29	11.70	1.54	1.56	10.36	1.50	1.52	14.78	−0.06
34810	8.62	1.28	1.29	11.71	1.55	1.56	10.36	1.50	1.52	14.79	−0.06
34840	8.62	1.28	1.29	11.71	1.55	1.56	10.36	1.50	1.52	14.79	−0.05
34870	8.62	1.28	1.29	11.71	1.55	1.56	10.36	1.50	1.52	14.80	−0.03
34900	8.62	1.28	1.29	11.71	1.55	1.56	10.36	1.50	1.52	14.80	−0.03
34930	8.63	1.29	1.29	11.72	1.56	1.57	10.37	1.51	1.52	14.80	−0.03
34960	8.63	1.29	1.29	11.73	1.57	1.58	10.38	1.52	1.53	14.80	−0.03
34990	8.63	1.29	1.29	11.73	1.57	1.58	10.38	1.52	1.53	14.80	−0.02
35020	8.63	1.29	1.29	11.73	1.57	1.58	10.39	1.53	1.53	14.80	−0.02
35050	8.63	1.29	1.29	11.73	1.57	1.58	10.38	1.52	1.53	14.81	−0.01
35080	8.63	1.29	1.29	11.75	1.59	1.60	10.41	1.55	1.55	14.81	−0.01
35110	8.64	1.30	1.30	11.75	1.59	1.59	10.41	1.55	1.55	14.80	−0.01
35140	8.64	1.30	1.30	11.76	1.60	1.60	10.42	1.56	1.57	14.80	−0.02
35170	8.64	1.30	1.30	11.77	1.61	1.61	10.43	1.57	1.58	14.80	−0.02
35200	8.64	1.30	1.30	11.78	1.62	1.63	10.44	1.58	1.59	14.80	−0.03
35230	8.64	1.30	1.30	11.77	1.61	1.62	10.44	1.58	1.59	14.79	−0.04
35260	8.62	1.28	1.29	11.63	1.47	1.48	10.27	1.41	1.43	14.78	−0.06
35290	8.65	1.31	1.31	11.69	1.53	1.55	10.35	1.49	1.52	14.78	−0.08
35320	8.64	1.30	1.31	11.62	1.46	1.48	10.25	1.39	1.43	14.77	−0.09
35350	8.64	1.30	1.31	11.74	1.58	1.61	10.39	1.53	1.57	14.76	−0.11

35380	8.64	1.30	1.31	11.70	1.54	1.58	10.36	1.50	1.55	14.75	−0.13
35410	8.64	1.30	1.32	11.72	1.56	1.60	10.40	1.54	1.59	14.75	−0.14
35440	8.64	1.30	1.32	11.65	1.49	1.53	10.31	1.45	1.51	14.74	−0.16
35470	8.64	1.30	1.32	11.75	1.59	1.63	10.42	1.56	1.62	14.74	−0.17
35500	8.64	1.30	1.32	11.72	1.56	1.61	10.38	1.52	1.59	14.74	−0.17
35530	8.64	1.30	1.32	11.71	1.55	1.60	10.37	1.51	1.57	14.73	−0.18
35560	8.64	1.30	1.32	11.72	1.56	1.60	10.38	1.52	1.58	14.73	−0.18
35590	8.64	1.30	1.32	11.70	1.54	1.59	10.36	1.50	1.56	14.73	−0.18
35620	8.64	1.30	1.32	11.71	1.55	1.60	10.37	1.51	1.58	14.73	−0.19
35650	8.65	1.31	1.33	11.72	1.56	1.61	10.37	1.51	1.58	14.72	−0.20
35680	8.65	1.31	1.33	11.72	1.56	1.61	10.36	1.50	1.58	14.72	−0.20
35710	8.65	1.31	1.33	11.72	1.56	1.61	10.37	1.51	1.58	14.72	−0.21
35740	8.65	1.31	1.33	11.73	1.57	1.62	10.37	1.51	1.58	14.73	−0.20
35770	8.65	1.31	1.33	11.73	1.57	1.62	10.38	1.52	1.59	14.73	−0.19
35800	8.65	1.31	1.33	11.74	1.58	1.63	10.39	1.53	1.59	14.73	−0.18
35830	8.65	1.31	1.33	11.74	1.58	1.62	10.38	1.52	1.59	14.74	−0.17
35860	8.65	1.31	1.33	11.74	1.58	1.63	10.39	1.53	1.59	14.74	−0.17
35890	8.65	1.31	1.33	11.74	1.58	1.62	10.38	1.52	1.59	14.73	−0.18
35920	8.65	1.31	1.33	11.74	1.58	1.62	10.38	1.52	1.59	14.73	−0.19
35950	8.65	1.31	1.33	11.73	1.57	1.62	10.38	1.52	1.59	14.73	−0.19
35980	8.65	1.31	1.33	11.74	1.58	1.63	10.38	1.52	1.60	14.72	−0.21
36010	8.65	1.31	1.33	11.74	1.58	1.63	10.38	1.52	1.59	14.73	−0.20
36040	8.66	1.31	1.33	11.74	1.58	1.63	10.39	1.53	1.60	14.72	−0.20
36070	8.65	1.31	1.33	11.74	1.58	1.63	10.39	1.53	1.60	14.72	−0.21
36100	8.65	1.31	1.33	11.73	1.57	1.63	10.38	1.52	1.60	14.72	−0.22
36130	8.65	1.31	1.34	11.73	1.57	1.63	10.38	1.52	1.61	14.71	−0.24
36160	8.65	1.31	1.34	11.73	1.57	1.63	10.38	1.52	1.60	14.71	−0.24
36190	8.66	1.31	1.34	11.73	1.57	1.64	10.38	1.52	1.61	14.70	−0.24
36220	8.66	1.31	1.34	11.73	1.57	1.64	10.38	1.52	1.61	14.71	−0.24
36250	8.66	1.31	1.34	11.73	1.57	1.64	10.38	1.52	1.61	14.70	−0.25
36280	8.66	1.31	1.34	11.74	1.58	1.64	10.39	1.53	1.61	14.71	−0.24
36310	8.66	1.31	1.34	11.74	1.58	1.64	10.39	1.53	1.62	14.71	−0.24
36340	8.66	1.32	1.34	11.74	1.58	1.64	10.39	1.53	1.62	14.71	−0.24
36370	8.66	1.32	1.34	11.75	1.59	1.65	10.40	1.54	1.62	14.72	−0.21
36400	8.66	1.32	1.34	11.75	1.59	1.65	10.41	1.55	1.62	14.72	−0.21
36430	8.66	1.32	1.34	11.75	1.59	1.65	10.41	1.55	1.63	14.72	−0.21
36460	8.66	1.32	1.34	11.76	1.60	1.66	10.41	1.55	1.63	14.72	−0.22
36490	8.66	1.32	1.34	11.76	1.60	1.66	10.42	1.56	1.63	14.71	−0.22
36520	8.67	1.33	1.35	11.75	1.59	1.65	10.41	1.55	1.63	14.71	−0.22
36550	8.67	1.33	1.35	11.77	1.61	1.66	10.42	1.56	1.64	14.72	−0.21
36580	8.67	1.33	1.35	11.79	1.63	1.69	10.45	1.59	1.67	14.72	−0.22
36610	8.67	1.33	1.35	11.76	1.60	1.66	10.42	1.56	1.64	14.71	−0.22
36640	8.67	1.33	1.35	11.74	1.58	1.64	10.40	1.54	1.62	14.71	−0.23
36670	8.67	1.33	1.35	11.77	1.61	1.67	10.42	1.56	1.65	14.71	−0.24
36700	8.68	1.34	1.36	11.87	1.71	1.77	10.54	1.68	1.77	14.70	−0.27
36730	8.66	1.32	1.35	11.77	1.61	1.69	10.42	1.56	1.67	14.68	−0.29
36760	8.67	1.33	1.36	11.75	1.59	1.66	10.39	1.53	1.64	14.68	−0.30

36790	8.67	1.33	1.36	11.78	1.62	1.70	10.43	1.57	1.68	14.68	−0.30
36820	8.68	1.34	1.37	11.74	1.58	1.66	10.40	1.54	1.65	14.68	−0.31
36850	8.67	1.33	1.36	11.72	1.56	1.65	10.38	1.52	1.63	14.67	−0.32
36880	8.67	1.33	1.36	11.67	1.51	1.60	10.30	1.44	1.57	14.66	−0.34
36910	8.67	1.33	1.37	11.80	1.64	1.73	10.46	1.60	1.72	14.66	−0.35
36940	8.67	1.33	1.37	11.77	1.61	1.70	10.43	1.57	1.70	14.66	−0.35
36970	8.67	1.33	1.37	11.78	1.62	1.71	10.43	1.57	1.70	14.66	−0.35
37000	8.68	1.34	1.37	11.75	1.59	1.68	10.40	1.54	1.67	14.66	−0.35
37030	8.68	1.34	1.37	11.74	1.58	1.67	10.39	1.53	1.66	14.66	−0.34
37060	8.68	1.34	1.37	11.75	1.59	1.68	10.40	1.54	1.66	14.66	−0.34
37090	8.68	1.34	1.37	11.76	1.60	1.69	10.41	1.55	1.67	14.67	−0.33
37120	8.68	1.34	1.37	11.76	1.60	1.68	10.41	1.55	1.66	14.67	−0.33
37150	8.68	1.34	1.37	11.76	1.60	1.68	10.41	1.55	1.65	14.68	−0.30
37180	8.68	1.34	1.37	11.76	1.60	1.68	10.41	1.55	1.66	14.68	−0.30
37210	8.68	1.34	1.37	11.78	1.62	1.69	10.42	1.56	1.66	14.69	−0.27
37240	8.68	1.34	1.37	11.78	1.62	1.69	10.42	1.56	1.66	14.70	−0.26
37270	8.69	1.35	1.37	11.79	1.63	1.69	10.43	1.57	1.66	14.71	−0.24
37300	8.69	1.35	1.37	11.78	1.62	1.68	10.43	1.57	1.65	14.71	−0.23
37330	8.69	1.35	1.37	11.79	1.63	1.68	10.43	1.57	1.65	14.72	−0.22
37360	8.69	1.35	1.37	11.79	1.63	1.68	10.44	1.58	1.65	14.72	−0.20
37390	8.69	1.35	1.37	11.79	1.63	1.68	10.43	1.57	1.64	14.72	−0.20
37420	8.69	1.35	1.37	11.78	1.62	1.68	10.43	1.57	1.65	14.72	−0.21
37450	8.69	1.35	1.37	11.78	1.62	1.68	10.43	1.57	1.65	14.72	−0.21
37480	8.69	1.35	1.37	11.78	1.62	1.68	10.43	1.57	1.65	14.72	−0.21
37510	8.69	1.35	1.37	11.78	1.62	1.67	10.42	1.56	1.64	14.72	−0.22
37540	8.69	1.35	1.37	11.78	1.62	1.68	10.42	1.56	1.65	14.71	−0.23
37570	8.69	1.35	1.38	11.78	1.62	1.68	10.43	1.57	1.65	14.71	−0.22
37600	8.69	1.35	1.37	11.78	1.62	1.68	10.43	1.57	1.65	14.72	−0.22
37630	8.69	1.35	1.37	11.78	1.62	1.68	10.43	1.57	1.65	14.72	−0.22
37660	8.70	1.36	1.38	11.79	1.63	1.68	10.43	1.57	1.65	14.72	−0.21
37690	8.70	1.36	1.38	11.79	1.63	1.68	10.44	1.58	1.65	14.72	−0.21
37720	8.70	1.36	1.38	11.79	1.63	1.68	10.44	1.58	1.65	14.72	−0.20
37750	8.70	1.36	1.38	11.79	1.63	1.68	10.44	1.58	1.65	14.73	−0.20
37780	8.70	1.36	1.38	11.79	1.63	1.68	10.44	1.58	1.65	14.73	−0.19
37810	8.70	1.36	1.38	11.81	1.65	1.69	10.46	1.60	1.66	14.73	−0.18
37840	8.70	1.36	1.38	11.81	1.65	1.69	10.46	1.60	1.66	14.74	−0.16
37870	8.70	1.36	1.38	11.81	1.65	1.69	10.46	1.60	1.66	14.74	−0.16
37900	8.71	1.37	1.38	11.82	1.66	1.70	10.47	1.61	1.67	14.74	−0.15
37930	8.71	1.37	1.38	11.82	1.66	1.70	10.48	1.62	1.67	14.74	−0.16
37960	8.71	1.37	1.38	11.83	1.67	1.71	10.48	1.62	1.68	14.74	−0.16
37990	8.71	1.37	1.38	11.83	1.67	1.71	10.48	1.62	1.68	14.75	−0.15
38020	8.71	1.37	1.39	11.85	1.69	1.72	10.51	1.65	1.70	14.75	−0.13
38050	8.71	1.37	1.38	11.69	1.53	1.56	10.34	1.48	1.53	14.76	−0.12
38080	8.71	1.37	1.39	11.61	1.45	1.48	10.28	1.42	1.47	14.75	−0.13
38110	8.72	1.38	1.39	11.71	1.55	1.58	10.42	1.56	1.61	14.75	−0.13
38140	8.71	1.37	1.38	11.45	1.29	1.33	10.13	1.27	1.32	14.75	−0.14
38170	8.71	1.37	1.39	11.51	1.35	1.39	10.21	1.35	1.40	14.75	−0.15

38200	8.71	1.37	1.38	11.34	1.18	1.22	10.02	1.16	1.22	14.74	−0.16
38230	8.71	1.37	1.38	11.48	1.32	1.36	10.19	1.33	1.38	14.74	−0.15
38260	8.72	1.38	1.39	11.72	1.56	1.60	10.42	1.56	1.61	14.75	−0.15
38290	8.71	1.37	1.39	11.60	1.44	1.48	10.25	1.39	1.45	14.74	−0.16
38320	8.72	1.38	1.39	11.64	1.48	1.53	10.31	1.45	1.51	14.74	−0.17
38350	8.72	1.38	1.39	11.66	1.50	1.54	10.31	1.45	1.52	14.73	−0.18
38380	8.72	1.38	1.39	11.66	1.50	1.55	10.31	1.45	1.51	14.73	−0.18
38410	8.72	1.38	1.40	11.68	1.52	1.56	10.32	1.46	1.53	14.73	−0.19
38440	8.72	1.38	1.40	11.69	1.53	1.57	10.33	1.47	1.54	14.73	−0.19
38470	8.72	1.38	1.40	11.69	1.53	1.58	10.34	1.48	1.54	14.73	−0.18
38500	8.72	1.38	1.40	11.69	1.53	1.58	10.33	1.47	1.53	14.73	−0.18
38530	8.72	1.38	1.40	11.71	1.55	1.59	10.34	1.48	1.55	14.73	−0.18
38560	8.72	1.38	1.40	11.71	1.55	1.60	10.35	1.49	1.55	14.74	−0.16
38590	8.73	1.39	1.40	11.72	1.56	1.60	10.35	1.49	1.55	14.74	−0.16
38620	8.73	1.39	1.40	11.73	1.57	1.61	10.36	1.50	1.55	14.74	−0.15
38650	8.73	1.39	1.40	11.73	1.57	1.61	10.36	1.50	1.56	14.75	−0.15
38680	8.73	1.39	1.40	11.74	1.58	1.61	10.37	1.51	1.56	14.75	−0.14
38710	8.73	1.39	1.40	11.75	1.59	1.62	10.37	1.51	1.56	14.76	−0.13
38740	8.73	1.39	1.40	11.74	1.58	1.61	10.37	1.51	1.56	14.76	−0.12
38770	8.73	1.39	1.40	11.74	1.58	1.61	10.37	1.51	1.55	14.76	−0.12
38800	8.73	1.39	1.40	11.75	1.59	1.62	10.37	1.51	1.56	14.76	−0.12
38830	8.73	1.39	1.40	11.74	1.58	1.61	10.37	1.51	1.56	14.76	−0.12
38860	8.73	1.39	1.40	11.75	1.59	1.62	10.37	1.51	1.56	14.76	−0.12
38890	8.73	1.39	1.40	11.74	1.58	1.62	10.37	1.51	1.56	14.76	−0.13
38920	8.73	1.39	1.40	11.74	1.58	1.62	10.37	1.51	1.56	14.75	−0.13
38950	8.73	1.39	1.40	11.74	1.58	1.62	10.37	1.51	1.56	14.75	−0.14
38980	8.73	1.39	1.41	11.74	1.58	1.62	10.37	1.51	1.56	14.75	−0.14
39010	8.73	1.39	1.41	11.74	1.58	1.62	10.37	1.51	1.56	14.75	−0.14
39040	8.73	1.39	1.41	11.74	1.58	1.62	10.37	1.51	1.56	14.75	−0.15
39070	8.73	1.39	1.41	11.74	1.58	1.62	10.37	1.51	1.57	14.75	−0.14
39100	8.73	1.39	1.41	11.75	1.59	1.62	10.38	1.52	1.57	14.75	−0.14
39130	8.73	1.39	1.41	11.75	1.59	1.62	10.38	1.52	1.57	14.75	−0.14
39160	8.73	1.39	1.41	11.75	1.59	1.63	10.38	1.52	1.57	14.75	−0.13
39190	8.74	1.40	1.41	11.75	1.59	1.62	10.38	1.52	1.57	14.75	−0.13
39220	8.74	1.40	1.41	11.76	1.60	1.63	10.39	1.53	1.57	14.76	−0.11
39250	8.74	1.40	1.41	11.76	1.60	1.63	10.40	1.54	1.57	14.76	−0.11
39280	8.74	1.40	1.41	11.76	1.60	1.63	10.40	1.54	1.57	14.77	−0.10
39310	8.74	1.40	1.41	11.77	1.61	1.63	10.40	1.54	1.57	14.77	−0.08
39340	8.74	1.40	1.41	11.74	1.58	1.60	10.39	1.53	1.55	14.78	−0.08
39370	8.74	1.40	1.41	11.69	1.53	1.55	10.35	1.49	1.51	14.78	−0.07
39400	8.74	1.40	1.41	11.69	1.53	1.54	10.34	1.48	1.50	14.78	−0.07
39430	8.74	1.40	1.41	11.70	1.54	1.56	10.36	1.50	1.52	14.78	−0.07
39460	8.75	1.41	1.41	11.73	1.57	1.58	10.38	1.52	1.54	14.78	−0.06
39490	8.75	1.41	1.41	11.73	1.57	1.58	10.37	1.51	1.54	14.78	−0.07
39520	8.75	1.41	1.41	11.73	1.57	1.58	10.37	1.51	1.54	14.78	−0.07
39550	8.75	1.41	1.42	11.75	1.59	1.60	10.39	1.53	1.55	14.79	−0.06
39580	8.75	1.41	1.41	11.74	1.58	1.59	10.38	1.52	1.54	14.78	−0.06

39610	8.75	1.41	1.42	11.75	1.59	1.60	10.38	1.52	1.55	14.78	−0.07
39640	8.75	1.41	1.42	11.78	1.62	1.64	10.42	1.56	1.58	14.78	−0.07
39670	8.75	1.41	1.42	11.75	1.59	1.61	10.39	1.53	1.55	14.78	−0.07
39700	8.75	1.41	1.42	11.75	1.59	1.60	10.38	1.52	1.55	14.78	−0.07
39730	8.75	1.41	1.42	11.75	1.59	1.61	10.38	1.52	1.55	14.78	−0.07
39760	8.76	1.42	1.42	11.77	1.61	1.63	10.41	1.55	1.58	14.78	−0.08
39790	8.76	1.42	1.43	11.77	1.61	1.64	10.42	1.56	1.59	14.77	−0.09
39820	8.76	1.42	1.43	11.72	1.56	1.59	10.36	1.50	1.54	14.77	−0.10
39850	8.76	1.42	1.43	11.76	1.60	1.63	10.40	1.54	1.58	14.76	−0.11
39880	8.76	1.42	1.43	11.75	1.59	1.62	10.39	1.53	1.57	14.76	−0.11
39910	8.76	1.42	1.43	11.75	1.59	1.62	10.39	1.53	1.57	14.76	−0.11
39940	8.76	1.42	1.43	11.76	1.60	1.63	10.41	1.55	1.58	14.76	−0.11
39970	8.76	1.42	1.43	11.75	1.59	1.62	10.39	1.53	1.57	14.76	−0.11
40000	8.76	1.42	1.43	11.75	1.59	1.62	10.39	1.53	1.57	14.76	−0.11
40030	8.76	1.42	1.43	11.76	1.60	1.62	10.39	1.53	1.56	14.77	−0.10
40060	8.76	1.42	1.43	11.76	1.60	1.63	10.40	1.54	1.57	14.77	−0.09
40090	8.76	1.42	1.43	11.78	1.62	1.64	10.41	1.55	1.57	14.78	−0.08
40120	8.77	1.43	1.43	11.77	1.61	1.63	10.40	1.54	1.57	14.78	−0.07
40150	8.77	1.43	1.43	11.77	1.61	1.63	10.41	1.55	1.57	14.78	−0.06
40180	8.77	1.43	1.43	11.78	1.62	1.64	10.41	1.55	1.57	14.79	−0.06
40210	8.77	1.43	1.43	11.78	1.62	1.64	10.41	1.55	1.57	14.79	−0.05
40240	8.77	1.43	1.43	11.78	1.62	1.63	10.41	1.55	1.56	14.79	−0.05
40270	8.77	1.43	1.43	11.78	1.62	1.63	10.41	1.55	1.56	14.79	−0.04
40300	8.77	1.43	1.43	11.78	1.62	1.63	10.41	1.55	1.57	14.79	−0.05
40330	8.77	1.43	1.43	11.78	1.62	1.63	10.41	1.55	1.57	14.79	−0.05
40360	8.77	1.43	1.43	11.77	1.61	1.63	10.41	1.55	1.57	14.79	−0.05
40390	8.77	1.43	1.44	11.77	1.61	1.63	10.41	1.55	1.57	14.78	−0.06
40420	8.77	1.43	1.44	11.77	1.61	1.63	10.40	1.54	1.57	14.78	−0.07
40450	8.77	1.43	1.44	11.77	1.61	1.63	10.40	1.54	1.57	14.78	−0.08
40480	8.77	1.43	1.44	11.77	1.61	1.63	10.40	1.54	1.57	14.78	−0.08
40510	8.77	1.43	1.44	11.77	1.61	1.63	10.41	1.55	1.57	14.78	−0.07
40540	8.77	1.43	1.44	11.77	1.61	1.63	10.41	1.55	1.57	14.78	−0.07
40570	8.77	1.43	1.44	11.77	1.61	1.63	10.41	1.55	1.57	14.78	−0.07
40600	8.78	1.43	1.44	11.78	1.62	1.63	10.41	1.55	1.57	14.78	−0.06
40630	8.78	1.43	1.44	11.78	1.62	1.63	10.41	1.55	1.57	14.78	−0.06
40660	8.78	1.43	1.44	11.78	1.62	1.64	10.42	1.56	1.57	14.79	−0.05
40690	8.78	1.43	1.44	11.79	1.63	1.64	10.42	1.56	1.58	14.79	−0.04
40720	8.78	1.44	1.44	11.80	1.64	1.65	10.44	1.58	1.59	14.80	−0.03
40750	8.78	1.44	1.44	11.81	1.65	1.65	10.44	1.58	1.59	14.80	−0.03
40780	8.78	1.44	1.44	11.81	1.65	1.65	10.44	1.58	1.59	14.80	−0.02
40810	8.79	1.44	1.45	11.82	1.65	1.66	10.45	1.59	1.59	14.81	−0.00
40840	8.79	1.44	1.44	11.82	1.66	1.66	10.46	1.60	1.60	14.81	0.00
40870	8.79	1.44	1.44	11.82	1.66	1.66	10.46	1.60	1.60	14.81	0,01
40900	8.79	1.45	1.45	11.83	1.67	1.67	10.47	1.61	1.61	14.81	0.01
40930	8.79	1.44	1.44	11.73	1.57	1.57	10.36	1.50	1.49	14.82	0.01
40960	8.79	1.45	1.45	11.88	1.72	1.72	10.53	1.67	1.66	14.82	0.01
40990	8.79	1.45	1.45	11.82	1.66	1.66	10.48	1.62	1.62	14.81	0.01

41020	8.79	1.45	1.45	11.85	1.69	1.69	10.48	1.62	1.63	14.81	−0.00
41050	8.79	1.45	1.45	11.78	1.62	1.63	10.42	1.56	1.56	14.81	−0.01
41080	8.79	1.45	1.46	11.80	1.64	1.65	10.45	1.59	1.59	14.80	−0.02
41110	8.79	1.45	1.46	11.82	1.66	1.67	10.46	1.60	1.61	14.80	−0.03
41140	8.79	1.45	1.46	11.80	1.64	1.65	10.45	1.59	1.60	14.80	−0.03
41170	8.79	1.45	1.46	11.80	1.64	1.65	10.44	1.58	1.60	14.79	−0.04
41200	8.79	1.45	1.46	11.78	1.62	1.63	10.42	1.56	1.57	14.79	−0.04
41230	8.79	1.45	1.46	11.78	1.62	1.63	10.42	1.56	1.58	14.79	−0.06
41260	8.80	1.46	1.46	11.80	1.64	1.65	10.44	1.58	1.60	14.79	−0.06
41290	8.80	1.46	1.46	11.79	1.63	1.64	10.43	1.57	1.59	14.78	−0.06
41320	8.80	1.46	1.46	11.78	1.62	1.64	10.42	1.56	1.58	14.78	−0.07
41350	8.80	1.46	1.47	11.79	1.63	1.64	10.42	1.56	1.59	14.78	−0.07
41380	8.80	1.46	1.47	11.78	1.62	1.64	10.42	1.56	1.58	14.78	−0.08
41410	8.80	1.46	1.47	11.79	1.63	1.65	10.42	1.56	1.59	14.78	−0.08
41440	8.80	1.46	1.47	11.79	1.63	1.65	10.42	1.56	1.59	14.78	−0.08
41470	8.80	1.46	1.47	11.79	1.63	1.65	10.42	1.56	1.59	14.78	−0.08
41500	8.80	1.46	1.47	11.80	1.64	1.66	10.42	1.56	1.59	14.78	−0.08
41530	8.80	1.46	1.47	11.80	1.64	1.66	10.43	1.57	1.60	14.78	−0.08
41560	8.80	1.46	1.47	11.81	1.65	1.66	10.43	1.57	1.60	14.78	−0.07
41590	8.80	1.46	1.47	11.81	1.65	1.66	10.43	1.57	1.60	14.78	−0.06
41620	8.81	1.47	1.47	11.81	1.65	1.66	10.44	1.58	1.60	14.78	−0.06
41650	8.81	1.47	1.47	11.81	1.65	1.67	10.44	1.58	1.60	14.78	−0.07
41680	8.81	1.47	1.47	11.81	1.65	1.67	10.44	1.58	1.60	14.78	−0.08
41710	8.81	1.47	1.48	11.81	1.65	1.67	10.44	1.58	1.61	14.77	−0.08
41740	8.81	1.47	1.48	11.81	1.65	1.67	10.43	1.57	1.60	14.77	−0.09
41770	8.81	1.47	1.48	11.81	1.65	1.67	10.43	1.57	1.61	14.77	−0.09
41800	8.81	1.47	1.48	11.80	1.64	1.67	10.43	1.57	1.61	14.76	−0.11
41830	8.81	1.47	1.48	11.80	1.64	1.67	10.43	1.57	1.62	14.76	−0.12
41860	8.81	1.47	1.48	11.80	1.64	1.68	10.43	1.57	1.62	14.75	−0.13
41890	8.81	1.47	1.48	11.80	1.64	1.68	10.43	1.57	1.62	14.75	−0.14
41920	8.81	1.47	1.48	11.81	1.65	1.69	10.44	1.58	1.63	14.75	−0.14
41950	8.81	1.47	1.48	11.81	1.65	1.68	10.44	1.58	1.63	14.75	−0.14
41980	8.81	1.47	1.48	11.81	1.65	1.68	10.44	1.58	1.63	14.75	−0.15
42010	8.81	1.47	1.48	11.82	1.66	1.70	10.45	1.59	1.64	14.75	−0.14
42040	8.81	1.47	1.49	11.82	1.66	1.69	10.45	1.59	1.64	14.75	−0.13
42070	8.81	1.47	1.49	11.82	1.66	1.69	10.45	1.59	1.63	14.76	−0.12
42100	8.81	1.47	1.48	11.82	1.66	1.69	10.45	1.59	1.63	14.76	−0.12
42130	8.82	1.48	1.49	11.82	1.66	1.69	10.46	1.60	1.63	14.76	−0.11
42160	8.82	1.48	1.49	11.83	1.67	1.69	10.46	1.60	1.64	14.77	−0.10
42190	8.82	1.48	1.49	11.83	1.67	1.70	10.47	1.61	1.65	14.76	−0.11
42220	8.82	1.48	1.49	11.83	1.67	1.70	10.47	1.61	1.65	14.76	−0.11
42250	8.82	1.48	1.49	11.84	1.68	1.71	10.48	1.62	1.66	14.77	−0.10
42280	8.82	1.48	1.49	11.84	1.68	1.71	10.48	1.62	1.65	14.76	−0.11
42310	8.82	1.48	1.49	11.85	1.69	1.72	10.48	1.62	1.66	14.77	−0.10
42340	8.82	1.48	1.49	11.85	1.69	1.71	10.48	1.62	1.65	14.77	−0.10
42370	8.83	1.49	1.50	11.85	1.69	1.72	10.49	1.63	1.66	14.77	−0.10
42400	8.83	1.49	1.50	11.86	1.70	1.73	10.50	1.64	1.68	14.77	−0.10

42430	8.83	1.49	1.50	11.91	1.75	1.78	10.58	1.72	1.76	14.76	−0.11
42460	8.83	1.49	1.50	11.77	1.61	1.64	10.40	1.54	1.59	14.76	−0.12
42490	8.83	1.49	1.50	11.86	1.70	1.73	10.48	1.62	1.67	14.75	−0.14
42520	8.83	1.49	1.50	11.75	1.59	1.63	10.39	1.53	1.59	14.74	−0.16
42550	8.83	1.49	1.51	11.85	1.69	1.73	10.49	1.63	1.69	14.74	−0.17
42580	8.83	1.49	1.51	11.71	1.55	1.59	10.34	1.48	1.55	14.73	−0.18
42610	8.83	1.49	1.51	11.86	1.70	1.75	10.53	1.67	1.74	14.72	−0.20
42640	8.83	1.49	1.51	11.88	1.72	1.78	10.54	1.68	1.76	14.72	−0.21
42670	8.83	1.49	1.51	11.81	1.65	1.71	10.46	1.60	1.68	14.71	−0.24
42700	8.83	1.49	1.52	11.82	1.66	1.73	10.48	1.62	1.70	14.70	−0.25
42730	8.83	1.49	1.52	11.76	1.60	1.67	10.39	1.53	1.62	14.70	−0.26
42760	8.83	1.49	1.52	11.76	1.60	1.67	10.40	1.54	1.63	14.70	−0.26
42790	8.84	1.50	1.52	11.81	1.65	1.72	10.44	1.58	1.68	14.69	−0.27
42820	8.84	1.50	1.52	11.80	1.64	1.71	10.43	1.57	1.67	14.69	−0.27
42850	8.84	1.50	1.52	11.82	1.65	1.73	10.45	1.59	1.68	14.69	−0.27
42880	8.84	1.50	1.52	11.82	1.66	1.73	10.45	1.59	1.69	14.70	−0.27
42910	8.84	1.50	1.52	11.81	1.65	1.72	10.44	1.58	1.68	14.70	−0.26
42940	8.84	1.50	1.52	11.82	1.66	1.73	10.45	1.59	1.68	14.70	−0.27
42970	8.84	1.50	1.52	11.83	1.67	1.73	10.45	1.59	1.69	14.70	−0.26
43000	8.84	1.50	1.52	11.83	1.67	1.73	10.46	1.60	1.69	14.70	−0.25
43030	8.84	1.50	1.52	11.83	1.67	1.73	10.46	1.60	1.69	14.71	−0.24
43060	8.84	1.50	1.52	11.84	1.68	1.74	10.47	1.61	1.69	14.71	−0.24
43090	8.84	1.50	1.52	11.84	1.68	1.74	10.47	1.61	1.69	14.71	−0.23
43120	8.84	1.50	1.52	11.84	1.68	1.74	10.47	1.61	1.69	14.71	−0.23
43150	8.84	1.50	1.53	11.84	1.68	1.74	10.47	1.61	1.69	14.71	−0.23
43180	8.84	1.50	1.53	11.84	1.68	1.74	10.47	1.61	1.69	14.71	−0.23
43210	8.84	1.50	1.53	11.84	1.68	1.74	10.47	1.61	1.69	14.71	−0.23
43240	8.84	1.50	1.53	11.84	1.68	1.74	10.47	1.61	1.69	14.71	−0.24
43270	8.84	1.50	1.53	11.84	1.68	1.74	10.47	1.61	1.70	14.70	−0.25
43300	8.84	1.50	1.53	11.83	1.67	1.74	10.47	1.61	1.69	14.70	−0.25
43330	8.84	1.50	1.53	11.83	1.67	1.74	10.46	1.60	1.70	14.70	−0.26
43360	8.84	1.50	1.53	11.83	1.67	1.74	10.46	1.60	1.70	14.69	−0.27
43390	8.85	1.51	1.54	11.83	1.67	1.74	10.46	1.60	1.70	14.69	−0.27
43420	8.85	1.51	1.53	11.84	1.68	1.75	10.47	1.61	1.70	14.69	−0.27
43450	8.85	1.51	1.53	11.83	1.67	1.74	10.47	1.61	1.70	14.70	−0.27
43480	8.85	1.51	1.53	11.84	1.68	1.75	10.48	1.62	1.71	14.70	−0.26
43510	8.85	1.51	1.54	11.84	1.68	1.75	10.48	1.62	1.71	14.70	−0.26
43540	8.85	1.51	1.54	11.84	1.68	1.75	10.48	1.62	1.70	14.70	−0.25
43570	8.85	1.51	1.53	11.86	1.70	1.76	10.49	1.63	1.71	14.71	−0.23
43600	8.85	1.51	1.54	11.86	1.70	1.76	10.49	1.63	1.71	14.71	−0.22
43630	8.85	1.51	1.54	11.87	1.71	1.76	10.50	1.64	1.71	14.72	−0.21
43660	8.85	1.51	1.53	11.86	1.70	1.75	10.49	1.63	1.71	14.72	−0.20
43690	8.86	1.52	1.54	11.87	1.71	1.76	10.50	1.64	1.71	14.73	−0.19
43720	8.86	1.52	1.54	11.88	1.72	1.77	10.52	1.66	1.72	14.73	−0.19
43750	8.86	1.52	1.54	11.88	1.72	1.77	10.52	1.66	1.72	14.74	−0.17
43780	8.86	1.52	1.54	11.91	1.75	1.79	10.54	1.68	1.74	14.74	−0.16
43810	8.86	1.52	1.54	11.88	1.72	1.75	10.51	1.65	1.70	14.74	−0.15

43840	8.87	1.53	1.54	11.88	1.72	1.76	10.52	1.66	1.71	14.75	−0.15
43870	8.87	1.53	1.54	11.88	1.72	1.76	10.52	1.66	1.71	14.75	−0.14
43900	8.87	1.53	1.54	11.87	1.71	1.75	10.51	1.65	1.70	14.75	−0.15
43930	8.87	1.53	1.55	11.90	1.74	1.78	10.53	1.67	1.73	14.74	−0.15
43960	8.87	1.53	1.54	11.85	1.69	1.73	10.49	1.63	1.68	14.74	−0.16
43990	8.87	1.53	1.54	11.87	1.71	1.75	10.52	1.66	1.71	14.75	−0.15
44020	8.87	1.53	1.54	11.85	1.69	1.72	10.48	1.62	1.68	14.75	−0.14
44050	8.87	1.53	1.55	11.87	1.71	1.75	10.50	1.64	1.69	14.75	−0.14
44080	8.87	1.53	1.55	11.82	1.66	1.70	10.44	1.58	1.64	14.74	−0.15
44110	8.87	1.53	1.55	11.88	1.72	1.76	10.51	1.65	1.70	14.74	−0.15
44140	8.87	1.53	1.55	11.85	1.69	1.73	10.48	1.62	1.67	14.74	−0.15
44170	8.87	1.53	1.55	11.86	1.70	1.74	10.50	1.64	1.70	14.74	−0.15
44200	8.88	1.54	1.55	11.86	1.70	1.74	10.49	1.63	1.69	14.74	−0.15
44230	8.88	1.54	1.55	11.86	1.70	1.74	10.50	1.64	1.69	14.74	−0.16
44260	8.88	1.54	1.55	11.87	1.71	1.75	10.50	1.64	1.69	14.74	−0.16
44290	8.88	1.54	1.55	11.87	1.71	1.75	10.50	1.64	1.69	14.74	−0.16
44320	8.88	1.54	1.55	11.87	1.71	1.75	10.50	1.64	1.70	14.74	−0.15
44350	8.88	1.54	1.55	11.87	1.71	1.75	10.50	1.64	1.69	14.74	−0.16
44380	8.88	1.54	1.55	11.87	1.71	1.75	10.50	1.64	1.70	14.74	−0.16
44410	8.88	1.54	1.55	11.88	1.72	1.75	10.50	1.64	1.70	14.75	−0.15
44440	8.88	1.54	1.55	11.88	1.72	1.76	10.51	1.65	1.70	14.75	−0.14
44470	8.88	1.54	1.56	11.88	1.72	1.76	10.51	1.65	1.70	14.75	−0.13
44500	8.88	1.54	1.55	11.88	1.72	1.76	10.51	1.65	1.70	14.76	−0.13
44530	8.88	1.54	1.56	11.88	1.72	1.76	10.51	1.65	1.69	14.75	−0.13
44560	8.88	1.54	1.56	11.88	1.72	1.76	10.51	1.65	1.70	14.75	−0.13
44590	8.88	1.54	1.56	11.88	1.72	1.76	10.51	1.65	1.70	14.75	−0.13
44620	8.89	1.55	1.56	11.88	1.72	1.76	10.52	1.66	1.70	14.76	−0.13
44650	8.89	1.55	1.56	11.89	1.73	1.76	10.52	1.66	1.70	14.76	−0.13
44680	8.89	1.55	1.56	11.88	1.72	1.76	10.52	1.66	1.70	14.75	−0.13
44710	8.89	1.55	1.56	11.88	1.72	1.76	10.51	1.65	1.70	14.75	−0.13
44740	8.89	1.55	1.56	11.88	1.72	1.76	10.52	1.66	1.71	14.75	−0.14
44770	8.89	1.55	1.56	11.88	1.72	1.76	10.51	1.65	1.70	14.75	−0.14
44800	8.89	1.55	1.56	11.88	1.72	1.76	10.52	1.66	1.71	14.75	−0.14
44830	8.89	1.55	1.56	11.88	1.72	1.75	10.51	1.65	1.70	14.75	−0.14
44860	8.89	1.55	1.56	11.88	1.72	1.75	10.51	1.65	1.70	14.75	−0.15
44890	8.89	1.55	1.56	11.88	1.72	1.76	10.51	1.65	1.71	14.74	−0.16
44920	8.89	1.55	1.56	11.88	1.72	1.76	10.51	1.65	1.71	14.74	−0.16
44950	8.89	1.55	1.57	11.88	1.72	1.76	10.52	1.66	1.71	14.75	−0.15
44980	8.89	1.55	1.57	11.88	1.72	1.76	10.52	1.66	1.70	14.75	−0.13
45010	8.89	1.55	1.56	11.90	1.74	1.77	10.53	1.67	1.71	14.76	−0.12
45040	8.90	1.56	1.57	11.90	1.74	1.77	10.54	1.68	1.72	14.77	−0.10
45070	8.90	1.56	1.56	11.91	1.75	1.77	10.54	1.68	1.72	14.77	−0.10
45100	8.90	1.56	1.56	11.91	1.75	1.77	10.54	1.68	1.72	14.77	−0.09
45130	8.90	1.56	1.57	11.93	1.77	1.79	10.57	1.71	1.74	14.77	−0.09
45160	8.90	1.56	1.57	11.94	1.78	1.80	10.59	1.73	1.75	14.78	−0.08
45190	8.90	1.56	1.57	11.92	1.76	1.78	10.55	1.69	1.72	14.78	−0.07
45220	8.90	1.56	1.56	11.88	1.72	1.73	10.50	1.64	1.66	14.78	−0.07

45250	8.90	1.56	1.57	11.92	1.76	1.78	10.56	1.70	1.72	14.78	−0.06
45280	8.90	1.56	1.57	11.90	1.74	1.76	10.53	1.67	1.69	14.78	−0.06
45310	8.90	1.56	1.57	11.91	1.75	1.76	10.54	1.68	1.71	14.78	−0.07
45340	8.90	1.56	1.57	11.85	1.69	1.71	10.45	1.59	1.62	14.78	−0.07
45370	8.91	1.57	1.58	11.93	1.77	1.79	10.58	1.72	1.75	14.78	−0.08
45400	8.91	1.57	1.58	11.90	1.74	1.76	10.54	1.68	1.71	14.78	−0.08
45430	8.91	1.57	1.58	11.90	1.74	1.76	10.54	1.68	1.71	14.78	−0.08
45460	8.91	1.57	1.58	11.91	1.75	1.77	10.57	1.71	1.73	14.78	−0.07
45490	8.91	1.57	1.58	11.97	1.81	1.83	10.61	1.75	1.78	14.78	−0.08
45520	8.91	1.57	1.58	11.92	1.76	1.78	10.57	1.71	1.74	14.77	−0.09
45550	8.91	1.57	1.58	11.85	1.69	1.71	10.48	1.62	1.65	14.77	−0.10
45580	8.91	1.57	1.58	11.86	1.70	1.72	10.49	1.63	1.67	14.77	−0.10
45610	8.91	1.57	1.59	11.88	1.72	1.75	10.53	1.67	1.71	14.76	−0.11
45640	8.91	1.57	1.59	11.91	1.75	1.78	10.54	1.68	1.72	14.76	−0.11
45670	8.91	1.57	1.58	11.90	1.74	1.77	10.54	1.68	1.71	14.76	−0.11
45700	8.92	1.58	1.59	11.89	1.73	1.76	10.53	1.67	1.71	14.76	−0.11
45730	8.92	1.58	1.59	11.90	1.74	1.77	10.53	1.67	1.71	14.76	−0.11
45760	8.92	1.58	1.59	11.90	1.74	1.77	10.53	1.67	1.71	14.76	−0.12
45790	8.92	1.58	1.59	11.90	1.74	1.77	10.53	1.67	1.71	14.76	−0.12
45820	8.92	1.58	1.59	11.91	1.75	1.78	10.54	1.68	1.72	14.76	−0.12
45850	8.92	1.58	1.59	11.91	1.75	1.78	10.54	1.68	1.72	14.76	−0.13
45880	8.92	1.58	1.59	11.91	1.75	1.78	10.54	1.68	1.72	14.76	−0.12
45910	8.92	1.58	1.59	11.91	1.75	1.78	10.54	1.68	1.72	14.76	−0.12
45940	8.92	1.58	1.59	11.92	1.76	1.78	10.54	1.68	1.72	14.76	−0.11
45970	8.92	1.58	1.59	11.91	1.75	1.78	10.54	1.68	1.73	14.76	−0.12
46000	8.92	1.58	1.59	11.92	1.76	1.79	10.54	1.68	1.73	14.76	−0.12
46030	8.92	1.58	1.59	11.92	1.76	1.79	10.54	1.68	1.73	14.76	−0.12
46060	8.92	1.58	1.60	11.92	1.76	1.79	10.54	1.68	1.73	14.76	−0.13
46090	8.92	1.58	1.59	11.92	1.76	1.79	10.55	1.69	1.73	14.76	−0.11
46120	8.92	1.58	1.59	11.92	1.76	1.79	10.55	1.69	1.73	14.76	−0.12
46150	8.92	1.58	1.60	11.91	1.75	1.78	10.54	1.68	1.73	14.76	−0.12
46180	8.93	1.59	1.60	11.91	1.75	1.79	10.54	1.68	1.73	14.75	−0.13
46210	8.93	1.59	1.60	11.92	1.76	1.79	10.55	1.69	1.74	14.75	−0.13
46240	8.93	1.59	1.60	11.92	1.76	1.79	10.55	1.69	1.74	14.75	−0.13
46270	8.93	1.59	1.60	11.92	1.76	1.79	10.55	1.69	1.73	14.75	−0.13
46300	8.93	1.59	1.60	11.92	1.76	1.79	10.55	1.69	1.74	14.75	−0.13
46330	8.93	1.59	1.60	11.92	1.76	1.79	10.55	1.69	1.73	14.76	−0.13
46360	8.93	1.59	1.60	11.92	1.76	1.79	10.55	1.69	1.73	14.76	−0.12
46390	8.93	1.59	1.60	11.92	1.76	1.79	10.55	1.69	1.73	14.76	−0.11
46420	8.93	1.59	1.60	11.92	1.76	1.79	10.56	1.70	1.74	14.76	−0.11
46450	8.93	1.59	1.60	11.93	1.77	1.79	10.56	1.70	1.74	14.77	−0.09
46480	8.93	1.59	1.60	11.94	1.78	1.80	10.57	1.71	1.75	14.77	−0.09
46510	8.94	1.60	1.61	11.94	1.78	1.80	10.57	1.71	1.75	14.77	−0.09
46540	8.94	1.60	1.60	11.94	1.78	1.80	10.57	1.71	1.74	14.77	−0.09
46570	8.94	1.60	1.60	11.92	1.76	1.78	10.56	1.70	1.73	14.78	−0.08
46600	8.94	1.60	1.60	11.95	1.79	1.81	10.59	1.73	1.76	14.77	−0.08
46630	8.94	1.60	1.61	11.95	1.79	1.81	10.59	1.73	1.76	14.77	−0.09

46660	8.94	1.60	1.61	11.94	1.78	1.80	10.58	1.72	1.75	14.77	−0.09
46690	8.94	1.60	1.61	11.94	1.78	1.80	10.58	1.72	1.75	14.77	−0.09
46720	8.94	1.60	1.61	11.95	1.79	1.82	10.59	1.73	1.77	14.77	−0.10
46750	8.94	1.60	1.61	11.94	1.78	1.81	10.59	1.73	1.77	14.77	−0.10
46780	8.94	1.60	1.61	11.93	1.77	1.80	10.58	1.72	1.76	14.76	−0.11
46810	8.94	1.60	1.61	11.95	1.79	1.82	10.60	1.74	1.78	14.76	−0.11
46840	8.95	1.60	1.62	11.97	1.81	1.84	10.62	1.76	1.80	14.76	−0.12
46870	8.94	1.60	1.61	11.92	1.76	1.79	10.57	1.71	1.75	14.76	−0.13
46900	8.94	1.60	1.62	11.91	1.75	1.79	10.56	1.70	1.75	14.75	−0.14
46930	8.95	1.60	1.62	11.91	1.75	1.79	10.56	1.70	1.76	14.74	−0.16
46960	8.94	1.60	1.62	11.91	1.75	1.79	10.57	1.71	1.77	14.74	−0.17
46990	8.95	1.60	1.62	11.91	1.75	1.79	10.55	1.69	1.76	14.73	−0.18
47020	8.95	1.60	1.62	11.88	1.72	1.77	10.52	1.66	1.72	14.73	−0.18
47050	8.95	1.61	1.63	11.91	1.75	1.80	10.56	1.70	1.76	14.74	−0.17
47080	8.95	1.61	1.63	11.90	1.74	1.79	10.54	1.68	1.74	14.74	−0.17
47110	8.95	1.61	1.63	11.90	1.74	1.79	10.54	1.68	1.75	14.73	−0.18
47140	8.95	1.61	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.75	−0.15
47170	8.95	1.61	1.63	11.91	1.75	1.80	10.55	1.69	1.75	14.74	−0.17
47200	8.96	1.61	1.63	11.94	1.78	1.81	10.57	1.71	1.75	14.77	−0.10
47230	8.95	1.61	1.62	11.94	1.78	1.80	10.57	1.71	1.75	14.76	−0.11
47260	8.96	1.61	1.62	11.94	1.78	1.80	10.57	1.71	1.75	14.77	−0.09
47290	8.96	1.61	1.63	11.93	1.77	1.80	10.56	1.70	1.74	14.76	−0.11
47320	8.96	1.61	1.63	11.93	1.77	1.80	10.56	1.70	1.74	14.76	−0.11
47350	8.96	1.61	1.63	11.93	1.77	1.80	10.56	1.70	1.75	14.76	−0.12
47380	8.96	1.61	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.75	−0.14
47410	8.96	1.61	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.75	−0.14
47440	8.96	1.61	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.75	−0.14
47470	8.96	1.61	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.75	−0.14
47500	8.96	1.62	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.74	−0.15
47530	8.96	1.62	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.74	−0.15
47560	8.96	1.62	1.63	11.92	1.76	1.80	10.56	1.70	1.76	14.74	−0.15
47590	8.96	1.62	1.63	11.92	1.76	1.80	10.56	1.70	1.75	14.74	−0.16
47620	8.96	1.62	1.63	11.92	1.76	1.80	10.56	1.70	1.76	14.74	−0.17
47650	8.96	1.62	1.64	11.92	1.76	1.80	10.56	1.70	1.76	14.74	−0.17
47680	8.96	1.62	1.64	11.92	1.76	1.80	10.56	1.70	1.76	14.74	−0.17
47710	8.96	1.62	1.64	11.91	1.75	1.80	10.56	1.70	1.76	14.74	−0.17
47740	8.96	1.62	1.64	11.92	1.76	1.80	10.56	1.70	1.76	14.74	−0.17
47770	8.96	1.62	1.64	11.92	1.76	1.80	10.56	1.70	1.76	14.74	−0.17
47800	8.96	1.62	1.64	11.92	1.76	1.80	10.56	1.70	1.76	14.73	−0.18
47830	8.96	1.62	1.64	11.92	1.76	1.80	10.56	1.70	1.76	14.73	−0.18
47860	8.96	1.62	1.64	11.92	1.76	1.81	10.57	1.71	1.77	14.74	−0.17
47890	8.96	1.62	1.64	11.93	1.77	1.81	10.58	1.72	1.78	14.74	−0.17
47920	8.96	1.62	1.64	11.94	1.78	1.81	10.58	1.72	1.77	14.74	−0.15
47950	8.96	1.62	1.64	11.94	1.78	1.82	10.58	1.72	1.77	14.74	−0.16
47980	8.97	1.63	1.64	11.94	1.78	1.82	10.58	1.72	1.78	14.74	−0.15
48010	8.97	1.63	1.64	11.94	1.78	1.82	10.59	1.73	1.78	14.75	−0.14
48040	8.97	1.63	1.64	11.94	1.78	1.82	10.59	1.73	1.78	14.75	−0.15

48070	8.97	1.63	1.65	11.94	1.78	1.82	10.59	1.73	1.78	14.75	−0.15
48100	8.97	1.63	1.65	11.94	1.78	1.82	10.59	1.73	1.79	14.75	−0.15
48130	8.97	1.63	1.65	11.94	1.78	1.82	10.59	1.73	1.78	14.75	−0.15
48160	8.97	1.63	1.65	11.96	1.80	1.84	10.61	1.75	1.80	14.75	−0.15
48190	8.97	1.63	1.65	11.97	1.81	1.85	10.62	1.76	1.82	14.74	−0.16
48220	8.97	1.63	1.65	11.97	1.81	1.85	10.61	1.75	1.81	14.74	−0.17
48250	8.98	1.64	1.66	11.99	1.83	1.88	10.63	1.77	1.84	14.73	−0.19
48280	8.98	1.64	1.66	11.97	1.81	1.86	10.61	1.75	1.82	14.73	−0.19
48310	8.98	1.64	1.66	12.00	1.84	1.89	10.64	1.78	1.85	14.72	−0.21
48340	8.98	1.64	1.66	11.97	1.81	1.87	10.61	1.75	1.83	14.72	−0.22
48370	8.98	1.64	1.66	11.96	1.80	1.86	10.60	1.74	1.82	14.71	−0.22
48400	8.98	1.64	1.66	11.97	1.81	1.87	10.62	1.76	1.85	14.71	−0.24
48430	8.98	1.64	1.66	11.88	1.72	1.79	10.52	1.66	1.74	14.71	−0.24
48460	8.98	1.64	1.66	11.93	1.77	1.83	10.58	1.72	1.81	14.70	−0.25
48490	8.98	1.64	1.67	11.84	1.68	1.75	10.50	1.64	1.74	14.70	−0.27
48520	8.98	1.64	1.67	11.78	1.62	1.69	10.45	1.59	1.69	14.70	−0.27
48550	8.98	1.64	1.67	11.75	1.59	1.67	10.44	1.58	1.68	14.69	−0.28
48580	8.98	1.64	1.67	11.74	1.58	1.66	10.42	1.56	1.67	14.69	−0.29
48610	8.98	1.64	1.67	11.79	1.63	1.70	10.45	1.59	1.70	14.69	−0.29
48640	8.98	1.64	1.67	11.83	1.67	1.75	10.49	1.63	1.73	14.69	−0.28
48670	8.98	1.64	1.67	11.86	1.70	1.77	10.51	1.65	1.75	14.70	−0.27
48700	8.98	1.64	1.67	11.82	1.66	1.73	10.49	1.63	1.72	14.70	−0.25
48730	8.99	1.65	1.67	11.78	1.62	1.68	10.46	1.60	1.68	14.70	−0.24
48760	8.99	1.65	1.67	11.74	1.58	1.64	10.42	1.56	1.65	14.70	−0.25
48790	8.99	1.65	1.67	11.71	1.55	1.61	10.41	1.55	1.63	14.71	−0.24
48820	8.99	1.65	1.67	11.69	1.53	1.59	10.39	1.53	1.61	14.71	−0.24
48850	8.99	1.65	1.67	11.67	1.51	1.57	10.37	1.51	1.60	14.71	−0.23
48880	8.99	1.65	1.67	11.66	1.50	1.56	10.36	1.50	1.59	14.71	−0.24
48910	8.99	1.65	1.67	11.65	1.49	1.55	10.36	1.50	1.58	14.71	−0.24
48940	8.99	1.65	1.67	11.64	1.48	1.55	10.35	1.49	1.58	14.71	−0.24
48970	8.99	1.65	1.67	11.64	1.48	1.54	10.35	1.49	1.57	14.71	−0.24
49000	8.98	1.64	1.67	11.63	1.47	1.54	10.34	1.48	1.57	14.70	−0.25
49030	8.98	1.64	1.67	11.62	1.46	1.53	10.34	1.48	1.57	14.70	−0.26
49060	8.98	1.64	1.67	11.62	1.46	1.52	10.33	1.47	1.57	14.69	−0.27
49090	8.98	1.64	1.67	11.62	1.46	1.52	10.33	1.47	1.57	14.69	−0.27
49120	8.98	1.64	1.67	11.62	1.46	1.52	10.33	1.47	1.56	14.70	−0.27
49150	8.98	1.64	1.67	11.61	1.45	1.52	10.33	1.47	1.56	14.70	−0.27
49180	8.98	1.64	1.67	11.61	1.45	1.52	10.33	1.47	1.56	14.69	−0.27
49210	8.98	1.64	1.67	11.61	1.45	1.52	10.32	1.46	1.56	14.69	−0.27
49240	8.98	1.64	1.67	11.61	1.45	1.52	10.32	1.46	1.56	14.70	−0.27
49270	8.99	1.65	1.67	11.61	1.45	1.52	10.33	1.47	1.56	14.70	−0.26
49300	8.99	1.65	1.67	11.62	1.46	1.52	10.33	1.47	1.56	14.71	−0.24
49330	8.99	1.65	1.67	11.62	1.46	1.52	10.34	1.48	1.56	14.71	−0.23
49360	8.99	1.65	1.67	11.63	1.47	1.53	10.35	1.49	1.56	14.71	−0.22
49390	8.99	1.65	1.67	11.63	1.47	1.52	10.34	1.48	1.56	14.72	−0.22
49420	8.99	1.65	1.67	11.63	1.47	1.52	10.34	1.48	1.56	14.72	−0.21
49450	8.99	1.65	1.67	11.67	1.51	1.56	10.37	1.51	1.59	14.72	−0.21

49480	8.99	1.65	1.67	11.75	1.59	1.64	10.43	1.57	1.65	14.72	−0.21
49510	8.99	1.65	1.67	11.81	1.65	1.70	10.48	1.62	1.70	14.72	−0.20
49540	9.00	1.66	1.68	11.85	1.69	1.74	10.52	1.66	1.73	14.72	−0.20
49570	9.00	1.66	1.68	11.89	1.73	1.78	10.54	1.68	1.75	14.73	−0.20
49600	9.00	1.66	1.68	11.91	1.75	1.80	10.57	1.71	1.78	14.73	−0.20
49630	9.00	1.66	1.68	11.89	1.73	1.79	10.54	1.68	1.75	14.73	−0.20
49660	9.00	1.66	1.68	11.90	1.74	1.79	10.54	1.68	1.75	14.72	−0.20
49690	9.00	1.66	1.68	11.97	1.81	1.86	10.62	1.76	1.84	14.72	−0.21
49720	9.00	1.66	1.68	11.97	1.81	1.87	10.62	1.76	1.83	14.72	−0.21
49750	9.01	1.67	1.69	11.98	1.82	1.88	10.64	1.78	1.86	14.72	−0.22
49780	9.01	1.67	1.69	11.98	1.82	1.88	10.63	1.77	1.85	14.71	−0.22
49810	9.01	1.67	1.69	11.96	1.80	1.86	10.60	1.74	1.82	14.71	−0.24
49840	9.01	1.67	1.69	11.96	1.80	1.86	10.60	1.74	1.83	14.70	−0.25
49870	9.01	1.67	1.69	11.96	1.80	1.86	10.59	1.73	1.82	14.70	−0.26
49900	9.01	1.67	1.69	11.95	1.79	1.86	10.59	1.73	1.83	14.69	−0.27
49930	9.01	1.67	1.70	11.96	1.80	1.87	10.60	1.74	1.84	14.69	−0.27
49960	9.01	1.67	1.70	11.97	1.81	1.88	10.61	1.75	1.85	14.69	−0.28
49990	9.01	1.67	1.70	11.97	1.81	1.88	10.60	1.74	1.84	14.69	−0.27
50020	9.01	1.67	1.70	11.96	1.80	1.88	10.60	1.74	1.84	14.69	−0.28
50050	9.01	1.67	1.70	11.97	1.81	1.89	10.60	1.74	1.84	14.69	−0.28
50080	9.01	1.67	1.70	11.98	1.82	1.89	10.61	1.75	1.85	14.69	−0.27
50110	9.02	1.68	1.70	11.98	1.82	1.89	10.61	1.75	1.85	14.69	−0.27
50140	9.02	1.68	1.70	11.99	1.83	1.90	10.62	1.76	1.85	14.70	−0.26
50170	9.02	1.68	1.70	12.00	1.84	1.90	10.62	1.76	1.85	14.70	−0.25
50200	9.02	1.68	1.70	12.00	1.84	1.90	10.63	1.77	1.85	14.71	−0.24
50230	9.02	1.68	1.70	12.01	1.85	1.91	10.63	1.77	1.86	14.71	−0.23
50260	9.02	1.68	1.70	12.01	1.85	1.91	10.63	1.77	1.86	14.71	−0.23
50290	9.02	1.68	1.70	12.01	1.85	1.91	10.64	1.78	1.86	14.72	−0.22
50320	9.02	1.68	1.70	12.01	1.85	1.91	10.64	1.78	1.86	14.71	−0.22
50350	9.02	1.68	1.70	12.01	1.85	1.91	10.63	1.77	1.86	14.71	−0.23
50380	9.02	1.68	1.70	12.00	1.84	1.90	10.63	1.77	1.86	14.71	−0.23
50410	9.02	1.68	1.70	12.00	1.84	1.91	10.63	1.77	1.86	14.71	−0.24
50440	9.02	1.68	1.71	12.00	1.84	1.91	10.63	1.77	1.86	14.71	−0.24
50470	9.02	1.68	1.71	12.00	1.84	1.91	10.63	1.77	1.86	14.70	−0.25
50500	9.02	1.68	1.71	12.00	1.84	1.91	10.63	1.77	1.86	14.70	−0.26
50530	9.02	1.68	1.71	12.00	1.84	1.91	10.63	1.77	1.87	14.70	−0.27
50560	9.02	1.68	1.71	12.00	1.84	1.91	10.63	1.77	1.87	14.69	−0.27
50590	9.02	1.68	1.71	12.01	1.85	1.92	10.64	1.78	1.87	14.70	−0.26
50620	9.02	1.68	1.71	12.01	1.85	1.92	10.64	1.78	1.87	14.70	−0.26
50650	9.03	1.69	1.71	12.01	1.85	1.92	10.64	1.78	1.88	14.70	−0.26
50680	9.03	1.69	1.71	12.02	1.86	1.93	10.65	1.79	1.88	14.70	−0.26
50710	9.03	1.69	1.71	12.02	1.86	1.93	10.65	1.79	1.88	14.70	−0.25
50740	9.03	1.69	1.71	12.02	1.86	1.93	10.65	1.79	1.88	14.71	−0.24
50770	9.03	1.69	1.71	12.03	1.87	1.93	10.66	1.80	1.89	14.71	−0.24
50800	9.03	1.69	1.71	12.04	1.88	1.94	10.67	1.81	1.89	14.71	−0.23
50830	9.03	1.69	1.72	12.04	1.88	1.94	10.67	1.81	1.89	14.71	−0.22
50860	9.03	1.69	1.72	12.05	1.89	1.95	10.67	1.81	1.90	14.71	−0.23

50890	9.03	1.69	1.72	12.05	1.89	1.95	10.68	1.82	1.90	14.71	−0.22
50920	9.04	1.70	1.72	12.08	1.92	1.98	10.72	1.86	1.94	14.72	−0.22
50950	9.04	1.70	1.72	12.06	1.90	1.96	10.70	1.84	1.92	14.72	−0.22
50980	9.05	1.71	1.73	12.11	1.95	2.01	10.77	1.91	1.98	14.72	−0.21
51010	9.04	1.70	1.72	12.02	1.86	1.91	10.65	1.79	1.87	14.71	−0.22
51040	9.04	1.70	1.72	12.00	1.84	1.89	10.62	1.76	1.84	14.72	−0.21
51070	9.04	1.70	1.73	12.09	1.93	1.99	10.72	1.86	1.94	14.71	−0.23
51100	9.04	1.70	1.73	12.05	1.89	1.95	10.68	1.82	1.90	14.71	−0.23
51130	9.04	1.70	1.73	12.06	1.90	1.96	10.70	1.84	1.92	14.71	−0.23
51160	9.04	1.70	1.73	12.00	1.84	1.90	10.66	1.80	1.88	14.71	−0.23
51190	9.04	1.70	1.73	11.93	1.77	1.84	10.59	1.73	1.82	14.70	−0.24
51220	9.05	1.71	1.73	11.96	1.80	1.86	10.61	1.75	1.84	14.70	−0.26
51250	9.05	1.71	1.73	11.95	1.79	1.86	10.59	1.73	1.82	14.70	−0.26
51280	9.05	1.71	1.73	11.97	1.81	1.88	10.62	1.76	1.86	14.69	−0.27
51310	9.05	1.71	1.73	11.99	1.83	1.90	10.63	1.77	1.87	14.69	−0.29
51340	9.05	1.71	1.74	11.99	1.83	1.91	10.64	1.78	1.89	14.68	−0.30
51370	9.05	1.71	1.74	12.00	1.84	1.92	10.64	1.78	1.89	14.67	−0.32
51400	9.05	1.71	1.74	12.00	1.84	1.92	10.64	1.78	1.90	14.67	−0.33
51430	9.05	1.71	1.74	11.99	1.83	1.92	10.63	1.77	1.89	14.66	−0.34
51460	9.05	1.71	1.74	11.98	1.82	1.91	10.62	1.76	1.88	14.66	−0.34
51490	9.05	1.71	1.74	11.99	1.83	1.92	10.63	1.77	1.89	14.66	−0.34
51520	9.05	1.71	1.75	12.01	1.85	1.94	10.64	1.78	1.90	14.67	−0.33
51550	9.05	1.71	1.75	12.02	1.86	1.94	10.64	1.78	1.90	14.67	−0.33
51580	9.05	1.71	1.75	12.03	1.87	1.95	10.65	1.79	1.91	14.67	−0.33
51610	9.06	1.72	1.75	12.03	1.87	1.96	10.66	1.80	1.92	14.67	−0.33
51640	9.06	1.72	1.75	12.04	1.88	1.96	10.67	1.81	1.92	14.67	−0.32
51670	9.06	1.72	1.75	12.05	1.89	1.97	10.67	1.81	1.92	14.67	−0.31
51700	9.06	1.72	1.75	12.06	1.90	1.98	10.68	1.82	1.93	14.68	−0.31
51730	9.06	1.72	1.75	12.05	1.89	1.97	10.67	1.81	1.93	14.67	−0.31
51760	9.06	1.72	1.75	12.05	1.89	1.97	10.67	1.81	1.92	14.67	−0.32
51790	9.06	1.72	1.75	12.06	1.90	1.99	10.69	1.83	1.94	14.67	−0.32
51820	9.06	1.72	1.75	12.06	1.90	1.98	10.68	1.82	1.94	14.67	−0.33
51850	9.06	1.72	1.75	12.06	1.90	1.98	10.68	1.82	1.94	14.67	−0.33
51880	9.06	1.72	1.75	12.05	1.89	1.98	10.68	1.82	1.94	14.66	−0.34
51910	9.06	1.72	1.76	12.06	1.90	1.99	10.68	1.82	1.95	14.65	−0.36
51940	9.06	1.72	1.76	12.05	1.89	1.99	10.68	1.82	1.95	14.65	−0.38
51970	9.06	1.72	1.76	12.05	1.89	1.99	10.67	1.81	1.95	14.64	−0.39
52000	9.06	1.72	1.76	12.05	1.89	1.99	10.68	1.82	1.96	14.64	−0.40
52030	9.06	1.72	1.76	12.06	1.90	2.00	10.68	1.82	1.97	14.64	−0.40
52060	9.06	1.72	1.76	12.06	1.90	2.00	10.68	1.82	1.97	14.64	−0.40
52090	9.06	1.72	1.76	12.06	1.90	2.00	10.68	1.82	1.97	14.64	−0.40
52120	9.07	1.72	1.77	12.06	1.90	2.00	10.68	1.82	1.97	14.63	−0.41
52150	9.07	1.72	1.77	12.06	1.90	2.01	10.69	1.83	1.97	14.64	−0.40
52180	9.07	1.72	1.77	12.06	1.90	2.01	10.69	1.83	1.97	14.64	−0.40
52210	9.07	1.73	1.77	12.07	1.91	2.01	10.70	1.84	1.98	14.64	−0.40
52240	9.07	1.72	1.77	12.08	1.92	2.02	10.70	1.84	1.98	14.64	−0.40
52270	9.07	1.73	1.77	12.07	1.91	2.02	10.70	1.84	1.98	14.64	−0.40

52300	9.07	1.73	1.77	12.08	1.92	2.02	10.71	1.85	1.98	14.65	−0.38
52330	9.07	1.73	1.76	12.08	1.92	2.02	10.71	1.85	1.98	14.65	−0.37
52360	9.07	1.73	1.77	12.11	1.95	2.04	10.74	1.88	2.01	14.66	−0.36
52390	9.07	1.73	1.77	12.13	1.97	2.06	10.76	1.90	2.03	14.65	−0.36
52420	9.07	1.73	1.77	12.10	1.94	2.03	10.73	1.87	1.99	14.66	−0.35
52450	9.08	1.73	1.77	12.09	1.93	2.02	10.72	1.86	1.99	14.66	−0.35
52480	9.08	1.74	1.77	12.08	1.92	2.01	10.71	1.85	1.97	14.66	−0.34
52510	9.08	1.74	1.77	12.10	1.94	2.03	10.73	1.87	1.99	14.67	−0.33
52540	9.08	1.74	1.77	12.12	1.96	2.04	10.74	1.88	2.00	14.67	−0.33
52570	9.08	1.74	1.77	12.12	1.96	2.04	10.74	1.88	2.00	14.67	−0.33
52600	9.08	1.74	1.77	12.08	1.92	2.01	10.71	1.85	1.97	14.67	−0.33
52630	9.08	1.74	1.78	12.09	1.93	2.02	10.71	1.85	1.97	14.66	−0.34
52660	9.08	1.74	1.77	12.08	1.92	2.01	10.71	1.85	1.97	14.66	−0.34
52690	9.08	1.74	1.78	12.08	1.92	2.01	10.71	1.85	1.97	14.66	−0.34
52720	9.08	1.74	1.78	12.08	1.92	2.01	10.71	1.85	1.97	14.66	−0.35
52750	9.08	1.74	1.78	12.08	1.92	2.01	10.71	1.85	1.97	14.66	−0.35
52780	9.08	1.74	1.78	12.09	1.93	2.02	10.72	1.86	1.98	14.66	−0.35
52810	9.08	1.74	1.78	12.09	1.93	2.02	10.71	1.85	1.98	14.66	−0.35
52840	9.08	1.74	1.78	12.09	1.93	2.02	10.71	1.85	1.98	14.66	−0.34
52870	9.09	1.75	1.78	12.09	1.93	2.02	10.72	1.86	1.98	14.66	−0.34
52900	9.09	1.75	1.78	12.09	1.93	2.02	10.72	1.86	1.98	14.67	−0.33
52930	9.09	1.75	1.78	12.09	1.93	2.02	10.72	1.86	1.98	14.67	−0.33
52960	9.09	1.75	1.78	12.10	1.94	2.02	10.72	1.86	1.98	14.67	−0.33
52990	9.09	1.75	1.78	12.10	1.94	2.02	10.72	1.86	1.98	14.67	−0.32
53020	9.09	1.75	1.78	12.09	1.93	2.01	10.72	1.86	1.97	14.68	−0.31
53050	9.09	1.75	1.78	12.02	1.86	1.94	10.67	1.81	1.93	14.68	−0.31
53080	9.09	1.75	1.78	11.95	1.79	1.87	10.62	1.76	1.87	14.68	−0.30
53110	9.09	1.75	1.78	11.90	1.74	1.82	10.59	1.73	1.83	14.68	−0.30
53140	9.09	1.75	1.78	11.87	1.71	1.78	10.55	1.69	1.80	14.68	−0.29
53170	9.09	1.75	1.78	11.84	1.68	1.75	10.53	1.67	1.77	14.69	−0.29
53200	9.09	1.75	1.78	11.81	1.65	1.73	10.51	1.65	1.76	14.68	−0.30
53230	9.09	1.75	1.78	11.79	1.63	1.71	10.49	1.63	1.74	14.68	−0.30
53260	9.09	1.75	1.78	11.78	1.62	1.70	10.48	1.62	1.73	14.68	−0.30
53290	9.09	1.75	1.78	11.76	1.60	1.68	10.47	1.61	1.72	14.68	−0.31
53320	9.09	1.75	1.78	11.75	1.59	1.67	10.46	1.60	1.71	14.67	−0.31
53350	9.09	1.75	1.78	11.74	1.58	1.67	10.45	1.59	1.71	14.67	−0.32
53380	9.09	1.75	1.78	11.73	1.57	1.65	10.44	1.58	1.70	14.67	−0.33
53410	9.09	1.75	1.78	11.72	1.56	1.65	10.43	1.57	1.70	14.66	−0.34
53440	9.09	1.75	1.78	11.72	1.56	1.65	10.43	1.57	1.69	14.66	−0.34
53470	9.09	1.75	1.78	11.73	1.57	1.65	10.44	1.58	1.70	14.66	−0.34
53500	9.09	1.75	1.78	11.72	1.56	1.65	10.43	1.57	1.70	14.66	−0.34
53530	9.09	1.75	1.78	11.72	1.56	1.65	10.43	1.57	1.70	14.66	−0.34
53560	9.09	1.75	1.78	11.72	1.56	1.65	10.44	1.58	1.70	14.67	−0.33
53590	9.09	1.75	1.79	11.73	1.57	1.65	10.44	1.58	1.69	14.67	−0.32
53620	9.09	1.75	1.78	11.73	1.57	1.65	10.44	1.58	1.69	14.68	−0.30
53650	9.09	1.75	1.78	11.73	1.57	1.65	10.44	1.58	1.69	14.68	−0.30
53680	9.09	1.75	1.78	11.73	1.57	1.65	10.45	1.59	1.69	14.68	−0.29

53710	9.09	1.75	1.78	11.74	1.58	1.65	10.46	1.60	1.70	14.69	−0.28
53740	9.09	1.75	1.78	11.75	1.59	1.66	10.46	1.60	1.70	14.69	−0.28
53770	9.10	1.76	1.79	11.82	1.66	1.73	10.50	1.64	1.74	14.69	−0.27
53800	9.10	1.76	1.79	11.87	1.71	1.78	10.55	1.69	1.78	14.70	−0.27
53830	9.10	1.76	1.78	11.90	1.74	1.81	10.55	1.69	1.78	14.70	−0.26
53860	9.10	1.76	1.79	11.99	1.83	1.90	10.67	1.81	1.90	14.70	−0.26
53890	9.10	1.76	1.78	12.01	1.85	1.91	10.65	1.79	1.88	14.71	−0.24
53920	9.11	1.77	1.79	12.06	1.90	1.96	10.70	1.84	1.92	14.71	−0.24

E. Time	RW-P2	dd	corr. dd	RW-P5	dd	corr. dd	PS-5	dd	corr. dd	PD-6	dd	corr. dd
0	3.77	0.45	0.45	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.0083	3.77	0.45	0.45	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.0166	4.43	1.11	1.11	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.025	3.38	0.06	0.06	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.0333	4.05	0.73	0.73	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.0416	3.68	0.36	0.36	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.05	4.07	0.75	0.75	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.0583	3.88	0.56	0.56	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.0666	4.09	0.77	0.77	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.075	3.99	0.67	0.67	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.0833	4.11	0.79	0.79	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.0916	4.09	0.77	0.77	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.1	4.15	0.83	0.83	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.1083	4.17	0.85	0.85	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.1166	4.19	0.87	0.87	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.125	4.24	0.92	0.92	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.1333	4.27	0.95	0.95	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.1416	4.31	0.99	0.99	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.15	4.33	1.01	1.01	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.1583	4.35	1.03	1.03	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.1666	4.38	1.06	1.06	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.175	4.42	1.10	1.10	3.88	1.16	1.16	7.06	0.61	0.61	8.47	0.34	0.34
0.1833	4.44	1.12	1.12	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.1916	4.47	1.15	1.15	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.2	4.51	1.19	1.19	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.2083	4.54	1.22	1.22	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.2166	4.55	1.23	1.23	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.225	4.59	1.27	1.27	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.2333	4.61	1.29	1.29	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.2416	4.64	1.32	1.32	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.25	4.67	1.35	1.35	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.2583	4.70	1.38	1.38	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.2666	4.72	1.40	1.40	3.88	1.16	1.16	7.06	0.61	0.61	8.47	0.34	0.34
0.275	4.76	1.44	1.44	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.2833	4.79	1.47	1.47	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.2916	4.81	1.49	1.49	3.88	1.16	1.16	7.06	0.61	0.61	8.47	0.34	0.34
0.3	4.85	1.53	1.53	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.3083	4.86	1.54	1.54	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.3166	4.90	1.58	1.58	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34

0.325	4.92	1.60	1.60	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.3333	4.96	1.64	1.64	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.35	5.00	1.68	1.68	3.88	1.16	1.16	7.06	0.61	0.61	8.47	0.34	0.34
0.3666	5.06	1.74	1.74	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.3833	5.11	1.79	1.79	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.4	5.16	1.84	1.84	3.88	1.16	1.16	7.06	0.61	0.61	8.47	0.34	0.34
0.4166	5.22	1.90	1.90	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.4333	5.26	1.94	1.94	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.45	5.33	2.01	2.01	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.4666	5.37	2.05	2.05	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.4833	5.43	2.11	2.11	3.88	1.16	1.16	7.06	0.61	0.61	8.47	0.34	0.34
0.5	5.48	2.16	2.16	3.88	1.16	1.16	7.06	0.61	0.61	8.47	0.34	0.34
0.5166	5.52	2.20	2.20	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.5333	5.57	2.25	2.25	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.55	5.61	2.29	2.29	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.5666	5.67	2.35	2.35	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.5833	5.69	2.37	2.37	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.6	5.77	2.45	2.45	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.6166	5.81	2.49	2.49	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.6333	5.86	2.54	2.54	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.65	5.89	2.57	2.57	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.6666	5.93	2.61	2.61	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.6833	5.98	2.66	2.66	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.7	6.03	2.71	2.71	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.7166	6.08	2.76	2.76	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.7333	6.13	2.81	2.81	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.75	6.16	2.84	2.84	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.7666	6.20	2.88	2.88	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.7833	6.27	2.95	2.95	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.8	6.31	2.99	2.99	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.8166	6.35	3.03	3.03	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.8333	6.41	3.09	3.09	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.85	6.44	3.12	3.12	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.8666	6.47	3.15	3.15	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.8833	6.51	3.19	3.19	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
0.9	6.54	3.22	3.22	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.9166	6.59	3.27	3.27	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.9333	6.64	3.32	3.32	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.95	6.67	3.35	3.35	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.9666	6.71	3.39	3.39	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
0.9833	6.76	3.44	3.44	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34

1	6.79	3.47	3.47	3.88	1.16	1.16	7.05	0.60	0.60	8.47	0.34	0.34
1.2	7.31	3.99	3.99	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
1.4	7.71	4.39	4.39	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
1.6	8.08	4.76	4.76	3.89	1.17	1.17	7.05	0.60	0.60	8.47	0.34	0.34
1.8	8.43	5.11	5.10	3.90	1.18	1.18	7.05	0.60	0.60	8.47	0.34	0.34
2	8.73	5.41	5.41	3.54	0.82	0.82	7.05	0.60	0.60	8.47	0.34	0.34
2.2	8.99	5.67	5.67	4.93	2.21	2.21	7.05	0.60	0.60	8.47	0.34	0.34
2.4	9.24	5.92	5.92	5.73	3.01	3.01	7.05	0.60	0.60	8.47	0.34	0.34
2.6	9.46	6.14	6.14	6.34	3.62	3.62	7.05	0.60	0.60	8.47	0.34	0.34
2.8	9.71	6.39	6.39	6.85	4.13	4.13	7.05	0.60	0.60	8.47	0.34	0.34
3	9.89	6.57	6.57	7.28	4.56	4.56	7.05	0.60	0.60	8.47	0.34	0.34
3.2	10.07	6.75	6.75	7.64	4.92	4.92	7.05	0.60	0.60	8.46	0.33	0.33
3.4	10.24	6.92	6.92	7.96	5.24	5.24	7.05	0.60	0.60	8.46	0.33	0.33
3.6	10.38	7.06	7.05	8.26	5.54	5.54	7.05	0.60	0.60	8.47	0.34	0.33
3.8	10.52	7.20	7.20	8.52	5.80	5.80	7.05	0.60	0.60	8.47	0.34	0.34
4	10.68	7.36	7.36	8.75	6.03	6.03	7.05	0.60	0.60	8.47	0.34	0.34
4.2	10.74	7.42	7.42	8.95	6.23	6.23	7.05	0.60	0.60	8.47	0.34	0.34
4.4	10.86	7.54	7.53	9.13	6.41	6.41	7.05	0.60	0.60	8.46	0.33	0.33
4.6	10.95	7.63	7.63	9.30	6.58	6.58	7.05	0.60	0.60	8.46	0.33	0.33
4.8	11.04	7.72	7.72	9.45	6.73	6.73	7.05	0.60	0.60	8.47	0.34	0.34
5	11.14	7.82	7.82	9.60	6.88	6.88	7.05	0.60	0.60	8.46	0.33	0.33
5.2	11.20	7.88	7.88	9.72	7.00	7.00	7.05	0.60	0.60	8.46	0.33	0.33
5.4	11.28	7.96	7.96	9.83	7.11	7.11	7.05	0.60	0.60	8.47	0.34	0.34
5.6	11.34	8.02	8.01	9.94	7.22	7.21	7.05	0.60	0.60	8.46	0.33	0.33
5.8	11.39	8.07	8.07	10.03	7.31	7.31	7.05	0.60	0.60	8.47	0.34	0.34
6	11.45	8.13	8.13	10.11	7.39	7.39	7.05	0.60	0.60	8.47	0.34	0.34
6.2	11.51	8.19	8.19	10.18	7.46	7.46	7.05	0.60	0.60	8.46	0.33	0.33
6.4	11.54	8.22	8.22	10.25	7.53	7.53	7.05	0.60	0.60	8.47	0.34	0.34
6.6	11.58	8.26	8.26	10.31	7.59	7.59	7.06	0.61	0.61	8.46	0.33	0.33
6.8	11.63	8.31	8.31	10.37	7.65	7.65	7.05	0.60	0.60	8.46	0.33	0.33
7	11.67	8.35	8.34	10.42	7.70	7.70	7.06	0.61	0.61	8.46	0.33	0.33
7.2	11.71	8.39	8.39	10.47	7.75	7.75	7.06	0.61	0.61	8.46	0.33	0.33
7.4	11.74	8.42	8.42	10.51	7.79	7.79	7.05	0.60	0.60	8.46	0.33	0.33
7.6	11.76	8.44	8.44	10.56	7.84	7.84	7.06	0.61	0.61	8.47	0.34	0.34
7.8	11.82	8.50	8.50	10.60	7.88	7.88	7.06	0.61	0.61	8.47	0.34	0.34
8	11.84	8.52	8.52	10.62	7.90	7.90	7.06	0.61	0.61	8.46	0.33	0.33
8.2	11.84	8.52	8.52	10.66	7.94	7.94	7.06	0.61	0.61	8.46	0.33	0.33
8.4	11.86	8.54	8.54	10.69	7.97	7.97	7.06	0.61	0.61	8.46	0.33	0.33
8.6	11.90	8.58	8.58	10.72	8.00	8.00	7.06	0.61	0.61	8.47	0.34	0.34
8.8	11.91	8.59	8.59	10.75	8.03	8.03	7.06	0.61	0.61	8.46	0.33	0.33
9	11.94	8.62	8.62	10.77	8.05	8.05	7.06	0.61	0.61	8.46	0.33	0.33

9.2	11.95	8.63	8.63	10.79	8.07	8.07	7.06	0.61	0.61	8.46	0.33	0.33
9.4	11.97	8.65	8.65	10.81	8.09	8.09	7.06	0.61	0.61	8.46	0.33	0.33
9.6	11.96	8.64	8.64	10.83	8.11	8.11	7.06	0.61	0.61	8.46	0.33	0.33
9.8	12.00	8.68	8.68	10.85	8.13	8.13	7.06	0.61	0.61	8.46	0.33	0.33
10	12.00	8.68	8.67	10.88	8.16	8.16	7.06	0.61	0.61	8.46	0.33	0.33
12	12.10	8.78	8.78	11.02	8.30	8.30	7.06	0.61	0.61	8.46	0.33	0.33
14	12.16	8.84	8.83	11.11	8.39	8.39	7.06	0.61	0.61	8.46	0.33	0.33
16	12.23	8.91	8.91	11.20	8.48	8.48	7.06	0.61	0.61	8.46	0.33	0.33
18	12.26	8.94	8.94	11.27	8.55	8.54	7.06	0.61	0.61	8.46	0.33	0.33
20	12.32	9.00	8.99	11.33	8.61	8.61	7.07	0.62	0.61	8.47	0.34	0.33
22	12.34	9.02	9.02	11.39	8.67	8.67	7.06	0.61	0.61	8.47	0.34	0.33
24	12.36	9.04	9.04	11.44	8.72	8.71	7.06	0.61	0.61	8.47	0.34	0.33
26	12.39	9.07	9.07	11.48	8.76	8.76	7.06	0.61	0.61	8.47	0.34	0.34
28	12.42	9.10	9.10	11.52	8.80	8.80	7.06	0.61	0.61	8.47	0.34	0.34
30	12.47	9.15	9.15	11.56	8.84	8.84	7.06	0.61	0.61	8.47	0.34	0.34
32	12.49	9.17	9.17	11.61	8.89	8.89	7.11	0.66	0.66	8.47	0.34	0.34
34	12.50	9.18	9.18	11.63	8.91	8.91	7.11	0.66	0.66	8.48	0.35	0.35
36	12.52	9.20	9.20	11.66	8.94	8.94	7.11	0.66	0.66	8.49	0.35	0.36
38	12.55	9.23	9.23	11.69	8.97	8.97	7.10	0.65	0.65	8.49	0.35	0.36
40	12.55	9.23	9.23	11.74	9.02	9.02	7.21	0.76	0.76	8.49	0.35	0.36
42	12.56	9.24	9.24	11.76	9.04	9.04	7.21	0.76	0.76	8.49	0.36	0.36
44	12.58	9.26	9.26	11.78	9.06	9.06	7.21	0.76	0.76	8.49	0.36	0.36
46	12.62	9.30	9.30	11.80	9.08	9.08	7.21	0.76	0.76	8.50	0.37	0.37
48	12.63	9.31	9.31	11.82	9.10	9.10	7.21	0.76	0.76	8.50	0.37	0.37
50	12.65	9.33	9.33	11.85	9.13	9.13	7.21	0.76	0.76	8.51	0.38	0.38
52	12.66	9.34	9.35	11.86	9.14	9.14	7.21	0.76	0.76	8.51	0.38	0.38
54	12.66	9.34	9.35	11.88	9.16	9.16	7.20	0.75	0.76	8.51	0.38	0.38
56	12.68	9.36	9.37	11.89	9.17	9.17	7.20	0.75	0.76	8.52	0.39	0.39
58	12.72	9.40	9.40	11.91	9.19	9.19	7.20	0.75	0.75	8.52	0.39	0.39
60	12.72	9.40	9.40	11.93	9.21	9.21	7.20	0.75	0.76	8.52	0.39	0.39
62	12.72	9.40	9.40	11.94	9.22	9.22	7.20	0.75	0.76	8.52	0.39	0.40
64	12.73	9.41	9.41	11.95	9.23	9.23	7.20	0.75	0.75	8.53	0.40	0.40
66	12.74	9.42	9.42	11.96	9.24	9.24	7.28	0.83	0.83	8.53	0.40	0.40
68	12.75	9.43	9.43	11.97	9.25	9.25	7.28	0.83	0.83	8.54	0.41	0.41
70	12.75	9.43	9.43	11.99	9.27	9.27	7.27	0.82	0.82	8.54	0.41	0.41
72	12.79	9.47	9.47	12.02	9.30	9.30	7.27	0.82	0.82	8.54	0.41	0.42
74	12.76	9.44	9.44	12.03	9.31	9.31	7.27	0.82	0.82	8.54	0.41	0.42
76	12.80	9.48	9.48	12.05	9.33	9.33	7.27	0.82	0.82	8.55	0.42	0.42
78	12.80	9.48	9.48	12.05	9.33	9.33	7.27	0.82	0.82	8.56	0.43	0.43
80	12.81	9.49	9.50	12.06	9.34	9.34	7.27	0.82	0.82	8.56	0.43	0.43
82	12.82	9.50	9.51	12.08	9.36	9.36	7.27	0.82	0.82	8.56	0.43	0.43

84	12.81	9.49	9.49	12.09	9.37	9.37	7.27	0.82	0.82	8.56	0.43	0.44
86	12.81	9.49	9.50	12.10	9.38	9.38	7.27	0.82	0.82	8.57	0.44	0.44
88	12.82	9.50	9.51	12.10	9.38	9.38	7.27	0.82	0.82	8.57	0.44	0.44
90	12.85	9.53	9.54	12.11	9.39	9.40	7.27	0.82	0.82	8.57	0.44	0.45
92	12.87	9.55	9.56	12.12	9.40	9.40	7.26	0.81	0.82	8.57	0.44	0.45
94	12.87	9.55	9.56	12.13	9.41	9.41	7.26	0.81	0.82	8.58	0.45	0.46
96	12.85	9.53	9.54	12.14	9.42	9.42	7.47	1.02	1.03	8.58	0.45	0.46
98	12.87	9.55	9.56	12.16	9.44	9.44	7.47	1.02	1.02	8.59	0.46	0.46
100	12.89	9.57	9.58	12.16	9.44	9.44	7.46	1.01	1.02	8.59	0.46	0.46
120	12.93	9.61	9.61	12.26	9.54	9.54	7.46	1.01	1.01	8.62	0.49	0.50
140	13.00	9.68	9.69	12.33	9.61	9.61	7.43	0.98	0.99	8.65	0.52	0.53
160	13.04	9.72	9.73	12.40	9.68	9.68	7.42	0.97	0.98	8.68	0.55	0.56
180	13.06	9.74	9.75	12.46	9.74	9.75	7.40	0.95	0.96	8.71	0.58	0.59
200	13.09	9.77	9.78	12.52	9.80	9.80	7.39	0.94	0.95	8.73	0.60	0.62
220	13.13	9.81	9.82	12.56	9.84	9.84	7.37	0.92	0.94	8.76	0.63	0.64
240	13.16	9.84	9.86	12.59	9.87	9.87	7.38	0.93	0.94	8.78	0.65	0.66
260	13.17	9.85	9.87	12.61	9.89	9.90	7.56	1.11	1.13	8.80	0.67	0.68
280	13.17	9.85	9.87	12.64	9.92	9.93	7.57	1.12	1.13	8.82	0.69	0.70
300	13.21	9.89	9.91	12.67	9.95	9.96	7.55	1.10	1.12	8.83	0.70	0.71
320	13.21	9.89	9.90	12.71	9.99	9.99	7.55	1.10	1.11	8.85	0.72	0.74
340	13.25	9.93	9.94	12.76	10.04	10.05	7.54	1.09	1.11	8.86	0.73	0.75
360	13.23	9.91	9.92	12.77	10.05	10.06	7.53	1.08	1.10	8.87	0.74	0.76
380	13.28	9.96	9.97	12.79	10.07	10.08	7.52	1.07	1.09	8.89	0.76	0.77
400	13.28	9.96	9.97	12.82	10.10	10.11	7.53	1.08	1.09	8.90	0.77	0.78
420	13.28	9.96	9.97	12.85	10.13	10.13	7.52	1.07	1.08	8.91	0.78	0.79
440	13.28	9.96	9.97	12.86	10.14	10.14	7.51	1.06	1.08	8.92	0.79	0.80
460	13.30	9.98	9.99	12.88	10.16	10.16	7.48	1.03	1.05	8.93	0.80	0.82
480	13.32	10.00	10.02	12.91	10.19	10.19	7.49	1.04	1.05	8.94	0.81	0.82
500	13.35	10.03	10.05	12.93	10.21	10.21	7.47	1.02	1.04	8.94	0.81	0.83
520	13.33	10.01	10.03	12.94	10.22	10.23	7.47	1.02	1.03	8.95	0.82	0.83
540	13.33	10.01	10.02	12.96	10.24	10.25	7.47	1.02	1.03	8.96	0.83	0.84
560	13.36	10.04	10.05	12.99	10.27	10.28	7.46	1.01	1.02	8.97	0.84	0.85
580	13.35	10.03	10.04	13.00	10.28	10.28	7.47	1.02	1.03	8.97	0.84	0.85
600	13.37	10.05	10.06	13.01	10.29	10.29	7.48	1.03	1.04	8.98	0.85	0.86
620	13.37	10.05	10.06	13.03	10.31	10.31	7.47	1.02	1.02	8.99	0.86	0.87
640	13.39	10.07	10.08	13.05	10.33	10.33	7.60	1.15	1.15	8.99	0.86	0.86
660	13.37	10.05	10.06	13.06	10.34	10.34	7.58	1.13	1.14	8.99	0.86	0.87
680	13.38	10.06	10.07	13.06	10.34	10.34	7.58	1.13	1.14	9.00	0.87	0.88
700	13.38	10.06	10.07	13.09	10.37	10.37	7.57	1.12	1.13	9.00	0.87	0.88
720	13.37	10.05	10.06	13.10	10.38	10.38	7.56	1.11	1.12	8.99	0.86	0.87
740	13.37	10.05	10.06	13.08	10.36	10.36	7.54	1.09	1.10	9.00	0.87	0.88

E.Time	RW-P2	dd	corr. dd	RW-P5	dd	corr. dd	P5-5	dd	corr.dd	PD-6	dd	corr.dd
760	13.35	10.03	10.05	12.98	10.26	10.27	7.52	1.07	1.09	8.99	0.86	0.88
780	13.37	10.05	10.07	13.02	10.30	10.31	7.49	1.04	1.06	8.99	0.86	0.88
800	13.40	10.08	10.09	13.12	10.40	10.41	7.50	1.05	1.06	8.99	0.86	0.88
820	13.40	10.08	10.10	13.16	10.44	10.45	7.48	1.03	1.05	9.00	0.87	0.89
840	13.41	10.09	10.11	13.17	10.45	10.46	7.48	1.03	1.05	8.99	0.86	0.88
860	13.41	10.09	10.11	13.18	10.46	10.47	7.49	1.04	1.06	9.00	0.87	0.89
880	13.40	10.08	10.10	13.20	10.48	10.49	7.45	1.00	1.02	9.00	0.87	0.89
900	13.40	10.08	10.10	13.19	10.47	10.48	7.42	0.97	1.00	9.00	0.87	0.90
920	13.39	10.07	10.10	13.19	10.47	10.48	7.52	1.07	1.09	9.00	0.87	0.90
940	13.38	10.06	10.09	13.20	10.48	10.49	7.50	1.05	1.08	9.00	0.87	0.90
960	13.39	10.07	10.10	13.20	10.48	10.49	7.50	1.05	1.08	9.00	0.87	0.90
980	13.41	10.09	10.12	13.19	10.47	10.48	7.48	1.03	1.06	9.00	0.87	0.90
1000	13.41	10.09	10.13	13.17	10.45	10.46	7.47	1.02	1.05	9.00	0.87	0.91
1030	13.39	10.07	10.11	13.20	10.48	10.49	7.45	1.00	1.04	9.00	0.87	0.91
1060	13.41	10.09	10.13	13.22	10.50	10.51	7.43	0.98	1.02	9.00	0.87	0.91
1090	13.42	10.10	10.14	13.23	10.51	10.52	7.43	0.98	1.02	8.99	0.86	0.91
1120	13.44	10.12	10.16	13.21	10.49	10.50	7.59	1.14	1.18	8.99	0.86	0.90
1150	13.43	10.11	10.15	13.25	10.53	10.54	7.58	1.13	1.17	8.99	0.86	0.90
1180	13.42	10.10	10.13	13.24	10.52	10.53	7.59	1.14	1.17	9.00	0.87	0.91
1210	13.43	10.11	10.14	13.26	10.54	10.56	7.57	1.12	1.15	9.00	0.87	0.91
1240	13.43	10.11	10.14	13.26	10.54	10.56	7.57	1.12	1.16	9.00	0.87	0.91
1270	13.45	10.13	10.16	13.28	10.56	10.58	7.56	1.11	1.14	9.00	0.87	0.91
1300	13.46	10.14	10.17	13.29	10.57	10.59	7.55	1.10	1.13	9.00	0.87	0.91
1330	13.45	10.13	10.16	13.27	10.55	10.57	7.54	1.09	1.12	9.00	0.87	0.91
1360	13.45	10.13	10.16	13.26	10.54	10.55	7.54	1.09	1.12	9.00	0.87	0.91
1390	13.46	10.14	10.17	13.26	10.54	10.55	7.53	1.08	1.11	9.01	0.88	0.91
1420	13.46	10.14	10.17	13.26	10.54	10.56	7.54	1.09	1.12	9.01	0.88	0.91
1450	13.48	10.16	10.19	13.26	10.54	10.55	7.53	1.08	1.11	9.01	0.88	0.91
1480	13.48	10.16	10.19	13.26	10.54	10.56	7.53	1.08	1.11	9.01	0.88	0.91
1510	13.48	10.16	10.19	13.25	10.53	10.54	7.51	1.06	1.09	9.01	0.88	0.91
1540	13.47	10.15	10.19	13.25	10.53	10.54	7.50	1.05	1.08	9.01	0.88	0.91
1570	13.46	10.14	10.18	13.25	10.53	10.54	7.49	1.04	1.07	9.01	0.88	0.91
1600	13.46	10.14	10.17	13.24	10.52	10.53	7.48	1.03	1.07	9.01	0.88	0.91
1630	13.50	10.18	10.21	13.26	10.54	10.55	7.47	1.02	1.05	9.01	0.88	0.91
1660	13.46	10.14	10.18	13.26	10.54	10.56	7.47	1.02	1.05	9.00	0.87	0.90
1690	13.38	10.06	10.09	13.26	10.54	10.55	7.46	1.01	1.04	8.98	0.85	0.88
1720	13.38	10.06	10.09	13.26	10.54	10.55	7.46	1.01	1.04	8.96	0.83	0.86
1750	13.39	10.07	10.10	13.22	10.50	10.51	7.46	1.01	1.03	8.94	0.81	0.84
1780	13.44	10.12	10.14	13.22	10.50	10.51	7.46	1.01	1.03	8.95	0.82	0.84
1810	13.49	10.17	10.19	13.22	10.50	10.51	7.47	1.02	1.04	8.96	0.83	0.85
1840	13.51	10.19	10.21	13.24	10.52	10.52	7.47	1.02	1.04	8.98	0.85	0.86

1870	13.52	10.20	10.22	13.24	10.52	10.52	7.47	1.02	1.04	8.98	0.85	0.87
1900	13.52	10.20	10.21	13.25	10.53	10.53	7.47	1.02	1.03	8.99	0.86	0.88
1930	13.52	10.20	10.21	13.19	10.47	10.47	7.47	1.02	1.04	9.00	0.87	0.88
1960	13.52	10.20	10.21	13.20	10.48	10.48	7.47	1.02	1.03	9.01	0.88	0.89
1990	13.54	10.22	10.23	13.22	10.50	10.50	7.53	1.08	1.08	9.01	0.88	0.89
2020	13.53	10.21	10.22	13.22	10.50	10.50	7.52	1.07	1.08	9.01	0.88	0.89
2050	13.55	10.23	10.24	13.24	10.52	10.52	7.51	1.06	1.07	9.03	0.90	0.91
2080	13.55	10.23	10.24	13.22	10.50	10.50	7.51	1.06	1.07	9.03	0.90	0.90
2110	13.54	10.22	10.23	13.22	10.50	10.50	7.50	1.05	1.05	9.03	0.90	0.91
2140	13.57	10.25	10.26	13.22	10.50	10.50	7.48	1.03	1.04	9.03	0.90	0.90
2170	13.59	10.27	10.28	13.21	10.49	10.49	7.60	1.15	1.16	9.03	0.90	0.91
2200	13.57	10.25	10.26	13.16	10.44	10.44	7.57	1.12	1.13	9.03	0.90	0.91
2230	13.57	10.25	10.26	13.18	10.46	10.46	7.56	1.11	1.13	9.05	0.92	0.93
2260	13.58	10.26	10.27	13.18	10.46	10.47	7.54	1.09	1.11	9.05	0.92	0.94
2290	13.57	10.25	10.27	13.21	10.49	10.49	7.53	1.08	1.09	9.05	0.92	0.94
2320	13.58	10.26	10.28	13.22	10.50	10.51	7.52	1.07	1.09	9.05	0.92	0.94
2350	13.58	10.26	10.28	13.23	10.51	10.51	7.50	1.05	1.07	9.05	0.92	0.94
2380	13.60	10.28	10.30	13.25	10.53	10.53	7.55	1.10	1.12	9.05	0.92	0.94
2410	13.60	10.28	10.30	13.25	10.53	10.53	7.55	1.10	1.12	9.04	0.91	0.93
2440	13.55	10.23	10.25	13.25	10.53	10.53	7.56	1.11	1.13	9.05	0.92	0.94
2470	13.54	10.22	10.24	13.24	10.52	10.52	7.55	1.10	1.12	9.06	0.93	0.94
2500	13.59	10.27	10.28	13.23	10.51	10.51	7.54	1.09	1.11	9.06	0.93	0.95
2530	13.61	10.29	10.30	13.16	10.44	10.45	7.53	1.08	1.10	9.06	0.93	0.95
2560	13.62	10.30	10.32	13.19	10.47	10.48	7.52	1.07	1.09	9.06	0.93	0.95
2590	13.61	10.29	10.30	13.18	10.46	10.47	7.53	1.08	1.09	9.06	0.93	0.95
2620	13.60	10.28	10.29	13.19	10.47	10.48	7.52	1.07	1.09	9.06	0.93	0.95
2650	13.62	10.30	10.32	13.21	10.49	10.49	7.54	1.09	1.10	9.06	0.93	0.95
2680	13.63	10.31	10.32	13.25	10.53	10.53	7.52	1.07	1.08	9.06	0.93	0.94
2710	13.62	10.30	10.31	13.24	10.52	10.52	7.54	1.09	1.10	9.07	0.94	0.94
2740	13.64	10.32	10.32	13.22	10.50	10.50	7.56	1.11	1.11	9.07	0.94	0.94
2770	13.62	10.30	10.30	13.22	10.50	10.50	7.55	1.10	1.10	9.07	0.94	0.94
2800	13.63	10.31	10.31	13.22	10.50	10.50	7.54	1.09	1.09	9.08	0.95	0.95
2830	13.64	10.32	10.32	13.22	10.50	10.50	7.52	1.07	1.07	9.08	0.95	0.95
2860	13.65	10.33	10.33	13.19	10.47	10.47	7.52	1.07	1.07	9.08	0.95	0.95
2890	13.63	10.31	10.32	13.20	10.48	10.48	7.50	1.05	1.06	9.08	0.95	0.96
2920	13.63	10.31	10.32	13.18	10.46	10.46	7.49	1.04	1.05	9.08	0.95	0.96
2950	13.65	10.33	10.34	13.16	10.44	10.44	7.48	1.03	1.04	9.08	0.95	0.96
2980	13.63	10.31	10.32	13.16	10.44	10.44	7.47	1.02	1.03	9.08	0.95	0.96
3010	13.63	10.31	10.32	13.16	10.44	10.45	7.51	1.06	1.07	9.08	0.95	0.96
3040	13.64	10.32	10.34	13.16	10.44	10.45	7.49	1.04	1.06	9.08	0.95	0.97
3070	13.65	10.33	10.35	13.16	10.44	10.45	7.47	1.02	1.04	9.08	0.95	0.97

3100	13.65	10.33	10.35	13.15	10.43	10.44	7.47	1.02	1.03	9.09	0.96	0.98
3130	13.65	10.33	10.35	13.14	10.42	10.43	7.46	1.01	1.03	9.09	0.96	0.98
3160	13.64	10.32	10.34	13.13	10.41	10.42	7.46	1.01	1.03	9.09	0.96	0.98
3190	13.68	10.36	10.38	13.11	10.39	10.40	7.63	1.18	1.19	9.09	0.96	0.97
3220	13.66	10.34	10.36	13.10	10.38	10.38	7.64	1.19	1.21	9.09	0.96	0.97
3250	13.65	10.33	10.34	13.10	10.38	10.38	7.63	1.18	1.19	9.09	0.96	0.97
3280	13.64	10.32	10.33	13.10	10.38	10.38	7.64	1.19	1.20	9.10	0.97	0.97
3310	13.68	10.36	10.36	13.10	10.38	10.39	7.65	1.20	1.20	9.10	0.97	0.97
3340	13.69	10.37	10.37	13.10	10.38	10.38	7.64	1.19	1.19	9.10	0.97	0.97
3370	13.71	10.39	10.39	13.10	10.38	10.38	7.65	1.20	1.20	9.10	0.97	0.97
3400	13.68	10.36	10.36	13.10	10.38	10.37	7.64	1.19	1.19	9.11	0.98	0.98
3430	13.69	10.37	10.37	13.09	10.37	10.37	7.63	1.18	1.18	9.11	0.98	0.98
3460	13.69	10.37	10.37	13.10	10.38	10.38	7.63	1.18	1.18	9.12	0.98	0.98
3490	13.68	10.36	10.36	13.09	10.37	10.37	7.61	1.16	1.16	9.11	0.98	0.98
3520	13.73	10.41	10.40	13.09	10.37	10.36	7.62	1.17	1.16	9.12	0.98	0.98
3550	13.70	10.38	10.38	13.10	10.38	10.37	7.62	1.17	1.16	9.12	0.99	0.99
3580	13.71	10.39	10.39	13.10	10.38	10.38	7.60	1.15	1.15	9.12	0.99	0.99
3610	13.70	10.38	10.38	13.11	10.39	10.39	7.56	1.11	1.11	9.12	0.99	1.00
3640	13.74	10.42	10.43	13.08	10.36	10.36	7.54	1.09	1.10	9.13	1.00	1.01
3670	13.71	10.39	10.40	13.10	10.38	10.39	7.67	1.22	1.23	9.13	1.00	1.01
3700	13.73	10.41	10.42	13.11	10.39	10.40	7.66	1.21	1.22	9.11	0.98	0.99
3730	13.73	10.41	10.43	13.10	10.38	10.39	7.64	1.19	1.20	9.13	1.00	1.01
3760	13.70	10.38	10.40	13.12	10.40	10.41	7.60	1.15	1.18	9.12	0.99	1.01
3790	13.73	10.41	10.43	13.13	10.41	10.42	7.60	1.15	1.17	9.12	0.99	1.01
3820	13.73	10.41	10.43	13.14	10.42	10.43	7.59	1.14	1.16	9.12	0.99	1.01
3850	13.75	10.43	10.45	13.15	10.43	10.44	7.57	1.12	1.15	9.13	1.00	1.02
3880	13.73	10.41	10.43	13.12	10.40	10.41	7.57	1.12	1.14	9.12	0.99	1.02
3910	13.73	10.41	10.44	13.13	10.41	10.42	7.57	1.12	1.15	9.12	0.99	1.02
3940	13.76	10.44	10.46	13.13	10.41	10.42	7.67	1.22	1.25	9.13	1.00	1.03
3970	13.77	10.45	10.48	13.13	10.41	10.42	7.68	1.23	1.26	9.13	1.00	1.03
4000	13.75	10.43	10.46	13.13	10.41	10.42	7.64	1.19	1.22	9.13	1.00	1.03
4030	13.74	10.42	10.45	12.93	10.21	10.23	7.63	1.18	1.21	8.85	0.72	0.75
4060	13.75	10.43	10.46	13.06	10.34	10.35	7.64	1.19	1.21	9.13	1.00	1.03
4090	13.78	10.46	10.48	13.07	10.35	10.35	7.67	1.22	1.24	9.13	1.00	1.02
4120	13.79	10.47	10.50	13.09	10.37	10.37	7.66	1.21	1.23	9.13	1.00	1.03
4150	13.78	10.46	10.49	13.07	10.35	10.35	7.65	1.20	1.22	9.13	1.00	1.03
4180	13.76	10.44	10.46	13.07	10.35	10.35	7.65	1.20	1.22	9.14	1.01	1.03
4210	13.78	10.46	10.48	13.03	10.31	10.32	7.66	1.21	1.23	9.14	1.01	1.03
4240	13.79	10.47	10.49	13.04	10.32	10.32	7.66	1.21	1.22	9.14	1.01	1.02
4270	13.78	10.46	10.48	13.06	10.34	10.34	7.66	1.21	1.22	9.15	1.02	1.03
4300	13.79	10.47	10.48	13.03	10.31	10.31	7.67	1.22	1.23	9.15	1.02	1.02

4330	13.79	10.47	10.48	13.02	10.30	10.30	7.67	1.22	1.23	9.14	1.01	1.01
4360	13.80	10.48	10.49	13.03	10.31	10.31	7.65	1.20	1.21	9.15	1.02	1.03
4390	13.79	10.47	10.49	13.02	10.30	10.30	7.69	1.24	1.26	9.15	1.02	1.03
4420	13.81	10.49	10.51	13.02	10.30	10.30	7.69	1.24	1.25	9.15	1.02	1.03
4450	13.79	10.47	10.49	13.02	10.30	10.30	7.67	1.22	1.23	9.15	1.02	1.03
4480	13.78	10.46	10.47	13.01	10.29	10.30	7.65	1.20	1.22	9.15	1.02	1.03
4510	13.78	10.46	10.48	13.00	10.28	10.29	7.65	1.20	1.22	9.15	1.02	1.04
4540	13.79	10.47	10.49	13.02	10.30	10.30	7.64	1.19	1.21	9.15	1.02	1.03
4570	13.77	10.45	10.45	13.00	10.28	10.28	7.66	1.21	1.21	9.15	1.02	1.03
4600	13.78	10.46	10.47	13.01	10.29	10.29	7.65	1.20	1.21	9.15	1.02	1.03
4630	13.81	10.49	10.50	13.00	10.28	10.28	7.65	1.20	1.21	9.15	1.02	1.03
4660	13.79	10.47	10.49	12.99	10.27	10.28	7.62	1.17	1.18	9.15	1.02	1.04
4690	13.80	10.48	10.50	13.00	10.28	10.28	7.61	1.16	1.18	9.15	1.02	1.04
4720	13.81	10.49	10.51	12.91	10.19	10.19	7.68	1.23	1.25	9.15	1.02	1.04
4750	13.80	10.48	10.50	12.94	10.22	10.23	7.66	1.21	1.23	9.15	1.02	1.04
4780	13.83	10.51	10.53	12.95	10.23	10.24	7.66	1.21	1.23	9.16	1.03	1.05
4810	13.78	10.46	10.48	12.93	10.21	10.22	7.66	1.21	1.23	9.16	1.03	1.05
4840	13.83	10.51	10.53	12.92	10.20	10.20	7.65	1.20	1.21	9.17	1.04	1.05
4870	13.84	10.52	10.54	12.94	10.22	10.23	7.65	1.20	1.21	9.17	1.04	1.05
4900	13.84	10.52	10.53	12.94	10.22	10.23	7.66	1.21	1.22	9.17	1.04	1.05
4930	13.84	10.52	10.53	12.93	10.21	10.22	7.67	1.22	1.22	9.17	1.04	1.05
4960	13.84	10.52	10.53	12.93	10.21	10.21	7.66	1.21	1.21	9.18	1.05	1.05
4990	13.84	10.52	10.53	12.92	10.20	10.20	7.65	1.20	1.21	9.19	1.06	1.07
5020	13.85	10.53	10.54	12.92	10.20	10.20	7.64	1.19	1.20	9.15	1.02	1.03
5050	13.84	10.52	10.53	12.91	10.19	10.19	7.63	1.18	1.19	9.18	1.05	1.06
5080	13.83	10.51	10.52	12.85	10.13	10.13	7.64	1.19	1.20	9.16	1.03	1.04
5110	13.85	10.53	10.54	12.91	10.19	10.19	7.62	1.17	1.18	9.19	1.06	1.07
5140	13.82	10.50	10.51	12.90	10.18	10.18	7.60	1.15	1.16	9.17	1.04	1.05
5170	13.85	10.53	10.54	12.91	10.19	10.19	7.78	1.33	1.34	9.19	1.06	1.07
5200	13.85	10.53	10.54	12.91	10.19	10.19	7.74	1.29	1.31	9.19	1.06	1.07
5230	13.87	10.55	10.56	12.91	10.19	10.19	7.73	1.28	1.30	9.18	1.05	1.06
5260	13.87	10.55	10.57	12.91	10.19	10.19	7.72	1.27	1.28	9.20	1.07	1.09
5290	13.87	10.55	10.57	12.91	10.19	10.19	7.71	1.26	1.28	9.19	1.06	1.08
5320	13.84	10.52	10.54	12.90	10.18	10.18	7.70	1.25	1.27	9.19	1.06	1.08
5350	13.87	10.55	10.57	12.91	10.19	10.19	7.70	1.25	1.27	9.19	1.06	1.08
5380	13.89	10.57	10.59	12.90	10.18	10.18	7.69	1.24	1.26	9.19	1.06	1.08
5410	13.87	10.55	10.56	12.84	10.12	10.13	7.70	1.25	1.27	9.19	1.06	1.08
5440	13.88	10.56	10.57	12.87	10.15	10.15	7.69	1.24	1.26	9.20	1.07	1.08
5470	13.86	10.54	10.55	12.91	10.19	10.19	7.71	1.26	1.27	9.20	1.07	1.08
5500	13.90	10.58	10.58	12.91	10.19	10.19	7.71	1.26	1.27	9.20	1.07	1.07
5530	13.88	10.56	10.56	12.87	10.15	10.15	7.72	1.27	1.27	9.20	1.07	1.08

5560	13.89	10.57	10.57	12.90	10.18	10.18	7.71	1.26	1.26	9.20	1.07	1.08
5590	13.90	10.58	10.58	12.90	10.18	10.18	7.73	1.28	1.28	9.20	1.07	1.07
5620	13.92	10.60	10.59	12.88	10.16	10.16	7.72	1.27	1.27	9.20	1.07	1.07
5650	13.90	10.58	10.57	12.88	10.16	10.16	7.71	1.26	1.26	9.21	1.08	1.08
5680	13.91	10.59	10.58	12.81	10.09	10.09	7.72	1.27	1.26	9.21	1.08	1.08
5710	13.92	10.60	10.59	12.79	10.07	10.07	7.73	1.28	1.27	9.22	1.09	1.08
5740	13.90	10.58	10.56	12.78	10.06	10.06	7.74	1.29	1.28	9.22	1.09	1.07
5770	13.91	10.59	10.57	12.79	10.07	10.07	7.73	1.28	1.26	9.22	1.09	1.07
5800	13.94	10.62	10.60	12.81	10.09	10.09	7.72	1.27	1.26	9.22	1.09	1.08
5830	13.91	10.59	10.58	12.82	10.10	10.10	7.72	1.27	1.26	9.22	1.09	1.07
5860	13.90	10.58	10.57	12.80	10.08	10.08	7.71	1.26	1.25	9.22	1.09	1.08
5890	13.92	10.60	10.59	12.79	10.07	10.07	7.70	1.25	1.24	9.22	1.09	1.08
5920	13.93	10.61	10.60	12.80	10.08	10.08	7.68	1.23	1.22	9.22	1.09	1.08
5950	13.92	10.60	10.59	12.80	10.08	10.08	7.68	1.23	1.23	9.22	1.09	1.08
5980	13.91	10.59	10.58	12.81	10.09	10.09	7.68	1.23	1.22	9.22	1.09	1.08
6010	13.92	10.60	10.59	12.80	10.08	10.08	7.67	1.22	1.21	9.22	1.09	1.08
6040	13.93	10.61	10.60	12.79	10.07	10.07	7.67	1.22	1.21	9.22	1.09	1.08
6070	13.94	10.62	10.61	12.80	10.08	10.08	7.69	1.24	1.22	9.23	1.10	1.08
6100	13.94	10.62	10.60	12.77	10.05	10.05	7.69	1.24	1.22	9.23	1.10	1.08
6130	13.93	10.61	10.58	12.76	10.04	10.04	7.70	1.25	1.23	9.24	1.10	1.08
6160	13.94	10.62	10.59	12.79	10.07	10.06	7.71	1.26	1.24	9.24	1.10	1.08
6190	13.94	10.62	10.60	12.78	10.06	10.05	7.71	1.26	1.24	9.24	1.10	1.08
6220	13.94	10.62	10.59	12.79	10.07	10.06	7.71	1.26	1.23	9.24	1.11	1.08
6250	13.94	10.62	10.58	12.79	10.07	10.06	7.71	1.26	1.23	9.26	1.13	1.09
6280	13.94	10.62	10.58	12.78	10.06	10.05	7.71	1.26	1.23	9.26	1.13	1.09
6310	13.94	10.62	10.59	12.78	10.06	10.05	7.71	1.26	1.23	9.25	1.12	1.09
6340	13.92	10.60	10.56	12.79	10.07	10.06	7.70	1.25	1.22	9.26	1.13	1.09
6370	13.94	10.62	10.59	12.78	10.06	10.05	7.70	1.25	1.22	9.26	1.13	1.09
6400	13.95	10.63	10.60	12.77	10.05	10.04	7.70	1.25	1.21	9.26	1.13	1.09
6430	13.94	10.62	10.58	12.78	10.06	10.05	7.69	1.24	1.20	9.25	1.12	1.08
6460	13.95	10.63	10.60	12.77	10.05	10.04	7.69	1.24	1.20	9.26	1.13	1.09
6490	13.95	10.63	10.60	12.73	10.01	9.99	7.67	1.22	1.18	9.27	1.14	1.10
6520	13.98	10.66	10.63	12.76	10.04	10.03	7.68	1.23	1.20	9.27	1.14	1.10
6550	13.97	10.65	10.62	12.77	10.05	10.04	7.67	1.22	1.18	9.26	1.13	1.09
6580	13.96	10.64	10.62	12.76	10.04	10.03	7.84	1.39	1.36	9.27	1.14	1.11
6610	13.95	10.63	10.61	12.76	10.04	10.03	7.82	1.37	1.35	9.27	1.14	1.11
6640	13.96	10.64	10.62	12.76	10.04	10.04	7.80	1.35	1.33	9.27	1.14	1.12
6670	13.97	10.65	10.64	12.76	10.04	10.04	7.78	1.33	1.31	9.27	1.14	1.12
6700	13.96	10.64	10.63	12.76	10.04	10.04	7.76	1.31	1.30	9.27	1.14	1.12
6730	13.97	10.65	10.64	12.74	10.02	10.01	7.75	1.30	1.29	9.27	1.14	1.13
6760	13.96	10.64	10.63	12.76	10.04	10.04	7.75	1.30	1.29	9.27	1.14	1.13

6790	13.96	10.64	10.63	12.76	10.04	10.03	7.74	1.29	1.28	9.27	1.14	1.13
6820	13.98	10.66	10.65	12.76	10.04	10.04	7.73	1.28	1.27	9.27	1.14	1.13
6850	13.97	10.65	10.64	12.76	10.04	10.03	7.72	1.27	1.26	9.27	1.14	1.13
6880	13.97	10.65	10.64	12.74	10.02	10.01	7.72	1.27	1.26	9.27	1.14	1.14
6910	14.01	10.69	10.68	12.76	10.04	10.03	7.71	1.26	1.25	9.27	1.14	1.13
6940	14.01	10.69	10.68	12.76	10.04	10.03	7.71	1.26	1.25	9.27	1.14	1.13
6970	14.00	10.68	10.67	12.75	10.03	10.02	7.70	1.25	1.24	9.27	1.14	1.13
7000	14.01	10.69	10.68	12.73	10.01	10.00	7.71	1.26	1.25	9.28	1.15	1.14
7030	14.01	10.69	10.68	12.74	10.02	10.01	7.71	1.26	1.25	9.28	1.15	1.14
7060	13.98	10.66	10.65	12.75	10.03	10.02	7.70	1.25	1.24	9.28	1.15	1.14
7090	13.97	10.65	10.64	12.73	10.01	10.00	7.69	1.24	1.23	9.28	1.15	1.14
7120	14.02	10.70	10.69	12.75	10.03	10.02	7.69	1.24	1.23	9.28	1.15	1.14
7150	13.99	10.67	10.66	12.74	10.02	10.01	7.68	1.23	1.22	9.28	1.15	1.14
7180	14.01	10.69	10.68	12.72	10.00	9.99	7.67	1.22	1.21	9.28	1.15	1.14
7210	14.00	10.68	10.67	12.72	10.00	9.99	7.69	1.24	1.23	9.28	1.15	1.14
7240	13.99	10.67	10.66	12.74	10.02	10.01	7.82	1.37	1.36	9.28	1.15	1.14
7270	14.00	10.68	10.67	12.73	10.01	10.00	7.81	1.36	1.35	9.28	1.15	1.14
7300	13.99	10.67	10.67	12.72	10.00	10.00	7.80	1.35	1.34	9.29	1.16	1.15
7330	14.01	10.69	10.69	12.72	10.00	10.00	7.77	1.32	1.32	9.28	1.15	1.15
7360	14.00	10.68	10.68	12.70	9.98	9.98	7.79	1.34	1.33	9.28	1.15	1.15
7390	13.99	10.67	10.67	12.72	10.00	10.00	7.77	1.32	1.31	9.29	1.16	1.15
7420	14.03	10.71	10.70	12.70	9.98	9.98	7.77	1.32	1.31	9.29	1.16	1.15
7450	14.01	10.69	10.68	12.69	9.97	9.97	7.77	1.32	1.31	9.29	1.16	1.15
7480	13.99	10.67	10.67	12.70	9.98	9.98	7.76	1.31	1.31	9.29	1.16	1.16
7510	14.00	10.68	10.67	12.71	9.99	9.98	7.77	1.32	1.31	9.29	1.16	1.15
7540	14.02	10.70	10.69	12.72	10.00	9.99	7.77	1.32	1.30	9.29	1.16	1.15
7570	14.02	10.70	10.68	12.72	10.00	9.99	7.77	1.32	1.31	9.30	1.17	1.15
7600	14.03	10.71	10.69	12.70	9.98	9.97	7.78	1.33	1.31	9.31	1.18	1.16
7630	14.04	10.72	10.70	12.70	9.98	9.97	7.77	1.32	1.30	9.31	1.18	1.16
7660	14.03	10.71	10.69	12.70	9.98	9.97	7.78	1.33	1.31	9.31	1.18	1.16
7690	14.05	10.73	10.71	12.69	9.97	9.96	7.76	1.31	1.29	9.31	1.18	1.16
7720	14.07	10.75	10.73	12.68	9.96	9.95	7.76	1.31	1.29	9.31	1.18	1.16
7750	14.06	10.74	10.71	12.68	9.96	9.95	7.77	1.32	1.29	9.32	1.19	1.16
7780	14.03	10.71	10.68	12.69	9.97	9.96	7.77	1.32	1.29	9.32	1.19	1.16
7810	14.05	10.73	10.70	12.69	9.97	9.96	7.76	1.31	1.28	9.32	1.19	1.17
7840	14.05	10.73	10.70	12.68	9.96	9.95	7.75	1.30	1.27	9.32	1.19	1.16
7870	14.04	10.72	10.69	12.66	9.94	9.93	7.74	1.29	1.27	9.32	1.19	1.17
7900	14.05	10.73	10.70	12.68	9.96	9.95	7.74	1.29	1.27	9.33	1.20	1.18
7930	14.05	10.73	10.70	12.64	9.92	9.91	7.72	1.27	1.25	9.32	1.19	1.17
7960	14.04	10.72	10.69	12.66	9.94	9.93	7.72	1.27	1.25	9.32	1.19	1.16
7990	14.03	10.71	10.69	12.67	9.95	9.94	7.72	1.27	1.25	9.32	1.19	1.17

8020	14.03	10.71	10.69	12.68	9.96	9.95	7.69	1.24	1.22	9.33	1.20	1.18
8050	14.05	10.73	10.71	12.67	9.95	9.94	7.68	1.23	1.21	9.32	1.19	1.17
8080	14.05	10.73	10.71	12.66	9.94	9.93	7.67	1.22	1.20	9.33	1.20	1.18
8110	14.08	10.76	10.74	12.66	9.94	9.93	7.83	1.38	1.37	9.34	1.21	1.19
8140	14.07	10.75	10.73	12.65	9.93	9.93	7.81	1.36	1.35	9.33	1.20	1.19
8170	14.08	10.76	10.74	12.65	9.93	9.93	7.81	1.36	1.35	9.33	1.20	1.19
8200	14.06	10.74	10.72	12.65	9.93	9.93	7.80	1.35	1.33	9.33	1.20	1.19
8230	14.07	10.75	10.74	12.66	9.94	9.94	7.78	1.33	1.32	9.33	1.20	1.19
8260	14.08	10.76	10.74	12.66	9.94	9.94	7.78	1.33	1.32	9.33	1.20	1.19
8290	14.07	10.75	10.73	12.64	9.92	9.92	7.78	1.33	1.32	9.33	1.20	1.19
8320	14.10	10.78	10.76	12.64	9.92	9.92	7.78	1.33	1.31	9.33	1.20	1.19
8350	14.07	10.75	10.73	12.64	9.92	9.92	7.78	1.33	1.32	9.33	1.20	1.19
8380	14.09	10.77	10.75	12.61	9.89	9.89	7.78	1.33	1.31	9.33	1.20	1.18
8410	14.11	10.79	10.77	12.61	9.89	9.89	7.78	1.33	1.31	9.33	1.20	1.18
8440	14.10	10.78	10.76	12.61	9.89	9.89	7.79	1.34	1.32	9.34	1.21	1.19
8470	14.09	10.77	10.74	12.62	9.90	9.89	7.79	1.34	1.31	9.34	1.21	1.19
8500	14.09	10.77	10.74	12.61	9.89	9.89	7.79	1.34	1.31	9.34	1.21	1.18
8530	14.08	10.76	10.73	12.61	9.89	9.89	7.78	1.33	1.30	9.34	1.21	1.18
8560	14.09	10.77	10.75	12.61	9.89	9.89	7.76	1.31	1.29	9.34	1.21	1.19
8590	14.11	10.79	10.77	12.60	9.88	9.88	7.76	1.31	1.29	9.34	1.21	1.19
8620	14.11	10.79	10.77	12.60	9.88	9.88	7.74	1.29	1.27	9.33	1.20	1.18
8650	14.06	10.74	10.72	12.60	9.88	9.87	7.73	1.28	1.26	9.33	1.20	1.18
8680	14.10	10.78	10.76	12.56	9.84	9.83	7.72	1.27	1.26	9.33	1.20	1.19
8710	14.09	10.77	10.75	12.56	9.84	9.83	7.79	1.34	1.32	9.33	1.20	1.19
8740	14.08	10.76	10.75	12.55	9.83	9.82	7.77	1.32	1.31	9.33	1.20	1.19
8770	14.08	10.76	10.75	12.55	9.83	9.83	7.76	1.31	1.30	9.32	1.19	1.19
8800	14.09	10.77	10.76	12.55	9.83	9.83	7.74	1.29	1.29	9.32	1.19	1.19
8830	14.09	10.77	10.76	12.55	9.83	9.83	7.74	1.29	1.28	9.32	1.19	1.19
8860	14.06	10.74	10.73	12.54	9.82	9.82	7.72	1.27	1.27	9.32	1.19	1.19
8890	14.11	10.79	10.78	12.54	9.82	9.82	7.73	1.28	1.27	9.32	1.19	1.19
8920	14.06	10.74	10.73	12.53	9.81	9.81	7.73	1.28	1.27	9.32	1.19	1.18
8950	14.10	10.78	10.77	12.53	9.81	9.81	7.73	1.28	1.27	9.33	1.20	1.19
8980	14.10	10.78	10.76	12.53	9.81	9.80	7.73	1.28	1.26	9.33	1.20	1.19
9010	14.11	10.79	10.78	12.53	9.81	9.80	7.74	1.29	1.28	9.34	1.21	1.19
9040	14.11	10.79	10.78	12.54	9.82	9.81	7.74	1.29	1.27	9.34	1.21	1.19
9070	14.11	10.79	10.77	12.54	9.82	9.81	7.74	1.29	1.27	9.34	1.21	1.19
9100	14.12	10.80	10.78	12.54	9.82	9.81	7.87	1.42	1.40	9.35	1.22	1.20
9130	14.11	10.79	10.77	12.53	9.81	9.80	7.87	1.42	1.40	9.35	1.22	1.20
9160	14.11	10.79	10.77	12.53	9.81	9.80	7.86	1.41	1.38	9.35	1.22	1.20
9190	14.12	10.80	10.78	12.52	9.80	9.79	7.87	1.42	1.39	9.36	1.23	1.20
9220	14.11	10.79	10.77	12.53	9.81	9.80	7.87	1.42	1.39	9.36	1.23	1.20

9250	14.14	10.82	10.79	12.53	9.81	9.80	7.85	1.40	1.37	9.38	1.24	1.22
9280	14.13	10.81	10.79	12.52	9.80	9.79	7.83	1.38	1.35	9.36	1.23	1.20
9310	14.12	10.80	10.78	12.52	9.80	9.79	7.82	1.37	1.34	9.36	1.23	1.21
9340	14.12	10.80	10.78	12.51	9.79	9.78	7.81	1.36	1.34	9.36	1.23	1.20
9370	14.11	10.79	10.77	12.51	9.79	9.78	7.80	1.35	1.33	9.37	1.24	1.22
9400	14.11	10.79	10.78	12.52	9.80	9.79	7.78	1.33	1.31	9.36	1.23	1.21
9430	14.11	10.79	10.78	12.52	9.80	9.79	7.77	1.32	1.30	9.35	1.22	1.20
9460	14.13	10.81	10.80	12.51	9.79	9.78	7.75	1.30	1.28	9.36	1.23	1.21
9490	14.11	10.79	10.77	12.50	9.78	9.78	7.81	1.36	1.35	9.36	1.23	1.22
9520	14.14	10.82	10.81	12.50	9.78	9.78	7.79	1.34	1.33	9.35	1.22	1.21
9550	14.13	10.81	10.81	12.50	9.78	9.78	7.77	1.32	1.31	9.36	1.23	1.22
9580	14.12	10.80	10.80	12.50	9.78	9.78	7.74	1.29	1.29	9.35	1.22	1.22
9610	14.13	10.81	10.81	12.50	9.78	9.78	7.74	1.29	1.28	9.35	1.22	1.22
9640	14.11	10.79	10.79	12.50	9.78	9.78	7.85	1.40	1.40	9.34	1.21	1.21
9670	14.12	10.80	10.80	12.49	9.77	9.77	7.84	1.39	1.38	9.35	1.22	1.22
9700	14.13	10.81	10.81	12.50	9.78	9.78	7.84	1.39	1.39	9.34	1.21	1.21
9730	14.15	10.83	10.83	12.49	9.77	9.77	7.82	1.37	1.37	9.35	1.22	1.22
9760	14.11	10.79	10.80	12.49	9.77	9.77	7.81	1.36	1.37	9.34	1.21	1.22
9790	14.12	10.80	10.80	12.49	9.77	9.77	7.81	1.36	1.36	9.34	1.21	1.22
9820	14.12	10.80	10.80	12.48	9.76	9.76	7.81	1.36	1.36	9.34	1.21	1.21
9850	14.15	10.83	10.83	12.47	9.75	9.75	7.83	1.38	1.37	9.35	1.22	1.22
9880	14.14	10.82	10.82	12.47	9.75	9.75	7.82	1.37	1.36	9.35	1.22	1.21
9910	14.14	10.82	10.81	12.47	9.75	9.75	7.82	1.37	1.36	9.34	1.21	1.21
9940	14.15	10.83	10.82	12.46	9.74	9.74	7.82	1.37	1.36	9.34	1.21	1.20
9970	14.12	10.80	10.80	12.45	9.73	9.73	7.81	1.36	1.36	9.34	1.21	1.21
10000	14.13	10.81	10.81	12.45	9.73	9.73	7.87	1.42	1.41	9.34	1.21	1.21
10030	14.11	10.79	10.79	12.45	9.73	9.73	7.86	1.41	1.40	9.34	1.21	1.21
10060	14.13	10.81	10.81	12.44	9.72	9.72	7.86	1.41	1.40	9.34	1.21	1.20
10090	14.11	10.79	10.79	12.45	9.73	9.73	7.84	1.39	1.39	9.34	1.21	1.20
10120	14.11	10.79	10.79	12.43	9.71	9.71	7.83	1.38	1.38	9.34	1.21	1.21
10150	14.13	10.81	10.81	12.46	9.74	9.74	7.81	1.36	1.37	9.34	1.21	1.21
10180	14.10	10.78	10.78	12.45	9.73	9.73	7.80	1.35	1.35	9.33	1.20	1.20
10210	14.10	10.78	10.78	12.44	9.72	9.73	7.78	1.33	1.34	9.34	1.21	1.21
10240	14.11	10.79	10.79	12.43	9.71	9.72	7.77	1.32	1.32	9.33	1.20	1.21
10270	14.11	10.79	10.80	12.43	9.71	9.72	7.76	1.31	1.32	9.33	1.20	1.21
10300	14.13	10.81	10.82	12.43	9.71	9.71	7.76	1.31	1.32	9.33	1.20	1.21
10330	14.11	10.79	10.79	12.43	9.71	9.71	7.75	1.30	1.30	9.33	1.20	1.21
10360	14.06	10.74	10.74	12.43	9.71	9.71	7.75	1.30	1.30	9.32	1.19	1.19
10390	14.03	10.71	10.71	12.42	9.70	9.70	7.74	1.29	1.30	9.31	1.18	1.18
10420	14.04	10.72	10.72	12.41	9.69	9.69	7.75	1.30	1.30	9.29	1.16	1.17
10450	14.05	10.73	10.73	12.41	9.69	9.69	7.74	1.29	1.29	9.28	1.15	1.15

10480	14.07	10.75	10.75	12.43	9.71	9.71	7.75	1.30	1.30	9.27	1.14	1.14
10510	14.02	10.70	10.70	12.42	9.70	9.70	7.75	1.30	1.30	9.27	1.14	1.13
10540	14.07	10.75	10.74	12.42	9.70	9.69	7.74	1.29	1.29	9.26	1.13	1.13
10570	14.04	10.72	10.72	12.41	9.69	9.68	7.74	1.29	1.28	9.26	1.13	1.13
10600	14.04	10.72	10.72	12.41	9.69	9.68	7.74	1.29	1.29	9.26	1.13	1.13
10630	14.02	10.70	10.70	12.41	9.69	9.68	7.74	1.29	1.28	9.26	1.13	1.12
10660	14.03	10.71	10.70	12.41	9.69	9.68	7.74	1.29	1.28	9.26	1.13	1.12
10690	14.04	10.72	10.71	12.40	9.68	9.67	7.74	1.29	1.28	9.29	1.16	1.15
10720	14.07	10.75	10.74	12.40	9.68	9.67	7.71	1.26	1.26	9.26	1.13	1.13
10750	14.06	10.74	10.73	12.40	9.68	9.68	7.70	1.25	1.25	9.25	1.12	1.11
10780	14.04	10.72	10.72	12.39	9.67	9.67	7.67	1.22	1.22	9.25	1.12	1.12
10810	14.02	10.70	10.70	12.39	9.67	9.67	7.66	1.21	1.21	9.24	1.11	1.12
10840	14.01	10.69	10.70	12.38	9.66	9.66	7.63	1.18	1.19	9.15	1.02	1.02
10870	13.98	10.66	10.67	12.39	9.67	9.67	7.77	1.32	1.33	9.20	1.07	1.08
10900	13.97	10.65	10.67	12.39	9.67	9.67	7.76	1.31	1.32	9.17	1.04	1.05
10930	14.01	10.69	10.71	12.38	9.66	9.66	7.74	1.29	1.31	9.15	1.02	1.04
10960	14.02	10.70	10.72	12.38	9.66	9.66	7.73	1.28	1.29	9.15	1.02	1.04
10990	14.04	10.72	10.74	12.38	9.66	9.67	7.72	1.27	1.28	9.15	1.02	1.04
11020	14.04	10.72	10.74	12.37	9.65	9.66	7.70	1.25	1.27	9.16	1.03	1.05
11050	14.02	10.70	10.72	12.38	9.66	9.67	7.69	1.24	1.26	9.16	1.03	1.05
11080	13.99	10.67	10.69	12.36	9.64	9.65	7.68	1.23	1.26	9.15	1.02	1.04
11110	14.08	10.76	10.78	12.36	9.64	9.65	7.68	1.23	1.25	9.15	1.02	1.04
11140	4.60	1.28	1.30	5.05	2.33	2.34	7.66	1.21	1.23	9.16	1.03	1.05
11170	13.71	10.39	10.41	12.21	9.49	9.50	7.67	1.22	1.24	9.16	1.03	1.05
11200	13.90	10.58	10.60	12.27	9.55	9.55	7.83	1.38	1.40	9.17	1.04	1.06
11230	6.57	3.25	3.27	5.73	3.01	3.02	7.81	1.36	1.39	9.20	1.07	1.09
11260	12.88	9.56	9.58	11.45	8.73	8.74	7.81	1.36	1.38	9.20	1.07	1.09
11290	5.16	1.84	1.85	5.11	2.39	2.39	7.82	1.37	1.39	9.22	1.09	1.10
11320	13.50	10.18	10.20	4.92	2.20	2.20	7.82	1.37	1.38	9.22	1.09	1.11
11350	13.64	10.32	10.34	4.84	2.12	2.13	7.82	1.37	1.39	9.23	1.10	1.11
11380	13.67	10.35	10.36	4.79	2.07	2.07	7.83	1.38	1.39	9.25	1.12	1.13
11410	13.72	10.40	10.41	4.73	2.01	2.01	7.82	1.37	1.38	9.27	1.14	1.16
11440	13.76	10.44	10.45	4.69	1.97	1.98	7.80	1.35	1.36	9.29	1.16	1.17
11470	13.78	10.46	10.48	4.66	1.94	1.95	7.79	1.34	1.36	9.30	1.17	1.18
11500	13.78	10.46	10.48	4.63	1.91	1.92	7.79	1.34	1.35	9.31	1.18	1.20
11530	13.77	10.45	10.46	4.61	1.89	1.89	7.78	1.33	1.34	9.32	1.19	1.21
11560	13.78	10.46	10.48	4.57	1.85	1.85	7.76	1.31	1.33	9.34	1.21	1.22
11590	13.82	10.50	10.52	4.57	1.85	1.86	7.76	1.31	1.33	9.34	1.21	1.23
11620	13.81	10.49	10.51	4.54	1.82	1.83	7.74	1.29	1.31	9.35	1.22	1.24
11650	13.81	10.49	10.52	4.52	1.80	1.81	7.81	1.36	1.39	9.36	1.23	1.25
11680	13.83	10.51	10.54	4.50	1.78	1.79	7.80	1.35	1.37	9.36	1.23	1.26

11710	13.83	10.51	10.54	4.48	1.76	1.77	7.79	1.34	1.37	9.37	1.24	1.27
11740	12.88	9.56	9.59	4.46	1.74	1.75	7.77	1.32	1.35	9.37	1.24	1.27
11770	13.66	10.34	10.38	4.45	1.73	1.74	7.74	1.29	1.33	9.36	1.23	1.26
11800	13.71	10.39	10.42	4.44	1.72	1.73	7.75	1.30	1.33	9.36	1.23	1.26
11830	13.73	10.41	10.44	4.43	1.71	1.72	7.76	1.31	1.33	9.36	1.23	1.26
11860	13.76	10.44	10.46	4.42	1.70	1.71	7.77	1.32	1.34	9.37	1.24	1.26
11890	13.78	10.46	10.48	4.40	1.68	1.69	7.78	1.33	1.35	9.38	1.25	1.27
11920	13.81	10.49	10.51	4.39	1.67	1.68	7.79	1.34	1.35	9.39	1.26	1.27
11950	13.82	10.50	10.51	4.38	1.66	1.66	7.80	1.35	1.36	9.39	1.26	1.28
11980	13.82	10.50	10.51	4.37	1.65	1.65	7.78	1.33	1.34	9.40	1.27	1.28
12010	13.83	10.51	10.52	4.36	1.64	1.65	7.78	1.33	1.35	9.41	1.28	1.29
12040	13.86	10.54	10.55	4.35	1.63	1.64	7.77	1.32	1.34	9.41	1.28	1.30
12070	6.43	3.11	3.12	4.33	1.61	1.62	7.76	1.31	1.33	9.42	1.29	1.31
12100	13.62	10.30	10.32	4.33	1.61	1.62	7.75	1.30	1.32	9.41	1.28	1.29
12130	13.63	10.31	10.33	4.32	1.60	1.61	7.74	1.29	1.31	9.38	1.25	1.27
12160	13.62	10.30	10.31	4.31	1.59	1.60	7.74	1.29	1.31	9.36	1.23	1.25
12190	13.64	10.32	10.34	4.30	1.58	1.59	7.73	1.28	1.29	9.34	1.21	1.23
12220	13.64	10.32	10.34	4.30	1.58	1.58	7.74	1.29	1.30	9.33	1.20	1.21
12250	4.86	1.54	1.55	4.27	1.55	1.55	7.72	1.27	1.28	9.32	1.19	1.20
12280	4.44	1.12	1.14	4.25	1.53	1.53	7.69	1.24	1.26	9.30	1.17	1.19
12310	4.36	1.04	1.06	4.24	1.52	1.53	7.68	1.23	1.25	9.26	1.13	1.15
12340	4.30	0.98	1.00	4.23	1.51	1.52	7.66	1.21	1.23	9.21	1.08	1.10
12370	4.26	0.94	0.97	4.22	1.50	1.51	7.62	1.17	1.20	9.17	1.04	1.07
12400	4.23	0.91	0.95	4.21	1.49	1.50	7.59	1.14	1.18	9.12	0.98	1.02
12430	4.21	0.89	0.93	4.20	1.48	1.50	7.59	1.14	1.18	9.07	0.94	0.98
12460	4.20	0.88	0.92	4.19	1.47	1.49	7.57	1.12	1.16	9.04	0.91	0.95
12490	4.19	0.87	0.91	4.18	1.46	1.48	7.56	1.11	1.15	9.01	0.88	0.92
12520	4.18	0.86	0.90	4.18	1.46	1.48	7.57	1.12	1.15	8.98	0.85	0.88
12550	4.17	0.85	0.89	4.17	1.45	1.47	7.59	1.14	1.17	8.96	0.83	0.86
12580	4.17	0.85	0.89	4.16	1.44	1.46	7.56	1.11	1.15	8.93	0.80	0.84
12610	4.17	0.85	0.89	4.16	1.44	1.46	7.57	1.12	1.15	8.91	0.78	0.82
12640	4.17	0.85	0.89	4.15	1.43	1.45	7.55	1.10	1.14	8.90	0.77	0.81
12670	4.17	0.85	0.88	4.14	1.42	1.44	7.56	1.11	1.14	8.89	0.76	0.79
12700	4.17	0.85	0.88	4.13	1.41	1.43	7.57	1.12	1.16	8.87	0.74	0.78
12730	4.16	0.84	0.87	4.13	1.41	1.42	7.57	1.12	1.16	8.87	0.74	0.77
12760	4.15	0.83	0.87	4.12	1.40	1.41	7.55	1.10	1.14	8.86	0.73	0.77
12790	4.15	0.83	0.87	4.12	1.40	1.41	7.54	1.09	1.13	8.85	0.72	0.76
12820	4.15	0.83	0.86	4.11	1.39	1.40	7.57	1.12	1.15	8.84	0.71	0.74
12850	4.14	0.82	0.85	4.11	1.39	1.40	7.56	1.11	1.14	8.84	0.71	0.74
12880	4.13	0.81	0.84	4.10	1.38	1.39	7.55	1.10	1.13	8.83	0.70	0.73
12910	4.13	0.81	0.85	4.10	1.38	1.39	7.54	1.09	1.13	8.82	0.69	0.73

12940	4.12	0.80	0.84	4.09	1.37	1.38	7.53	1.08	1.12	8.82	0.69	0.72
12970	4.12	0.80	0.84	4.08	1.36	1.37	7.53	1.08	1.12	8.80	0.67	0.71
13000	4.11	0.79	0.83	4.08	1.36	1.37	7.52	1.07	1.11	8.80	0.67	0.72
13030	4.11	0.79	0.84	4.07	1.35	1.37	7.49	1.04	1.09	8.80	0.67	0.72
13060	4.10	0.78	0.83	4.07	1.35	1.37	7.46	1.01	1.06	8.79	0.66	0.71
13090	4.09	0.77	0.83	4.06	1.34	1.36	7.44	0.99	1.05	8.78	0.65	0.71
13120	4.09	0.77	0.83	4.06	1.34	1.36	7.44	0.99	1.05	8.78	0.65	0.71
13150	4.09	0.77	0.83	4.05	1.33	1.35	7.43	0.98	1.04	8.78	0.65	0.71
13180	4.09	0.77	0.83	4.04	1.32	1.34	7.43	0.98	1.04	8.78	0.65	0.71
13210	4.10	0.78	0.84	4.04	1.32	1.34	7.43	0.98	1.04	8.77	0.64	0.70
13240	4.10	0.78	0.84	4.04	1.32	1.34	7.44	0.99	1.04	8.77	0.64	0.70
13270	4.10	0.78	0.84	4.03	1.31	1.33	7.44	0.99	1.05	8.77	0.64	0.70
13300	4.11	0.79	0.84	4.03	1.31	1.33	7.45	1.00	1.05	8.77	0.64	0.69
13330	4.10	0.78	0.83	4.02	1.30	1.32	7.43	0.98	1.03	8.77	0.64	0.69
13360	4.10	0.78	0.83	4.02	1.30	1.32	7.45	1.00	1.05	8.77	0.64	0.69
13390	4.11	0.79	0.83	4.02	1.30	1.32	7.46	1.01	1.06	8.77	0.64	0.69
13420	4.11	0.79	0.83	4.01	1.29	1.31	7.47	1.02	1.06	8.77	0.64	0.68
13450	4.10	0.78	0.82	4.01	1.29	1.31	7.47	1.02	1.06	8.77	0.64	0.68
13480	4.10	0.78	0.82	4.00	1.28	1.30	7.46	1.01	1.06	8.77	0.64	0.69
13510	12.37	9.05	9.10	4.03	1.31	1.33	7.46	1.01	1.06	8.77	0.64	0.69
13540	12.87	9.55	9.60	4.04	1.32	1.34	7.47	1.02	1.06	8.80	0.67	0.72
13570	13.01	9.69	9.74	4.04	1.32	1.34	7.47	1.02	1.07	8.85	0.72	0.77
13600	13.12	9.80	9.84	4.04	1.32	1.34	7.70	1.25	1.30	8.91	0.78	0.83
13630	13.20	9.88	9.93	4.04	1.32	1.34	7.70	1.25	1.30	8.96	0.83	0.88
13660	13.26	9.94	9.99	4.04	1.32	1.34	7.69	1.24	1.29	9.03	0.90	0.95
13690	13.27	9.95	10.00	4.04	1.32	1.34	7.74	1.29	1.35	9.07	0.94	0.99
13720	13.30	9.98	10.04	4.04	1.32	1.34	7.73	1.28	1.33	9.12	0.98	1.04
13750	13.35	10.03	10.09	4.04	1.32	1.34	7.69	1.24	1.31	9.17	1.04	1.10
13780	13.34	10.02	10.09	4.04	1.32	1.34	7.68	1.23	1.30	9.16	1.03	1.09
13810	13.39	10.07	10.13	4.03	1.31	1.34	7.67	1.22	1.29	9.19	1.06	1.13
13840	13.41	10.09	10.15	4.04	1.32	1.34	7.68	1.23	1.30	9.23	1.10	1.16
13870	13.43	10.11	10.18	4.03	1.31	1.34	7.69	1.24	1.31	9.25	1.12	1.19
13900	13.44	10.12	10.19	4.03	1.31	1.34	7.69	1.24	1.31	9.27	1.14	1.21
13930	13.45	10.13	10.20	4.03	1.31	1.34	7.67	1.22	1.30	9.29	1.16	1.23
13960	13.46	10.14	10.21	4.03	1.31	1.34	7.83	1.38	1.46	9.30	1.17	1.25
13990	13.48	10.16	10.24	4.03	1.31	1.34	7.82	1.37	1.45	9.31	1.18	1.25
14020	13.48	10.16	10.24	4.03	1.31	1.34	7.81	1.36	1.44	9.32	1.19	1.27
14050	13.52	10.20	10.28	4.03	1.31	1.34	7.82	1.37	1.44	9.33	1.20	1.28
14080	13.50	10.18	10.26	4.02	1.30	1.33	7.82	1.37	1.45	9.34	1.21	1.29
14110	13.50	10.18	10.26	4.02	1.30	1.33	7.83	1.38	1.45	9.35	1.22	1.29
14140	13.53	10.21	10.28	4.03	1.31	1.34	7.82	1.37	1.44	9.36	1.23	1.30

14170	13.53	10.21	10.28	4.02	1.30	1.33	7.83	1.38	1.45	9.38	1.24	1.31
14200	13.53	10.21	10.28	4.02	1.30	1.33	7.83	1.38	1.44	9.36	1.23	1.29
14230	13.54	10.22	10.28	4.02	1.30	1.33	7.84	1.39	1.45	9.37	1.24	1.30
14260	13.55	10.23	10.29	4.02	1.30	1.32	7.85	1.40	1.46	9.37	1.24	1.30
14290	13.56	10.24	10.30	4.02	1.30	1.32	7.86	1.41	1.46	9.37	1.24	1.30
14320	13.54	10.22	10.28	4.02	1.30	1.32	7.84	1.39	1.45	9.37	1.24	1.30
14350	13.56	10.24	10.30	4.01	1.29	1.31	7.84	1.39	1.45	9.37	1.24	1.30
14380	13.55	10.23	10.29	4.01	1.29	1.32	7.84	1.39	1.45	9.38	1.24	1.31
14410	13.56	10.24	10.30	4.01	1.29	1.31	7.84	1.39	1.45	9.38	1.24	1.30
14440	13.55	10.23	10.29	4.01	1.29	1.32	7.82	1.37	1.43	9.38	1.24	1.31
14470	13.56	10.24	10.30	4.00	1.28	1.31	7.82	1.37	1.43	9.38	1.24	1.31
14500	13.54	10.22	10.28	4.00	1.28	1.31	7.80	1.35	1.42	9.38	1.24	1.31
14530	13.56	10.24	10.30	4.00	1.28	1.31	7.80	1.35	1.41	9.38	1.24	1.31
14560	13.55	10.23	10.29	4.00	1.28	1.31	7.79	1.34	1.40	9.38	1.24	1.31
14590	13.55	10.23	10.29	4.00	1.28	1.31	7.79	1.34	1.41	9.37	1.24	1.30
14620	13.56	10.24	10.30	4.00	1.28	1.31	7.80	1.35	1.41	9.37	1.24	1.30
14650	13.57	10.25	10.31	3.99	1.27	1.30	7.81	1.36	1.42	9.37	1.24	1.30
14680	13.58	10.26	10.31	3.99	1.27	1.29	7.80	1.35	1.41	9.37	1.24	1.30
14710	13.59	10.27	10.32	3.99	1.27	1.29	7.82	1.37	1.43	9.37	1.24	1.29
14740	13.59	10.27	10.31	3.99	1.27	1.29	7.84	1.39	1.43	9.38	1.24	1.29
14770	13.60	10.28	10.32	3.99	1.27	1.29	7.86	1.41	1.45	9.38	1.24	1.29
14800	13.60	10.28	10.32	3.99	1.27	1.29	7.87	1.42	1.46	9.38	1.24	1.29
14830	13.60	10.28	10.31	3.99	1.27	1.29	7.88	1.43	1.46	9.38	1.24	1.28
14860	13.62	10.30	10.34	3.99	1.27	1.29	7.88	1.43	1.47	9.38	1.25	1.28
14890	13.62	10.30	10.32	3.99	1.27	1.28	7.89	1.44	1.47	9.38	1.25	1.28
14920	13.62	10.30	10.33	3.99	1.27	1.28	7.89	1.44	1.47	9.38	1.25	1.28
14950	13.62	10.30	10.33	3.99	1.27	1.28	7.91	1.46	1.48	9.38	1.25	1.28
14980	13.63	10.31	10.33	3.99	1.27	1.28	7.91	1.46	1.48	9.38	1.25	1.27
15010	13.63	10.31	10.33	3.98	1.26	1.27	7.92	1.47	1.49	9.38	1.25	1.27
15040	13.65	10.33	10.35	3.98	1.26	1.27	7.93	1.48	1.49	9.38	1.25	1.27
15070	13.63	10.31	10.33	3.98	1.26	1.27	7.92	1.47	1.49	9.38	1.25	1.27
15100	13.65	10.33	10.35	3.98	1.26	1.27	7.91	1.46	1.47	9.38	1.25	1.27
15130	13.64	10.32	10.34	3.98	1.26	1.27	7.91	1.46	1.48	9.38	1.25	1.27
15160	13.66	10.34	10.36	3.98	1.26	1.27	7.90	1.45	1.47	9.38	1.25	1.27
15190	13.63	10.31	10.33	3.98	1.26	1.27	7.91	1.46	1.47	9.38	1.25	1.27
15220	13.63	10.31	10.33	3.98	1.26	1.27	7.89	1.44	1.46	9.38	1.25	1.27
15250	13.63	10.31	10.34	3.98	1.26	1.27	7.89	1.44	1.46	9.38	1.24	1.27
15280	13.66	10.34	10.36	3.97	1.25	1.26	7.88	1.43	1.45	9.38	1.24	1.27
15310	13.65	10.33	10.36	3.98	1.26	1.27	7.88	1.43	1.45	9.38	1.24	1.27
15340	13.65	10.33	10.36	3.98	1.26	1.27	7.87	1.42	1.44	9.38	1.24	1.27
15370	13.65	10.33	10.36	3.97	1.25	1.26	7.87	1.42	1.44	9.38	1.24	1.27

15400	13.67	10.35	10.37	3.97	1.25	1.26	7.87	1.42	1.45	9.37	1.24	1.26
15430	13.68	10.36	10.38	3.97	1.25	1.26	7.87	1.42	1.44	9.38	1.24	1.27
15460	13.65	10.33	10.35	3.97	1.25	1.26	7.88	1.43	1.45	9.38	1.24	1.27
15490	13.66	10.34	10.36	3.97	1.25	1.26	7.87	1.42	1.44	9.37	1.24	1.26
15520	13.67	10.35	10.37	3.97	1.25	1.26	7.87	1.42	1.44	9.37	1.24	1.26
15550	13.66	10.34	10.36	3.97	1.25	1.26	7.87	1.42	1.44	9.38	1.24	1.27
15580	13.69	10.37	10.39	3.97	1.25	1.26	7.87	1.42	1.44	9.38	1.24	1.27
15610	13.68	10.36	10.38	3.97	1.25	1.26	7.89	1.44	1.46	9.38	1.24	1.26
15640	13.66	10.34	10.36	3.97	1.25	1.26	7.88	1.43	1.45	9.38	1.24	1.26
15670	13.68	10.36	10.38	3.97	1.25	1.26	7.89	1.44	1.46	9.38	1.24	1.26
15700	13.69	10.37	10.38	3.97	1.25	1.26	7.90	1.45	1.46	9.38	1.24	1.26
15730	13.71	10.39	10.40	3.97	1.25	1.26	7.90	1.45	1.46	9.38	1.24	1.26
15760	13.71	10.39	10.40	3.97	1.24	1.25	7.89	1.44	1.46	9.38	1.25	1.27
15790	13.70	10.38	10.40	3.97	1.24	1.25	7.88	1.43	1.45	9.38	1.24	1.26
15820	13.71	10.39	10.40	3.97	1.24	1.25	7.88	1.43	1.45	9.38	1.24	1.26
15850	13.69	10.37	10.39	3.97	1.24	1.25	7.88	1.43	1.44	9.38	1.24	1.26
15880	13.72	10.40	10.42	3.97	1.24	1.25	7.87	1.42	1.44	9.38	1.24	1.26
15910	13.70	10.38	10.40	3.97	1.24	1.25	7.86	1.41	1.43	9.38	1.24	1.27
15940	13.71	10.39	10.41	3.97	1.24	1.25	7.86	1.41	1.43	9.38	1.24	1.27
15970	13.69	10.37	10.39	3.97	1.24	1.25	7.84	1.39	1.42	9.38	1.24	1.27
16000	13.69	10.37	10.40	3.97	1.24	1.26	7.83	1.38	1.41	9.38	1.24	1.27
16030	13.71	10.39	10.42	3.97	1.24	1.26	7.83	1.38	1.40	9.37	1.24	1.27
16060	13.72	10.40	10.42	3.96	1.24	1.25	7.83	1.38	1.41	9.37	1.24	1.27
16090	13.71	10.39	10.42	3.97	1.24	1.26	7.83	1.38	1.41	9.37	1.24	1.27
16120	13.74	10.42	10.44	3.97	1.24	1.26	7.83	1.38	1.41	9.37	1.24	1.27
16150	13.74	10.42	10.44	3.97	1.24	1.25	7.83	1.38	1.41	9.37	1.24	1.26
16180	13.73	10.41	10.43	3.96	1.24	1.24	7.84	1.39	1.41	9.38	1.24	1.27
16210	13.74	10.42	10.44	3.97	1.24	1.25	7.85	1.40	1.42	9.38	1.24	1.26
16240	13.73	10.41	10.43	3.96	1.24	1.24	7.85	1.40	1.42	9.38	1.24	1.26
16270	13.72	10.40	10.41	3.97	1.24	1.25	7.87	1.42	1.43	9.38	1.24	1.26
16300	13.73	10.41	10.42	3.97	1.24	1.25	7.87	1.42	1.44	9.38	1.24	1.26
16330	13.71	10.39	10.40	3.97	1.24	1.25	7.88	1.43	1.44	9.38	1.24	1.26
16360	13.64	10.32	10.33	3.96	1.24	1.24	7.88	1.43	1.44	9.36	1.23	1.24
16390	13.62	10.30	10.31	3.97	1.24	1.25	7.88	1.43	1.44	9.33	1.20	1.21
16420	13.63	10.31	10.32	3.96	1.24	1.24	7.89	1.44	1.45	9.32	1.19	1.20
16450	13.63	10.31	10.32	3.97	1.24	1.25	7.90	1.45	1.46	9.31	1.18	1.19
16480	13.69	10.37	10.37	3.97	1.24	1.25	7.89	1.44	1.45	9.32	1.19	1.19
16510	13.72	10.40	10.40	3.96	1.24	1.24	7.89	1.44	1.45	9.31	1.18	1.18
16540	13.73	10.41	10.41	3.97	1.24	1.25	7.90	1.45	1.45	9.35	1.22	1.22
16570	13.72	10.40	10.40	3.97	1.24	1.25	7.90	1.45	1.45	9.36	1.23	1.23
16600	13.72	10.40	10.40	3.97	1.24	1.25	7.89	1.44	1.44	9.32	1.19	1.20

16630	13.71	10.39	10.39	3.97	1.24	1.25	7.88	1.43	1.44	9.34	1.21	1.21
16660	13.71	10.39	10.40	3.97	1.24	1.25	7.87	1.42	1.43	9.34	1.21	1.21
16690	13.68	10.36	10.37	3.97	1.24	1.25	7.86	1.41	1.42	9.34	1.21	1.22
16720	13.65	10.33	10:35	3.97	1.24	1.25	7.84	1.39	1.40	9.31	1.18	1.20
16750	13.64	10.32	10.34	3.97	1.24	1.25	7.84	1.39	1.40	9.30	1.17	1.19
16780	13.63	10.31	10.33	3.96	1.24	1.24	7.82	1.37	1.39	9.29	1.16	1.18
16810	13.64	10.32	10.34	3.97	1.24	1.25	7.81	1.36	1.38	9.28	1.15	1.17
16840	13.63	10.31	10.34	3.96	1.24	1.24	7.80	1.35	1.38	9.27	1.14	1.17
16870	13.62	10.30	10.33	3.97	1.24	1.25	7.80	1.35	1.37	9.27	1.14	1.16
16900	13.61	10.29	10.31	3.97	1.24	1.25	7.80	1.35	1.37	9.26	1.13	1.15
16930	13.64	10.32	10.35	3.97	1.24	1.25	7.80	1.35	1.37	9.26	1.13	1.15
16960	13.64	10.32	10.35	3.96	1.24	1.24	7.80	1.35	1.37	9.26	1.13	1.15
16990	13.66	10.34	10.37	3.96	1.24	1.24	7.80	1.35	1.37	9.25	1.12	1.14
17020	13.66	10.34	10.36	3.96	1.24	1.24	7.80	1.35	1.37	9.26	1.13	1.15
17050	13.67	10.35	10.37	3.96	1.24	1.24	7.80	1.35	1.38	9.26	1.13	1.15
17080	13.65	10.33	10.35	3.96	1.24	1.24	7.82	1.37	1.39	9.25	1.12	1.14
17110	13.63	10.31	10.33	3.96	1.24	1.24	7.81	1.36	1.38	9.25	1.12	1.14
17140	13.68	10.36	10.38	3.96	1.24	1.24	7.82	1.37	1.39	9.25	1.12	1.14
17170	13.67	10.35	10.37	3.96	1.24	1.24	7.80	1.35	1.37	9.25	1.12	1.14
17200	13.66	10.34	10.36	3.96	1.24	1.24	7.80	1.35	1.38	9.25	1.12	1.14
17230	13.64	10.32	10.35	3.96	1.24	1.24	7.80	1.35	1.37	9.25	1.12	1.14
17260	13.65	10.33	10.35	3.96	1.24	1.24	7.80	1.35	1.37	9.24	1.11	1.13
17290	13.65	10.33	10.36	3.96	1.24	1.24	7.80	1.35	1.37	9.24	1.11	1.14
17320	13.64	10.32	10.35	3.96	1.24	1.24	7.79	1.34	1.36	9.24	1.11	1.14
17350	13.65	10.33	10.36	3.95	1.23	1.24	7.79	1.34	1.36	9.24	1.11	1.14
17380	13.62	10.30	10.33	3.95	1.23	1.24	7.76	1.31	1.34	9.24	1.10	1.13
17410	13.66	10.34	10.37	3.95	1.23	1.24	7.77	1.32	1.35	9.24	1.10	1.13
17440	13.67	10.35	10.38	3.95	1.23	1.24	7.76	1.31	1.34	9.24	1.10	1.14
17470	13.66	10.34	10.37	3.95	1.23	1.24	7.75	1.30	1.33	9.24	1.10	1.14
17500	13.67	10.35	10.38	3.95	1.23	1.24	7.76	1.31	1.34	9.24	1.10	1.14
17530	13.65	10.33	10.37	3.95	1.23	1.24	7.74	1.29	1.33	9.24	1.10	1.14
17560	13.67	10.35	10.38	3.95	1.23	1.24	7.75	1.30	1.33	9.24	1.10	1.14
17590	13.66	10.34	10.38	3.95	1.23	1.24	7.76	1.31	1.34	9.24	1.10	1.14
17620	13.65	10.33	10.36	3.95	1.23	1.24	7.75	1.30	1.33	9.24	1.10	1.14
17650	13.67	10.35	10.38	3.95	1.23	1.24	7.77	1.32	1.35	9.24	1.10	1.13
17680	13.67	10.35	10.38	3.95	1.23	1.24	7.78	1.33	1.35	9.24	1.10	1.13
17710	13.66	10.34	10.36	3.95	1.23	1.23	7.79	1.34	1.36	9.24	1.11	1.13
17740	13.73	10.41	10.43	3.95	1.23	1.23	7.78	1.33	1.35	9.26	1.13	1.15
17770	13.77	10.45	10.47	3.96	1.24	1.24	7.78	1.33	1.35	9.27	1.14	1.17
17800	13.77	10.45	10.47	3.96	1.24	1.24	7.79	1.34	1.36	9.29	1.16	1.18
17830	13.74	10.42	10.44	3.96	1.24	1.24	7.79	1.34	1.36	9.29	1.16	1.17

17860	13.72	10.40	10.42	3.96	1.24	1.24	7.79	1.34	1.35	9.29	1.16	1.18
17890	13.75	10.43	10.45	3.96	1.24	1.24	7.79	1.34	1.36	9.31	1.18	1.20
17920	13.70	10.38	10.40	3.96	1.24	1.24	7.79	1.34	1.35	9.29	1.16	1.18
17950	13.70	10.38	10.40	3.96	1.24	1.24	7.78	1.33	1.35	9.24	1.10	1.13
17980	13.69	10.37	10.39	3.96	1.24	1.24	7.76	1.31	1.34	9.28	1.15	1.17
18010	13.70	10.38	10.40	3.96	1.24	1.24	7.76	1.31	1.33	9.27	1.14	1.17
18040	13.70	10.38	10.40	3.96	1.24	1.24	7.76	1.31	1.33	9.26	1.13	1.15
18070	13.71	10.39	10.41	3.96	1.24	1.24	7.75	1.30	1.32	9.27	1.14	1.16
18100	13.70	10.38	10.40	3.96	1.24	1.24	7.75	1.30	1.33	9.25	1.12	1.14
18130	13.72	10.40	10.43	3.96	1.24	1.25	7.74	1.29	1.32	9.27	1.14	1.16
18160	13.73	10.41	10.44	3.96	1.24	1.25	7.73	1.28	1.31	9.26	1.13	1.16
18190	13.72	10.40	10.43	3.96	1.24	1.25	7.72	1.27	1.30	9.27	1.14	1.17
18220	13.71	10.39	10.42	3.96	1.24	1.25	7.71	1.26	1.29	9.27	1.14	1.17
18250	13.73	10.41	10.44	3.96	1.24	1.25	7.71	1.26	1.29	9.27	1.14	1.17
18280	13.74	10.42	10.45	3.97	1.24	1.26	7.72	1.27	1.30	9.26	1.13	1.16
18310	13.74	10.42	10.45	3.96	1.24	1.25	7.71	1.26	1.30	9.26	1.13	1.17
18340	13.73	10.41	10.44	3.96	1.24	1.25	7.71	1.26	1.30	9.27	1.14	1.17
18370	13.80	10.48	10.52	3.97	1.24	1.26	7.71	1.26	1.29	9.28	1.15	1.18
18400	13.82	10.50	10.54	3.97	1.24	1.26	7.71	1.26	1.29	9.29	1.16	1.20
18430	13.83	10.51	10.55	3.97	1.24	1.26	7.71	1.26	1.30	9.29	1.16	1.20
18460	13.82	10.50	10.54	3.97	1.24	1.26	7.72	1.27	1.30	9.30	1.17	1.20
18490	13.86	10.54	10.57	3.97	1.24	1.26	7.73	1.28	1.31	9.30	1.17	1.20
18520	13.85	10.53	10.56	3.97	1.24	1.26	7.74	1.29	1.31	9.30	1.17	1.20
18550	13.83	10.51	10.54	3.97	1.24	1.26	7.74	1.29	1.31	9.29	1.16	1.19
18580	13.84	10.52	10.55	3.97	1.24	1.26	7.74	1.29	1.32	9.29	1.16	1.19
18610	13.82	10.50	10.53	3.96	1.24	1.25	7.73	1.28	1.30	9.29	1.16	1.18
18640	13.82	10.50	10.53	3.96	1.24	1.25	7.74	1.29	1.32	9.28	1.15	1.18
18670	13.80	10.48	10.51	3.96	1.24	1.25	7.73	1.28	1.31	9.28	1.15	1.18
18700	13.82	10.50	10.53	3.96	1.24	1.25	7.74	1.29	1.32	9.27	1.14	1.17
18730	13.83	10.51	10.54	3.96	1.24	1.25	7.71	1.26	1.29	9.27	1.14	1.18
18760	13.83	10.51	10.55	3.96	1.24	1.25	7.70	1.25	1.28	9.27	1.14	1.17
18790	13.82	10.50	10.54	3.96	1.24	1.25	7.71	1.26	1.29	9.26	1.13	1.17
18820	13.85	10.53	10.57	3.96	1.24	1.25	7.70	1.25	1.28	9.26	1.13	1.17
18850	13.82	10.50	10.54	3.96	1.24	1.25	7.74	1.29	1.33	9.26	1.13	1.17
18880	13.81	10.49	10.53	3.96	1.24	1.25	7.74	1.29	1.33	9.26	1.13	1.17
18910	13.83	10.51	10.55	3.96	1.24	1.25	7.74	1.29	1.33	9.26	1.13	1.16
18940	13.80	10.48	10.52	3.96	1.24	1.25	7.74	1.29	1.33	9.26	1.13	1.16
18970	13.81	10.49	10.53	3.96	1.24	1.25	7.74	1.29	1.33	9.26	1.13	1.16
19000	13.80	10.48	10.52	3.96	1.24	1.25	7.75	1.30	1.34	9.25	1.12	1.15
19030	13.82	10.50	10.54	3.96	1.24	1.25	7.77	1.32	1.35	9.25	1.12	1.15
19060	13.80	10.48	10.52	3.96	1.24	1.25	7.75	1.30	1.34	9.26	1.13	1.16

E time	PW-P2	dd	corr.dd	PW-P5	dd	corr.dd	P5-5	dd	corr.dd	PD-6	dd	corr.dd
19090	13.83	10.51	10.54	3.96	1.24	1.25	7.77	1.32	1.35	9.26	1.13	1.15
19120	13.84	10.52	10.55	3.96	1.24	1.25	7.79	1.34	1.36	9.26	1.13	1.15
19150	13.84	10.52	10.54	3.97	1.24	1.25	7.92	1.47	1.49	9.26	1.13	1.15
19180	13.82	10.50	10.52	3.97	1.24	1.25	7.93	1.48	1.49	9.26	1.13	1.15
19210	13.85	10.53	10.55	3.97	1.24	1.25	7.93	1.48	1.49	9.26	1.13	1.15
19240	13.84	10.52	10.53	3.97	1.24	1.25	7.93	1.48	1.49	9.26	1.13	1.14
19270	13.84	10.52	10.53	3.97	1.24	1.25	7.93	1.48	1.49	9.26	1.13	1.14
19300	13.84	10.52	10.53	3.97	1.24	1.25	7.94	1.49	1.50	9.24	1.10	1.11
19330	13.81	10.49	10.50	3.97	1.24	1.25	7.93	1.48	1.49	9.26	1.13	1.13
19360	13.80	10.48	10.49	3.97	1.25	1.26	7.93	1.48	1.49	9.27	1.14	1.15
19390	13.80	10.48	10.49	3.97	1.25	1.26	7.93	1.48	1.49	9.27	1.14	1.15
19420	13.80	10.48	10.50	3.97	1.25	1.26	7.92	1.47	1.48	9.29	1.16	1.17
19450	13.80	10.48	10.50	3.97	1.25	1.26	7.91	1.46	1.48	9.27	1.14	1.16
19480	13.81	10.49	10.51	3.97	1.25	1.26	7.91	1.46	1.47	9.27	1.14	1.16
19510	13.80	10.48	10.50	3.97	1.25	1.26	7.90	1.45	1.46	9.29	1.16	1.17
19540	13.80	10.48	10.50	3.98	1.26	1.27	7.89	1.44	1.46	9.29	1.16	1.18
19570	13.81	10.49	10.51	3.97	1.25	1.26	7.88	1.43	1.45	9.29	1.16	1.18
19600	13.81	10.49	10.51	3.97	1.25	1.26	7.87	1.42	1.44	9.30	1.17	1.19
19630	13.81	10.49	10.51	3.98	1.26	1.27	7.87	1.42	1.44	9.30	1.17	1.19
19660	13.81	10.49	10.51	3.98	1.26	1.27	7.86	1.41	1.43	9.31	1.18	1.20
19690	13.84	10.52	10.54	3.98	1.26	1.27	7.86	1.41	1.43	9.30	1.17	1.19
19720	13.79	10.47	10.50	3.98	1.26	1.27	7.86	1.41	1.43	9.30	1.17	1.19
19750	13.85	10.53	10.55	3.97	1.25	1.26	7.86	1.41	1.43	9.32	1.19	1.21
19780	13.82	10.50	10.52	3.98	1.26	1.27	7.85	1.40	1.42	9.31	1.18	1.20
19810	13.87	10.55	10.57	3.98	1.26	1.27	7.86	1.41	1.43	9.32	1.19	1.21
19840	13.93	10.61	10.63	3.98	1.26	1.27	7.86	1.41	1.43	9.34	1.21	1.23
19870	13.92	10.60	10.62	3.98	1.26	1.27	7.85	1.40	1.42	9.35	1.22	1.24
19900	13.93	10.61	10.62	3.98	1.26	1.27	7.87	1.42	1.43	9.36	1.23	1.24
19930	13.92	10.60	10.61	3.98	1.26	1.27	7.88	1.43	1.44	9.37	1.24	1.25
19960	13.92	10.60	10.61	3.98	1.26	1.27	7.87	1.42	1.44	9.38	1.24	1.26
19990	13.93	10.61	10.62	3.98	1.26	1.27	7.89	1.44	1.45	9.38	1.25	1.27
20020	13.94	10.62	10.63	3.98	1.26	1.27	7.89	1.44	1.45	9.39	1.26	1.27
20050	13.94	10.62	10.63	3.98	1.26	1.27	7.89	1.44	1.45	9.39	1.26	1.27
20080	13.94	10.62	10.63	3.98	1.26	1.27	7.89	1.44	1.45	9.40	1.27	1.28
20110	13.94	10.62	10.64	3.98	1.26	1.27	7.89	1.44	1.45	9.40	1.27	1.28
20140	13.94	10.62	10.64	3.98	1.26	1.27	7.88	1.43	1.44	9.41	1.28	1.29
20170	13.93	10.61	10.62	3.98	1.26	1.27	7.87	1.42	1.44	9.41	1.28	1.29
20200	13.94	10.62	10.63	3.97	1.25	1.26	7.88	1.43	1.44	9.41	1.28	1.29
20230	13.91	10.59	10.60	3.98	1.26	1.27	7.87	1.42	1.44	9.41	1.28	1.29
20260	13.92	10.60	10.61	3.97	1.25	1.26	7.87	1.42	1.44	9.41	1.28	1.30
20290	13.93	10.61	10.62	3.97	1.25	1.26	7.86	1.41	1.42	9.41	1.28	1.30

20320	13.94	10.62	10.63	3.97	1.25	1.26	7.85	1.40	1.41	9.42	1.29	1.31
20350	13.95	10.63	10.65	3.97	1.25	1.26	7.84	1.39	1.40	9.42	1.29	1.31
20380	13.96	10.64	10.66	3.97	1.25	1.26	7.84	1.39	1.41	9.42	1.29	1.31
20410	13.97	10.65	10.67	3.97	1.25	1.26	7.83	1.38	1.40	9.43	1.30	1.31
20440	13.96	10.64	10.66	3.98	1.26	1.27	7.86	1.41	1.42	9.43	1.30	1.32
20470	13.97	10.65	10.67	3.97	1.25	1.26	7.86	1.41	1.42	9.44	1.31	1.32
20500	13.97	10.65	10.66	3.97	1.25	1.26	7.87	1.42	1.43	9.44	1.31	1.32
20530	13.98	10.66	10.67	3.98	1.26	1.27	7.88	1.43	1.44	9.45	1.31	1.32
20560	13.99	10.67	10.67	3.98	1.26	1.26	7.89	1.44	1.45	9.45	1.32	1.32
20590	13.98	10.66	10.66	3.98	1.26	1.26	7.90	1.45	1.45	9.46	1.33	1.33
20620	13.98	10.66	10.66	3.99	1.27	1.27	7.90	1.45	1.45	9.46	1.33	1.33
20650	13.97	10.65	10.65	3.99	1.27	1.27	7.91	1.46	1.46	9.47	1.34	1.34
20680	13.98	10.66	10.66	3.99	1.27	1.27	7.90	1.45	1.45	9.48	1.35	1.34
20710	13.99	10.67	10.67	3.99	1.27	1.27	7.91	1.46	1.45	9.48	1.35	1.35
20740	14.02	10.70	10.69	4.00	1.28	1.28	7.92	1.47	1.46	9.48	1.35	1.34
20770	14.02	10.70	10.69	3.99	1.27	1.27	7.91	1.46	1.45	9.46	1.33	1.33
20800	14.03	10.71	10.70	4.00	1.28	1.28	7.91	1.46	1.45	9.49	1.36	1.36
20830	14.02	10.70	10.69	4.00	1.28	1.28	7.90	1.45	1.45	9.49	1.36	1.35
20860	14.01	10.69	10.68	3.99	1.27	1.27	7.91	1.46	1.45	9.49	1.36	1.35
20890	14.02	10.70	10.69	4.01	1.29	1.29	7.91	1.46	1.46	9.54	1.41	1.40
20920	14.02	10.70	10.69	4.00	1.28	1.28	7.91	1.46	1.45	9.50	1.37	1.36
20950	14.02	10.70	10.69	4.00	1.28	1.28	7.90	1.45	1.44	9.46	1.33	1.32
20980	14.02	10.70	10.70	4.00	1.28	1.28	7.89	1.44	1.44	9.50	1.37	1.37
21010	14.00	10.68	10.68	4.00	1.28	1.28	7.89	1.44	1.44	9.50	1.37	1.36
21040	14.00	10.68	10.68	4.01	1.29	1.29	7.88	1.43	1.43	9.49	1.36	1.36
21070	14.01	10.69	10.69	4.01	1.29	1.29	7.88	1.43	1.43	9.50	1.37	1.37
21100	14.00	10.68	10.68	4.01	1.29	1.29	7.86	1.41	1.41	9.50	1.37	1.37
21130	13.99	10.67	10.67	4.01	1.29	1.29	7.87	1.42	1.42	9.49	1.36	1.36
21160	13.98	10.66	10.66	4.01	1.29	1.29	7.87	1.42	1.42	9.48	1.35	1.36
21190	14.00	10.68	10.68	4.01	1.29	1.29	7.86	1.41	1.41	9.50	1.37	1.37
21220	13.99	10.67	10.68	4.01	1.29	1.29	7.86	1.41	1.41	9.50	1.37	1.38
21250	14.02	10.70	10.70	4.01	1.29	1.29	7.87	1.42	1.43	9.50	1.37	1.38
21280	14.00	10.68	10.68	4.01	1.29	1.29	7.88	1.43	1.44	9.50	1.37	1.37
21310	14.01	10.69	10.69	4.01	1.29	1.29	7.90	1.45	1.45	9.50	1.37	1.37
21340	14.01	10.69	10.69	4.01	1.29	1.29	7.89	1.44	1.44	9.50	1.37	1.36
21370	14.02	10.70	10.70	4.02	1.30	1.30	7.91	1.46	1.45	9.50	1.37	1.37
21400	14.03	10.71	10.70	4.01	1.29	1.29	7.91	1.46	1.45	9.50	1.37	1.36
21430	14.04	10.72	10.71	4.01	1.29	1.29	7.92	1.47	1.46	9.50	1.37	1.36
21460	14.04	10.72	10.71	4.01	1.29	1.29	7.92	1.47	1.46	9.50	1.37	1.36
21490	14.04	10.72	10.71	4.02	1.30	1.30	7.92	1.47	1.46	9.50	1.37	1.36
21520	14.04	10.72	10.71	4.01	1.29	1.29	7.92	1.47	1.46	9.50	1.37	1.36

21550	14.04	10.72	10.71	4.01	1.29	1.29	7.92	1.47	1.46	9.51	1.38	1.37
21580	14.03	10.71	10.70	4.01	1.29	1.29	7.91	1.46	1.45	9.50	1.37	1.36
21610	14.04	10.72	10.71	4.01	1.29	1.29	7.90	1.45	1.44	9.51	1.38	1.37
21640	14.04	10.72	10.71	4.01	1.29	1.29	7.90	1.45	1.44	9.50	1.37	1.37
21670	14.04	10.72	10.72	4.01	1.29	1.29	7.89	1.44	1.44	9.50	1.37	1.37
21700	14.02	10.70	10.70	4.01	1.29	1.29	7.88	1.43	1.43	9.51	1.38	1.38
21730	14.02	10.70	10.70	4.00	1.28	1.28	7.86	1.41	1.41	9.50	1.37	1.38
21760	14.05	10.73	10.73	4.01	1.29	1.29	7.86	1.41	1.41	9.50	1.37	1.38
21790	14.05	10.73	10.73	4.00	1.28	1.28	7.86	1.41	1.41	9.50	1.37	1.38
21820	14.03	10.71	10.71	4.01	1.29	1.29	7.86	1.41	1.41	9.50	1.37	1.38
21850	14.03	10.71	10.72	4.01	1.29	1.29	7.85	1.40	1.41	9.51	1.38	1.39
21880	14.06	10.74	10.74	4.01	1.29	1.29	7.96	1.51	1.52	9.51	1.38	1.38
21910	14.03	10.71	10.71	4.01	1.29	1.29	7.97	1.52	1.52	9.51	1.38	1.38
21940	14.05	10.73	10.73	4.01	1.29	1.29	7.97	1.52	1.52	9.51	1.38	1.38
21970	14.06	10.74	10.74	4.01	1.29	1.29	7.97	1.52	1.52	9.51	1.38	1.38
22000	14.04	10.72	10.72	4.01	1.29	1.29	7.97	1.52	1.52	9.52	1.39	1.39
22030	14.06	10.74	10.73	4.01	1.29	1.29	7.99	1.54	1.53	9.52	1.39	1.38
22060	14.07	10.75	10.74	4.02	1.30	1.30	8.00	1.55	1.54	9.52	1.39	1.38
22090	14.06	10.74	10.72	4.02	1.30	1.30	8.02	1.57	1.55	9.53	1.40	1.38
22120	14.06	10.74	10.72	4.02	1.30	1.29	8.02	1.57	1.55	9.52	1.39	1.37
22150	14.08	10.76	10.74	4.03	1.31	1.30	8.03	1.58	1.56	9.52	1.39	1.37
22180	14.08	10.76	10.73	4.03	1.31	1.30	8.04	1.59	1.57	9.54	1.41	1.39
22210	14.09	10.77	10.74	4.03	1.31	1.30	8.04	1.59	1.56	9.54	1.41	1.38
22240	14.11	10.79	10.75	4.03	1.31	1.30	8.06	1.61	1.57	9.55	1.42	1.39
22270	14.10	10.78	10.74	4.04	1.32	1.31	8.06	1.61	1.57	9.55	1.42	1.39
22300	14.08	10.76	10.73	4.04	1.32	1.31	8.05	1.60	1.57	9.55	1.42	1.39
22330	14.03	10.71	10.68	4.04	1.32	1.31	8.04	1.59	1.56	9.53	1.40	1.38
22360	13.99	10.67	10.65	4.03	1.31	1.30	8.02	1.57	1.55	9.50	1.37	1.35
22390	14.07	10.75	10.72	4.03	1.31	1.30	8.03	1.58	1.55	9.52	1.39	1.37
22420	13.98	10.66	10.64	4.04	1.32	1.31	8.01	1.56	1.54	9.49	1.36	1.34
22450	13.95	10.63	10.61	4.04	1.32	1.31	8.00	1.55	1.53	9.46	1.33	1.31
22480	13.98	10.66	10.64	4.04	1.32	1.31	7.99	1.54	1.52	9.43	1.30	1.28
22510	14.02	10.70	10.68	4.04	1.32	1.31	8.00	1.55	1.53	9.41	1.28	1.26
22540	14.06	10.74	10.72	4.04	1.32	1.31	7.98	1.53	1.51	9.39	1.26	1.25
22570	14.03	10.71	10.69	4.04	1.32	1.31	7.99	1.54	1.52	9.39	1.26	1.25
22600	14.07	10.75	10.73	4.04	1.32	1.31	7.98	1.53	1.51	9.39	1.26	1.25
22630	14.10	10.78	10.76	4.04	1.32	1.31	7.98	1.53	1.52	9.40	1.27	1.25
22660	9.62	6.30	6.28	4.04	1.32	1.31	7.98	1.53	1.51	9.41	1.28	1.26
22690	13.30	9.98	9.96	4.02	1.30	1.29	7.97	1.52	1.50	9.40	1.27	1.26
22720	13.83	10.51	10.49	4.04	1.32	1.31	7.98	1.53	1.51	9.40	1.27	1.25
22750	4.85	1.53	1.50	4.02	1.30	1.29	7.98	1.53	1.51	9.43	1.30	1.28

22780	5.89	2.57	2.55	4.01	1.29	1.28	7.98	1.53	1.51	9.41	1.28	1.25
22810	4.54	1.22	1.20	4.00	1.28	1.27	7.99	1.54	1.51	9.38	1.25	1.23
22840	4.53	1.21	1.18	4.00	1.28	1.27	7.98	1.53	1.50	9.34	1.21	1.18
22870	4.90	1.58	1.55	4.00	1.28	1.27	8.01	1.56	1.53	9.32	1.19	1.16
22900	4.49	1.17	1.13	3.99	1.27	1.26	7.99	1.54	1.50	9.29	1.16	1.12
22930	4.43	1.11	1.08	3.98	1.26	1.25	7.94	1.49	1.46	9.26	1.13	1.10
22960	4.39	1.07	1.04	3.98	1.26	1.25	7.92	1.47	1.43	9.22	1.09	1.06
22990	13.28	9.96	9.92	4.00	1.28	1.27	8.01	1.56	1.53	9.19	1.06	1.02
23020	13.71	10.39	10.36	4.01	1.29	1.28	8.01	1.56	1.53	9.19	1.06	1.02
23050	13.94	10.62	10.58	4.02	1.30	1.29	8.00	1.55	1.52	9.21	1.08	1.05
23080	14.08	10.76	10.73	4.02	1.30	1.29	8.01	1.56	1.53	9.25	1.12	1.09
23110	14.12	10.80	10.78	4.02	1.30	1.29	8.00	1.55	1.52	9.29	1.16	1.13
23140	14.19	10.87	10.84	4.02	1.30	1.29	8.00	1.55	1.52	9.32	1.19	1.16
23170	14.24	10.92	10.89	4.02	1.30	1.29	7.99	1.54	1.52	9.36	1.23	1.21
23200	14.26	10.94	10.91	4.03	1.31	1.30	7.99	1.54	1.52	9.39	1.26	1.24
23230	14.27	10.95	10.93	4.03	1.31	1.30	7.97	1.52	1.50	9.42	1.29	1.27
23260	14.33	11.01	10.99	4.03	1.31	1.30	7.98	1.53	1.50	9.45	1.31	1.29
23290	14.34	11.02	11.00	4.03	1.31	1.30	7.98	1.53	1.51	9.47	1.34	1.32
23320	14.33	11.01	10.99	4.03	1.31	1.30	7.98	1.53	1.51	9.49	1.36	1.34
23350	14.35	11.03	11.01	4.04	1.32	1.31	7.97	1.52	1.50	9.51	1.38	1.36
23380	14.35	11.03	11.00	4.04	1.32	1.31	7.99	1.54	1.51	9.52	1.39	1.37
23410	14.42	11.10	11.06	4.04	1.32	1.31	8.01	1.56	1.53	9.54	1.41	1.38
23440	14.39	11.07	11.03	4.04	1.32	1.31	8.02	1.57	1.53	9.55	1.42	1.39
23470	14.41	11.09	11.05	4.04	1.32	1.31	8.01	1.56	1.53	9.57	1.44	1.40
23500	14.42	11.10	11.06	4.04	1.32	1.31	8.01	1.56	1.53	9.58	1.45	1.42
23530	14.43	11.11	11.07	4.05	1.33	1.32	8.02	1.57	1.54	9.59	1.46	1.43
23560	14.45	11.13	11.10	4.05	1.33	1.32	8.02	1.57	1.53	9.60	1.47	1.43
23590	14.43	11.11	11.08	4.05	1.33	1.32	8.02	1.57	1.53	9.60	1.47	1.43
23620	14.46	11.14	11.10	4.06	1.34	1.32	8.03	1.58	1.54	9.62	1.49	1.45
23650	14.43	11.11	11.08	4.06	1.34	1.32	8.01	1.56	1.53	9.60	1.47	1.44
23680	14.45	11.13	11.10	4.06	1.34	1.32	8.02	1.57	1.54	9.62	1.49	1.46
23710	14.47	11.15	11.12	4.06	1.34	1.33	8.00	1.55	1.52	9.63	1.50	1.46
23740	14.47	11.15	11.12	4.06	1.34	1.33	8.00	1.55	1.52	9.62	1.49	1.46
23770	14.47	11.15	11.12	4.06	1.34	1.33	7.99	1.54	1.51	9.64	1.51	1.48
23800	14.50	11.18	11.15	4.07	1.35	1.34	7.97	1.52	1.49	9.64	1.51	1.48
23830	14.52	11.20	11.17	4.07	1.35	1.34	7.98	1.53	1.50	9.64	1.51	1.48
23860	14.52	11.20	11.17	4.07	1.35	1.34	7.96	1.51	1.48	9.64	1.51	1.48
23890	14.51	11.19	11.17	4.07	1.35	1.34	7.96	1.51	1.48	9.64	1.51	1.48
23920	14.51	11.19	11.17	4.07	1.35	1.34	7.95	1.50	1.48	9.66	1.52	1.50
23950	14.54	11.22	11.20	4.07	1.35	1.34	7.94	1.49	1.47	9.64	1.51	1.49
23980	14.53	11.21	11.19	4.07	1.35	1.34	7.98	1.53	1.51	9.66	1.52	1.51

24010	14.52	11.20	11.18	4.07	1.35	1.34	7.97	1.52	1.50	9.66	1.53	1.51
24040	14.52	11.20	11.18	4.08	1.36	1.35	7.96	1.51	1.49	9.66	1.52	1.51
24070	14.53	11.21	11.19	4.07	1.35	1.34	8.03	1.58	1.57	9.66	1.53	1.52
24100	14.54	11.22	11.20	4.07	1.35	1.34	8.03	1.58	1.56	9.66	1.52	1.51
24130	14.54	11.22	11.20	4.08	1.36	1.35	8.01	1.56	1.55	9.66	1.53	1.52
24160	14.55	11.23	11.21	4.08	1.36	1.35	8.01	1.56	1.55	9.66	1.53	1.52
24190	14.51	11.19	11.18	4.08	1.36	1.35	8.01	1.56	1.55	9.66	1.53	1.52
24220	14.55	11.23	11.21	4.08	1.36	1.35	8.02	1.57	1.55	9.66	1.53	1.51
24250	14.55	11.23	11.21	4.08	1.36	1.35	8.02	1.57	1.56	9.67	1.54	1.52
24280	14.56	11.24	11.22	4.08	1.36	1.35	8.02	1.57	1.56	9.67	1.54	1.52
24310	14.58	11.26	11.24	4.08	1.36	1.35	8.43	1.98	1.96	9.67	1.54	1.52
24340	14.57	11.25	11.23	4.08	1.36	1.35	8.43	1.98	1.96	9.67	1.54	1.52
24370	14.57	11.25	11.23	4.08	1.36	1.35	8.43	1.98	1.96	9.67	1.54	1.52
24400	14.57	11.25	11.23	4.08	1.36	1.35	8.42	1.97	1.95	9.67	1.54	1.52
24430	14.59	11.27	11.25	4.08	1.36	1.35	8.41	1.96	1.94	9.67	1.54	1.52
24460	14.57	11.25	11.23	4.08	1.36	1.35	8.41	1.96	1.94	9.67	1.54	1.52
24490	14.57	11.25	11.23	4.08	1.36	1.35	8.40	1.95	1.93	9.67	1.54	1.53
24520	14.57	11.25	11.23	4.08	1.36	1.35	8.39	1.94	1.92	9.67	1.54	1.53
24550	14.56	11.24	11.22	4.08	1.36	1.35	8.38	1.93	1.92	9.67	1.54	1.53
24580	14.58	11.26	11.24	4.08	1.36	1.35	8.36	1.91	1.90	9.68	1.55	1.54
24610	14.57	11.25	11.24	4.08	1.36	1.36	8.35	1.90	1.89	9.67	1.54	1.54
24640	14.57	11.25	11.24	4.08	1.36	1.36	8.34	1.89	1.88	9.67	1.54	1.54
24670	14.59	11.27	11.27	4.08	1.36	1.36	8.33	1.88	1.88	9.67	1.54	1.54
24700	14.58	11.26	11.26	4.07	1.35	1.35	8.32	1.87	1.87	9.67	1.54	1.54
24730	14.58	11.26	11.26	4.07	1.35	1.35	8.32	1.87	1.87	9.67	1.54	1.54
24760	14.60	11.28	11.28	4.08	1.36	1.36	8.33	1.88	1.87	9.67	1.54	1.54
24790	14.61	11.29	11.29	4.08	1.36	1.36	8.32	1.87	1.87	9.68	1.55	1.55
24820	14.59	11.27	11.27	4.08	1.36	1.36	8.32	1.87	1.87	9.68	1.55	1.55
24850	14.60	11.28	11.28	4.08	1.36	1.36	8.34	1.89	1.88	9.68	1.55	1.55
24880	14.59	11.27	11.27	4.08	1.36	1.36	8.33	1.88	1.88	9.69	1.56	1.55
24910	14.60	11.28	11.28	4.08	1.36	1.36	8.51	2.06	2.05	9.69	1.56	1.55
24940	14.59	11.27	11.27	4.08	1.36	1.36	8.50	2.05	2.05	9.69	1.56	1.55
24970	14.61	11.29	11.29	4.09	1.37	1.36	8.50	2.05	2.04	9.69	1.56	1.55
25000	14.59	11.27	11.26	4.08	1.36	1.35	8.51	2.06	2.05	9.69	1.56	1.55
25030	14.60	11.28	11.27	4.09	1.37	1.36	8.50	2.05	2.04	9.69	1.56	1.55
25060	14.62	11.30	11.29	4.09	1.37	1.36	8.51	2.06	2.04	9.69	1.56	1.55
25090	14.64	11.32	11.31	4.09	1.37	1.36	8.51	2.06	2.04	9.69	1.56	1.55
25120	14.61	11.29	11.28	4.09	1.37	1.36	8.50	2.05	2.04	9.68	1.55	1.54
25150	14.63	11.31	11.31	4.09	1.37	1.36	8.48	2.03	2.03	9.70	1.57	1.56
25180	14.64	11.32	11.32	4.09	1.37	1.36	8.49	2.04	2.03	9.70	1.57	1.56
25210	14.63	11.31	11.31	4.09	1.37	1.37	8.46	2.01	2.01	9.68	1.55	1.55

25240	14.67	11.35	11.35	4.11	1.39	1.39	8.46	2.01	2.01	9.73	1.60	1.60
25270	14.65	11.33	11.33	4.10	1.38	1.38	8.46	2.01	2.01	9.71	1.58	1.58
25300	14.64	11.32	11.32	4.10	1.38	1.38	8.45	2.00	2.00	9.70	1.57	1.57
25330	14.60	11.28	11.29	4.10	1.38	1.38	8.45	2.00	2.00	9.66	1.52	1.53
25360	14.61	11.29	11.30	4.10	1.38	1.38	8.43	1.98	1.99	9.64	1.51	1.52
25390	14.61	11.29	11.30	4.10	1.38	1.38	8.42	1.97	1.98	9.61	1.48	1.49
25420	14.60	11.28	11.29	4.10	1.38	1.38	8.41	1.96	1.97	9.60	1.47	1.48
25450	14.60	11.28	11.29	4.10	1.38	1.38	8.42	1.97	1.98	9.59	1.46	1.46
25480	14.59	11.27	11.28	4.10	1.38	1.38	8.41	1.96	1.97	9.56	1.43	1.44
25510	14.60	11.28	11.30	4.10	1.38	1.38	8.41	1.96	1.97	9.55	1.42	1.43
25540	14.60	11.28	11.30	4.11	1.39	1.39	8.39	1.94	1.96	9.55	1.42	1.44
25570	14.64	11.32	11.34	4.11	1.39	1.39	8.38	1.93	1.94	9.57	1.44	1.46
25600	14.63	11.31	11.33	4.11	1.39	1.39	8.39	1.94	1.95	9.57	1.44	1.46
25630	14.65	11.33	11.35	4.11	1.39	1.39	8.40	1.95	1.97	9.59	1.46	1.48
25660	14.66	11.34	11.35	4.11	1.39	1.39	8.39	1.94	1.96	9.61	1.48	1.49
25690	14.65	11.33	11.34	4.11	1.39	1.39	8.42	1.97	1.98	9.62	1.49	1.50
25720	14.68	11.36	11.37	4.11	1.39	1.39	8.42	1.97	1.98	9.64	1.51	1.51
25750	14.68	11.36	11.37	4.11	1.39	1.39	8.42	1.97	1.98	9.64	1.51	1.52
25780	14.68	11.36	11.37	4.11	1.39	1.39	8.42	1.97	1.98	9.66	1.52	1.53
25810	14.69	11.37	11.38	4.11	1.39	1.39	8.41	1.96	1.97	9.66	1.53	1.54
25840	14.70	11.38	11.39	4.11	1.39	1.39	8.40	1.95	1.97	9.67	1.54	1.55
25870	14.69	11.37	11.38	4.11	1.39	1.39	8.40	1.95	1.96	9.67	1.54	1.56
25900	14.68	11.36	11.38	4.11	1.39	1.39	8.39	1.94	1.95	9.68	1.55	1.57
25930	14.67	11.35	11.37	4.11	1.39	1.39	8.38	1.93	1.94	9.69	1.56	1.58
25960	14.71	11.39	11.41	4.11	1.39	1.39	8.37	1.92	1.94	9.69	1.56	1.58
25990	14.68	11.36	11.38	4.11	1.39	1.40	8.36	1.91	1.93	9.69	1.56	1.59
26020	14.69	11.37	11.39	4.11	1.39	1.40	8.36	1.91	1.93	9.69	1.56	1.59
26050	14.70	11.38	11.41	4.10	1.38	1.39	8.34	1.89	1.92	9.69	1.56	1.59
26080	14.71	11.39	11.42	4.10	1.38	1.39	8.33	1.88	1.91	9.70	1.57	1.60
26110	14.70	11.38	11.41	4.10	1.38	1.39	8.33	1.88	1.91	9.70	1.57	1.60
26140	14.71	11.39	11.42	4.10	1.38	1.39	8.33	1.88	1.91	9.71	1.58	1.61
26170	14.69	11.37	11.40	4.10	1.38	1.39	8.52	2.07	2.11	9.71	1.58	1.61
26200	14.72	11.40	11.43	4.10	1.38	1.39	8.52	2.07	2.11	9.71	1.58	1.61
26230	14.71	11.39	11.41	4.11	1.39	1.40	8.53	2.08	2.11	9.71	1.58	1.61
26260	14.71	11.39	11.41	4.11	1.39	1.39	8.55	2.10	2.12	9.72	1.59	1.61
26290	14.75	11.43	11.45	4.11	1.39	1.39	8.55	2.10	2.12	9.72	1.59	1.61
26320	14.73	11.41	11.42	4.11	1.39	1.39	8.56	2.11	2.13	9.73	1.60	1.61
26350	14.74	11.42	11.43	4.11	1.39	1.39	8.57	2.12	2.13	9.73	1.60	1.61
26380	14.73	11.41	11.42	4.11	1.39	1.39	8.56	2.11	2.13	9.73	1.60	1.62
26410	14.74	11.42	11.44	4.12	1.40	1.40	8.55	2.10	2.12	9.73	1.60	1.62
26440	14.74	11.42	11.43	4.12	1.40	1.40	8.56	2.11	2.12	9.73	1.60	1.62

26470	14.75	11.43	11.44	4.12	1.40	1.40	8.54	2.09	2.11	9.74	1.61	1.63
26500	14.75	11.43	11.44	4.13	1.41	1.41	8.54	2.09	2.11	9.73	1.60	1.62
26530	14.74	11.42	11.43	4.12	1.40	1.40	8.53	2.08	2.10	9.73	1.60	1.62
26560	14.76	11.44	11.46	4.13	1.41	1.41	8.52	2.07	2.09	9.75	1.62	1.64
26590	14.77	11.45	11.48	4.13	1.41	1.41	8.52	2.07	2.09	9.76	1.63	1.66
26620	14.75	11.43	11.46	4.13	1.41	1.41	8.52	2.07	2.09	9.73	1.60	1.62
26650	14.75	11.43	11.46	4.12	1.40	1.41	8.49	2.04	2.07	9.71	1.58	1.60
26680	14.74	11.42	11.44	4.13	1.41	1.42	8.49	2.04	2.07	9.73	1.60	1.63
26710	14.77	11.45	11.48	4.13	1.41	1.42	8.48	2.03	2.06	9.76	1.63	1.66
26740	14.78	11.46	11.50	4.13	1.41	1.43	8.47	2.02	2.05	9.75	1.62	1.65
26770	14.77	11.45	11.49	4.13	1.41	1.42	8.46	2.01	2.04	9.76	1.63	1.67
26800	14.75	11.43	11.47	4.13	1.41	1.42	8.45	2.00	2.03	9.75	1.62	1.66
26830	14.76	11.44	11.48	4.13	1.41	1.43	8.43	1.98	2.02	9.74	1.61	1.65
26860	14.76	11.44	11.49	4.13	1.41	1.43	8.42	1.97	2.01	9.74	1.61	1.65
26890	14.77	11.45	11.50	4.13	1.41	1.43	8.42	1.97	2.01	9.75	1.62	1.66
26920	14.79	11.47	11.52	4.13	1.41	1.43	8.42	1.97	2.01	9.75	1.62	1.66
26950	14.79	11.47	11.52	4.13	1.41	1.43	8.40	1.95	2.00	9.75	1.62	1.67
26980	14.69	11.37	11.42	4.13	1.41	1.43	8.40	1.95	2.00	9.75	1.62	1.67
27010	14.75	11.43	11.48	4.13	1.41	1.43	8.39	1.94	1.99	9.75	1.62	1.67
27040	14.77	11.45	11.50	4.13	1.41	1.43	8.41	1.96	2.00	9.75	1.62	1.67
27070	14.77	11.45	11.50	4.13	1.41	1.43	8.41	1.96	2.00	9.75	1.62	1.66
27100	14.79	11.47	11.51	4.13	1.41	1.43	8.43	1.98	2.01	9.75	1.62	1.66
27130	14.80	11.48	11.52	4.13	1.41	1.43	8.43	1.98	2.02	9.76	1.63	1.67
27160	14.79	11.47	11.51	4.13	1.41	1.43	8.44	1.99	2.02	9.76	1.63	1.66
27190	14.81	11.49	11.53	4.13	1.41	1.43	8.44	1.99	2.03	9.76	1.63	1.66
27220	14.81	11.49	11.53	4.14	1.42	1.44	8.44	1.99	2.02	9.76	1.63	1.66
27250	14.79	11.47	11.51	4.13	1.41	1.43	8.43	1.98	2.01	9.76	1.63	1.67
27280	14.79	11.47	11.51	4.13	1.41	1.43	8.44	1.99	2.02	9.76	1.63	1.67
27310	14.80	11.48	11.51	4.13	1.41	1.43	8.44	1.99	2.02	9.76	1.63	1.66
27340	14.79	11.47	11.50	4.13	1.41	1.43	8.44	1.99	2.02	9.76	1.63	1.66
27370	14.81	11.49	11.52	4.13	1.41	1.43	8.44	1.99	2.02	9.76	1.63	1.66
27400	14.80	11.48	11.52	4.13	1.41	1.43	8.44	1.99	2.02	9.76	1.63	1.67
27430	14.80	11.48	11.52	4.13	1.41	1.43	8.43	1.98	2.01	9.76	1.63	1.67
27460	14.81	11.49	11.53	4.13	1.41	1.43	8.40	1.95	1.99	9.76	1.63	1.67
27490	14.82	11.50	11.54	4.13	1.41	1.43	8.40	1.95	1.99	9.76	1.63	1.67
27520	14.82	11.50	11.54	4.13	1.41	1.43	8.40	1.95	1.99	9.76	1.63	1.67
27550	14.81	11.49	11.53	4.13	1.41	1.43	8.40	1.95	1.99	9.76	1.63	1.67
27580	14.81	11.49	11.53	4.13	1.41	1.43	8.40	1.95	1.99	9.76	1.63	1.67
27610	14.82	11.50	11.54	4.13	1.41	1.43	8.40	1.95	1.99	9.77	1.64	1.68
27640	14.82	11.50	11.54	4.13	1.41	1.43	8.41	1.96	2.00	9.77	1.64	1.68
27670	14.81	11.49	11.52	4.13	1.41	1.43	8.42	1.97	2.00	9.77	1.64	1.67

27700	14.81	11.49	11.52	4.14	1.42	1.44	8.43	1.98	2.01	9.77	1.64	1.67
27730	14.83	11.51	11.54	4.14	1.42	1.44	8.43	1.98	2.01	9.78	1.65	1.68
27760	14.82	11.50	11.53	4.13	1.41	1.43	8.42	1.97	2.00	9.78	1.65	1.68
27790	14.83	11.51	11.54	4.14	1.42	1.44	8.43	1.98	2.01	9.78	1.65	1.68
27820	14.86	11.54	11.56	4.14	1.42	1.43	8.44	1.99	2.01	9.78	1.65	1.67
27850	14.83	11.51	11.54	4.14	1.42	1.43	8.46	2.01	2.03	9.78	1.65	1.68
27880	14.86	11.54	11.56	4.15	1.43	1.44	8.45	2.00	2.02	9.78	1.65	1.67
27910	14.84	11.52	11.54	4.15	1.43	1.44	8.45	2.00	2.02	9.79	1.66	1.68
27940	14.87	11.55	11.57	4.15	1.43	1.44	8.46	2.01	2.03	9.79	1.66	1.68
27970	13.87	10.55	10.56	9.36	6.64	6.65	8.46	2.01	2.03	9.79	1.66	1.67
28000	13.82	10.50	10.52	10.46	7.74	7.75	8.46	2.01	2.03	9.80	1.67	1.68
28030	13.86	10.54	10.56	10.72	8.00	8.00	8.46	2.01	2.02	9.78	1.65	1.67
28060	13.84	10.52	10.54	10.91	8.19	8.19	8.44	1.99	2.01	9.78	1.65	1.67
28090	13.86	10.54	10.56	11.05	8.33	8.33	8.45	2.00	2.01	9.78	1.65	1.66
28120	13.85	10.53	10.55	11.16	8.44	8.45	8.45	2.00	2.01	9.78	1.65	1.66
28150	13.85	10.53	10.55	11.27	8.55	8.56	8.43	1.98	2.00	9.78	1.65	1.67
28180	13.84	10.52	10.54	11.36	8.64	8.65	8.43	1.98	2.00	9.76	1.63	1.66
28210	13.86	10.54	10.56	11.42	8.70	8.70	8.44	1.99	2.01	9.77	1.64	1.66
28240	13.90	10.58	10.60	11.49	8.77	8.78	8.42	1.97	1.99	9.76	1.63	1.65
28270	13.90	10.58	10.60	11.55	8.83	8.84	8.41	1.96	1.99	9.76	1.63	1.66
28300	13.88	10.56	10.58	11.58	8.86	8.87	8.41	1.96	1.98	9.76	1.63	1.65
28330	13.88	10.56	10.59	11.64	8.92	8.93	8.40	1.95	1.98	9.76	1.63	1.65
28360	13.89	10.57	10.60	11.69	8.97	8.98	8.39	1.94	1.97	9.76	1.63	1.65
28390	13.88	10.56	10.59	11.72	9.00	9.01	8.39	1.94	1.97	9.76	1.63	1.66
28420	13.91	10.59	10.61	11.77	9.05	9.06	8.39	1.94	1.97	9.75	1.62	1.65
28450	13.93	10.61	10.63	11.79	9.07	9.08	8.40	1.95	1.98	9.75	1.62	1.64
28480	13.93	10.61	10.63	11.82	9.10	9.11	8.61	2.16	2.19	9.76	1.63	1.65
28510	13.94	10.62	10.64	11.84	9.12	9.13	8.62	2.17	2.19	9.76	1.63	1.65
28540	13.89	10.57	10.59	11.86	9.14	9.15	8.63	2.18	2.20	9.75	1.62	1.64
28570	13.94	10.62	10.63	11.90	9.18	9.18	8.64	2.19	2.20	9.75	1.62	1.64
28600	13.94	10.62	10.63	11.92	9.20	9.20	8.66	2.21	2.22	9.76	1.63	1.64
28630	13.94	10.62	10.63	11.94	9.22	9.22	8.65	2.20	2.21	9.75	1.62	1.63
28660	13.94	10.62	10.64	11.95	9.23	9.24	8.65	2.20	2.21	9.76	1.63	1.64
28690	13.93	10.61	10.62	11.97	9.25	9.26	8.64	2.19	2.20	9.76	1.63	1.64
28720	13.93	10.61	10.62	12.00	9.28	9.29	8.65	2.20	2.21	9.76	1.63	1.64
28750	13.95	10.63	10.65	12.00	9.28	9.29	8.63	2.18	2.19	9.75	1.62	1.63
28780	13.94	10.62	10.63	12.02	9.30	9.30	8.64	2.19	2.20	9.76	1.63	1.64
28810	13.95	10.63	10.65	12.03	9.31	9.31	8.62	2.17	2.19	9.76	1.63	1.64
28840	13.94	10.62	10.64	12.03	9.31	9.32	8.60	2.15	2.17	9.75	1.62	1.64
28870	13.94	10.62	10.64	12.05	9.33	9.33	8.59	2.14	2.16	9.75	1.62	1.64
28900	13.95	10.63	10.66	12.06	9.34	9.35	8.58	2.13	2.15	9.75	1.62	1.64

28930	13.94	10.62	10.64	12.07	9.35	9.36	8.57	2.12	2.14	9.75	1.62	1.64
28960	13.94	10.62	10.65	12.08	9.36	9.37	8.57	2.12	2.14	9.75	1.62	1.65
28990	13.94	10.62	10.65	12.08	9.36	9.37	8.55	2.10	2.13	9.75	1.62	1.65
29020	13.95	10.63	10.66	12.10	9.38	9.39	8.55	2.10	2.13	9.75	1.62	1.65
29050	13.95	10.63	10.66	12.10	9.38	9.39	8.55	2.10	2.12	9.75	1.62	1.65
29080	13.96	10.64	10.67	12.11	9.39	9.40	8.56	2.11	2.14	9.75	1.62	1.64
29110	13.94	10.62	10.65	12.12	9.40	9.41	8.55	2.10	2.12	9.75	1.62	1.64
29140	13.95	10.63	10.66	12.13	9.41	9.42	8.55	2.10	2.12	9.75	1.62	1.64
29170	13.97	10.65	10.68	12.14	9.42	9.43	8.54	2.09	2.11	9.76	1.63	1.65
29200	13.99	10.67	10.70	12.13	9.41	9.42	8.54	2.09	2.12	9.76	1.63	1.65
29230	13.97	10.65	10.67	12.14	9.42	9.43	8.55	2.10	2.12	9.76	1.63	1.65
29260	13.99	10.67	10.69	12.16	9.44	9.45	8.55	2.10	2.12	9.78	1.65	1.66
29290	13.99	10.67	10.69	12.16	9.44	9.45	8.55	2.10	2.12	9.76	1.63	1.64
29320	14.01	10.69	10.71	12.18	9.46	9.47	8.56	2.11	2.12	9.79	1.66	1.67
29350	13.98	10.66	10.68	12.17	9.45	9.46	8.54	2.09	2.11	9.76	1.63	1.64
29380	14.01	10.69	10.71	12.18	9.46	9.47	8.55	2.10	2.11	9.76	1.63	1.65
29410	14.00	10.68	10.70	12.17	9.45	9.46	8.54	2.09	2.11	9.74	1.61	1.62
29440	14.03	10.71	10.72	12.18	9.46	9.47	8.55	2.10	2.11	9.76	1.63	1.64
29470	14.02	10.70	10.72	12.17	9.45	9.46	8.53	2.08	2.10	9.79	1.66	1.67
29500	14.01	10.69	10.71	12.19	9.47	9.48	8.54	2.09	2.11	9.76	1.63	1.65
29530	14.01	10.69	10.71	12.18	9.46	9.47	8.52	2.07	2.09	9.78	1.65	1.67
29560	14.03	10.71	10.73	12.18	9.46	9.47	8.51	2.06	2.08	9.77	1.64	1.66
29590	14.00	10.68	10.71	12.22	9.50	9.51	8.48	2.03	2.06	9.74	1.61	1.64
29620	14.02	10.70	10.72	12.22	9.50	9.51	8.48	2.03	2.06	9.76	1.63	1.66
29650	14.01	10.69	10.72	12.21	9.49	9.50	8.45	2.00	2.03	9.76	1.63	1.67
29680	14.02	10.70	10.74	12.21	9.49	9.50	8.43	1.98	2.02	9.76	1.63	1.67
29710	14.02	10.70	10.74	12.21	9.49	9.50	8.41	1.96	2.00	9.76	1.63	1.68
29740	14.02	10.70	10.75	12.21	9.49	9.51	8.40	1.95	1.99	9.76	1.63	1.67
29770	14.03	10.71	10.76	12.20	9.48	9.50	8.39	1.94	1.99	9.76	1.63	1.67
29800	14.02	10.70	10.75	12.19	9.47	9.49	8.55	2.10	2.15	9.76	1.63	1.68
29830	14.04	10.72	10.76	12.21	9.49	9.50	8.59	2.14	2.18	9.76	1.63	1.66
29860	14.06	10.74	10.77	12.20	9.48	9.49	8.59	2.14	2.18	9.75	1.62	1.65
29890	14.05	10.73	10.77	12.20	9.48	9.49	8.56	2.11	2.15	9.74	1.61	1.65
29920	14.05	10.73	10.78	12.20	9.48	9.50	8.51	2.06	2.11	9.73	1.60	1.65
29950	14.02	10.70	10.75	12.20	9.48	9.50	8.52	2.07	2.12	9.74	1.61	1.66
29980	14.04	10.72	10.77	12.19	9.47	9.49	8.51	2.06	2.11	9.74	1.61	1.66
30010	14.04	10.72	10.77	12.19	9.47	9.49	8.53	2.08	2.13	9.73	1.60	1.65
30040	14.06	10.74	10.79	12.19	9.47	9.49	8.51	2.06	2.11	9.73	1.60	1.65
30070	14.05	10.73	10.77	12.19	9.47	9.49	8.50	2.05	2.10	9.73	1.60	1.65
30100	14.06	10.74	10.78	12.19	9.47	9.49	8.51	2.06	2.10	9.73	1.60	1.65
30130	14.03	10.71	10.76	12.20	9.48	9.50	8.51	2.06	2.11	9.73	1.60	1.65

30160	14.05	10.73	10.78	12.19	9.47	9.49	8.46	2.01	2.07	9.73	1.60	1.66
30190	14.06	10.74	10.79	12.19	9.47	9.49	8.46	2.01	2.07	9.73	1.60	1.65
30220	14.06	10.74	10.79	12.19	9.47	9.49	8.44	1.99	2.05	9.73	1.60	1.65
30250	14.02	10.70	10.76	12.19	9.47	9.49	8.43	1.98	2.04	9.72	1.59	1.65
30280	14.05	10.73	10.79	12.18	9.46	9.48	8.41	1.96	2.02	9.72	1.59	1.65
30310	14.02	10.70	10.77	12.19	9.47	9.50	8.40	1.95	2.02	9.72	1.59	1.66
30340	14.04	10.72	10.79	12.19	9.47	9.50	8.37	1.92	2.00	9.72	1.59	1.66
30370	14.02	10.70	10.77	12.18	9.46	9.49	8.37	1.92	1.99	9.71	1.58	1.65
30400	14.05	10.73	10.80	12.18	9.46	9.49	8.60	2.15	2.22	9.71	1.58	1.66
30430	14.03	10.71	10.79	12.18	9.46	9.49	8.59	2.14	2.21	9.71	1.58	1.66
30460	14.05	10.73	10.81	12.18	9.46	9.49	8.58	2.13	2.21	9.71	1.58	1.66
30490	14.05	10.73	10.81	12.18	9.46	9.49	8.55	2.10	2.19	9.71	1.58	1.66
30520	14.05	10.73	10.82	12.17	9.45	9.48	8.53	2.08	2.17	9.71	1.58	1.67
30550	14.04	10.72	10.81	12.17	9.45	9.48	8.53	2.08	2.17	9.70	1.57	1.66
30580	14.06	10.74	10.82	12.16	9.44	9.47	8.54	2.09	2.17	9.71	1.58	1.66
30610	14.06	10.74	10.82	12.17	9.45	9.48	8.55	2.10	2.18	9.71	1.58	1.66
30640	14.06	10.74	10.81	12.15	9.43	9.46	8.55	2.10	2.18	9.71	1.58	1.66
30670	14.07	10.75	10.82	12.15	9.43	9.46	8.55	2.10	2.17	9.71	1.58	1.65
30700	14.06	10.74	10.81	12.15	9.43	9.46	8.54	2.09	2.16	9.71	1.58	1.66
30730	14.08	10.76	10.83	12.15	9.43	9.46	8.53	2.08	2.16	9.72	1.59	1.67
30760	14.07	10.75	10.82	12.15	9.43	9.46	8.54	2.09	2.16	9.71	1.58	1.66
30790	14.06	10.74	10.81	12.15	9.43	9.46	8.54	2.09	2.16	9.73	1.60	1.67
30820	14.05	10.73	10.80	12.15	9.43	9.46	8.55	2.10	2.17	9.73	1.60	1.66
30850	14.08	10.76	10.82	12.15	9.43	9.46	8.54	2.09	2.16	9.72	1.59	1.66
30880	14.09	10.77	10.83	12.15	9.43	9.46	8.54	2.09	2.16	9.73	1.60	1.67
30910	14.10	10.78	10.84	12.15	9.43	9.46	8.53	2.08	2.15	9.73	1.60	1.67
30940	14.09	10.77	10.84	12.14	9.42	9.45	8.54	2.09	2.16	9.72	1.59	1.66
30970	14.08	10.76	10.83	12.15	9.43	9.46	8.52	2.07	2.14	9.72	1.59	1.66
31000	14.07	10.75	10.82	12.14	9.42	9.45	8.52	2.07	2.14	9.73	1.60	1.67
31030	14.08	10.76	10.83	12.14	9.42	9.45	8.51	2.06	2.13	9.73	1.60	1.66
31060	14.10	10.78	10.84	12.14	9.42	9.45	8.52	2.07	2.14	9.74	1.61	1.68
31090	14.08	10.76	10.83	12.13	9.41	9.44	8.50	2.05	2.12	9.73	1.60	1.67
31120	14.11	10.79	10.86	12.13	9.41	9.44	8.49	2.04	2.11	9.74	1.61	1.68
31150	14.11	10.79	10.86	12.13	9.41	9.44	8.50	2.05	2.12	9.74	1.61	1.68
31180	14.12	10.80	10.87	12.12	9.40	9.43	8.49	2.04	2.11	9.74	1.61	1.68
31210	14.13	10.81	10.88	12.13	9.41	9.44	8.50	2.05	2.11	9.73	1.60	1.67
31240	14.12	10.80	10.87	12.11	9.39	9.42	8.50	2.05	2.12	9.74	1.61	1.67
31270	14.11	10.79	10.86	12.11	9.39	9.42	8.51	2.06	2.12	9.74	1.61	1.68
31300	14.13	10.81	10.87	12.11	9.39	9.42	8.51	2.06	2.12	9.74	1.61	1.67
31330	14.14	10.82	10.88	12.10	9.38	9.41	8.51	2.06	2.12	9.75	1.62	1.68
31360	14.15	10.83	10.89	12.10	9.38	9.40	8.51	2.06	2.12	9.75	1.62	1.68

31390	14.13	10.81	10.87	12.10	9.38	9.41	8.53	2.08	2.13	9.76	1.63	1.68
31420	14.14	10.82	10.87	12.10	9.38	9.40	8.53	2.08	2.13	9.76	1.63	1.68
31450	14.16	10.84	10.89	12.09	9.37	9.38	8.54	2.09	2.14	9.76	1.63	1.67
31480	14.15	10.83	10.87	12.10	9.38	9.39	8.55	2.10	2.14	9.76	1.63	1.68
31510	14.16	10.84	10.88	12.09	9.37	9.38	8.57	2.12	2.16	9.76	1.63	1.67
31540	14.13	10.81	10.85	12.09	9.37	9.38	8.59	2.14	2.17	9.77	1.64	1.68
31570	14.17	10.85	10.89	12.09	9.37	9.38	8.56	2.11	2.15	9.77	1.64	1.68
31600	14.14	10.82	10.86	12.07	9.35	9.36	8.56	2.11	2.15	9.77	1.64	1.68
31630	14.17	10.85	10.89	12.07	9.35	9.36	8.54	2.09	2.13	9.77	1.64	1.68
31660	14.15	10.83	10.87	12.07	9.35	9.36	8.55	2.10	2.14	9.78	1.65	1.69
31690	14.16	10.84	10.88	12.06	9.34	9.35	8.52	2.07	2.11	9.78	1.65	1.69
31720	14.15	10.83	10.87	12.06	9.34	9.35	8.51	2.06	2.10	9.78	1.65	1.69
31750	14.16	10.84	10.88	12.07	9.35	9.36	8.50	2.05	2.09	9.78	1.65	1.69
31780	14.19	10.87	10.91	12.06	9.34	9.35	8.51	2.06	2.10	9.78	1.65	1.69
31810	14.19	10.87	10.91	12.06	9.34	9.35	8.51	2.06	2.10	9.77	1.64	1.68
31840	14.19	10.87	10.91	12.05	9.33	9.34	8.49	2.04	2.09	9.78	1.65	1.69
31870	14.19	10.87	10.91	12.05	9.33	9.34	8.50	2.05	2.09	9.78	1.65	1.69
31900	14.19	10.87	10.91	12.05	9.33	9.34	8.49	2.04	2.08	9.78	1.65	1.69
31930	14.18	10.86	10.90	12.04	9.32	9.33	8.48	2.03	2.07	9.78	1.65	1.70
31960	14.20	10.88	10.92	12.04	9.32	9.33	8.48	2.03	2.07	9.78	1.65	1.69
31990	14.22	10.90	10.94	12.04	9.32	9.33	8.49	2.04	2.08	9.78	1.65	1.69
32020	14.19	10.87	10.90	12.03	9.31	9.32	8.51	2.06	2.09	9.79	1.66	1.69
32050	14.21	10.89	10.92	12.02	9.30	9.31	8.50	2.05	2.08	9.79	1.66	1.69
32080	14.20	10.88	10.91	12.01	9.29	9.30	8.52	2.07	2.10	9.79	1.66	1.69
32110	14.21	10.89	10.91	12.01	9.29	9.30	8.53	2.08	2.11	9.80	1.67	1.69
32140	14.20	10.88	10.90	12.01	9.29	9.30	8.74	2.29	2.31	9.80	1.67	1.69
32170	14.23	10.91	10.93	12.01	9.29	9.30	8.72	2.27	2.30	9.80	1.67	1.70
32200	14.21	10.89	10.91	12.00	9.28	9.29	8.72	2.27	2.30	9.81	1.68	1.70
32230	14.24	10.92	10.93	12.00	9.28	9.29	8.74	2.29	2.31	9.81	1.68	1.69
32260	14.22	10.90	10.91	12.00	9.28	9.29	8.74	2.29	2.30	9.82	1.69	1.71
32290	14.22	10.90	10.91	12.00	9.28	9.29	8.72	2.27	2.29	9.81	1.68	1.70
32320	14.21	10.89	10.91	11.99	9.27	9.28	8.71	2.26	2.27	9.83	1.70	1.72
32350	14.21	10.89	10.91	11.99	9.27	9.28	8.71	2.26	2.28	9.83	1.70	1.71
32380	14.21	10.89	10.91	11.98	9.26	9.27	8.70	2.25	2.27	9.82	1.69	1.71
32410	14.19	10.87	10.89	11.98	9.26	9.27	8.68	2.23	2.25	9.82	1.69	1.71
32440	14.20	10.88	10.90	11.97	9.25	9.26	8.67	2.22	2.24	9.83	1.70	1.72
32470	14.20	10.88	10.90	11.97	9.25	9.26	8.65	2.20	2.22	9.82	1.69	1.72
32500	14.22	10.90	10.93	11.96	9.24	9.25	8.64	2.19	2.22	9.83	1.70	1.73
32530	14.18	10.86	10.89	11.95	9.23	9.24	8.63	2.18	2.21	9.81	1.68	1.71
32560	14.19	10.87	10.90	11.95	9.23	9.24	8.62	2.17	2.20	9.81	1.68	1.71
32590	14.20	10.88	10.91	11.95	9.23	9.24	8.61	2.16	2.19	9.83	1.70	1.73

32620	14.22	10.90	10.93	11.95	9.23	9.24	8.60	2.15	2.18	9.83	1.70	1.73
32650	14.24	10.92	10.95	11.95	9.23	9.24	8.60	2.15	2.18	9.82	1.69	1.72
32680	14.23	10.91	10.94	11.95	9.23	9.24	8.61	2.16	2.19	9.82	1.69	1.72
32710	14.22	10.90	10.93	11.94	9.22	9.23	8.61	2.16	2.19	9.83	1.70	1.72
32740	14.25	10.93	10.95	11.94	9.22	9.22	8.61	2.16	2.19	9.82	1.69	1.71
32770	14.25	10.93	10.95	11.93	9.21	9.21	8.62	2.17	2.19	9.83	1.70	1.72
32800	5.43	2.11	2.13	5.65	2.93	2.94	8.62	2.17	2.19	9.83	1.70	1.72
32830	14.00	10.68	10.69	11.94	9.22	9.23	8.66	2.21	2.22	9.81	1.68	1.69
32860	14.09	10.77	10.78	11.95	9.23	9.24	8.65	2.20	2.21	9.80	1.67	1.68
32890	8.56	5.24	5.24	7.37	4.65	4.65	8.65	2.20	2.20	9.81	1.68	1.68
32920	13.83	10.51	10.51	11.91	9.19	9.19	8.65	2.20	2.20	9.80	1.67	1.67
32950	13.99	10.67	10.67	11.93	9.21	9.21	8.65	2.20	2.21	9.79	1.66	1.66
32980	11.23	7.91	7.91	10.96	8.24	8.24	8.63	2.18	2.18	9.80	1.67	1.67
33010	13.91	10.59	10.59	11.91	9.19	9.19	8.66	2.21	2.21	9.78	1.65	1.65
33040	11.92	8.60	8.60	11.30	8.58	8.58	8.62	2.17	2.17	9.78	1.65	1.65
33070	13.84	10.52	10.52	11.89	9.17	9.17	8.64	2.19	2.19	9.76	1.63	1.63
33100	13.46	10.14	10.13	11.80	9.08	9.08	8.63	2.18	2.18	9.75	1.62	1.62
33130	7.30	3.98	3.98	6.37	3.65	3.65	8.62	2.17	2.17	9.75	1.62	1.62
33160	13.64	10.32	10.33	11.84	9.12	9.12	8.61	2.16	2.17	9.73	1.60	1.60
33190	5.27	1.95	1.95	5.52	2.80	2.80	8.58	2.13	2.14	9.74	1.61	1.61
33220	13.68	10.36	10.37	11.82	9.10	9.10	8.59	2.14	2.15	9.72	1.59	1.59
33250	12.45	9.13	9.13	11.43	8.71	8.71	8.57	2.12	2.12	9.72	1.59	1.60
33280	13.69	10.37	10.38	11.80	9.08	9.09	8.57	2.12	2.13	9.71	1.58	1.59
33310	13.28	9.96	9.96	11.65	8.93	8.94	8.56	2.11	2.12	9.71	1.58	1.58
33340	13.68	10.36	10.37	11.78	9.06	9.07	8.56	2.11	2.12	9.71	1.58	1.58
33370	13.26	9.94	9.94	11.61	8.89	8.89	8.56	2.11	2.12	9.71	1.58	1.58
33400	13.66	10.34	10.35	11.75	9.03	9.03	8.58	2.13	2.14	9.71	1.58	1.58
33430	13.42	10.10	10.10	11.60	8.88	8.88	8.56	2.11	2.11	9.71	1.58	1.58
33460	13.65	10.33	10.33	11.71	8.99	8.99	8.59	2.14	2.14	9.71	1.58	1.58
33490	13.60	10.28	10.27	11.68	8.96	8.96	8.59	2.14	2.14	9.71	1.58	1.58
33520	13.68	10.36	10.35	11.68	8.96	8.96	8.61	2.16	2.15	9.73	1.60	1.59
33550	13.75	10.43	10.42	11.71	8.99	8.98	8.60	2.15	2.14	9.74	1.61	1.60
33580	13.78	10.46	10.45	11.70	8.98	8.98	8.62	2.17	2.16	9.76	1.63	1.62
33610	13.78	10.46	10.45	11.70	8.98	8.97	8.60	2.15	2.14	9.78	1.65	1.63
33640	13.79	10.47	10.46	11.68	8.96	8.95	8.60	2.15	2.14	9.80	1.67	1.65
33670	13.80	10.48	10.47	11.67	8.95	8.94	8.61	2.16	2.14	9.80	1.67	1.65
33700	13.82	10.50	10.49	11.66	8.94	8.93	8.59	2.14	2.12	9.81	1.68	1.67
33730	13.87	10.55	10.53	11.66	8.94	8.93	8.59	2.14	2.12	9.84	1.71	1.69
33760	13.86	10.54	10.52	11.63	8.91	8.91	8.58	2.13	2.11	9.83	1.70	1.68
33790	13.86	10.54	10.53	11.63	8.91	8.91	8.58	2.13	2.11	9.84	1.71	1.70
33820	13.82	10.50	10.49	5.68	2.96	2.96	8.56	2.11	2.09	9.84	1.71	1.70

33850	13.83	10.51	10.50	11.63	8.91	8.91	8.53	2.08	2.07	9.86	1.73	1.72
33880	13.88	10.56	10.56	11.74	9.02	9.02	8.52	2.07	2.07	9.85	1.72	1.72
33910	13.90	10.58	10.58	11.72	9.00	9.00	8.51	2.06	2.06	9.86	1.73	1.73
33940	13.90	10.58	10.58	11.72	9.00	9.00	8.51	2.06	2.06	9.85	1.72	1.72
33970	13.93	10.61	10.61	11.70	8.98	8.98	8.48	2.03	2.03	9.87	1.73	1.74
34000	13.90	10.58	10.58	11.70	8.98	8.98	8.46	2.01	2.01	9.87	1.74	1.75
34030	13.92	10.60	10.61	11.69	8.97	8.97	8.44	1.99	2.00	9.87	1.73	1.75
34060	13.94	10.62	10.63	11.68	8.96	8.96	8.44	1.99	2.00	9.88	1.75	1.76
34090	13.92	10.60	10.61	11.68	8.96	8.97	8.42	1.97	1.98	9.87	1.73	1.75
34120	13.94	10.62	10.63	11.66	8.94	8.95	8.41	1.96	1.97	9.87	1.74	1.76
34150	13.95	10.63	10.65	11.67	8.95	8.96	8.41	1.96	1.98	9.88	1.75	1.76
34180	13.94	10.62	10.64	11.65	8.93	8.94	8.42	1.97	1.98	9.88	1.75	1.76
34210	13.96	10.64	10.66	11.64	8.92	8.93	8.41	1.96	1.98	9.88	1.75	1.76
34240	13.96	10.64	10.66	11.63	8.91	8.92	8.41	1.96	1.98	9.88	1.75	1.77
34270	13.97	10.65	10.67	11.63	8.91	8.92	8.42	1.97	1.98	9.88	1.75	1.77
34300	13.96	10.64	10.65	11.62	8.90	8.91	8.41	1.96	1.97	9.88	1.75	1.76
34330	13.98	10.66	10.67	11.61	8.89	8.90	8.43	1.98	1.98	9.89	1.76	1.77
34360	13.96	10.64	10.65	11.61	8.89	8.89	8.43	1.98	1.99	9.89	1.76	1.77
34390	13.98	10.66	10.67	11.61	8.89	8.89	8.44	1.99	1.99	9.89	1.76	1.76
34420	13.97	10.65	10.66	11.60	8.88	8.88	8.43	1.98	1.98	9.90	1.77	1.77
34450	13.98	10.66	10.67	11.59	8.87	8.87	8.42	1.97	1.98	9.89	1.76	1.76
34480	13.96	10.64	10.65	11.57	8.85	8.85	8.43	1.98	1.98	9.90	1.77	1.77
34510	13.97	10.65	10.66	11.57	8.85	8.85	8.42	1.97	1.98	9.90	1.77	1.77
34540	14.00	10.68	10.69	11.56	8.84	8.84	8.40	1.95	1.96	9.90	1.77	1.77
34570	13.99	10.67	10.68	11.55	8.83	8.83	8.40	1.95	1.96	9.90	1.77	1.77
34600	14.00	10.68	10.69	11.55	8.83	8.83	8.39	1.94	1.95	9.90	1.77	1.77
34630	13.99	10.67	10.68	11.54	8.82	8.82	8.38	1.93	1.94	9.90	1.77	1.78
34660	14.01	10.69	10.70	11.54	8.82	8.82	8.38	1.93	1.94	9.90	1.77	1.78
34690	13.99	10.67	10.69	11.53	8.81	8.81	8.36	1.91	1.92	9.90	1.77	1.78
34720	14.01	10.69	10.71	11.52	8.80	8.81	8.34	1.89	1.91	9.90	1.77	1.78
34750	14.00	10.68	10.70	11.51	8.79	8.80	8.33	1.88	1.90	9.90	1.77	1.79
34780	14.02	10.70	10.72	11.51	8.79	8.80	8.33	1.88	1.90	9.90	1.77	1.79
34810	14.00	10.68	10.70	11.51	8.79	8.80	8.34	1.89	1.90	9.90	1.77	1.79
34840	14.01	10.69	10.70	11.50	8.78	8.79	8.35	1.90	1.91	9.90	1.77	1.79
34870	14.03	10.71	10.72	11.48	8.76	8.77	8.36	1.91	1.91	9.90	1.77	1.78
34900	14.01	10.69	10.70	11.49	8.77	8.77	8.36	1.91	1.91	9.90	1.77	1.78
34930	14.06	10.74	10.74	11.48	8.76	8.77	8.35	1.90	1.91	9.91	1.78	1.79
34960	14.05	10.73	10.73	11.48	8.76	8.76	8.36	1.91	1.91	9.92	1.79	1.79
34990	14.05	10.73	10.73	11.48	8.76	8.76	8.37	1.92	1.93	9.92	1.79	1.79
35020	14.02	10.70	10.70	11.47	8.75	8.75	8.36	1.91	1.92	9.92	1.79	1.79
35050	14.04	10.72	10.72	11.46	8.74	8.74	8.37	1.92	1.92	9.92	1.79	1.79

35080	14.04	10.72	10.72	11.46	8.74	8.74	8.37	1.92	1.92	9.93	1.80	1.80
35110	14.04	10.72	10.72	11.45	8.73	8.74	8.37	1.92	1.93	9.93	1.80	1.80
35140	14.07	10.75	10.75	11.45	8.73	8.74	8.35	1.90	1.91	9.94	1.81	1.81
35170	14.08	10.76	10.76	11.44	8.72	8.73	8.34	1.89	1.89	9.94	1.81	1.82
35200	14.08	10.76	10.76	11.44	8.72	8.72	8.33	1.88	1.89	9.95	1.82	1.82
35230	14.07	10.75	10.76	11.44	8.72	8.72	8.31	1.86	1.87	9.94	1.81	1.82
35260	14.06	10.74	10.75	11.42	8.70	8.70	8.29	1.84	1.86	9.88	1.75	1.76
35290	14.07	10.75	10.77	11.43	8.71	8.71	8.28	1.83	1.85	9.96	1.83	1.85
35320	14.07	10.75	10.77	11.42	8.70	8.71	8.26	1.81	1.83	9.92	1.79	1.81
35350	14.09	10.77	10.80	11.42	8.70	8.71	8.23	1.78	1.81	9.94	1.81	1.83
35380	14.08	10.76	10.79	11.41	8.69	8.70	8.22	1.77	1.80	9.93	1.80	1.83
35410	14.05	10.73	10.77	11.40	8.68	8.69	8.20	1.75	1.79	9.94	1.81	1.84
35440	14.04	10.72	10.76	11.39	8.67	8.68	8.55	2.10	2.14	9.93	1.80	1.84
35470	14.07	10.75	10.79	11.38	8.66	8.67	8.76	2.31	2.35	9.94	1.81	1.85
35500	14.05	10.73	10.77	11.38	8.66	8.68	8.74	2.29	2.34	9.92	1.79	1.84
35530	14.08	10.76	10.80	11.37	8.65	8.67	8.71	2.26	2.30	9.93	1.80	1.85
35560	14.09	10.77	10.81	11.36	8.64	8.66	8.71	2.26	2.30	9.93	1.80	1.85
35590	14.10	10.78	10.82	11.36	8.64	8.66	8.69	2.24	2.28	9.92	1.79	1.84
35620	14.09	10.77	10.82	11.44	8.72	8.74	8.69	2.24	2.29	9.93	1.80	1.85
35650	14.11	10.79	10.84	11.41	8.69	8.71	8.66	2.21	2.27	9.92	1.79	1.84
35680	14.10	10.78	10.83	11.39	8.67	8.69	8.65	2.20	2.25	9.92	1.79	1.84
35710	14.10	10.78	10.83	11.37	8.65	8.67	8.66	2.21	2.26	9.93	1.80	1.85
35740	14.12	10.80	10.85	11.36	8.64	8.66	8.67	2.22	2.27	9.93	1.80	1.85
35770	14.10	10.78	10.83	11.33	8.61	8.63	8.66	2.21	2.26	9.94	1.81	1.86
35800	14.11	10.79	10.84	11.32	8.60	8.62	8.66	2.21	2.26	9.94	1.81	1.85
35830	14.12	10.80	10.85	11.32	8.60	8.62	8.68	2.23	2.28	9.94	1.81	1.85
35860	14.13	10.81	10.86	11.30	8.58	8.60	8.67	2.22	2.26	9.94	1.81	1.86
35890	14.11	10.79	10.83	11.30	8.58	8.60	8.65	2.20	2.25	9.94	1.81	1.85
35920	14.14	10.82	10.87	11.28	8.56	8.58	8.65	2.20	2.24	9.94	1.81	1.86
35950	14.14	10.82	10.87	11.28	8.56	8.58	8.64	2.19	2.24	9.94	1.81	1.86
35980	14.11	10.79	10.85	11.27	8.55	8.58	8.61	2.16	2.21	9.94	1.81	1.87
36010	14.12	10.80	10.85	11.27	8.55	8.56	8.62	2.17	2.22	9.94	1.81	1.86
36040	14.14	10.82	10.87	11.26	8.54	8.56	8.61	2.16	2.21	9.94	1.81	1.86
36070	14.12	10.80	10.86	11.26	8.54	8.56	8.60	2.15	2.21	9.94	1.81	1.86
36100	14.14	10.82	10.88	11.25	8.53	8.55	8.59	2.14	2.20	9.94	1.81	1.87
36130	14.13	10.81	10.87	11.24	8.52	8.54	8.56	2.11	2.17	9.94	1.81	1.87
36160	14.12	10.80	10.87	11.24	8.52	8.54	8.55	2.10	2.17	9.94	1.81	1.87
36190	14.13	10.81	10.88	11.23	8.51	8.53	8.55	2.10	2.16	9.94	1.81	1.87
36220	14.12	10.80	10.87	11.22	8.50	8.52	8.55	2.10	2.16	9.94	1.81	1.87
36250	14.16	10.84	10.91	11.21	8.49	8.51	8.55	2.10	2.16	9.94	1.81	1.88
36280	14.16	10.84	10.90	11.20	8.48	8.50	8.56	2.11	2.18	9.94	1.81	1.87

E. time	RW-P2	dd	corr. dd	RW-P5	dd	Corr dd	PS-5	dd	corr. dd	PD-6	dd	corr. dd
36310	14.14	10.82	10.88	11.20	8.48	8.50	8.55	2.10	2.16	9.94	1.81	1.87
36340	14.15	10.83	10.89	11.20	8.48	8.50	8.55	2.10	2.16	9.95	1.82	1.88
36370	14.17	10.85	10.91	11.18	8.46	8.48	8.56	2.11	2.17	9.95	1.82	1.87
36400	14.15	10.83	10.89	11.20	8.48	8.50	8.57	2.12	2.17	9.95	1.82	1.88
36430	14.15	10.83	10.89	11.18	8.46	8.48	8.56	2.11	2.16	9.95	1.82	1.88
36460	14.17	10.85	10.91	11.19	8.47	8.49	8.55	2.10	2.16	9.95	1.82	1.88
36490	14.18	10.86	10.92	11.18	8.46	8.48	8.55	2.10	2.16	9.96	1.83	1.89
36520	14.17	10.85	10.91	11.18	8.46	8.48	8.54	2.09	2.15	9.96	1.83	1.89
36550	14.17	10.85	10.91	11.16	8.44	8.46	8.56	2.11	2.16	9.96	1.83	1.89
36580	14.17	10.85	10.91	11.16	8.44	8.46	8.57	2.12	2.18	9.97	1.84	1.90
36610	14.16	10.84	10.90	11.15	8.43	8.45	8.56	2.11	2.17	9.97	1.84	1.89
36640	14.18	10.86	10.92	11.15	8.43	8.46	8.53	2.08	2.14	9.96	1.83	1.89
36670	14.17	10.85	10.91	11.15	8.43	8.46	8.52	2.07	2.13	9.97	1.84	1.90
36700	14.21	10.89	10.96	11.15	8.43	8.46	8.50	2.05	2.12	10.00	1.87	1.94
36730	14.16	10.84	10.92	11.13	8.41	8.44	8.47	2.02	2.10	9.94	1.81	1.88
36760	14.14	10.82	10.90	11.13	8.41	8.44	8.44	1.99	2.07	9.97	1.84	1.92
36790	14.15	10.83	10.91	11.13	8.41	8.44	8.44	1.99	2.07	9.97	1.84	1.91
36820	14.15	10.83	10.91	11.13	8.41	8.44	8.42	1.97	2.05	9.98	1.85	1.93
36850	14.15	10.83	10.92	11.12	8.40	8.44	8.41	1.96	2.05	9.95	1.82	1.90
36880	14.13	10.81	10.90	11.11	8.39	8.43	8.39	1.94	2.03	9.94	1.81	1.89
36910	14.14	10.82	10.91	11.11	8.39	8.43	8.39	1.94	2.03	9.98	1.85	1.94
36940	14.16	10.84	10.93	11.11	8.39	8.43	8.38	1.93	2.02	9.96	1.83	1.92
36970	14.17	10.85	10.94	11.11	8.39	8.42	8.38	1.93	2.02	9.97	1.84	1.93
37000	14.16	10.84	10.93	11.09	8.37	8.40	8.39	1.94	2.03	9.96	1.83	1.92
37030	14.18	10.86	10.95	11.09	8.37	8.40	8.38	1.93	2.02	9.96	1.83	1.92
37060	14.19	10.87	10.96	11.07	8.35	8.38	8.39	1.94	2.03	9.97	1.84	1.92
37090	14.19	10.87	10.96	11.06	8.34	8.37	8.39	1.94	2.02	9.97	1.84	1.92
37120	14.16	10.84	10.93	11.05	8.33	8.36	8.40	1.95	2.04	9.97	1.84	1.92
37150	14.22	10.90	10.98	11.05	8.33	8.36	8.41	1.96	2.04	9.97	1.84	1.92
37180	14.18	10.86	10.94	11.04	8.32	8.35	8.42	1.97	2.05	9.97	1.84	1.92
37210	14.21	10.89	10.96	11.03	8.31	8.34	8.44	1.99	2.06	9.97	1.84	1.91
37240	14.20	10.88	10.95	11.04	8.32	8.35	8.45	2.00	2.07	9.98	1.85	1.92
37270	14.22	10.90	10.96	11.03	8.31	8.33	8.48	2.03	2.09	9.99	1.85	1.92
37300	14.19	10.87	10.93	11.03	8.31	8.33	8.48	2.03	2.09	9.99	1.85	1.92
37330	14.22	10.90	10.95	11.02	8.30	8.32	8.50	2.05	2.10	9.99	1.85	1.91
37360	14.21	10.89	10.94	11.01	8.29	8.31	8.51	2.06	2.11	9.99	1.85	1.91
37390	14.24	10.92	10.97	11.01	8.29	8.31	8.52	2.07	2.12	9.99	1.85	1.91
37420	14.21	10.89	10.94	11.00	8.28	8.30	8.52	2.07	2.12	9.99	1.85	1.91
37450	14.21	10.89	10.94	10.99	8.27	8.29	8.51	2.06	2.11	9.99	1.85	1.91
37480	14.20	10.88	10.93	10.98	8.26	8.28	8.49	2.04	2.10	9.99	1.85	1.91
37510	14.19	10.87	10.93	10.97	8.25	8.27	8.48	2.03	2.09	9.99	1.85	1.91

37540	14.22	10.90	10.96	10.97	8.25	8.28	8.47	2.02	2.08	9.99	1.85	1.92
37570	14.22	10.90	10.96	10.96	8.24	8.27	8.48	2.03	2.09	9.99	1.85	1.91
37600	14.22	10.90	10.96	10.96	8.24	8.26	8.49	2.04	2.09	9.99	1.85	1.91
37630	14.22	10.90	10.95	10.96	8.24	8.26	8.49	2.04	2.09	9.99	1.85	1.91
37660	14.22	10.90	10.95	10.95	8.23	8.26	8.48	2.03	2.09	9.99	1.86	1.92
37690	14.21	10.89	10.94	10.95	8.23	8.26	8.51	2.06	2.12	9.99	1.86	1.92
37720	14.24	10.92	10.97	10.95	8.23	8.25	8.49	2.04	2.09	9.99	1.86	1.91
37750	14.21	10.89	10.94	10.94	8.22	8.24	8.50	2.05	2.10	9.99	1.86	1.91
37780	14.24	10.92	10.97	10.94	8.22	8.24	8.50	2.05	2.10	10.00	1.87	1.92
37810	14.21	10.89	10.94	10.94	8.22	8.23	8.51	2.06	2.11	10.00	1.87	1.92
37840	14.27	10.95	10.99	10.94	8.22	8.23	8.53	2.08	2.13	10.00	1.87	1.92
37870	14.26	10.94	10.98	10.94	8.22	8.23	8.53	2.08	2.13	10.01	1.88	1.92
37900	14.26	10.94	10.98	10.93	8.21	8.22	8.53	2.08	2.12	10.01	1.88	1.92
37930	14.24	10.92	10.96	10.93	8.21	8.22	8.52	2.07	2.11	10.01	1.88	1.92
37960	14.25	10.93	10.97	10.93	8.21	8.22	8.51	2.06	2.10	10.01	1.88	1.92
37990	14.27	10.95	10.99	10.93	8.21	8.22	8.52	2.07	2.11	10.02	1.89	1.93
38020	5.43	2.11	2.14	5.81	3.09	3.11	8.54	2.09	2.12	10.03	1.90	1.93
38050	5.16	1.84	1.87	5.59	2.87	2.88	8.52	2.07	2.11	9.97	1.84	1.87
38080	5.05	1.73	1.77	5.48	2.76	2.78	8.49	2.04	2.07	9.91	1.78	1.81
38110	5.00	1.68	1.71	5.41	2.69	2.70	8.49	2.04	2.07	9.89	1.76	1.79
38140	4.94	1.62	1.66	5.34	2.62	2.64	8.46	2.01	2.05	9.78	1.65	1.68
38170	4.91	1.59	1.63	5.30	2.58	2.59	8.44	1.99	2.03	9.74	1.61	1.65
38200	13.03	9.71	9.75	10.82	8.10	8.12	8.46	2.01	2.05	9.66	1.52	1.57
38230	13.62	10.30	10.34	10.90	8.18	8.19	8.46	2.01	2.05	9.67	1.54	1.58
38260	5.19	1.87	1.90	10.91	8.19	8.20	8.45	2.00	2.04	9.73	1.60	1.64
38290	5.16	1.84	1.88	10.92	8.20	8.21	8.44	1.99	2.03	9.69	1.56	1.61
38320	5.16	1.84	1.88	10.91	8.19	8.20	8.42	1.97	2.01	9.72	1.59	1.63
38350	5.23	1.91	1.96	10.92	8.20	8.21	8.41	1.96	2.00	9.74	1.61	1.65
38380	5.19	1.87	1.91	10.92	8.20	8.21	8.39	1.94	1.99	9.75	1.62	1.67
38410	5.19	1.87	1.91	10.91	8.19	8.21	8.40	1.95	2.00	9.76	1.63	1.68
38440	5.19	1.87	1.91	10.91	8.19	8.21	8.39	1.94	1.98	9.78	1.65	1.70
38470	5.19	1.87	1.92	10.90	8.18	8.20	8.39	1.94	1.99	9.78	1.65	1.70
38500	5.19	1.87	1.92	10.90	8.18	8.20	8.40	1.95	1.99	9.78	1.65	1.70
38530	5.20	1.88	1.93	10.87	8.15	8.17	8.39	1.94	1.99	9.80	1.67	1.72
38560	5.21	1.89	1.94	10.86	8.14	8.16	8.42	1.97	2.01	9.81	1.68	1.72
38590	5.21	1.89	1.94	10.86	8.14	8.16	8.42	1.97	2.01	9.81	1.68	1.73
38620	5.21	1.89	1.93	10.85	8.13	8.15	8.42	1.97	2.01	9.82	1.69	1.73
38650	5.21	1.89	1.93	10.85	8.13	8.14	8.44	1.99	2.02	9.83	1.70	1.73
38680	5.22	1.90	1.94	10.85	8.13	8.14	8.43	1.98	2.02	9.83	1.70	1.74
38710	5.21	1.89	1.93	10.85	8.13	8.14	8.44	1.99	2.02	9.84	1.71	1.74
38740	5.22	1.90	1.93	10.84	8.12	8.13	8.43	1.98	2.01	9.84	1.71	1.74

38770	5.22	1.90	1.93	10.83	8.11	8.12	8.45	2.00	2.03	9.85	1.72	1.75
38800	5.21	1.89	1.92	10.83	8.11	8.12	8.44	1.99	2.02	9.85	1.72	1.75
38830	5.21	1.89	1.92	10.83	8.11	8.12	8.43	1.98	2.01	9.85	1.72	1.75
38860	5.21	1.89	1.92	10.82	8.10	8.11	8.41	1.96	1.99	9.85	1.72	1.75
38890	5.21	1.89	1.93	10.81	8.09	8.10	8.43	1.98	2.01	9.85	1.72	1.76
38920	5.21	1.89	1.93	10.80	8.08	8.10	8.43	1.98	2.02	9.85	1.72	1.76
38950	5.21	1.89	1.93	10.81	8.09	8.11	8.40	1.95	1.99	9.86	1.73	1.76
38980	5.20	1.88	1.92	10.79	8.07	8.09	8.39	1.94	1.98	9.86	1.73	1.76
39010	5.20	1.88	1.92	10.79	8.07	8.09	8.38	1.93	1.97	9.86	1.73	1.77
39040	5.20	1.88	1.92	10.78	8.06	8.08	8.38	1.93	1.97	9.86	1.73	1.77
39070	5.21	1.89	1.93	10.79	8.07	8.09	8.38	1.93	1.96	9.85	1.72	1.76
39100	5.21	1.89	1.93	10.78	8.06	8.07	8.38	1.93	1.97	9.86	1.73	1.76
39130	5.21	1.89	1.93	10.78	8.06	8.08	8.38	1.93	1.96	9.86	1.73	1.76
39160	5.21	1.89	1.93	10.78	8.06	8.07	8.39	1.94	1.97	9.87	1.73	1.77
39190	5.21	1.89	1.93	10.78	8.06	8.07	8.39	1.94	1.98	9.87	1.73	1.77
39220	5.22	1.90	1.93	10.77	8.05	8.06	8.42	1.97	2.00	9.87	1.73	1.76
39250	5.22	1.90	1.93	10.76	8.04	8.05	8.41	1.96	1.99	9.87	1.74	1.77
39280	5.22	1.90	1.93	10.77	8.05	8.05	8.41	1.96	1.99	9.87	1.74	1.77
39310	5.23	1.91	1.93	10.75	8.03	8.03	8.44	1.99	2.01	9.88	1.75	1.77
39340	5.11	1.79	1.81	5.72	3.00	3.01	8.43	1.98	2.00	9.87	1.74	1.76
39370	5.08	1.76	1.78	10.70	7.98	7.99	8.41	1.96	1.98	9.85	1.72	1.73
39400	5.13	1.81	1.83	10.75	8.03	8.03	8.41	1.96	1.98	9.83	1.70	1.71
39430	5.17	1.85	1.86	10.77	8.05	8.05	8.42	1.97	1.98	9.82	1.69	1.71
39460	5.18	1.86	1.87	10.78	8.06	8.06	8.42	1.97	1.99	9.82	1.69	1.71
39490	5.19	1.87	1.89	10.78	8.06	8.06	8.42	1.97	1.99	9.83	1.70	1.72
39520	5.19	1.87	1.89	10.78	8.06	8.06	8.41	1.96	1.98	9.83	1.70	1.72
39550	5.20	1.88	1.90	10.76	8.04	8.04	8.42	1.97	1.98	9.84	1.71	1.72
39580	5.21	1.89	1.91	10.76	8.04	8.04	8.40	1.95	1.97	9.85	1.72	1.73
39610	5.20	1.88	1.90	10.75	8.03	8.03	8.38	1.93	1.95	9.85	1.72	1.74
39640	5.21	1.89	1.91	10.75	8.03	8.03	8.37	1.92	1.94	9.85	1.72	1.74
39670	5.21	1.89	1.91	10.74	8.02	8.02	8.37	1.92	1.93	9.85	1.72	1.74
39700	5.21	1.89	1.91	10.74	8.02	8.02	8.37	1.92	1.94	9.86	1.73	1.75
39730	5.21	1.89	1.91	10.73	8.01	8.01	8.37	1.92	1.94	9.86	1.73	1.75
39760	5.21	1.89	1.91	10.73	8.01	8.02	8.35	1.90	1.92	9.87	1.74	1.76
39790	5.21	1.89	1.92	10.73	8.01	8.02	8.34	1.89	1.91	9.87	1.74	1.76
39820	5.21	1.89	1.92	10.72	8.00	8.01	8.33	1.88	1.91	9.86	1.73	1.76
39850	5.21	1.89	1.92	10.71	7.99	8.00	8.33	1.88	1.90	9.87	1.74	1.77
39880	5.21	1.89	1.92	10.71	7.99	8.00	8.32	1.86	1.89	9.87	1.73	1.76
39910	5.21	1.89	1.92	10.73	8.01	8.02	8.31	1.86	1.89	9.87	1.74	1.77
39940	5.22	1.90	1.93	10.71	7.99	8.00	8.32	1.87	1.90	9.88	1.75	1.78
39970	5.22	1.90	1.93	10.70	7.98	7.99	8.30	1.85	1.88	9.87	1.74	1.77

40000	5.22	1.90	1.93	10.69	7.97	7.98	8.30	1.85	1.87	9.88	1.75	1.78
40030	5.22	1.90	1.93	10.69	7.97	7.98	8.32	1.87	1.89	9.87	1.74	1.77
40060	5.23	1.91	1.94	10.69	7.97	7.98	8.32	1.86	1.89	9.87	1.74	1.76
40090	5.23	1.91	1.93	10.69	7.97	7.98	8.34	1.89	1.91	9.88	1.75	1.77
40120	5.23	1.91	1.93	10.68	7.96	7.97	8.34	1.89	1.91	9.88	1.75	1.77
40150	5.23	1.91	1.93	10.67	7.95	7.96	8.34	1.89	1.90	9.88	1.75	1.77
40180	5.23	1.91	1.93	10.66	7.94	7.95	8.35	1.90	1.92	9.88	1.75	1.77
40210	5.23	1.91	1.92	10.66	7.94	7.95	8.35	1.90	1.91	9.88	1.75	1.77
40240	5.23	1.91	1.92	10.64	7.92	7.93	8.34	1.89	1.90	9.88	1.75	1.77
40270	5.23	1.91	1.92	10.64	7.92	7.93	8.35	1.90	1.91	9.88	1.75	1.77
40300	5.23	1.91	1.92	10.63	7.91	7.92	8.35	1.90	1.92	9.88	1.75	1.77
40330	5.23	1.91	1.92	10.63	7.91	7.92	8.33	1.88	1.90	9.88	1.75	1.77
40360	5.23	1.91	1.93	10.63	7.91	7.92	8.33	1.88	1.89	9.89	1.76	1.77
40390	5.22	1.90	1.92	10.62	7.90	7.91	8.33	1.88	1.90	9.88	1.75	1.77
40420	5.22	1.90	1.92	10.62	7.90	7.91	8.33	1.88	1.89	9.88	1.75	1.77
40450	5.22	1.90	1.92	10.61	7.89	7.90	8.30	1.85	1.87	9.88	1.75	1.78
40480	5.22	1.90	1.92	10.61	7.89	7.90	8.29	1.84	1.86	9.88	1.75	1.77
40510	5.22	1.90	1.92	10.61	7.89	7.89	8.30	1.85	1.86	9.88	1.75	1.77
40540	5.22	1.90	1.92	10.61	7.89	7.89	8.31	1.86	1.87	9.88	1.75	1.77
40570	5.23	1.91	1.93	10.60	7.88	7.88	8.29	1.84	1.86	9.88	1.75	1.77
40600	5.23	1.91	1.93	10.60	7.88	7.88	8.29	1.84	1.85	9.88	1.75	1.77
40630	5.23	1.91	1.93	10.59	7.87	7.87	8.29	1.84	1.85	9.88	1.75	1.77
40660	5.23	1.91	1.93	10.59	7.87	7.87	8.32	1.87	1.88	9.89	1.76	1.77
40690	5.23	1.91	1.92	10.58	7.86	7.86	8.30	1.85	1.86	9.89	1.76	1.77
40720	5.24	1.92	1.93	10.58	7.86	7.86	8.31	1.86	1.87	9.90	1.77	1.77
40750	5.24	1.92	1.93	10.57	7.85	7.85	8.32	1.86	1.87	9.90	1.77	1.77
40780	5.24	1.92	1.93	10.57	7.85	7.85	8.32	1.87	1.87	9.90	1.77	1.78
40810	5.24	1.92	1.92	10.57	7.85	7.85	8.33	1.88	1.88	9.90	1.77	1.77
40840	5.24	1.92	1.92	10.60	7.88	7.87	8.33	1.88	1.87	9.91	1.78	1.78
40870	5.24	1.92	1.92	10.58	7.86	7.86	8.33	1.88	1.87	9.91	1.78	1.78
40900	5.24	1.92	1.92	10.57	7.85	7.85	8.35	1.90	1.89	9.92	1.79	1.78
40930	5.24	1.92	1.92	10.57	7.85	7.85	8.34	1.89	1.89	9.89	1.76	1.76
40960	5.25	1.93	1.93	10.57	7.85	7.85	8.32	1.86	1.86	9.92	1.79	1.79
40990	5.24	1.92	1.92	10.57	7.85	7.85	8.31	1.86	1.86	9.92	1.79	1.79
41020	5.24	1.92	1.92	10.56	7.84	7.84	8.29	1.84	1.84	9.91	1.78	1.78
41050	5.24	1.92	1.92	10.56	7.84	7.84	8.28	1.83	1.84	9.90	1.77	1.78
41080	5.24	1.92	1.93	10.55	7.83	7.83	8.27	1.82	1.82	9.91	1.78	1.79
41110	5.24	1.92	1.93	10.55	7.83	7.83	8.26	1.81	1.82	9.91	1.78	1.79
41140	5.24	1.92	1.93	10.54	7.82	7.82	8.28	1.83	1.83	9.91	1.78	1.79
41170	5.23	1.91	1.92	10.54	7.82	7.82	8.25	1.80	1.81	9.90	1.77	1.78
41200	5.23	1.91	1.92	10.54	7.82	7.82	8.24	1.79	1.80	9.91	1.78	1.79

41230	5.24	1.92	1.94	10.54	7.82	7.82	8.23	1.78	1.79	9.91	1.78	1.79
41260	5.24	1.92	1.94	10.54	7.82	7.82	8.22	1.77	1.79	9.91	1.78	1.79
41290	5.24	1.92	1.94	10.53	7.81	7.82	8.21	1.76	1.78	9.92	1.79	1.80
41320	5.24	1.92	1.94	10.53	7.81	7.82	8.20	1.75	1.77	9.91	1.78	1.80
41350	5.24	1.92	1.94	10.53	7.81	7.82	8.20	1.75	1.77	9.90	1.77	1.79
41380	5.24	1.92	1.94	10.52	7.80	7.81	8.20	1.75	1.77	9.90	1.77	1.79
41410	5.24	1.92	1.94	10.51	7.79	7.80	8.19	1.74	1.76	9.90	1.77	1.79
41440	5.24	1.92	1.94	10.51	7.79	7.80	8.20	1.75	1.77	9.90	1.77	1.79
41470	5.24	1.92	1.94	10.51	7.79	7.80	8.19	1.74	1.76	9.90	1.77	1.79
41500	5.25	1.93	1.95	10.50	7.78	7.79	8.19	1.74	1.76	9.90	1.77	1.79
41530	5.25	1.93	1.95	10.51	7.79	7.80	8.20	1.75	1.77	9.91	1.78	1.80
41560	5.25	1.93	1.95	10.49	7.77	7.78	8.20	1.75	1.76	9.91	1.78	1.80
41590	5.25	1.93	1.95	10.49	7.77	7.78	8.20	1.75	1.77	9.91	1.78	1.80
41620	5.25	1.93	1.95	10.48	7.76	7.77	8.19	1.74	1.76	9.91	1.78	1.80
41650	5.25	1.93	1.95	10.49	7.77	7.78	8.19	1.74	1.76	9.91	1.78	1.80
41680	5.25	1.93	1.95	10.48	7.76	7.77	8.20	1.75	1.76	9.91	1.78	1.80
41710	5.25	1.93	1.95	10.47	7.75	7.76	8.16	1.71	1.73	9.91	1.78	1.80
41740	5.25	1.93	1.95	10.46	7.74	7.75	8.18	1.73	1.75	9.91	1.78	1.80
41770	5.24	1.92	1.95	10.46	7.74	7.75	8.16	1.71	1.73	9.91	1.78	1.80
41800	5.24	1.92	1.95	10.46	7.74	7.75	8.15	1.70	1.73	9.91	1.78	1.81
41830	5.24	1.92	1.95	10.45	7.73	7.75	8.13	1.68	1.71	9.91	1.78	1.81
41860	5.24	1.92	1.96	10.47	7.75	7.77	8.11	1.66	1.69	9.91	1.78	1.81
41890	5.24	1.92	1.96	10.46	7.74	7.76	8.10	1.65	1.68	9.91	1.78	1.82
41920	5.24	1.92	1.96	10.45	7.73	7.75	8.09	1.64	1.68	9.91	1.78	1.82
41950	5.24	1.92	1.96	10.45	7.73	7.75	8.10	1.65	1.68	9.91	1.78	1.82
41980	5.25	1.93	1.97	10.45	7.73	7.75	8.09	1.64	1.67	9.91	1.78	1.82
42010	5.25	1.93	1.97	10.45	7.73	7.75	8.09	1.64	1.68	9.91	1.78	1.82
42040	5.25	1.93	1.97	10.45	7.73	7.74	8.09	1.64	1.68	9.91	1.78	1.81
42070	5.25	1.93	1.96	10.45	7.73	7.74	8.09	1.64	1.67	9.91	1.78	1.81
42100	5.26	1.94	1.97	10.44	7.72	7.73	8.10	1.65	1.68	9.92	1.79	1.82
42130	5.26	1.94	1.97	10.44	7.72	7.73	8.12	1.67	1.70	9.91	1.78	1.81
42160	5.26	1.94	1.97	10.43	7.71	7.72	8.10	1.65	1.68	9.92	1.79	1.81
42190	5.26	1.94	1.97	10.43	7.71	7.72	8.11	1.66	1.68	9.92	1.79	1.82
42220	5.26	1.94	1.97	10.42	7.70	7.71	8.12	1.67	1.70	9.92	1.79	1.82
42250	5.26	1.94	1.97	10.39	7.67	7.68	8.11	1.66	1.69	9.92	1.79	1.82
42280	5.26	1.94	1.97	10.38	7.66	7.67	8.10	1.65	1.67	9.92	1.79	1.81
42310	5.26	1.94	1.97	10.38	7.66	7.67	8.10	1.65	1.68	9.93	1.80	1.83
42340	5.26	1.94	1.97	10.37	7.65	7.66	8.11	1.66	1.68	9.92	1.79	1.82
42370	5.26	1.94	1.97	10.37	7.65	7.66	8.08	1.63	1.66	9.92	1.79	1.82
42400	5.27	1.95	1.98	10.38	7.66	7.67	8.07	1.62	1.65	9.94	1.81	1.83
42430	5.27	1.95	1.98	10.38	7.66	7.67	8.06	1.61	1.64	9.95	1.82	1.85

42460	5.27	1.95	1.98	10.38	7.66	7.67	8.06	1.61	1.64	9.95	1.82	1.85
42490	5.26	1.94	1.98	10.37	7.65	7.66	8.05	1.60	1.64	9.93	1.80	1.83
42520	5.26	1.94	1.98	10.36	7.64	7.66	8.02	1.57	1.61	9.92	1.79	1.83
42550	5.26	1.94	1.98	10.37	7.65	7.67	8.00	1.55	1.59	9.92	1.79	1.84
42580	5.26	1.94	1.99	10.36	7.64	7.66	7.99	1.54	1.59	9.93	1.80	1.84
42610	5.25	1.93	1.98	10.35	7.63	7.65	7.96	1.51	1.56	9.94	1.81	1.86
42640	5.26	1.94	2.00	10.36	7.64	7.66	7.94	1.49	1.54	9.94	1.81	1.86
42670	5.25	1.93	1.99	10.35	7.63	7.65	7.93	1.48	1.54	9.92	1.79	1.85
42700	5.25	1.93	2.00	10.35	7.63	7.65	7.93	1.48	1.55	9.93	1.80	1.86
42730	5.26	1.94	2.01	10.36	7.64	7.67	8.13	1.68	1.75	9.91	1.78	1.85
42760	5.26	1.94	2.01	10.35	7.63	7.66	8.11	1.66	1.73	9.92	1.79	1.85
42790	5.26	1.94	2.01	10.36	7.64	7.67	8.10	1.65	1.72	9.92	1.79	1.86
42820	5.26	1.94	2.01	10.35	7.63	7.66	8.09	1.64	1.71	9.92	1.79	1.86
42850	5.27	1.95	2.02	10.34	7.62	7.65	8.08	1.63	1.70	9.92	1.79	1.86
42880	5.27	1.95	2.02	10.34	7.62	7.65	8.09	1.64	1.71	9.93	1.80	1.87
42910	5.23	1.91	1.98	6.07	3.35	3.37	8.08	1.63	1.69	9.93	1.80	1.87
42940	5.26	1.94	2.01	10.30	7.58	7.61	8.08	1.63	1.70	9.93	1.80	1.87
42970	5.27	1.95	2.02	10.33	7.61	7.64	8.09	1.64	1.71	9.92	1.79	1.86
43000	5.28	1.96	2.02	10.34	7.62	7.65	8.09	1.64	1.70	9.93	1.80	1.86
43030	5.28	1.96	2.02	10.36	7.64	7.66	8.10	1.65	1.71	9.93	1.80	1.86
43060	5.29	1.97	2.03	10.36	7.64	7.66	8.10	1.65	1.71	9.94	1.81	1.87
43090	5.29	1.97	2.03	10.36	7.64	7.66	8.12	1.67	1.72	9.94	1.81	1.86
43120	5.29	1.97	2.03	10.36	7.64	7.66	8.11	1.66	1.72	9.94	1.81	1.87
43150	5.29	1.97	2.03	10.35	7.63	7.65	8.10	1.65	1.71	9.94	1.81	1.87
43180	5.29	1.97	2.03	10.36	7.64	7.66	8.10	1.65	1.71	9.94	1.81	1.86
43210	5.28	1.96	2.02	10.35	7.63	7.65	8.08	1.63	1.69	9.94	1.81	1.87
43240	5.28	1.96	2.02	10.35	7.63	7.65	8.08	1.63	1.69	9.94	1.81	1.87
43270	5.28	1.96	2.02	10.35	7.63	7.65	8.06	1.61	1.68	9.94	1.81	1.88
43300	5.28	1.96	2.02	10.34	7.62	7.65	8.06	1.61	1.67	9.94	1.81	1.87
43330	5.28	1.96	2.03	10.35	7.63	7.66	8.06	1.61	1.68	9.94	1.81	1.87
43360	5.28	1.96	2.03	10.34	7.62	7.65	8.04	1.59	1.66	9.94	1.81	1.88
43390	5.28	1.96	2.03	10.34	7.62	7.65	8.06	1.61	1.68	9.94	1.81	1.88
43420	5.29	1.97	2.04	10.34	7.62	7.65	8.04	1.59	1.66	9.94	1.81	1.88
43450	5.29	1.97	2.04	10.34	7.62	7.65	8.04	1.59	1.66	9.94	1.81	1.88
43480	5.29	1.97	2.04	10.33	7.61	7.64	8.04	1.59	1.66	9.94	1.81	1.88
43510	5.29	1.97	2.03	10.33	7.61	7.64	8.05	1.60	1.67	9.94	1.81	1.88
43540	5.30	1.98	2.04	10.33	7.61	7.64	8.05	1.60	1.66	9.95	1.82	1.88
43570	5.30	1.98	2.04	10.32	7.60	7.63	8.06	1.61	1.67	9.95	1.82	1.88
43600	5.30	1.98	2.04	10.32	7.60	7.62	8.07	1.62	1.68	9.95	1.82	1.88
43630	5.30	1.98	2.03	10.32	7.60	7.62	8.08	1.63	1.68	9.95	1.82	1.88
43660	5.31	1.99	2.04	10.33	7.61	7.63	8.11	1.66	1.71	9.95	1.82	1.88

43690	5.31	1.99	2.04	10.31	7.59	7.61	8.10	1.65	1.70	9.96	1.83	1.88
43720	5.31	1.99	2.04	10.31	7.59	7.61	8.10	1.65	1.70	9.97	1.84	1.89
43750	5.31	1.99	2.03	10.31	7.59	7.61	8.10	1.65	1.70	9.97	1.84	1.88
43780	5.31	1.99	2.03	10.31	7.59	7.61	8.13	1.68	1.72	9.97	1.84	1.89
43810	5.32	2.00	2.04	10.30	7.58	7.60	8.15	1.70	1.74	9.97	1.84	1.88
43840	5.31	1.99	2.03	10.30	7.58	7.60	8.15	1.70	1.74	9.97	1.84	1.88
43870	5.31	1.99	2.02	10.30	7.58	7.60	8.13	1.68	1.72	9.97	1.84	1.88
43900	5.31	1.99	2.02	10.29	7.57	7.59	8.13	1.68	1.72	9.97	1.84	1.88
43930	5.31	1.99	2.03	10.30	7.58	7.60	8.11	1.66	1.70	9.98	1.85	1.89
43960	5.31	1.99	2.03	10.30	7.58	7.60	8.11	1.66	1.70	9.98	1.85	1.89
43990	5.32	2.00	2.03	10.29	7.57	7.59	8.11	1.66	1.70	9.99	1.85	1.89
44020	5.31	1.99	2.02	10.28	7.56	7.58	8.13	1.68	1.72	9.97	1.84	1.88
44050	5.32	2.00	2.03	10.28	7.56	7.58	8.12	1.67	1.70	9.98	1.85	1.89
44080	5.32	2.00	2.04	10.28	7.56	7.58	8.11	1.66	1.70	9.97	1.84	1.88
44110	5.32	2.00	2.04	10.28	7.56	7.58	8.13	1.68	1.72	9.97	1.84	1.88
44140	5.32	2.00	2.04	10.28	7.56	7.57	8.10	1.65	1.69	9.97	1.84	1.88
44170	5.32	2.00	2.04	10.28	7.56	7.57	8.12	1.67	1.71	9.97	1.84	1.88
44200	5.32	2.00	2.04	10.28	7.56	7.57	8.13	1.68	1.72	9.97	1.84	1.88
44230	5.32	2.00	2.04	10.28	7.56	7.57	8.11	1.66	1.70	9.98	1.85	1.89
44260	5.32	2.00	2.04	10.28	7.56	7.58	8.10	1.65	1.69	9.97	1.84	1.88
44290	5.32	2.00	2.04	10.28	7.56	7.57	8.11	1.66	1.70	9.97	1.84	1.88
44320	5.32	2.00	2.04	10.28	7.56	7.57	8.12	1.67	1.71	9.97	1.84	1.88
44350	5.32	2.00	2.04	10.28	7.56	7.57	8.11	1.66	1.70	9.97	1.84	1.88
44380	5.32	2.00	2.04	10.28	7.56	7.57	8.12	1.67	1.71	9.98	1.85	1.89
44410	5.33	2.01	2.04	10.28	7.56	7.57	8.13	1.68	1.72	9.97	1.84	1.88
44440	5.32	2.00	2.03	10.28	7.56	7.57	8.12	1.67	1.70	9.98	1.85	1.89
44470	5.33	2.01	2.04	10.28	7.56	7.57	8.13	1.68	1.72	9.98	1.85	1.88
44500	5.33	2.01	2.04	10.27	7.55	7.56	8.14	1.69	1.72	9.97	1.84	1.88
44530	5.33	2.01	2.04	10.27	7.55	7.56	8.13	1.68	1.71	9.98	1.85	1.88
44560	5.33	2.01	2.04	10.27	7.55	7.56	8.14	1.69	1.73	9.98	1.85	1.88
44590	5.33	2.01	2.04	10.27	7.55	7.56	8.14	1.69	1.73	9.98	1.85	1.88
44620	5.33	2.01	2.04	10.27	7.55	7.56	8.13	1.68	1.72	9.98	1.85	1.88
44650	5.33	2.01	2.04	10.27	7.55	7.56	8.14	1.69	1.73	9.98	1.85	1.88
44680	5.33	2.01	2.04	10.27	7.55	7.56	8.13	1.68	1.71	9.98	1.85	1.88
44710	5.33	2.01	2.04	10.27	7.55	7.56	8.14	1.69	1.73	9.98	1.85	1.88
44740	5.32	2.00	2.03	10.27	7.55	7.56	8.12	1.67	1.70	9.98	1.85	1.88
44770	5.33	2.01	2.04	10.27	7.55	7.56	8.12	1.67	1.70	9.98	1.85	1.88
44800	5.33	2.01	2.04	10.26	7.54	7.55	8.11	1.66	1.70	9.98	1.85	1.89
44830	5.33	2.01	2.04	10.26	7.54	7.55	8.11	1.66	1.70	9.98	1.85	1.89
44860	5.33	2.01	2.04	10.27	7.55	7.56	8.10	1.65	1.68	9.98	1.85	1.89
44890	5.33	2.01	2.05	10.27	7.55	7.56	8.10	1.65	1.69	9.98	1.85	1.89

44920	5.33	2.01	2.05	10.27	7.55	7.56	8.09	1.64	1.68	9.98	1.85	1.89
44950	5.33	2.01	2.04	10.27	7.55	7.56	8.10	1.65	1.69	9.98	1.85	1.89
44980	5.33	2.01	2.04	10.26	7.54	7.55	8.13	1.68	1.71	9.98	1.85	1.88
45010	5.34	2.02	2.05	10.26	7.54	7.55	8.13	1.68	1.72	9.98	1.85	1.88
45040	5.34	2.02	2.04	10.27	7.55	7.56	8.16	1.71	1.74	9.99	1.85	1.88
45070	5.35	2.03	2.05	10.26	7.54	7.55	8.16	1.71	1.74	9.99	1.85	1.88
45100	5.34	2.02	2.04	10.26	7.54	7.55	8.15	1.70	1.73	9.99	1.86	1.89
45130	5.35	2.03	2.05	10.26	7.54	7.54	8.16	1.71	1.73	9.99	1.86	1.88
45160	5.35	2.03	2.05	10.26	7.54	7.54	8.16	1.71	1.73	10.00	1.87	1.89
45190	5.35	2.03	2.04	10.26	7.54	7.54	8.17	1.72	1.74	9.99	1.86	1.88
45220	5.35	2.03	2.04	10.26	7.54	7.54	8.17	1.72	1.74	9.99	1.86	1.88
45250	5.35	2.03	2.04	10.26	7.54	7.54	8.18	1.73	1.75	10.00	1.87	1.88
45280	5.35	2.03	2.04	10.27	7.55	7.55	8.17	1.72	1.74	9.99	1.85	1.87
45310	5.35	2.03	2.04	10.26	7.54	7.54	8.15	1.70	1.71	10.01	1.88	1.90
45340	5.34	2.02	2.03	10.26	7.54	7.54	8.14	1.69	1.71	9.97	1.84	1.85
45370	5.35	2.03	2.04	10.26	7.54	7.54	8.14	1.69	1.71	10.01	1.88	1.90
45400	5.35	2.03	2.05	10.26	7.54	7.54	8.15	1.70	1.72	10.01	1.88	1.90
45430	5.35	2.03	2.05	10.27	7.55	7.55	8.13	1.68	1.70	10.01	1.88	1.90
45460	5.35	2.03	2.04	10.27	7.55	7.55	8.13	1.68	1.70	10.00	1.87	1.89
45490	5.35	2.03	2.05	10.27	7.55	7.55	8.14	1.69	1.71	10.01	1.88	1.90
45520	5.35	2.03	2.06	10.27	7.55	7.55	8.12	1.67	1.69	10.00	1.87	1.90
45550	5.35	2.03	2.05	10.26	7.54	7.55	8.10	1.65	1.68	10.00	1.87	1.90
45580	5.35	2.03	2.06	10.27	7.55	7.56	8.11	1.66	1.69	10.00	1.87	1.90
45610	5.35	2.03	2.06	10.27	7.55	7.56	8.09	1.64	1.67	10.00	1.87	1.90
45640	5.35	2.03	2.06	10.27	7.55	7.56	8.08	1.63	1.66	10.00	1.87	1.90
45670	5.35	2.03	2.06	10.27	7.55	7.56	8.10	1.65	1.68	10.00	1.87	1.90
45700	5.36	2.04	2.07	10.27	7.55	7.56	8.11	1.66	1.69	10.00	1.87	1.90
45730	5.35	2.03	2.06	10.27	7.55	7.56	8.09	1.64	1.67	10.00	1.87	1.90
45760	5.35	2.03	2.06	10.27	7.55	7.56	8.09	1.64	1.67	10.00	1.87	1.90
45790	5.35	2.03	2.06	10.27	7.55	7.56	8.09	1.64	1.67	10.00	1.87	1.90
45820	5.36	2.04	2.07	10.27	7.55	7.56	8.09	1.64	1.67	10.00	1.87	1.90
45850	5.35	2.03	2.07	10.26	7.54	7.55	8.10	1.65	1.68	10.00	1.87	1.91
45880	5.36	2.04	2.07	10.26	7.54	7.55	8.10	1.65	1.68	10.00	1.87	1.90
45910	5.35	2.03	2.07	10.27	7.55	7.56	8.09	1.64	1.67	10.00	1.87	1.91
45940	5.36	2.04	2.07	10.27	7.55	7.56	8.10	1.65	1.67	10.01	1.88	1.91
45970	5.36	2.04	2.07	10.27	7.55	7.56	8.14	1.69	1.72	10.01	1.88	1.91
46000	5.36	2.04	2.08	10.27	7.55	7.56	8.12	1.67	1.70	10.01	1.88	1.91
46030	5.36	2.04	2.08	10.28	7.56	7.57	8.12	1.67	1.70	10.01	1.88	1.91
46060	5.36	2.04	2.08	10.28	7.56	7.57	8.12	1.67	1.71	10.01	1.88	1.91
46090	5.36	2.04	2.07	10.28	7.56	7.57	8.13	1.68	1.71	10.01	1.88	1.91
46120	5.36	2.04	2.07	10.28	7.56	7.58	8.13	1.68	1.71	10.01	1.88	1.91

46150	5.36	2.04	2.08	10.28	7.56	7.58	8.12	1.67	1.70	10.02	1.89	1.92
46180	5.36	2.04	2.08	10.28	7.56	7.58	8.12	1.67	1.70	10.01	1.88	1.91
46210	5.36	2.04	2.08	10.28	7.56	7.58	8.13	1.68	1.71	10.01	1.88	1.92
46240	5.36	2.04	2.08	10.29	7.57	7.59	8.12	1.67	1.70	10.01	1.88	1.92
46270	5.36	2.04	2.08	10.29	7.57	7.59	8.12	1.67	1.70	10.01	1.88	1.91
46300	5.36	2.04	2.08	10.29	7.57	7.59	8.13	1.68	1.71	10.01	1.88	1.92
46330	5.37	2.05	2.09	10.29	7.57	7.59	8.12	1.67	1.70	10.01	1.88	1.91
46360	5.37	2.05	2.08	10.29	7.57	7.59	8.12	1.67	1.70	10.01	1.88	1.91
46390	5.37	2.05	2.08	10.29	7.57	7.59	8.13	1.68	1.71	10.02	1.89	1.92
46420	5.37	2.05	2.08	10.29	7.57	7.58	8.15	1.70	1.73	10.02	1.89	1.91
46450	5.37	2.05	2.08	10.29	7.57	7.58	8.15	1.70	1.72	10.02	1.89	1.92
46480	5.37	2.05	2.08	10.29	7.57	7.58	8.17	1.72	1.74	10.02	1.89	1.92
46510	5.38	2.06	2.09	10.29	7.57	7.58	8.15	1.70	1.73	10.02	1.89	1.92
46540	5.37	2.05	2.08	10.30	7.58	7.59	8.16	1.71	1.73	10.02	1.89	1.92
46570	5.38	2.06	2.08	10.30	7.58	7.59	8.17	1.72	1.74	10.04	1.91	1.93
46600	5.38	2.06	2.08	10.30	7.58	7.59	8.16	1.71	1.73	10.03	1.90	1.92
46630	5.37	2.05	2.08	10.30	7.58	7.59	8.15	1.70	1.72	10.03	1.90	1.92
46660	5.37	2.05	2.08	10.31	7.59	7.60	8.15	1.70	1.72	10.03	1.90	1.92
46690	5.37	2.05	2.08	10.31	7.59	7.60	8.14	1.69	1.72	10.04	1.91	1.93
46720	5.37	2.05	2.08	10.31	7.59	7.60	8.13	1.68	1.71	10.04	1.91	1.94
46750	5.37	2.05	2.08	10.31	7.59	7.60	8.12	1.67	1.70	10.03	1.90	1.93
46780	5.36	2.04	2.07	10.30	7.58	7.59	8.13	1.68	1.70	10.00	1.87	1.90
46810	5.37	2.05	2.08	10.32	7.60	7.61	8.13	1.68	1.70	10.04	1.91	1.94
46840	5.37	2.05	2.08	10.32	7.60	7.61	8.13	1.68	1.71	10.04	1.91	1.94
46870	5.37	2.05	2.09	10.32	7.60	7.61	8.12	1.67	1.70	10.04	1.91	1.94
46900	5.37	2.05	2.09	10.32	7.60	7.62	8.10	1.65	1.69	10.04	1.91	1.94
46930	5.37	2.05	2.10	10.32	7.60	7.62	8.09	1.64	1.68	10.03	1.90	1.94
46960	5.37	2.05	2.10	10.33	7.61	7.63	8.08	1.63	1.68	10.04	1.91	1.95
46990	5.37	2.05	2.10	10.33	7.61	7.63	8.08	1.63	1.68	10.04	1.91	1.95
47020	5.37	2.05	2.10	10.32	7.60	7.62	8.09	1.64	1.69	10.02	1.89	1.94
47050	5.38	2.06	2.11	10.33	7.61	7.63	8.09	1.64	1.68	10.03	1.90	1.95
47080	5.39	2.07	2.12	10.33	7.61	7.63	8.10	1.65	1.70	10.03	1.90	1.95
47110	5.39	2.07	2.12	10.33	7.61	7.63	8.09	1.64	1.69	10.04	1.91	1.95
47140	5.40	2.08	2.12	10.34	7.62	7.64	8.14	1.69	1.73	10.03	1.90	1.94
47170	5.40	2.08	2.13	10.33	7.61	7.63	8.12	1.67	1.71	10.04	1.91	1.95
47200	5.41	2.09	2.12	10.34	7.62	7.63	8.36	1.91	1.94	10.04	1.91	1.93
47230	5.41	2.09	2.12	10.33	7.61	7.62	8.33	1.88	1.91	10.04	1.91	1.94
47260	5.41	2.09	2.12	10.33	7.61	7.62	8.36	1.91	1.93	10.04	1.91	1.94
47290	5.40	2.08	2.11	10.33	7.61	7.62	8.34	1.89	1.92	10.04	1.91	1.94
47320	5.40	2.08	2.11	10.33	7.61	7.62	8.34	1.89	1.92	10.05	1.92	1.95
47350	5.39	2.07	2.10	10.33	7.61	7.62	8.34	1.89	1.92	10.05	1.92	1.95

47380	5.38	2.06	2.10	10.34	7.62	7.63	8.32	1.86	1.90	10.04	1.91	1.95
47410	5.38	2.06	2.10	10.34	7.62	7.64	8.31	1.86	1.89	10.04	1.91	1.94
47440	5.39	2.07	2.11	10.34	7.62	7.64	8.29	1.84	1.88	10.04	1.91	1.94
47470	5.39	2.07	2.11	10.34	7.62	7.64	8.29	1.84	1.88	10.04	1.91	1.95
47500	5.38	2.06	2.10	10.35	7.63	7.65	8.29	1.84	1.88	10.04	1.91	1.95
47530	5.38	2.06	2.10	10.35	7.63	7.65	8.28	1.83	1.87	10.04	1.91	1.95
47560	5.38	2.06	2.10	10.35	7.63	7.65	8.28	1.83	1.87	10.04	1.91	1.95
47590	5.38	2.06	2.10	10.35	7.63	7.65	8.28	1.83	1.87	10.04	1.91	1.95
47620	5.38	2.06	2.11	10.35	7.63	7.65	8.26	1.81	1.85	10.04	1.91	1.96
47650	5.38	2.06	2.11	10.35	7.63	7.65	8.26	1.81	1.85	10.04	1.91	1.96
47680	5.38	2.06	2.11	10.35	7.63	7.65	8.26	1.81	1.86	10.04	1.91	1.95
47710	5.38	2.06	2.11	10.36	7.64	7.66	8.26	1.81	1.85	10.04	1.91	1.95
47740	5.39	2.07	2.12	10.35	7.63	7.65	8.26	1.81	1.85	10.04	1.91	1.96
47770	5.39	2.07	2.12	10.36	7.64	7.66	8.25	1.80	1.85	10.04	1.91	1.96
47800	5.39	2.07	2.12	10.36	7.64	7.66	8.24	1.79	1.84	10.04	1.91	1.96
47830	5.39	2.07	2.12	10.37	7.65	7.67	8.26	1.81	1.85	10.04	1.91	1.96
47860	5.39	2.07	2.12	10.38	7.66	7.68	8.25	1.80	1.85	10.04	1.91	1.96
47890	5.39	2.07	2.12	10.37	7.65	7.67	8.26	1.81	1.85	10.05	1.92	1.96
47920	5.40	2.08	2.12	10.37	7.65	7.66	8.28	1.83	1.87	10.05	1.92	1.96
47950	5.40	2.08	2.12	10.36	7.64	7.66	8.28	1.83	1.87	10.05	1.92	1.96
47980	5.40	2.08	2.12	10.37	7.65	7.66	8.27	1.82	1.86	10.06	1.93	1.96
48010	5.40	2.08	2.12	10.35	7.63	7.64	8.30	1.85	1.89	10.06	1.93	1.96
48040	5.40	2.08	2.12	10.36	7.64	7.65	8.28	1.83	1.86	10.06	1.93	1.97
48070	5.40	2.08	2.12	10.36	7.64	7.65	8.30	1.85	1.88	10.06	1.93	1.97
48100	5.40	2.08	2.12	10.37	7.65	7.66	8.27	1.82	1.86	10.06	1.93	1.97
48130	5.40	2.08	2.12	10.38	7.66	7.67	8.28	1.83	1.87	10.06	1.93	1.97
48160	5.40	2.08	2.12	10.38	7.66	7.67	8.28	1.83	1.87	10.06	1.93	1.97
48190	5.40	2.08	2.12	10.38	7.66	7.67	8.27	1.82	1.86	10.07	1.94	1.98
48220	5.40	2.08	2.13	10.39	7.67	7.69	8.24	1.79	1.84	10.06	1.93	1.98
48250	5.41	2.09	2.14	10.38	7.66	7.68	8.23	1.78	1.83	10.07	1.94	1.99
48280	5.41	2.09	2.14	10.39	7.67	7.69	8.24	1.79	1.84	10.07	1.94	1.99
48310	5.41	2.09	2.14	10.29	7.57	7.59	8.24	1.79	1.84	10.06	1.93	1.98
48340	5.41	2.09	2.15	10.30	7.58	7.60	8.22	1.77	1.83	10.07	1.94	1.99
48370	5.41	2.09	2.15	10.29	7.57	7.60	8.22	1.77	1.83	10.07	1.94	2.00
48400	5.41	2.09	2.15	10.29	7.57	7.60	8.20	1.75	1.82	10.07	1.94	2.01
48430	5.41	2.09	2.15	10.29	7.57	7.60	8.20	1.75	1.81	10.04	1.91	1.97
48460	5.30	1.98	2.04	6.03	3.31	3.33	8.18	1.73	1.80	10.06	1.93	1.99
48490	5.20	1.88	1.95	5.87	3.15	3.18	8.18	1.73	1.80	10.02	1.89	1.96
48520	5.15	1.83	1.90	5.77	3.05	3.07	8.17	1.72	1.79	9.98	1.85	1.92
48550	5.11	1.79	1.86	5.70	2.98	3.01	8.16	1.71	1.79	9.94	1.81	1.88
48580	5.19	1.87	1.94	10.08	7.36	7.39	8.16	1.71	1.78	9.90	1.77	1.85

48610	5.26	1.94	2.01	10.11	7.39	7.41	8.15	1.70	1.78	9.89	1.76	1.83
48640	5.30	1.98	2.05	10.12	7.40	7.43	8.15	1.70	1.77	9.88	1.75	1.83
48670	5.27	1.95	2.02	5.94	3.22	3.24	8.16	1.71	1.78	9.90	1.77	1.84
48700	5.19	1.87	1.93	5.74	3.02	3.04	8.20	1.75	1.81	9.89	1.76	1.83
48730	5.13	1.81	1.87	5.65	2.93	2.96	8.18	1.73	1.80	9.88	1.75	1.81
48760	5.09	1.77	1.83	5.60	2.88	2.90	8.19	1.74	1.80	9.85	1.72	1.78
48790	5.07	1.75	1.81	5.55	2.83	2.85	8.19	1.74	1.80	9.81	1.68	1.75
48820	5.05	1.73	1.79	5.51	2.79	2.82	8.19	1.74	1.80	9.78	1.65	1.71
48850	5.03	1.71	1.77	5.48	2.76	2.79	8.19	1.74	1.80	9.76	1.63	1.69
48880	5.02	1.70	1.77	5.45	2.73	2.75	8.19	1.74	1.80	9.73	1.60	1.66
48910	5.02	1.70	1.76	5.42	2.70	2.72	8.18	1.73	1.79	9.71	1.58	1.64
48940	5.01	1.69	1.75	5.40	2.68	2.70	8.19	1.74	1.80	9.69	1.56	1.63
48970	5.00	1.68	1.74	5.37	2.65	2.67	8.18	1.73	1.79	9.67	1.54	1.61
49000	5.00	1.68	1.74	5.35	2.63	2.66	8.17	1.72	1.78	9.65	1.52	1.58
49030	4.99	1.67	1.73	5.33	2.61	2.64	8.16	1.71	1.77	9.64	1.51	1.57
49060	4.98	1.66	1.73	5.31	2.59	2.62	8.15	1.70	1.77	9.62	1.49	1.56
49090	4.98	1.66	1.73	5.30	2.58	2.60	8.13	1.68	1.75	9.61	1.48	1.55
49120	4.98	1.66	1.73	5.28	2.56	2.58	8.14	1.69	1.76	9.60	1.47	1.54
49150	4.98	1.66	1.73	5.27	2.55	2.57	8.13	1.68	1.75	9.60	1.47	1.54
49180	4.98	1.66	1.73	5.25	2.53	2.55	8.14	1.69	1.76	9.59	1.46	1.52
49210	4.97	1.65	1.72	5.24	2.52	2.54	8.13	1.68	1.75	9.58	1.45	1.52
49240	4.97	1.65	1.72	5.23	2.51	2.54	8.13	1.68	1.74	9.57	1.44	1.51
49270	4.98	1.66	1.72	5.21	2.49	2.52	8.14	1.69	1.75	9.57	1.44	1.50
49300	4.98	1.66	1.72	5.20	2.48	2.50	8.16	1.71	1.77	9.57	1.44	1.50
49330	4.98	1.66	1.72	5.19	2.47	2.49	8.18	1.73	1.79	9.56	1.43	1.49
49360	4.98	1.66	1.71	5.18	2.46	2.48	8.16	1.71	1.77	9.56	1.43	1.49
49390	4.98	1.66	1.71	5.17	2.45	2.47	8.18	1.73	1.79	9.56	1.43	1.49
49420	4.98	1.66	1.71	5.16	2.44	2.46	8.19	1.74	1.79	9.56	1.43	1.49
49450	5.09	1.77	1.83	10.03	7.31	7.33	8.19	1.74	1.79	9.57	1.44	1.49
49480	5.19	1.87	1.92	10.04	7.32	7.34	8.18	1.73	1.79	9.59	1.46	1.51
49510	5.24	1.92	1.97	10.05	7.33	7.35	8.18	1.73	1.78	9.62	1.49	1.55
49540	5.28	1.96	2.01	10.07	7.35	7.37	8.20	1.75	1.80	9.67	1.54	1.60
49570	5.31	1.99	2.04	10.08	7.36	7.38	8.20	1.75	1.80	9.72	1.59	1.64
49600	5.33	2.01	2.06	10.09	7.37	7.39	8.20	1.75	1.80	9.76	1.63	1.68
49630	5.34	2.02	2.07	10.10	7.38	7.40	8.20	1.75	1.80	9.78	1.65	1.70
49660	5.35	2.03	2.09	10.11	7.39	7.40	8.19	1.74	1.79	9.81	1.68	1.74
49690	5.36	2.04	2.10	10.11	7.39	7.41	8.19	1.74	1.79	9.85	1.72	1.77
49720	5.38	2.06	2.12	10.11	7.39	7.41	8.18	1.73	1.79	9.88	1.75	1.80
49750	5.38	2.06	2.12	10.12	7.40	7.43	8.19	1.74	1.80	9.92	1.79	1.85
49780	5.38	2.06	2.12	10.12	7.40	7.43	8.17	1.72	1.78	9.92	1.79	1.85
49810	5.39	2.07	2.13	10.13	7.41	7.44	8.16	1.71	1.77	9.94	1.81	1.87

49840	5.39	2.07	2.14	10.13	7.41	7.44	8.16	1.71	1.77	9.95	1.82	1.88
49870	5.39	2.07	2.14	10.14	7.42	7.45	8.15	1.70	1.76	9.96	1.83	1.90
49900	5.40	2.08	2.15	10.14	7.42	7.45	8.14	1.69	1.76	9.98	1.85	1.92
49930	5.41	2.09	2.16	10.14	7.42	7.45	8.43	1.98	2.05	9.99	1.85	1.93
49960	5.41	2.09	2.16	10.15	7.43	7.46	8.43	1.98	2.05	9.99	1.86	1.93
49990	5.41	2.09	2.16	10.15	7.43	7.46	8.43	1.98	2.05	10.00	1.87	1.94
50020	5.42	2.10	2.17	10.15	7.43	7.46	8.42	1.97	2.05	10.00	1.87	1.95
50050	5.42	2.10	2.17	10.16	7.44	7.47	8.44	1.99	2.06	10.01	1.88	1.95
50080	5.43	2.11	2.18	10.16	7.44	7.47	8.43	1.98	2.05	10.02	1.89	1.96
50110	5.43	2.11	2.18	10.16	7.44	7.47	8.43	1.98	2.05	10.02	1.89	1.96
50140	5.44	2.12	2.19	10.17	7.45	7.48	8.44	1.99	2.06	10.03	1.90	1.97
50170	5.44	2.12	2.18	10.17	7.45	7.48	8.44	1.99	2.05	10.04	1.91	1.97
50200	5.44	2.12	2.18	10.17	7.45	7.48	8.46	2.01	2.07	10.04	1.91	1.98
50230	5.44	2.12	2.18	10.17	7.45	7.47	8.46	2.01	2.07	10.05	1.92	1.98
50260	5.45	2.13	2.19	10.17	7.45	7.47	8.46	2.01	2.07	10.05	1.92	1.98
50290	5.44	2.12	2.18	10.16	7.44	7.46	8.47	2.02	2.08	10.06	1.93	1.98
50320	5.44	2.12	2.18	10.16	7.44	7.46	8.46	2.01	2.07	10.06	1.93	1.98
50350	5.44	2.12	2.18	10.16	7.44	7.47	8.44	1.99	2.05	10.06	1.93	1.99
50380	5.44	2.12	2.18	10.16	7.44	7.47	8.70	2.25	2.31	10.06	1.93	1.99
50410	5.44	2.12	2.18	10.15	7.43	7.46	8.69	2.24	2.30	10.06	1.93	1.99
50440	5.43	2.11	2.17	10.15	7.43	7.46	8.68	2.23	2.30	10.06	1.93	2.00
50470	5.43	2.11	2.18	10.16	7.44	7.47	8.67	2.22	2.28	10.06	1.93	2.00
50500	5.43	2.11	2.18	10.16	7.44	7.47	8.65	2.20	2.27	10.06	1.93	2.00
50530	5.43	2.11	2.18	10.16	7.44	7.47	8.65	2.20	2.27	10.07	1.94	2.01
50560	5.43	2.11	2.18	10.15	7.43	7.46	8.64	2.19	2.26	10.07	1.94	2.01
50590	5.44	2.12	2.19	10.16	7.44	7.47	8.65	2.20	2.26	10.07	1.94	2.01
50620	5.44	2.12	2.19	10.16	7.44	7.47	8.64	2.19	2.26	10.07	1.94	2.01
50650	5.44	2.12	2.19	10.16	7.44	7.47	8.64	2.19	2.25	10.07	1.94	2.01
50680	5.45	2.13	2.19	10.15	7.43	7.46	8.65	2.20	2.26	10.07	1.94	2.01
50710	5.45	2.13	2.19	10.16	7.44	7.47	8.64	2.19	2.25	10.08	1.95	2.02
50740	5.45	2.13	2.19	10.17	7.45	7.48	8.65	2.20	2.27	10.08	1.95	2.01
50770	5.45	2.13	2.19	10.17	7.45	7.47	8.65	2.20	2.26	10.09	1.96	2.02
50800	5.45	2.13	2.19	10.17	7.45	7.47	8.67	2.22	2.28	10.09	1.96	2.02
50830	5.46	2.14	2.20	10.18	7.46	7.48	8.67	2.22	2.28	10.09	1.96	2.02
50860	5.46	2.14	2.20	10.18	7.46	7.48	8.67	2.22	2.28	10.09	1.96	2.02
50890	5.46	2.14	2.20	10.14	7.42	7.45	8.66	2.21	2.27	10.09	1.96	2.02
50920	5.46	2.14	2.20	10.18	7.46	7.48	8.67	2.22	2.28	10.11	1.98	2.03
50950	5.46	2.14	2.20	10.18	7.46	7.48	8.66	2.21	2.27	10.10	1.97	2.03
50980	5.47	2.15	2.20	10.19	7.47	7.49	8.66	2.21	2.27	10.13	2.00	2.05
51010	5.46	2.14	2.20	10.18	7.46	7.48	8.64	2.19	2.24	10.10	1.97	2.03
51040	5.46	2.14	2.19	10.19	7.47	7.49	8.64	2.19	2.24	10.09	1.96	2.02

51070	5.46	2.14	2.20	10.18	7.46	7.48	8.65	2.20	2.25	10.12	1.99	2.05
51100	5.46	2.14	2.20	10.18	7.46	7.48	8.64	2.19	2.25	10.10	1.97	2.03
51130	5.42	2.10	2.16	6.23	3.51	3.53	8.64	2.19	2.25	10.11	1.98	2.04
51160	5.30	1.98	2.04	5.92	3.20	3.22	8.62	2.17	2.23	10.06	1.93	1.99
51190	5.35	2.03	2.09	10.14	7.42	7.45	8.61	2.16	2.22	10.06	1.93	2.00
51220	5.39	2.07	2.14	10.15	7.43	7.46	8.60	2.15	2.22	10.05	1.92	1.99
51250	5.41	2.09	2.16	10.16	7.44	7.47	8.59	2.14	2.21	10.04	1.91	1.98
51280	5.43	2.11	2.18	10.18	7.46	7.49	8.56	2.11	2.18	10.05	1.92	1.99
51310	5.44	2.12	2.19	10.18	7.46	7.49	8.56	2.11	2.19	10.05	1.92	1.99
51340	5.46	2.14	2.22	10.19	7.47	7.50	8.54	2.09	2.17	10.05	1.92	2.00
51370	5.45	2.13	2.21	10.18	7.46	7.49	8.54	2.09	2.17	10.07	1.94	2.02
51400	5.45	2.13	2.21	10.19	7.47	7.50	8.53	2.08	2.17	10.07	1.94	2.02
51430	5.39	2.07	2.16	6.13	3.41	3.45	8.52	2.07	2.16	10.07	1.94	2.03
51460	5.42	2.10	2.19	10.20	7.48	7.51	8.52	2.07	2.15	10.06	1.93	2.02
51490	5.45	2.13	2.22	10.22	7.50	7.53	8.50	2.05	2.14	10.06	1.93	2.02
51520	5.46	2.14	2.22	10.22	7.50	7.53	8.52	2.07	2.16	10.07	1.94	2.02
51550	5.46	2.14	2.22	10.20	7.48	7.51	8.52	2.07	2.16	10.07	1.94	2.03
51580	5.46	2.14	2.22	6.63	3.91	3.95	8.52	2.07	2.15	10.07	1.94	2.03
51610	5.49	2.17	2.25	10.24	7.52	7.55	8.52	2.07	2.16	10.08	1.95	2.04
51640	5.49	2.17	2.25	10.23	7.51	7.54	8.54	2.09	2.17	10.09	1.96	2.04
51670	5.47	2.15	2.23	10.19	7.47	7.50	8.55	2.10	2.18	10.09	1.96	2.04
51700	5.49	2.17	2.25	9.89	7.17	7.20	8.55	2.10	2.18	10.09	1.96	2.04
51730	5.49	2.17	2.25	10.24	7.52	7.55	8.54	2.09	2.17	10.10	1.97	2.05
51760	5.48	2.16	2.24	10.22	7.50	7.53	8.54	2.09	2.17	10.10	1.97	2.05
51790	5.48	2.16	2.24	10.20	7.48	7.51	8.53	2.08	2.17	10.11	1.98	2.06
51820	5.50	2.18	2.26	10.24	7.52	7.55	8.52	2.07	2.15	10.11	1.98	2.06
51850	5.49	2.17	2.25	10.23	7.51	7.54	8.51	2.06	2.14	10.11	1.98	2.06
51880	5.48	2.16	2.25	10.20	7.48	7.51	8.51	2.06	2.15	10.11	1.98	2.07
51910	5.49	2.17	2.26	10.08	7.36	7.39	8.49	2.04	2.14	10.11	1.98	2.08
51940	5.48	2.16	2.25	10.24	7.52	7.55	8.62	2.17	2.26	10.11	1.98	2.08
51970	5.47	2.15	2.25	10.21	7.49	7.53	8.60	2.15	2.26	10.11	1.98	2.08
52000	5.49	2.17	2.27	10.25	7.53	7.57	8.60	2.15	2.25	10.12	1.99	2.09
52030	5.49	2.17	2.27	10.24	7.52	7.56	8.59	2.14	2.24	10.11	1.98	2.09
52060	5.47	2.15	2.25	10.18	7.46	7.50	8.60	2.15	2.25	10.12	1.99	2.09
52090	5.50	2.18	2.28	10.25	7.53	7.57	8.59	2.14	2.25	10.12	1.99	2.09
52120	5.49	2.17	2.27	10.23	7.51	7.55	8.59	2.14	2.24	10.12	1.99	2.09
52150	5.46	2.14	2.24	8.90	6.18	6.22	8.58	2.13	2.23	10.12	1.99	2.09
52180	5.50	2.18	2.28	10.25	7.53	7.57	8.58	2.13	2.23	10.13	2.00	2.10
52210	5.50	2.18	2.28	10.23	7.51	7.55	8.58	2.13	2.24	10.13	2.00	2.10
52240	5.48	2.16	2.26	10.20	7.48	7.52	8.59	2.14	2.24	10.13	2.00	2.11
52270	5.50	2.18	2.28	7.88	5.16	5.20	8.58	2.13	2.23	10.13	2.00	2.10

52300	5.51	2.19	2.28	10.26	7.54	7.57	8.59	2.14	2.24	10.13	2.00	2.10
52330	5.51	2.19	2.28	10.24	7.52	7.55	8.61	2.16	2.25	10.12	1.99	2.08
52360	5.50	2.18	2.27	10.21	7.49	7.52	8.61	2.16	2.25	10.14	2.01	2.10
52390	5.51	2.19	2.29	10.21	7.49	7.53	8.60	2.15	2.24	10.13	2.00	2.09
52420	5.51	2.19	2.28	10.27	7.55	7.58	8.61	2.16	2.25	10.14	2.01	2.10
52450	5.51	2.19	2.28	10.23	7.51	7.54	8.62	2.17	2.26	10.14	2.01	2.10
52480	5.51	2.19	2.27	7.20	4.48	4.51	8.63	2.18	2.27	10.14	2.01	2.10
52510	5.52	2.20	2.29	10.26	7.54	7.57	8.63	2.18	2.27	10.15	2.02	2.11
52540	5.51	2.19	2.28	10.25	7.53	7.56	8.63	2.18	2.26	10.15	2.02	2.11
52570	5.51	2.19	2.28	10.28	7.56	7.59	8.63	2.18	2.26	10.16	2.03	2.11
52600	5.52	2.20	2.29	10.24	7.52	7.55	8.63	2.18	2.26	10.15	2.02	2.11
52630	5.51	2.19	2.27	10.23	7.51	7.54	8.61	2.16	2.25	10.14	2.01	2.10
52660	5.49	2.17	2.25	10.18	7.46	7.49	8.61	2.16	2.25	10.15	2.02	2.11
52690	5.51	2.19	2.28	10.28	7.56	7.59	8.61	2.16	2.25	10.14	2.01	2.10
52720	5.51	2.19	2.28	10.26	7.54	7.57	8.60	2.15	2.24	10.14	2.01	2.10
52750	5.50	2.18	2.27	10.21	7.49	7.52	8.61	2.16	2.25	10.15	2.02	2.11
52780	5.51	2.19	2.28	10.27	7.55	7.58	8.60	2.15	2.24	10.14	2.01	2.10
52810	5.51	2.19	2.28	10.25	7.53	7.56	8.60	2.15	2.24	10.15	2.02	2.11
52840	5.49	2.17	2.25	10.15	7.43	7.47	8.62	2.17	2.25	10.15	2.02	2.11
52870	5.52	2.20	2.29	10.23	7.51	7.54	8.61	2.16	2.25	10.15	2.02	2.11
52900	5.51	2.19	2.28	10.27	7.55	7.58	8.62	2.17	2.25	10.15	2.02	2.11
52930	5.50	2.18	2.26	10.19	7.47	7.50	8.62	2.17	2.25	10.16	2.03	2.11
52960	5.52	2.20	2.29	10.27	7.55	7.58	8.62	2.17	2.25	10.15	2.02	2.11
52990	5.52	2.20	2.29	10.28	7.56	7.59	8.61	2.16	2.25	10.16	2.03	2.11
53020	5.46	2.14	2.22	6.13	3.41	3.44	8.63	2.18	2.26	10.16	2.03	2.11
53050	5.35	2.03	2.11	5.91	3.19	3.22	8.63	2.18	2.26	10.13	2.00	2.08
53080	5.28	1.96	2.04	5.80	3.08	3.11	8.63	2.18	2.25	10.10	1.97	2.05
53110	5.23	1.91	1.99	5.72	3.00	3.03	8.62	2.17	2.25	10.06	1.93	2.00
53140	5.19	1.87	1.95	5.66	2.94	2.97	8.62	2.17	2.24	10.01	1.88	1.96
53170	5.18	1.86	1.93	5.62	2.90	2.92	8.64	2.19	2.26	9.97	1.84	1.91
53200	5.16	1.84	1.91	5.57	2.85	2.88	8.62	2.17	2.24	9.93	1.80	1.87
53230	5.14	1.82	1.90	5.54	2.82	2.85	8.60	2.15	2.23	9.89	1.76	1.84
53260	5.13	1.81	1.89	5.50	2.78	2.81	8.61	2.16	2.24	9.86	1.73	1.81
53290	5.11	1.79	1.87	5.47	2.75	2.79	8.59	2.14	2.23	9.83	1.70	1.78
53320	5.10	1.78	1.86	5.46	2.74	2.77	8.59	2.14	2.22	9.80	1.67	1.75
53350	5.10	1.78	1.86	5.43	2.71	2.74	8.57	2.12	2.20	9.78	1.65	1.74
53380	5.08	1.76	1.85	5.41	2.69	2.72	8.56	2.11	2.20	9.76	1.63	1.71
53410	5.08	1.76	1.85	5.39	2.67	2.70	8.55	2.10	2.19	9.74	1.61	1.70
53440	5.08	1.76	1.85	5.37	2.65	2.68	8.55	2.10	2.19	9.73	1.60	1.69
53470	5.08	1.76	1.85	5.35	2.63	2.66	8.56	2.11	2.20	9.72	1.59	1.68
53500	5.08	1.76	1.85	5.33	2.61	2.65	8.55	2.10	2.19	9.70	1.57	1.66

53530	5.07	1.75	1.84	5.32	2.60	2.64	8.55	2.10	2.18	9.69	1.56	1.65
53560	5.07	1.75	1.84	5.30	2.58	2.62	8.56	2.11	2.19	9.69	1.56	1.64
53590	5.07	1.75	1.83	5.30	2.58	2.61	8.56	2.11	2.19	9.68	1.55	1.63
53620	5.08	1.76	1.84	5.29	2.57	2.60	8.56	2.11	2.19	9.67	1.54	1.62
53650	5.07	1.75	1.83	5.27	2.55	2.58	8.57	2.12	2.20	9.67	1.54	1.62
53680	5.07	1.75	1.83	5.26	2.54	2.57	8.58	2.13	2.21	9.67	1.54	1.61
53710	5.07	1.75	1.83	5.25	2.53	2.56	8.58	2.13	2.20	9.66	1.53	1.60
53740	5.14	1.82	1.89	10.04	7.32	7.35	8.59	2.14	2.21	9.66	1.53	1.60
53770	5.25	1.93	2.00	10.08	7.36	7.38	8.58	2.13	2.20	9.67	1.54	1.62
53800	5.31	1.99	2.06	10.11	7.39	7.41	8.60	2.15	2.22	9.71	1.58	1.65
53830	5.35	2.03	2.10	10.12	7.40	7.43	8.59	2.14	2.21	9.73	1.60	1.67
53860	5.40	2.08	2.15	10.15	7.43	7.46	8.62	2.17	2.23	9.81	1.68	1.74
53890	5.42	2.10	2.16	10.16	7.44	7.47	8.60	2.15	2.22	9.81	1.68	1.74
53920	5.45	2.13	2.19	10.16	7.44	7.47	8.60	2.15	2.22	9.87	1.74	1.80
53950	5.47	2.15		10.18	7.46		8.63	2.18		9.94	1.81	
53980	5.48	2.16		10.18	7.46		8.62	2.17		9.93	1.80	

55720	5.58	2.26		10.28	7.56		8.60	2.15		10.20	2.06
55750	5.57	2.25		10.24	7.52		8.59	2.14		10.20	2.06
55780	5.59	2.27		10.28	7.56		8.60	2.15		10.20	2.07
55810	5.59	2.27		10.28	7.56		8.62	2.17		10.20	2.07
55840	5.60	2.28		10.28	7.56		8.62	2.17		10.20	2.07
55870	5.60	2.28		10.29	7.57		8.63	2.18		10.21	2.08
55900	5.59	2.27		10.25	7.53		8.63	2.18		10.20	2.07
55930	5.60	2.28		10.13	7.41		8.65	2.20		10.21	2.08
55960	5.59	2.27		10.26	7.54		8.65	2.20		10.21	2.08
55990	5.57	2.25		6.60	3.88		8.65	2.20		10.21	2.08
56020	5.60	2.28		10.27	7.55		8.68	2.23		10.21	2.08
56050	5.60	2.28		10.28	7.56		8.66	2.21		10.21	2.08
56080	5.59	2.27		10.24	7.52		8.66	2.21		10.21	2.08
56110	5.60	2.28		10.28	7.56		8.67	2.22		10.21	2.08
56140	5.58	2.26		10.22	7.50		8.66	2.21		10.21	2.08
56170	5.60	2.28		10.27	7.55		8.64	2.19		10.21	2.08
56200	5.60	2.28		10.28	7.56		8.64	2.19		10.21	2.08
56230	5.55	2.23		10.04	7.32		8.64	2.19		10.21	2.08
56260	5.59	2.27		10.26	7.54		8.63	2.18		10.21	2.08
56290	5.59	2.27		10.28	7.56		8.62	2.17		10.21	2.08

56320	5.58	2.26	10.23	7.51	8.62	2.17	10.21	2.08
56350	5.60	2.28	10.28	7.56	8.63	2.18	10.21	2.08
56380	5.59	2.27	10.24	7.52	8.63	2.18	10.21	2.08
56410	5.60	2.28	10.27	7.55	8.64	2.19	10.21	2.08
56440	5.59	2.27	10.23	7.51	8.63	2.18	10.21	2.08
56470	5.60	2.28	10.28	7.56	8.64	2.19	10.21	2.08
56500	5.60	2.28	10.22	7.50	8.65	2.20	10.21	2.08
56530	5.61	2.29	10.28	7.56	8.65	2.20	10.22	2.09
56560	5.62	2.30	10.28	7.56	8.67	2.22	10.23	2.10
56590	5.59	2.27	6.69	3.97	8.67	2.22	10.23	2.10
56620	5.62	2.30	10.27	7.55	8.68	2.23	10.23	2.10
56650	5.62	2.30	10.28	7.56	8.67	2.22	10.23	2.10
56680	5.62	2.30	10.28	7.56	8.69	2.24	10.23	2.10
56710	5.62	2.30	10.28	7.56	8.69	2.24	10.23	2.10
56740	5.58	2.26	6.54	3.82	8.69	2.24	10.24	2.11
56770	5.61	2.29	10.27	7.55	8.68	2.23	10.23	2.10
56800	5.62	2.30	10.28	7.56	8.67	2.22	10.25	2.12
56830	5.60	2.28	7.13	4.41	8.65	2.20	10.23	2.10
56860	5.61	2.29	10.26	7.54	8.66	2.21	10.24	2.11
56890	5.60	2.28	7.10	4.38	8.65	2.20	10.23	2.10
56920	5.61	2.29	10.27	7.55	8.64	2.19	10.24	2.11
56950	5.61	2.29	10.28	7.56	8.62	2.17	10.24	2.11
56980	5.61	2.29	10.29	7.57	8.61	2.16	10.23	2.10
57010	5.60	2.28	10.24	7.52	8.60	2.15	10.24	2.11
57040	5.61	2.29	10.28	7.56	8.59	2.14	10.24	2.11
57070	5.58	2.26	6.59	3.87	8.59	2.14	10.23	2.10
57100	5.62	2.30	10.27	7.55	8.58	2.13	10.23	2.10
57130	5.58	2.26	10.16	7.44	8.58	2.13	10.24	2.11
57160	5.63	2.31	10.27	7.55	8.57	2.12	10.23	2.10
57190	5.63	2.31	9.46	6.74	8.57	2.12	10.24	2.11
57220	5.64	2.32	10.27	7.55	8.58	2.13	10.24	2.11
57250	5.65	2.33	10.21	7.49	8.57	2.12	10.24	2.11
57280	5.65	2.33	10.28	7.56	8.62	2.17	10.24	2.11
57310	5.61	2.29	10.11	7.39	8.63	2.18	10.25	2.12
57340	5.66	2.34	10.28	7.56	8.63	2.18	10.25	2.12
57370	5.63	2.31	10.19	7.47	8.64	2.19	10.25	2.12
57400	5.66	2.34	10.28	7.56	8.65	2.20	10.26	2.13
57430	5.61	2.29	10.15	7.43	8.66	2.21	10.25	2.12
57460	5.65	2.33	10.28	7.56	8.66	2.21	10.25	2.12
57490	5.65	2.33	9.39	6.67	8.66	2.21	10.26	2.13
57520	5.64	2.32	10.27	7.55	8.66	2.21	10.26	2.13

57550	5.65	2.33	10.29	7.57	8.66	2.21	10.26	2.13
57580	5.64	2.32	10.25	7.53	8.66	2.21	10.25	2.12
57610	5.65	2.33	10.17	7.45	8.65	2.20	10.26	2.13
57640	5.63	2.31	10.26	7.54	8.65	2.20	10.26	2.13
57670	5.64	2.32	10.28	7.56	8.65	2.20	10.25	2.12
57700	5.64	2.32	10.29	7.57	8.64	2.19	10.25	2.12
57730	5.63	2.31	10.25	7.53	8.63	2.18	10.25	2.12
57760	5.64	2.32	10.28	7.56	8.62	2.17	10.25	2.12
57790	5.63	2.31	10.25	7.53	8.61	2.16	10.25	2.12
57820	5.60	2.28	10.17	7.45	8.61	2.16	10.25	2.12
57850	5.64	2.32	10.27	7.55	8.62	2.17	10.25	2.12
57880	5.63	2.31	10.21	7.49	8.63	2.18	10.25	2.12
57910	5.65	2.33	10.28	7.56	8.65	2.20	10.26	2.13
57940	5.65	2.33	10.25	7.53	8.66	2.21	10.26	2.13
57970	5.65	2.33	7.59	4.87	8.68	2.23	10.27	2.14
58000	5.66	2.34	10.27	7.55	8.68	2.23	10.27	2.14
58030	5.64	2.32	7.25	4.53	8.69	2.24	10.27	2.14
58060	5.66	2.34	10.27	7.55	8.69	2.24	10.28	2.15
58090	5.64	2.32	7.38	4.66	8.69	2.24	10.28	2.15
58120	5.66	2.34	10.27	7.55	8.71	2.26	10.28	2.15
58150	5.64	2.32	10.21	7.49	8.70	2.25	10.28	2.15
58180	5.66	2.34	8.28	5.56	8.71	2.26	10.28	2.15
58210	5.66	2.34	10.28	7.56	8.70	2.25	10.28	2.15
58240	5.61	2.29	10.23	7.51	8.69	2.24	10.28	2.15
58270	5.67	2.35	10.29	7.57	8.67	2.22	10.28	2.15
58300	5.69	2.37	6.24	3.52	8.77	2.32	10.28	2.15
58330	5.49	2.17	6.03	3.31	8.75	2.30	10.27	2.14
58360	5.41	2.09	5.93	3.21	8.74	2.29	10.23	2.10
58390	5.36	2.04	5.85	3.13	8.72	2.27	10.18	2.05
58420	5.33	2.01	5.80	3.08	8.71	2.26	10.13	2.00
58450	5.30	1.98	5.76	3.04	8.69	2.24	10.08	1.95
58480	5.28	1.96	5.71	2.99	8.66	2.21	10.04	1.91
58510	5.27	1.95	5.68	2.96	8.66	2.21	10.01	1.88
58540	5.25	1.93	5.65	2.93	8.65	2.20	9.97	1.84
58570	5.24	1.92	5.63	2.91	8.64	2.19	9.94	1.81
58600	5.23	1.91	5.60	2.88	8.63	2.18	9.92	1.79
58630	5.23	1.91	5.57	2.85	8.63	2.18	9.90	1.77
58660	5.22	1.90	5.55	2.83	8.62	2.17	9.87	1.74
58690	5.22	1.90	5.53	2.81	8.62	2.17	9.86	1.73
58720	5.22	1.90	5.51	2.79	8.63	2.18	9.85	1.72
58750	5.22	1.90	5.50	2.78	8.63	2.18	9.83	1.70

58780	5.22	1.90	5.48	2.76	8.61	2.16	9.82	1.69
58810	5.22	1.90	5.47	2.75	8.63	2.18	9.82	1.69
58840	5.22	1.90	5.46	2.74	8.64	2.19	9.80	1.67
58870	5.21	1.89	5.44	2.72	8.64	2.19	9.80	1.67
58900	5.21	1.89	5.43	2.71	8.65	2.20	9.80	1.67
58930	5.21	1.89	5.42	2.70	8.65	2.20	9.79	1.66
58960	5.20	1.88	5.41	2.69	8.65	2.20	9.78	1.65
58990	5.20	1.88	5.39	2.67	8.65	2.20	9.78	1.65
59020	5.20	1.88	5.38	2.66	8.64	2.19	9.78	1.65
59050	5.19	1.87	5.37	2.65	8.64	2.19	9.77	1.64
59080	5.19	1.87	5.36	2.64	8.64	2.19	9.76	1.63
59110	5.19	1.87	5.35	2.63	8.63	2.18	9.76	1.63
59140	5.19	1.87	5.34	2.62	8.62	2.17	9.75	1.62
59170	5.19	1.87	5.33	2.61	8.62	2.17	9.75	1.62
59200	5.19	1.87	5.32	2.60	8.61	2.16	9.75	1.62
59230	5.19	1.87	5.31	2.59	8.61	2.16	9.74	1.61
59260	5.19	1.87	5.30	2.58	8.62	2.17	9.74	1.61
59290	5.19	1.87	5.30	2.58	8.62	2.17	9.74	1.61
59320	5.19	1.87	5.30	2.58	8.63	2.18	9.74	1.61
59350	5.19	1.87	5.29	2.57	8.62	2.17	9.74	1.61
59380	5.19	1.87	5.29	2.57	8.63	2.18	9.74	1.61
59410	5.19	1.87	5.28	2.56	8.63	2.18	9.74	1.61
59440	5.19	1.87	5.27	2.55	8.62	2.17	9.74	1.61
59470	5.19	1.87	5.27	2.55	8.63	2.18	9.74	1.61
59500	5.19	1.87	5.26	2.54	8.64	2.19	9.74	1.61
59530	5.19	1.87	5.26	2.54	8.64	2.19	9.74	1.61
59560	5.19	1.87	5.25	2.53	8.65	2.20	9.74	1.61
59590	5.19	1.87	5.24	2.52	8.64	2.19	9.74	1.61
59620	5.19	1.87	5.24	2.52	8.63	2.18	9.74	1.61
59650	5.19	1.87	5.24	2.52	8.63	2.18	9.74	1.61
59680	5.19	1.87	5.23	2.51	8.62	2.17	9.74	1.61
59710	5.19	1.87	5.23	2.51	8.63	2.18	9.74	1.61
59740	5.18	1.86	5.23	2.51	8.62	2.17	9.74	1.61
59770	5.18	1.86	5.22	2.50	8.61	2.16	9.74	1.61
59800	5.19	1.87	5.22	2.50	8.59	2.14	9.74	1.61
59830	5.19	1.87	5.21	2.49	8.58	2.13	9.75	1.62
59860	5.18	1.86	5.21	2.49	8.57	2.12	9.75	1.62
59890	5.18	1.86	5.21	2.49	8.56	2.11	9.73	1.60
59920	5.18	1.86	5.20	2.48	8.55	2.10	9.73	1.60
59950	5.18	1.86	5.20	2.48	8.54	2.09	9.73	1.60
59980	5.18	1.86	5.19	2.47	8.52	2.07	9.72	1.59

60010	5.18	1.86	5.19	2.47	8.52	2.07	9.73	1.60
60040	5.18	1.86	5.18	2.46	8.52	2.07	9.73	1.60
60070	5.18	1.86	5.18	2.46	8.51	2.06	9.73	1.60
60100	5.18	1.86	5.18	2.46	8.50	2.05	9.73	1.60
60130	5.19	1.87	5.18	2.46	8.51	2.06	9.73	1.60
60160	5.19	1.87	5.17	2.45	8.52	2.07	9.73	1.60
60190	5.19	1.87	5.17	2.45	8.51	2.06	9.73	1.60
60220	5.19	1.87	5.17	2.45	8.52	2.07	9.73	1.60
60250	5.19	1.87	5.16	2.44	8.52	2.07	9.74	1.61
60280	5.20	1.88	5.16	2.44	8.52	2.07	9.74	1.61
60310	5.20	1.88	5.16	2.44	8.53	2.08	9.74	1.61
60340	5.20	1.88	5.15	2.43	8.54	2.09	9.75	1.62
60370	5.20	1.88	5.15	2.43	8.54	2.09	9.76	1.63
60400	5.19	1.87	5.14	2.42	8.54	2.09	9.75	1.62
60430	5.19	1.87	5.14	2.42	8.53	2.08	9.75	1.62
60460	5.19	1.87	5.14	2.42	8.53	2.08	9.75	1.62
60490	5.19	1.87	5.13	2.41	8.52	2.07	9.75	1.62
60520	5.19	1.87	5.13	2.41	8.52	2.07	9.75	1.62
60550	5.18	1.86	5.13	2.41	8.50	2.05	9.75	1.62
60580	5.18	1.86	5.13	2.41	8.51	2.06	9.75	1.62
60610	5.18	1.86	5.13	2.41	8.51	2.06	9.74	1.61
60640	5.18	1.86	5.13	2.41	8.51	2.06	9.75	1.62
60670	5.18	1.86	5.12	2.40	8.51	2.06	9.75	1.62
60700	5.18	1.86	5.12	2.40	8.51	2.06	9.74	1.61
60730	5.19	1.87	5.12	2.40	8.52	2.07	9.74	1.61
60760	5.19	1.87	5.12	2.40	8.52	2.07	9.74	1.61
60790	5.19	1.87	5.11	2.39	8.53	2.08	9.74	1.61
60820	5.19	1.87	5.11	2.39	8.52	2.07	9.75	1.62
60850	5.19	1.87	5.11	2.39	8.52	2.07	9.75	1.62
60880	5.18	1.86	5.11	2.39	8.53	2.08	9.76	1.63
60910	5.19	1.87	5.11	2.39	8.53	2.08	9.76	1.63
60940	5.19	1.87	5.10	2.38	8.53	2.08	9.76	1.63
60970	5.19	1.87	5.10	2.38	8.53	2.08	9.76	1.63
61000	5.19	1.87	5.50	2.78	8.52	2.07	9.76	1.63
61030	5.18	1.86	5.10	2.38	8.52	2.07	9.76	1.63
61060	5.18	1.86	5.10	2.38	8.52	2.07	9.76	1.63
61090	5.19	1.87	5.10	2.38	8.52	2.07	9.78	1.65
61120	5.19	1.87	5.10	2.38	8.51	2.06	9.76	1.63
61150	5.18	1.86	5.09	2.37	8.50	2.05	9.76	1.63
61180	5.18	1.86	5.09	2.37	8.49	2.04	9.76	1.63
61210	5.18	1.86	5.09	2.37	8.48	2.03	9.76	1.63

61240	5.18	1.86	5.09	2.37	8.47	2.02	9.76	1.63
61270	5.17	1.85	5.08	2.36	8.46	2.01	9.76	1.63
61300	5.17	1.85	5.09	2.37	8.44	1.99	9.76	1.63
61330	5.17	1.85	5.08	2.36	8.43	1.98	9.77	1.64
61360	5.17	1.85	5.08	2.36	8.42	1.97	9.73	1.60
61390	5.17	1.85	5.83	3.11	8.41	1.96	9.76	1.63
61420	5.17	1.85	5.11	2.39	8.40	1.95	9.74	1.61
61450	5.18	1.86	5.10	2.38	8.40	1.95	9.74	1.61
61480	5.17	1.85	5.10	2.38	8.40	1.95	9.74	1.61
61510	5.17	1.85	5.10	2.38	8.40	1.95	9.74	1.61
61540	5.18	1.86	5.10	2.38	8.40	1.95	9.74	1.61
61570	5.18	1.86	5.10	2.38	8.40	1.95	9.75	1.62
61600	5.18	1.86	5.10	2.38	8.41	1.96	9.74	1.61
61630	5.19	1.87	5.09	2.37	8.41	1.96	9.74	1.61
61660	5.19	1.87	5.09	2.37	8.42	1.97	9.75	1.62
61690	5.19	1.87	5.09	2.37	8.43	1.98	9.75	1.62
61720	5.19	1.87	5.09	2.37	8.44	1.99	9.75	1.62
61750	5.19	1.87	5.09	2.37	8.45	2.00	9.75	1.62
61780	5.19	1.87	5.09	2.37	8.46	2.01	9.75	1.62
61810	5.19	1.87	5.09	2.37	8.46	2.01	9.75	1.62
61840	5.19	1.87	5.08	2.36	8.46	2.01	9.76	1.63
61870	5.19	1.87	5.08	2.36	8.45	2.00	9.76	1.63
61900	5.19	1.87	5.08	2.36	8.45	2.00	9.76	1.63
61930	5.18	1.86	5.08	2.36	8.43	1.98	9.76	1.63
61960	5.18	1.86	5.08	2.36	8.44	1.99	9.75	1.62
61990	5.18	1.86	5.07	2.35	8.43	1.98	9.76	1.63
62020	5.18	1.86	5.07	2.35	8.43	1.98	9.75	1.62
62050	5.18	1.86	5.07	2.35	8.42	1.97	9.76	1.63
62080	5.18	1.86	5.07	2.35	8.41	1.96	9.76	1.63
62110	5.18	1.86	5.07	2.35	8.42	1.97	9.76	1.63
62140	5.18	1.86	5.07	2.35	8.43	1.98	9.75	1.62
62170	5.19	1.87	5.06	2.34	8.45	2.00	9.76	1.63
62200	5.19	1.87	5.06	2.34	8.44	1.99	9.75	1.62
62230	5.19	1.87	5.06	2.34	8.44	1.99	9.75	1.62
62260	5.19	1.87	5.06	2.34	8.45	2.00	9.76	1.63
62290	5.19	1.87	5.06	2.34	8.47	2.02	9.76	1.63
62320	5.19	1.87	5.06	2.34	8.47	2.02	9.76	1.63
62350	5.19	1.87	5.06	2.34	8.47	2.02	9.76	1.63
62380	5.19	1.87	5.06	2.34	8.45	2.00	9.76	1.63
62410	5.19	1.87	5.06	2.34	8.46	2.01	9.77	1.64
62440	5.19	1.87	5.05	2.33	8.47	2.02	9.77	1.64

62470	5.19	1.87	5.06	2.34	8.47	2.02	9.77	1.64
62500	5.19	1.87	5.05	2.33	8.47	2.02	9.76	1.63

E. Time	MW11-3B	dd	corr. dd	MW11-13B	dd	corr. dd	BARO	chng	.10chng	.26chng	.36chng
0	6.97	0.28	0.28	11.98	0.32		14.81	0.00	0	0	0.00
0.0083	6.97	0.28	0.27	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.0166	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.025	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.0333	6.97	0.28	0.28	11.98	0.32		14.81	0.00	0.00	0.00	0.00
0.0416	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.05	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.0583	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.0666	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.075	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.0833	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.0916	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.1	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.1083	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.1166	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.125	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.1333	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.1416	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.15	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.1583	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.1666	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.175	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.1833	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.1916	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2083	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.2166	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.225	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2333	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2416	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.25	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2583	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2666	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.275	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2833	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.2916	6.97	0.28	0.28	11.99	0.33		14.81	0.00	0.00	0.00	0.00
0.3	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.3083	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00
0.3166	6.97	0.28	0.28	11.99	0.33		14.81	-0.00	-0.00	-0.00	-0.00

0.325	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.3333	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.35	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.3666	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.3833	6.97	0.28	0.28	12.00	0.34	14.81	−0.00	−0.00	−0.00	−0.00
0.4	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.4166	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.4333	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.45	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.4666	6.97	0.28	0.28	12.00	0.34	14.81	−0.00	−0.00	−0.00	−0.00
0.4833	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.5	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.5166	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.5333	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.55	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.5666	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.5833	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.6	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.6166	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.6333	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.65	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.6666	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.6833	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.7	6.97	0.28	0.28	12.00	0.34	14.81	0.00	0.00	0.00	0.00
0.7166	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.7333	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.75	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.7666	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.7833	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.8	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.8166	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.8333	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.85	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
0.8666	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.8833	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.9	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.9166	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.9333	6.97	0.28	0.28	12.00	0.34	14.81	−0.00	−0.00	−0.00	−0.00
0.95	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.9666	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
0.9833	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00

1	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
1.2	6.97	0.28	0.28	11.99	0.33	14.81	−0.00	−0.00	−0.00	−0.00
1.4	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
1.6	6.97	0.28	0.27	11.98	0.32	14.81	0.00	0.00	0.00	0.00
1.8	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
2	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
2.2	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
2.4	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
2.6	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
2.8	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
3	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
3.2	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
3.4	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
3.6	6.97	0.28	0.28	11.98	0.32	14.81	0.01	0.00	0.00	0.00
3.8	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
4	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
4.2	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
4.4	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
4.6	6.97	0.28	0.27	11.98	0.32	14.81	0.00	0.00	0.00	0.00
4.8	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
5	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
5.2	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
5.4	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
5.6	6.97	0.28	0.27	11.98	0.32	14.81	0.00	0.00	0.00	0.00
5.8	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
6	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
6.2	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
6.4	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
6.6	6.97	0.28	0.27	11.98	0.32	14.81	0.00	0.00	0.00	0.00
6.8	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
7	6.97	0.28	0.27	11.98	0.32	14.81	0.00	0.00	0.00	0.00
7.2	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
7.4	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
7.6	6.97	0.28	0.27	11.98	0.32	14.81	0.00	0.00	0.00	0.00
7.8	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
8	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
8.2	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
8.4	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
8.6	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
8.8	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
9	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00

9.2	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
9.4	6.97	0.28	0.27	11.98	0.32	14.81	0.00	0.00	0.00	0.00
9.6	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
9.8	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
10	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
12	6.97	0.28	0.28	11.98	0.32	14.81	0.00	0.00	0.00	0.00
14	6.97	0.28	0.28	11.99	0.33	14.81	0.01	0.00	0.00	0.00
16	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
18	6.97	0.28	0.28	11.99	0.33	14.81	0.00	0.00	0.00	0.00
20	6.97	0.28	0.28	11.99	0.33	14.81	0.01	0.00	0.00	0.00
22	6.98	0.28	0.28	12.00	0.34	14.81	0.01	0.00	0.00	0.00
24	6.98	0.29	0.29	12.00	0.34	14.81	0.01	0.00	0.00	0.00
26	6.98	0.28	0.28	12.00	0.34	14.81	0.01	0.00	0.00	0.00
28	6.98	0.29	0.29	12.00	0.34	14.81	0.01	0.00	0.00	0.00
30	6.98	0.29	0.29	12.01	0.35	14.81	0.00	0.00	0.00	0.00
32	6.98	0.28	0.28	12.01	0.35	14.81	0.00	0.00	0.00	0.00
34	6.97	0.28	0.28	12.01	0.35	14.81	−0.00	−0.00	−0.00	−0.00
36	6.97	0.28	0.28	12.01	0.35	14.81	−0.00	−0.00	−0.00	−0.00
38	6.97	0.28	0.28	12.02	0.36	14.81	−0.01	−0.00	−0.00	−0.00
40	6.97	0.28	0.28	12.02	0.36	14.81	−0.01	−0.00	−0.00	−0.00
42	6.97	0.28	0.28	12.02	0.36	14.81	−0.01	−0.00	−0.00	−0.00
44	6.97	0.28	0.28	12.03	0.37	14.81	−0.01	−0.00	−0.00	−0.00
46	6.97	0.28	0.28	12.03	0.37	14.81	−0.01	−0.00	−0.00	−0.00
48	6.97	0.28	0.28	12.03	0.37	14.81	−0.01	−0.00	−0.00	−0.00
50	6.96	0.27	0.27	12.03	0.37	14.81	−0.01	−0.00	−0.00	−0.00
52	6.96	0.27	0.27	12.03	0.37	14.81	−0.01	−0.00	−0.00	−0.00
54	6.96	0.27	0.27	12.04	0.38	14.81	−0.01	−0.00	−0.00	−0.00
56	6.96	0.27	0.27	12.04	0.38	14.80	−0.01	−0.00	−0.00	−0.00
58	6.96	0.27	0.27	12.04	0.38	14.80	−0.01	−0.00	−0.00	−0.00
60	6.96	0.27	0.27	12.04	0.38	14.80	−0.01	−0.00	−0.00	−0.00
62	6.96	0.27	0.27	12.04	0.38	14.81	−0.01	−0.00	−0.00	−0.00
64	6.96	0.27	0.28	12.05	0.39	14.81	−0.01	−0.00	−0.00	−0.00
66	6.96	0.27	0.28	12.05	0.39	14.81	−0.01	−0.00	−0.00	−0.00
68	6.96	0.27	0.28	12.05	0.39	14.80	−0.01	−0.00	−0.00	−0.00
70	6.96	0.27	0.28	12.05	0.39	14.80	−0.01	−0.00	−0.00	−0.00
72	6.96	0.27	0.28	12.05	0.39	14.80	−0.01	−0.00	−0.00	−0.00
74	6.96	0.27	0.28	12.06	0.40	14.80	−0.01	−0.00	−0.00	−0.00
76	6.96	0.27	0.27	12.06	0.40	14.80	−0.01	−0.00	−0.00	−0.00
78	6.96	0.27	0.27	12.06	0.40	14.80	−0.01	−0.00	−0.00	−0.00
80	6.96	0.27	0.27	12.06	0.40	14.80	−0.02	−0.00	−0.00	−0.01
82	6.95	0.26	0.27	12.06	0.40	14.80	−0.01	−0.00	−0.00	−0.00

84	6.95	0.26	0.27	12.06	0.40	14.81	−0.01	−0.00	−0.00	−0.00
86	6.96	0.27	0.27	12.07	0.41	14.81	−0.01	−0.00	−0.00	−0.00
88	6.96	0.27	0.27	12.07	0.41	14.81	−0.01	−0.00	−0.00	−0.00
90	6.95	0.26	0.26	12.07	0.41	14.80	−0.02	−0.00	−0.00	−0.01
92	6.95	0.26	0.26	12.07	0.41	14.80	−0.02	−0.00	−0.00	−0.01
94	6.95	0.26	0.26	12.07	0.41	14.80	−0.02	−0.00	−0.00	−0.01
96	6.95	0.26	0.26	12.07	0.41	14.80	−0.02	−0.00	−0.00	−0.01
98	6.95	0.26	0.26	12.08	0.42	14.80	−0.02	−0.00	−0.00	−0.01
100	6.94	0.25	0.26	12.08	0.42	14.80	−0.03	−0.00	−0.01	−0.01
120	6.94	0.25	0.26	12.09	0.43	14.80	−0.03	−0.00	−0.01	−0.01
140	6.92	0.22	0.24	12.10	0.44	14.79	−0.04	−0.00	−0.01	−0.01
160	6.92	0.23	0.24	12.10	0.44	14.79	−0.04	−0.00	−0.01	−0.01
180	6.91	0.22	0.23	12.11	0.45	14.79	−0.04	−0.00	−0.01	−0.02
200	6.90	0.21	0.22	12.12	0.46	14.79	−0.05	−0.00	−0.01	−0.02
220	6.88	0.19	0.21	12.13	0.47	14.79	−0.05	−0.01	−0.01	−0.02
240	6.88	0.19	0.20	12.14	0.48	14.79	−0.05	−0.01	−0.01	−0.02
260	6.86	0.17	0.19	12.14	0.48	14.78	−0.06	−0.01	−0.02	−0.02
280	6.86	0.17	0.19	12.15	0.49	14.78	−0.06	−0.01	−0.02	−0.02
300	6.86	0.17	0.19	12.16	0.50	14.78	−0.06	−0.01	−0.02	−0.02
320	6.86	0.17	0.18	12.17	0.51	14.79	−0.06	−0.01	−0.01	−0.02
340	6.85	0.16	0.17	12.18	0.52	14.79	−0.06	−0.01	−0.01	−0.02
360	6.85	0.15	0.17	12.18	0.52	14.79	−0.06	−0.01	−0.01	−0.02
380	6.83	0.14	0.15	12.19	0.53	14.79	−0.06	−0.01	−0.02	−0.02
400	6.83	0.14	0.16	12.20	0.54	14.79	−0.05	−0.01	−0.01	−0.02
420	6.83	0.14	0.15	12.21	0.55	14.79	−0.04	−0.00	−0.01	−0.02
440	6.81	0.12	0.14	12.21	0.55	14.79	−0.05	−0.01	−0.01	−0.02
460	6.80	0.11	0.13	12.22	0.56	14.78	−0.06	−0.01	−0.02	−0.02
480	6.81	0.12	0.13	12.22	0.56	14.79	−0.06	−0.01	−0.01	−0.02
500	6.80	0.11	0.12	12.23	0.57	14.79	−0.06	−0.01	−0.02	−0.02
520	6.80	0.11	0.12	12.24	0.58	14.79	−0.06	−0.01	−0.01	−0.02
540	6.79	0.10	0.11	12.24	0.58	14.79	−0.04	−0.00	−0.01	−0.02
560	6.79	0.10	0.11	12.25	0.59	14.79	−0.04	−0.00	−0.01	−0.02
580	6.79	0.09	0.10	12.25	0.59	14.79	−0.04	−0.00	−0.01	−0.01
600	6.79	0.10	0.11	12.26	0.60	14.80	−0.03	−0.00	−0.01	−0.01
620	6.79	0.10	0.11	12.27	0.61	14.80	−0.03	−0.00	−0.01	−0.01
640	6.78	0.09	0.10	12.27	0.61	14.80	−0.03	−0.00	−0.01	−0.01
660	6.77	0.08	0.09	12.27	0.61	14.80	−0.02	−0.00	−0.01	−0.01
680	6.77	0.08	0.09	12.28	0.61	14.80	−0.03	−0.00	−0.01	−0.01
700	6.77	0.08	0.08	12.28	0.61	14.80	−0.03	−0.00	−0.01	−0.01
720	6.76	0.07	0.08	12.27	0.61	14.80	−0.03	−0.00	−0.01	−0.01
740	6.74	0.05	0.06	12.28	0.61	14.79	−0.04	−0.00	−0.01	−0.01

E. time	11-3B	dd	Corr. dd	11-13B	dd	corr. dd.				
760	6.72	0.03	0.05	12.27	0.61		14.78	−0.06	−0.01	−0.02	−0.02
780	6.69	0.00	0.02	12.27	0.61		14.78	−0.08	−0.01	−0.02	−0.03
800	6.70	0.01	0.03	12.28	0.61		14.78	−0.06	−0.01	−0.02	−0.02
820	6.68	−0.01	0.01	12.28	0.61		14.78	−0.07	−0.01	−0.02	−0.02
840	6.67	−0.02	0.00	12.28	0.61		14.78	−0.07	−0.01	−0.02	−0.03
860	6.67	−0.02	0.00	12.28	0.61		14.78	−0.08	−0.01	−0.02	−0.03
880	6.65	−0.05	−0.02	12.28	0.61		14.77	−0.09	−0.01	−0.02	−0.03
900	6.63	−0.06	−0.03	12.28	0.61		14.77	−0.10	−0.01	−0.03	−0.04
920	6.61	−0.08	−0.05	12.28	0.61		14.76	−0.11	−0.01	−0.03	−0.04
940	6.61	−0.08	−0.05	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
960	6.59	−0.11	−0.07	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
980	6.57	−0.12	−0.09	12.28	0.62		14.75	−0.13	−0.01	−0.03	−0.05
1000	6.54	−0.15	−0.11	12.28	0.62		14.75	−0.15	−0.01	−0.04	−0.05
1030	6.53	−0.16	−0.12	12.28	0.61		14.74	−0.16	−0.02	−0.04	−0.06
1060	6.53	−0.16	−0.12	12.28	0.61		14.74	−0.15	−0.02	−0.04	−0.06
1090	6.51	−0.18	−0.14	12.28	0.62		14.74	−0.16	−0.02	−0.04	−0.06
1120	6.50	−0.19	−0.15	12.28	0.62		14.74	−0.16	−0.02	−0.04	−0.06
1150	6.49	−0.20	−0.16	12.28	0.62		14.74	−0.16	−0.02	−0.04	−0.06
1180	6.50	−0.19	−0.15	12.28	0.62		14.75	−0.14	−0.01	−0.04	−0.05
1210	6.49	−0.20	−0.17	12.28	0.61		14.75	−0.15	−0.01	−0.04	−0.05
1240	6.49	−0.20	−0.16	12.28	0.62		14.75	−0.14	−0.01	−0.04	−0.05
1270	6.48	−0.21	−0.17	12.28	0.61		14.75	−0.14	−0.01	−0.04	−0.05
1300	6.46	−0.23	−0.19	12.28	0.62		14.75	−0.14	−0.01	−0.04	−0.05
1330	6.46	−0.23	−0.19	12.28	0.62		14.75	−0.14	−0.01	−0.04	−0.05
1360	6.45	−0.24	−0.20	12.28	0.62		14.75	−0.14	−0.01	−0.04	−0.05
1390	6.46	−0.24	−0.20	12.28	0.62		14.75	−0.13	−0.01	−0.03	−0.05
1420	6.72	0.03	0.06	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
1450	6.74	0.05	0.08	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
1480	6.77	0.08	0.11	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
1510	6.76	0.07	0.10	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
1540	6.74	0.05	0.08	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
1570	6.73	0.04	0.07	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
1600	6.72	0.03	0.07	12.28	0.62		14.76	−0.13	−0.01	−0.03	−0.05
1630	6.71	0.01	0.05	12.28	0.62		14.76	−0.12	−0.01	−0.03	−0.04
1660	6.69	0.00	0.03	12.27	0.61		14.76	−0.12	−0.01	−0.03	−0.04
1690	6.69	−0.00	0.03	12.25	0.59		14.76	−0.12	−0.01	−0.03	−0.04
1720	6.67	−0.02	0.01	12.23	0.57		14.76	−0.12	−0.01	−0.03	−0.04
1750	6.67	−0.02	0.01	12.23	0.57		14.76	−0.11	−0.01	−0.03	−0.04
1780	6.68	−0.01	0.01	12.25	0.59		14.77	−0.09	−0.01	−0.02	−0.03
1810	6.68	−0.01	0.01	12.26	0.60		14.77	−0.08	−0.01	−0.02	−0.03
1840	6.68	−0.01	0.01	12.27	0.61		14.78	−0.08	−0.01	−0.02	−0.03

1870	6.68	−0.01	0.01	12.28	0.61	14.78	−0.07	−0.01	−0.02	−0.02
1900	6.69	0.00	0.01	12.28	0.62	14.79	−0.05	−0.01	−0.01	−0.02
1930	6.67	−0.02	−0.01	12.28	0.62	14.79	−0.05	−0.01	−0.01	−0.02
1960	6.67	−0.02	−0.01	12.28	0.62	14.79	−0.04	−0.00	−0.01	−0.01
1990	6.67	−0.02	−0.01	12.29	0.63	14.79	−0.04	−0.00	−0.01	−0.01
2020	6.65	−0.04	−0.03	12.28	0.62	14.80	−0.03	−0.00	−0.01	−0.01
2050	6.66	−0.03	−0.03	12.31	0.65	14.80	−0.03	−0.00	−0.01	−0.01
2080	6.81	0.12	0.13	12.30	0.64	14.80	−0.03	−0.00	−0.01	−0.01
2110	6.79	0.10	0.11	12.29	0.63	14.80	−0.03	−0.00	−0.01	−0.01
2140	6.80	0.11	0.12	12.29	0.63	14.80	−0.03	−0.00	−0.01	−0.01
2170	6.78	0.09	0.10	12.31	0.65	14.80	−0.03	−0.00	−0.01	−0.01
2200	6.76	0.07	0.08	12.30	0.64	14.79	−0.04	−0.00	−0.01	−0.01
2230	6.74	0.05	0.06	12.32	0.66	14.79	−0.05	−0.01	−0.01	−0.02
2260	6.72	0.03	0.04	12.32	0.66	14.78	−0.06	−0.01	−0.02	−0.02
2290	6.70	0.01	0.03	12.32	0.66	14.78	−0.07	−0.01	−0.02	−0.02
2320	6.70	0.01	0.03	12.32	0.66	14.78	−0.08	−0.01	−0.02	−0.03
2350	6.67	−0.02	−0.00	12.32	0.66	14.78	−0.08	−0.01	−0.02	−0.03
2380	6.76	0.07	0.09	12.32	0.66	14.77	−0.08	−0.01	−0.02	−0.03
2410	6.76	0.07	0.09	12.30	0.64	14.78	−0.08	−0.01	−0.02	−0.03
2440	6.76	0.07	0.08	12.32	0.66	14.78	−0.06	−0.01	−0.02	−0.02
2470	6.74	0.05	0.07	12.32	0.66	14.78	−0.06	−0.01	−0.02	−0.02
2500	6.74	0.05	0.06	12.32	0.66	14.78	−0.07	−0.01	−0.02	−0.02
2530	6.76	0.07	0.09	12.32	0.66	14.78	−0.07	−0.01	−0.02	−0.02
2560	6.74	0.05	0.07	12.32	0.66	14.78	−0.07	−0.01	−0.02	−0.03
2590	6.74	0.05	0.07	12.32	0.66	14.78	−0.06	−0.01	−0.02	−0.02
2620	6.73	0.04	0.06	12.32	0.66	14.78	−0.06	−0.01	−0.02	−0.02
2650	6.74	0.05	0.06	12.32	0.66	14.79	−0.04	−0.00	−0.01	−0.02
2680	6.74	0.05	0.06	12.33	0.67	14.79	−0.04	−0.00	−0.01	−0.01
2710	6.75	0.06	0.06	12.33	0.67	14.80	−0.02	−0.00	−0.00	−0.01
2740	6.75	0.06	0.06	12.34	0.68	14.81	0.00	0.00	0.00	0.00
2770	6.74	0.05	0.05	12.34	0.68	14.81	0.00	0.00	0.00	0.00
2800	6.72	0.03	0.03	12.34	0.68	14.81	0.00	0.00	0.00	0.00
2830	6.80	0.11	0.12	12.34	0.68	14.81	−0.00	−0.00	−0.00	−0.00
2860	6.79	0.10	0.11	12.34	0.68	14.81	−0.00	−0.00	−0.00	−0.00
2890	6.78	0.09	0.09	12.34	0.68	14.81	−0.01	−0.00	−0.00	−0.00
2920	6.76	0.07	0.07	12.34	0.68	14.81	−0.01	−0.00	−0.00	−0.00
2950	6.74	0.05	0.05	12.35	0.69	14.80	−0.02	−0.00	−0.00	−0.01
2980	6.71	0.02	0.03	12.35	0.69	14.80	−0.03	−0.00	−0.01	−0.01
3010	6.69	−0.00	0.01	12.35	0.69	14.79	−0.04	−0.00	−0.01	−0.01
3040	6.76	0.07	0.08	12.35	0.69	14.79	−0.06	−0.01	−0.02	−0.02
3070	6.74	0.05	0.07	12.35	0.69	14.78	−0.06	−0.01	−0.02	−0.02

3100	6.72	0.03	0.05	12.35	0.69	14.78	−0.07	−0.01	−0.02	−0.02
3130	6.71	0.02	0.04	12.35	0.69	14.78	−0.06	−0.01	−0.02	−0.02
3160	6.71	0.01	0.03	12.35	0.69	14.78	−0.06	−0.01	−0.02	−0.02
3190	6.70	0.01	0.02	12.35	0.69	14.79	−0.06	−0.01	−0.01	−0.02
3220	6.77	0.08	0.10	12.35	0.69	14.79	−0.05	−0.01	−0.01	−0.02
3250	6.77	0.08	0.09	12.36	0.70	14.79	−0.04	−0.00	−0.01	−0.01
3280	6.86	0.17	0.18	12.36	0.70	14.80	−0.03	−0.00	−0.01	−0.01
3310	6.86	0.17	0.18	12.36	0.70	14.81	−0.01	−0.00	−0.00	−0.00
3340	6.86	0.17	0.18	12.36	0.70	14.81	−0.00	−0.00	−0.00	−0.00
3370	6.86	0.17	0.17	12.37	0.71	14.81	0.00	0.00	0.00	0.00
3400	6.85	0.15	0.15	12.37	0.71	14.81	0.00	0.00	0.00	0.00
3430	6.83	0.14	0.14	12.37	0.71	14.81	0.00	0.00	0.00	0.00
3460	6.82	0.13	0.13	12.38	0.72	14.81	0.00	0.00	0.00	0.00
3490	6.80	0.11	0.11	12.38	0.72	14.81	0.00	0.00	0.00	0.00
3520	6.80	0.11	0.10	12.39	0.73	14.82	0.01	0.00	0.00	0.00
3550	6.79	0.10	0.09	12.39	0.73	14.82	0.02	0.00	0.00	0.01
3580	6.75	0.06	0.06	12.39	0.73	14.81	−0.00	−0.00	−0.00	−0.00
3610	6.92	0.23	0.24	12.39	0.73	14.80	−0.02	−0.00	−0.00	−0.01
3640	6.89	0.20	0.21	12.39	0.73	14.80	−0.03	−0.00	−0.01	−0.01
3670	6.90	0.21	0.22	12.40	0.74	14.79	−0.04	−0.00	−0.01	−0.01
3700	6.86	0.17	0.19	12.36	0.70	14.79	−0.06	−0.01	−0.01	−0.02
3730	6.89	0.20	0.21	12.40	0.74	14.78	−0.07	−0.01	−0.02	−0.02
3760	6.88	0.19	0.21	12.39	0.73	14.77	−0.09	−0.01	−0.02	−0.03
3790	6.87	0.18	0.21	12.38	0.72	14.77	−0.09	−0.01	−0.02	−0.03
3820	6.87	0.18	0.21	12.39	0.73	14.77	−0.09	−0.01	−0.02	−0.03
3850	6.88	0.19	0.22	12.40	0.74	14.77	−0.09	−0.01	−0.02	−0.03
3880	6.88	0.19	0.21	12.38	0.72	14.77	−0.09	−0.01	−0.02	−0.03
3910	6.89	0.20	0.22	12.39	0.73	14.77	−0.10	−0.01	−0.03	−0.04
3940	6.89	0.20	0.22	12.40	0.74	14.76	−0.11	−0.01	−0.03	−0.04
3970	6.88	0.19	0.22	12.40	0.74	14.76	−0.12	−0.01	−0.03	−0.04
4000	6.89	0.20	0.23	12.39	0.73	14.76	−0.12	−0.01	−0.03	−0.04
4030	6.90	0.21	0.24	12.40	0.74	14.76	−0.12	−0.01	−0.03	−0.04
4060	6.90	0.21	0.24	12.39	0.73	14.76	−0.11	−0.01	−0.03	−0.04
4090	6.91	0.22	0.24	12.39	0.73	14.78	−0.08	−0.01	−0.02	−0.03
4120	6.91	0.22	0.24	12.40	0.74	14.77	−0.09	−0.01	−0.02	−0.03
4150	6.91	0.22	0.24	12.40	0.74	14.78	−0.08	−0.01	−0.02	−0.03
4180	6.92	0.22	0.24	12.40	0.74	14.78	−0.08	−0.01	−0.02	−0.03
4210	6.91	0.22	0.24	12.40	0.74	14.78	−0.06	−0.01	−0.02	−0.02
4240	6.93	0.24	0.25	12.40	0.74	14.79	−0.05	−0.01	−0.01	−0.02
4270	6.91	0.22	0.23	12.41	0.75	14.79	−0.04	−0.00	−0.01	−0.02
4300	6.92	0.23	0.24	12.41	0.75	14.80	−0.03	−0.00	−0.01	−0.01

4330	6.92	0.23	0.24	12.41	0.75	14.80	−0.02	−0.00	−0.00	−0.01
4360	6.98	0.28	0.29	12.41	0.75	14.79	−0.04	−0.00	−0.01	−0.01
4390	6.93	0.24	0.25	12.41	0.75	14.79	−0.05	−0.00	−0.01	−0.02
4420	6.91	0.22	0.23	12.41	0.75	14.79	−0.05	−0.00	−0.01	−0.02
4450	6.89	0.20	0.22	12.41	0.75	14.79	−0.05	−0.01	−0.01	−0.02
4480	6.91	0.22	0.23	12.41	0.75	14.78	−0.06	−0.01	−0.02	−0.02
4510	6.90	0.21	0.23	12.41	0.75	14.79	−0.05	−0.01	−0.01	−0.02
4540	6.90	0.21	0.23	12.41	0.75	14.79	−0.06	−0.01	−0.01	−0.02
4570	6.92	0.23	0.24	12.41	0.75	14.79	−0.04	−0.00	−0.01	−0.01
4600	6.90	0.21	0.21	12.41	0.75	14.80	−0.03	−0.00	−0.01	−0.01
4630	6.89	0.20	0.21	12.41	0.75	14.79	−0.04	−0.00	−0.01	−0.01
4660	6.89	0.20	0.21	12.42	0.76	14.79	−0.05	−0.00	−0.01	−0.02
4690	6.89	0.20	0.22	12.42	0.76	14.79	−0.05	−0.00	−0.01	−0.02
4720	6.89	0.20	0.21	12.41	0.75	14.79	−0.06	−0.01	−0.02	−0.02
4750	6.87	0.18	0.20	12.42	0.76	14.78	−0.08	−0.01	−0.02	−0.03
4780	6.90	0.21	0.22	12.42	0.76	14.78	−0.06	−0.01	−0.02	−0.02
4810	6.89	0.20	0.22	12.43	0.77	14.78	−0.06	−0.01	−0.02	−0.02
4840	6.89	0.20	0.22	12.43	0.77	14.78	−0.06	−0.01	−0.02	−0.02
4870	6.89	0.20	0.21	12.43	0.77	14.78	−0.06	−0.01	−0.02	−0.02
4900	6.90	0.21	0.22	12.44	0.78	14.79	−0.04	−0.00	−0.01	−0.02
4930	6.90	0.21	0.22	12.43	0.77	14.80	−0.03	−0.00	−0.01	−0.01
4960	6.89	0.20	0.20	12.44	0.78	14.80	−0.03	−0.00	−0.01	−0.01
4990	6.90	0.21	0.22	12.46	0.80	14.80	−0.03	−0.00	−0.01	−0.01
5020	6.88	0.19	0.19	12.40	0.74	14.80	−0.03	−0.00	−0.01	−0.01
5050	6.95	0.26	0.27	12.45	0.78	14.80	−0.03	−0.00	−0.01	−0.01
5080	6.87	0.18	0.19	12.41	0.75	14.80	−0.03	−0.00	−0.01	−0.01
5110	6.89	0.20	0.21	12.46	0.80	14.80	−0.03	−0.00	−0.01	−0.01
5140	6.85	0.16	0.17	12.40	0.74	14.79	−0.04	−0.00	−0.01	−0.01
5170	6.89	0.20	0.21	12.45	0.78	14.79	−0.04	−0.00	−0.01	−0.01
5200	6.89	0.20	0.21	12.45	0.78	14.79	−0.05	−0.01	−0.01	−0.02
5230	6.90	0.21	0.22	12.44	0.78	14.78	−0.06	−0.01	−0.02	−0.02
5260	6.90	0.21	0.23	12.46	0.80	14.78	−0.07	−0.01	−0.02	−0.02
5290	6.88	0.19	0.21	12.45	0.78	14.78	−0.07	−0.01	−0.02	−0.03
5320	6.88	0.19	0.21	12.45	0.78	14.78	−0.07	−0.01	−0.02	−0.03
5350	6.89	0.20	0.22	12.45	0.78	14.78	−0.08	−0.01	−0.02	−0.03
5380	6.88	0.19	0.21	12.45	0.78	14.78	−0.07	−0.01	−0.02	−0.03
5410	6.89	0.20	0.21	12.45	0.78	14.78	−0.06	−0.01	−0.02	−0.02
5440	6.89	0.20	0.21	12.45	0.78	14.79	−0.05	−0.01	−0.01	−0.02
5470	6.89	0.20	0.21	12.46	0.80	14.79	−0.04	−0.00	−0.01	−0.01
5500	6.90	0.21	0.21	12.46	0.80	14.80	−0.03	−0.00	−0.01	−0.01
5530	6.89	0.20	0.21	12.46	0.80	14.80	−0.02	−0.00	−0.00	−0.01

5560	6.88	0.19	0.20	12.46	0.80	14.81	−0.01	−0.00	−0.00	−0.00
5590	6.89	0.20	0.20	12.46	0.80	14.81	0.00	0.00	0.00	0.00
5620	6.89	0.20	0.20	12.46	0.80	14.81	0.01	0.00	0.00	0.00
5650	6.91	0.22	0.21	12.46	0.80	14.82	0.01	0.00	0.00	0.00
5680	6.89	0.20	0.20	12.46	0.80	14.82	0.02	0.00	0.00	0.01
5710	6.89	0.20	0.19	12.46	0.80	14.83	0.04	0.00	0.01	0.01
5740	6.88	0.19	0.18	12.46	0.80	14.83	0.05	0.00	0.01	0.02
5770	6.89	0.20	0.18	12.46	0.80	14.83	0.05	0.00	0.01	0.02
5800	6.90	0.21	0.20	12.46	0.80	14.83	0.04	0.00	0.01	0.01
5830	6.89	0.20	0.19	12.47	0.81	14.83	0.04	0.00	0.01	0.02
5860	6.89	0.20	0.19	12.47	0.81	14.83	0.04	0.00	0.01	0.01
5890	6.90	0.21	0.20	12.47	0.81	14.83	0.03	0.00	0.01	0.01
5920	6.89	0.20	0.19	12.47	0.81	14.82	0.03	0.00	0.01	0.01
5950	6.88	0.19	0.18	12.48	0.82	14.82	0.03	0.00	0.01	0.01
5980	6.89	0.20	0.19	12.48	0.82	14.83	0.03	0.00	0.01	0.01
6010	6.89	0.20	0.19	12.49	0.83	14.82	0.03	0.00	0.01	0.01
6040	6.89	0.20	0.19	12.49	0.83	14.83	0.04	0.00	0.01	0.01
6070	6.90	0.21	0.20	12.50	0.84	14.84	0.06	0.01	0.02	0.02
6100	6.91	0.22	0.20	12.50	0.84	14.84	0.07	0.01	0.02	0.02
6130	6.92	0.23	0.21	12.51	0.85	14.85	0.09	0.01	0.02	0.03
6160	6.93	0.24	0.22	12.52	0.86	14.85	0.10	0.01	0.03	0.03
6190	6.91	0.22	0.19	12.52	0.86	14.85	0.10	0.01	0.03	0.04
6220	6.92	0.22	0.19	12.52	0.86	14.86	0.12	0.01	0.03	0.04
6250	6.92	0.23	0.20	12.54	0.88	14.86	0.12	0.01	0.03	0.04
6280	6.93	0.24	0.21	12.54	0.88	14.86	0.12	0.01	0.03	0.04
6310	6.93	0.24	0.20	12.53	0.87	14.86	0.12	0.01	0.03	0.04
6340	6.93	0.24	0.20	12.54	0.88	14.87	0.14	0.01	0.04	0.05
6370	6.93	0.24	0.20	12.54	0.88	14.87	0.14	0.01	0.04	0.05
6400	6.93	0.24	0.20	12.53	0.87	14.87	0.14	0.01	0.04	0.05
6430	6.91	0.22	0.18	12.52	0.86	14.87	0.14	0.01	0.04	0.05
6460	6.91	0.22	0.18	12.55	0.89	14.87	0.14	0.01	0.04	0.05
6490	6.96	0.27	0.24	12.56	0.90	14.87	0.14	0.01	0.04	0.05
6520	6.92	0.22	0.19	12.55	0.89	14.87	0.13	0.01	0.03	0.05
6550	6.88	0.19	0.16	12.52	0.86	14.86	0.12	0.01	0.03	0.04
6580	6.91	0.22	0.20	12.55	0.89	14.85	0.10	0.01	0.03	0.04
6610	6.90	0.21	0.18	12.55	0.89	14.85	0.09	0.01	0.02	0.03
6640	6.92	0.23	0.21	12.56	0.90	14.84	0.07	0.01	0.02	0.03
6670	6.90	0.21	0.19	12.55	0.89	14.84	0.07	0.01	0.02	0.02
6700	6.90	0.21	0.19	12.55	0.89	14.83	0.05	0.00	0.01	0.02
6730	6.90	0.21	0.20	12.55	0.89	14.83	0.04	0.00	0.01	0.02
6760	6.91	0.22	0.21	12.55	0.89	14.83	0.04	0.00	0.01	0.01

6790	6.93	0.24	0.23	12.55	0.89	14.83	0.03	0.00	0.01	0.01
6820	6.93	0.24	0.23	12.55	0.89	14.82	0.03	0.00	0.01	0.01
6850	6.93	0.24	0.23	12.54	0.88	14.82	0.03	0.00	0.01	0.01
6880	6.93	0.24	0.24	12.54	0.88	14.82	0.03	0.00	0.01	0.01
6910	6.94	0.25	0.25	12.55	0.89	14.82	0.03	0.00	0.01	0.01
6940	6.94	0.25	0.24	12.55	0.89	14.83	0.04	0.00	0.01	0.01
6970	6.95	0.26	0.25	12.55	0.89	14.83	0.03	0.00	0.01	0.01
7000	6.94	0.25	0.24	12.55	0.89	14.83	0.04	0.00	0.01	0.01
7030	6.94	0.25	0.24	12.55	0.89	14.83	0.04	0.00	0.01	0.01
7060	6.95	0.26	0.25	12.55	0.89	14.83	0.04	0.00	0.01	0.01
7090	6.94	0.25	0.24	12.55	0.89	14.83	0.04	0.00	0.01	0.01
7120	6.95	0.26	0.25	12.55	0.89	14.83	0.04	0.00	0.01	0.01
7150	6.94	0.25	0.24	12.56	0.90	14.83	0.04	0.00	0.01	0.01
7180	6.95	0.26	0.24	12.56	0.90	14.83	0.04	0.00	0.01	0.02
7210	6.99	0.30	0.29	12.56	0.90	14.83	0.04	0.00	0.01	0.01
7240	6.94	0.25	0.24	12.56	0.90	14.82	0.03	0.00	0.01	0.01
7270	6.93	0.24	0.23	12.56	0.90	14.82	0.02	0.00	0.01	0.01
7300	6.94	0.25	0.25	12.56	0.90	14.82	0.02	0.00	0.00	0.01
7330	6.93	0.24	0.23	12.56	0.90	14.82	0.01	0.00	0.00	0.00
7360	6.95	0.26	0.26	12.56	0.90	14.82	0.02	0.00	0.00	0.01
7390	6.95	0.26	0.25	12.57	0.91	14.82	0.02	0.00	0.00	0.01
7420	6.94	0.25	0.25	12.57	0.91	14.82	0.02	0.00	0.00	0.01
7450	6.94	0.25	0.24	12.58	0.92	14.82	0.02	0.00	0.01	0.01
7480	6.97	0.28	0.27	12.58	0.92	14.82	0.03	0.00	0.01	0.01
7510	6.97	0.28	0.27	12.59	0.93	14.83	0.04	0.00	0.01	0.01
7540	6.97	0.28	0.27	12.59	0.93	14.83	0.05	0.00	0.01	0.02
7570	6.98	0.28	0.27	12.60	0.94	14.84	0.06	0.01	0.02	0.02
7600	7.01	0.32	0.30	12.61	0.95	14.84	0.07	0.01	0.02	0.02
7630	6.98	0.29	0.27	12.61	0.95	14.84	0.07	0.01	0.02	0.02
7660	6.99	0.30	0.28	12.61	0.95	14.84	0.08	0.01	0.02	0.03
7690	6.99	0.30	0.28	12.62	0.96	14.84	0.08	0.01	0.02	0.03
7720	6.99	0.30	0.28	12.62	0.96	14.85	0.08	0.01	0.02	0.03
7750	7.00	0.31	0.29	12.63	0.97	14.85	0.09	0.01	0.02	0.03
7780	6.98	0.28	0.26	12.63	0.97	14.85	0.10	0.01	0.03	0.03
7810	6.98	0.29	0.26	12.63	0.97	14.85	0.10	0.01	0.03	0.04
7840	6.98	0.28	0.26	12.62	0.96	14.86	0.10	0.01	0.03	0.04
7870	6.97	0.28	0.26	12.62	0.96	14.85	0.10	0.01	0.03	0.04
7900	6.99	0.30	0.28	12.64	0.98	14.85	0.10	0.01	0.03	0.03
7930	7.01	0.32	0.30	12.63	0.97	14.85	0.09	0.01	0.02	0.03
7960	6.98	0.29	0.27	12.62	0.96	14.85	0.09	0.01	0.02	0.03
7990	6.97	0.28	0.26	12.63	0.97	14.85	0.09	0.01	0.02	0.03

8020	6.97	0.28	0.26	12.63	0.97	14.85	0.09	0.01	0.02	0.03
8050	6.95	0.26	0.24	12.63	0.97	14.84	0.07	0.01	0.02	0.03
8080	6.95	0.26	0.25	12.63	0.97	14.84	0.06	0.01	0.02	0.02
8110	6.95	0.26	0.25	12.63	0.97	14.84	0.06	0.01	0.02	0.02
8140	6.96	0.27	0.26	12.63	0.97	14.83	0.05	0.01	0.01	0.02
8170	6.97	0.28	0.27	12.63	0.97	14.83	0.05	0.00	0.01	0.02
8200	6.97	0.28	0.27	12.63	0.97	14.83	0.05	0.00	0.01	0.02
8230	6.98	0.29	0.28	12.63	0.97	14.83	0.04	0.00	0.01	0.02
8260	6.99	0.30	0.28	12.63	0.97	14.83	0.05	0.01	0.01	0.02
8290	7.00	0.31	0.30	12.63	0.97	14.83	0.05	0.01	0.01	0.02
8320	6.99	0.30	0.28	12.63	0.97	14.83	0.05	0.00	0.01	0.02
8350	6.97	0.28	0.27	12.62	0.96	14.83	0.05	0.01	0.01	0.02
8380	6.99	0.30	0.28	12.63	0.97	14.84	0.06	0.01	0.02	0.02
8410	6.99	0.30	0.28	12.63	0.97	14.84	0.07	0.01	0.02	0.02
8440	7.00	0.31	0.29	12.63	0.97	14.84	0.08	0.01	0.02	0.03
8470	7.01	0.32	0.30	12.63	0.97	14.85	0.08	0.01	0.02	0.03
8500	6.99	0.30	0.28	12.63	0.97	14.85	0.09	0.01	0.02	0.03
8530	7.00	0.31	0.29	12.63	0.97	14.85	0.09	0.01	0.02	0.03
8560	7.00	0.31	0.29	12.62	0.96	14.84	0.08	0.01	0.02	0.03
8590	6.98	0.29	0.27	12.62	0.96	14.84	0.07	0.01	0.02	0.03
8620	6.99	0.30	0.29	12.62	0.96	14.84	0.07	0.01	0.02	0.02
8650	7.00	0.31	0.30	12.62	0.96	14.84	0.06	0.01	0.02	0.02
8680	6.98	0.29	0.27	12.62	0.96	14.83	0.05	0.01	0.01	0.02
8710	6.99	0.30	0.29	12.61	0.95	14.83	0.04	0.00	0.01	0.02
8740	6.97	0.28	0.27	12.62	0.96	14.83	0.03	0.00	0.01	0.01
8770	6.98	0.29	0.28	12.61	0.95	14.82	0.03	0.00	0.01	0.01
8800	6.97	0.28	0.28	12.61	0.95	14.82	0.03	0.00	0.01	0.01
8830	6.99	0.30	0.29	12.61	0.95	14.82	0.03	0.00	0.01	0.01
8860	6.98	0.29	0.29	12.62	0.96	14.82	0.02	0.00	0.01	0.01
8890	6.99	0.30	0.30	12.62	0.96	14.82	0.02	0.00	0.01	0.01
8920	6.99	0.30	0.29	12.62	0.96	14.82	0.03	0.00	0.01	0.01
8950	7.01	0.32	0.31	12.63	0.97	14.83	0.04	0.00	0.01	0.01
8980	7.00	0.31	0.30	12.63	0.97	14.83	0.04	0.00	0.01	0.02
9010	7.03	0.34	0.33	12.64	0.98	14.84	0.06	0.01	0.02	0.02
9040	7.05	0.36	0.34	12.64	0.98	14.84	0.06	0.01	0.02	0.02
9070	7.04	0.35	0.33	12.64	0.98	14.84	0.07	0.01	0.02	0.03
9100	7.04	0.35	0.33	12.64	0.98	14.85	0.08	0.01	0.02	0.03
9130	7.04	0.35	0.33	12.65	0.99	14.85	0.09	0.01	0.02	0.03
9160	7.05	0.36	0.33	12.65	0.99	14.85	0.09	0.01	0.02	0.03
9190	7.02	0.33	0.30	12.65	0.99	14.85	0.10	0.01	0.03	0.04
9220	7.06	0.37	0.34	12.66	1.00	14.86	0.11	0.01	0.03	0.04

9250	7.05	0.36	0.34	12.67	1.01	14.86	0.11	0.01	0.03	0.04
9280	7.02	0.33	0.31	12.66	1.00	14.86	0.10	0.01	0.03	0.04
9310	7.03	0.34	0.31	12.66	1.00	14.85	0.10	0.01	0.03	0.03
9340	7.04	0.34	0.32	12.66	1.00	14.85	0.09	0.01	0.02	0.03
9370	7.08	0.39	0.37	12.66	1.00	14.84	0.08	0.01	0.02	0.03
9400	7.06	0.37	0.36	12.65	0.99	14.84	0.07	0.01	0.02	0.03
9430	7.05	0.36	0.34	12.64	0.98	14.84	0.06	0.01	0.02	0.02
9460	7.00	0.31	0.30	12.64	0.98	14.83	0.05	0.01	0.01	0.02
9490	7.02	0.33	0.32	12.64	0.98	14.83	0.04	0.00	0.01	0.01
9520	7.00	0.31	0.31	12.64	0.98	14.82	0.03	0.00	0.01	0.01
9550	7.01	0.32	0.32	12.64	0.98	14.82	0.02	0.00	0.00	0.01
9580	7.00	0.31	0.30	12.64	0.98	14.82	0.01	0.00	0.00	0.00
9610	7.01	0.32	0.32	12.64	0.98	14.82	0.01	0.00	0.00	0.00
9640	7.02	0.33	0.33	12.63	0.97	14.81	0.01	0.00	0.00	0.00
9670	7.01	0.32	0.32	12.63	0.97	14.81	0.01	0.00	0.00	0.00
9700	7.05	0.36	0.36	12.63	0.97	14.81	0.00	0.00	0.00	0.00
9730	7.04	0.35	0.35	12.63	0.97	14.81	−0.00	−0.00	−0.00	−0.00
9760	7.03	0.34	0.34	12.63	0.97	14.81	−0.01	−0.00	−0.00	−0.00
9790	7.02	0.33	0.33	12.63	0.97	14.81	−0.00	−0.00	−0.00	−0.00
9820	7.05	0.36	0.36	12.63	0.97	14.81	0.00	0.00	0.00	0.00
9850	7.05	0.36	0.35	12.63	0.97	14.82	0.02	0.00	0.00	0.01
9880	7.04	0.35	0.35	12.63	0.97	14.82	0.02	0.00	0.01	0.01
9910	7.06	0.37	0.37	12.63	0.97	14.82	0.03	0.00	0.01	0.01
9940	7.06	0.37	0.36	12.63	0.97	14.83	0.04	0.00	0.01	0.01
9970	7.04	0.35	0.34	12.63	0.97	14.82	0.03	0.00	0.01	0.01
10000	7.05	0.36	0.35	12.63	0.97	14.82	0.02	0.00	0.01	0.01
10030	7.05	0.36	0.35	12.63	0.97	14.82	0.02	0.00	0.01	0.01
10060	7.06	0.37	0.36	12.62	0.96	14.82	0.01	0.00	0.00	0.00
10090	7.04	0.35	0.35	12.62	0.96	14.82	0.01	0.00	0.00	0.00
10120	7.07	0.38	0.38	12.62	0.96	14.81	0.01	0.00	0.00	0.00
10150	7.05	0.36	0.36	12.62	0.96	14.81	−0.01	−0.00	−0.00	−0.00
10180	7.03	0.34	0.35	12.62	0.96	14.80	−0.01	−0.00	−0.00	−0.00
10210	7.03	0.34	0.34	12.62	0.96	14.80	−0.02	−0.00	−0.01	−0.01
10240	7.03	0.34	0.35	12.62	0.96	14.80	−0.03	−0.00	−0.01	−0.01
10270	7.02	0.33	0.34	12.62	0.96	14.80	−0.03	−0.00	−0.01	−0.01
10300	7.02	0.33	0.34	12.62	0.96	14.80	−0.03	−0.00	−0.01	−0.01
10330	7.03	0.34	0.35	12.63	0.97	14.80	−0.03	−0.00	−0.01	−0.01
10360	7.04	0.35	0.35	12.61	0.95	14.80	−0.02	−0.00	−0.01	−0.01
10390	7.03	0.34	0.34	12.60	0.94	14.80	−0.02	−0.00	−0.00	−0.01
10420	7.03	0.34	0.35	12.59	0.93	14.80	−0.01	−0.00	−0.00	−0.00
10450	7.03	0.34	0.34	12.59	0.93	14.81	−0.01	−0.00	−0.00	−0.00

10480	7.06	0.37	0.37	12.59	0.93	14.81	−0.00	−0.00	−0.00	−0.00
10510	7.06	0.37	0.37	12.60	0.94	14.81	0.01	0.00	0.00	0.00
10540	7.06	0.37	0.37	12.60	0.94	14.82	0.01	0.00	0.00	0.00
10570	7.06	0.37	0.36	12.59	0.93	14.82	0.01	0.00	0.00	0.00
10600	7.05	0.36	0.35	12.60	0.94	14.82	0.01	0.00	0.00	0.00
10630	7.04	0.35	0.35	12.59	0.93	14.82	0.02	0.00	0.00	0.01
10660	7.04	0.35	0.35	12.59	0.93	14.82	0.02	0.00	0.01	0.01
10690	7.07	0.38	0.38	12.64	0.98	14.82	0.03	0.00	0.01	0.01
10720	7.06	0.37	0.36	12.60	0.94	14.82	0.02	0.00	0.01	0.01
10750	7.02	0.33	0.33	12.59	0.93	14.82	0.01	0.00	0.00	0.00
10780	7.03	0.34	0.34	12.59	0.93	14.81	−0.00	−0.00	−0.00	−0.00
10810	7.05	0.36	0.36	12.58	0.92	14.80	−0.02	−0.00	−0.00	−0.01
10840	6.92	0.23	0.24	12.45	0.78	14.80	−0.03	−0.00	−0.01	−0.01
10870	7.20	0.51	0.52	12.56	0.90	14.79	−0.04	−0.00	−0.01	−0.01
10900	7.16	0.47	0.48	12.52	0.86	14.79	−0.05	−0.00	−0.01	−0.02
10930	7.13	0.44	0.46	12.53	0.87	14.78	−0.06	−0.01	−0.02	−0.02
10960	7.11	0.42	0.43	12.53	0.87	14.78	−0.07	−0.01	−0.02	−0.02
10990	7.10	0.41	0.43	12.53	0.87	14.78	−0.07	−0.01	−0.02	−0.03
11020	7.10	0.41	0.42	12.53	0.87	14.78	−0.07	−0.01	−0.02	−0.03
11050	7.09	0.40	0.42	12.52	0.86	14.78	−0.08	−0.01	−0.02	−0.03
11080	7.08	0.39	0.41	12.50	0.84	14.77	−0.08	−0.01	−0.02	−0.03
11110	7.07	0.38	0.40	12.52	0.86	14.77	−0.08	−0.01	−0.02	−0.03
11140	7.07	0.38	0.40	12.54	0.88	14.78	−0.08	−0.01	−0.02	−0.03
11170	7.06	0.37	0.39	12.54	0.88	14.77	−0.08	−0.01	−0.02	−0.03
11200	7.10	0.41	0.43	12.56	0.90	14.78	−0.08	−0.01	−0.02	−0.03
11230	7.10	0.41	0.43	12.58	0.92	14.78	−0.08	−0.01	−0.02	−0.03
11260	7.10	0.41	0.43	12.57	0.91	14.78	−0.07	−0.01	−0.02	−0.02
11290	7.11	0.42	0.43	12.58	0.92	14.79	−0.06	−0.01	−0.02	−0.02
11320	7.10	0.41	0.43	12.58	0.92	14.79	−0.06	−0.01	−0.01	−0.02
11350	7.11	0.42	0.43	12.60	0.94	14.79	−0.05	−0.01	−0.01	−0.02
11380	7.11	0.42	0.43	12.61	0.95	14.79	−0.04	−0.00	−0.01	−0.02
11410	7.10	0.41	0.42	12.62	0.96	14.79	−0.05	−0.00	−0.01	−0.02
11440	7.09	0.40	0.42	12.63	0.97	14.79	−0.05	−0.01	−0.01	−0.02
11470	7.09	0.40	0.41	12.63	0.97	14.79	−0.06	−0.01	−0.01	−0.02
11500	7.08	0.39	0.40	12.63	0.97	14.79	−0.06	−0.01	−0.01	−0.02
11530	7.06	0.37	0.39	12.63	0.97	14.78	−0.06	−0.01	−0.02	−0.02
11560	7.06	0.37	0.38	12.63	0.97	14.78	−0.06	−0.01	−0.02	−0.02
11590	7.04	0.35	0.37	12.64	0.98	14.78	−0.07	−0.01	−0.02	−0.03
11620	7.02	0.33	0.35	12.64	0.98	14.77	−0.08	−0.01	−0.02	−0.03
11650	7.01	0.32	0.34	12.64	0.98	14.77	−0.09	−0.01	−0.02	−0.03
11680	7.00	0.31	0.34	12.65	0.99	14.77	−0.10	−0.01	−0.03	−0.03

11710	6.99	0.30	0.33	12.66	1.00	14.76	−0.11	−0.01	−0.03	−0.04
11740	6.99	0.30	0.32	12.65	0.99	14.76	−0.11	−0.01	−0.03	−0.04
11770	6.97	0.28	0.31	12.65	0.99	14.76	−0.13	−0.01	−0.03	−0.05
11800	6.97	0.28	0.31	12.66	1.00	14.76	−0.12	−0.01	−0.03	−0.04
11830	6.97	0.28	0.31	12.67	1.01	14.76	−0.11	−0.01	−0.03	−0.04
11860	6.98	0.29	0.32	12.68	1.02	14.77	−0.09	−0.01	−0.02	−0.03
11890	7.01	0.32	0.34	12.69	1.03	14.78	−0.08	−0.01	−0.02	−0.03
11920	7.03	0.34	0.36	12.69	1.03	14.78	−0.06	−0.01	−0.02	−0.02
11950	7.04	0.35	0.36	12.70	1.04	14.79	−0.04	−0.00	−0.01	−0.02
11980	7.03	0.34	0.35	12.70	1.04	14.79	−0.05	−0.00	−0.01	−0.02
12010	7.03	0.34	0.35	12.71	1.05	14.79	−0.05	−0.01	−0.01	−0.02
12040	7.02	0.33	0.34	12.71	1.05	14.79	−0.05	−0.01	−0.01	−0.02
12070	7.13	0.44	0.46	12.72	1.06	14.79	−0.06	−0.01	−0.02	−0.02
12100	7.13	0.44	0.46	12.70	1.04	14.79	−0.06	−0.01	−0.02	−0.02
12130	7.11	0.42	0.43	12.67	1.01	14.79	−0.06	−0.01	−0.02	−0.02
12160	7.10	0.41	0.43	12.66	1.00	14.79	−0.06	−0.01	−0.01	−0.02
12190	7.10	0.41	0.42	12.65	0.99	14.79	−0.06	−0.01	−0.01	−0.02
12220	7.09	0.40	0.41	12.64	0.98	14.79	−0.05	−0.01	−0.01	−0.02
12250	7.19	0.50	0.51	12.63	0.97	14.78	−0.06	−0.01	−0.02	−0.02
12280	7.17	0.48	0.50	12.63	0.97	14.78	−0.07	−0.01	−0.02	−0.02
12310	7.16	0.47	0.49	12.60	0.94	14.78	−0.08	−0.01	−0.02	−0.03
12340	7.15	0.46	0.48	12.57	0.91	14.77	−0.09	−0.01	−0.02	−0.03
12370	7.12	0.43	0.46	12.56	0.90	14.76	−0.11	−0.01	−0.03	−0.04
12400	7.08	0.39	0.42	12.52	0.86	14.75	−0.15	−0.01	−0.04	−0.05
12430	7.07	0.38	0.42	12.50	0.84	14.75	−0.15	−0.01	−0.04	−0.05
12460	7.05	0.36	0.40	12.49	0.83	14.74	−0.16	−0.02	−0.04	−0.06
12490	7.05	0.36	0.40	12.48	0.82	14.74	−0.16	−0.02	−0.04	−0.06
12520	7.04	0.35	0.39	12.46	0.80	14.75	−0.15	−0.01	−0.04	−0.05
12550	7.05	0.36	0.39	12.46	0.80	14.75	−0.15	−0.01	−0.04	−0.05
12580	7.05	0.36	0.39	12.45	0.78	14.75	−0.15	−0.01	−0.04	−0.05
12610	7.03	0.34	0.37	12.43	0.77	14.75	−0.15	−0.01	−0.04	−0.05
12640	7.02	0.33	0.37	12.42	0.76	14.74	−0.16	−0.02	−0.04	−0.06
12670	7.04	0.34	0.38	12.42	0.76	14.75	−0.14	−0.01	−0.04	−0.05
12700	7.05	0.36	0.39	12.41	0.75	14.75	−0.13	−0.01	−0.03	−0.05
12730	7.05	0.36	0.39	12.40	0.74	14.75	−0.13	−0.01	−0.03	−0.05
12760	7.03	0.34	0.38	12.39	0.73	14.75	−0.15	−0.01	−0.04	−0.05
12790	7.02	0.33	0.37	12.38	0.72	14.74	−0.15	−0.02	−0.04	−0.05
12820	7.03	0.34	0.38	12.37	0.71	14.76	−0.13	−0.01	−0.03	−0.05
12850	7.03	0.34	0.37	12.37	0.71	14.76	−0.13	−0.01	−0.03	−0.05
12880	7.03	0.34	0.37	12.36	0.70	14.75	−0.13	−0.01	−0.03	−0.05
12910	7.01	0.32	0.35	12.36	0.70	14.75	−0.14	−0.01	−0.04	−0.05

12940	7.00	0.31	0.35	12.35	0.69	14.75	−0.15	−0.01	−0.04	−0.05
12970	7.00	0.31	0.35	12.34	0.68	14.75	−0.15	−0.01	−0.04	−0.05
13000	6.98	0.29	0.33	12.33	0.67	14.74	−0.17	−0.02	−0.04	−0.06
13030	6.95	0.26	0.31	12.33	0.67	14.73	−0.18	−0.02	−0.05	−0.07
13060	6.93	0.24	0.30	12.32	0.66	14.72	−0.20	−0.02	−0.05	−0.07
13090	6.91	0.22	0.27	12.32	0.66	14.72	−0.22	−0.02	−0.06	−0.08
13120	6.91	0.22	0.27	12.31	0.65	14.71	−0.22	−0.02	−0.06	−0.08
13150	6.89	0.20	0.26	12.31	0.65	14.71	−0.23	−0.02	−0.06	−0.08
13180	6.89	0.20	0.26	12.31	0.65	14.71	−0.23	−0.02	−0.06	−0.08
13210	6.89	0.20	0.25	12.31	0.65	14.71	−0.23	−0.02	−0.06	−0.08
13240	6.90	0.21	0.26	12.31	0.65	14.72	−0.21	−0.02	−0.06	−0.08
13270	6.90	0.21	0.27	12.31	0.65	14.72	−0.21	−0.02	−0.05	−0.07
13300	6.91	0.22	0.27	12.32	0.66	14.73	−0.19	−0.02	−0.05	−0.07
13330	6.91	0.22	0.27	12.32	0.66	14.73	−0.20	−0.02	−0.05	−0.07
13360	6.93	0.24	0.28	12.32	0.66	14.73	−0.18	−0.02	−0.05	−0.07
13390	6.94	0.25	0.29	12.33	0.67	14.74	−0.17	−0.02	−0.04	−0.06
13420	6.95	0.26	0.30	12.32	0.66	14.74	−0.16	−0.02	−0.04	−0.06
13450	6.95	0.26	0.30	12.33	0.67	14.74	−0.16	−0.02	−0.04	−0.06
13480	6.94	0.25	0.29	12.32	0.66	14.74	−0.17	−0.02	−0.04	−0.06
13510	6.93	0.24	0.28	12.32	0.66	14.74	−0.17	−0.02	−0.05	−0.06
13540	6.93	0.24	0.29	12.37	0.71	14.73	−0.18	−0.02	−0.05	−0.06
13570	6.91	0.22	0.27	12.41	0.75	14.73	−0.18	−0.02	−0.05	−0.07
13600	6.92	0.23	0.28	12.42	0.76	14.73	−0.19	−0.02	−0.05	−0.07
13630	6.89	0.20	0.25	12.44	0.78	14.73	−0.19	−0.02	−0.05	−0.07
13660	6.92	0.22	0.28	12.48	0.82	14.72	−0.20	−0.02	−0.05	−0.07
13690	7.09	0.40	0.45	12.47	0.81	14.72	−0.21	−0.02	−0.05	−0.08
13720	7.10	0.41	0.47	12.50	0.84	14.71	−0.22	−0.02	−0.06	−0.08
13750	7.10	0.41	0.47	12.54	0.88	14.71	−0.24	−0.02	−0.06	−0.09
13780	7.05	0.36	0.43	12.50	0.84	14.70	−0.25	−0.02	−0.06	−0.09
13810	7.03	0.34	0.40	12.51	0.85	14.70	−0.25	−0.03	−0.07	−0.09
13840	7.04	0.35	0.41	12.54	0.88	14.70	−0.25	−0.02	−0.06	−0.09
13870	7.02	0.33	0.40	12.55	0.89	14.69	−0.27	−0.03	−0.07	−0.10
13900	7.00	0.31	0.38	12.56	0.90	14.69	−0.29	−0.03	−0.07	−0.10
13930	7.11	0.42	0.49	12.57	0.91	14.68	−0.30	−0.03	−0.08	−0.11
13960	7.11	0.42	0.50	12.57	0.91	14.68	−0.30	−0.03	−0.08	−0.11
13990	7.10	0.41	0.49	12.58	0.92	14.68	−0.30	−0.03	−0.08	−0.11
14020	7.10	0.41	0.49	12.59	0.93	14.68	−0.30	−0.03	−0.08	−0.11
14050	7.12	0.43	0.50	12.60	0.94	14.68	−0.30	−0.03	−0.08	−0.11
14080	7.11	0.42	0.50	12.61	0.95	14.69	−0.29	−0.03	−0.08	−0.10
14110	7.12	0.42	0.50	12.62	0.96	14.69	−0.28	−0.03	−0.07	−0.10
14140	7.12	0.43	0.50	12.62	0.96	14.69	−0.27	−0.03	−0.07	−0.10

14170	7.13	0.44	0.51	12.63	0.97	14.70	−0.26	−0.03	−0.07	−0.09
14200	7.14	0.45	0.51	12.61	0.95	14.70	−0.26	−0.03	−0.07	−0.09
14230	7.13	0.44	0.51	12.62	0.96	14.70	−0.25	−0.02	−0.06	−0.09
14260	7.15	0.46	0.52	12.62	0.96	14.71	−0.23	−0.02	−0.06	−0.08
14290	7.17	0.47	0.53	12.62	0.96	14.72	−0.22	−0.02	−0.06	−0.08
14320	7.15	0.46	0.51	12.63	0.97	14.71	−0.22	−0.02	−0.06	−0.08
14350	7.15	0.46	0.51	12.63	0.97	14.71	−0.23	−0.02	−0.06	−0.08
14380	7.14	0.45	0.51	12.63	0.97	14.71	−0.23	−0.02	−0.06	−0.08
14410	7.15	0.46	0.51	12.63	0.97	14.71	−0.22	−0.02	−0.06	−0.08
14440	7.13	0.44	0.50	12.63	0.97	14.71	−0.23	−0.02	−0.06	−0.08
14470	7.13	0.44	0.50	12.63	0.97	14.71	−0.23	−0.02	−0.06	−0.08
14500	7.11	0.42	0.48	12.63	0.97	14.70	−0.24	−0.02	−0.06	−0.09
14530	7.11	0.42	0.48	12.63	0.97	14.70	−0.25	−0.03	−0.07	−0.09
14560	7.10	0.41	0.48	12.63	0.97	14.70	−0.25	−0.03	−0.07	−0.09
14590	7.10	0.41	0.47	12.63	0.97	14.70	−0.25	−0.03	−0.07	−0.09
14620	7.11	0.42	0.48	12.63	0.97	14.71	−0.24	−0.02	−0.06	−0.09
14650	7.11	0.42	0.48	12.63	0.97	14.71	−0.23	−0.02	−0.06	−0.08
14680	7.12	0.43	0.49	12.63	0.97	14.72	−0.22	−0.02	−0.06	−0.08
14710	7.14	0.45	0.50	12.63	0.97	14.72	−0.21	−0.02	−0.05	−0.07
14740	7.16	0.47	0.51	12.63	0.97	14.73	−0.18	−0.02	−0.05	−0.06
14770	7.17	0.48	0.52	12.63	0.97	14.74	−0.17	−0.02	−0.04	−0.06
14800	7.18	0.49	0.53	12.63	0.97	14.74	−0.15	−0.02	−0.04	−0.06
14830	7.19	0.50	0.53	12.63	0.97	14.75	−0.14	−0.01	−0.04	−0.05
14860	7.20	0.51	0.54	12.63	0.97	14.76	−0.12	−0.01	−0.03	−0.04
14890	7.21	0.52	0.55	12.63	0.97	14.76	−0.11	−0.01	−0.03	−0.04
14920	7.21	0.52	0.55	12.63	0.97	14.76	−0.11	−0.01	−0.03	−0.04
14950	7.22	0.53	0.55	12.63	0.97	14.77	−0.09	−0.01	−0.02	−0.03
14980	7.24	0.55	0.57	12.63	0.97	14.78	−0.08	−0.01	−0.02	−0.03
15010	7.23	0.54	0.56	12.63	0.97	14.78	−0.07	−0.01	−0.02	−0.02
15040	7.24	0.55	0.57	12.63	0.97	14.78	−0.06	−0.01	−0.02	−0.02
15070	7.23	0.54	0.56	12.63	0.97	14.78	−0.06	−0.01	−0.02	−0.02
15100	7.22	0.53	0.55	12.63	0.97	14.78	−0.07	−0.01	−0.02	−0.02
15130	7.21	0.52	0.54	12.63	0.97	14.78	−0.08	−0.01	−0.02	−0.03
15160	7.21	0.52	0.54	12.63	0.97	14.78	−0.08	−0.01	−0.02	−0.03
15190	7.21	0.52	0.54	12.63	0.97	14.78	−0.07	−0.01	−0.02	−0.03
15220	7.21	0.52	0.54	12.63	0.97	14.78	−0.08	−0.01	−0.02	−0.03
15250	7.20	0.51	0.53	12.62	0.96	14.77	−0.08	−0.01	−0.02	−0.03
15280	7.19	0.50	0.53	12.62	0.96	14.77	−0.09	−0.01	−0.02	−0.03
15310	7.18	0.49	0.52	12.62	0.96	14.77	−0.09	−0.01	−0.02	−0.03
15340	7.18	0.49	0.51	12.62	0.96	14.77	−0.10	−0.01	−0.03	−0.03
15370	7.18	0.49	0.52	12.62	0.96	14.77	−0.09	−0.01	−0.02	−0.03

15400	7.18	0.49	0.51	12.62	0.96	14.77	−0.09	−0.01	−0.02	−0.03
15430	7.18	0.49	0.52	12.62	0.96	14.77	−0.08	−0.01	−0.02	−0.03
15460	7.18	0.49	0.51	12.62	0.96	14.77	−0.09	−0.01	−0.02	−0.03
15490	7.18	0.49	0.51	12.61	0.95	14.77	−0.09	−0.01	−0.02	−0.03
15520	7.17	0.48	0.50	12.61	0.95	14.78	−0.08	−0.01	−0.02	−0.03
15550	7.17	0.48	0.50	12.62	0.96	14.78	−0.08	−0.01	−0.02	−0.03
15580	7.17	0.48	0.50	12.61	0.95	14.78	−0.08	−0.01	−0.02	−0.03
15610	7.18	0.49	0.51	12.61	0.95	14.78	−0.07	−0.01	−0.02	−0.02
15640	7.19	0.50	0.52	12.61	0.95	14.78	−0.06	−0.01	−0.02	−0.02
15670	7.19	0.50	0.52	12.61	0.95	14.79	−0.06	−0.01	−0.02	−0.02
15700	7.19	0.50	0.52	12.61	0.95	14.79	−0.05	−0.01	−0.01	−0.02
15730	7.19	0.50	0.52	12.61	0.95	14.79	−0.05	−0.01	−0.01	−0.02
15760	7.19	0.50	0.52	12.61	0.95	14.79	−0.05	−0.01	−0.01	−0.02
15790	7.18	0.49	0.50	12.61	0.95	14.78	−0.06	−0.01	−0.02	−0.02
15820	7.17	0.48	0.49	12.61	0.95	14.78	−0.06	−0.01	−0.02	−0.02
15850	7.17	0.47	0.49	12.61	0.95	14.78	−0.06	−0.01	−0.02	−0.02
15880	7.16	0.47	0.49	12.61	0.95	14.78	−0.07	−0.01	−0.02	−0.03
15910	7.16	0.47	0.49	12.61	0.95	14.78	−0.08	−0.01	−0.02	−0.03
15940	7.14	0.45	0.48	12.61	0.95	14.77	−0.09	−0.01	−0.02	−0.03
15970	7.13	0.44	0.46	12.60	0.94	14.77	−0.09	−0.01	−0.02	−0.03
16000	7.12	0.43	0.46	12.60	0.94	14.77	−0.10	−0.01	−0.03	−0.04
16030	7.12	0.43	0.46	12.60	0.94	14.77	−0.10	−0.01	−0.03	−0.04
16060	7.12	0.43	0.45	12.60	0.94	14.77	−0.10	−0.01	−0.03	−0.04
16090	7.11	0.42	0.45	12.60	0.94	14.77	−0.10	−0.01	−0.03	−0.04
16120	7.11	0.42	0.45	12.60	0.94	14.77	−0.10	−0.01	−0.03	−0.04
16150	7.12	0.43	0.45	12.59	0.93	14.77	−0.09	−0.01	−0.02	−0.03
16180	7.12	0.43	0.45	12.60	0.94	14.77	−0.09	−0.01	−0.02	−0.03
16210	7.14	0.45	0.47	12.60	0.94	14.78	−0.08	−0.01	−0.02	−0.03
16240	7.14	0.45	0.47	12.60	0.94	14.78	−0.07	−0.01	−0.02	−0.02
16270	7.16	0.47	0.48	12.60	0.94	14.79	−0.05	−0.01	−0.01	−0.02
16300	7.16	0.47	0.48	12.60	0.94	14.79	−0.04	−0.00	−0.01	−0.02
16330	7.17	0.48	0.49	12.60	0.94	14.79	−0.04	−0.00	−0.01	−0.01
16360	7.16	0.47	0.48	12.58	0.92	14.79	−0.04	−0.00	−0.01	−0.01
16390	7.15	0.46	0.47	12.57	0.91	14.80	−0.03	−0.00	−0.01	−0.01
16420	7.18	0.49	0.49	12.56	0.90	14.80	−0.03	−0.00	−0.01	−0.01
16450	7.19	0.50	0.50	12.56	0.90	14.81	−0.01	−0.00	−0.00	−0.00
16480	7.19	0.50	0.50	12.58	0.92	14.81	−0.01	−0.00	−0.00	−0.00
16510	7.13	0.44	0.45	12.55	0.89	14.81	−0.01	−0.00	−0.00	−0.00
16540	7.19	0.50	0.50	12.61	0.95	14.80	−0.01	−0.00	−0.00	−0.00
16570	7.18	0.49	0.49	12.62	0.96	14.81	−0.01	−0.00	−0.00	−0.00
16600	7.13	0.44	0.44	12.55	0.89	14.80	−0.01	−0.00	−0.00	−0.00

16630	7.14	0.45	0.45	12.58	0.92	14.80	−0.02	−0.00	−0.00	−0.01
16660	7.15	0.46	0.46	12.58	0.92	14.80	−0.03	−0.00	−0.01	−0.01
16690	7.13	0.44	0.45	12.60	0.94	14.79	−0.04	−0.00	−0.01	−0.01
16720	7.11	0.42	0.43	12.54	0.88	14.79	−0.05	−0.01	−0.01	−0.02
16750	7.09	0.40	0.42	12.53	0.87	14.78	−0.06	−0.01	−0.02	−0.02
16780	7.08	0.39	0.41	12.54	0.88	14.78	−0.07	−0.01	−0.02	−0.03
16810	7.07	0.38	0.40	12.52	0.86	14.77	−0.08	−0.01	−0.02	−0.03
16840	7.05	0.36	0.39	12.52	0.86	14.77	−0.09	−0.01	−0.02	−0.03
16870	7.05	0.36	0.39	12.52	0.86	14.77	−0.09	−0.01	−0.02	−0.03
16900	7.05	0.36	0.39	12.51	0.85	14.77	−0.09	−0.01	−0.02	−0.03
16930	7.06	0.37	0.39	12.51	0.85	14.77	−0.09	−0.01	−0.02	−0.03
16960	7.06	0.37	0.39	12.51	0.85	14.77	−0.09	−0.01	−0.02	−0.03
16990	7.06	0.37	0.39	12.51	0.85	14.77	−0.09	−0.01	−0.02	−0.03
17020	7.06	0.37	0.39	12.51	0.85	14.77	−0.09	−0.01	−0.02	−0.03
17050	7.06	0.37	0.39	12.51	0.85	14.77	−0.09	−0.01	−0.02	−0.03
17080	7.07	0.38	0.40	12.51	0.85	14.78	−0.07	−0.01	−0.02	−0.03
17110	7.07	0.38	0.40	12.51	0.85	14.78	−0.07	−0.01	−0.02	−0.03
17140	7.07	0.38	0.40	12.50	0.84	14.78	−0.07	−0.01	−0.02	−0.03
17170	7.07	0.38	0.40	12.50	0.84	14.78	−0.08	−0.01	−0.02	−0.03
17200	7.06	0.37	0.39	12.50	0.84	14.77	−0.08	−0.01	−0.02	−0.03
17230	7.05	0.36	0.39	12.50	0.84	14.77	−0.09	−0.01	−0.02	−0.03
17260	7.05	0.36	0.38	12.50	0.84	14.77	−0.08	−0.01	−0.02	−0.03
17290	7.04	0.35	0.38	12.50	0.84	14.77	−0.09	−0.01	−0.02	−0.03
17320	7.04	0.35	0.37	12.50	0.84	14.77	−0.09	−0.01	−0.02	−0.03
17350	7.03	0.34	0.36	12.50	0.84	14.77	−0.10	−0.01	−0.03	−0.04
17380	7.01	0.32	0.35	12.50	0.84	14.76	−0.11	−0.01	−0.03	−0.04
17410	7.01	0.32	0.35	12.49	0.83	14.76	−0.11	−0.01	−0.03	−0.04
17440	7.01	0.32	0.35	12.50	0.84	14.76	−0.12	−0.01	−0.03	−0.04
17470	7.00	0.31	0.34	12.50	0.84	14.76	−0.12	−0.01	−0.03	−0.04
17500	7.00	0.31	0.34	12.50	0.84	14.76	−0.12	−0.01	−0.03	−0.04
17530	6.99	0.30	0.34	12.50	0.84	14.76	−0.13	−0.01	−0.03	−0.05
17560	7.00	0.31	0.34	12.50	0.84	14.76	−0.12	−0.01	−0.03	−0.04
17590	6.99	0.30	0.34	12.51	0.85	14.76	−0.13	−0.01	−0.03	−0.05
17620	7.00	0.31	0.34	12.51	0.85	14.76	−0.12	−0.01	−0.03	−0.04
17650	7.01	0.32	0.35	12.52	0.86	14.76	−0.11	−0.01	−0.03	−0.04
17680	7.03	0.34	0.36	12.52	0.86	14.77	−0.10	−0.01	−0.03	−0.03
17710	7.04	0.35	0.37	12.53	0.87	14.77	−0.09	−0.01	−0.02	−0.03
17740	7.04	0.35	0.37	12.54	0.88	14.77	−0.09	−0.01	−0.02	−0.03
17770	7.05	0.36	0.38	12.56	0.90	14.77	−0.08	−0.01	−0.02	−0.03
17800	7.04	0.35	0.37	12.57	0.91	14.78	−0.08	−0.01	−0.02	−0.03
17830	7.03	0.34	0.36	12.55	0.89	14.78	−0.07	−0.01	−0.02	−0.02

17860	7.05	0.36	0.38	12.56	0.90	14.78	−0.08	−0.01	−0.02	−0.03
17890	7.05	0.36	0.38	12.61	0.95	14.78	−0.07	−0.01	−0.02	−0.03
17920	7.06	0.37	0.39	12.57	0.91	14.78	−0.08	−0.01	−0.02	−0.03
17950	6.99	0.30	0.32	12.50	0.84	14.78	−0.08	−0.01	−0.02	−0.03
17980	7.03	0.34	0.36	12.57	0.91	14.77	−0.09	−0.01	−0.02	−0.03
18010	7.01	0.32	0.34	12.56	0.90	14.77	−0.09	−0.01	−0.02	−0.03
18040	7.01	0.32	0.34	12.53	0.87	14.77	−0.09	−0.01	−0.02	−0.03
18070	6.99	0.30	0.33	12.55	0.89	14.77	−0.09	−0.01	−0.02	−0.03
18100	7.07	0.38	0.40	12.52	0.86	14.77	−0.09	−0.01	−0.02	−0.03
18130	7.09	0.40	0.42	12.55	0.89	14.76	−0.11	−0.01	−0.03	−0.04
18160	7.06	0.37	0.40	12.53	0.87	14.76	−0.11	−0.01	−0.03	−0.04
18190	7.06	0.37	0.40	12.55	0.89	14.76	−0.12	−0.01	−0.03	−0.04
18220	7.05	0.36	0.40	12.55	0.89	14.75	−0.13	−0.01	−0.03	−0.05
18250	7.05	0.36	0.39	12.54	0.88	14.75	−0.13	−0.01	−0.03	−0.05
18280	7.06	0.37	0.40	12.54	0.88	14.75	−0.13	−0.01	−0.03	−0.05
18310	7.05	0.36	0.40	12.54	0.88	14.75	−0.13	−0.01	−0.03	−0.05
18340	7.05	0.36	0.39	12.55	0.89	14.75	−0.13	−0.01	−0.03	−0.05
18370	7.05	0.36	0.40	12.56	0.90	14.75	−0.13	−0.01	−0.03	−0.05
18400	7.05	0.36	0.40	12.56	0.90	14.75	−0.14	−0.01	−0.04	−0.05
18430	7.06	0.37	0.40	12.56	0.90	14.75	−0.13	−0.01	−0.03	−0.05
18460	7.07	0.38	0.41	12.56	0.90	14.76	−0.13	−0.01	−0.03	−0.05
18490	7.07	0.38	0.41	12.56	0.90	14.76	−0.12	−0.01	−0.03	−0.04
18520	7.08	0.39	0.42	12.56	0.90	14.76	−0.11	−0.01	−0.03	−0.04
18550	7.08	0.39	0.42	12.56	0.90	14.76	−0.11	−0.01	−0.03	−0.04
18580	7.09	0.40	0.42	12.55	0.89	14.76	−0.11	−0.01	−0.03	−0.04
18610	7.08	0.39	0.42	12.55	0.89	14.76	−0.11	−0.01	−0.03	−0.04
18640	7.08	0.39	0.41	12.55	0.89	14.76	−0.11	−0.01	−0.03	−0.04
18670	7.07	0.38	0.41	12.55	0.89	14.76	−0.11	−0.01	−0.03	−0.04
18700	7.07	0.38	0.41	12.55	0.89	14.76	−0.11	−0.01	−0.03	−0.04
18730	7.06	0.37	0.40	12.55	0.89	14.76	−0.12	−0.01	−0.03	−0.04
18760	7.05	0.36	0.39	12.55	0.89	14.75	−0.13	−0.01	−0.03	−0.05
18790	7.05	0.36	0.39	12.54	0.88	14.75	−0.14	−0.01	−0.04	−0.05
18820	7.04	0.35	0.39	12.54	0.88	14.75	−0.14	−0.01	−0.04	−0.05
18850	7.03	0.34	0.38	12.54	0.88	14.75	−0.14	−0.01	−0.04	−0.05
18880	7.03	0.34	0.38	12.54	0.88	14.75	−0.15	−0.01	−0.04	−0.05
18910	7.13	0.44	0.48	12.54	0.88	14.75	−0.15	−0.01	−0.04	−0.05
18940	7.13	0.44	0.48	12.54	0.88	14.75	−0.15	−0.01	−0.04	−0.05
18970	7.13	0.44	0.48	12.54	0.88	14.75	−0.14	−0.01	−0.04	−0.05
19000	7.14	0.45	0.48	12.55	0.89	14.75	−0.14	−0.01	−0.04	−0.05
19030	7.15	0.46	0.49	12.55	0.89	14.76	−0.13	−0.01	−0.03	−0.05
19060	7.15	0.46	0.49	12.55	0.89	14.76	−0.13	−0.01	−0.03	−0.05

Elapsed	H-3B	dd	corr. dd	H-3B	dd	corr. dd	Baro				
19090	7.15	0.46	0.49	12.56	0.90		14.76	−0.11	−0.01	−0.03	−0.04
19120	7.17	0.48	0.50	12.57	0.91		14.77	−0.10	−0.01	−0.03	−0.04
19150	7.19	0.50	0.52	12.57	0.91		14.78	−0.08	−0.01	−0.02	−0.03
19180	7.20	0.51	0.53	12.58	0.92		14.78	−0.07	−0.01	−0.02	−0.02
19210	7.20	0.51	0.53	12.58	0.92		14.78	−0.06	−0.01	−0.02	−0.02
19240	7.18	0.49	0.51	12.56	0.90		14.79	−0.05	−0.01	−0.01	−0.02
19270	7.20	0.51	0.52	12.57	0.91		14.79	−0.05	−0.01	−0.01	−0.02
19300	7.22	0.53	0.54	12.52	0.86		14.79	−0.04	−0.00	−0.01	−0.01
19330	7.23	0.54	0.55	12.57	0.91		14.80	−0.03	−0.00	−0.01	−0.01
19360	7.21	0.52	0.53	12.61	0.95		14.79	−0.04	−0.00	−0.01	−0.01
19390	7.20	0.51	0.52	12.58	0.92		14.79	−0.04	−0.00	−0.01	−0.02
19420	7.23	0.54	0.55	12.62	0.96		14.79	−0.05	−0.01	−0.01	−0.02
19450	7.19	0.50	0.51	12.58	0.92		14.79	−0.05	−0.01	−0.01	−0.02
19480	7.17	0.48	0.49	12.58	0.92		14.78	−0.06	−0.01	−0.02	−0.02
19510	7.17	0.47	0.49	12.58	0.92		14.78	−0.06	−0.01	−0.02	−0.02
19540	7.18	0.49	0.50	12.61	0.95		14.78	−0.06	−0.01	−0.02	−0.02
19570	7.14	0.45	0.47	12.59	0.93		14.78	−0.07	−0.01	−0.02	−0.02
19600	7.13	0.44	0.46	12.60	0.94		14.78	−0.08	−0.01	−0.02	−0.03
19630	7.13	0.44	0.46	12.59	0.93		14.78	−0.08	−0.01	−0.02	−0.03
19660	7.13	0.44	0.47	12.60	0.94		14.77	−0.08	−0.01	−0.02	−0.03
19690	7.13	0.44	0.46	12.59	0.93		14.77	−0.09	−0.01	−0.02	−0.03
19720	7.13	0.44	0.47	12.59	0.93		14.77	−0.09	−0.01	−0.02	−0.03
19750	7.14	0.45	0.47	12.60	0.94		14.78	−0.08	−0.01	−0.02	−0.03
19780	7.13	0.44	0.46	12.59	0.93		14.77	−0.08	−0.01	−0.02	−0.03
19810	7.12	0.43	0.46	12.59	0.93		14.77	−0.09	−0.01	−0.02	−0.03
19840	7.13	0.44	0.46	12.61	0.95		14.77	−0.08	−0.01	−0.02	−0.03
19870	7.14	0.45	0.47	12.62	0.96		14.78	−0.08	−0.01	−0.02	−0.03
19900	7.14	0.45	0.47	12.62	0.96		14.78	−0.07	−0.01	−0.02	−0.03
19930	7.15	0.46	0.47	12.63	0.97		14.78	−0.06	−0.01	−0.02	−0.02
19960	7.15	0.46	0.48	12.63	0.97		14.79	−0.06	−0.01	−0.02	−0.02
19990	7.17	0.47	0.49	12.63	0.97		14.79	−0.05	−0.01	−0.01	−0.02
20020	7.16	0.47	0.48	12.63	0.97		14.79	−0.05	−0.00	−0.01	−0.02
20050	7.17	0.48	0.49	12.63	0.97		14.79	−0.04	−0.00	−0.01	−0.01
20080	7.17	0.47	0.49	12.64	0.98		14.79	−0.04	−0.00	−0.01	−0.01
20110	7.17	0.48	0.49	12.64	0.98		14.79	−0.04	−0.00	−0.01	−0.02
20140	7.16	0.47	0.48	12.65	0.99		14.79	−0.04	−0.00	−0.01	−0.02
20170	7.16	0.47	0.48	12.65	0.99		14.79	−0.04	−0.00	−0.01	−0.02
20200	7.16	0.47	0.48	12.65	0.99		14.79	−0.04	−0.00	−0.01	−0.02
20230	7.15	0.46	0.48	12.65	0.99		14.79	−0.05	−0.00	−0.01	−0.02
20260	7.15	0.46	0.47	12.65	0.99		14.79	−0.06	−0.01	−0.02	−0.02
20290	7.15	0.46	0.47	12.66	1.00		14.78	−0.06	−0.01	−0.02	−0.02

20320	7.13	0.44	0.46	12.66	1.00	14.78	−0.07	−0.01	−0.02	−0.02
20350	7.13	0.44	0.46	12.67	1.01	14.78	−0.07	−0.01	−0.02	−0.03
20380	7.12	0.43	0.45	12.68	1.02	14.78	−0.08	−0.01	−0.02	−0.03
20410	7.13	0.44	0.46	12.68	1.02	14.78	−0.07	−0.01	−0.02	−0.03
20440	7.14	0.45	0.47	12.68	1.02	14.78	−0.06	−0.01	−0.02	−0.02
20470	7.14	0.45	0.46	12.69	1.03	14.79	−0.05	−0.01	−0.01	−0.02
20500	7.15	0.46	0.47	12.70	1.04	14.79	−0.04	−0.00	−0.01	−0.01
20530	7.17	0.47	0.48	12.71	1.05	14.80	−0.03	−0.00	−0.01	−0.01
20560	7.19	0.50	0.50	12.72	1.06	14.81	−0.01	−0.00	−0.00	−0.00
20590	7.20	0.51	0.51	12.73	1.07	14.81	0.00	0.00	0.00	0.00
20620	7.20	0.51	0.51	12.73	1.07	14.81	0.01	0.00	0.00	0.00
20650	7.20	0.51	0.51	12.74	1.08	14.81	0.01	0.00	0.00	0.00
20680	7.22	0.53	0.52	12.76	1.10	14.81	0.01	0.00	0.00	0.00
20710	7.22	0.53	0.53	12.76	1.10	14.82	0.02	0.00	0.00	0.01
20740	7.23	0.54	0.53	12.76	1.10	14.82	0.02	0.00	0.01	0.01
20770	7.20	0.51	0.51	12.73	1.07	14.82	0.02	0.00	0.01	0.01
20800	7.20	0.51	0.51	12.77	1.11	14.82	0.02	0.00	0.00	0.01
20830	7.20	0.51	0.51	12.76	1.10	14.82	0.02	0.00	0.01	0.01
20860	7.20	0.51	0.51	12.76	1.10	14.82	0.02	0.00	0.01	0.01
20890	7.23	0.54	0.53	12.84	1.18	14.82	0.03	0.00	0.01	0.01
20920	7.18	0.49	0.48	12.75	1.09	14.82	0.03	0.00	0.01	0.01
20950	7.16	0.47	0.46	12.70	1.04	14.82	0.03	0.00	0.01	0.01
20980	7.18	0.49	0.49	12.78	1.12	14.82	0.02	0.00	0.00	0.01
21010	7.18	0.49	0.48	12.76	1.10	14.82	0.02	0.00	0.00	0.01
21040	7.16	0.47	0.47	12.75	1.09	14.81	0.00	0.00	0.00	0.00
21070	7.16	0.47	0.47	12.76	1.10	14.81	0.00	0.00	0.00	0.00
21100	7.15	0.46	0.46	12.77	1.11	14.81	−0.01	−0.00	−0.00	−0.00
21130	7.15	0.46	0.46	12.75	1.09	14.81	−0.00	−0.00	−0.00	−0.00
21160	7.15	0.46	0.47	12.74	1.08	14.81	−0.01	−0.00	−0.00	−0.00
21190	7.14	0.45	0.46	12.76	1.10	14.80	−0.01	−0.00	−0.00	−0.00
21220	7.14	0.45	0.45	12.76	1.10	14.80	−0.01	−0.00	−0.00	−0.00
21250	7.15	0.46	0.46	12.76	1.10	14.81	−0.01	−0.00	−0.00	−0.00
21280	7.14	0.45	0.46	12.76	1.10	14.81	−0.01	−0.00	−0.00	−0.00
21310	7.16	0.47	0.47	12.76	1.10	14.81	0.00	0.00	0.00	0.00
21340	7.16	0.47	0.47	12.76	1.10	14.81	0.01	0.00	0.00	0.00
21370	7.18	0.49	0.48	12.76	1.10	14.82	0.02	0.00	0.00	0.01
21400	7.19	0.50	0.49	12.76	1.10	14.82	0.03	0.00	0.01	0.01
21430	7.19	0.50	0.49	12.76	1.10	14.82	0.03	0.00	0.01	0.01
21460	7.19	0.50	0.49	12.76	1.10	14.83	0.03	0.00	0.01	0.01
21490	7.19	0.50	0.49	12.76	1.10	14.83	0.04	0.00	0.01	0.01
21520	7.19	0.50	0.49	12.76	1.10	14.83	0.04	0.00	0.01	0.01

21550	7.19	0.50	0.49	12.76	1.10	14.83	0.04	0.00	0.01	0.01
21580	7.19	0.50	0.49	12.76	1.10	14.82	0.03	0.00	0.01	0.01
21610	7.18	0.49	0.49	12.76	1.10	14.82	0.02	0.00	0.01	0.01
21640	7.18	0.49	0.48	12.76	1.10	14.82	0.02	0.00	0.01	0.01
21670	7.17	0.47	0.47	12.75	1.09	14.82	0.01	0.00	0.00	0.00
21700	7.15	0.46	0.46	12.75	1.09	14.81	−0.00	−0.00	−0.00	−0.00
21730	7.14	0.45	0.45	12.75	1.09	14.80	−0.01	−0.00	−0.00	−0.00
21760	7.14	0.45	0.45	12.76	1.10	14.80	−0.02	−0.00	−0.00	−0.01
21790	7.21	0.52	0.52	12.76	1.10	14.80	−0.02	−0.00	−0.00	−0.01
21820	7.21	0.52	0.52	12.76	1.10	14.80	−0.01	−0.00	−0.00	−0.00
21850	7.20	0.51	0.52	12.76	1.10	14.80	−0.02	−0.00	−0.01	−0.01
21880	7.21	0.52	0.53	12.77	1.11	14.80	−0.02	−0.00	−0.00	−0.01
21910	7.22	0.53	0.53	12.77	1.11	14.81	−0.01	−0.00	−0.00	−0.00
21940	7.21	0.52	0.52	12.78	1.12	14.81	−0.01	−0.00	−0.00	−0.00
21970	7.22	0.53	0.53	12.78	1.12	14.81	−0.00	−0.00	−0.00	−0.00
22000	7.23	0.54	0.54	12.79	1.13	14.81	0.01	0.00	0.00	0.00
22030	7.25	0.56	0.55	12.79	1.13	14.82	0.03	0.00	0.01	0.01
22060	7.26	0.57	0.56	12.80	1.14	14.83	0.04	0.00	0.01	0.01
22090	7.28	0.59	0.58	12.80	1.14	14.83	0.05	0.01	0.01	0.02
22120	7.28	0.59	0.58	12.78	1.12	14.84	0.06	0.01	0.02	0.02
22150	7.31	0.62	0.60	12.79	1.13	14.84	0.08	0.01	0.02	0.03
22180	7.31	0.62	0.60	12.81	1.15	14.85	0.09	0.01	0.02	0.03
22210	7.31	0.62	0.59	12.81	1.15	14.86	0.10	0.01	0.03	0.04
22240	7.33	0.64	0.61	12.82	1.16	14.86	0.12	0.01	0.03	0.04
22270	7.32	0.63	0.60	12.81	1.15	14.86	0.12	0.01	0.03	0.04
22300	7.31	0.61	0.59	12.81	1.15	14.86	0.11	0.01	0.03	0.04
22330	7.29	0.60	0.57	12.79	1.13	14.85	0.10	0.01	0.03	0.04
22360	7.28	0.59	0.57	12.77	1.11	14.85	0.10	0.01	0.03	0.03
22390	7.30	0.61	0.58	12.80	1.14	14.85	0.10	0.01	0.03	0.03
22420	7.27	0.58	0.56	12.75	1.09	14.85	0.09	0.01	0.02	0.03
22450	7.25	0.56	0.54	12.73	1.07	14.85	0.08	0.01	0.02	0.03
22480	7.24	0.55	0.53	12.72	1.06	14.84	0.07	0.01	0.02	0.03
22510	7.24	0.55	0.53	12.72	1.06	14.84	0.07	0.01	0.02	0.02
22540	7.24	0.55	0.53	12.71	1.05	14.84	0.07	0.01	0.02	0.02
22570	7.25	0.56	0.54	12.71	1.05	14.84	0.07	0.01	0.02	0.03
22600	7.25	0.55	0.54	12.72	1.06	14.84	0.06	0.01	0.02	0.02
22630	7.24	0.55	0.53	12.73	1.07	14.84	0.06	0.01	0.02	0.02
22660	7.24	0.55	0.53	12.74	1.08	14.84	0.06	0.01	0.02	0.02
22690	7.24	0.55	0.53	12.73	1.07	14.84	0.06	0.01	0.02	0.02
22720	7.24	0.55	0.53	12.74	1.08	14.84	0.07	0.01	0.02	0.02
22750	7.26	0.57	0.55	12.75	1.09	14.84	0.08	0.01	0.02	0.03

22780	7.26	0.57	0.55	12.73	1.07	14.85	0.09	0.01	0.02	0.03
22810	7.27	0.58	0.56	12.70	1.04	14.85	0.10	0.01	0.03	0.04
22840	7.28	0.59	0.56	12.67	1.01	14.86	0.11	0.01	0.03	0.04
22870	7.30	0.61	0.57	12.67	1.01	14.86	0.12	0.01	0.03	0.04
22900	7.30	0.61	0.58	12.66	1.00	14.87	0.13	0.01	0.03	0.05
22930	7.30	0.61	0.58	12.64	0.98	14.87	0.13	0.01	0.03	0.05
22960	7.31	0.61	0.58	12.63	0.97	14.87	0.13	0.01	0.03	0.05
22990	7.30	0.61	0.57	12.61	0.95	14.87	0.13	0.01	0.03	0.05
23020	7.29	0.60	0.57	12.62	0.96	14.87	0.13	0.01	0.03	0.05
23050	7.29	0.60	0.57	12.64	0.98	14.86	0.12	0.01	0.03	0.04
23080	7.28	0.59	0.56	12.67	1.01	14.86	0.11	0.01	0.03	0.04
23110	7.27	0.58	0.56	12.69	1.03	14.86	0.10	0.01	0.03	0.04
23140	7.27	0.58	0.56	12.70	1.04	14.85	0.10	0.01	0.03	0.04
23170	7.26	0.57	0.55	12.71	1.05	14.85	0.09	0.01	0.02	0.03
23200	7.25	0.56	0.54	12.72	1.06	14.85	0.09	0.01	0.02	0.03
23230	7.25	0.56	0.54	12.73	1.07	14.85	0.08	0.01	0.02	0.03
23260	7.26	0.57	0.55	12.75	1.09	14.85	0.08	0.01	0.02	0.03
23290	7.26	0.57	0.55	12.76	1.10	14.84	0.08	0.01	0.02	0.03
23320	7.26	0.57	0.54	12.77	1.11	14.85	0.09	0.01	0.02	0.03
23350	7.26	0.57	0.55	12.78	1.12	14.85	0.09	0.01	0.02	0.03
23380	7.27	0.58	0.55	12.79	1.13	14.85	0.10	0.01	0.03	0.03
23410	7.29	0.60	0.57	12.80	1.14	14.86	0.12	0.01	0.03	0.04
23440	7.30	0.61	0.58	12.81	1.15	14.86	0.12	0.01	0.03	0.04
23470	7.30	0.61	0.58	12.82	1.16	14.86	0.12	0.01	0.03	0.04
23500	7.30	0.61	0.58	12.82	1.16	14.86	0.12	0.01	0.03	0.04
23530	7.30	0.61	0.58	12.83	1.17	14.86	0.12	0.01	0.03	0.04
23560	7.30	0.61	0.58	12.84	1.18	14.87	0.13	0.01	0.03	0.05
23590	7.31	0.62	0.58	12.84	1.18	14.87	0.14	0.01	0.04	0.05
23620	7.32	0.63	0.59	12.86	1.20	14.87	0.15	0.01	0.04	0.05
23650	7.29	0.60	0.56	12.82	1.16	14.87	0.15	0.01	0.04	0.05
23680	7.31	0.62	0.59	12.84	1.18	14.87	0.15	0.01	0.04	0.05
23710	7.30	0.61	0.57	12.86	1.20	14.87	0.14	0.01	0.04	0.05
23740	7.30	0.61	0.57	12.86	1.20	14.87	0.13	0.01	0.03	0.05
23770	7.29	0.60	0.57	12.86	1.20	14.86	0.12	0.01	0.03	0.04
23800	7.28	0.59	0.56	12.87	1.21	14.86	0.11	0.01	0.03	0.04
23830	7.25	0.55	0.53	12.86	1.20	14.85	0.10	0.01	0.03	0.04
23860	7.24	0.55	0.53	12.86	1.20	14.85	0.09	0.01	0.02	0.03
23890	7.22	0.53	0.51	12.84	1.18	14.85	0.09	0.01	0.02	0.03
23920	7.23	0.54	0.51	12.88	1.22	14.85	0.09	0.01	0.02	0.03
23950	7.22	0.53	0.51	12.86	1.20	14.84	0.08	0.01	0.02	0.03
23980	7.21	0.52	0.50	12.88	1.22	14.84	0.07	0.01	0.02	0.03

24010	7.30	0.61	0.59	12.88	1.22	14.84	0.06	0.01	0.02	0.02
24040	7.29	0.60	0.59	12.88	1.22	14.84	0.06	0.01	0.02	0.02
24070	7.29	0.60	0.59	12.88	1.22	14.84	0.06	0.01	0.02	0.02
24100	7.30	0.61	0.59	12.87	1.21	14.84	0.06	0.01	0.02	0.02
24130	7.28	0.59	0.58	12.87	1.21	14.83	0.05	0.01	0.01	0.02
24160	7.28	0.59	0.58	12.88	1.22	14.83	0.05	0.00	0.01	0.02
24190	7.28	0.59	0.58	12.88	1.22	14.83	0.05	0.01	0.01	0.02
24220	7.29	0.60	0.58	12.88	1.22	14.84	0.06	0.01	0.02	0.02
24250	7.29	0.60	0.59	12.88	1.22	14.84	0.06	0.01	0.02	0.02
24280	7.29	0.60	0.59	12.88	1.22	14.84	0.06	0.01	0.02	0.02
24310	7.30	0.61	0.59	12.88	1.22	14.84	0.07	0.01	0.02	0.03
24340	7.31	0.62	0.60	12.88	1.22	14.84	0.08	0.01	0.02	0.03
24370	7.31	0.62	0.60	12.88	1.22	14.84	0.08	0.01	0.02	0.03
24400	7.31	0.62	0.60	12.88	1.22	14.84	0.08	0.01	0.02	0.03
24430	7.31	0.61	0.60	12.88	1.22	14.84	0.07	0.01	0.02	0.03
24460	7.30	0.61	0.59	12.88	1.22	14.84	0.07	0.01	0.02	0.03
24490	7.29	0.60	0.58	12.88	1.22	14.84	0.07	0.01	0.02	0.02
24520	7.29	0.60	0.58	12.88	1.22	14.84	0.06	0.01	0.02	0.02
24550	7.28	0.59	0.57	12.88	1.22	14.83	0.05	0.01	0.01	0.02
24580	7.26	0.57	0.56	12.88	1.22	14.83	0.04	0.00	0.01	0.01
24610	7.25	0.56	0.55	12.88	1.22	14.82	0.03	0.00	0.01	0.01
24640	7.25	0.56	0.55	12.88	1.22	14.82	0.02	0.00	0.00	0.01
24670	7.24	0.55	0.55	12.89	1.23	14.82	0.01	0.00	0.00	0.00
24700	7.23	0.54	0.54	12.89	1.23	14.81	0.00	0.00	0.00	0.00
24730	7.23	0.54	0.54	12.89	1.23	14.81	0.00	0.00	0.00	0.00
24760	7.23	0.54	0.54	12.90	1.24	14.81	0.00	0.00	0.00	0.00
24790	7.33	0.64	0.64	12.90	1.24	14.81	0.00	0.00	0.00	0.00
24820	7.33	0.64	0.64	12.90	1.24	14.81	0.01	0.00	0.00	0.00
24850	7.34	0.65	0.64	12.91	1.25	14.82	0.01	0.00	0.00	0.00
24880	7.35	0.66	0.65	12.92	1.26	14.82	0.02	0.00	0.00	0.01
24910	7.36	0.67	0.66	12.92	1.26	14.82	0.02	0.00	0.01	0.01
24940	7.35	0.66	0.66	12.92	1.26	14.82	0.03	0.00	0.01	0.01
24970	7.35	0.66	0.65	12.91	1.25	14.82	0.03	0.00	0.01	0.01
25000	7.35	0.66	0.65	12.92	1.26	14.83	0.04	0.00	0.01	0.01
25030	7.34	0.65	0.64	12.92	1.26	14.83	0.04	0.00	0.01	0.01
25060	7.35	0.66	0.65	12.92	1.26	14.83	0.04	0.00	0.01	0.01
25090	7.35	0.66	0.65	12.92	1.26	14.83	0.04	0.00	0.01	0.01
25120	7.34	0.65	0.64	12.89	1.23	14.83	0.03	0.00	0.01	0.01
25150	7.35	0.66	0.66	12.94	1.28	14.82	0.02	0.00	0.01	0.01
25180	7.32	0.63	0.62	12.92	1.26	14.82	0.02	0.00	0.01	0.01
25210	7.31	0.62	0.62	12.89	1.23	14.81	0.00	0.00	0.00	0.00

25240	7.37	0.67	0.67	12.99	1.33	14.81	0.00	0.00	0.00	0.00
25270	7.33	0.64	0.64	12.93	1.27	14.81	0.00	0.00	0.00	0.00
25300	7.32	0.63	0.64	12.93	1.27	14.81	−0.00	−0.00	−0.00	−0.00
25330	7.30	0.61	0.61	12.89	1.23	14.81	−0.01	−0.00	−0.00	−0.00
25360	7.29	0.60	0.60	12.89	1.23	14.80	−0.02	−0.00	−0.00	−0.01
25390	7.28	0.59	0.59	12.86	1.20	14.80	−0.02	−0.00	−0.01	−0.01
25420	7.27	0.58	0.59	12.86	1.20	14.80	−0.03	−0.00	−0.01	−0.01
25450	7.27	0.58	0.59	12.86	1.20	14.80	−0.03	−0.00	−0.01	−0.01
25480	7.26	0.57	0.58	12.85	1.19	14.79	−0.04	−0.00	−0.01	−0.01
25510	7.26	0.57	0.58	12.85	1.19	14.79	−0.04	−0.00	−0.01	−0.02
25540	7.25	0.56	0.57	12.87	1.21	14.78	−0.06	−0.01	−0.02	−0.02
25570	7.23	0.54	0.56	12.88	1.22	14.78	−0.08	−0.01	−0.02	−0.03
25600	7.25	0.55	0.57	12.88	1.22	14.78	−0.06	−0.01	−0.02	−0.02
25630	7.25	0.56	0.58	12.89	1.23	14.79	−0.06	−0.01	−0.02	−0.02
25660	7.26	0.57	0.58	12.90	1.24	14.79	−0.05	−0.01	−0.01	−0.02
25690	7.27	0.58	0.59	12.91	1.25	14.79	−0.04	−0.00	−0.01	−0.01
25720	7.28	0.59	0.60	12.91	1.25	14.80	−0.03	−0.00	−0.01	−0.01
25750	7.29	0.60	0.61	12.91	1.25	14.80	−0.03	−0.00	−0.01	−0.01
25780	7.28	0.59	0.60	12.92	1.26	14.80	−0.03	−0.00	−0.01	−0.01
25810	7.27	0.58	0.59	12.92	1.26	14.79	−0.04	−0.00	−0.01	−0.01
25840	7.27	0.58	0.59	12.92	1.26	14.79	−0.05	−0.00	−0.01	−0.02
25870	7.26	0.57	0.58	12.93	1.27	14.79	−0.06	−0.01	−0.01	−0.02
25900	7.26	0.57	0.58	12.93	1.27	14.78	−0.06	−0.01	−0.02	−0.02
25930	7.24	0.55	0.57	12.93	1.27	14.78	−0.08	−0.01	−0.02	−0.03
25960	7.38	0.69	0.71	12.93	1.27	14.78	−0.08	−0.01	−0.02	−0.03
25990	7.36	0.67	0.70	12.93	1.27	14.77	−0.09	−0.01	−0.02	−0.03
26020	7.36	0.67	0.69	12.93	1.27	14.77	−0.10	−0.01	−0.03	−0.03
26050	7.33	0.64	0.67	12.93	1.27	14.76	−0.11	−0.01	−0.03	−0.04
26080	7.33	0.64	0.67	12.94	1.28	14.76	−0.12	−0.01	−0.03	−0.04
26110	7.33	0.64	0.67	12.94	1.28	14.76	−0.12	−0.01	−0.03	−0.04
26140	7.33	0.64	0.67	12.95	1.29	14.76	−0.12	−0.01	−0.03	−0.04
26170	7.32	0.63	0.67	12.95	1.29	14.75	−0.13	−0.01	−0.03	−0.05
26200	7.33	0.64	0.67	12.96	1.30	14.76	−0.12	−0.01	−0.03	−0.04
26230	7.34	0.65	0.68	12.96	1.30	14.76	−0.11	−0.01	−0.03	−0.04
26260	7.36	0.67	0.69	12.97	1.31	14.77	−0.09	−0.01	−0.02	−0.03
26290	7.36	0.67	0.69	12.97	1.31	14.78	−0.08	−0.01	−0.02	−0.03
26320	7.38	0.69	0.70	12.97	1.31	14.78	−0.07	−0.01	−0.02	−0.02
26350	7.38	0.69	0.70	12.97	1.31	14.78	−0.06	−0.01	−0.02	−0.02
26380	7.38	0.69	0.71	12.98	1.32	14.78	−0.06	−0.01	−0.02	−0.02
26410	7.37	0.68	0.70	12.98	1.32	14.78	−0.08	−0.01	−0.02	−0.03
26440	7.38	0.69	0.71	12.98	1.32	14.78	−0.07	−0.01	−0.02	−0.02

26470	7.38	0.69	0.71	12.99	1.33	14.78	−0.08	−0.01	−0.02	−0.03
26500	7.37	0.68	0.70	12.99	1.33	14.78	−0.07	−0.01	−0.02	−0.03
26530	7.37	0.68	0.70	12.98	1.32	14.78	−0.07	−0.01	−0.02	−0.03
26560	7.37	0.68	0.70	12.99	1.33	14.78	−0.08	−0.01	−0.02	−0.03
26590	7.36	0.67	0.69	13.02	1.36	14.77	−0.09	−0.01	−0.02	−0.03
26620	7.31	0.62	0.65	12.96	1.30	14.77	−0.09	−0.01	−0.02	−0.03
26650	7.31	0.62	0.64	12.93	1.27	14.77	−0.10	−0.01	−0.03	−0.04
26680	7.30	0.61	0.64	12.96	1.30	14.76	−0.11	−0.01	−0.03	−0.04
26710	7.34	0.65	0.68	13.01	1.35	14.76	−0.12	−0.01	−0.03	−0.04
26740	7.32	0.63	0.66	12.99	1.33	14.76	−0.13	−0.01	−0.03	−0.05
26770	7.31	0.62	0.66	13.01	1.35	14.75	−0.13	−0.01	−0.03	−0.05
26800	7.29	0.60	0.64	12.99	1.33	14.75	−0.14	−0.01	−0.04	−0.05
26830	7.26	0.57	0.61	12.99	1.33	14.74	−0.15	−0.02	−0.04	−0.06
26860	7.35	0.66	0.70	12.97	1.31	14.74	−0.16	−0.02	−0.04	−0.06
26890	7.34	0.65	0.69	12.99	1.33	14.74	−0.17	−0.02	−0.04	−0.06
26920	7.34	0.65	0.69	12.99	1.33	14.74	−0.17	−0.02	−0.04	−0.06
26950	7.33	0.64	0.69	12.99	1.33	14.73	−0.18	−0.02	−0.05	−0.06
26980	7.32	0.63	0.68	12.98	1.32	14.73	−0.18	−0.02	−0.05	−0.07
27010	7.32	0.63	0.68	12.98	1.32	14.73	−0.19	−0.02	−0.05	−0.07
27040	7.33	0.64	0.69	12.98	1.32	14.73	−0.18	−0.02	−0.05	−0.06
27070	7.35	0.66	0.70	12.99	1.33	14.74	−0.17	−0.02	−0.04	−0.06
27100	7.36	0.67	0.71	12.98	1.32	14.75	−0.15	−0.01	−0.04	−0.05
27130	7.36	0.67	0.71	12.99	1.33	14.74	−0.15	−0.02	−0.04	−0.05
27160	7.37	0.68	0.72	12.99	1.33	14.75	−0.14	−0.01	−0.04	−0.05
27190	7.38	0.69	0.73	12.99	1.33	14.75	−0.13	−0.01	−0.03	−0.05
27220	7.38	0.69	0.72	12.99	1.33	14.75	−0.13	−0.01	−0.03	−0.05
27250	7.38	0.69	0.72	12.99	1.33	14.75	−0.13	−0.01	−0.03	−0.05
27280	7.38	0.69	0.72	12.99	1.33	14.75	−0.13	−0.01	−0.03	−0.05
27310	7.39	0.70	0.73	12.99	1.33	14.76	−0.12	−0.01	−0.03	−0.04
27340	7.38	0.69	0.73	12.99	1.33	14.76	−0.12	−0.01	−0.03	−0.04
27370	7.38	0.69	0.73	12.99	1.33	14.76	−0.12	−0.01	−0.03	−0.04
27400	7.38	0.69	0.72	12.99	1.33	14.75	−0.13	−0.01	−0.03	−0.05
27430	7.37	0.68	0.72	12.99	1.33	14.75	−0.14	−0.01	−0.04	−0.05
27460	7.36	0.67	0.71	12.99	1.33	14.74	−0.15	−0.02	−0.04	−0.05
27490	7.36	0.67	0.71	12.99	1.33	14.74	−0.15	−0.02	−0.04	−0.06
27520	7.36	0.67	0.71	13.00	1.34	14.74	−0.15	−0.02	−0.04	−0.05
27550	7.36	0.67	0.71	13.00	1.34	14.74	−0.15	−0.02	−0.04	−0.05
27580	7.35	0.66	0.70	13.00	1.34	14.74	−0.15	−0.02	−0.04	−0.05
27610	7.36	0.67	0.71	13.00	1.34	14.74	−0.15	−0.02	−0.04	−0.05
27640	7.37	0.68	0.71	13.01	1.35	14.75	−0.14	−0.01	−0.04	−0.05
27670	7.38	0.69	0.72	13.01	1.35	14.75	−0.13	−0.01	−0.03	−0.05

27700	7.38	0.69	0.73	13.02	1.36	14.76	−0.12	−0.01	−0.03	−0.04
27730	7.39	0.70	0.73	13.02	1.36	14.76	−0.12	−0.01	−0.03	−0.04
27760	7.38	0.69	0.72	13.02	1.36	14.76	−0.12	−0.01	−0.03	−0.04
27790	7.39	0.70	0.73	13.03	1.37	14.76	−0.12	−0.01	−0.03	−0.04
27820	7.40	0.71	0.73	13.03	1.37	14.77	−0.10	−0.01	−0.03	−0.04
27850	7.40	0.71	0.74	13.02	1.36	14.77	−0.10	−0.01	−0.03	−0.03
27880	7.42	0.73	0.75	13.04	1.38	14.77	−0.09	−0.01	−0.02	−0.03
27910	7.41	0.72	0.74	13.03	1.37	14.77	−0.09	−0.01	−0.02	−0.03
27940	7.42	0.73	0.75	13.03	1.37	14.78	−0.07	−0.01	−0.02	−0.02
27970	7.43	0.74	0.76	13.03	1.37	14.78	−0.06	−0.01	−0.02	−0.02
28000	7.44	0.74	0.76	13.04	1.38	14.78	−0.06	−0.01	−0.02	−0.02
28030	7.42	0.73	0.75	13.02	1.36	14.78	−0.06	−0.01	−0.02	−0.02
28060	7.42	0.73	0.75	13.03	1.37	14.78	−0.07	−0.01	−0.02	−0.02
28090	7.42	0.73	0.74	13.03	1.37	14.78	−0.07	−0.01	−0.02	−0.02
28120	7.42	0.73	0.75	13.02	1.36	14.78	−0.06	−0.01	−0.02	−0.02
28150	7.43	0.74	0.76	13.04	1.38	14.78	−0.08	−0.01	−0.02	−0.03
28180	7.39	0.70	0.72	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
28210	7.41	0.72	0.74	13.02	1.36	14.77	−0.09	−0.01	−0.02	−0.03
28240	7.40	0.71	0.73	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
28270	7.38	0.69	0.72	13.02	1.36	14.77	−0.09	−0.01	−0.02	−0.03
28300	7.38	0.69	0.72	13.01	1.35	14.77	−0.10	−0.01	−0.03	−0.03
28330	7.38	0.69	0.72	13.01	1.35	14.77	−0.10	−0.01	−0.03	−0.04
28360	7.37	0.68	0.71	13.01	1.35	14.76	−0.11	−0.01	−0.03	−0.04
28390	7.37	0.68	0.71	13.01	1.35	14.76	−0.11	−0.01	−0.03	−0.04
28420	7.38	0.69	0.72	13.01	1.35	14.77	−0.10	−0.01	−0.03	−0.04
28450	7.39	0.70	0.73	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
28480	7.39	0.70	0.73	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
28510	7.41	0.72	0.74	13.00	1.34	14.78	−0.08	−0.01	−0.02	−0.03
28540	7.41	0.72	0.74	13.00	1.34	14.78	−0.08	−0.01	−0.02	−0.03
28570	7.42	0.73	0.75	13.01	1.35	14.78	−0.06	−0.01	−0.02	−0.02
28600	7.43	0.74	0.76	13.00	1.34	14.79	−0.05	−0.01	−0.01	−0.02
28630	7.44	0.75	0.76	13.00	1.34	14.79	−0.04	−0.00	−0.01	−0.01
28660	7.44	0.75	0.76	13.00	1.34	14.79	−0.04	−0.00	−0.01	−0.02
28690	7.44	0.74	0.76	13.00	1.34	14.79	−0.05	−0.00	−0.01	−0.02
28720	7.44	0.75	0.76	13.00	1.34	14.79	−0.04	−0.00	−0.01	−0.02
28750	7.44	0.75	0.76	13.00	1.34	14.79	−0.04	−0.00	−0.01	−0.02
28780	7.44	0.75	0.76	12.99	1.33	14.79	−0.04	−0.00	−0.01	−0.02
28810	7.43	0.74	0.76	12.99	1.33	14.79	−0.05	−0.01	−0.01	−0.02
28840	7.42	0.73	0.75	12.99	1.33	14.78	−0.06	−0.01	−0.02	−0.02
28870	7.41	0.72	0.74	12.99	1.33	14.78	−0.07	−0.01	−0.02	−0.02
28900	7.40	0.71	0.73	12.99	1.33	14.78	−0.08	−0.01	−0.02	−0.03

28930	7.39	0.70	0.73	12.99	1.33	14.77	−0.09	−0.01	−0.02	−0.03
28960	7.38	0.69	0.72	12.99	1.33	14.77	−0.10	−0.01	−0.03	−0.03
28990	7.38	0.69	0.72	13.00	1.34	14.77	−0.10	−0.01	−0.03	−0.03
29020	7.38	0.69	0.72	13.00	1.34	14.77	−0.10	−0.01	−0.03	−0.04
29050	7.38	0.69	0.72	13.00	1.34	14.77	−0.10	−0.01	−0.03	−0.03
29080	7.39	0.70	0.72	13.00	1.34	14.77	−0.09	−0.01	−0.02	−0.03
29110	7.39	0.70	0.72	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
29140	7.39	0.70	0.72	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
29170	7.39	0.70	0.73	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
29200	7.39	0.70	0.73	13.02	1.36	14.77	−0.09	−0.01	−0.02	−0.03
29230	7.40	0.71	0.73	13.02	1.36	14.77	−0.08	−0.01	−0.02	−0.03
29260	7.43	0.74	0.76	13.05	1.39	14.78	−0.07	−0.01	−0.02	−0.03
29290	7.42	0.73	0.75	13.02	1.36	14.78	−0.07	−0.01	−0.02	−0.02
29320	7.45	0.76	0.78	13.06	1.40	14.78	−0.06	−0.01	−0.02	−0.02
29350	7.42	0.73	0.74	13.01	1.35	14.78	−0.06	−0.01	−0.02	−0.02
29380	7.42	0.73	0.74	13.01	1.35	14.79	−0.06	−0.01	−0.02	−0.02
29410	7.41	0.72	0.73	12.98	1.32	14.79	−0.06	−0.01	−0.01	−0.02
29440	7.42	0.73	0.75	13.00	1.34	14.79	−0.06	−0.01	−0.01	−0.02
29470	7.43	0.74	0.75	13.06	1.40	14.78	−0.06	−0.01	−0.02	−0.02
29500	7.41	0.72	0.73	13.01	1.35	14.78	−0.07	−0.01	−0.02	−0.03
29530	7.38	0.69	0.71	13.02	1.36	14.78	−0.08	−0.01	−0.02	−0.03
29560	7.41	0.72	0.74	13.01	1.35	14.78	−0.07	−0.01	−0.02	−0.03
29590	7.34	0.65	0.68	12.98	1.32	14.76	−0.11	−0.01	−0.03	−0.04
29620	7.37	0.68	0.70	13.01	1.35	14.77	−0.09	−0.01	−0.02	−0.03
29650	7.34	0.65	0.68	13.00	1.34	14.76	−0.13	−0.01	−0.03	−0.05
29680	7.33	0.64	0.68	13.01	1.35	14.75	−0.14	−0.01	−0.04	−0.05
29710	7.41	0.72	0.76	13.00	1.34	14.74	−0.16	−0.02	−0.04	−0.06
29740	7.40	0.71	0.75	13.00	1.34	14.73	−0.18	−0.02	−0.05	−0.06
29770	7.39	0.70	0.75	13.00	1.34	14.73	−0.18	−0.02	−0.05	−0.07
29800	7.37	0.68	0.73	13.00	1.34	14.72	−0.20	−0.02	−0.05	−0.07
29830	7.43	0.74	0.78	13.00	1.34	14.75	−0.14	−0.01	−0.04	−0.05
29860	7.44	0.75	0.79	12.99	1.33	14.75	−0.13	−0.01	−0.03	−0.05
29890	7.43	0.74	0.78	12.99	1.33	14.75	−0.15	−0.01	−0.04	−0.05
29920	7.37	0.68	0.73	12.97	1.31	14.72	−0.20	−0.02	−0.05	−0.07
29950	7.38	0.69	0.74	12.97	1.31	14.73	−0.20	−0.02	−0.05	−0.07
29980	7.39	0.70	0.75	12.97	1.31	14.73	−0.19	−0.02	−0.05	−0.07
30010	7.39	0.70	0.75	12.97	1.31	14.73	−0.18	−0.02	−0.05	−0.07
30040	7.39	0.70	0.75	12.97	1.31	14.73	−0.18	−0.02	−0.05	−0.07
30070	7.39	0.70	0.75	12.97	1.31	14.73	−0.18	−0.02	−0.05	−0.06
30100	7.39	0.70	0.74	12.97	1.31	14.73	−0.18	−0.02	−0.05	−0.06
30130	7.38	0.69	0.74	12.96	1.30	14.73	−0.19	−0.02	−0.05	−0.07

30160	7.36	0.67	0.72	12.96	1.30	14.72	−0.21	−0.02	−0.06	−0.08
30190	7.36	0.67	0.73	12.96	1.30	14.72	−0.21	−0.02	−0.05	−0.07
30220	7.35	0.66	0.72	12.96	1.30	14.72	−0.22	−0.02	−0.06	−0.08
30250	7.34	0.65	0.71	12.95	1.29	14.71	−0.23	−0.02	−0.06	−0.08
30280	7.33	0.64	0.70	12.95	1.29	14.70	−0.24	−0.02	−0.06	−0.09
30310	7.31	0.62	0.69	12.94	1.28	14.70	−0.27	−0.03	−0.07	−0.10
30340	7.30	0.61	0.68	12.94	1.28	14.69	−0.28	−0.03	−0.07	−0.10
30370	7.37	0.68	0.75	12.94	1.28	14.69	−0.28	−0.03	−0.07	−0.10
30400	7.36	0.67	0.75	12.94	1.28	14.68	−0.30	−0.03	−0.08	−0.11
30430	7.36	0.67	0.74	12.94	1.28	14.68	−0.30	−0.03	−0.08	−0.11
30460	7.34	0.65	0.73	12.94	1.28	14.67	−0.31	−0.03	−0.08	−0.11
30490	7.33	0.64	0.72	12.95	1.29	14.67	−0.32	−0.03	−0.08	−0.12
30520	7.31	0.62	0.71	12.95	1.29	14.66	−0.34	−0.03	−0.09	−0.12
30550	7.32	0.63	0.72	12.95	1.29	14.66	−0.34	−0.03	−0.09	−0.12
30580	7.33	0.64	0.73	12.95	1.29	14.67	−0.32	−0.03	−0.08	−0.11
30610	7.34	0.65	0.73	12.95	1.29	14.68	−0.31	−0.03	−0.08	−0.11
30640	7.35	0.66	0.74	12.96	1.30	14.68	−0.30	−0.03	−0.08	−0.11
30670	7.36	0.67	0.74	12.96	1.30	14.68	−0.30	−0.03	−0.08	−0.11
30700	7.36	0.67	0.74	12.97	1.31	14.68	−0.30	−0.03	−0.08	−0.11
30730	7.35	0.66	0.74	12.96	1.30	14.68	−0.30	−0.03	−0.08	−0.11
30760	7.36	0.67	0.75	12.95	1.29	14.69	−0.28	−0.03	−0.07	−0.10
30790	7.37	0.68	0.75	12.97	1.31	14.69	−0.28	−0.03	−0.07	−0.10
30820	7.38	0.69	0.75	12.97	1.31	14.70	−0.27	−0.03	−0.07	−0.10
30850	7.38	0.69	0.76	12.96	1.30	14.70	−0.26	−0.03	−0.07	−0.09
30880	7.39	0.70	0.77	12.97	1.31	14.70	−0.26	−0.03	−0.07	−0.09
30910	7.40	0.71	0.78	12.97	1.31	14.70	−0.27	−0.03	−0.07	−0.10
30940	7.36	0.67	0.74	12.94	1.28	14.70	−0.27	−0.03	−0.07	−0.10
30970	7.37	0.67	0.74	12.94	1.28	14.69	−0.27	−0.03	−0.07	−0.10
31000	7.39	0.70	0.77	12.96	1.30	14.69	−0.27	−0.03	−0.07	−0.10
31030	7.38	0.69	0.75	12.95	1.29	14.69	−0.27	−0.03	−0.07	−0.10
31060	7.38	0.69	0.76	12.97	1.31	14.70	−0.27	−0.03	−0.07	−0.10
31090	7.36	0.67	0.74	12.96	1.30	14.69	−0.27	−0.03	−0.07	−0.10
31120	7.35	0.66	0.73	12.96	1.30	14.69	−0.27	−0.03	−0.07	−0.10
31150	7.37	0.68	0.75	12.98	1.32	14.70	−0.26	−0.03	−0.07	−0.09
31180	7.37	0.68	0.75	12.95	1.29	14.70	−0.26	−0.03	−0.07	−0.09
31210	7.38	0.69	0.75	12.95	1.29	14.70	−0.26	−0.03	−0.07	−0.09
31240	7.38	0.69	0.75	12.96	1.30	14.70	−0.25	−0.02	−0.06	−0.09
31270	7.39	0.70	0.76	12.96	1.30	14.71	−0.24	−0.02	−0.06	−0.09
31300	7.40	0.71	0.77	12.96	1.30	14.71	−0.23	−0.02	−0.06	−0.08
31330	7.40	0.71	0.77	12.96	1.30	14.71	−0.22	−0.02	−0.06	−0.08
31360	7.41	0.72	0.78	12.97	1.31	14.72	−0.22	−0.02	−0.06	−0.08

31390	7.42	0.73	0.78	12.97	1.31	14.72	−0.21	−0.02	−0.06	−0.08
31420	7.44	0.75	0.80	12.97	1.31	14.73	−0.19	−0.02	−0.05	−0.07
31450	7.46	0.77	0.81	12.97	1.31	14.73	−0.18	−0.02	−0.05	−0.06
31480	7.47	0.78	0.82	12.97	1.31	14.74	−0.16	−0.02	−0.04	−0.06
31510	7.48	0.79	0.83	12.97	1.31	14.74	−0.15	−0.02	−0.04	−0.05
31540	7.49	0.80	0.84	12.97	1.31	14.75	−0.14	−0.01	−0.04	−0.05
31570	7.48	0.79	0.83	12.97	1.31	14.74	−0.15	−0.02	−0.04	−0.05
31600	7.49	0.80	0.84	12.98	1.32	14.74	−0.15	−0.02	−0.04	−0.05
31630	7.48	0.79	0.83	12.97	1.31	14.74	−0.15	−0.02	−0.04	−0.06
31660	7.48	0.79	0.83	12.98	1.32	14.74	−0.15	−0.02	−0.04	−0.06
31690	7.48	0.79	0.83	12.97	1.31	14.74	−0.15	−0.02	−0.04	−0.06
31720	7.47	0.78	0.83	12.97	1.31	14.74	−0.16	−0.02	−0.04	−0.06
31750	7.46	0.77	0.81	12.97	1.31	14.74	−0.17	−0.02	−0.04	−0.06
31780	7.47	0.78	0.82	12.98	1.32	14.74	−0.16	−0.02	−0.04	−0.06
31810	7.47	0.78	0.82	12.98	1.32	14.74	−0.17	−0.02	−0.04	−0.06
31840	7.47	0.78	0.82	12.98	1.32	14.74	−0.17	−0.02	−0.04	−0.06
31870	7.48	0.79	0.83	12.99	1.33	14.74	−0.15	−0.02	−0.04	−0.06
31900	7.48	0.79	0.83	12.99	1.33	14.74	−0.16	−0.02	−0.04	−0.06
31930	7.46	0.77	0.82	12.99	1.33	14.74	−0.17	−0.02	−0.04	−0.06
31960	7.47	0.78	0.83	12.99	1.33	14.74	−0.16	−0.02	−0.04	−0.06
31990	7.49	0.80	0.84	12.99	1.33	14.75	−0.14	−0.01	−0.04	−0.05
32020	7.51	0.82	0.86	13.00	1.34	14.76	−0.12	−0.01	−0.03	−0.04
32050	7.51	0.82	0.85	13.00	1.34	14.76	−0.12	−0.01	−0.03	−0.04
32080	7.53	0.84	0.86	13.01	1.35	14.76	−0.11	−0.01	−0.03	−0.04
32110	7.53	0.84	0.87	13.01	1.35	14.77	−0.10	−0.01	−0.03	−0.04
32140	7.55	0.86	0.88	13.02	1.36	14.77	−0.09	−0.01	−0.02	−0.03
32170	7.55	0.86	0.88	13.02	1.36	14.77	−0.09	−0.01	−0.02	−0.03
32200	7.56	0.87	0.89	13.03	1.37	14.78	−0.08	−0.01	−0.02	−0.03
32230	7.57	0.88	0.90	13.03	1.37	14.78	−0.06	−0.01	−0.02	−0.02
32260	7.58	0.89	0.91	13.03	1.37	14.79	−0.06	−0.01	−0.02	−0.02
32290	7.57	0.88	0.90	13.03	1.37	14.78	−0.06	−0.01	−0.02	−0.02
32320	7.57	0.88	0.90	13.07	1.41	14.78	−0.07	−0.01	−0.02	−0.03
32350	7.56	0.87	0.89	13.04	1.38	14.78	−0.07	−0.01	−0.02	−0.03
32380	7.56	0.86	0.88	13.04	1.38	14.78	−0.07	−0.01	−0.02	−0.02
32410	7.57	0.88	0.90	13.04	1.38	14.78	−0.07	−0.01	−0.02	−0.03
32440	7.52	0.83	0.86	13.04	1.38	14.77	−0.08	−0.01	−0.02	−0.03
32470	7.52	0.83	0.86	13.03	1.37	14.77	−0.10	−0.01	−0.03	−0.03
32500	7.54	0.85	0.88	13.07	1.41	14.77	−0.10	−0.01	−0.03	−0.04
32530	7.48	0.79	0.82	13.01	1.35	14.76	−0.11	−0.01	−0.03	−0.04
32560	7.48	0.79	0.82	13.02	1.36	14.76	−0.11	−0.01	−0.03	−0.04
32590	7.50	0.81	0.84	13.04	1.38	14.76	−0.11	−0.01	−0.03	−0.04

32620	7.50	0.81	0.84	13.05	1.39	14.76	−0.12	−0.01	−0.03	−0.04
32650	7.50	0.80	0.84	13.03	1.37	14.76	−0.12	−0.01	−0.03	−0.04
32680	7.50	0.81	0.84	13.03	1.37	14.76	−0.12	−0.01	−0.03	−0.04
32710	7.51	0.82	0.85	13.04	1.38	14.76	−0.11	−0.01	−0.03	−0.04
32740	7.53	0.84	0.86	13.03	1.37	14.77	−0.09	−0.01	−0.02	−0.03
32770	7.54	0.85	0.87	13.03	1.37	14.78	−0.08	−0.01	−0.02	−0.03
32800	7.57	0.88	0.89	13.04	1.38	14.79	−0.06	−0.01	−0.02	−0.02
32830	7.57	0.88	0.89	13.02	1.36	14.79	−0.04	−0.00	−0.01	−0.01
32860	7.58	0.89	0.90	13.03	1.37	14.80	−0.03	−0.00	−0.01	−0.01
32890	7.58	0.89	0.90	13.03	1.37	14.80	−0.03	−0.00	−0.01	−0.01
32920	7.59	0.90	0.91	13.02	1.36	14.80	−0.01	−0.00	−0.00	−0.00
32950	7.60	0.91	0.91	13.02	1.36	14.81	−0.01	−0.00	−0.00	−0.00
32980	7.61	0.92	0.92	13.02	1.36	14.81	−0.00	−0.00	−0.00	−0.00
33010	7.61	0.92	0.92	13.01	1.35	14.81	−0.00	−0.00	−0.00	−0.00
33040	7.61	0.92	0.92	13.01	1.35	14.81	−0.00	−0.00	−0.00	−0.00
33070	7.62	0.93	0.92	13.00	1.34	14.81	0.01	0.00	0.00	0.00
33100	7.61	0.92	0.92	13.00	1.34	14.81	0.00	0.00	0.00	0.00
33130	7.60	0.91	0.91	13.00	1.34	14.81	−0.00	−0.00	−0.00	−0.00
33160	7.59	0.90	0.90	12.99	1.33	14.81	−0.01	−0.00	−0.00	−0.00
33190	7.58	0.89	0.89	13.00	1.34	14.80	−0.01	−0.00	−0.00	−0.00
33220	7.57	0.88	0.88	12.99	1.33	14.80	−0.02	−0.00	−0.01	−0.01
33250	7.56	0.87	0.88	12.99	1.33	14.80	−0.03	−0.00	−0.01	−0.01
33280	7.56	0.86	0.87	12.99	1.33	14.80	−0.03	−0.00	−0.01	−0.01
33310	7.55	0.86	0.87	12.99	1.33	14.80	−0.03	−0.00	−0.01	−0.01
33340	7.56	0.87	0.88	12.99	1.33	14.80	−0.03	−0.00	−0.01	−0.01
33370	7.55	0.86	0.87	12.99	1.33	14.80	−0.03	−0.00	−0.01	−0.01
33400	7.56	0.87	0.88	13.00	1.34	14.80	−0.02	−0.00	−0.00	−0.01
33430	7.57	0.88	0.88	13.00	1.34	14.81	−0.01	−0.00	−0.00	−0.00
33460	7.57	0.88	0.88	13.01	1.35	14.81	−0.00	−0.00	−0.00	−0.00
33490	7.58	0.89	0.89	13.01	1.35	14.82	0.01	0.00	0.00	0.00
33520	7.60	0.91	0.90	13.03	1.37	14.82	0.03	0.00	0.01	0.01
33550	7.61	0.92	0.91	13.04	1.38	14.83	0.03	0.00	0.01	0.01
33580	7.61	0.92	0.91	13.05	1.39	14.83	0.04	0.00	0.01	0.01
33610	7.62	0.93	0.92	13.06	1.40	14.83	0.05	0.01	0.01	0.02
33640	7.63	0.94	0.92	13.07	1.41	14.84	0.06	0.01	0.02	0.02
33670	7.62	0.93	0.92	13.08	1.42	14.84	0.06	0.01	0.02	0.02
33700	7.62	0.93	0.91	13.08	1.42	14.84	0.06	0.01	0.02	0.02
33730	7.63	0.94	0.92	13.11	1.45	14.84	0.06	0.01	0.02	0.02
33760	7.58	0.89	0.87	13.07	1.41	14.84	0.06	0.01	0.02	0.02
33790	7.60	0.91	0.90	13.08	1.42	14.83	0.05	0.01	0.01	0.02
33820	7.58	0.89	0.88	13.07	1.41	14.83	0.04	0.00	0.01	0.02

33850	7.56	0.87	0.87	13.10	1.44	14.82	0.03	0.00	0.01	0.01
33880	7.54	0.85	0.85	13.08	1.42	14.82	0.01	0.00	0.00	0.00
33910	7.51	0.82	0.82	13.09	1.43	14.81	−0.00	−0.00	−0.00	−0.00
33940	7.51	0.82	0.82	13.08	1.42	14.81	−0.01	−0.00	−0.00	−0.00
33970	7.49	0.80	0.81	13.09	1.43	14.81	−0.01	−0.00	−0.00	−0.00
34000	7.47	0.78	0.79	13.10	1.44	14.80	−0.03	−0.00	−0.01	−0.01
34030	7.47	0.78	0.79	13.10	1.44	14.79	−0.04	−0.00	−0.01	−0.01
34060	7.55	0.86	0.87	13.11	1.45	14.79	−0.04	−0.00	−0.01	−0.02
34090	7.55	0.86	0.87	13.09	1.43	14.79	−0.05	−0.01	−0.01	−0.02
34120	7.53	0.84	0.86	13.09	1.43	14.78	−0.06	−0.01	−0.02	−0.02
34150	7.54	0.85	0.87	13.10	1.44	14.78	−0.06	−0.01	−0.02	−0.02
34180	7.53	0.84	0.86	13.10	1.44	14.79	−0.06	−0.01	−0.02	−0.02
34210	7.53	0.84	0.86	13.10	1.44	14.79	−0.06	−0.01	−0.01	−0.02
34240	7.54	0.85	0.86	13.10	1.44	14.79	−0.05	−0.00	−0.01	−0.02
34270	7.54	0.85	0.86	13.11	1.45	14.79	−0.05	−0.00	−0.01	−0.02
34300	7.54	0.85	0.86	13.11	1.45	14.79	−0.04	−0.00	−0.01	−0.01
34330	7.55	0.86	0.87	13.12	1.46	14.80	−0.03	−0.00	−0.01	−0.01
34360	7.56	0.86	0.87	13.11	1.45	14.80	−0.03	−0.00	−0.01	−0.01
34390	7.56	0.86	0.87	13.12	1.46	14.80	−0.01	−0.00	−0.00	−0.00
34420	7.56	0.87	0.87	13.12	1.46	14.80	−0.02	−0.00	−0.00	−0.01
34450	7.56	0.86	0.87	13.12	1.46	14.80	−0.02	−0.00	−0.00	−0.01
34480	7.54	0.85	0.86	13.12	1.46	14.80	−0.02	−0.00	−0.00	−0.01
34510	7.54	0.85	0.86	13.12	1.46	14.80	−0.02	−0.00	−0.01	−0.01
34540	7.55	0.86	0.87	13.12	1.46	14.80	−0.02	−0.00	−0.01	−0.01
34570	7.53	0.84	0.85	13.12	1.46	14.80	−0.03	−0.00	−0.01	−0.01
34600	7.52	0.83	0.84	13.12	1.46	14.80	−0.03	−0.00	−0.01	−0.01
34630	7.52	0.83	0.84	13.12	1.46	14.79	−0.04	−0.00	−0.01	−0.01
34660	7.51	0.82	0.83	13.12	1.46	14.79	−0.04	−0.00	−0.01	−0.01
34690	7.50	0.80	0.82	13.12	1.46	14.79	−0.05	−0.01	−0.01	−0.02
34720	7.57	0.88	0.89	13.12	1.46	14.79	−0.06	−0.01	−0.02	−0.02
34750	7.55	0.86	0.88	13.13	1.47	14.78	−0.06	−0.01	−0.02	−0.02
34780	7.57	0.88	0.89	13.13	1.47	14.78	−0.06	−0.01	−0.02	−0.02
34810	7.57	0.88	0.89	13.13	1.47	14.79	−0.06	−0.01	−0.01	−0.02
34840	7.56	0.87	0.89	13.14	1.48	14.79	−0.05	−0.01	−0.01	−0.02
34870	7.57	0.88	0.89	13.14	1.48	14.80	−0.03	−0.00	−0.01	−0.01
34900	7.57	0.88	0.89	13.15	1.49	14.80	−0.03	−0.00	−0.01	−0.01
34930	7.57	0.88	0.89	13.15	1.49	14.80	−0.03	−0.00	−0.01	−0.01
34960	7.57	0.88	0.89	13.16	1.50	14.80	−0.03	−0.00	−0.01	−0.01
34990	7.57	0.88	0.89	13.16	1.50	14.80	−0.02	−0.00	−0.01	−0.01
35020	7.58	0.89	0.90	13.16	1.50	14.80	−0.02	−0.00	−0.00	−0.01
35050	7.58	0.89	0.89	13.16	1.50	14.81	−0.01	−0.00	−0.00	−0.00

35080	7.58	0.89	0.90	13.17	1.51	14.81	−0.01	−0.00	−0.00	−0.00
35110	7.57	0.88	0.88	13.17	1.51	14.80	−0.01	−0.00	−0.00	−0.00
35140	7.57	0.88	0.88	13.18	1.52	14.80	−0.02	−0.00	−0.00	−0.01
35170	7.57	0.88	0.88	13.18	1.52	14.80	−0.02	−0.00	−0.00	−0.01
35200	7.56	0.87	0.88	13.18	1.52	14.80	−0.03	−0.00	−0.01	−0.01
35230	7.53	0.84	0.85	13.17	1.51	14.79	−0.04	−0.00	−0.01	−0.01
35260	7.52	0.83	0.85	13.08	1.42	14.78	−0.06	−0.01	−0.02	−0.02
35290	7.56	0.87	0.89	13.20	1.54	14.78	−0.08	−0.01	−0.02	−0.03
35320	7.56	0.87	0.89	13.15	1.49	14.77	−0.09	−0.01	−0.02	−0.03
35350	7.53	0.84	0.87	13.17	1.51	14.76	−0.11	−0.01	−0.03	−0.04
35380	7.51	0.82	0.85	13.16	1.50	14.75	−0.13	−0.01	−0.03	−0.05
35410	7.49	0.80	0.83	13.18	1.52	14.75	−0.14	−0.01	−0.04	−0.05
35440	7.54	0.85	0.89	13.16	1.50	14.74	−0.16	−0.02	−0.04	−0.06
35470	7.54	0.85	0.89	13.16	1.50	14.74	−0.17	−0.02	−0.04	−0.06
35500	7.53	0.84	0.89	13.16	1.50	14.74	−0.17	−0.02	−0.05	−0.06
35530	7.52	0.83	0.88	13.16	1.50	14.73	−0.18	−0.02	−0.05	−0.07
35560	7.52	0.83	0.87	13.16	1.50	14.73	−0.18	−0.02	−0.05	−0.07
35590	7.52	0.83	0.88	13.15	1.49	14.73	−0.18	−0.02	−0.05	−0.07
35620	7.51	0.82	0.86	13.15	1.49	14.73	−0.19	−0.02	−0.05	−0.07
35650	7.50	0.80	0.86	13.15	1.49	14.72	−0.20	−0.02	−0.05	−0.07
35680	7.50	0.80	0.86	13.15	1.49	14.72	−0.20	−0.02	−0.05	−0.07
35710	7.60	0.91	0.97	13.15	1.49	14.72	−0.21	−0.02	−0.05	−0.07
35740	7.61	0.92	0.97	13.16	1.50	14.73	−0.20	−0.02	−0.05	−0.07
35770	7.60	0.91	0.96	13.16	1.50	14.73	−0.19	−0.02	−0.05	−0.07
35800	7.61	0.92	0.97	13.16	1.50	14.73	−0.18	−0.02	−0.05	−0.07
35830	7.61	0.92	0.97	13.16	1.50	14.74	−0.17	−0.02	−0.05	−0.06
35860	7.61	0.92	0.97	13.16	1.50	14.74	−0.17	−0.02	−0.05	−0.06
35890	7.59	0.90	0.95	13.16	1.50	14.73	−0.18	−0.02	−0.05	−0.07
35920	7.59	0.90	0.95	13.16	1.50	14.73	−0.19	−0.02	−0.05	−0.07
35950	7.57	0.88	0.93	13.16	1.50	14.73	−0.19	−0.02	−0.05	−0.07
35980	7.56	0.87	0.93	13.16	1.50	14.72	−0.21	−0.02	−0.05	−0.08
36010	7.57	0.88	0.93	13.16	1.50	14.73	−0.20	−0.02	−0.05	−0.07
36040	7.56	0.87	0.92	13.16	1.50	14.72	−0.20	−0.02	−0.05	−0.07
36070	7.55	0.86	0.91	13.16	1.50	14.72	−0.21	−0.02	−0.05	−0.08
36100	7.53	0.84	0.90	13.16	1.50	14.72	−0.22	−0.02	−0.06	−0.08
36130	7.51	0.82	0.88	13.16	1.50	14.71	−0.24	−0.02	−0.06	−0.09
36160	7.50	0.81	0.87	13.16	1.50	14.71	−0.24	−0.02	−0.06	−0.09
36190	7.60	0.91	0.97	13.16	1.50	14.70	−0.24	−0.02	−0.06	−0.09
36220	7.59	0.90	0.96	13.16	1.50	14.71	−0.24	−0.02	−0.06	−0.09
36250	7.57	0.88	0.95	13.16	1.50	14.70	−0.25	−0.02	−0.06	−0.09
36280	7.57	0.88	0.95	13.17	1.51	14.71	−0.24	−0.02	−0.06	−0.09

36310	7.57	0.88	0.94	13.17	1.51	14.71	−0.24	−0.02	−0.06	−0.08
36340	7.57	0.88	0.94	13.18	1.52	14.71	−0.24	−0.02	−0.06	−0.08
36370	7.58	0.89	0.95	13.18	1.52	14.72	−0.21	−0.02	−0.06	−0.08
36400	7.58	0.89	0.94	13.19	1.53	14.72	−0.21	−0.02	−0.06	−0.08
36430	7.57	0.88	0.94	13.19	1.53	14.72	−0.21	−0.02	−0.06	−0.08
36460	7.56	0.87	0.93	13.19	1.53	14.72	−0.22	−0.02	−0.06	−0.08
36490	7.55	0.86	0.92	13.20	1.54	14.71	−0.22	−0.02	−0.06	−0.08
36520	7.54	0.85	0.90	13.19	1.53	14.71	−0.22	−0.02	−0.06	−0.08
36550	7.55	0.86	0.92	13.20	1.54	14.72	−0.21	−0.02	−0.06	−0.08
36580	7.56	0.86	0.92	13.22	1.56	14.72	−0.22	−0.02	−0.06	−0.08
36610	7.64	0.95	1.00	13.20	1.54	14.71	−0.22	−0.02	−0.06	−0.08
36640	7.60	0.91	0.97	13.19	1.53	14.71	−0.23	−0.02	−0.06	−0.08
36670	7.60	0.91	0.97	13.21	1.55	14.71	−0.24	−0.02	−0.06	−0.09
36700	7.61	0.92	0.99	13.25	1.59	14.70	−0.27	−0.03	−0.07	−0.10
36730	7.53	0.84	0.92	13.16	1.50	14.68	−0.29	−0.03	−0.08	−0.10
36760	7.52	0.83	0.91	13.20	1.54	14.68	−0.30	−0.03	−0.08	−0.11
36790	7.49	0.80	0.87	13.19	1.53	14.68	−0.30	−0.03	−0.08	−0.11
36820	7.66	0.97	1.05	13.21	1.55	14.68	−0.31	−0.03	−0.08	−0.11
36850	7.61	0.92	1.00	13.16	1.50	14.67	−0.32	−0.03	−0.08	−0.12
36880	7.59	0.90	0.99	13.16	1.50	14.66	−0.34	−0.03	−0.09	−0.12
36910	7.59	0.90	0.99	13.21	1.55	14.66	−0.35	−0.03	−0.09	−0.12
36940	7.57	0.88	0.98	13.19	1.53	14.66	−0.35	−0.04	−0.09	−0.13
36970	7.57	0.88	0.97	13.20	1.54	14.66	−0.35	−0.03	−0.09	−0.12
37000	7.56	0.87	0.96	13.18	1.52	14.66	−0.35	−0.03	−0.09	−0.13
37030	7.55	0.86	0.95	13.18	1.52	14.66	−0.34	−0.03	−0.09	−0.12
37060	7.55	0.86	0.95	13.18	1.52	14.66	−0.34	−0.03	−0.09	−0.12
37090	7.55	0.86	0.95	13.18	1.52	14.67	−0.33	−0.03	−0.09	−0.12
37120	7.55	0.86	0.95	13.18	1.52	14.67	−0.33	−0.03	−0.08	−0.12
37150	7.55	0.86	0.94	13.18	1.52	14.68	−0.30	−0.03	−0.08	−0.11
37180	7.56	0.86	0.94	13.18	1.52	14.68	−0.30	−0.03	−0.08	−0.11
37210	7.57	0.88	0.96	13.19	1.53	14.69	−0.27	−0.03	−0.07	−0.10
37240	7.58	0.89	0.96	13.19	1.53	14.70	−0.26	−0.03	−0.07	−0.09
37270	7.59	0.90	0.96	13.19	1.53	14.71	−0.24	−0.02	−0.06	−0.09
37300	7.59	0.90	0.96	13.19	1.53	14.71	−0.23	−0.02	−0.06	−0.08
37330	7.60	0.91	0.97	13.19	1.53	14.72	−0.22	−0.02	−0.06	−0.08
37360	7.62	0.93	0.98	13.19	1.53	14.72	−0.20	−0.02	−0.05	−0.07
37390	7.61	0.92	0.97	13.19	1.53	14.72	−0.20	−0.02	−0.05	−0.07
37420	7.59	0.90	0.95	13.19	1.53	14.72	−0.21	−0.02	−0.05	−0.07
37450	7.59	0.90	0.95	13.19	1.53	14.72	−0.21	−0.02	−0.05	−0.07
37480	7.57	0.88	0.94	13.19	1.53	14.72	−0.21	−0.02	−0.06	−0.08
37510	7.56	0.87	0.93	13.19	1.53	14.72	−0.22	−0.02	−0.06	−0.08

37540	7.65	0.96	1.02	13.19	1.53	14.71	−0.23	−0.02	−0.06	−0.08
37570	7.66	0.97	1.03	13.19	1.53	14.71	−0.22	−0.02	−0.06	−0.08
37600	7.67	0.98	1.03	13.19	1.53	14.72	−0.22	−0.02	−0.06	−0.08
37630	7.68	0.99	1.04	13.19	1.53	14.72	−0.22	−0.02	−0.06	−0.08
37660	7.69	1.00	1.05	13.20	1.54	14.72	−0.21	−0.02	−0.06	−0.08
37690	7.69	1.00	1.05	13.20	1.54	14.72	−0.21	−0.02	−0.05	−0.08
37720	7.69	1.00	1.05	13.21	1.55	14.72	−0.20	−0.02	−0.05	−0.07
37750	7.69	0.99	1.05	13.21	1.55	14.73	−0.20	−0.02	−0.05	−0.07
37780	7.71	1.02	1.07	13.22	1.56	14.73	−0.19	−0.02	−0.05	−0.07
37810	7.72	1.03	1.07	13.23	1.57	14.73	−0.18	−0.02	−0.05	−0.07
37840	7.73	1.04	1.09	13.23	1.57	14.74	−0.16	−0.02	−0.04	−0.06
37870	7.72	1.03	1.08	13.24	1.58	14.74	−0.16	−0.02	−0.04	−0.06
37900	7.73	1.04	1.08	13.24	1.58	14.74	−0.15	−0.02	−0.04	−0.06
37930	7.73	1.04	1.08	13.24	1.58	14.74	−0.16	−0.02	−0.04	−0.06
37960	7.71	1.02	1.06	13.24	1.58	14.74	−0.16	−0.02	−0.04	−0.06
37990	7.71	1.02	1.06	13.25	1.59	14.75	−0.15	−0.01	−0.04	−0.05
38020	7.73	1.04	1.07	13.26	1.60	14.75	−0.13	−0.01	−0.03	−0.05
38050	7.70	1.01	1.04	13.19	1.53	14.76	−0.12	−0.01	−0.03	−0.04
38080	7.67	0.98	1.01	13.15	1.49	14.75	−0.13	−0.01	−0.03	−0.05
38110	7.73	1.04	1.08	13.19	1.53	14.75	−0.13	−0.01	−0.03	−0.05
38140	7.66	0.97	1.00	13.07	1.41	14.75	−0.14	−0.01	−0.04	−0.05
38170	7.66	0.97	1.01	13.10	1.44	14.75	−0.15	−0.01	−0.04	−0.05
38200	7.57	0.88	0.92	13.00	1.34	14.74	−0.16	−0.02	−0.04	−0.06
38230	7.60	0.91	0.95	13.07	1.41	14.74	−0.15	−0.02	−0.04	−0.06
38260	7.67	0.98	1.01	13.16	1.50	14.75	−0.15	−0.01	−0.04	−0.05
38290	7.59	0.90	0.94	13.09	1.43	14.74	−0.16	−0.02	−0.04	−0.06
38320	7.58	0.89	0.94	13.12	1.46	14.74	−0.17	−0.02	−0.04	−0.06
38350	7.57	0.88	0.93	13.14	1.48	14.73	−0.18	−0.02	−0.05	−0.06
38380	7.56	0.87	0.92	13.13	1.47	14.73	−0.18	−0.02	−0.05	−0.07
38410	7.55	0.86	0.91	13.13	1.47	14.73	−0.19	−0.02	−0.05	−0.07
38440	7.55	0.86	0.91	13.14	1.48	14.73	−0.19	−0.02	−0.05	−0.07
38470	7.55	0.86	0.91	13.13	1.47	14.73	−0.18	−0.02	−0.05	−0.06
38500	7.54	0.85	0.90	13.13	1.47	14.73	−0.18	−0.02	−0.05	−0.06
38530	7.54	0.85	0.90	13.13	1.47	14.73	−0.18	−0.02	−0.05	−0.06
38560	7.55	0.86	0.90	13.14	1.48	14.74	−0.16	−0.02	−0.04	−0.06
38590	7.55	0.86	0.90	13.14	1.48	14.74	−0.16	−0.02	−0.04	−0.06
38620	7.55	0.86	0.90	13.14	1.48	14.74	−0.15	−0.02	−0.04	−0.06
38650	7.55	0.86	0.90	13.14	1.48	14.75	−0.15	−0.01	−0.04	−0.05
38680	7.55	0.86	0.90	13.14	1.48	14.75	−0.14	−0.01	−0.04	−0.05
38710	7.56	0.87	0.91	13.15	1.49	14.76	−0.13	−0.01	−0.03	−0.05
38740	7.57	0.88	0.92	13.15	1.49	14.76	−0.12	−0.01	−0.03	−0.04

38770	7.56	0.87	0.90	13.15	1.49	14.76	−0.12	−0.01	−0.03	−0.04
38800	7.55	0.86	0.89	13.15	1.49	14.76	−0.12	−0.01	−0.03	−0.04
38830	7.55	0.86	0.89	13.15	1.49	14.76	−0.12	−0.01	−0.03	−0.04
38860	7.55	0.86	0.89	13.15	1.49	14.76	−0.12	−0.01	−0.03	−0.04
38890	7.53	0.84	0.87	13.15	1.49	14.76	−0.13	−0.01	−0.03	−0.05
38920	7.51	0.82	0.86	13.15	1.49	14.75	−0.13	−0.01	−0.03	−0.05
38950	7.50	0.81	0.84	13.15	1.49	14.75	−0.14	−0.01	−0.04	−0.05
38980	7.49	0.80	0.84	13.15	1.49	14.75	−0.14	−0.01	−0.04	−0.05
39010	7.49	0.80	0.84	13.15	1.49	14.75	−0.14	−0.01	−0.04	−0.05
39040	7.47	0.78	0.82	13.15	1.49	14.75	−0.15	−0.01	−0.04	−0.05
39070	7.47	0.78	0.81	13.15	1.49	14.75	−0.14	−0.01	−0.04	−0.05
39100	7.47	0.78	0.82	13.16	1.50	14.75	−0.14	−0.01	−0.04	−0.05
39130	7.60	0.91	0.94	13.16	1.50	14.75	−0.14	−0.01	−0.04	−0.05
39160	7.60	0.91	0.94	13.16	1.50	14.75	−0.13	−0.01	−0.03	−0.05
39190	7.59	0.90	0.94	13.16	1.50	14.75	−0.13	−0.01	−0.03	−0.05
39220	7.61	0.92	0.95	13.16	1.50	14.76	−0.11	−0.01	−0.03	−0.04
39250	7.60	0.91	0.94	13.17	1.51	14.76	−0.11	−0.01	−0.03	−0.04
39280	7.65	0.96	0.98	13.17	1.51	14.77	−0.10	−0.01	−0.03	−0.03
39310	7.66	0.97	0.99	13.18	1.52	14.77	−0.08	−0.01	−0.02	−0.03
39340	7.65	0.96	0.98	13.17	1.51	14.78	−0.08	−0.01	−0.02	−0.03
39370	7.65	0.96	0.98	13.15	1.49	14.78	−0.07	−0.01	−0.02	−0.03
39400	7.66	0.97	0.99	13.15	1.49	14.78	−0.07	−0.01	−0.02	−0.02
39430	7.64	0.95	0.97	13.16	1.50	14.78	−0.07	−0.01	−0.02	−0.02
39460	7.64	0.95	0.96	13.16	1.50	14.78	−0.06	−0.01	−0.02	−0.02
39490	7.63	0.94	0.95	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.03
39520	7.61	0.92	0.94	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.02
39550	7.62	0.93	0.94	13.17	1.51	14.79	−0.06	−0.01	−0.01	−0.02
39580	7.61	0.92	0.93	13.17	1.51	14.78	−0.06	−0.01	−0.02	−0.02
39610	7.62	0.93	0.95	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.02
39640	7.62	0.93	0.95	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.03
39670	7.61	0.92	0.93	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.03
39700	7.63	0.94	0.96	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.03
39730	7.63	0.94	0.96	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.03
39760	7.62	0.93	0.95	13.18	1.52	14.78	−0.08	−0.01	−0.02	−0.03
39790	7.62	0.93	0.95	13.18	1.52	14.77	−0.09	−0.01	−0.02	−0.03
39820	7.62	0.93	0.96	13.16	1.50	14.77	−0.10	−0.01	−0.03	−0.04
39850	7.60	0.91	0.94	13.17	1.51	14.76	−0.11	−0.01	−0.03	−0.04
39880	7.60	0.91	0.94	13.17	1.51	14.76	−0.11	−0.01	−0.03	−0.04
39910	7.59	0.90	0.93	13.17	1.51	14.76	−0.11	−0.01	−0.03	−0.04
39940	7.63	0.94	0.97	13.17	1.51	14.76	−0.11	−0.01	−0.03	−0.04
39970	7.61	0.92	0.95	13.16	1.50	14.76	−0.11	−0.01	−0.03	−0.04

40000	7.61	0.92	0.95	13.16	1.50	14.76	−0.11	−0.01	−0.03	−0.04
40030	7.62	0.93	0.95	13.16	1.50	14.77	−0.10	−0.01	−0.03	−0.03
40060	7.62	0.93	0.96	13.16	1.50	14.77	−0.09	−0.01	−0.02	−0.03
40090	7.63	0.94	0.96	13.17	1.51	14.78	−0.08	−0.01	−0.02	−0.03
40120	7.63	0.94	0.96	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.02
40150	7.64	0.95	0.96	13.16	1.50	14.78	−0.06	−0.01	−0.02	−0.02
40180	7.64	0.95	0.96	13.17	1.51	14.79	−0.06	−0.01	−0.01	−0.02
40210	7.64	0.95	0.96	13.17	1.51	14.79	−0.05	−0.00	−0.01	−0.02
40240	7.63	0.94	0.95	13.16	1.50	14.79	−0.05	−0.00	−0.01	−0.02
40270	7.63	0.94	0.95	13.17	1.51	14.79	−0.04	−0.00	−0.01	−0.02
40300	7.62	0.93	0.94	13.17	1.51	14.79	−0.05	−0.00	−0.01	−0.02
40330	7.62	0.93	0.94	13.17	1.51	14.79	−0.05	−0.00	−0.01	−0.02
40360	7.65	0.96	0.97	13.17	1.51	14.79	−0.05	−0.01	−0.01	−0.02
40390	7.64	0.95	0.96	13.17	1.51	14.78	−0.06	−0.01	−0.02	−0.02
40420	7.62	0.93	0.95	13.16	1.50	14.78	−0.07	−0.01	−0.02	−0.03
40450	7.62	0.93	0.95	13.16	1.50	14.78	−0.08	−0.01	−0.02	−0.03
40480	7.61	0.92	0.94	13.16	1.50	14.78	−0.08	−0.01	−0.02	−0.03
40510	7.62	0.93	0.94	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.03
40540	7.61	0.92	0.94	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.02
40570	7.64	0.95	0.96	13.17	1.51	14.78	−0.07	−0.01	−0.02	−0.02
40600	7.63	0.94	0.95	13.18	1.52	14.78	−0.06	−0.01	−0.02	−0.02
40630	7.64	0.95	0.96	13.18	1.52	14.78	−0.06	−0.01	−0.02	−0.02
40660	7.64	0.95	0.96	13.19	1.53	14.79	−0.05	−0.01	−0.01	−0.02
40690	7.64	0.95	0.96	13.19	1.53	14.79	−0.04	−0.00	−0.01	−0.02
40720	7.65	0.96	0.97	13.20	1.54	14.80	−0.03	−0.00	−0.01	−0.01
40750	7.64	0.95	0.96	13.20	1.54	14.80	−0.03	−0.00	−0.01	−0.01
40780	7.65	0.96	0.97	13.20	1.54	14.80	−0.02	−0.00	−0.00	−0.01
40810	7.65	0.96	0.96	13.21	1.55	14.81	−0.00	−0.00	−0.00	−0.00
40840	7.65	0.96	0.96	13.21	1.55	14.81	0.00	0.00	0.00	0.00
40870	7.70	1.01	1.00	13.22	1.56	14.81	0.01	0.00	0.00	0.00
40900	7.70	1.01	1.01	13.22	1.56	14.81	0.01	0.00	0.00	0.00
40930	7.65	0.96	0.96	13.17	1.51	14.82	0.01	0.00	0.00	0.00
40960	7.68	0.99	0.99	13.24	1.58	14.82	0.01	0.00	0.00	0.00
40990	7.67	0.98	0.98	13.23	1.57	14.81	0.01	0.00	0.00	0.00
41020	7.65	0.96	0.96	13.21	1.55	14.81	−0.00	−0.00	−0.00	−0.00
41050	7.63	0.94	0.94	13.20	1.54	14.81	−0.01	−0.00	−0.00	−0.00
41080	7.64	0.95	0.95	13.21	1.55	14.80	−0.02	−0.00	−0.01	−0.01
41110	7.63	0.94	0.95	13.21	1.55	14.80	−0.03	−0.00	−0.01	−0.01
41140	7.62	0.93	0.94	13.20	1.54	14.80	−0.03	−0.00	−0.01	−0.01
41170	7.61	0.92	0.93	13.20	1.54	14.79	−0.04	−0.00	−0.01	−0.01
41200	7.61	0.92	0.93	13.20	1.54	14.79	−0.04	−0.00	−0.01	−0.02

41230	7.61	0.92	0.93	13.20	1.54	14.79	−0.06	−0.01	−0.01	−0.02
41260	7.61	0.92	0.93	13.20	1.54	14.79	−0.06	−0.01	−0.02	−0.02
41290	7.63	0.94	0.95	13.20	1.54	14.78	−0.06	−0.01	−0.02	−0.02
41320	7.62	0.93	0.95	13.20	1.54	14.78	−0.07	−0.01	−0.02	−0.02
41350	7.62	0.93	0.94	13.19	1.53	14.78	−0.07	−0.01	−0.02	−0.03
41380	7.61	0.92	0.94	13.20	1.54	14.78	−0.08	−0.01	−0.02	−0.03
41410	7.64	0.95	0.97	13.20	1.54	14.78	−0.08	−0.01	−0.02	−0.03
41440	7.63	0.94	0.96	13.20	1.54	14.78	−0.08	−0.01	−0.02	−0.03
41470	7.63	0.94	0.96	13.20	1.54	14.78	−0.08	−0.01	−0.02	−0.03
41500	7.63	0.94	0.96	13.20	1.54	14.78	−0.08	−0.01	−0.02	−0.03
41530	7.63	0.94	0.96	13.20	1.54	14.78	−0.08	−0.01	−0.02	−0.03
41560	7.65	0.96	0.98	13.21	1.55	14.78	−0.07	−0.01	−0.02	−0.02
41590	7.64	0.95	0.97	13.21	1.55	14.78	−0.06	−0.01	−0.02	−0.02
41620	7.64	0.95	0.97	13.21	1.55	14.78	−0.06	−0.01	−0.02	−0.02
41650	7.64	0.95	0.96	13.21	1.55	14.78	−0.07	−0.01	−0.02	−0.02
41680	7.63	0.94	0.96	13.21	1.55	14.78	−0.08	−0.01	−0.02	−0.03
41710	7.64	0.95	0.97	13.21	1.55	14.77	−0.08	−0.01	−0.02	−0.03
41740	7.64	0.95	0.98	13.21	1.55	14.77	−0.09	−0.01	−0.02	−0.03
41770	7.63	0.94	0.97	13.21	1.55	14.77	−0.09	−0.01	−0.02	−0.03
41800	7.62	0.93	0.96	13.21	1.55	14.76	−0.11	−0.01	−0.03	−0.04
41830	7.64	0.95	0.98	13.21	1.55	14.76	−0.12	−0.01	−0.03	−0.04
41860	7.63	0.94	0.97	13.21	1.55	14.75	−0.13	−0.01	−0.03	−0.05
41890	7.63	0.94	0.97	13.21	1.55	14.75	−0.14	−0.01	−0.04	−0.05
41920	7.62	0.93	0.97	13.21	1.55	14.75	−0.14	−0.01	−0.04	−0.05
41950	7.64	0.95	0.98	13.21	1.55	14.75	−0.14	−0.01	−0.04	−0.05
41980	7.63	0.94	0.98	13.21	1.55	14.75	−0.15	−0.01	−0.04	−0.05
42010	7.64	0.95	0.99	13.22	1.56	14.75	−0.14	−0.01	−0.04	−0.05
42040	7.64	0.95	0.99	13.22	1.56	14.75	−0.13	−0.01	−0.03	−0.05
42070	7.64	0.95	0.98	13.22	1.56	14.76	−0.12	−0.01	−0.03	−0.04
42100	7.64	0.95	0.98	13.22	1.56	14.76	−0.12	−0.01	−0.03	−0.04
42130	7.65	0.96	0.99	13.22	1.56	14.76	−0.11	−0.01	−0.03	−0.04
42160	7.65	0.96	0.99	13.23	1.57	14.77	−0.10	−0.01	−0.03	−0.04
42190	7.65	0.96	0.99	13.23	1.57	14.76	−0.11	−0.01	−0.03	−0.04
42220	7.65	0.96	0.99	13.24	1.58	14.76	−0.11	−0.01	−0.03	−0.04
42250	7.67	0.98	1.00	13.22	1.56	14.77	−0.10	−0.01	−0.03	−0.04
42280	7.66	0.97	1.00	13.21	1.55	14.76	−0.11	−0.01	−0.03	−0.04
42310	7.66	0.97	0.99	13.22	1.56	14.77	−0.10	−0.01	−0.03	−0.04
42340	7.66	0.97	1.00	13.23	1.57	14.77	−0.10	−0.01	−0.03	−0.03
42370	7.65	0.96	0.99	13.21	1.55	14.77	−0.10	−0.01	−0.03	−0.04
42400	7.67	0.98	1.01	13.24	1.58	14.77	−0.10	−0.01	−0.03	−0.04
42430	7.68	0.99	1.02	13.28	1.62	14.76	−0.11	−0.01	−0.03	−0.04

42460	7.68	0.99	1.02	13.24	1.58	14.76	−0.12	−0.01	−0.03	−0.04
42490	7.67	0.98	1.02	13.23	1.57	14.75	−0.14	−0.01	−0.04	−0.05
42520	7.62	0.93	0.97	13.21	1.55	14.74	−0.16	−0.02	−0.04	−0.06
42550	7.64	0.95	0.99	13.21	1.55	14.74	−0.17	−0.02	−0.04	−0.06
42580	7.61	0.92	0.96	13.21	1.55	14.73	−0.18	−0.02	−0.05	−0.06
42610	7.61	0.92	0.98	13.23	1.57	14.72	−0.20	−0.02	−0.05	−0.07
42640	7.61	0.92	0.97	13.22	1.56	14.72	−0.21	−0.02	−0.06	−0.08
42670	7.62	0.93	0.99	13.20	1.54	14.71	−0.24	−0.02	−0.06	−0.08
42700	7.61	0.92	0.98	13.21	1.55	14.70	−0.25	−0.02	−0.06	−0.09
42730	7.63	0.94	1.01	13.18	1.52	14.70	−0.26	−0.03	−0.07	−0.09
42760	7.62	0.93	0.99	13.19	1.53	14.70	−0.26	−0.03	−0.07	−0.09
42790	7.66	0.97	1.04	13.20	1.54	14.69	−0.27	−0.03	−0.07	−0.10
42820	7.66	0.97	1.04	13.20	1.54	14.69	−0.27	−0.03	−0.07	−0.10
42850	7.65	0.96	1.03	13.20	1.54	14.69	−0.27	−0.03	−0.07	−0.10
42880	7.65	0.96	1.03	13.21	1.55	14.70	−0.27	−0.03	−0.07	−0.10
42910	7.65	0.96	1.02	13.20	1.54	14.70	−0.26	−0.03	−0.07	−0.09
42940	7.64	0.95	1.02	13.21	1.55	14.70	−0.27	−0.03	−0.07	−0.10
42970	7.64	0.95	1.01	13.21	1.55	14.70	−0.26	−0.03	−0.07	−0.09
43000	7.65	0.96	1.03	13.21	1.55	14.70	−0.25	−0.02	−0.06	−0.09
43030	7.66	0.97	1.03	13.21	1.55	14.71	−0.24	−0.02	−0.06	−0.09
43060	7.66	0.97	1.03	13.22	1.56	14.71	−0.24	−0.02	−0.06	−0.08
43090	7.66	0.97	1.03	13.22	1.56	14.71	−0.23	−0.02	−0.06	−0.08
43120	7.65	0.96	1.02	13.22	1.56	14.71	−0.23	−0.02	−0.06	−0.08
43150	7.65	0.96	1.02	13.23	1.57	14.71	−0.23	−0.02	−0.06	−0.08
43180	7.66	0.97	1.03	13.23	1.57	14.71	−0.23	−0.02	−0.06	−0.08
43210	7.66	0.97	1.03	13.23	1.57	14.71	−0.23	−0.02	−0.06	−0.08
43240	7.66	0.97	1.03	13.23	1.57	14.71	−0.24	−0.02	−0.06	−0.09
43270	7.64	0.95	1.02	13.23	1.57	14.70	−0.25	−0.02	−0.06	−0.09
43300	7.67	0.98	1.05	13.23	1.57	14.70	−0.25	−0.02	−0.06	−0.09
43330	7.66	0.97	1.03	13.23	1.57	14.70	−0.26	−0.03	−0.07	−0.09
43360	7.65	0.96	1.03	13.24	1.58	14.69	−0.27	−0.03	−0.07	−0.10
43390	7.64	0.95	1.02	13.24	1.58	14.69	−0.27	−0.03	−0.07	−0.10
43420	7.67	0.98	1.05	13.24	1.58	14.69	−0.27	−0.03	−0.07	−0.10
43450	7.66	0.97	1.04	13.24	1.58	14.70	−0.27	−0.03	−0.07	−0.10
43480	7.66	0.97	1.04	13.25	1.59	14.70	−0.26	−0.03	−0.07	−0.09
43510	7.65	0.96	1.03	13.25	1.59	14.70	−0.26	−0.03	−0.07	−0.09
43540	7.65	0.96	1.03	13.25	1.59	14.70	−0.25	−0.02	−0.06	−0.09
43570	7.67	0.98	1.04	13.26	1.60	14.71	−0.23	−0.02	−0.06	−0.08
43600	7.68	0.99	1.05	13.26	1.60	14.71	−0.22	−0.02	−0.06	−0.08
43630	7.68	0.99	1.04	13.26	1.60	14.72	−0.21	−0.02	−0.06	−0.08
43660	7.69	1.00	1.05	13.27	1.61	14.72	−0.20	−0.02	−0.05	−0.07

43690	7.71	1.02	1.07	13.27	1.61	14.73	−0.19	−0.02	−0.05	−0.07
43720	7.71	1.02	1.07	13.28	1.62	14.73	−0.19	−0.02	−0.05	−0.07
43750	7.71	1.02	1.07	13.28	1.62	14.74	−0.17	−0.02	−0.05	−0.06
43780	7.71	1.02	1.07	13.28	1.62	14.74	−0.16	−0.02	−0.04	−0.06
43810	7.71	1.01	1.05	13.28	1.62	14.74	−0.15	−0.02	−0.04	−0.05
43840	7.70	1.01	1.05	13.28	1.62	14.75	−0.15	−0.01	−0.04	−0.05
43870	7.69	1.00	1.04	13.29	1.63	14.75	−0.14	−0.01	−0.04	−0.05
43900	7.72	1.03	1.06	13.27	1.61	14.75	−0.15	−0.01	−0.04	−0.05
43930	7.70	1.01	1.04	13.28	1.62	14.74	−0.15	−0.02	−0.04	−0.05
43960	7.68	0.99	1.03	13.28	1.62	14.74	−0.16	−0.02	−0.04	−0.06
43990	7.67	0.98	1.02	13.29	1.63	14.75	−0.15	−0.01	−0.04	−0.05
44020	7.66	0.97	1.01	13.27	1.61	14.75	−0.14	−0.01	−0.04	−0.05
44050	7.69	0.99	1.03	13.28	1.62	14.75	−0.14	−0.01	−0.04	−0.05
44080	7.70	1.01	1.05	13.26	1.60	14.74	−0.15	−0.02	−0.04	−0.06
44110	7.69	1.00	1.04	13.26	1.60	14.74	−0.15	−0.02	−0.04	−0.05
44140	7.67	0.98	1.02	13.26	1.60	14.74	−0.15	−0.02	−0.04	−0.06
44170	7.69	1.00	1.04	13.27	1.61	14.74	−0.15	−0.02	−0.04	−0.05
44200	7.68	0.99	1.03	13.26	1.60	14.74	−0.15	−0.02	−0.04	−0.06
44230	7.67	0.98	1.02	13.27	1.61	14.74	−0.16	−0.02	−0.04	−0.06
44260	7.66	0.97	1.01	13.26	1.60	14.74	−0.16	−0.02	−0.04	−0.06
44290	7.70	1.01	1.05	13.26	1.60	14.74	−0.16	−0.02	−0.04	−0.06
44320	7.70	1.01	1.05	13.27	1.61	14.74	−0.15	−0.02	−0.04	−0.06
44350	7.69	1.00	1.04	13.26	1.60	14.74	−0.16	−0.02	−0.04	−0.06
44380	7.67	0.98	1.02	13.26	1.60	14.74	−0.16	−0.02	−0.04	−0.06
44410	7.67	0.98	1.02	13.27	1.61	14.75	−0.15	−0.01	−0.04	−0.05
44440	7.68	0.99	1.03	13.27	1.61	14.75	−0.14	−0.01	−0.04	−0.05
44470	7.71	1.01	1.05	13.27	1.61	14.75	−0.13	−0.01	−0.03	−0.05
44500	7.70	1.01	1.04	13.27	1.61	14.76	−0.13	−0.01	−0.03	−0.05
44530	7.69	0.99	1.03	13.27	1.61	14.75	−0.13	−0.01	−0.03	−0.05
44560	7.70	1.01	1.05	13.27	1.61	14.75	−0.13	−0.01	−0.03	−0.05
44590	7.70	1.01	1.05	13.27	1.61	14.75	−0.13	−0.01	−0.03	−0.05
44620	7.69	1.00	1.04	13.27	1.61	14.76	−0.13	−0.01	−0.03	−0.05
44650	7.69	1.00	1.03	13.27	1.61	14.76	−0.13	−0.01	−0.03	−0.05
44680	7.69	0.99	1.03	13.26	1.60	14.75	−0.13	−0.01	−0.03	−0.05
44710	7.68	0.99	1.03	13.26	1.60	14.75	−0.13	−0.01	−0.03	−0.05
44740	7.70	1.01	1.04	13.26	1.60	14.75	−0.14	−0.01	−0.04	−0.05
44770	7.69	0.99	1.03	13.26	1.60	14.75	−0.14	−0.01	−0.04	−0.05
44800	7.68	0.99	1.03	13.26	1.60	14.75	−0.14	−0.01	−0.04	−0.05
44830	7.70	1.01	1.04	13.26	1.60	14.75	−0.14	−0.01	−0.04	−0.05
44860	7.68	0.99	1.03	13.27	1.61	14.75	−0.15	−0.01	−0.04	−0.05
44890	7.68	0.99	1.03	13.27	1.61	14.74	−0.16	−0.02	−0.04	−0.06

44920	7.68	0.99	1.03	13.27	1.61	14.74	−0.16	−0.02	−0.04	−0.06
44950	7.68	0.99	1.03	13.27	1.61	14.75	−0.15	−0.01	−0.04	−0.05
44980	7.69	1.00	1.03	13.28	1.62	14.75	−0.13	−0.01	−0.03	−0.05
45010	7.70	1.01	1.04	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
45040	7.71	1.01	1.04	13.28	1.62	14.77	−0.10	−0.01	−0.03	−0.04
45070	7.72	1.03	1.06	13.28	1.62	14.77	−0.10	−0.01	−0.03	−0.03
45100	7.71	1.02	1.05	13.29	1.63	14.77	−0.09	−0.01	−0.02	−0.03
45130	7.73	1.04	1.06	13.28	1.62	14.77	−0.09	−0.01	−0.02	−0.03
45160	7.73	1.04	1.06	13.30	1.64	14.78	−0.08	−0.01	−0.02	−0.03
45190	7.76	1.07	1.08	13.27	1.61	14.78	−0.07	−0.01	−0.02	−0.03
45220	7.73	1.04	1.06	13.27	1.61	14.78	−0.07	−0.01	−0.02	−0.02
45250	7.75	1.06	1.08	13.29	1.63	14.78	−0.06	−0.01	−0.02	−0.02
45280	7.74	1.05	1.07	13.26	1.60	14.78	−0.06	−0.01	−0.02	−0.02
45310	7.74	1.05	1.06	13.30	1.64	14.78	−0.07	−0.01	−0.02	−0.02
45340	7.71	1.01	1.03	13.23	1.57	14.78	−0.07	−0.01	−0.02	−0.02
45370	7.72	1.03	1.05	13.30	1.64	14.78	−0.08	−0.01	−0.02	−0.03
45400	7.73	1.04	1.06	13.30	1.64	14.78	−0.08	−0.01	−0.02	−0.03
45430	7.73	1.04	1.06	13.31	1.65	14.78	−0.08	−0.01	−0.02	−0.03
45460	7.72	1.03	1.05	13.29	1.63	14.78	−0.07	−0.01	−0.02	−0.02
45490	7.69	1.00	1.02	13.29	1.63	14.78	−0.08	−0.01	−0.02	−0.03
45520	7.69	1.00	1.02	13.29	1.63	14.77	−0.09	−0.01	−0.02	−0.03
45550	7.69	1.00	1.03	13.28	1.62	14.77	−0.10	−0.01	−0.03	−0.04
45580	7.70	1.01	1.04	13.28	1.62	14.77	−0.10	−0.01	−0.03	−0.04
45610	7.70	1.01	1.03	13.28	1.62	14.76	−0.11	−0.01	−0.03	−0.04
45640	7.69	1.00	1.03	13.29	1.63	14.76	−0.11	−0.01	−0.03	−0.04
45670	7.71	1.01	1.04	13.28	1.62	14.76	−0.11	−0.01	−0.03	−0.04
45700	7.70	1.01	1.03	13.28	1.62	14.76	−0.11	−0.01	−0.03	−0.04
45730	7.73	1.04	1.07	13.28	1.62	14.76	−0.11	−0.01	−0.03	−0.04
45760	7.72	1.03	1.06	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
45790	7.71	1.02	1.05	13.29	1.63	14.76	−0.12	−0.01	−0.03	−0.04
45820	7.71	1.01	1.05	13.29	1.63	14.76	−0.12	−0.01	−0.03	−0.04
45850	7.69	1.00	1.04	13.28	1.62	14.76	−0.13	−0.01	−0.03	−0.05
45880	7.71	1.02	1.05	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
45910	7.71	1.02	1.05	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
45940	7.76	1.07	1.10	13.28	1.62	14.76	−0.11	−0.01	−0.03	−0.04
45970	7.74	1.05	1.08	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
46000	7.72	1.03	1.07	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
46030	7.71	1.02	1.05	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
46060	7.71	1.02	1.05	13.28	1.62	14.76	−0.13	−0.01	−0.03	−0.05
46090	7.74	1.05	1.08	13.28	1.62	14.76	−0.11	−0.01	−0.03	−0.04
46120	7.72	1.03	1.06	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04

46150	7.72	1.03	1.06	13.28	1.62	14.76	−0.12	−0.01	−0.03	−0.04
46180	7.72	1.03	1.06	13.28	1.62	14.75	−0.13	−0.01	−0.03	−0.05
46210	7.71	1.01	1.05	13.28	1.62	14.75	−0.13	−0.01	−0.03	−0.05
46240	7.72	1.03	1.06	13.28	1.62	14.75	−0.13	−0.01	−0.03	−0.05
46270	7.71	1.02	1.05	13.28	1.62	14.75	−0.13	−0.01	−0.03	−0.05
46300	7.71	1.02	1.05	13.28	1.62	14.75	−0.13	−0.01	−0.03	−0.05
46330	7.71	1.02	1.05	13.29	1.63	14.76	−0.13	−0.01	−0.03	−0.05
46360	7.72	1.03	1.06	13.29	1.63	14.76	−0.12	−0.01	−0.03	−0.04
46390	7.72	1.03	1.06	13.29	1.63	14.76	−0.11	−0.01	−0.03	−0.04
46420	7.74	1.05	1.08	13.30	1.64	14.76	−0.11	−0.01	−0.03	−0.04
46450	7.74	1.05	1.07	13.30	1.64	14.77	−0.09	−0.01	−0.02	−0.03
46480	7.74	1.05	1.07	13.31	1.65	14.77	−0.09	−0.01	−0.02	−0.03
46510	7.72	1.03	1.05	13.31	1.65	14.77	−0.09	−0.01	−0.02	−0.03
46540	7.75	1.06	1.08	13.31	1.65	14.77	−0.09	−0.01	−0.02	−0.03
46570	7.73	1.04	1.06	13.32	1.66	14.78	−0.08	−0.01	−0.02	−0.03
46600	7.74	1.05	1.07	13.32	1.66	14.77	−0.08	−0.01	−0.02	−0.03
46630	7.72	1.03	1.05	13.31	1.65	14.77	−0.09	−0.01	−0.02	−0.03
46660	7.76	1.07	1.09	13.31	1.65	14.77	−0.09	−0.01	−0.02	−0.03
46690	7.75	1.06	1.08	13.31	1.65	14.77	−0.09	−0.01	−0.02	−0.03
46720	7.74	1.05	1.07	13.32	1.66	14.77	−0.10	−0.01	−0.03	−0.03
46750	7.72	1.03	1.05	13.31	1.65	14.77	−0.10	−0.01	−0.03	−0.04
46780	7.66	0.97	1.00	13.26	1.60	14.76	−0.11	−0.01	−0.03	−0.04
46810	7.72	1.03	1.06	13.32	1.66	14.76	−0.11	−0.01	−0.03	−0.04
46840	7.75	1.06	1.09	13.34	1.68	14.76	−0.12	−0.01	−0.03	−0.04
46870	7.72	1.03	1.06	13.31	1.65	14.76	−0.13	−0.01	−0.03	−0.05
46900	7.70	1.01	1.04	13.31	1.65	14.75	−0.14	−0.01	−0.04	−0.05
46930	7.70	1.01	1.05	13.31	1.65	14.74	−0.16	−0.02	−0.04	−0.06
46960	7.68	0.99	1.03	13.31	1.65	14.74	−0.17	−0.02	−0.04	−0.06
46990	7.70	1.01	1.05	13.31	1.65	14.73	−0.18	−0.02	−0.05	−0.06
47020	7.68	0.99	1.04	13.30	1.64	14.73	−0.18	−0.02	−0.05	−0.07
47050	7.76	1.07	1.12	13.31	1.65	14.74	−0.17	−0.02	−0.05	−0.06
47080	7.76	1.07	1.11	13.30	1.64	14.74	−0.17	−0.02	−0.05	−0.06
47110	7.74	1.05	1.09	13.30	1.64	14.73	−0.18	−0.02	−0.05	−0.07
47140	7.77	1.08	1.12	13.31	1.65	14.75	−0.15	−0.01	−0.04	−0.05
47170	7.73	1.04	1.08	13.30	1.64	14.74	−0.17	−0.02	−0.05	−0.06
47200	7.80	1.11	1.13	13.31	1.65	14.77	−0.10	−0.01	−0.03	−0.04
47230	7.79	1.10	1.13	13.31	1.65	14.76	−0.11	−0.01	−0.03	−0.04
47260	7.79	1.10	1.12	13.31	1.65	14.77	−0.09	−0.01	−0.02	−0.03
47290	7.77	1.08	1.11	13.31	1.65	14.76	−0.11	−0.01	−0.03	−0.04
47320	7.76	1.07	1.10	13.31	1.65	14.76	−0.11	−0.01	−0.03	−0.04
47350	7.75	1.06	1.09	13.32	1.66	14.76	−0.12	−0.01	−0.03	−0.04

47380	7.77	1.08	1.11	13.32	1.66	14.75	−0.14	−0.01	−0.04	−0.05
47410	7.76	1.07	1.10	13.32	1.66	14.75	−0.14	−0.01	−0.04	−0.05
47440	7.75	1.06	1.10	13.32	1.66	14.75	−0.14	−0.01	−0.04	−0.05
47470	7.75	1.06	1.09	13.32	1.66	14.75	−0.14	−0.01	−0.04	−0.05
47500	7.72	1.03	1.07	13.32	1.66	14.74	−0.15	−0.02	−0.04	−0.05
47530	7.72	1.03	1.07	13.32	1.66	14.74	−0.15	−0.02	−0.04	−0.05
47560	7.77	1.07	1.12	13.32	1.66	14.74	−0.15	−0.02	−0.04	−0.06
47590	7.74	1.05	1.09	13.32	1.66	14.74	−0.16	−0.02	−0.04	−0.06
47620	7.76	1.07	1.11	13.32	1.66	14.74	−0.17	−0.02	−0.04	−0.06
47650	7.74	1.05	1.10	13.33	1.67	14.74	−0.17	−0.02	−0.04	−0.06
47680	7.75	1.06	1.10	13.32	1.66	14.74	−0.17	−0.02	−0.05	−0.06
47710	7.76	1.07	1.12	13.33	1.67	14.74	−0.17	−0.02	−0.04	−0.06
47740	7.76	1.07	1.11	13.33	1.67	14.74	−0.17	−0.02	−0.04	−0.06
47770	7.75	1.06	1.10	13.33	1.67	14.74	−0.17	−0.02	−0.04	−0.06
47800	7.76	1.07	1.11	13.34	1.68	14.73	−0.18	−0.02	−0.05	−0.06
47830	7.75	1.06	1.10	13.34	1.68	14.73	−0.18	−0.02	−0.05	−0.06
47860	7.75	1.06	1.10	13.34	1.68	14.74	−0.17	−0.02	−0.05	−0.06
47890	7.80	1.11	1.15	13.34	1.68	14.74	−0.17	−0.02	−0.04	−0.06
47920	7.80	1.11	1.15	13.34	1.68	14.74	−0.15	−0.02	−0.04	−0.05
47950	7.79	1.10	1.14	13.34	1.68	14.74	−0.16	−0.02	−0.04	−0.06
47980	7.79	1.10	1.14	13.35	1.69	14.74	−0.15	−0.02	−0.04	−0.05
48010	7.78	1.09	1.13	13.35	1.69	14.75	−0.14	−0.01	−0.04	−0.05
48040	7.78	1.09	1.13	13.35	1.69	14.75	−0.15	−0.01	−0.04	−0.05
48070	7.78	1.09	1.13	13.36	1.70	14.75	−0.15	−0.01	−0.04	−0.05
48100	7.77	1.08	1.12	13.35	1.69	14.75	−0.15	−0.01	−0.04	−0.05
48130	7.81	1.12	1.16	13.36	1.70	14.75	−0.15	−0.01	−0.04	−0.05
48160	7.76	1.07	1.10	13.35	1.69	14.75	−0.15	−0.01	−0.04	−0.05
48190	7.79	1.10	1.14	13.36	1.70	14.74	−0.16	−0.02	−0.04	−0.06
48220	7.76	1.07	1.12	13.35	1.69	14.74	−0.17	−0.02	−0.05	−0.06
48250	7.77	1.08	1.13	13.36	1.70	14.73	−0.19	−0.02	−0.05	−0.07
48280	7.76	1.07	1.12	13.35	1.69	14.73	−0.19	−0.02	−0.05	−0.07
48310	7.75	1.06	1.12	13.35	1.69	14.72	−0.21	−0.02	−0.05	−0.07
48340	7.75	1.06	1.11	13.35	1.69	14.72	−0.22	−0.02	−0.06	−0.08
48370	7.77	1.08	1.14	13.35	1.69	14.71	−0.22	−0.02	−0.06	−0.08
48400	7.74	1.05	1.11	13.35	1.69	14.71	−0.24	−0.02	−0.06	−0.09
48430	7.72	1.03	1.09	13.32	1.66	14.71	−0.24	−0.02	−0.06	−0.09
48460	7.76	1.07	1.13	13.34	1.68	14.70	−0.25	−0.02	−0.06	−0.09
48490	7.74	1.05	1.12	13.29	1.63	14.70	−0.27	−0.03	−0.07	−0.10
48520	7.73	1.04	1.11	13.26	1.60	14.70	−0.27	−0.03	−0.07	−0.10
48550	7.71	1.02	1.09	13.24	1.58	14.69	−0.28	−0.03	−0.07	−0.10
48580	7.70	1.01	1.08	13.23	1.57	14.69	−0.29	−0.03	−0.07	−0.10

48610	7.69	1.00	1.07	13.24	1.58	14.69	−0.29	−0.03	−0.07	−0.10
48640	7.72	1.03	1.10	13.26	1.60	14.69	−0.28	−0.03	−0.07	−0.10
48670	7.76	1.07	1.14	13.27	1.61	14.70	−0.27	−0.03	−0.07	−0.10
48700	7.77	1.08	1.14	13.25	1.59	14.70	−0.25	−0.03	−0.07	−0.09
48730	7.77	1.08	1.14	13.22	1.56	14.70	−0.24	−0.02	−0.06	−0.09
48760	7.76	1.07	1.14	13.19	1.53	14.70	−0.25	−0.02	−0.06	−0.09
48790	7.76	1.07	1.13	13.18	1.52	14.71	−0.24	−0.02	−0.06	−0.09
48820	7.76	1.07	1.13	13.16	1.50	14.71	−0.24	−0.02	−0.06	−0.08
48850	7.75	1.06	1.12	13.16	1.50	14.71	−0.23	−0.02	−0.06	−0.08
48880	7.73	1.04	1.10	13.14	1.48	14.71	−0.24	−0.02	−0.06	−0.09
48910	7.73	1.04	1.10	13.13	1.47	14.71	−0.24	−0.02	−0.06	−0.09
48940	7.71	1.02	1.09	13.12	1.46	14.71	−0.24	−0.02	−0.06	−0.09
48970	7.71	1.02	1.09	13.11	1.45	14.71	−0.24	−0.02	−0.06	−0.09
49000	7.69	1.00	1.07	13.10	1.44	14.70	−0.25	−0.03	−0.07	−0.09
49030	7.68	0.99	1.05	13.09	1.43	14.70	−0.26	−0.03	−0.07	−0.09
49060	7.71	1.01	1.08	13.08	1.42	14.69	−0.27	−0.03	−0.07	−0.10
49090	7.69	1.00	1.07	13.07	1.41	14.69	−0.27	−0.03	−0.07	−0.10
49120	7.69	1.00	1.07	13.06	1.40	14.70	−0.27	−0.03	−0.07	−0.10
49150	7.68	0.99	1.06	13.06	1.40	14.70	−0.27	−0.03	−0.07	−0.10
49180	7.67	0.98	1.05	13.05	1.39	14.69	−0.27	−0.03	−0.07	−0.10
49210	7.67	0.98	1.05	13.04	1.38	14.69	−0.27	−0.03	−0.07	−0.10
49240	7.66	0.97	1.04	13.04	1.38	14.70	−0.27	−0.03	−0.07	−0.10
49270	7.69	1.00	1.07	13.03	1.37	14.70	−0.26	−0.03	−0.07	−0.09
49300	7.70	1.01	1.07	13.03	1.37	14.71	−0.24	−0.02	−0.06	−0.09
49330	7.70	1.01	1.07	13.03	1.37	14.71	−0.23	−0.02	−0.06	−0.08
49360	7.70	1.01	1.07	13.02	1.36	14.71	−0.22	−0.02	−0.06	−0.08
49390	7.70	1.01	1.07	13.02	1.36	14.72	−0.22	−0.02	−0.06	−0.08
49420	7.70	1.01	1.06	13.02	1.36	14.72	−0.21	−0.02	−0.06	−0.08
49450	7.72	1.03	1.09	13.03	1.37	14.72	−0.21	−0.02	−0.06	−0.08
49480	7.72	1.03	1.09	13.06	1.40	14.72	−0.21	−0.02	−0.05	−0.07
49510	7.72	1.03	1.08	13.08	1.42	14.72	−0.20	−0.02	−0.05	−0.07
49540	7.74	1.05	1.10	13.11	1.45	14.72	−0.20	−0.02	−0.05	−0.07
49570	7.74	1.05	1.10	13.13	1.47	14.73	−0.20	−0.02	−0.05	−0.07
49600	7.74	1.05	1.10	13.15	1.49	14.73	−0.20	−0.02	−0.05	−0.07
49630	7.73	1.04	1.09	13.13	1.47	14.73	−0.20	−0.02	−0.05	−0.07
49660	7.74	1.05	1.10	13.15	1.49	14.72	−0.20	−0.02	−0.05	−0.07
49690	7.74	1.05	1.11	13.17	1.51	14.72	−0.21	−0.02	−0.05	−0.07
49720	7.76	1.07	1.13	13.18	1.52	14.72	−0.21	−0.02	−0.06	−0.08
49750	7.77	1.07	1.13	13.23	1.57	14.72	−0.22	−0.02	−0.06	−0.08
49780	7.79	1.10	1.16	13.21	1.55	14.71	−0.22	−0.02	−0.06	−0.08
49810	7.75	1.06	1.12	13.20	1.54	14.71	−0.24	−0.02	−0.06	−0.08

49840	7.73	1.04	1.10	13.21	1.55	14.70	−0.25	−0.02	−0.06	−0.09
49870	7.77	1.08	1.15	13.22	1.56	14.70	−0.26	−0.03	−0.07	−0.09
49900	7.76	1.07	1.14	13.23	1.57	14.69	−0.27	−0.03	−0.07	−0.10
49930	7.75	1.06	1.13	13.23	1.57	14.69	−0.27	−0.03	−0.07	−0.10
49960	7.81	1.12	1.19	13.24	1.58	14.69	−0.28	−0.03	−0.07	−0.10
49990	7.80	1.11	1.18	13.25	1.59	14.69	−0.27	−0.03	−0.07	−0.10
50020	7.79	1.10	1.17	13.24	1.58	14.69	−0.28	−0.03	−0.07	−0.10
50050	7.79	1.10	1.17	13.25	1.59	14.69	−0.28	−0.03	−0.07	−0.10
50080	7.78	1.09	1.16	13.26	1.60	14.69	−0.27	−0.03	−0.07	−0.10
50110	7.78	1.09	1.16	13.26	1.60	14.69	−0.27	−0.03	−0.07	−0.10
50140	7.79	1.10	1.16	13.27	1.61	14.70	−0.26	−0.03	−0.07	−0.09
50170	7.78	1.09	1.15	13.27	1.61	14.70	−0.25	−0.02	−0.06	−0.09
50200	7.79	1.10	1.16	13.28	1.62	14.71	−0.24	−0.02	−0.06	−0.09
50230	7.78	1.09	1.15	13.28	1.62	14.71	−0.23	−0.02	−0.06	−0.08
50260	7.85	1.16	1.22	13.28	1.62	14.71	−0.23	−0.02	−0.06	−0.08
50290	7.86	1.17	1.22	13.29	1.63	14.72	−0.22	−0.02	−0.06	−0.08
50320	7.84	1.15	1.21	13.29	1.63	14.71	−0.22	−0.02	−0.06	−0.08
50350	7.83	1.14	1.20	13.29	1.63	14.71	−0.23	−0.02	−0.06	−0.08
50380	7.82	1.13	1.19	13.29	1.63	14.71	−0.23	−0.02	−0.06	−0.08
50410	7.81	1.12	1.18	13.30	1.64	14.71	−0.24	−0.02	−0.06	−0.08
50440	7.79	1.10	1.16	13.30	1.64	14.71	−0.24	−0.02	−0.06	−0.09
50470	7.77	1.08	1.15	13.30	1.64	14.70	−0.25	−0.03	−0.07	−0.09
50500	7.83	1.13	1.20	13.30	1.64	14.70	−0.26	−0.03	−0.07	−0.09
50530	7.82	1.13	1.20	13.30	1.64	14.70	−0.27	−0.03	−0.07	−0.10
50560	7.80	1.11	1.18	13.31	1.65	14.69	−0.27	−0.03	−0.07	−0.10
50590	7.80	1.11	1.18	13.31	1.65	14.70	−0.26	−0.03	−0.07	−0.09
50620	7.79	1.10	1.17	13.31	1.65	14.70	−0.26	−0.03	−0.07	−0.09
50650	7.78	1.09	1.16	13.31	1.65	14.70	−0.26	−0.03	−0.07	−0.09
50680	7.83	1.14	1.21	13.32	1.66	14.70	−0.26	−0.03	−0.07	−0.09
50710	7.83	1.14	1.20	13.32	1.66	14.70	−0.25	−0.02	−0.06	−0.09
50740	7.83	1.14	1.20	13.32	1.66	14.71	−0.24	−0.02	−0.06	−0.09
50770	7.83	1.14	1.20	13.33	1.67	14.71	−0.24	−0.02	−0.06	−0.08
50800	7.83	1.13	1.20	13.33	1.67	14.71	−0.23	−0.02	−0.06	−0.08
50830	7.82	1.13	1.19	13.34	1.68	14.71	−0.22	−0.02	−0.06	−0.08
50860	7.86	1.17	1.23	13.34	1.68	14.71	−0.23	−0.02	−0.06	−0.08
50890	7.86	1.17	1.23	13.34	1.68	14.71	−0.22	−0.02	−0.06	−0.08
50920	7.86	1.17	1.23	13.35	1.69	14.72	−0.22	−0.02	−0.06	−0.08
50950	7.85	1.16	1.22	13.34	1.68	14.72	−0.22	−0.02	−0.06	−0.08
50980	7.87	1.18	1.23	13.38	1.72	14.72	−0.21	−0.02	−0.06	−0.08
51010	7.80	1.11	1.17	13.34	1.68	14.71	−0.22	−0.02	−0.06	−0.08
51040	7.80	1.11	1.17	13.33	1.67	14.72	−0.21	−0.02	−0.06	−0.08

51070	7.87	1.18	1.24	13.37	1.71	14.71	−0.23	−0.02	−0.06	−0.08
51100	7.82	1.13	1.19	13.34	1.68	14.71	−0.23	−0.02	−0.06	−0.08
51130	7.84	1.15	1.21	13.35	1.69	14.71	−0.23	−0.02	−0.06	−0.08
51160	7.79	1.10	1.16	13.26	1.60	14.71	−0.23	−0.02	−0.06	−0.08
51190	7.80	1.11	1.17	13.30	1.64	14.70	−0.24	−0.02	−0.06	−0.09
51220	7.78	1.09	1.16	13.32	1.66	14.70	−0.26	−0.03	−0.07	−0.09
51250	7.78	1.09	1.16	13.32	1.66	14.70	−0.26	−0.03	−0.07	−0.09
51280	7.77	1.08	1.16	13.33	1.67	14.69	−0.27	−0.03	−0.07	−0.10
51310	7.80	1.11	1.18	13.33	1.67	14.69	−0.29	−0.03	−0.08	−0.10
51340	7.77	1.08	1.16	13.33	1.67	14.68	−0.30	−0.03	−0.08	−0.11
51370	7.77	1.08	1.16	13.34	1.68	14.67	−0.32	−0.03	−0.08	−0.11
51400	7.78	1.09	1.17	13.34	1.68	14.67	−0.33	−0.03	−0.09	−0.12
51430	7.77	1.07	1.16	13.34	1.68	14.66	−0.34	−0.03	−0.09	−0.12
51460	7.77	1.08	1.17	13.32	1.66	14.66	−0.34	−0.03	−0.09	−0.12
51490	7.77	1.08	1.17	13.33	1.67	14.66	−0.34	−0.03	−0.09	−0.12
51520	7.79	1.10	1.18	13.34	1.68	14.67	−0.33	−0.03	−0.09	−0.12
51550	7.78	1.09	1.18	13.34	1.68	14.67	−0.33	−0.03	−0.09	−0.12
51580	7.80	1.11	1.19	13.34	1.68	14.67	−0.33	−0.03	−0.09	−0.12
51610	7.79	1.10	1.19	13.34	1.68	14.67	−0.33	−0.03	−0.08	−0.12
51640	7.79	1.10	1.18	13.34	1.68	14.67	−0.32	−0.03	−0.08	−0.12
51670	7.80	1.11	1.19	13.34	1.68	14.67	−0.31	−0.03	−0.08	−0.11
51700	7.84	1.15	1.23	13.34	1.68	14.68	−0.31	−0.03	−0.08	−0.11
51730	7.83	1.13	1.22	13.34	1.68	14.67	−0.31	−0.03	−0.08	−0.11
51760	7.82	1.13	1.21	13.34	1.68	14.67	−0.32	−0.03	−0.08	−0.11
51790	7.80	1.11	1.20	13.34	1.68	14.67	−0.32	−0.03	−0.08	−0.11
51820	7.84	1.15	1.23	13.34	1.68	14.67	−0.33	−0.03	−0.08	−0.12
51850	7.83	1.13	1.22	13.34	1.68	14.67	−0.33	−0.03	−0.09	−0.12
51880	7.81	1.12	1.21	13.34	1.68	14.66	−0.34	−0.03	−0.09	−0.12
51910	7.80	1.11	1.20	13.35	1.69	14.65	−0.36	−0.04	−0.09	−0.13
51940	7.82	1.13	1.22	13.34	1.68	14.65	−0.38	−0.04	−0.10	−0.14
51970	7.79	1.10	1.20	13.35	1.69	14.64	−0.39	−0.04	−0.10	−0.14
52000	7.80	1.11	1.21	13.35	1.69	14.64	−0.40	−0.04	−0.10	−0.14
52030	7.79	1.10	1.20	13.35	1.69	14.64	−0.40	−0.04	−0.10	−0.14
52060	7.80	1.11	1.21	13.35	1.69	14.64	−0.40	−0.04	−0.10	−0.14
52090	7.82	1.13	1.23	13.35	1.69	14.64	−0.40	−0.04	−0.11	−0.15
52120	7.81	1.12	1.22	13.35	1.69	14.63	−0.41	−0.04	−0.11	−0.15
52150	7.82	1.13	1.23	13.36	1.70	14.64	−0.40	−0.04	−0.11	−0.15
52180	7.81	1.12	1.23	13.35	1.69	14.64	−0.40	−0.04	−0.10	−0.14
52210	7.83	1.13	1.24	13.36	1.70	14.64	−0.40	−0.04	−0.10	−0.14
52240	7.82	1.13	1.23	13.36	1.70	14.64	−0.40	−0.04	−0.10	−0.14
52270	7.82	1.13	1.23	13.36	1.70	14.64	−0.40	−0.04	−0.10	−0.14

52300	7.82	1.13	1.23	13.36	1.70	14.65	−0.38	−0.04	−0.10	−0.14
52330	7.84	1.15	1.24	13.36	1.70	14.65	−0.37	−0.04	−0.10	−0.13
52360	7.85	1.16	1.26	13.38	1.72	14.66	−0.36	−0.04	−0.09	−0.13
52390	7.84	1.15	1.24	13.36	1.70	14.65	−0.36	−0.04	−0.09	−0.13
52420	7.85	1.16	1.25	13.39	1.73	14.66	−0.35	−0.03	−0.09	−0.13
52450	7.84	1.15	1.24	13.37	1.71	14.66	−0.35	−0.03	−0.09	−0.12
52480	7.84	1.15	1.24	13.37	1.71	14.66	−0.34	−0.03	−0.09	−0.12
52510	7.84	1.15	1.24	13.37	1.71	14.67	−0.33	−0.03	−0.09	−0.12
52540	7.86	1.17	1.26	13.38	1.72	14.67	−0.33	−0.03	−0.08	−0.12
52570	7.84	1.15	1.24	13.37	1.71	14.67	−0.33	−0.03	−0.09	−0.12
52600	7.87	1.18	1.27	13.37	1.71	14.67	−0.33	−0.03	−0.09	−0.12
52630	7.85	1.16	1.25	13.37	1.71	14.66	−0.34	−0.03	−0.09	−0.12
52660	7.85	1.16	1.25	13.37	1.71	14.66	−0.34	−0.03	−0.09	−0.12
52690	7.85	1.16	1.25	13.37	1.71	14.66	−0.34	−0.03	−0.09	−0.12
52720	7.85	1.16	1.25	13.37	1.71	14.66	−0.35	−0.03	−0.09	−0.12
52750	7.86	1.17	1.26	13.37	1.71	14.66	−0.35	−0.03	−0.09	−0.12
52780	7.86	1.17	1.26	13.37	1.71	14.66	−0.35	−0.03	−0.09	−0.12
52810	7.85	1.16	1.25	13.37	1.71	14.66	−0.35	−0.03	−0.09	−0.12
52840	7.85	1.16	1.25	13.37	1.71	14.66	−0.34	−0.03	−0.09	−0.12
52870	7.87	1.18	1.27	13.38	1.72	14.66	−0.34	−0.03	−0.09	−0.12
52900	7.87	1.18	1.26	13.37	1.71	14.67	−0.33	−0.03	−0.09	−0.12
52930	7.87	1.18	1.26	13.37	1.71	14.67	−0.33	−0.03	−0.09	−0.12
52960	7.87	1.18	1.26	13.37	1.71	14.67	−0.33	−0.03	−0.09	−0.12
52990	7.87	1.18	1.26	13.37	1.71	14.67	−0.32	−0.03	−0.08	−0.11
53020	7.86	1.17	1.25	13.38	1.72	14.68	−0.31	−0.03	−0.08	−0.11
53050	7.86	1.17	1.25	13.35	1.69	14.68	−0.31	−0.03	−0.08	−0.11
53080	7.86	1.17	1.25	13.32	1.66	14.68	−0.30	−0.03	−0.08	−0.11
53110	7.85	1.16	1.24	13.29	1.63	14.68	−0.30	−0.03	−0.08	−0.11
53140	7.85	1.16	1.24	13.27	1.61	14.68	−0.29	−0.03	−0.08	−0.10
53170	7.85	1.16	1.24	13.25	1.59	14.69	−0.29	−0.03	−0.07	−0.10
53200	7.84	1.15	1.22	13.24	1.58	14.68	−0.30	−0.03	−0.08	−0.11
53230	7.82	1.13	1.21	13.22	1.56	14.68	−0.30	−0.03	−0.08	−0.11
53260	7.81	1.12	1.20	13.21	1.55	14.68	−0.30	−0.03	−0.08	−0.11
53290	7.80	1.11	1.19	13.19	1.53	14.68	−0.31	−0.03	−0.08	−0.11
53320	7.79	1.10	1.18	13.17	1.51	14.67	−0.31	−0.03	−0.08	−0.11
53350	7.77	1.08	1.17	13.16	1.50	14.67	−0.32	−0.03	−0.08	−0.12
53380	7.75	1.06	1.15	13.16	1.50	14.67	−0.33	−0.03	−0.09	−0.12
53410	7.78	1.09	1.18	13.15	1.49	14.66	−0.34	−0.03	−0.09	−0.12
53440	7.77	1.08	1.17	13.14	1.48	14.66	−0.34	−0.03	−0.09	−0.12
53470	7.77	1.08	1.17	13.14	1.48	14.66	−0.34	−0.03	−0.09	−0.12
53500	7.77	1.08	1.17	13.13	1.47	14.66	−0.34	−0.03	−0.09	−0.12

53530	7.76	1.07	1.16	13.12	1.46	14.66	−0.34	−0.03	−0.09	−0.12
53560	7.76	1.07	1.15	13.11	1.45	14.67	−0.33	−0.03	−0.09	−0.12
53590	7.76	1.07	1.15	13.11	1.45	14.67	−0.32	−0.03	−0.08	−0.11
53620	7.77	1.08	1.16	13.10	1.44	14.68	−0.30	−0.03	−0.08	−0.11
53650	7.77	1.08	1.16	13.10	1.44	14.68	−0.30	−0.03	−0.08	−0.11
53680	7.77	1.08	1.16	13.10	1.44	14.68	−0.29	−0.03	−0.08	−0.11
53710	7.77	1.08	1.16	13.10	1.44	14.69	−0.28	−0.03	−0.07	−0.10
53740	7.77	1.08	1.15	13.09	1.43	14.69	−0.28	−0.03	−0.07	−0.10
53770	7.77	1.08	1.15	13.12	1.46	14.69	−0.27	−0.03	−0.07	−0.10
53800	7.83	1.13	1.20	13.15	1.49	14.70	−0.27	−0.03	−0.07	−0.10
53830	7.80	1.11	1.17	13.13	1.47	14.70	−0.26	−0.03	−0.07	−0.09
53860	7.84	1.15	1.21	13.21	1.55	14.70	−0.26	−0.03	−0.07	−0.09
53890	7.80	1.11	1.18	13.16	1.50	14.71	−0.24	−0.02	−0.06	−0.09
53920	7.84	1.15	1.21	13.21	1.55	14.71	−0.24	−0.02	−0.06	−0.09
53950	7.88	1.19		13.28	1.62					
53980	7.85	1.16		13.22	1.56					

55720	7.90	1.21	13.40	1.74
55750	7.92	1.23	13.38	1.72
55780	7.91	1.22	13.39	1.73
55810	7.92	1.23	13.39	1.73
55840	7.92	1.23	13.40	1.74
55870	7.92	1.23	13.40	1.74
55900	7.96	1.26	13.40	1.74
55930	7.96	1.27	13.40	1.74
55960	7.96	1.27	13.40	1.74
55990	7.96	1.27	13.40	1.74
56020	7.97	1.28	13.40	1.74
56050	7.96	1.26	13.40	1.74
56080	7.95	1.26	13.40	1.74
56110	7.95	1.26	13.40	1.74
56140	7.94	1.25	13.40	1.74
56170	7.96	1.26	13.40	1.74
56200	7.94	1.25	13.40	1.74
56230	7.93	1.24	13.40	1.74
56260	7.91	1.22	13.40	1.74
56290	7.91	1.22	13.40	1.74

56320	7.92	1.23	13.40	1.74
56350	7.93	1.24	13.40	1.74
56380	7.93	1.24	13.40	1.74
56410	7.93	1.24	13.40	1.74
56440	7.93	1.24	13.40	1.74
56470	7.96	1.27	13.40	1.74
56500	7.96	1.27	13.41	1.75
56530	7.97	1.28	13.42	1.76
56560	7.98	1.29	13.41	1.75
56590	7.98	1.29	13.42	1.76
56620	7.98	1.29	13.43	1.77
56650	7.97	1.28	13.44	1.78
56680	7.97	1.28	13.43	1.77
56710	7.97	1.28	13.43	1.77
56740	7.95	1.26	13.44	1.78
56770	7.95	1.26	13.41	1.75
56800	7.98	1.29	13.45	1.79
56830	7.96	1.27	13.44	1.78
56860	7.95	1.26	13.43	1.77
56890	7.97	1.28	13.43	1.77
56920	7.96	1.27	13.43	1.77
56950	7.93	1.24	13.44	1.78
56980	7.93	1.24	13.42	1.76
57010	7.95	1.26	13.42	1.76
57040	7.93	1.24	13.42	1.76
57070	7.93	1.24	13.43	1.77
57100	7.93	1.24	13.43	1.77
57130	7.95	1.26	13.44	1.78
57160	7.95	1.26	13.42	1.76
57190	7.94	1.25	13.42	1.76
57220	7.97	1.28	13.43	1.77
57250	7.97	1.28	13.42	1.76
57280	7.97	1.28	13.43	1.77
57310	7.97	1.28	13.43	1.77
57340	7.97	1.28	13.43	1.77
57370	7.97	1.28	13.44	1.78
57400	7.97	1.28	13.44	1.78
57430	7.97	1.28	13.44	1.78
57460	7.98	1.29	13.44	1.78
57490	7.98	1.29	13.44	1.78
57520	7.97	1.28	13.44	1.78

57550	8.00	1.31	13.44	1.78
57580	7.99	1.30	13.44	1.78
57610	7.98	1.29	13.44	1.78
57640	7.97	1.28	13.44	1.78
57670	7.96	1.27	13.44	1.78
57700	7.97	1.28	13.44	1.78
57730	7.96	1.27	13.43	1.77
57760	7.95	1.26	13.43	1.77
57790	7.95	1.26	13.43	1.77
57820	7.94	1.25	13.44	1.78
57850	7.95	1.26	13.43	1.77
57880	7.97	1.28	13.44	1.78
57910	7.97	1.28	13.44	1.78
57940	7.99	1.30	13.44	1.78
57970	8.00	1.31	13.45	1.79
58000	8.00	1.31	13.45	1.79
58030	8.00	1.31	13.46	1.80
58060	8.00	1.31	13.46	1.80
58090	8.00	1.31	13.47	1.81
58120	8.00	1.31	13.47	1.81
58150	8.01	1.32	13.47	1.81
58180	8.00	1.31	13.48	1.82
58210	7.99	1.30	13.48	1.82
58240	7.98	1.29	13.48	1.82
58270	8.01	1.32	13.48	1.82
58300	8.00	1.31	13.48	1.82
58330	7.98	1.29	13.44	1.78
58360	7.96	1.27	13.40	1.74
58390	7.94	1.25	13.38	1.72
58420	7.91	1.22	13.36	1.70
58450	7.89	1.20	13.34	1.68
58480	7.91	1.22	13.33	1.67
58510	7.91	1.22	13.31	1.65
58540	7.90	1.21	13.30	1.64
58570	7.88	1.19	13.29	1.63
58600	7.87	1.18	13.27	1.61
58630	7.87	1.18	13.26	1.60
58660	7.86	1.17	13.24	1.58
58690	7.87	1.18	13.24	1.58
58720	7.87	1.18	13.23	1.57
58750	7.90	1.21	13.22	1.56

58780	7.89	1.20	13.21	1.55
58810	7.89	1.20	13.21	1.55
58840	7.89	1.20	13.20	1.54
58870	7.89	1.20	13.19	1.53
58900	7.89	1.20	13.19	1.53
58930	7.89	1.20	13.18	1.52
58960	7.92	1.23	13.18	1.52
58990	7.91	1.22	13.17	1.51
59020	7.91	1.22	13.17	1.51
59050	7.90	1.21	13.16	1.50
59080	7.89	1.20	13.16	1.50
59110	7.89	1.20	13.16	1.50
59140	7.87	1.18	13.15	1.49
59170	7.87	1.18	13.15	1.49
59200	7.86	1.17	13.14	1.48
59230	7.87	1.18	13.14	1.48
59260	7.87	1.18	13.14	1.48
59290	7.86	1.17	13.13	1.47
59320	7.90	1.21	13.13	1.47
59350	7.90	1.21	13.13	1.47
59380	7.90	1.21	13.13	1.47
59410	7.90	1.21	13.13	1.47
59440	7.89	1.20	13.13	1.47
59470	7.89	1.20	13.13	1.47
59500	7.89	1.20	13.13	1.47
59530	7.89	1.20	13.13	1.47
59560	7.89	1.20	13.14	1.48
59590	7.88	1.19	13.14	1.48
59620	7.87	1.18	13.14	1.48
59650	7.91	1.22	13.14	1.48
59680	7.90	1.21	13.14	1.48
59710	7.89	1.20	13.14	1.48
59740	7.87	1.18	13.14	1.48
59770	7.86	1.17	13.14	1.48
59800	7.86	1.17	13.14	1.48
59830	7.88	1.19	13.16	1.50
59860	7.88	1.19	13.16	1.50
59890	7.85	1.16	13.13	1.47
59920	7.84	1.15	13.12	1.46
59950	7.86	1.17	13.12	1.46
59980	7.84	1.15	13.12	1.46

60010	7.86	1.17	13.13	1.47
60040	7.85	1.16	13.14	1.48
60070	7.89	1.20	13.13	1.47
60100	7.88	1.19	13.14	1.48
60130	7.87	1.18	13.15	1.49
60160	7.87	1.18	13.15	1.49
60190	7.86	1.17	13.15	1.49
60220	7.88	1.19	13.16	1.50
60250	7.88	1.19	13.16	1.50
60280	7.88	1.19	13.16	1.50
60310	7.88	1.19	13.17	1.51
60340	7.91	1.22	13.17	1.51
60370	7.90	1.21	13.17	1.51
60400	7.89	1.20	13.17	1.51
60430	7.88	1.19	13.18	1.52
60460	7.87	1.18	13.18	1.52
60490	7.89	1.20	13.18	1.52
60520	7.88	1.19	13.18	1.52
60550	7.85	1.16	13.18	1.52
60580	7.86	1.17	13.17	1.51
60610	7.86	1.17	13.18	1.52
60640	7.86	1.17	13.17	1.51
60670	7.89	1.20	13.18	1.52
60700	7.89	1.20	13.17	1.51
60730	7.89	1.20	13.18	1.52
60760	7.89	1.20	13.18	1.52
60790	7.88	1.19	13.18	1.52
60820	7.87	1.18	13.18	1.52
60850	7.88	1.19	13.18	1.52
60880	7.88	1.19	13.19	1.53
60910	7.93	1.24	13.20	1.54
60940	7.93	1.24	13.21	1.55
60970	7.92	1.23	13.21	1.55
61000	7.90	1.21	13.21	1.55
61030	7.89	1.20	13.21	1.55
61060	7.88	1.19	13.20	1.54
61090	7.89	1.20	13.22	1.56
61120	7.87	1.18	13.21	1.55
61150	7.90	1.21	13.19	1.53
61180	7.88	1.19	13.20	1.54
61210	7.88	1.19	13.21	1.55

61240	7.86	1.17	13.20	1.54
61270	7.86	1.17	13.20	1.54
61300	7.87	1.18	13.20	1.54
61330	7.85	1.16	13.21	1.55
61360	7.92	1.23	13.16	1.50
61390	7.94	1.25	13.19	1.53
61420	7.92	1.23	13.18	1.52
61450	7.96	1.26	13.17	1.51
61480	7.95	1.26	13.18	1.52
61510	7.94	1.25	13.17	1.51
61540	7.93	1.24	13.16	1.50
61570	7.93	1.24	13.17	1.51
61600	7.94	1.25	13.17	1.51
61630	7.94	1.25	13.17	1.51
61660	7.95	1.26	13.17	1.51
61690	7.96	1.27	13.18	1.52
61720	7.96	1.27	13.17	1.51
61750	7.96	1.27	13.18	1.52
61780	7.97	1.28	13.18	1.52
61810	7.96	1.27	13.18	1.52
61840	7.95	1.26	13.18	1.52
61870	7.95	1.26	13.18	1.52
61900	7.94	1.25	13.19	1.53
61930	7.96	1.26	13.18	1.52
61960	7.94	1.25	13.18	1.52
61990	7.93	1.24	13.18	1.52
62020	7.93	1.24	13.18	1.52
62050	7.92	1.23	13.18	1.52
62080	7.92	1.23	13.18	1.52
62110	7.92	1.23	13.18	1.52
62140	7.92	1.23	13.18	1.52
62170	7.96	1.27	13.18	1.52
62200	7.95	1.26	13.19	1.53
62230	7.95	1.26	13.19	1.53
62260	7.96	1.26	13.19	1.53
62290	7.97	1.28	13.19	1.53
62320	7.96	1.27	13.20	1.54
62350	7.96	1.26	13.20	1.54
62380	7.94	1.25	13.21	1.55
62410	7.93	1.24	13.21	1.55
62440	7.94	1.25	13.22	1.56

62470	7.95	1.26	13.21	1.55
62500	7.95	1.26	13.20	1.54

APPENDIX G

AQUIFER TEST ANALYSES

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A Q T E S O L V

A Program for

Automatic Estimation of Aquifer Coefficients

From Aquifer Test Data

Software Developed By:

Glenn M. Duffield
and
James O. Rumbaugh, III

Geraghty & Miller Modeling Group
1895 Preston White Drive, Suite 301
Reston, VA 22091

(703) 476 - 0335

A Q T E S O L V is a user-friendly program designed to analyze data from aquifer tests automatically. Aquifer coefficients for a variety of aquifer test conditions can be estimated by A Q T E S O L V, including the following:

- o confined aquifers, unconfined aquifers, and leaky aquifers

- o pumping tests, injection tests, recovery tests, and slug tests

Features:

- o Interactive, menu-driven program design

- o Nonlinear least-squares estimation of aquifer coefficients
- o Statistical analysis of results

- o Complete graphical display of results

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A Q T E S O L V R E S U L T S: NSB Kings Bay

09/12/94 22:13:32

TEST DESCRIPTION

Data set.......... a:rwp2.set
Data set title..... IM Phase I Operations: Stage 1, RW-P2

Knowns and Constants:
No. of data points.................. 515
Pumping rate......................... 1.37
Radius (distance) to obs. well...... 0.333
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 2.9280E-001
S = 6.2477E-012

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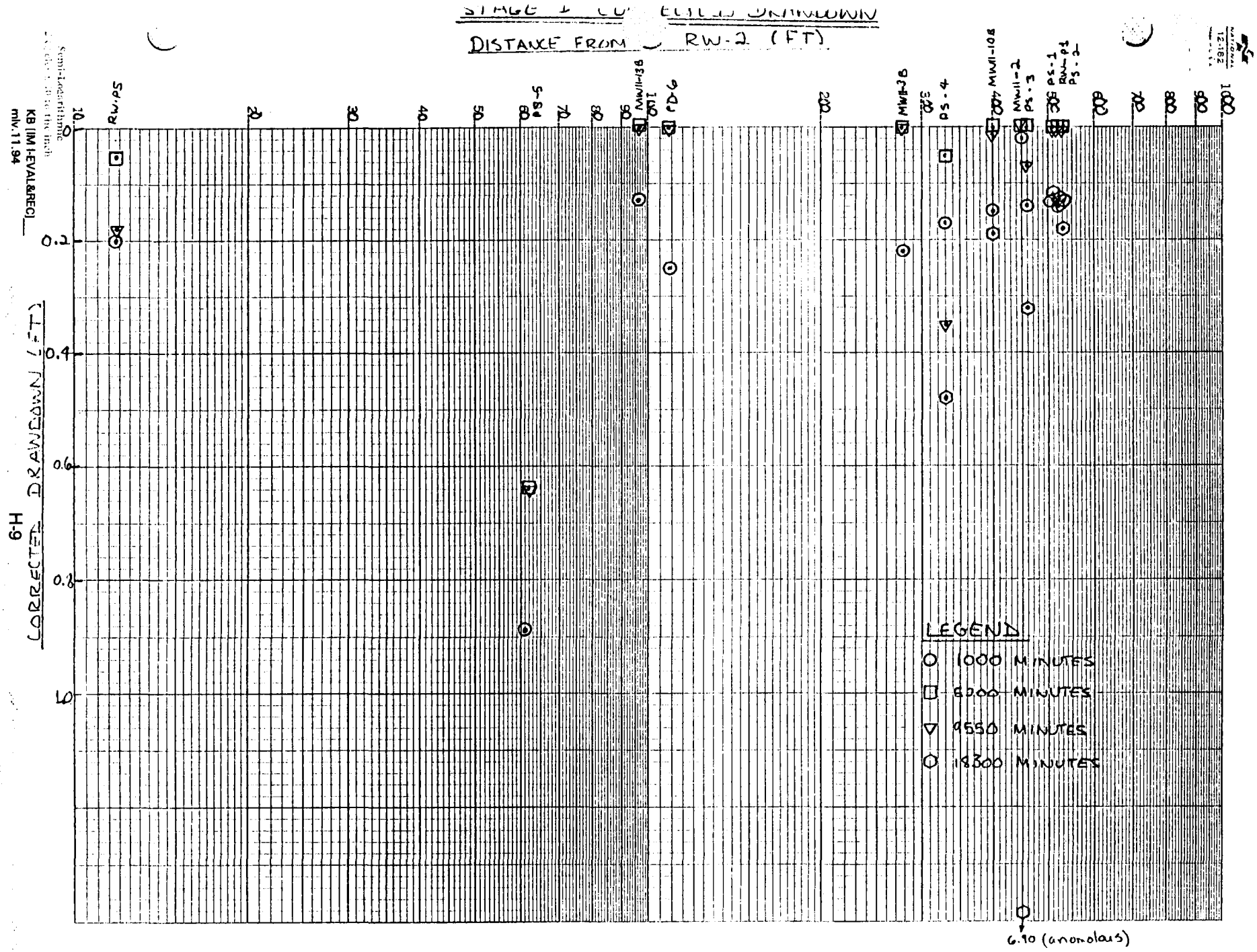
TYPE CURVE DATA

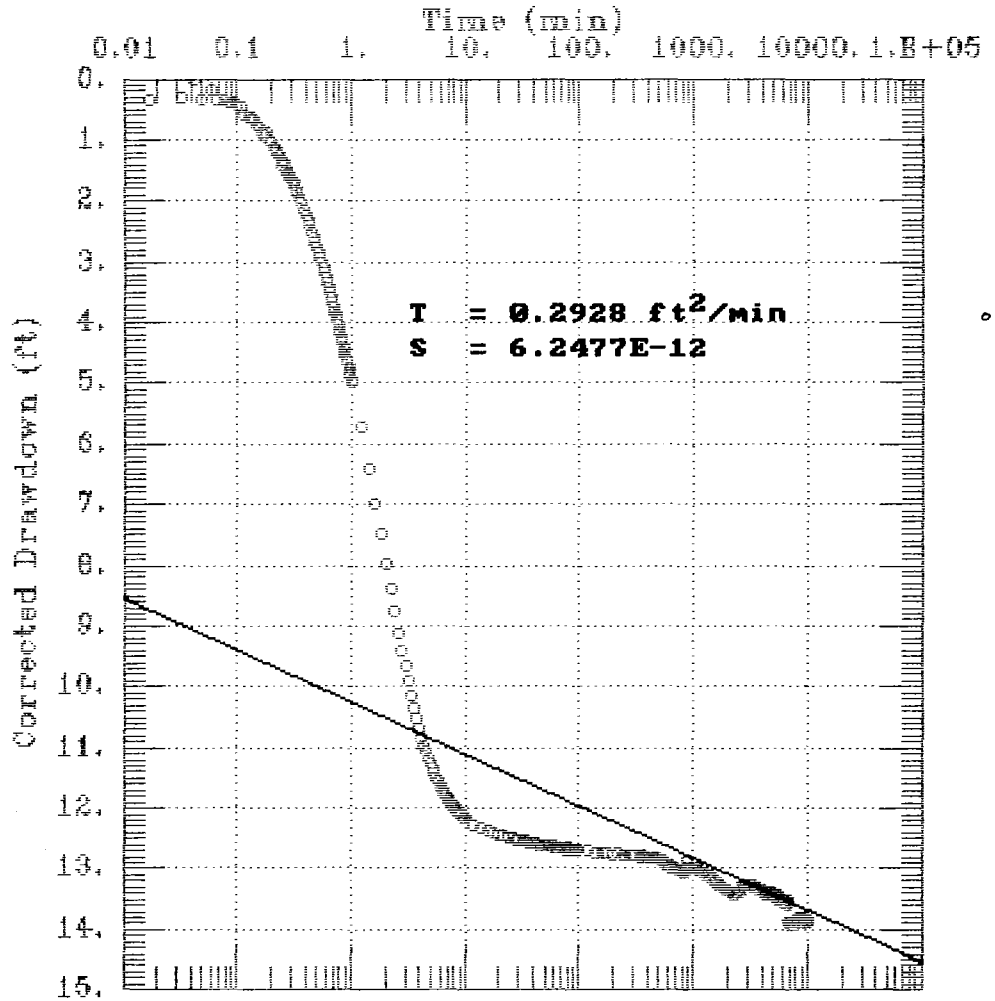
T = 2.92800E-001
S = 6.24771E-012

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	9.109E+000	1.000E+005	1.634E+001		

STAGE 1


STAGE 1 CO ELEV DRAWDOWN
DISTANCE FROM RW-2 (FT)
CORRECTED DRAWDOWN (FT)
Semi-Logarithmic
KB IIM I-EVAL&REC
mlv.11.94
RW-PS
PS-5
MWII-3B
IRD
PD-6
MWII-3B
PS-4
MWII-10B
MWII-2
PS-3
PS-1
RW-P2
PS-2
LEGEND
1000 MINUTES
6000 MINUTES
9550 MINUTES
18300 MINUTES
6.90 (anomalous)

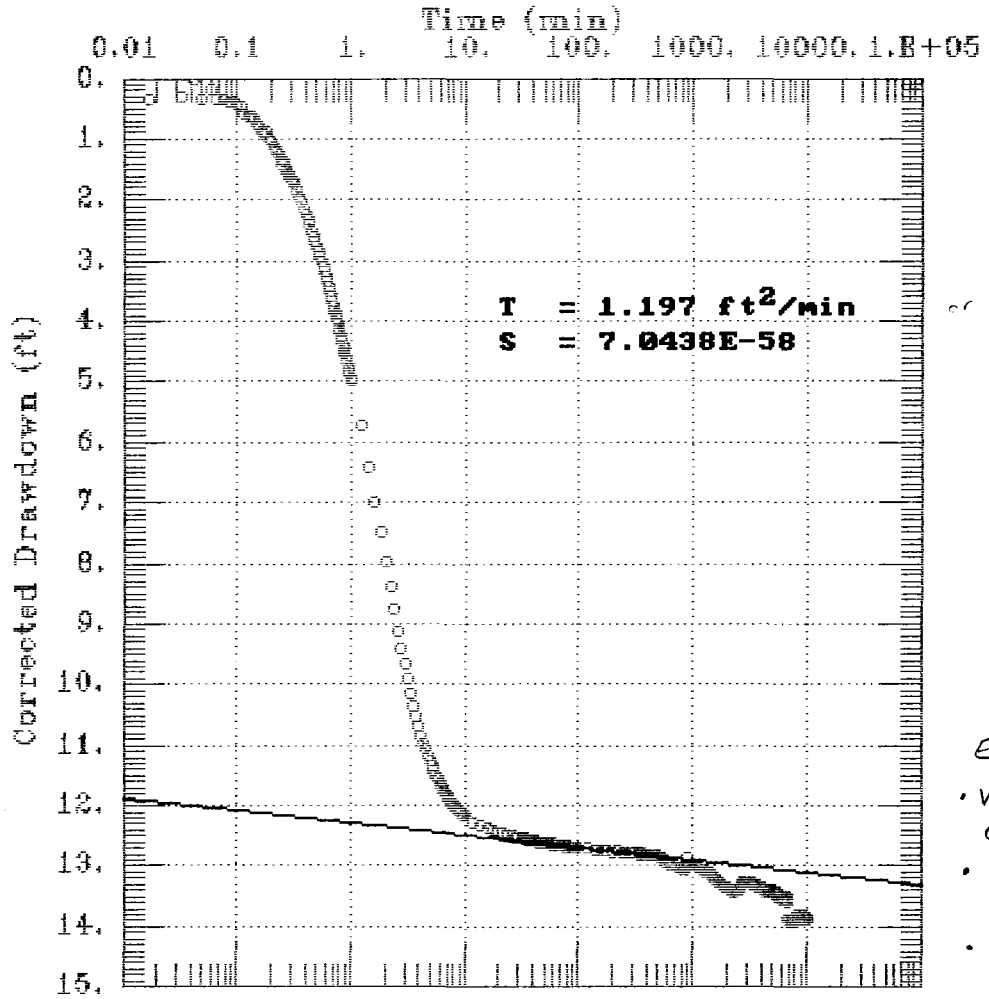
IM Phase I Operations: Stage 1, RW-P2



or 422 ft²/day

K = 2.0 x 10⁻³ cm/sec

IM Phase I Operations: Stage 1, RW-P2

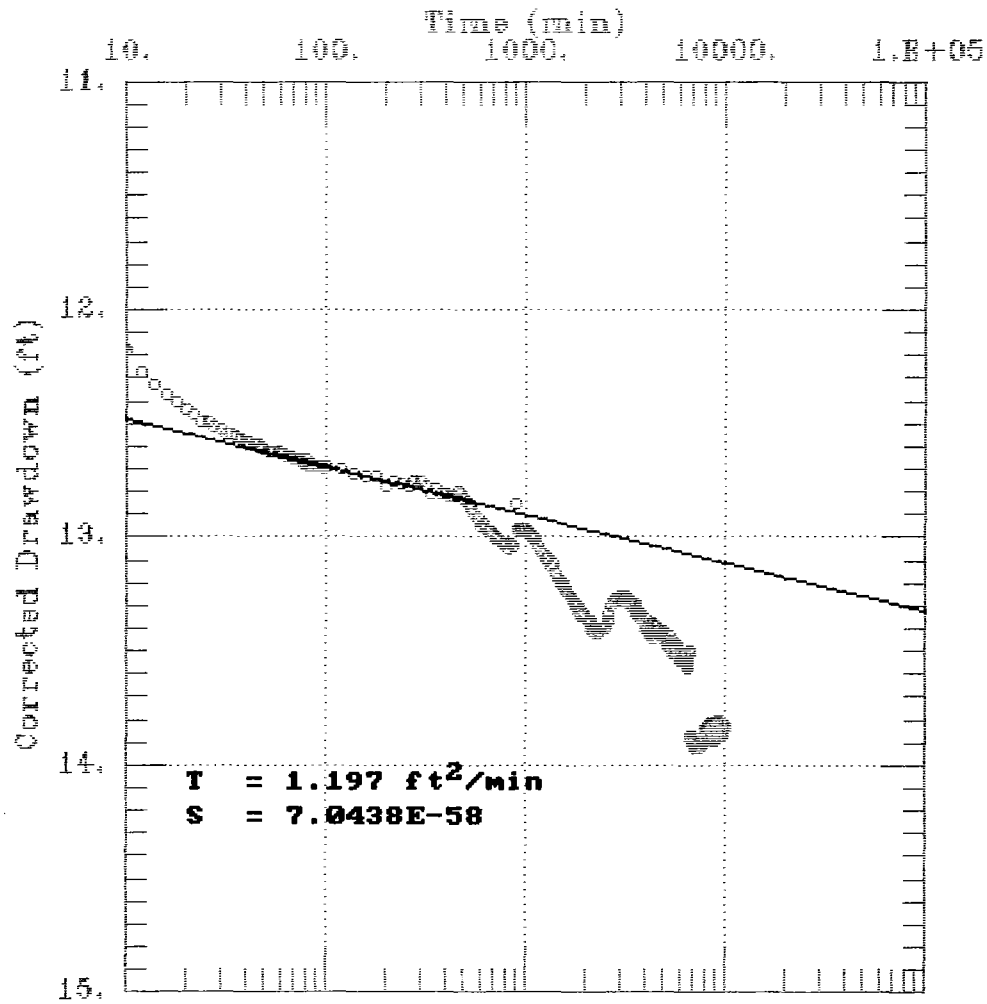


or 1,724 ft²/day
K = 8.1 x10⁻³ cm/sec

Estimate to high:
- Well storage not complete
- Gravity drainage has not occured
- Boundary effects not taken into account

KB [IMI-EVAL&REC]
mlv.11.94

IM Phase I Operations: Stage 1, RW-P2



Zoom In View of page 7
Same comments

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A Q T E S O L V R E S U L T S: NSB Kings Bay

09/12/94 22:23:43

TEST DESCRIPTION

Data set.......... a:rwp5.set
Data set title..... IM Phase I Operations: Stage 1, RW-P5

Knowns and Constants:
No. of data points.................. 369
Pumping rate........................ 1.37
Radius (distance) to obs. well...... 11.8
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	1.1353E+000
S =	2.3110E+000

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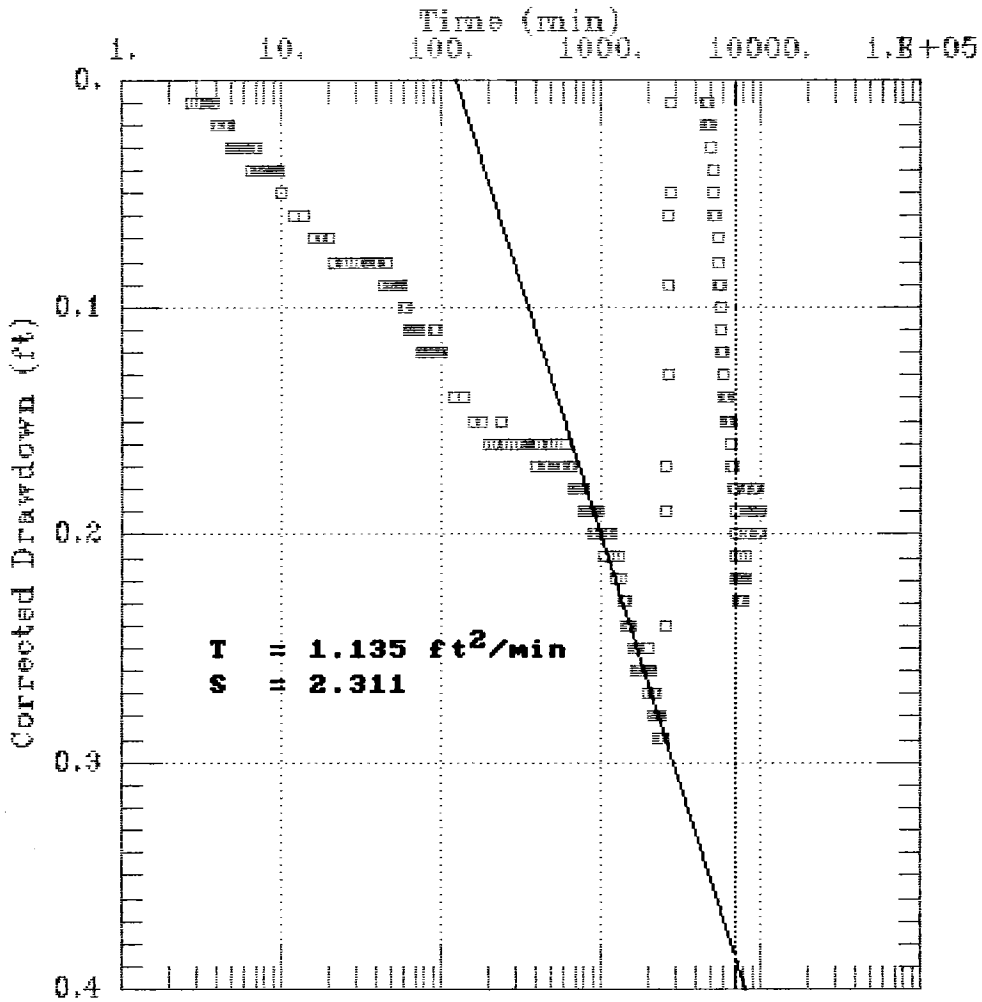
TYPE CURVE DATA

T = 1.13526E+000
S = 2.31105E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-4.632E-001	1.000E+005	6.439E-001		

IM Phase I Operations: Stage 1, RW-P5



or 1,634 ft²/day

K = 7.7 · 10⁻³ cm/sec

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A Q T E S O L V R E S U L T S: NSB Kings Bay

09/12/94 22:29:43

TEST DESCRIPTION

Data set........... a:rwp5.set
Data set title..... IM Phase I Operations: Stage 1, RW-P5

Knowns and Constants:
No. of data points.................. 369
Pumping rate......................... 1.37
Radius (distance) to obs. well...... 11.8
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Theis (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 3.3497E+000
S = 1.2674E-001

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

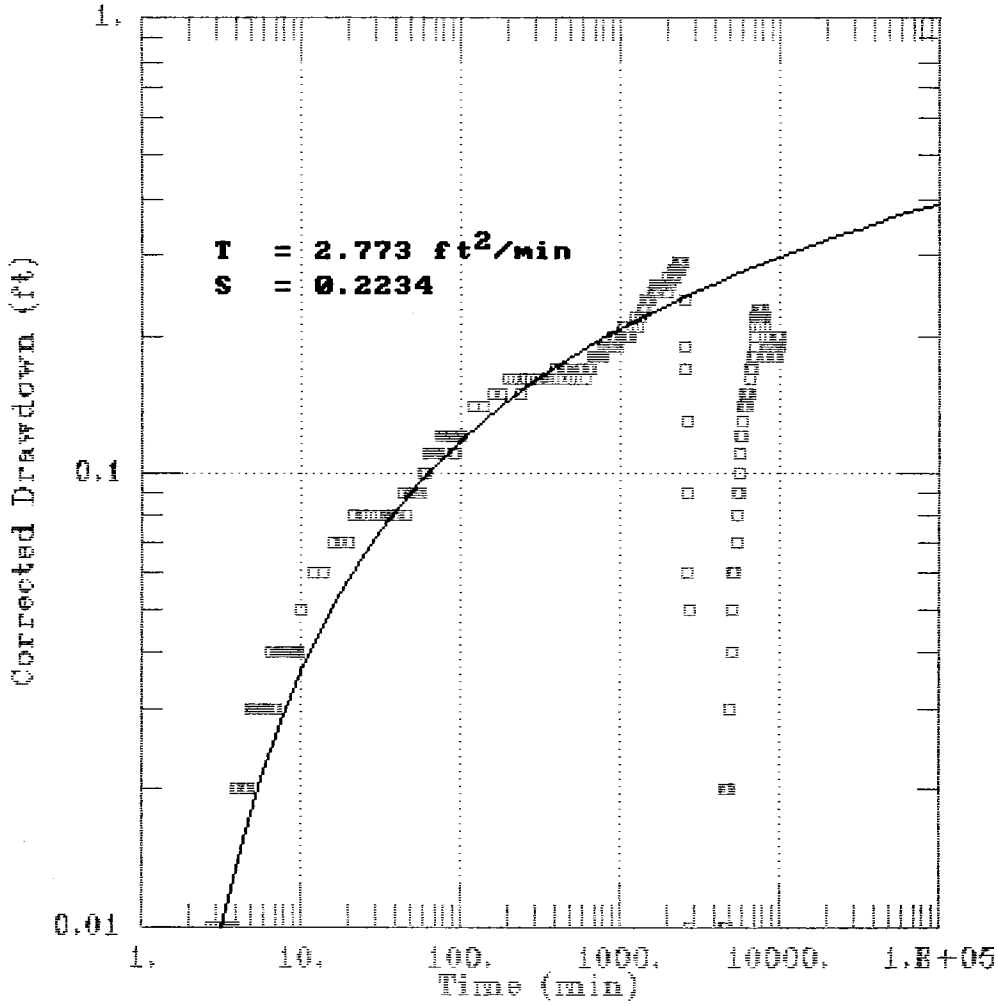
TYPE CURVE DATA

T = 2.77314E+000
S = 2.23368E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	6.594E-004	1.122E+000	9.809E-004	1.259E+000	1.409E-003
1.413E+000	1.963E-003	1.585E+000	2.658E-003	1.778E+000	3.511E-003
1.995E+000	4.533E-003	2.239E+000	5.734E-003	2.512E+000	7.122E-003
2.818E+000	8.700E-003	3.162E+000	1.047E-002	3.548E+000	1.243E-002
3.981E+000	1.458E-002	4.467E+000	1.690E-002	5.012E+000	1.941E-002
5.623E+000	2.208E-002	6.310E+000	2.490E-002	7.079E+000	2.788E-002
7.943E+000	3.099E-002	8.913E+000	3.424E-002	1.000E+001	3.760E-002
1.122E+001	4.108E-002	1.259E+001	4.466E-002	1.413E+001	4.832E-002
1.585E+001	5.208E-002	1.778E+001	5.591E-002	1.995E+001	5.982E-002
2.239E+001	6.378E-002	2.512E+001	6.781E-002	2.818E+001	7.188E-002
3.162E+001	7.601E-002	3.548E+001	8.017E-002	3.981E+001	8.438E-002
4.467E+001	8.862E-002	5.012E+001	9.289E-002	5.623E+001	9.719E-002
6.310E+001	1.015E-001	7.079E+001	1.059E-001	7.943E+001	1.102E-001
8.913E+001	1.146E-001	1.000E+002	1.190E-001	1.122E+002	1.234E-001
1.259E+002	1.279E-001	1.413E+002	1.323E-001	1.585E+002	1.367E-001
1.778E+002	1.412E-001	1.995E+002	1.457E-001	2.239E+002	1.501E-001
2.512E+002	1.546E-001	2.818E+002	1.591E-001	3.162E+002	1.636E-001
3.548E+002	1.681E-001	3.981E+002	1.726E-001	4.467E+002	1.771E-001
5.012E+002	1.816E-001	5.623E+002	1.861E-001	6.310E+002	1.907E-001
7.079E+002	1.952E-001	7.943E+002	1.997E-001	8.913E+002	2.042E-001
1.000E+003	2.087E-001	1.122E+003	2.133E-001	1.259E+003	2.178E-001
1.413E+003	2.223E-001	1.585E+003	2.269E-001	1.778E+003	2.314E-001
1.995E+003	2.359E-001	2.239E+003	2.405E-001	2.512E+003	2.450E-001

2.818E+003	2.495E-001	3.162E+003	2.541E-001	3.548E+003	2.586E-001
3.981E+003	2.631E-001	4.467E+003	2.677E-001	5.012E+003	2.722E-001
5.623E+003	2.768E-001	6.310E+003	2.813E-001	7.079E+003	2.858E-001
7.943E+003	2.904E-001	8.913E+003	2.949E-001	1.000E+004	2.995E-001
1.122E+004	3.040E-001	1.259E+004	3.086E-001	1.413E+004	3.131E-001
1.585E+004	3.176E-001	1.778E+004	3.222E-001	1.995E+004	3.267E-001
2.239E+004	3.313E-001	2.512E+004	3.358E-001	2.818E+004	3.404E-001
3.162E+004	3.449E-001	3.548E+004	3.495E-001	3.981E+004	3.540E-001
4.467E+004	3.586E-001	5.012E+004	3.631E-001	5.623E+004	3.677E-001
6.310E+004	3.722E-001	7.079E+004	3.768E-001	7.943E+004	3.813E-001
8.913E+004	3.859E-001	1.000E+005	3.904E-001		

IM Phase I Operations: Stage 1, RW-P5



T estimate too high; does not take into account gravity drainage

KB [IMI-EVAL&REC]
m1v.11.94

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A Q T E S O L V R E S U L T S: NSB Kings Bay

09/12/94 22:37:14

==

TEST DESCRIPTION

Data set........... a:ps5.set
Data set title..... IM Phase I Operations: Stage 1, PS-5

Knowns and Constants:
No. of data points.................. 517
Pumping rate......................... 1.37
Radius (distance) to obs. well...... 61.8
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 9.1471E-001
S = 4.3058E-004

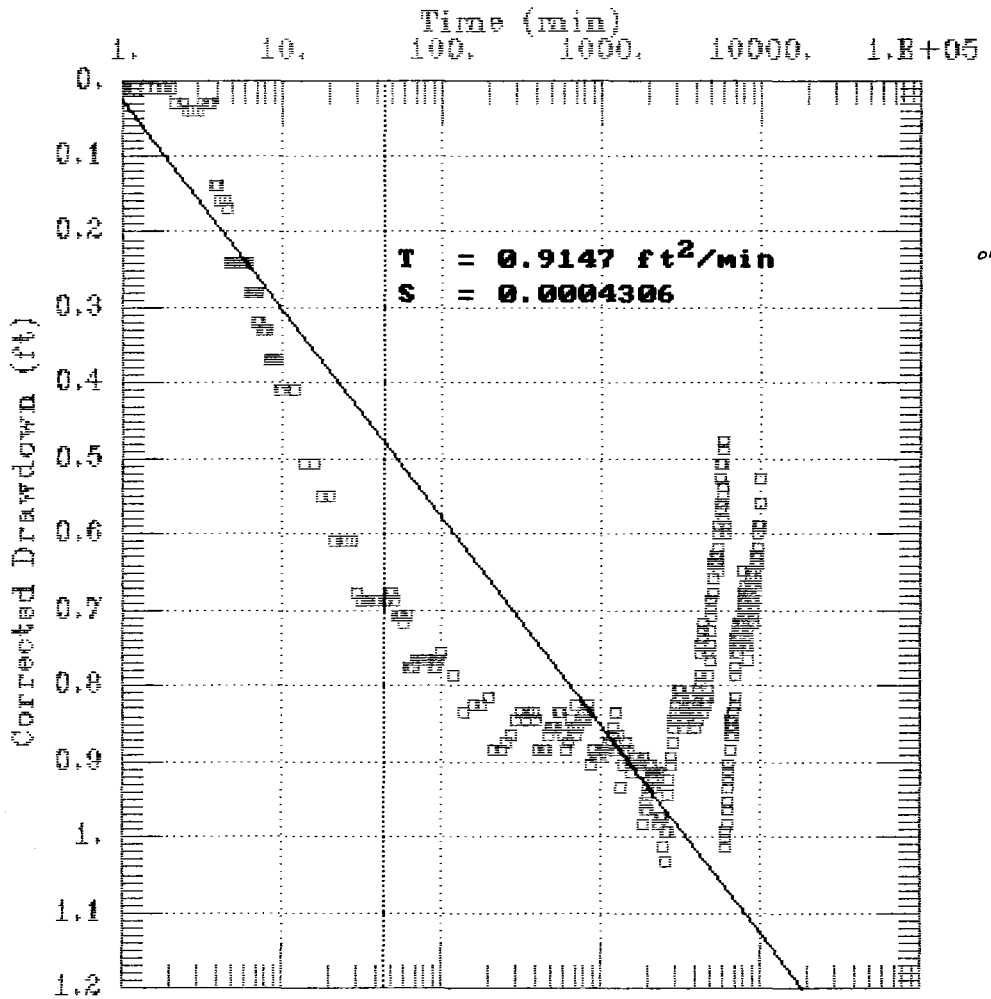
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

T = 9.14711E-001
S = 4.30581E-004

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	2.653E-002	1.000E+005	1.412E+000		

IM Phase I Operations: Stage 1, PS-5



or 1,317 ft²/day
K = 6.2 x 10⁻³ cm/sec

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

AQTESOLV RESULTS: NSB Kings Bay

09/12/94 22:41:59

TEST DESCRIPTION

Data set........... a:ps5.set
Data set title..... IM Phase I Operations: Stage 1, PS-5

Knowns and Constants:
No. of data points.................. 517
Pumping rate......................... 1.37
Radius (distance) to obs. well...... 61.8
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Theis (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	3.1899E+000
S =	2.1080E-011

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

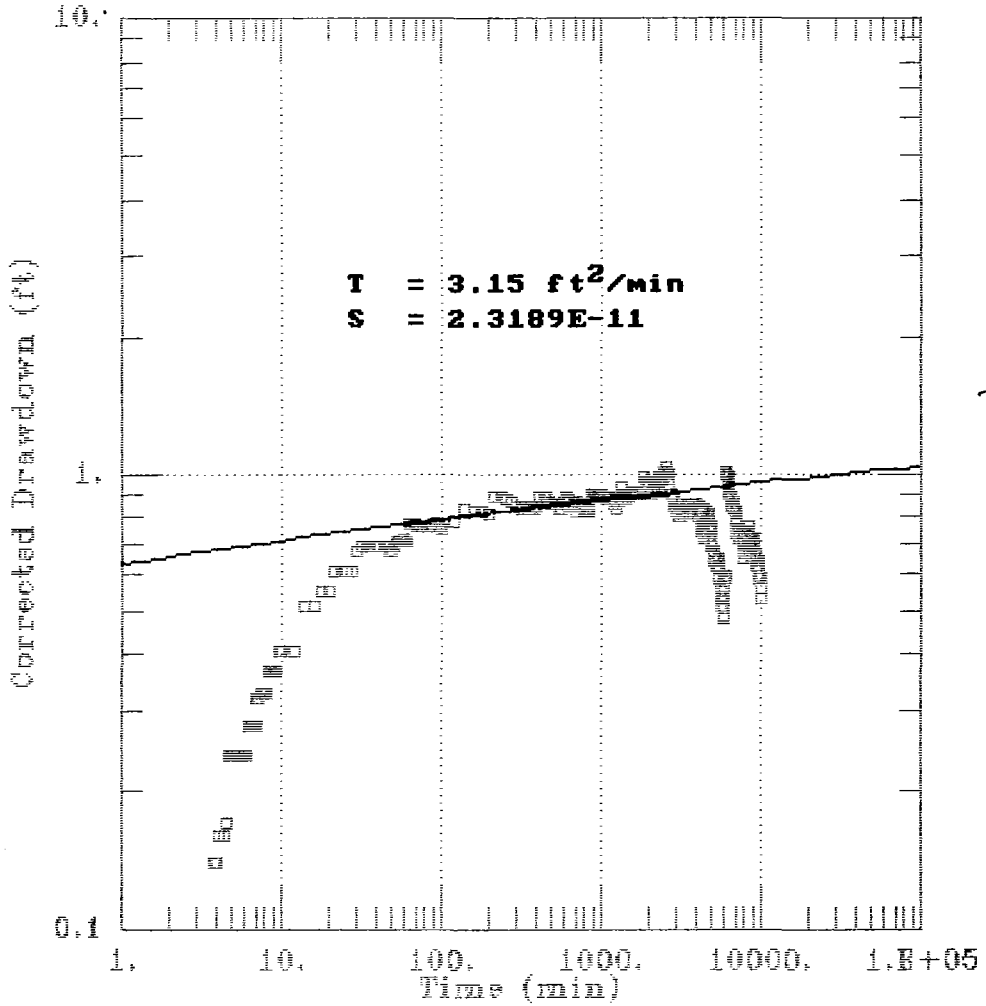
TYPE CURVE DATA

T = 3.14995E+000
S = 2.31889E-011

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	6.324E-001	1.122E+000	6.365E-001	1.259E+000	6.405E-001
1.413E+000	6.445E-001	1.585E+000	6.485E-001	1.778E+000	6.525E-001
1.995E+000	6.566E-001	2.239E+000	6.606E-001	2.512E+000	6.646E-001
2.818E+000	6.686E-001	3.162E+000	6.726E-001	3.548E+000	6.767E-001
3.981E+000	6.807E-001	4.467E+000	6.847E-001	5.012E+000	6.887E-001
5.623E+000	6.927E-001	6.310E+000	6.968E-001	7.079E+000	7.008E-001
7.943E+000	7.048E-001	8.913E+000	7.088E-001	1.000E+001	7.129E-001
1.122E+001	7.169E-001	1.259E+001	7.209E-001	1.413E+001	7.249E-001
1.585E+001	7.289E-001	1.778E+001	7.330E-001	1.995E+001	7.370E-001
2.239E+001	7.410E-001	2.512E+001	7.450E-001	2.818E+001	7.491E-001
3.162E+001	7.531E-001	3.548E+001	7.571E-001	3.981E+001	7.611E-001
4.467E+001	7.652E-001	5.012E+001	7.692E-001	5.623E+001	7.732E-001
6.310E+001	7.772E-001	7.079E+001	7.813E-001	7.943E+001	7.853E-001
8.913E+001	7.893E-001	1.000E+002	7.934E-001	1.122E+002	7.974E-001
1.259E+002	8.014E-001	1.413E+002	8.054E-001	1.585E+002	8.095E-001
1.778E+002	8.135E-001	1.995E+002	8.175E-001	2.239E+002	8.216E-001
2.512E+002	8.256E-001	2.818E+002	8.296E-001	3.162E+002	8.336E-001
3.548E+002	8.377E-001	3.981E+002	8.417E-001	4.467E+002	8.457E-001
5.012E+002	8.498E-001	5.623E+002	8.538E-001	6.310E+002	8.578E-001
7.079E+002	8.618E-001	7.943E+002	8.659E-001	8.913E+002	8.699E-001
1.000E+003	8.739E-001	1.122E+003	8.780E-001	1.259E+003	8.820E-001
1.413E+003	8.860E-001	1.585E+003	8.901E-001	1.778E+003	8.941E-001
1.995E+003	8.981E-001	2.239E+003	9.022E-001	2.512E+003	9.062E-001

2.818E+003	9.102E-001	3.162E+003	9.143E-001	3.548E+003	9.183E-001
3.981E+003	9.223E-001	4.467E+003	9.264E-001	5.012E+003	9.304E-001
5.623E+003	9.344E-001	6.310E+003	9.385E-001	7.079E+003	9.425E-001
7.943E+003	9.465E-001	8.913E+003	9.506E-001	1.000E+004	9.546E-001
1.122E+004	9.587E-001	1.259E+004	9.627E-001	1.413E+004	9.667E-001
1.585E+004	9.708E-001	1.778E+004	9.748E-001	1.995E+004	9.788E-001
2.239E+004	9.829E-001	2.512E+004	9.869E-001	2.818E+004	9.910E-001
3.162E+004	9.950E-001	3.548E+004	9.990E-001	3.981E+004	1.003E+000
4.467E+004	1.007E+000	5.012E+004	1.011E+000	5.623E+004	1.015E+000
6.310E+004	1.019E+000	7.079E+004	1.023E+000	7.943E+004	1.027E+000
8.913E+004	1.031E+000	1.000E+005	1.035E+000		

IM Phase I Operations: Stage 1, PS-5



or 4,536 ft²/day

T Estimate too high

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V R E S U L T S: NSB Kings Bay

09/12/94 22:53:03

TEST DESCRIPTION

Data set........... a:pd6.set
Data set title..... IM Phase I Operations: Stage 1, PD-6

Knowns and Constants:
No. of data points.................. 127
Pumping rate......................... 1.37
Radius (distance) to obs. well...... 109.2
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 1.2802E+000
S = 1.2810E-002

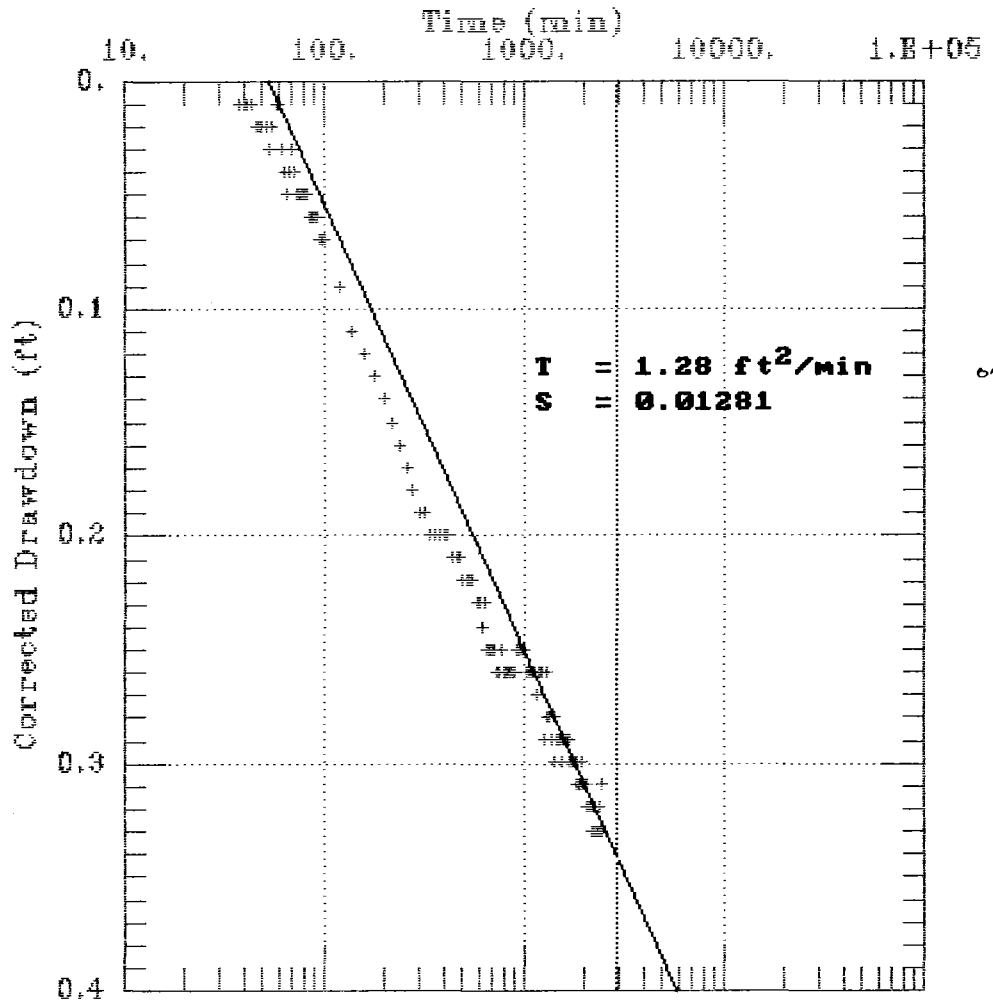
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 1.28021E+000
S = 1.28097E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	-1.421E-001	1.000E+005	6.450E-001		

IM Phase I Operations: Stage 1, PD-6



or 1843 ft²/day

K= 8.7 · 10⁻³ cm/sec

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

AQTESOLV RESULTS: NSB Kings Bay

09/12/94 22:55:28

TEST DESCRIPTION

Data set........... a:pd6.set
Data set title..... IM Phase I Operations: Stage 1, PD-6

Knowns and Constants:
No. of data points.................. 127
Pumping rate........................ 1.37
Radius (distance) to obs. well...... 109.2
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Theis (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 1.3670E+000
S = 9.7535E-003

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

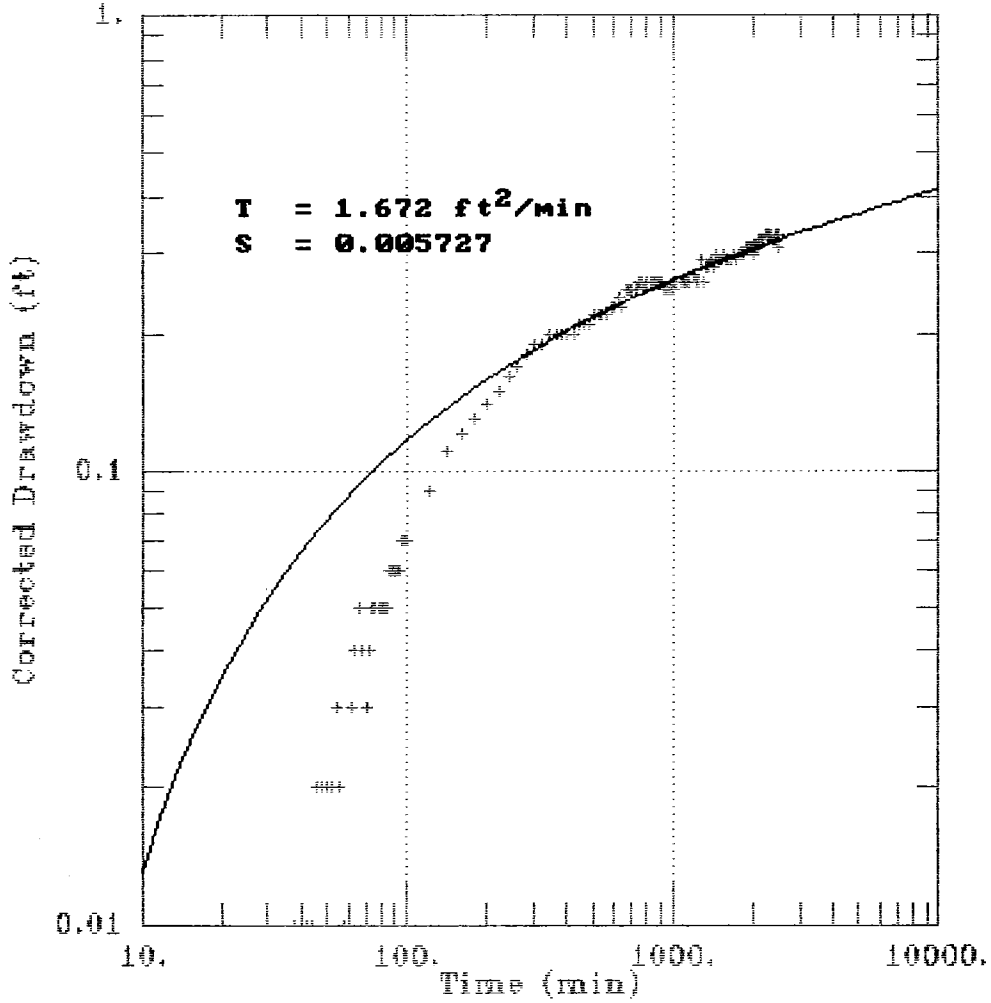
TYPE CURVE DATA

T = 1.67210E+000
S = 5.72676E-003

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	1.381E-002	1.122E+001	1.667E-002	1.259E+001	1.985E-002
1.413E+001	2.335E-002	1.585E+001	2.714E-002	1.778E+001	3.123E-002
1.995E+001	3.559E-002	2.239E+001	4.023E-002	2.512E+001	4.511E-002
2.818E+001	5.023E-002	3.162E+001	5.556E-002	3.548E+001	6.110E-002
3.981E+001	6.682E-002	4.467E+001	7.272E-002	5.012E+001	7.878E-002
5.623E+001	8.498E-002	6.310E+001	9.131E-002	7.079E+001	9.776E-002
7.943E+001	1.043E-001	8.913E+001	1.110E-001	1.000E+002	1.177E-001
1.122E+002	1.245E-001	1.259E+002	1.314E-001	1.413E+002	1.384E-001
1.585E+002	1.454E-001	1.778E+002	1.525E-001	1.995E+002	1.596E-001
2.239E+002	1.668E-001	2.512E+002	1.740E-001	2.818E+002	1.813E-001
3.162E+002	1.885E-001	3.548E+002	1.958E-001	3.981E+002	2.032E-001
4.467E+002	2.105E-001	5.012E+002	2.179E-001	5.623E+002	2.253E-001
6.310E+002	2.327E-001	7.079E+002	2.401E-001	7.943E+002	2.475E-001
8.913E+002	2.549E-001	1.000E+003	2.624E-001	1.122E+003	2.699E-001
1.259E+003	2.773E-001	1.413E+003	2.848E-001	1.585E+003	2.923E-001
1.778E+003	2.998E-001	1.995E+003	3.073E-001	2.239E+003	3.148E-001
2.512E+003	3.223E-001	2.818E+003	3.298E-001	3.162E+003	3.373E-001
3.548E+003	3.448E-001	3.981E+003	3.523E-001	4.467E+003	3.599E-001
5.012E+003	3.674E-001	5.623E+003	3.749E-001	6.310E+003	3.824E-001
7.079E+003	3.900E-001	7.943E+003	3.975E-001	8.913E+003	4.051E-001

1.000E+004 4.126E-001

IM Phase I Operations: Stage 1, PD-6



or 2408 ft²/day

K = 1.1 x 10⁻² cm/sec

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

AQTESOLV RESULTS: NSB Kings Bay, Site 11

09/12/94 21:14:37

TEST DESCRIPTION

Data set.......... ps7.set
Data set title..... IM Phase I Operations: Stage 1, PS-7

Knowns and Constants:
No. of data points.................. 17
Pumping rate........................ 1.37
Radius (distance) to obs. well...... 183.2
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	2.3349E+000
S =	1.6468E-005

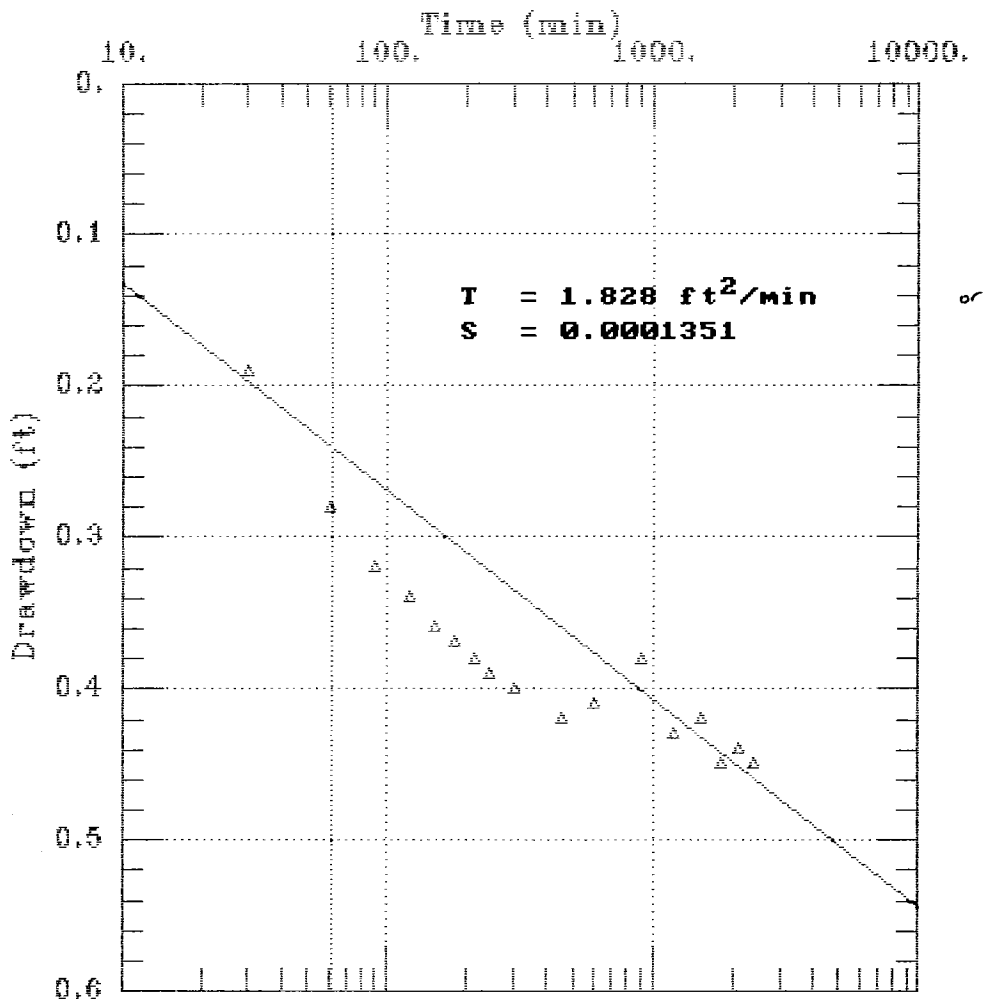
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 1.82800E+000
S = 1.35100E-004

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	1.315E-001	1.000E+004	5.455E-001		

IM Phase I Operations: Stage 1, PS-7



or 2,632 ft²/day

K= 1.2×10⁻² cm/sec

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

AQTESOLV RESULTS: NSB Kings Bay, Site 11

09/12/94 21:39:20

TEST DESCRIPTION

Data set........... ps7.set
Data set title..... IM Phase I Operations: Stage 1, PS-7

Knowns and Constants:
No. of data points.................. 17
Pumping rate......................... 1.37
Radius (distance) to obs. well...... 183.2
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Theis (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 1.5248E+000
S = 4.0275E-004

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 1.87698E+000
S = 4.14133E-005

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	1.995E-001	1.122E+001	2.061E-001	1.259E+001	2.127E-001
1.413E+001	2.193E-001	1.585E+001	2.259E-001	1.778E+001	2.326E-001
1.995E+001	2.392E-001	2.239E+001	2.459E-001	2.512E+001	2.525E-001
2.818E+001	2.592E-001	3.162E+001	2.659E-001	3.548E+001	2.725E-001
3.981E+001	2.792E-001	4.467E+001	2.859E-001	5.012E+001	2.926E-001
5.623E+001	2.993E-001	6.310E+001	3.060E-001	7.079E+001	3.127E-001
7.943E+001	3.194E-001	8.913E+001	3.261E-001	1.000E+002	3.328E-001
1.122E+002	3.395E-001	1.259E+002	3.462E-001	1.413E+002	3.529E-001
1.585E+002	3.596E-001	1.778E+002	3.663E-001	1.995E+002	3.730E-001
2.239E+002	3.797E-001	2.512E+002	3.865E-001	2.818E+002	3.932E-001
3.162E+002	3.999E-001	3.548E+002	4.066E-001	3.981E+002	4.133E-001
4.467E+002	4.201E-001	5.012E+002	4.268E-001	5.623E+002	4.335E-001
6.310E+002	4.402E-001	7.079E+002	4.470E-001	7.943E+002	4.537E-001
8.913E+002	4.604E-001	1.000E+003	4.671E-001	1.122E+003	4.739E-001
1.259E+003	4.806E-001	1.413E+003	4.873E-001	1.585E+003	4.940E-001
1.778E+003	5.008E-001	1.995E+003	5.075E-001	2.239E+003	5.142E-001
2.512E+003	5.210E-001	2.818E+003	5.277E-001	3.162E+003	5.344E-001
3.548E+003	5.412E-001	3.981E+003	5.479E-001	4.467E+003	5.547E-001
5.012E+003	5.614E-001	5.623E+003	5.681E-001	6.310E+003	5.749E-001
7.079E+003	5.816E-001	7.943E+003	5.883E-001	8.913E+003	5.951E-001
1.000E+004	6.018E-001				

TYPE CURVE DATA

T = 1.87698E+000
S = 4.14133E-005

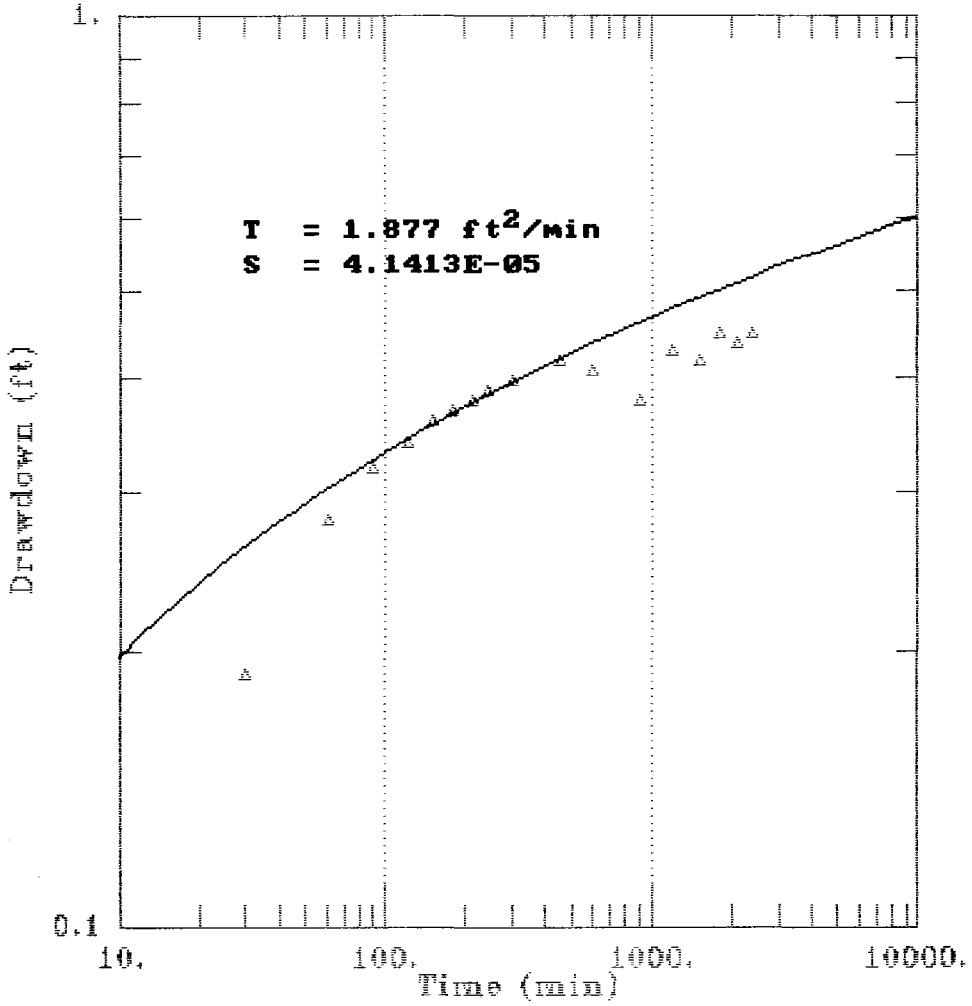
Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	1.995E-001	1.122E+001	2.061E-001	1.259E+001	2.127E-001
1.413E+001	2.193E-001	1.585E+001	2.259E-001	1.778E+001	2.326E-001
1.995E+001	2.392E-001	2.239E+001	2.459E-001	2.512E+001	2.525E-001
2.818E+001	2.592E-001	3.162E+001	2.659E-001	3.548E+001	2.725E-001
3.981E+001	2.792E-001	4.467E+001	2.859E-001	5.012E+001	2.926E-001
5.623E+001	2.993E-001	6.310E+001	3.060E-001	7.079E+001	3.127E-001
7.943E+001	3.194E-001	8.913E+001	3.261E-001	1.000E+002	3.328E-001
1.122E+002	3.395E-001	1.259E+002	3.462E-001	1.413E+002	3.529E-001
1.585E+002	3.596E-001	1.778E+002	3.663E-001	1.995E+002	3.730E-001
2.239E+002	3.797E-001	2.512E+002	3.865E-001	2.818E+002	3.932E-001
3.162E+002	3.999E-001	3.548E+002	4.066E-001	3.981E+002	4.133E-001
4.467E+002	4.201E-001	5.012E+002	4.268E-001	5.623E+002	4.335E-001
6.310E+002	4.402E-001	7.079E+002	4.470E-001	7.943E+002	4.537E-001
8.913E+002	4.604E-001	1.000E+003	4.671E-001	1.122E+003	4.739E-001
1.259E+003	4.806E-001	1.413E+003	4.873E-001	1.585E+003	4.940E-001
1.778E+003	5.008E-001	1.995E+003	5.075E-001	2.239E+003	5.142E-001
2.512E+003	5.210E-001	2.818E+003	5.277E-001	3.162E+003	5.344E-001
3.548E+003	5.412E-001	3.981E+003	5.479E-001	4.467E+003	5.547E-001
5.012E+003	5.614E-001	5.623E+003	5.681E-001	6.310E+003	5.749E-001
7.079E+003	5.816E-001	7.943E+003	5.883E-001	8.913E+003	5.951E-001
1.000E+004	6.018E-001				

TYPE CURVE DATA

T = 1.87698E+000
S = 4.14133E-005

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	1.995E-001	1.122E+001	2.061E-001	1.259E+001	2.127E-001
1.413E+001	2.193E-001	1.585E+001	2.259E-001	1.778E+001	2.326E-001
1.995E+001	2.392E-001	2.239E+001	2.459E-001	2.512E+001	2.525E-001
2.818E+001	2.592E-001	3.162E+001	2.659E-001	3.548E+001	2.725E-001
3.981E+001	2.792E-001	4.467E+001	2.859E-001	5.012E+001	2.926E-001
5.623E+001	2.993E-001	6.310E+001	3.060E-001	7.079E+001	3.127E-001
7.943E+001	3.194E-001	8.913E+001	3.261E-001	1.000E+002	3.328E-001
1.122E+002	3.395E-001	1.259E+002	3.462E-001	1.413E+002	3.529E-001
1.585E+002	3.596E-001	1.778E+002	3.663E-001	1.995E+002	3.730E-001
2.239E+002	3.797E-001	2.512E+002	3.865E-001	2.818E+002	3.932E-001
3.162E+002	3.999E-001	3.548E+002	4.066E-001	3.981E+002	4.133E-001
4.467E+002	4.201E-001	5.012E+002	4.268E-001	5.623E+002	4.335E-001
6.310E+002	4.402E-001	7.079E+002	4.470E-001	7.943E+002	4.537E-001
8.913E+002	4.604E-001	1.000E+003	4.671E-001	1.122E+003	4.739E-001
1.259E+003	4.806E-001	1.413E+003	4.873E-001	1.585E+003	4.940E-001
1.778E+003	5.008E-001	1.995E+003	5.075E-001	2.239E+003	5.142E-001
2.512E+003	5.210E-001	2.818E+003	5.277E-001	3.162E+003	5.344E-001
3.548E+003	5.412E-001	3.981E+003	5.479E-001	4.467E+003	5.547E-001
5.012E+003	5.614E-001	5.623E+003	5.681E-001	6.310E+003	5.749E-001
7.079E+003	5.816E-001	7.943E+003	5.883E-001	8.913E+003	5.951E-001
1.000E+004	6.018E-001				

IM Phase I Operations: Stage 1, PS-7



or 2,703 ft²/day

K = 1.3 x10⁻² cm/sec

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

AQTESOLV RESULTS: NSB Kings Bay

09/12/94 23:14:19

TEST DESCRIPTION

Data set........... a:11-2.set
Data set title..... IM Phase I Operations: Stage 1, 11-2

Knowns and Constants:
No. of data points.................. 92
Pumping rate........................ 1.37
Radius (distance) to obs. well...... 453.6
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 1.8140E+001
S = 2.0642E-003

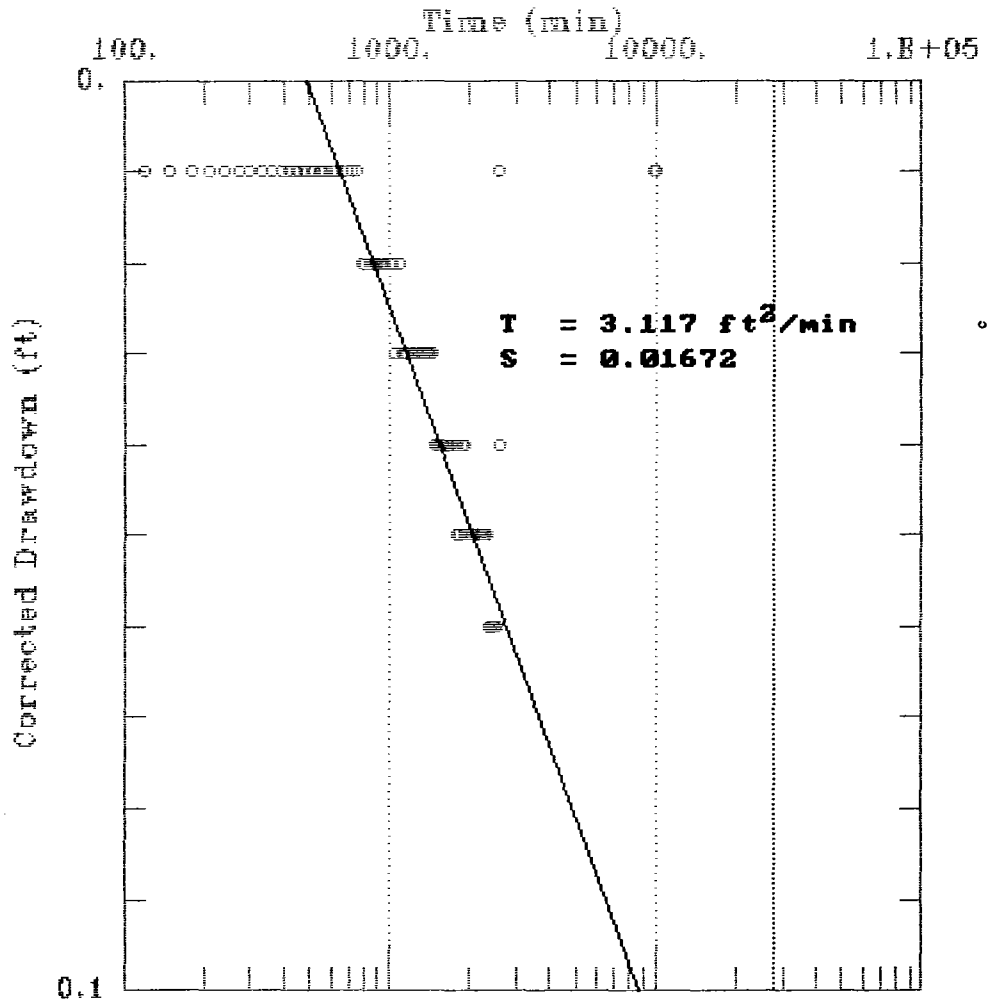
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

T = 3.11680E+000
S = 1.67195E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+002	-5.568E-002	1.000E+005	1.862E-001		

IM Phase I Operations: Stage 1, 11-2



or 4,488 ft²/day

K = 7.9 x 10⁻² cm/sec

where b = 20 ft for flow unit

K = 2.1 x 10⁻² cm/sec

if b = 75 ft

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

A Q T E S O L V   R E S U L T S:NSB Kings Bay

09/12/94   23:16:45

TEST DESCRIPTION

Data set.......... a:11-2.set
Data set title..... IM Phase I Operations: Stage 1, 11-2

Knowns and Constants:
No. of data points.................. 92
Pumping rate........................ 1.37
Radius (distance) to obs. well...... 453.6
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Theis (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 1.8140E+001
S = 2.0642E-003

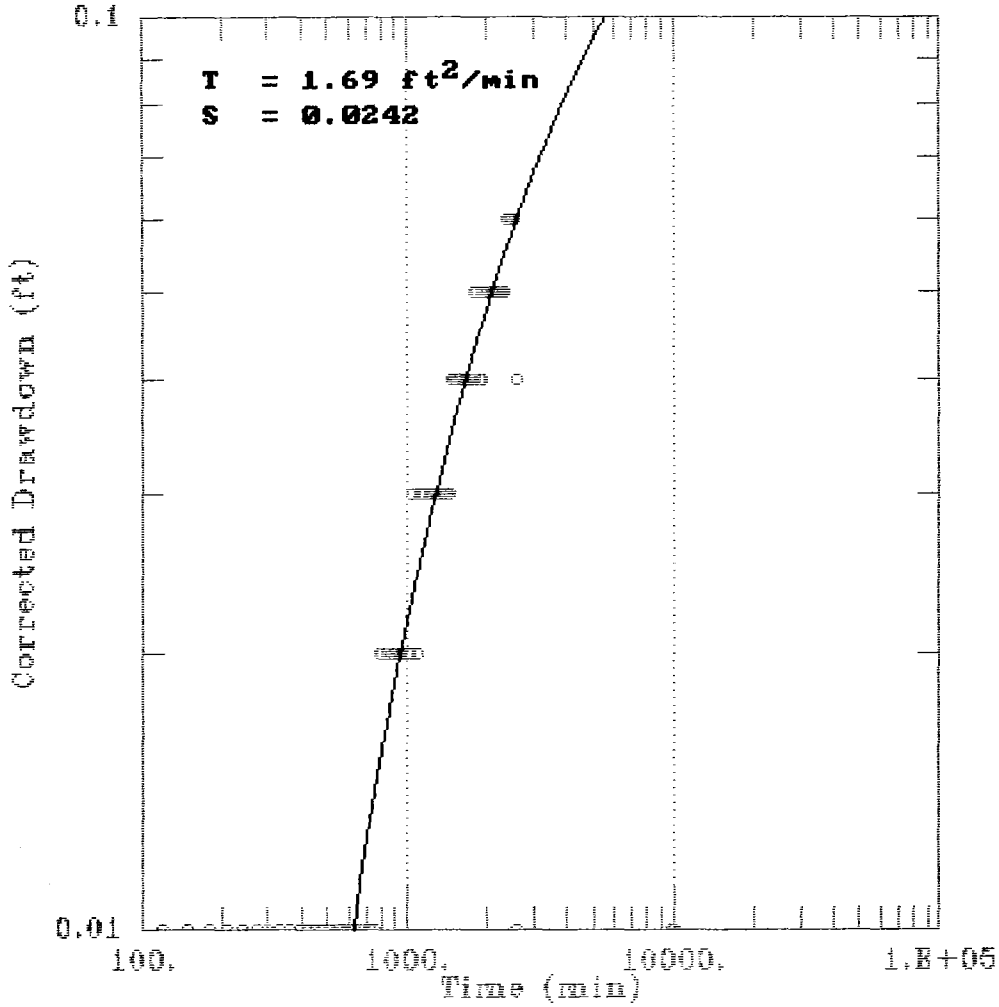
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

T = 1.68954E+000
S = 2.42042E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+002	4.920E-006	1.122E+002	1.216E-005	1.259E+002	2.750E-005
1.413E+002	5.749E-005	1.585E+002	1.120E-004	1.778E+002	2.050E-004
1.995E+002	3.545E-004	2.239E+002	5.829E-004	2.512E+002	9.163E-004
2.818E+002	1.383E-003	3.162E+002	2.014E-003	3.548E+002	2.838E-003
3.981E+002	3.885E-003	4.467E+002	5.180E-003	5.012E+002	6.746E-003
5.623E+002	8.601E-003	6.310E+002	1.076E-002	7.079E+002	1.322E-002
7.943E+002	1.601E-002	8.913E+002	1.910E-002	1.000E+003	2.251E-002
1.122E+003	2.621E-002	1.259E+003	3.021E-002	1.413E+003	3.448E-002
1.585E+003	3.903E-002	1.778E+003	4.382E-002	1.995E+003	4.884E-002
2.239E+003	5.409E-002	2.512E+003	5.954E-002	2.818E+003	6.517E-002
3.162E+003	7.098E-002	3.548E+003	7.695E-002	3.981E+003	8.306E-002
4.467E+003	8.931E-002	5.012E+003	9.567E-002	5.623E+003	1.021E-001
6.310E+003	1.087E-001	7.079E+003	1.154E-001	7.943E+003	1.221E-001
8.913E+003	1.289E-001	1.000E+004	1.358E-001	1.122E+004	1.428E-001
1.259E+004	1.498E-001	1.413E+004	1.568E-001	1.585E+004	1.639E-001
1.778E+004	1.710E-001	1.995E+004	1.782E-001	2.239E+004	1.854E-001
2.512E+004	1.926E-001	2.818E+004	1.998E-001	3.162E+004	2.071E-001
3.548E+004	2.144E-001	3.981E+004	2.217E-001	4.467E+004	2.290E-001
5.012E+004	2.364E-001	5.623E+004	2.437E-001	6.310E+004	2.511E-001
7.079E+004	2.584E-001	7.943E+004	2.658E-001	8.913E+004	2.732E-001
1.000E+005	2.806E-001				

IM Phase I Operations: Stage 1, 11-2



or 2434 ft²/day

K = 4.3 x10⁻² cm/sec

where b = 20 ft "shallow unit"

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

AQTESOLV RESULTS: NSB Kings Bay

09/12/94 23:05:45

TEST DESCRIPTION

Data set.......... a:11-3B.set
Data set title..... IM Phase I Operations: Stage 1, 11-3B

Knowns and Constants:
No. of data points.................. 139
Pumping rate........................ 1.37
Radius (distance) to obs. well...... 278.4
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	1.3010E+000
S =	3.4290E-003

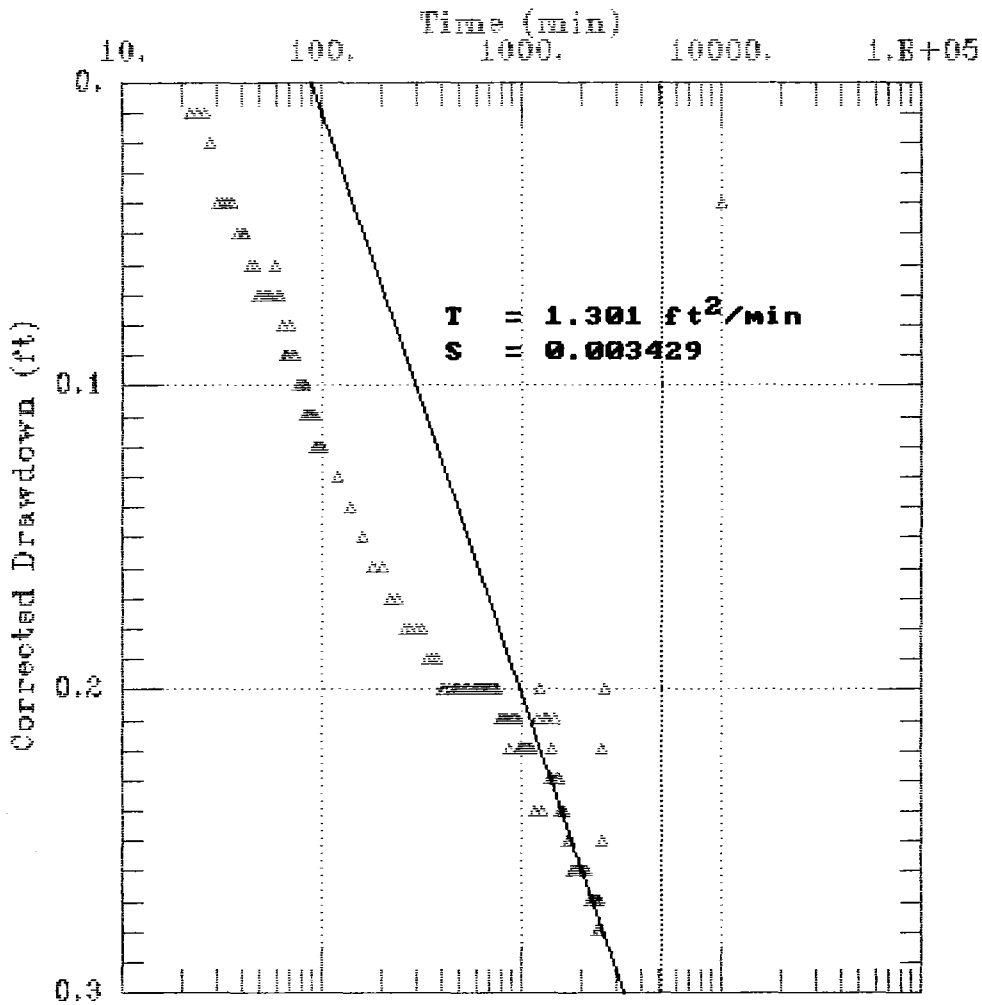
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 1.30105E+000
S = 3.42900E-003

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	-1.848E-001	1.000E+005	5.892E-001		

IM Phase I Operations: Stage 1, 11-3B



or 1,873 ft²/day

K= 8.8 · 10⁻³ cm/sec

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V R E S U L T S: NSB Kings Bay

09/12/94 23:08:11

TEST DESCRIPTION

Data set........... a:11-3B.set
Data set title..... IM Phase I Operations: Stage 1, 11-3B

Knowns and Constants:
No. of data points.................. 139
Pumping rate......................... 1.37
Radius (distance) to obs. well...... 278.4
Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Theis (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 2.3309E+000
S = 6.5455E-004

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

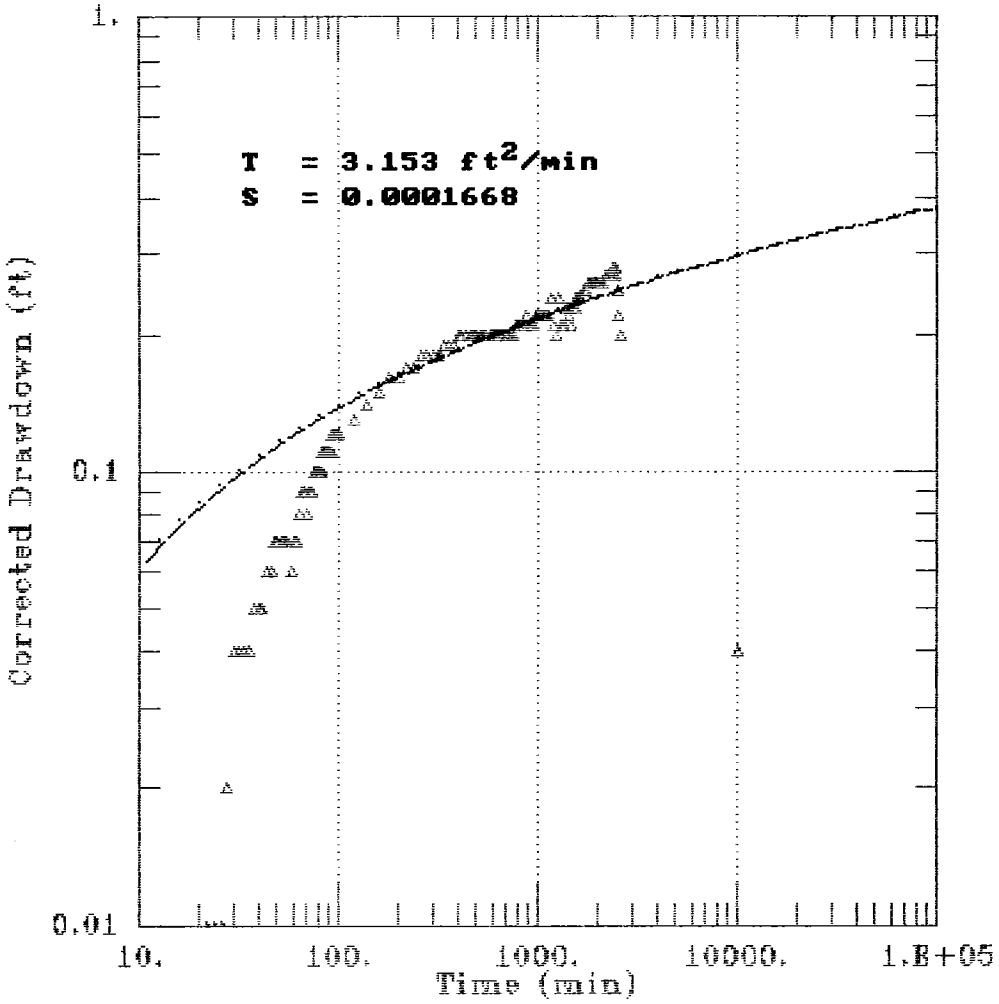
TYPE CURVE DATA

T = 3.15338E+000
S = 1.66799E-004

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+001	6.228E-002	1.122E+001	6.590E-002	1.259E+001	6.955E-002
1.413E+001	7.324E-002	1.585E+001	7.696E-002	1.778E+001	8.071E-002
1.995E+001	8.448E-002	2.239E+001	8.828E-002	2.512E+001	9.210E-002
2.818E+001	9.593E-002	3.162E+001	9.978E-002	3.548E+001	1.036E-001
3.981E+001	1.075E-001	4.467E+001	1.114E-001	5.012E+001	1.153E-001
5.623E+001	1.192E-001	6.310E+001	1.231E-001	7.079E+001	1.271E-001
7.943E+001	1.310E-001	8.913E+001	1.349E-001	1.000E+002	1.389E-001
1.122E+002	1.428E-001	1.259E+002	1.468E-001	1.413E+002	1.507E-001
1.585E+002	1.547E-001	1.778E+002	1.587E-001	1.995E+002	1.626E-001
2.239E+002	1.666E-001	2.512E+002	1.706E-001	2.818E+002	1.746E-001
3.162E+002	1.785E-001	3.548E+002	1.825E-001	3.981E+002	1.865E-001
4.467E+002	1.905E-001	5.012E+002	1.945E-001	5.623E+002	1.984E-001
6.310E+002	2.024E-001	7.079E+002	2.064E-001	7.943E+002	2.104E-001
8.913E+002	2.144E-001	1.000E+003	2.184E-001	1.122E+003	2.224E-001
1.259E+003	2.263E-001	1.413E+003	2.303E-001	1.585E+003	2.343E-001
1.778E+003	2.383E-001	1.995E+003	2.423E-001	2.239E+003	2.463E-001
2.512E+003	2.503E-001	2.818E+003	2.543E-001	3.162E+003	2.583E-001
3.548E+003	2.623E-001	3.981E+003	2.663E-001	4.467E+003	2.703E-001
5.012E+003	2.742E-001	5.623E+003	2.782E-001	6.310E+003	2.822E-001
7.079E+003	2.862E-001	7.943E+003	2.902E-001	8.913E+003	2.942E-001
1.000E+004	2.982E-001	1.122E+004	3.022E-001	1.259E+004	3.062E-001
1.413E+004	3.102E-001	1.585E+004	3.142E-001	1.778E+004	3.182E-001

1.995E+004	3.222E-001	2.239E+004	3.262E-001	2.512E+004	3.302E-001
2.818E+004	3.342E-001	3.162E+004	3.382E-001	3.548E+004	3.422E-001
3.981E+004	3.462E-001	4.467E+004	3.502E-001	5.012E+004	3.542E-001
5.623E+004	3.582E-001	6.310E+004	3.622E-001	7.079E+004	3.662E-001
7.943E+004	3.702E-001	8.913E+004	3.742E-001	1.000E+005	3.782E-001

IM Phase I Operations: Stage 1, 11-3B



or 4,540 ft²/day

KB [IMI-EVAL&REC]
mlv.11.94

STAGE 2

AQTESOLV RESULTS

NSB Kings Bay
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-RW-P2

10/19/94 14:09:54

==

TEST DESCRIPTION

Data set.......... a:arw-p2.dat
Data set title..... IM Phase I Operations: Stage 2, RW-P2

Knowns and Constants:
No. of data points.................. 515
Pumping rate........................ 2.056
Radius (distance) to obs. well...... 1
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	2.2147E-001
S =	3.1383E-003

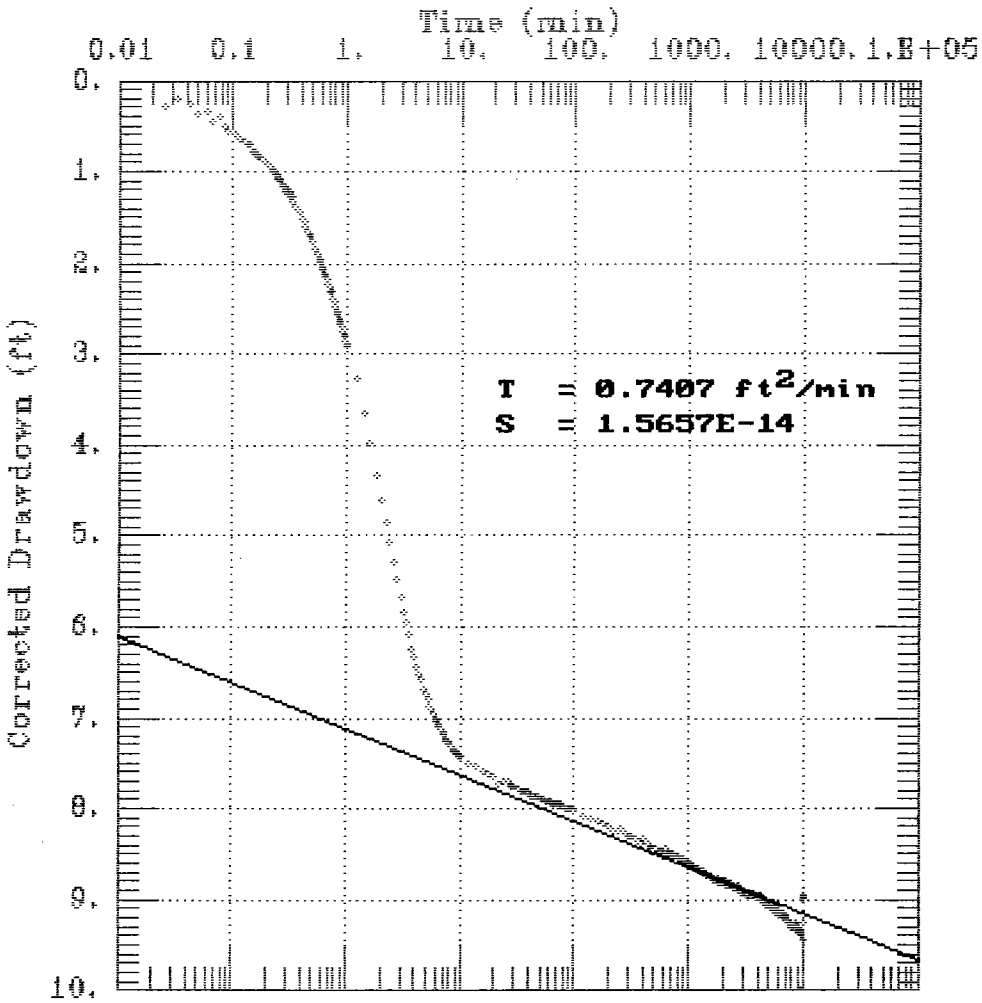
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

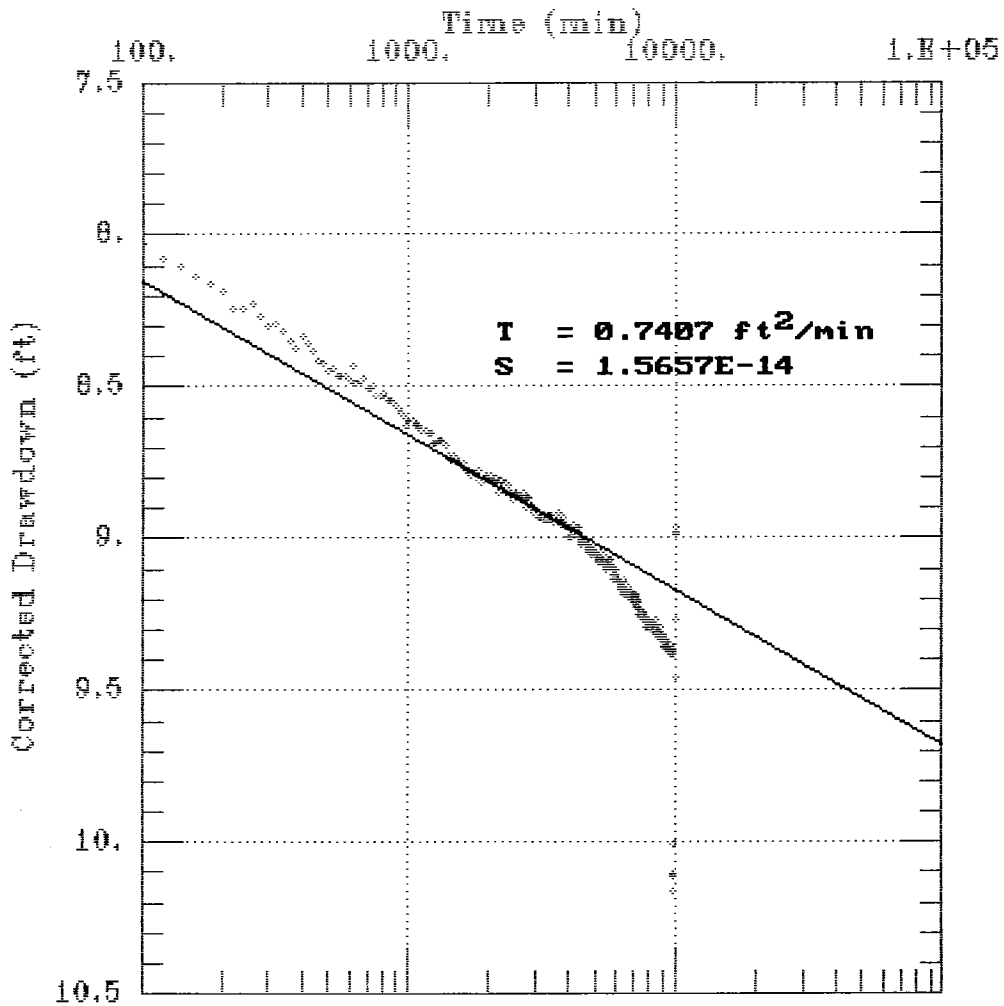
T = 7.40700E-001
S = 1.56511E-014

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	6.390E+000	1.000E+005	1.040E+001		

IM Phase I Operations: Stage 2, RW-P2



IM Phase I Operations: Stage 2, RW-P2



AQTESOLV RESULTS
Version 1.10

NSB Kings Bay, Georgia
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-11-RW-P5

10/17/94
09:53:29

==
TEST DESCRIPTION

Data set.......... a:arw-p5.dat
Data set title..... IM Phase I Operations: Stage 2, RW-P5

Knowns and Constants:
No. of data points.................. 517
Pumping rate......................... 2.056
Radius (distance) to obs. well...... 1
Aquifer saturated thickness......... 75

==
ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==
RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	1.6414E-001
S =	1.0067E-002

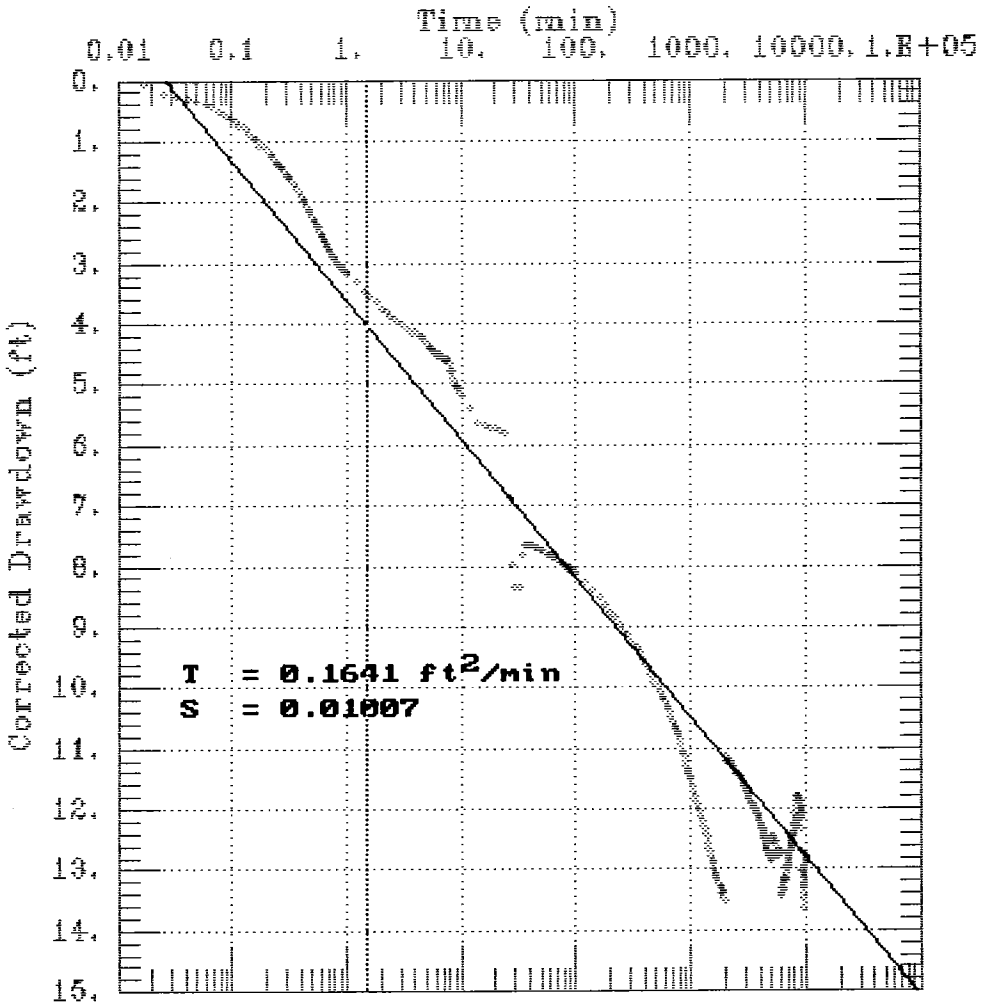
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

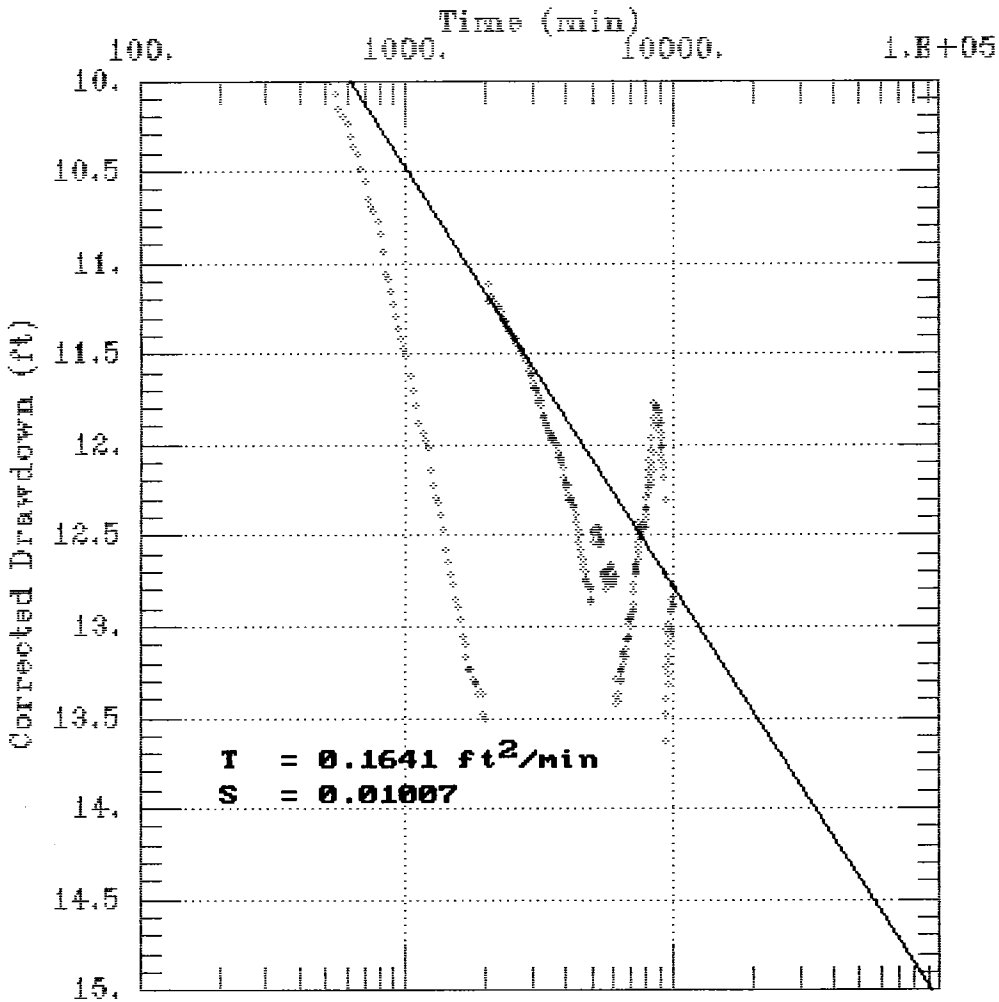
T = 1.64144E-001
S = 1.00671E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	-9.949E-001	1.000E+005	1.699E+0013B		

IM Phase I Operations: Stage 2, RW-P5



IM Phase I Operations: Stage 2, RW-P5



AQTESOLV RESULTS

NSB Kings Bay
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-PS-3

10/19/94 14:24:04

==

TEST DESCRIPTION

Data set........... a:aps-3.dat
Data set title..... IM Phase I Operations: Stage 2, PS-3

Knowns and Constants:
No. of data points.................. 376
Pumping rate......................... 2.056
Radius (distance) to obs. well...... 465.8
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	3.5206E+000
S =	2.7915E-003

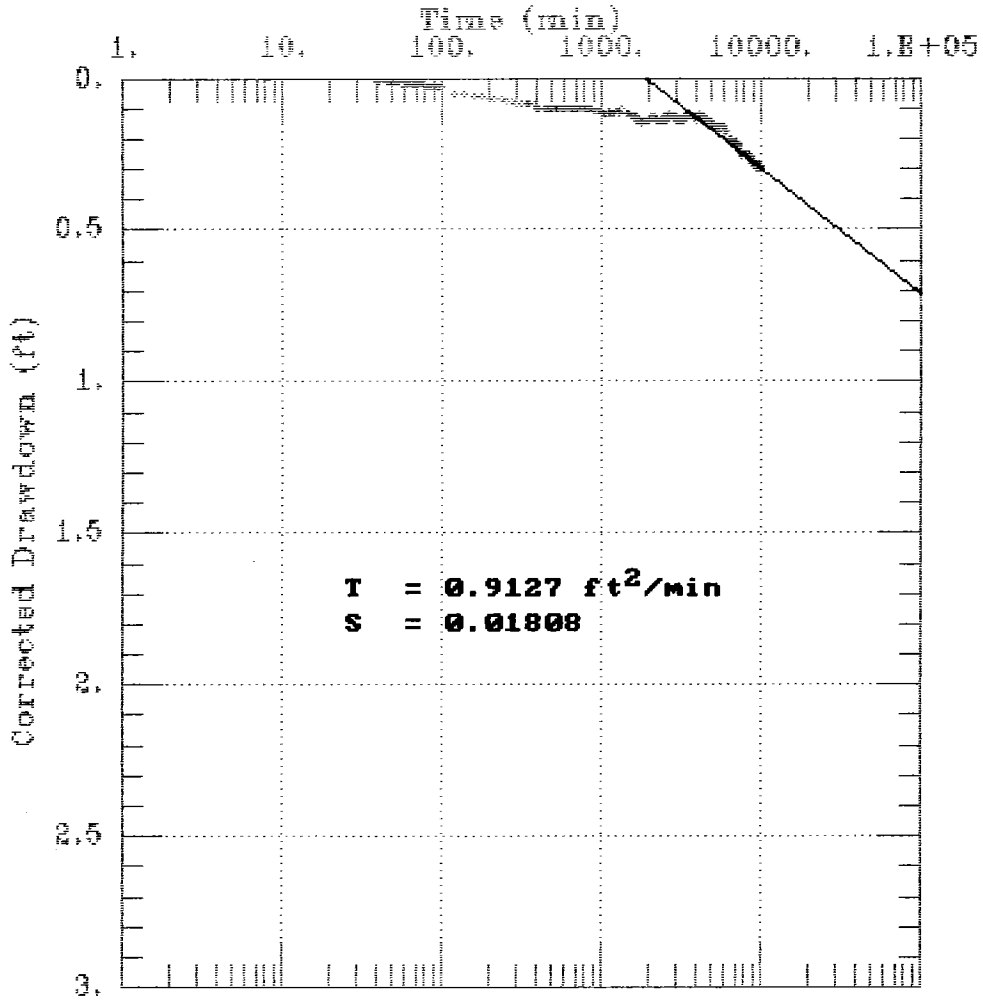
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

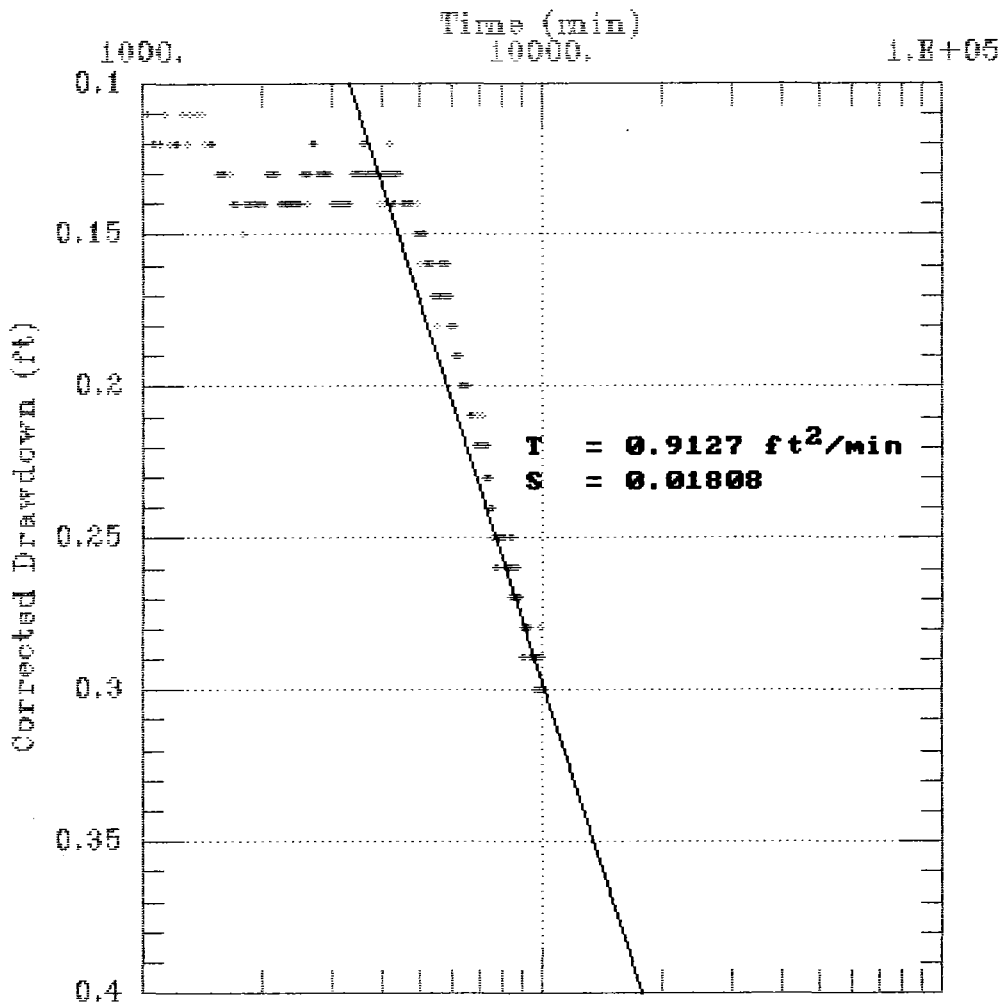
T = 9.12700E-001
S = 1.80800E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-1.343E+000	1.000E+005	7.127E-001		

IM Phase I Operations: Stage 2, PS-3



IM Phase I Operations: Stage 2, PS-3



A Q T E S O L V   R E S U L T S
Version 1.10

NSB Kings Bay, Georgia
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-PS-4

10/18/94 10:45:29

==

TEST DESCRIPTION

Data set........... a:aps-4.dat
Data set title..... IM Phase I Operations: Stage 2, PS-4

Knowns and Constants:
No. of data points.................. 377
Pumping rate........................ 2.056
Radius (distance) to obs. well...... 332.7
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	3.4729E+000
S =	5.1703E-003

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 8.56356E-001
S = 3.63348E-002

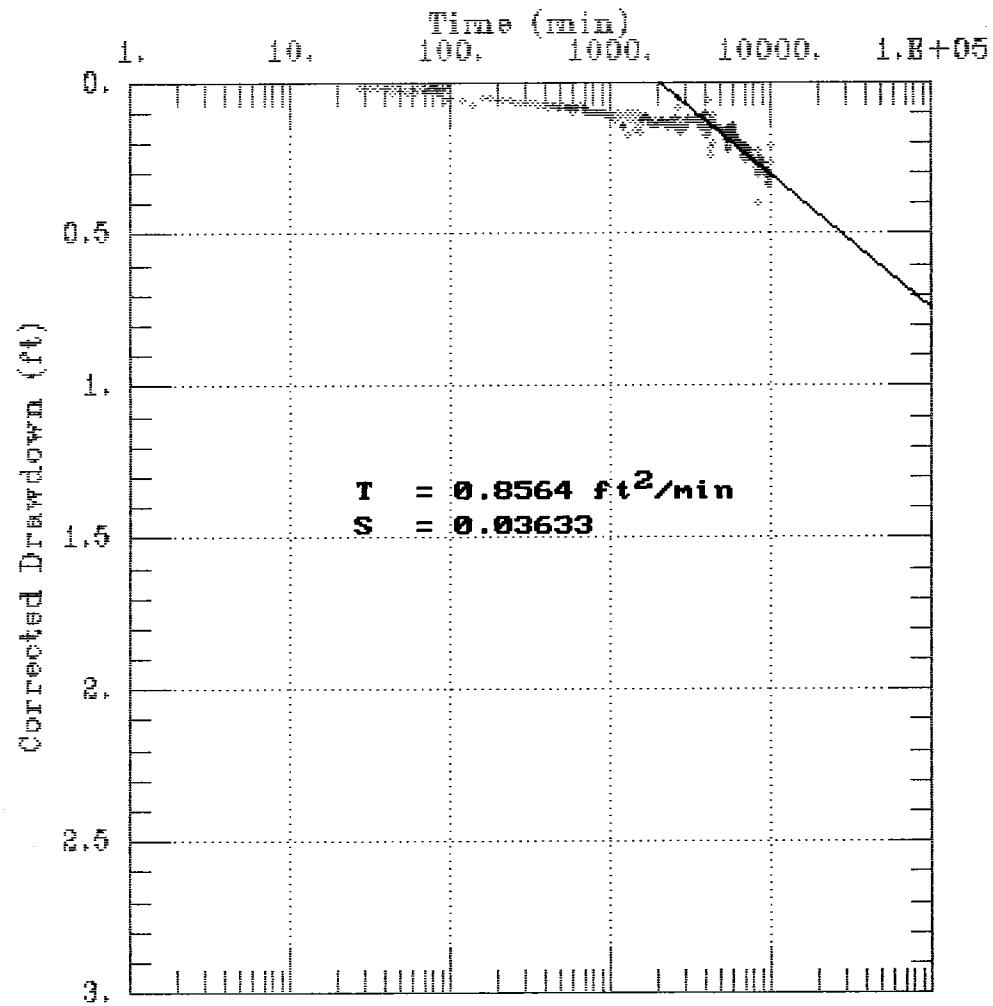
Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+003	-1.408E-001	1.000E+005	7.428E-001		

TYPE CURVE DATA

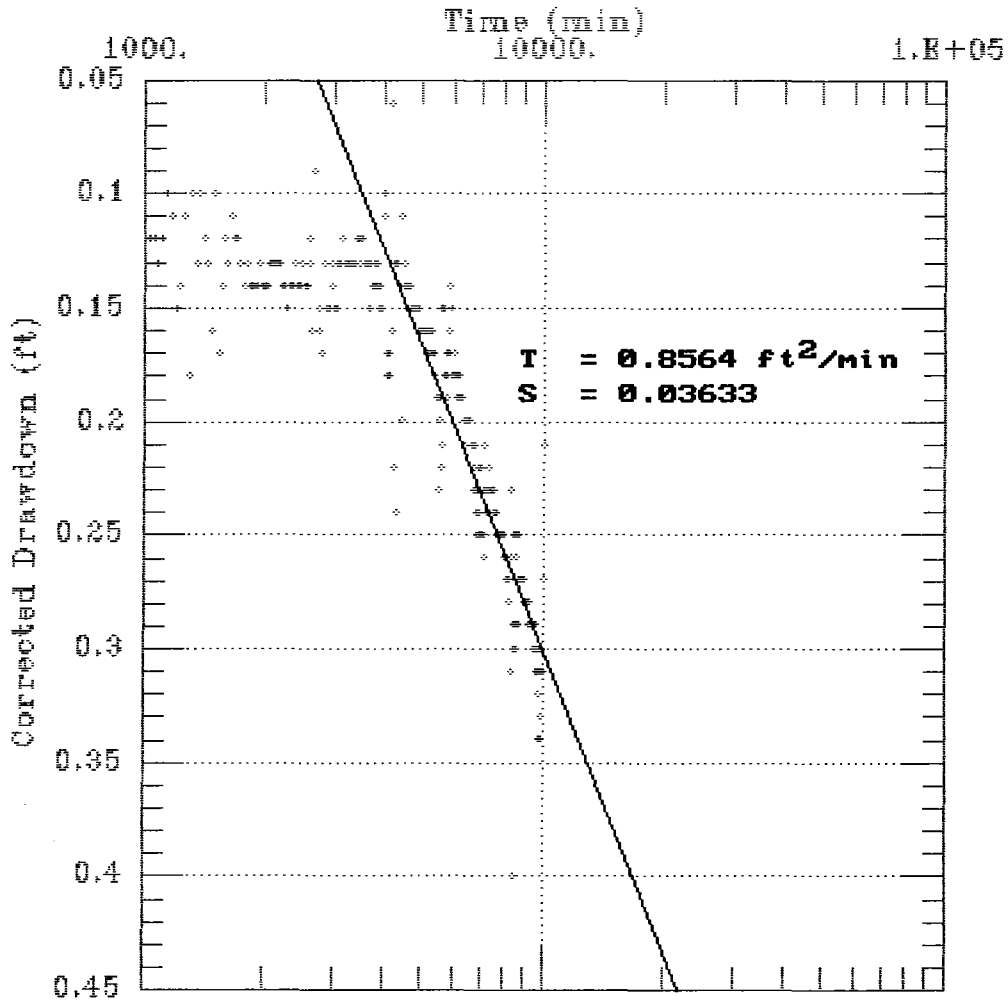
T = 8.56356E-001
S = 3.63348E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-1.447E+000	1.000E+005	7.428E-001		

IM Phase I Operations: Stage 2, PS-4



IM Phase I Operations: Stage 2, PS-4



AQTESOLV RESULTS

NSB Kings Bay
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-PS-4
(assuming Barometric Efficiency of 10%)

10/19/94 14:30:04

==

TEST DESCRIPTION

Data set........... a:at%ps-4.dat
Data set title..... IM Phase I Operations: Stage 2, PS-4

Knowns and Constants:
No. of data points.................. 375
Pumping rate........................ 2.056
Radius (distance) to obs. well...... 332.7
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	2.6808E+000
S =	5.7558E-003

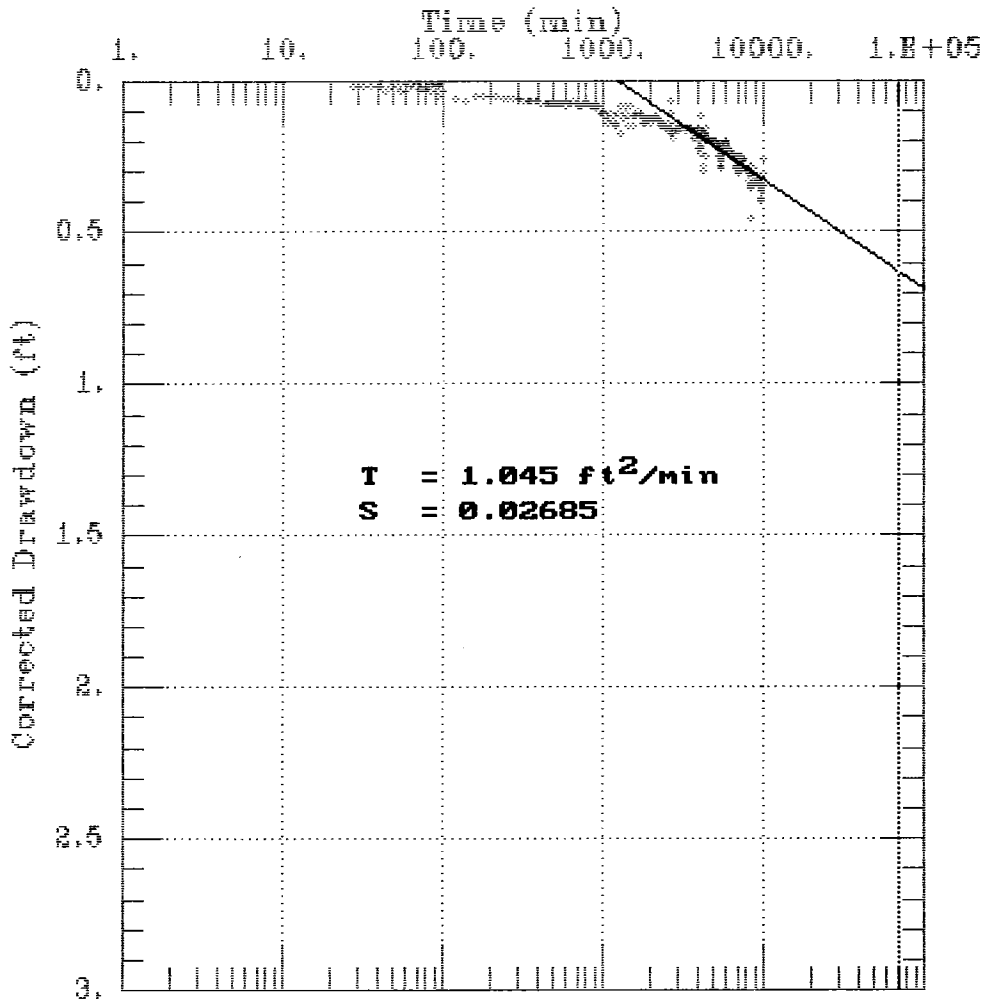
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

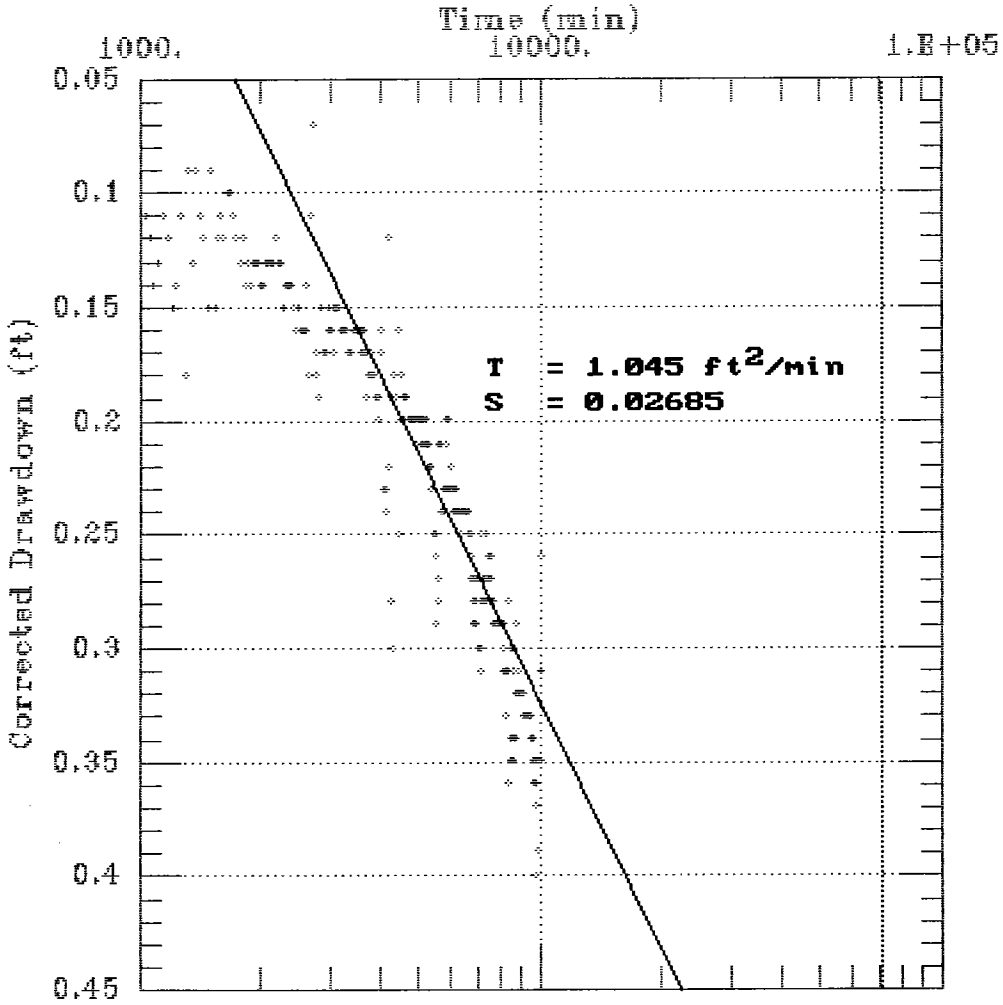
T = 1.04500E+000
S = 2.68500E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-1.110E+000	1.000E+005	6.874E-001		

IM Phase I Operations: Stage 2, PS-4



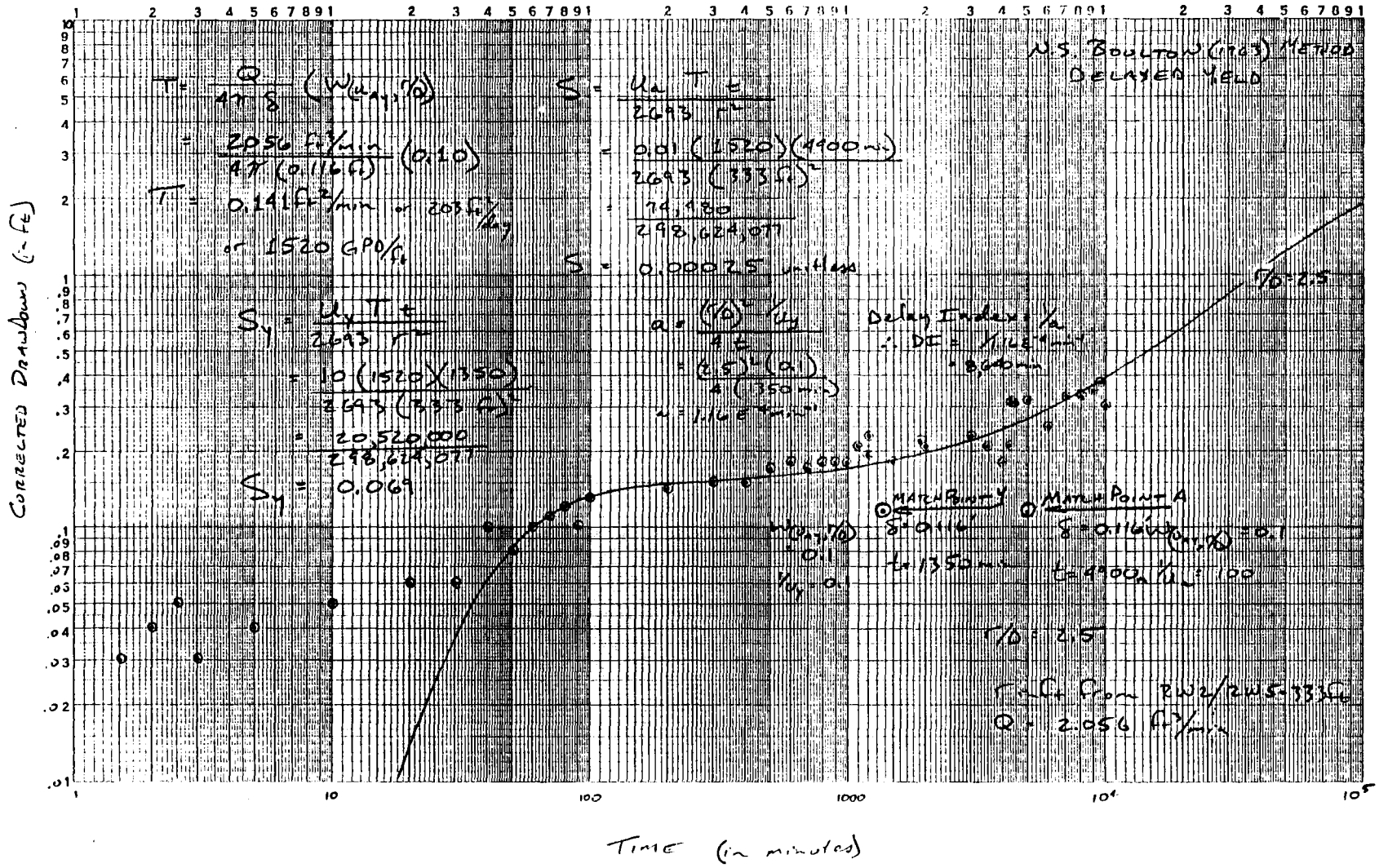
IM Phase I Operations: Stage 2, PS-4



NO. 340-L35 DIETZGEN GRAPH PAPER
LOGARITHMIC
3 CYCLES X 5 CYCLES

IM Phase I Operations:

PS-4 STAGE 2



KB [IMI-EVAL&REC]
mlv.11.94

AQTESOLV RESULTS

NSB Kings Bay
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-PS-5

10/19/94 14:34:08

TEST DESCRIPTION

Data set........... a:aps-5.dat
Data set title..... IM Phase I Operations: Stage 2, PS-5

Knowns and Constants:
- No. of data points.................. 406
- Pumping rate......................... 2.056
- Radius (distance) to obs. well...... 55.9
- Aquifer saturated thickness......... 75

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	2.2787E+000
S =	8.8157E-004

TYPE CURVE DATA

T = 9.90900E-001
S = 8.52200E-002

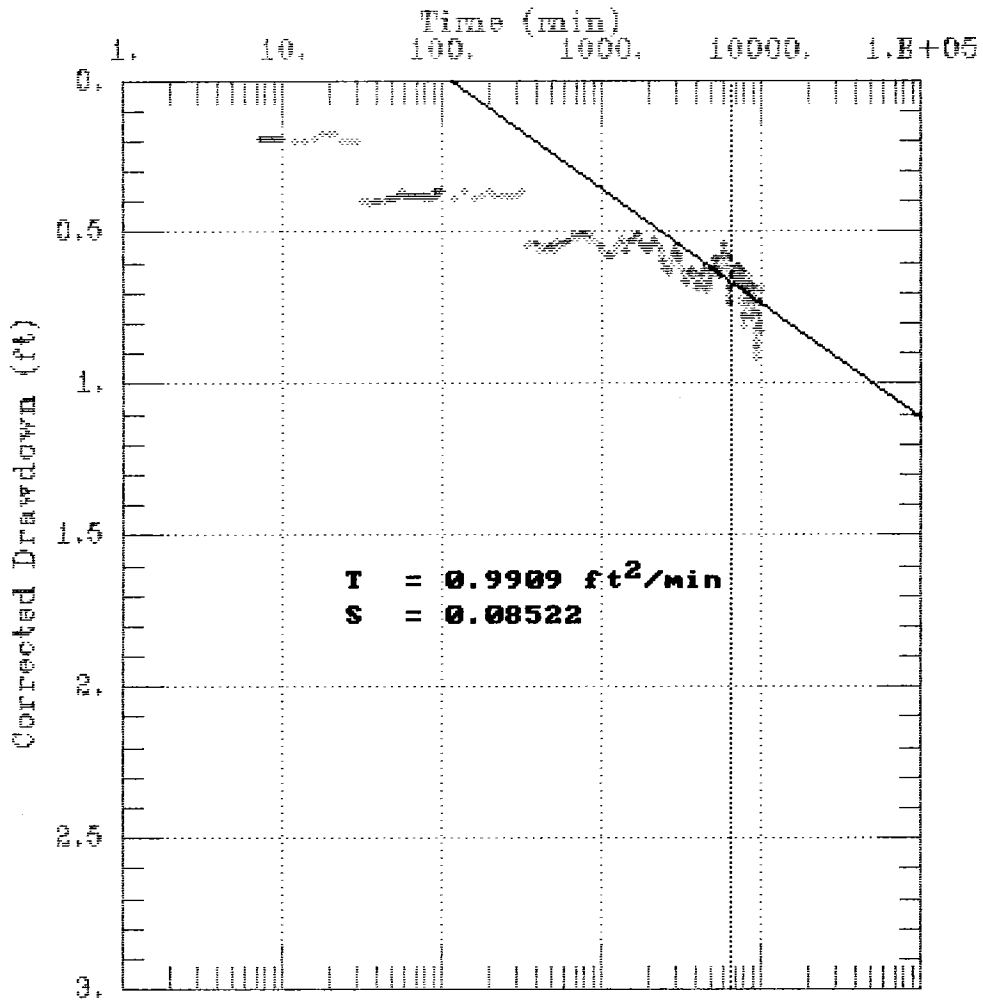
Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-7.860E-001	1.000E+005	1.119E+000		

TYPE CURVE DATA

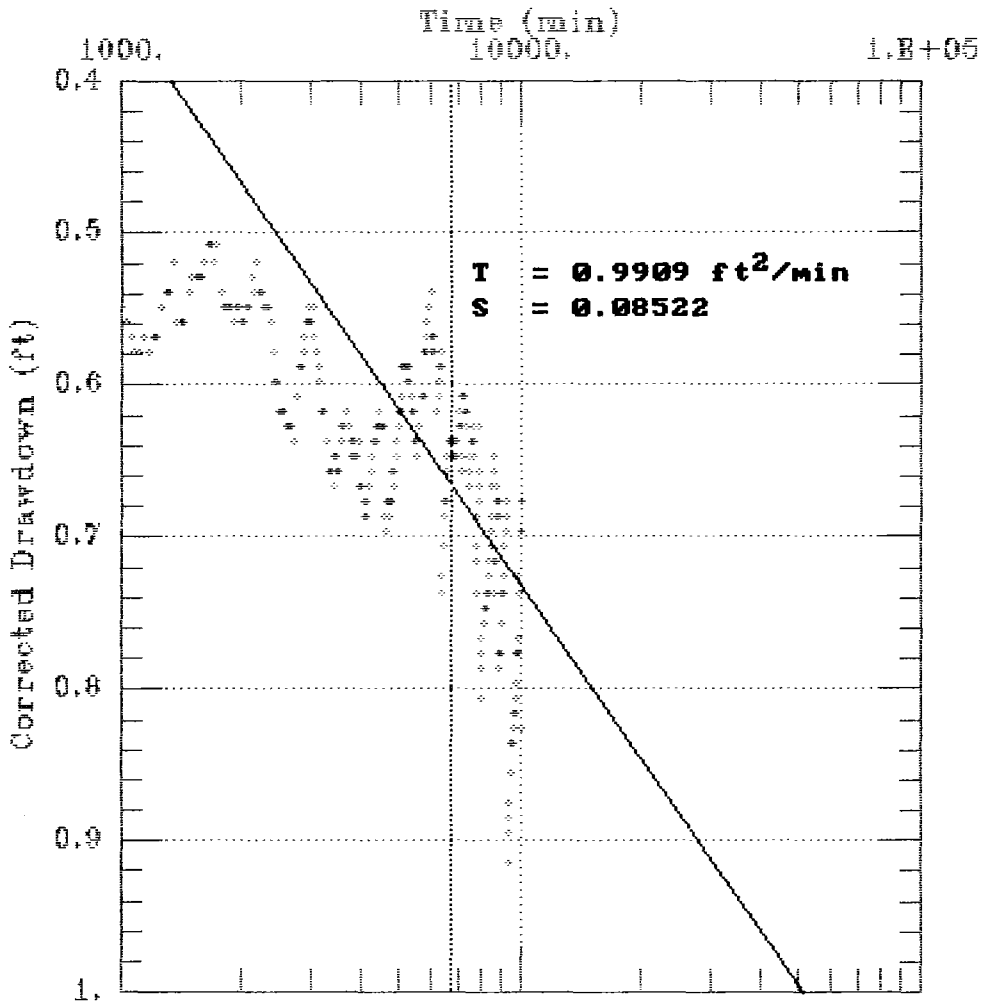
T = 9.90900E-001
S = 8.52200E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-7.860E-001	1.000E+005	1.119E+000		

IM Phase I Operations: Stage 2, PS-5



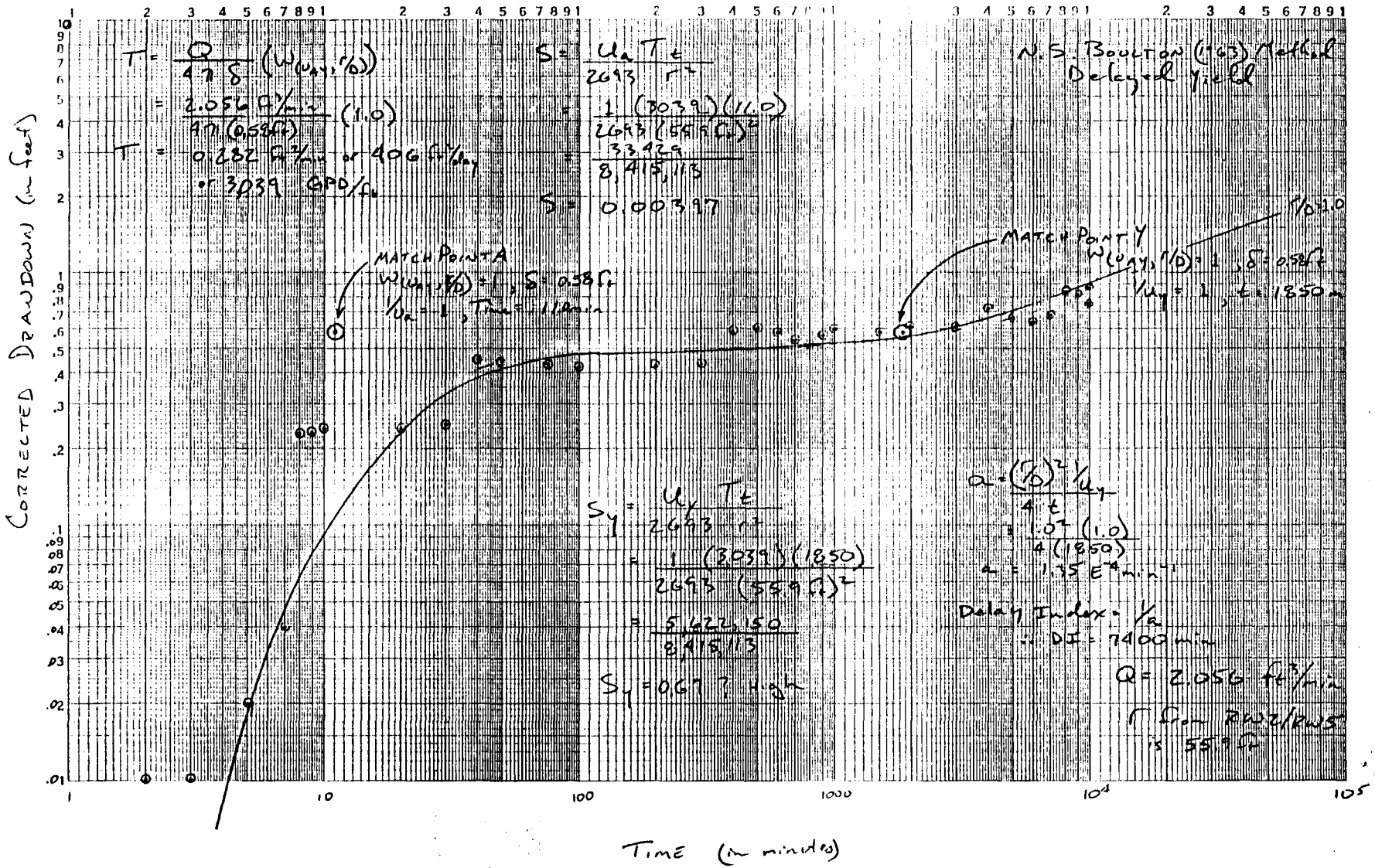
IM Phase I Operations: Stage 2, PS-5



NO. 340-L35 DIETZGEN GRAPH PAPER
LOGARITHMIC
3 CYCLES X 5 CYCLES

DIETZGEN CORPORATION
MADE IN U.S.A.

IM PHASE I Operations:
Stage 2, PS-5



G-54

KB [IM-EVAL&REC]
mlv.11.94

AQTESOLV RESULTS

NSB Kings Bay
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-PD-6

10/19/94 15:16:36

==

TEST DESCRIPTION

Data set.......... apd-6.dat
Data set title..... IM Phase I Operations: Stage 2, PD-6

Knowns and Constants:
No. of data points.................. 387
Pumping rate......................... 2.056
Radius (distance) to obs. well...... 115.1
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	3.6282E+000
S =	6.9157E-003

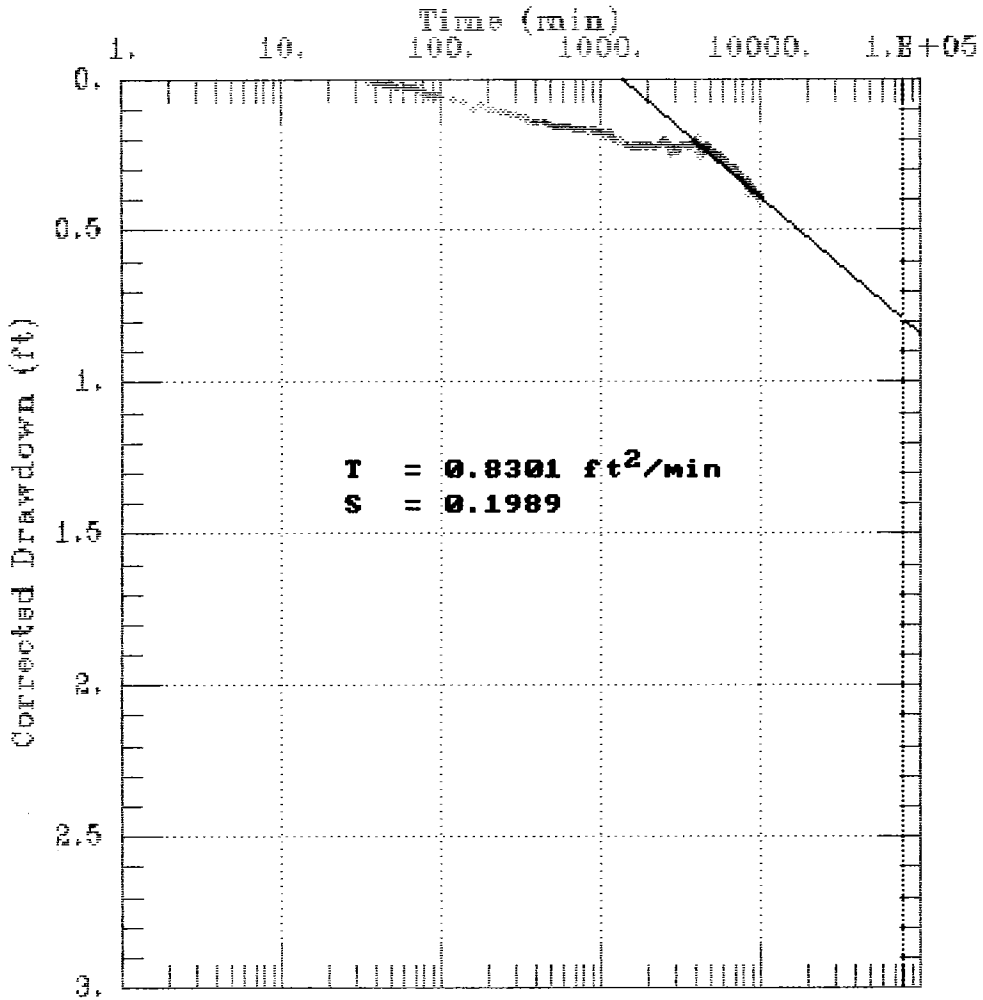
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

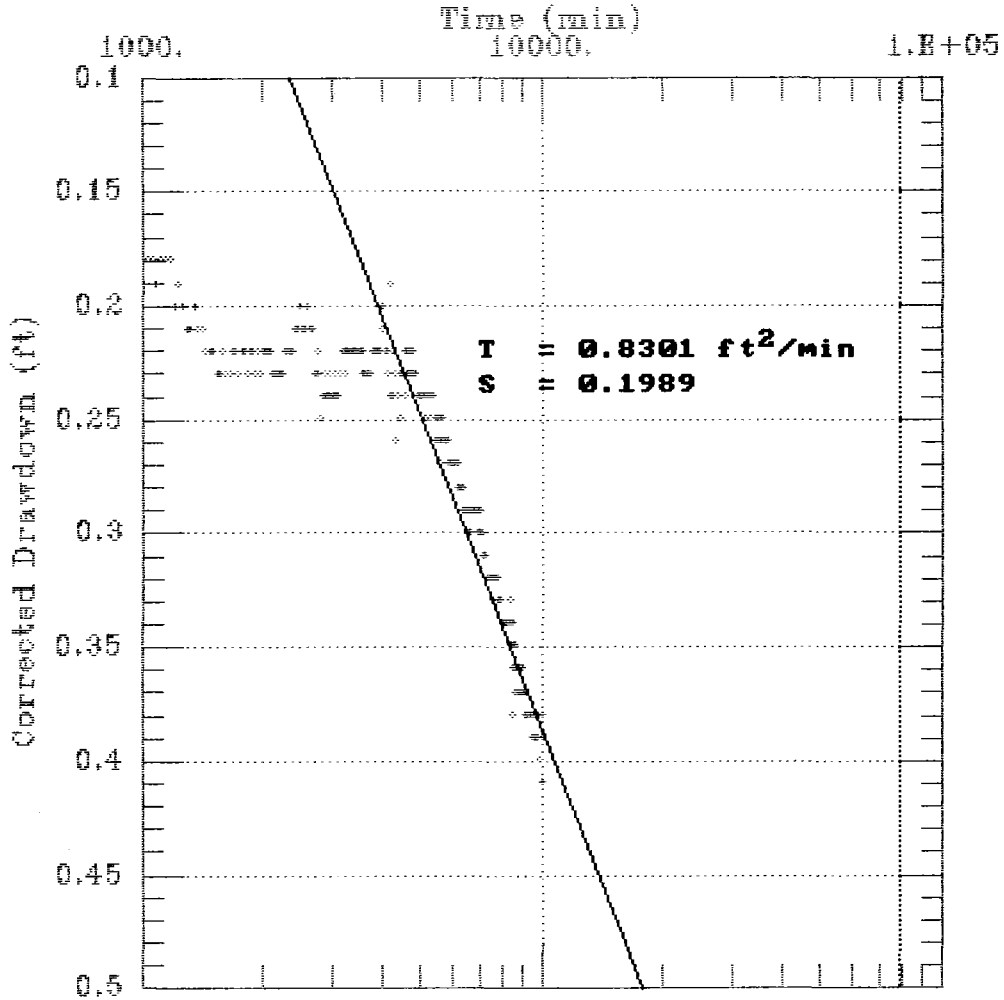
T = 8.30100E-001
S = 1.98900E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-1.417E+000	1.000E+005	8.444E-001		

IM Phase I Operations: Stage 2, PD-6



IM Phase I Operations: Stage 2, PD-6



AQTESOLV RESULTS

NSB Kings Bay
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-PS-7

Version 1.10

10/18/94 10:01:36

==

TEST DESCRIPTION

Data set........... a:aps-7.dat
Data set title..... IM Phase I Operations: Stage 2, PS-7

Knowns and Constants:
No. of data points.................. 328
Pumping rate......................... 2.056
Radius (distance) to obs. well...... 186
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	9.4058E-001
S =	2.4334E-002

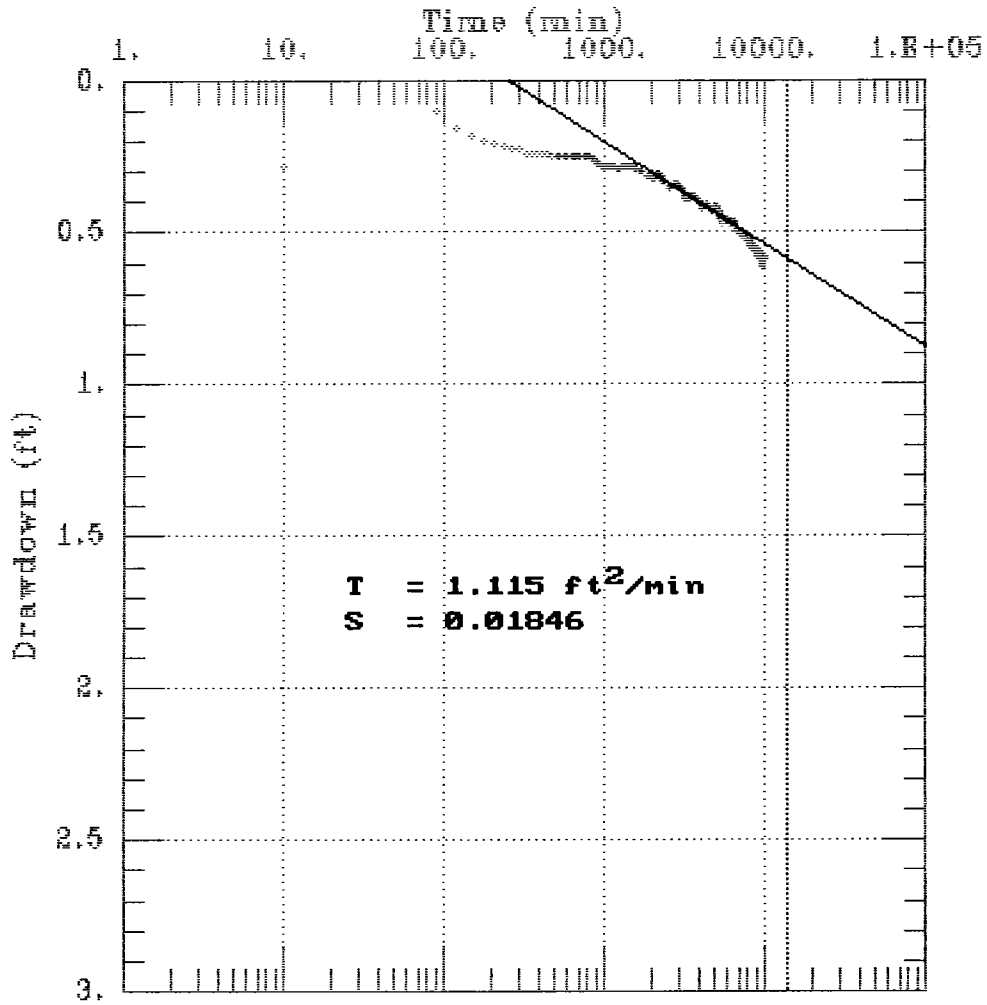
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

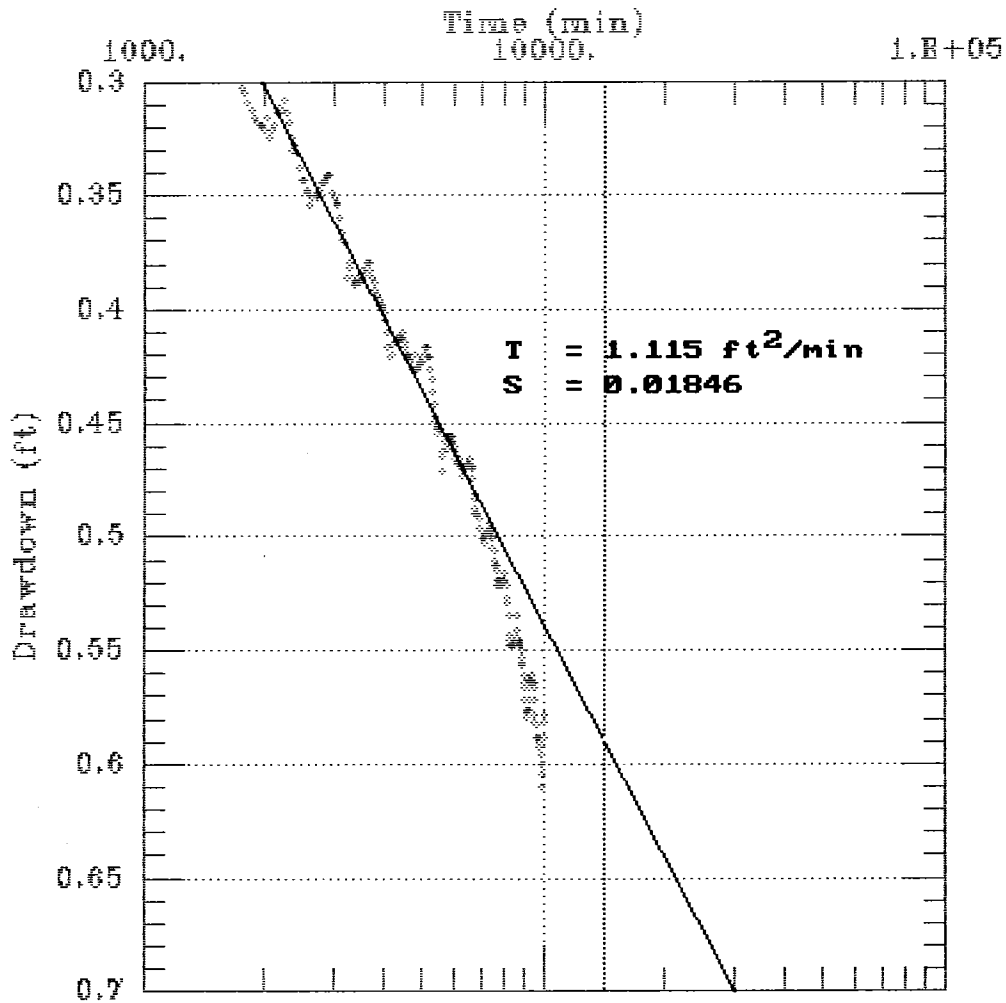
T = 1.11464E+000
S = 1.84566E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+003	2.009E-001	1.000E+005	8.819E-001		

IM Phase I Operations: Stage 2, PS-7



IM Phase I Operations: Stage 2, PS-7



AQTESOLV RESULTS
Version 1.10

NSB Kings Bay, Georgia
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-11-2

10/19/94 11:49:15

==

TEST DESCRIPTION

Data set........... a:a11-2.dat
Data set title..... IM Phase I Operations: Stage 2, 11-2

Knowns and Constants:
No. of data points.................. 150
Pumping rate......................... 2.056
Radius (distance) to obs. well...... 459.2
Aquifer saturated thickness......... 75

==

ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	1.0468E+000
S =	3.9430E-002

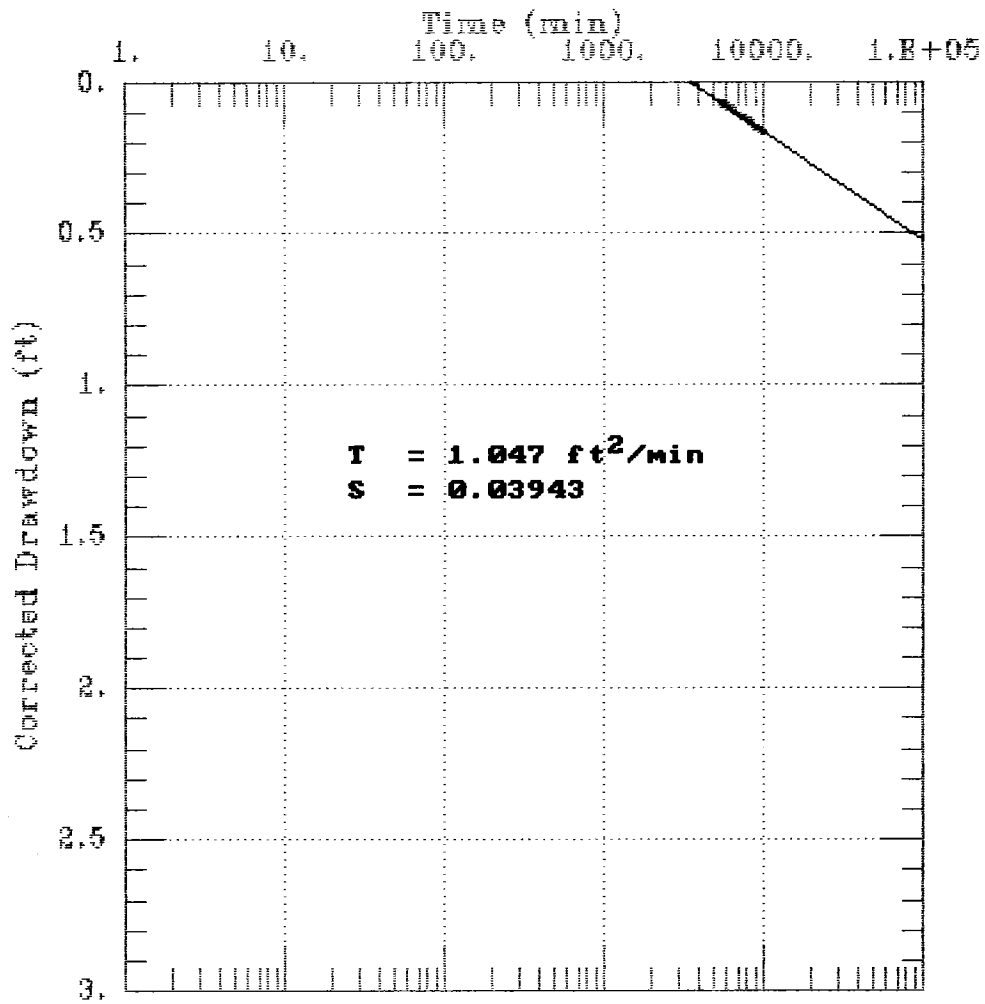
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

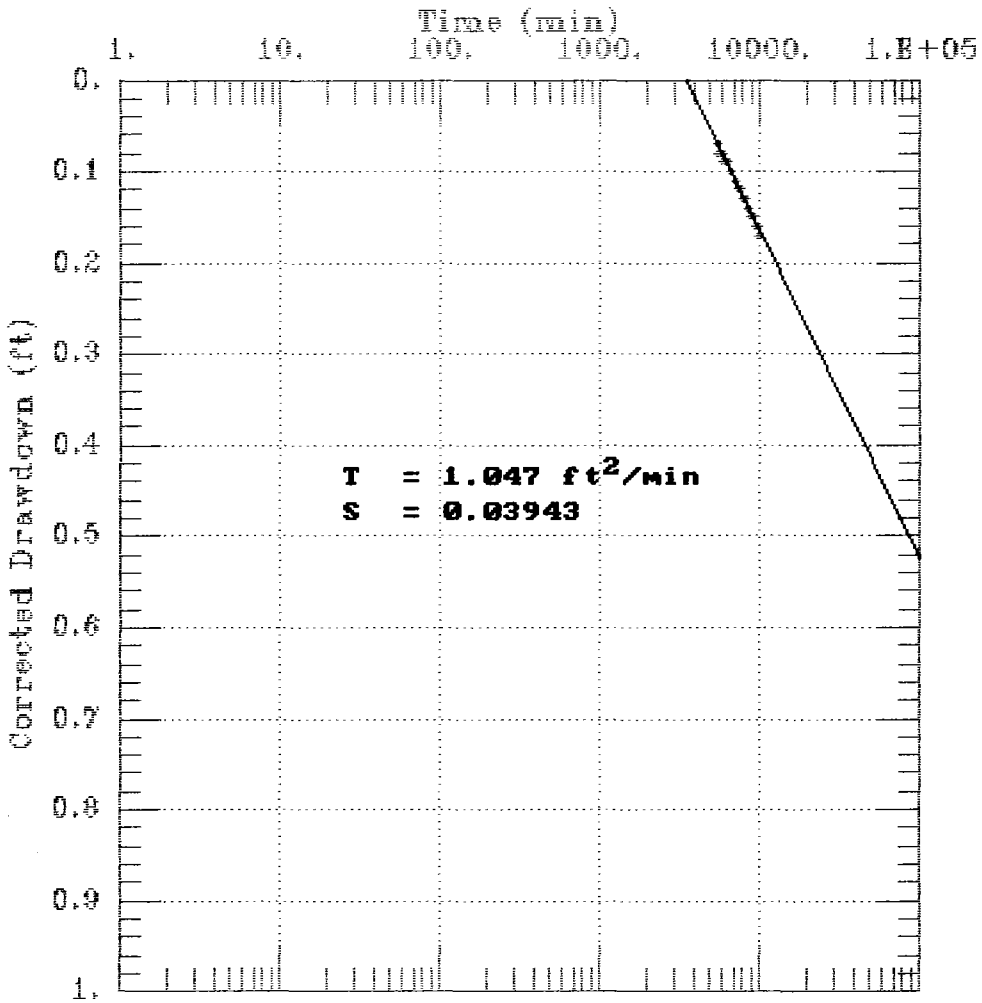
T = 1.04682E+000
S = 3.94300E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-1.267E+000	1.000E+005	5.243E-001		

IM Phase I Operations: Stage 2, 11-2



IM Phase I Operations: Stage 2, 11-2



AQTESOLV RESULTS
Version 1.10

NSB Kings Bay, Georgia
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-11-3B

10/17/94 14:46:28

==
TEST DESCRIPTION

Data set........... a:a11-3b.dat
Data set title..... IM Phase I Operations: Stage 2, 11-3B

Knowns and Constants:
No. of data points.................. 382
Pumping rate......................... 2.056
Radius (distance) to obs. well...... 272.6
Aquifer saturated thickness......... 75

==
ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==
RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	8.9502E-001
S =	3.9409E-002

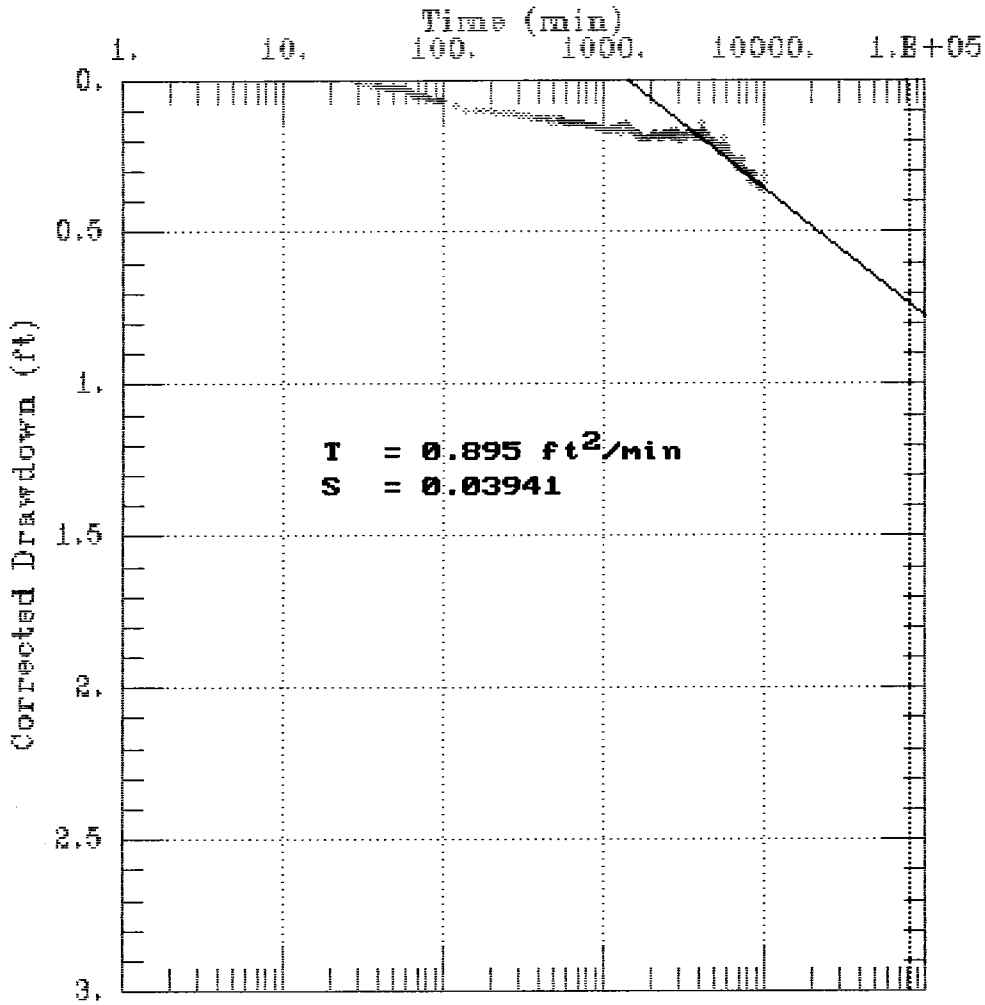
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

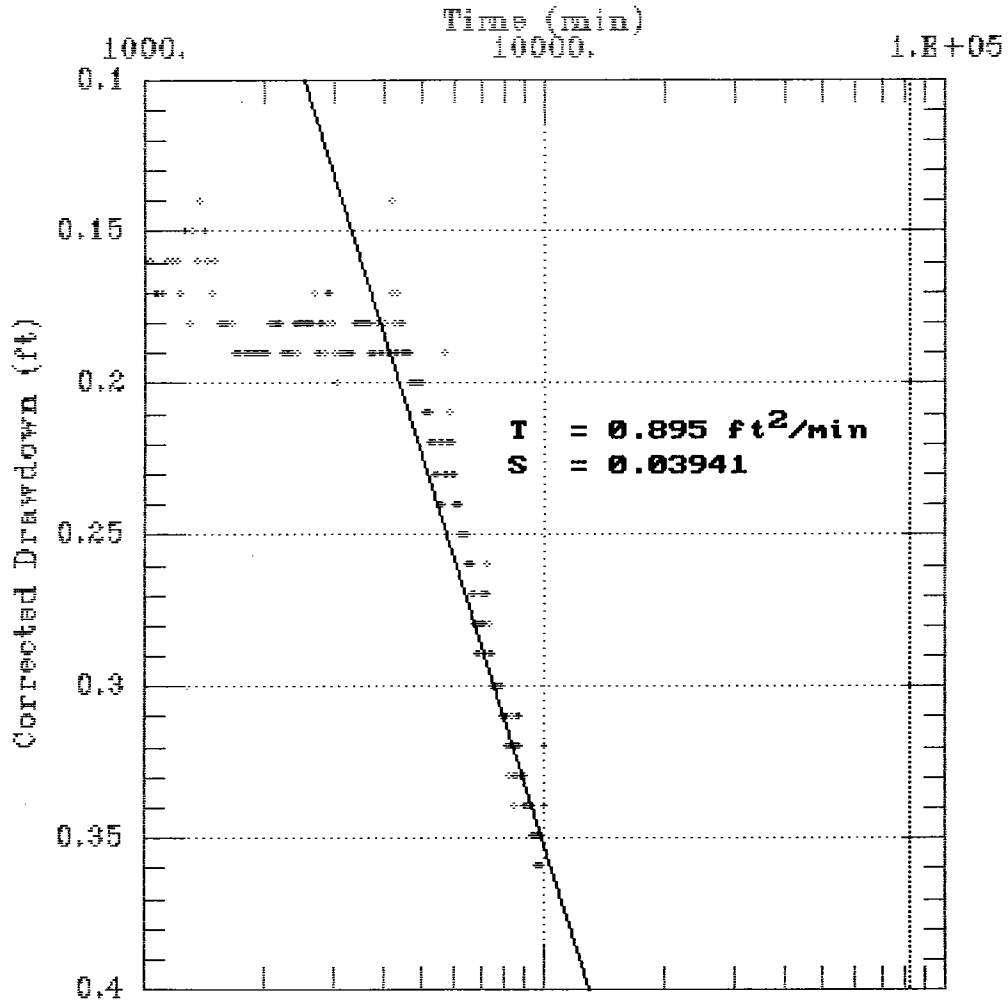
T = 8.95024E-001
S = 3.94085E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-1.320E+000	1.000E+005	7.773E-001		

IM Phase I Operations: Stage 2, 11-3B



IM Phase I Operations: Stage 2, 11-3B



AQTESOLV RESULTS
Version 1.10

NSB Kings Bay, Georgia
IM Phase I Operations: Stage 2 Aquifer Test, Monitoring Well KBA-11-10B

10/17/94 15:35:11

==
TEST DESCRIPTION

Data set.......... a:a11-10b.dat
Data set title..... IM Phase I Operations: Stage 2, 11-10B

Knowns and Constants:
No. of data points.................. 365
Pumping rate......................... 2.056
Radius (distance) to obs. well...... 406.4
Aquifer saturated thickness......... 75

==
ANALYTICAL METHOD

Cooper-Jacob (Unconfined Aquifer)

==
RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate
T = 8.6125E-001
S = 2.9813E-002

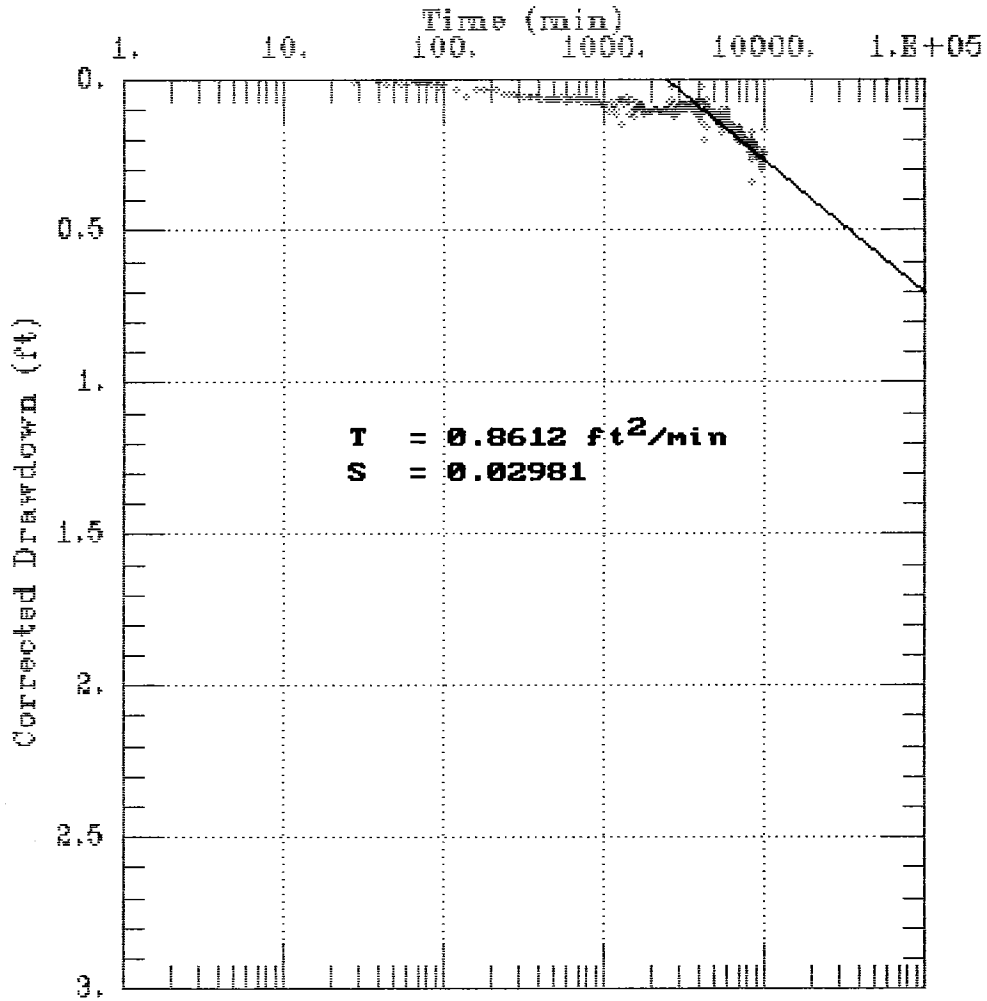
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

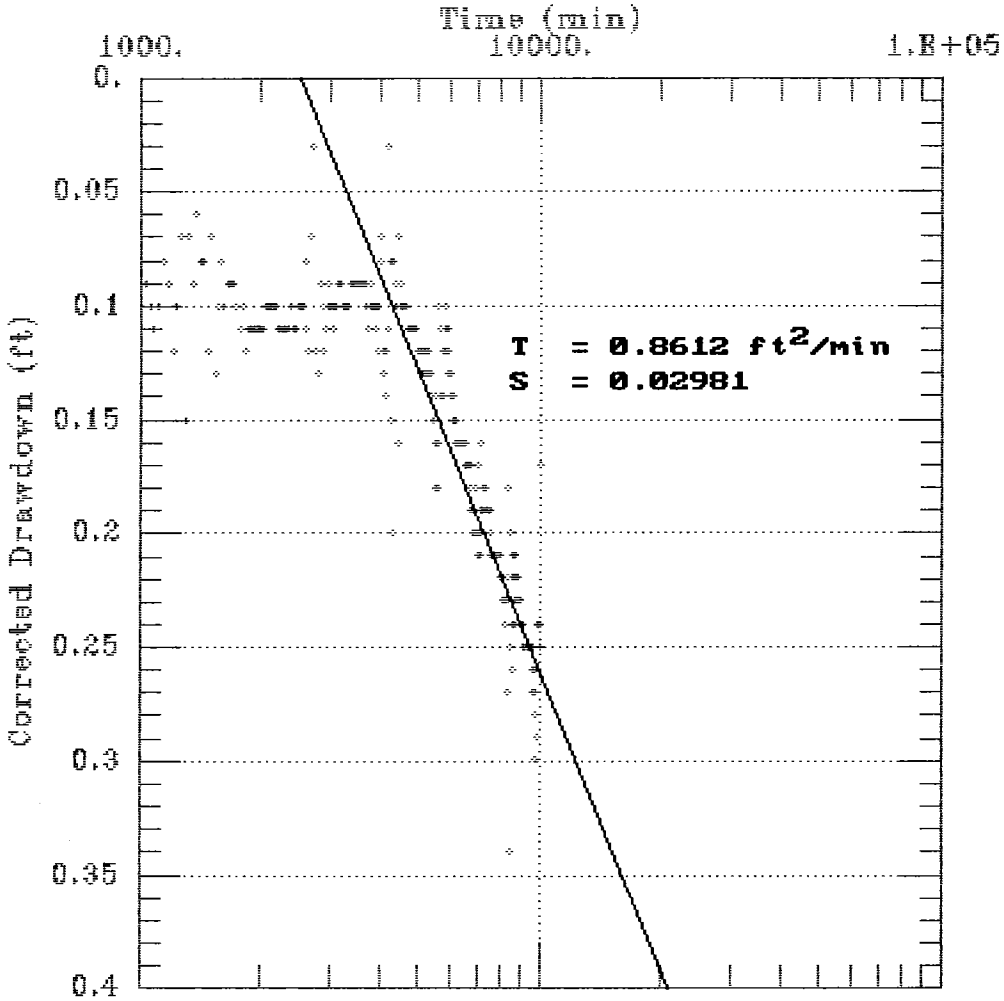
T = 8.61250E-001
S = 2.98129E-002

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E+000	-1.476E+000	1.000E+005	7.007E-001		

IM Phase I Operations: Stage 2, 11-10B



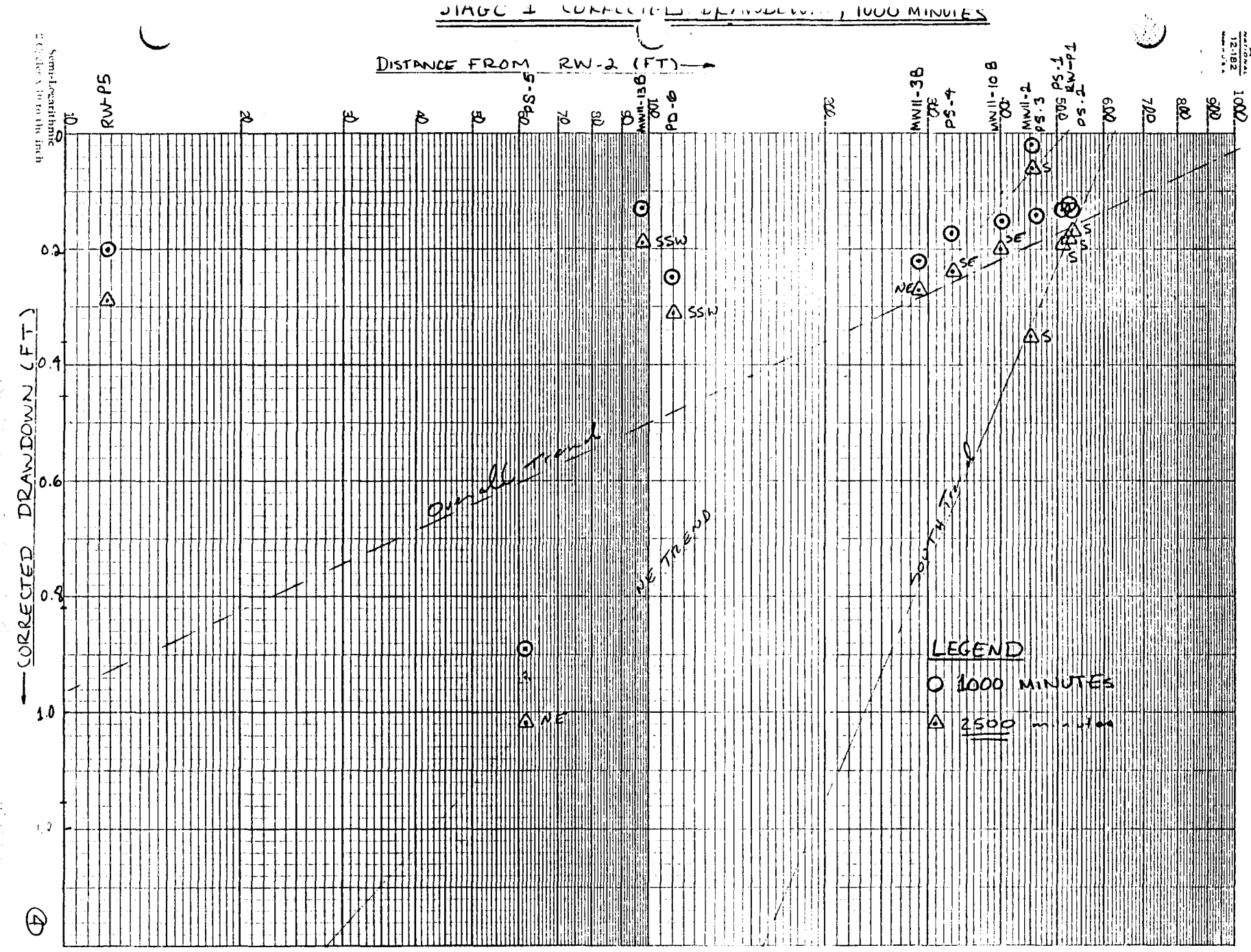
IM Phase I Operations: Stage 2, 11-10B



APPENDIX H

DISTANCE DRAWDOWN GRAPHS

STAGE 1



H-1

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PROJECT NSB Kings Bay Site 11 IM.
STAGE 1 Drawdown Data.

COMP. BY
CHK. BY

JOB NO.
DATE

Corrected Drawdown (ft)

	Well/ Piezometer	RW-P2	RW-P5	PS-5	PD-6	MW11-3B	MW11-13B	RW-P1	PS-1	PS-2	PS-3	MW11-2	MW11-10B	PS-4
	Distance to RW-2	0.3	11.8	61.8	109.2	278.4	97.5	523.7	512.9	528.4	460.1	453.6	402.9	330.3
	Pumping Duration (min)													
○	1000	14.33	.20	.89	.25	.22	.13	.12	.13	.13	.14	0.02	.15	.17
□	5200	14.96	.05	.64	0	0	0	0	0	0	0	0	0	.05
▽	9550	15.38	.18	.64	0	0	0	0	0	0	.07	0	0.01	.35
◇	18300							.14	.12	.18	.32	6.90	0.19	.48
△	2500	14.88	0.29	1.02	0.31	0.27	0.19	0.18	0.19	0.17	0.35	0.06	0.20	0.24

anomalous

FORM 00.01 REV. 5/93

KB IIM I-EVAL&REC
mlv.11.94

ABB Environmental Services, Inc.

PROJECT	COMP. BY	JOB NO.
IM Phase I Operations STAGE 1	KDS	8503.05
	CHK. BY MJB 10/5/94	DATE 9-13-94

For a fixed time, $t = \underline{2500 \text{ min}}$

$$T = \frac{2.30\,Q}{2\pi\,\Delta s / \log r - \log r} \qquad S = \frac{2.25\,T t}{r_o^2}$$

① Overall Trend Analysis:

$$T = \frac{2.30\,(1.37\,ft^3/min)}{2\pi\,(0.50ft - 0.03ft)/(\log_{1000} - \log_{100})}$$

$$= \frac{3.15\,ft^3/min}{2\pi\,(0.47ft/(3-2))}$$

$$= \frac{3.15\,ft^3/min}{2.95\,ft}$$

$T = 1.07\,ft^2/min$ or $1{,}540.8\,ft^2/day$

$$S = \frac{2.25\,(1.07\,ft^2/min)(2500\,min)}{(1150\,ft)^2}$$

$$= \frac{6019.\,ft^2}{1{,}322{,}500\,ft^2}$$

$S = 0.0046$ (unitless)

$K = \frac{T}{b}$, where $b = 75\,ft$

$$= \frac{1541\,ft^2/day}{75\,ft}$$

$K = 21.\,ft/day$.... or $20.55\,ft/d \cdot \frac{30.48\,cm/ft}{86400\,sec/day} = 7.2 \times 10^{-3}\,cm/sec$

PROJECT	COMP. BY	JOB NO.
IM Phase I Operations STAGE 1	KDS	8503.05
	CHK. BY MJB 12/5/94	DATE 9-13-94

② Southerly Trend Analysis

$$T = \frac{2.30\,(1.37\ ft^3/min)}{2\pi\,(0.04 + 1.15)(\log_{600} - \log_{200})}$$

$$= \frac{3.15\ ft^3/min}{2\pi \cdot 1.11\ ft/(2.78 - 2.30)}$$

$$= \frac{3.15\ ft^3/min}{14.53\ ft}$$

$$T = 0.22\ ft^2/min \quad or \quad 312.2\ ft^2/day$$

$$S = \frac{2.25\,(0.22\ ft^2/min)\,(2500\ min)}{}$$

$$= \frac{1{,}237.5\ ft^2}{(625\ ft)^2}$$

$$= \frac{1{,}237.5\ ft^2}{390{,}625}$$

$$= 0.0032 \quad (unitless)$$

$$K = T/b, \quad where\ b = 75\ ft$$

$$K = \frac{312\ ft^2/day}{75\ ft}$$

$$K = 4\ ft/day \ldots \quad or \quad 4.16\ ft/day \cdot \frac{30.48\ cm/ft}{86400\ sec/day} = 1.5 \times 10^{-3}\ cm/sec$$

②

FORM 00.01 REV. 5/93

ABB Environmental Services, Inc.

KB [IM I-EVAL&REC]__
mlv.11.94

PROJECT	COMP. BY	JOB NO.
IM Phase I Operations STAGE 1	KDS	8503.05
	CHK. BY RMB 10/5/94	DATE 9-13.94

③ NE Trend

$$T = \frac{2.30\ (1.37\ ft^3/min)}{2\pi\ (\qquad / (\log 500 - \log 50)}$$

$$= \frac{3.15\ ft^3/min}{2\pi\ (1.125' - 0.02')(2.70 - 1.70)}$$

$$= \frac{3.15\ ft^3/min}{2\pi\ (1.11 ft/1)}$$

$$T = 0.45\ ft^2/min \quad or \quad 653.3\ ft^2/day$$

$$S = \frac{2.25\ (0.45\ ft^2/min)(2500\ min)}{(520\ ft)^2}$$

$$= \frac{2,531.3\ ft^2}{270,400\ ft^2}$$

$$S = 0.0094 \quad (unitless)$$

$$K = T/b, \text{ where } b = 75\ ft$$

$$= \frac{653\ ft^2/day}{75\ ft}$$

$$K = 9\ ft/day \ \ldots \text{ or } 8.71\ ft/day \cdot \frac{30.48\ cm/ft}{86400\ sec/day}$$

$$= 3.1 \times 10^{-3}\ cm/sec$$

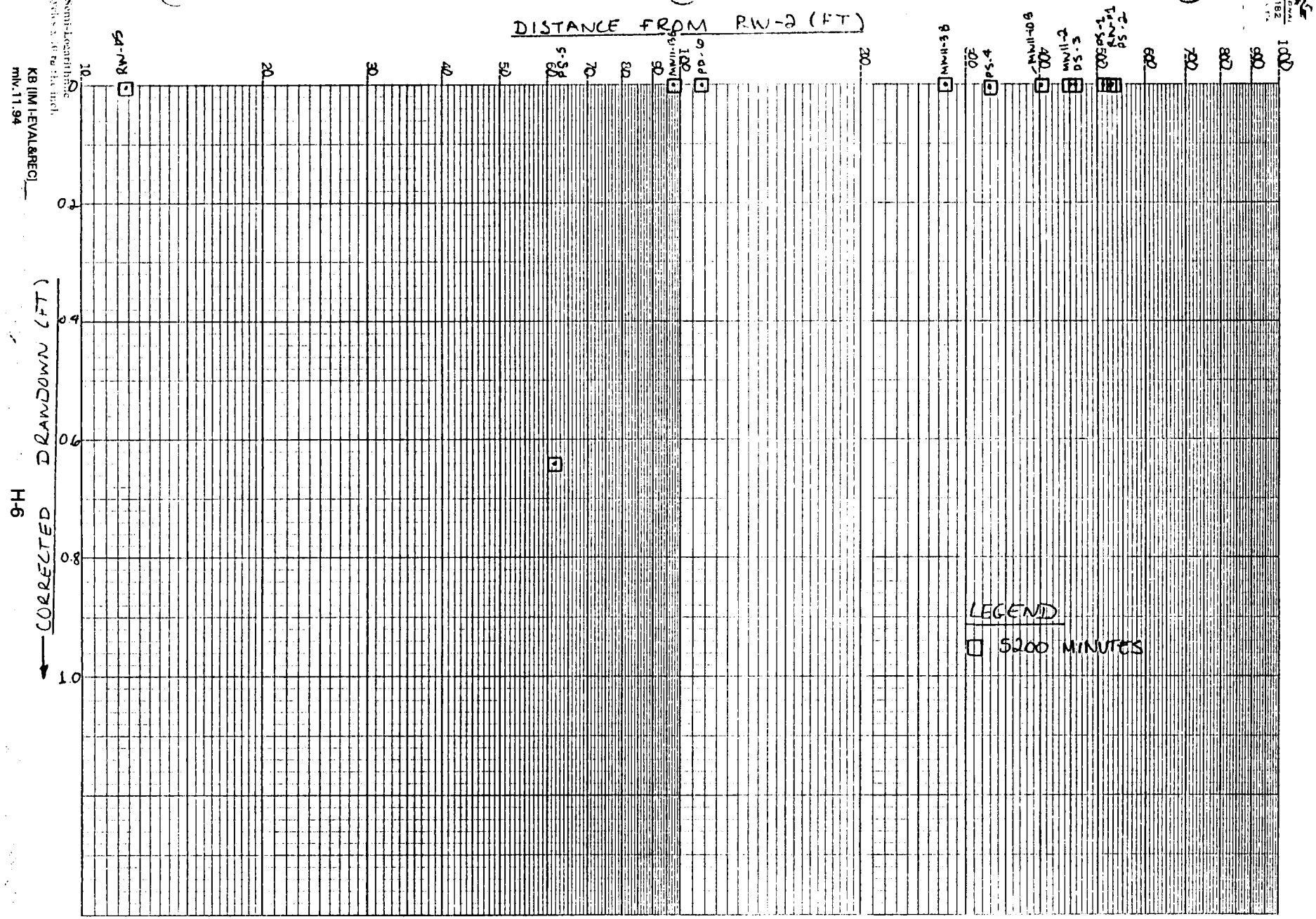
FORM 00.01 REV. 5/93

ABB Environmental Services, Inc.

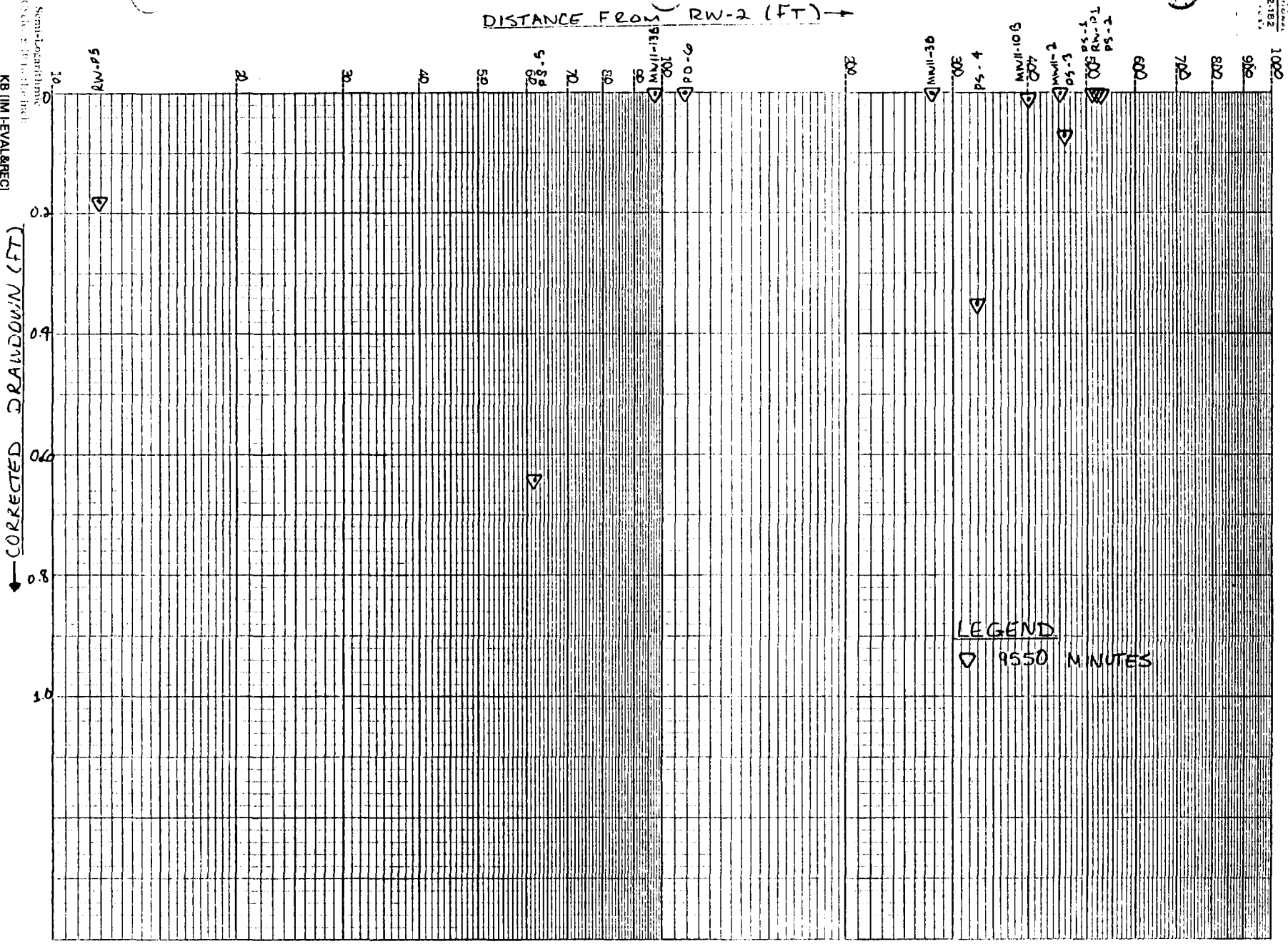
③

KB [IM I-EVAL&REC]__
mlv.11.94

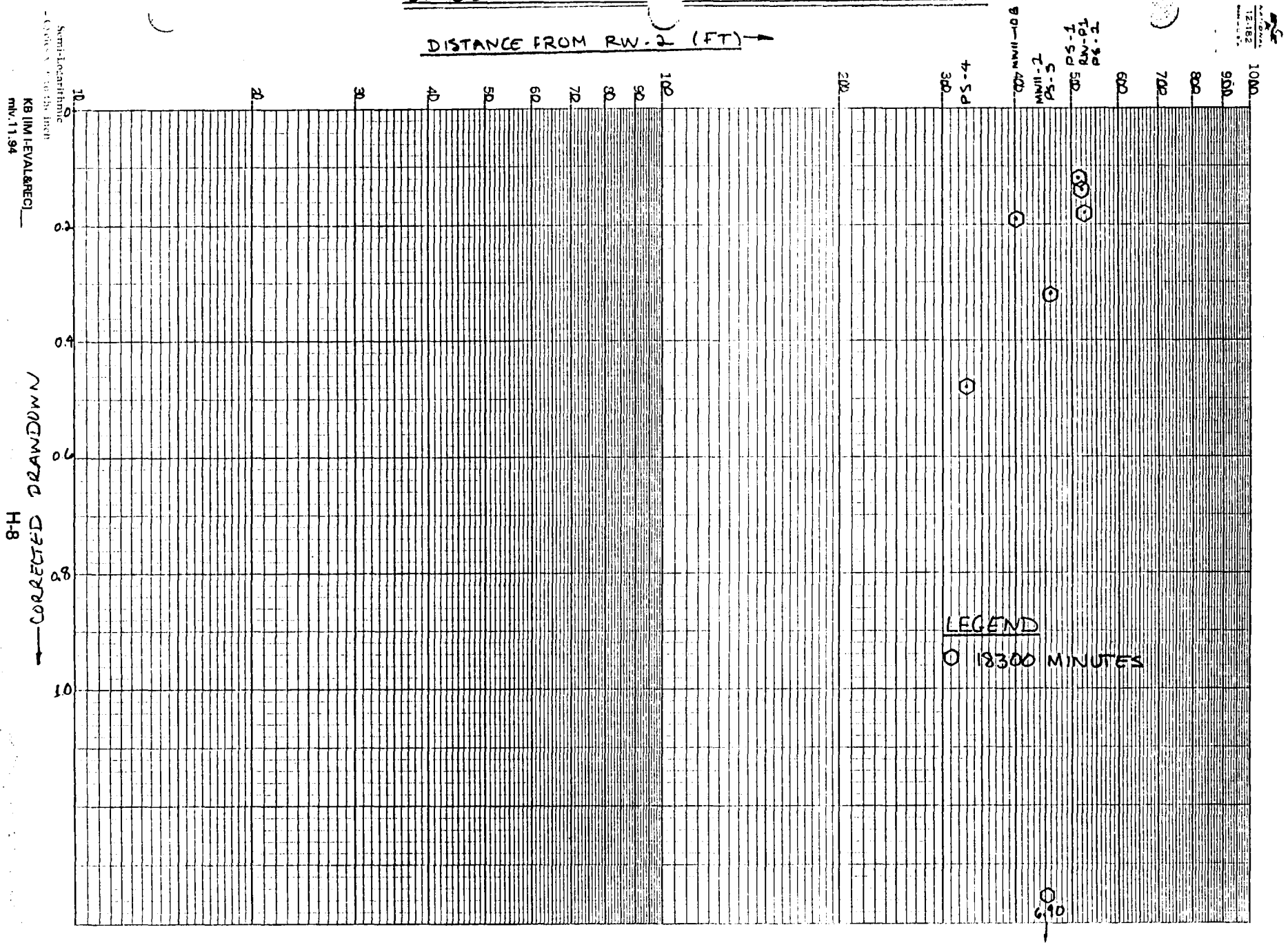
STAGE 1 CORRECTED DRAWDOWN, 5200 MINUTES



STAGE 1 CORRECTED DRAWDOWN, 9550 MINUTES

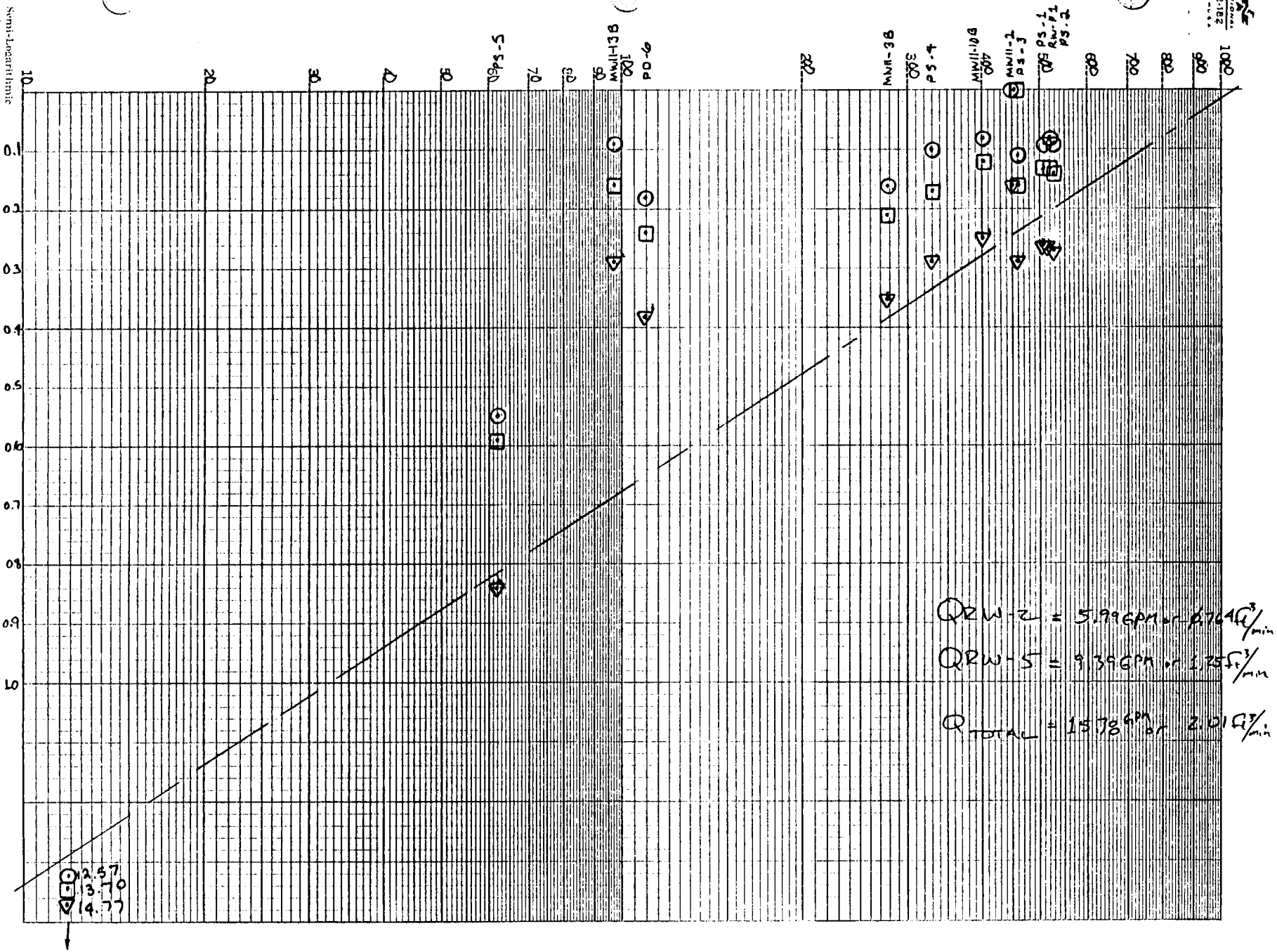


STAGE 1 CORRECTED DRAWDOWN, 18300 MINUTES



STAGE 2

STAGE 2 CORRECTED DRAWDOWN, REF. RW-2



PROJECT NSB Kings Bay IM Phase I STAGE 2 - Aquifer Characterization	COMP. BY MJB	JOB NO. 8503.05
	CHK. BY KS	DATE 10/6/94

$$T = \frac{70\,Q}{\Delta(h_o - h)}$$

$$S = \frac{T\,t}{640\,r_o^2}$$

$$K = \frac{T}{b}$$

where T, transmissivity [ft^2/day]

Q, flow rate [gpm]

$\Delta(h - h_o)$, drawdown per log cycle of distance [ft]

S, storativity (unitless)

t, time since pumping began (min)

r_o, radial distance to zero drawdown. [ft]

b, thickness of confined aquifer [ft]

K, hydraulic conductivity [ft/day] [cm/sec]

Referencing RW-2:

$$T = \frac{70\,(15.38)}{(.94 - .28)} = \underline{1631\ ft^2/day}$$ 1625 ft^2/day

$$S = \frac{1631\,(9550)}{640\,(1075)^2} = \underline{0.021}$$

$$K = \frac{1631\ ft^2/day}{75\ ft} = 21.75\ ft/day$$

$$= \left(21.75\ \frac{ft}{day}\right)\left(\frac{30.48\ cm}{ft}\right)\left(\frac{1\ day}{86400\ sec}\right) = 0.0077\ cm/sec$$

$$= \underline{7.7 \times 10^{-3}\ cm/sec}$$

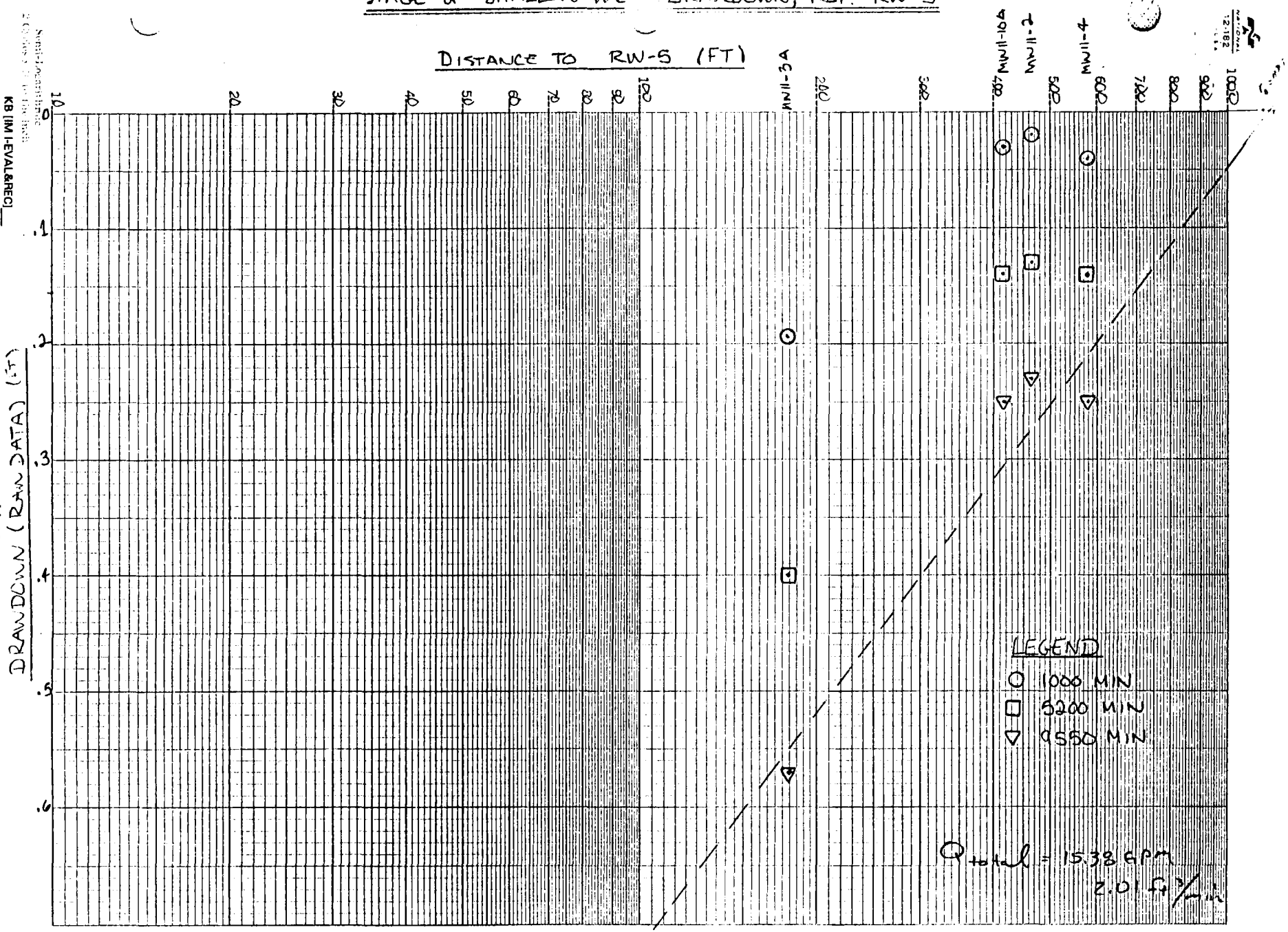
use: $Q = Q_{RW-2} + Q_{RW-5} = 5.99 + 9.396 = 15.38$ gpm

$\Delta(h_o - h) = (.94 - .28)$ from 40'-400'

t = 9550 min

r_o = 1075 ft

STAGE 2 SHALLOW WELL DRAWDOWN, REF. RW-5



KB IIM I-EVAL&REC
mlv.11.94

PROJECT	COMP. BY	JOB NO.
NSB Kings Bay IM Phase I STAGE 2 - Aquifer Characterization	MJB	8903.05
	CHK. BY	DATE 10/6/94

$$T = \frac{70\,Q}{\Delta(h_o - h)}$$

$$S = \frac{T\,t}{640\,r_o^2}$$

$$K = \frac{T}{b}$$

T, transmissivity [ft^2/day]

Q, flow rate [gpm]

$\Delta(h_o - h)$, drawdown per log cycle of distance from pumping well [ft]

S, Storativity (unitless)

t, time since start of pumping [min]

r_o, radial distance of zero drawdown [ft]

b, thickness of confined aquifer [ft]

K, hydraulic conductivity [ft/day] [cm/sec]

Referencing RW-5:

$$T = \frac{70(15.38)}{.73}$$

$$= \underline{1475\ ft^2/day}$$

$$S = \frac{(1475)(9550)}{640\,(1175)^2}$$

$$= \underline{0.016}$$

$$K = \frac{1475}{75} = 19.67\ ft/day$$

$$= \left(19.67\,\frac{ft}{day}\right)\left(\frac{30.48\,cm}{1\,ft}\right)\left(\frac{1\,day}{86400\,sec}\right) = 0.0069\ cm/sec$$

$$= \underline{6.9 \times 10^{-3}\ cm/sec}$$

$Q = Q_{RW\text{-}2} + Q_{RW\text{-}5} = 5.99 + 9.39$
$= 15.38$ gpm

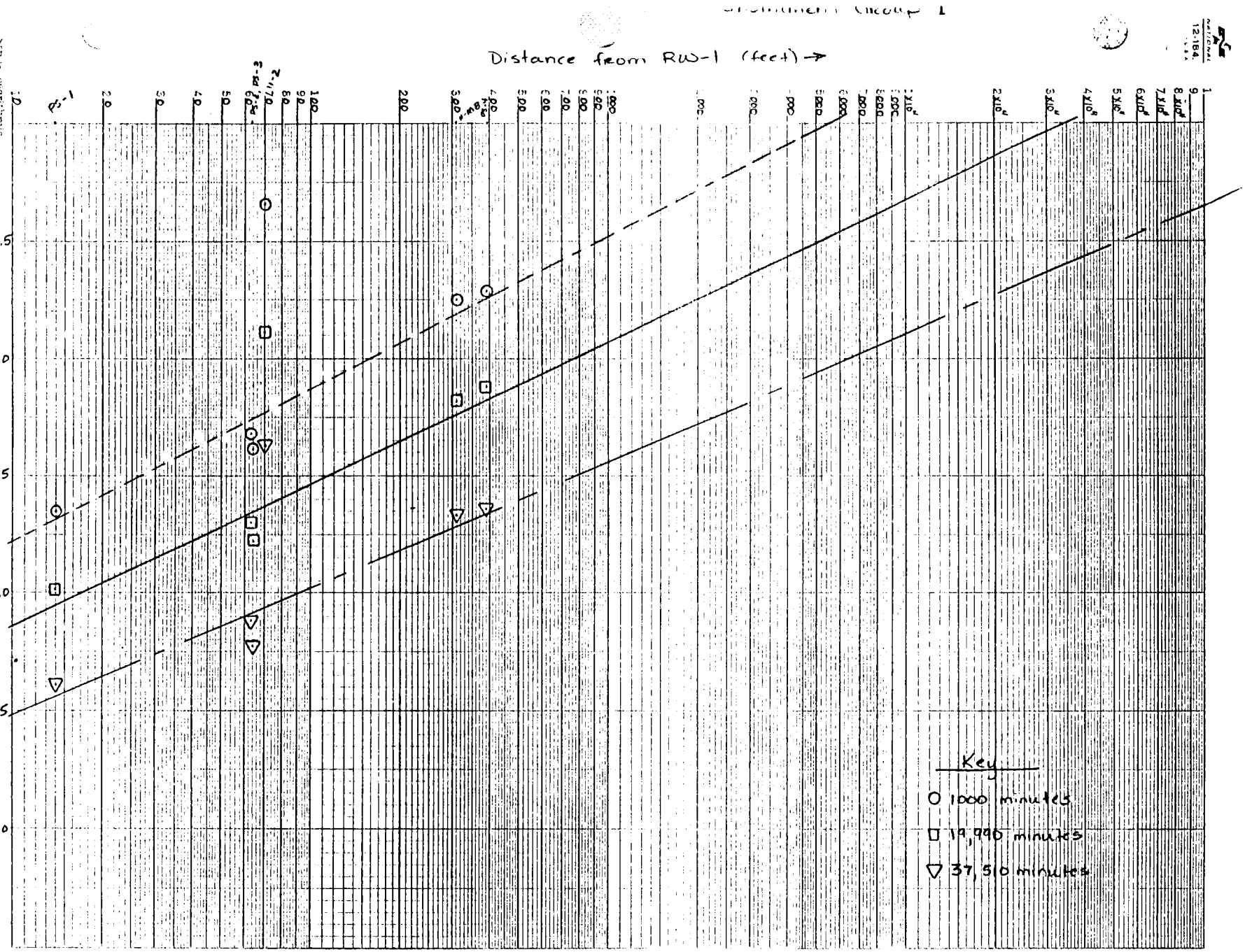
$t = 9550$ min

$\Delta(h_o - h) = 2(52 - .155) = .73$ (use 2x 200-700 ft)

$r_o = 1175$ ft

$b = 75$

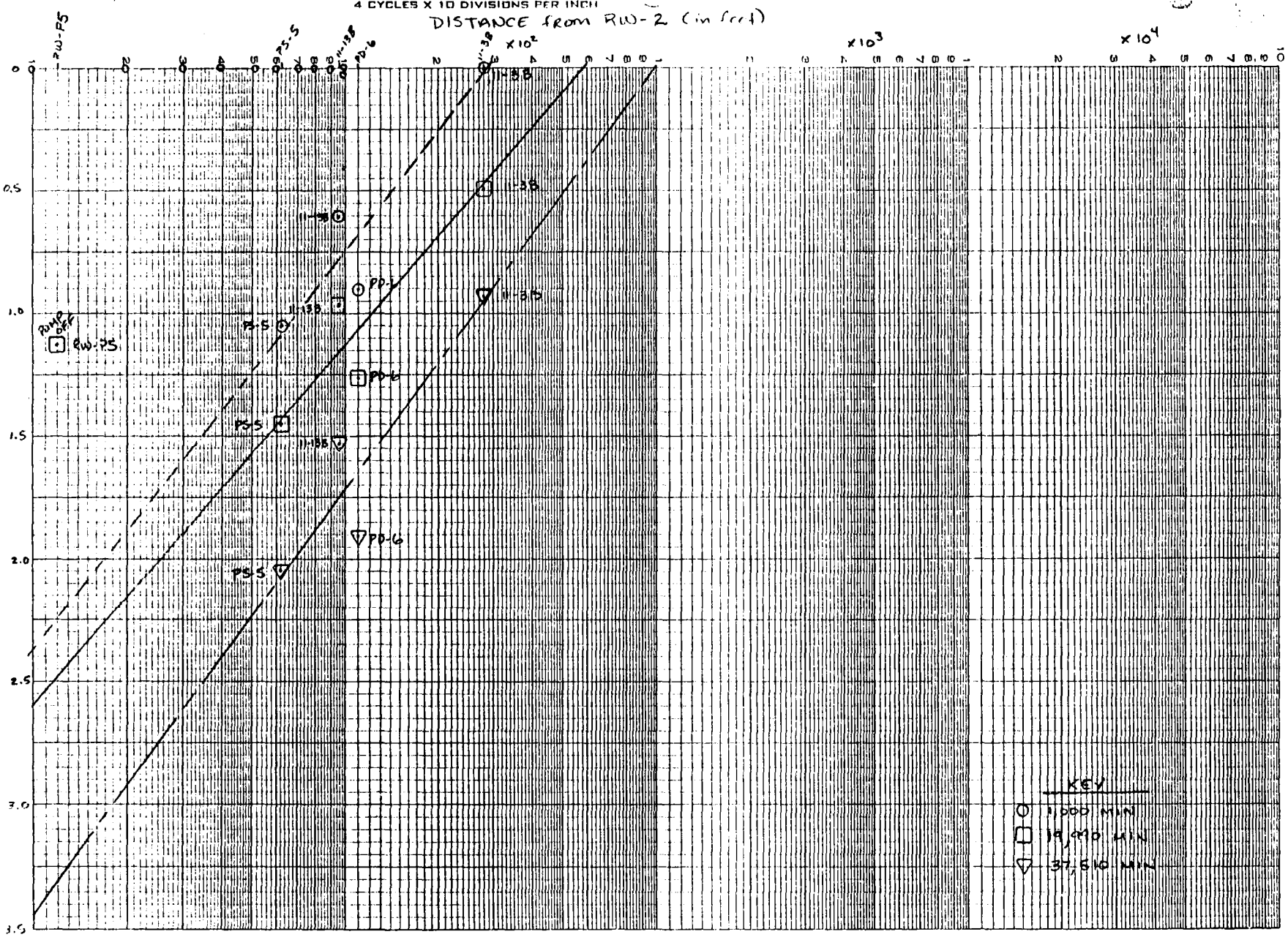
STAGE 3


Distance from RW-1 (feet) →
← Corrected drawdown (feet)
0.5
1.0
1.5
2.0
2.5
3.0
Key
1000 minutes
19,990 minutes
37,510 minutes

NO. 340-L410 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
4 CYCLES X 10 DIVISIONS PER INCH

DIETZGEN CORPORATION
MADE IN U.S.A.

8/18/94

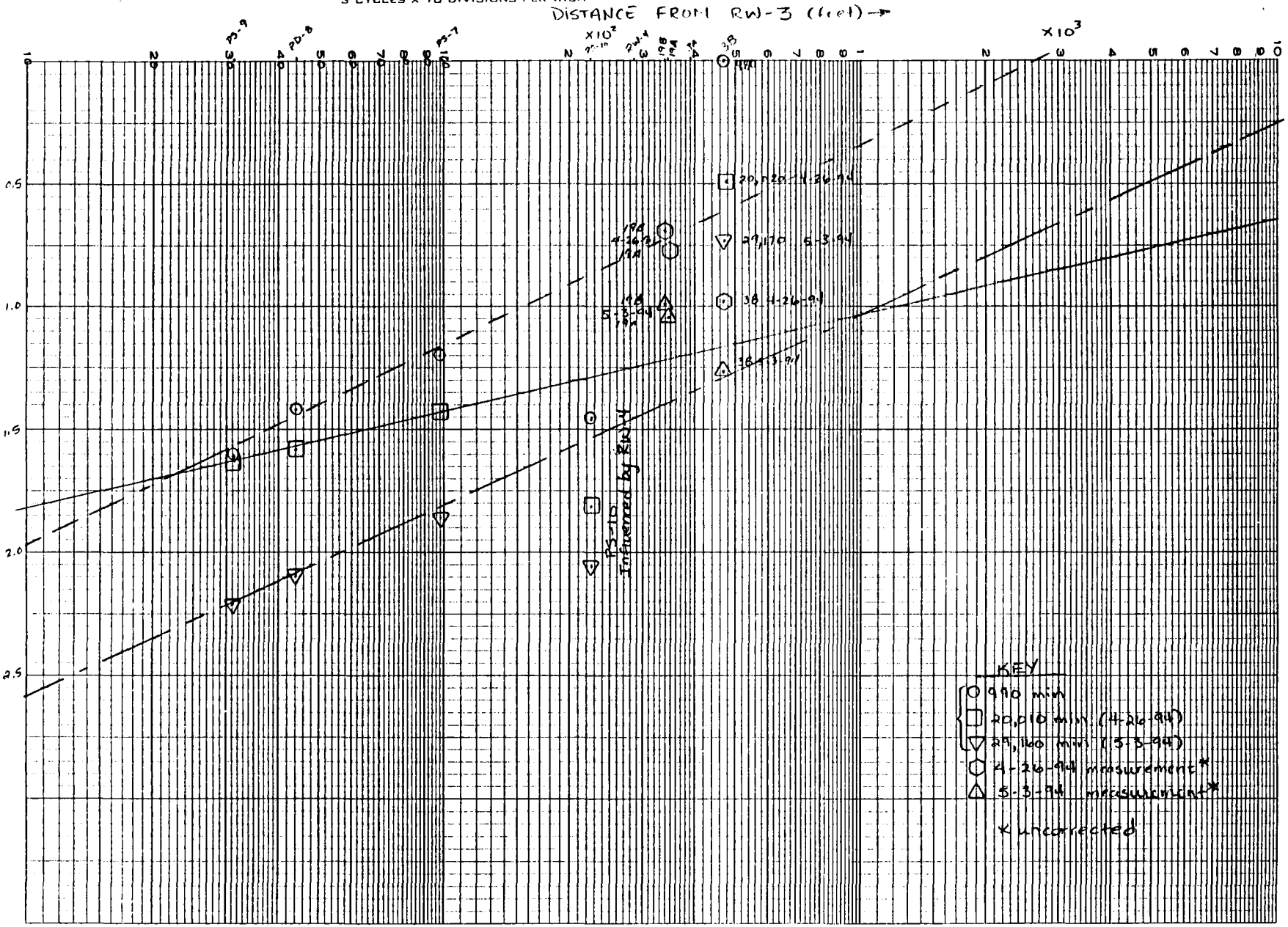


STAGE 3

KB [IM I-EVAL&REC]
mlv.11.94

NO. 341-L310 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
3 CYCLES X 10 DIVISIONS PER INCH

DIETZGEN CORPORATION
MADE IN U.S.A.

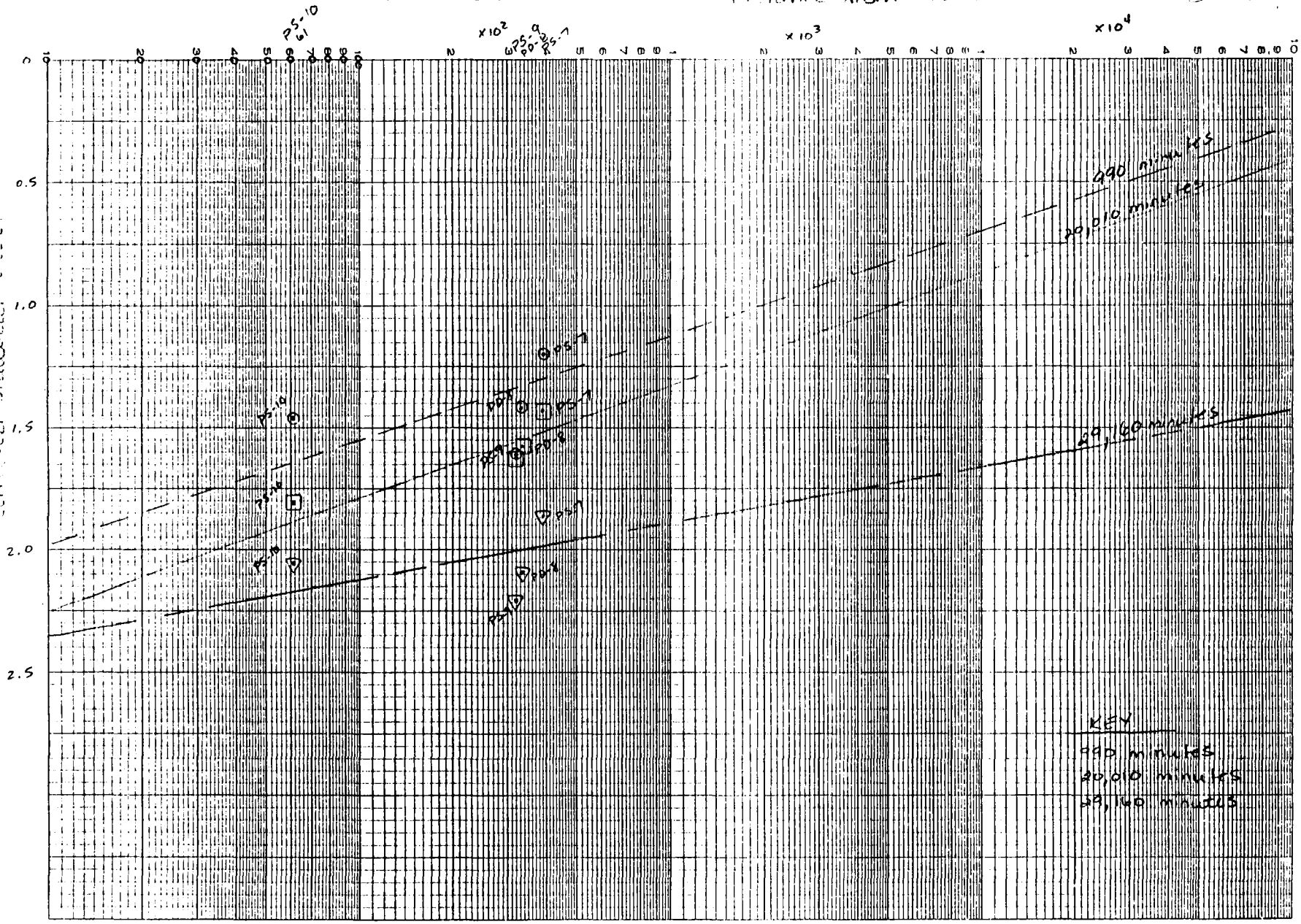


STAGE 3

KB [IM I-EVAL&REC]
mlv.11.94

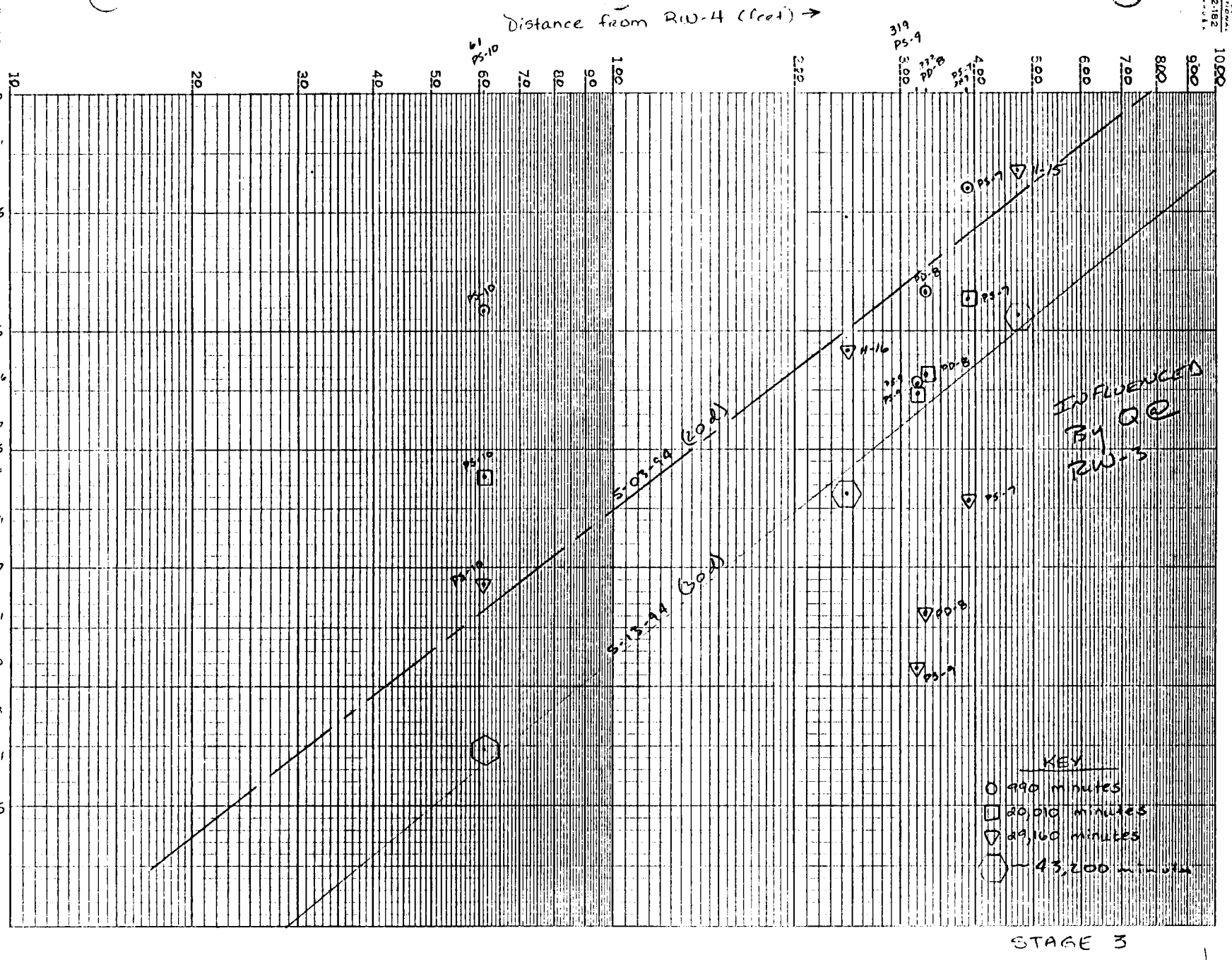
NO. 340-L410 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
4 CYCLES X 10 DIVISIONS PER INCH

DIETZGEN CORPORATION
MADE IN U.S.A.



STAGE 3

KB IIM I-EVAL&REC
mv.11.94



KB [IM I-EVAL&REC]
mlv.11.94

APPENDIX I

FLOWPATH™ MODEL ITERATIONS

FILE:

CAMDNNAT.xxx

```
*************************************************************
*                ECHOPRINT                                  *
*                                                           *
*                FLOWPATH                                   *
*                 version 5.0                               *
*                                                           *
* FLOWPATH was written by Thomas Franz and Nilson Guiguer   *
*                                                           *
*************************************************************
*                                                           *
*              Copyright 1989-1994                          *
*                     by                                    *
*           Waterloo Hydrogeologic Software                 *
*              200 Candlewood Crescent                      *
*                Waterloo, Ontario                          *
*                 N2L 5Y9, Canada                           *
*                                                           *
*                ph (519) 746-1798                          *
*                                                           *
*************************************************************
```

IM Phase I Activities: Evaluation and Recommendations Report

Capture Zone Model - Old Camden County Landfill, Site 11

Natural Groundwater Flow (No Pumping)

FLOWPATH logbook for data set : CAMDNNAT

Unit System : English units [ft/gal/d]

***** GRID PARAMETERS *****

Number of x-grid lines : 30

Number of y-grid lines : 30

Grid coordinates (x-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003
13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
16	1.501E+0003
17	1.551E+0003

18	1.600E+0003
19	1.649E+0003
20	1.699E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

Grid coordinates (y-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003
13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
16	1.501E+0003
17	1.551E+0003
18	1.600E+0003
19	1.649E+0003
20	1.701E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

***** WELL PARAMETERS *****

Number of wells : **0**

***** CONSTRAINED HEAD NODES *****

Number of constant head nodes : 38

No.	i	j	X [ft]	Y [ft]	const. head [ft]
1	30	29	3.000E+0003	2.802E+0003	2.900E+0001
2	30	2	3.000E+0003	1.982E+0002	2.875E+0001
3	1	7	0.000E+0000	9.977E+0002	2.010E+0001
4	30	18	3.000E+0003	1.599E+0003	2.950E+0001
5	1	14	0.000E+0000	1.401E+0003	1.925E+0001
6	30	16	3.000E+0003	1.503E+0003	2.950E+0001
7	1	10	0.000E+0000	1.203E+0003	1.950E+0001
8	30	14	3.000E+0003	1.401E+0003	2.950E+0001
9	1	16	0.000E+0000	1.503E+0003	1.900E+0001
10	30	12	3.000E+0003	1.298E+0003	2.950E+0001
11	1	8	0.000E+0000	1.100E+0003	1.950E+0001
12	30	10	3.000E+0003	1.203E+0003	2.925E+0001
13	1	18	0.000E+0000	1.599E+0003	1.875E+0001
14	30	20	3.000E+0003	1.702E+0003	2.950E+0001
15	1	12	0.000E+0000	1.298E+0003	1.925E+0001
16	30	22	3.000E+0003	1.797E+0003	2.950E+0001
17	30	8	3.000E+0003	1.100E+0003	2.925E+0001
18	30	6	3.000E+0003	9.021E+0002	2.925E+0001
19	1	20	0.000E+0000	1.702E+0003	1.850E+0001
20	30	24	3.000E+0003	2.002E+0003	2.925E+0001
21	1	23	0.000E+0000	1.900E+0003	1.875E+0001
22	30	4	3.000E+0003	6.014E+0002	2.900E+0001
23	1	22	0.000E+0000	1.797E+0003	1.850E+0001
24	30	26	3.000E+0003	2.200E+0003	2.925E+0001
25	30	27	3.000E+0003	2.399E+0003	2.925E+0001
26	30	3	3.000E+0003	4.032E+0002	2.900E+0001
27	30	28	3.000E+0003	2.597E+0003	2.925E+0001
28	1	29	0.000E+0000	2.802E+0003	1.825E+0001
29	1	28	0.000E+0000	2.597E+0003	1.825E+0001
30	1	27	0.000E+0000	2.399E+0003	1.825E+0001
31	1	26	0.000E+0000	2.200E+0003	1.850E+0001
32	1	25	0.000E+0000	2.098E+0003	1.850E+0001
33	1	24	0.000E+0000	2.002E+0003	1.850E+0001
34	1	2	0.000E+0000	1.982E+0002	1.970E+0001
35	1	3	0.000E+0000	4.032E+0002	1.950E+0001
36	1	4	0.000E+0000	6.014E+0002	1.925E+0001
37	1	5	0.000E+0000	7.995E+0002	1.975E+0001
38	1	6	0.000E+0000	9.021E+0002	2.010E+0001

***** SPECIFIED FLUX NODES *****

Number of flux nodes : 0

***** SURFACE WATER BODIES *****

Number of surface water body nodes : 0

***** AQUIFER PROPERTIES *****

Number of different material properties : 7

No.	Kxx [ft/d]	Kyy [ft/d]	Porosity [-]

1	1.720E+0001	1.720E+0001	2.500E-0001	(default)
2	1.720E+0001	1.720E+0001	2.500E-0001	
3	1.720E+0001	1.720E+0001	2.500E-0001	
4	1.720E+0001	1.720E+0001	2.500E-0001	
5	1.720E+0001	1.720E+0001	2.500E-0001	
6	2.140E+0001	2.140E+0001	2.700E-0001	
7	1.640E+0001	1.640E+0001	2.200E-0001	

********** DISTRIBUTION OF AQUIFER MATERIAL PROPERTIES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	1
28	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	1	1
27	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
26	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
25	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3
24	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	7	7
22	1	1	1	1	1	1	1	7	7	7	7	7	7	7	7	7	7
21	1	1	1	7	7	7	7	6	6	6	6	6	7	7	7	7	7
20	1	1	1	7	6	6	6	6	6	6	6	6	6	6	7	7	7
19	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	7	7
18	7	7	7	7	6	6	6	6	6	6	6	6	7	7	7	7	7
17	7	7	7	7	6	6	6	6	6	7	7	7	7	7	7	7	7
16	7	7	7	7	6	6	6	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
11	7	7	7	7	7	7	7	1	1	1	1	1	4	4	4	4	4
10	7	7	7	7	7	7	7	1	1	1	4	4	4	4	4	4	4
9	7	7	7	1	1	1	1	1	1	1	4	4	4	4	4	4	4
8	1	1	1	1	1	1	1	1	1	1	4	4	4	4	4	4	4
7	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
6	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
5	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
4	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	3
3	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	4
2	1	1	1	1	1	1	4	4	4	4	4	4	4	4	1	3	1
1	1	1	1	1	1	1	4	4	4	4	4	4	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1
27	3	3	3	3	3	1	1	1	1	1	1	1	1
26	3	3	3	3	3	2	2	2	2	2	1	1	1
25	3	3	3	3	3	2	2	2	2	2	1	1	1
24	3	3	3	3	3	2	2	2	2	2	1	1	1
23	7	7	7	7	7	7	7	2	2	2	1	1	1
22	7	7	7	7	7	7	7	7	7	7	7	1	1
21	7	7	7	7	7	7	7	7	7	7	7	7	7
20	7	7	7	7	7	7	7	7	7	7	7	7	7

19	7	7	7	7	7	7	7	7	7	7	7	7	7
18	7	7	7	7	7	7	7	7	7	7	7	7	7
17	7	7	7	7	7	7	7	7	7	7	7	7	7
16	7	7	7	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7
11	4	3	3	3	3	3	2	7	7	7	7	7	7
10	4	3	3	3	3	3	2	7	7	7	7	7	7
9	4	3	3	3	3	3	2	7	7	7	7	7	7
8	4	3	3	3	3	3	2	2	2	1	1	7	7
7	3	4	4	4	3	3	2	2	2	1	1	1	1
6	3	4	4	4	3	3	1	1	1	1	1	1	1
5	3	4	4	4	3	3	1	1	1	1	1	1	1
4	3	4	4	4	1	1	1	1	1	1	1	1	1
3	4	4	4	4	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** AQUIFER TYPE *****

Unconfined aquifer

***** AQUIFER BOTTOM ELEVATIONS *****

Number of different aquifer bottom elevations : 7

No.	aquifer bottom elevation [ft]
1	-6.000E+0001 (default)
2	-5.500E+0001
3	-5.000E+0001
4	-4.500E+0001
5	-5.750E+0001
6	-5.250E+0001
7	-4.750E+0001

********** DISTRIBUTION OF AQUIFER BOTTOM ELEVATIONS **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
29	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
28	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
27	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
26	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
25	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
24	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
23	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
22	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
21	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
20	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
19	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
18	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
17	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
16	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
15	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
14	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
13	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
12	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
11	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
10	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
9	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
8	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
7	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
6	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
5	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
4	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
3	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
2	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
1	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	6	6	3	3	3	3	3	7	7	7	4	4	4
29	6	6	3	3	3	3	3	7	7	7	4	4	4
28	6	6	3	3	3	3	3	7	7	7	4	4	4
27	6	6	3	3	3	3	3	7	7	7	4	4	4
26	6	6	3	3	3	3	3	7	7	7	4	4	4
25	6	6	3	3	3	3	3	7	7	7	4	4	4
24	6	6	3	3	3	3	3	7	7	7	4	4	4
23	6	6	3	3	3	3	3	7	7	7	4	4	4
22	6	6	3	3	3	3	3	7	7	7	4	4	4
21	6	6	3	3	3	3	3	7	7	7	4	4	4
20	6	6	3	3	3	3	3	7	7	7	4	4	4
19	6	6	3	3	3	3	3	7	7	7	4	4	4
18	6	6	3	3	3	3	3	7	7	7	4	4	4
17	6	6	3	3	3	3	3	7	7	7	4	4	4
16	6	6	3	3	3	3	3	7	7	7	4	4	4
15	6	6	3	3	3	3	3	7	7	7	4	4	4
14	6	6	3	3	3	3	3	7	7	7	4	4	4
13	6	6	3	3	3	3	3	7	7	7	4	4	4
12	6	6	3	3	3	3	3	7	7	7	4	4	4
11	6	6	3	3	3	3	3	7	7	7	4	4	4
10	6	6	3	3	3	3	3	7	7	7	4	4	4
9	6	6	3	3	3	3	3	7	7	7	4	4	4
8	6	6	3	3	3	3	3	7	7	7	4	4	4
7	6	6	3	3	3	3	3	7	7	7	4	4	4
6	6	6	3	3	3	3	3	7	7	7	4	4	4
5	6	6	3	3	3	3	3	7	7	7	4	4	4
4	6	6	3	3	3	3	3	7	7	7	4	4	4
3	6	6	3	3	3	3	3	7	7	7	4	4	4
2	6	6	3	3	3	3	3	7	7	7	4	4	4
1	6	6	3	3	3	3	3	7	7	7	4	4	4

***** AREAL RECHARGE *****

Number of different infiltration/evapotranspiration rates : 4

No.	infiltration [L/T]	evapotranspiration [L/T]	effective recharge [L/T]	
1	1.005E-0002	9.200E-0003	8.500E-0004	(default)
2	1.750E-0002	8.500E-0003	9.000E-0003	
3	1.070E-0002	8.500E-0003	2.200E-0003	
4	9.750E-0003	9.200E-0003	5.500E-0004	

********** DISTRIBUTION OF AREAL IN/OUT-FLUXES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
29	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
28	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
27	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
26	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
25	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
24	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
23	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	4	4	4	4	4	4	4	4	4	4	3	4	4
29	4	4	4	4	4	4	4	4	4	4	3	4	4
28	4	4	4	4	4	4	4	4	4	4	3	4	4
27	2	2	2	2	2	2	2	2	4	4	3	4	4
26	3	3	2	2	2	2	2	2	2	2	3	4	4
25	3	3	2	2	2	2	2	2	2	2	3	4	4
24	3	3	2	2	2	2	2	2	2	2	3	4	4
23	3	3	2	2	2	2	2	2	2	2	3	4	4

22	3	2	2	2	2	2	2	2	2	2	3	4	4
21	3	2	2	2	2	2	2	2	2	2	3	4	4
20	3	2	2	2	2	2	2	2	2	2	3	4	4
19	3	2	2	2	2	2	2	2	2	2	3	4	4
18	3	2	2	2	2	2	2	2	2	2	3	4	4
17	3	2	2	2	2	2	2	2	2	2	3	4	4
16	3	3	2	2	2	2	2	2	2	2	3	4	4
15	3	3	2	2	2	2	2	2	2	2	3	4	4
14	3	3	2	2	2	2	2	2	2	2	3	4	4
13	3	3	2	2	2	2	2	2	2	2	3	4	4
12	3	3	3	2	2	2	2	2	2	2	3	4	4
11	3	3	3	2	2	2	2	2	2	2	3	4	4
10	3	3	3	2	2	2	2	2	2	2	3	4	4
9	3	3	3	3	3	2	2	2	2	2	3	3	3
8	3	3	3	3	3	2	2	2	2	2	3	3	3
7	1	4	3	3	3	2	2	2	2	2	3	3	3
6	1	4	3	3	3	3	3	3	2	2	4	4	4
5	1	1	3	3	3	3	3	3	3	3	4	4	4
4	1	1	3	3	3	3	3	3	3	3	4	4	4
3	1	1	1	1	4	4	4	4	4	4	4	4	4
2	1	1	1	1	4	4	4	4	4	4	4	4	4
1	1	1	1	1	4	4	4	4	4	4	4	4	4
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** PATHLINE & PARTICLE TRACKING DATA *****

Number of forward particles : 0
Number of reverse particles : 0
No well particles specified

********** HYDRAULIC HEAD DISTRIBUTION **********

	1	2	3	4	5	6
30	1.90E+0001	1.97E+0001	2.06E+0001	2.16E+0001	2.26E+0001	2.31E+0001
29	1.83E+0001	1.95E+0001	2.06E+0001	2.16E+0001	2.26E+0001	2.31E+0001
28	1.83E+0001	1.95E+0001	2.06E+0001	2.16E+0001	2.26E+0001	2.31E+0001
27	1.83E+0001	1.95E+0001	2.06E+0001	2.17E+0001	2.27E+0001	2.31E+0001
26	1.85E+0001	1.96E+0001	2.07E+0001	2.17E+0001	2.27E+0001	2.32E+0001
25	1.85E+0001	1.96E+0001	2.07E+0001	2.18E+0001	2.28E+0001	2.32E+0001
24	1.85E+0001	1.97E+0001	2.08E+0001	2.18E+0001	2.28E+0001	2.33E+0001
23	1.88E+0001	1.97E+0001	2.08E+0001	2.19E+0001	2.28E+0001	2.33E+0001
22	1.85E+0001	1.98E+0001	2.09E+0001	2.19E+0001	2.29E+0001	2.34E+0001
21	1.86E+0001	1.98E+0001	2.09E+0001	2.19E+0001	2.29E+0001	2.34E+0001
20	1.85E+0001	1.98E+0001	2.09E+0001	2.20E+0001	2.29E+0001	2.34E+0001
19	1.87E+0001	1.99E+0001	2.10E+0001	2.20E+0001	2.30E+0001	2.34E+0001
18	1.88E+0001	1.99E+0001	2.10E+0001	2.20E+0001	2.30E+0001	2.34E+0001
17	1.89E+0001	2.00E+0001	2.10E+0001	2.20E+0001	2.30E+0001	2.34E+0001
16	1.90E+0001	2.01E+0001	2.11E+0001	2.21E+0001	2.30E+0001	2.34E+0001
15	1.92E+0001	2.01E+0001	2.11E+0001	2.21E+0001	2.30E+0001	2.34E+0001
14	1.93E+0001	2.02E+0001	2.12E+0001	2.21E+0001	2.30E+0001	2.34E+0001
13	1.93E+0001	2.02E+0001	2.12E+0001	2.21E+0001	2.30E+0001	2.35E+0001
12	1.93E+0001	2.03E+0001	2.12E+0001	2.21E+0001	2.30E+0001	2.35E+0001
11	1.94E+0001	2.03E+0001	2.13E+0001	2.21E+0001	2.30E+0001	2.35E+0001

10	1.95E+0001	2.04E+0001	2.13E+0001	2.22E+0001	2.30E+0001	2.35E+0001
9	1.96E+0001	2.04E+0001	2.13E+0001	2.22E+0001	2.30E+0001	2.35E+0001
8	1.95E+0001	2.05E+0001	2.13E+0001	2.22E+0001	2.30E+0001	2.35E+0001
7	2.01E+0001	2.06E+0001	2.14E+0001	2.22E+0001	2.31E+0001	2.35E+0001
6	2.01E+0001	2.06E+0001	2.14E+0001	2.22E+0001	2.31E+0001	2.35E+0001
5	1.98E+0001	2.06E+0001	2.14E+0001	2.22E+0001	2.31E+0001	2.35E+0001
4	1.93E+0001	2.04E+0001	2.14E+0001	2.22E+0001	2.31E+0001	2.35E+0001
3	1.95E+0001	2.05E+0001	2.14E+0001	2.22E+0001	2.31E+0001	2.35E+0001
2	1.97E+0001	2.06E+0001	2.14E+0001	2.23E+0001	2.31E+0001	2.34E+0001
1	2.02E+0001	2.07E+0001	2.15E+0001	2.23E+0001	2.31E+0001	2.34E+0001
	1	2	3	4	5	6
	7	8	9	10	11	12
30	2.35E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001
29	2.35E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.47E+0001	2.49E+0001
28	2.36E+0001	2.40E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001
27	2.36E+0001	2.41E+0001	2.43E+0001	2.46E+0001	2.48E+0001	2.50E+0001
26	2.37E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.49E+0001	2.51E+0001
25	2.37E+0001	2.42E+0001	2.44E+0001	2.47E+0001	2.49E+0001	2.51E+0001
24	2.37E+0001	2.42E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.52E+0001
23	2.38E+0001	2.42E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.52E+0001
22	2.38E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001
21	2.38E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001
20	2.38E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001
19	2.38E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001
18	2.38E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001
17	2.39E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001
16	2.39E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001
15	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
14	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
13	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
12	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
11	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
10	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
9	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
8	2.39E+0001	2.43E+0001	2.45E+0001	2.48E+0001	2.50E+0001	2.52E+0001
7	2.39E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.51E+0001
6	2.39E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.51E+0001
5	2.39E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.51E+0001
4	2.39E+0001	2.43E+0001	2.45E+0001	2.46E+0001	2.48E+0001	2.50E+0001
3	2.38E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001
2	2.38E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001
1	2.38E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.49E+0001
	7	8	9	10	11	12
	13	14	15	16	17	18
30	2.51E+0001	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.61E+0001
29	2.51E+0001	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.61E+0001
28	2.52E+0001	2.54E+0001	2.56E+0001	2.58E+0001	2.60E+0001	2.62E+0001
27	2.52E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.62E+0001	2.64E+0001
26	2.53E+0001	2.56E+0001	2.58E+0001	2.60E+0001	2.63E+0001	2.65E+0001
25	2.54E+0001	2.56E+0001	2.58E+0001	2.61E+0001	2.63E+0001	2.66E+0001
24	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
23	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
22	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
21	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
20	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
19	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001

18	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
17	2.54E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
16	2.54E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
15	2.54E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
14	2.54E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
13	2.54E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.66E+0001
12	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.63E+0001	2.66E+0001
11	2.54E+0001	2.56E+0001	2.59E+0001	2.61E+0001	2.63E+0001	2.65E+0001
10	2.54E+0001	2.56E+0001	2.58E+0001	2.61E+0001	2.63E+0001	2.65E+0001
9	2.54E+0001	2.56E+0001	2.58E+0001	2.60E+0001	2.63E+0001	2.65E+0001
8	2.54E+0001	2.56E+0001	2.58E+0001	2.60E+0001	2.62E+0001	2.64E+0001
7	2.54E+0001	2.56E+0001	2.58E+0001	2.60E+0001	2.62E+0001	2.64E+0001
6	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.63E+0001
5	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.63E+0001
4	2.52E+0001	2.54E+0001	2.56E+0001	2.58E+0001	2.60E+0001	2.61E+0001
3	2.52E+0001	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.60E+0001
2	2.51E+0001	2.53E+0001	2.55E+0001	2.57E+0001	2.58E+0001	2.60E+0001
1	2.51E+0001	2.53E+0001	2.55E+0001	2.56E+0001	2.58E+0001	2.60E+0001

	13	14	15	16	17	18
	19	20	21	22	23	24
30	2.62E+0001	2.64E+0001	2.66E+0001	2.68E+0001	2.71E+0001	2.74E+0001
29	2.63E+0001	2.65E+0001	2.67E+0001	2.68E+0001	2.72E+0001	2.75E+0001
28	2.64E+0001	2.66E+0001	2.68E+0001	2.70E+0001	2.73E+0001	2.76E+0001
27	2.66E+0001	2.68E+0001	2.70E+0001	2.72E+0001	2.76E+0001	2.79E+0001
26	2.67E+0001	2.70E+0001	2.72E+0001	2.74E+0001	2.78E+0001	2.81E+0001
25	2.68E+0001	2.70E+0001	2.72E+0001	2.75E+0001	2.78E+0001	2.82E+0001
24	2.68E+0001	2.71E+0001	2.73E+0001	2.75E+0001	2.79E+0001	2.82E+0001
23	2.69E+0001	2.71E+0001	2.73E+0001	2.76E+0001	2.79E+0001	2.83E+0001
22	2.69E+0001	2.71E+0001	2.74E+0001	2.76E+0001	2.80E+0001	2.83E+0001
21	2.69E+0001	2.71E+0001	2.74E+0001	2.76E+0001	2.80E+0001	2.83E+0001
20	2.69E+0001	2.71E+0001	2.74E+0001	2.76E+0001	2.80E+0001	2.83E+0001
19	2.69E+0001	2.71E+0001	2.74E+0001	2.76E+0001	2.80E+0001	2.83E+0001
18	2.69E+0001	2.71E+0001	2.74E+0001	2.76E+0001	2.80E+0001	2.83E+0001
17	2.69E+0001	2.71E+0001	2.74E+0001	2.76E+0001	2.80E+0001	2.83E+0001
16	2.69E+0001	2.71E+0001	2.73E+0001	2.76E+0001	2.80E+0001	2.83E+0001
15	2.69E+0001	2.71E+0001	2.73E+0001	2.75E+0001	2.79E+0001	2.83E+0001
14	2.68E+0001	2.71E+0001	2.73E+0001	2.75E+0001	2.79E+0001	2.82E+0001
13	2.68E+0001	2.70E+0001	2.73E+0001	2.75E+0001	2.79E+0001	2.82E+0001
12	2.68E+0001	2.70E+0001	2.72E+0001	2.75E+0001	2.78E+0001	2.82E+0001
11	2.67E+0001	2.70E+0001	2.72E+0001	2.74E+0001	2.78E+0001	2.81E+0001
10	2.67E+0001	2.69E+0001	2.72E+0001	2.74E+0001	2.78E+0001	2.81E+0001
9	2.67E+0001	2.69E+0001	2.71E+0001	2.73E+0001	2.77E+0001	2.81E+0001
8	2.66E+0001	2.69E+0001	2.71E+0001	2.73E+0001	2.77E+0001	2.80E+0001
7	2.66E+0001	2.68E+0001	2.70E+0001	2.72E+0001	2.76E+0001	2.79E+0001
6	2.65E+0001	2.67E+0001	2.69E+0001	2.71E+0001	2.74E+0001	2.78E+0001
5	2.64E+0001	2.66E+0001	2.68E+0001	2.70E+0001	2.73E+0001	2.76E+0001
4	2.63E+0001	2.65E+0001	2.67E+0001	2.68E+0001	2.71E+0001	2.74E+0001
3	2.62E+0001	2.64E+0001	2.65E+0001	2.67E+0001	2.70E+0001	2.73E+0001
2	2.61E+0001	2.63E+0001	2.65E+0001	2.66E+0001	2.69E+0001	2.72E+0001
1	2.61E+0001	2.63E+0001	2.64E+0001	2.66E+0001	2.69E+0001	2.71E+0001

	19	20	21	22	23	24
	25	26	27	28	29	30
30	2.77E+0001	2.79E+0001	2.83E+0001	2.87E+0001	2.88E+0001	2.89E+0001
29	2.77E+0001	2.80E+0001	2.84E+0001	2.87E+0001	2.89E+0001	2.90E+0001
28	2.79E+0001	2.81E+0001	2.85E+0001	2.88E+0001	2.90E+0001	2.93E+0001
27	2.81E+0001	2.83E+0001	2.87E+0001	2.89E+0001	2.91E+0001	2.93E+0001

26	2.84E+0001	2.86E+0001	2.89E+0001	2.91E+0001	2.92E+0001	2.93E+0001
25	2.84E+0001	2.87E+0001	2.90E+0001	2.91E+0001	2.92E+0001	2.92E+0001
24	2.85E+0001	2.87E+0001	2.91E+0001	2.92E+0001	2.92E+0001	2.93E+0001
23	2.86E+0001	2.88E+0001	2.91E+0001	2.92E+0001	2.93E+0001	2.94E+0001
22	2.86E+0001	2.88E+0001	2.91E+0001	2.92E+0001	2.93E+0001	2.95E+0001
21	2.86E+0001	2.88E+0001	2.92E+0001	2.93E+0001	2.93E+0001	2.95E+0001
20	2.86E+0001	2.88E+0001	2.92E+0001	2.93E+0001	2.94E+0001	2.95E+0001
19	2.86E+0001	2.88E+0001	2.92E+0001	2.93E+0001	2.94E+0001	2.95E+0001
18	2.86E+0001	2.88E+0001	2.92E+0001	2.93E+0001	2.94E+0001	2.95E+0001
17	2.86E+0001	2.88E+0001	2.92E+0001	2.93E+0001	2.94E+0001	2.95E+0001
16	2.86E+0001	2.88E+0001	2.91E+0001	2.93E+0001	2.94E+0001	2.95E+0001
15	2.86E+0001	2.88E+0001	2.91E+0001	2.92E+0001	2.93E+0001	2.95E+0001
14	2.85E+0001	2.88E+0001	2.91E+0001	2.92E+0001	2.93E+0001	2.95E+0001
13	2.85E+0001	2.88E+0001	2.91E+0001	2.92E+0001	2.93E+0001	2.95E+0001
12	2.85E+0001	2.87E+0001	2.91E+0001	2.92E+0001	2.93E+0001	2.95E+0001
11	2.84E+0001	2.87E+0001	2.90E+0001	2.91E+0001	2.93E+0001	2.94E+0001
10	2.84E+0001	2.86E+0001	2.90E+0001	2.91E+0001	2.92E+0001	2.93E+0001
9	2.83E+0001	2.86E+0001	2.89E+0001	2.91E+0001	2.92E+0001	2.92E+0001
8	2.83E+0001	2.86E+0001	2.89E+0001	2.90E+0001	2.92E+0001	2.93E+0001
7	2.82E+0001	2.84E+0001	2.88E+0001	2.90E+0001	2.91E+0001	2.92E+0001
6	2.80E+0001	2.83E+0001	2.87E+0001	2.89E+0001	2.90E+0001	2.93E+0001
5	2.79E+0001	2.82E+0001	2.85E+0001	2.88E+0001	2.90E+0001	2.91E+0001
4	2.77E+0001	2.79E+0001	2.83E+0001	2.86E+0001	2.88E+0001	2.90E+0001
3	2.75E+0001	2.77E+0001	2.81E+0001	2.85E+0001	2.87E+0001	2.90E+0001
2	2.74E+0001	2.76E+0001	2.80E+0001	2.84E+0001	2.86E+0001	2.88E+0001
1	2.74E+0001	2.76E+0001	2.80E+0001	2.83E+0001	2.85E+0001	2.87E+0001
	25	26	27	28	29	30

********** End of logbook **********

Water Balance

Units of all fluxes in [ft^3/d]

i	j	flux	CodeID	Node#	
30	29	21.7067	2	1	constant head
30	2	90.3063	1	2	constant head
1	7	490.4325	10	3	constant head
30	18	79.9188	4	4	constant head
1	14	-303.2417	7	5	constant head
30	16	84.5722	4	6	constant head
1	10	-257.2500	6	7	constant head
30	14	99.1183	4	8	constant head
1	16	-672.3137	10	9	constant head
30	12	413.1838	4	10	constant head
1	8	-1483.1492	6	11	constant head
30	10	-283.2163	3	12	constant head
1	18	-762.5058	11	13	constant head
30	20	84.1164	4	14	constant head
1	12	-972.8269	7	15	constant head
30	22	283.1174	4	16	constant head
30	8	64.9187	3	17	constant head
30	6	348.2569	3	18	constant head
1	20	-1191.1799	12	19	constant head
30	24	-117.5348	3	20	constant head
1	23	-3.9883	11	21	constant head
30	4	156.0387	2	22	constant head
1	22	-1200.0852	12	23	constant head
30	26	98.4395	3	24	constant head
30	27	206.3850	3	25	constant head
30	3	505.7194	2	26	constant head
30	28	464.5014	3	27	constant head
1	29	-2173.4034	13	28	constant head

1	28	-1649.1102	13	29	constant head
1	27	-1854.6860	13	30	constant head
1	26	-952.3638	12	31	constant head
1	25	-776.2650	12	32	constant head
1	24	-1145.5096	12	33	constant head
1	2	-1459.3933	5	34	constant head
1	3	-1324.9605	6	35	constant head
1	4	-2128.8528	7	36	constant head
1	5	-980.7861	8	37	constant head
1	6	126.3476	9	38	constant head

Sum of all fluxes organized in Codes :

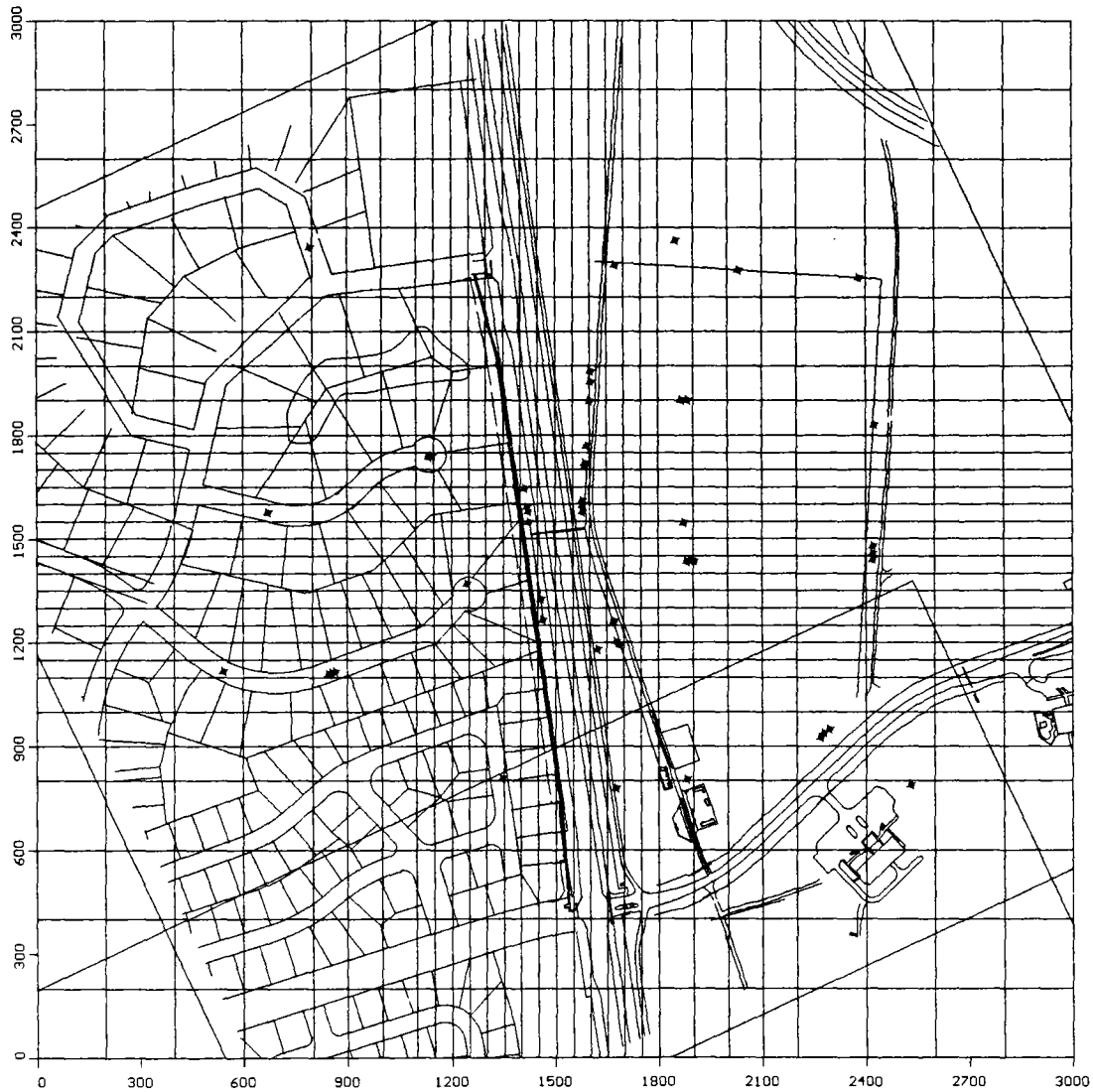
13

1	90.3063	0.0000	90.3063	CodeID	In / Out / Net flux
2	683.4648	0.0000	683.4648	CodeID	In / Out / Net flux
3	1182.5015	-400.7511	781.7504	CodeID	In / Out / Net flux
4	1044.0271	0.0000	1044.0271	CodeID	In / Out / Net flux
5	0.0000	-1459.3933	-1459.3933	CodeID	In / Out / Net flux
6	0.0000	-3065.3596	-3065.3596	CodeID	In / Out / Net flux
7	0.0000	-3404.9214	-3404.9214	CodeID	In / Out / Net flux
8	0.0000	-980.7861	-980.7861	CodeID	In / Out / Net flux
9	126.3476	0.0000	126.3476	CodeID	In / Out / Net flux
10	490.4325	-672.3137	-181.8813	CodeID	In / Out / Net flux
11	0.0000	-766.4941	-766.4941	CodeID	In / Out / Net flux
12	0.0000	-5265.4038	-5265.4038	CodeID	In / Out / Net flux
13	0.0000	-5677.1992	-5677.1992	CodeID	In / Out / Net flux

Global water balance [ft^3/d] :

3617.0796	total IN-flux through const. head nodes
-21692.6225	total OUT-flux through const. head nodes
0.0000	total IN-flux through flux nodes
0.0000	total OUT-flux through flux nodes
0.0000	total IN-flux through river nodes
0.0000	total OUT-flux through river nodes
0.0000	total IN-flux through drain nodes
0.0000	total OUT-flux through drain nodes
0.0000	total IN-flux through injection wells
0.0000	total OUT-flux through pumping wells
18094.9318	total net aquifer recharge
19.3890	sum of all fluxes should be zero
0.0447%	total mass balance error

MODEL GRID



FLOWPATH 5.03

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

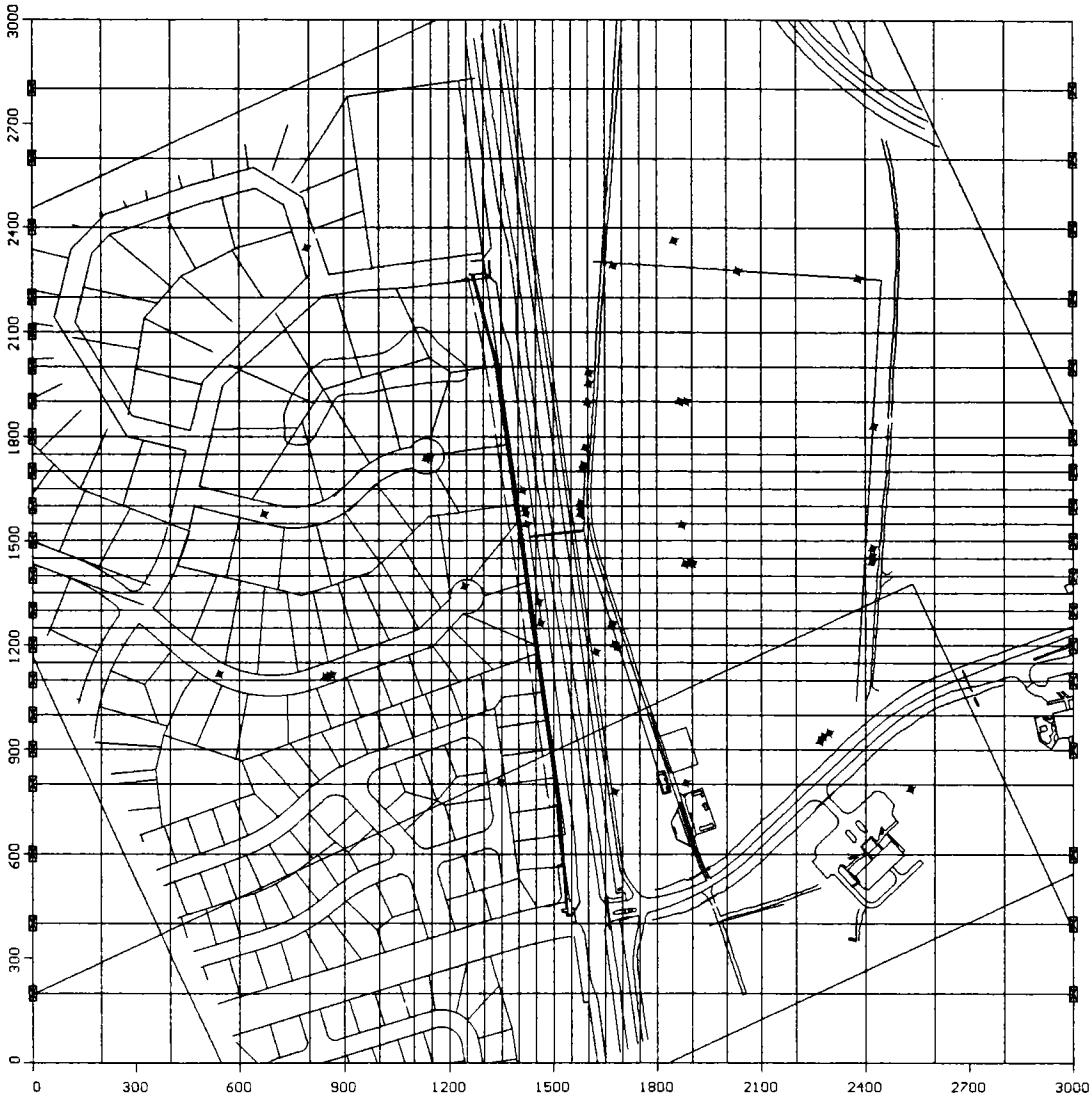
Velocities (ft/d)

Min :	0.014
Max :	0.476
Avg :	0.242

Units : [ft][day]

Data Set : CAMDNNAT

Domain Boundary



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Velocities (ft/d)

Min :	0.014
Max :	0.476
Avg :	0.242

Units : [ft][day]

Data Set : CAMDNNAT

AQUIFER PROPERTIES

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNNAT

KB [IMI-EVAL&REC]
mlv.11.94

Bottom of Aquifer

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNNAT

KB [IMI-EVAL&REC]
mlv.11.94

RECHARGE

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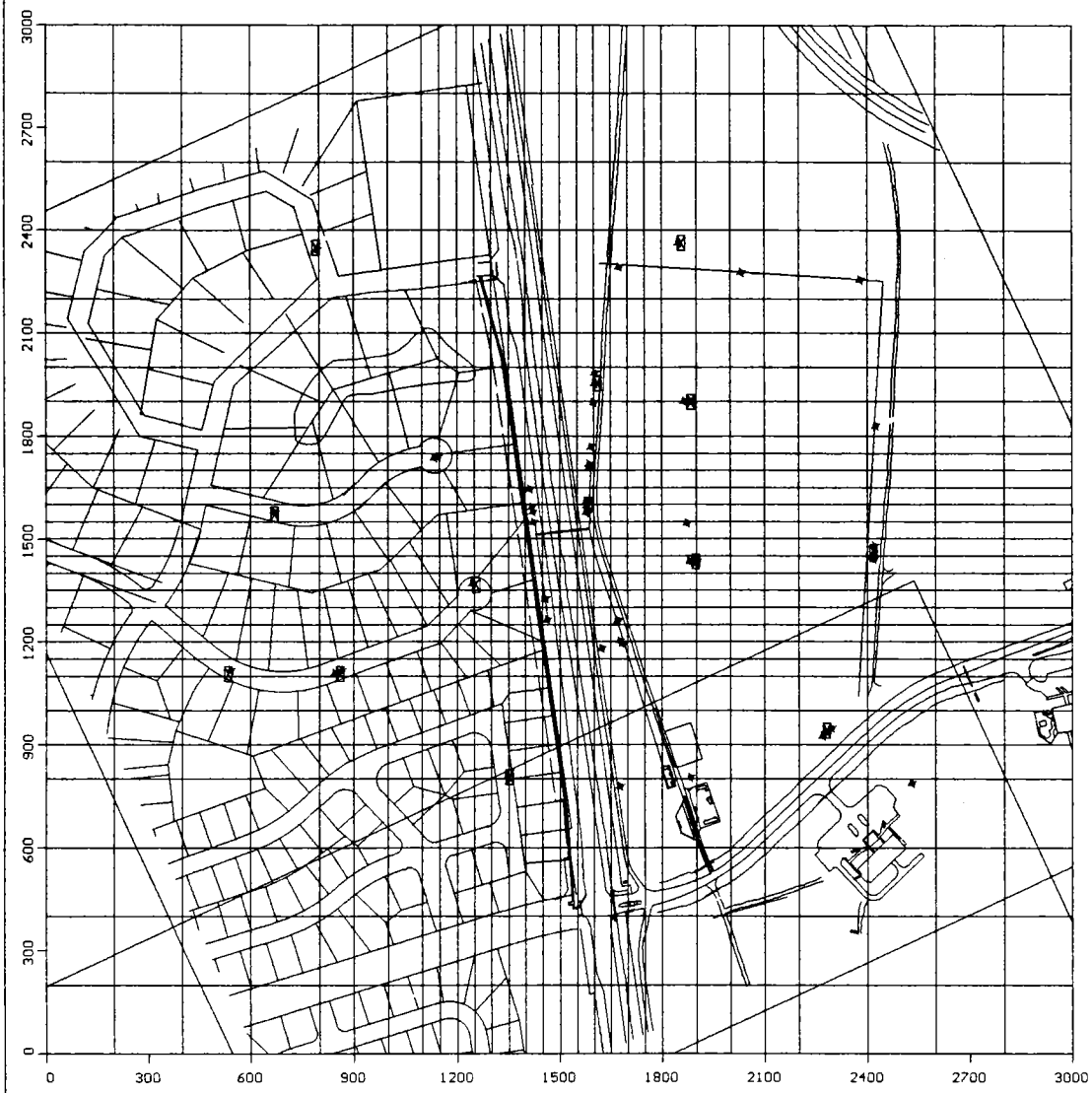
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNNAT

MONITOR WELLS - CALI.



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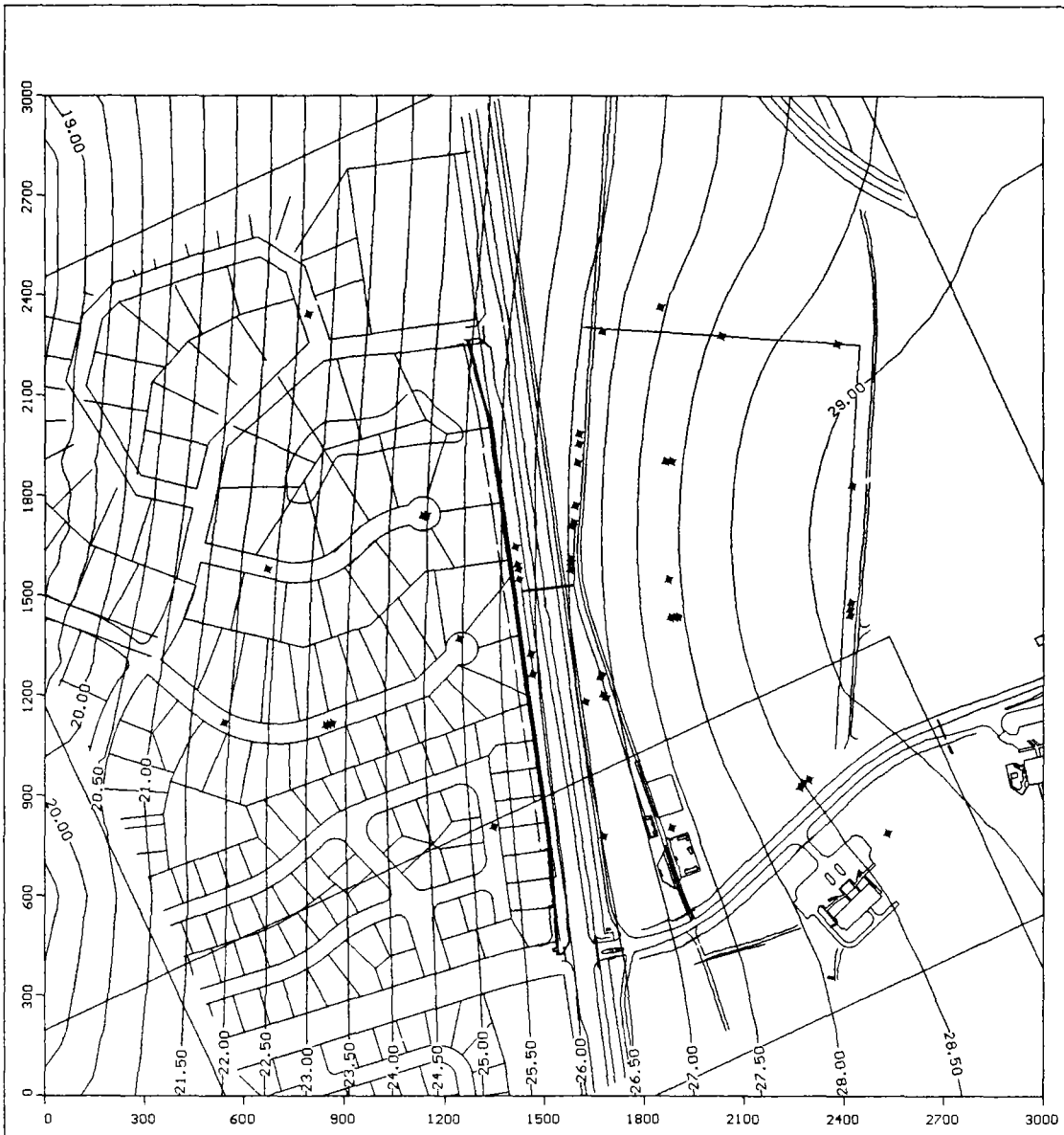
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNNAT



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Model Dimensions

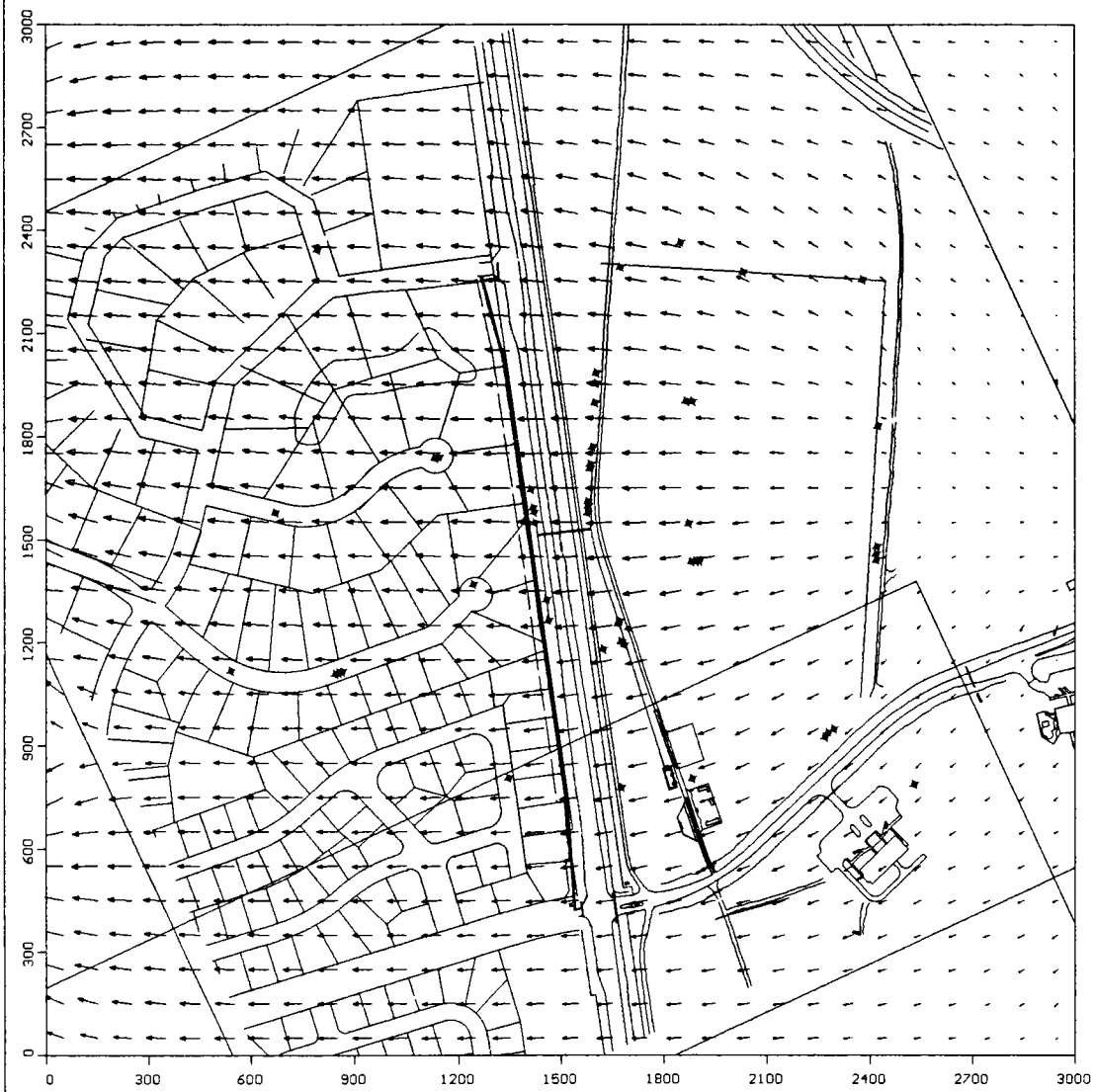
No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNNAT



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Model Dimensions

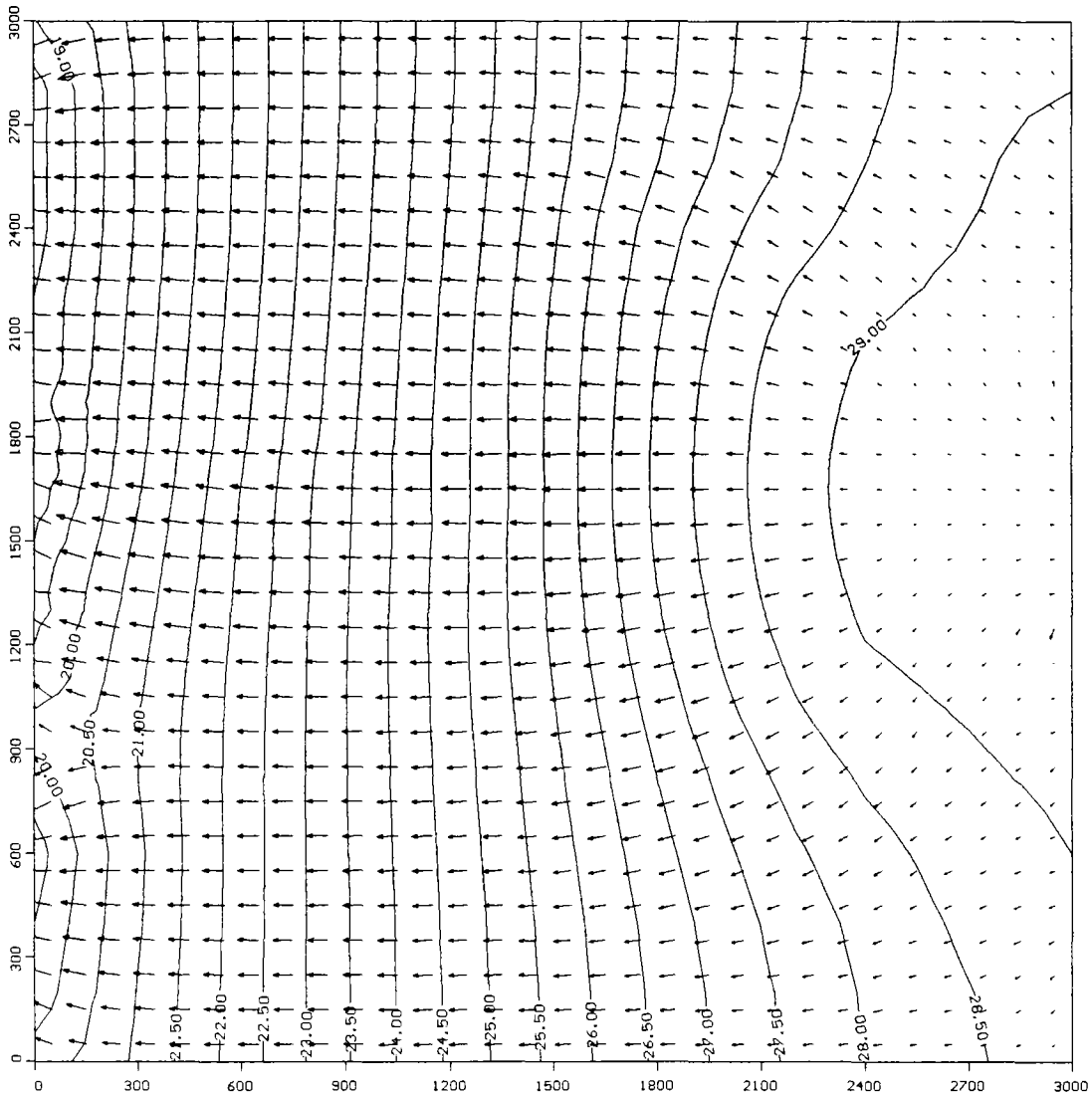
No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.014
Max :	0.476
Avg :	0.242

Units : [ft][day]

Data Set : CAMDNNAT



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 0
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Velocities (ft/d)

Min :	0.014
Max :	0.476
Avg :	0.242

Units : [ft][day]

Data Set : CAMDNNAT

FILE:

CAMDNCZ1.xxx

```
************************************************************
*              E C H O P R I N T                           *
*                                                          *
*              F L O W P A T H                             *
*                version 5.0                               *
*                                                          *
* FLOWPATH was written by Thomas Franz and Nilson Guiguer  *
*                                                          *
************************************************************
*                                                          *
*              Copyright 1989-1994                         *
*                    by                                    *
*          Waterloo Hydrogeologic Software                 *
*             200 Candlewood Crescent                      *
*               Waterloo, Ontario                          *
*                N2L 5Y9, Canada                           *
*                                                          *
*               ph (519) 746-1798                          *
*                                                          *
************************************************************
```

IM Phase I Activities: Evaluation and Recommendations Report

Capture Zone Model - Old Camden County Landfill, Site 11

IM Phase I Operations: Pumping all Five Recovery Wells (May 9, 1994)

FLOWPATH logbook for data set : CAMDNCZ1

Unit System : English units [ft/gal/d]

***** GRID PARAMETERS *****

Number of x-grid lines : 30

Number of y-grid lines : 30

Grid coordinates (x-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003
13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
16	1.501E+0003

17	1.551E+0003
18	1.600E+0003
19	1.649E+0003
20	1.699E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

Grid coordinates (y-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003
13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
16	1.501E+0003
17	1.551E+0003
18	1.600E+0003
19	1.649E+0003
20	1.701E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

***** WELL PARAMETERS *****

Number of wells : 4

No.	i	j	X [ft]	Y [ft]	well discharge [gpd]
1	20	10	1.699E+0003	1.200E+0003	-1.086E+0004
2	18	20	1.600E+0003	1.701E+0003	-1.889E+0004
3	14	17	1.400E+0003	1.551E+0003	-1.081E+0004
4	15	12	1.451E+0003	1.299E+0003	-1.138E+0004

***** CONSTRAINED HEAD NODES *****

Number of constant head nodes : 38

No.	i	j	X [ft]	Y [ft]	const. head [ft]
1	30	29	3.000E+0003	2.802E+0003	2.900E+0001
2	30	2	3.000E+0003	1.982E+0002	2.875E+0001
3	1	7	0.000E+0000	9.977E+0002	2.010E+0001
4	30	18	3.000E+0003	1.599E+0003	2.950E+0001
5	1	14	0.000E+0000	1.401E+0003	1.925E+0001
6	30	16	3.000E+0003	1.503E+0003	2.950E+0001
7	1	10	0.000E+0000	1.203E+0003	1.950E+0001
8	30	14	3.000E+0003	1.401E+0003	2.950E+0001
9	1	16	0.000E+0000	1.503E+0003	1.900E+0001
10	30	12	3.000E+0003	1.298E+0003	2.950E+0001
11	1	8	0.000E+0000	1.100E+0003	1.950E+0001
12	30	10	3.000E+0003	1.203E+0003	2.925E+0001
13	1	18	0.000E+0000	1.599E+0003	1.875E+0001
14	30	20	3.000E+0003	1.702E+0003	2.950E+0001
15	1	12	0.000E+0000	1.298E+0003	1.925E+0001
16	30	22	3.000E+0003	1.797E+0003	2.950E+0001
17	30	8	3.000E+0003	1.100E+0003	2.925E+0001
18	30	6	3.000E+0003	9.021E+0002	2.925E+0001
19	1	20	0.000E+0000	1.702E+0003	1.850E+0001
20	30	24	3.000E+0003	2.002E+0003	2.925E+0001
21	1	23	0.000E+0000	1.900E+0003	1.875E+0001
22	30	4	3.000E+0003	6.014E+0002	2.900E+0001
23	1	22	0.000E+0000	1.797E+0003	1.850E+0001
24	30	26	3.000E+0003	2.200E+0003	2.925E+0001
25	30	27	3.000E+0003	2.399E+0003	2.925E+0001
26	30	3	3.000E+0003	4.032E+0002	2.900E+0001
27	30	28	3.000E+0003	2.597E+0003	2.925E+0001
28	1	29	0.000E+0000	2.802E+0003	1.825E+0001
29	1	28	0.000E+0000	2.597E+0003	1.825E+0001
30	1	27	0.000E+0000	2.399E+0003	1.825E+0001
31	1	26	0.000E+0000	2.200E+0003	1.850E+0001
32	1	25	0.000E+0000	2.098E+0003	1.850E+0001
33	1	24	0.000E+0000	2.002E+0003	1.850E+0001
34	1	2	0.000E+0000	1.982E+0002	1.970E+0001
35	1	3	0.000E+0000	4.032E+0002	1.950E+0001
36	1	4	0.000E+0000	6.014E+0002	1.925E+0001
37	1	5	0.000E+0000	7.995E+0002	1.975E+0001
38	1	6	0.000E+0000	9.021E+0002	2.010E+0001

***** SPECIFIED FLUX NODES *****

Number of flux nodes : 0

***** SURFACE WATER BODIES *****

Number of surface water body nodes : 0

***** AQUIFER PROPERTIES *****

Number of different material properties : 7

No.	Kxx [ft/d]	Kyy [ft/d]	Porosity [-]	
1	1.720E+0001	1.720E+0001	2.500E-0001	(default)
2	1.720E+0001	1.720E+0001	2.500E-0001	
3	1.720E+0001	1.720E+0001	2.500E-0001	
4	1.720E+0001	1.720E+0001	2.500E-0001	
5	1.720E+0001	1.720E+0001	2.500E-0001	
6	2.140E+0001	2.140E+0001	2.700E-0001	
7	1.640E+0001	1.640E+0001	2.200E-0001	

********** DISTRIBUTION OF AQUIFER MATERIAL PROPERTIES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	1
28	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	1	1
27	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
26	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
25	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3
24	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	7	7
22	1	1	1	1	1	1	1	7	7	7	7	7	7	7	7	7	7
21	1	1	1	7	7	7	7	6	6	6	6	6	7	7	7	7	7
20	1	1	1	7	6	6	6	6	6	6	6	6	6	6	7	7	7
19	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	7	7
18	7	7	7	7	6	6	6	6	6	6	6	6	7	7	7	7	7
17	7	7	7	7	6	6	6	6	6	7	7	7	7	7	7	7	7
16	7	7	7	7	6	6	6	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
11	7	7	7	7	7	7	7	1	1	1	1	1	4	4	4	4	4
10	7	7	7	7	7	7	7	1	1	1	4	4	4	4	4	4	4
9	7	7	7	1	1	1	1	1	1	1	4	4	4	4	4	4	4
8	1	1	1	1	1	1	1	1	1	1	4	4	4	4	4	4	4
7	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
6	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
5	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
4	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	3
3	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	4
2	1	1	1	1	1	1	4	4	4	4	4	4	4	4	1	3	1
1	1	1	1	1	1	1	4	4	4	4	4	4	1	1	1	1	1

	18	19	20	21	22	23	24	25	26	27	28	29	30

30	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1
27	3	3	3	3	3	1	1	1	1	1	1	1	1
26	3	3	3	3	3	2	2	2	2	2	1	1	1
25	3	3	3	3	3	2	2	2	2	2	1	1	1
24	3	3	3	3	3	2	2	2	2	2	1	1	1
23	7	7	7	7	7	7	7	2	2	2	1	1	1
22	7	7	7	7	7	7	7	7	7	7	7	1	1
21	7	7	7	7	7	7	7	7	7	7	7	7	7
20	7	7	7	7	7	7	7	7	7	7	7	7	7
19	7	7	7	7	7	7	7	7	7	7	7	7	7
18	7	7	7	7	7	7	7	7	7	7	7	7	7
17	7	7	7	7	7	7	7	7	7	7	7	7	7
16	7	7	7	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7
11	4	3	3	3	3	3	2	7	7	7	7	7	7
10	4	3	3	3	3	3	2	7	7	7	7	7	7
9	4	3	3	3	3	3	2	7	7	7	7	7	7
8	4	3	3	3	3	3	2	2	2	1	1	7	7
7	3	4	4	4	3	3	2	2	2	1	1	1	1
6	3	4	4	4	3	3	1	1	1	1	1	1	1
5	3	4	4	4	3	3	1	1	1	1	1	1	1
4	3	4	4	4	1	1	1	1	1	1	1	1	1
3	4	4	4	4	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** AQUIFER TYPE *****

Unconfined aquifer

***** AQUIFER BOTTOM ELEVATIONS *****

Number of different aquifer bottom elevations : 7

No.	aquifer bottom elevation [ft]
1	-6.000E+0001 (default)
2	-5.500E+0001
3	-5.000E+0001
4	-4.500E+0001
5	-5.750E+0001
6	-5.250E+0001
7	-4.750E+0001

********** DISTRIBUTION OF AQUIFER BOTTOM ELEVATIONS **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
29	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
28	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
27	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
26	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
25	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
24	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
23	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
22	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
21	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
20	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
19	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
18	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
17	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
16	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
15	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
14	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
13	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
12	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
11	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
10	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
9	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
8	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
7	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
6	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
5	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
4	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
3	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
2	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
1	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	6	6	3	3	3	3	3	7	7	7	4	4	4
29	6	6	3	3	3	3	3	7	7	7	4	4	4
28	6	6	3	3	3	3	3	7	7	7	4	4	4
27	6	6	3	3	3	3	3	7	7	7	4	4	4
26	6	6	3	3	3	3	3	7	7	7	4	4	4
25	6	6	3	3	3	3	3	7	7	7	4	4	4
24	6	6	3	3	3	3	3	7	7	7	4	4	4
23	6	6	3	3	3	3	3	7	7	7	4	4	4
22	6	6	3	3	3	3	3	7	7	7	4	4	4
21	6	6	3	3	3	3	3	7	7	7	4	4	4
20	6	6	3	3	3	3	3	7	7	7	4	4	4
19	6	6	3	3	3	3	3	7	7	7	4	4	4
18	6	6	3	3	3	3	3	7	7	7	4	4	4
17	6	6	3	3	3	3	3	7	7	7	4	4	4
16	6	6	3	3	3	3	3	7	7	7	4	4	4
15	6	6	3	3	3	3	3	7	7	7	4	4	4
14	6	6	3	3	3	3	3	7	7	7	4	4	4
13	6	6	3	3	3	3	3	7	7	7	4	4	4
12	6	6	3	3	3	3	3	7	7	7	4	4	4
11	6	6	3	3	3	3	3	7	7	7	4	4	4
10	6	6	3	3	3	3	3	7	7	7	4	4	4
9	6	6	3	3	3	3	3	7	7	7	4	4	4
8	6	6	3	3	3	3	3	7	7	7	4	4	4
7	6	6	3	3	3	3	3	7	7	7	4	4	4
6	6	6	3	3	3	3	3	7	7	7	4	4	4

5	6	6	3	3	3	3	3	7	7	7	4	4	4
4	6	6	3	3	3	3	3	7	7	7	4	4	4
3	6	6	3	3	3	3	3	7	7	7	4	4	4
2	6	6	3	3	3	3	3	7	7	7	4	4	4
1	6	6	3	3	3	3	3	7	7	7	4	4	4
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** AREAL RECHARGE *****

Number of different infiltration/evapotranspiration rates : 4

No.	infiltration [L/T]	evapotranspiration [L/T]	effective recharge [L/T]	
1	1.005E-0002	9.200E-0003	8.500E-0004	(default)
2	1.750E-0002	8.500E-0003	9.000E-0003	
3	1.070E-0002	8.500E-0003	2.200E-0003	
4	9.750E-0003	9.200E-0003	5.500E-0004	

********** DISTRIBUTION OF AREAL IN/OUT-FLUXES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
29	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
28	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
27	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
26	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
25	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
24	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
23	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	4	4	4	4	4	4	4	4	4	4	3	4	4
29	4	4	4	4	4	4	4	4	4	4	3	4	4
28	4	4	4	4	4	4	4	4	4	4	3	4	4
27	2	2	2	2	2	2	2	2	4	4	3	4	4
26	3	3	2	2	2	2	2	2	2	2	3	4	4
25	3	3	2	2	2	2	2	2	2	2	3	4	4
24	3	3	2	2	2	2	2	2	2	2	3	4	4
23	3	3	2	2	2	2	2	2	2	2	3	4	4
22	3	2	2	2	2	2	2	2	2	2	3	4	4
21	3	2	2	2	2	2	2	2	2	2	3	4	4
20	3	2	2	2	2	2	2	2	2	2	3	4	4
19	3	2	2	2	2	2	2	2	2	2	3	4	4
18	3	2	2	2	2	2	2	2	2	2	3	4	4
17	3	2	2	2	2	2	2	2	2	2	3	4	4
16	3	3	2	2	2	2	2	2	2	2	3	4	4
15	3	3	2	2	2	2	2	2	2	2	3	4	4
14	3	3	2	2	2	2	2	2	2	2	3	4	4
13	3	3	2	2	2	2	2	2	2	2	3	4	4
12	3	3	3	2	2	2	2	2	2	2	3	4	4
11	3	3	3	2	2	2	2	2	2	2	3	4	4
10	3	3	3	2	2	2	2	2	2	2	3	4	4
9	3	3	3	3	3	2	2	2	2	2	3	3	3
8	3	3	3	3	3	2	2	2	2	2	3	3	3
7	1	4	3	3	3	2	2	2	2	2	3	3	3
6	1	4	3	3	3	3	3	3	2	2	4	4	4
5	1	1	3	3	3	3	3	3	3	3	4	4	4
4	1	1	3	3	3	3	3	3	3	3	4	4	4
3	1	1	1	1	4	4	4	4	4	4	4	4	4
2	1	1	1	1	4	4	4	4	4	4	4	4	4
1	1	1	1	1	4	4	4	4	4	4	4	4	4
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** PATHLINE & PARTICLE TRACKING DATA *****

Number of forward particles : 6

No.	x-release	y-release
1	1.247E+0003	1.369E+0003
2	1.251E+0003	1.451E+0003
3	1.251E+0003	1.203E+0003
4	1.278E+0003	1.292E+0003
5	1.278E+0003	1.298E+0003
6	1.203E+0003	1.544E+0003

Number of reverse particles : 0

Particles released at wells :

Well-No.	Particles released
1	25
2	25

3	25
4	25

********** HYDRAULIC HEAD DISTRIBUTION **********

	1	2	3	4	5	6
30	1.89E+0001	1.95E+0001	2.03E+0001	2.12E+0001	2.20E+0001	2.25E+0001
29	1.83E+0001	1.93E+0001	2.03E+0001	2.12E+0001	2.20E+0001	2.25E+0001
28	1.83E+0001	1.93E+0001	2.03E+0001	2.12E+0001	2.20E+0001	2.25E+0001
27	1.83E+0001	1.93E+0001	2.03E+0001	2.12E+0001	2.20E+0001	2.24E+0001
26	1.85E+0001	1.94E+0001	2.03E+0001	2.12E+0001	2.20E+0001	2.24E+0001
25	1.85E+0001	1.95E+0001	2.04E+0001	2.12E+0001	2.20E+0001	2.24E+0001
24	1.85E+0001	1.95E+0001	2.04E+0001	2.12E+0001	2.20E+0001	2.24E+0001
23	1.88E+0001	1.95E+0001	2.04E+0001	2.13E+0001	2.20E+0001	2.24E+0001
22	1.85E+0001	1.96E+0001	2.05E+0001	2.13E+0001	2.21E+0001	2.24E+0001
21	1.86E+0001	1.96E+0001	2.05E+0001	2.13E+0001	2.21E+0001	2.24E+0001
20	1.85E+0001	1.96E+0001	2.05E+0001	2.13E+0001	2.21E+0001	2.24E+0001
19	1.87E+0001	1.97E+0001	2.06E+0001	2.14E+0001	2.21E+0001	2.24E+0001
18	1.88E+0001	1.97E+0001	2.06E+0001	2.14E+0001	2.21E+0001	2.24E+0001
17	1.89E+0001	1.98E+0001	2.06E+0001	2.14E+0001	2.21E+0001	2.24E+0001
16	1.90E+0001	1.99E+0001	2.07E+0001	2.14E+0001	2.21E+0001	2.24E+0001
15	1.92E+0001	1.99E+0001	2.07E+0001	2.14E+0001	2.21E+0001	2.24E+0001
14	1.93E+0001	2.00E+0001	2.07E+0001	2.15E+0001	2.21E+0001	2.24E+0001
13	1.93E+0001	2.00E+0001	2.08E+0001	2.15E+0001	2.21E+0001	2.25E+0001
12	1.93E+0001	2.01E+0001	2.08E+0001	2.15E+0001	2.22E+0001	2.25E+0001
11	1.94E+0001	2.01E+0001	2.08E+0001	2.15E+0001	2.22E+0001	2.25E+0001
10	1.95E+0001	2.02E+0001	2.09E+0001	2.15E+0001	2.22E+0001	2.25E+0001
9	1.95E+0001	2.02E+0001	2.09E+0001	2.16E+0001	2.22E+0001	2.25E+0001
8	1.95E+0001	2.03E+0001	2.09E+0001	2.16E+0001	2.22E+0001	2.26E+0001
7	2.01E+0001	2.04E+0001	2.10E+0001	2.16E+0001	2.23E+0001	2.26E+0001
6	2.01E+0001	2.04E+0001	2.10E+0001	2.17E+0001	2.23E+0001	2.26E+0001
5	1.98E+0001	2.04E+0001	2.10E+0001	2.17E+0001	2.24E+0001	2.27E+0001
4	1.93E+0001	2.03E+0001	2.10E+0001	2.17E+0001	2.24E+0001	2.28E+0001
3	1.95E+0001	2.03E+0001	2.11E+0001	2.18E+0001	2.25E+0001	2.28E+0001
2	1.97E+0001	2.04E+0001	2.11E+0001	2.18E+0001	2.25E+0001	2.28E+0001
1	2.01E+0001	2.05E+0001	2.12E+0001	2.18E+0001	2.25E+0001	2.28E+0001

	1	2	3	4	5	6
	7	8	9	10	11	12
30	2.29E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001
29	2.29E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001
28	2.29E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001
27	2.29E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001
26	2.28E+0001	2.32E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001
25	2.28E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001	2.40E+0001
24	2.28E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001	2.39E+0001
23	2.28E+0001	2.31E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.38E+0001
22	2.27E+0001	2.31E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.37E+0001
21	2.27E+0001	2.31E+0001	2.32E+0001	2.34E+0001	2.35E+0001	2.36E+0001
20	2.27E+0001	2.30E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.36E+0001
19	2.27E+0001	2.30E+0001	2.32E+0001	2.33E+0001	2.34E+0001	2.35E+0001
18	2.27E+0001	2.30E+0001	2.31E+0001	2.33E+0001	2.34E+0001	2.35E+0001
17	2.27E+0001	2.30E+0001	2.31E+0001	2.32E+0001	2.34E+0001	2.34E+0001
16	2.27E+0001	2.30E+0001	2.31E+0001	2.32E+0001	2.34E+0001	2.35E+0001
15	2.27E+0001	2.30E+0001	2.31E+0001	2.33E+0001	2.34E+0001	2.35E+0001

14	2.27E+0001	2.30E+0001	2.31E+0001	2.33E+0001	2.34E+0001	2.35E+0001
13	2.28E+0001	2.30E+0001	2.32E+0001	2.33E+0001	2.34E+0001	2.35E+0001
12	2.28E+0001	2.31E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.36E+0001
11	2.28E+0001	2.31E+0001	2.32E+0001	2.34E+0001	2.35E+0001	2.36E+0001
10	2.28E+0001	2.31E+0001	2.33E+0001	2.34E+0001	2.35E+0001	2.37E+0001
9	2.28E+0001	2.31E+0001	2.33E+0001	2.34E+0001	2.36E+0001	2.37E+0001
8	2.29E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.36E+0001	2.38E+0001
7	2.29E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.37E+0001	2.39E+0001
6	2.30E+0001	2.33E+0001	2.35E+0001	2.36E+0001	2.38E+0001	2.40E+0001
5	2.30E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.40E+0001
4	2.31E+0001	2.34E+0001	2.36E+0001	2.38E+0001	2.39E+0001	2.41E+0001
3	2.31E+0001	2.35E+0001	2.36E+0001	2.38E+0001	2.40E+0001	2.42E+0001
2	2.32E+0001	2.35E+0001	2.37E+0001	2.38E+0001	2.40E+0001	2.42E+0001
1	2.32E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.40E+0001	2.42E+0001
	7	8	9	10	11	12
	13	14	15	16	17	18
30	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.51E+0001	2.53E+0001
29	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001	2.53E+0001
28	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001	2.52E+0001	2.54E+0001
27	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001	2.53E+0001	2.55E+0001
26	2.43E+0001	2.45E+0001	2.47E+0001	2.50E+0001	2.52E+0001	2.54E+0001
25	2.42E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.51E+0001	2.54E+0001
24	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001	2.53E+0001
23	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.49E+0001	2.51E+0001
22	2.39E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001
21	2.38E+0001	2.39E+0001	2.41E+0001	2.43E+0001	2.44E+0001	2.45E+0001
20	2.37E+0001	2.39E+0001	2.40E+0001	2.42E+0001	2.42E+0001	2.40E+0001
19	2.37E+0001	2.38E+0001	2.39E+0001	2.41E+0001	2.43E+0001	2.45E+0001
18	2.36E+0001	2.36E+0001	2.39E+0001	2.41E+0001	2.44E+0001	2.46E+0001
17	2.35E+0001	2.34E+0001	2.38E+0001	2.41E+0001	2.44E+0001	2.47E+0001
16	2.35E+0001	2.36E+0001	2.39E+0001	2.42E+0001	2.44E+0001	2.47E+0001
15	2.36E+0001	2.37E+0001	2.39E+0001	2.42E+0001	2.45E+0001	2.47E+0001
14	2.36E+0001	2.37E+0001	2.39E+0001	2.42E+0001	2.44E+0001	2.47E+0001
13	2.36E+0001	2.37E+0001	2.38E+0001	2.41E+0001	2.44E+0001	2.47E+0001
12	2.37E+0001	2.37E+0001	2.36E+0001	2.41E+0001	2.44E+0001	2.47E+0001
11	2.37E+0001	2.38E+0001	2.39E+0001	2.42E+0001	2.45E+0001	2.47E+0001
10	2.38E+0001	2.39E+0001	2.41E+0001	2.43E+0001	2.45E+0001	2.47E+0001
9	2.39E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001
8	2.39E+0001	2.41E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001
7	2.41E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001
6	2.41E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.51E+0001
5	2.42E+0001	2.44E+0001	2.46E+0001	2.47E+0001	2.49E+0001	2.51E+0001
4	2.43E+0001	2.45E+0001	2.46E+0001	2.48E+0001	2.50E+0001	2.52E+0001
3	2.43E+0001	2.45E+0001	2.47E+0001	2.48E+0001	2.50E+0001	2.52E+0001
2	2.44E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.50E+0001	2.52E+0001
1	2.44E+0001	2.45E+0001	2.47E+0001	2.49E+0001	2.50E+0001	2.52E+0001
	13	14	15	16	17	18
	19	20	21	22	23	24
30	2.55E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.68E+0001
29	2.55E+0001	2.57E+0001	2.59E+0001	2.61E+0001	2.65E+0001	2.68E+0001
28	2.56E+0001	2.58E+0001	2.60E+0001	2.62E+0001	2.66E+0001	2.69E+0001
27	2.57E+0001	2.59E+0001	2.62E+0001	2.64E+0001	2.68E+0001	2.71E+0001
26	2.57E+0001	2.59E+0001	2.62E+0001	2.64E+0001	2.68E+0001	2.72E+0001
25	2.56E+0001	2.59E+0001	2.61E+0001	2.64E+0001	2.68E+0001	2.72E+0001
24	2.55E+0001	2.58E+0001	2.61E+0001	2.63E+0001	2.68E+0001	2.72E+0001
23	2.54E+0001	2.57E+0001	2.60E+0001	2.62E+0001	2.68E+0001	2.72E+0001

22	2.51E+0001	2.55E+0001	2.58E+0001	2.61E+0001	2.67E+0001	2.72E+0001
21	2.50E+0001	2.54E+0001	2.57E+0001	2.61E+0001	2.67E+0001	2.72E+0001
20	2.48E+0001	2.53E+0001	2.57E+0001	2.60E+0001	2.66E+0001	2.72E+0001
19	2.49E+0001	2.53E+0001	2.57E+0001	2.60E+0001	2.66E+0001	2.71E+0001
18	2.50E+0001	2.53E+0001	2.57E+0001	2.60E+0001	2.66E+0001	2.71E+0001
17	2.50E+0001	2.53E+0001	2.57E+0001	2.60E+0001	2.66E+0001	2.71E+0001
16	2.50E+0001	2.53E+0001	2.57E+0001	2.60E+0001	2.66E+0001	2.71E+0001
15	2.50E+0001	2.53E+0001	2.57E+0001	2.60E+0001	2.65E+0001	2.71E+0001
14	2.50E+0001	2.53E+0001	2.56E+0001	2.59E+0001	2.65E+0001	2.70E+0001
13	2.50E+0001	2.53E+0001	2.56E+0001	2.59E+0001	2.65E+0001	2.70E+0001
12	2.50E+0001	2.52E+0001	2.55E+0001	2.59E+0001	2.65E+0001	2.70E+0001
11	2.49E+0001	2.51E+0001	2.55E+0001	2.58E+0001	2.64E+0001	2.70E+0001
10	2.49E+0001	2.48E+0001	2.54E+0001	2.58E+0001	2.64E+0001	2.69E+0001
9	2.50E+0001	2.51E+0001	2.55E+0001	2.58E+0001	2.64E+0001	2.69E+0001
8	2.51E+0001	2.53E+0001	2.56E+0001	2.58E+0001	2.64E+0001	2.69E+0001
7	2.52E+0001	2.54E+0001	2.56E+0001	2.59E+0001	2.64E+0001	2.68E+0001
6	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.64E+0001	2.68E+0001
5	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.63E+0001	2.67E+0001
4	2.54E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.63E+0001	2.66E+0001
3	2.54E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.62E+0001	2.65E+0001
2	2.54E+0001	2.55E+0001	2.57E+0001	2.58E+0001	2.62E+0001	2.65E+0001
1	2.53E+0001	2.55E+0001	2.57E+0001	2.58E+0001	2.62E+0001	2.65E+0001
	19	20	21	22	23	24
	25	26	27	28	29	30

30	2.71E+0001	2.74E+0001	2.79E+0001	2.84E+0001	2.87E+0001	2.88E+0001
29	2.71E+0001	2.74E+0001	2.79E+0001	2.84E+0001	2.87E+0001	2.90E+0001
28	2.72E+0001	2.75E+0001	2.80E+0001	2.85E+0001	2.89E+0001	2.93E+0001
27	2.74E+0001	2.77E+0001	2.82E+0001	2.86E+0001	2.89E+0001	2.93E+0001
26	2.76E+0001	2.79E+0001	2.84E+0001	2.87E+0001	2.90E+0001	2.93E+0001
25	2.76E+0001	2.79E+0001	2.84E+0001	2.87E+0001	2.90E+0001	2.92E+0001
24	2.76E+0001	2.80E+0001	2.85E+0001	2.88E+0001	2.90E+0001	2.93E+0001
23	2.76E+0001	2.80E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.93E+0001
22	2.76E+0001	2.80E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
21	2.76E+0001	2.80E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
20	2.76E+0001	2.80E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
19	2.76E+0001	2.80E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
18	2.76E+0001	2.79E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
17	2.75E+0001	2.79E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
16	2.75E+0001	2.79E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
15	2.75E+0001	2.79E+0001	2.85E+0001	2.88E+0001	2.91E+0001	2.95E+0001
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13	2.75E+0001	2.78E+0001	2.84E+0001	2.88E+0001	2.91E+0001	2.95E+0001
12	2.74E+0001	2.78E+0001	2.84E+0001	2.87E+0001	2.91E+0001	2.95E+0001
11	2.74E+0001	2.78E+0001	2.84E+0001	2.87E+0001	2.90E+0001	2.94E+0001
10	2.74E+0001	2.78E+0001	2.83E+0001	2.87E+0001	2.90E+0001	2.93E+0001
9	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.90E+0001	2.92E+0001
8	2.73E+0001	2.77E+0001	2.83E+0001	2.86E+0001	2.90E+0001	2.93E+0001
7	2.72E+0001	2.76E+0001	2.82E+0001	2.86E+0001	2.89E+0001	2.92E+0001
6	2.72E+0001	2.75E+0001	2.81E+0001	2.85E+0001	2.88E+0001	2.93E+0001
5	2.71E+0001	2.74E+0001	2.80E+0001	2.84E+0001	2.88E+0001	2.90E+0001
4	2.69E+0001	2.73E+0001	2.78E+0001	2.82E+0001	2.86E+0001	2.90E+0001
3	2.68E+0001	2.71E+0001	2.77E+0001	2.81E+0001	2.86E+0001	2.90E+0001
2	2.68E+0001	2.71E+0001	2.76E+0001	2.80E+0001	2.84E+0001	2.88E+0001
1	2.68E+0001	2.70E+0001	2.76E+0001	2.80E+0001	2.84E+0001	2.86E+0001
	25	26	27	28	29	30

********** End of logbook **********

Water Balance

Units of all fluxes in [ft^3/d]

i	j	flux	CodeID	Node#	
30	29	281.9583	2	1	constant head
30	2	366.3742	1	2	constant head
1	7	625.0215	10	3	constant head
30	18	207.2977	4	4	constant head
1	14	-165.7220	7	5	constant head
30	16	213.2538	4	6	constant head
1	10	-125.9820	6	7	constant head
30	14	229.4610	4	8	constant head
1	16	-535.7694	10	9	constant head
30	12	541.8491	4	10	constant head
1	8	-1346.8657	6	11	constant head
30	10	-155.5978	3	12	constant head
1	18	-627.3974	11	13	constant head
30	20	209.8303	4	14	constant head
1	12	-838.2893	7	15	constant head
30	22	467.4113	4	16	constant head
30	8	248.2664	3	17	constant head
30	6	625.9583	3	18	constant head
1	20	-1051.8924	12	19	constant head
30	24	113.6543	3	20	constant head
1	23	133.5033	11	21	constant head
30	4	434.4126	2	22	constant head
1	22	-1060.4766	12	23	constant head
30	26	324.9231	3	24	constant head
30	27	422.2183	3	25	constant head
30	3	723.6014	2	26	constant head
30	28	668.7351	3	27	constant head
1	29	-1886.3080	13	28	constant head
1	28	-1425.2573	13	29	constant head
1	27	-1620.8360	13	30	constant head
1	26	-765.3374	12	31	constant head
1	25	-647.3099	12	32	constant head
1	24	-1012.5225	12	33	constant head
1	2	-1163.4074	5	34	constant head
1	3	-1094.8690	6	35	constant head
1	4	-1889.5711	7	36	constant head
1	5	-790.5032	8	37	constant head
1	6	257.1802	9	38	constant head

Sum of all fluxes organized in Codes :

13

1	366.3742	0.0000	366.3742	CodeID	In / Out / Net flux
2	1439.9722	0.0000	1439.9722	CodeID	In / Out / Net flux
3	2403.7556	-155.5978	2248.1577	CodeID	In / Out / Net flux
4	1869.1034	0.0000	1869.1034	CodeID	In / Out / Net flux
5	0.0000	-1163.4073	-1163.4073	CodeID	In / Out / Net flux
6	0.0000	-2567.7168	-2567.7168	CodeID	In / Out / Net flux
7	0.0000	-2893.5825	-2893.5825	CodeID	In / Out / Net flux
8	0.0000	-790.5032	-790.5032	CodeID	In / Out / Net flux
9	257.1802	0.0000	257.1802	CodeID	In / Out / Net flux
10	625.0215	-535.7694	89.2521	CodeID	In / Out / Net flux
11	133.5033	-627.3974	-493.8941	CodeID	In / Out / Net flux
12	0.0000	-4537.5386	-4537.5386	CodeID	In / Out / Net flux
13	0.0000	-4932.4014	-4932.4014	CodeID	In / Out / Net flux

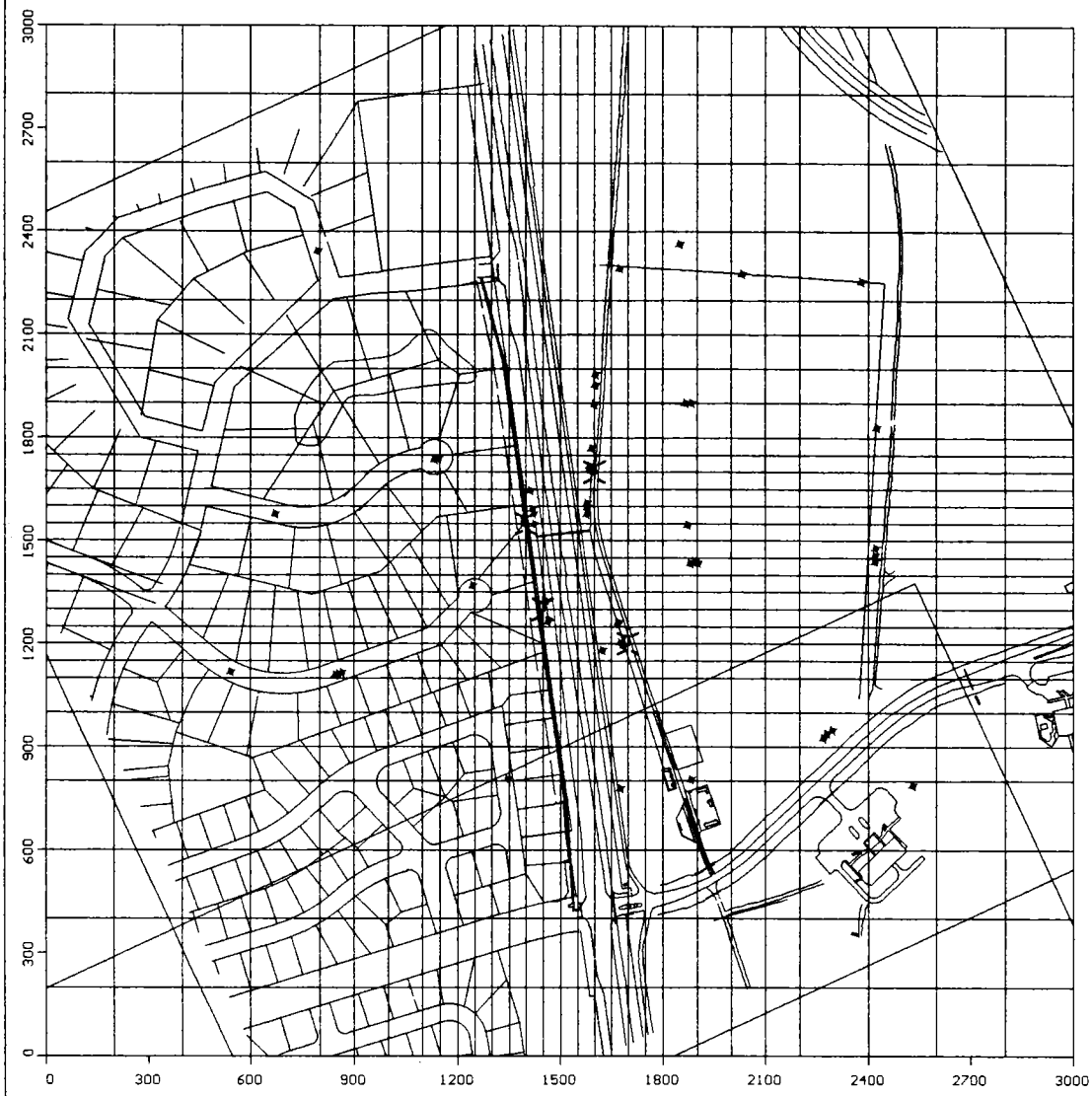
Global water balance [ft^3/d] :

7094.9102 total IN-flux through const. head nodes

-18203.9144 total OUT-flux through const. head nodes

0.0000	total IN-flux through flux nodes
0.0000	total OUT-flux through flux nodes
0.0000	total IN-flux through river nodes
0.0000	total OUT-flux through river nodes
0.0000	total IN-flux through drain nodes
0.0000	total OUT-flux through drain nodes
0.0000	total IN-flux through injection wells
-6944.5117	total OUT-flux through pumping wells
18094.9318	total net aquifer recharge
41.4159	sum of all fluxes should be zero
0.0823%	**total mass balance error**

GRID and WELLS



FLOWPATH 5.03

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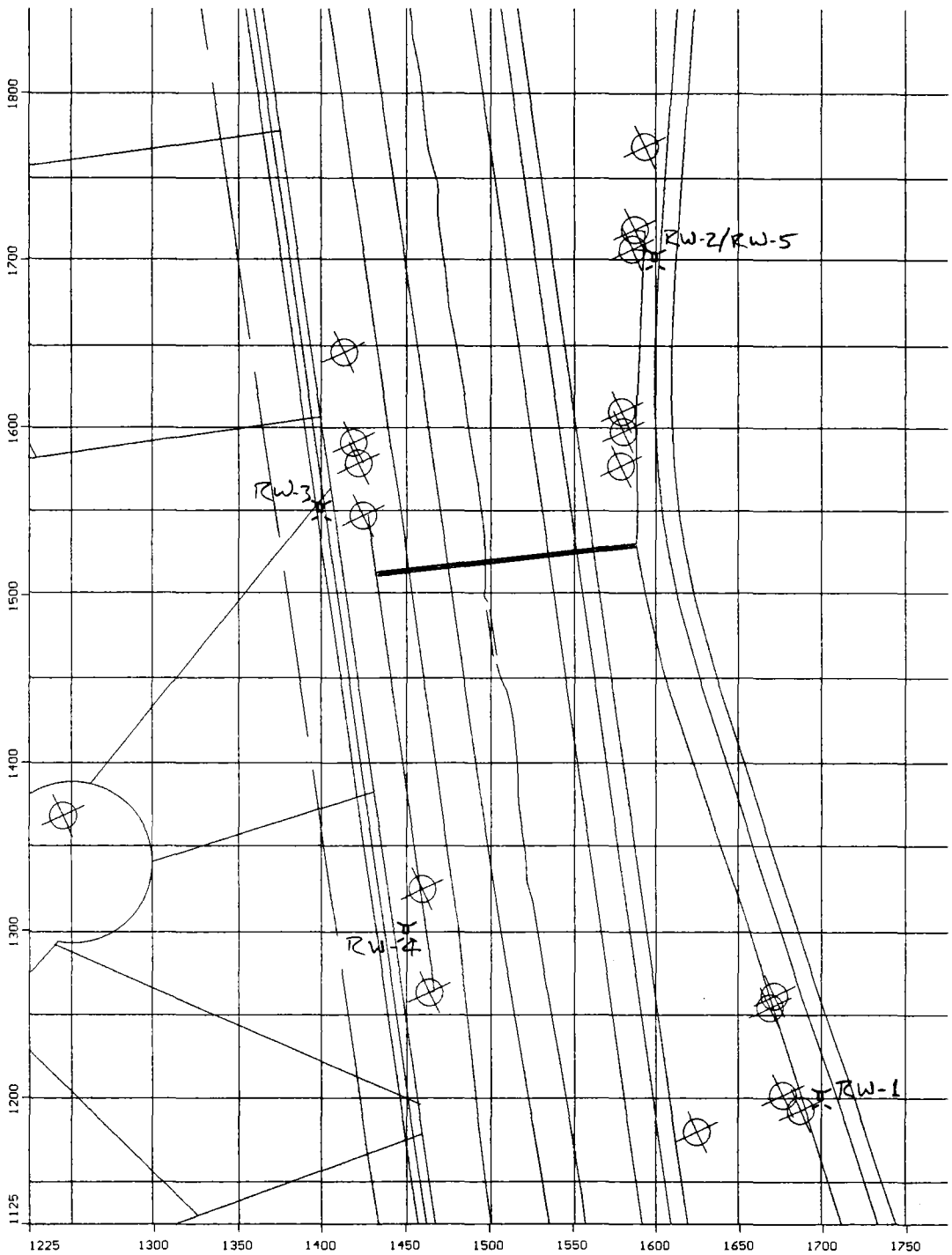
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. injct	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

Zoom GRID and WELLS



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Model Dimensions

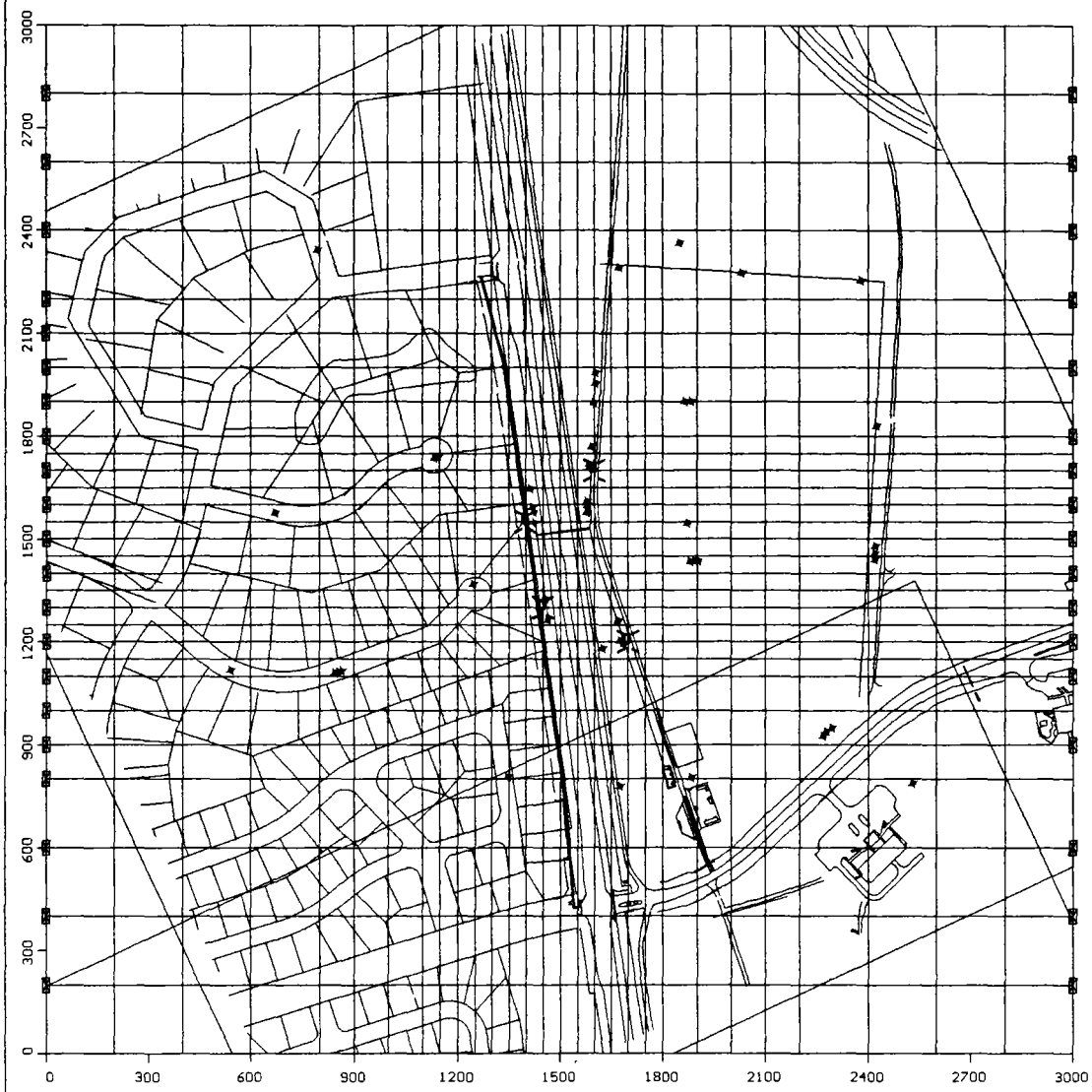
No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

KB [IMI-EVAL&REC]
mlv.11.94

DOMAIN BOUNDARY



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 8
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

AQUIFER PROPERTIES

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

Bottom of Aquifer

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

RECHARGE

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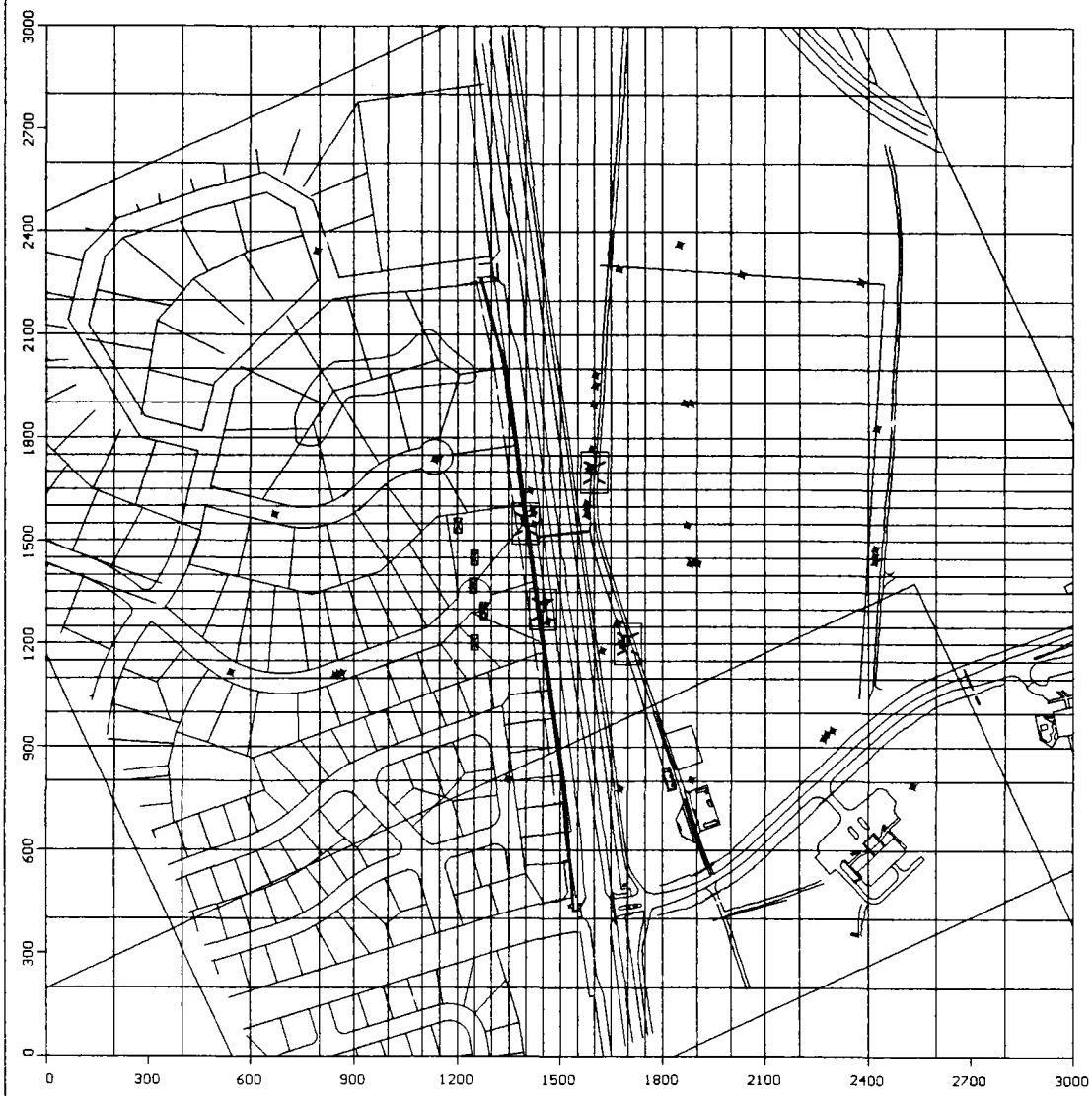
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

PATHLINES



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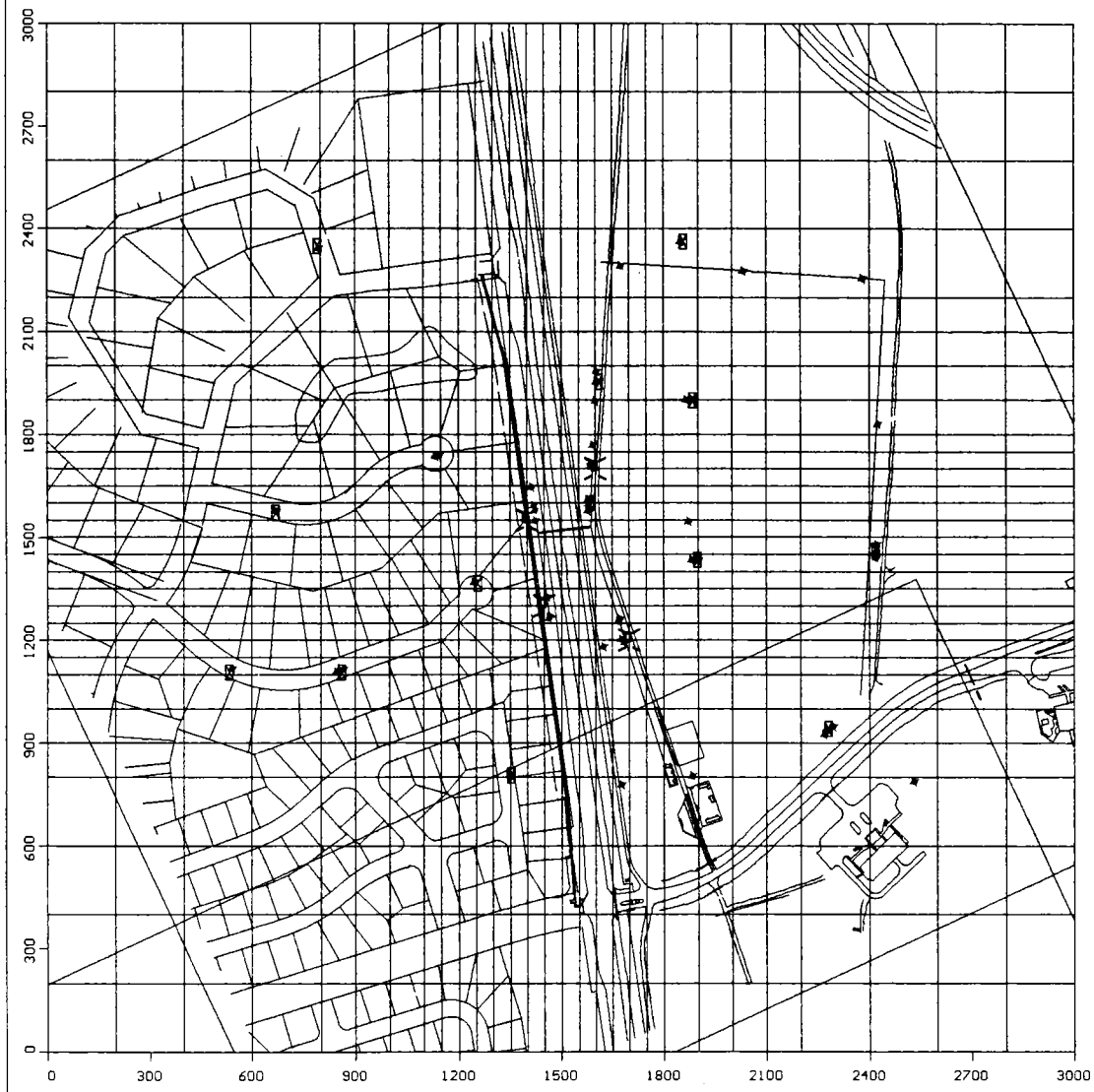
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

MONITOR WELLS



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ1

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Model Dimensions

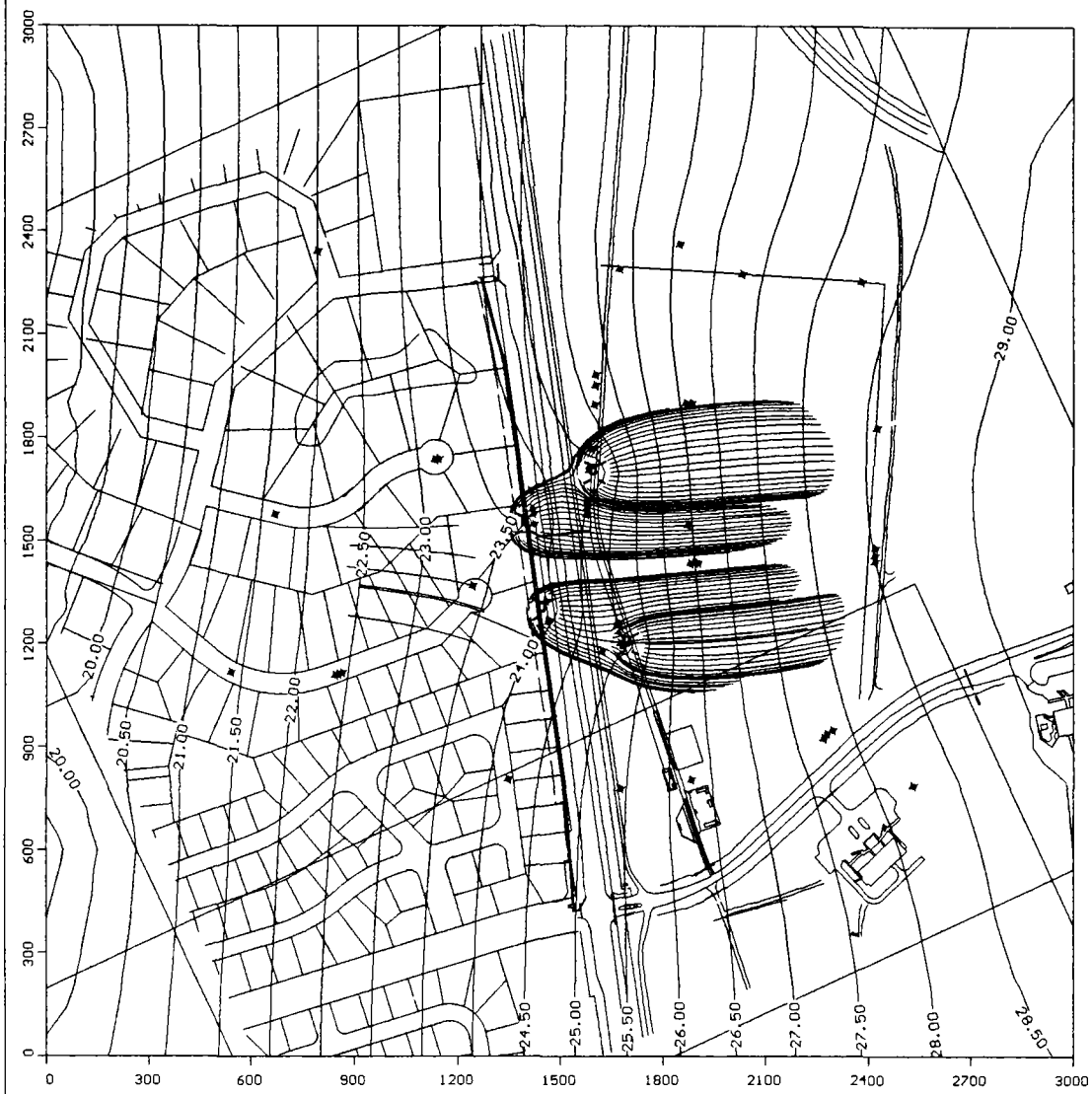
No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.019
Max :	0.738
Avg :	0.241

Units : [ft][day]

Data Set : CAMDNCZ1



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ1

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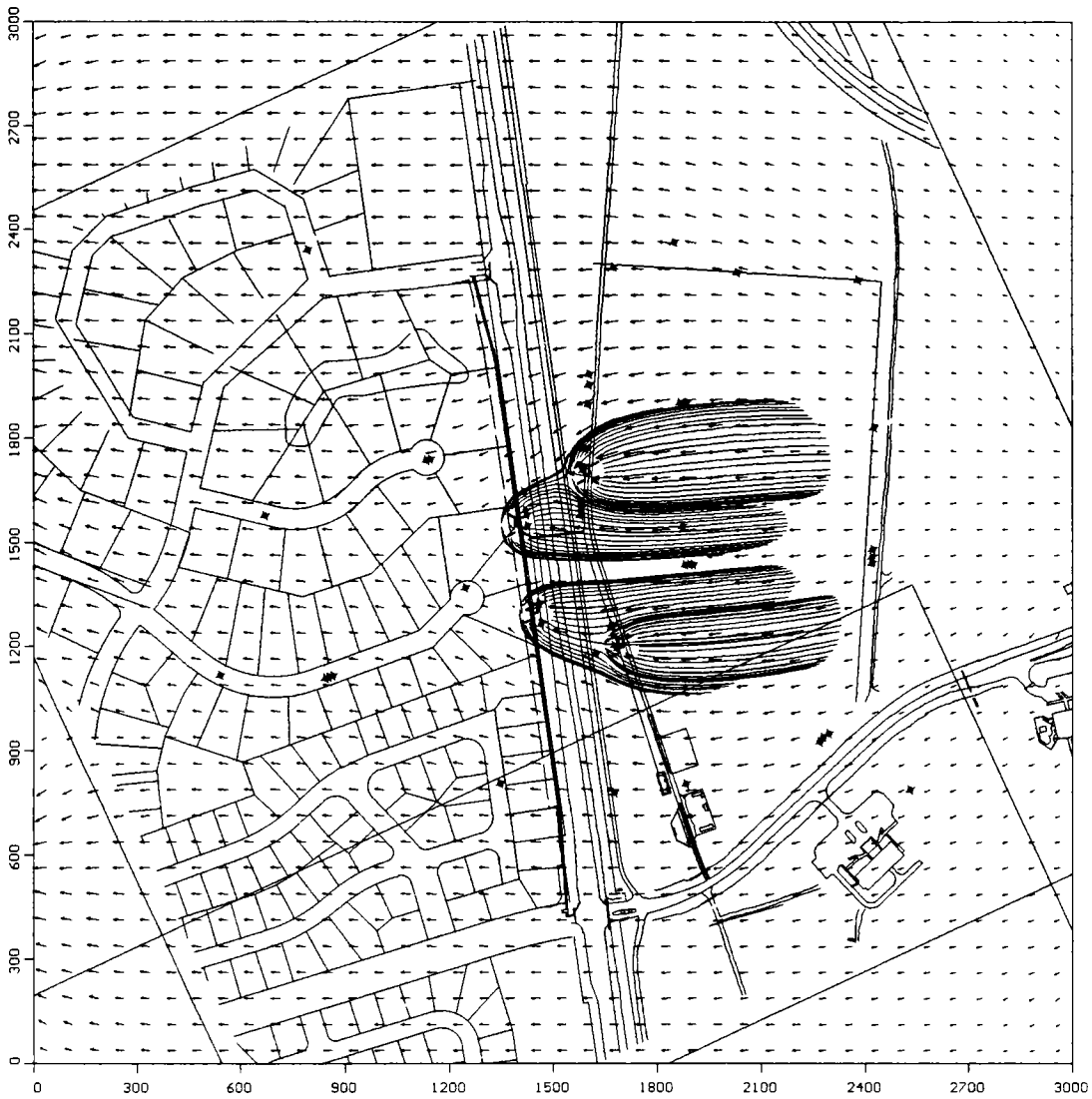
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ1



FLOWPATH 5.03

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software

Model Dimensions

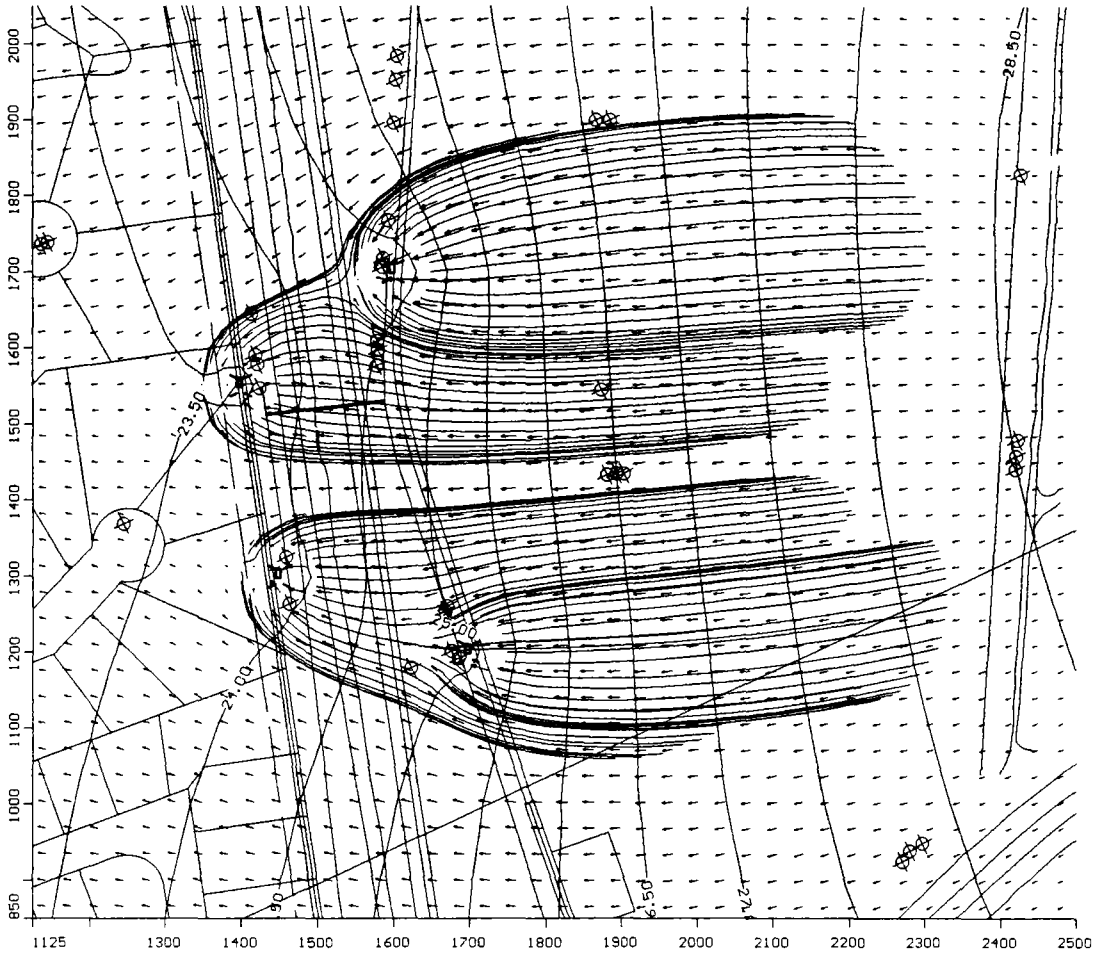
No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.060
Max :	0.669
Avg :	0.242

Units : [ft][day]

Data Set : CAMDNCZ1



FLOWPATH 5.03

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

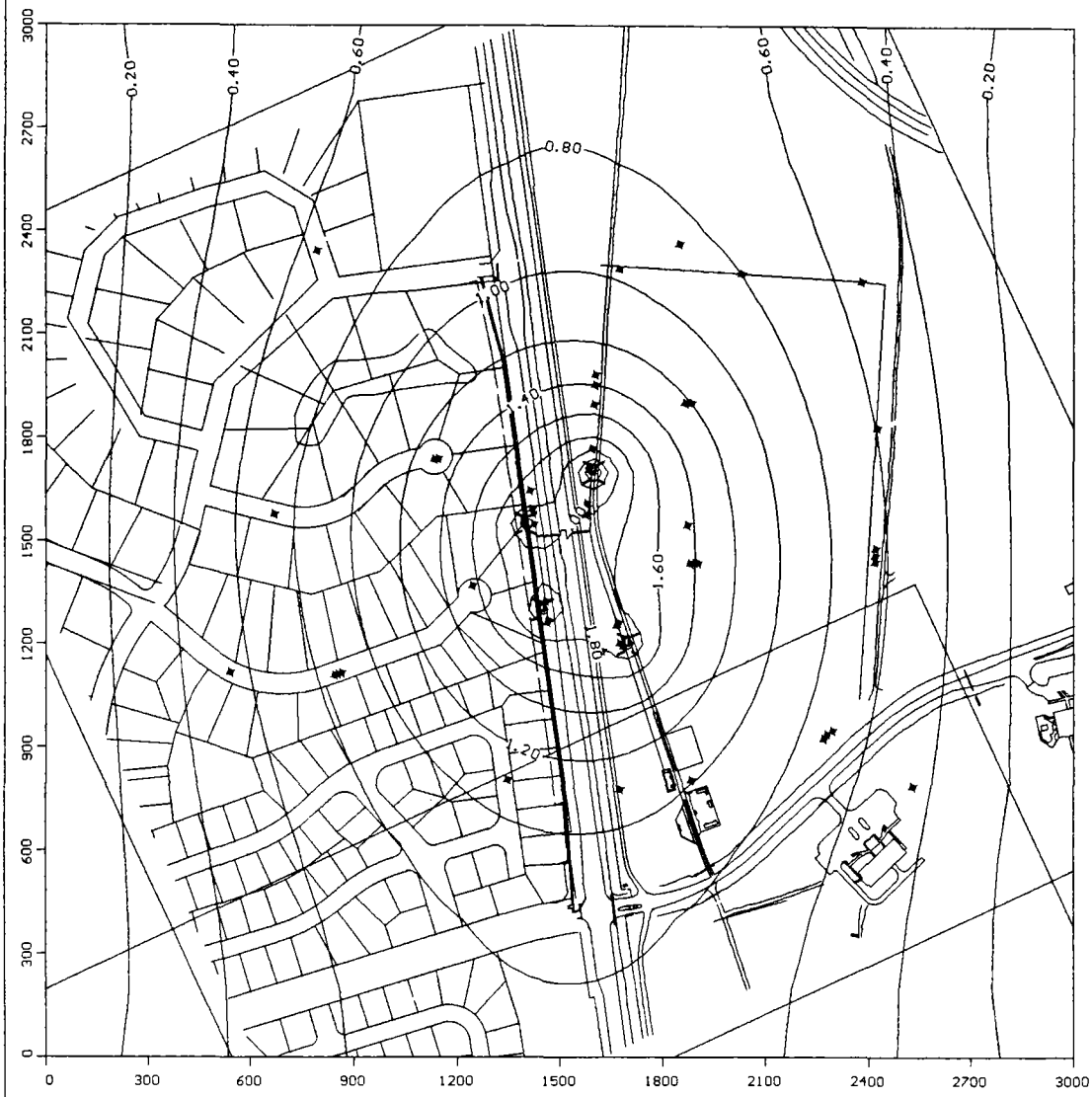
Min :	18.250
Max :	29.500

Velocities (ft/d)

Min :	0.020
Max :	0.814
Avg :	0.293

Units : [ft][day]

Data Set : CAMDNCZ1



FLOWPATH 5.03

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Model Dimensions

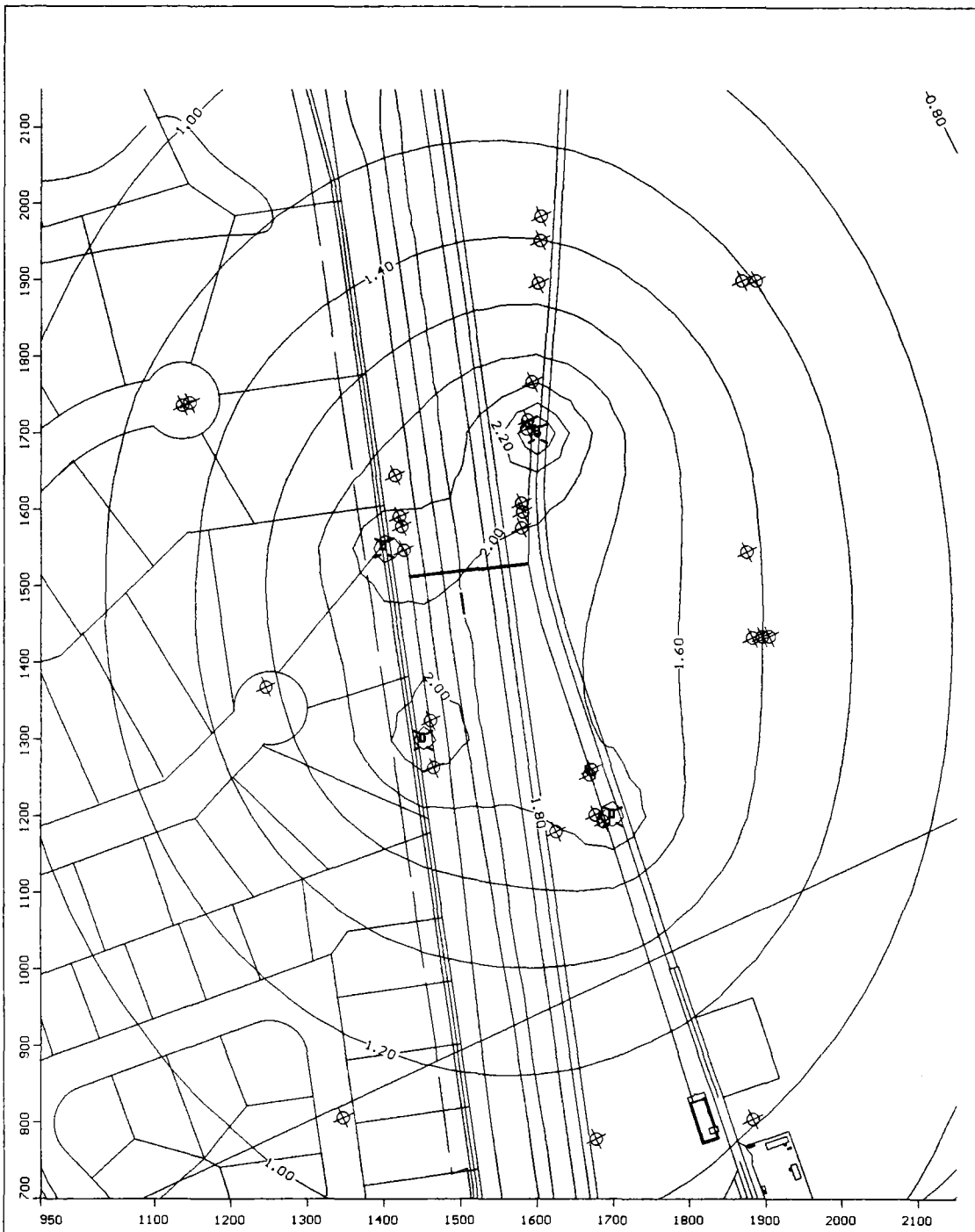
No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Draudown (ft)

Min :	-0.000
Max :	2.648

Units : [ft][day]

Data Set : CAMDNCZ1



FLOWPATH 5.03

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software

Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 4
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Draudown (ft)

Min :	-0.000
Max :	2.648

Units : [ft][day]

Data Set : CAMDNCZ1

KB [IM]-EVAL&REC]
mlv.11.94

FILE:

CAMDNCZ2.xxx

```
*************************************************************
*              E C H O P R I N T                            *
*                                                           *
*              F L O W P A T H                              *
*                version 5.0                                *
*                                                           *
* FLOWPATH was written by Thomas Franz and Nilson Guiguer   *
*                                                           *
*************************************************************
*                                                           *
*              Copyright 1989-1994                          *
*                     by                                    *
*          Waterloo Hydrogeologic Software                  *
*              200 Candlewood Crescent                      *
*                Waterloo, Ontario                          *
*                 N2L 5Y9, Canada                           *
*                                                           *
*              ph (519) 746-1798                            *
*                                                           *
*************************************************************
```

IM Phase I Activities: Evaluation and Recommendations Report

Capture Zone Model - Old Camden County Landfill, Site 11

IM Phase II Operations: Pumping Seven Recovery Wells
(Five Existing Wells and Two Optional Wells)

FLOWPATH logbook for data set : CAMDNCZ2

Unit System : English units [ft/gal/d]

***** GRID PARAMETERS *****

Number of x-grid lines : 30

Number of y-grid lines : 30

Grid coordinates (x-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003

13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
16	1.501E+0003
17	1.551E+0003
18	1.600E+0003
19	1.649E+0003
20	1.699E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

Grid coordinates (y-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003
13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
16	1.501E+0003
17	1.551E+0003
18	1.600E+0003
19	1.649E+0003
20	1.701E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

***** WELL PARAMETERS *****

Number of wells : 6

No.	i	j	X [ft]	Y [ft]	well discharge [gpd]

1	20	10	1.699E+0003	1.200E+0003	-1.086E+0004
2	18	20	1.600E+0003	1.701E+0003	-1.889E+0004
3	14	17	1.400E+0003	1.551E+0003	-1.081E+0004
4	15	12	1.451E+0003	1.299E+0003	-1.138E+0004
5	11	13	1.250E+0003	1.351E+0003	-1.080E+0004
6	5	17	8.000E+0002	1.551E+0003	-1.800E+0004

***** CONSTRAINED HEAD NODES *****

Number of constant head nodes : 38

No.	i	j	X [ft]	Y [ft]	const. head [ft]
1	30	29	3.000E+0003	2.802E+0003	2.900E+0001
2	30	2	3.000E+0003	1.982E+0002	2.875E+0001
3	1	7	0.000E+0000	9.977E+0002	2.010E+0001
4	30	18	3.000E+0003	1.599E+0003	2.950E+0001
5	1	14	0.000E+0000	1.401E+0003	1.925E+0001
6	30	16	3.000E+0003	1.503E+0003	2.950E+0001
7	1	10	0.000E+0000	1.203E+0003	1.950E+0001
8	30	14	3.000E+0003	1.401E+0003	2.950E+0001
9	1	16	0.000E+0000	1.503E+0003	1.900E+0001
10	30	12	3.000E+0003	1.298E+0003	2.950E+0001
11	1	8	0.000E+0000	1.100E+0003	1.950E+0001
12	30	10	3.000E+0003	1.203E+0003	2.925E+0001
13	1	18	0.000E+0000	1.599E+0003	1.875E+0001
14	30	20	3.000E+0003	1.702E+0003	2.950E+0001
15	1	12	0.000E+0000	1.298E+0003	1.925E+0001
16	30	22	3.000E+0003	1.797E+0003	2.950E+0001
17	30	8	3.000E+0003	1.100E+0003	2.925E+0001
18	30	6	3.000E+0003	9.021E+0002	2.925E+0001
19	1	20	0.000E+0000	1.702E+0003	1.850E+0001
20	30	24	3.000E+0003	2.002E+0003	2.925E+0001
21	1	23	0.000E+0000	1.900E+0003	1.875E+0001
22	30	4	3.000E+0003	6.014E+0002	2.900E+0001
23	1	22	0.000E+0000	1.797E+0003	1.850E+0001
24	30	26	3.000E+0003	2.200E+0003	2.925E+0001
25	30	27	3.000E+0003	2.399E+0003	2.925E+0001
26	30	3	3.000E+0003	4.032E+0002	2.900E+0001
27	30	28	3.000E+0003	2.597E+0003	2.925E+0001
28	1	29	0.000E+0000	2.802E+0003	1.825E+0001
29	1	28	0.000E+0000	2.597E+0003	1.825E+0001
30	1	27	0.000E+0000	2.399E+0003	1.825E+0001
31	1	26	0.000E+0000	2.200E+0003	1.850E+0001
32	1	25	0.000E+0000	2.098E+0003	1.850E+0001
33	1	24	0.000E+0000	2.002E+0003	1.850E+0001
34	1	2	0.000E+0000	1.982E+0002	1.970E+0001
35	1	3	0.000E+0000	4.032E+0002	1.950E+0001
36	1	4	0.000E+0000	6.014E+0002	1.925E+0001
37	1	5	0.000E+0000	7.995E+0002	1.975E+0001
38	1	6	0.000E+0000	9.021E+0002	2.010E+0001

***** SPECIFIED FLUX NODES *****

Number of flux nodes : 0

***** SURFACE WATER BODIES *****

Number of surface water body nodes : 0

***** AQUIFER PROPERTIES *****

Number of different material properties : 7

No.	Kxx [ft/d]	Kyy [ft/d]	Porosity [-]	
1	1.720E+0001	1.720E+0001	2.500E-0001	(default)
2	1.720E+0001	1.720E+0001	2.500E-0001	
3	1.720E+0001	1.720E+0001	2.500E-0001	
4	1.720E+0001	1.720E+0001	2.500E-0001	
5	1.720E+0001	1.720E+0001	2.500E-0001	
6	2.140E+0001	2.140E+0001	2.700E-0001	
7	1.640E+0001	1.640E+0001	2.200E-0001	

********** DISTRIBUTION OF AQUIFER MATERIAL PROPERTIES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	1
28	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	1	1
27	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
26	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
25	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3
24	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	7	7
22	1	1	1	1	1	1	1	7	7	7	7	7	7	7	7	7	7
21	1	1	1	7	7	7	7	6	6	6	6	6	7	7	7	7	7
20	1	1	1	7	6	6	6	6	6	6	6	6	6	6	7	7	7
19	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	7	7
18	7	7	7	7	6	6	6	6	6	6	6	6	7	7	7	7	7
17	7	7	7	7	6	6	6	6	6	7	7	7	7	7	7	7	7
16	7	7	7	7	6	6	6	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
11	7	7	7	7	7	7	7	1	1	1	1	1	4	4	4	4	4
10	7	7	7	7	7	7	7	1	1	1	4	4	4	4	4	4	4
9	7	7	7	1	1	1	1	1	1	1	4	4	4	4	4	4	4
8	1	1	1	1	1	1	1	1	1	1	4	4	4	4	4	4	4
7	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
6	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
5	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
4	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	3
3	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	4
2	1	1	1	1	1	1	4	4	4	4	4	4	4	4	1	3	1
1	1	1	1	1	1	1	4	4	4	4	4	4	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	1	1	1	1	1	1	1	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1
27	3	3	3	3	3	1	1	1	1	1	1	1	1
26	3	3	3	3	3	2	2	2	2	2	1	1	1
25	3	3	3	3	3	2	2	2	2	2	1	1	1
24	3	3	3	3	3	2	2	2	2	2	1	1	1
23	7	7	7	7	7	7	7	2	2	2	1	1	1
22	7	7	7	7	7	7	7	7	7	7	7	1	1
21	7	7	7	7	7	7	7	7	7	7	7	7	7
20	7	7	7	7	7	7	7	7	7	7	7	7	7
19	7	7	7	7	7	7	7	7	7	7	7	7	7
18	7	7	7	7	7	7	7	7	7	7	7	7	7
17	7	7	7	7	7	7	7	7	7	7	7	7	7
16	7	7	7	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7
11	4	3	3	3	3	3	2	7	7	7	7	7	7
10	4	3	3	3	3	3	2	7	7	7	7	7	7
9	4	3	3	3	3	3	2	7	7	7	7	7	7
8	4	3	3	3	3	3	2	2	2	1	1	7	7
7	3	4	4	4	3	3	2	2	2	1	1	1	1
6	3	4	4	4	3	3	1	1	1	1	1	1	1
5	3	4	4	4	3	3	1	1	1	1	1	1	1
4	3	4	4	4	1	1	1	1	1	1	1	1	1
3	4	4	4	4	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** AQUIFER TYPE *****

Unconfined aquifer

***** AQUIFER BOTTOM ELEVATIONS *****

Number of different aquifer bottom elevations : 7

No.	aquifer bottom elevation [ft]
1	-6.000E+0001 (default)
2	-5.500E+0001
3	-5.000E+0001
4	-4.500E+0001
5	-5.750E+0001
6	-5.250E+0001
7	-4.750E+0001

********** DISTRIBUTION OF AQUIFER BOTTOM ELEVATIONS **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
29	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
28	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
27	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
26	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
25	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
24	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
23	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
22	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
21	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
20	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
19	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
18	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
17	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
16	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
15	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
14	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
13	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
12	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
11	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
10	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
9	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
8	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
7	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
6	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
5	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
4	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
3	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
2	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
1	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	6	6	3	3	3	3	3	7	7	7	4	4	4
29	6	6	3	3	3	3	3	7	7	7	4	4	4
28	6	6	3	3	3	3	3	7	7	7	4	4	4
27	6	6	3	3	3	3	3	7	7	7	4	4	4
26	6	6	3	3	3	3	3	7	7	7	4	4	4
25	6	6	3	3	3	3	3	7	7	7	4	4	4
24	6	6	3	3	3	3	3	7	7	7	4	4	4
23	6	6	3	3	3	3	3	7	7	7	4	4	4
22	6	6	3	3	3	3	3	7	7	7	4	4	4
21	6	6	3	3	3	3	3	7	7	7	4	4	4
20	6	6	3	3	3	3	3	7	7	7	4	4	4
19	6	6	3	3	3	3	3	7	7	7	4	4	4
18	6	6	3	3	3	3	3	7	7	7	4	4	4
17	6	6	3	3	3	3	3	7	7	7	4	4	4
16	6	6	3	3	3	3	3	7	7	7	4	4	4
15	6	6	3	3	3	3	3	7	7	7	4	4	4
14	6	6	3	3	3	3	3	7	7	7	4	4	4
13	6	6	3	3	3	3	3	7	7	7	4	4	4
12	6	6	3	3	3	3	3	7	7	7	4	4	4
11	6	6	3	3	3	3	3	7	7	7	4	4	4
10	6	6	3	3	3	3	3	7	7	7	4	4	4
9	6	6	3	3	3	3	3	7	7	7	4	4	4
8	6	6	3	3	3	3	3	7	7	7	4	4	4
7	6	6	3	3	3	3	3	7	7	7	4	4	4
6	6	6	3	3	3	3	3	7	7	7	4	4	4

	18	19	20	21	22	23	24	25	26	27	28	29	30
5	6	6	3	3	3	3	3	7	7	7	4	4	4
4	6	6	3	3	3	3	3	7	7	7	4	4	4
3	6	6	3	3	3	3	3	7	7	7	4	4	4
2	6	6	3	3	3	3	3	7	7	7	4	4	4
1	6	6	3	3	3	3	3	7	7	7	4	4	4

***** AREAL RECHARGE *****

Number of different infiltration/evapotranspiration rates : 4

No.	infiltration [L/T]	evapotranspiration [L/T]	effective recharge [L/T]	
1	1.005E-0002	9.200E-0003	8.500E-0004	(default)
2	1.750E-0002	8.500E-0003	9.000E-0003	
3	1.070E-0002	8.500E-0003	2.200E-0003	
4	9.750E-0003	9.200E-0003	5.500E-0004	

********** DISTRIBUTION OF AREAL IN/OUT-FLUXES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
29	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
28	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
27	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
26	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
25	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
24	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
23	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	4	4	4	4	4	4	4	4	4	4	3	4	4
29	4	4	4	4	4	4	4	4	4	4	3	4	4
28	4	4	4	4	4	4	4	4	4	4	3	4	4
27	2	2	2	2	2	2	2	2	4	4	3	4	4
26	3	3	2	2	2	2	2	2	2	2	3	4	4
25	3	3	2	2	2	2	2	2	2	2	3	4	4
24	3	3	2	2	2	2	2	2	2	2	3	4	4
23	3	3	2	2	2	2	2	2	2	2	3	4	4
22	3	2	2	2	2	2	2	2	2	2	3	4	4
21	3	2	2	2	2	2	2	2	2	2	3	4	4
20	3	2	2	2	2	2	2	2	2	2	3	4	4
19	3	2	2	2	2	2	2	2	2	2	3	4	4
18	3	2	2	2	2	2	2	2	2	2	3	4	4
17	3	2	2	2	2	2	2	2	2	2	3	4	4
16	3	3	2	2	2	2	2	2	2	2	3	4	4
15	3	3	2	2	2	2	2	2	2	2	3	4	4
14	3	3	2	2	2	2	2	2	2	2	3	4	4
13	3	3	2	2	2	2	2	2	2	2	3	4	4
12	3	3	3	2	2	2	2	2	2	2	3	4	4
11	3	3	3	2	2	2	2	2	2	2	3	4	4
10	3	3	3	2	2	2	2	2	2	2	3	4	4
9	3	3	3	3	3	2	2	2	2	2	3	3	3
8	3	3	3	3	3	2	2	2	2	2	3	3	3
7	1	4	3	3	3	2	2	2	2	2	3	3	3
6	1	4	3	3	3	3	3	3	2	2	4	4	4
5	1	1	3	3	3	3	3	3	3	3	4	4	4
4	1	1	3	3	3	3	3	3	3	3	4	4	4
3	1	1	1	1	4	4	4	4	4	4	4	4	4
2	1	1	1	1	4	4	4	4	4	4	4	4	4
1	1	1	1	1	4	4	4	4	4	4	4	4	4
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** PATHLINE & PARTICLE TRACKING DATA *****

Number of forward particles : 6

No.	x-release	y-release
1	1.247E+0003	1.369E+0003
2	1.251E+0003	1.451E+0003
3	1.251E+0003	1.203E+0003
4	1.278E+0003	1.292E+0003
5	1.278E+0003	1.298E+0003
6	1.203E+0003	1.544E+0003

Number of reverse particles : 0

Particles released at wells :

Well-No.	Particles released
1	25
2	25
3	25
4	25
5	25
6	25

********** HYDRAULIC HEAD DISTRIBUTION **********

	1	2	3	4	5	6
30	1.88E+0001	1.94E+0001	2.01E+0001	2.09E+0001	2.18E+0001	2.22E+0001
29	1.83E+0001	1.92E+0001	2.01E+0001	2.09E+0001	2.17E+0001	2.22E+0001
28	1.83E+0001	1.92E+0001	2.01E+0001	2.09E+0001	2.17E+0001	2.21E+0001
27	1.83E+0001	1.92E+0001	2.01E+0001	2.09E+0001	2.17E+0001	2.21E+0001
26	1.85E+0001	1.93E+0001	2.01E+0001	2.08E+0001	2.16E+0001	2.20E+0001
25	1.85E+0001	1.93E+0001	2.01E+0001	2.08E+0001	2.15E+0001	2.19E+0001
24	1.85E+0001	1.93E+0001	2.01E+0001	2.08E+0001	2.15E+0001	2.18E+0001
23	1.88E+0001	1.94E+0001	2.01E+0001	2.08E+0001	2.14E+0001	2.18E+0001
22	1.85E+0001	1.94E+0001	2.01E+0001	2.07E+0001	2.13E+0001	2.16E+0001
21	1.86E+0001	1.94E+0001	2.01E+0001	2.07E+0001	2.12E+0001	2.16E+0001
20	1.85E+0001	1.94E+0001	2.01E+0001	2.07E+0001	2.12E+0001	2.15E+0001
19	1.87E+0001	1.95E+0001	2.01E+0001	2.07E+0001	2.11E+0001	2.15E+0001
18	1.88E+0001	1.95E+0001	2.02E+0001	2.07E+0001	2.09E+0001	2.14E+0001
17	1.89E+0001	1.96E+0001	2.02E+0001	2.07E+0001	2.08E+0001	2.14E+0001
16	1.90E+0001	1.96E+0001	2.02E+0001	2.07E+0001	2.09E+0001	2.14E+0001
15	1.92E+0001	1.97E+0001	2.03E+0001	2.08E+0001	2.11E+0001	2.15E+0001
14	1.93E+0001	1.98E+0001	2.03E+0001	2.08E+0001	2.12E+0001	2.15E+0001
13	1.93E+0001	1.98E+0001	2.04E+0001	2.09E+0001	2.13E+0001	2.16E+0001
12	1.93E+0001	1.99E+0001	2.04E+0001	2.09E+0001	2.14E+0001	2.17E+0001
11	1.94E+0001	1.99E+0001	2.05E+0001	2.10E+0001	2.15E+0001	2.17E+0001
10	1.95E+0001	2.00E+0001	2.05E+0001	2.10E+0001	2.15E+0001	2.18E+0001
9	1.95E+0001	2.01E+0001	2.06E+0001	2.11E+0001	2.16E+0001	2.19E+0001
8	1.95E+0001	2.01E+0001	2.06E+0001	2.11E+0001	2.16E+0001	2.19E+0001
7	2.01E+0001	2.02E+0001	2.07E+0001	2.12E+0001	2.18E+0001	2.20E+0001
6	2.01E+0001	2.03E+0001	2.08E+0001	2.13E+0001	2.18E+0001	2.21E+0001
5	1.98E+0001	2.03E+0001	2.08E+0001	2.13E+0001	2.19E+0001	2.22E+0001
4	1.93E+0001	2.01E+0001	2.08E+0001	2.14E+0001	2.20E+0001	2.24E+0001
3	1.95E+0001	2.02E+0001	2.09E+0001	2.15E+0001	2.21E+0001	2.25E+0001
2	1.97E+0001	2.03E+0001	2.10E+0001	2.16E+0001	2.22E+0001	2.25E+0001
1	2.01E+0001	2.04E+0001	2.10E+0001	2.16E+0001	2.22E+0001	2.25E+0001

	1	2	3	4	5	6
	7	8	9	10	11	12
30	2.26E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001
29	2.26E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001
28	2.25E+0001	2.29E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001
27	2.25E+0001	2.29E+0001	2.31E+0001	2.33E+0001	2.35E+0001	2.37E+0001
26	2.24E+0001	2.28E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001
25	2.23E+0001	2.27E+0001	2.29E+0001	2.31E+0001	2.33E+0001	2.35E+0001
24	2.22E+0001	2.26E+0001	2.28E+0001	2.30E+0001	2.32E+0001	2.34E+0001
23	2.21E+0001	2.25E+0001	2.27E+0001	2.29E+0001	2.31E+0001	2.33E+0001
22	2.20E+0001	2.24E+0001	2.25E+0001	2.27E+0001	2.29E+0001	2.31E+0001
21	2.19E+0001	2.23E+0001	2.25E+0001	2.26E+0001	2.28E+0001	2.30E+0001
20	2.19E+0001	2.22E+0001	2.24E+0001	2.26E+0001	2.27E+0001	2.29E+0001
19	2.18E+0001	2.22E+0001	2.24E+0001	2.25E+0001	2.27E+0001	2.28E+0001
18	2.18E+0001	2.21E+0001	2.23E+0001	2.25E+0001	2.26E+0001	2.27E+0001
17	2.18E+0001	2.21E+0001	2.23E+0001	2.24E+0001	2.25E+0001	2.26E+0001
16	2.18E+0001	2.21E+0001	2.22E+0001	2.24E+0001	2.25E+0001	2.26E+0001
15	2.18E+0001	2.21E+0001	2.22E+0001	2.23E+0001	2.24E+0001	2.26E+0001
14	2.18E+0001	2.21E+0001	2.22E+0001	2.23E+0001	2.23E+0001	2.25E+0001
13	2.19E+0001	2.21E+0001	2.22E+0001	2.22E+0001	2.21E+0001	2.25E+0001
12	2.19E+0001	2.22E+0001	2.23E+0001	2.24E+0001	2.24E+0001	2.26E+0001
11	2.20E+0001	2.23E+0001	2.24E+0001	2.25E+0001	2.26E+0001	2.28E+0001
10	2.21E+0001	2.23E+0001	2.25E+0001	2.26E+0001	2.27E+0001	2.29E+0001

9	2.21E+0001	2.24E+0001	2.26E+0001	2.27E+0001	2.28E+0001	2.30E+0001
8	2.22E+0001	2.25E+0001	2.26E+0001	2.28E+0001	2.29E+0001	2.31E+0001
7	2.23E+0001	2.26E+0001	2.28E+0001	2.29E+0001	2.31E+0001	2.33E+0001
6	2.24E+0001	2.27E+0001	2.29E+0001	2.31E+0001	2.32E+0001	2.34E+0001
5	2.25E+0001	2.28E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.35E+0001
4	2.27E+0001	2.30E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.37E+0001
3	2.28E+0001	2.31E+0001	2.33E+0001	2.34E+0001	2.36E+0001	2.38E+0001
2	2.28E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.38E+0001
1	2.28E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.38E+0001
	7	8	9	10	11	12
	13	14	15	16	17	18
30	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001
29	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001
28	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.49E+0001	2.51E+0001
27	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.49E+0001	2.51E+0001
26	2.39E+0001	2.41E+0001	2.43E+0001	2.46E+0001	2.48E+0001	2.50E+0001
25	2.38E+0001	2.40E+0001	2.42E+0001	2.45E+0001	2.47E+0001	2.50E+0001
24	2.36E+0001	2.38E+0001	2.41E+0001	2.43E+0001	2.46E+0001	2.48E+0001
23	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001	2.44E+0001	2.46E+0001
22	2.33E+0001	2.34E+0001	2.36E+0001	2.39E+0001	2.41E+0001	2.43E+0001
21	2.31E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.40E+0001
20	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.36E+0001	2.35E+0001
19	2.29E+0001	2.31E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001
18	2.28E+0001	2.29E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.40E+0001
17	2.27E+0001	2.26E+0001	2.31E+0001	2.35E+0001	2.38E+0001	2.41E+0001
16	2.27E+0001	2.29E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
15	2.28E+0001	2.29E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
14	2.28E+0001	2.30E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
13	2.27E+0001	2.29E+0001	2.31E+0001	2.35E+0001	2.38E+0001	2.41E+0001
12	2.28E+0001	2.29E+0001	2.29E+0001	2.34E+0001	2.38E+0001	2.41E+0001
11	2.29E+0001	2.31E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
10	2.31E+0001	2.32E+0001	2.34E+0001	2.37E+0001	2.39E+0001	2.41E+0001
9	2.32E+0001	2.33E+0001	2.35E+0001	2.38E+0001	2.40E+0001	2.42E+0001
8	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001	2.43E+0001
7	2.35E+0001	2.36E+0001	2.38E+0001	2.40E+0001	2.43E+0001	2.45E+0001
6	2.36E+0001	2.38E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001
5	2.37E+0001	2.39E+0001	2.41E+0001	2.43E+0001	2.45E+0001	2.47E+0001
4	2.39E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001
3	2.40E+0001	2.41E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.48E+0001
2	2.40E+0001	2.42E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001
1	2.40E+0001	2.42E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001
	13	14	15	16	17	18
	19	20	21	22	23	24
30	2.52E+0001	2.54E+0001	2.56E+0001	2.58E+0001	2.62E+0001	2.65E+0001
29	2.52E+0001	2.54E+0001	2.56E+0001	2.58E+0001	2.62E+0001	2.66E+0001
28	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.63E+0001	2.67E+0001
27	2.54E+0001	2.56E+0001	2.58E+0001	2.61E+0001	2.65E+0001	2.68E+0001
26	2.53E+0001	2.56E+0001	2.58E+0001	2.61E+0001	2.65E+0001	2.69E+0001
25	2.52E+0001	2.55E+0001	2.58E+0001	2.60E+0001	2.65E+0001	2.69E+0001
24	2.51E+0001	2.54E+0001	2.57E+0001	2.59E+0001	2.65E+0001	2.69E+0001
23	2.49E+0001	2.52E+0001	2.55E+0001	2.58E+0001	2.64E+0001	2.69E+0001
22	2.47E+0001	2.50E+0001	2.54E+0001	2.57E+0001	2.63E+0001	2.69E+0001
21	2.45E+0001	2.49E+0001	2.53E+0001	2.57E+0001	2.63E+0001	2.68E+0001
20	2.43E+0001	2.48E+0001	2.52E+0001	2.56E+0001	2.63E+0001	2.68E+0001
19	2.43E+0001	2.48E+0001	2.52E+0001	2.56E+0001	2.62E+0001	2.68E+0001
18	2.44E+0001	2.48E+0001	2.52E+0001	2.56E+0001	2.62E+0001	2.68E+0001

17	2.45E+0001	2.48E+0001	2.52E+0001	2.55E+0001	2.62E+0001	2.67E+0001
16	2.45E+0001	2.48E+0001	2.52E+0001	2.55E+0001	2.62E+0001	2.67E+0001
15	2.45E+0001	2.48E+0001	2.52E+0001	2.55E+0001	2.61E+0001	2.67E+0001
14	2.45E+0001	2.48E+0001	2.51E+0001	2.55E+0001	2.61E+0001	2.67E+0001
13	2.44E+0001	2.48E+0001	2.51E+0001	2.55E+0001	2.61E+0001	2.66E+0001
12	2.44E+0001	2.47E+0001	2.51E+0001	2.54E+0001	2.61E+0001	2.66E+0001
11	2.44E+0001	2.46E+0001	2.50E+0001	2.54E+0001	2.60E+0001	2.66E+0001
10	2.43E+0001	2.43E+0001	2.49E+0001	2.54E+0001	2.60E+0001	2.66E+0001
9	2.44E+0001	2.46E+0001	2.50E+0001	2.54E+0001	2.60E+0001	2.66E+0001
8	2.45E+0001	2.48E+0001	2.51E+0001	2.54E+0001	2.60E+0001	2.65E+0001
7	2.47E+0001	2.50E+0001	2.52E+0001	2.55E+0001	2.60E+0001	2.65E+0001
6	2.48E+0001	2.50E+0001	2.53E+0001	2.55E+0001	2.60E+0001	2.64E+0001
5	2.49E+0001	2.51E+0001	2.53E+0001	2.55E+0001	2.60E+0001	2.64E+0001
4	2.50E+0001	2.52E+0001	2.54E+0001	2.56E+0001	2.60E+0001	2.63E+0001
3	2.50E+0001	2.52E+0001	2.54E+0001	2.56E+0001	2.59E+0001	2.62E+0001
2	2.50E+0001	2.52E+0001	2.54E+0001	2.55E+0001	2.59E+0001	2.62E+0001
1	2.50E+0001	2.52E+0001	2.54E+0001	2.55E+0001	2.59E+0001	2.62E+0001
	19	20	21	22	23	24
	25	26	27	28	29	30
30	2.69E+0001	2.72E+0001	2.77E+0001	2.82E+0001	2.86E+0001	2.88E+0001
29	2.69E+0001	2.72E+0001	2.78E+0001	2.83E+0001	2.87E+0001	2.90E+0001
28	2.70E+0001	2.73E+0001	2.79E+0001	2.84E+0001	2.88E+0001	2.93E+0001
27	2.72E+0001	2.75E+0001	2.80E+0001	2.85E+0001	2.89E+0001	2.93E+0001
26	2.73E+0001	2.76E+0001	2.82E+0001	2.86E+0001	2.89E+0001	2.93E+0001
25	2.73E+0001	2.77E+0001	2.82E+0001	2.86E+0001	2.89E+0001	2.92E+0001
24	2.73E+0001	2.77E+0001	2.83E+0001	2.86E+0001	2.90E+0001	2.93E+0001
23	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.90E+0001	2.93E+0001
22	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
21	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
20	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
19	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
18	2.72E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
17	2.72E+0001	2.76E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
16	2.72E+0001	2.76E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
15	2.72E+0001	2.76E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
14	2.72E+0001	2.76E+0001	2.82E+0001	2.87E+0001	2.90E+0001	2.95E+0001
13	2.71E+0001	2.76E+0001	2.82E+0001	2.86E+0001	2.90E+0001	2.95E+0001
12	2.71E+0001	2.75E+0001	2.82E+0001	2.86E+0001	2.90E+0001	2.95E+0001
11	2.71E+0001	2.75E+0001	2.82E+0001	2.86E+0001	2.90E+0001	2.94E+0001
10	2.71E+0001	2.75E+0001	2.81E+0001	2.86E+0001	2.89E+0001	2.93E+0001
9	2.70E+0001	2.75E+0001	2.81E+0001	2.85E+0001	2.89E+0001	2.92E+0001
8	2.70E+0001	2.74E+0001	2.81E+0001	2.85E+0001	2.89E+0001	2.93E+0001
7	2.69E+0001	2.74E+0001	2.80E+0001	2.84E+0001	2.88E+0001	2.92E+0001
6	2.69E+0001	2.73E+0001	2.79E+0001	2.83E+0001	2.88E+0001	2.93E+0001
5	2.68E+0001	2.72E+0001	2.78E+0001	2.83E+0001	2.87E+0001	2.90E+0001
4	2.67E+0001	2.70E+0001	2.76E+0001	2.81E+0001	2.86E+0001	2.90E+0001
3	2.66E+0001	2.69E+0001	2.75E+0001	2.80E+0001	2.85E+0001	2.90E+0001
2	2.65E+0001	2.68E+0001	2.74E+0001	2.79E+0001	2.84E+0001	2.88E+0001
1	2.65E+0001	2.68E+0001	2.74E+0001	2.79E+0001	2.83E+0001	2.85E+0001
	25	26	27	28	29	30

********** End of logbook **********

Water Balance

Units of all fluxes in [ft^3/d]

i	j	flux	CodeID	Node#	
30	29	375.3791	2	1	constant head

30	2	466.9003	1	2	constant head
1	7	727.9465	10	3	constant head
30	18	246.9430	4	4	constant head
1	14	-38.1597	7	5	constant head
30	16	253.2730	4	6	constant head
1	10	-14.0411	6	7	constant head
30	14	270.1042	4	8	constant head
1	16	-406.5771	10	9	constant head
30	12	582.2088	4	10	constant head
1	8	-1236.0368	6	11	constant head
30	10	-115.2039	3	12	constant head
1	18	-499.6813	11	13	constant head
30	20	249.1229	4	14	constant head
1	12	-717.9731	7	15	constant head
30	22	525.5561	4	16	constant head
30	8	307.1589	3	17	constant head
30	6	717.6519	3	18	constant head
1	20	-922.9990	12	19	constant head
30	24	188.0604	3	20	constant head
1	23	250.2304	11	21	constant head
30	4	530.2097	2	22	constant head
1	22	-935.2687	12	23	constant head
30	26	399.6860	3	24	constant head
30	27	496.0359	3	25	constant head
30	3	801.2583	2	26	constant head
30	28	740.5808	3	27	constant head
1	29	-1724.5231	13	28	constant head
1	28	-1292.1597	13	29	constant head
1	27	-1470.1447	13	30	constant head
1	26	-631.6268	12	31	constant head
1	25	-549.6494	12	32	constant head
1	24	-905.7508	12	33	constant head
1	2	-998.5312	5	34	constant head
1	3	-960.5898	6	35	constant head
1	4	-1739.7489	7	36	constant head
1	5	-659.8371	8	37	constant head
1	6	351.8809	9	38	constant head

Sum of all fluxes organized in Codes :

13

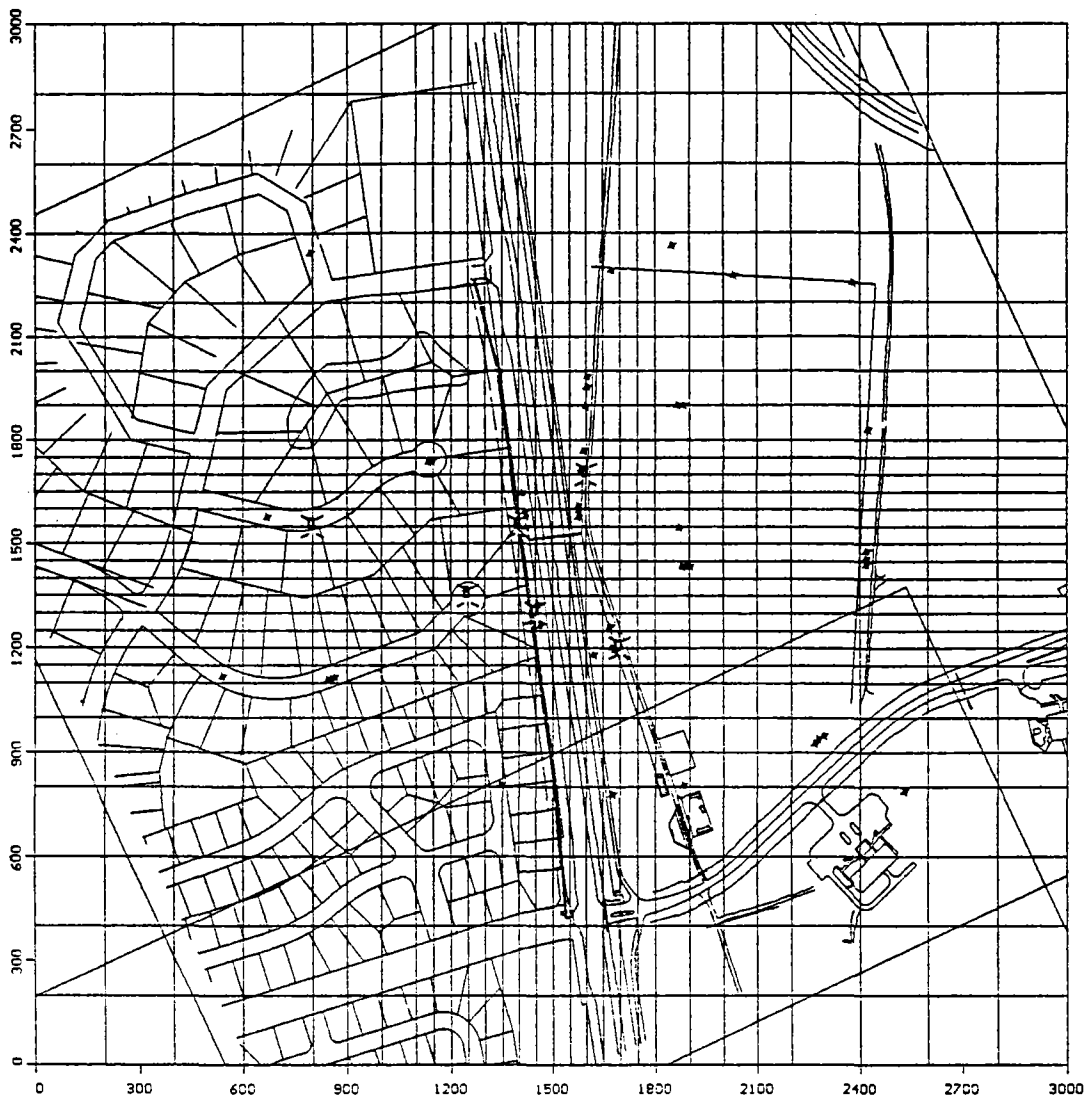
1	466.9003	0.0000	466.9003	CodeID	In / Out / Net flux
2	1706.8472	0.0000	1706.8472	CodeID	In / Out / Net flux
3	2849.1738	-115.2039	2733.9700	CodeID	In / Out / Net flux
4	2127.2080	0.0000	2127.2080	CodeID	In / Out / Net flux
5	0.0000	-998.5312	-998.5312	CodeID	In / Out / Net flux
6	0.0000	-2210.6677	-2210.6677	CodeID	In / Out / Net flux
7	0.0000	-2495.8818	-2495.8818	CodeID	In / Out / Net flux
8	0.0000	-659.8371	-659.8371	CodeID	In / Out / Net flux
9	351.8810	0.0000	351.8810	CodeID	In / Out / Net flux
10	727.9465	-406.5771	321.3694	CodeID	In / Out / Net flux
11	250.2304	-499.6813	-249.4510	CodeID	In / Out / Net flux
12	0.0000	-3945.2947	-3945.2947	CodeID	In / Out / Net flux
13	0.0000	-4486.8276	-4486.8276	CodeID	In / Out / Net flux

Global water balance [ft^3/d] :

8480.1872	total IN-flux through const. head nodes
-15818.5022	total OUT-flux through const. head nodes
0.0000	total IN-flux through flux nodes
0.0000	total OUT-flux through flux nodes
0.0000	total IN-flux through river nodes
0.0000	total OUT-flux through river nodes
0.0000	total IN-flux through drain nodes

0.0000	total OUT-flux through drain nodes
0.0000	total IN-flux through injection wells
-10795.0717	total OUT-flux through pumping wells
18094.9318	total net aquifer recharge
-38.4550	sum of all fluxes should be zero
-0.0723%	total mass balance error

GRID and Wells



FLOWPATH 5.03

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software

Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

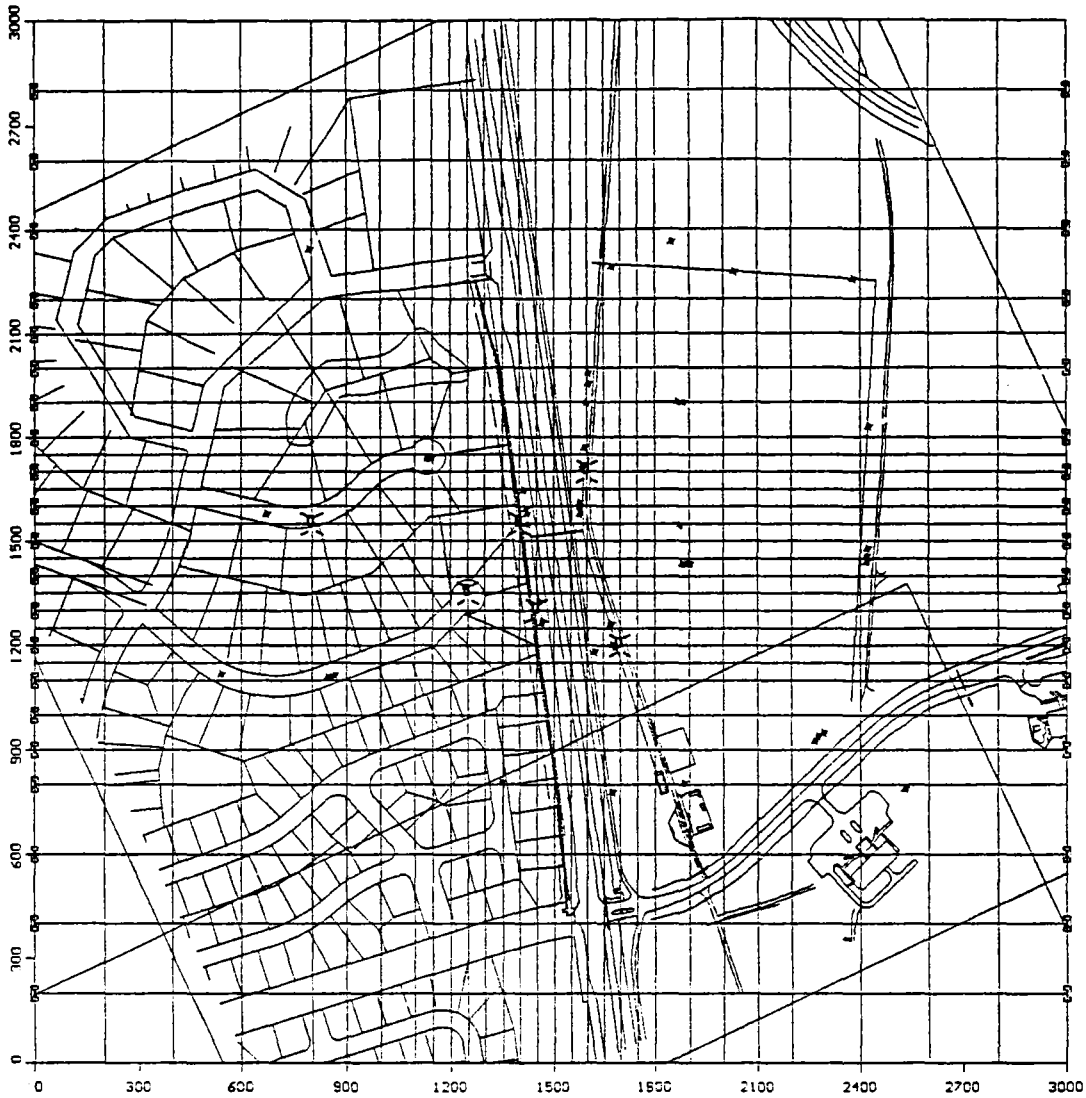
Velocities (ft/d)

Min :	0.097
Max :	0.840
Avg :	0.293

Units : [ft][day]

Data Set : CAMDNCZ2

DOMAIN BOUNDARIES



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software

Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 12
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

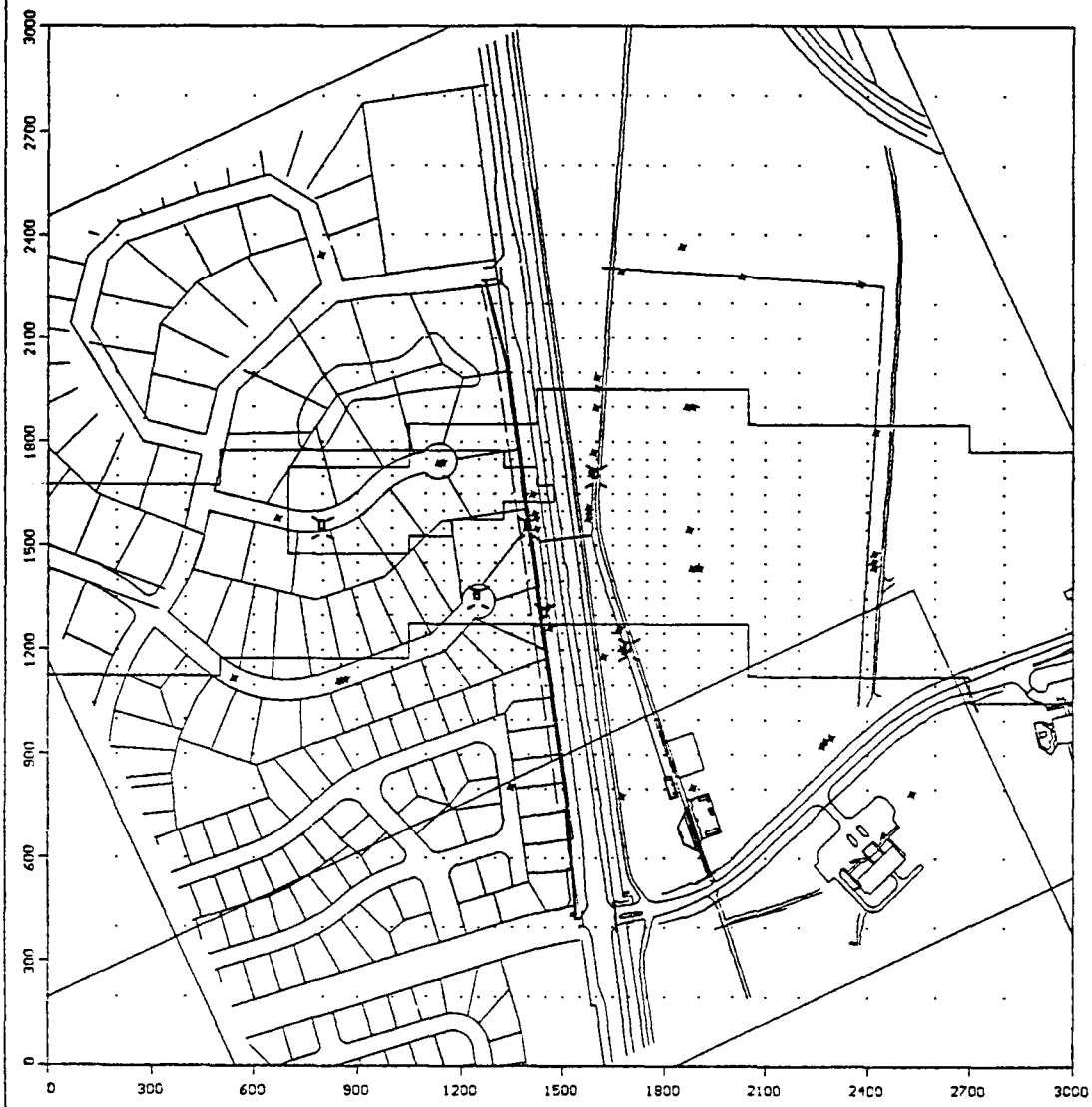
Min :	0.057
Max :	0.840
Avg :	0.293

Units : [ft][day]

Data Set : CAMONCZ2

KB [IM I-EVAL&REC]___
mlv.11.94

AQUIFER PROPERTIES



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Model Dimensions

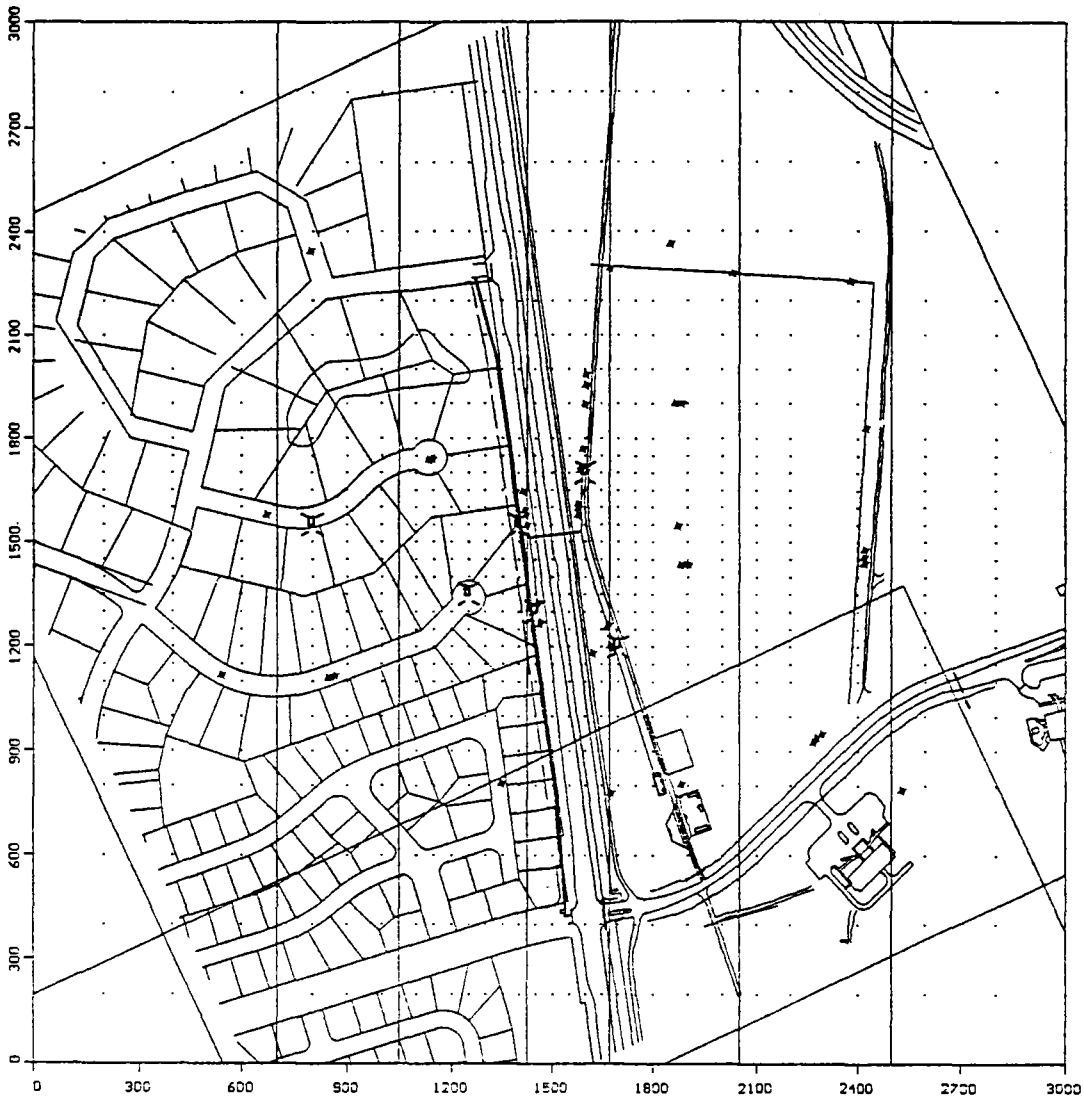
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94

Bottom of Aquifer



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Model Dimensions

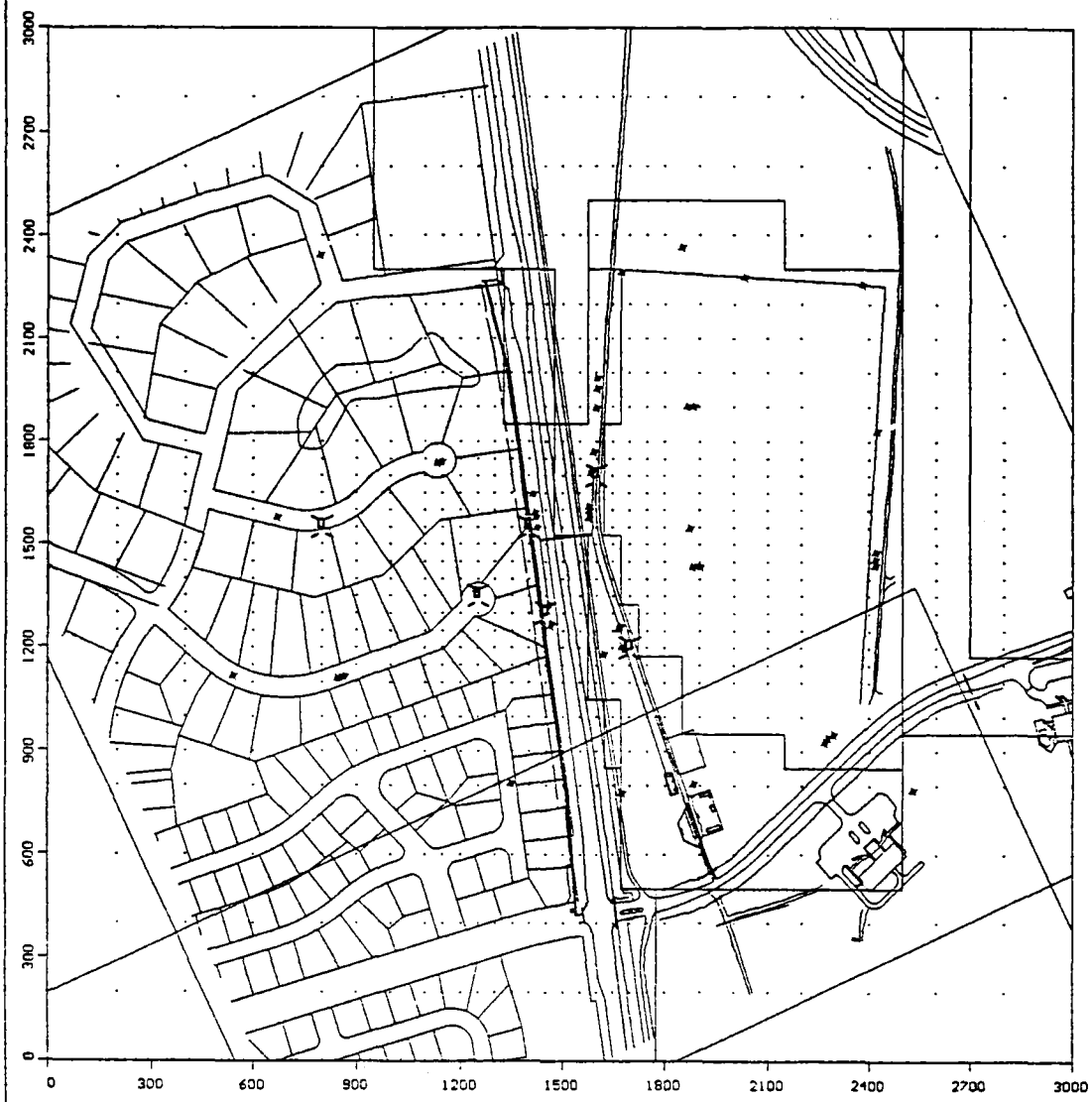
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv 11.94

RECHARGE



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Model Dimensions

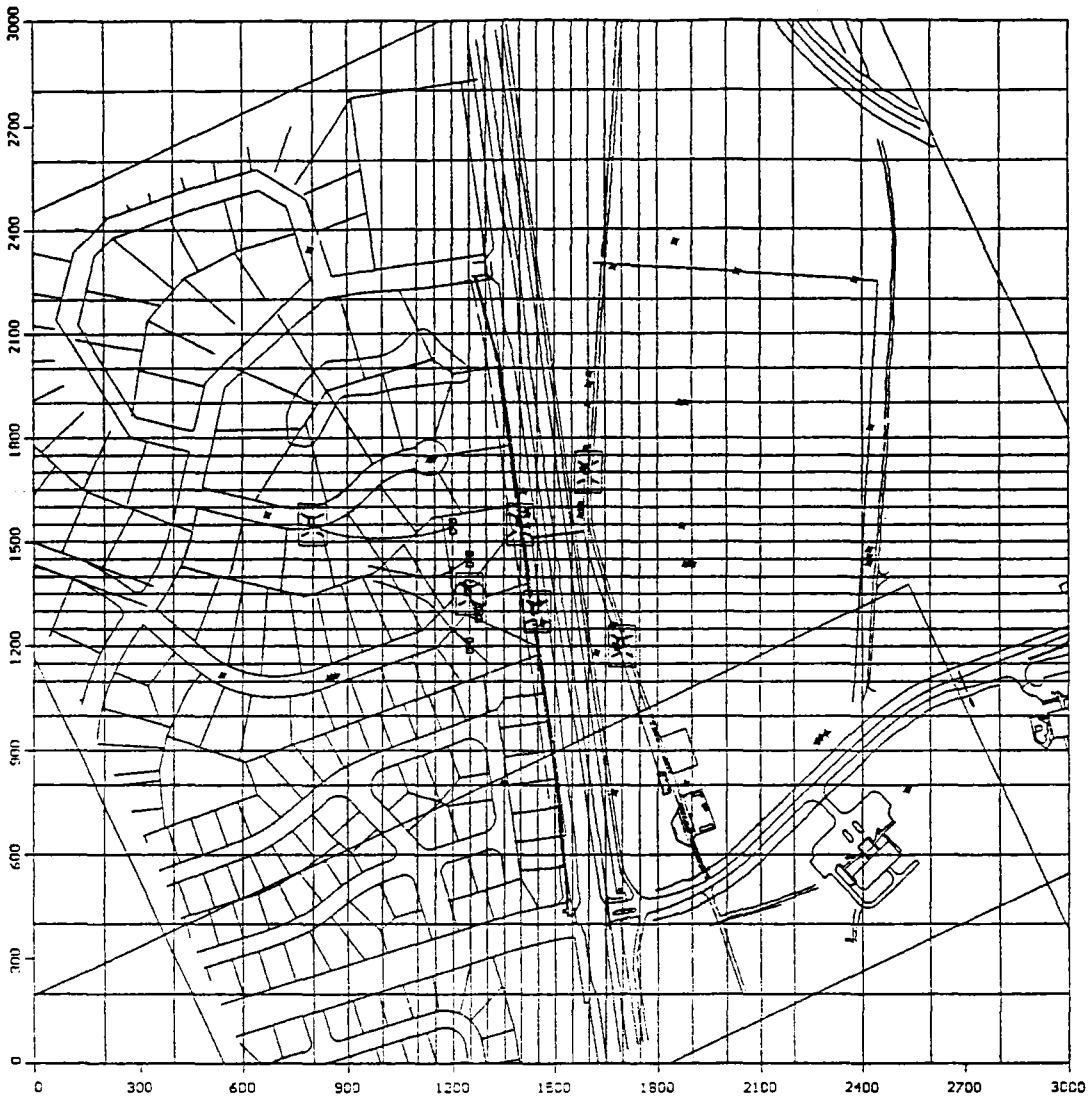
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94

PATHLINES/TRACKING



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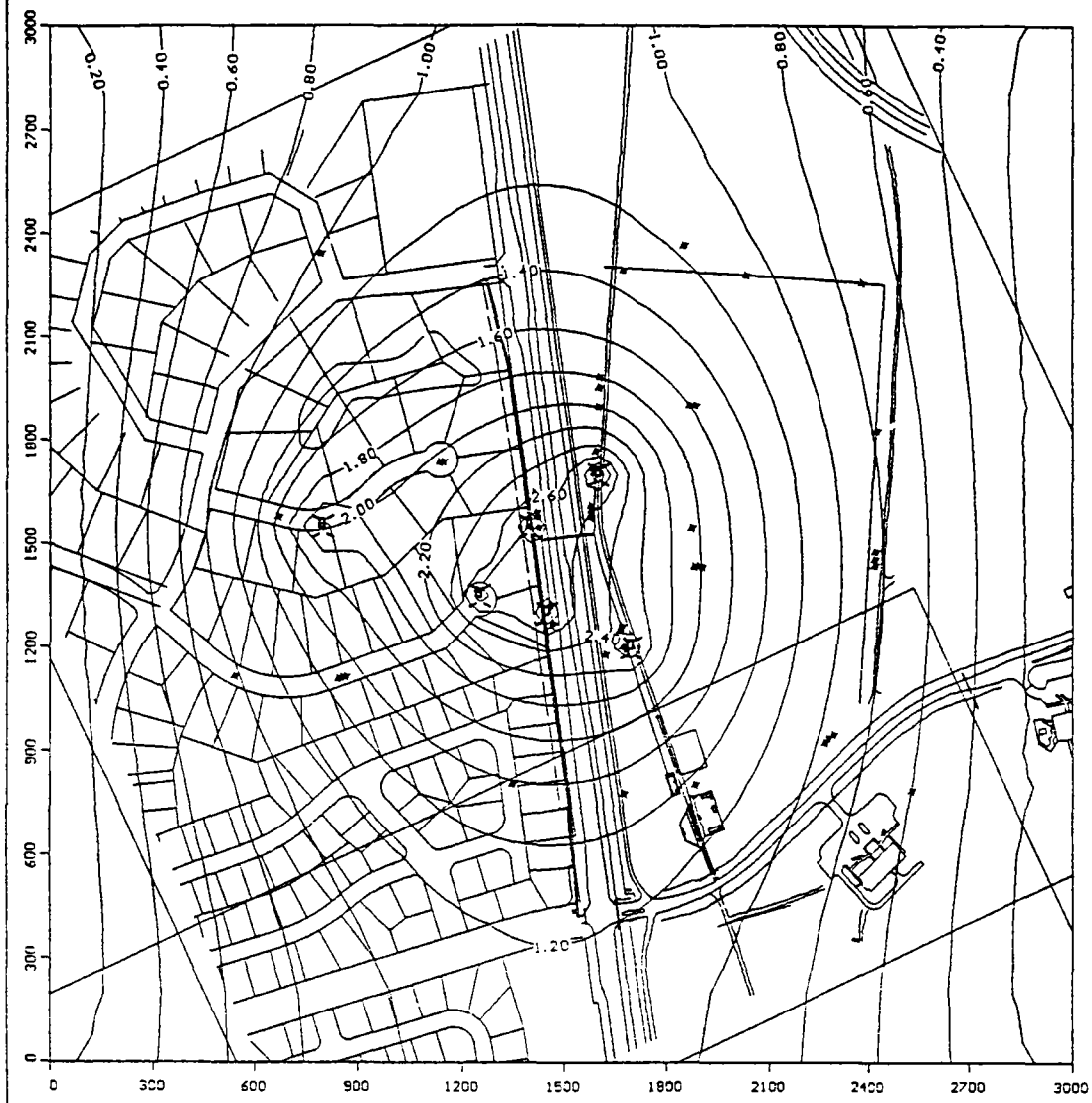
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

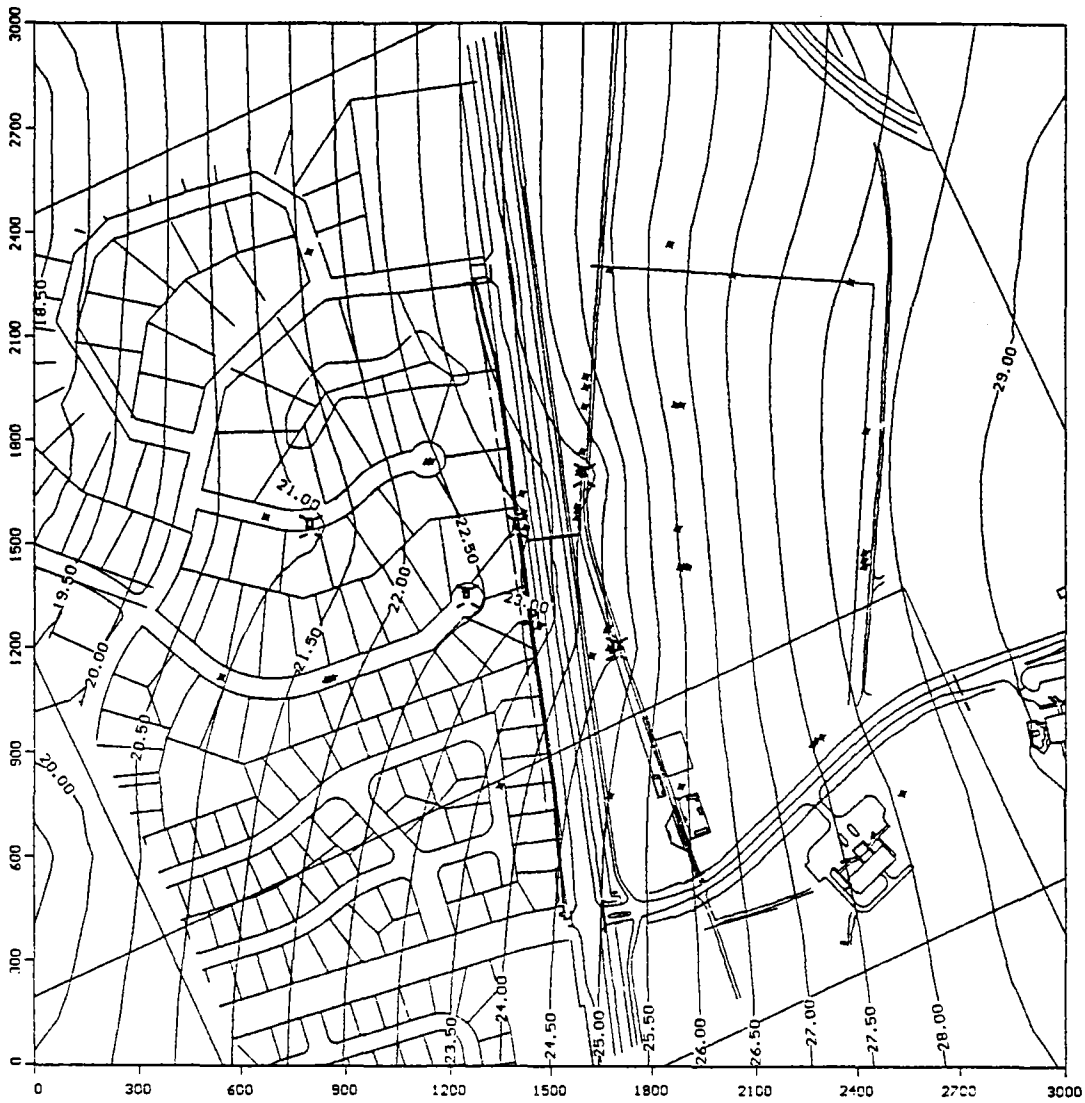
Draudown (ft)

Min :	-0.000
Max :	3.195

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

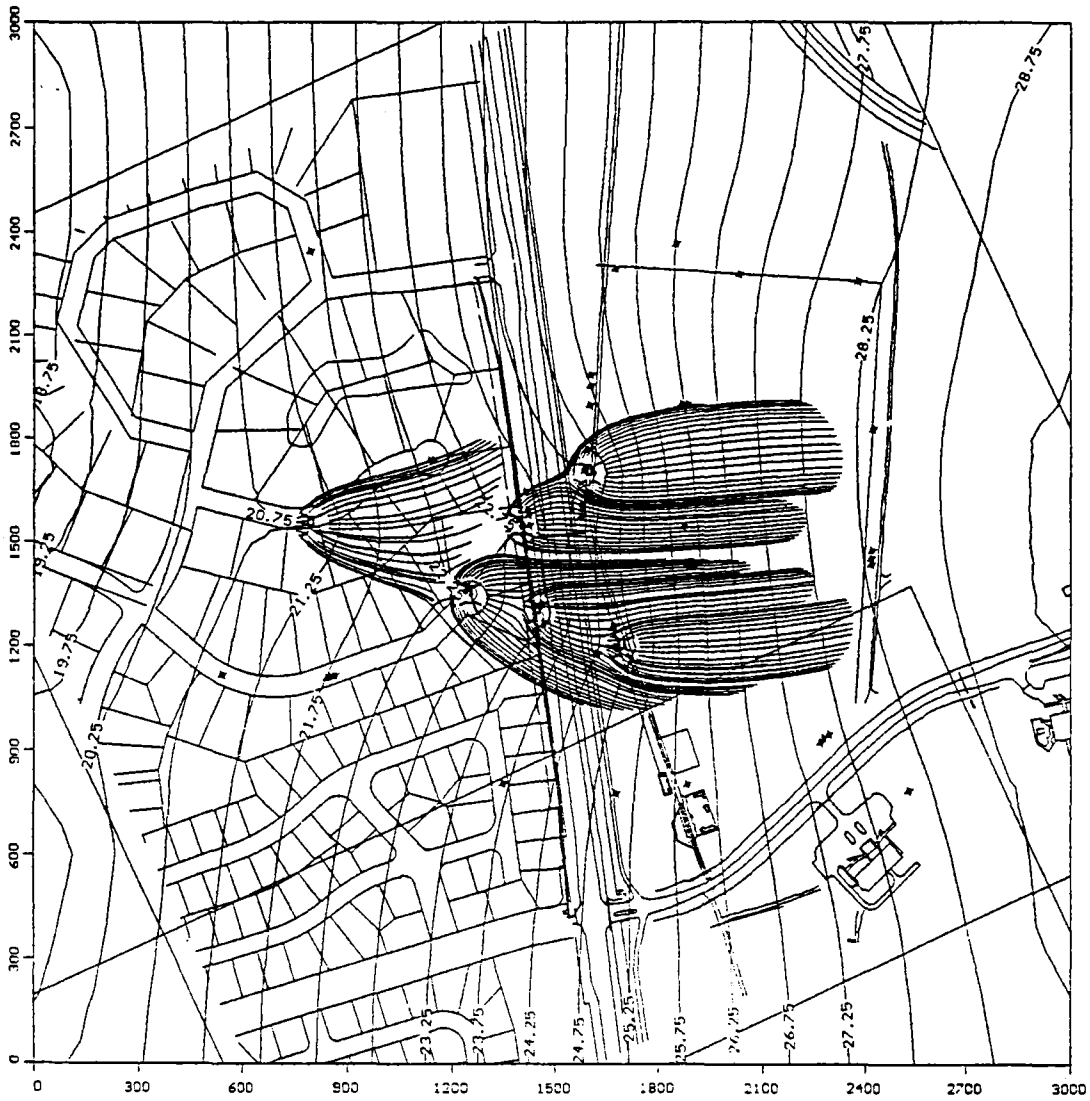
Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94



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Model Dimensions

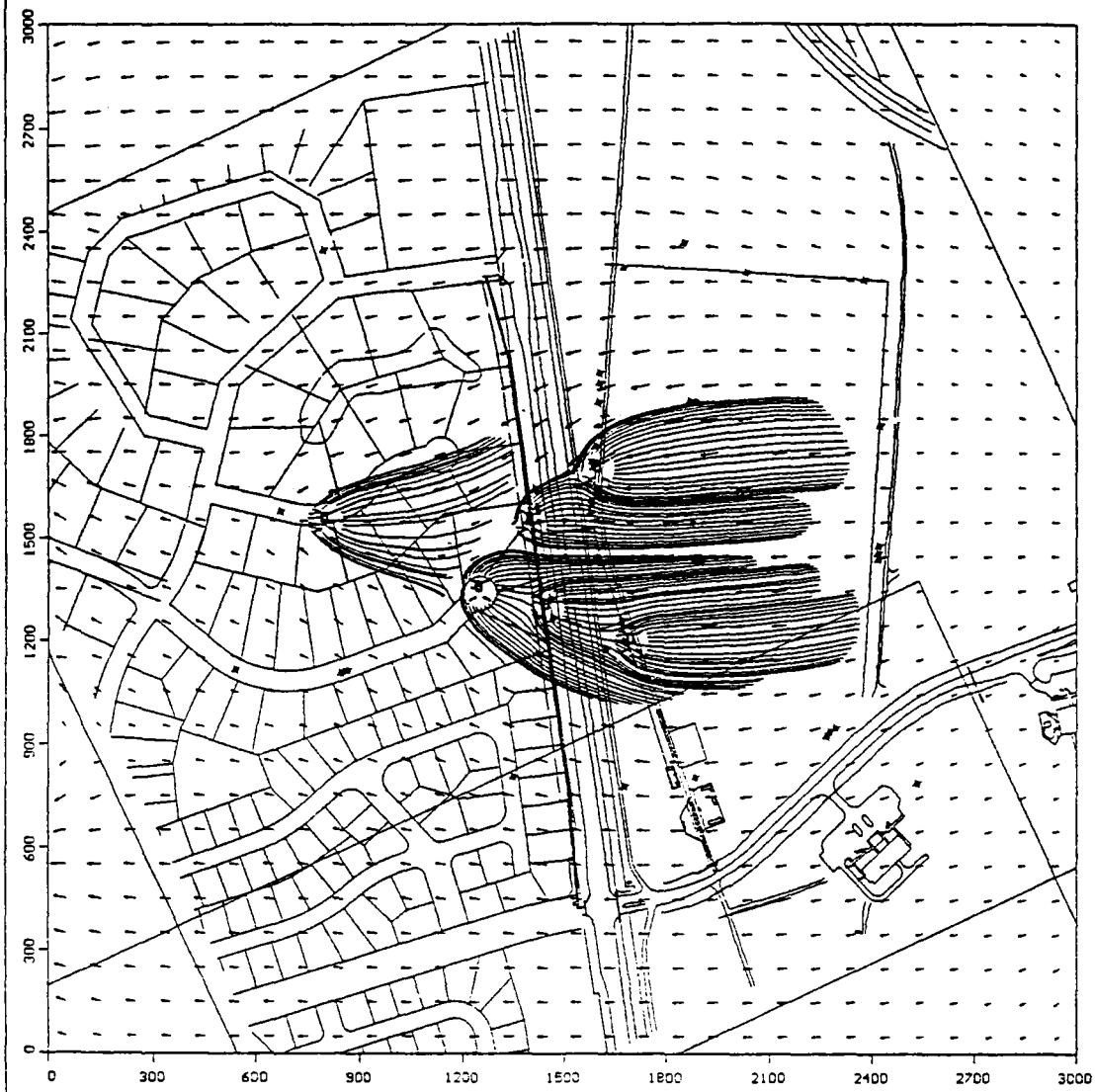
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

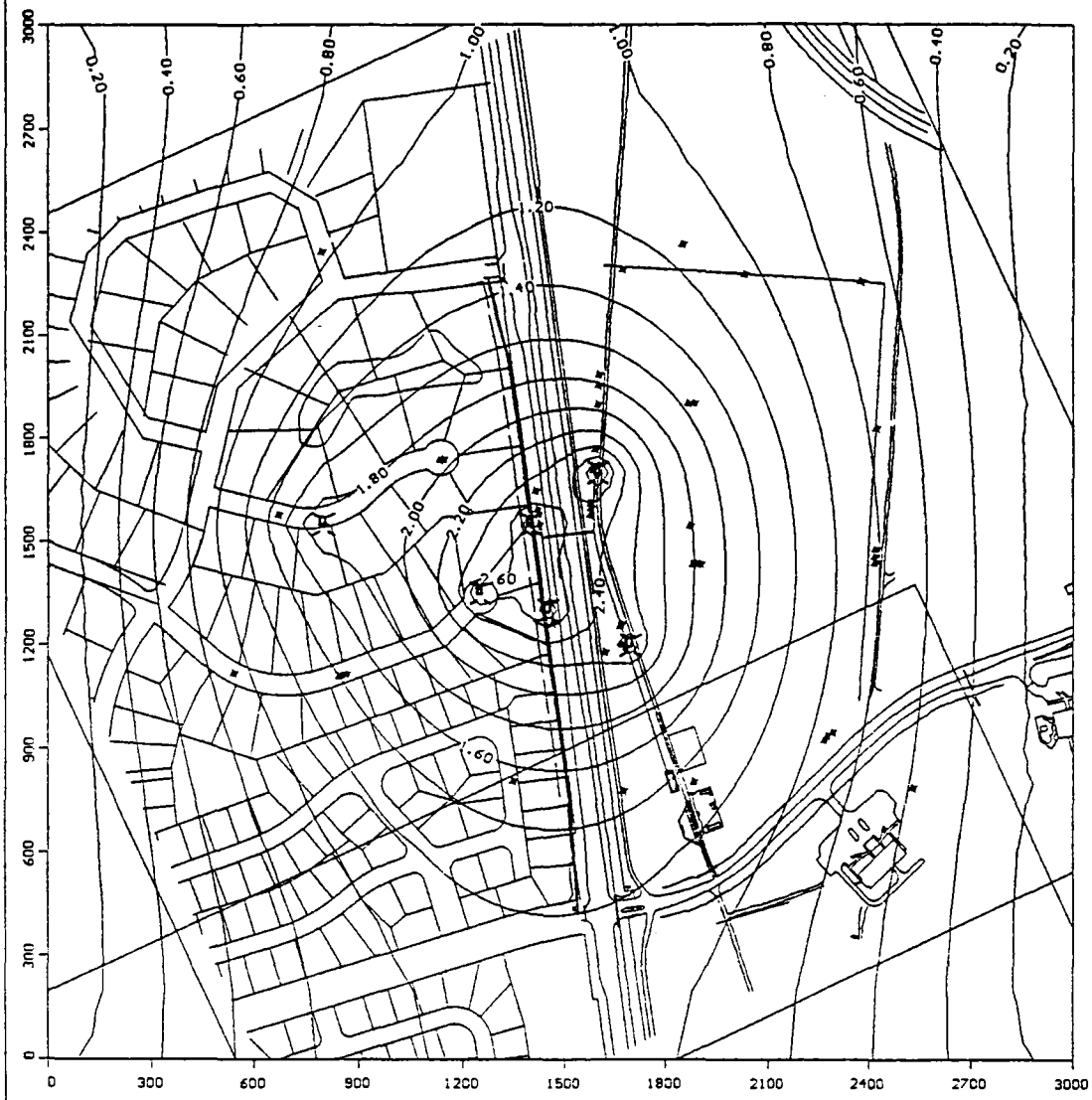
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.086
Max :	0.780
Avg :	0.244

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Draudown (ft)

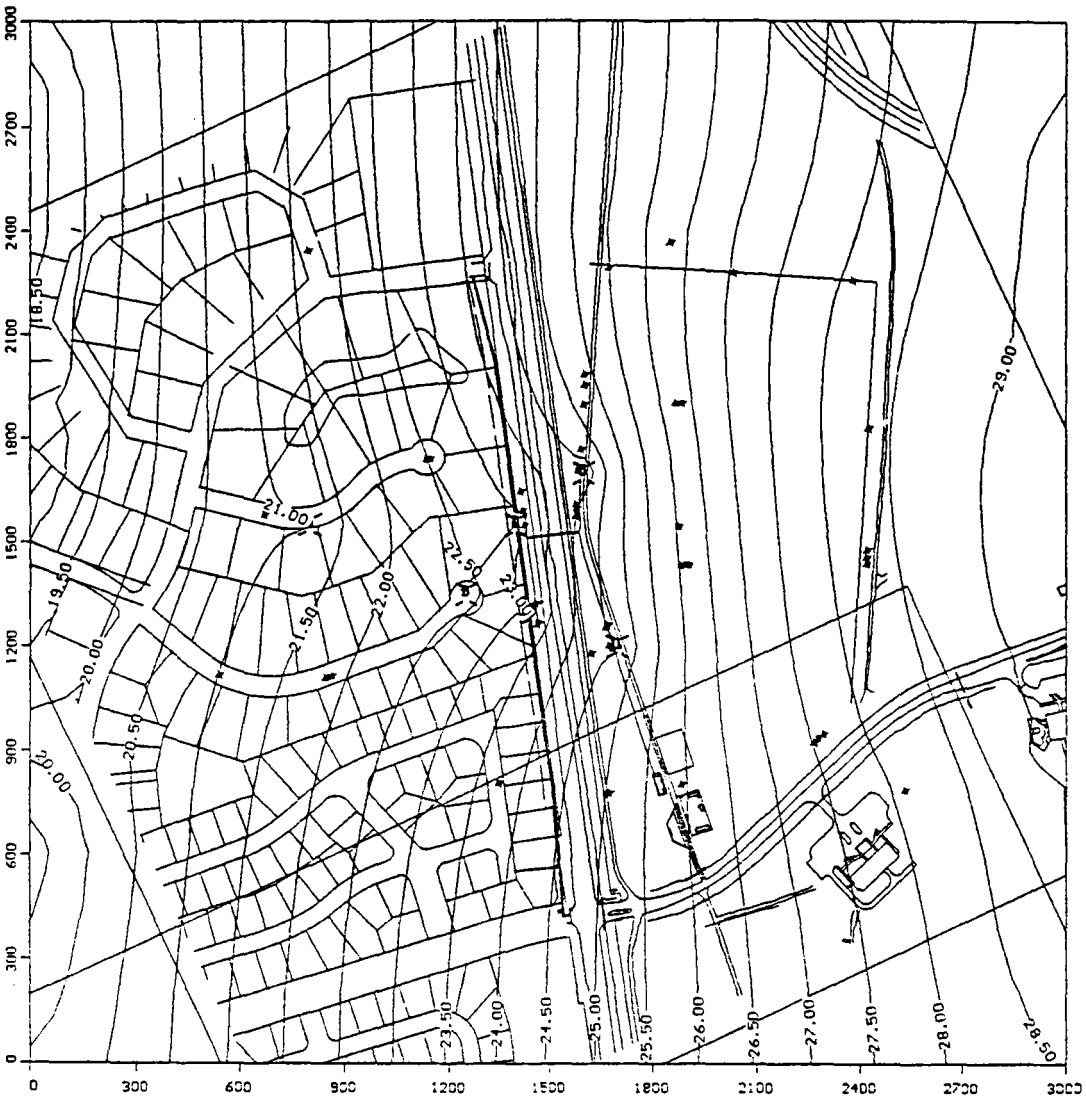
Min :	-0.000
Max :	3.140

Units : [ft][day]

Data Set : CAMDNCZ2

RW-6 7.5 gpm
RW-7 10 gpm

KB [IM I-EVAL&REC]___
mlv.11.94



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

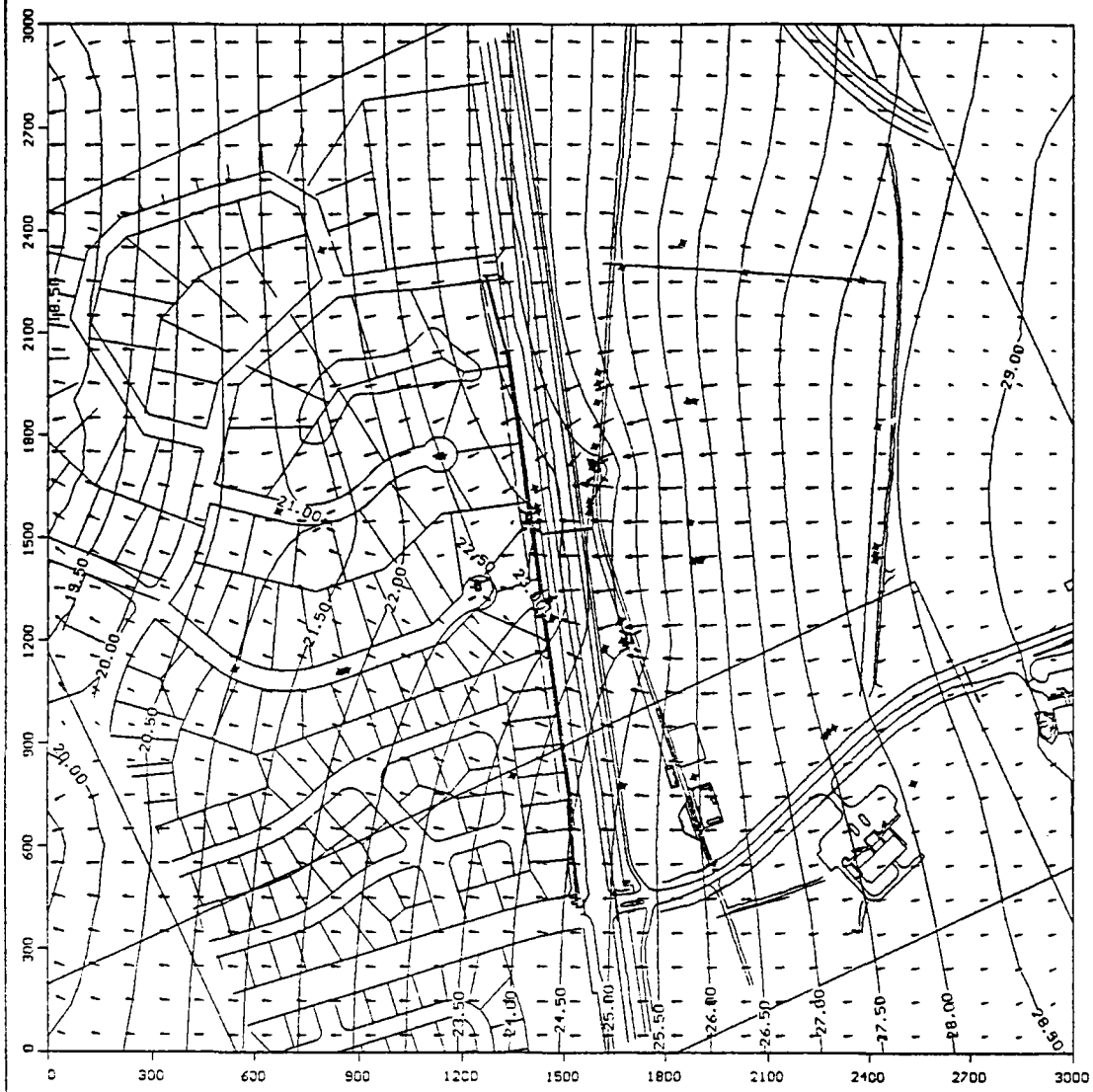
Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

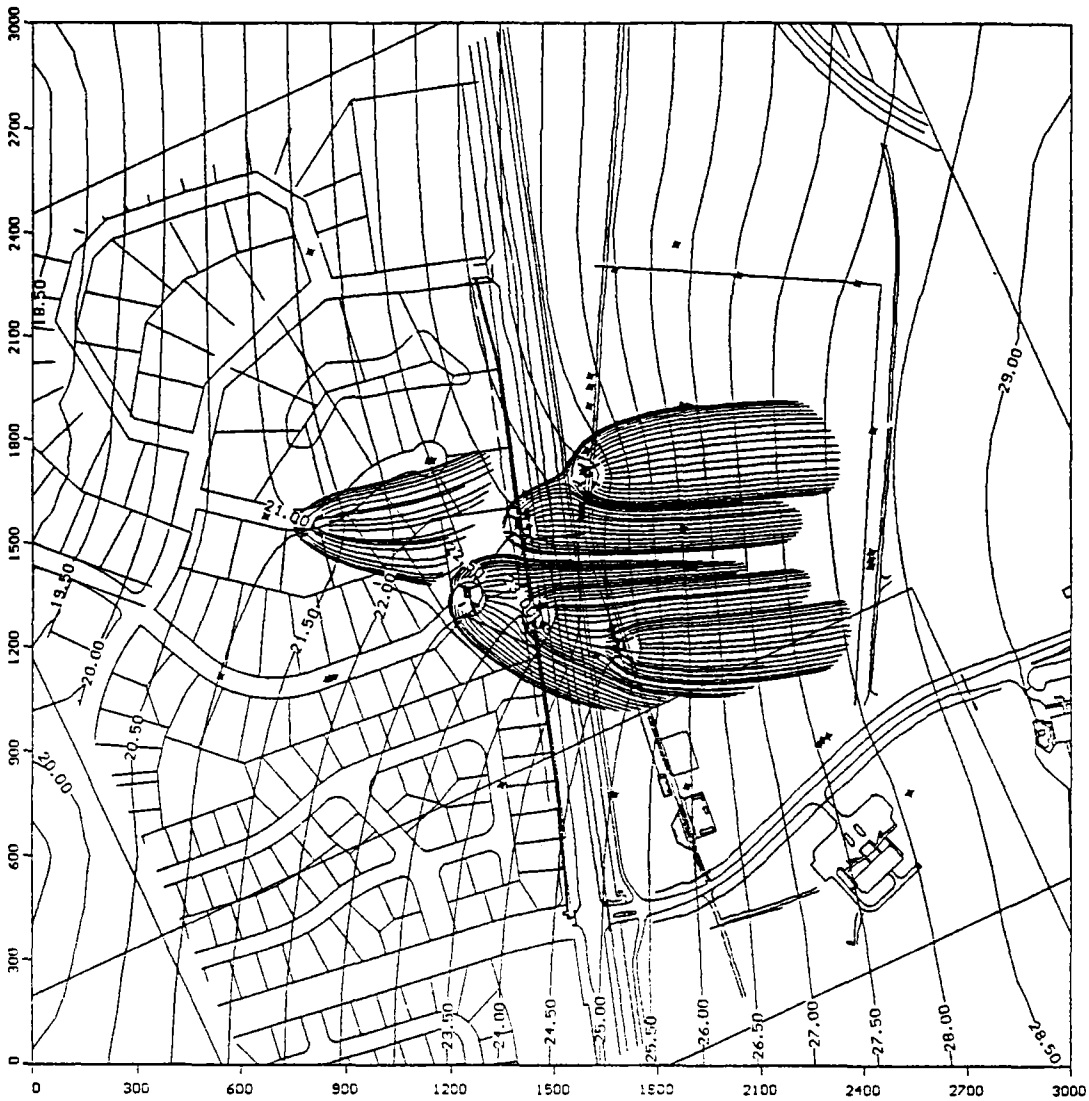
Velocities (ft/d)

Min :	0.083
Max :	0.776
Avg :	0.244

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

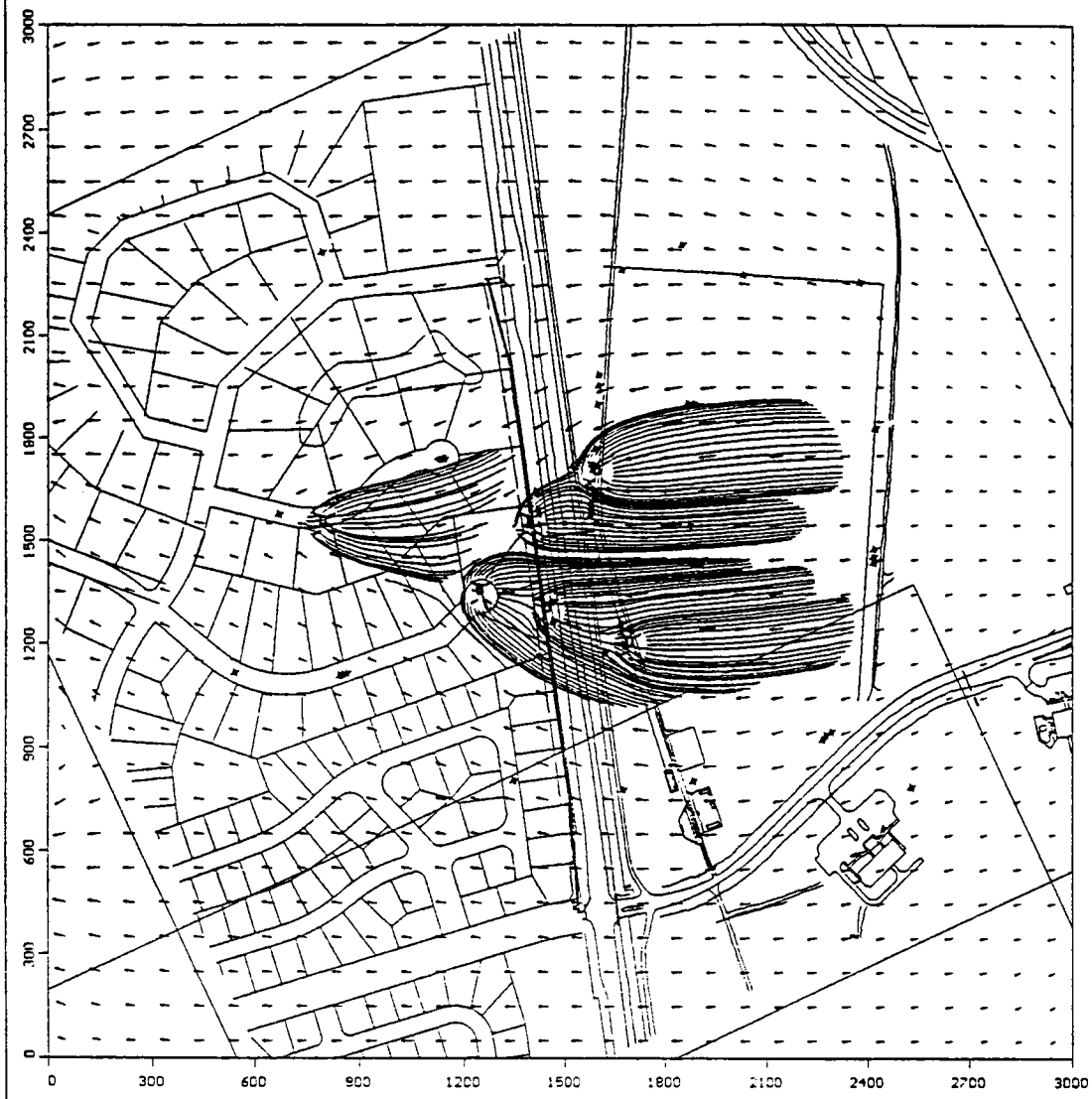
Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]___
mlv.11.94



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Model Dimensions

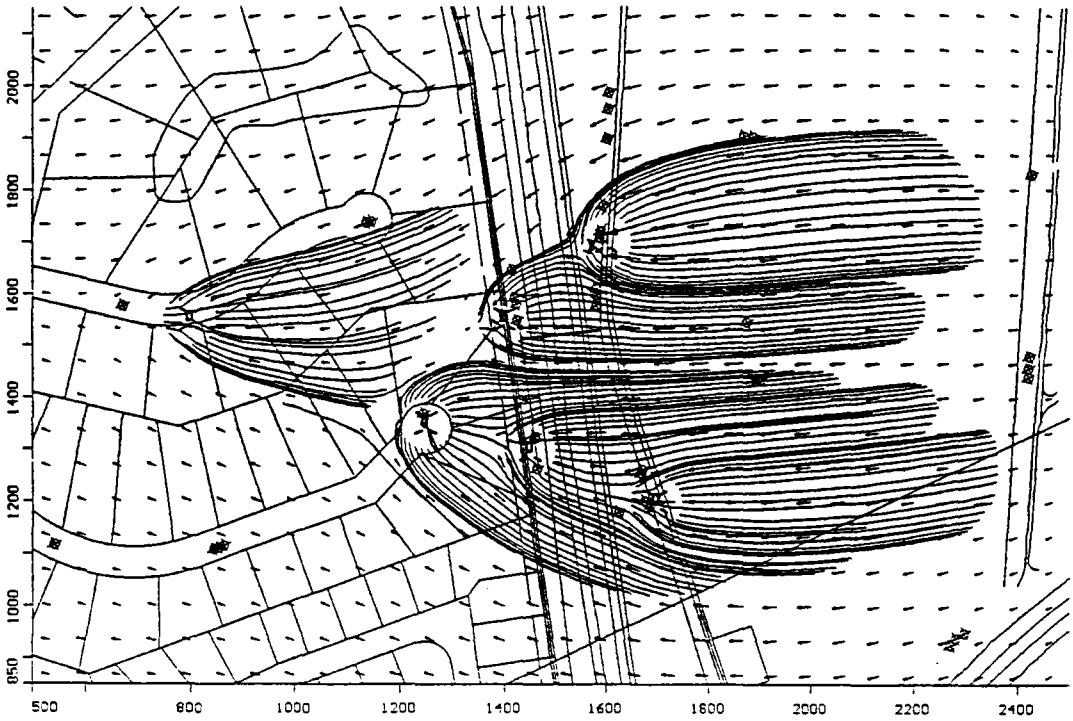
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.083
Max :	0.776
Avg :	0.244

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.097
Max :	0.840
Avg :	0.293

Units : [ft][day]

Data Set : CAMDNCZ2

```
************************************************************
*              E C H O P R I N T                           *
*                                                          *
*              F L O W P A T H                             *
*                version 5.0                               *
*                                                          *
* FLOWPATH was written by Thomas Franz and Nilson Guiguer  *
*                                                          *
************************************************************
*                                                          *
*            Copyright 1989-1994                           *
*                  by                                      *
*        Waterloo Hydrogeologic Software                   *
*            200 Candlewood Crescent                       *
*              Waterloo, Ontario                           *
*               N2L 5Y9, Canada                            *
*                                                          *
*              ph (519) 746-1798                           *
*                                                          *
************************************************************
```

IM Phase I Activities: Evaluation and Recommendations Report

Capture Zone Model - Old Camden County Landfill, Site 11

IM Phase II Operations: Pumping Seven Recovery Wells
(Five Existing Wells and Two Optional Wells)

FLOWPATH logbook for data set : CAMDNCZ2

Unit System : English units [ft/gal/d]

***** GRID PARAMETERS *****

Number of x-grid lines : 30

Number of y-grid lines : 30

Grid coordinates (x-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003

13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
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19	1.649E+0003
20	1.699E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

Grid coordinates (y-grid lines) [ft] :

1	0.000E+0000
2	2.000E+0002
3	4.000E+0002
4	6.000E+0002
5	8.000E+0002
6	9.000E+0002
7	1.000E+0003
8	1.100E+0003
9	1.150E+0003
10	1.200E+0003
11	1.250E+0003
12	1.299E+0003
13	1.351E+0003
14	1.400E+0003
15	1.451E+0003
16	1.501E+0003
17	1.551E+0003
18	1.600E+0003
19	1.649E+0003
20	1.701E+0003
21	1.749E+0003
22	1.800E+0003
23	1.900E+0003
24	2.000E+0003
25	2.100E+0003
26	2.200E+0003
27	2.400E+0003
28	2.600E+0003
29	2.800E+0003
30	3.000E+0003

***** WELL PARAMETERS *****

Number of wells : 6

No.	i	j	X [ft]	Y [ft]	well discharge [gpd]

1	20	10	1.699E+0003	1.200E+0003	-1.086E+0004
2	18	20	1.600E+0003	1.701E+0003	-1.889E+0004
3	14	17	1.400E+0003	1.551E+0003	-1.081E+0004
4	15	12	1.451E+0003	1.299E+0003	-1.138E+0004
5	11	13	1.250E+0003	1.351E+0003	-1.080E+0004
6	5	17	8.000E+0002	1.551E+0003	-1.800E+0004

***** CONSTRAINED HEAD NODES *****

Number of constant head nodes : 38

No.	i	j	X [ft]	Y [ft]	const. head [ft]
1	30	29	3.000E+0003	2.802E+0003	2.900E+0001
2	30	2	3.000E+0003	1.982E+0002	2.875E+0001
3	1	7	0.000E+0000	9.977E+0002	2.010E+0001
4	30	18	3.000E+0003	1.599E+0003	2.950E+0001
5	1	14	0.000E+0000	1.401E+0003	1.925E+0001
6	30	16	3.000E+0003	1.503E+0003	2.950E+0001
7	1	10	0.000E+0000	1.203E+0003	1.950E+0001
8	30	14	3.000E+0003	1.401E+0003	2.950E+0001
9	1	16	0.000E+0000	1.503E+0003	1.900E+0001
10	30	12	3.000E+0003	1.298E+0003	2.950E+0001
11	1	8	0.000E+0000	1.100E+0003	1.950E+0001
12	30	10	3.000E+0003	1.203E+0003	2.925E+0001
13	1	18	0.000E+0000	1.599E+0003	1.875E+0001
14	30	20	3.000E+0003	1.702E+0003	2.950E+0001
15	1	12	0.000E+0000	1.298E+0003	1.925E+0001
16	30	22	3.000E+0003	1.797E+0003	2.950E+0001
17	30	8	3.000E+0003	1.100E+0003	2.925E+0001
18	30	6	3.000E+0003	9.021E+0002	2.925E+0001
19	1	20	0.000E+0000	1.702E+0003	1.850E+0001
20	30	24	3.000E+0003	2.002E+0003	2.925E+0001
21	1	23	0.000E+0000	1.900E+0003	1.875E+0001
22	30	4	3.000E+0003	6.014E+0002	2.900E+0001
23	1	22	0.000E+0000	1.797E+0003	1.850E+0001
24	30	26	3.000E+0003	2.200E+0003	2.925E+0001
25	30	27	3.000E+0003	2.399E+0003	2.925E+0001
26	30	3	3.000E+0003	4.032E+0002	2.900E+0001
27	30	28	3.000E+0003	2.597E+0003	2.925E+0001
28	1	29	0.000E+0000	2.802E+0003	1.825E+0001
29	1	28	0.000E+0000	2.597E+0003	1.825E+0001
30	1	27	0.000E+0000	2.399E+0003	1.825E+0001
31	1	26	0.000E+0000	2.200E+0003	1.850E+0001
32	1	25	0.000E+0000	2.098E+0003	1.850E+0001
33	1	24	0.000E+0000	2.002E+0003	1.850E+0001
34	1	2	0.000E+0000	1.982E+0002	1.970E+0001
35	1	3	0.000E+0000	4.032E+0002	1.950E+0001
36	1	4	0.000E+0000	6.014E+0002	1.925E+0001
37	1	5	0.000E+0000	7.995E+0002	1.975E+0001
38	1	6	0.000E+0000	9.021E+0002	2.010E+0001

***** SPECIFIED FLUX NODES *****

Number of flux nodes : 0

***** SURFACE WATER BODIES *****

Number of surface water body nodes : 0

***** AQUIFER PROPERTIES *****

Number of different material properties : 7

No.	Kxx [ft/d]	Kyy [ft/d]	Porosity [-]	
1	1.720E+0001	1.720E+0001	2.500E-0001	(default)
2	1.720E+0001	1.720E+0001	2.500E-0001	
3	1.720E+0001	1.720E+0001	2.500E-0001	
4	1.720E+0001	1.720E+0001	2.500E-0001	
5	1.720E+0001	1.720E+0001	2.500E-0001	
6	2.140E+0001	2.140E+0001	2.700E-0001	
7	1.640E+0001	1.640E+0001	2.200E-0001	

********** DISTRIBUTION OF AQUIFER MATERIAL PROPERTIES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1
29	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	1
28	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	1	1
27	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
26	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3
25	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3
24	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	7	7
22	1	1	1	1	1	1	1	7	7	7	7	7	7	7	7	7	7
21	1	1	1	7	7	7	7	6	6	6	6	6	7	7	7	7	7
20	1	1	1	7	6	6	6	6	6	6	6	6	6	6	7	7	7
19	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	7	7
18	7	7	7	7	6	6	6	6	6	6	6	6	7	7	7	7	7
17	7	7	7	7	6	6	6	6	6	7	7	7	7	7	7	7	7
16	7	7	7	7	6	6	6	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
11	7	7	7	7	7	7	7	1	1	1	1	1	4	4	4	4	4
10	7	7	7	7	7	7	7	1	1	1	4	4	4	4	4	4	4
9	7	7	7	1	1	1	1	1	1	1	4	4	4	4	4	4	4
8	1	1	1	1	1	1	1	1	1	1	4	4	4	4	4	4	4
7	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
6	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
5	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	3
4	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	3
3	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	3	4
2	1	1	1	1	1	1	4	4	4	4	4	4	4	4	1	3	1
1	1	1	1	1	1	1	4	4	4	4	4	4	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	1	1	1	1	1	1	1	1	1	1	1	1	
29	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1
27	3	3	3	3	3	1	1	1	1	1	1	1	1
26	3	3	3	3	3	2	2	2	2	2	1	1	1
25	3	3	3	3	3	2	2	2	2	2	1	1	1
24	3	3	3	3	3	2	2	2	2	2	1	1	1
23	7	7	7	7	7	7	7	2	2	2	1	1	1
22	7	7	7	7	7	7	7	7	7	7	7	1	1
21	7	7	7	7	7	7	7	7	7	7	7	7	7
20	7	7	7	7	7	7	7	7	7	7	7	7	7
19	7	7	7	7	7	7	7	7	7	7	7	7	7
18	7	7	7	7	7	7	7	7	7	7	7	7	7
17	7	7	7	7	7	7	7	7	7	7	7	7	7
16	7	7	7	7	7	7	7	7	7	7	7	7	7
15	7	7	7	7	7	7	7	7	7	7	7	7	7
14	7	7	7	7	7	7	7	7	7	7	7	7	7
13	7	7	7	7	7	7	7	7	7	7	7	7	7
12	7	7	7	7	7	7	7	7	7	7	7	7	7
11	4	3	3	3	3	3	2	7	7	7	7	7	7
10	4	3	3	3	3	3	2	7	7	7	7	7	7
9	4	3	3	3	3	3	2	7	7	7	7	7	7
8	4	3	3	3	3	3	2	2	2	1	1	7	7
7	3	4	4	4	3	3	2	2	2	1	1	1	1
6	3	4	4	4	3	3	1	1	1	1	1	1	1
5	3	4	4	4	3	3	1	1	1	1	1	1	1
4	3	4	4	4	1	1	1	1	1	1	1	1	1
3	4	4	4	4	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** AQUIFER TYPE *****

Unconfined aquifer

***** AQUIFER BOTTOM ELEVATIONS *****

Number of different aquifer bottom elevations : 7

No.	aquifer bottom elevation [ft]
1	-6.000E+0001 (default)
2	-5.500E+0001
3	-5.000E+0001
4	-4.500E+0001
5	-5.750E+0001
6	-5.250E+0001
7	-4.750E+0001

********** DISTRIBUTION OF AQUIFER BOTTOM ELEVATIONS **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
29	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
28	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
27	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
26	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
25	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
24	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
23	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
22	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
21	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
20	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
19	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
18	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
17	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
16	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
15	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
14	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
13	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
12	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
11	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
10	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
9	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
8	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
7	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
6	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
5	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
4	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
3	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
2	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
1	1	1	1	1	5	5	5	2	2	2	2	2	2	2	6	6	6
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	6	6	3	3	3	3	3	7	7	7	4	4	4
29	6	6	3	3	3	3	3	7	7	7	4	4	4
28	6	6	3	3	3	3	3	7	7	7	4	4	4
27	6	6	3	3	3	3	3	7	7	7	4	4	4
26	6	6	3	3	3	3	3	7	7	7	4	4	4
25	6	6	3	3	3	3	3	7	7	7	4	4	4
24	6	6	3	3	3	3	3	7	7	7	4	4	4
23	6	6	3	3	3	3	3	7	7	7	4	4	4
22	6	6	3	3	3	3	3	7	7	7	4	4	4
21	6	6	3	3	3	3	3	7	7	7	4	4	4
20	6	6	3	3	3	3	3	7	7	7	4	4	4
19	6	6	3	3	3	3	3	7	7	7	4	4	4
18	6	6	3	3	3	3	3	7	7	7	4	4	4
17	6	6	3	3	3	3	3	7	7	7	4	4	4
16	6	6	3	3	3	3	3	7	7	7	4	4	4
15	6	6	3	3	3	3	3	7	7	7	4	4	4
14	6	6	3	3	3	3	3	7	7	7	4	4	4
13	6	6	3	3	3	3	3	7	7	7	4	4	4
12	6	6	3	3	3	3	3	7	7	7	4	4	4
11	6	6	3	3	3	3	3	7	7	7	4	4	4
10	6	6	3	3	3	3	3	7	7	7	4	4	4
9	6	6	3	3	3	3	3	7	7	7	4	4	4
8	6	6	3	3	3	3	3	7	7	7	4	4	4
7	6	6	3	3	3	3	3	7	7	7	4	4	4
6	6	6	3	3	3	3	3	7	7	7	4	4	4

5	6	6	3	3	3	3	3	7	7	7	4	4	4
4	6	6	3	3	3	3	3	7	7	7	4	4	4
3	6	6	3	3	3	3	3	7	7	7	4	4	4
2	6	6	3	3	3	3	3	7	7	7	4	4	4
1	6	6	3	3	3	3	3	7	7	7	4	4	4
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** AREAL RECHARGE *****

Number of different infiltration/evapotranspiration rates : 4

No.	infiltration [L/T]	evapotranspiration [L/T]	effective recharge [L/T]	
1	1.005E-0002	9.200E-0003	8.500E-0004	(default)
2	1.750E-0002	8.500E-0003	9.000E-0003	
3	1.070E-0002	8.500E-0003	2.200E-0003	
4	9.750E-0003	9.200E-0003	5.500E-0004	

********** DISTRIBUTION OF AREAL IN/OUT-FLUXES **********

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
30	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
29	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
28	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
27	1	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4
26	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
25	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
24	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
23	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

	18	19	20	21	22	23	24	25	26	27	28	29	30
30	4	4	4	4	4	4	4	4	4	4	3	4	4
29	4	4	4	4	4	4	4	4	4	4	3	4	4
28	4	4	4	4	4	4	4	4	4	4	3	4	4
27	2	2	2	2	2	2	2	2	4	4	3	4	4
26	3	3	2	2	2	2	2	2	2	2	3	4	4
25	3	3	2	2	2	2	2	2	2	2	3	4	4
24	3	3	2	2	2	2	2	2	2	2	3	4	4
23	3	3	2	2	2	2	2	2	2	2	3	4	4
22	3	2	2	2	2	2	2	2	2	2	3	4	4
21	3	2	2	2	2	2	2	2	2	2	3	4	4
20	3	2	2	2	2	2	2	2	2	2	3	4	4
19	3	2	2	2	2	2	2	2	2	2	3	4	4
18	3	2	2	2	2	2	2	2	2	2	3	4	4
17	3	2	2	2	2	2	2	2	2	2	3	4	4
16	3	3	2	2	2	2	2	2	2	2	3	4	4
15	3	3	2	2	2	2	2	2	2	2	3	4	4
14	3	3	2	2	2	2	2	2	2	2	3	4	4
13	3	3	2	2	2	2	2	2	2	2	3	4	4
12	3	3	3	2	2	2	2	2	2	2	3	4	4
11	3	3	3	2	2	2	2	2	2	2	3	4	4
10	3	3	3	2	2	2	2	2	2	2	3	4	4
9	3	3	3	3	3	2	2	2	2	2	3	3	3
8	3	3	3	3	3	2	2	2	2	2	3	3	3
7	1	4	3	3	3	2	2	2	2	2	3	3	3
6	1	4	3	3	3	3	3	3	2	2	4	4	4
5	1	1	3	3	3	3	3	3	3	3	4	4	4
4	1	1	3	3	3	3	3	3	3	3	4	4	4
3	1	1	1	1	4	4	4	4	4	4	4	4	4
2	1	1	1	1	4	4	4	4	4	4	4	4	4
1	1	1	1	1	4	4	4	4	4	4	4	4	4
	18	19	20	21	22	23	24	25	26	27	28	29	30

***** PATHLINE & PARTICLE TRACKING DATA *****

Number of forward particles : 6

No.	x-release	y-release
1	1.247E+0003	1.369E+0003
2	1.251E+0003	1.451E+0003
3	1.251E+0003	1.203E+0003
4	1.278E+0003	1.292E+0003
5	1.278E+0003	1.298E+0003
6	1.203E+0003	1.544E+0003

Number of reverse particles : 0

Particles released at wells :

Well-No.	Particles released
1	25
2	25
3	25
4	25
5	25
6	25

********** HYDRAULIC HEAD DISTRIBUTION **********

	1	2	3	4	5	6
30	1.88E+0001	1.94E+0001	2.01E+0001	2.09E+0001	2.18E+0001	2.22E+0001
29	1.83E+0001	1.92E+0001	2.01E+0001	2.09E+0001	2.17E+0001	2.22E+0001
28	1.83E+0001	1.92E+0001	2.01E+0001	2.09E+0001	2.17E+0001	2.21E+0001
27	1.83E+0001	1.92E+0001	2.01E+0001	2.09E+0001	2.17E+0001	2.21E+0001
26	1.85E+0001	1.93E+0001	2.01E+0001	2.08E+0001	2.16E+0001	2.20E+0001
25	1.85E+0001	1.93E+0001	2.01E+0001	2.08E+0001	2.15E+0001	2.19E+0001
24	1.85E+0001	1.93E+0001	2.01E+0001	2.08E+0001	2.15E+0001	2.18E+0001
23	1.88E+0001	1.94E+0001	2.01E+0001	2.08E+0001	2.14E+0001	2.18E+0001
22	1.85E+0001	1.94E+0001	2.01E+0001	2.07E+0001	2.13E+0001	2.16E+0001
21	1.86E+0001	1.94E+0001	2.01E+0001	2.07E+0001	2.12E+0001	2.16E+0001
20	1.85E+0001	1.94E+0001	2.01E+0001	2.07E+0001	2.12E+0001	2.15E+0001
19	1.87E+0001	1.95E+0001	2.01E+0001	2.07E+0001	2.11E+0001	2.15E+0001
18	1.88E+0001	1.95E+0001	2.02E+0001	2.07E+0001	2.09E+0001	2.14E+0001
17	1.89E+0001	1.96E+0001	2.02E+0001	2.07E+0001	2.08E+0001	2.14E+0001
16	1.90E+0001	1.96E+0001	2.02E+0001	2.07E+0001	2.09E+0001	2.14E+0001
15	1.92E+0001	1.97E+0001	2.03E+0001	2.08E+0001	2.11E+0001	2.15E+0001
14	1.93E+0001	1.98E+0001	2.03E+0001	2.08E+0001	2.12E+0001	2.15E+0001
13	1.93E+0001	1.98E+0001	2.04E+0001	2.09E+0001	2.13E+0001	2.16E+0001
12	1.93E+0001	1.99E+0001	2.04E+0001	2.09E+0001	2.14E+0001	2.17E+0001
11	1.94E+0001	1.99E+0001	2.05E+0001	2.10E+0001	2.15E+0001	2.17E+0001
10	1.95E+0001	2.00E+0001	2.05E+0001	2.10E+0001	2.15E+0001	2.18E+0001
9	1.95E+0001	2.01E+0001	2.06E+0001	2.11E+0001	2.16E+0001	2.19E+0001
8	1.95E+0001	2.01E+0001	2.06E+0001	2.11E+0001	2.16E+0001	2.19E+0001
7	2.01E+0001	2.02E+0001	2.07E+0001	2.12E+0001	2.18E+0001	2.20E+0001
6	2.01E+0001	2.03E+0001	2.08E+0001	2.13E+0001	2.18E+0001	2.21E+0001
5	1.98E+0001	2.03E+0001	2.08E+0001	2.13E+0001	2.19E+0001	2.22E+0001
4	1.93E+0001	2.01E+0001	2.08E+0001	2.14E+0001	2.20E+0001	2.24E+0001
3	1.95E+0001	2.02E+0001	2.09E+0001	2.15E+0001	2.21E+0001	2.25E+0001
2	1.97E+0001	2.03E+0001	2.10E+0001	2.16E+0001	2.22E+0001	2.25E+0001
1	2.01E+0001	2.04E+0001	2.10E+0001	2.16E+0001	2.22E+0001	2.25E+0001

	1	2	3	4	5	6
	7	8	9	10	11	12
30	2.26E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001
29	2.26E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001
28	2.25E+0001	2.29E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.38E+0001
27	2.25E+0001	2.29E+0001	2.31E+0001	2.33E+0001	2.35E+0001	2.37E+0001
26	2.24E+0001	2.28E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001
25	2.23E+0001	2.27E+0001	2.29E+0001	2.31E+0001	2.33E+0001	2.35E+0001
24	2.22E+0001	2.26E+0001	2.28E+0001	2.30E+0001	2.32E+0001	2.34E+0001
23	2.21E+0001	2.25E+0001	2.27E+0001	2.29E+0001	2.31E+0001	2.33E+0001
22	2.20E+0001	2.24E+0001	2.25E+0001	2.27E+0001	2.29E+0001	2.31E+0001
21	2.19E+0001	2.23E+0001	2.25E+0001	2.26E+0001	2.28E+0001	2.30E+0001
20	2.19E+0001	2.22E+0001	2.24E+0001	2.26E+0001	2.27E+0001	2.29E+0001
19	2.18E+0001	2.22E+0001	2.24E+0001	2.25E+0001	2.27E+0001	2.28E+0001
18	2.18E+0001	2.21E+0001	2.23E+0001	2.25E+0001	2.26E+0001	2.27E+0001
17	2.18E+0001	2.21E+0001	2.23E+0001	2.24E+0001	2.25E+0001	2.26E+0001
16	2.18E+0001	2.21E+0001	2.22E+0001	2.24E+0001	2.25E+0001	2.26E+0001
15	2.18E+0001	2.21E+0001	2.22E+0001	2.23E+0001	2.24E+0001	2.26E+0001
14	2.18E+0001	2.21E+0001	2.22E+0001	2.23E+0001	2.23E+0001	2.25E+0001
13	2.19E+0001	2.21E+0001	2.22E+0001	2.22E+0001	2.21E+0001	2.25E+0001
12	2.19E+0001	2.22E+0001	2.23E+0001	2.24E+0001	2.24E+0001	2.26E+0001
11	2.20E+0001	2.23E+0001	2.24E+0001	2.25E+0001	2.26E+0001	2.28E+0001
10	2.21E+0001	2.23E+0001	2.25E+0001	2.26E+0001	2.27E+0001	2.29E+0001

9	2.21E+0001	2.24E+0001	2.26E+0001	2.27E+0001	2.28E+0001	2.30E+0001
8	2.22E+0001	2.25E+0001	2.26E+0001	2.28E+0001	2.29E+0001	2.31E+0001
7	2.23E+0001	2.26E+0001	2.28E+0001	2.29E+0001	2.31E+0001	2.33E+0001
6	2.24E+0001	2.27E+0001	2.29E+0001	2.31E+0001	2.32E+0001	2.34E+0001
5	2.25E+0001	2.28E+0001	2.30E+0001	2.32E+0001	2.34E+0001	2.35E+0001
4	2.27E+0001	2.30E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.37E+0001
3	2.28E+0001	2.31E+0001	2.33E+0001	2.34E+0001	2.36E+0001	2.38E+0001
2	2.28E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.38E+0001
1	2.28E+0001	2.32E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.38E+0001

	7	8	9	10	11	12
	13	14	15	16	17	18
30	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001
29	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001	2.50E+0001
28	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.49E+0001	2.51E+0001
27	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.49E+0001	2.51E+0001
26	2.39E+0001	2.41E+0001	2.43E+0001	2.46E+0001	2.48E+0001	2.50E+0001
25	2.38E+0001	2.40E+0001	2.42E+0001	2.45E+0001	2.47E+0001	2.50E+0001
24	2.36E+0001	2.38E+0001	2.41E+0001	2.43E+0001	2.46E+0001	2.48E+0001
23	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001	2.44E+0001	2.46E+0001
22	2.33E+0001	2.34E+0001	2.36E+0001	2.39E+0001	2.41E+0001	2.43E+0001
21	2.31E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.40E+0001
20	2.30E+0001	2.32E+0001	2.34E+0001	2.36E+0001	2.36E+0001	2.35E+0001
19	2.29E+0001	2.31E+0001	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001
18	2.28E+0001	2.29E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.40E+0001
17	2.27E+0001	2.26E+0001	2.31E+0001	2.35E+0001	2.38E+0001	2.41E+0001
16	2.27E+0001	2.29E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
15	2.28E+0001	2.29E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
14	2.28E+0001	2.30E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
13	2.27E+0001	2.29E+0001	2.31E+0001	2.35E+0001	2.38E+0001	2.41E+0001
12	2.28E+0001	2.29E+0001	2.29E+0001	2.34E+0001	2.38E+0001	2.41E+0001
11	2.29E+0001	2.31E+0001	2.32E+0001	2.35E+0001	2.38E+0001	2.41E+0001
10	2.31E+0001	2.32E+0001	2.34E+0001	2.37E+0001	2.39E+0001	2.41E+0001
9	2.32E+0001	2.33E+0001	2.35E+0001	2.38E+0001	2.40E+0001	2.42E+0001
8	2.33E+0001	2.35E+0001	2.37E+0001	2.39E+0001	2.41E+0001	2.43E+0001
7	2.35E+0001	2.36E+0001	2.38E+0001	2.40E+0001	2.43E+0001	2.45E+0001
6	2.36E+0001	2.38E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001
5	2.37E+0001	2.39E+0001	2.41E+0001	2.43E+0001	2.45E+0001	2.47E+0001
4	2.39E+0001	2.40E+0001	2.42E+0001	2.44E+0001	2.46E+0001	2.48E+0001
3	2.40E+0001	2.41E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.48E+0001
2	2.40E+0001	2.42E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001
1	2.40E+0001	2.42E+0001	2.43E+0001	2.45E+0001	2.47E+0001	2.49E+0001

	13	14	15	16	17	18
	19	20	21	22	23	24
30	2.52E+0001	2.54E+0001	2.56E+0001	2.58E+0001	2.62E+0001	2.65E+0001
29	2.52E+0001	2.54E+0001	2.56E+0001	2.58E+0001	2.62E+0001	2.66E+0001
28	2.53E+0001	2.55E+0001	2.57E+0001	2.59E+0001	2.63E+0001	2.67E+0001
27	2.54E+0001	2.56E+0001	2.58E+0001	2.61E+0001	2.65E+0001	2.68E+0001
26	2.53E+0001	2.56E+0001	2.58E+0001	2.61E+0001	2.65E+0001	2.69E+0001
25	2.52E+0001	2.55E+0001	2.58E+0001	2.60E+0001	2.65E+0001	2.69E+0001
24	2.51E+0001	2.54E+0001	2.57E+0001	2.59E+0001	2.65E+0001	2.69E+0001
23	2.49E+0001	2.52E+0001	2.55E+0001	2.58E+0001	2.64E+0001	2.69E+0001
22	2.47E+0001	2.50E+0001	2.54E+0001	2.57E+0001	2.63E+0001	2.69E+0001
21	2.45E+0001	2.49E+0001	2.53E+0001	2.57E+0001	2.63E+0001	2.68E+0001
20	2.43E+0001	2.48E+0001	2.52E+0001	2.56E+0001	2.63E+0001	2.68E+0001
19	2.43E+0001	2.48E+0001	2.52E+0001	2.56E+0001	2.62E+0001	2.68E+0001
18	2.44E+0001	2.48E+0001	2.52E+0001	2.56E+0001	2.62E+0001	2.68E+0001

17	2.45E+0001	2.48E+0001	2.52E+0001	2.55E+0001	2.62E+0001	2.67E+0001
16	2.45E+0001	2.48E+0001	2.52E+0001	2.55E+0001	2.62E+0001	2.67E+0001
15	2.45E+0001	2.48E+0001	2.52E+0001	2.55E+0001	2.61E+0001	2.67E+0001
14	2.45E+0001	2.48E+0001	2.51E+0001	2.55E+0001	2.61E+0001	2.67E+0001
13	2.44E+0001	2.48E+0001	2.51E+0001	2.55E+0001	2.61E+0001	2.66E+0001
12	2.44E+0001	2.47E+0001	2.51E+0001	2.54E+0001	2.61E+0001	2.66E+0001
11	2.44E+0001	2.46E+0001	2.50E+0001	2.54E+0001	2.60E+0001	2.66E+0001
10	2.43E+0001	2.43E+0001	2.49E+0001	2.54E+0001	2.60E+0001	2.66E+0001
9	2.44E+0001	2.46E+0001	2.50E+0001	2.54E+0001	2.60E+0001	2.66E+0001
8	2.45E+0001	2.48E+0001	2.51E+0001	2.54E+0001	2.60E+0001	2.65E+0001
7	2.47E+0001	2.50E+0001	2.52E+0001	2.55E+0001	2.60E+0001	2.65E+0001
6	2.48E+0001	2.50E+0001	2.53E+0001	2.55E+0001	2.60E+0001	2.64E+0001
5	2.49E+0001	2.51E+0001	2.53E+0001	2.55E+0001	2.60E+0001	2.64E+0001
4	2.50E+0001	2.52E+0001	2.54E+0001	2.56E+0001	2.60E+0001	2.63E+0001
3	2.50E+0001	2.52E+0001	2.54E+0001	2.56E+0001	2.59E+0001	2.62E+0001
2	2.50E+0001	2.52E+0001	2.54E+0001	2.55E+0001	2.59E+0001	2.62E+0001
1	2.50E+0001	2.52E+0001	2.54E+0001	2.55E+0001	2.59E+0001	2.62E+0001
	19	20	21	22	23	24

	25	26	27	28	29	30
30	2.69E+0001	2.72E+0001	2.77E+0001	2.82E+0001	2.86E+0001	2.88E+0001
29	2.69E+0001	2.72E+0001	2.78E+0001	2.83E+0001	2.87E+0001	2.90E+0001
28	2.70E+0001	2.73E+0001	2.79E+0001	2.84E+0001	2.88E+0001	2.93E+0001
27	2.72E+0001	2.75E+0001	2.80E+0001	2.85E+0001	2.89E+0001	2.93E+0001
26	2.73E+0001	2.76E+0001	2.82E+0001	2.86E+0001	2.89E+0001	2.93E+0001
25	2.73E+0001	2.77E+0001	2.82E+0001	2.86E+0001	2.89E+0001	2.92E+0001
24	2.73E+0001	2.77E+0001	2.83E+0001	2.86E+0001	2.90E+0001	2.93E+0001
23	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.90E+0001	2.93E+0001
22	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
21	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
20	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
19	2.73E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
18	2.72E+0001	2.77E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
17	2.72E+0001	2.76E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
16	2.72E+0001	2.76E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
15	2.72E+0001	2.76E+0001	2.83E+0001	2.87E+0001	2.91E+0001	2.95E+0001
14	2.72E+0001	2.76E+0001	2.82E+0001	2.87E+0001	2.90E+0001	2.95E+0001
13	2.71E+0001	2.76E+0001	2.82E+0001	2.86E+0001	2.90E+0001	2.95E+0001
12	2.71E+0001	2.75E+0001	2.82E+0001	2.86E+0001	2.90E+0001	2.95E+0001
11	2.71E+0001	2.75E+0001	2.82E+0001	2.86E+0001	2.90E+0001	2.94E+0001
10	2.71E+0001	2.75E+0001	2.81E+0001	2.86E+0001	2.89E+0001	2.93E+0001
9	2.70E+0001	2.75E+0001	2.81E+0001	2.85E+0001	2.89E+0001	2.92E+0001
8	2.70E+0001	2.74E+0001	2.81E+0001	2.85E+0001	2.89E+0001	2.93E+0001
7	2.69E+0001	2.74E+0001	2.80E+0001	2.84E+0001	2.88E+0001	2.92E+0001
6	2.69E+0001	2.73E+0001	2.79E+0001	2.83E+0001	2.88E+0001	2.93E+0001
5	2.68E+0001	2.72E+0001	2.78E+0001	2.83E+0001	2.87E+0001	2.90E+0001
4	2.67E+0001	2.70E+0001	2.76E+0001	2.81E+0001	2.86E+0001	2.90E+0001
3	2.66E+0001	2.69E+0001	2.75E+0001	2.80E+0001	2.85E+0001	2.90E+0001
2	2.65E+0001	2.68E+0001	2.74E+0001	2.79E+0001	2.84E+0001	2.88E+0001
1	2.65E+0001	2.68E+0001	2.74E+0001	2.79E+0001	2.83E+0001	2.85E+0001
	25	26	27	28	29	30

********** End of logbook **********

Water Balance

Units of all fluxes in [ft^3/d]

i	j	flux	CodeID	Node#	
30	29	375.3791	2	1	constant head

30	2	466.9003	1	2	constant head
1	7	727.9465	10	3	constant head
30	18	246.9430	4	4	constant head
1	14	-38.1597	7	5	constant head
30	16	253.2730	4	6	constant head
1	10	-14.0411	6	7	constant head
30	14	270.1042	4	8	constant head
1	16	-406.5771	10	9	constant head
30	12	582.2088	4	10	constant head
1	8	-1236.0368	6	11	constant head
30	10	-115.2039	3	12	constant head
1	18	-499.6813	11	13	constant head
30	20	249.1229	4	14	constant head
1	12	-717.9731	7	15	constant head
30	22	525.5561	4	16	constant head
30	8	307.1589	3	17	constant head
30	6	717.6519	3	18	constant head
1	20	-922.9990	12	19	constant head
30	24	188.0604	3	20	constant head
1	23	250.2304	11	21	constant head
30	4	530.2097	2	22	constant head
1	22	-935.2687	12	23	constant head
30	26	399.6860	3	24	constant head
30	27	496.0359	3	25	constant head
30	3	801.2583	2	26	constant head
30	28	740.5808	3	27	constant head
1	29	-1724.5231	13	28	constant head
1	28	-1292.1597	13	29	constant head
1	27	-1470.1447	13	30	constant head
1	26	-631.6268	12	31	constant head
1	25	-549.6494	12	32	constant head
1	24	-905.7508	12	33	constant head
1	2	-998.5312	5	34	constant head
1	3	-960.5898	6	35	constant head
1	4	-1739.7489	7	36	constant head
1	5	-659.8371	8	37	constant head
1	6	351.8809	9	38	constant head

Sum of all fluxes organized in Codes :

13

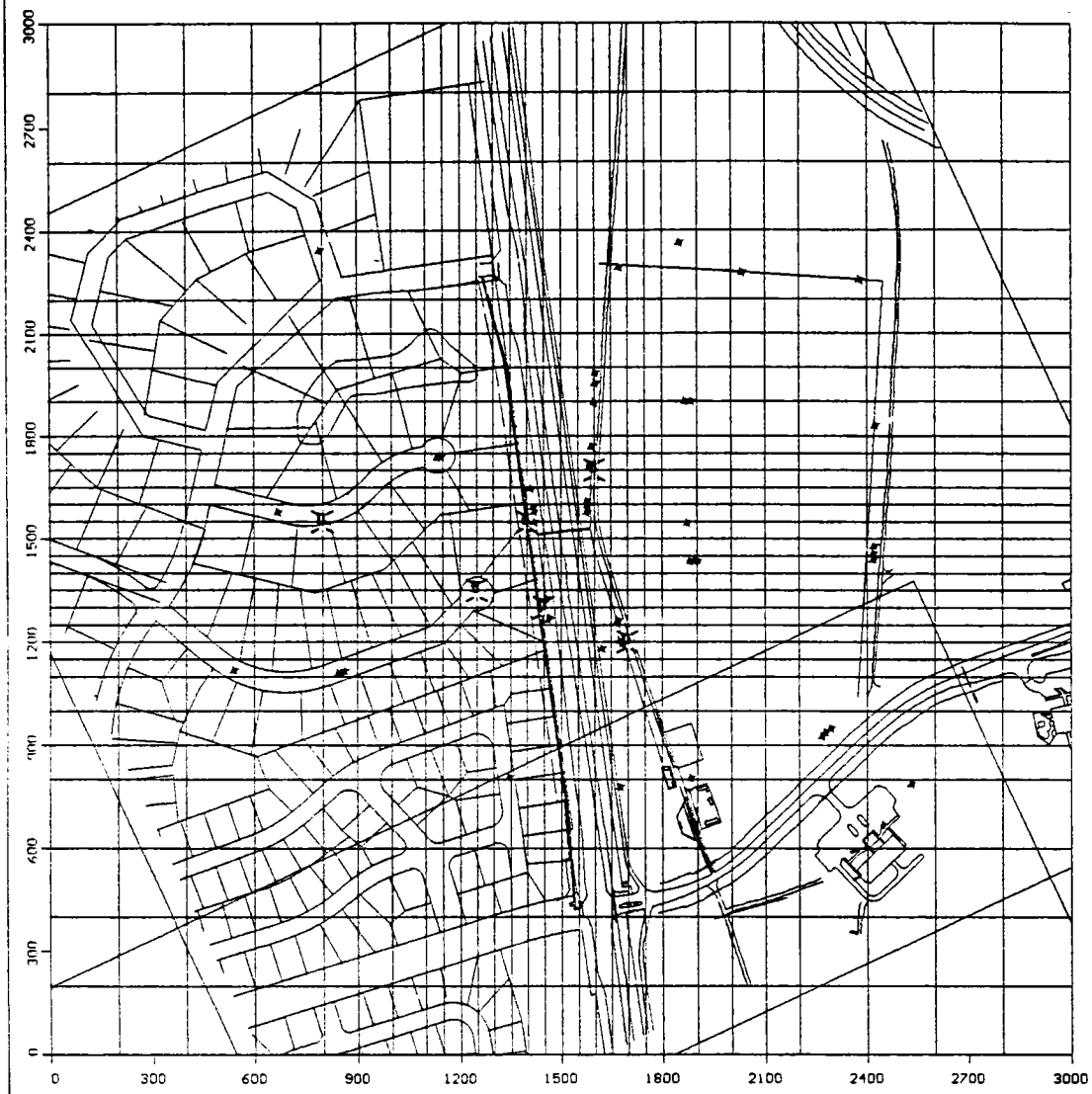
1	466.9003	0.0000	466.9003	CodeID	In / Out / Net flux
2	1706.8472	0.0000	1706.8472	CodeID	In / Out / Net flux
3	2849.1738	-115.2039	2733.9700	CodeID	In / Out / Net flux
4	2127.2080	0.0000	2127.2080	CodeID	In / Out / Net flux
5	0.0000	-998.5312	-998.5312	CodeID	In / Out / Net flux
6	0.0000	-2210.6677	-2210.6677	CodeID	In / Out / Net flux
7	0.0000	-2495.8818	-2495.8818	CodeID	In / Out / Net flux
8	0.0000	-659.8371	-659.8371	CodeID	In / Out / Net flux
9	351.8810	0.0000	351.8810	CodeID	In / Out / Net flux
10	727.9465	-406.5771	321.3694	CodeID	In / Out / Net flux
11	250.2304	-499.6813	-249.4510	CodeID	In / Out / Net flux
12	0.0000	-3945.2947	-3945.2947	CodeID	In / Out / Net flux
13	0.0000	-4486.8276	-4486.8276	CodeID	In / Out / Net flux

Global water balance [ft^3/d] :

8480.1872	total IN-flux through const. head nodes
-15818.5022	total OUT-flux through const. head nodes
0.0000	total IN-flux through flux nodes
0.0000	total OUT-flux through flux nodes
0.0000	total IN-flux through river nodes
0.0000	total OUT-flux through river nodes
0.0000	total IN-flux through drain nodes

0.0000	total OUT-flux through drain nodes
0.0000	total IN-flux through injection wells
-10795.0717	total OUT-flux through pumping wells
18094.9318	total net aquifer recharge
-38.4550	sum of all fluxes should be zero
-0.0723%	**total mass balance error**

GRID and Wells



FLOWPATH 5.03

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

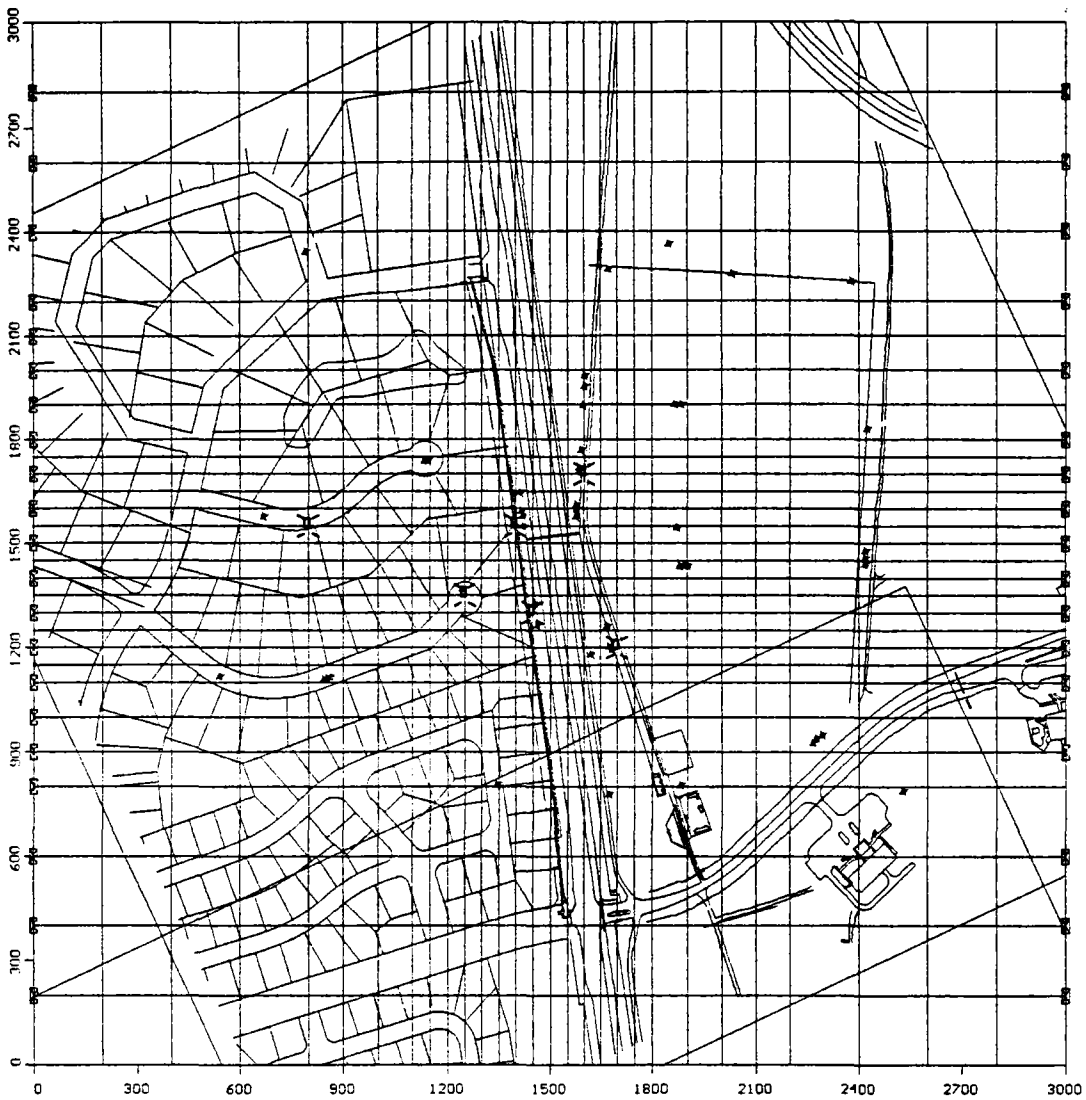
Velocities (ft/d)

Min :	0.097
Max :	0.840
Avg :	0.293

Units : [ft][day]

Data Set : CAMDNCZ2

DOMAIN BOUNDARIES



FLOWPATH 5.03

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 12
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

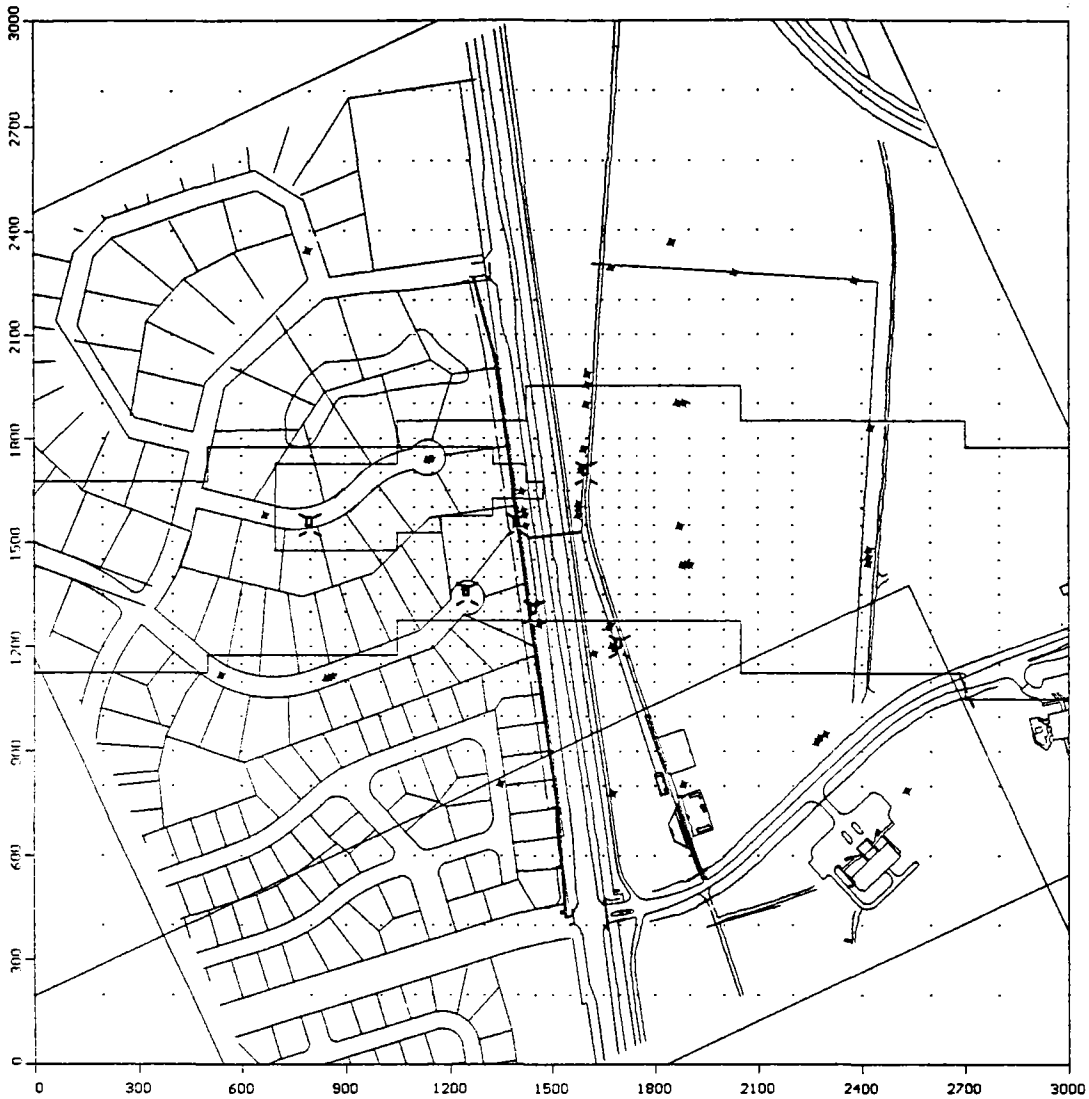
Velocities (ft/d)

Min :	0.097
Max :	0.840
Avg :	0.293

Units : [ft][day]

Data Set : CAMDNCZ2

AQUIFER PROPERTIES



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Model Dimensions

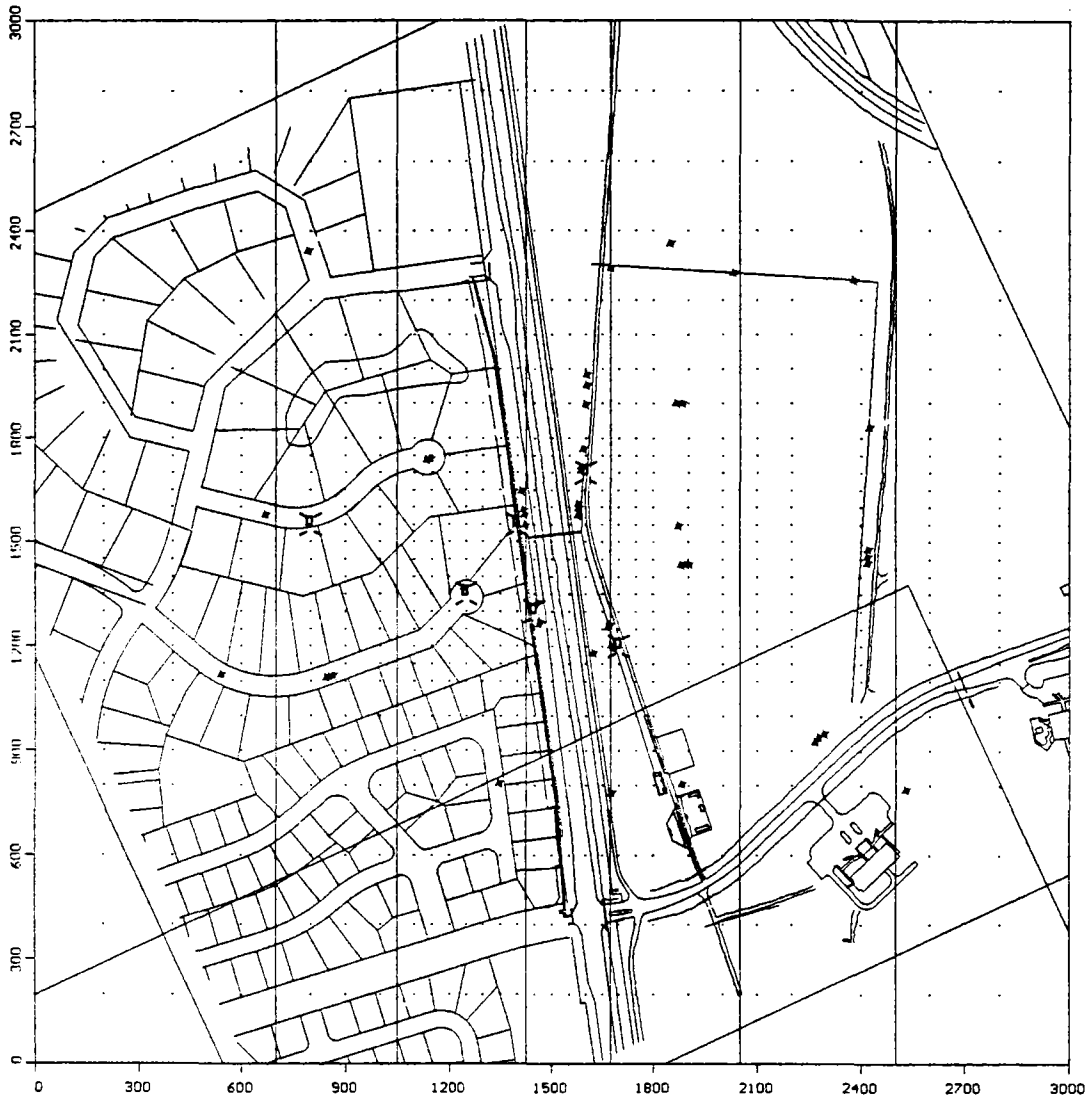
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]__
mlv.11.94

Bottom of Aquifer



FLOWPATH 5.03

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Model Dimensions

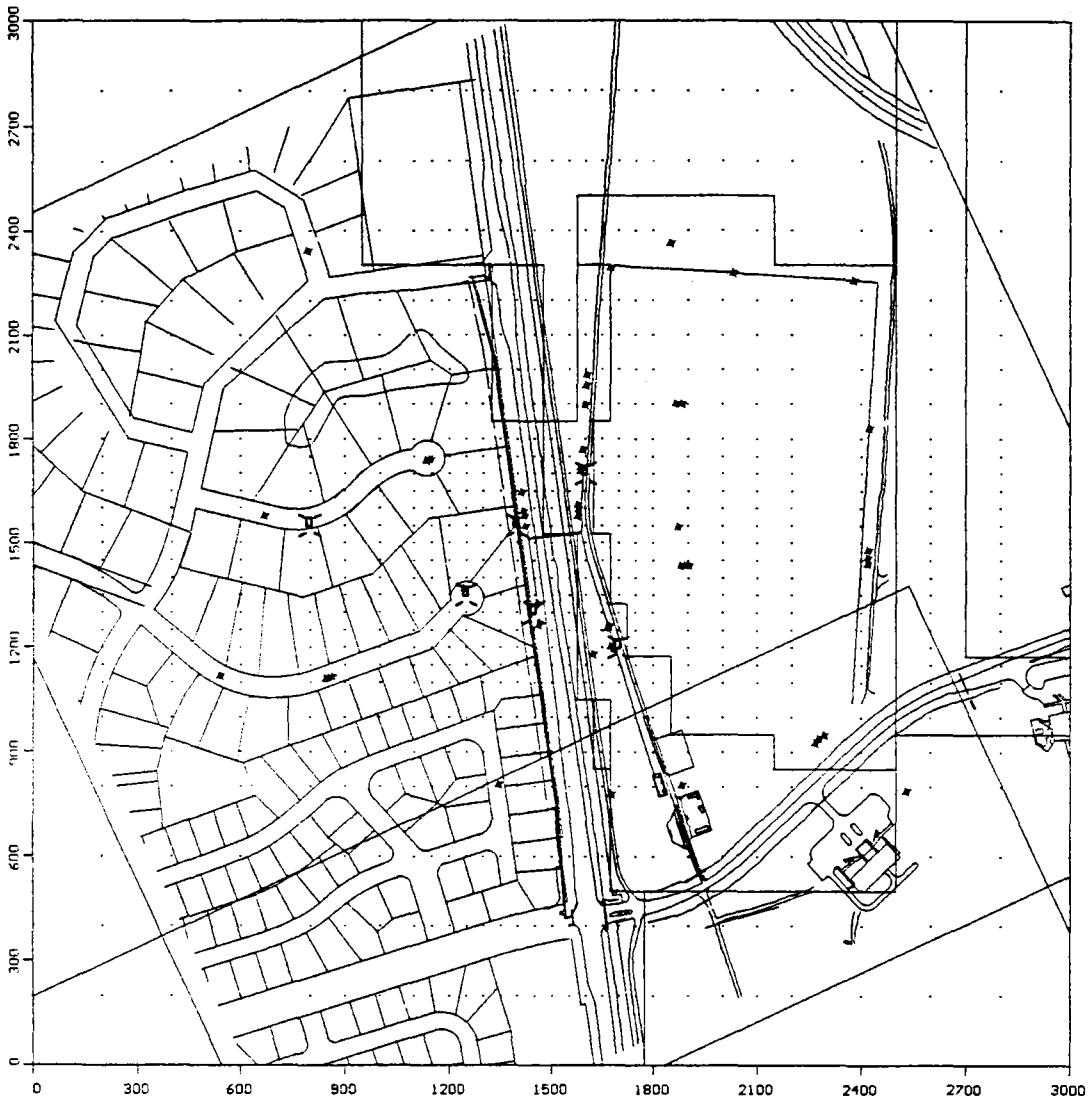
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]
mlv.11.94

RECHARGE



FLOWPATH 5.03

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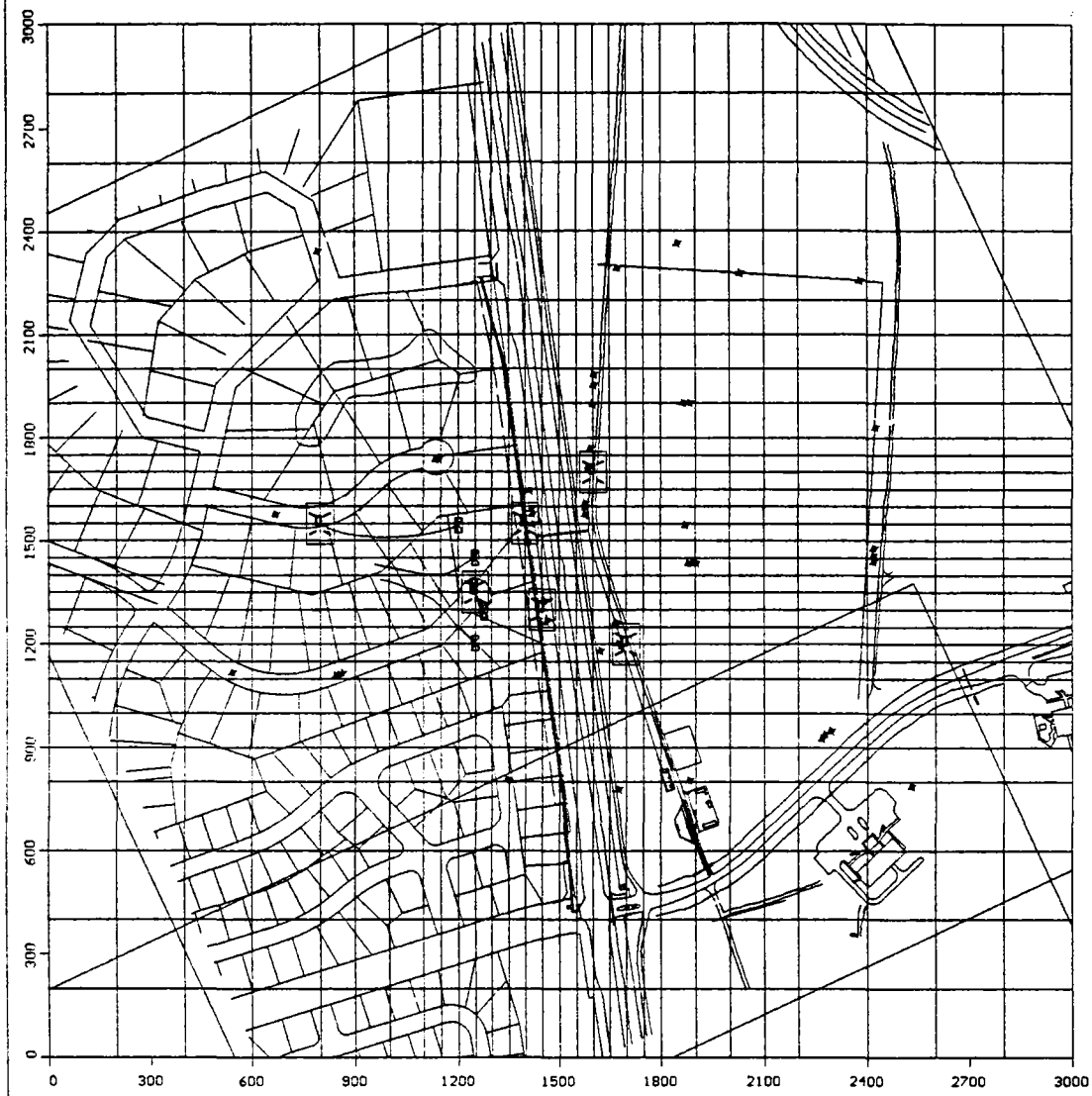
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2

PATHLINES/TRACKING



FLOWPATH 5.03

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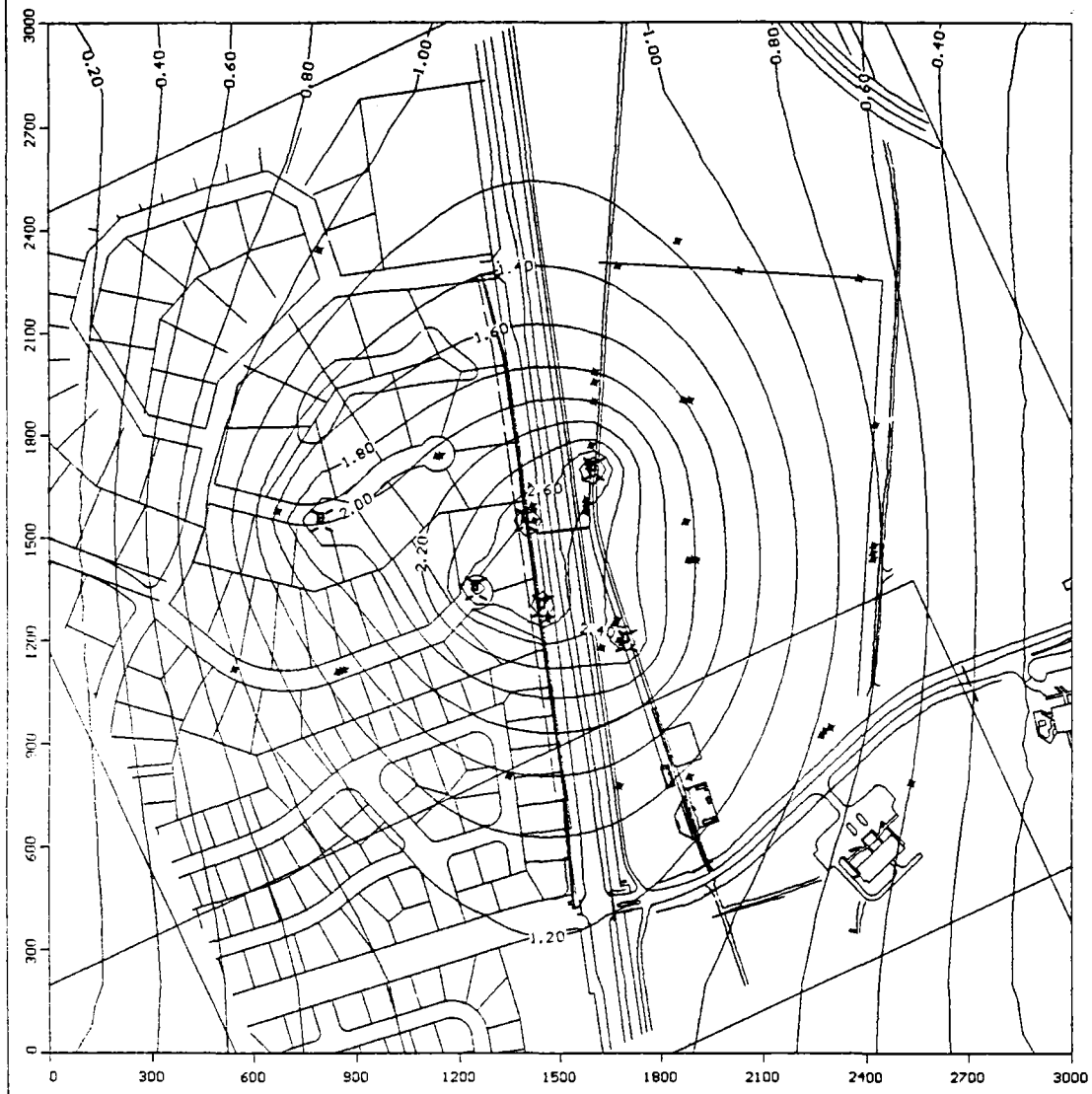
Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

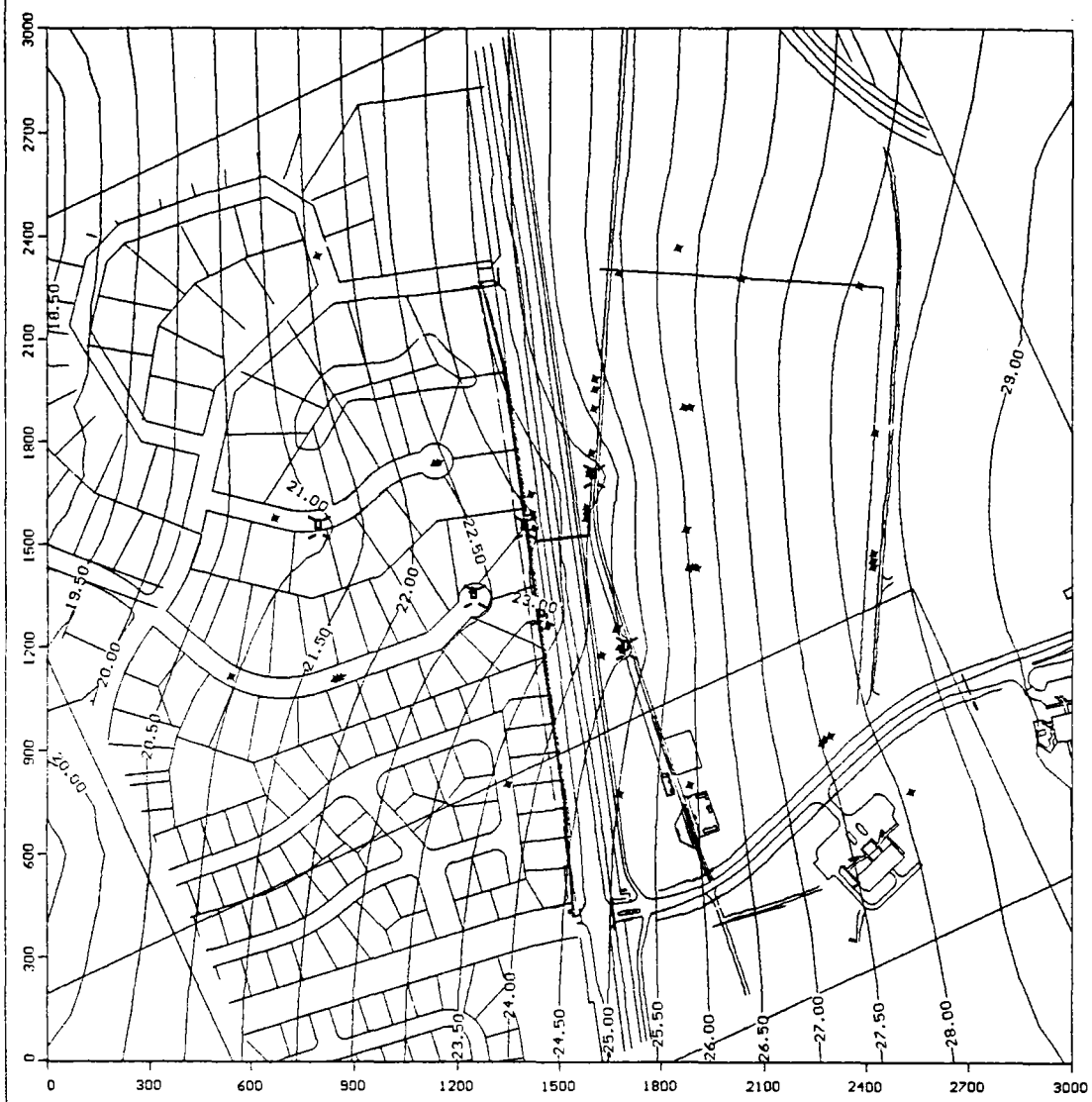
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Draudown (ft)

Min :	-0.000
Max :	3.195

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

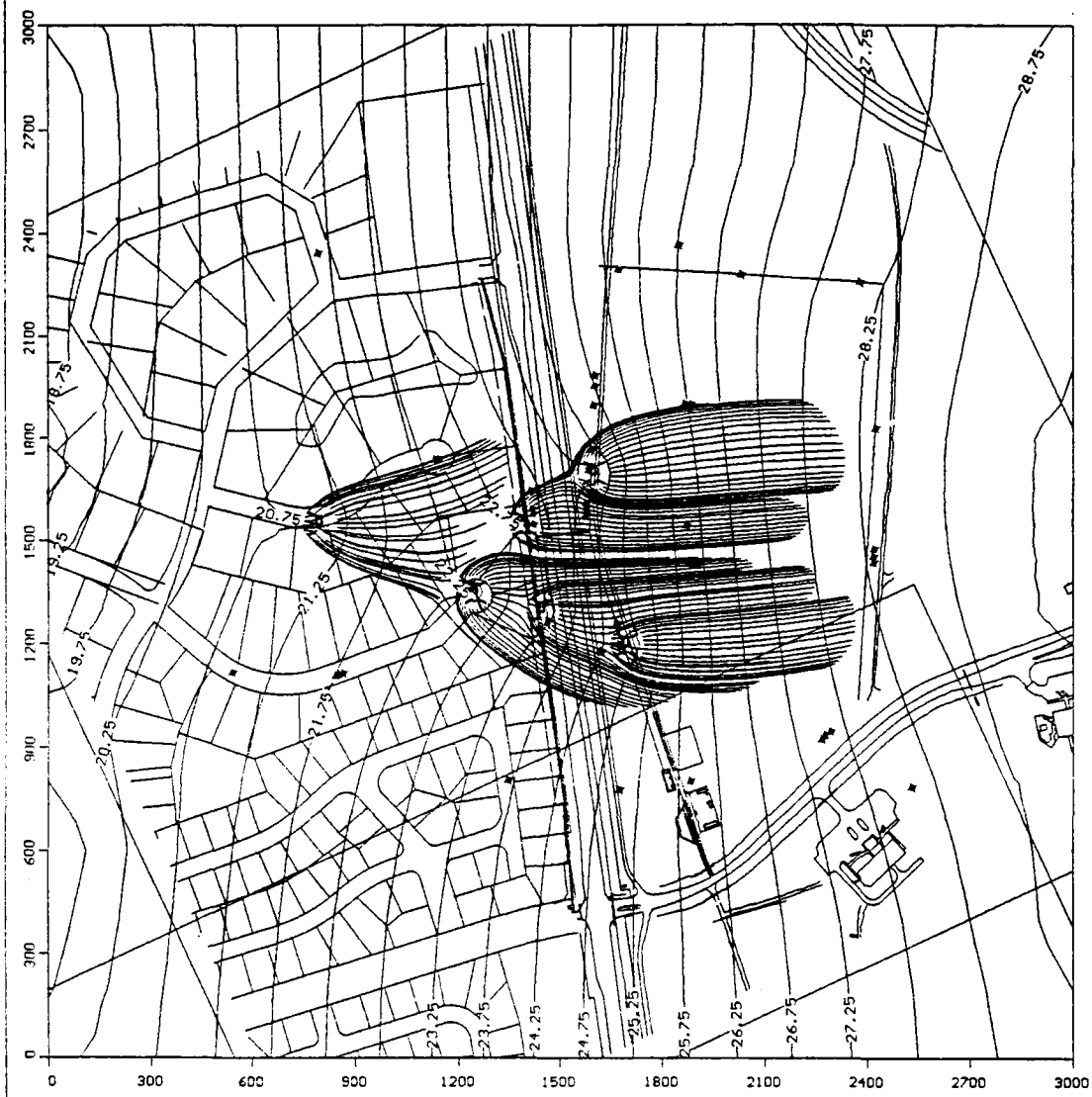
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

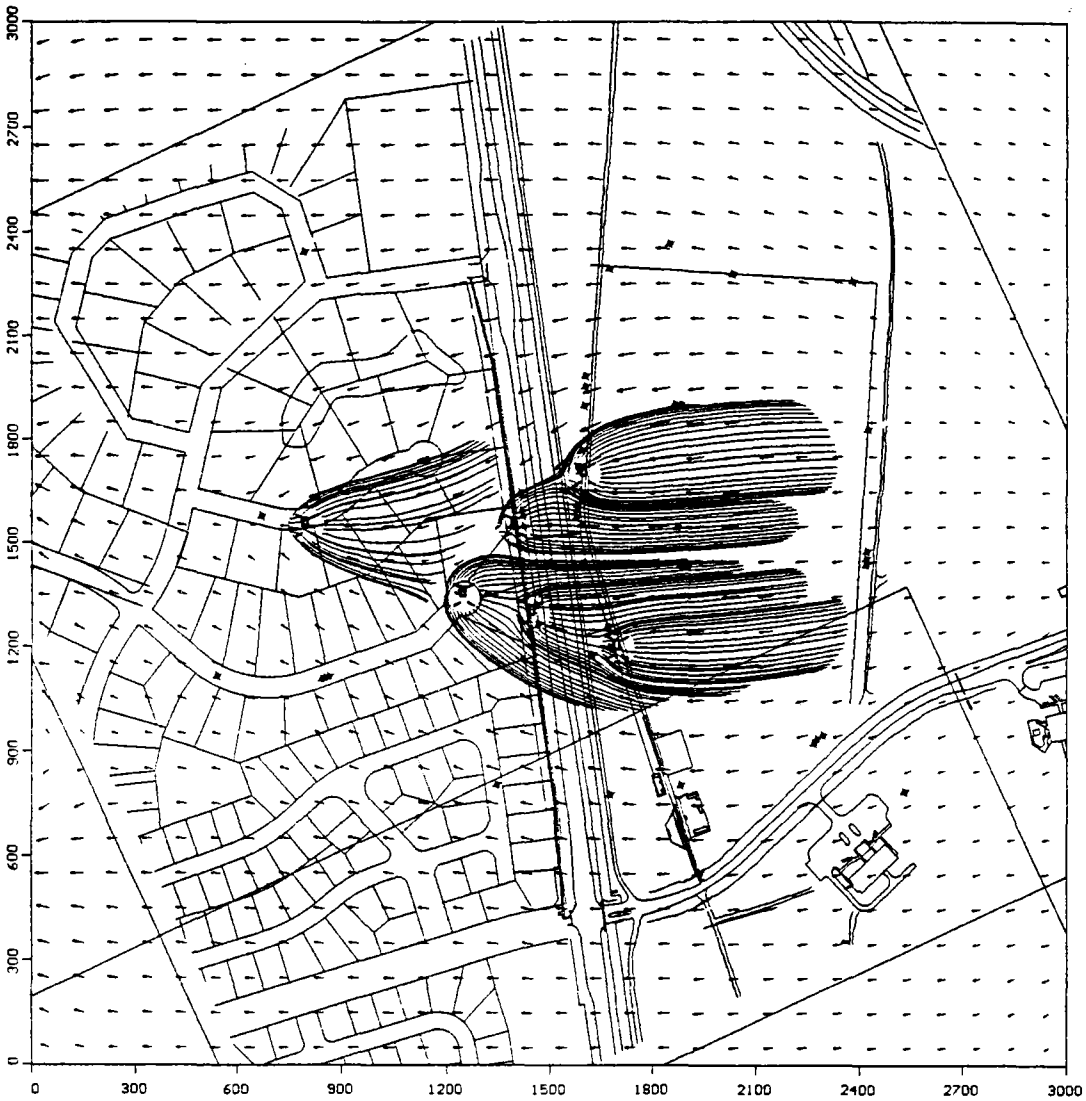
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

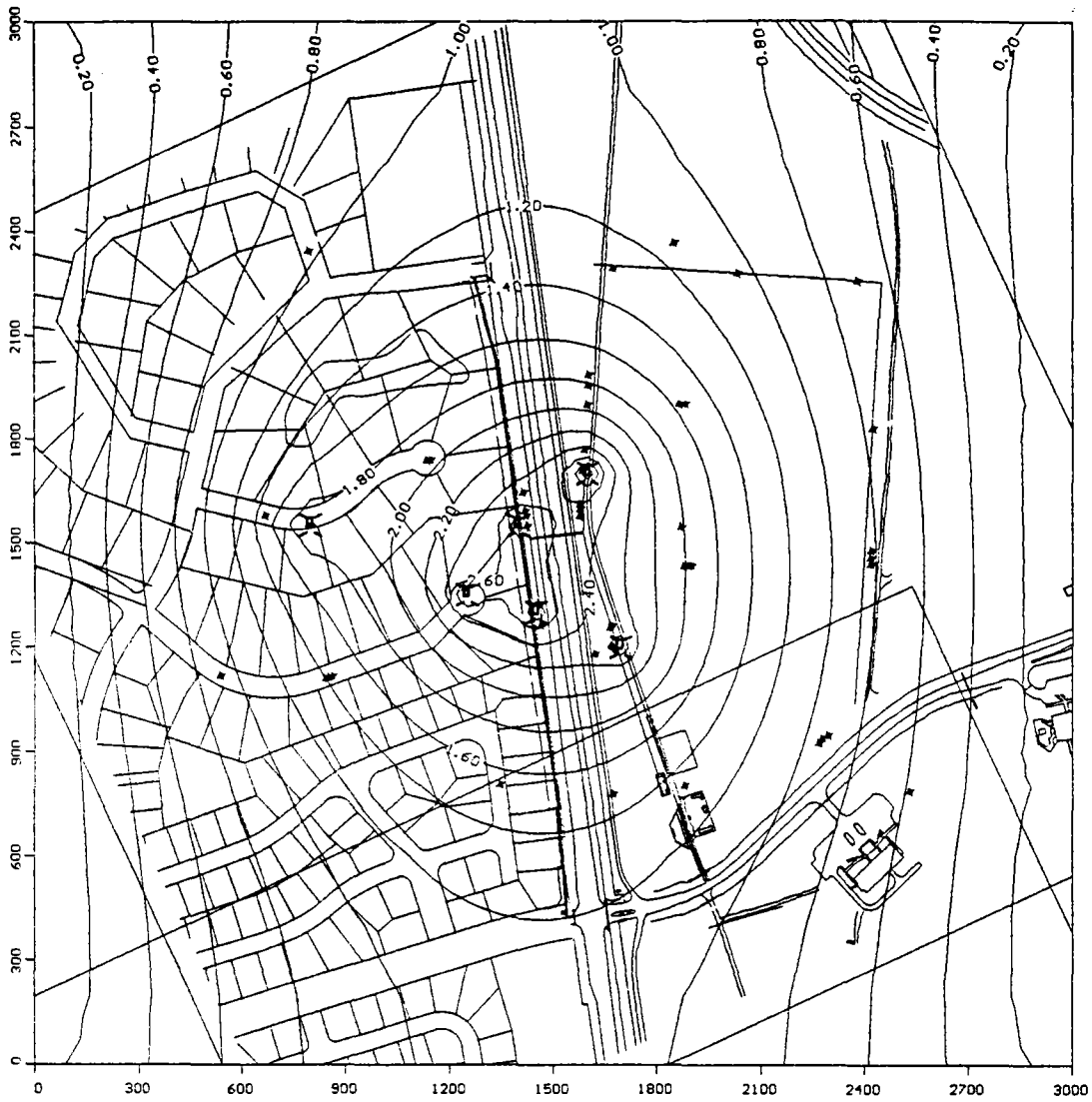
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.086
Max :	0.780
Avg :	0.244

Units : [ft][day]

Data Set : CAMDNCZ2



RW-6 7.5 gpm
RW-7 10 gpm

FLOWPATH 5.03

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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

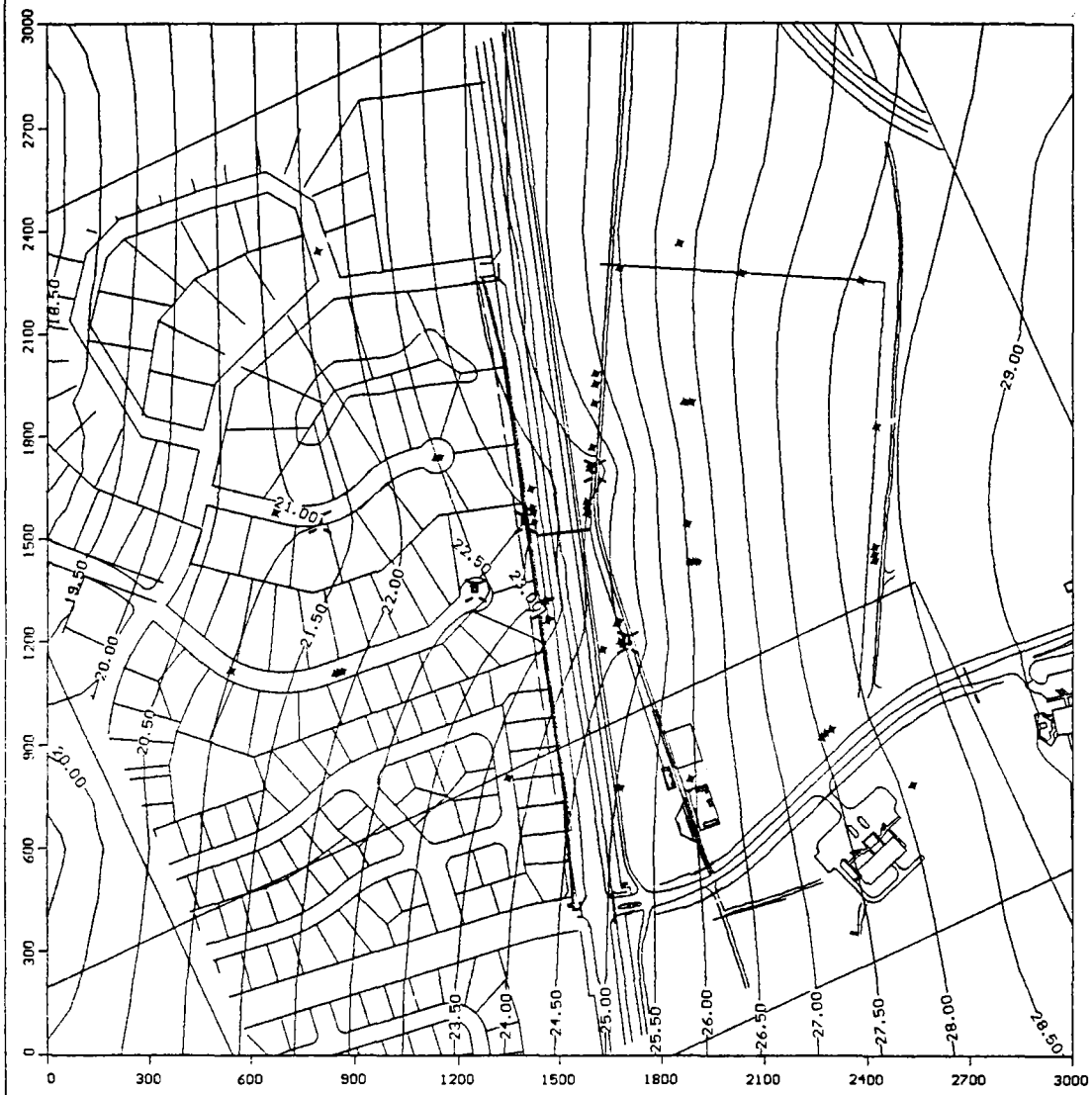
Draudown (ft)

Min :	-0.000
Max :	3.140

Units : [ft][day]

Data Set : CAMDNCZ2

KB [IM I-EVAL&REC]__
mlv.11.94



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Model Dimensions

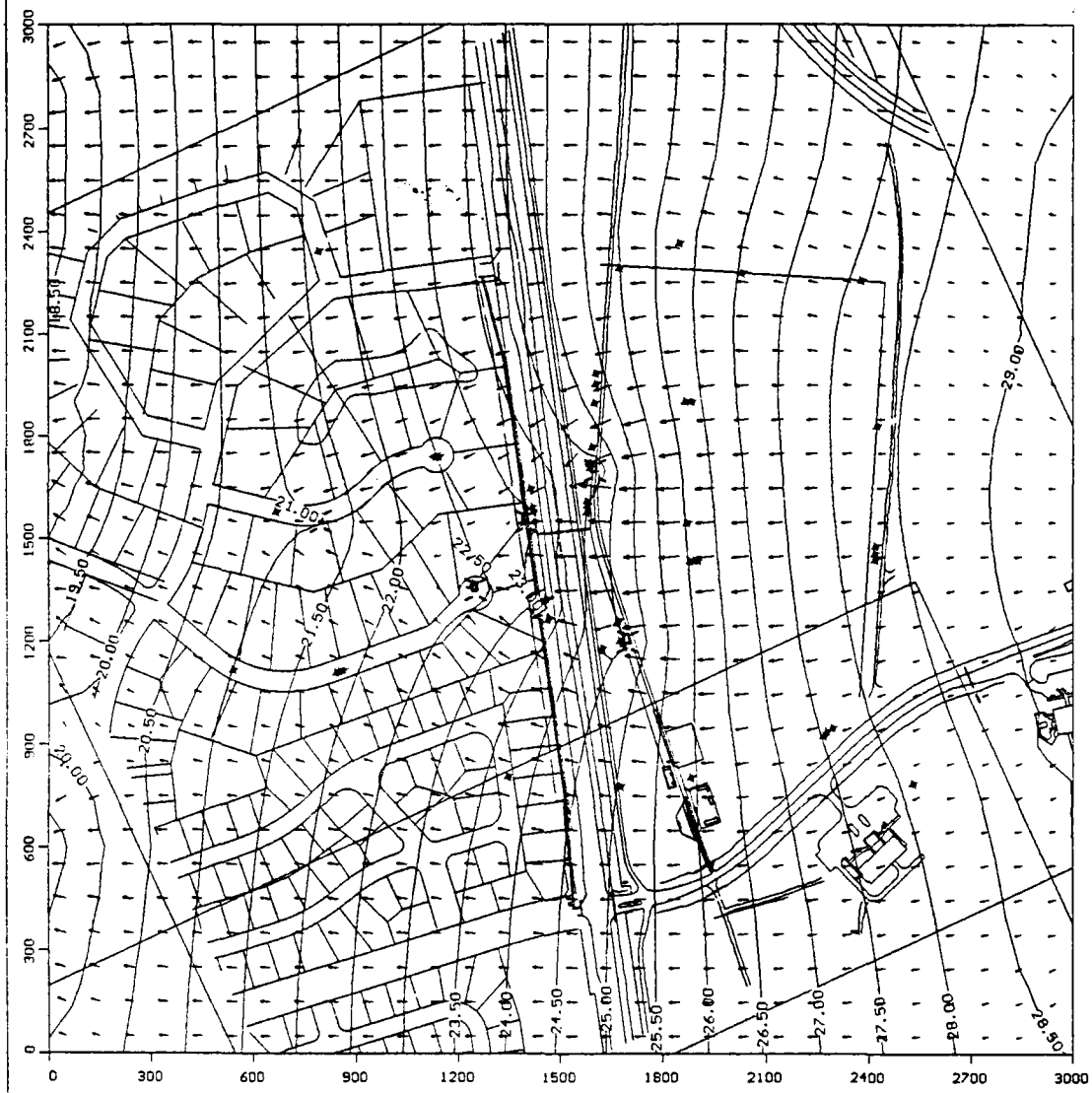
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

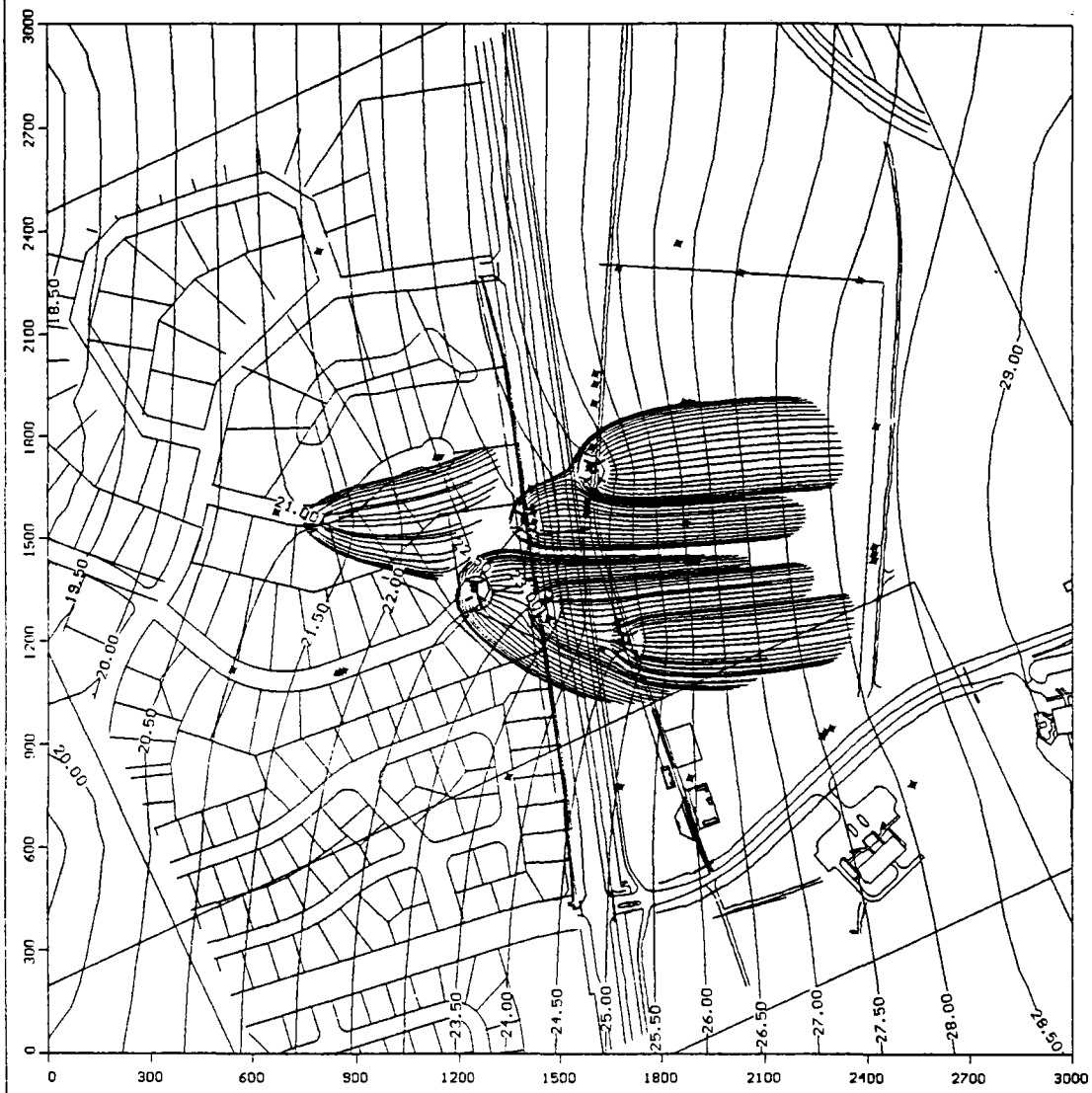
Min :	18.250
Max :	29.500

Velocities (ft/d)

Min :	0.083
Max :	0.776
Avg :	0.244

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

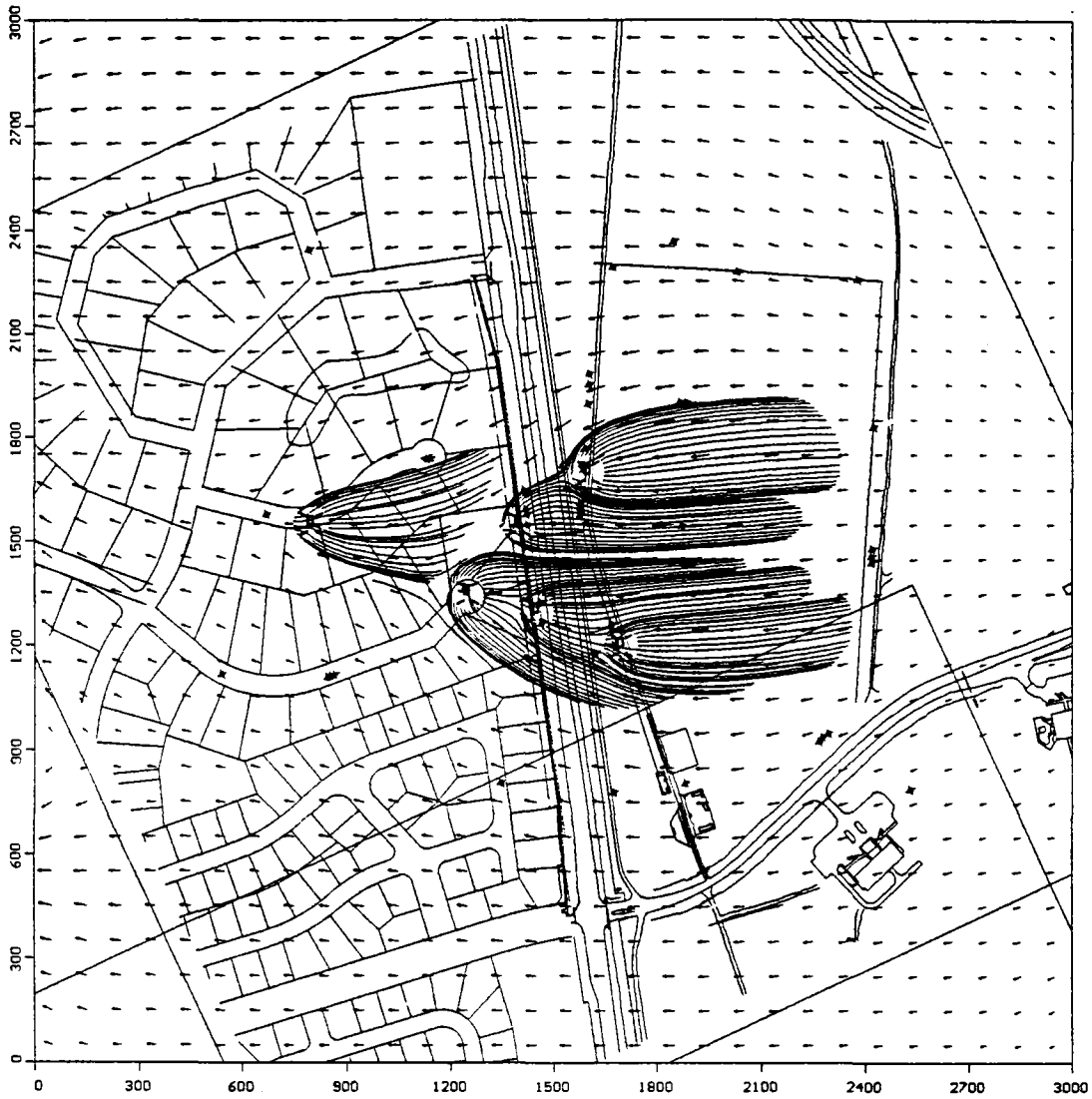
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Hydraulic Heads (ft)

Min :	18.250
Max :	29.500

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

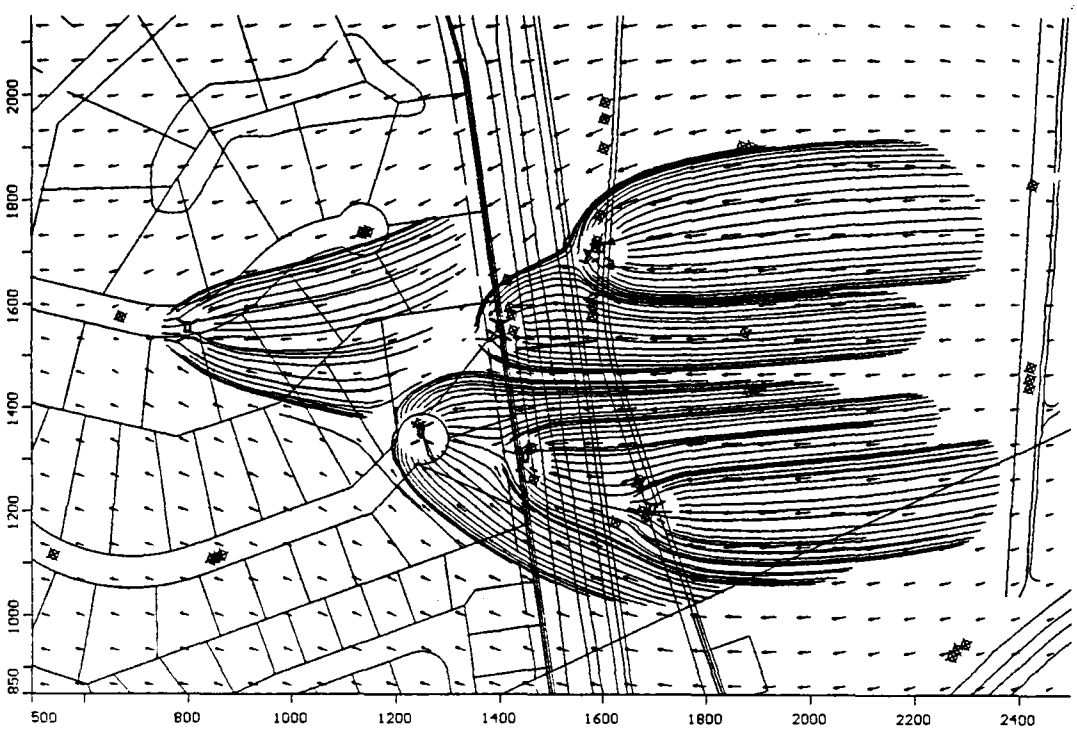
No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.083
Max :	0.776
Avg :	0.244

Units : [ft][day]

Data Set : CAMDNCZ2



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Model Dimensions

No. rows	: 30
No. columns	: 30
No. pumps	: 6
No. inject	: 0
No. const. heads	: 38
No. const. flux	: 0
No. river nodes	: 0
No. drain nodes	: 0

Velocities (ft/d)

Min :	0.097
Max :	0.840
Avg :	0.293

Units : [ft][day]

Data Set : CAMDNCZ2

APPENDIX J

WELL DEVELOPMENT PROCEDURES

APPENDIX J

WELL DEVELOPMENT PROCEDURES

Following well installation, the well will be developed to remove fluids or other materials that may have been introduced during well drilling and construction. Development will be initiated no sooner than 24 hours following the completion of grouting. No air or water will be injected into the well during development. Development should begin with the removal of 5 well casing volumes of water.

Remove the pump from the well, insert surge block apparatus, and perform mechanical surging. The surging should begin slowly with low speed and intensity, increasing gradually. Continue alternately surging and pumping until representative water is obtained, free of drilling fluids, cuttings, or other materials introduced during well construction. Representative water is assumed to have been obtained when turbidity measurements are less than 25 NTUs and/or pH, temperature, specific conductance, and turbidity measurements vary by no more than 10 percent.

Pumping Fine sediment should be removed from the well upon completion of surging for each interval to prevent forcing these materials back into the formation. Fluids will be pumped from the well using equipment and methodology sufficient to lift sediment from the bottom of the well and at a rate that causes drawdown of at least 30 percent of the static water column in the well. The pump and all accessories entering the well will be properly decontaminated prior to use.

Mechanical Surging The surging apparatus should consist of two leather or rubber discs secured between three wooden or metal discs attached to a pipe. The outside diameter of the leather or rubber discs should be equal to the inside diameter of the well, and the diameter of the wood or metal discs should be 1 inch less than the inside diameter of the well. Location of the surging should be initiated in the well casing above the screen. Development should proceed from the top of the screen and move progressively downward to prevent the tool from sand locking. The stroke of the surging action should be 3 to 5 feet. Duration of surging for each interval should be 10 to 20 minutes. Speed of surging should begin at a rate that is equal to or less than the rate of water level rise after evacuation of the well. The surging speed should be increased gradually in subsequent surging cycles to no more than 3 to 5 times the rate of rise value, but in no case shall the speed be such that it causes a pressure drop sufficient to collapse the screen.

Optional Treatment If development of the recovery well does not provide the required well performance to support the intended remedial action, a clay dispersant (e.g., Barafos™ or an approved equal) may be used to promote the clean-up and development of the aquifer. Prior to the use of the chemical additives, a field test should be conducted in accordance with manufacturer's literature to identify potential adverse reactions in the water. In accordance with manufacturer's literature, the dispersant is dissolved in drummed water and injected with a tremie pipe and tee. The well is surged, as described above, and allowed to sit overnight. The well is then pumped a minimum of 10 well casing volumes to complete the development process. Care should be taken to follow manufacturing directions for use of the chemical additive. The Contractor is

also responsible for acquiring all necessary regulatory authorization prior to the use of chemical additives for well development.

Waste Management Contractor is responsible for proper disposal of well development water, and for providing all necessary equipment for development, including pumps, generators, hoses, fittings, connectors, and temporary storage tanks for removal, testing, and disposition of potentially contaminated development water.

APPENDIX K

ANALYTICAL DATA

TABLE OF CONTENTS FOR APPENDIX K: ANALYTICAL DATA

Interim Measure Phase I Activities:
Evaluation and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

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K-4	Recovery Well 4 (IW04)	K-4
K-5	Recovery Well 5 (IW05)	K-5
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K.1: Onsite Laboratory Data

Table K-1
Recovery Well 1 (IW01) (ug/l)

DAY	Sampid	VINYL CHLORIDE Adjvalue	Qual	cis-1,2-DICHLOROETHENE Adjvalue	Qual	1,2-DICHLOROETHANE Adjvalue	Qual	DICHLOROMETHANE Adjvalue	Qual	1,2-DICHLOROPROPANE Adjvalue	Qual	TETRACHLOROETHENE Adjvalue	Qual	TRICHLOROETHENE Adjvalue	Qual
1	11IW01319	68.89		280.00		< 10.00	J	13.22		< 10.00		< 10.00		11.11	J
7	11IW01325	55.38		55.00		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
26	11IW01413R	76.60		307.36		< 10.00		< 10.00		< 10.00		< 10.00		< 10.00	
28	11IW01415	< 10.00		274.31		24.67		35.97		24.82		17.74		25.31	
30	11IW01417	53.19		232.17		< 10.00		< 10.00		< 10.00		< 10.00		12.04	
32	11IW01419	78.32		260.99		< 10.00		10.49		< 10.00		< 10.00		14.00	
34	11IW01421	78.76	J	240.26		10.82		27.88		16.75		16.34	B	25.05	
36	11IW01423	74.46		228.89		< 10.00		11.39		< 10.00		< 10.00		14.38	B
37	11IW01425	< 10.00	J	203.30	J	< 10.00	J	< 10.00	J	< 10.00	J	< 10.00	J	< 10.00	J
40	11IW01427	34.50		236.33		< 10.00		10.79		< 10.00		< 10.00		< 10.00	
42	11IW01429	< 10.00		233.13		< 10.00		11.76		< 10.00		< 10.00		< 10.00	
44	11IW01501	32.89		229.02		< 10.00		11.83		< 10.00		< 10.00		< 10.00	
46	11IW01503	26.06		215.92		< 10.00		< 10.00		< 10.00		< 10.00		< 10.00	
48	11IW01505	< 10.00		248.53		< 10.00		15.39		< 10.00		< 10.00		< 10.00	
50	11IW01507	25.27		281.74		< 10.00		21.82		< 10.00		< 10.00		13.81	
52	11IW01509	< 10.00		287.31		20.07		46.23		20.12		13.13		19.68	
54	11IW01511	< 10.00	J	244.83	J	< 10.00	J	< 10.00	J	< 10.00	J	16.58	B,J	22.19	B,J

DAY	Sampid	trans-1,2-DICHLOROETHENE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENE (TOTAL)
1	11IW01319	< 10.00	J	< 10.00		24.89		189.09		22.44		30.42		52.86
7	11IW01325	< 5.00		< 5.00		76.54		9.17		< 5.00		5.66		10.66
26	11IW01413R	< 10.00		< 10.00		23.54		288.66		13.72		22.55		36.27
28	11IW01415	15.53		20.64		30.15		249.80		29.72		51.21		80.93
30	11IW01417	< 10.00		< 10.00		15.98		224.15		11.70		19.04	B	30.74
32	11IW01419	< 10.00		< 10.00		21.81	B	251.46		17.25	B	30.98	B	48.23
34	11IW01421	19.40		21.38		33.59		242.19		34.29		58.41		92.70
36	11IW01423	< 10.00		< 10.00		22.66	B	236.92		17.41	B	31.02	B	48.43
37	11IW01425	< 10.00	J	< 10.00	J	19.34	J	212.09	J	17.55	J	29.33	J	46.88
40	11IW01427	< 10.00		< 10.00		14.59		242.39		< 10.00		13.08		23.08
42	11IW01429	< 10.00		< 10.00		14.50		234.50		< 10.00		13.43		23.43
44	11IW01501	< 10.00		< 10.00		14.41		227.55		< 10.00		13.39		23.39
46	11IW01503	< 10.00		< 10.00	J	12.39		213.25		< 10.00		12.83		22.83
48	11IW01505	< 10.00		< 10.00		< 10.00		259.62		< 10.00		< 10.00		20.00
50	11IW01507	< 10.00		< 10.00		31.32		325.46	E	20.07		33.45		53.52
52	11IW01509	< 10.00		22.93		43.86		341.31	E	44.97		75.11		120.08
54	11IW01511	< 10.00	J	< 10.00	J	26.06		309.37	J	12.85		27.10	B	39.95

Notes: ug/l = micrograms per liter.
Qual = data review qualifier.
< = Not detected, sample quantitation limit reported.
J = estimated value.
B = Analyte found in associated method blank.
E = conconcentration exceeds calibration range of instrument.

Table K-2
Recovery Well 2 (IW02) (ug/l)

DAY	Sampid	VINYL CHLORIDE Adjvalue	Qual	cis-1,2-DICHLOROETHENE Adjvalue	Qual	1,2-DICHLOROETHANE Adjvalue	Qual	DICHLOROMETHANE Adjvalue	Qual	1,2-DICHLOROPROPANE Adjvalue	Qual	TETRACHLOROETHENE Adjvalue	Qual	TRICHLOROETHENE Adjvalue	Qual
2	11IW02320	97.00		88.56		< 10.00		< 10.00		< 10.00		< 10.00		< 10.00	
5	11IW02323	73.38		77.50		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
6	11IW02324 B	71.89		63.35		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
8	11IW02326	54.50		52.50		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
9	11IW02327	55.35		54.88		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
10	11IW02328	51.75		53.75		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
11	11IW02329	49.38		56.75		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
12	11IW02330	54.56		45.84		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
18	11IW02405	23.00		72.27		< 5.00		< 5.00		< 5.00		6.35 B		6.63 B	
19	11IW02406	34.65		72.70		< 5.00		< 5.00		< 5.00		5.90 B		6.28 B	
20	11IW02407	45.33 J		72.23		< 5.00		< 5.00		< 5.00		5.47 B		5.92 B	
21	11IW02408	< 5.00 J		81.87		< 5.00		< 5.00		< 5.00		5.27 B		5.68 B	
22	11IW02409	65.09		78.78		< 5.00		< 5.00		< 5.00		5.55		6.07	
23	11IW02410	65.10		77.85		< 5.00		< 5.00		< 5.00		6.10		6.55	
24	11IW02411	65.20		67.74		< 1.00		3.16		< 1.00		1.62		1.57	
26	11IW02413	82.56		90.26		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
28	11IW02415	< 5.00		76.36		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
30	11IW02417	66.68		62.24		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
32	11IW02419	66.51		69.14		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
34	11IW02421	98.66 J		78.25		< 5.00		< 5.00		< 5.00		< 5.00		5.23	
38	11IW02425	< 5.00 J		80.02 J		< 5.00 J		< 5.00 J		< 5.00 J		< 5.00 J		< 5.00 J	
40	11IW02427	65.72		87.46		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
42	11IW02429	59.74		85.42		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
44	11IW02501	61.33		84.93		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
46	11IW02503	61.90		94.63		< 5.00		< 5.00		< 5.00 J		< 5.00		< 5.00	
48	11IW02505	53.53		119.30		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
50	11IW02507	51.74		121.32		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
52	11IW02509	49.11		130.67		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
	11IW02D02	53.50		62.38		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
	11IW02D03	53.00		50.13		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
	11IW02D04	< 5.00		74.13		< 5.00		< 5.00		< 5.00		6.65 B		6.86 B	

DAY	Sampid	trans-1,2-DICHLOROETHENE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENES(TOTAL)
2	11IW02320	< 10.00		12.61		90.70		18.45		16.35		24.46		40.81
5	11IW02323	6.66		9.32		84.52		15.69		12.07		18.74		30.81
6	11IW02324 B	< 5.00		8.46		80.64		14.43		10.43		16.26		26.69
8	11IW02326	< 5.00		< 5.00		68.80		9.24		< 5.00		< 5.00		10.00
9	11IW02327	< 5.00		< 5.00		70.37		9.84		< 5.00		5.54		10.54
10	11IW02328	< 5.00		< 5.00		71.34		10.70		< 5.00		7.41		12.41
11	11IW02329	< 5.00		< 5.00		73.99		11.03		5.04		7.78		12.82
12	11IW02330	< 5.00		< 5.00		48.90		7.79		< 5.00		< 5.00		10.00
18	11IW02405	< 5.00		< 5.00		77.09		11.45		8.08		9.32		17.40
19	11IW02406	< 5.00		5.22		72.43		11.91		9.52		8.63		18.15
20	11IW02407	< 5.00 J		< 5.00		67.69		10.58		6.95		8.31		15.26
21	11IW02408	< 5.00 J		< 5.00		74.98		11.91		10.22		9.55		19.77
22	11IW02409	< 5.00		< 5.00		72.52		11.40		10.72		9.90		20.62
23	11IW02410	< 5.00		< 5.00		65.90		11.60		7.35		8.75		16.10
24	11IW02411	2.11		3.91		65.73		12.99		5.65		12.19		17.84
26	11IW02413	< 5.00		7.32		86.76		24.19		10.65		20.51		31.16
28	11IW02415	< 5.00		6.53		71.77		25.16		8.61		16.84		25.45
30	11IW02417	< 5.00		6.33		72.49		16.31		9.49		16.77 B		26.26
32	11IW02419	< 5.00		11.17		84.07		19.29 B		15.99 B		24.91 B		40.90
34	11IW02421	< 5.00		8.69		82.53		28.66		11.74		24.26		36.00
38	11IW02425	< 5.00 J		8.50 J		80.40 J		27.22 J		11.61 J		26.14 J		37.75
40	11IW02427	< 5.00		6.22		76.63		20.21		6.67		15.61		22.27
42	11IW02429	< 5.00		6.20		76.52		20.37		7.03		15.86		22.89
44	11IW02501	< 5.00		6.05		72.40		19.76		6.56		15.02		21.58
46	11IW02503	< 5.00		6.16 J		73.60		21.92		5.74		15.66		21.40
48	11IW02505	< 5.00		< 5.00		96.27		24.66		< 5.00		12.73		17.73
50	11IW02507	< 5.00		10.86		108.91		30.86		12.76		28.77 B		41.53
52	11IW02509	< 5.00		12.58		113.83		35.53		14.54		33.41		47.95
	11IW02D02	< 5.00		7.89		70.20		13.30		9.64		14.84		24.48
	11IW02D03	< 5.00		< 5.00		63.95		9.97		< 5.00		7.28		12.28
	11IW02D04	< 5.00		< 5.00		81.75		12.18		8.13		10.48		18.61

Notes: Qual = data review qualifier.
ug/l = micrograms per liter.
< = Not detected, sample quantitation limit reported.
B = Analyte found in associated method blank.
J = estimated value.

.wk1

Table K-3
Recovery Well 3 (IW03) (ug/l)

DAY	Sampid	VINYL CHLORIDE Adjvalue	Qual	cis-1,2-DICHLOROETHENE Adjvalue	Qual	1,2-DICHLOROETHANE Adjvalue	Qual	DICHLOROMETHANE Adjvalue	Qual	1,2-DICHLOROPROPANE Adjvalue	Qual	TETRACHLOROETHENE Adjvalue	Qual	TRICHLOROETHENE Adjvalue	Qual
3	11IW03321	< 25.00		635.35		< 25.00		< 25.00		< 25.00		< 25.00		74.18	
26	11IW03413	< 25.00		1434.15	E	< 25.00		< 25.00		< 25.00		38.00		415.88	
28	11IW03415	< 50.00		1496.75		< 50.00		< 50.00		< 50.00		< 50.00		227.40	
30	11IW03417	< 50.00		1320.10		< 50.00		< 50.00		< 50.00		51.40		155.15	
32	11IW03419	< 50.00		1466.70		< 50.00		< 50.00		< 50.00		64.00	B	129.45	B
34	11IW03421	< 50.00	J	2736.90	E	< 50.00		< 50.00		< 50.00		107.60	B	318.10	
36	11IW03423	< 50.00		1398.00		< 50.00		< 50.00		< 50.00		61.30	B	164.40	B
40	11IW03427	< 50.00		1547.70		< 50.00		< 50.00		< 50.00		< 50.00		165.20	
42	11IW03429	< 50.00		1635.85	E	< 50.00		< 50.00		< 50.00		< 50.00		173.55	
44	11IW03501	< 50.00		1536.50		< 50.00		< 50.00		< 50.00		< 50.00		142.80	
46	11IW03503	< 50.00		1540.05		< 50.00		< 50.00	J	< 50.00		< 50.00		< 50.00	
48	11IW03505	< 50.00		1867.35	E	< 50.00		< 50.00		< 50.00		< 50.00		164.85	
50	11IW03507	< 50.00		1873.30	E	< 50.00		< 50.00		< 50.00		58.35		159.35	
52	11IW03509	< 50.00		1741.15	E	< 50.00		< 50.00		< 50.00		< 50.00		105.30	
54	11IW03511	< 50.00	J	2043.95	E,J	< 50.00	J	< 50.00	J	< 50.00	J	52.75	B,J	104.20	B,J
	11IW03D12	< 50.00		1227.65		< 50.00		< 50.00		< 50.00		54.20	B	143.95	B

DAY	Sampid	trans-1,2-DICHLOROETHENE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENES (TOTAL)
3	11IW03321	< 25.00		< 25.00		27.55		73.28		34.00		51.50		85.50
26	11IW03413	< 25.00		< 25.00		60.15		168.88		39.80		63.13		102.93
28	11IW03415	< 50.00		< 50.00		105.70		160.75		62.45		84.50		146.95
30	11IW03417	< 50.00		< 50.00		63.65		142.30		66.60		91.50	B	158.10
32	11IW03419	< 50.00		< 50.00		106.55	B	184.05	B	96.70	B	151.25	B	247.95
34	11IW03421	61.60		< 50.00		241.35		384.20		150.90		255.25		406.15
36	11IW03423	< 50.00		< 50.00		107.30	B	185.65		96.90	B	152.00	B	248.90
40	11IW03427	< 50.00		< 50.00		66.20		174.35		54.00		66.55		120.55
42	11IW03429	< 50.00		< 50.00		83.00		168.35		< 50.00		67.60		117.60
44	11IW03501	< 50.00		< 50.00		68.55		168.90		< 50.00		65.25		115.25
46	11IW03503	< 50.00		< 50.00	J	81.25		190.65		< 50.00		73.80		123.80
48	11IW03505	< 50.00		< 50.00		64.95		204.90		< 50.00		< 50.00		100.00
50	11IW03507	< 50.00		< 50.00		161.40	B	240.00		102.85		158.15	B	261.00
52	11IW03509	< 50.00		< 50.00		195.45		233.55		101.75		164.85		266.60
54	11IW03511	< 50.00	J	< 50.00	J	127.35	J	338.35	J	91.45	J	174.10	J	265.55
	11IW03D12	< 50.00		< 50.00		96.65	B	158.50		85.05	B	138.90	B	223.95

Notes: ug/l = micrograms per liter.
Qual = data review qualifier.
< = Not detected, quantitation limit reported.
B = Analyte found in associated method blank.
E = Concentration exceeds calibration range of instrument.
J = estimated value.

Table K-4
Recovery Well 4 (IW04) (ug/l)

DAY	Sampid	VINYL CHLORIDE Adjvalue	Qual	cis-1,2-DICHLOROETHENE Adjvalue	Qual	1,2-DICHLOROETHANE Adjvalue	Qual	DICHLOROMETHANE Adjvalue	Qual	1,2-DICHLOROPROPANE Adjvalue	Qual	TETRACHLOROETHENE Adjvalue	Qual	TRICHLOROETHENE Adjvalue	Qual
4	11IW04322 B	16.19		17.11		< 5.00		17.07		< 5.00		< 5.00		< 5.00	
26	11IW04413	16.27		51.65		< 5.00		26.73		< 5.00		< 5.00		< 5.00	
28	11IW04415	13.12		33.99		< 5.00		24.39		< 5.00		< 5.00		< 5.00	
30	11IW04417	< 5.00		15.11		< 5.00		22.02		< 5.00		< 5.00		< 5.00	
32	11IW04419	12.24		16.05		< 5.00		23.99		< 5.00		< 5.00		< 5.00	
34	11IW04421	15.02	J	46.84		< 5.00		25.61		< 5.00		6.33	B	7.35	
36	11IW04423	11.54		14.83		< 5.00		21.36		< 5.00		< 5.00		< 5.00	
38	11IW04425	12.62	J	19.56	J	< 2.50	J	25.35	J	< 2.50	J	< 2.50	J	< 2.50	J
40	11IW04427	6.57		18.81		< 2.50		27.59		< 2.50		< 2.50		< 2.50	
42	11IW04429	5.72		15.95		< 2.50		24.40		< 2.50		< 2.50		< 2.50	
44	11IW04501	6.06		16.65		< 2.50		26.31		< 2.50		< 2.50		< 2.50	
46	11IW04503	5.84		19.00		< 2.50		27.35		< 2.50		< 2.50		< 2.50	
48	11IW04505	5.80		24.02		< 2.50		37.37		< 2.50		< 2.50		< 2.50	
50	11IW04507	5.55		23.31		< 2.50		43.33		< 2.50		< 2.50		2.72	
52	11IW04509	5.50		25.53		< 2.50		46.14		< 2.50		< 2.50		6.60	
54	11IW04511	< 2.50	J	25.28	J	< 2.50	J	36.08	J	< 2.50	J	4.99	B,J	5.45	B,J
	11IW04D01	17.44		18.06		< 5.00		17.42		< 5.00		< 5.00		< 5.00	

DAY	Sampid	trans-1,2-DICHLOROETHENE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENES(TOTAL)
4	11IW04322 B	< 5.00		5.83		8.22		60.62		9.46		14.17		23.63
26	11IW04413	< 5.00		< 5.00		8.03		89.58		6.71		10.48		17.19
28	11IW04415	< 5.00		< 5.00		5.32		51.64		5.23		7.45		12.68
30	11IW04417	< 5.00		< 5.00		5.41		52.97		5.50		7.50	B	13.00
32	11IW04419	< 5.00		< 5.00		9.33	B	58.43		9.35	B	13.17	B	22.51
34	11IW04421	< 5.00		< 5.00		8.84		62.25		8.34		13.60		21.94
36	11IW04423	< 5.00		< 5.00		8.20	B	55.72		8.36	B	12.44	B	20.80
38	11IW04425	< 2.50	J	3.15	J	9.02	J	55.53	J	6.85	J	9.80	J	16.45
40	11IW04427	< 2.50		< 2.50		4.07		63.71		2.72		5.02		7.73
42	11IW04429	< 2.50		< 2.50		3.64		56.89		< 2.50		4.45		6.95
44	11IW04501	< 2.50		< 2.50		3.57		57.53		3.03		4.31		7.33
46	11IW04503	< 2.50		< 2.50	J	4.78		58.21		3.11		4.60		7.71
48	11IW04505	< 2.50		< 2.50		3.18		75.77		< 2.50		< 2.50		5.00
50	11IW04507	< 2.50		3.29		21.80		88.18	E	6.30		9.81	B	16.11
52	11IW04509	< 2.50		2.59		7.21		93.71	E	6.59		10.39		16.98
54	11IW04511	< 2.50	J	3.71	J	6.51		88.10	J,E	8.32		8.92	B	17.24
	11IW04D01	< 5.00		5.99		8.52		65.51		9.92		14.85		24.77

Notes: ug/l = micrograms per liter.
Qual = data review qualifier.
< = not detected, sample quantitation limit reported.
B = analyte found in associated method blank.
E = concentration exceeds calibration range of instrument.
J = estimated value.

Table K-5
Recovery Well 5 (IW05) (ug/l)

DAY	Sampid	VINYL CHLORIDE Adjvalue	Qual	cis-1,2-DICHLOROETHENE Adjvalue	Qual	1,2-DICHLOROETHANE Adjvalue	Qual	DICHLOROMETHANE Adjvalue	Qual	1,2-DICHLOROPROPANE Adjvalue	Qual	TETRACHLOROETHENE Adjvalue	Qual	TRICHLOROETHENE Adjvalue	Qual
2	11IW05320	2.11	J	< 1.67	J	< 1.67	J	< 1.67	J	< 1.67	J	1.88	J	2.30	J
18	11IW05405	< 5.00		< 5.00		< 5.00		< 5.00		< 5.00		6.60	B	6.60	B
19	11IW05406	< 5.00		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
20	11IW05407	5.57	J	2.64		< 1.00		< 1.00		< 1.00		1.20	B	1.32	B
21	11IW05408	10.41	J	2.42		< 1.00		< 1.00		< 1.00		1.11	B	1.14	B
22	11IW05409	17.00		3.69		< 1.00		< 1.00		< 1.00		1.23		1.32	
23	11IW05410	23.31		5.44		< 1.00		< 1.00		< 1.00		1.47		1.48	
24	11IW05411	36.12		16.53		< 1.00		< 1.00		< 1.00		1.24		1.19	
26	11IW05413	34.29		4.21		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
28	11IW05415	52.51		8.38		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
30	11IW05417	54.89	E	9.75		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
32	11IW05419	82.98	E	12.05		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
36	11IW05423	106.32		66.04		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
46	11IW05503	21.62		3.07		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
48	11IW05505	40.07		9.67		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
50	11IW05507	51.11		20.34		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
52	11IW05509	55.07	E	30.00		< 1.67		< 1.67		< 1.67		< 1.67		< 1.67	
54	11IW05511	48.14	J	38.51	J	< 1.67	J	< 1.67	J	< 1.67	J	2.63	B,J	3.14	B,J
	11IW05DUP	2.09		< 1.00		< 1.00		< 1.00		< 1.00		1.34	B	1.43	B

DAY	Sampid	trans-1,2-DICHLOROETHENE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENES(TOTAL)
2	11IW05320	< 1.67	J	< 1.67	J	7.55	J	< 1.67	J	< 1.67	J	< 1.67	J	3.34
18	11IW05405	< 5.00		< 5.00		7.51		< 5.00		< 5.00		< 5.00		10.00
19	11IW05406	< 5.00		< 5.00		7.17		< 5.00		< 5.00		< 5.00		10.00
20	11IW05407	< 1.00	J	< 1.00		8.32		< 1.00		1.74		1.37		3.12
21	11IW05408	< 1.00	J	< 1.00		8.53		< 1.00		2.13		2.22		4.35
22	11IW05409	< 1.00		< 1.00		10.20		< 1.00		2.61		3.28		5.88
23	11IW05410	< 1.00		< 1.00		12.11		1.55		3.74		5.13		8.87
24	11IW05411	< 1.00		1.24		18.82		2.76		4.43		6.59		11.02
26	11IW05413	< 1.67		< 1.67		11.33		< 1.67		3.46		5.98		9.44
28	11IW05415	< 1.67		< 1.67		13.86		3.34		3.75		7.12		10.87
30	11IW05417	< 1.67		< 1.67		15.96		1.92		4.64		8.45		13.10
32	11IW05419	2.57		2.29		19.31		2.65	B	5.92	B	11.27	B	17.19
36	11IW05423	< 5.00		8.13		74.91		18.22		10.87	B	22.67	B	33.54
46	11IW05503	< 1.67		< 1.67	J	19.90		< 1.67		2.67		6.38		9.05
48	11IW05505	1.73		< 1.67		18.37		< 1.67		3.19		6.49		9.68
50	11IW05507	2.90		2.24		24.04		1.82		6.16		12.48	B	18.65
52	11IW05509	4.35		2.06		37.71		5.15		7.06		19.65		26.71
54	11IW05511	2.81	J	2.79	J	25.90		1.69	J	5.81		12.51		18.32
	11IW05DUP	< 1.00		< 1.00		6.50		< 1.00		1.30		< 1.00		2.30

Notes: ug/l = micrograms per liter.
Qual = data review qualifier.
< = not detected, sample quantitation limit reported.
B = analyte found in associated method blank.
E = concentration exceeds calibration range of instrument.
J = estimated value.

Table K-6
DAT Influent (IC06) (ug/l)

DAY	Sampid	VINYL CHLORIDE Adjvalue	Qual	cis-1,2-DICHLOROETHENE Adjvalue	Qual	1,2-DICHLOROETHANE Adjvalue	Qual	DICHLOROMETHANE Adjvalue	Qual	1,2-DICHLOROPROPANE Adjvalue	Qual	TETRACHLOROETHENE Adjvalue	Qual	TRICHLOROETHENE Adjvalue	Qual
1	11IC06319	50.72		139.64		< 2.50	J	6.73		< 2.50		< 2.50		< 2.50	J
2	11IC06320	34.86		37.63		< 5.00		< 5.00		< 5.00		< 5.00		6.05	
3	11IC06321	< 5.00		306.25		< 5.00		< 5.00		< 5.00		< 5.00		69.38	
4	11IC06322 B	6.93		11.50		< 2.50		9.02		< 2.50		< 2.50		2.53	
5	11IC06323	49.25		66.88		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
6	11IC06324	49.50		63.25		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
7	11IC06325	48.88		52.25		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
8	11IC06326	36.75		49.13		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
9	11IC06327	40.00		49.00		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
10	11IC06328	42.22		50.31		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
11	11IC06329	44.00		51.88		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
12	11IC06330	55.63		45.16		< 5.00		< 5.00		< 5.00		< 5.00		< 5.00	
18	11IC06405	6.86		20.88		< 5.00		< 5.00		< 5.00		8.24 B		8.39 B	
19	11IC06406	8.28		25.17		< 2.50		< 2.50		< 2.50		3.02 B		3.27 B	
20	11IC06407	12.83 J		23.19		< 2.50		< 2.50		< 2.50		2.93 B		3.49 B	
21	11IC06408	23.86 J		29.05		< 1.25		< 1.25		< 1.25		1.38 B		1.49 B	
22	11IC06409	30.66		43.66		< 1.25		< 1.25		< 1.25		2.84		7.18	
23	11IC06410	43.97		34.61		< 1.67		< 1.67		< 1.67		2.29		2.44	
24	11IC06411	52.25		37.16		< 1.00		1.31		< 1.00		1.50		1.47	
25	11IC06412	17.91		17.09		< 2.50		< 2.50		< 2.50		< 2.50		2.54	
26	11IC06413R	38.72		336.70 E		13.47		23.41		19.52		17.42		78.89	
27	11IC06414	42.24		91.31		< 1.00		9.50		< 1.00		1.38		9.17	
28	11IC06415	< 10.00		314.22		< 10.00		< 10.00		< 10.00		< 10.00		39.41	
29	11IC06416	35.54		318.90		< 10.00		< 10.00		< 10.00		< 10.00		35.11	
30	11IC06417	31.20		303.49		< 10.00		< 10.00		< 10.00		10.45		30.79	
31	11IC06418	4.41		28.82		< 1.00		< 1.00		< 1.00		1.59		3.29	
32	11IC06419	48.15		307.28		< 10.00		< 10.00		< 10.00		10.20		23.11	
33	11IC06420	56.42		116.04		< 10.00		< 10.00		< 10.00		< 10.00		10.27	
34	11IC06421R	41.12 J		273.27 E		< 1.67		15.02		< 1.67		7.48 B		32.96	
35	11IC06422	35.66		360.68 E		< 10.00		11.78		< 10.00		18.43 B		36.27 B	
36	11IC06423	32.10		340.64 E		< 10.00		10.40		< 10.00		12.33 B		33.40 B	
37	11IC06424	26.54		337.87 E		< 10.00		< 10.00		< 10.00		< 10.00		26.91	
38	11IC06425	55.72 J		108.09 J		< 10.00 J		21.75 J		< 10.00 J		< 10.00 J		< 10.00 J	
39	11IC06426	28.68		320.76 E		< 10.00		< 10.00		< 10.00		< 10.00		27.68	
40	11IC06427	24.48		327.95 E		< 10.00		12.24		< 10.00		< 10.00		28.43	
41	11IC06428	23.48		314.08		< 10.00		11.38		< 10.00		< 10.00		29.97	
42	11IC06429	22.67		390.24 E		< 10.00		10.22		< 10.00		< 10.00		36.56	
43	11IC06430	< 10.00		334.64 E		< 10.00		< 10.00		< 10.00		< 10.00		29.34	
44	11IC06501	22.62		386.39 E		< 10.00		11.19		< 10.00		< 10.00		31.16	
45	11IC06502	19.47		372.29 E		< 10.00		10.36		< 10.00		< 10.00		32.15	
46	11IC06503	13.83		279.47		< 10.00		< 10.00		< 10.00		< 10.00		22.39	
47	11IC06504	15.17		377.30 E		< 10.00		< 10.00		< 10.00		< 10.00		25.97	
48	11IC06505	23.33		385.70 E		< 10.00		17.00		< 10.00		< 10.00		30.92	
49	11IC06506	18.15		339.27		< 10.00		< 10.00		< 10.00		10.68		31.57	
50	11IC06507	21.45		416.78 E		< 10.00		10.56		< 10.00		11.67		31.29	
51	11IC06508	20.58		415.72 E		< 10.00		< 10.00		< 10.00		< 10.00		22.72	
52	11IC06509	< 10.00		227.40 E		< 10.00		19.41		< 10.00		< 10.00		21.47	
53	11IC06510	< 10.00		497.68 E		< 10.00		< 10.00		< 10.00		12.07 B		33.47	
54	11IC06511	< 10.00 J		577.60 E,J		< 10.00 J		< 10.00 J		< 10.00 J		12.08 B,J		25.12 B,J	
55	11IC06512	< 10.00 J		572.89 E,J		< 10.00 J		< 10.00 J		< 10.00 J		11.07 B,J		22.80 B,J	
	11IC06D15	< 10.00		388.12 E		< 10.00		< 10.00		< 10.00		< 10.00		35.67	
	11IC06D16	19.23		365.44 E		< 10.00		10.01		< 10.00		< 10.00		29.54	
	11IC06D17	14.55		288.05		< 10.00		< 10.00		< 10.00		< 10.00		23.31	
	11IC06D18	22.33		363.63 E		< 10.00		< 10.00		< 10.00		< 10.00		28.67	
	11IC06D19	21.16		427.59 E		< 10.00		11.23		< 10.00		11.78		31.70	
	11IC06D20	18.53		408.92 E		< 10.00		10.60		< 10.00		< 10.00		22.96	
	11IC06D21	< 10.00 J		596.47 E,J		< 10.00 J		< 10.00 J		< 10.00 J		11.94 B,J		24.90 B,J	

Table K-6 (continued)
DAT Influent (IC06) (ug/l)

DAY	Sampid	trans-1,2-DICHLOROETHENE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENES (TOTAL)	SUM BTEX
1	11IC06319	<	2.50 J	<	2.50		15.05		94.55		9.55		15.32	24.87	136.97
2	11IC06320	<	5.00		5.94		36.58		8.68		8.21		13.33	21.54	72.74
3	11IC06321	<	5.00	<	5.00		8.24		37.74		9.45		14.57	24.03	75.00
4	11IC06322 B	<	2.50		2.68		3.84		23.22		4.75		7.21	11.96	41.70
5	11IC06323		7.30		9.42		82.42		12.29		9.99		15.35	25.34	129.47
6	11IC06324	<	5.00		7.71		86.20		13.65		10.03		16.64	26.66	114.23
7	11IC06325	<	5.00	<	5.00		70.95		8.79		5.05		6.85	11.91	96.65
8	11IC06326	<	5.00	<	5.00		66.61		9.32		5.56		8.74	14.30	95.23
9	11IC06327	<	5.00	<	5.00		58.95		8.80	<	5.00		6.59	11.59	84.34
10	11IC06328	<	5.00	<	5.00		56.05		8.82	<	5.00		6.42	11.42	81.29
11	11IC06329	<	5.00	<	5.00		66.69		10.18		5.74		10.58	16.32	98.19
12	11IC06330	<	5.00	<	5.00		51.86		8.05	<	5.00	<	5.00	10.00	74.91
18	11IC06405	<	5.00	<	5.00		31.00	<	5.00		8.00		6.98	14.98	55.98
19	11IC06406	<	2.50	<	2.50		28.67		4.32		3.65		4.06	7.73	43.22
20	11IC06407	<	2.50 J	<	2.50		25.17		4.07		3.50		4.12	7.62	39.36
21	11IC06408	<	1.25 J		1.32		28.08		4.74		4.39		5.03	9.42	43.56
22	11IC06409	<	1.25		1.97		28.76		6.08		5.22		7.10	12.32	49.13
23	11IC06410	<	1.67		1.77		33.84		6.07		6.03		7.88	13.91	55.59
24	11IC06411		1.10		1.81		35.64		6.39		5.14		9.31	14.45	58.29
25	11IC06412	<	2.50	<	2.50		16.59	<	2.50		3.14		3.01	6.15	27.74
26	11IC06413R		13.60		18.14		39.13		112.79		28.52		47.39	75.91	245.97
27	11IC06414		1.67		2.57		22.26		84.65 E		6.33		12.27	18.60	128.08
28	11IC06415	<	10.00	<	10.00		33.94		91.76		12.81		24.24	37.05	172.75
29	11IC06416	<	10.00	<	10.00		29.76		90.31		15.59		23.98	39.57	169.64
30	11IC06417	<	10.00	<	10.00		32.43		87.09		25.58		25.46 B	51.04	180.56
31	11IC06418	<	1.00	<	1.00		3.33		8.37		2.08		3.20 B	5.28	17.98
32	11IC06419	<	10.00	<	10.00		40.32 B		99.22		22.92 B		38.26 B	61.18	210.72
33	11IC06420	<	10.00	<	10.00		33.27 B		87.13		15.63 B		27.41 B	43.04	173.44
34	11IC06421R		6.26		4.05		36.22		114.89		18.96		30.57	49.53	204.68
35	11IC06422		12.26		11.92		44.41 B		112.92		29.55 E		49.36 E	78.91	248.16
36	11IC06423	<	10.00	<	10.00		38.60 B		108.59		24.04 B		39.29 B	63.33	220.52
37	11IC06424	<	10.00	<	10.00		39.69 B		105.62		24.70 B		39.54 B	64.24	219.55
38	11IC06425	<	10.00 J	<	10.00 J		36.77 J		126.00 J		16.38 J		28.69 J	45.07	217.84
39	11IC06426	<	10.00	<	10.00		37.25		132.71		13.84		22.94	36.78	216.74
40	11IC06427	<	10.00	<	10.00		34.14		125.12		11.93		20.36	32.29	201.55
41	11IC06428	<	10.00	<	10.00		34.58		118.06		16.80		26.92	43.72	206.36
42	11IC06429	<	10.00	<	10.00		33.92		115.80		12.94		22.74	35.68	195.40
43	11IC06430	<	10.00	<	10.00		36.89		96.92		21.47		36.45	57.92	201.73
44	11IC06501	<	10.00	<	10.00		35.34		120.00		13.52		24.06	37.58	202.92
45	11IC06502	<	10.00	<	10.00		36.91		115.81		18.68		30.41	49.29	212.01
46	11IC06503	<	10.00	<	10.00 J		29.84		80.32		11.37		18.53	29.90	150.06
47	11IC06504	<	10.00	<	10.00		30.12		109.95	<	10.00	<	10.00	20.00	170.07
48	11IC06505	<	10.00	<	10.00		31.93		122.47		18.84	<	10.00	28.84	183.24
49	11IC06506	<	10.00	<	10.00		23.94		95.29	<	10.00	<	10.00	20.00	149.23
50	11IC06507	<	10.00	<	10.00		51.02		139.60		23.24		42.47 B	65.71	266.33
51	11IC06508	<	10.00	<	10.00		54.85		138.21		27.63		47.43 B	75.06	278.12
52	11IC06509	<	10.00	<	10.00		59.13		80.27		17.42		34.10	51.52	200.92
53	11IC06510	<	10.00	<	10.00		35.77		159.22		20.79		40.66	61.45	266.44
54	11IC06511	<	10.00 J	<	10.00 J		46.06 J		220.36 J		23.83 J		50.46 J	74.29	350.71
55	11IC06512	<	10.00 J	<	10.00 J		42.28 J		214.91 J		23.42 J		48.58 J	72.00	339.19
	11IC06D15	<	10.00	<	10.00		36.36		118.38		14.44		23.18	37.62	200.36
	11IC06D16	<	10.00	<	10.00		31.71		111.15		14.26		22.12	36.38	189.24
	11IC06D17	<	10.00	<	10.00 J		30.77		78.80		10.97		18.61	29.58	149.15
	11IC06D18	<	10.00	<	10.00		33.39		101.29	<	10.00	<	10.00	20.00	164.68
	11IC06D19	<	10.00	<	10.00		54.41		143.93		25.11		43.09 B	68.20	276.54
	11IC06D20	<	10.00	<	10.00		49.36		132.43		24.80		41.31	66.11	257.90
	11IC06D21	<	10.00 J	<	10.00 J		42.89 J		225.61 J		25.90 J		49.76 J	75.66	354.16

Notes: ug/l = micrograms per liter.
Qual = data review qualifier.
< = not detected, sample quantitation limit
B = analyte found in associated method blank.
E = concentration exceeds calibration range of instrument
J = estimated value.

Table K-7
DAT Effluent (ET07) (ug/l)

DAY	Sampid	VINYL CHLORIDE Adj	value	Qual	cis-1,2-DICHLOROETHENE Adj	value	Qual	1,2-DICHLOROETHANE Adj	value	Qual	DICHLOROMETHANE Adj	value	Qual	1,2-DICHLOROPROPANE Adj	value	Qual	TETRACHLOROETHENE Adj	value	Qual	TRICHLOROETHENE Adj	value	Qual
1	11ET07319	<	1.00		<	1.00		<	1.00	J		2.31		<	1.00		<	1.00			1.21	J
2	11ET07320	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
3	11ET07321	<	1.00			1.04		<	1.00		<	1.00		<	1.00		<	1.00			1.97	
4	11ET07322	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.23	
5	11ET07323	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
6	11ET07324	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.01	
7	11ET07325	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
8	11ET07326	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
9	11ET07327	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
10	11ET07328	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
11	11ET07329	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
12	11ET07330	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
18	11ET07405	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.37			1.38	
19	11ET07406	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.25	B		1.44	B
20	11ET07407	<	1.00	J	<	1.00		<	1.00		<	1.00		<	1.00			1.02	B		1.02	B
21	11ET07408	<	1.00	J	<	1.00		<	1.00		<	1.00		<	1.00			1.04	B		1.10	B
22	11ET07409	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.25			1.30	
23	11ET07410	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.33			1.37	
24	11ET07411	<	1.00		<	1.00			9.55		<	1.00		<	1.00			1.35			1.28	
25	11ET07412	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.04	
26	11ET07413	<	1.00			3.09		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
27	11ET07414	<	1.00			16.76		<	1.00			1.08		<	1.00		<	1.00		<	1.00	
28	11ET07415	<	1.00			7.75		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
29	11ET07416	<	1.00			5.11		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
30	11ET07417	<	1.00			3.99		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
31	11ET07418	<	1.00			4.04		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
32	11ET07419	<	1.00			4.33		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
33	11ET07420	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
34	11ET07421	<	1.25	J		3.52		<	1.25		<	1.25		<	1.25		<	1.25		<	1.25	
35	11ET07422	<	1.00			1.05		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
36	11ET07423	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
37	11ET07424	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
38	11ET07425	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J
39	11ET07426	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
40	11ET07427	<	1.00			1.64		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
41	11ET07428	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
42	11ET07429	<	1.00			1.64		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
43	11ET07430	<	1.00			1.03		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
44	11ET07501	<	1.00			1.28		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
45	11ET07502	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
46	11ET07503	<	1.00			2.14		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
47	11ET07504	<	1.00			3.35		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
48	11ET07505	<	1.00			3.10		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
49	11ET07506	<	1.00			1.71		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
50	11ET07507	<	1.00			1.92		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
51	11ET07508	<	1.00			3.03		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
52	11ET07509	<	1.00			2.85		<	1.00			3.32		<	1.00		<	1.00		<	1.00	
53	11ET07510	<	1.00			5.22		<	1.00		<	1.00		<	1.00		<	1.00			1.12	
54	11ET07511	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J		1.67	B,J		1.88	B,J
55	11ET07512	<	1.00			6.32		<	1.00		<	1.00		<	1.00			1.18	J		2.48	J
	11ET07D05	<	1.00	J	<	1.00		<	1.00		<	1.00		<	1.00			1.18	B		1.21	B
	11ET07D06	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00			1.34			1.37	
	11ET07D07	<	1.00			3.60		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
	11ET07D08	<	1.00			4.33		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
	11ET07D09	<	1.00			4.32		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
	11ET07D10	<	1.00			4.85		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	
	11ET07D11	<	1.25	J		4.75		<	1.25		<	1.25		<	1.25			1.28	B		1.27	
	11ET07D13	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J	<	1.00	J
	11ET07D14	<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00		<	1.00	

See notes at the end of the table.

Table K-7 (continued)
DAT Effluent (ET07) (ug/l)

DAY	Sampid	trans-1,2-DICHLOROETHE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENES(TOTAL)	SUM BTEX
1	11ET07319	< 1.00	J	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
2	11ET07320	< 1.00		< 1.00		1.24		1.01		1.31		2.11		3.43	6.67
3	11ET07321	< 1.00		< 1.00		1.16		< 1.00		< 1.00		1.86		2.86	6.02
4	11ET07322	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
5	11ET07323	< 1.00		< 1.00		1.07		1.01		1.31		2.15		3.45	6.54
6	11ET07324	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
7	11ET07325	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
8	11ET07326	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
9	11ET07327	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
10	11ET07328	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
11	11ET07329	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
12	11ET07330	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
18	11ET07405	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
19	11ET07406	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
20	11ET07407	< 1.00	J	< 1.00		< 1.00		< 1.00		1.04		< 1.00		2.04	5.04
21	11ET07408	< 1.00	J	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
22	11ET07409	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
23	11ET07410	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
24	11ET07411	< 1.00		3.26		4.14		< 1.00		< 1.00		< 1.00		2.00	10.40
25	11ET07412	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
26	11ET07413	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
27	11ET07414	< 1.00		< 1.00		4.64		10.60		1.12		1.57		2.68	18.92
28	11ET07415	< 1.00		< 1.00		< 1.00		1.21		< 1.00		< 1.00		2.00	5.21
29	11ET07416	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
30	11ET07417	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
31	11ET07418	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
32	11ET07419	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
33	11ET07420	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
34	11ET07421	< 1.25		< 1.25		< 1.25		2.02		< 1.25		< 1.25		2.50	7.02
35	11ET07422	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
36	11ET07423	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
37	11ET07424	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		1.83	B	2.83	5.83
38	11ET07425	< 1.00	J	< 1.00	J	< 1.00	J	1.35	J	< 1.00	J	< 1.00	J	2.00	5.35
39	11ET07426	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
40	11ET07427	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
41	11ET07428	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
42	11ET07429	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
43	11ET07430	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
44	11ET07501	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
45	11ET07502	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
46	11ET07503	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
47	11ET07504	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
48	11ET07505	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
49	11ET07506	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
50	11ET07507	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
51	11ET07508	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
52	11ET07509	< 1.00		< 1.00		1.21		< 1.00		< 1.00		< 1.00		2.00	5.21
53	11ET07510	< 1.00		< 1.00		< 1.00		1.32		< 1.00		1.37		2.37	5.69
54	11ET07511	< 1.00	J	< 1.00	J	< 1.00		< 1.00	J	< 1.00		1.16	B	2.16	5.16
55	11ET07512	< 1.00		< 1.00		< 1.00		1.01		< 1.00		< 1.00		2.00	5.01
	11ET07D05	< 1.00	J	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
	11ET07D06	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
	11ET07D07	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
	11ET07D08	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
	11ET07D09	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00
	11ET07D10	< 1.00		< 1.00		< 1.00		1.07	B	< 1.00		< 1.00		2.00	5.07
	11ET07D11	< 1.25		< 1.25		< 1.25		1.49		< 1.25		< 1.25		2.50	6.49
	11ET07D13	< 1.00	J	< 1.00	J	< 1.00	J	< 1.00	J	< 1.00	J	< 1.00	J	2.00	5.00
	11ET07D14	< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		< 1.00		2.00	5.00

Notes: ug/l = micrograms per liter.
Qual = data review qualifier.
< = not detected, sample quantitation limit reported.
B = analyte found in associated method blank.
J = estimated value.

Table K-8
GAC Influent (OC17) (ug/l)

DAY	Sample Id	VINYL CHLORIDE Adj value	Qual	cis-1,2-DICHLOROETHENE Adj value	Qual	1,2-DICHLOROETHANE Adj value	Qual	DICHLOROMETHANE Adj value	Qual	1,2-DICHLOROPROPANE Adj value	Qual	TETRACHLOROETHENE Adj value	Qual	TRICHLOROETHENE Adj value	Qual
6	11OC17324	< 0.10		0.49		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10	
12	11OC17330	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10	
20	11OC17407	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10	
26	11OC17413	< 0.10		10.69		< 0.10		< 0.10		< 0.10		< 0.10		1.17	
32	11OC17419	< 0.10		12.75		< 0.10		< 0.10		< 0.10		< 0.10		0.38	
40	11OC17427	< 0.10		5.88		< 0.10		< 0.10		< 0.10		< 0.10		0.26	
46	11OC17503	< 0.10		5.99		< 0.10		< 0.10		< 0.10		0.43		0.29	
54	11OC17511	< 0.10		20.91		< 0.10		< 0.10		< 0.10		1.79	B	1.33	
	11OC17DV3	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10	
	11OC17DV8	< 0.10		8.96		2.67		1.96		1.77		1.16		1.85	
	11OC17DV9	< 0.10		24.12		< 0.10		< 0.10		< 0.10		1.73	B	1.29	

DAY	Sample Id	trans-1,2-DICHLOROETHENE Adj value	Qual	BENZENE Adj value	Qual	ETHYLBENZENE Adj value	Qual	TOLUENE Adj value	Qual	o-XYLENE Adj value	Qual	m/p-XYLENE Adj value	Qual	XYLENES(TOTAL)
6	11OC17324	< 0.10		< 0.10		0.97		1.22		< 0.10		< 0.10		0.20
12	11OC17330	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
20	11OC17407	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
26	11OC17413	< 0.10		< 0.10		0.63		2.10		< 0.10		0.63		0.73
32	11OC17419	< 0.10		< 0.10		1.38	B	3.04	B	< 0.10		1.84	B	1.94
40	11OC17427	< 0.10		< 0.10		< 0.10		1.77		< 0.10		1.62		1.72
46	11OC17503	< 0.10		< 0.10	J	0.30		1.14		< 0.10		< 0.10		0.20
54	11OC17511	< 0.10		< 0.10		2.62		2.98		1.07		< 0.10		1.17
	11OC17DV3	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
	11OC17DV8	0.97		1.22	J	1.74		2.91		1.86		2.80		4.66
	11OC17DV9	< 0.10		< 0.10		2.67		5.69		1.13		< 0.10		1.23

Notes: ug/l = micrograms per liter.
Qual = qualifier.
Flag = validation qualifier.
< = not detected, sample quantitation limit.
B = analyte found associated method blank.
J = estimated value.

Table K-9
GAC Effluent (OP08) (ug/l)

DAY	Sample Id	VINYL CHLORIDE Adjvalue	Qual	cis-1,2-DICHLOROETHENE Adjvalue	Qual	1,2-DICHLOROETHANE Adjvalue	Qual	DICHLOROMETHANE Adjvalue	Qual	1,2-DICHLOROPROPANE Adjvalue	Qual	TETRACHLOROETHENE Adjvalue	Qual	TRICHLOROETHENE Adjvalue
1.00	11OP08319	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
2.00	11OP08320	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
3.00	11OP08321	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
4.00	11OP08322	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
5.00	11OP08323	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
6.00	11OP08324	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
7.00	11OP08325	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
8.00	11OP08326	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
9.00	11OP08327	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
10.00	11OP08328	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
11.00	11OP08329	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
12.00	11OP08330	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
18.00	11OP08405	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
19.00	11OP08406	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
20.00	11OP08407	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
21.00	11OP08408	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
22.00	11OP08409	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
23.00	11OP08410	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
24.00	11OP08411	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.21		0.20
25.00	11OP08412	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.11
26.00	11OP08413	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
27.00	11OP08414	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
28.00	11OP08415	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
29.00	11OP08416	< 0.10		0.23		< 0.10		< 0.10		< 0.10		0.39		0.51
30.00	11OP08417	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.17		0.13
31.00	11OP08418	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.37		0.24
32.00	11OP08419	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.36		0.22
33.00	11OP08420	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.15		0.11
34.00	11OP08421	< 0.10		0.42		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
35.00	11OP08422	< 0.10		0.32		< 0.10		< 0.10		< 0.10		0.17		0.12
36.00	11OP08423	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
37.00	11OP08424	< 0.10		0.26		< 0.10		< 0.10		< 0.10		0.15		< 0.10
38.00	11OP08425	< 0.10		1.73		3.38		2.26		1.95		0.96		1.08
39.00	11OP08426	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.23		0.11
40.00	11OP08427	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
41.00	11OP08428	< 0.10		2.14		< 0.10		< 0.10		< 0.10		7.12		0.64
42.00	11OP08429	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.24		0.11
43.00	11OP08430	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.15		0.15
44.00	11OP08501	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.19		0.14
45.00	11OP08502	< 0.10		0.27		< 0.10		< 0.10		< 0.10		1.07		0.20
46.00	11OP08503	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.73	J	< 0.10
47.00	11OP08504	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.13		< 0.10
48.00	11OP08505	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.50		0.19
49.00	11OP08506	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		1.49		0.13
50.00	11OP08507	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.21		0.11
51.00	11OP08508	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.37		0.15
52.00	11OP08509	< 0.10		1.04		< 0.10		< 0.10		< 0.10		0.17		0.20
53.00	11OP08510	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.28		0.13
54.00	11OP08511	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10	B	0.66	B	0.60
55.00	11OP08512	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
	11OP08D03	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
	11OP08D10	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.52		< 0.10
	11OP08DV5	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10
	11OP08DV8	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10

See notes at end of table.

Table K-9 (continued)
GAC Effluent (OP08) (ug/l)

DAY	Sample Id	trans-1,2-DICHLOROETHENE Adjvalue	Qual	BENZENE Adjvalue	Qual	ETHYLBENZENE Adjvalue	Qual	TOLUENE Adjvalue	Qual	o-XYLENE Adjvalue	Qual	m/p-XYLENE Adjvalue	Qual	XYLENES(TOTAL)
1.00	11OP08319	< 0.10		< 0.10		< 0.10		1.07		< 0.10		< 0.10		0.20
2.00	11OP08320	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
3.00	11OP08321	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
4.00	11OP08322	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
5.00	11OP08323	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
6.00	11OP08324	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
7.00	11OP08325	< 0.10		< 0.10		< 0.10		1.33		< 0.10		< 0.10		0.20
8.00	11OP08326	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
9.00	11OP08327	< 0.10		< 0.10		< 0.10		1.13		< 0.10		< 0.10		0.20
10.00	11OP08328	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
11.00	11OP08329	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
12.00	11OP08330	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
18.00	11OP08405	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
19.00	11OP08406	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
20.00	11OP08407	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
21.00	11OP08408	< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
22.00	11OP08409	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
23.00	11OP08410	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
24.00	11OP08411	< 0.10		< 0.10		0.55		< 0.10		1.42		0.49		1.91
25.00	11OP08412	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
26.00	11OP08413	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
27.00	11OP08414	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
28.00	11OP08415	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		1.35		1.45
29.00	11OP08416	< 0.10		< 0.10		0.58		0.42		0.61		0.88		1.50
30.00	11OP08417	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.65		0.75
31.00	11OP08418	< 0.10		< 0.10		0.51		0.27		< 0.10		0.76		0.86
32.00	11OP08419	< 0.10		< 0.10		1.06	B	0.68		1.11	B	2.04	B	3.15
33.00	11OP08420	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		1.67	B	1.77
34.00	11OP08421	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
35.00	11OP08422	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		1.76	B	1.86
36.00	11OP08423	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
37.00	11OP08424	< 0.10		< 0.10		< 0.10		0.57		< 0.10		1.79	B	1.89
38.00	11OP08425	1.36		2.14		2.47		2.09		3.33		4.95		8.29
39.00	11OP08426	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
40.00	11OP08427	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
41.00	11OP08428	< 0.10		< 0.10		0.26		0.24		< 0.10		0.16		0.26
42.00	11OP08429	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
43.00	11OP08430	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
44.00	11OP08501	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
45.00	11OP08502	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
46.00	11OP08503	< 0.10		< 0.10	J	< 0.10		< 0.10		< 0.10		< 0.10		0.20
47.00	11OP08504	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
48.00	11OP08505	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
49.00	11OP08506	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
50.00	11OP08507	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
51.00	11OP08508	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		1.22	B	1.32
52.00	11OP08509	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		1.29		1.39
53.00	11OP08510	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		1.33		1.43
54.00	11OP08511	< 0.10		0.82		1.29		0.84		1.57		2.48		4.06
55.00	11OP08512	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
	11OP08D03	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
	11OP08D10	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
	11OP08DV5	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20
	11OP08DV8	< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		< 0.10		0.20

Notes: ug/l = micrograms per liter.
Qual = data review qualifier.
< = not detected, sample quantitation limit reported.
B = analyte found in associated method blank.
J = estimated value.

K.2: Offsite Laboratory Data

Table K-10
Volatiles

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

VOLATILE AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		IW02	IW02	IW02	IW02	IW02	IW02	IW05
SAMPLE ID:		11 IW02 324	11 IW02 324DL	11 IW02 330	11 IW02 330DL	11 IW02 407	11 IW02 407DL	11 IW05 407
DATE SAMPLED:		03/24/94	03/24/94	03/30/94	03/30/94	04/07/94	04/07/94	04/07/94
DATE ANALYZED:		03/29/94	03/29/94	04/04/94	04/04/94	04/11/94	04/11/94	04/11/94
DILUTION FACTOR:		1.0	5.0	1.0	5.0	1.0	4.0	1.0
VOLATILE ANALYSIS - TCL LIST								
ANALYTE	CRQL							
Chloromethane	1	1 U	R	1 U	R	1 U	R	0.7 J
Bromomethane	1	1 U	R	1 U	R	1 U	R	1 U
Vinyl Chloride	1	27 E	28	26 E	22	39 E	40	6
Chloroethane	1	1 U	R	1 U	R	1 U	R	1 U
Methylene Chloride	2	2 U	R	3 U	R	4 U	R	2 U
Acetone	5	5 U	R	10 U	R	16 U	R	9 U
Carbon Disulfide	1	1	R	1 U	R	1 U	R	1 U
1,1-Dichloroethene	1	1 U	R	1 U	R	1 U	R	1 U
1,1-Dichloroethane	1	2	R	2	R	2	R	0.6 J
cis-1,2-Dichloroethene	1	38 E	43	36 E	38	41 E	45	1
trans-1,2-Dichloroethene	1	2	R	0.8 J	R	2	R	1 U
Chloroform	1	1 U	R	1 U	R	1 U	R	1 U
1,2-Dichloroethane	1	1 U	R	1 U	R	1 U	R	1 U
2-Butanone	5	5 U	R	5 U	R	5 U	R	9
Bromochloromethane	1	1 U	R	1 U	R	1 U	R	1 U
1,1,1-Trichloroethane	1	1 U	R	1 U	R	1 U	R	1 U
Carbon Tetrachloride	1	1 U	R	1 U	R	1 U	R	1 U
Bromodichloromethane	1	1 U	R	1 U	R	1 U	R	1 U
1,2-Dichloropropane	1	1 U	R	1 U	R	1 U	R	1 U
cis-1,3-Dichloropropene	1	1 U	R	1 U	R	1 U	R	1 U
Trichloroethene	1	1 U	R	1 U	R	1 U	R	1 U
Dibromochloromethane	1	1 U	R	1 U	R	1 U	R	1 U
1,1,2-Trichloroethane	1	1 U	R	1 U	R	1 U	R	1 U
Benzene	1	4	R	4	R	4	R	0.8 J
trans-1,3-Dichloropropene	1	1 U	R	1 U	R	1 U	R	1 U
Bromoform	1	1 U	R	1 U	R	1 U	R	1 U
4-Methyl-2-Pentanone	5	5 U	R	5 U	R	5 U	R	5 U
2-Hexanone	5	5 U	R	5 U	R	5 U	R	5 U
Tetrachloroethene	1	1 U	R	1 U	R	1 U	R	1 U
1,1,2,2-Tetrachloroethane	1	1 U	R	1 U	R	1 U	R	1 U
1,2-Dibromoethane	1	1 U	R	1 U	R	1 U	R	1 U
Toluene	1	8	R	10	R	11	R	1
Chlorobenzene	1	2	R	2	R	2	R	8
Ethylbenzene	1	54 E	66	51 E	52	55 E	63	6
Styrene	1	1 U	R	1 U	R	1 U	R	1 U
Xylene (total)	1	3	R	12	R	13	R	2
1,3-Dichlorobenzene	1	1 U	R	1 U	R	1 U	R	1 U
1,4-Dichlorobenzene	1	2	R	2	R	2	R	7
1,2-Dichlorobenzene	1	1 U	R	1 U	R	1 U	R	0.6 J
1,2-Dibromo-3-chloropropane	1	1 U	R	1 U	R	1 U	R	1 U

See notes at end of table.

Table K-10 (continued)
Volatiles

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

VOLATILE AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		IC06	IC06	IC06	IC06	IW05	IW05	IC06
SAMPLE ID:		11 IC06 413	11 IC06 413DL	11 IC06 419	11 IC06 419DL	11 IW05 419	11 IW05 419DL	11 IC06 427
DATE SAMPLED:		04/13/94	04/13/94	04/19/94	04/19/94	04/19/94	04/19/94	04/27/94
DATE ANALYZED:		04/15/94	04/15/94	04/22/94	04/22/94	04/22/94	04/22/94	05/02/94
DILUTION FACTOR:		1.0	20.0	1.0	20.0	1.0	5.0	10.0
VOLATILE ANALYSIS – TCL LIST								
ANALYTE	CRQL							
Chloromethane	1	2	R	1 U	R	2 U	R	10 U
Bromomethane	1	1 U	R	1 U	R	1 U	R	10 U
Vinyl Chloride	1	23	R	24	R	52 E	50	16
Chloroethane	1	1 U	R	1 U	R	1 U	R	10 U
Methylene Chloride	2	7 U	R	9 U	R	3 U	R	20 U
Acetone	5	84 U	R	82 U	R	5 U	R	130 U
Carbon Disulfide	1	4 U	R	1 U	R	1 U	R	10 U
1,1-Dichloroethene	1	1	R	0.9 J	R	1 U	R	10 U
1,1-Dichloroethane	1	15	R	17	R	0.4 J	R	19
cis-1,2-Dichloroethene	1	210 E	330	190 E	310	8	R	200
trans-1,2-Dichloroethene	1	3	R	4	R	2	R	3 J
Chloroform	1	1 U	R	1 U	R	1 U	R	10 U
1,2-Dichloroethane	1	1 U	R	1 U	R	1 U	R	10 U
2-Butanone	5	5 U	R	86	R	5 U	R	50 U
Bromochloromethane	1	1 U	R	1 U	R	1 U	R	10 U
1,1,1-Trichloroethane	1	1 U	R	1 U	R	1 U	R	10 U
Carbon Tetrachloride	1	1 U	R	1 U	R	1 U	R	10 U
Bromodichloromethane	1	1 U	R	1 U	R	1 U	R	10 U
1,2-Dichloropropane	1	1 U	R	1 U	R	1 U	R	10 U
cis-1,3-Dichloropropene	1	1 U	R	1 U	R	1 U	R	10 U
Trichloroethene	1	73 E	78	27 E	30	1 U	R	45
Dibromochloromethane	1	1 U	R	1 U	R	1 U	R	10 U
1,1,2-Trichloroethane	1	1 U	R	1 U	R	1 U	R	10 U
Benzene	1	2	R	2	R	1	R	10 U
trans-1,3-Dichloropropene	1	1 U	R	1 U	R	1 U	R	10 U
Bromoform	1	1 U	R	1 U	R	1 U	R	10 U
4-Methyl-2-Pentanone	5	230 E	310	180 E	430	5 U	R	180
2-Hexanone	5	6	R	5	R	5 U	R	50 U
Tetrachloroethene	1	7	R	6	R	1 U	R	6 J
1,1,2,2-Tetrachloroethane	1	1 U	R	1 U	R	1 U	R	10 U
1,2-Dibromoethane	1	1 U	R	1 U	R	1 U	R	10 U
Toluene	1	62 E	77	52 E	67	2	R	66
Chlorobenzene	1	2	R	2	R	7	R	10 U
Ethylbenzene	1	17	R	20	R	13	R	21
Styrene	1	1 U	R	1 U	R	1 U	R	10 U
Xylene (total)	1	16	R	23	R	9	R	22
1,3-Dichlorobenzene	1	1 U	R	1 U	R	1 U	R	10 U
1,4-Dichlorobenzene	1	2	R	2	R	7	R	10 U
1,2-Dichlorobenzene	1	1 U	R	1 U	R	0.6 J	R	10 U
1,2-Dibromo-3-chloropropane	1	1 U	R	1 U	R	1 U	R	10 U

See notes at end of table.

Table K-10 (continued)
Volatiles

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

VOLATILE AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		IW03	IW03	IC06	IC06	IC06	IW03
SAMPLE ID:		11 IW03 503	11 IW03 503DL	11 IC06 503	11 IC06 503DL	11 IC06 511	11 IW03 511
DATE SAMPLED:		05/03/94	05/03/94	05/03/94	05/03/94	05/11/94	05/11/94
DATE ANALYZED:		05/09/94	05/09/94	05/09/94	05/09/94	05/17/94	05/18/94
DILUTION FACTOR:		1.0	100.0	1.0	10.0	10.0	50.0
VOLATILE ANALYSIS – TCL LIST							
ANALYTE	CRQL						
Chloromethane	1	1 U	R	1 U	R	10 U	50 U
Bromomethane	1	1 U	R	1 U	R	10 U	50 U
Vinyl Chloride	1	1 U	R	18	R	19	50 U
Chloroethane	1	1 U	R	1 U	R	10 U	50 U
Methylene Chloride	2	6 U	R	7 U	R	20 U	100 U
Acetone	5	55 U	R	89 U	R	140 U	280 U
Carbon Disulfide	1	1 U	R	1 U	R	10 U	50 U
1,1-Dichloroethene	1	2	R	0.8 J	R	10 U	50 U
1,1-Dichloroethane	1	2	R	14	R	13	50 U
cis-1,2-Dichloroethene	1	380 E	880	180 E	220	210	780
trans-1,2-Dichloroethene	1	14	R	3	R	4 J	50 U
Chloroform	1	1 U	R	1 U	R	10 U	50 U
1,2-Dichloroethane	1	1 U	R	1 U	R	10 U	50 U
2-Butanone	5	5 U	R	5 U	R	92	250 U
Bromochloromethane	1	1 U	R	1 U	R	10 U	50 U
1,1,1-Trichloroethane	1	1 U	R	1 U	R	10 U	50 U
Carbon Tetrachloride	1	1 U	R	1 U	R	10 U	50 U
Bromodichloromethane	1	1 U	R	1 U	R	10 U	50 U
1,2-Dichloropropane	1	1 U	R	1 U	R	10 U	50 U
cis-1,3-Dichloropropene	1	1 U	R	1 U	R	10 U	50 U
Trichloroethene	1	150 E	190	35 E	42	41	210
Dibromochloromethane	1	1 U	R	1 U	R	10 U	50 U
1,1,2-Trichloroethane	1	1 U	R	1 U	R	10 U	50 U
Benzene	1	2	R	2	R	10 U	50 U
trans-1,3-Dichloropropene	1	1 U	R	1 U	R	10 U	50 U
Bromoform	1	1 U	R	1 U	R	10 U	50 U
4-Methyl-2-Pentanone	5	380 E	430	130 E	160	150	310
2-Hexanone	5	20	R	5	R	50 U	250 U
Tetrachloroethene	1	27 J	R	6	R	6 J	31 J
1,1,2,2-Tetrachloroethane	1	1 U	R	1 U	R	10 U	50 U
1,2-Dibromoethane	1	1 U	R	1 U	R	10 U	50 U
Toluene	1	65 E	81	46 E	54	44	74
Chlorobenzene	1	1	R	2	R	10 U	50 U
Ethylbenzene	1	35 E	40	19	R	12	41 J
Styrene	1	1 U	R	1 U	R	10 U	50 U
Xylene (total)	1	64	R	22	R	19	67
1,3-Dichlorobenzene	1	1 U	R	1 U	R	10 U	50 U
1,4-Dichlorobenzene	1	1 U	R	2	R	10 U	50 U
1,2-Dichlorobenzene	1	1 U	R	1 U	R	10 U	50 U
1,2-Dibromo-3-chloropropane	1	1 U	R	1 U	R	10 U	50 U

See notes at end of table.

Table K-10 (continued)
Volatiles

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

VOLATILE AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
SAMPLE ID:		11 TB00 324	11 TB00 330	11 TB00 407	11 TB00 413	11 TB05 419	11 TB06 427	11 TB07 503
DATE SAMPLED:		03/24/94	03/30/94	04/07/94	04/13/94	04/19/94	04/27/94	05/03/94
DATE ANALYZED:		03/29/94	04/04/94	04/11/94	04/15/94	04/22/94	05/02/94	05/09/94
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0
VOLATILE ANALYSIS – TCL LIST								
ANALYTE	CRQL							
Chloromethane	1	1 U	0.6 J	1 U	1 U	0.5 J	1 U	1 U
Bromomethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	5	6 U	21 U	28 U	19	16	6 U	11
Carbon Disulfide	1	1 U	0.6 J	0.9 J	1	0.9 J	1 U	0.9 J
1,1-Dichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	3
trans-1,2-Dichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1	1 U	1 U	1 U	1 U	1 U	7	62 E
1,2-Dichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1	7
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	0.7 J
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	5	5 U	5 U	5 U	5 U	5 U	5 U	9
2-Hexanone	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J
Chlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U

See notes at end of table.

Table K–10 (continued)
Volatiles

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

VOLATILE AQUEOUS ANALYSES (ug/l)

Analytical Results

SAMPLE LOCATION:		TRIP BLANK	TRIP BLANK
SAMPLE ID:		11 TB07 503DL	11 TB08 511
DATE SAMPLED:		05/03/94	05/11/94
DATE ANALYZED:		05/09/94	05/17/94
DILUTION FACTOR:		5.0	1.0
VOLATILE ANALYSIS – TCL LIST			
ANALYTE	CRQL		
Chloromethane	1	R	1 U
Bromomethane	1	R	1 U
Vinyl Chloride	1	R	1 U
Chloroethane	1	R	1 U
Methylene Chloride	2	R	2 U
Acetone	5	R	5 U
Carbon Disulfide	1	R	1 U
1,1–Dichloroethene	1	R	1 U
1,1–Dichloroethane	1	R	1 U
cis–1,2–Dichloroethene	1	R	1 U
trans–1,2–Dichloroethene	1	R	1 U
Chloroform	1	54	2
1,2–Dichloroethane	1	R	1 U
2–Butanone	5	R	5 U
Bromochloromethane	1	R	1 U
1,1,1–Trichloroethane	1	R	1 U
Carbon Tetrachloride	1	R	1 U
Bromodichloromethane	1	R	1 U
1,2–Dichloropropane	1	R	1 U
cis–1,3–Dichloropropene	1	R	1 U
Trichloroethene	1	R	1 U
Dibromochloromethane	1	R	1 U
1,1,2–Trichloroethane	1	R	1 U
Benzene	1	R	1 U
trans–1,3–Dichloropropene	1	R	1 U
Bromoform	1	R	1 U
4–Methyl–2–Pentanone	5	R	5 U
2–Hexanone	5	R	5 U
Tetrachloroethene	1	R	1 U
1,1,2,2–Tetrachloroethane	1	R	1 U
1,2–Dibromoethane	1	R	1 U
Toluene	1	R	1 U
Chlorobenzene	1	R	1 U
Ethylbenzene	1	R	1 U
Styrene	1	R	1 U
Xylene (total)	1	R	1 U
1,3–Dichlorobenzene	1	R	1 U
1,4–Dichlorobenzene	1	R	1 U
1,2–Dichlorobenzene	1	R	1 U
1,2–Dibromo–3–chloropropane	1	R	1 U

Notes:
ug/l = micrograms per liter.
CRQL = contract required quantitation limits.
E = concentration exceeds calibration range of instrument.
R = rejected value in favor of analytical data from analysis of undiluted aliquot.
U = not detected, sample quantitation limit reported.
J = estimated value.

K–10cont.WK1

Table K–11
Semivolatile (Aqueous)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

SEMIVOLATILE AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		IW02	IW02	IW02	IW05	IC06	IC06	IC06
SAMPLE ID:		11 IW02 324	11 IW02 330	11 IW02 407	11 IW05 407	11 IC06 413	11 IC06 413DL	11 IC06 419
DATE SAMPLED:		03/24/94	03/30/94	04/07/94	04/07/94	04/13/94	04/13/94	04/19/94
DATE EXTRACTED:		03/28/94	04/01/94	04/11/94	04/11/94	04/16/94	04/16/94	04/25/94
DATE ANALYZED:		04/07/94	04/04/94	04/12/94	04/12/94	04/18/94	04/19/94	04/26/94
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	2.5	1.0
SEMIVOLATILE ANALYSIS–TCL LIST								
ANALYTE	CRQL							
Phenol	10	10 U	5 J	4 J	10 U	21	R	23
bis (2–Chloroethyl) ether	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2– Chlorophenol	10	10 U	10 U	10 U	10 U	10 U	R	10 U
1,3– Dichlorobenzene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
1,4– Dichlorobenzene	10	1 J	10 U	2 J	6 J	10 U	R	10 U
1,2– Dichlorobenzene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2– Methylphenol	10	10 U	1 J	10 U	10 U	10 U	R	4 J
2,2'–oxybis (1–Chloropropane)	10	10 U	10 U	10 U	10 U	10 U	R	10 U
4– Methylphenol	10	25	39	38	10 U	140 E	180	140 E
N–Nitroso–di–n–propylamine	10	10 U	10 U	10 U	10 U	10 U	R	10 U
Hexachloroethane	10	10 U	10 U	10 U	10 U	10 U	R	10 U
Nitrobenzene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
Isophorone	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2–Nitrophenol	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2,4–Dimethylphenol	10	10 U	10 U	1 J	10 U	10 U	R	4 J
bis (2–Chloroethoxy) methane	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2,4–Dichlorophenol	10	10 U	10 U	10 U	10 U	10 U	R	10 U
1,2,4–Trichlorobenzene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
Naphthalene	10	3 J	4 J	3 J	13	6 J	R	7 J
4–Chloroaniline	10	10 U	10 U	10 U	10 U	10 U	R	10 U
Hexachlorobutadiene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
4–Chloro–3–methylphenol	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2–Methylnaphthalene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
Hexachlorocyclopentadiene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2,4,6–Trichlorophenol	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2,4,5–Trichlorophenol	25	25 U	25 U	25 U	25 U	25 U	R	25 U
2–Chloronaphthalene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2–Nitroaniline	25	25 U	25 U	25 U	25 U	25 U	R	25 U
Dimethylphthalate	10	10 U	10 U	10 U	10 U	10 U	R	10 U
Acenaphthylene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
2,6–Dinitrotoluene	10	10 U	10 U	10 U	10 U	10 U	R	10 U
3–Nitroaniline	25	25 U	25 U	25 U	25 U	25 U	R	25 U
Acenaphthene	10	10 U	10 U	10 U	10 U	10 U	R	10 U

See notes at end of table.

Table K-11 (continued)
Semivolatile (Aqueous)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

SEMIVOLATILE AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		IC06	IC06	IC06	IC06	IC06	IC06
SAMPLE ID:		11 IC06 419DL	11 IC06 427	11 IC06 427DL	11 IC06 503	11 IC06 503DL	11 IC06 511
DATE SAMPLED:		04/19/94	04/27/94	04/27/94	05/03/94	05/03/94	05/11/94
DATE EXTRACTED:		04/25/94	05/02/94	05/02/94	05/05/94	05/05/94	05/13/94
DATE ANALYZED:		04/26/94	05/03/94	05/03/94	05/10/94	05/11/94	05/18/94
DILUTION FACTOR:		2.5	1.0	5.0	1.0	2.5	4.0
SEMIVOLATILE ANALYSIS–TCL LIST							
ANALYTE	CRQL						
Phenol	10	R	31	R	17	R	20 J
bis (2–Chloroethyl) ether	10	R	10 U	R	10 U	R	40 U
2– Chlorophenol	10	R	10 U	R	10 U	R	40 U
1,3– Dichlorobenzene	10	R	10 U	R	10 U	R	40 U
1,4– Dichlorobenzene	10	R	10 U	R	10 U	R	40 U
1,2– Dichlorobenzene	10	R	10 U	R	10 U	R	40 U
2– Methylphenol	10	R	5 J	R	10 U	R	40 U
2,2'–oxybis (1–Chloropropane)	10	R	10 U	R	10 U	R	40 U
4– Methylphenol	10	140	220 E	250	140 E	130	150
N–Nitroso–di–n–propylamine	10	R	10 U	R	10 U	R	40 U
Hexachloroethane	10	R	10 U	R	10 U	R	40 U
Nitrobenzene	10	R	10 U	R	10 U	R	40 U
Isophorone	10	R	10 U	R	10 U	R	40 U
2–Nitrophenol	10	R	10 U	R	10 U	R	40 U
2,4–Dimethylphenol	10	R	5 J	R	10 U	R	40 U
bis (2–Chloroethoxy) methane	10	R	10 U	R	10 U	R	40 U
2,4–Dichlorophenol	10	R	10 U	R	10 U	R	40 U
1,2,4–Trichlorobenzene	10	R	10 U	R	10 U	R	40 U
Naphthalene	10	R	6 J	R	6 J	R	8 J
4–Chloroaniline	10	R	10 U	R	10 U	R	40 U
Hexachlorobutadiene	10	R	10 U	R	10 U	R	40 U
4–Chloro–3–methylphenol	10	R	10 U	R	10 U	R	40 U
2–Methylnaphthalene	10	R	10 U	R	10 U	R	40 U
Hexachlorocyclopentadiene	10	R	10 U	R	10 U	R	40 U
2,4,6–Trichlorophenol	10	R	10 U	R	10 U	R	40 U
2,4,5–Trichlorophenol	25	R	25 U	R	25 U	R	100 U
2–Chloronaphthalene	10	R	10 U	R	10 U	R	40 U
2–Nitroaniline	25	R	25 U	R	25 U	R	100 U
Dimethylphthalate	10	R	10 U	R	10 U	R	40 U
Acenaphthylene	10	R	10 U	R	10 U	R	40 U
2,6–Dinitrotoluene	10	R	10 U	R	10 U	R	40 U
3–Nitroaniline	25	R	25 U	R	25 U	R	100 U
Acenaphthene	10	R	10 U	R	10 U	R	40 U

Notes:
ug/l = micrograms per liter.
CRQL = contract required quantitation limits.
E = concentration exceeds calibration range of instrument.
R = rejected value in favor of analytical data from analysis of undiluted aliquot.
U = not detected, sample quantitation limit reported.
J = estimated value.

Table K-12
Pesticides (Aqueous) (ug/l)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

ORGANOCHLORINE PESTICIDE/PCB AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		IW02	IW02	IW02	IW05	IC06	IC06	IC06
SAMPLE ID:		11 IW02 324	11 IW02 330	11 IW02 407	11 IW05 407	11 IC06 413	11 IC06 419	11 IC06 427
DATE SAMPLED:		03/24/94	03/30/94	04/07/94	04/07/94	04/13/94	04/19/94	04/27/94
DATE EXTRACTED:		03/28/94	04/04/94	04/08/94	04/08/94	04/14/94	04/21/94	04/29/94
DATE ANALYZED:		03/31/94	04/07/94	04/12/94	04/12/94	04/14/94	05/02/94	05/10/94
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0
ORGANOCHLORINE PESTICIDES AND PCBs								
TCL ANALYTE	CRQL							
alpha-BHC	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
delta-BHC	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-BHC (Lindane)	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Aldrin	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'- DDE	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'- DDD	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
4,4'- DDT	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methoxychlor	0.5	0.5 U	0.5 U	0.11 J	0.5 U	0.5 U	0.5 U	0.5 U
Endrin ketone	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
alpha-Chlordane	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
gamma-Chlordane	0.05	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Aroclor-1016	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1221	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Aroclor-1232	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1242	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1248	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1254	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Arolcor-1260	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U

See notes at end of table.

Table K-12 (continued)
Pesticides (Aqueous) (ug/l)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

ORGANOCHLORINE PESTICIDE/PCB AQUEOUS ANALYSES (ug/l) — Analytical Results

SAMPLE LOCATION:		IC06	IC06
SAMPLE ID:		11 IC06 503	11 IC06 511
DATE SAMPLED:		05/03/94	05/11/94
DATE EXTRACTED:		05/05/94	05/13/94
DATE ANALYZED:		05/09/94	05/18/94
DILUTION FACTOR:		1.0	1.0
ORGANOCHLORINE PESTICIDES AND PCBs			
TCL ANALYTE	CRQL		
alpha-BHC	0.05	0.05 U	0.05 U
beta-BHC	0.05	0.05 U	0.05 U
delta-BHC	0.05	0.05 U	0.05 U
gamma-BHC (Lindane)	0.05	0.05 U	0.05 U
Heptachlor	0.05	0.05 U	0.05 U
Aldrin	0.05	0.05 U	0.05 U
Heptachlor epoxide	0.05	0.05 U	0.05 U
Endosulfan I	0.05	0.05 U	0.05 U
Dieldrin	0.1	0.1 U	0.1 U
4,4'- DDE	0.1	0.1 U	0.1 U
Endrin	0.1	0.1 U	0.1 U
Endosulfan II	0.1	0.1 U	0.1 U
4,4'- DDD	0.1	0.1 U	0.1 U
Endosulfan sulfate	0.1	0.1 U	0.1 U
4,4'- DDT	0.1	0.1 U	0.1 U
Methoxychlor	0.5	0.5 U	0.5 U
Endrin ketone	0.1	0.1 U	0.1 U
Endrin aldehyde	0.1	0.1 U	0.1 U
alpha-Chlordane	0.05	0.05 U	0.05 U
gamma-Chlordane	0.05	0.05 U	0.05 U
Toxaphene	5	5 U	5 U
Aroclor-1016	1	1 U	1 U
Aroclor-1221	2	2 U	2 U
Aroclor-1232	1	1 U	1 U
Aroclor-1242	1	1 U	1 U
Aroclor-1248	1	1 U	1 U
Aroclor-1254	1	1 U	1 U
Arolcor-1260	1	1 U	1 U

Notes:
ug/l = micrograms per liter.
CRQL = contract required quantitation limit.
U = not detected, sample quantitation limit reported.

Table K-13
Inorganics (Aqueous)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

INORGANIC AQUEOUS ANALYSES (ug/L)

Analytical Results

SAMPLE LOCATION:		IW02	IW02	IW02	IW05	IC06	IC06	IC06
SAMPLE ID:		11 IW02 324	11 IW02 330	11 IW02 407	11 IW05 407	11 IC06 413	11 IC06 419	11 IC06 427
DATE SAMPLED:		03/24/94	03/30/94	04/07/94	04/07/94	04/13/94	04/19/94	04/27/94
TAL ANALYTE	CRDL							
Aluminum	200	113 J	121 J	104 J	46 J	156 J	150 J	159 J
Antimony	5	11.1 U	7.5 J	11.1 U	11.1 U	11.1 U	11.1 U	11.1 U
Arsenic	10	1.3 U	1.6 U	1.3 U	1.3 U	1.3 U	1.3 U	3.1 U
Barium	200	38.6 J	42.4 J	42.9 J	10.9 J	39.6 J	42.8 J	56.2 J
Beryllium	5	0.14 U	0.23 J	0.14 U	0.14 U	0.14 U	0.14 U	0.26 J
Cadmium	5	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Calcium	5000	12500	9710	9350	70300	21400	19700	5660
Chromium	10	2.4 J	1.3 J	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Cobalt	50	1.6 U	1.4 J	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Copper	25	2.4 J	1.7 U	1.7 U	9.4 J	5.8 U	7 U	2.9 J
Iron	100	967	1090	1080	4970	1850	1790	1200
Lead	3	2 U	0.38 U	2 U	2 U	2 U	2 U	1.8 U
Magnesium	5000	6690	5850	5980	10100	5970	4820 J	3730 J
Manganese	15	26.6	23.2	22.9	142	50.8	43.8	17.5
Mercury	0.2	0.07 U	0.04 U	0.07 U	0.07 U	0.07 U	0.04 U	0.08 U
Nickel	40	7.3 U	3.5 J	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
Potassium	5000	20800	20200	20500	11600	9930	7690	7570
Selenium	5	1.5 U	1.3 U	1.5 U	1.5 U	1.5 U	2.5 U	1.3 U
Silver	10	2.5 U	1.3 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sodium	5000	46300	47900	49000	12100	33100	32200	36600
Thallium	10	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.1 U
Vanadium	50	10 J	11.2 J	11 J	3.3 J	5.6 J	4.3 J	6 J
Zinc	20	3 U	3.3 J	4.4 J	9 J	13.4 J	3 U	3.3 J
Cyanide	10	---	0.71 J	0.66 U	2.5 J	0.35 U	1 U	0.66 U

See notes at end of table.

Table K-13 (continued)
Inorganics (Aqueous)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

INORGANIC AQUEOUS ANALYSES (ug/L)

Analytical Results

SAMPLE LOCATION:		IC06	IC06
SAMPLE ID:		11 IC06 503	11 IC06 511
DATE SAMPLED:		05/03/94	05/11/94
TAL ANALYTE	CRDL		
Aluminum	200	131 J	133 J
Antimony	5	15.7 U	15.7 U
Arsenic	10	0.6 U	1.4 U
Barium	200	43.7 J	46.7 J
Beryllium	5	0.2 J	0.42 J
Cadmium	5	2.7 U	2.7 U
Calcium	5000	22500	23500
Chromium	10	2.8 U	2.8 U
Cobalt	50	3.6 U	3.6 U
Copper	25	14.7 U	5.5 J
Iron	100	2160	2430
Lead	3	2.7 J	1.8 U
Magnesium	5000	4800 J	4790 J
Manganese	15	48.4	52.5
Mercury	0.2	0.08 U	0.08 U
Nickel	40	9.7 U	9.7 U
Potassium	5000	8320	6120
Selenium	5	1.7 U	0.79 U
Silver	10	2.7 U	2.7 U
Sodium	5000	31000	29000
Thallium	10	1.1 U	1.1 U
Vanadium	50	4.1 J	4.8 J
Zinc	20	4.6 J	5.6 J
Cyanide	10	1.7 U	1.1 U

Notes:
ug/l = micrograms per liter.
CRQL = contract required quantitation limit.
J = estimated value.
U = not detected, sample quantitation limit reported.
--- = Analysis was not performed

Table K-13 (continued)
Inorganics (Aqueous)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

AQUEOUS ANALYSES — Analytical Results

	SAMPLE LOCATION:	ET07	IW02	IC06	ET07	IC06	ET07	ET07
	SAMPLE ID:	11 ET07 324	11 IW02 330	11 IC06 330	11 ET07 330	11 IC06 407	11 ET07 407	11 ET07 413
	DATE SAMPLED:	03/24/94	03/30/94	03/30/94	03/30/94	04/07/94	04/07/94	04/13/94
ANALYTE	UNITS							
Hardness as CaCO3	mg/L		46	50		140		
Total Dissolved Solids	mg/L		258	251		280		
Total Suspended Solids	mg/L	8	< 4	< 4	< 4	25	< 4	< 4
BOD, 5-day	mg/L	< 10	< 20	< 20	< 20	< 20	< 20	28
Chloride	mg/L		57	57.9		28		
Total Organic Carbon	mg/L		29.9	33.7		27.6		
Cadmium	ug/L			< 5		< 5		
Chromium	ug/L			< 10		< 10		
Iron	ug/L			1190		3270		
Lead	ug/L			< 3		< 3		
Manganese	ug/L			23.2		90.7		

	SAMPLE LOCATION:	IC06	ET07	ET07	IC06	ET07	ET07
	SAMPLE ID:	11 IC06 419	11 ET07 419	11 ET07 427	11 IC06 503	11 ET07 503	11 ET07 511
	DATE SAMPLED:	04/19/94	04/19/94	04/27/94	05/03/94	05/03/94	05/11/94
ENGINEERING / TREATABILITY PARAMETERS							
ANALYTE	UNITS						
Hardness as CaCO3	mg/L	54			76		
Total Dissolved Solids	mg/L	194			365		
Total Suspended Solids	mg/L	< 4	5	9	< 4	< 4	4
BOD, 5-day	mg/L	32	20	26	27	21	18
Chloride	mg/L	43.6			47.9		
Total Organic Carbon	mg/L	26.9			29.6		
Cadmium	ug/L	< 5			< 5		
Chromium	ug/L	< 10			< 10		
Iron	ug/L	1810			2160		
Lead	ug/L	< 3			< 3		
Manganese	ug/L	44.6			47.2		

Notes:
ug/l = micrograms per liter.
mg/L = milligrams per liter.
< = not detected, sample quantitation limit reported.
J = estimated value.
U = not detected, sample quantitation limit reported.

Table K-14
Volatiles (Air)

PROJECT: NSB KINGS BAY, INTERIM MEASURE
EVENT: PHASE I ACTIVITIES

TO14 VOLATILE AIR ANALYSES

Analytical Results

	SAMPLE LOCATION:	OP08	OP08	OP08
	SAMPLE ID:	11 OP08 419	11 OP08 427	11 OP08 511
	DATE SAMPLED:	04/19/94	04/27/94	05/11/94
	DATE ANALYZED:	04/20/94	04/28/94	05/12/94
	DILUTION FACTOR:	1.0	1.0	1.0
VOLATILE ANALYSIS	UNITS			
ANALYTE				
alpha-Chlorotoluene	MG/M3	0.3 U	0.3 U	0.3 U
Acetone	MG/M3	0.1 U	0.1 U	0.1 U
Benzene	MG/M3	0.3 U	0.3 U	0.3 U
Bromodichloromethane	MG/M3	0.03 U	0.03 U	0.03 U
Bromoform	MG/M3	0.03 U	0.03 U	0.03 U
Bromomethane	MG/M3	0.3 U	0.3 U	0.3 U
2-Butanone	MG/M3	0.03 U	0.03 U	0.03 U
Carbon tetrachloride	MG/M3	0.1 U	0.1 U	0.1 U
Carbon disulfide	MG/M3	0.03 U	0.03 U	0.03 U
Chlorobenzene	MG/M3	0.3 U	0.3 U	0.3 U
Chloroethane	MG/M3	0.3 U	0.3 U	0.3 U
2-Chloroethylvinyl ether	MG/M3	0.03 U	0.03 U	0.03 U
Chloroform	MG/M3	0.3 U	0.3 U	0.3 U
Chloromethane	MG/M3	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	MG/M3	0.03 U	0.03 U	0.03 U
cis-1,2-Dichloroethene	MG/M3	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	MG/M3	0.3 U	0.3 U	0.3 U
1,2-Dichlorobenzene	MG/M3	0.09 U	0.09 U	0.09 U
1,3-Dichlorobenzene	MG/M3	0.09 U	0.09 U	0.09 U
1,4-Dichlorobenzene	MG/M3	0.15 U	0.15 U	0.15 U
1,1-Dichloroethane	MG/M3	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	MG/M3	0.3 U	0.3 U	0.3 U
trans-1,2-Dichloroethene	MG/M3	0.03 U	0.03 U	0.03 U
1,2-Dichloropropane	MG/M3	0.3 U	0.3 U	0.3 U
cis-1,3-Dichloropropene	MG/M3	0.3 U	0.3 U	0.3 U
trans-1,3-Dichloropropene	MG/M3	0.3 U	0.3 U	0.3 U
Dichlorotetrafluoroethane	MG/M3	0.3 U	0.3 U	0.3 U
Ethyl benzene	MG/M3	0.3 U	0.3 U	0.3 U
2-Hexanone	MG/M3	0.1 U	0.1 U	0.1 U
Hexachlorobutadiene	MG/M3	0.3 U	0.3 U	0.3 U
m,p-Xylene	MG/M3	0.3 U	0.3 U	0.3 U
Methylene chloride	MG/M3	0.7 U	0.7 U	0.7 U
o-Xylene	MG/M3	0.3 U	0.3 U	0.3 U
4-Methyl-2-pentanone	MG/M3	0.1 U	0.1 U	0.1 U
Styrene	MG/M3	0.3 U	0.3 U	0.3 U
1,1,2,2-Tetrachloroethane	MG/M3	0.3 U	0.3 U	0.3 U
Tetrachloroethene	MG/M3	0.3 U	0.3 U	0.3 U
Toluene	MG/M3	0.3 U	0.3 U	0.3 U
1,1,2-Trichloroethane	MG/M3	0.3 U	0.3 U	0.3 U
Trichloroethene	MG/M3	0.3 U	0.3 U	0.3 U
Trichlorofluoromethane	MG/M3	0.3 U	0.3 U	0.3 U
Vinyl acetate	MG/M3	0.03 U	0.03 U	0.03 U
Vinyl chloride	MG/M3	0.3 U	0.3 U	0.3 U
1,2-Dibromoethane	MG/M3	0.3 U	0.3 U	0.3 U
1,2,4-Trichlorobenzene	MG/M3	0.3 U	0.3 U	0.3 U
1,2,4-Trimethylbenzene	MG/M3	0.3 U	0.3 U	0.3 U
1,3,5-Trimethylbenzene	MG/M3	0.3 U	0.3 U	0.3 U
1,1-Dichloroethene	MG/M3	0.3 U	0.3 U	0.3 U
1,1,1-Trichloroethane	MG/M3	0.3 U	0.3 U	0.3 U
Trichlorotrifluoroethane	MG/M3	0.3 U	0.3 U	0.3 U
4-Ethyltoluene	MG/M3	0.3 U	0.3 U	0.3 U

Notes: MG/M3 = milligrams per cubic meter.
U = not detected, detection limit reported.

K-14.WK3

K.3: Comparison of Onsite and Offsite Laboratory Data

Table K-15
Comparison of Onsite and Offsite Laboratory Results

Interim Measure Phase I Activities:
Evaluation and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

Sample Date	Sample Identifier	Parameter	Onsite Result	Offsite Result	Onsite/ Offsite Ratio
IC06: Influent to DAT (µg/ℓ)					
04/13/94	IC06413R	1,2-Dichloroethane	13.47	1 U	13
		1,2-Dichloropropane	19.52	1 U	20
		Benzene	18.14	2	9
		Dichloromethane	23.41	7 U	3
		Ethylbenzene	39.13	17	2
		Tetrachloroethene	17.42	7	3
		Toluene	112.79	77	2
		Trichloroethene	78.89	78	1
		Vinyl chloride	38.72	23	2
		cis-1,2-Dichloroethene	336.70 E	330	1
		m/p-Xylene	47.39	(1)	
		o-Xylene	28.52	(1)	
		Xylenes(total)	(2)	16	
		trans-1,2-Dichloroethene	13.60	3	5
04/19/94	IC06419	1,2-Dichloroethane	10.00	1 U	10
		1,2-Dichloropropane	10.00	1 U	10
		Benzene	10.00	2	5
		Dichloromethane	10.00	9 U	1
		Ethylbenzene	40.32 B	20	2
		Tetrachloroethene	10.20	6	2
		Toluene	99.22	67	1
		Trichloroethene	23.11	30	1
		Vinyl chloride	48.15	24	2
		cis-1,2-Dichloroethene	307.28	310	1
		m/p-Xylene	38.26 B	(1)	
		o-Xylene	22.92 B	(1)	
		Xylenes(total)	(2)	23	
		trans-1,2-Dichloroethene	10.00	4	3
04/27/94	IC06427	1,2-Dichloroethane	10.00	10 U	1
		1,2-Dichloropropane	10.00	10 U	1
		Benzene	10.00	10 U	1
		Dichloromethane	12.24	20 U	1
		Ethylbenzene	34.14	21	2
		Tetrachloroethene	10.00	6 J	2
		Toluene	125.12	66	2
		Trichloroethene	28.43	45	1
		Vinyl chloride	24.48	16	2
		cis-1,2-Dichloroethene	327.95 E	200	2

See notes at end of table.

Table K-15 (continued)
Comparison of Onsite and Offsite Analytical Results

Interim Measure Phase I Evaluation
and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

Sample Date	Sample Identifier	Parameter	Onsite Result	Offsite Result	Onsite/ Offsite Ratio
		m/p-Xylene	20.36	(1)	
		o-Xylene	11.93	(1)	
		Xylenes(total)	(2)	22	
		trans-1,2-Dichloroethene	10.00	3 J	3
05/03/94	IC06503	1,2-Dichloroethane	10.00	1 U	10
		1,2-Dichloropropane	10.00	1 U	10
		Benzene	10.00 J	2	5
		Dichloromethane	10.00	7 U	1
		Ethylbenzene	29.84	19	2
		Tetrachloroethene	10.00	6	2
		Toluene	80.32	54	1
		Trichloroethene	22.39	42	1
		Vinyl chloride	13.63	18	1
		cis-1,2-Dichloroethene	279.47	220	1
		m/p-Xylene	18.53	(1)	
		o-Xylene	11.37	(1)	
		Xylenes (total)	(2)	22	
		trans-1,2-Dichloroethene	10.00	3	3
05/11/94	IC06511	1,2-Dichloroethane	10.00 J	10 U	1
		1,2-Dichloropropane	10.00 J	10 U	1
		Benzene	10.00 J	10 U	1
		Dichloromethane	10.00 J	20 U	1
		Ethylbenzene	46.06 J	12	4
		Tetrachloroethene	12.08 B,J	6 J	2
		Toluene	220.36 J	44	5
		Trichloroethene	25.12 B,J	41	1
		Vinyl chloride	10.00 J	19	1
		cis-1,2-Dichloroethene	577.60 E,J	210	3
		m/p-Xylene	50.46 J	(1)	
		o-Xylene	23.83 J	(1)	
		Xylenes(total)	(2)	19	
		trans-1,2-Dichloroethene	10.00 J	4 J	3
IW02: Recovery Well 2 (μg/ℓ)					
03/24/94	IW02324 B	1,2-Dichloroethane	5.00	1 U	5
		1,2-Dichloropropane	5.00	1 U	5
		Benzene	8.46	4	2
		Dichloromethane	5.00	2 U	3
		Ethylbenzene	80.64	66	1

See notes at end of table.

Table K-15 (continued)
Comparison of Onsite and Offsite Analytical Results

Interim Measure Phase I Evaluation
and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

Sample Date	Sample Identifier	Parameter	Onsite Result	Offsite result	Onsite/ Offsite Ratio
		Tetrachloroethene	5.00	1 U	5
		Toluene	14.43	8	2
		Trichloroethene	5.00	1 U	5
		Vinyl chloride	71.89	28	3
		cis-1,2-Dichloroethene	63.35	43	2
		m/p-Xylene	16.26	(1)	
		o-Xylene	10.43	(1)	
		Xylenes(total)	(2)	3	
		trans-1,2-Dichloroethene	5.00	2	3
03/30/94	IW02330	1,2-Dichloroethane	5.00	1 U	5
		1,2-Dichloropropane	5.00	1 U	5
		Benzene	5.00	4	1
		Dichloromethane	5.00	3 U	2
		Ethylbenzene	48.90	52	1
		Tetrachloroethene	5.00	1 U	5
		Toluene	7.79	10	1
		Trichloroethene	5.00	1 U	5
		Vinyl chloride	54.56	22	2
		cis-1,2-Dichloroethene	45.84	38	1
		m/p-Xylene	5.00	(1)	
		o-Xylene	5.00	(1)	
		Xylenes(total)	(2)	12	
		trans-1,2-Dichloroethene	5.00	0.8 J	6
04/07/94	IW02407	1,2-Dichloroethane	5.00	1 U	5
		1,2-Dichloropropane	5.00	1 U	5
		Benzene	5.00	4	1
		Dichloromethane	5.00	4 U	1
		Ethylbenzene	67.69	63	1
		Tetrachloroethene	5.47 B	1 U	5
		Toluene	10.58	11	1
		Trichloroethene	5.92 B	1 U	6
		Vinyl chloride	45.33 J	40	1
		cis-1,2-Dichloroethene	72.23	45	2
		m/p-Xylene	8.31	(1)	
		o-Xylene	6.95	(1)	
		Xylenes(total)	(2)	13	
		trans-1,2-Dichloroethene	5.00 J	2	3

See notes at end of table.

Table K-15 (continued)
Comparison of Onsite and Offsite Analytical Results

Interim Measure Phase I Evaluation
and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

Sample Date	Sample Identifier	Parameter	Onsite Result	Offsite Result	Onsite/ Offsite Ratio
IW03: Recovery Well 3 (µg/ℓ)					
05/03/94	IW03503	1,2-Dichloroethane	50.00	1 U	50
		1,2-Dichloropropane	50.00	1 U	50
		Benzene	50.00 J	2	25
		Dichloromethane	50.00	6 U	8
		Ethylbenzene	81.25	40	2
		Tetrachloroethene	50.00	27 J	2
		Toluene	190.65	81	2
		Trichloroethene	50.00	190	0
		Vinyl chloride	50.00	1 U	50
		cis-1,2-Dichloroethene	1,540.05	880	2
		m/p-Xylene	73.80	(1)	
		o-Xylene	50.00	(1)	
		Xylenes(total)	(2)	64	
		trans-1,2-Dichloroethene	50.00	14	4
05/11/94	IW03511	1,2-Dichloroethane	50.00 J	50 U	1
		1,2-Dichloropropane	50.00 J	50 U	1
		Benzene	50.00 J	50 U	1
		Dichloromethane	50.00 J	100 U	1
		Ethylbenzene	127.35 J	41 J	3
		Tetrachloroethene	52.75 B,J	31 J	2
		Toluene	338.35 J	74	5
		Trichloroethene	104.20 B,J	210	1
		Vinyl chloride	50.00 J	50 U	1
		cis-1,2-Dichloroethene	2,043.95 E,J	780	3
		m/p-Xylene	174.10 J	(1)	
		o-Xylene	91.45 J	(1)	
		Xylenes(total)	(2)	67	
		trans-1,2-Dichloroethene	50.00 J	50 U	1
IW05: Recovery Well 5 (µg/ℓ)					
04/07/94	IW05407	1,2-Dichloroethane	1.00	1 U	1
		1,2-Dichloropropane	1.00	1 U	1
		Benzene	1.00	0.8 J	1
		Dichloromethane	1.00	2 U	1
		Ethylbenzene	8.32	6	1
		Tetrachloroethene	1.20 B	1 U	1
		Toluene	1.00	1	1
		Trichloroethene	1.32 B	1 U	1

See notes at end of table.

Table K-15 (continued)
Comparison of Onsite and Offsite Analytical Results

Interim Measure Phase I Evaluation
and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

Sample Date	Sample Identifier	Parameter	Onsite Result	Offsite Result	Onsite/ Offsite Ratio
		Vinyl chloride	5.57 J	6	1
		cis-1,2-Dichloroethene	2.64	1	3
		m/p-Xylene	1.37	([1])	
		o-Xylene	1.74	([1])	
		Xylenes (total)	([2])	2	
		trans-1,2-Dichloroethene	1.00 J	1 U	1
04/19/94	IW05419	1,2-Dichloroethane	1.67	1 U	2
		1,2-Dichloropropane	1.67	1 U	2
		Benzene	2.29	1	2
		Dichloromethane	1.67	3 U	1
		Ethylbenzene	19.31	13	1
		Tetrachloroethene	1.67	1 U	2
		Toluene	2.65 B	2	1
		Trichloroethene	1.67	1 U	2
		Vinyl chloride	82.98 E	50	2
		cis-1,2-Dichloroethene	12.05	8	2
		m/p-Xylene	11.27 B	([1])	
		o-xylene	5.92 B	([1])	
		Xylenes(total)	([2])	9	
		trans-1,2-Dichloroethene	2.57	2	1

[1] The offsite laboratory reported the total concentration of xylenes.
[2] The onsite laboratory separately reported m/p-xylene and o-xylene.

Notes: DAT = diffused aeration tank.
$\mu g/\ell$ = micrograms per liter.
U = not detected, sample quantitation limit reported.
E = concentration exceeds calibration range of instrument.
B = constituent found in associated method blank.
J = estimated value.

APPENDIX L

TANK SCHEMATIC

Diversified
Remediation
Southeast, Inc.

PRELIMINARY 3-11-94

EQUIPMENT MANUALS

Prepared for:

Fastrac Const. / ABB Environmental

Project: **King's Bay**

DRS #930557

Date: 2/04/94

1144 Ocoee-Apopka Rd., Apopka, Florida 32703 Ph: (407)880-3500 Fax: (407)880-7798

Diversified
Remediation
Southeast, Inc.

LIMITED WARRANTY

GENERAL PROVISIONS

Equipment components and preassembled systems manufactured by Diversified Remediation Southeast, Inc.(DRS) are warranted to the original user only to be free of defects in material and workmanship for a period of 12 months from the date of manufacture. DRS' liability under this warranty shall be limited to repairing or replacing items at DRS' option without charge, F.O.B. DRS facility, Apopka, Florida. DRS will not be liable for any costs of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim.

Products which are sold but not manufactured by DRS are subject to the warranty provided by the manufacturer of said products and not by DRS' warranty. DRS will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with DRS installation and operation instructions.

TO OBTAIN SERVICE UNDER THIS WARRANTY, THE APPROVED ITEM MUST BE SHIPPED TO DRS, FREIGHT PREPAID. DRS WILL PAY RETURN FREIGHT FOR DEFECTIVE WORKMANSHIP REPAIRS.

Onsite warranty service is available from DRS at quoted service rates, plus expenses at the time of service. DRS will not be liable for any incidental or consequential damages, losses, or expenses arising from shipping, installation, operation, maintenance, or any other causes. There are no express or implied warranties, including merchantablity or fitness for a particular purpose, which extend beyond those warranties described or referred to above.

LEGAL LIMITATIONS

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages and some jurisdictions do not allow limitations on the duration of implied warranties. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from jurisdiction to jurisdiction.

ATTORNEY'S FEES

Should any dispute arise between buyer and DRS with regard to this agreement or any sale of equipment pursuant to this agreement, the prevailing party in said dispute shall be entitled to reasonable attorney's fees.

CHOICE OF LAW

This agreement shall be governed by and construed in accordance with the laws of the State of Florida. Buyer agrees that all actions or proceedings arising directly or indirectly out of a sale of products from DRS to Buyer shall be litigated only in courts located within Florida, and Buyer consents to the jurisdiction of any such local, state or federal court.

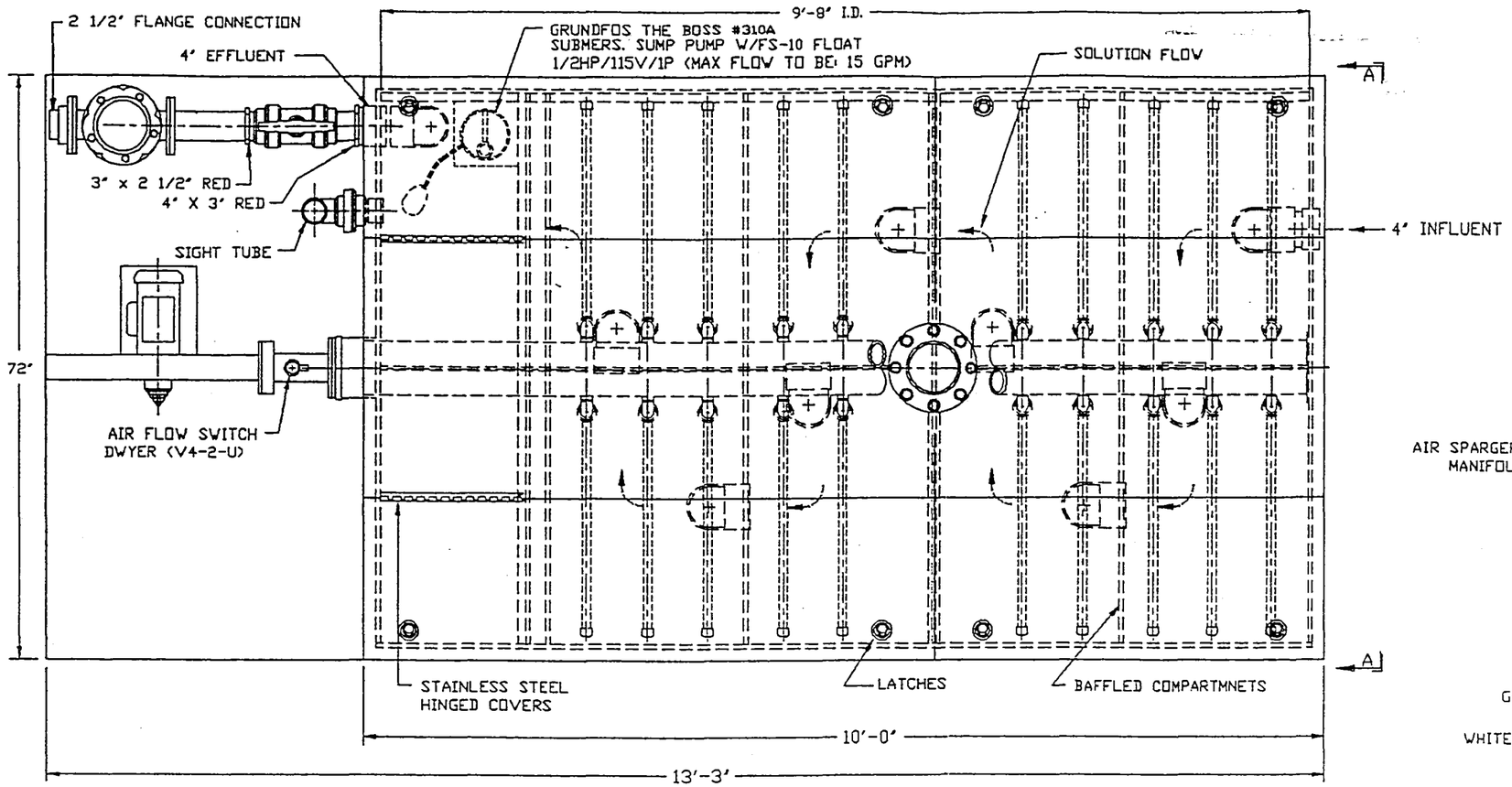
EFFECTIVE DATE

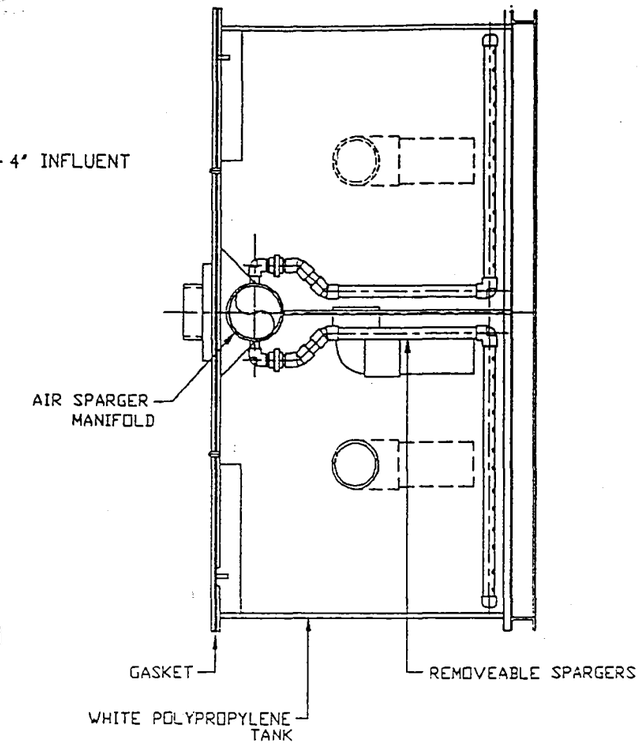
Warranty coverage begins on the day of shipment from DRS facilities in Apopka, FL, and terminates after 12 months.

DRS Job #:_____

Shipping Date:_____

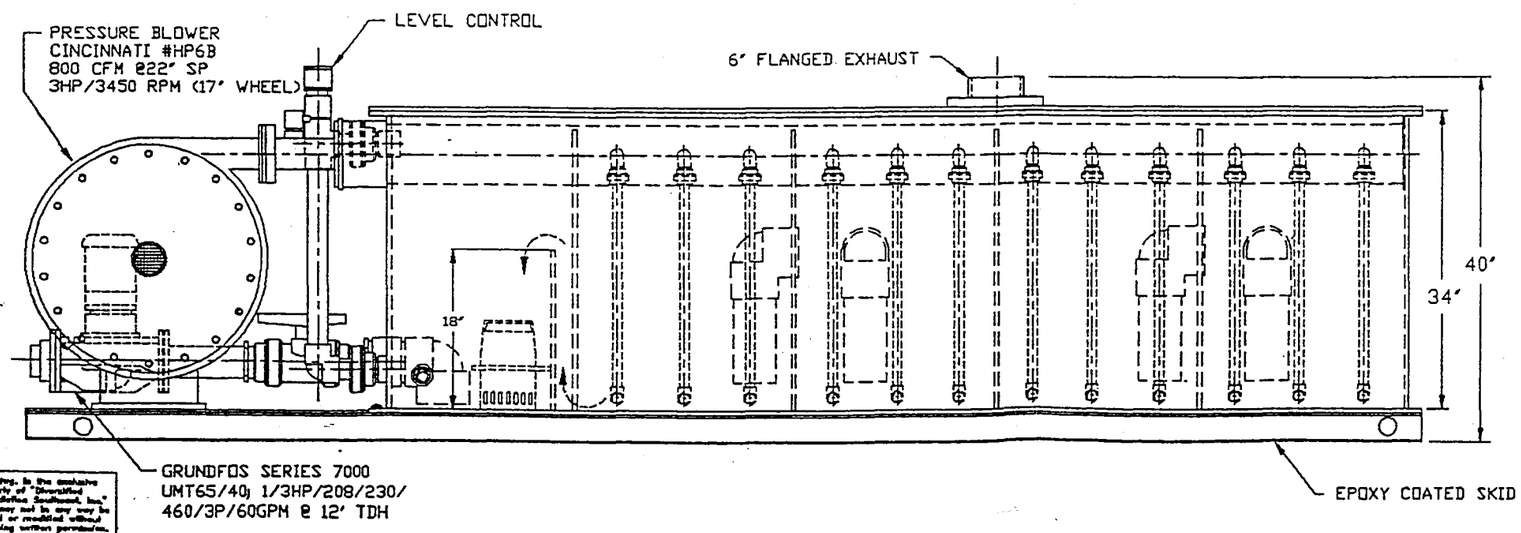
Revisions				
Sym.	Description	Auth. No.	Name	Date
A	AS-BUILT		CK	1/25/94





FRONT PANEL REMOVED FOR CLARITY

SECTION 'A-A'



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Item No.	Order Qty.		Part Number	Description	Remarks
Next Assy					

CAD Filename: 05772028

Phase | Task

UNLESS OTHERWISE SPECIFIED ALL TOLERANCES WILL BE: Dec. ±.005 | Frac. ±1/64 | Angles ±1/2°

Diversified Remediation Southeast, Inc.

ABB KINGS BAY SUB. BASE

TITLE: DIFFUSED AERATION TANK (8) STAGE

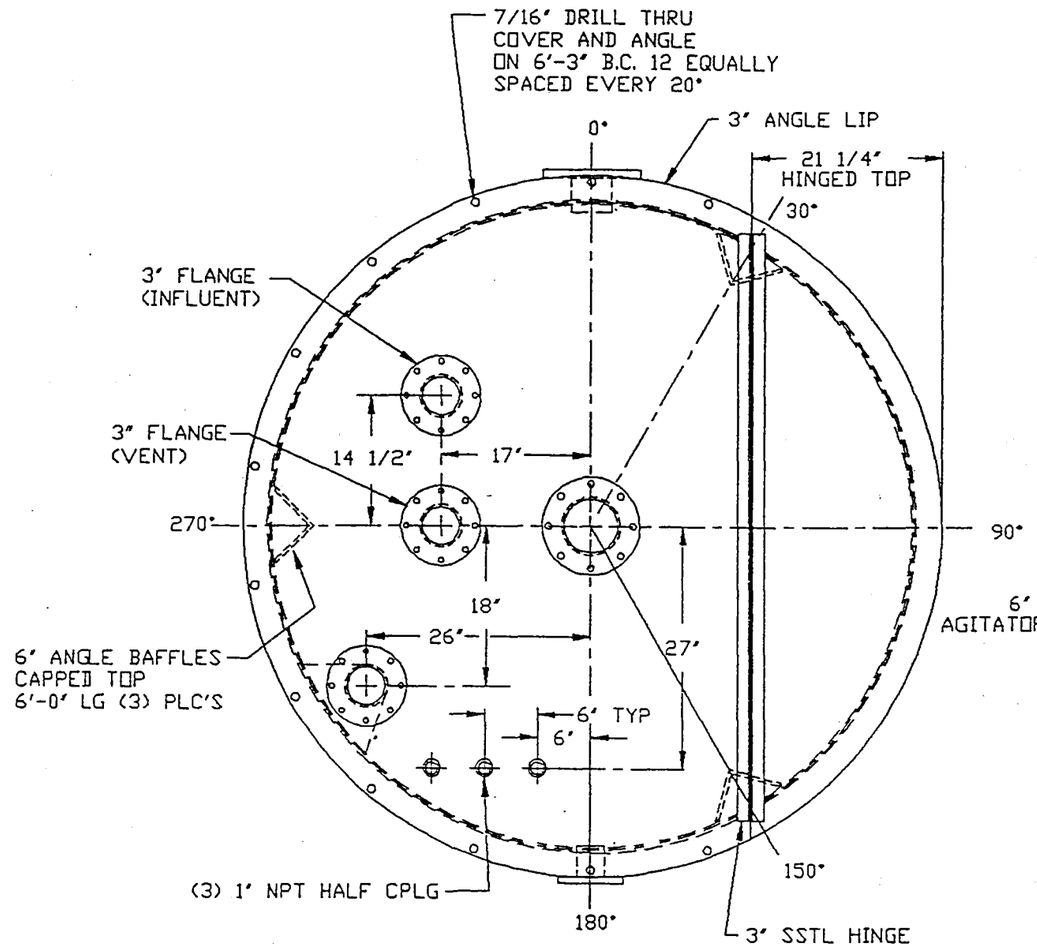
ESS WINTER GARDEN, FL

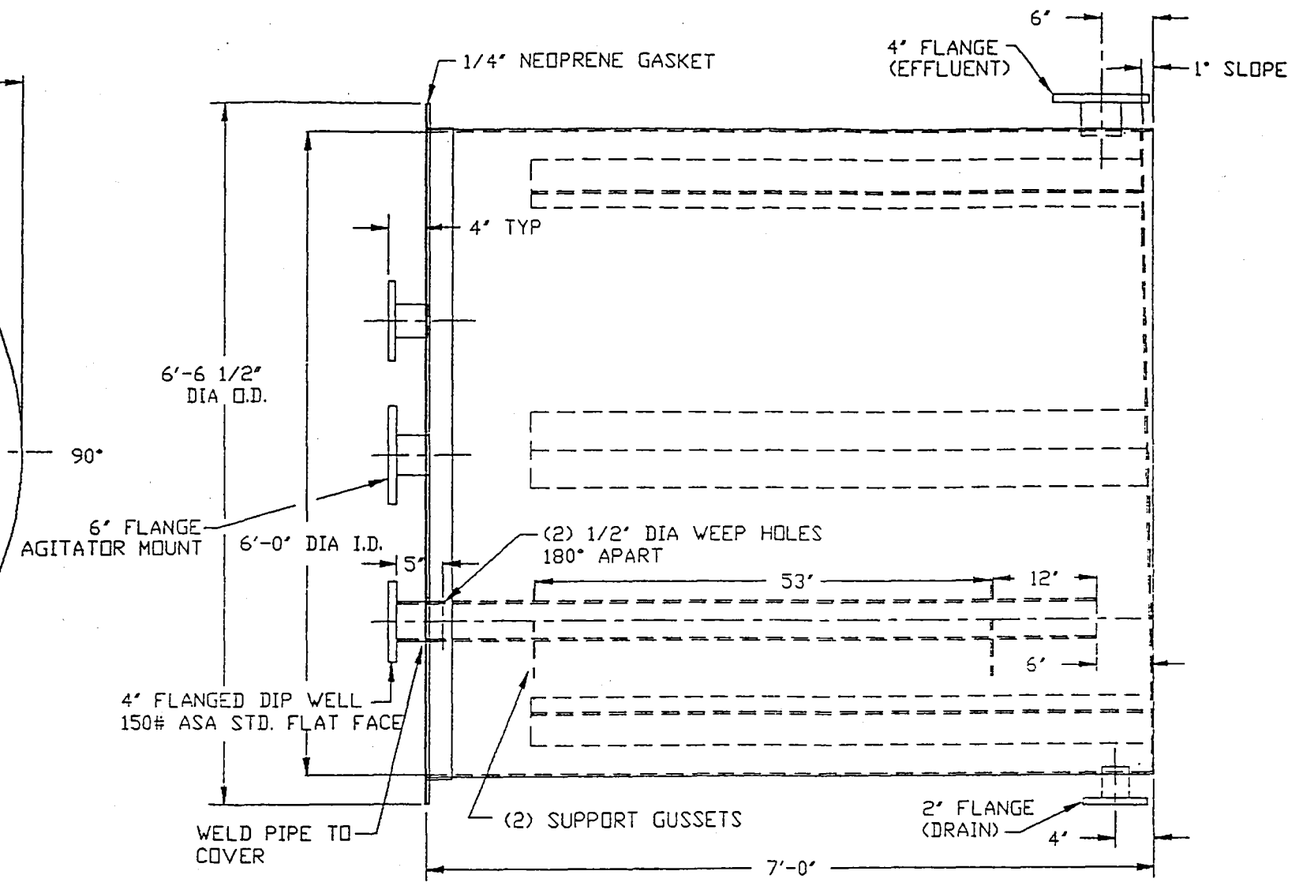
Dwn. By: CK | Date: 11/3/93 | Chk'd. By | Date | Appr'd By | Date

Scale: 1 1/2'=1'-0' | Sheet No. | No. Of Sheets | Dwg. No.: DAT0577-2-28 | Rev. A

KB [IM I-EVAL&REC]__
mlv.11.94

Revisions				
Sym.	Description	Auth.No.	Name	Date
A	ADDED CPLG DIMS		CK	1/3/94





NOTES: 1) TANK MATERIAL: 1/4" CARBON STEEL EQUAL TO ASTM A-36-89 OR BETTER
2) TANK VOLUME: 1480 GALLONS
3) TANK TO BE SANDBLASTED, PRIMERED AND EPOXY PAINTED
4) EXTERIOR COAT TO BE MINIMUM DRY FILM THICKNESS 3 MILS
5) INTERIOR COAT TO BE MINIMUM 5 MILS DRY FILM THK. SUITABLE FOR pH RANGE 6 TO 10.
6) ALL WELDING TO BE DONE BY AWS CERTIFIED WELDERS TO AWS D1.1 SPECIFICATIONS
7) ALL COUPLINGS TO BE RATED 3000 LBS., ALL FLANGES TO BE 150 LBS. ASA STANDARD RAISED FACE FLANGE

Item No.	Order Qty.	Part Number	Description	Remarks

Next Asm'y

CAD Filename: 05772030

Phase | Task

UNLESS OTHERWISE SPECIFIED ALL TOLERANCES WILL BE: Dec. ±.005, Frac. ±1/64, Angles ±1/2°

DRS Diversified Remediation Southeast, Inc.

KINGS BAY SUBMARINE BASE

TITLE: EQUALIZATION TANK 6'-0"Ø X 7'-0" H

ABB TALLAHASSEE, FL

Dwn. By: CK | Date: 11/17/93 | Chk'd. By | Date | Appr'd By | Date

Scale: 1 1/2"=1'-0" | Sheet No. | No. Of Sheets | Dwg.No.: 930577-20-30 | Rev.: A

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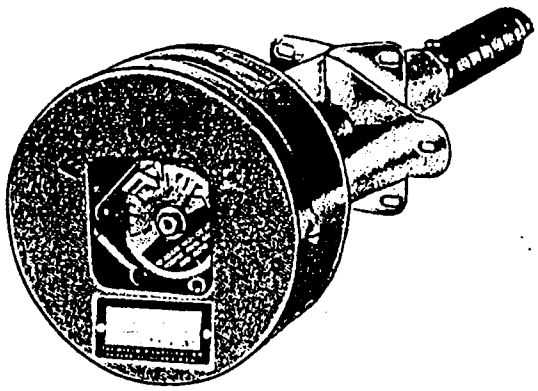
Mercoid® Series M-51, M-53 Air Type Temperature Controls Installation Instructions

CAUTIONS: Do not twist the bi-metal as it may permanently distort. Check nameplate on control case and make certain that the load to be handled is within designated rating. Do Not oil any parts. At no time should the control be subjected to temperatures higher than maximum shown on the nameplate or graduated scale. Mount in a vibration free area.

LOCATION: After proper location has been determined, cut a 2-3/8" or 2-1/2" dia. hole. Place the flange against the hole and in the correct position mark and punch the holes for the sheet metal screws provided. Do not tighten flange until instrument is level.

LEVELING: Mount control so the cover screws "A" are horizontal. Separate the High and Low adjustable pointers "C" and "D". See illustration No. 1. If switch remains either to left or right after tilting with finger, the instrument is ready to be secured to flange.

SETTING: Hold the ratchet wheel with one hand, while pressing and moving either the "High" or "Low" pointers. By doing this, the catch between the teeth of the ratched wheel disengage. See Illustration No. 2. When releasing the pressure be certain that the catch is engaged.



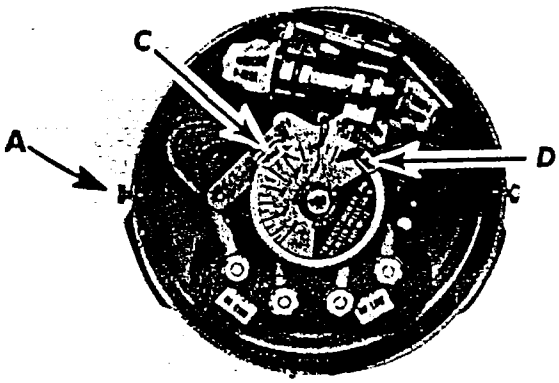


Illustration No. 1

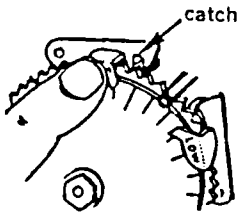


Illustration No. 2

SEMI-AUTOMATIC with MANUAL RESET

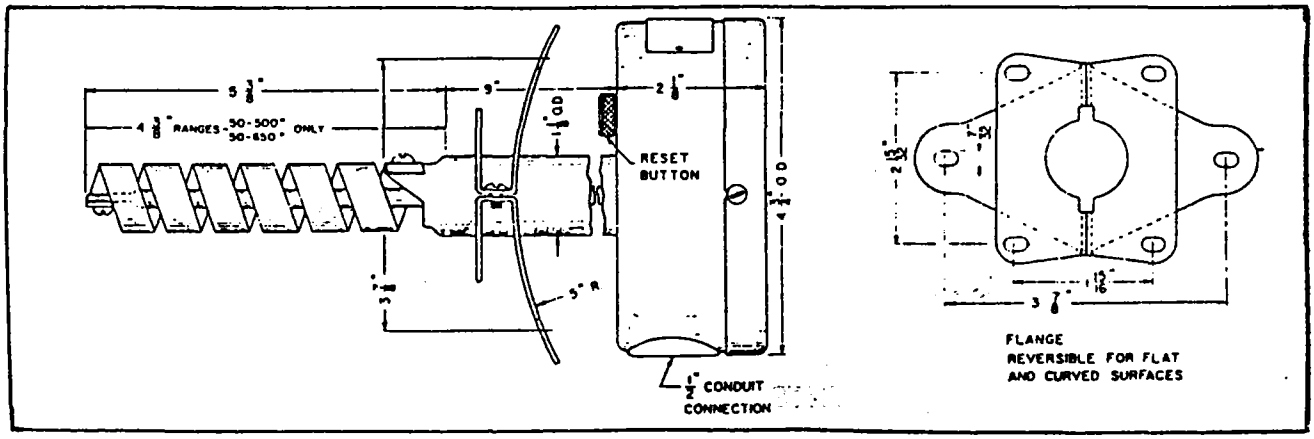
SEMI-AUTOMATIC: These controls operate in one direction only and must be reset to restore to normal position. See Table for semi-automatic operation.

SUMMER SWITCH — TYPE 53 ONLY:
Normally prevents operation of the fan unless the furnace is heated. To operate the fan for ventilating purposes, turn the knob on the back of the case. The control will automatically release and return to normal operation when the furnace is heated.

WIRING: Follow local codes. Use a short strip of BX to relieve control of conduit expansion and contraction. Do not tamper with switch wires. Position of these wires is essential to proper switch operation. Tampering with these wires will void warranty.

• OPERATING RANGES — DIFFERENTIALS •

——— See Reverse Side ———



OPERATING RANGES/DIFFERENTIALS,

SERIES M-51 & M-53

SPST—Fully Automatic

Type	Range No.	Switch Action on Temp. Rise	Adj. Range °F	Min. Diff. °F	Dimensions (In.)	
					A	B
M-51	74	OPENS	50-500	20	4-3/8	9
M-51	71	OPENS	25-125	12	5-3/8	9
MX-51	75	OPENS	50-650	20	4-3/8	9
M-53	74	CLOSES	50-500	20	4-3/8	9
MX-53	75	CLOSES	50-650	20	4-3/8	9

SPST—Semi-Automatic With Manual Reset

Type	Range No.	Adj. Range °F	Min. Diff. °F	Circuit Sequence		Dimensions (In.)	
				Auto.	Man.	A	B
M-51R	71	25-125	12	OPEN on rise	CLOSE	5-3/8	9
M-51R	74	50-500	20	OPEN on rise	CLOSE	4-3/8	9
MX-51R	75	50-650	20	OPEN on rise	CLOSE	4-3/8	9
M-51RL	74	50-500	20	CLOSE on drop	OPEN	4-3/8	9
MX-51RL	75	50-650	20	CLOSE on drop	OPEN	4-3/8	9
M-53R	74	50-500	20	CLOSE on rise	OPEN	4-3/8	9
MX-53R	75	50-650	20	CLOSE on rise	OPEN	4-3/8	9
M-53RL	74	50-500	20	OPEN on drop	CLOSE	4-3/8	9
MX-53RL	75	50-650	20	OPEN on drop	CLOSE	4-3/8	9

ELECTRICAL RATING (ALL TYPES)

AC or DC, 10A @ 120V, 5A @ 240. Motor rating 120/240V AC, Single-phase, 3/4 HP; 120/240V DC, 1/3 HP.

Mercoid®
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MERCOID DIVISION
DWYER INSTRUMENTS, INC.
P.O. BOX 258
MICHIGAN CITY, IN 46360 (USA)
PHONE 219/879-8000 FAX 219/872-9060

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FR 93-441857-00

GRUNDFOS®

The "BOSS" Stainless Steel Submersible Sump Pump

Models 200 & 300

Submittal Data

3350 RPM 60 Cycle

JOB or CUSTOMER:

ENGINEER:

CONTRACTOR:

SUBMITTED BY: DATE:

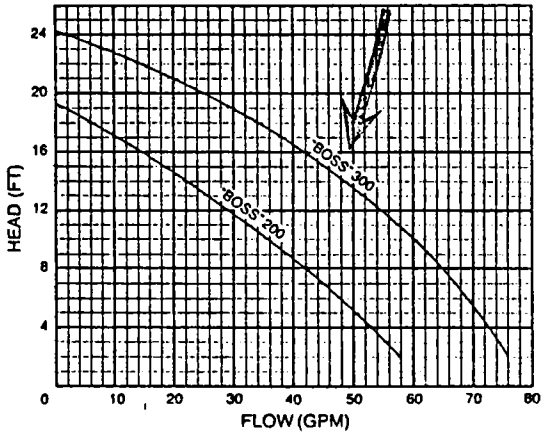
APPROVED BY: DATE:

ORDER NO.: DATE:

SPECIFICATION REF.:

QUANTITY	TAG NO.	MODEL NO.	GPM	FEET	VOLT	PHASE	COMMENT
					115	1	
					115	1	
					115	1	

Performance Curve



Technical Data

UL Listed, CSA Approved.

Flow Range: 0.5-75 US GPM

Temperature Range: 32° – 95°F (0° – 35°C) Continuous
32° – 122°F (0° – 50°C) Intermittent
(Totally submerged)

Min. Pumping Level: ½ Inch

Max. Solid Size: ⅜ Inch

Applications

Use for:
- Clear or dirty sump water
- Gray water and waste water
- Draining ponds, pits and tanks
- De-watering
- Light chemical mixing*

Do not use for:
- Raw sewage
- Flammables
- Highly corrosive liquids

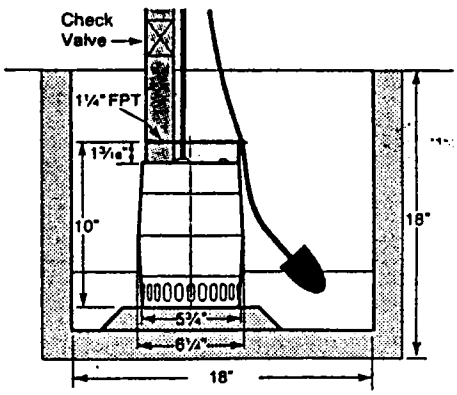
*Flush after use

Electrical Data, Dimensions, and Weights

Model	HP	Ph.	Volts	Watts	Amps	Disc. Size	Shipping Weight (lbs)**	Shipping Vol. (Cu Ft)
The Boss 200	⅓	1	115	710	6.3	1¼	16	.5
The Boss 300	½	1	115	920	9.0	1¼	17½	.5

**Not including float switch (1 ½ lbs.)

Dimensions/Installation



Power cord length: 10 ft. std. (25 ft. optional).
Optional float switch length: 10' and 25' available.
18" sump size recommended for best operation of wide angle mercury float switch.

Construction Materials

Stainless Steel:

AISI 304 S.S.:	Suction, Discharge and Intermediate Chambers, Impeller, Terminal Box Cover
AISI 431 S.S.:	Shaft
Noryl®:	Wearplate, Terminal Box, Pump Handle
Compounded Carbon:	Bearings
NBR:	Seal Rings, O-Rings
Neoprene:	Power Cord Jacket, Optional Float Switch Jacket

Noryl® is a registered trademark of General Electric Company.

GRUNDFOS PUMPS CORP. • 2555 CLOVIS AVE. • CLOVIS, CA 93612 • (209) 292-8000 • TELEX: 35-5353 • FAX: (209) 291-1357

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KP TL 100 7/90
PRINTED IN USA

"The Boss"

High-Capacity • All Stainless Steel

Sump & Utility Pumps

"The Boss" Sump Pumps

Model	Description	HP	Volts	Watts	Amps	Shipping Wt. (lbs)	Shipping Carton LxWxH (in)	Packing Vol. (Cu Ft)	Order Number
"The Boss" 210-A	Automatic stainless steel sump pump with 10-ft. cord and 10-ft. piggyback mechanical float switch	1/3	115	710	6.3	18	10-1/2x6-1/2x12-3/4	.5	01 21 62 03P
"The Boss" 225-A	Automatic stainless steel sump pump with 25-ft. cord and 25-ft. piggyback mechanical float switch	1/3	115	710	6.3	19	10-1/2x6-1/2x12-3/4	.5	01 21 62 07P
"The Boss" 310-A	Automatic stainless steel sump pump with 10-ft. cord and 10-ft. piggyback mechanical float switch	1/2	115	920	9.0	20	10-1/2x6-1/2x12-3/4	.5	01 21 63 03P
"The Boss" 325-A	Automatic stainless steel sump pump with 25-ft. cord and 25-ft. piggyback mechanical float switch	1/2	115	920	9.0	21	10-1/2x6-1/2x12-3/4	.5	01 21 63 07P

"The Boss" Utility Pumps

Model	Description	HP	Volts	Watts	Amps	Shipping Wt. (lbs)	Shipping Carton LxWxH (in)	Packing Vol. (Cu Ft)	Order Number
"The Boss" 210-M	Manual stainless steel utility pump with 10-ft. cord	1/3	115	710	6.3	17	10-1/2x6-1/2x12-3/4	.5	01 21 62 03
"The Boss" 225-M	Manual stainless steel utility pump with 25-ft. cord	1/3	115	710	6.3	18	10-1/2x6-1/2x12-3/4	.5	01 21 62 07
"The Boss" 310-M	Manual stainless steel utility pump with 10-ft. cord	1/2	115	920	9.0	19	10-1/2x6-1/2x12-3/4	.5	01 21 63 03
"The Boss" 325-M	Manual stainless steel utility pump with 25-ft. cord	1/2	115	920	9.0	20	10-1/2x6-1/2x12-3/4	.5	01 21 63 07

Performance Table

Model	HP	Total Head										
		4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'
		Flow (GPM)										
"The Boss" 200	1/3	53	47	41	35	28	22	13	5			
"The Boss" 300	1/2	72	69	64	60	56	48	40	33	23	13	2

Certified by CSA and Listed by Underwriter's Laboratories

Universal Replacement Float Switches

Switch	Description	Cord Length	Approx. Ship. Wt. (lbs./oz.)	Order Number
FS-10	Wide angle mechanical float switch, piggyback design, boxed	10'	1 lb. 5 oz.	ID3799
FS-25	Wide angle mechanical float switch, piggyback design, boxed	25'	3 lbs.	ID3800

KP SL 001 | Rev. 8/93
PRINTED IN USA

GRUNDFOS®
GRUNDFOS PUMPS CORPORATION
2555 Clovis Avenue • Clovis, CA 93612 • (209) 292-8000 • FAX (800) 347-1357
Northern Support Center: Allentown, PA (215) 266-0333 • FAX (215) 266-0446
Southern Support Center: Atlanta, GA (404) 696-9844 • FAX (404) 691-6821

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BOSS SUBMERSIBLE SUMP PUMP

Installation and Operating Instructions

GRUNDFOS®

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General Data

INSPECTION

Examine the pump carefully to make sure no damage has occurred during shipment.

The Grundfos BOSS pump should remain in its shipping carton until it is ready to be installed. This carton is especially designed to protect it from damage. During unpacking and prior to installation, **care should be taken to ensure the pump is not dropped or mishandled.**

TEMPERATURE AND PRESSURE LIMITS

Liquid temperature: Minimum 32°F
Maximum: 95°F Partly or fully submerged

A liquid temperature of up to 120° F is allowed for short periods, (5 minutes), providing the pump is completely submerged. Do not store or transport the pump at a temperature lower than -5°F.

APPLICATIONS

The Grundfos BOSS pump is a single-stage submersible pump suitable for pumping waste water. The pump is suitable for drainage of cellars or buildings prone to flooding, pumping of waste water from sinks, baths, showers etc., up to sewer level. Dewatering of sites or excavations, emptying swimming pools, ponds or tanks, or the pumping of water for fountains.

The pump is capable of pumping water which contains solids up to 3/8" in diameter. The pump is not suitable for pumping:

- Sewage.
- Liquids containing long fibers.
- Liquids containing solid particles, larger than 3/8" diameter.
- Inflammable liquids.
- Aggressive liquids.

Note: If the pump has been used for very dirty or chlorinated water it should be flushed thoroughly with clean water after use.

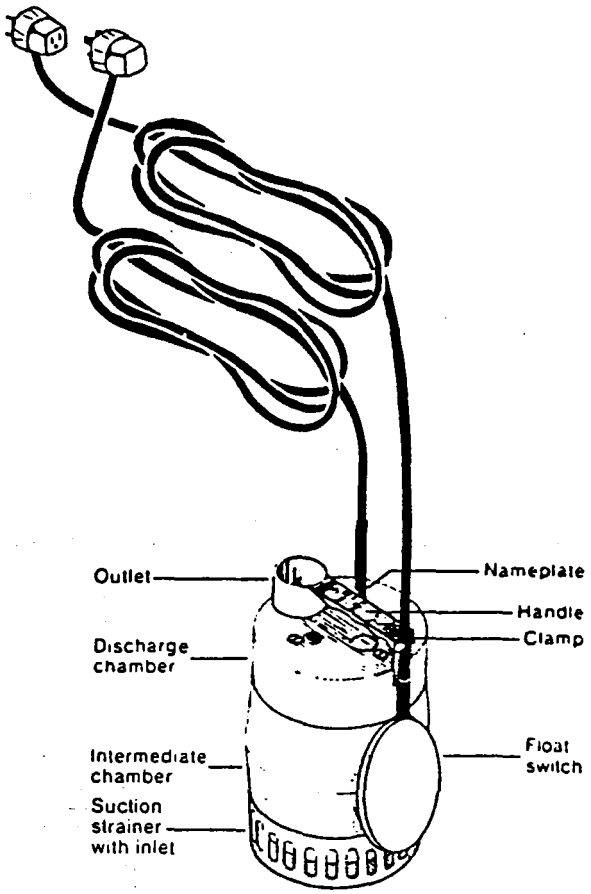
PIPE CONNECTION

Steel or rigid plastic pipe can be screwed directly into the 1¼ inch NPT pump discharge port. For permanent installation a union fitting at a convenient point is recommended to facilitate ease of removal for cleaning and servicing.

For portable or temporary installations, plastic discharge pipe can be used in conjunction with a suitable screwed/hose connector.

Removal of the pump should be by a cable secured to the pump handle and not by the discharge pipework.

Screwed threads should be sealed using Teflon® tape.
Teflon® is a registered trademark of Dupont.



CHECK VALVE

It is recommended that a check valve be fitted in the discharge pipe close to the pump.

PUMP LOCATION

Cable secured to the pump handle is recommended for installation and removal of the pump.

Avoid whenever possible lowering or lifting the pump by the discharge pipework or hose.

Do not lower or lift the pump by means of the electric cord.

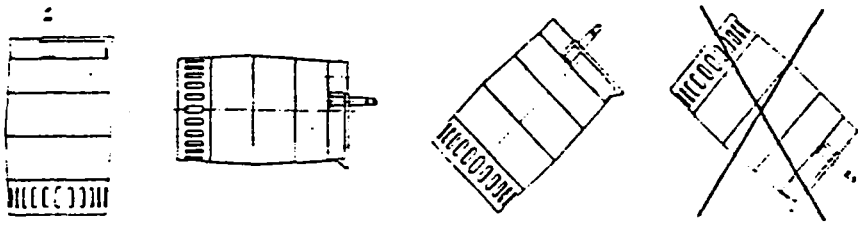
Before positioning the pump, make sure that the strainer will not be blocked or partly blocked by silt, mud or similar materials. This can be avoided by positioning the pump on bricks or a concrete pad.

The BOSS can be used in the following positions:

- Vertical
- Horizontal
- Tilted

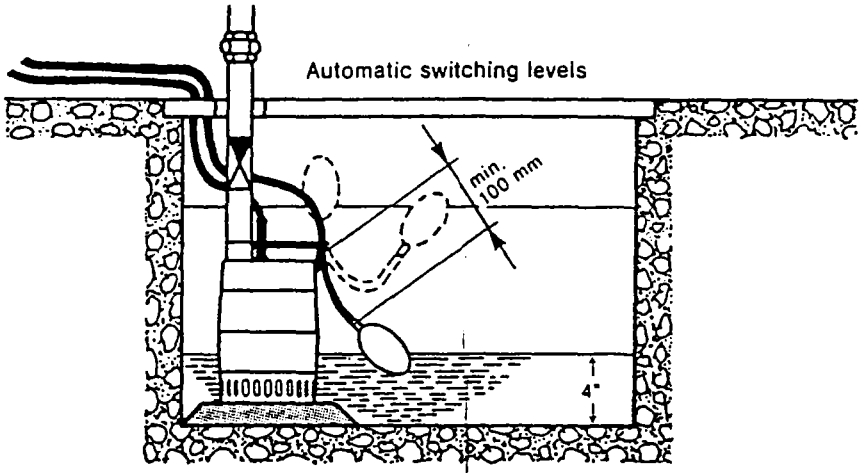
When being used in the horizontal position, the pump must be completely covered by the liquid.

When the pump is installed in a permanent installation, a check valve must be fitted in the discharge pipe to prevent possible cycling.



ADJUSTMENTS OF FLOAT SWITCH

An optional float switch can automatically turn the pump on and off. When a float switch is supplied and fitted to the pump, switching adjustment is possible by repositioning the float switch in the handle of the pump. The free cable length must always be at least 100 mm. The sketch shows typical switching levels. For manual operation the cord must be secured to the handle with the switch above the level of the pump, as shown in the diagram. In this position the pump runs continuously.



Minimum drain depth (manual operation) 1/2"

Electrical Connection

The operating voltage and other electrical data are marked on the motor label. Please make sure that the motor is suitable for the electricity supply on which it will be used. All electrical cords must be of an adequate size to prevent any drop in the supply voltage. All BOSS models have built-in thermal overload motor protection which resets automatically.

This pump is supplied complete with power cord. When fitted, the automatic float switch is connected between the pump power cord and the power supply.

Wiring of the pump should be in accordance with NEC regulations for permanent or temporary installations, whichever is applicable.

Warning:

To reduce the risk of electric shock, use only on portable self-contained fountains no larger than 5 feet in any dimension.

The safe operation of this pump requires that it be grounded in accordance with National Electric Code and local governing codes or regulations.

Starting

Before starting the pump, check:

1. Whether the pump is submerged in liquid. During normal operation, the strainer of the pump must be below the surface of the liquid.
2. Whether the pump is positioned on a base so that the strainer is not blocked by silt, mud or similar materials.
3. Whether the pipe/hose connection is tight.
4. Whether the discharge pipe is open (bend of hose etc.).
5. Whether the pump is connected to the electricity supply in accordance with the instructions.
6. Check float switch for free movement.
7. Switch on and check that the pump operates satisfactorily, that water is being discharged and the pump operates through the control sequence.
8. The float switch will allow the pump to pump down to a level of approximately 4". To pump out below this level secure the switch in the manual position. See adjustment of float switch.

NOTE: Switch off pump immediately after it stops pumping water. It is not recommended to run the pump dry.

Operation & Maintenance

Under normal operating conditions, the pump is maintenance-free.

If the pump has been used for liquids containing particles which may settle in the pump, it should be flushed thoroughly with clean water immediately after use. It is advisable always to flush the pump after use.

CLEANING THE PUMP

If the pump does not deliver a sufficient quantity of water because of sediment, dismantle and clean the pump.

The dismantling of the pump is carried out as follows:

Disconnect the electricity supply and allow the pump to drain.

1: Insert a screwdriver through one of the holes of the strainer until it touches the wear plate and press it downwards (towards the bottom). Repeat the procedure until the strainer is free and can be removed. (Fig 1)

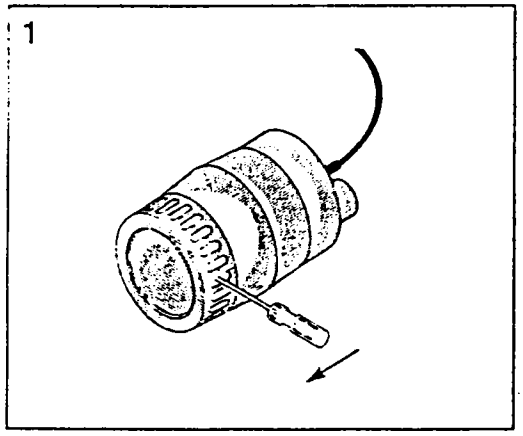
2: Remove the three screws holding the wear plate and remove the plate. (Fig 2)

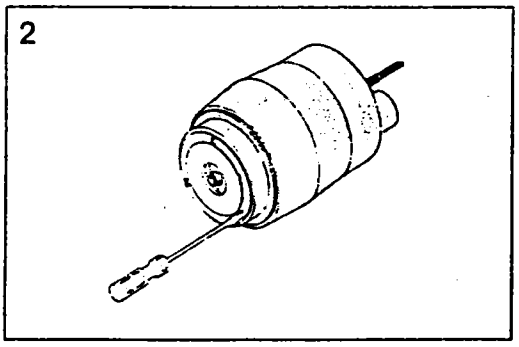
3: Loosen and remove the nut on the motor shaft (13 mm). To prevent the impeller from rotating when the nut is loosened, insert a screwdriver between the blades of the impeller and the sand shield in the impeller housing. (Fig 3)

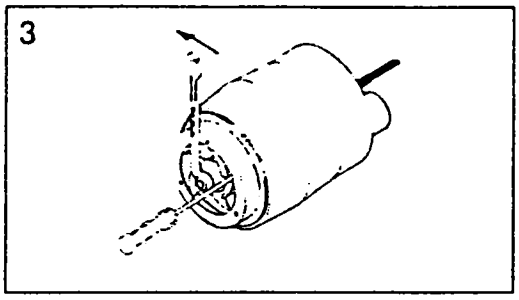
Remove the impeller. If the impeller sticks, use a pair of pliers or two screwdrivers to free the impeller from the shaft.

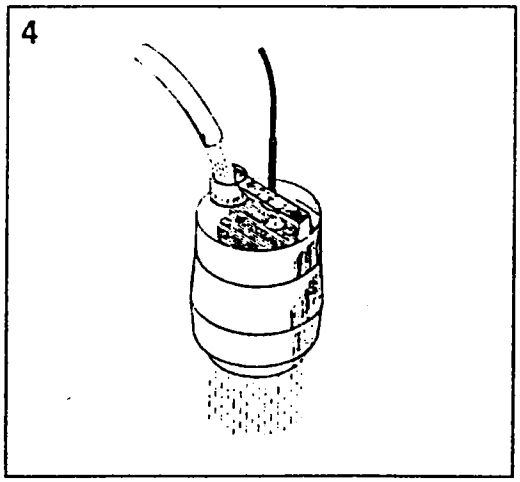
4: Clean all parts and flush the pump with water through the discharge port to remove possible impurities between the motor and the intermediate chamber. Check the impeller, if it is worn/defective. If the wear plate is worn, turn it over so that the opposite side points towards the impeller. If the plate has been turned over already, or it is defective, replace it. (Fig 4)

Assemble pump in reverse order of dismantling.

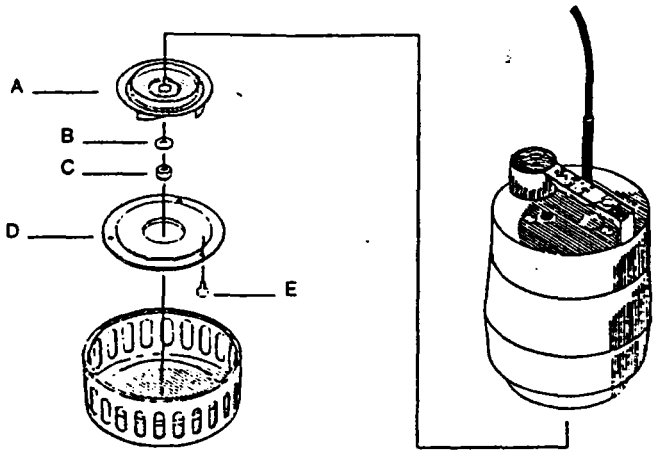








A. Impeller
B. Washer
C. Lock Nut
D. Wear Plate
E. Screw



TROUBLESHOOTING CHART

FAULT	CAUSE
1. Motor does not start.	a) Supply failure. b) Position of float switch too low. c) Fuses are blown. d) Thermal relay has cut out the electricity supply to the motor (see "Electrical Connection").
2. Thermal relay trips out after short time of operation.	a) Temperature of pumped liquid higher than that stated under "Temperature Limits". b) Pump partly blocked by particles (see "Operation and Maintenance"). c) Pump mechanically locked (see "Operation and Maintenance").
3. Pump runs but gives insufficient water.	a) Strainer partly blocked by particles. b) Pump partly blocked by particles (see "Operation and Maintenance"). c) Discharge pipe partly blocked. Check the check valve, if fitted. d) Check the wear plate and the impeller for wear (see "Operation and Maintenance").
4. Pump runs but gives no water.	a) Strainer blocked by particles. b) Pump partly blocked by particles. (see "Operation and Maintenance"). c) Check valve, if fitted, in discharge pipe stuck in closed position. d) Liquid level is too low. During starting, the liquid level must be above the strainer.

LIMITED WARRANTY

Products manufactured by GRUNDFOS are warranted to the original user only to be free of defects in material and workmanship for a period of 18 months from date of installation, but not more than 24 months from date of manufacture. GRUNDFOS' liability under this warranty shall be limited to repairing or replacing at GRUNDFOS' option, without charge, F.O.B. GRUNDFOS' factory or authorized service station, any product of GRUNDFOS manufacture. GRUNDFOS will not be liable for any costs of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim. Products which are sold but not manufactured by GRUNDFOS are subject to the warranty provided by the manufacturer of said products and not by GRUNDFOS' warranty. GRUNDFOS will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with GRUNDFOS' printed installation and operating instructions.

To obtain service under this warranty, the defective product must be returned to the distributor or dealer of GRUNDFOS products from which it was purchased together with proof of purchase and installation date, failure date, and supporting installation data. Unless otherwise provided, the distributor or dealer will contact GRUNDFOS or an authorized service station for instructions. Any defective product to be returned to GRUNDFOS or a service station must be sent freight prepaid; documentation supporting the warranty claim and/or a Return Material Authorization must be included if so instructed.

GRUNDFOS WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, OR EXPENSES ARISING FROM INSTALLATION, USE, OR ANY OTHER CAUSES, THERE ARE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THOSE WARRANTIES DESCRIBED OR REFERRED TO ABOVE.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages and some jurisdictions do not allow limitations on how long implied warranties may last. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from jurisdiction to jurisdiction.

Subject to alterations.

50 EX 01 006 01 91	USA
Repl. 50 EX 01 006 10 90	

GRUNDFOS®

GRUNDFOS PUMPS CORPORATION
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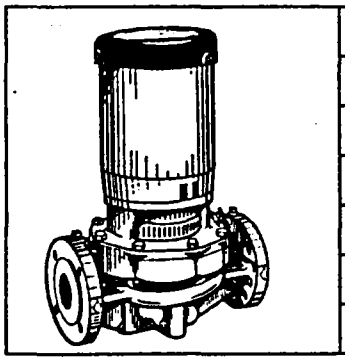
GRUNDFOS®

Direct Coupled
In-Line, Single Stage,
Circulator Pump

Series 7000
UMT/UPT
65

Submittal Data

60 Hertz



JOB or CUSTOMER:	
ENGINEER:	
CONTRACTOR:	
SUBMITTED BY:	DATE:
APPROVED BY:	DATE:
ORDER NO.:	DATE:
SPECIFICATION REF.:	

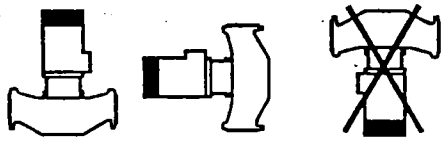
QUANTITY	TAG NO.	MODEL NO.	GPM	FEET	VOLT	PHASE	COMMENTS

Technical Data

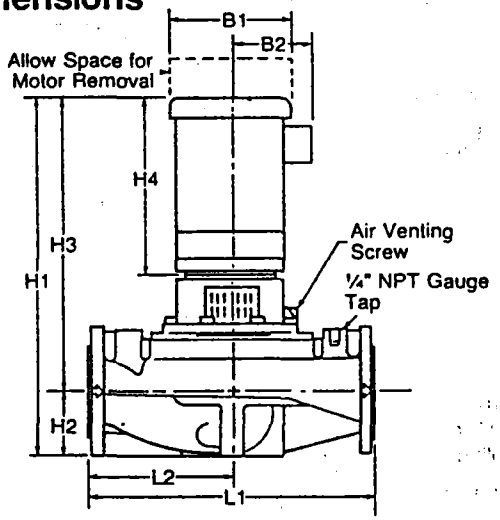
FLOW RANGE: 15 to 150 U.S. GPM
MIN FLOW RATE: 15 U.S. GPM
HEAD RANGE: 3 to 55 Ft. (.9 to 17m)
MAXIMUM WORKING PRESSURE: 145 PSI
TEMPERATURE RANGE: 5°F to 250°F (-15°C to 121°F)

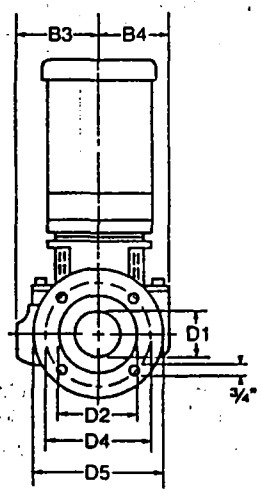
FLANGE RATING: 2½" ANSI 125lb., R.F.
MOTORS: ODP – Standard
TEFC – Optional

Mounting Positions



Dimensions





Type Designation

UMT65-40

- Circulator Pump
- M=4-Pole Motor
- P=2-Pole Motor
- Direct coupled in-line pump
- Nominal diameter of ports in mm.
- Maximum head in meters x 10

Weights

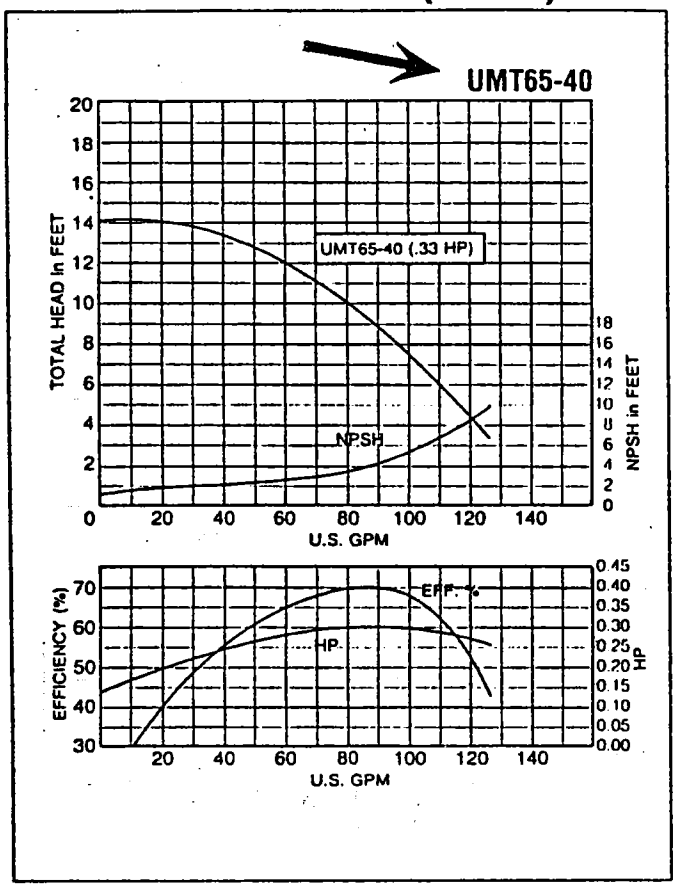
PUMP TYPE	HP	PH	NET WT. (LBS.)	SHIP WT. (LBS.)	SHIP VOL (CU.FT.)
UMT 65-40	.33	1 3	68 64	72 70	2.6
UMT 65-80	.75	1 3	80 73	88 81	2.6
UMT 65-160	2.0	1 3	92 83	96 87	2.6

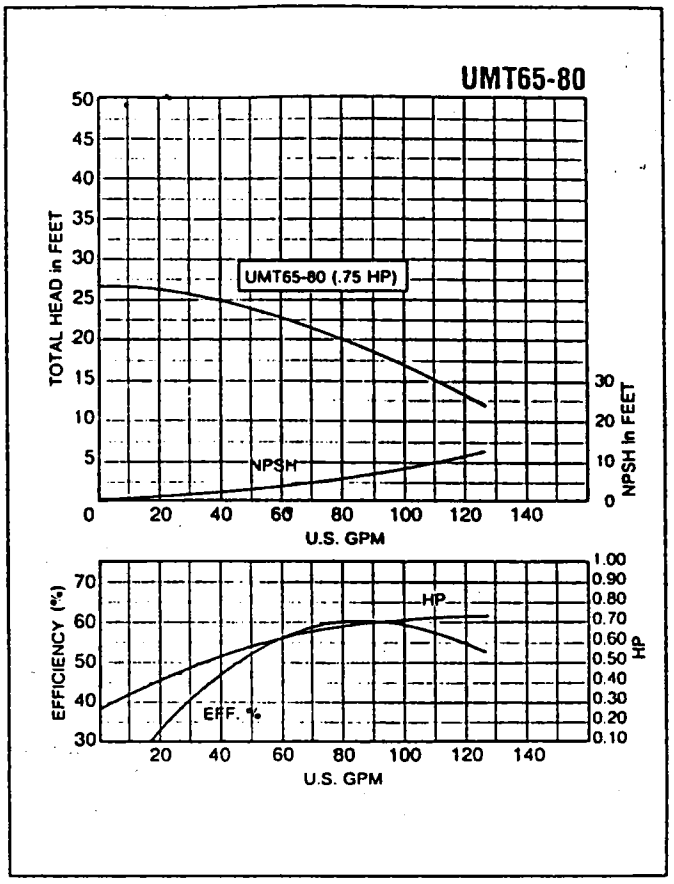
Electrical Data and Dimensions

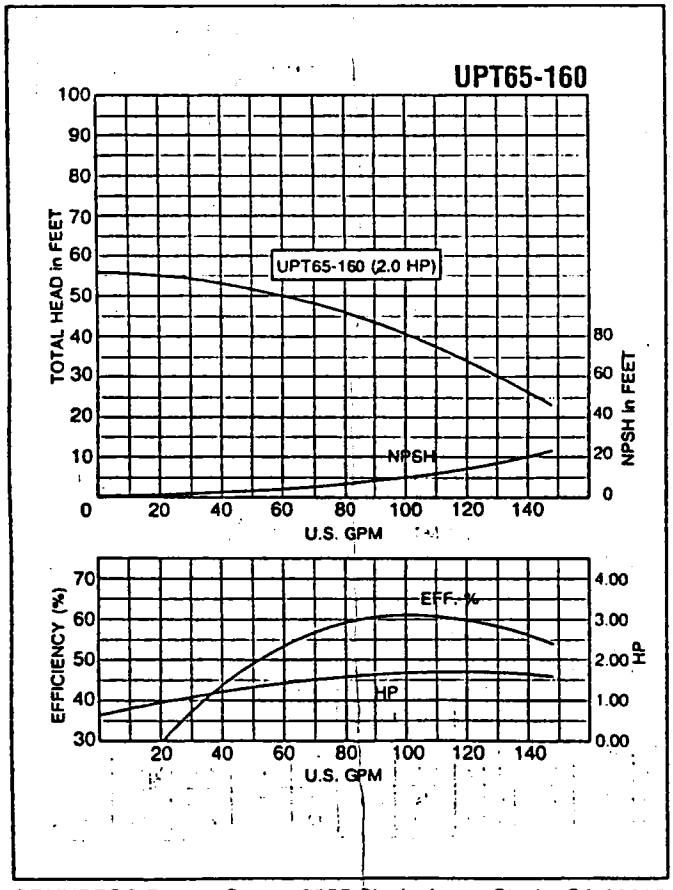
PUMP TYPE	HP	MOTOR SERVICE FACTOR	PH.	VOLTS	NEMA FRAME SIZE	DISCHARGE SUCTION SIZE	DIMENSIONS IN INCHES													
							H1	H2	H3	H4	D1	D2	D4	D5	L1	L2	B1	B2	B3	B4
UMT65-40	.33 .33	1.35 1.35	1 3	115/208-230 208-230/460	56C 56C	2½ 2½	19 17⅝	3 5/16 3 5/16	15 11/16 14 5/16	9⅜ 8	2½ 2½	4 15/16 4 15/16	5½ 5½	7 1/16 7 1/16	12 12	6 6	6⅛ 6⅛	4½ 4⅜	4¾ 4¾	3⅜ 3⅜
UMT65-80	.75 .75	1.15 1.25	1 3	115/230 208-230/460	56C 56C	2½ 2½	19½ 17⅞	3 5/16 3 5/16	16 5/16 14 9/16	10¼ 8⅝	2½ 2½	4 15/16 4 15/16	5½ 5½	7 1/16 7 1/16	12 12	6 6	7 3/16 6⅛	5¼ 4⅜	5 5	4 4
UMT65-160	2.0 2.0	1.15 1.15	1 3	115/208-230 208-230/460	56C 56C	2½ 2½	20½ 19½	3 5/16 3 5/16	17 3/16 16 5/16	11¼ 10¼	2½ 2½	4 15/16 4 15/16	5½ 5½	7 1/16 7 1/16	12 12	6 6	7 3/16 7 3/16	5¼ 5¼	5 5	4 4

NOTE: Data for Baldor O.D.P. motors.

Performance Curves (60 Hz)







Materials of Construction

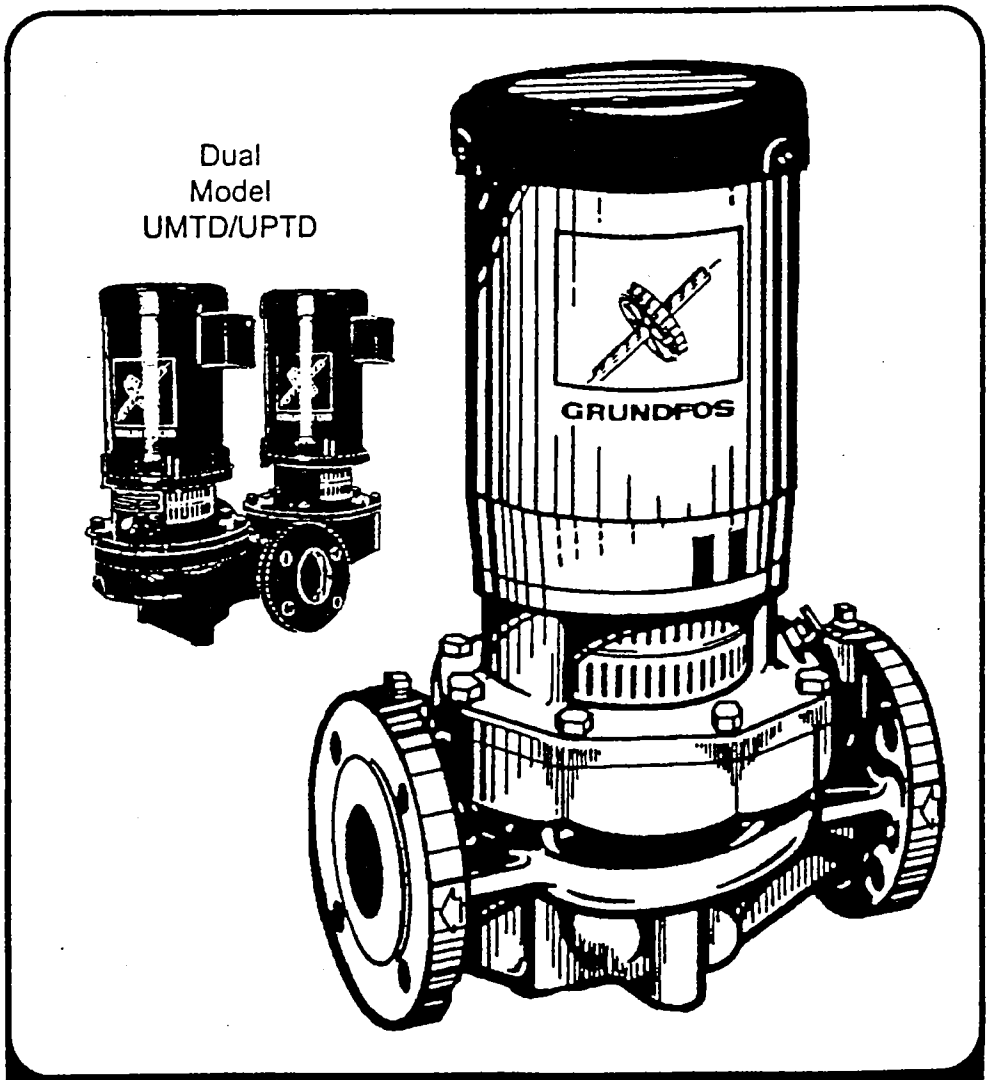
DESCRIPTION	MATERIALS
Upper Seal Driver	AISI 304 SS
Lower Seal Driver	AISI 304 SS
Sealing Plate	AISI 304 SS
Distributing Cup	AISI 304 SS
Impeller	AISI 304 SS
Impeller Seal Ring	AISI 304 SS
Split Cone and Nut	AISI 304 SS
Coupling Guard	AISI 304 SS
Spring	AISI 301 SS
Pump Shaft	AISI 431 SS
Mechanical Shaft Seal Faces	Tungsten Carbide
Pump Housing*	Cast Iron
Motor Stool*	Cast Iron
Coupling	Cast Iron
Air Vent Screw	Brass
O-rings	EPDM Rubber

* Bronze – optional

Series 7000

UMT/UPT, Direct Coupled In-Line Single Stage Circulator Pumps

Installation and Operating Instructions



Please leave these instructions with the pump for future reference.

SAFETY WARNING

Electrical Work

All electrical work should be performed by a qualified electrician in accordance with the latest edition of the National Electrical Code, local codes and regulations.

Shock Hazard

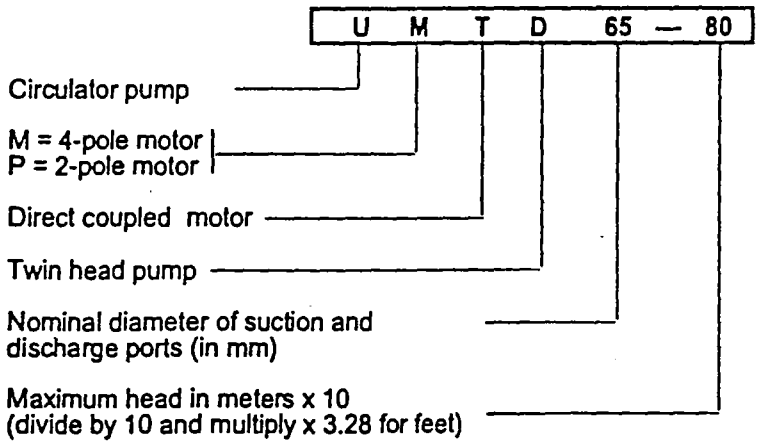
A faulty motor or wiring can cause electrical shock that could be fatal, whether touched directly or conducted through standing water. For this reason, proper grounding of the pump to the power supply's grounding terminal is required for safe installation and operation. The ground wire should be a copper conductor at least the size of the circuit conductors supplying power to the motor. Do not ground to a gas supply line.

In all installations, the above-ground metal plumbing should be connected to the power supply ground as described in Article 250-80 of the National Electrical Code.

Pre-Installation Checklist

1. Confirm You Have the Right Pump

Read the pump nameplate to make sure it is the one you ordered. The nomenclature for the Series 7000 line of Grundfos pumps is:



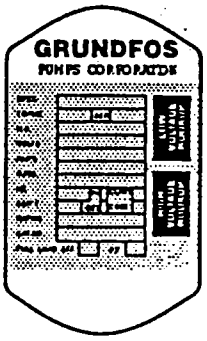
2. Check the Condition of the Pump

The Series 7000 shipping carton is designed around your pump during production to prevent damage. The pump should remain in the carton until you are ready to install it. At that point, examine the pump for any visible damage that may have occurred during shipping.

Pre-Installation Checklist

3. Electrical Requirements

Check the motor nameplate to determine the proper voltage, phase, and frequency required. The voltage must be within ± 10% of the specified motor nameplate voltage. Dual voltage motors must be internally wired to match the electrical supply. A wiring connection diagram is affixed to the motor.



Nameplate Wiring Diagram
(in this case, for dual voltage motor)

4. Is the Application Correct for This Pump ?

Compare the pump's nameplate data or its performance curve with the application in which you plan to install it. Will it perform the way you want it to perform? Also, make sure the application falls within the following limits:

- Approved applications
  - Open or closed water systems
  - Chilled or hot glycol solutions up to 50% by volume
  - Condenser or cooling tower circulation
  - Solar thermal fluids

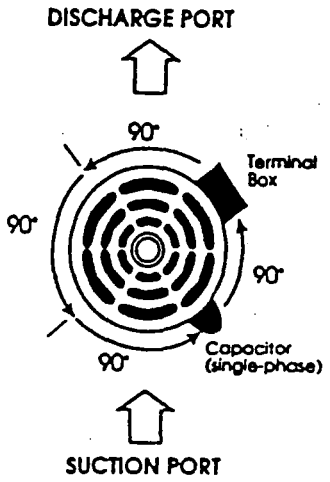
- Temperature range
  - Minimum +5°F (-15°C)
  - Maximum 250°F (121°C)

- Maximum working pressure: 145 PSI (10 bars)

5. Read this Guide Thoroughly

Even if you are very familiar with the installation of this pump, a quick glance through the remaining sections of this guide may help you avoid a potential problem.

1. Electrical Preparation



Terminal Box Position

Before installing the pump, you must determine the most convenient position for the terminal box, which can be rotated in 90° increments. To rotate the terminal box, remove the four bolts securing the motor to the pump, lift and rotate the motor, and retighten the bolts.

Single-phase motors

These motors are multi-voltage with built-in automatic resetting thermal protection to prevent overheating.

Three-phase motors

A motor starter is required to ensure the motor is protected from damage caused by low voltage, phase failure, current imbalance, and overloads.

Motor starter – should be properly sized, have a manual reset, and ambient-compensated extra quick trip in all three legs.

Overload – should be sized and adjusted to trip at the full-load current rating of the motor. If the motor is lightly loaded, the overload should be re-sized or adjusted to a lower value. **Under no circumstances should the overloads be set to a higher value than the full load current shown on the motor nameplate.** Overloads for auto transfers and resistant starters should be sized in accordance with the recommendations of the manufacturer.

Fused disconnect – recommended for each pump where service and standby pumps are installed. An alternating switch should be used so each pump can be equally operated to even the wear.

Other Wiring Considerations

The pump **must** be grounded. Wire sizes should be based on the ampacity (current carrying properties of a conductor) as required by the latest edition of the National Electrical Code or local regulations. In most cases, direct on line (D.O.L.) starting is approved due to the extremely fast run-up time of the motor and the low moment of inertia of the pump and motor. If D.O.L starting is not acceptable, an auto transformer or resistant starter should be used.

2. Piping Considerations

Whenever possible, avoid high pressure-loss fittings (elbows, branch tees, etc) directly on either side of the pump. The pump and piping should be adequately supported on both sides to reduce thermal and mechanical stresses on the pump.

Pipe, valves, and fittings should be at least the same diameter as the discharge pipe to reduce excessive fluid velocities and friction losses. They should also have a pressure rating equal to or greater than the maximum system pressure.

A bypass or pressure relief valve should be installed in the discharge pipe if there is any possibility the pump may operate against a closed valve in the discharge line. Circulation through the pump is required to ensure adequate cooling and lubrication of the pump.

Minimum Pumping Rates:	UMT/UPT 50 ..... 5 GPM
	UMT/UPT 65 ..... 10 GPM
	UMT/UPT 80 ..... 15 GPM

The bypass should be routed back to a heat dissipating source or to drain, depending on the liquid being pumped and local codes.

3. Install the Pump

Pump Location

The pump should be installed in a dry, well ventilated area which is not subject to freezing or large variations in temperature. The pump should never be mounted within six inches of any obstruction or hot surface. Pumps to be installed outdoors or in a dusty environment should be ordered with a totally-enclosed-fan-cooled motor (TEFC) attached to prevent motor failure.

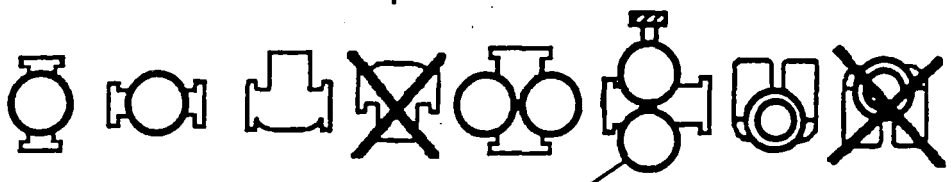
Position In Piping System

Do not mount the pump at the highest or lowest point in the piping system. If the pump is installed at the highest point in the piping system, it may experience reduced performance and increased noise due to air trapped in the pump. If the pump is located at the lowest point in the piping system, the dirt and sediment in the system may collect inside the pump, causing premature wear to the shaft seal.

Installation Procedures

Proper Orientation

Series 7000 UMT/UPT pumps can be mounted either vertically or horizontally, and all positions in between. **However, the motor shaft must never fall below the horizontal plane.**



An air vent must always be installed at the hight point of the pump housing when a dual pump is installed in a horizontal pumping line. Use the 1/8" NPT drain tap.

Direction of Flow for Specific Applications

Arrows on the flanges of the pump volute show the flow direction of water through the pump.

Pumps used to circulate domestic water should ALWAYS be installed in a vertical section of the circulating pipe and pump upwards, and an effective air vent should be used in the same vertical section of pipe. If the pump must be installed in a vertical pipe pumping down, an air vent should be installed at the highest point before the pump.

Suggested Accessories

Isolation valves – should be installed on each side of the pump to avoid having to drain the system if the pump needs to be cleaned or repaired.

Check valve – should be installed in the discharge pipe.

Plugged tee or capped pipe – should be installed in the suction line to fill the pump and pipe before start-up, especially if the system is not pressurized.

Vibration isolators – should be used in noise-sensitive areas to prevent vibration from being transmitted to the structure.

Relief valve of bypass line – should be installed to allow sufficient water to circulate through the pump to provide adequate cooling and lubrication of the pump's bearings and seals.

3. Electrical Hookup

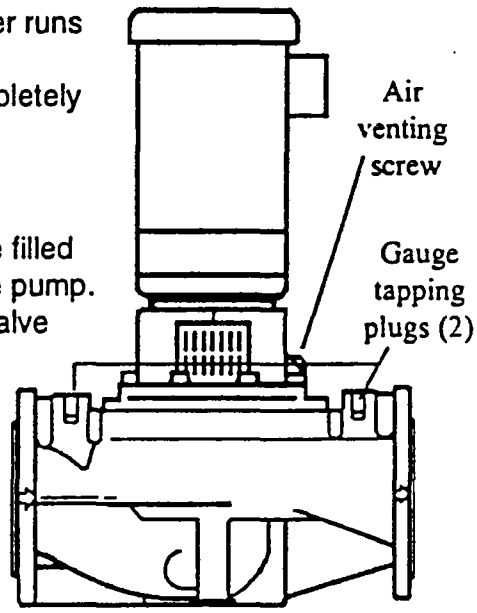
Turn the incoming POWER OFF and make the proper electrical connections according to the diagram on the motor and the latest edition of the National Electrical Code. **Do not start the pump – even to check the direction of rotation – until it has been filled with water.** The pump may be seriously damaged if it is run dry.

Starting the Pump The First Time

1. Prime the Pump

In Closed/Open System Where Water Source Is Above the Pump

1. Close the pump isolation valves and open the air vent screw.
2. Gradually open the suction isolation valve until a steady stream of airless water runs out the air vent hole.
3. Tighten the air vent screw and completely open the isolation valves.



In Open Systems

1. The suction pipe and pump must be filled and vented of air before starting the pump.
2. Close the discharge side isolation valve and open the air vent screw and suction valve.
3. Fill the suction line through the plugged tee or capped pipe (if one is installed). If not possible, remove one of the gauge tapping plugs in the pump flanges and pour water into the hole using a funnel or hose with an adapter.

All air in the pump and suction line must be purged before starting the pump.

2. Check the Direction of Rotation

a. Switch the POWER OFF.
b. Check to make sure the pump has been filled and vented.
c. Remove the coupling guard and rotate the pump shaft to be certain it turns freely. Replace the coupling guard.
d. Verify that the electrical connections are in accordance with the wiring diagram on the motor.
e. Switch the power on and observe the direction of rotation. When viewed from the motor end, the pump should rotate counter-clockwise.

f. To reverse the direction of rotation, TURN OFF the power supply.
g. On three-phase motors, interchange any two power leads at the load side of the starter. On single-phase motors, refer to the connection diagram on the motor nameplate. Change the wiring as required.
h. TURN ON the power and again check for proper motor rotation.

Starting the Pump the First Time

3. Starting and Adjusting

a. Make sure that:
   - The pump has been primed.
   - The rotation is counter-clockwise when viewed from the motor end.
   - The piping connections are tight and adequately supported.

b. Open the suction line valve completely (if one is installed).

c. Close the isolation valve in the discharge pipe. It should be opened gradually after the pump is turned on. Opening the valve too fast may result in water hammer in the discharge pipe.

d. Start the pump.

e. Gradually open the isolation valve in the discharge piping as explained in step c. Open the valve completely.

f. Check the voltage and amperage at the motor and record them. Adjust the motor overloads if required.

g. If pressure gauges have been installed, check and record the values as the pump operates.

h. Check all controls for proper operation. If the pump is controlled by a pressure switch, check and adjust the cut-in and cut-out pressures. If low-water level controls are used, be sure the low-level switch is properly adjusted so the pump cannot run if the pump breaks suction.

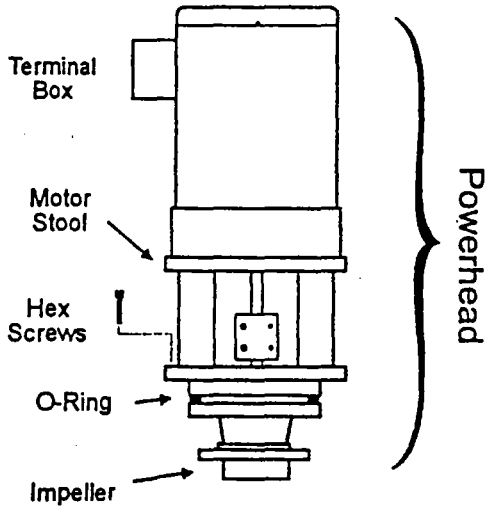
Replacing the Powerhead

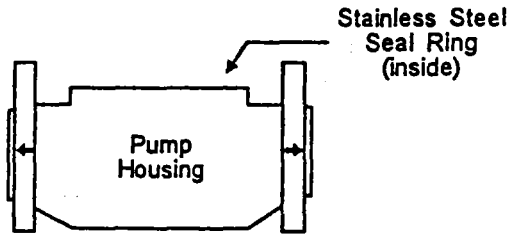
STEP 1 - Remove the Old Powerhead

1. Turn OFF the power to the motor.
2. Close any isolation valves on either side of the pump.
3. Disconnect the electrical leads and conduit from the terminal box.
4. Loosen and remove the hex screws connecting the powerhead assembly to the pump housing (8 or 10 mm). **Note the position of the motor terminal box relative to the pump housing.**
5. Remove the powerhead assembly from the pump housing.
6. Clean the machines surfaces in the pump housing.
7. Inspect the pump housing and stainless steel ring for any damage. Check to be sure the seal ring is mounted securely in the pump housing.

STEP 2 - Installing the New Powerhead

1. Carefully remove the new powerhead assembly from its packaging.
2. Refer to the pump's nameplate data to confirm you have the correct replacement powerhead.
3. Examine the entire assembly for any damage that may have occurred during shipment.
4. Lubricate the O-ring with soapy water.
5. With the motor terminal box in the desired position, carefully place the new powerhead assembly into the pump housing. Be careful not to damage the impeller or mating seal ring. Once the powerhead seal ring is engaged with the pump housing, do not attempt to rotate the powerhead, since doing so may damage the O-ring.





6. Make sure the powerhead assembly is properly seated on the pump housing. DO NOT force the two together.
7. Check to make sure the motor shaft turns freely.
6. Insert and tighten the hex screws evenly to secure the powerhead assembly.

Hex Screw	Torque
8 mm	15 ft lbs
10 mm	25 ft lb

Maintenance

Pump Lubrication

Grundfos Series 7000 in-line centrifugal pumps installed in accordance with these instructions and sized for correct performance will operate efficiently and provide years of service. The pumps are lubricated by the fluid they pump, and do not require any additional lubrication. **However, this also means the pump should never be operated for any prolonged periods of time without fluid flowing through the pump.** The motors will require periodic lubrication as noted in the following paragraphs.

Motor Lubrication

Electric motors are pre-lubricated at the factory and do not require additional lubrication at start-up. Motors containing sealed bearings do not require additional lubrication during the first 15,000 hours of operation. Motors with grease fittings should only be lubricated with a lithium based grease.

How Often Is Pump Used?	Frequency of Greasing	Approved Types of Grease
Seasonally (motor is idle for more than six months)	Once a year	Shell Dolium R FSSO Beacon 3 BP-XRB2 Shell Alvania 3
Intermittently	Twice a year	Mobil Grease 2 Texaco Regal
Continuously	Every 3 months	Starfos Premium

Do not over grease the bearings. Over greasing will cause increased bearing heat and can result in bearing/motor failure.

Periodic Safety Checks

At regular intervals depending on the conditions and time of operation, the following checks should be made:

1. Pump meets required performance and is operating smoothly and quietly.
2. There are no leaks, particularly at the shaft seal.
3. The motor is not overheating.
4. Remove and clean all strainers or filters in the system.
5. Verify the tripping of the motor overload protection.
6. Check the operating of all controls. Check unit control cycling twice and adjust if necessary.
7. If the pump is not operated for unusually long periods, the unit should be maintained in accordance with these instructions. In addition, if the pump is not drained, the pump shaft should be manually rotated or run for short periods of time at monthly intervals.

If the pump fails to operate or there is a loss of performance, refer to the Troubleshooting section on pages 13-14.

Rapid Cycling

Pump cycling should be monitored to make sure the pump is not starting more than 20 times per hour. If it is, premature motor failure is quite likely, due to the increased heat build-up in the motor. Make any adjustments to controls necessary to reduce the frequency of stops and starts.

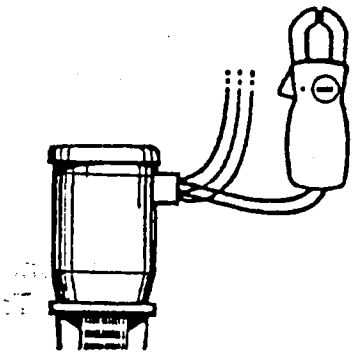
Freeze Protection

If the pump is installed in an area where freezing could occur, the pump and system should be drained during freezing temperatures to avoid damage. To drain the pump, close both isolation valves and loosen the suction and discharge flanges. Allow water to flow out of the pump before reconnecting the pump to the flanges. Do not tighten the flanges completely until the pump is ready to be used again.

Troubleshooting

Preliminary Checks

Supply Voltage



How to Measure

Use a volt meter, (set to the proper scale) measure the voltage at the pump terminal box or starter.

On single-phase units, measure between power leads L1 and L2 (or L1 and N for 115 volt units). On three-phase units, measure between:

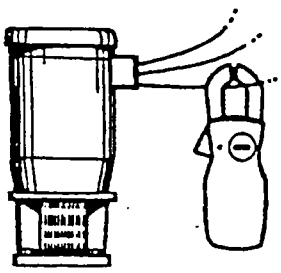
- Power leads L1 and L2
- Power leads L2 and L3
- Power leads L3 and L1

What it Means

When the motor is under load, the voltage should be within ±10% of the nameplate voltage. Larger voltage variation may cause winding damage and indicate a poor electrical supply. The pump should not be operated until these variations have been corrected.

If the voltage constantly remains high or low, the motor should be changed to the correct supply voltage.

Current Measurement



How to Measure

Use an ammeter, (set on the proper scale) to measure the current on each power lead at the terminal box or starter.

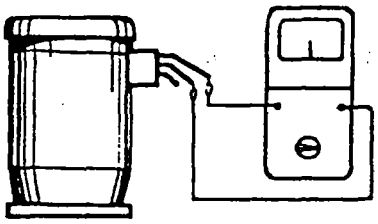
Current should be measured when the pump is operating at constant discharge pressure.

What it Means

If the amp draw exceeds the listed service factor amps (SFA) or if the current imbalance is greater than 5% between each leg on three-phase units, check the following:

1. Burned contacts on motor starter.
2. Loose terminals in starter/terminal box or possible wire defect.
3. Too high or too low supply voltage.
4. Motor windings are shorted or grounded. Check winding and insulation resistances.
5. Pump is damaged causing a motor overload.

Winding Resistance



How to Measure

Turn off power and disconnect the supply power leads in the pump terminal box. Using an ohmmeter, set the scale selector to R x 1 and zero adjust the meter by touching the two ohmmeter leads together.

Touch the leads of the ohmmeter to two motor leads.

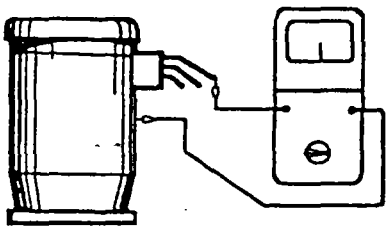
Single phase motors - touching the leads of the ohmmeter to the two outgoing "hot" motor leads (either a single motor lead or combination of leads joined together) will measure the main winding's resistance.

Three phase motors - touching the leads of the ohmmeter to any two hot leads will measure that winding's resistance. Repeat for all three possible lead combinations (L_1 and L_2, L_2 and L_3, L_1 and L_3)

What it Means

If all ohm values are normal, the motor windings are neither shorted nor open. If any one ohm value is less than normal (-25%), that motor winding may be starting to short. If any one ohm value is greater than normal (+25%), the winding may be starting to open. If some values are high and some are low, the leads may be connected incorrectly, or they may have a break in the insulating jacket.

Lead-To-Ground Resistance



How to Measure

Turn off power and disconnect the supply power leads in the pump terminal box. Using an ohmmeter, set the scale selector to R x 100 and zero adjust the meter by touching the two ohmmeter leads together. Touch one ohmmeter lead to a motor lead and one to ground. Repeat for each lead.

What it Means

The resistance values for new motors must exceed 1,000,000 ohms. If they do not, replace the motor.

Troubleshooting

Diagnosing Specific Problems

If The Pump...	*It May Be Caused By...*	*Check This By..*
Does Not Run	1. No power at motor	Check for voltage at terminal box
	2. Fuses are blown or circuit breakers are tripped.	Turn off power and remove fuses and check for continuity with an ohmmeter.
	3. Motor starter overloads are burned or have tripped	Check for voltage on the line and load side of the starter.
	4. Starter does not energize	Energize control circuit and check for voltage at the holding coil.
	5. Defective controls	Check all safety and pressure switches for operation. Inspect contact in control devices.
	6. Motor is defective	Turn off power. Disconnect the wiring. Measure the lead-to-lead resistance with an ohmmeter (set at R x 1). Measure lead-to-ground values with a megohmmeter (R x 100K). Record the measured values.
	7. (Single-phase motors) Defective capacitor	Turn off the power, then discharge the capacitor. Disconnect the leads and check them with an ohmmeter (R x 100K).
Pump Runs, But At A Reduced Capacity or **Doesn't Deliver Water**	1. Wrong rotation *(3 phase only)*	Check for proper electrical connections in terminal box.
	2. Pump is not primed or is airbound	Turn pump off, close isolation valves, remove priming plug. Check fluid level.
	3. Strainers, check valves, or foot valves are clogged.	Remove strainer, screen, or valve and inspect
	4. Suction lift too large	Install compound pressure gauge at the suction side of the pump. Start pump and compare reading to performance data.
	5. Suction and/or discharge piping leaks	Pump shaft spins backwards when turned off. Air in suction pipe.
	6. Worn pump	Install pressure gauge, start the pump, gradually close the discharge valve and read pressure at shut-off.
Pump Cycles Too Much	1. Pressure switch is not properly adjusted or is defective.	Check pressure setting on switch and operation.
	2. Level control is not properly set or is defective.	Check voltage across closed contacts.
	3. Insufficient air charging or leaking tank or piping.	Check setting and operation.
	4. Tank is too small.	Pump air into tank or diaphragm chamber.
Fuses Blow or Circuit Breakers Trip	1. High or low voltage	Check tank size and air volume in tank.
	2. Starter overloads are set too low.	Check voltage at the starter panel or terminal box.
	3. Three-phase current is unbalanced	Cycle pump and measure amperage.
	4. Motor is shorted or grounded.	Check the current draw on each lead to the motor.
	5. Wiring or connections are faulty.	Turn off power and disconnect incoming power supply from terminal box. Measure lead-to-ground and lead-to-ground resistance as explained on the previous page.
	6. Pump is stuck	Check for proper wiring and loose terminals.
	7. (Single-phase only) Defective capacitor	Turn off power and manually rotate pump shaft. Turn off power and discharge capacitor.

Correct It By...

If no voltage at motor, check feeder panel for tripped circuits

Replace blown fuses or reset circuit breaker. If new fuses blow or circuit breaker trips, the terminal box wiring must be checked.

Replace burned heaters or reset. Inspect starter for other damage. If heater trips again, check the supply voltage and starter holding coil.

If no voltage, check the control circuit fuses. If there is voltage, check the holding coil for shorts. Replace bad coil.

Replace worn or defective parts.

If the motor windings are open or grounded, replace the motor.

When the meter is connected, the needle should jump toward "0" ohms and slowly drift back to infinity. Replace capacitor if defective.

Correct wiring and change leads as required.

Refill the pump, replace lug and start the pump. Long suction lines must be filled before starting the pump.

Clean and replace. Re-prime the pump.

Reduce suction lift by lowering pump, increase suction line size or by removing high friction-loss fittings.

Repair and leaks and retighten all loose fittings.

Convert PSI to feet (PSI x 2.31 = ___ ft). Refer to the specific pump curve for shutoff head for that pump model. If actual head is close to curve, the pump is probably OK. If not, remove pump and inspect.

Readjust switch or replace if defective.

Readjust setting (refer to level control manufacturer's data). Replace if defective.

Check diaphragm for leak. Check tank and piping for leaks with soap and water solution. Check air-to-water volume.

Tank volume should be approximately 10 gal. for each gpm of pump capacity. The normal air volume is 2/3 of the total tank volume at the pump cut-in pressure.

If voltage varies more than ±10%, contact power company. Check wire sizing.

Increase heater size or adjust trip setting.

Must be within ± 5%. If not, check motor and wiring.

If an open or grounded winding is found, repair or replace the motor.

Tighten loose terminals. Replace damaged wire.

If shaft does not rotate, remove pump and inspect. Disassemble and repair.

When the meter is connect to the capacitor, the needle should jump towards 0 ohms and slowly drift back to infinity (___). Replace if defective.

LIMITED WARRANTY

Products manufactured by GRUNDFOS PUMPS CORPORATION (GRUNDFOS) are warranted to the original user only to be free of defects in material and workmanship for a period of 18 months from date of installation, but not more than 24 months from date of manufacture. GRUNDFOS' liability under this warranty shall be limited to repairing or replacing at GRUNDFOS' option, without charge, F.O.B. GRUNDFOS' factory or authorized service station, any product of GRUNDFOS manufacture. GRUNDFOS will not be liable for any costs of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim. Products which are sold but not manufactured by GRUNDFOS are subject to the warranty provided by the manufacturer of said products and not by GRUNDFOS' warranty. GRUNDFOS will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with GRUNDFOS' printed installation and operating instructions.

To obtain service under this warranty, the defective product must be returned to the distributor or dealer of GRUNDFOS products from which it was purchased together with proof of purchase and installation date, failure date, and supporting installation data. Unless otherwise provided, the distributor or dealer will contact GRUNDFOS or an authorized service station for instructions. Any defective product to be returned to GRUNDFOS or a service station must be sent freight prepaid; documentation supporting the warranty claim and/or a Return Material Authorization must be included if so instructed.

GRUNDFOS WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, OR EXPENSES ARISING FROM INSTALLATION, USE, OR ANY OTHER CAUSES. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THOSE WARRANTIES DESCRIBED OR REFERRED TO ABOVE.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages and some jurisdictions do not allow limitations on how long implied warranties may last. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from jurisdiction to jurisdiction.

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L-UM-TL-001	11/92
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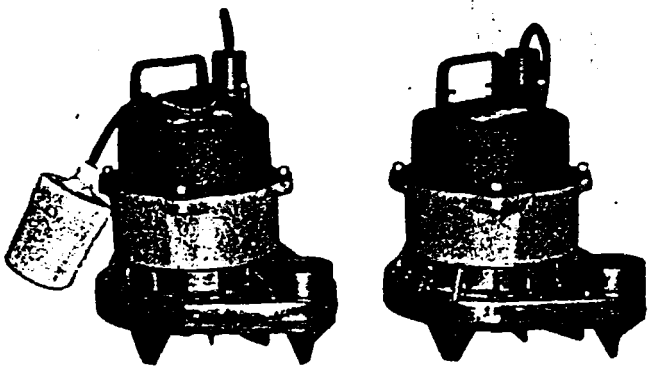
GOULDS PUMPS, INC.
SENECA FALLS, NEW YORK 13148

G&L
A GOULDS PUMPS COMPANY

Installation, Operation and Maintenance Instructions

Model 3871



DESCRIPTION & SPECIFICATIONS:

The Model 3871 embraces a series of submersible effluent pumps designated as EP0411, EP0412, EP0411C and EP0412C. The single-phase EP0411 pumps are for 115 volt service and draw a maximum of 10.6 amps. The single-phase EP0412 pumps are for 230 volt service and draw a maximum of 5.3 amps. The "C" suffix designates the optional 20 foot power cord, whereas, the standard power cord is 10 feet in length.

1. Important:

1.1. Inspect unit for damage. Report any damage to carrier/dealer immediately.
1.2. Electrical supply must be a separate branch circuit with fuses or circuit breakers, wire sizes, etc., per National and Local electrical codes. Install an all-leg disconnect switch near pump.

CAUTION

Always disconnect electrical power when handling pump or controls.

1.3. A grounded 3-wire outlet must be provided within reach of pump and float switch electrical cords. Pump and float switch are equipped with 3-prong ground type plugs. Do not remove the ground prong.
1.4. Motor has a built-in thermal protector which opens the circuit when overload condition is encountered. Protector automatically resets when motor cools.
1.5. Do not carry or hang pump by the electrical cord. Use the handle or discharge pipe for this purpose.
1.6. Pump is not designed for use in swimming pools or hazardous liquids.
1.7. Maximum Operating Limits:

Liquid Temperature:	140F (60C)
Submergence:	10 feet
Starts Per Hour:	20, evenly distributed
Solids Handling:	3/4"

1.8. Flammable gases can be present in a wet-well due to bacterial action. Exercise extreme caution when working in and around such areas. Insure no sparks are generated that could ignite said gases.

2. Installation:

2.1. Store excess pump/switch electrical cord on wall near electrical outlet. Never store excess electrical cord in sump or wet well.
2.2. Sump basin or wet-well size should allow sufficient room for unimpeded movement of the float switch, if employed. It should be large enough to stay within the recommended maximum of twenty starts per hour.
2.3. If a sump basin is not used, sump bottom must be solid concrete. If a packed gravel bottom is used, the stone size must be larger than 3/8" diameter and bricks must be placed under pump for support.
2.4. A sump cover is recommended to prevent solid matter from falling into the sump, to control odors, and to guard against injury.

3. Piping:

3.1. Pump discharge is threaded for 1 ½" pipe. For maximum capacity do not reduce.
3.2. DO NOT APPLY PIPE DOPE TO DISCHARGE PIPE THREADS. Use Teflon tape. Thread pipe into casing hand-tight, then tighten with wrench about ½ turn to seal.
3.3. Install a check valve specifically designed for solids handling on the discharge pipe so as to prevent back flow. Follow valve manufacturer's recommendation regarding valve orientation.
3.4. Install a full flow isolation valve on the discharge line, after the check valve, to aid in maintenance work.
3.5. When lowering unit into sump, grasp by both the handle and discharge pipe. Never grasp by pipe alone.

4. Operation:

4.1. Float switch, when furnished, is attached to the pump at the factory for a liquid-level differential of 6". Readjust only if necessary and space is sufficient. Increasing tether length increases differential between on and off. Allow 1" minimum clearance between bottom of float and bottom of pump. Also, insure that the influent does not cascade directly on the switch.
4.2. Complete unit should be placed against side of the sump as shown. "Kick-back" of pump will then be against side of sump.
4.3. When installation is complete, fill sump several times to make sure the unit operates properly and automatically.

5. Maintenance:

5.1. Submersible pump/motor units are oil filled and no further lubrication is required.

6. Disassembly:

6.1. Disconnect power. Remove pump from sump or wet-well. Flush as necessary.
6.2. To gain access to impeller (15), lay the unit on its side and remove the thread forming screws (16) and base (17).
6.3. To clean behind the impeller, remove the klip ring (18) and impeller.

CAUTION

Do not remove mechanical seal (12) at this time.

6.4. If additional work is necessary, first place the unit back on its base. Remove screws (20). Lift the strain relief assembly, consisting of collet (2) and collet adapter (4), with the cord set (1) from the motor cover (7). Cord set is electrically connected to the motor cover by push-on connectors.
6.5. Remove the oil plug grommet (8) by placing one leg of a pair of needle nose pliers within the grommet hole to aid extraction.
6.6. Invert the unit, drain all oil and note its condition.
- 6.6.1. Clear oil with no burnt odor indicates pump and seals are in acceptable condition.
- 6.6.2. Dark oil with burnt odor indicates motor has been overheated. Check winding resistance to ground. It should be one megohm or higher.
- 6.6.3. Milky or emulsified oil indicates water leaking into sealed chamber through faulty O-rings or mechanical seal. Check motor, replace if faulty. Replace faulty seals.

6.7. Refer to sectional drawing and reassembly instructions if further tear down is required.

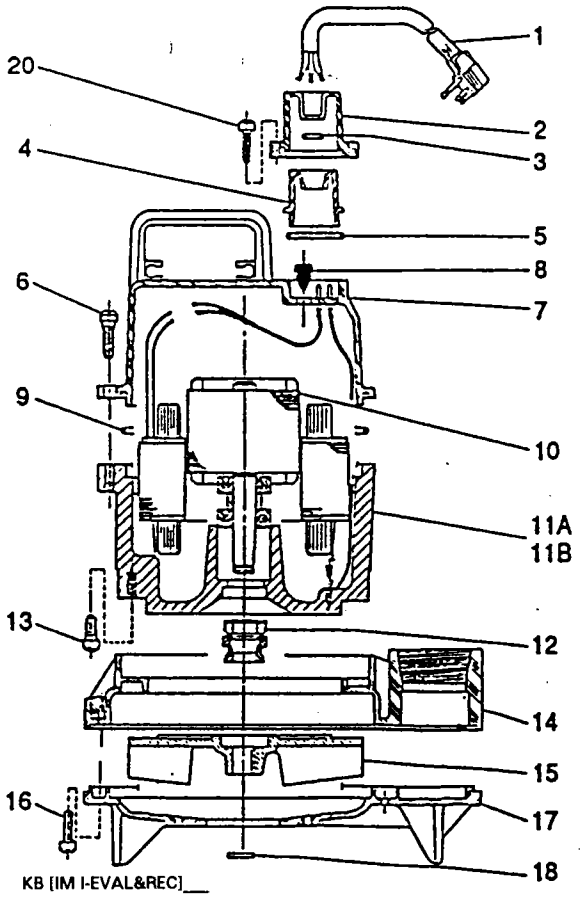
7. Reassembly:

7.1. All parts should be cleaned before assembly.
7.2. Refer to parts list to identify required replacement items. Specify pump index number and part number when ordering parts.
7.3. All mechanical seal components must be in good condition or leakage may result. Replacement of complete seal assembly (12), whenever seal has been removed, is good standard practice.

It is permissible to use a light lubricant, such as glycerin, to facilitate assembly. Do not contaminate the mechanical seal faces with lubricant.

7.4. Push mechanical seal stationary seat into the bore of the motor housing/stator assembly (11) using the thumb or forefinger. Make sure it is seated properly, and square. Wipe with lint-free cloth.
7.5. Place rotor (10) on bench, shaft end up.
7.6. Invert motor housing/stator assembly, place over rotor being careful not to damage mechanical seal stationary seat, and press until bearings seat within their bore.

7.7. Position casing (14) on motor housing/stator assembly with the discharge 180 degrees opposite the green ground wire. Fasten with the short fillister head screws (13).
7.8. Press mechanical seal rotary on shaft until it contacts the stationary seat.
7.9. Place impeller (15) over shaft and secure with klip ring (18).
7.10. Place base (17) on casing and fasten with the short thread forming screws (16). Invert assembly.
7.11. Inspect motor housing O-ring (9) and replace if damaged. Place O-ring over lock of motor cover (7).
7.12. Secure motor leads to pin connectors on motor cover using needle nose pliers. The ground wire (green) is connected to the middle pin.
7.13. Position cover over motor so that cord connection is 90 degrees counterclockwise from the casing discharge connection. Tuck wires between the stator and motor cover to avoid pinching or interference with the rotor. Fasten with long fillister head screws (6).
7.14. Fill assembled motor housing with 1 quart of insulating oil (19).



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7.15. Insert grommet (8) in oil fill hole. A 1/8" diameter rod inserted in the grommet will aid the assembly.
7.16. Inspect power cord O-ring (3) and strain relief O-ring (5). Replace if damaged.
7.17. Feed power cord (1) through strain relief collet (2) and follow with the O-ring, placing it about 2" up on the outer insulating jacket. Complete the subassembly with the collet adapter (4) and its O-ring.
7.18. When securing the cord set leads (1) to the pin connectors, connect the ground wire (green) to the middle pin as indicated by the ground symbol molded into the cover.
7.19. Place the collet adapter and its O-ring over the connections. Reposition the power cord O-ring to within 1/2" of the end of the outer insulating jacket and follow with the strain relief collet. Fasten the collet to the housing with the long thread forming screws (20).

CAUTION

Alternate back and forth between the two fasteners to avoid damaging the collet.

PARTS

Item No.	Part No.	Description
1	9K207	10' Cord Set EP0411-115V
	9K208	10' Cord Set EP0412-230V
	9K209	20' Cord Set EP0411C-115V
	9K210	20' Cord Set EP0412C-230V
2	9K204	Strain Relief Collet
3	5K198	O-Ring–Power Cord
4	9K205	Collet Adapter
5	5K197	O-Ring–Strain Relief Assembly
6	13K175	Fillister Head Screw–Motor Cover
7	1K257	Motor Cover
8	6K87	Oil Plug Grommet
9	5K196	O-Ring–Motor Housing
10	9K213	Rotor
11A	1K259	Motor Housing/Stator Assembly (115V)
11B	1K260	Motor Housing/Stator Assembly (230V)
12	10K32	Mechanical Seal
13	13K181	Fillister Head Screw–Casing
14	1K233	Casing
15	2K467	Impeller
16	13K244	Thread Forming Screw–Base
17	1K258	Base
18	7K817	Klip Ring
19	4K245	Insulating Oil (Gal.)–1 Qt. Required
20	13K243	Thread Forming Screw–Strain Relief

8. Trouble Shooting Guide:

Extreme caution should be exercised when servicing electrical devices. Fatal injuries could result from electrical shock. Always disconnect the electrical power from the device being serviced unless it is necessary for the work being done.

MOTOR NOT RUNNING
(See causes 1, 2, 3, 4, 6, 8)

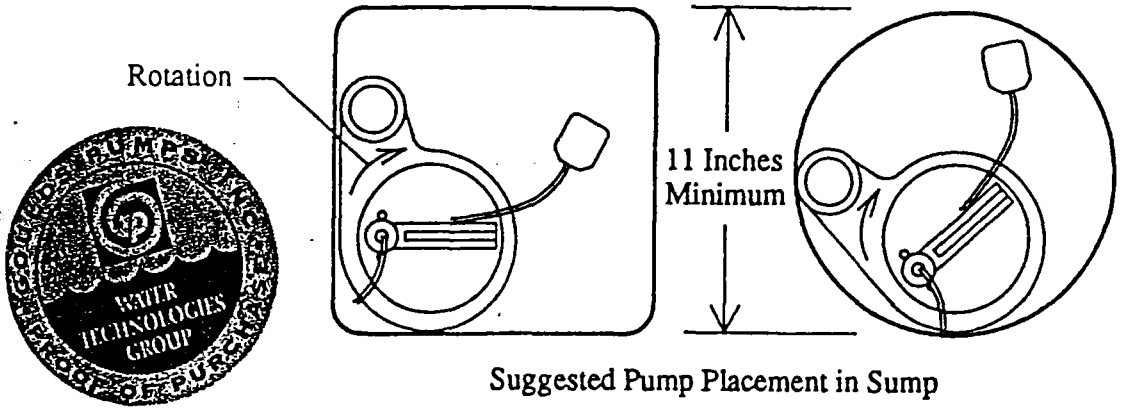
LITTLE OR NO LIQUID DELIVERED
(See causes 5, 6, 7, 8, 10)

PUMP WILL NOT TURN OFF
(See causes 7, 8, 9, 10, 12, 13)

PUMP CYCLES CONSTANTLY
(See causes 9, 11, 12, 13)

PROBABLE CAUSES:

1. Tripped thermal protector.
2. Open Circuit breaker or blown fuse.
3. Rotating parts binding.
4. Defective motor.
5. Air bound.
6. Low voltage.
7. System head too high.
8. Pump clogged.
9. Level control defective or switch not properly positioned.
10. Improper check valve direction.
11. Check valve leaking.
12. Incorrect size basin or wet-well.
13. Inflow excessive for size of pump.



Suggested Pump Placement in Sump

LIMITED WARRANTY

This warranty applies to all pumps and related accessories manufactured and/or supplied by Goulds Pumps, Inc. - Water Systems Division.

Any part or parts found to be defective within the warranty period shall be replaced at no charge to the buyer or any subsequent owner during the warranty period. The warranty period shall exist for twelve (12) months from date of installation, or eighteen (18) months from date of manufacture, whichever expires first.

A consumer who believes that a warranty claim exists must contact the authorized dealer from whom the equipment was originally purchased and furnish complete details regarding the claim. The dealer is authorized to adjust any warranty claim utilizing Goulds Customer Relations Department and its distributor organization.

This warranty excludes: (a) Labor, transportation and related costs incurred by the consumer to make the allegedly defective equipment available to the dealer for inspection. (b) Re-installation costs of repaired equipment. (c) Re-installation costs of replacement equipment. (d) Consequential damages of any kind. (e) Reimbursement for loss caused by interruption of service.

OPERATING & MAINTENANCE INSTRUCTIONS AND PARTS LIST

for
HDBI - Backward Inclined Blowers
RBE - Radial Blade Exhausters
HP - High Pressure Blowers

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⚠ DANGER

ALL FANS AND BLOWERS SHOWN HAVE ROTATING PARTS AND PINCH POINTS. SEVERE PERSONAL INJURY CAN RESULT IF OPERATED WITHOUT GUARDS. STAY AWAY FROM ROTATING EQUIPMENT UNLESS IT IS DISCONNECTED FROM ITS POWER SOURCE AND ALL ROTATING PARTS HAVE STOPPED MOVING.

READ ALL OPERATING INSTRUCTIONS CONTAINED HEREIN BEFORE INSTALLING EQUIPMENT.

⚠ DANGER

NO GUARANTEE OF ANY LEVEL OF SPARK RESISTANCE IS IMPLIED BY SPARK RESISTANT CONSTRUCTION. IT HAS BEEN DEMONSTRATED THAT ALUMINUM IMPELLERS RUBBING ON RUSTY STEEL MAY CAUSE HIGH INTENSITY SPARKS. AIR STREAM MATERIAL AND DEBRIS OR OTHER SYSTEM FACTORS MAY ALSO CAUSE SPARKS.

cincinnati fan

PART # 01001
CATALOG # PMK-992
SUPERSEDES: PMK-991

I GENERAL SAFETY NOTES

1. Rotating parts including shaft and V-belt drives must be properly guarded to prevent personal injury.

2. Electrical wiring must be accomplished by a qualified electrician in accordance with all applicable codes.

3. Care should be taken:
   - Not to run fan above its safe speed (See Performance Tables in Sales Catalog or call CFV sales office).
   - Not to operate in excessive temperatures (See limitations in Sales Catalog or call CFV sales office).
   - Not to operate in dangerous environments.
   - Read all instructions carefully.

II RECEIVING

Receiving Inspection

When unit is received, inspect immediately for damaged or missing parts. Even though all units are carefully inspected and prepared for shipment at the factory, rough handling enroute may cause concealed damage or cause nuts, set screws, bolts or locking collars to work loose. Be certain all fasteners are tightened securely. Rotate wheel by hand to verify that it rotates freely and that there are no obstructions.

Table #1

TORQUE VALUES FOR TAPERED BUSHINGS		
	MINIMUM RECOMMENDED TORQUE (INCH-LBS)	
Bushing Size	Steel Parts	Alum. Parts
H	95	60
P	192	80
Q	350	155
R	350	155

Inspect all shipments carefully for damage. THE RECEIVER MUST NOTE ANY DAMAGE ON THE CARRIER'S BILL OR LADING AND FILE A CLAIM IMMEDIATELY WITH THE FREIGHT COMPANY IN THE CASE OF ANY DAMAGE. Keep a record of all equipment received, including inspection details and date of receipt because of the possibility of partial shipments.

III HANDLING

Handle your equipment with care. Some fans are provided with lifting lugs or holes for easy handling. Others must be handled using nylon straps or well-padded chains and cables which protect the fan's coating and housing. Spreader bars should be used when lifting large parts.

Axial fans should be lifted using straps around the fan housing only. DO NOT LIFT AXIAL FANS BY THE MOTOR, MOTOR BASE, WHEEL OR FLANGES.

Centrifugal fans are best lifted using one strap under the fan's scroll and another strap around the bearing base. DO NOT LIFT CENTRIFUGAL FANS BY THE FAN SHAFT, WHEEL, FLANGES OR INLET SUPPORT.

Roof ventilators should be lifted using straps around the fan housing or base only. Spreader bars should also be used to avoid damage to stack caps or hoods. DO NOT LIFT ROOF VENTILATORS BY THE STACK CAP OR HOOD.

IV GENERAL INSTALLATION INSTRUCTIONS

Foundations

Fan foundation must be flat, level and rigid. Where foundation is not completely flat, shims must be placed under fan support at each anchor bolt as required. Bolting fan to an uneven foundation distorts alignment and causes vibration.

Structural steel foundations should be heavily cross-braced for load support.

Table #2

SET SCREW TORQUE VALUES			
SET SCREW SIZE		MINIMUM REQUIRED TORQUE (INCH-LBS)	
Diameter & No. of Threads/Inch	Hex Size Across Flats (Allen Wrench)	Steel Set Screw Into Steel Threads	Steel Set Screw Into Alum. Threads or Stainless Steel Set Into Stainless Steel Threads
1/4-20	1/8"	65	65
5/16-18	5/32"	165	100
3/8-16	3/16"	228	155
7/16-14	7/32"	348	230
1/2-13	1/4"	504	330
5/8-11	5/16"	1104	700

NOTE: If wheel set screws are loosened and/or wheel is removed from shaft, set screws must be replaced. Set screws cannot be used more than once. Use knurled, cup point set screws with a locking patch.

OPERATION

Before Connecting Power

1. Inspect all fasteners and retighten if necessary:
   a. Foundation bolts.
   b. Set screws in fan and wheel and V-belt drive (See Tables #1 & #2 on preceding page).
   c. Housing, bearing and motor mounting.

2. Inspection doors should be tight and sealed.

3. Bearings should be checked for alignment and lubrication (See Fan Bearing Maintenance, page 5).

4. Turn rotating assembly by hand to insure that it does not strike housing. If the wheel strikes the housing, the wheel may have moved on the shaft or the bearings may have shifted in transit. Correction must be made prior to start up.

5. Check motor to insure proper speed and electrical characteristics.

6. Check V-belt drive for alignment and correct belt tension.

7. After wiring, energize motor for 1 second to check for proper rotation.

V GENERAL MAINTENANCE

CAUTION

Before any maintenance or service is performed, assure that unit is disconnected from power source to prevent accidental starting.

The key to good fan maintenance is a regular and systematic inspection of all fan parts. Severity of the application should determine frequency of inspection. The components requiring service are generally the moving parts which include bearings, fan wheel, belts, sheaves and motor.

Cast Aluminum & Metal Parts

Cast aluminum and steel parts usually do not require maintenance during the life of the unit except painted metal surfaces that may require periodic repainting. In a severe, dirty operation, the wheel should be cleaned with a wire brush to prevent an accumulation of foreign matter that could result in fan unbalance. After cleaning wheel, inspect for possible cracks or excessive wear, which can cause unbalance. DO NOT operate a wheel that is cracked, chipped, has broken blades or excessive wear. NOTE: If wheel set screws are loosened and/or wheel is removed from shaft, set screws must be replaced. Set screws cannot be used more than once. Belts on V-belt drive units require periodic inspection and replacement when worn. For multiple belt drives, belts should be replaced with matched sets.

Motor Maintenance

1. Disconnect power to motor.

2. Removing dust and dirt: Blow out open type motor windings with low pressure air to remove dust or dirt. Air pressure above 50 P.S.I. should not be used as high pressure may damage insulation and blow dirt under loosened tape. Dust accumulation can cause excessive insulation temperatures.

3. Lubrication: The motor bearings and the fan bearings on the belt drive fans should be greased at regular intervals. Motor manufacturers' greasing instructions and recommendations should be followed closely. Avoid the use of a pressure greasing system which tends to fill the bearing chamber completely. Do not overgrease. Use only 1 or 2 shots with a hand gun in most cases. Maximum hand gun rating 40 P.S.I. Rotate bearings during lubrication where good safety practice permits. NOTE: On motors with non-regreasable sealed bearings, no lubrication is required for the life of the bearings.

To prevent rusting of bearing parts, the rotor must be rotated at regular intervals (30 days) to assure these parts are will covered with oil or grease.

VI V-BELT DRIVES

Care should be taken not to over tighten V-belt drive. Excessive belt tension overloads fan and motor bearings. It is much less expensive to replace belts worn from slippage than to replace bearings damaged from excessive loading.

Fans shipped completely assembled have had V-belt drive aligned at the factory. Alignment should be rechecked before operation as a precaution due to handling during shipment.

A WORD OF CAUTION ABOUT MOTORS

Using your hand to test the running temperature of a motor can be a very painful experience:

Normal body temperature	98.6° F
Threshold of pain caused by heat	120.0° F
Average temperature of hottap water	140.0° F
Average temperature of hot coffee	180.0° F
Normal operating temperature of a fully loaded electric motor, open type, 70° F ambient temperature	174.0° F

1. Be sure sheaves are locked in position.

2. Key should be seated firmly in keyway.

3. Place straight edge or taut cord across faces of driving and driven sheaves to check alignment. The motor and fan shafts must be parallel with V-belts and at right angles to the shafts.

4. Start the fan. Check for proper rotation. Run fan at full speed. A slight bow should appear on slack side of belt. Disconnect power and adjust belt tension by adjusting motor on its sliding base. All belts must have some slack on one side.

5. If belts squeal at start up, they may be too loose.

6. When belts have had time to seat in the sheave grooves, then readjust belt tension.

V-belt drive assembly can be mounted as follows:

1. Clean motor and fan shafts. Be sure they are free from corrosive material. Clean bore of sheaves and coat with heavy oil for ease of shaft entry. Remove oil, grease, rust or burrs from sheaves.

2. Place fan sheave on fan shaft and motor sheave on its shaft. **Do not pound sheaves on** as this may damage bearings. Tighten sheaves per Table # 1 on page 2.

Table #3 (See Fan Bearing Maintenance, page 5.)

Conditions Around Bearing	Operating Temperature of Fan	**Greasing Intervals
Fairly Clean	up to 120 °F	6 -12 months
	120°-160°F	2-3 months
	160°-200°F plus*	1-2 months
Moderate to Extremely Dirty	up to 160°F	1-2 months
	160°-200°F plus*	2-4 weeks
Cold Storage Room		every defrosting period or no more than 4 months

* For fan applications over 200°F: greasing intervals should be from several days to 2 weeks, depending on the temperature.

**For vertical installations, greasing intervals should be twice as frequent as table values.

The following greases, or one that is equivalent to the general description, are recommended for the following temperatures or excessive moisture applications.

Operating Conditions	Use Grease Equivalent to these Grades
Temperatures -65°F to 0°F	Esso-Beacon #325 (-65°F) Mobil Grease #28 (-65°F) Shell Oil Aeroshell No. 7 (-100°F)

General Description: Versatile multipurpose microgel thickened synthetic hydrocarbon grease with corrosion inhibitors, anti-oxidant additives, water resistance tendencies and EP characteristics.

Temperature 0°F to 200° F inclusive (Also use for heavy condensation or direct splash of water)	Mobil Oil - Mobilux EP #2 Shell Oil - Shell Alvania EP #2 Chevron - Chevron SRI #2

General Description: Multipurpose NLGI#2 grease from lithium soap with EP characteristics, rust inhibitors, anti-oxidant additives and good water resistance tendencies.

Temperatures over 200°F	Dow Corning-DC44 (400°F) (Not compatible with non-silicon based greases)

General Description: Versatile multipurpose microgel thickened synthetic hydrocarbon grease with corrosion inhibitors, anti-oxidant additives, water resistance tendencies and EP characteristics.

3. Move motor on slide base so belts can be placed in grooves of both sheaves without forcing. Do not roll belts or use a tool to force belts over the grooves.

4. Align fan and motor shafts so they are parallel. The belts should be at right angles to the shafts. A straight edge or taut cord placed across the face of the sheaves will aid in alignment.

5. Tighten belts by adjusting motor base. Correct tension gives the best drive efficiency. Excessive tension causes undue bearing pressure.

6. Start the fan and run it at full speed. Adjust belt tension until only a slight bow appears on the slack side of the belts. If slippage occurs, a squeal will be heard at start-up. Eliminate this squeal by **disconnecting power** and tightening up the belts.

7. Give belts a few days running time to become seated in sheave grooves, then readjust belt tension.

If the shafts become scratched or marked, carefully remove sharp edges and high spots such as burrs with fine emery cloth or honing stone. Avoid getting emery dust in the bearings.

Do not apply any belt dressing unless it is recommended by the drive manufacturer. V-belts are designed for frictional contact between the grooves and sides of the belts. Dressing will reduce this friction.

Belt tension on an adjustable pitch drive is obtained by moving the motor, not by changing the pitch diameter of the adjustable sheave.

VII FAN BEARING MAINTENANCE

Sealed Bearings

Sealed for life bearings are pre-lubricated with the correct amount of manufacturer approved ball bearing grease, and are designed for application where relubrication is not required.

Relubricatable Bearings

The motor bearings and fan bearings on belt drive fans should be greased at regular intervals. Motor manufacturers greasing instructions and recommendations should be followed closely. Avoid the use of a pressure greasing system which tends to fill the bearing chamber completely. Do not over grease.

NOTE: On motors with non-regreasable, sealed bearings, no lubrication is required for the life of the bearing.

Table #3 (page 4) lists the time intervals between fan greasing to insure proper lubrication in adverse conditions of heat and dust. Use only 1 or 2 shots with a hand gun in most cases. Maximum handgun rating 40 P.S.I.

VIII WARRANTY

Cincinnati Fan & Ventilator Company warrants products of its own manufacture against defects of material and workmanship under normal use and service for a period of eighteen (18) months from date of shipment or twelve (12) months from date of installation, whichever occurs first.

This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, negligence, alteration or systems and/or materials not of Seller's manufacture. Expenses incurred by Buyer(s) in repairing or replacing any defective product will not be allowed except where authorized in writing and signed by an officer of the Seller.

The obligation of Seller under this warranty shall be limited to repairing or replacing F.O.B. Seller's plant, or allowing credit at Seller's option. This warranty is expressly in lieu of all other warranties expressed or implied including the warranties of merchantability and fitness for use and of all other obligations and liabilities of the Seller. The Buyer acknowledges that no other representations were made to him or relied upon him with respect to the quality or function of the products herein sold.

On equipment furnished by the Seller, but manufactured by others, such as motors, Seller extends the same warranty as Seller receives from the manufacturer thereof. Repairs for motors should be obtained from nearest authorized motor service station for the make of motor furnished. All motors used are products of well-known manufacturers with nationwide service facilities. Check the yellow pages of your telephone directory for the location of the nearest service shop.

Cincinnati Fan & Ventilator Company assumes no responsibility for material returned to our plant without our prior written permission.

IX ORDERING REPLACEMENT PARTS

Replacement or spare parts may be ordered through your local Cincinnati Fan representative. (Refer to drawings that begin on page 7.)
The following information should accompany parts orders:

1. Motor horsepower, frame size, motor speed, voltage, phase, cycle and enclosure. Motor manufacturer's model number from motor nameplate.
2. Fan Speed (if V-belt driven).
3. Fan serial and model numbers from the fan nameplate and a complete description of the part.

An adequate stock of repair parts is maintained where possible. If your fan is vital to production or to plant operation, it is advisable to have all spare parts on hand to minimize the possibility of downtime.

X FAN TROUBLE SHOOTING

In the event that trouble is experienced in the field, the following are the most common fan difficulties. These points should be checked in order to prevent needless delay and expense.

1. CAPACITY OR PRESSURE BELOW RATING

a. Incorrect direction of wheel rotation.
b. Speed too slow.
c. Dampers not properly adjusted.
d. Poor fan inlet or outlet conditions (elbows, restrictions).
e. Air leaks in system.
f. Damaged wheel.
g. Total resistance of system higher than anticipated.
h. Wheel mounted backwards on shaft.
i. Fan not properly selected for a high temperature and/or high altitude application.

2. VIBRATION AND NOISE

a. Misalignment of bearings, coupling, wheel or V-belt drive.
b. Unstable foundation or supports.
c. Foreign material in fan causing unbalance.
d. Worn bearings.
e. Damaged wheel or motor.
f. Broken or loose bolts and set screws.
g. Bent shaft.
h. Worn coupling.
i. Fan wheel or drive unbalanced.
j. 120 cycle magnetic hum due to electrical input. Check for high or unbalanced voltage.
k. Fan delivering more than rated capacity.
l. Loose dampers.
m. Speed too high or fan rotating in wrong direction.
n. Vibration transmitted to fan from some other source.

3. OVERHEATED BEARINGS

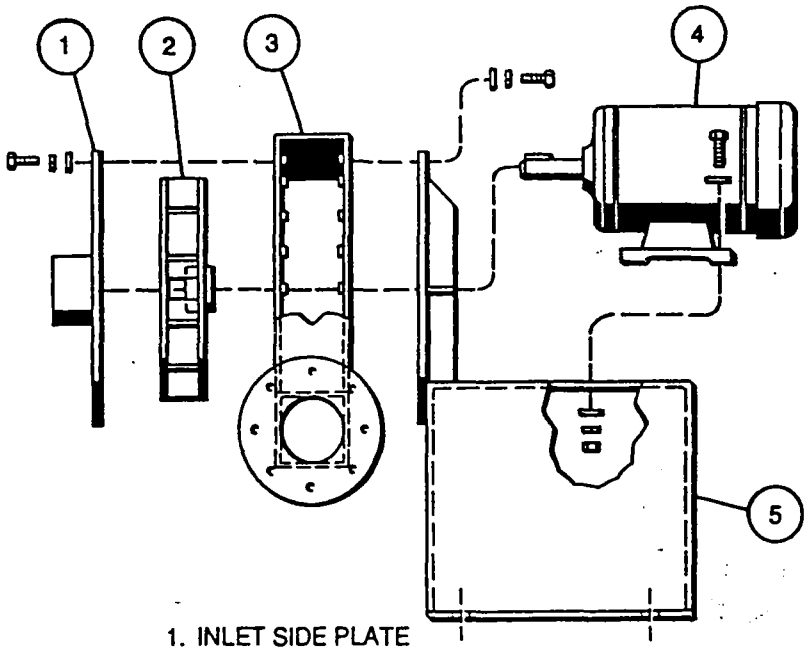
a. Check bearing lubrication.
b. Poor alignment.
c. Damaged wheel or drive.
d. Bent shaft.
e. Abnormal end thrust.
f. Dirt in bearings.
g. Excessive belt tension.

4. OVERLOAD ON MOTOR

a. Speed too high.
b. Fan over capacity due to existing system resistance being lower than original rating.
c. Specific gravity or density of gas above design value.
d. Wrong direction of wheel rotation.
e. Shaft bent.
f. Poor alignment.
g. Wheel wedging or binding on fan housing.
h. Bearings improperly lubricated.
i. Motor improperly wired.
j. Defective motor. Motor must be tested by motor manufacturer's authorized repair shop.

MODEL HP

ARRANGEMENT 4

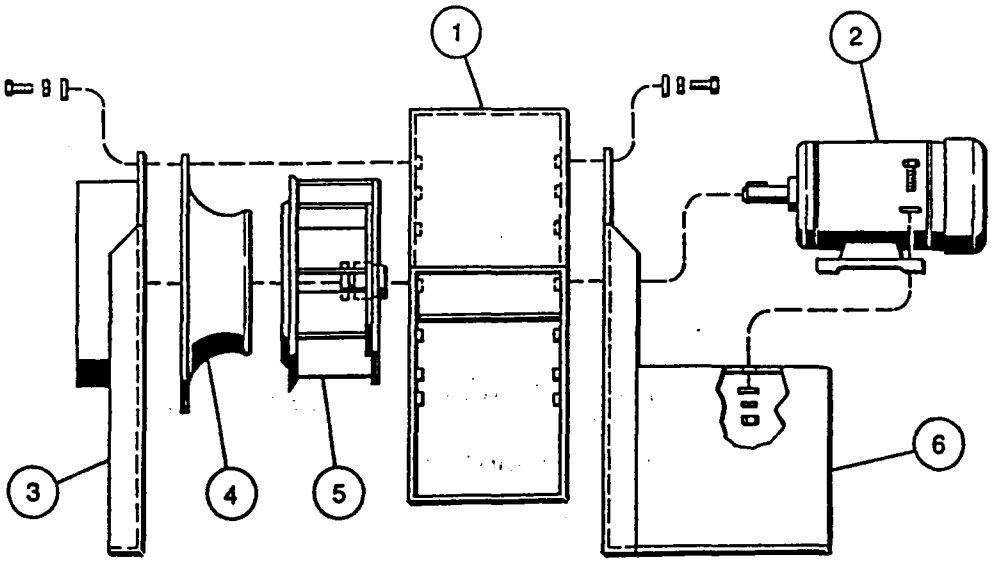


1. INLET SIDE PLATE
2. WHEEL
3. HOUSING
4. MOTOR
5. BASE

NOTE: SHAFT SEAL IS NOT SHOWN.

MODELS HDBI & RBE

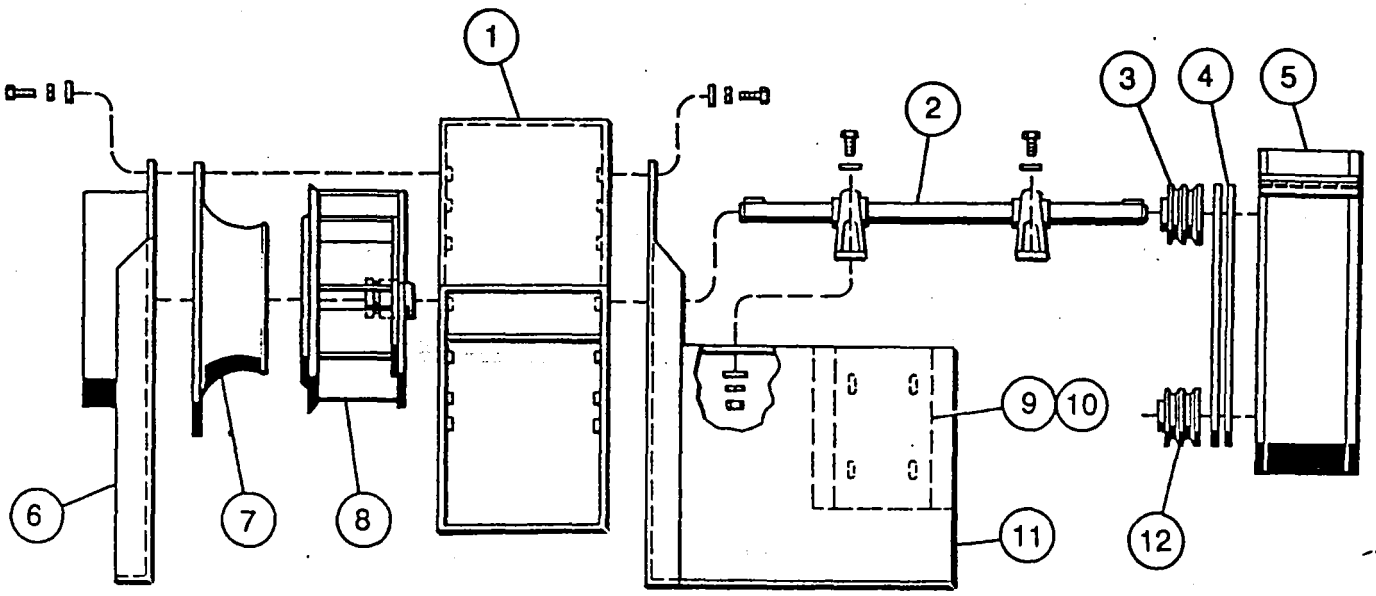
ARRANGEMENT 4



1. HOUSING
2. MOTOR
3. INLET SIDE PLATE
4. INLET BELL (ON MODEL HDBI ONLY)
5. WHEEL (HDBI WHEEL SHOWN)
6. BASE

MODELS HDBI & RBE

ARRANGEMENT 1 AND 9

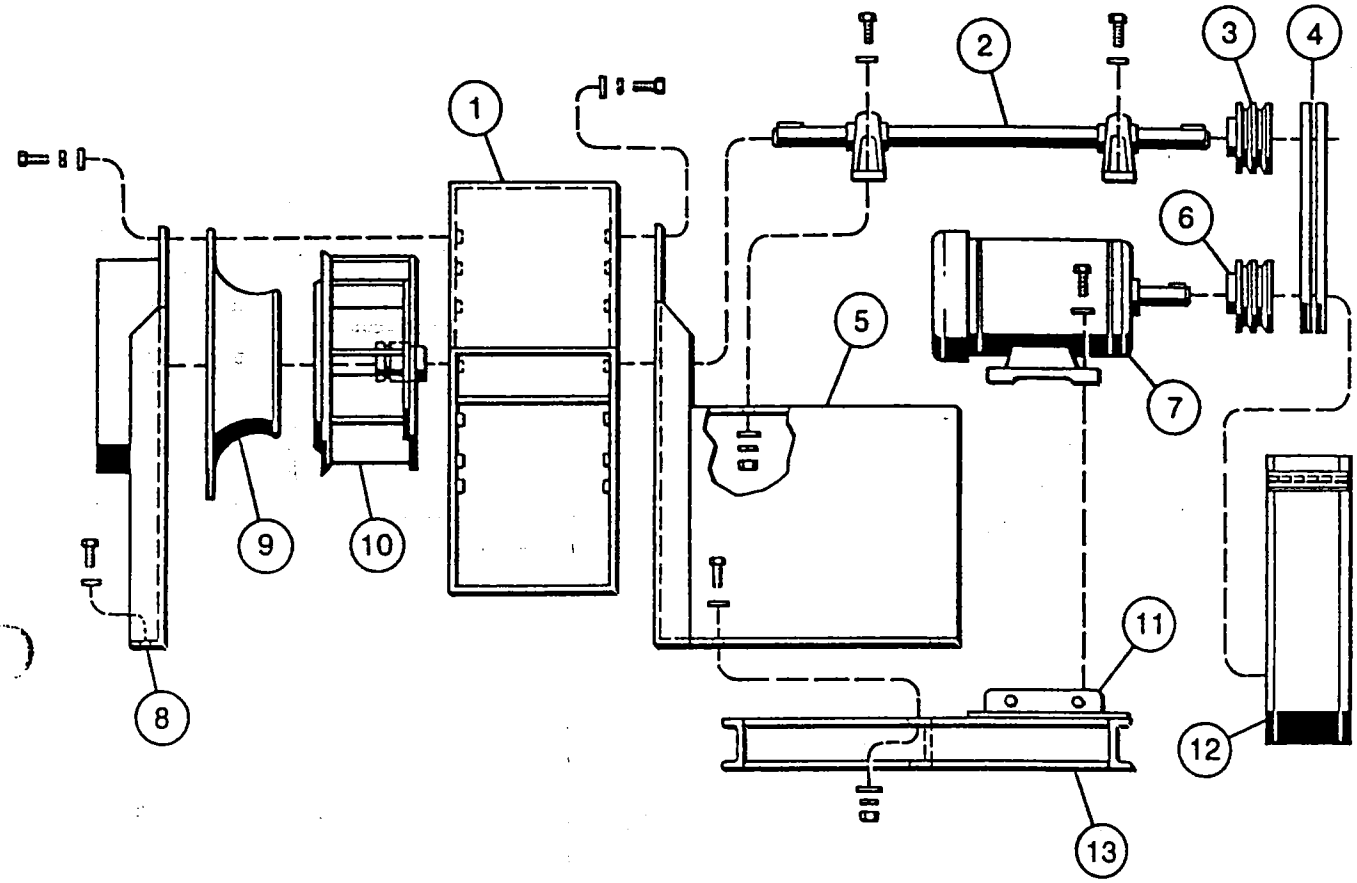


1. HOUSING
2. SHAFT AND BEARING ASSEMBLY
3. FAN SHAFT PULLEY (ARR. 9 ONLY)
4. BELT(S) (ARR. 9 ONLY)
5. BELT GUARD (ARR. 9 ONLY)
6. INLET SIDE PLATE
7. INLET BELL (ON MODEL HDBI ONLY)
8. WHEEL (HDBI WHEEL SHOWN)
9. MOTOR SLIDE BASE (ARR. 9 ONLY)
10. MOTOR (ARR. 9 ONLY) *
11. BASE, FAN
12. MOTOR SHAFT PULLEY (ARR. 9 ONLY)

* MOTOR NOT SHOWN IN FIGURE

MODELS HDBI & RBE

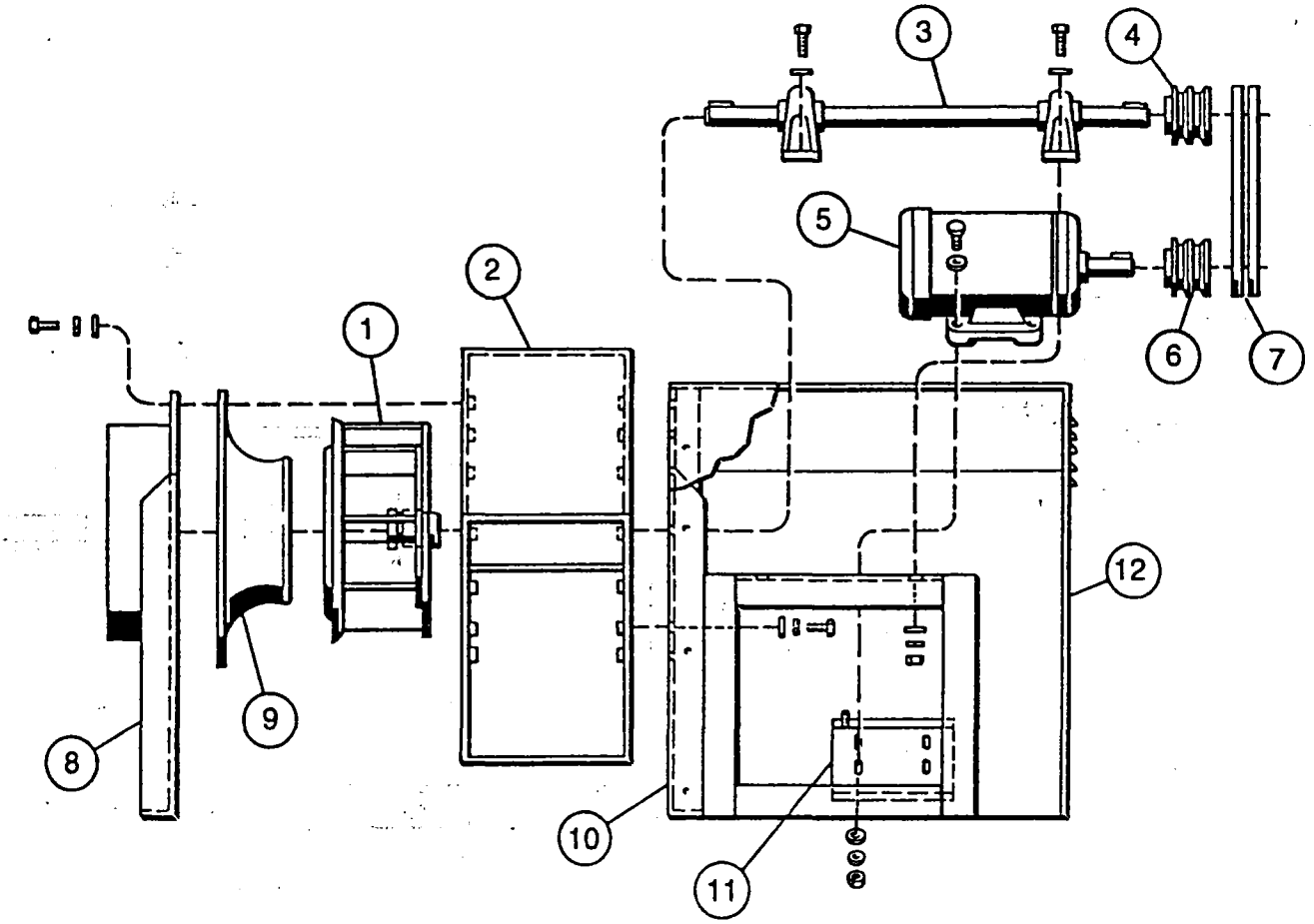
ARRANGEMENT 9CB CHANNEL BASE



1. HOUSING
2. SHAFT AND BEARING ASSEMBLY
3. FAN SHAFT PULLEY
4. BELT(S)
5. BASE, FAN
6. MOTOR SHAFT PULLEY
7. MOTOR
8. INLET SIDE PLATE
9. INLET BELL (ON MODEL HDBI ONLY)
10. WHEEL (HDBI WHEEL SHOWN)
11. MOTOR SLIDE BASE
12. BELT GUARD
13. BASE, CHANNEL

MODELS HDBI & RBE

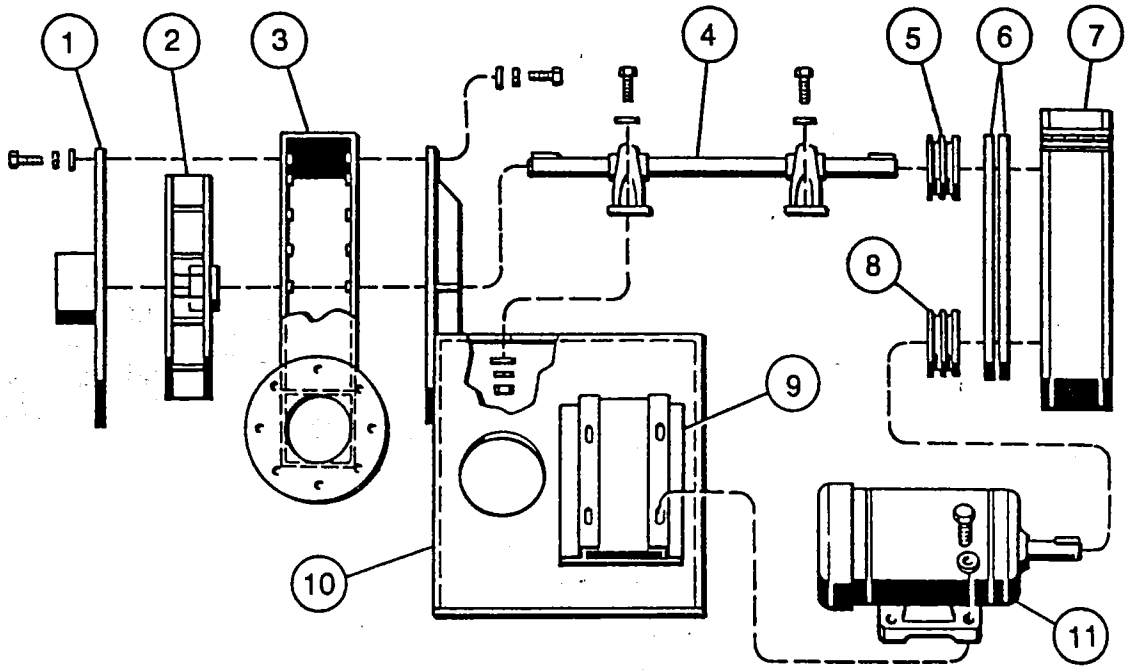
ARRANGEMENT 10



1. WHEEL (HDBI WHEEL SHOWN)
2. HOUSING
3. SHAFT AND BEARING ASSEMBLY
4. FAN SHAFT PULLEY
5. MOTOR
6. MOTOR SHAFT PULLEY
7. BELT(S)
8. INLET SIDE PLATE
9. INLET BELL (ON MODEL HDBI ONLY)
10. BASE
11. MOTOR BASE
12. WEATHER COVER

MODEL HP

ARRANGEMENT 1 AND 9

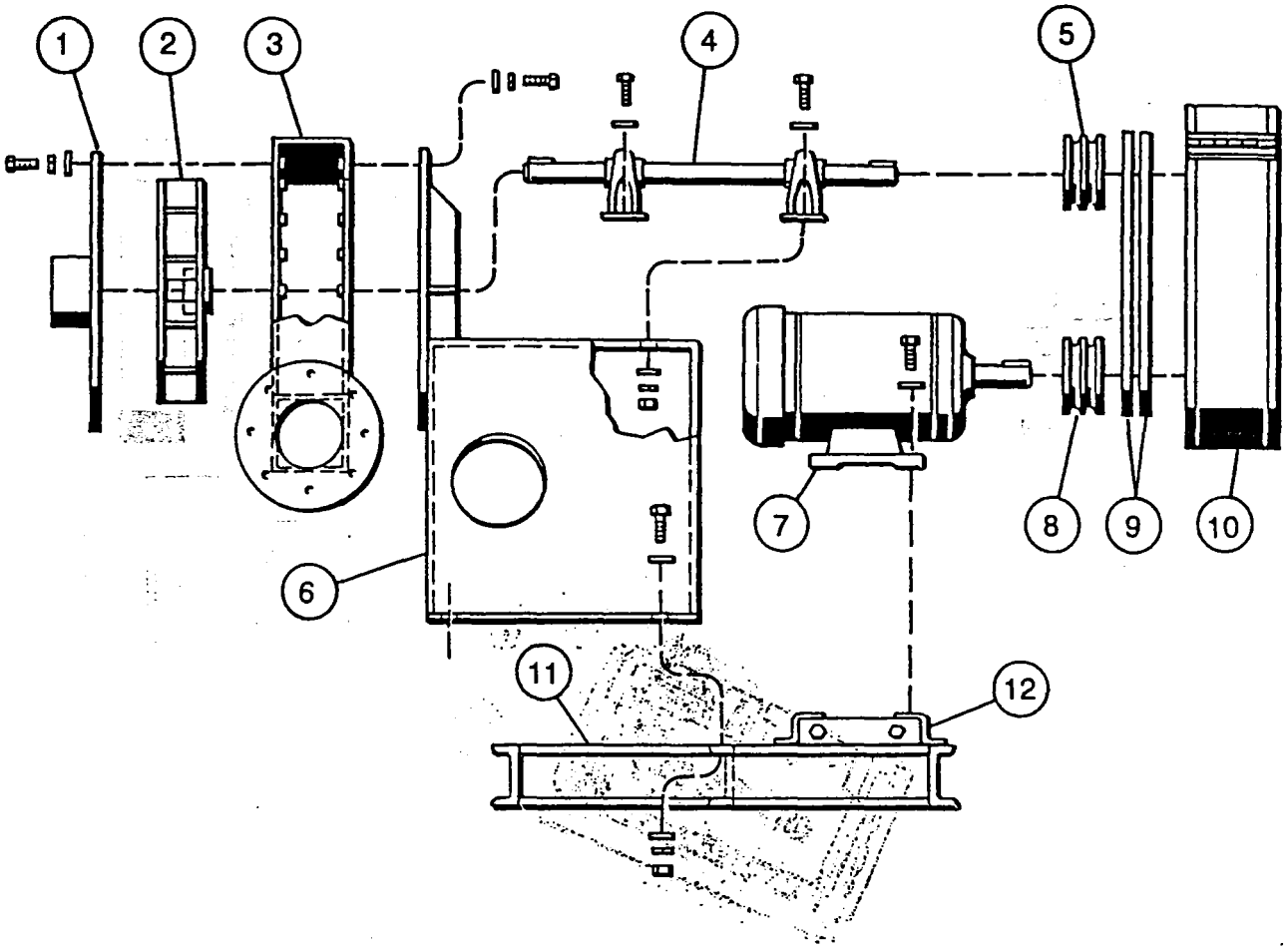


1. INLET SIDE PLATE
2. WHEEL
3. HOUSING
4. SHAFT AND BEARING ASSEMBLY
5. FAN SHAFT PULLEY (ARR. 9 ONLY)
6. BELT(S) (ARR. 9 ONLY)
7. BELT GUARD (ARR. 9 ONLY)
8. MOTOR SHAFT PULLEY (ARR. 9 ONLY)
9. MOTOR SLIDE BASE (ARR. 9 ONLY)
10. BASE, FAN
11. MOTOR (ARR. 9 ONLY)

NOTE: SHAFT SEAL IS NOT SHOWN.

MODEL HP

ARRANGEMENT 9CB CHANNEL BASE



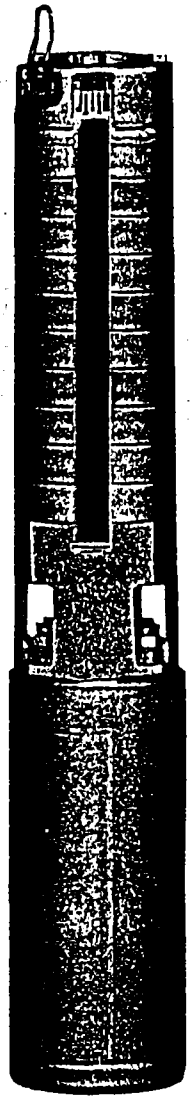
1. INLET SIDE PLATE
2. WHEEL
3. HOUSING
4. SHAFT AND BEARING ASSEMBLY
5. FAN SHAFT PULLEY
6. BASE, FAN
7. MOTOR
8. MOTOR SHAFT PULLEY
9. BELT(S)
10. BELT GUARD
11. BASE, CHANNEL
12. MOTOR SLIDE BASE

NOTE: SHAFT SEAL IS NOT SHOWN.

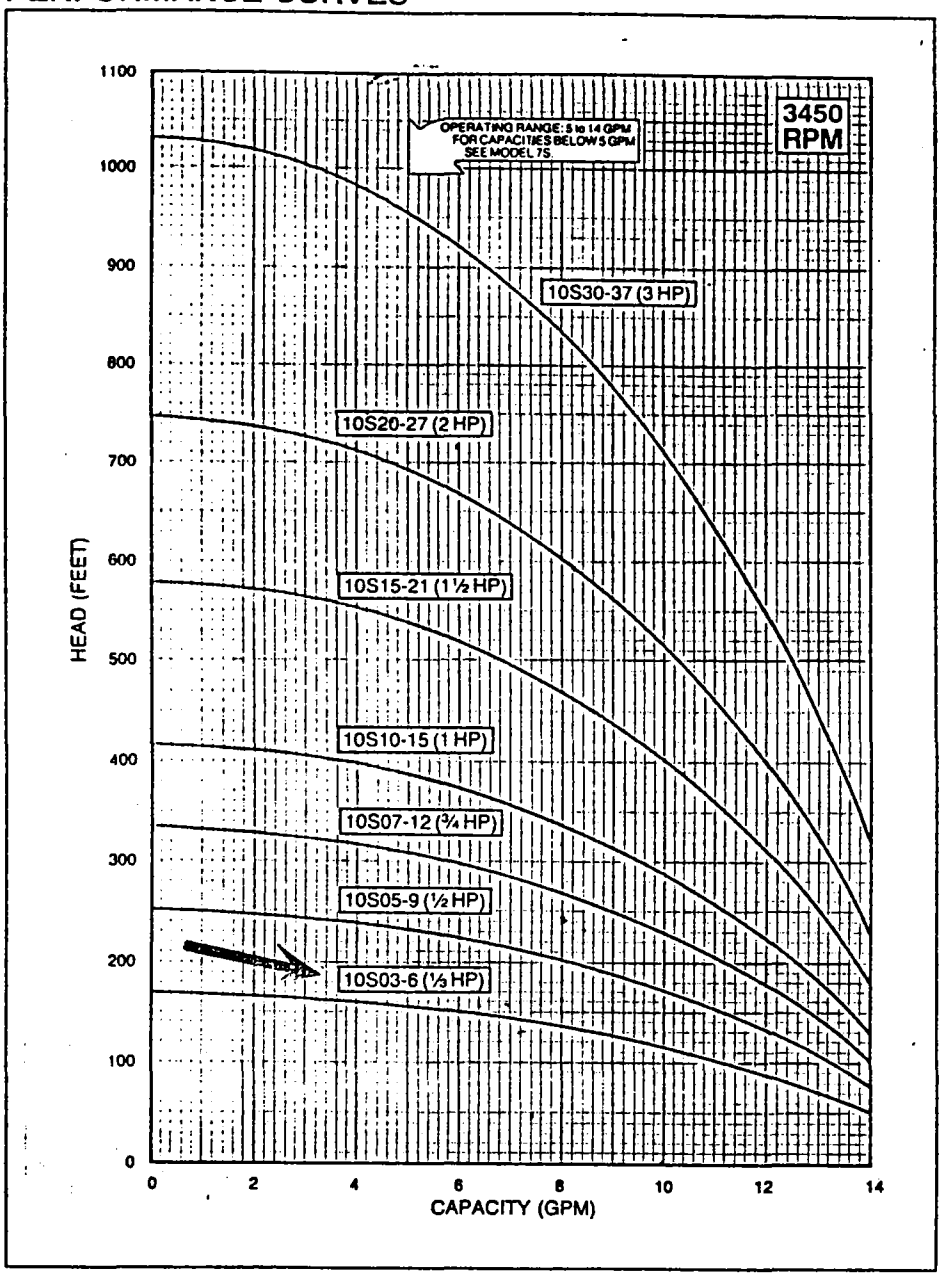
GRUNDFOS

FLOW RANGE
5 to 14 GPM

PUMP OUTLET
1¼" NPT



PERFORMANCE CURVES



DIMENSIONS AND WEIGHTS

MODEL NO.	HP	LENGTH (INCHES)	WIDTH (INCHES)	APPROX. UNIT SHIPPING WT. (LBS.)
10S03-6	⅓	22	3¾	26
10S05-9	½	25⅛	3¾	29
10S07-12	¾	28¼	3¾	32
10S10-15	1	31¼	3¾	34
10S15-21	1½	37⅞	3¾	44
10S20-27	2	42	3¾	49
10S30-37	3	57⅜	3¾	83

Specifications are subject to change without notice.

GRUNDFOS

MODEL 10S

SELECTION CHARTS
(Ratings are in GALLONS PER HOUR – GPH)

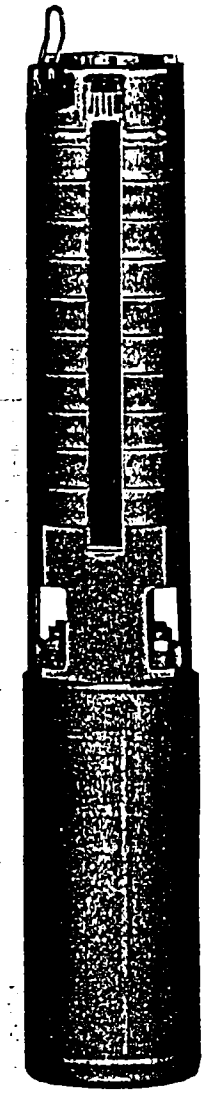
FLOW RANGE
5 to 14 GPM

PUMP OUTLET
1¼" NPT

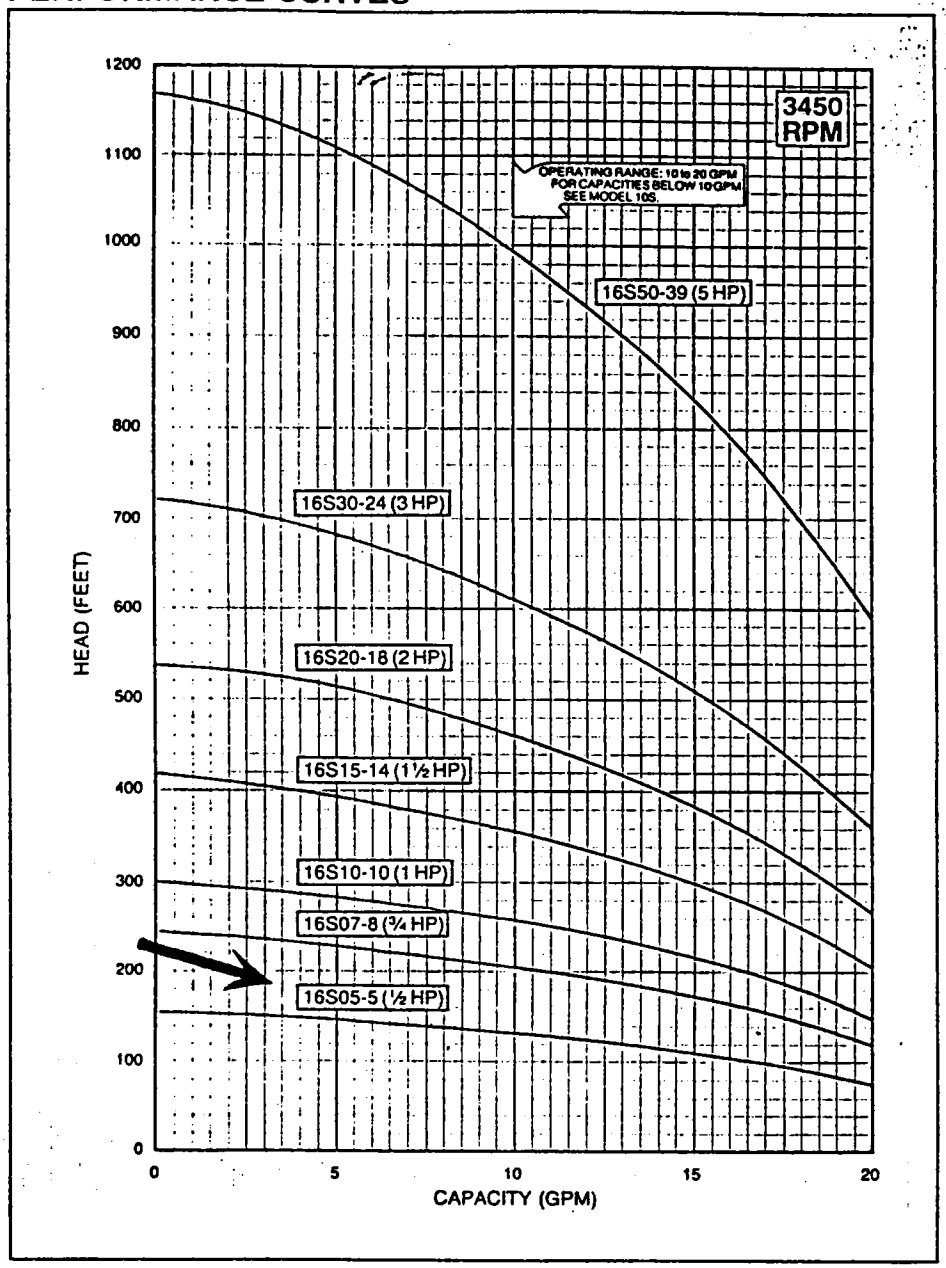
PUMP MODEL	HP	PSI	DEPTH TO PUMPING WATER LEVEL (LIFT) IN FEET																								
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	400	460	520	600	700	800	900	1000	1100
10S03-6	⅓	0		856	811	766	665	564	398	233																	
		20	840	790	741	636	532	315	98																		
		30	790	706	621	501	380	190																			
		40	712	606	500	250																					
		50	588	447	306	153																					
		60	464	232																							
Shut-off PSI:			64	55	47	38	29	21	12	3																	
10S05-9	½	0				847	802	746	685	626	568	499	393	207													
		20		835	785	727	667	608	549	472	347	122															
		30	828	777	718	658	600	538	457	320	73																
		40	768	708	649	590	528	440	290																		
		50	699	639	581	516	422	258																			
		60	630	572	504	403	223																				
Shut-off PSI:			100	92	83	74	66	57	48	40	31	23	14	5													
10S07-12	¾	0					857	828	791	748	703	658	614	570	521	457	362										
		20			849	817	778	734	689	644	601	556	503	432	323	155											
		30		845	812	771	727	682	637	594	549	494	418	302	121												
		40	840	806	765	720	675	631	587	541	484	403	279	85													
		50	800	758	713	668	624	580	533	473	387	254															
		60	751	706	661	617	573	525	462	370	228																
Shut-off PSI:			137	129	120	111	103	94	85	77	68	59	51	42	33	25	16										
10S10-15	1	0							843	816	785	750	714	678	643	608	573	489	226								
		20					835	807	774	739	703	667	632	598	562	522	472	312									
		30				831	802	769	734	698	662	627	592	556	515	463	393	153									
		40		851	827	797	764	728	692	656	621	587	550	508	454	380	276										
		50	848	823	792	758	723	686	651	616	581	544	500	444	366	256	99										
		60	818	787	753	717	681	645	611	576	538	493	434	352	235												
Shut-off PSI:			174	165	157	148	139	131	122	113	105	96	87	79	70	61	53	35	10								
10S15-21	1½	0									853	836	817	795	772	747	721	669	594	511	375						
		20							848	831	811	788	764	739	713	687	661	611	533	415	176						
		30						845	828	807	784	760	735	709	683	657	632	583	495	344							
		40					843	825	804	781	756	731	705	679	653	628	604	552	449	248							
		50				840	822	800	777	752	727	701	675	650	625	600	575	519	389	120							
		60		854	837	818	797	773	748	723	697	671	646	621	596	571	544	478	308								
Shut-off PSI:				237	229	220	211	203	194	185	177	168	159	151	142	133	125	107	81	55	29						
10S20-27	2	0												847	834	819	803	766	707	647	589	500	284				
		20										844	830	814	797	779	760	720	660	602	541	425	87				
		30									842	827	812	795	776	757	737	697	638	580	514	373					
		40							852	839	825	809	792	773	754	734	714	674	615	556	483	309					
		50						850	837	823	807	789	770	751	731	711	691	651	593	531	445	228					
		60					848	835	820	804	786	767	748	728	708	688	668	629	570	502	398	126					
Shut-off PSI:							285	276	268	259	250	242	233	224	216	207	198	181	155	129	103	68	25				
10S30-37	3	0																841	808	769	725	667	596	519	399		
		20														847	838	816	778	736	691	634	562	472	309		
		30													846	836	826	802	762	719	675	617	545	444	252		
		40												845	835	824	813	787	746	702	658	601	525	411	185		
		50											843	833	822	811	798	772	729	685	641	585	504	372	105		
		60										842	832	821	809	796	783	756	71[illegible]	668	625	568	481	326			
Shut-off PSI:												362	354	345	336	328	319	302	27[illegible]	250	224	189	146	103	59		

FLOW RANGE
10 to 20 GPM

PUMP OUTLET
1¼" NPT



PERFORMANCE CURVES



DIMENSIONS AND WEIGHTS

MODEL NO.	HP	LENGTH (INCHES)	WIDTH (INCHES)	APPROX. UNIT SHIPPING WT. (LBS.)
16S05-5	½	21 ⅞	3¾	27
16S07-8	¾	25	3¾	29
16S10-10	1	27 ⅛	3¾	32
16S15-14	1½	32	3¾	36
16S20-18	2	34 ⅝	3¾	40
16S30-24	3	46 ⅝	3¾	64
16S50-39	5	63 ⅝	3¾	94

Specifications are subject to change without notice.

GRUNDFOS

MODEL 16S

SELECTION CHARTS

(Ratings are in GALLONS PER HOUR – GPH)

FLOW RANGE: 10 to 20 GPM

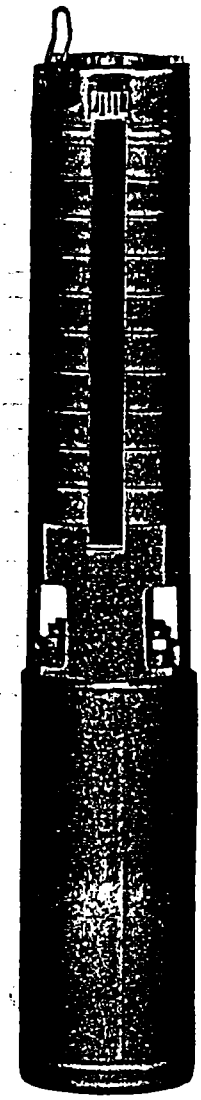
PUMP OUTLET: 1¼" NPT

PUMP MODEL	HP	PSI	DEPTH TO PUMPING WATER LEVEL (LIFT) IN FEET																								
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	400	460	520	600	700	800	900	1000	1100
16S05-5	½	0			1260	1135	920	710																			
		20	1215	1090	845	600	300																				
		30	1035	865	480	95																					
		40	760	480	240																						
		50	390																								
		60	175																								
Shut-off PSI:			58	49	40	32	23	14																			
16S07-8	¾	0					1230	1150	1050	950	770	585	310														
		20			1205	1130	1015	910	710	510	255																
		30	1270	1195	1105	1015	860	705	450	190	95																
		40	1180	1100	980	860	645	430	215																		
		50	1075	980	810	640	370	100																			
		60	940	810	576	350	175																				
Shut-off PSI:			97	88	80	71	62	54	45	36	28	19	10														
16S10-10	1	0						1250	1185	1125	1040	955	820	685	480	280											
		20				1230	1165	1100	1010	920	775	630	420	210	105												
		30			1220	1160	1085	1010	890	770	585	400	200														
		40		1210	1145	1080	985	885	730	575	355	135															
		50	1200	1140	1060	980	850	720	530	335	170																
		60	1125	1055	950	845	680	515	290																		
Shut-off PSI:			123	115	106	97	89	80	71	63	54	45	37	28	19	11											
16S15-14	1½	0								1260	1215	1175	1125	1080	1015	950	860	640	200								
		20							1205	1160	1110	1060	995	925	825	730	600	305									
		30					1240	1200	1150	1105	1045	990	905	820	705	590	440	145									
		40				1235	1190	1145	1095	1045	960	900	800	695	560	420	255										
		50			1225	1185	1135	1090	1030	965	880	790	670	545	390	235	120										
		60		1220	1175	1130	1080	1025	950	870	765	660	515	375	205												
Shut-off PSI:				167	158	149	141	132	123	115	106	97	89	80	71	63	54	37	28								
16S20-18	2	0										1270	1235	1200	1170	1135	1090	1000	810	525	160						
		20									1225	1190	1160	1120	1080	1040	985	860	600	250							
		30								1220	1185	1150	1115	1075	1030	980	915	770	475	115							
		40							1215	1180	1145	1110	1065	1025	965	910	835	665	340								
		50						1210	1175	1140	1100	1060	1010	960	895	830	740	550	190								
		60					1205	1170	1135	1100	1050	1010	950	890	810	735	635	420									
Shut-off PSI:							194	186	177	168	160	151	142	134	125	116	108	90	65	39	13						
16S30-24	3	0																1175	1095	990	850	585	125				
		20													1220	1195	1170	1115	1020	885	710	390					
		30												1215	1190	1165	1140	1080	975	820	625	280					
		40											1210	1190	1160	1135	1105	1040	920	750	535	170					
		50										1210	1185	1160	1130	1100	1070	1000	860	675	440						
		60									1205	1180	1150	1125	1100	1070	1030	950	800	590	330						
Shut-off PSI:											239	230	221	213	204	195	187	169	143	117	91	57	13				
16S50-39	5	0																			1205	1140	1050	925	755	530	255
		20																			1170	1100	1000	855	660	410	110
		30																		1200	1150	1080	970	815	605	345	
		40																		1180	1135	1060	940	770	550	280	
		50																	1210	1165	1115	1035	905	725	540	210	
		60																	1190	1145	1090	1010	865	680	430	140	
Shut-off PSI:																			342	316	290	256	213	169	126	83	39

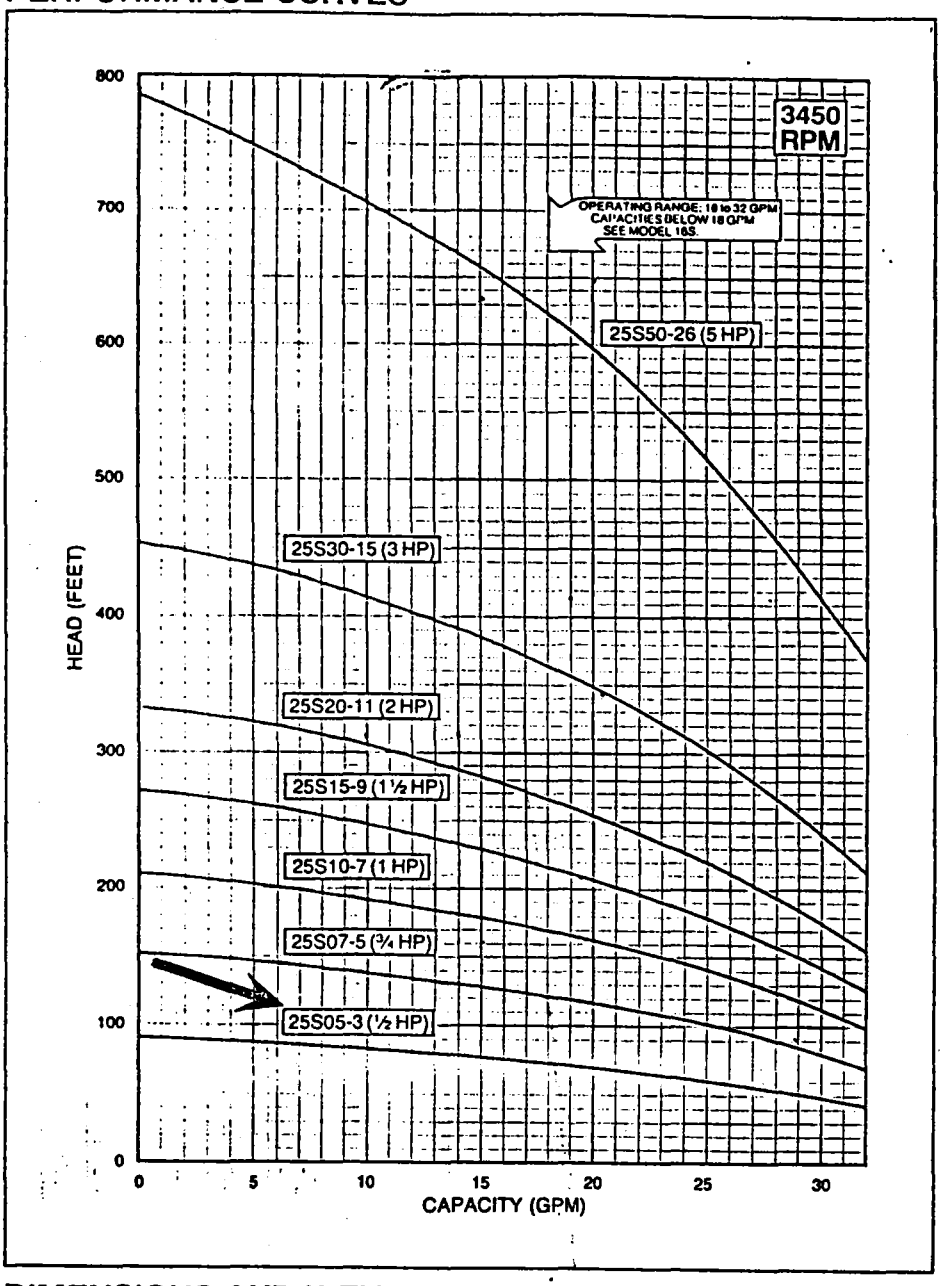
GRUNDFOS

FLOW RANGE
18 to 32 GPM

PUMP OUTLET
1½" NPT



PERFORMANCE CURVES



DIMENSIONS AND WEIGHTS

MODEL NO.	HP	LENGTH (INCHES)	WIDTH (INCHES)	APPROX. UNIT SHIPPING WT. (LBS.)
25S05-3	½	20 ¼	3¾	26
25S07-5	¾	22 ⅜	3¾	28
25S10-7	1	24 ⅞	3¾	29
25S15-9	1 ½	28	3¾	34
25S20-11	2	28 ⅞	3¾	37
25S30-15	3	39 ⅛	3¾	59
25S50-26	5	51 ⅛	3¾	76

Specifications are subject to change without notice.

GRUNDFOS

MODEL 25S

SELECTION CHARTS
(Ratings are in GALLONS PER HOUR – GPH)

FLOW RANGE
18 to 32 GPM

PUMP OUTLET
1½" NPT

PUMP MODEL	HP	PSI	DEPTH TO PUMPING WATER LEVEL (LIFT) IN FEET																								
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	340	400	460	520	600	700	800	900	1000	1100
25S05-3	½	0		1960	1350	740																					
		20	1115	390	195																						
		30	630																								
		40																									
		50																									
		60																									
Shut-off PSI:			31	22	13	5																					
25S07-5	¾	0			2070	1785	1435	1085																			
		20	1975	1715	1310	905	450																				
		30	1625	1350	735	120																					
		40	1170	705	350																						
		50	605																								
		60	245																								
Shut-off PSI:			57	48	39	31	22	13																			
25S10-7	1	0					1880	1710	1460	1210	760	305															
		20		1990	1820	1655	1375	1100	625	150	80																
		30	1980	1795	1590	1385	780	575	290																		
		40	1765	1595	1280	970	490																				
		50	1520	1290	855	420	210																				
		60	1180	835	420																						
Shut-off PSI:			83	74	65	57	48	39	31	22	13	5															
25S15-9	1½	0						1930	1800	1675	1485	1295	975	650													
		20				1890	1760	1630	1420	1215	870	530	265														
		30			1875	1745	1585	1420	1135	850	470	90															
		40		1850	1715	1580	1355	1125	770	410	205																
		50	1835	1705	1530	1350	1045	735	370																		
		60	1670	1530	1280	1030	660	290	145																		
Shut-off PSI:			109	100	91	83	74	65	57	48	39	31	22	13													
25S20-11	2	0						1985	1865	1760	1655	1505	1350	1110	870	560											
		20					1950	1835	1725	1620	1455	1290	1035	780	465	150											
		30				1920	1820	1720	1585	1450	1235	1015	720	420	210												
		40			1910	1805	1690	1580	1400	1225	955	685	375														
		50		1890	1785	1685	1540	1395	1165	935	625	320	160														
		60	1880	1775	1655	1535	1345	1155	870	590	295																
Shut-off PSI:			135	126	118	109	100	92	83	74	66	57	48	40	31	23											
25S30-15	3	0										1935	1860	1785	1705	1625	1510	1240									
		20								1910	1835	1760	1680	1595	1475	1360	1190	810									
		30						1980	1900	1825	1750	1670	1570	1470	1325	1180	985	560									
		40					1970	1890	1815	1740	1650	1560	1440	1315	1140	965	745	295									
		50				1955	1880	1800	1720	1645	1540	1430	1280	1125	920	720	490	130									
		60			1945	1865	1790	1715	1620	1530	1400	1270	1085	900	680	455	230										
Shut-off PSI:					170	161	152	144	135	126	118	109	100	92	83	74	66	48									
25S50-26	5	0																1950	1815	1680	1515	1195	610				
		20															1935	1845	1715	1555	1350	950	300				
		30														1925	1880	1795	1660	1480	1250	810	150				
		40													1920	1875	1830	1745	1600	1400	1135	660					
		50											1960	1910	1870	1825	1780	1690	1530	1305	1010	510					
		60										1950	1905	1860	1815	1775	1730	1635	1455	1200	875	350					
Shut-off PSI:												253	245	236	227	219	210	193	167	141	115	80	37				

Redi-Flo

Limited Warranty

Redi-Flo Environmental Pumps manufactured by GRUNDFOS Pumps Corporation (GRUNDFOS) are warranted to the original user only to be free of defects in material and workmanship for a period of 18 months from date of installation, but not more than 24 months from date of manufacture. GRUNDFOS' liability under this warranty shall be limited to repairing or replacing at GRUNDFOS' option without charge, F.O.B. GRUNDFOS' factory or authorized service station, any product of GRUNDFOS manufacture. GRUNDFOS will not be liable for any costs of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim. Products which are sold but not manufactured by GRUNDFOS are subject to the warranty provided by the manufacturer of said products and not by GRUNDFOS' warranty. GRUNDFOS will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with GRUNDFOS' printed installation and operating instructions.

To obtain service under this warranty, the defective product must be returned to the distributor or dealer of GRUNDFOS products from which it was purchased together with proof of purchase and installation date, failure date, and supporting installation data. Unless otherwise provided, the distributor or dealer will contact GRUNDFOS or an authorized service station for instructions. Any defective product to be returned to GRUNDFOS or a service station must be sent freight prepaid; documentation supporting the warranty claim and/or a Return Material Authorization must be included if so instructed.

GRUNDFOS WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, OR EXPENSES ARISING FROM INSTALLATION, USE OR ANY OTHER CAUSES. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THOSE WARRANTIES DESCRIBED OR REFERRED TO ABOVE.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages and some jurisdictions do not allow limitations on how long implied warranties may last. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights and you may also have other rights which vary from jurisdiction to jurisdiction.

Attorney's Fees

Should any dispute arise between Buyer and GRUNDFOS with regard to this agreement or any sale of product pursuant to this agreement, the prevailing party in said dispute shall be entitled to reasonable attorney's fees.

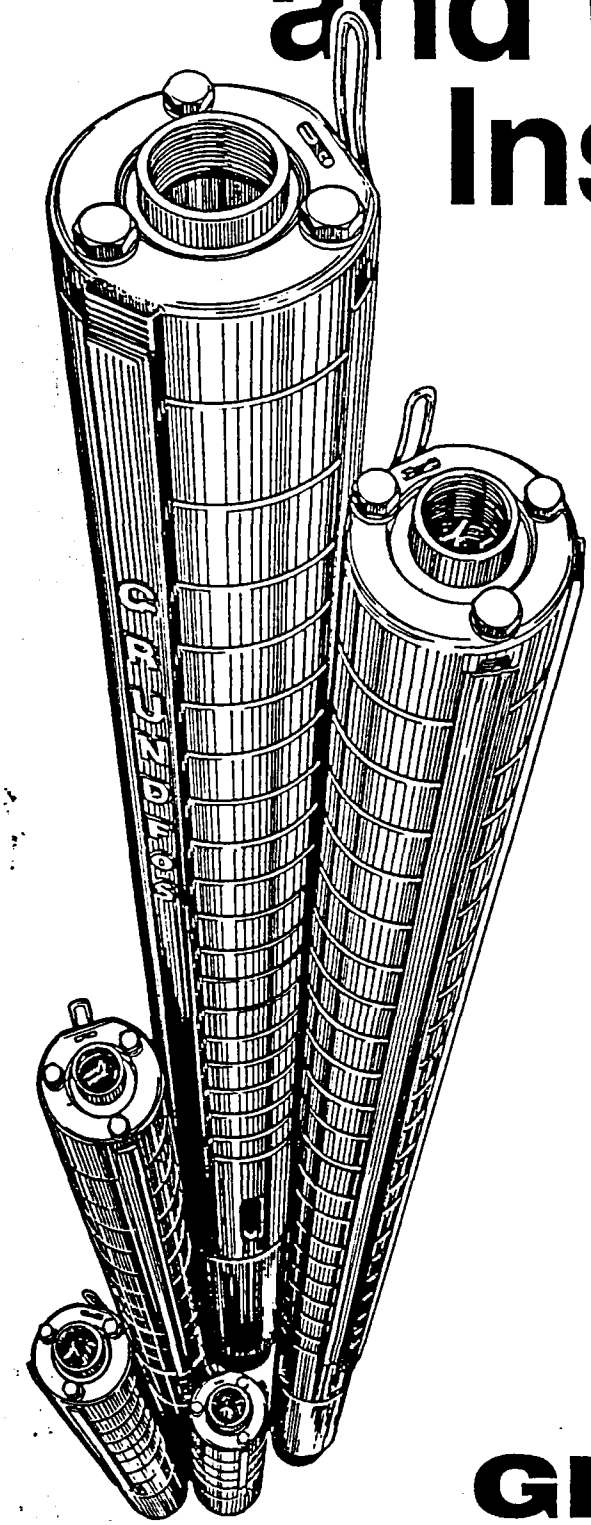
Choice of Law

This agreement shall be governed by and construed in accordance with the laws of the State of California. Buyer agrees that all actions or proceedings arising directly or indirectly out of a sale of products from GRUNDFOS to Buyer shall be litigated only in courts located within California, and Buyer consents to the jurisdiction of any such local, state or federal court.

August '90

GRUNDFOS

Installation and Operating Instructions



4-Inch Single Phase Stainless Steel Submersible Pumps

1. Pre-Installation
2. Splicing the Motor Cable
3. Installation
4. Electrical
5. Start Up

GRUNDFOS®

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Installation and Operating Instructions

4-INCH SINGLE PHASE STAINLESS STEEL SUBMERSIBLE PUMPS

1. Pre-Installation

If the pump is to be installed in a new well, the well should be fully developed and bailed or blown free of cuttings and sand. The stainless steel construction of the GRUNDFOS submersible makes it resistant to abrasion; however, no pump made of any material can forever withstand the destructive wear that occurs when constantly pumping sandy water.

If this pump is used to replace an oil-filled submersible or oil lubricated line-shaft turbine in an existing well, the well must be blown or bailed clear of oil.

Determine the maximum depth of the well, and the drawdown level at the pump's maximum capacity. Pump selection and setting depth should be made based on this data.

Submersible well pumps are designed for pumping clear, cold water, free of air or gases. Decreased pump performance and life expectancy can occur if the water is not clear, cold or contains air or gases. Water temperature should not exceed 102°F.

A check should be made to ensure that the installation depth of the pump will always be at least three feet below the maximum drawdown level of the well.

The bottom of the motor should never be installed lower than the top of the well screen or within five feet of the well bottom.

Ensure that the requirement for minimum flow past the motor (Table A) is met.

2. Splicing the Motor Cable

If the splice is carefully made, it will be as efficient as any other portion of the cable, and will be completely watertight.

There are a number of cable splicing kits available today – epoxy filled, rubber-sealed and so on. Many perform well if the manufacturer's directions are followed carefully, If one of these kits is not used, we recommend the following method for splicing the motor cable to the drop cable:

Examine the motor cable and the drop cable carefully for damage. Cut the motor leads off in a staggered manner. Cut the ends of the drop cable so that the ends match up with the motor leads. Be sure to match the colors. Strip back and trim off one-half inch of insulation from each lead, making sure to scrape the wire bare to obtain a good connection. Be careful not to damage the copper conductor when stripping off the insulation. Insert a properly sized Sta-Kon-type connector on each pair of leads, again making sure that colors are matched. Using Sta-Kon crimping pliers, indent the lugs. Be sure to squeeze down hard on the pliers, particularly when using large cable. Form a piece of electrical insulation putty tightly around each Sta-Kon. The putty should overlap on the insulation of the wire. Use a good quality tape such as *#33 Scotch Waterproof* or *Plymouth Rubber Company Slipknot Grey*. Wrap each wire and joint tightly for a distance of about 2½ inches on each side of the joint. Make a minimum of four passes over each joint and overlap each pass approximately one inch to assure a completely watertight seal.

After splicing the motor cable, replace the cable guard by inserting into the slots at the discharge end of the pump. Resecure the tabs at the bottom end of the cable guard. **NOTE: For proper installation the cable guard must be pushed to the TOP end of the mounting slots before securing bottom tabs.**

3. Installation

A back-up wrench should be used when the riser pipe is attached to the pump. The pump should only be gripped by the flats on the top of the discharge chamber. Under no circumstances grip the body of the pump, cable guard or motor.

When tightened down, the threaded end of the first section of the riser pipe or the nipple must not come in contact with the check valve retainer in the discharge chamber of the pump.

After the first section of the riser pipe has been attached to the pump, the lifting cable or elevator should be clamped to the pipe. Do not clamp the pump. When raising the pump and riser section, be careful not to place bending stress on the pump by picking it up by the pump-end only.

Make sure that the electrical cables are not cut or damaged in any way when the pump is being lowered in the well.

Do not use the power cable to support the weight of the pump.

To protect against surface water entering the well and contaminating the water source, the well should be finished off above grade, utilizing a locally-approved well seal or pitless adapter unit.

We recommend that steel riser pipes always be used with the larger submersibles. A pipe thread compound should be used on all joints. Make sure that the joints are adequately tightened in order to resist the tendency of the motor to loosen the joints when stopping and starting.

It is recommended that plastic-type riser pipe be used only with the smaller domestic submersibles. The manufacturer or representative should be contacted to insure the pipe type and physical characteristics are suitable for this use. Use the correct joint compound recommended by the specific pipe manufacturer. Besides making sure that joints are securely fastened, we recommend the use of a torque arrestor when using plastic pipe.

Do not connect the first plastic riser section directly to the pump. Always attach a metallic nipple or adapter into the discharge chamber. The threaded end of the nipple or adapter must not come in contact with the check valve retainer in the discharge chamber when tightened down.

The drop cable should be secured to the riser pipe at frequent intervals to prevent sagging, looping and possible cable damage. Nylon cable clips or waterproof tape may be used. The cable splice should be protected by securing it with clips or tape just above each joint.

IMPORTANT: *Plastic pipe tends to stretch under load. This stretching must be taken into account when securing the cable to the riser pipe. Leave three to four inches of slack between clips or taped points. This tendency for plastic pipe to stretch will also affect the calculation of the pump setting depth. As a general rule, you can estimate that plastic pipe will stretch to approximately 2% of its length. When plastic riser pipe is used, it is recommended that a safety cable be attached to the pump to lower and raise it. The discharge chamber of GRUNDFOS 4-inch submersibles is designed to accommodate this cable. (See figures 1A, 1B; and 2).*

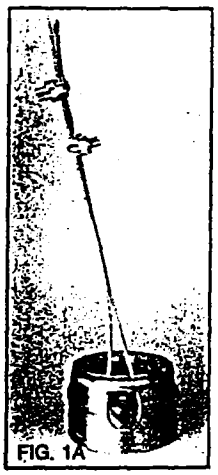


FIG. 1A

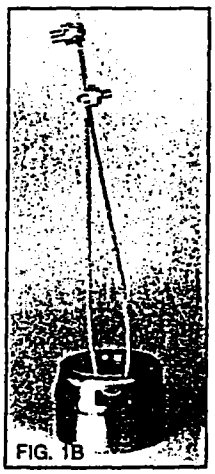


FIG. 1B

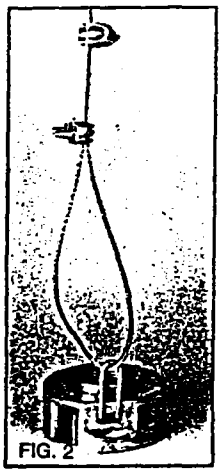


FIG. 2

CHECK VALVES: A check valve should always be installed at the surface of the well. In addition, for installations deeper than 200 feet, check valves should be installed at no more than 200 foot intervals.

4. Electrical

WARNING: *A faulty motor or wiring can be a serious electrical shock hazard if it or surrounding water are accessible to human contact. To avoid this danger, connect the motor frame to the power supply grounding terminal with copper conductor no smaller than the circuit conductors unless the motor and surrounding water are inaccessible, as in a drilled well. In all installations connect above-ground metal plumbing to the power supply ground per National Electrical Code Article 250-80 to prevent electrical shock hazard.*

Verification of the electrical supply should be made to insure the voltage, phase and frequency match that of the motor. Motor electrical data can be found in Table B.

If voltage variations are larger than ± 10%, do not operate the pump.

Single phase motor control boxes should be connected as shown on the wiring diagram mounted on the inside cover of the control box supplied with the motor.

The type of wire used between the pump and control boxes should be approved for submersible pump application. The conductor insulation should be type RW, RUW, TW or equivalent.

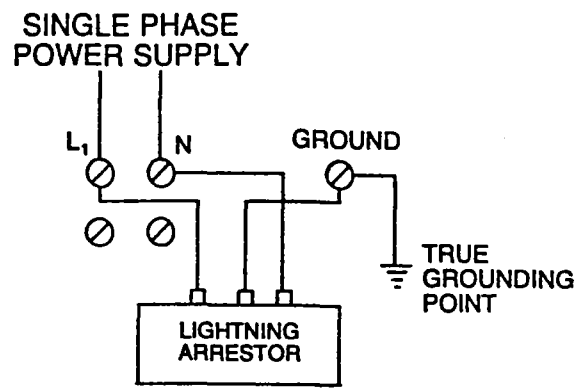
A high voltage surge arrestor should be used to protect the motor against lightning and switching surges. Lightning voltage surges in power lines are caused when lightning strikes somewhere in the area. Switching surges are caused by the opening and closing of switches on the main high-voltage distribution power lines.

The correct voltage-rated arrestor should be installed on the supply (line) side of the control box or starter (see figure 3). The arrestor must be grounded in accordance with the National Electrical Code and local governing regulations.

PUMPS SHOULD NEVER BE STARTED UNLESS THE PUMP IS TOTALLY SUBMERGED. SEVERE DAMAGE MAY BE CAUSED TO THE PUMP AND MOTOR IF THEY ARE RUN DRY.

The control box shall be permanently grounded in accordance with the National Electrical Code and local governing codes or regulations. The ground wire should be a bare stranded copper conductor at least the same size as the drop cable wire size. Ground wire should be run as short a distance as possible and securely fastened to a true grounding point.

True grounding points are considered to be: a grounding rod driven into the water strata; steel well casing submerged into the water lower than the pump setting level; and steel discharge pipes without insulating couplings. If plastic discharge pipe and well casing are used, a properly sized bare copper wire should be connected to a stud on the motor and run to the control panel. Do not ground to a gas supply line. Connect the grounding wire to the ground point first, and then to the terminal in the control box.



SINGLE PHASE HOOK-UP

FIGURE 3

5. Start Up

A. Attach a temporary horizontal length of pipe to the riser pipe.

B. Install a gate valve and another short length of pipe to the temporary pipe.

C. Adjust the gate valve one-third of the way open.

D. Verify that the electrical connections are in accordance with the wiring diagram.

E. After proper rotation has been checked, start the pump and let it operate until the water runs clear of sand, silt and other impurities.

F. Slowly open the valve in small increments as the water clears until the valve is all the way open. The pump should not be stopped until the water runs clear.

G. If the water is clean and clear when the pump is first started, the valve should still be slowly opened until it is all the way open.

Table A — Min. Water Flow Requirements for 4-Inch Submersible Pump Motors

Motor Diameter	Casing or Sleeve I.D. in Inches	Min. GPM Flow Passing the Motor
4-Inch	4	1.2
	5	7
	6	13
	7	21
	8	30

NOTES:

a. For Franklin Motors Only: A flow inducer or sleeve must be used if the water enters the well above the motor or if there is insufficient water flow past the motor.

b. For Franklin Motors Only: The minimum water velocity over 4" motors is 0.25 feet per second.

Table B — GRUNDFOS Electrical Data: 4-Inch, 2-Wire and 3-Wire, 60 Hertz Submersible Pump Motors

Rated HP	Volts	PH	Service Factor	Rated HP Amps	Service Factor Amps	Circuit Breaker or Standard Fuse	Dual Element Fuse	KVA Code	Locked Rotor Amps	Winding Resistance (Ohms)	
4-Inch, Two-Wire											
⅓	230	1	1.75	3.0	4.4	15	5	S	25.5	6.8-8.2	
½	230	1	1:60	4.3	5.9	15	7	R	34.5	5.2-6.3	
¾	230	1	1.50	6.6	8.0	20	9	N	40.5	3.2-3.8	
1	230	1	1.40	8.0	9.6	25	12	M	47.4	2.5-3.1	
1½	230	1	1.30	10.6	13.1	35	15	L	60.8	1.9-2.3	
4-Inch, Three-Wire										BY	RY
⅓	230	1	1.75	3.0	4.4	15	5	L	14.0	6.8-8.3	17.3-21.1
½	230	1	1.60	4.3	5.9	15	7	L	20.0	4.7-5.7	15.8-19.6
¾	230	1	1.50	6.6	8.0	20	9	L	30.8	3.2-3.9	14.0-17.2
1	230	1	1.40	8.0	9.6	25	12	K	36.3	2.6-3.1	10.3-12.5
1½	230	1	1.30	9.7	11.5	30	15	H	44.0	1.9-2.3	7.8-9.6

Table C

Franklin Electrical Data: 4-Inch, 60 Hz Submersible Pump Motors

Rated HP	Volts	PH	Service Factor	Rated HP Amps	Service Factor Amps	Circuit Breaker or Standard Fuse	Dual Element Fuse	KVA Code	Locked Rotor Amps	Winding Resistance (Ohms)
4-Inch, Two Wire										
⅓	115	1	1.75	7.0	8.9	25	10	S	48.4	1.5-1.9
	230	1	1.75	3.5	4.4	15	5	S	24.2	6.0-7.4
½	115	1	1.60	9.6	11.9	30	15	R	62.4	1.0-1.3
	230	1	1.60	4.8	5.9	15	7	R	31.2	4.2-5.2
¾	230	1	1.50	6.4	8.0	20	9	N	40.2	2.7-3.4
1	230	1	1.40	8.2	9.6	25	12	M	46.0	2.2-2.8
1½	230	1	1.30	10.6	13.1	35	15	L	56.8	1.5-1.9

Rated HP	Volts	PH	Service Factor	Rated HP Amps	Service Factor Amps	Circuit Breaker or Standard Fuse	Dual Element Fuse	KVA Code	Locked Rotor Amps	Winding Resistance (Ohms) BY	Winding Resistance (Ohms) RY
4-Inch, Three Wire											
⅓	115	1	1.75	7.0	8.9	20	8	N	32.8	1.5-1.9	5.7-7.1
	230	1	1.75	3.5	4.4	15	5	N	16.4	6.0-7.4	23.4-28.6
½	115	1	1.60	9.6	11.9	30	15	M	46.0	1.0-1.3	3.8-4.7
	230	1	1.60	4.8	5.9	15	7	M	23.1	4.2-5.2	15.5-19.6
¾	230	1	1.50	6.4	8.0	20	9	M	33.1	2.7-3.4	11.0-13.6
1	230	1	1.40	8.0	9.6	25	12	L	42.0	2.2-2.8	9.5-11.7
1½	230	1	1.30	10.0	11.5	30	15	J	52.8	1.5-1.9	6.2-8.5
2	230	1	1.25	10.0	13.1	35	15	G	51.0	1.6-2.3	5.2-7.1
3	230	1	1.15	14.0	16.5	45	20	F	71.0	0.9-1.5	3.0-4.9
5	230	1	1.15	23.0	27.5	80	30	F	118.0	0.7-1.0	2.1-2.8

LIMITED WARRANTY

Products manufactured by GRUNDFOS PUMPS CORPORATION (GRUNDFOS) are warranted to the original user only to be free of defects in material and workmanship for a period of 18 months from date of installation, but not more than 24 months from date of manufacture. GRUNDFOS' liability under this warranty shall be limited to repairing or replacing at GRUNDFOS' option, without charge, F.O.B. GRUNDFOS' factory or authorized service station, any product of GRUNDFOS manufacture. GRUNDFOS will not be liable for any costs of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim. Products which are sold but not manufactured by GRUNDFOS are subject to the warranty provided by the manufacturer of said products and not by GRUNDFOS' warranty. GRUNDFOS will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with GRUNDFOS' printed installation and operating instructions.

To obtain service under this warranty, the defective product must be returned to the distributor or dealer of GRUNDFOS products from which it was purchased together with proof of purchase and installation date, failure date, and supporting installation data. Unless otherwise provided, the distributor or dealer will contact GRUNDFOS or an authorized service station for instructions. Any defective product to be returned to GRUNDFOS or a service station must be sent freight prepaid; documentation supporting the warranty claim and/or a Return Material Authorization must be included if so instructed.

GRUNDFOS WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, OR EXPENSES ARISING FROM INSTALLATION, USE OR ANY OTHER CAUSES. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THOSE WARRANTIES DESCRIBED OR REFERRED TO ABOVE.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages and some jurisdictions do not allow limitations on how long implied warranties may last. Therefore, the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from jurisdiction to jurisdiction. GRUNDFOS PUMPS CORPORATION, 2555 Clovis Avenue, Clovis California 93612, telephone number (209) 292-8000.

GRUNDFOS®

GRUNDFOS Pumps Corp. • 2555 Clovis Ave.• Clovis, CA 93612
Support Centers: Allentown, PA • Atlanta, GA • Mississauga, Ontario, Canada

L-SP-TL-048 | 1/31/92
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FHP MANUFACTURING
Florida Heat Pump Environmental Equipment

INSTALLATION MANUAL

SL SERIES

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MODEL NOMENCLATURE

SL 040 -1 VT C - F L T

SERIES:
SL - SUPER LOW-TEMP

NOMINAL CAPACITY:

VOLTAGE DESIGNATION:
0 - 115/1/60
1 - 208/1/60 & 230/1/60
2 - 277/1/60
3 - 208/3/60 & 230/3/60
4 - 460/3/60
5 - 575/3/60

CABINET CONFIGURATION:
VT - VERTICAL
HZ - HORIZONTAL
CF - COUNTERFLOW

HEAT EXCHANGER MATERIAL:
C - COPPER
N - CUPRO-NICKEL

SUPPLY AIR LOCATION:
T - TOP
F - FRONT
R - REAR
S - STRAIGHT THRU
E - END BLOW
B - BOTTOM

RETURN AIR LOCATION:
L - LEFT
R - RIGHT
B - BACK
F - FRONT

WATER CONNECTION LOCATION:
F - FRONT

FHP Manufacturing a HARROW Company 601 N.W. 65th Court, Fort Lauderdale, FL 33309
Phone: 305 / 776-5471 FAX: 305 / 776-5529

GENERAL DESCRIPTION:

The FHP SL Water-to-Air Heat Pumps provide the best combination of performance and efficiency available. Safety devices are built into each unit to provide the maximum system protection possible when equipment is properly installed and maintained.

The FHP SL Water-to-Air Heat Pumps are Underwriters Laboratories (UL) listed and Canadian Standards Association (CSA) certified for safety. The FHP SL Water-to-Air Heat Pumps are designed to operate with entering liquid temperature between 20°F and 110°F.

SAFETY CONSIDERATIONS:

Installation and servicing of this system can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service equipment. Untrained personnel can perform basic functions of maintenance such as cleaning coils and replacing filters.

WARNING: Before performing service or maintenance operations on system, turn off main power to unit. Electrical shock could cause personal injury or death.

When working on this equipment, always observe precautions described in the literature, tags and labels attached to the unit. Follow all safety codes. Wear safety glasses and work gloves. Use a quenching cloth for brazing operations and place a fire extinguisher close to the work area.

MOVING AND STORAGE:

Move units in the normal "up" orientation as indicated by the arrows on each carton. Horizontal units may be moved and stored per the information on the carton, "Do Not Stack More Than 3 Units in Total Height". Vertical units are not to be moved, but may be stored one upon another at a maximum height of two units. When the equipment is received all items should be carefully checked against the bill of lading to be sure all crates and cartons have been received. Examine units for shipping damage, removing the units from the cartons if necessary. Units in question should also be internally inspected. If unit is damaged, the carrier should make the proper notation on the delivery receipt acknowledging the damage.

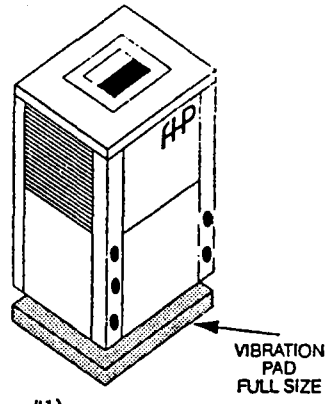
LOCATION:

Locate the unit in an indoor area that allows easy removal of the filter and access panels, and has enough space for service personnel to perform maintenance or repair. Provide sufficient room to make water, electrical and duct connection(s). If the unit is located in a confined space such as a closet, provisions must be made for return air to freely enter the space. On horizontal units, allow adequate room below the unit for a condensate drain trap and do not locate the unit above supply piping. These units are not approved for outdoor installation and therefore must be installed inside the structure being conditioned. Do not locate in the areas subject to freezing.

INSTALLATION:

MOUNTING VERTICAL UNITS:

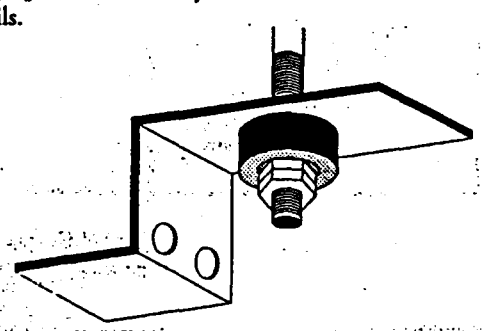
Vertical units are available in left, right, back, or front air return configurations. Vertical units should be mounted level on a vibration absorbing pad slightly larger than the base to provide isolation between the unit and the floor. (See Figure #1). It is not necessary to anchor the unit to the floor. Vertical units larger than five tons are available with front or back air return configurations. These units should be vibration isolated according to the design engineers specifications.



(Figure #1)

MOUNTING HORIZONTAL UNITS:

Horizontal units are available with side or end discharge. Horizontal units are normally suspended from a ceiling by threaded rods. The rods are usually attached to the unit corners by hanger bracket kits. (See Figure # 2). The rods must be securely anchored to the ceiling. Refer to the hanging bracket assembly and installation instructions for details.



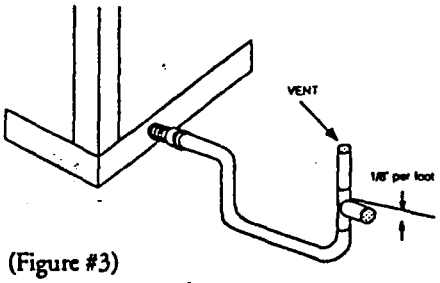
(Figure #2)

Horizontal units installed above the ceiling must conform to all local codes. An auxiliary drain pan if required by code, should be at least four inches larger than the bottom of the heat pump. Plumbing connected to the heat pump must not come in direct contact with joists, trusses, walls, etc..

Some applications require an attic floor installation of horizontal units. In this case the unit is set in a full size secondary drain pan on top of a vibration absorbing mesh. The secondary drain pan prevents possible condensate overflow or water leakage damage to the ceiling. The secondary drain pan is usually placed on a plywood base isolated from the ceiling joists by additional layers of vibration absorbing mesh. In both cases, a 3/4" drain connected to this pan should be run to the eave at a location that will be noticeable. If the unit is located in a crawl space, the bottom of the unit must be at least 4" above grade to prevent flooding of electrical parts due to heavy rains.

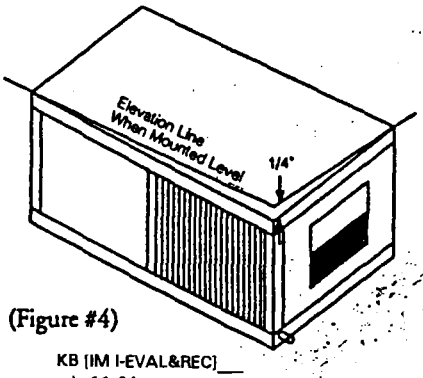
CONDENSATE DRAIN:

A drain line must be connected to the heat pump and pitched away from the unit a minimum of 1/8" per foot to allow the condensate to flow away from the unit. A trap must be installed in the condensate line to insure free condensate flow. A vertical air vent tube is sometimes required to avoid air pockets. The length of the trap depends on the amount of positive or negative pressure on the drain pan. A second trap must not be installed. This connection should be in conformance to local plumbing codes. (See Figure #3)



(Figure #3)

The horizontal unit should be pitched approximately 1/4" towards the drain in both directions, to facilitate condensate removal. (See Figure # 4)



(Figure #4)

DUCT SYSTEM:

A supply air outlet collar and return air duct flange are provided on all units to facilitate duct connections. Refer to the FHP individual data specification sheet for physical dimensions of the collar and flange.

A flexible connector is recommended for supply and return air duct connections on metal duct systems. All metal ducting should be insulated with a minimum of one inch duct insulation to avoid heat loss or gain and or forming condensate during cooling operation. Application of the unit to uninsulated duct work is not recommended as the unit's performance will be adversely affected. The factory filter is to be removed when using a filter back return air grill. The factory filter should be left in place with a free return system.

If the unit is to be installed in a new installation which includes new duct work, the installation should be designed using current ASHRAE procedures for duct sizing. If the unit is to be connected to existing ductwork, a check should be made to assure that the duct system has the capacity to handle the air required for the unit application. If the duct system is too small, larger ductwork should be installed. Check for existing leaks and repair.

The duct system and diffusers should be sized to handle the designed air flow quietly. To maximize sound attenuation of the unit blower, the supply and return plenums should be insulated. There should be no direct straight air path thru the return air grille into the heat pump. The return air inlet to the heat pump should have at least one 90 degree turn away from the space return air grille. If air noise or excessive air flow are a problem, the blower speed can be changed to a lower speed to reduce air flow.

ELECTRICAL:

Field wiring must comply with local and national fire, safety and electrical codes. Power to the unit must be within the operating voltage range indicated on the nameplate or on the performance data sheet. On three phase units, phases must be balanced within 2%.

CAUTION: Operation of unit on improper line voltage or with excessive phase imbalance will be hazardous to the unit and constitutes abuse and is not covered by warranty.

Properly sized fuses or HACR circuit breakers must be installed for branch circuit protection. See equipment rating plate for maximum size.

The unit is supplied with an opening for attaching conduit. Connect the ground lead to the ground lug in

the control box. Connect the power leads as indicated on the wiring diagram.

PIPING:

Supply and return piping must be at least as large as the unit connections on the heat pump (larger on long runs). Unit may be furnished with either a copper or optional cupro-nickel coil. Copper is adequate for closed loop systems and ground water which is not high in mineral content. Should your well driller express concern regarding the quality of well water available or should any known hazards exist in your area, we recommend proper testing to assure well water quality suitable for use with water source equipment. In conditions anticipating moderate scale formation or in brackish water a cupro-nickel heat exchanger is recommended. In situations where scaling could be heavy, or where biological growth such as iron bacteria will be present a closed loop system is recommended. Never use flexible hoses of a smaller inside diameter than that of the water connection on the unit. Check carefully for water leaks.

CAUTION: Galvanized pipe or fittings are not recommended for use with these units due to the possible galvanic corrosion.

Pipe will sweat if low temperature water is run through the supply and discharge lines. These lines should be insulated to prevent damage from condensation.

Improper heat exchanger water flow due to piping, valving or improper pump operation is hazardous to unit and constitutes abuse which will void heat exchanger and compressor warranty.

All manual flow valves used in the system must be ball valves. Globe and gate valves must not be used due to high pressure drop or poor throttling characteristics.

Do not exceed recommended condenser water flow rates. Serious damage or erosion of the water to refrigerant heat exchanger could occur.

WELL WATER SYSTEMS: (Figure #5)

Water pressure must always be maintained in the heat exchanger by placing a water control valve on the outlet of the unit. A bladder type expansion tank may be used to maintain pressure on the system.

When a water well exists for the purpose of supplying domestic water providing the well is of sufficient flow, it may be used to supply water to the heat pump. With this type of installation an electric slow closing on-off solenoid valve is required. When using a low voltage solenoid valve (24 volt) it may overload the unit transformer or interfere with the lock-out impedance circuit. If a low voltage solenoid valve is used, an upsized VA transformer may be required. Low voltage solenoid valves should be hooked to Y & C on the unit low voltage terminal board. If using a line voltage solenoid valve connect to the load side of the compressor contactor T1 & T2.

When a water well is used exclusively for the heat pump, the well pump will operate only when the unit operates. A double pole single throw (DP/ST) relay (Figure #6) can be used to control the well pump. Two or more units (Figure #7) may be supplied from one well pump.

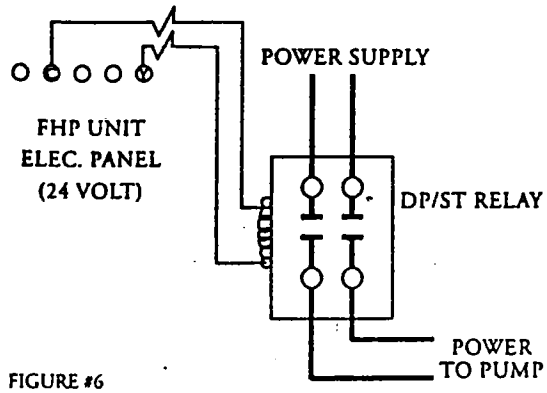
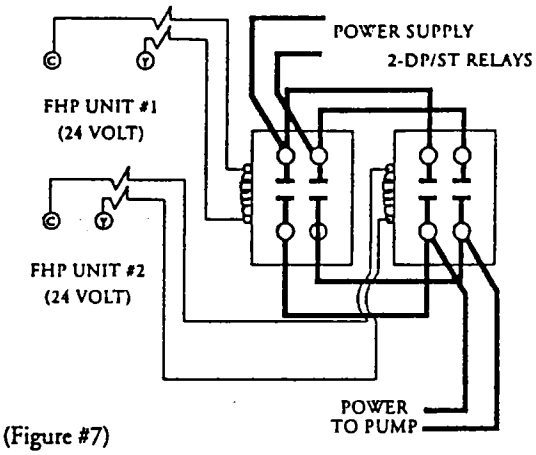
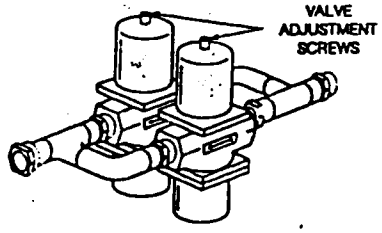


FIGURE #6

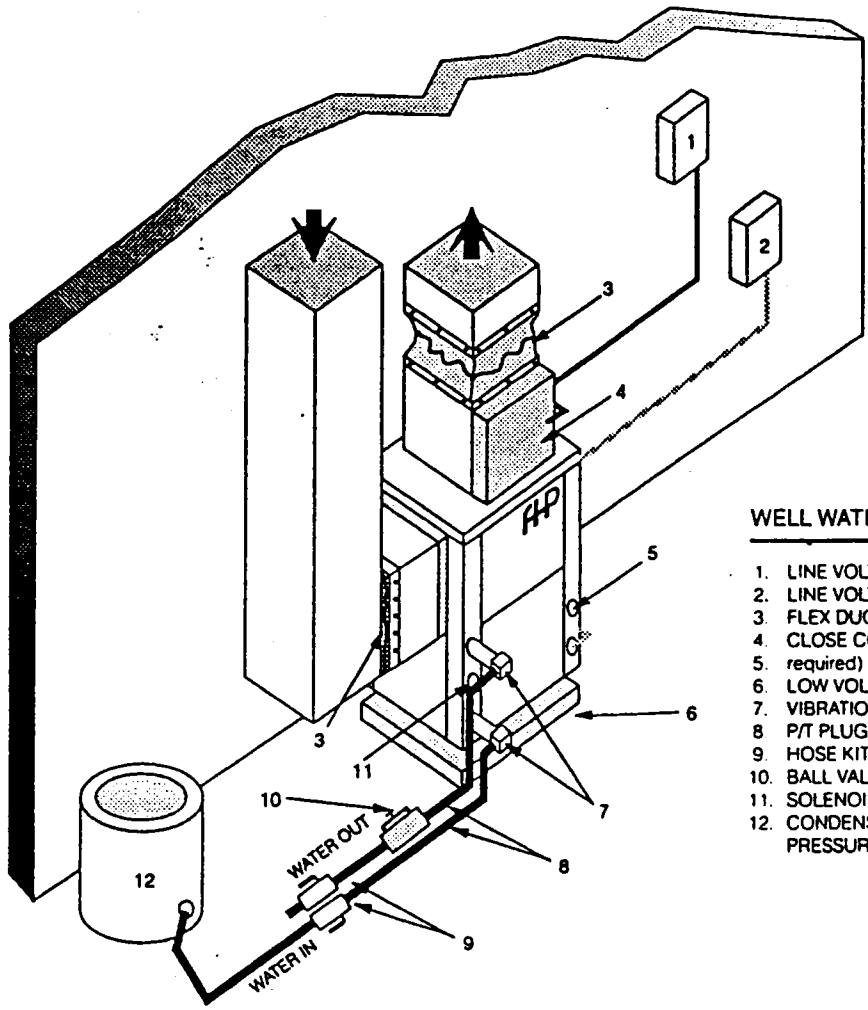


(Figure #7)

Pressure regulating valves are used to increase or decrease water flow through the heat pump in response to refrigerant pressure. (Figure#8) In some cases more water may be required in heating than in cooling, or vice versa. With the SL and LT heat pumps these valves are not required. However, if installed, a pair of valves are required for proper operation. One valve for cooling (direct acting) and another valve for heating (indirect acting) are required. A refrigerant tap is required in the refrigerant line located between the reversing valve and the water-to-refrigerant heat exchanger for proper monitoring of the refrigerant pressures.



(Figure #8)



WELL WATER APPLICATION

1. LINE VOLTAGE DISCONNECT ELECTRIC HEATER
2. LINE VOLTAGE DISCONNECT
3. FLEX DUCT CONNECTION
4. CLOSE COUPLED ELECTRIC HEATER (When
5. required)
6. LOW VOLTAGE CONTROL CONNECTION
7. VIBRATION PAD
8. P/T PLUGS
9. HOSE KITS
10. BALL VALVES
11. SOLENOID VALVE
12. CONDENSATE DRAIN CONNECTION
PRESSURE TANK

(Figure #5)

The discharge water from the heat pump is not contaminated in any manner and can be disposed of in various ways depending on local building codes (i.e. discharge well, dry well, storm sewer, drain field, stream or pond etc.) Most local codes forbid the use of a sanitary sewer for disposal. Consult your local building and zoning department to insure compliance in your area.

COOLING TOWER/BOILER APPLICATION:

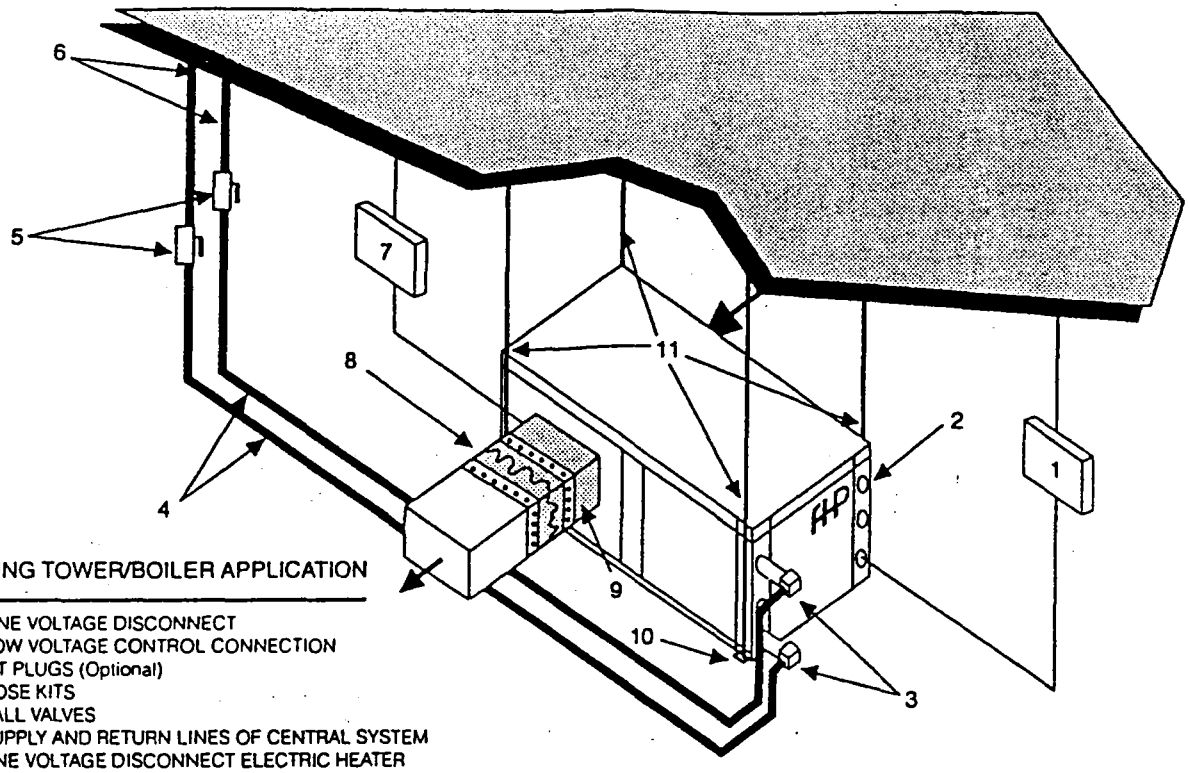
Cooling Tower and Boiler Loop Systems: (Figure #9)
The cooling tower and boiler water loop temperature is usually maintained between 50° F to 100° F to assure adequate cooling and heating performance.

In the cooling mode, heat is rejected from the FHP unit into the water loop. A cooling tower provides evaporative cooling to the loop water thus maintaining a constant supply temperature to the unit. When utilizing open cooling towers chemical water treatment is mandatory to ensure the water is free from corrosive minerals. A secondary heat exchanger (plate frame between the unit and the open cooling tower may also be used. It is imperative that all air be eliminated from the closed loop side of the heat exchanger to insure against fouling.

In the heating mode, heat is absorbed from the water loop. A boiler can be utilized to maintain the loop at the desired temperature.

CAUTION: Water piping exposed to extreme low ambient temperatures are subject to freezing.

Units are equipped with female pipe thread fittings. Consult the specification sheets for sizes. Teflon tape sealer should be used when connecting to the unit to insure against leaks and possible heat exchanger fouling. Do not overtighten the connections. Flexible hoses should be used between the unit and the rigid system to avoid possible vibration. Ball valves should be installed in the supply and return lines for unit isolation and unit water flow balancing.



COOLING TOWER/BOILER APPLICATION

1. LINE VOLTAGE DISCONNECT
2. LOW VOLTAGE CONTROL CONNECTION
3. P/T PLUGS (Optional)
4. HOSE KITS
5. BALL VALVES
6. SUPPLY AND RETURN LINES OF CENTRAL SYSTEM
7. LINE VOLTAGE DISCONNECT ELECTRIC HEATER
8. FLEX DUCT CONNECTION
9. CLOSE COUPLED ELECTRIC HEATER (When required)
10. HANGING BRACKETS ASSEMBLY
11. THREAD ROD

(Figure #9)

Pressure/temperature ports are recommended in both supply and return lines for system flow balancing. Water flow can be accurately set by measuring the water-to-refrigerant heat exchangers water side pressure drop. See specification sheets for water flow and pressure drop information.

Before final connection to the unit, the supply and return hose kit must be connected together and the system flushed to remove dirt, piping chips and other foreign material.

EARTH COUPLED SYSTEMS (Figure #10)

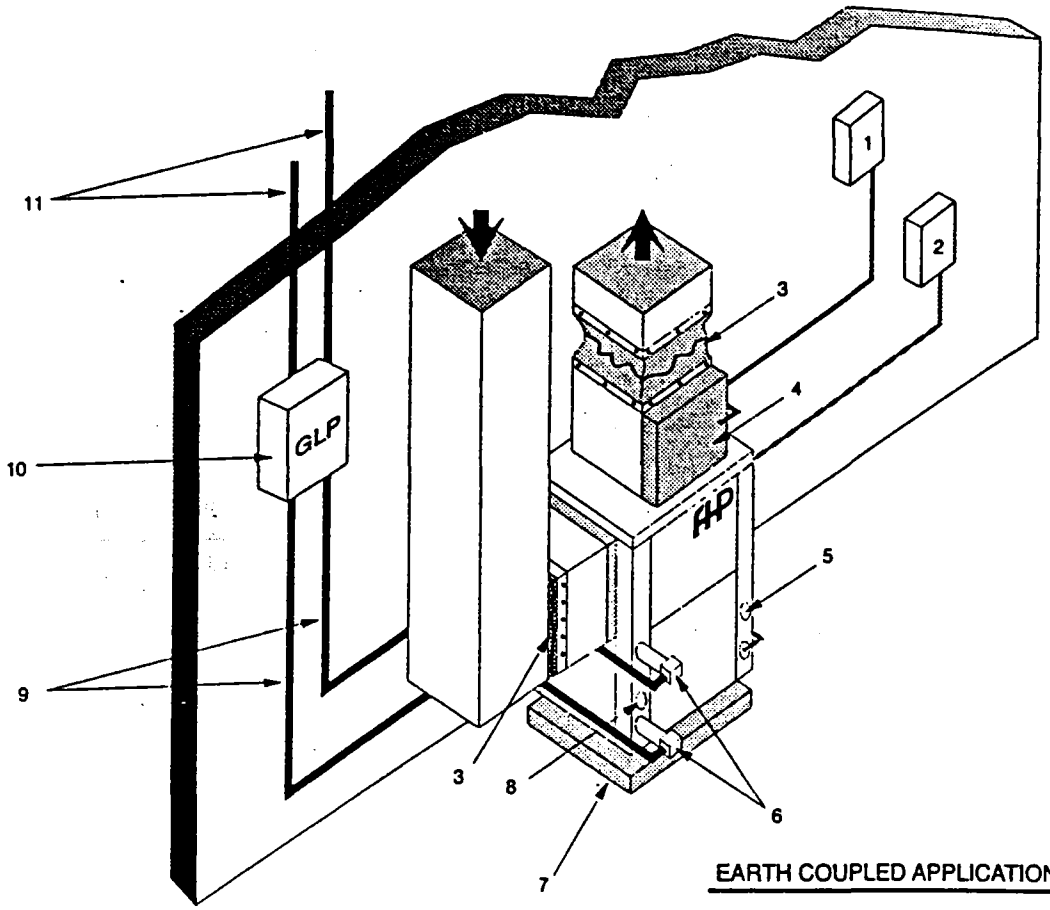
Closed loop and pond applications require specialized design knowledge. No attempt at these installations should be made unless the dealer has received specialized training.

Utilizing FHP's Ground Loop Pumping Package (GLP), makes the installation easy. Anti-freeze solutions are utilized when low evaporating conditions are expected to occur. Refer to the installation manuals for more specific instructions.

IN-WARRANTY MATERIAL RETURN

When contacting your FHP representative for service or replacement parts, refer to the model and serial number of the unit as stamped on the data plate attached to the unit.

Material may be returned only with permission by an authorized factory representative. A "Returned Goods" tag will be forward to be attached to the returned material. Enter the information as called for on the tag in order to expedite handling and insure prompt issuance of credits. All parts shall be returned to the FHP factory as



(Figure #10)

EARTH COUPLED APPLICATION

1. LINE VOLTAGE DISCONNECT ELECTRIC HEATER
2. LINE VOLTAGE DISCONNECT
3. FLEX DUCT CONNECTION
4. CLOSE COUPLED ELECTRIC HEATER (When required)
5. LOW VOLTAGE CONTROL CONNECTION
6. P/T PLUGS (Optional)
7. VIBRATION PAD
8. CONDENSATE DRAIN
9. GROUND LOOP CONNECTION KIT
10. GROUND LOOP PUMPING PACKAGE
11. POLYBUTYLENE OR POLYETHELENE WITH INSULATION

designated on the "Returned Goods" tag, freight charges prepaid. The return of the part does not constitute an order for replacement. Therefore, a purchase order must be entered through your nearest FHP representative. The order should include the part number, model number and the serial number of the unit involved. If the part is within the warranty period, and after our inspection of the returned part proves that the failure is due to faulty material or workmanship a credit/or replacement part will be issued.

OPTIONS:

- HEAT RECOVERY PACKAGE - A factory installed heat recovery package is available for water heating. See HRP literature.
- HOT GAS BYPASS – A factory installed hot gas bypass option is available for capacity control.
- ECONOMIZER COILS - A factory installed water side economizer for cooling and heating.
- HOT GAS REHEAT - A factory installed option for humidity control.
- GROUND LOOP PUMPING PACKAGE – is available for field installation. See GLP literature.
- CONTROL OPTIONS – Various control options are available such as time delays relays, random start relays, aquastats, etc. Consult factory for application assistance.

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	CHECKS AND CORRECTIONS
ENTIRE UNIT DOES NOT RUN	Blown fuse Broken or loose wires Voltage supply low Thermostat	Replace fuse or reset circuit breaker (Check for correct fuse) Replace or tighten the wires If voltage is below minimum voltage specified on dataplate, contact local power company. Check 24 volt transformer for burnout or voltage less than 18 volts Set thermostat to "COOL" and lowest temperature setting, unit should run. Set thermostat to "HEAT" and highest temperature, unit should run. Set fan to "ON", fan should run. If unit does not run in all 3 cases, the thermostat could be wired incorrectly or faulty. To ensure faulty or miswired thermostat, disconnect thermostat wires at unit and jumper between "R", "Y", "G" and "W" terminals and unit should run in cooling.
BLOWER OPERATES BUT COMPRESSOR DOES NOT	Voltage supply low Thermostat Wiring Safety controls	If voltage is below minimum voltage specified on the dataplate, contact local power company. Check setting, calibration and wiring Check for loose or broken wires at compressor, capacitor or contactor. The unit could be off on the cutout control safety circuit. Reset the thermostat to "OFF". After a few minutes turn to "COOL" or "HEAT". If the compressor runs, unit was in safety control lock out(See problems for possible causes)
UNIT OFF ON HIGH PRESSURE CONTROL	Discharge pressure too high Refrigerant charge High pressure switch	In "COOLING" mode: Lack of adequate water flow. Entering water too warm. Scaled or plugged condenser. In "HEATING" mode: Lack of adequate air flow. Entering air too hot Blower inoperative, clogged coil or dirty filter, restrictions in ductwork The unit is overcharged with refrigerant. Reclaim, evacuate and recharge with specified amount of R-22. Check for defective or improperly calibrated high pressure switch
UNIT OFF ON LOW PRESSURE CONTROL	Suction pressure too low Refrigerant charge Low pressure switch	In "COOLING" mode: Lack of inadequate air flow. Entering air too cold. Blower inoperative, clogged coil or dirty filter, restrictions in duct work. In "HEATING" mode: Lack of adequate water flow. Entering water too cold. Scaled or plugged condenser. The unit is low in charge of refrigerant. Locate the leak repair evacuate and recharge with specified amount of R-22 Check for defective or improperly calibrated low pressure switch.
UNIT SHORT CYCLES	Thermostat Wiring and controls Compressor overload	The differential is set too close in the thermostat. Readjust heat anticipator. Loose connections in the wiring or the control contactors defective Defective compressor overload, check and replace if necessary. If the compressor runs too hot it may be due to the deficient refrigerant charge
INSUFFICIENT COOLING OR HEATING	Unit undersized Loss of conditioned air by leaks Thermostat Airflow Refrigerant charge Compressor Reversing valve Operating pressure Refrigerant system	Recalculate heat gains or losses for space to be conditioned. If excessive rectify by adding insulation shading etc. Check for leaks in ductwork or introduction of ambient air thru doors and windows Improperly located thermostat (e.g. near kitchen sensing inaccuarately the comfort level in living areas) Lack of adequate airflow or improper distribution of air. Low on refrigerant charge causing inefficient operation. Check for defective compressor, if discharge pressure is too low and suction pressure is too high, compressor is not pumping properly. Replace compressor. Defective reversing valve creating bypass of refrigerant from discharge to suction side of compressor. Incorrect operating pressure (See chart) Check expansion valve for possible restrictions to flow of refrigerant. The refrigerant system may be contaminated with moisture, noncondensables, and particles. Dehydrate, evacuate and recharge the system

FHP Manufacturing
601 N.W. 65th Court
Ft. Lauderdale, FL 33309
a HARROW company

LIMITED WARRANTY

TERMS

Subject to the limitations set forth below, FHP warrants all FHP products against defects in material or workmanship under normal use and maintenance for the time periods stated below. Under this Warranty we will replace any part, or portion thereof, which our examination shall disclose to our satisfaction to be defective, with a new or rebuilt part, within a reasonable time after receipt of the defective part. An exchanged (replacement) part will be warranted for only the unexpired portion of the original part warranty.

This Limited Warranty does not cover the cost of diagnosis, transportation or labor involved in the removal of defective parts or the installation of the replacement, or the actual physical removal or re-installation of parts.

TWELVE MONTH/EIGHTEEN MONTH LIMITED WARRANTY

ALL PRODUCTS—FHP warrants all of its products against defects in workmanship or material within twelve (12) months from date of first installation, or eighteen (18) months from date of manufacture, whichever comes first, if a written communication regarding a defect is received by FHP no later than thirteen (13) months from the date of first installation or within nineteen (19) months from the date of manufacture, whichever comes first.

SIXTY MONTH LIMITED WARRANTY

COMPRESSOR—In addition, we warrant the compressor, for sixty (60) months from date of manufacture, provided it is found to be inoperative due to defects in factory workmanship or material. We will replace the compressor with a similar or interchangeable one of the same capacity.

HOW TO OBTAIN WARRANTY SERVICE

In addition to writing to FHP, you must timely notify the installer of any problems with the system. If the installer determines the problem lies with an FHP product, you should direct the installer to deliver the defective part to us at the above address at your expense.

LIMITATIONS:

THIS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The only exception is the warranty of title. Anything in the Warranty notwithstanding, ANY IMPLIED WARRANTY OF MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. FHP EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGE ARISING FROM ANY DEFECT IN THE PRODUCT, BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, BREACH OF CONTRACT, NEGLIGENCE OR ANY OTHER LEGAL THEORY. Such disclaimed damages include, but are not limited to, loss of profit or revenue, loss of use of the equipment or any associated equipment, loss of capital, cost of any substitute equipment, facilities or services and downtime costs or claims of customers of the purchaser for such damages caused by any defect in the product. The agents, dealers and employees of FHP are not authorized to make any modifications to this Warranty or additional warranties binding on FHP. Accordingly, additional statements, whether oral or written, do not constitute warranties and should not be relied upon.

STATUTE OF LIMITATIONS

No suit shall be brought on an alleged breach of this Warranty more than fifteen (15) months following first installation of the product or twenty-one (21) months from the date of manufacture (sixty-three (63) months for the compressor only), whichever occurs first.

APPLICABILITY

THIS WARRANTY DOES NOT APPLY TO:

(1) Air filters, fuses, refrigerant, and oil.
(2) Products that have been relocated after original installation.
(3) Any portion of the system not supplied by FHP.
(4) Products or component parts on which the tags or nameplates have been removed, altered, or defaced.
(5) Products on which payment is in default.
(6) Scratches in or discoloration of decorative finishes.
(7) The installation, plumbing and wiring not integral to the factory built FHP product.
(8) Products damaged during shipment or by improper service; products which have defects or damage which results from improper installation, wiring, electrical imbalance characteristics or maintenance; or caused by accident, misuse or abuse, fire, flood, alteration, misapplication or modification of the product, default or delay in performance caused by war, government restrictions or restraints, strikes, material shortages beyond the control of FHP Manufacturing, breakage or rupture of water tubing and or water condenser coil when subjected to freezing conditions, or acts of God.
(9) Products which have defects or damage which result from a contaminated or corrosive water circuit or supply, operation at abnormal temperatures, pressures and/or flow rates, unauthorized opening of the refrigerant circuit or any attachment, accessory or component not authorized and approved by FHP.

OTHER

NOTE: This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion of implied warranties, or limitations on how long an implied warranty lasts, or the limitation or exclusion of consequential or incidental damages, so the foregoing exclusions and limitations may not apply to you. This Warranty applies to the Continental United States and Canada only.

This Warranty allocates the risks of product failure between FHP and the purchaser, as authorized by the Uniform Commercial Code and other applicable law.

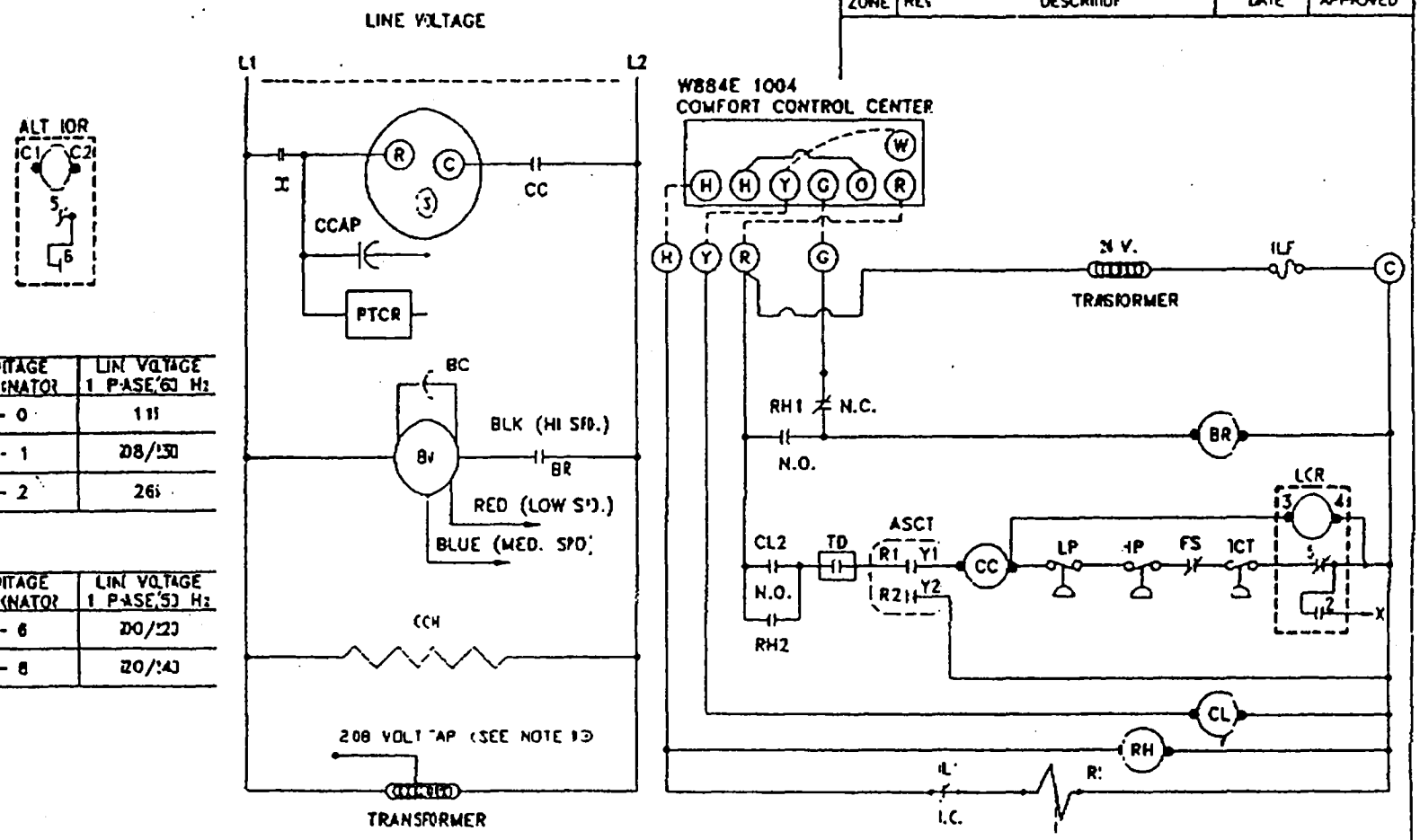
In keeping with its policy of continuous progress and product improvement, FHP Manufacturing reserves the right to make changes in its products without notice and without modification to existing products.

"SL" models
Operating Pressures & Temperatures

GENERAL: There are many variables (airflow, air temperatures) in an air-conditioning system that will affect operating refrigerant pressures and temperatures. The chart below shows approximate conditions and is based on air flow at the rated SCFM, entering air at 80° FDB, 67° FWB in cooling, 70° FDB in heating. (+)Heating data with 40° F EWT and lower is based on the use of an anti-freeze solution having a freezing point 20°F lower than the minimum expected entering temperature

			OPERATING DATA							
			COOLING				HEATING			
MODEL	ENTERING WATER TEMP., °F	WATER FLOW GPM	SUCT. PRES., PSIG	DISCH PRES., PSIG	WATER TEMP. RISE, °F	AIR TEMP DROP° FDB	SUCT. PRESS., PSIG	DISCH PRESS., PSIG	WATER TEMP. DROP, °F	AIR TEMP. RISE, °FDB
SL065	30°	11.0					31-38	169-206	3-4	19-23
		19.0					34-41	174-213	2-3	20-25
	40°	11.0	61-74	115-141	13-16	22-27	39-48	186-227	6-7	23-28
		19.0	61-74	106-129	8-9	22-27	43-52	192-235	3-4	25-30
	50°	11.0	62-76	134-164	14-17	21-25	47-58	203-248	8-10	28-34
		19.0	62-76	123-150	8-10	21-26	52-64	210-257	5-6	29-36
	60°	11.0	63-77	158-193	13-16	20-24	56-68	216-264	9-11	32-39
		19.0	63-77	145-177	8-9	20-25	61-75	224-273	6-7	34-42
	70°	11.0	63-77	177-217	14-17	19-24	66-81	228-278	11-13	35-43
		19.0	63-77	163-199	8-10	20-24	73-89	235-287	6-8	37-46
	80°	11.0	64-78	206-251	13-16	18-23	76-93	245-300	12-15	40-49
		19.0	64-78	188-230	8-9	19-23	84-102	254-310	7-9	42-52
	90°	11.0	65-80	234-285	13-16	18-22	87-106	261-319	14-17	44-54
		19.0	65-80	214-262	7-9	18-22	95-117	270-329	8-10	47-57
	100°	11.0	66-80	262-320	13-16	18-22				
		19.0	66-80	240-293	7-9	18-22				
SL080 VT AND SL080 HZ	30°	10.0					36-40	176-195	5-6	15-22
		16.0					38-42	186-205	5-6	15-23
	40°	10.0	67-74	113-125	22-24	20-27	45-50	191-211	6-8	18-26
		16.0	65-72	103-114	13-14	20-27	48-53	201-222	6-7	18-28
	50°	10.0	69-76	139-154	21-23	19-26	55-61	205-243	7-9	21-31
		16.0	68-75	127-140	12-14	19-26	58-64	216-256	7-9	22-32
	60°	10.0	71-79	165-182	21-23	18-25	65-71	220-243	8-10	24-35
		16.0	70-77	151-166	12-13	18-25	68-75	231-256	8-10	25-37
	70°	10.0	74-81	191-211	20-22	18-24	74-82	234-259	10-12	27-40
		16.0	72-80	174-193	12-13	18-24	78-86	246-272	9-11	28-42
	80°	10.0	76-84	217-240	20-22	17-23	84-92	249-275	11-13	29-44
		16.0	75-83	198-219	12-13	17-23	88-97	262-289	10-13	31-47
	90°	10.0	78-87	243-268	19-21	17-23	93-103	263-291	12-15	32-49
		16.0	77-85	222-245	11-12	17-23	98-108	277-306	11-14	34-51
	100°	10.0	81-89	269-297	19-20	16-22				
		16.0	79-88	245-271	11-12	16-22				
SL090	30°	10.0					29-32	147-163	3-5	11-17
		22.0					32-35	160-177	4-5	12-18
	40°	10.0	69-76	122-134	27-30	20-27	39-43	161-178	5-6	14-21
		22.0	67-74	103-114	11-13	20-27	42-46	175-194	5-6	15-23
	50°	10.0	71-79	149-165	27-29	19-26	48-53	176-210	6-7	17-25
		22.0	69-77	126-140	11-12	19-26	52-58	191-228	6-7	18-28
	60°	10.0	74-82	177-195	26-29	19-25	57-63	190-210	7-9	20-30
		22.0	72-79	150-166	11-12	19-25	62-69	206-228	7-8	22-32
	70°	10.0	76-84	204-226	25-28	18-24	67-74	204-225	8-10	23-34
		22.0	74-82	173-191	10-12	18-24	73-80	222-245	8-10	25-37
	80°	10.0	79-87	232-256	25-27	17-23	76-84	218-241	10-12	26-39
		22.0	76-84	197-217	10-11	17-24	83-91	237-262	9-11	28-42
	90°	10.0	81-90	259-287	24-26	17-23	86-95	232-257	11-13	29-43
		22.0	79-87	220-243	10-11	17-23	93-103	252-279	10-12	31-47
	100°	10.0	83-92	287-317	23-26	16-22				
		22.0	81-89	243-269	10-11	16-22				

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



VOLTAGE DESIGNATOR	LINE VOLTAGE 1 PHASE 60 Hz
- 0	115
- 1	208/230
- 2	265

VOLTAGE DESIGNATOR	LINE VOLTAGE 1 PHASE 50 Hz
- 6	200/220
- 8	220/240

LEGEND

ASCT - ANTI SHORT CYCLE TIMER (SEE NOTE 4)
BC - BLOWER MOTOR CAPACITOR
BM - BLOWER MOTOR
BR - BLOWER RELAY
CC - COMPRESSOR CONTACTOR
CCAP - COMPRESSOR CAPACITOR
CCH - CRANKCASE HEATER (NOT SUPPLIED)
CL - COOLING/HEATING RELAY COIL
FS - FLOAT SWITCH (OPTIONAL)
HP - HIGH PRESSURE SAFETY CONTROL
ILF - IN-LINE FUSE
LOR - LOCKOUT RELAY COIL
LP - LOW PRESSURE SAFETY CONTROL
PTCR - POSITIVE TEMPERATURE COEFF. RESISTOR (OPTIONAL)
RH - REHEAT RELAY COIL
RS - REHEAT SOLENOID VALVE
RV - REVERSING VALVE
TCT - TOP CAP THERMOSTAT (OPTIONAL "SERIES" ONLY)
- 90 OR 180 SECOND TIME DELAY (OPTIONAL)

NOTES

1. SEE UNIT NAME PLATE FOR ELECTRICAL RATING.
2. ALL FIELD WIRING MUST BE IN ACCORDANCE WITH N.E.C.-NFPA. 70.
3. 208/230 VOLT UNITS ARE FACTORY WIRED FOR 230 VOLTS. FOR 208 VOLT OPERATION, REMOVE ORANGE LEAD AND TAPE, REPLACE WITH RED LEAD.
4. STANDARD ON SOME MODELS. OPTIONAL ACCESSORY FOR ALL OTHERS.

UNIT GROUND LUG

FCI WIRING ----------

AHP MANUFACTURING	COOLING ONLY UNITS - WIRING DIAGRAM SINGLE PHASE - ALL VOLTAGES			
	HE07-062 & SE022-063 WITH HOT GAS REHEAT			
	SIZE	FSCM NO.	JWC NO.	DRAWN BY
		WD-164J	WD-164LB	K.N.

FHP MANUFACTURING
Florida Heat Pump Environmental Equipment

INSTALLATION MANUAL

HEAT PUMP CHECK OUT SHEET

(KINGSBAY) DWG# [illegible]

CUSTOMER DATA

Customer Name [illegible] Date _____

Address [illegible]

[illegible]

Phone _____ Unit Number _____

NAMEPLATE DATA

Make _____

Model [illegible] Serial # [illegible]

R-22 Factory Charge [illegible] oz.

Compressor RLA [illegible] LRA [illegible] Blower FLA [illegible]

Maximum Fuse Size 10 Amps

Minimum Circuit Ampacity [illegible] Amps

OPERATING CONDITIONS

	COOLING	HEATING
Entering / Leaving Air Temp	____/____	____/____
Entering / Leaving Water Temp	____/____	____/____
GPM	_____	_____
Water Press Drop	_____	_____
Suction / Discharge PSIG	____/____	____/____
Suction / Discharge Temp	____/____	____/____
Suction Superheat	_____	_____
Entering TXV Temp	_____	_____
Liquid Subcooling	_____	_____
Compressor Volts/Amps	208-230 / 0.3	____/____
Blower Volts/Amps	____/____	____/____

AUXILIARY HEAT

Make _____ Model _____

Serial # _____ Max. Fuse _____ Amps

Air Entering _____ °F Leaving _____ °F

FHP Manufacturing a HARROW Company 601 N.W. 65th Court, Fort Lauderdale, FL 33309
Phone: 305/776-5471 FAX: 305/776-5529

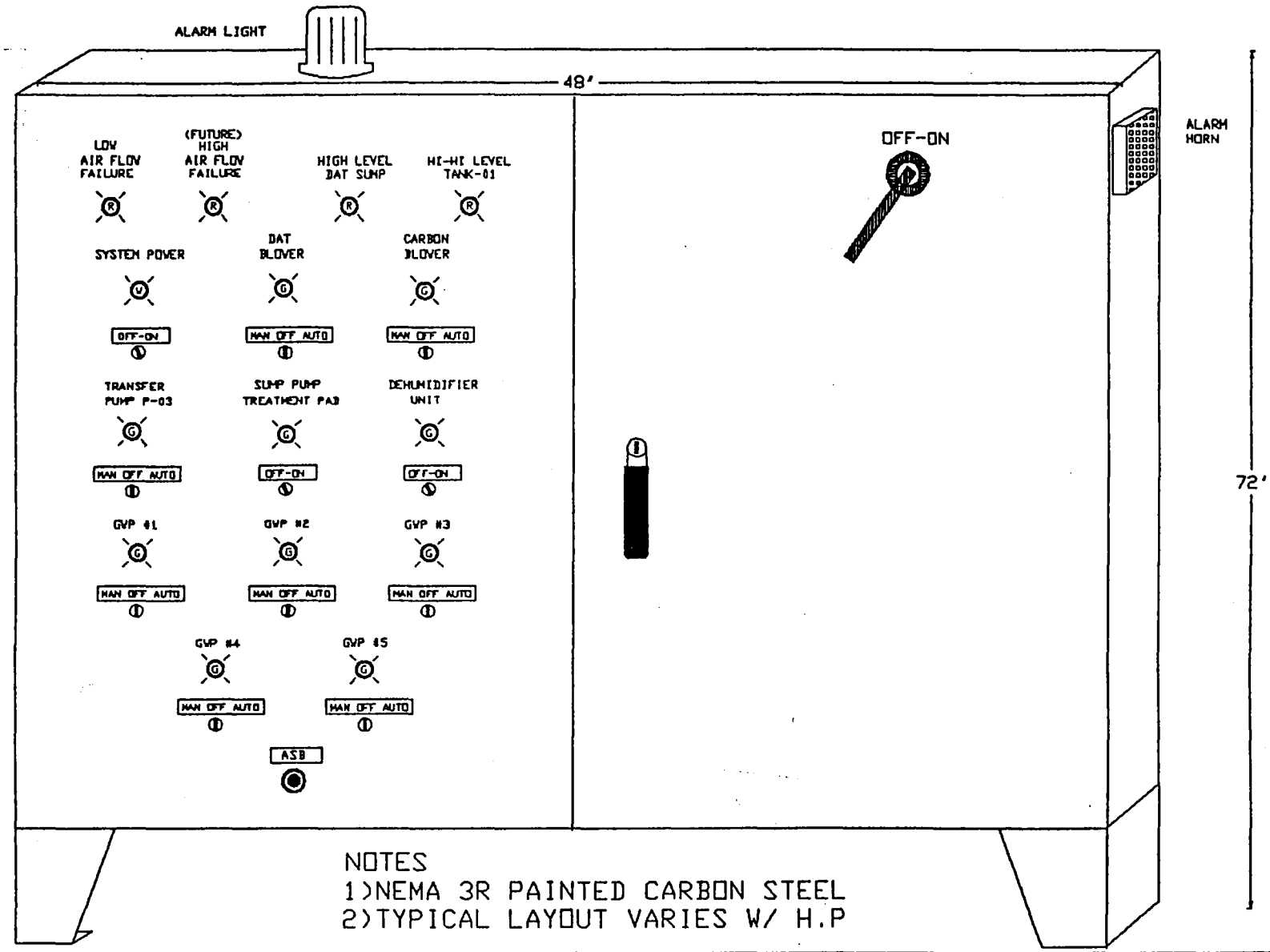
TABLE OF CONTENTS
ELECTRICAL SECTION

ABB ENVIRONMENTAL / KING'S BAY PROJECT

1. CONTROL PANEL SCHEMATICS
2. TERMINAL LEGEND
3. PREVENTATIVE MAINTENANCE GUIDE
4. TROUBLESHOOTING GUIDE,REMEDIATION EQUIPMENT
5. PLC PROGRAM W / COMMENTS
6. MATERIALS LIST

CONTROL PANEL LEGEND

A/C	AIR COMPRESSOR
AST	AIR STRIPPING TOWER
C	CONTACTOR
CR	CONTROL RELAY
C.T	CURRENT TRANSFORMER
DAT	DIFFUSED AERATION TANK
DPS	DIFFERENTIAL PRESSURE SWITCH
F	FUSE
FB	FUSE BLOCK
FS	FLOAT SWITCH
GFDR	GROUND FAULT DUPLEX RECEPTACLE
GWP	GROUNDWATER PUMP
GRD.	GROUND,(EQUIPMENT ONLY)
HOA	HAND-OFF-AUTOMATIC
ISR	INTRINSICALLY SAFE RELAY
LLC	LIQUID LEVEL CONTROLLER
M	MOTOR
MB	MOTOR BREAKER
MCB	MAIN CIRCUIT BREAKER
MC	MOTOR CONTACTOR
MICRO1	SQD PROGRAMMABLE CONTROLLER
MTS	MOTOR THERMAL SWITCH
MS	MOTOR STARTER
N	NEUTRAL
O.L	OVERLOAD
PDB	POWER DISTRIBUTION BLOCK
PS	PRESSURE SWITCH
PLC	PROGRAMMABLE LOGIC CONTROLLER
R	CONTROL RELAY
SSU	SURGE SUPPRESSOR UNIT
TB	TERMINAL BLOCK
TDR	TIME DELAY RELAY
TMC	TIME MARK CONTROLLER (GWP)
TTS	THERMAL TERMINAL STRIP
TU	THERMAL OVERLOAD UNIT
XFMR	TRANSFORMER



NOTES
1)NEMA 3R PAINTED CARBON STEEL
2)TYPICAL LAYOUT VARIES W/ H.P

Revisions		
1	12-93	DELETE DECON SUMP PUMP DELETE HIGH LEVEL BOTH SUMPS

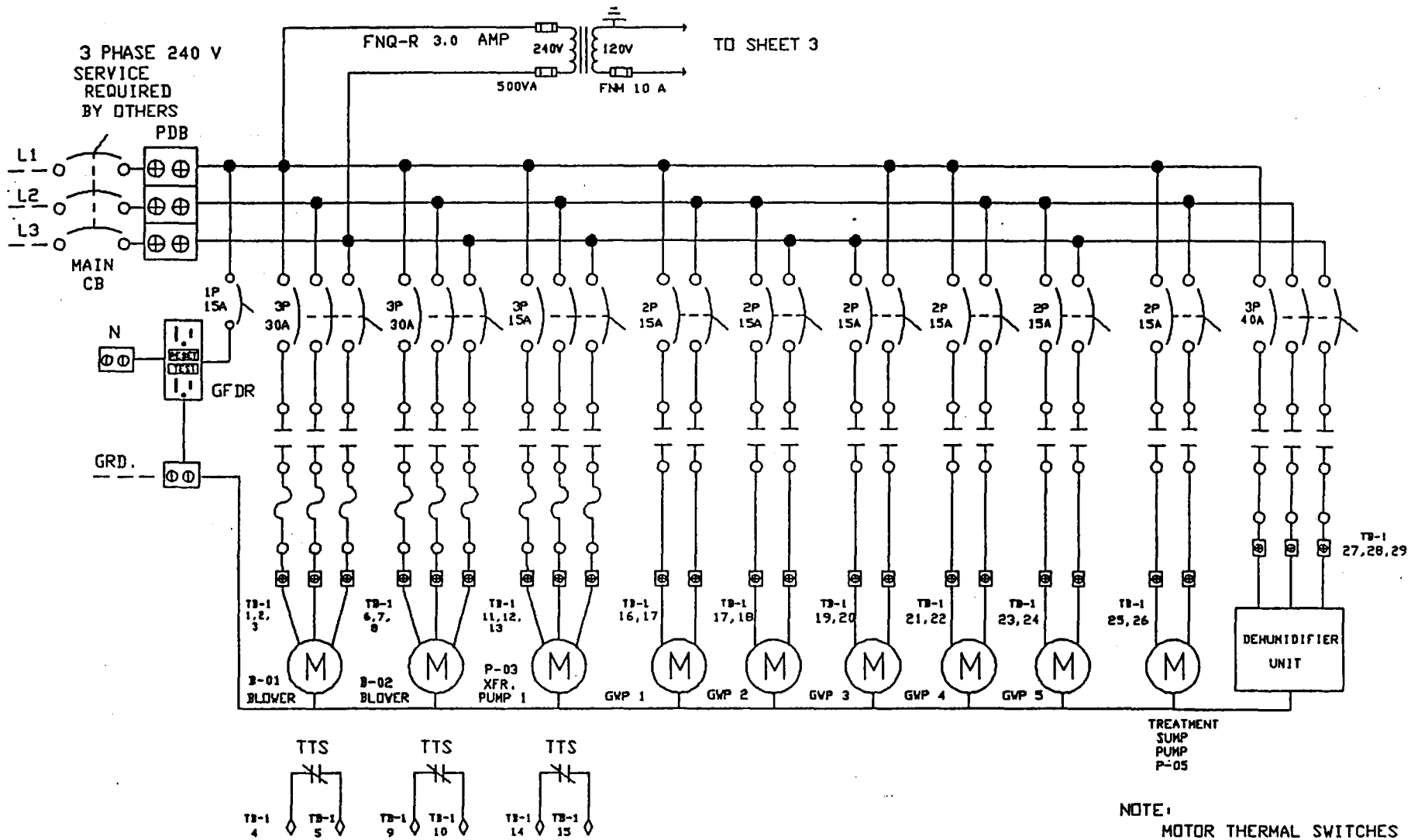
Diversified Remediation Southeast,Inc.

Scale: NONE
Drawn: SJS
Date: 11-17-93
Proj.# 93577PL
Approved:

ABB ENVIRONMENTAL
KING'S BAY PROJECT
CONTROL PANEL LAYOUT

1

KB [IM I-EVAL&REC]
mlv.11.94



NOTE:
MOTOR THERMAL SWITCHES MUST BE CONNECTED WHEN APPLICABLE TO MAINTAIN MANUFACTURER'S WARRANTY

Revisions		
1	12-93	DELETE DECON SUMP PUMP DELETE HIGH LEVEL BOTH SUMPS
1	12-93	DELETE GVP 6
1	12-93	ADD DEHUMIDIFIER UNIT

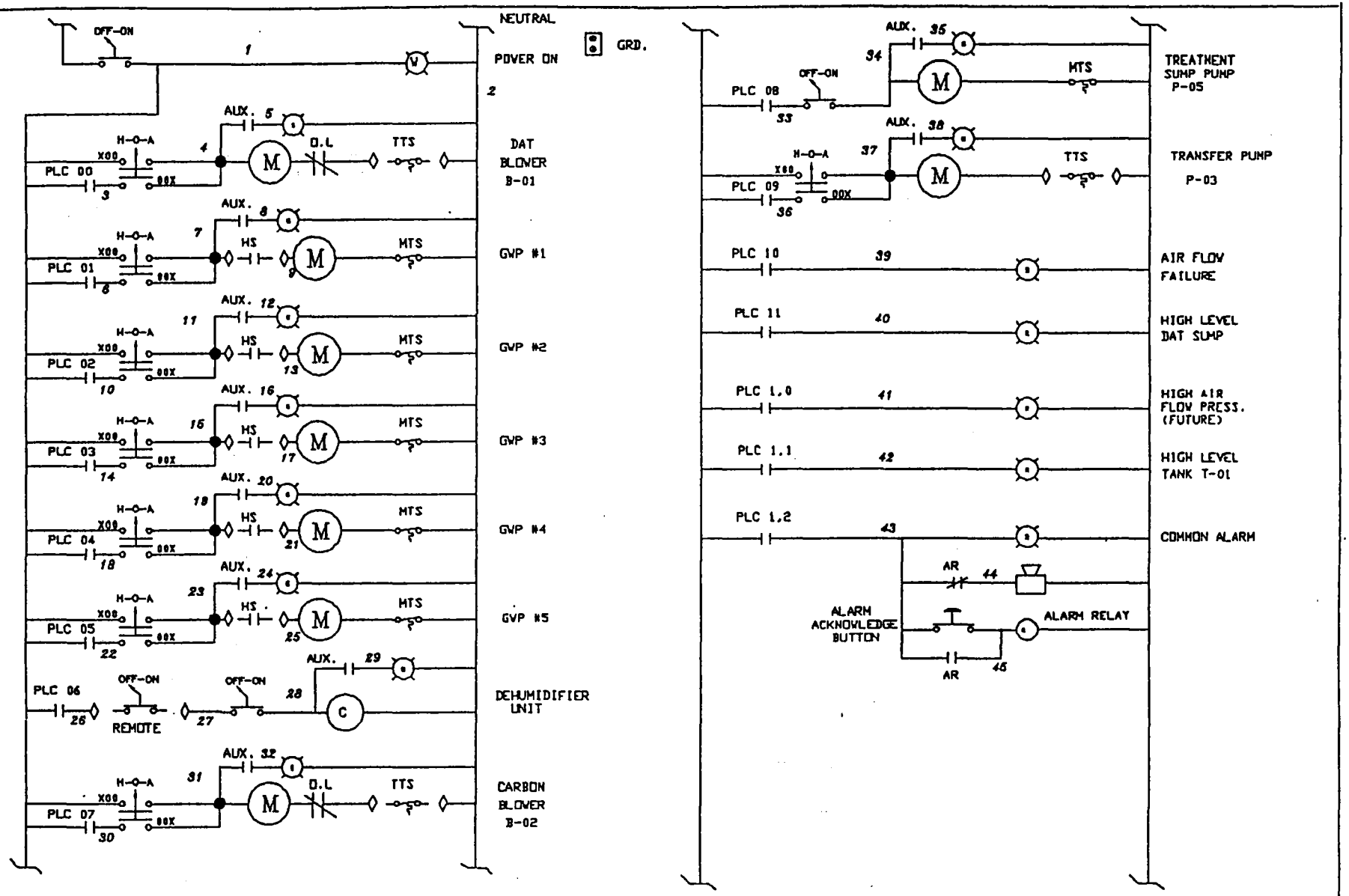
Diversified Remediation Southeast, Inc.

Scale: NONE
Drawn: SJS
Date: 11-16-93
Proj.# 93577PT
Approved:

ABB ENVIRONMENTAL
KING'S BAY PROJECT
POWER TRAIN DRAWING

2

KB [IM I-EVAL&REC]
mlv:11.94



Revisions		
1	12-93	DELETED GVP 6, DELETED DECON PUMP ADDED 'HS' CONTROL TO GVP'S
1	12-93	ADDED DEHUMIDIFIER UNIT

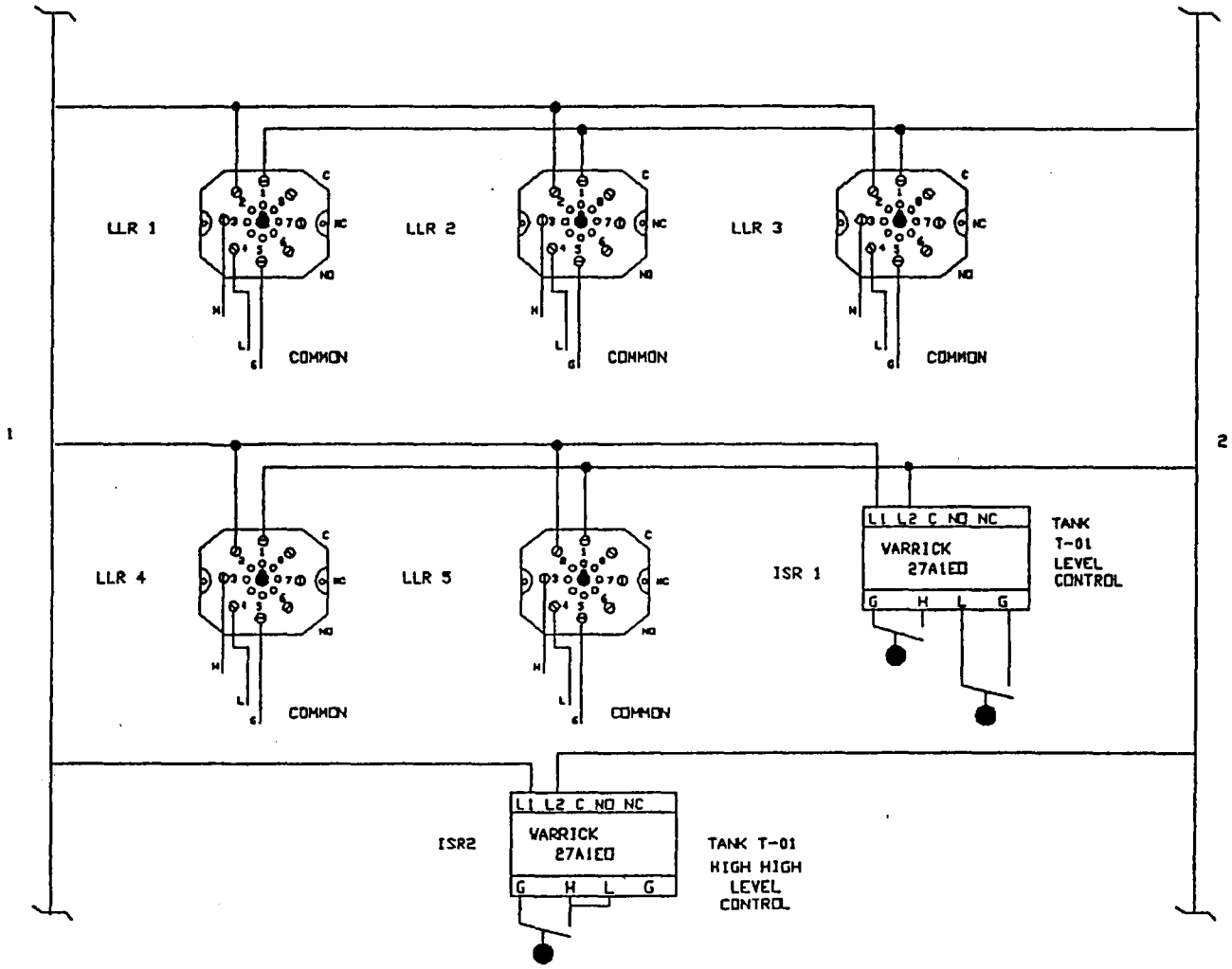
Diversified Remediation Southeast, Inc.

Scale: NONE
Drawn: SJS
Date: 11-17-93
Proj.# 93577P1
Approved:

ABB ENVIRONMENTAL
KING'S BAY PROJECT
CONTROL LOGIC DIAGRAM

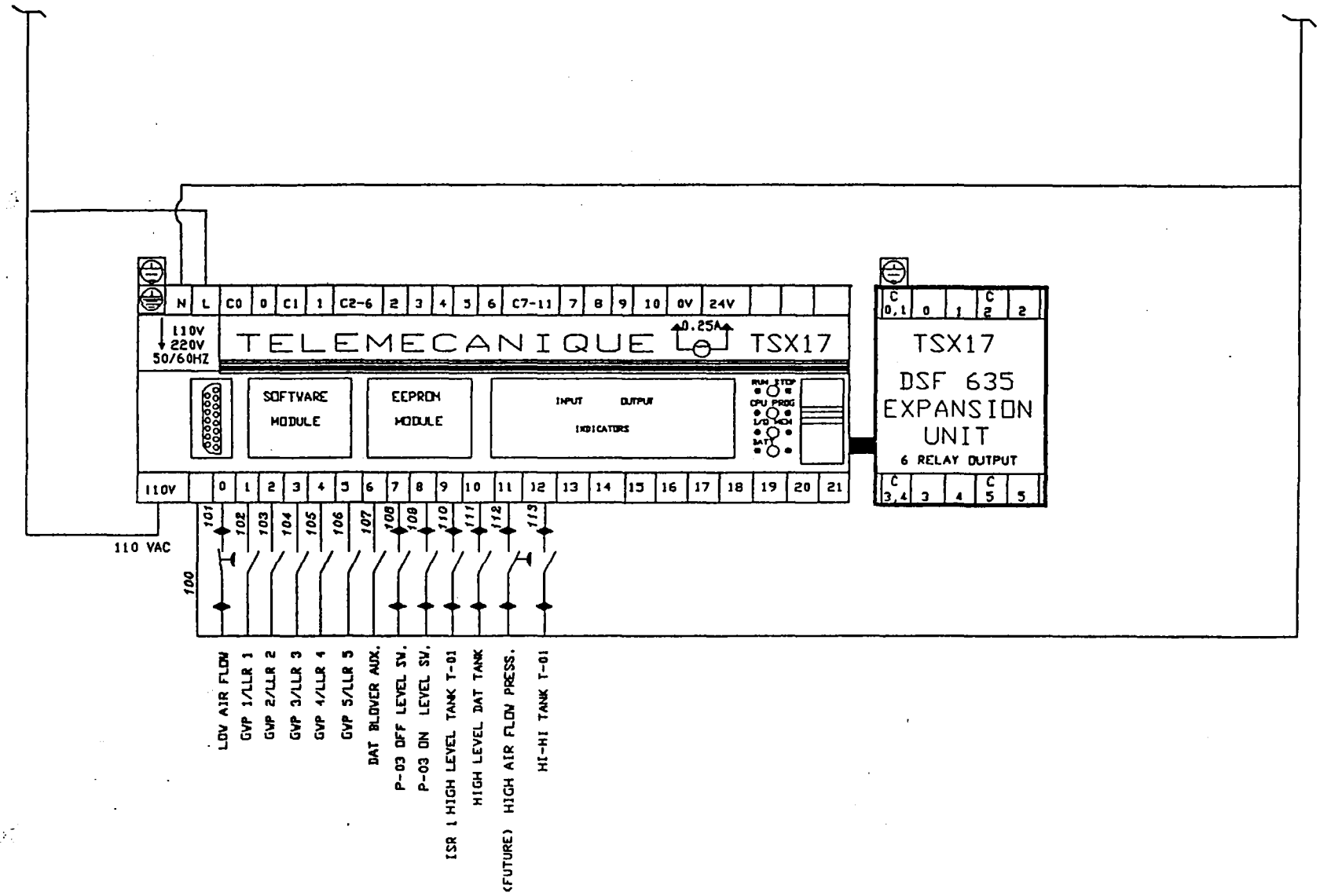
3

KB (IM I-EVAL&REC)
mlv.11.94



Revisions			Diversified Remediation Southeast, Inc.	Scale: NONE	ABB ENVIRONMENTAL
				Drawn: SJS	KING'S BAY PROJECT
				Date: 11-17-93	CONTROL LOGIC DIAGRAM
				Proj.# 93577P2	
				Approved:	4

KB IIM I-EVAL&REC
mb.11.94



Revisions		
1	12-93	DELETED GPV 6/LLR 6; HIGH LEVEL INPUTS FOR PAD SUMP PUMP

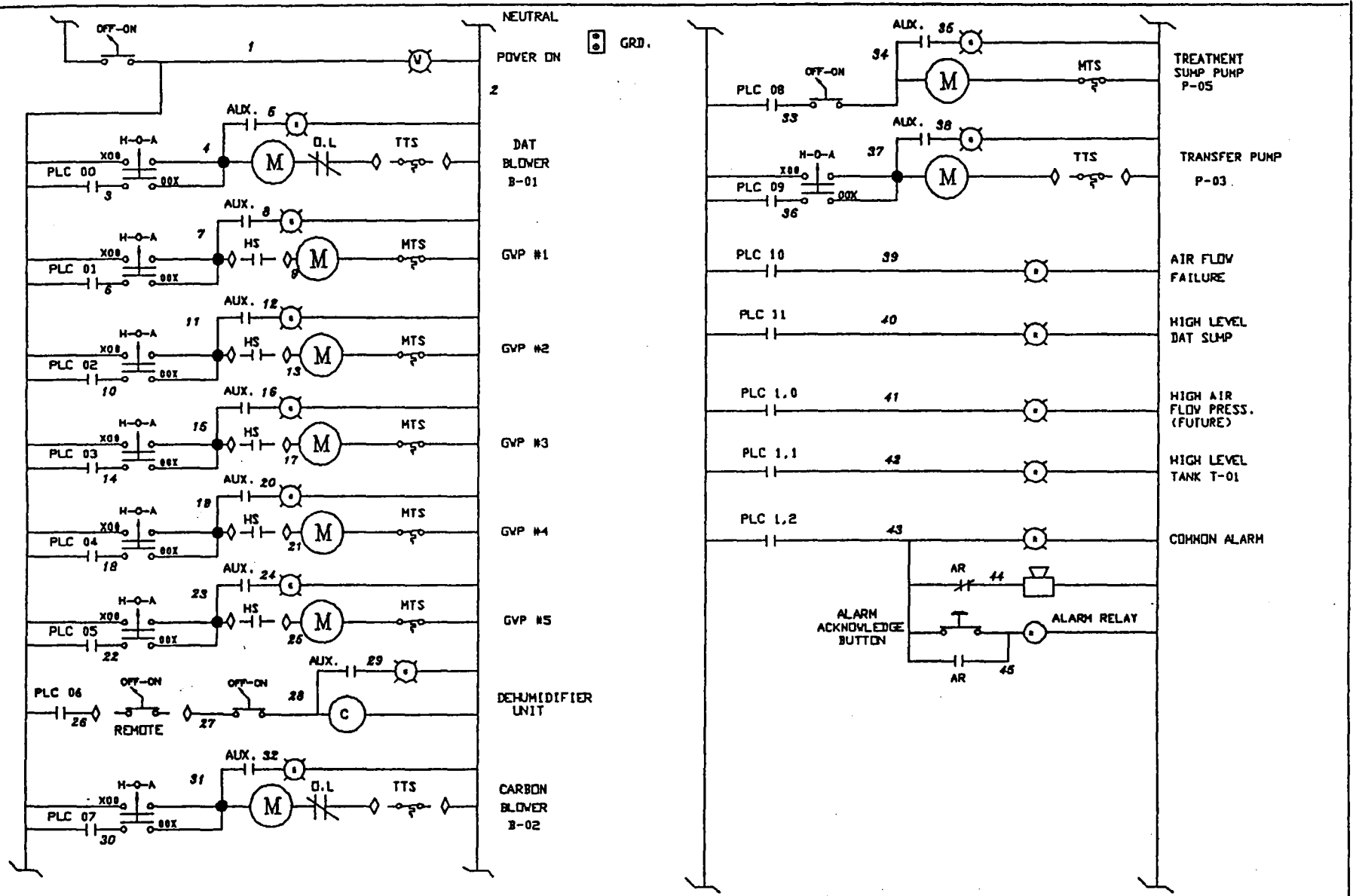
Diversified Remediation Southeast, Inc.

Scale: NONE
Drawn: SJS
Date: 11-17-93
Proj.# 93577PLC
Approved:

ABB ENVIRONMENTAL
KING'S BAY PROJECT
CONTROL LOGIC DIAGRAM

5

KB [IM I-EVAL&REC]
mb.11.94



Revisions		
1	12-93	DELETED GVP 6, DELETED DECON PUMP ADDED 'HS' CONTROL TO GVP'S
1	12-93	ADDED DEHUMIDIFIER UNIT

Diversified Remediation Southeast, Inc.

Scale: NONE
Drawn: SJS
Date: 11-17-93
Proj.# 93577P1
Approved:

ABB ENVIRONMENTAL
KING'S BAY PROJECT
CONTROL LOGIC DIAGRAM

3

KB [IMI-EVAL&REC]
mlv.11.94

TERMINAL LEGEND
DRS PROJECT #930577

TB 1

1. DAT BLOWER T1
2. DAT BLOWER T2
3. DAT BLOWER T3
4. DAT BLOWER TTS
5. DAT BLOWER TTS
6. CARBON BLOWER T1
7. CARBON BLOWER T2
8. CARBON BLOWER T3
9. CARBON BLOWER TTS
10. CARBON BLOWER TTS
11. TRANSFER PUMP T1
12. TRANSFER PUMP T2
13. TRANSFER PUMP T3
14. TRANSFER PUMP TTS
15. TRANSFER PUMP TTS
16. GWP 1 T1
17. GWP 1 T2
18. GWP 1 REMOTE SW. FEED
19. GWP 1 REMOTE SW. RETURN
20. GWP 2 T1
21. GWP 2 T2
22. GWP 2 REMOTE SW. FEED
23. GWP 2 REMOTE SW. RETURN
24. GWP 3 T1
25. GWP 3 T2
26. GWP 3 REMOTE SW. FEED
27. GWP 3 REMOTE SW. RETURN
28. GWP 4 T1
29. GWP 4 T2
30. GWP 4 REMOTE SW. FEED
31. GWP 4 REMOTE SW. RETURN
32. GWP 5 T1
33. GWP 5 T2
34. GWP 5 REMOTE SW. FEED
35. GWP 5 REMOTE SW. RETURN
36. TREATMENT SUMP PUMP T1
37. TREATMENT SUMP PUMP T2
38. DEHUMIDIFIER UNIT T1
39. DEHUMIDIFIER UNIT T2
40. DEHUMIDIFIER UNIT T3
41. DEHUMIDIFIER REMOTE SW. FEED
42. DEHUMIDIFIER REMOTE SW. RETURN

TB 2

1. PLC INPUT COMMON
2. LOW AIR FLOW
3. PLC INPUT COMMON
4. P-03 START
5. P-03 STOP
6. DAT HIGH LEVEL
7. PLC INPUT COMMON
8. HIGH AIR FLOW PRESSURE
9. GWP 1 COMMON
10. GWP 1 START
11. GWP 1 STOP
12. GWP 2 COMMON
13. GWP 2 START
14. GWP 2 STOP
15. GWP 3 COMMON
16. GWP 3 START
17. GWP 3 STOP
18. GWP 4 COMMON
19. GWP 4 START
20. GWP 4 STOP
21. GWP 5 COMMON
22. GWP 5 START
23. GWP 5 STOP
24. TANK T-01 COMMON
25. TANK T-01 HIGH LEVEL
26. TANK T-01 LOW LEVEL
27. TANK T-01 COMMON
28. TANK T-01 HIGH-HIGH LEVEL

MOTOR CONTROL PREVENTATIVE MAINTAINANCE GUIDE

1. Exterior and Surroundings:
Clean and remove any dust, grease, oil, rust, or corrosion. Inspect all gaskets for damage.

2. Interior of Enclosure:
Nuts, and Bolts: Same as #1 plus: excess vibration have loosened nuts, bolts or other mechanical connections.

3. Contacts, Relays, Solenoids:
a. General: Check control circuit voltage; inspect for excess heating of parts by discoloration of metal, charred insulation or odor ; dust ; grease ; corrosion ; and loose connections.
b. Contact Tips: Check for excessive pitting ; roughness ; copper oxide ; DO NOT FILE
c. Springs: Check contact pressure.
d. Flexible Leads: Check for frayed or broken strands ; be sure lead wires are NOT brittle.
e. Arc Chutes: Check for signs of flashover ; discolored ; charred surfaces.
f. Bearings: Check for freedom of movement, do not oil or spray with any lubricants.
g. Coils: Check for overheating. charred insulation or mechanical injury.
h. Magnets: Clean pole faces ; check shading coils ; check alignment.

4. Fuses and Fuse Clips:
Check for proper rating ; snug fit ; if copper polish ferules ; check clip pressure.

5. Overload Relays:
Check for proper heater size ; manually trip and reset ; check connections and inspect for dirt and corrosion.

6. Pushbutton Stations and Pilot Devices:
Check contacts ; inspect for dirt, grease, and corrosion.

7. Resistors:
Check for signs of overheating ; overheating ; tighten sliders.

8. Connections:
Check ALL connections for proper torque.

9. Control Operation:
Check the system for proper operation and observe relays, contactors and motor starters for arcing or bouncing when closing.

DIVERSIFIED REMEDIATION SOUTHEAST,INC.
REMEDIATION EQUIPMENT TROUBLESHOOTING GUIDE

!!!! CHECK FOR PROPER VOLTAGE,PHASE & ROTATION !!!!

AST BLOWER WON'T RUN:check the following items.
a)circuit breaker tripped
b)overload tripped
c)selector switch in "OFF" position
d)gallery high level
e)ast sump high level
f)air flow switch OR pressure sw.not functioning properly
g)foreign materials in BLOWER vanes

DAT BLOWER WON'T RUN:check the following items.
a)circuit breaker tripped
b)overload tripped
c)selector switch in "OFF" position
d)gallery high level
e)DAT sump high level
f)air flow switch not functioning properly
g)foreign materials in BLOWER vanes

SUBMERSIBLE TYPE ONLY
GROUNDWATER PUMP(S) WON'T RUN:check the following items.
a)circuit breaker tripped
b)overload tripped internally in motor (auto reset)
c)selector switch in "OFF" position
d)gallery high level
e)blower not running
f)tower or DAT sump high level
g)well probes corroded or dirty
h)well float switches dirty
i)high level OIL WATER SEPERATOR
J)high level EQ. tank
K)low water level in well
l)high level "RUSTY" tank
SUCTION LIFT TYPE
GROUNDWATER PUMP(S) WON'T RUN:check the following items.
a)circuit breaker tripped
b)overload tripped
c)selector switch in the "OFF" position
d)gallery high level
e)blower not running
f)tower or DAT sump high level
g)high level "RUSTY" tank
h)well probes corroded or dirty
i)well float switches dirty
j)high level OIL WATER SEPERATOR
k)high level EQ.tank
l)low water level in well

DIVERSIFIED REMEDIATION SOUTHEAST,INC.
REMEDIATION EQUIPMENT TROUBLESHOOTING GUIDE

TRANSFER PUMPS WON'T RUN:check the following items.
a)circuit breaker tripped
b)overload tripped
c)selector switch in "OFF" position
d)high level in gallery
e)high level in DAT sump
f)low level in DAT sump
g)low level in EQ. tank
h)high level in EQ.tank
i)high pressure in carbon system

AIR SOLENOID VALVE (ASV) WON'T ENERGIZE:check the following
a)low air flow
b)high level gallery
c)high level DAT sump
d)high level PRODUCT tank
e)high level OIL WATER SEPERATOR
f)high level EQ.tank
g)high level AST sump
h)defective coil,check resistivity

VAPOR EXTRACTION BLOWER WON'T RUN:check the following items.
a)circuit breaker tripped
b)overload tripped
c)selector switch in "OFF" position
d)high level in moisture seperator tank
e)time delay cycle after high level recedes (10min. adj.)
f)internal motor overload open (auto resets)

```
** LABEL   1
 I0,0                          E+---T0----+D                                    B0
--| |-------------------+--|            |-----------------------------------( )-|
                         |  |            |
                         |  |TB: 1s      |
                         | C|            |R
                         +--|            |--
                            |T,P: 30     |
                            |MODIF: Y    |
                            |            |
                            +----------+
 B0       B3       B5                                                          O0,0
--|/|-----|/|-----|/|-------------------------------------------------------( )-|
```

Blower fail timer: If the air flow switch indicates low air pressure for 30 seconds then the DAT blower will be disabled which will disable the entire system.
The system must be cycled "OFF" then "ON" to RESTART and RESET the system.

```
** LABEL   5
 I0,6                          E+---T1----+D                                    B1
--| |-------------------+--|            |-----------------------------------( )-|
                         |  |            |
                         |  |TB: 1s      |
                         | C|            |R
                         +--|            |--
                            |T,P: 10     |
                            |MODIF: Y    |
                            |            |
                            +----------+
```

DAT blower aux.I0,6: This auxillary contact verifies that the DAT blower motor starter has pulled in and implies that the blower is operating. After a the contact closes the system will wait 10 seconds and energize the entire system.

```
** LABEL   10
  IO,1     B1      B3      B4                                          00,1
 --| |-----| |-----|/|-----|/|-----------------------------------------( )-|

  IO,2     B1      B3      B4                                          00,2
 --| |-----| |-----|/|-----|/|-----------------------------------------( )-|

  IO,3     B1      B3      B4                                          00,3
 --| |-----| |-----|/|-----|/|-----------------------------------------( )-|

  IO,4     B1      B3      B4                                          00,4
 --| |-----| |-----|/|-----|/|-----------------------------------------( )-|
```

IO,1= Input signal from the LLR 1 indicating a start level in the recovery well
IO,2= Input signal from the LLR 2 indicating a start level in the recovery well
IO,3= Input signal from the LLR 3 indicating a start level in the recovery well
IO,4= Input signal from the LLR 4 indicating a start level in the recovery well

B1= Blower run interlock
B2= High level T-01 interlock
B4= High level DAT tank interlock

```
* LABEL   15
  IO,5     B1      B3      B4                                          00,5
 --| |-----| |-----|/|-----|/|-----------------------------------------( )-|
```

IO,5=Input signal from LLR 5 indicating a start level in the recovery well

B1=Blower run interlock
B3=High level tank T-01 interlock
B4=High level DAT tank interlock

```
** LABEL   20
  IO,6                    E+---T2----+D                                 B2
 --| |-------------------+--|        |-------------------------------( )-|
                          |  |TB: 1s  |
                          | C|        |R
                          +--|        |--
                             |T,P: 10 |
                             |MODIF: Y |
                             +---------+
```

T2= Timer 2 is utilized to delay the start of blower B-02 and E-01 for 10 secs.
The timing cycle is initialized by Input 6- Blower B-01 aux. contact.
The internal relay output of T2 is B2.

```
** LABEL   25
   B2                                                                  00,6
 --| |-------------------------------------------------------------( )-
   B2                                                                  00,7
 --| |-------------------------------------------------------------( )-
  I0,7    I0,8                                                         00,9
 --| |--+--| |--+-------------------------------------------------( )-
          |       |
          | 00,9  |
          +--| |--+
```

Output 6 = Dehumidifier - Interlocked via B2 internal relay
Output 7 = Carbon blower B-02 - Interlocked via B2 internal relay
Output 9 = Transfer pump P-03-
Stop input signal from Input 7 via a level switch in DAT site tube
Start input signal from Input 8 via a level switch in DAT site tube
Interlocked with B0 and T1

```
: LABEL   30
 I0,9                                                                  B3
 --| |-------------------------------------------------------------( )-
 I0,10                                                                 B4
 --| |-------------------------------------------------------------( )-
 I0,11                                                                 B5
 --| |-------------------------------------------------------------( )-
```

Input 9 = Signal from ISR 1 will disable GWP'S until the level recedes to allow tank T-01 to gravity drain to DAT/S-02.
This signal will enable internal relay B3 and is programmed to operate pump P-02 at a future date.

nput 10 = Signal from Hi level float switch on DAT/S-02 will disable the GWP'S until the level recedes. The output will give panel indication.

Input 11 = Future use if needed to indicate HIGH air flow pressure.

```
** LABEL   35
   B0                                                                    00,10
--| |-------------------------------------------------------------------( )-
   B4                                                                    00,11
--| |-------------------------------------------------------------------( )-
   B5                                                                    01,0
--| |-------------------------------------------------------------------( )-
  I0,12                                                                  01,1
 -| |-------------------------------------------------------------------( )-
```

Output 0,10 = Low air flow panel indication.
Output 0,11 = High level DAT/S-02 panel indication.
Output 01,0 = High air flow pressure panel indication.(Future)
Output 01,1 = HiHi level T-01 panel indication.

```
** LABEL   40
   B0                                                                    01,2
--| |--+----------------------------------------------------------------( )-
         |
  I0,12  |
--| |--  |
         |
   B4    |
--| |--  |
         |
   B5    |
 -| |--+
```

Output 01,2 = Common alarm output to activate top mounted alarm light and side mounted alarm horn. This alarm is activated by any of the following internal relays and inputs.
B0 - Low air flow
B4 - High level DAT/S-02 tank
B5 - High air flow pressure.(Future)
I0,12 - HiHi level tank T-01

```
** LABEL   45
  B3                                                                  01,3
--| |-------------------------------------------------------------------( )-
I0,12                                                                 00,8
--| |-------------------------------------------------------------------(/)-
```

Output 01,3 = Future output for P-02 if installed.
Output 00,8 = Treatment pad pump run signal allows normal operation of the pump except that in the event tank T-01 has a HI-HI level condition the pump will be held "OFF" until the level recedes.

END OF PROGRAM

BITS

VARIABLE	MNEMONIC	TASK	LABEL	SYMBOL
B0	.....	MAST	L1	-|/|-
		MAST	L1	-( )-
		MAST	L35	-| |-
		MAST	L40	-| |-
B1	.....	MAST	L5	-( )-
		MAST	L10	-| |-
		MAST	L10	-| |-
		MAST	L10	-| |-
		MAST	L10	-| |-
		MAST	L15	-| |-
B2	.....	MAST	L20	-( )-
		MAST	L25	-| |-
		MAST	L25	-| |-
B3	.....	MAST	L1	-|/|-
		MAST	L10	-|/|-
		MAST	L10	-|/|-

BITS

VARIABLE	MNEMONIC	TASK	LABEL	SYMBOL
B3	.....	MAST	L10	-|/|-
		MAST	L10	-|/|-
		MAST	L15	-|/|-
		MAST	L30	-( )-
		MAST	L45	-| |-
B4	.....	MAST	L10	-|/|-
		MAST	L10	-|/|-
		MAST	L10	-|/|-
		MAST	L10	-|/|-
		MAST	L15	-|/|-
		MAST	L30	-( )-
		MAST	L35	-| |-
		MAST	L40	-| |-
B5	.....	MAST	L1	-|/|-
		MAST	L30	-( )-
		MAST	L35	-| |-

BITS

VARIABLE	MNEMONIC	TASK	LABEL	SYMBOL
B5	.....	MAST	L40	-| |-
I0,0	.....	MAST	L1	-| |-
I0,1	.....	MAST	L10	-| |-
I0,2	.....	MAST	L10	-| |-
I0,3	.....	MAST	L10	-| |-
I0,4	.....	MAST	L10	-| |-
I0,5	.....	MAST	L15	-| |-
I0,6	.....	MAST	L5	-| |-
		MAST	L20	-| |-
I0,7	.....	MAST	L25	-| |-
I0,8	.....	MAST	L25	-| |-
I0,9	.....	MAST	L30	-| |-
I0,10	.....	MAST	L30	-| |-
I0,11	.....	MAST	L30	-| |-
I0,12	.....	MAST	L35	-| |-
		MAST	L40	-| |-

BITS

VARIABLE	MNEMONIC	TASK	LABEL	SYMBOL
I0,12	.....	MAST	L45	-| |-
O0,0	.....	MAST	L1	-( )-
O0,1	.....	MAST	L10	-( )-
O0,2	.....	MAST	L10	-( )-
O0,3	.....	MAST	L10	-( )-
O0,4	.....	MAST	L10	-( )-
O0,5	.....	MAST	L15	-( )-
O0,6	.....	MAST	L25	-( )-
O0,7	.....	MAST	L25	-( )-
O0,8	.....	MAST	L45	-(/)-
O0,9	.....	MAST	L25	-| |-
		MAST	L25	-( )-
O0,10	.....	MAST	L35	-( )-
O0,11	.....	MAST	L35	-( )-
O1,0	.....	MAST	L35	-( )-
O1,1	.....	MAST	L35	-( )-

BITS

VARIABLE	MNEMONIC	TASK	LABEL	SYMBOL
01,2	.....	MAST	L40	-( )-
01,3	.....	MAST	L45	-( )-

FUNCTION BLOCKS

VARIABLE	MNEMONIC	TASK	LABEL	SYMBOL
T0	.....	MAST	L1	
T1	.....	MAST	L5	
T2	.....	MAST	L20	

UMMARY :

part	page
TITLE PAGE	1
MNEMONICS TABLE	2
PROGRAM	2
XREF (VARIABLES)	8
XREF (MNEMONICS)	12

```
                    7777777777777777777777
                    7777777777777777777777
                                        77
TTTTTTTTTTTT         SSSSSSSSS  77       XX     X
     TT             SS        777        XX   X
     TT             SS       777          XX X
     TT              SSSSSSSSS             XX
     TT                     7SS           X XX
     TT                    77SS          X   XX
     TT              SSSSSSSSS           X     XX
                          77777
                         777777
                        7777777
                        7777777
```

Title : KING'S BAY PROJECT

	----company-----	---department---	---manager------
Designer :	DRS,INC.	ELEC. DESIGN	John Szuba
User :	ABB ENVIRONMENTL	ENVIRO.	
Maintenance :			

REV.	DATE	REVISION	DESIGNER	EXECUTED by

application		rev	date	page
KING'S BAY	TITLE PAGE		8 /2 /94	1- 1

ABB ENVIRONMENTAL
KING'S BAY PROJECT
DRS930577 12-13-1993 X= RECOMMENDED SPARES

QTY	DESCRIPTION	MANUFACTURER	PART NUMBER	
1	CONTROL ENCLOSURE	HOFFMAN	A-604810LP	
1	ENCLOSURE PANEL	HOFFMAN	A60P48	
1	SURGE SUPRESSOR	WEIDMUELLER	EGU2/931152	X=1
1	RELAY,2POLE DPDT	A.A ELECTRIC	AAE-A201-120V	
1	RELAY BASE 8PIN OCTAL	OMRON	PF083A	
1	POWER DIST. BLOCK	GOULD	69153	
1	PUSH BUTTON, MOMENTARY	TELEMECANIQUE	ZB2 BA2	
2BX	PILOT LIGHT LAMPS	SYLVANIA	120MB	X=1BX
15	PILOT LIGHTS,22 MM	TELEMECANIQUE	ZB2 BV6	
4	LENSE,RED	TELEMECANIQUE	ZB2 BV04	
10	LENSE,GREEN	TELEMECANIQUE	ZB2 BV03	
1	LENSE,CLEAR	TELEMECANIQUE	ZB2 BV01	
3	2 POSITION SWITCH 22 MM	TELEMECANIQUE	ZB2 BD2	
8	3 POSITION SWITCH 22 MM	TELEMECANIQUE	ZB2 BD3	
8	2 N.O BLOCKS & COLLAR	TELEMECANIQUE	ZB2 BZ103	
4	1 N.O BLOCK & COLLAR	TELEMECANIQUE	ZB2 BZ101	
15	WELL PROBES	WARRICK	3W1 OR 3W2	
5	LEVEL CONTROL RELAYS	WARRICK	16MB1A0	X=1
5	RELAY BASES 11 PIN	OMRON	PF113A	
75	TERMINALS	SPRECHER + SCHUH	VU4-4	
6	END CLAMPS	SPRECHER + SCHUH	19.116.221-01	
1	MOTOR STARTER 3PH. 3 POLE	SQUARE D	8911 DPS013V02	
2	MOTOR STARTER 3PH. 3 POLE	SQUARE D	8911 DPS033V02	
5	CONTACTOR 1PH.2 POLE	SQUARE D	8910 DPA12V02	
1	CONTACTOR 3 POLE	SQUARE D	8910 DPA23V02	
9	AUXILLARY CONTACT N.O	SQUARE D	9999 D10	
1	CIRCUIT BREAKER 1 POLE	SQUARE D	FAL12015	
5	CIRCUIT BREAKER 2 POLE	SQUARE D	FAL24015	
1	CIRCUIT BREAKER 3 POLE	SQUARE D	FAL34015	
2	CIRCUIT BREAKER 3 POLE	SQUARE D	FAL34030	
1	CIRCUIT BREAKER 3 POLE	SQUARE D	FAL34040	
1	CIRCUIT BREAKER 3 POLE	SQUARE D	FAL34100	
1	ARRESTOR,LIGHTING 3 PHASE	SQUARE D	SP3650	
1	TRANSFORMER,CONTROL	SQUARE D	9070 KF500D1	
4	FUSES,PRIMARY	BUSSMAN	FNQ-R 3.0A	X=2
2	FUSES,SECONDARY	BUSSMAN	FNM 10.0A	X=1
1	G.F.C.I RECEPTACLE	LEVITON	6599I	
1	PROCESSOR 34 I/O	TELEMECANIQUE	TSX172-3444E	
1	EXPANSION UNIT 6 OUTPUTS	TELEMECANIQUE	TSX DSF 635	
1	END OF LINE ADAPTER	TELEMECANIQUE	TSX 17 ACC10	
1	EEPROM MODULE	TELEMECANIQUE	TSX MC70E38	
1	LANGUAGE CARTRIDGE	TELEMECANIQUE	TSX P17 20F	
1	ALARM HORN	WARRICK	MODEL 1200	
1	INTRINSIC RELAY	WARRICK	27A1E0	

Hersey MEASURING COMPANY

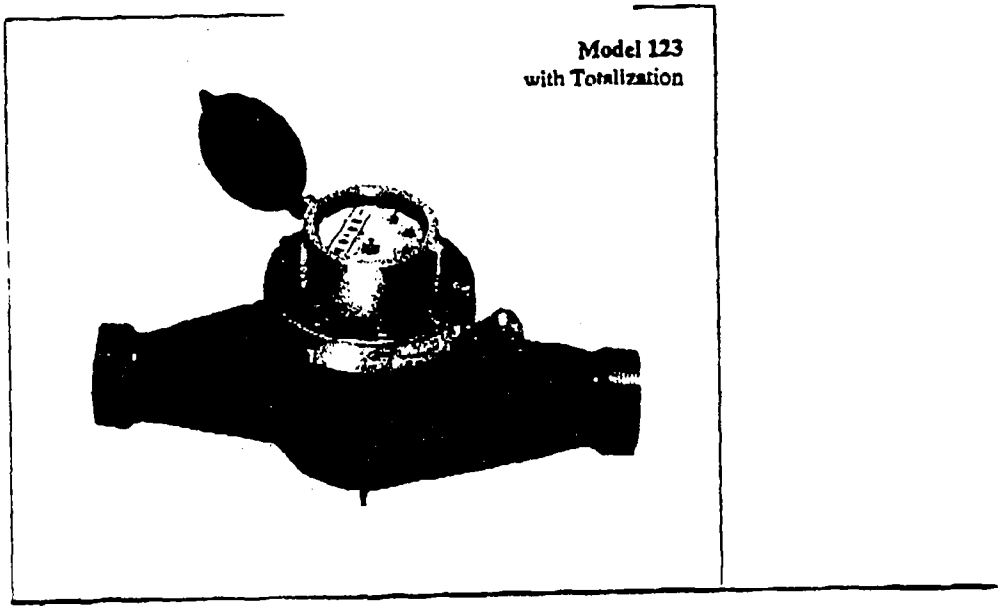
NIAGARA® LIQUID METERS

M 211

Series MTX

Models 123, 414, 420, and 433
Operating/Maintenance

Post-it™ Fax Note 7671	Date 9/28/94	# of pages ▶ 4
To T. Keel	From P. Crain	
Co./Dept	Co.	
Phone #	Phone #	
Fax #	Fax #	



Installation

In selecting an installation site one should consider readability, maintenance, and installation.

The Niagara Series MTX meter must be mounted horizontally with the register on top

In order to have accurate measurement, the meter must have a straight undisturbed pipe with length of 5 pipe diameters upstream and 3 pipe diameters downstream. If this is not possible, straightening vanes may have to be used.

The Series MTX must be placed in a pipeline free of scale, sediment, and debris. If there is excessive sediment in the pipeline, protect the meter by putting a strainer upstream of the meter.

Evacuate air from the meter before operating. Slowly open valve to let water into the meter. Gradually increase the flow rate to drive out the air. If the meter is not filled slowly, the surge of water can damage the measuring elements.

Register Removal

Model 123
(See Illustration 1)

1. Remove sealing wire (1).
2. Tap out clamping pins (2) from the register cover with a rod.
3. Take off register cover (3) and register (4). The register cannot be disassembled further. It is hermetically sealed and must be replaced as a unit if damaged.

Model 414
(See Illustration 2)

1. Remove sealing wire (1).
2. Remove strain relief nut (2) and draw out washer and binding nut.
3. Remove sealing screws (3) and lift off register cover (4).
4. Remove screw (5) and take off reed switch (6).
5. Remove sealing wire (7).
6. Lift sealing segment (8) out of ring. Turn working clamp ring (9) by 90 degrees to the left or the right and lift off.
7. The register (10) cannot be disassembled further. It is hermetically sealed and must be replaced as a unit if damaged.

Model 420
(See Illustration 3)

1. Remove strain relief nut (1) and draw out washer and binding nut.
2. Remove sealing screws (2) and lift off register cover (3).
3. Pull reed switch or infrared transmitter (4) out of the register.
4. Remove sealing wire (5).
5. Pull sealing segment (6) out of ring.
6. Turn working clamp ring (7) and register (8) 90 degrees to the left or the right and lift off.
7. The register cannot be disassembled further. It is hermetically sealed and must be replaced as a unit if damaged.

Model 433
(See Illustration 4)

1. Remove sealing wire (1).
2. Take off reed switch (3) by removing cap screw (2).
3. Remove sealing wire (4) on sealing segment (5).
4. Lift out sealing segment (5).
5. Turn working clamp ring (6) with register (7) 90 degrees to the left or the right and lift off. The register cannot be disassembled further. It is hermetically sealed and must be replaced as a unit if damaged.

Measuring Chamber Disassembly

1. Remove sealing wire (11) on Models 414, 420, and 433.
2. Turn upper case (12), with spanner wrench, counter-clockwise and remove.
3. Measuring chamber (13) will fall out of the body by tilting it. If the measuring chamber is stuck, it can be removed by protecting one of the threaded connections with a cap nut and striking the protected end on a piece of wood.

> Caution should be used to protect the measuring chamber from damage.

4. If the measuring unit is worn or damaged it must be replaced as a unit.
5. The filter (14) can be pushed out. Clean and check for damages. Replace if necessary.

Reassemble

Model 123
(See Illustration 1)

1. Reassembly of the meter can be done by following the reverse order of the disassembly instructions. Check parts for wear and make sure they are clean.
2. Place O ring on measuring chamber and insert chamber in meter. The measuring chamber must be flush with the bottom case of the meter.
3. To achieve a good seal, the O ring (15) in the upper case should be slightly lubricated.
4. Replace sealing wire (1).

Model 414
(See Illustration 2)

1. Reassembly can be done by following the reverse order of disassembly instructions. Check parts for wear and make sure they are clean.
2. Before putting register cover (4) on, working clamp ring (9) and sealing segment (8) have to be sealed with a sealing wire.
3. Reed switch (6) must be mounted in the slot above the magnet on the register. Replace screw.
4. Place O ring on measuring chamber and insert chamber in meter. Measuring chamber (13) must be flush with the bottom case of the meter.
5. To achieve a good seal, the O ring (15) in the upper case (12) should be slightly lubricated.

Model 420
(See Illustration 3)

1. Reassembly of the meter can be done by following the reverse order of the disassembly instructions. Check O rings and parts for wear and make sure they are clean.
2. Place O ring on measuring chamber and insert chamber in meter. The measuring chamber (13) must be flush with the bottom case of the meter.
3. Place transmitter in the correct slot:
   - XO.1 - Infrared Transmitter
   - X1 - Reed Switch For 1 Pulse Per 10 Gallons
   - X10 - Reed Switch For 1 Pulse Per 100 Gallons
4. Before putting register cover (3) on, working clamp ring (7) and sealing segment (6) have to be sealed with sealing wire.
5. When inserting register in cover, match slot above multiplier on register with tab inside cover.
6. To achieve a good seal, the O ring (15) in the upper case should be slightly lubricated.

Model 433
(See Illustration 4)

1. Reassembly can be done by following the reverse order of the disassembly instructions. Check parts for wear and make sure they are clean.
2. The working clamp ring (13) and sealing segment (2) have to be sealed with a sealing wire.
3. Place O ring on measuring chamber and insert chamber in meter. The measuring chamber (13) must be flush with the bottom case of the meter.
4. To achieve a good seal, the O ring (15) in the upper case (12) should be slightly lubricated.

Calibration

The meter is calibrated at the factory. If the measuring chamber is replaced, calibration instructions will be included with the replacement kit.

Specifications

Pressure: 250 psi
Accuracy: ± 1%
Registration: US Gallons. Other units of measure available (consult factory).

Model 123

Size		3/4"	1"	1 1/2"	2"
Flow Rate		1-20 gpm	2-50 gpm	3-85 gpm	4-130 gpm
Temperature	Cold	120 F	120 F	120 F	120 F
	Hot	250 F	250 F	250 F	250 F

Model 414

Size	3/4"	1"	1 1/2"	2"
Flow Rate	1-20 gpm	2-50 gpm	3-85 gpm	4-130 gpm
Temperature	250 F	250 F	250 F	250 F
Gallons per Contact	1	1	10	10

Model 420

Size		3/4"	1"	1 1/2"	2"
Flow Rate		1-20 gpm	2-50 gpm	3-85 gpm	4-130 gpm
Temperature	Cold	120 F	120 F	120 F	120 F
	Hot	250 F	250 F	250 F	250 F
Gallons per contact with 840 Switch		10 or 100	10 or 100	10 or 100	10 or 100
Full Scale Freq. HZ with 860 Pulser	Cold	20.63	16.66	14.16	21.66
	Hot	38.57			

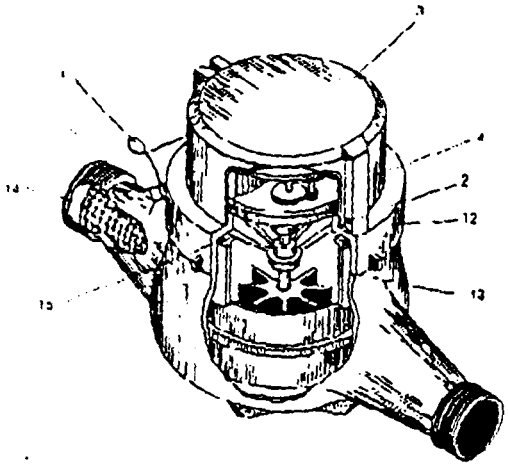
Model 433

Size	3/4"	1"	1 1/2"	2"
Flow Rate	1-20 gpm	2-50 gpm	3-85 gpm	4-130 gpm
Temperature	120 F	120 F	120 F	120 F
Gallons per contact	1	1	10	10

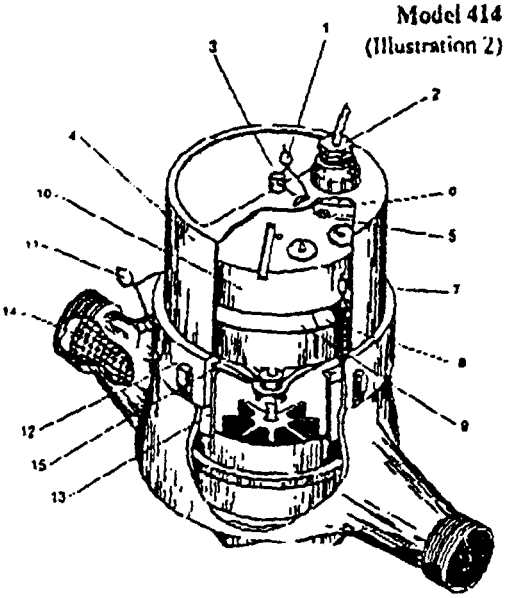
Wetted Material Of Construction

Body:	High Strength Brass (3/4" - 1 1/2")
	Epoxy Coated Cast Iron (2" only)
Measuring Element:	120 F - Polystyrene
	250 F - Noryl
Impeller:	120 F - Polystyrene
	250 F - Noryl
O Ring Seals:	EPDM

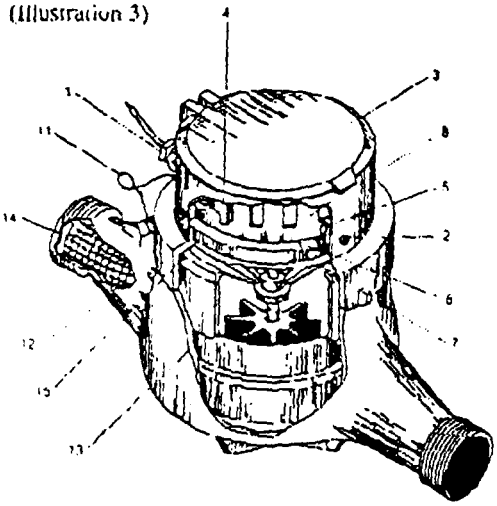
Model 123
(Illustration 1)



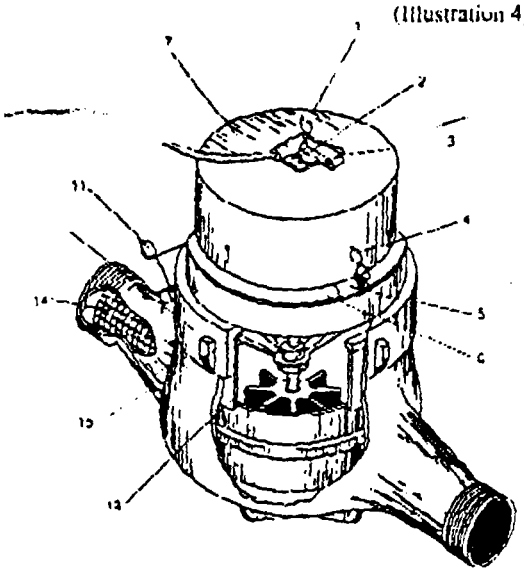
Model 414
(Illustration 2)



Model 420
(Illustration 3)



Model 433
(Illustration 4)



Replacement Parts

- Measuring chamber complete
- Register assembly

Note: Part numbers for above items are listed in the parts price book.

Hersey
MEASUREMENT COMPANY
150 Venture Boulevard
P.O. Box 4585
Spartanburg, SC 29305
A Division of Flow Measurement, Inc.
Phone 803-574-3900
800-845-2002 (except in SC)
Fax 803-578-5308

Hersey Distributor:

Hersey liquid level, flow and the measurement products are integral to our continual program of technical improvement. Hersey Measurement Company reserves the right to change specifications without notice.

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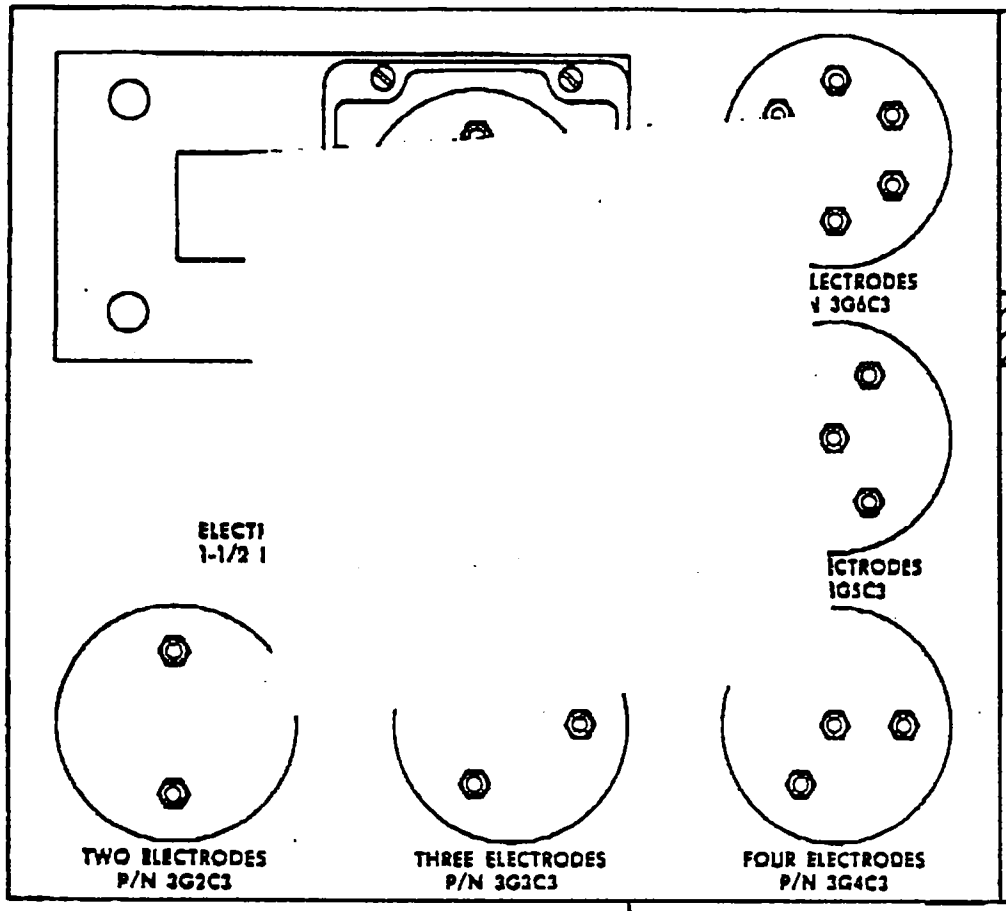
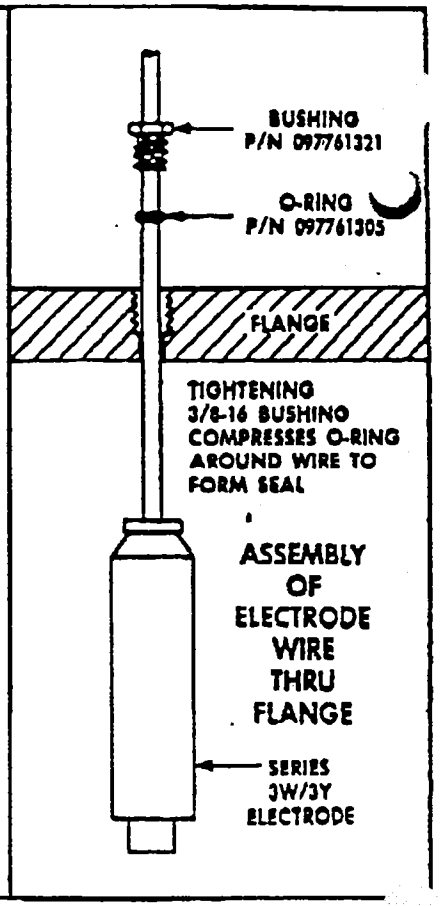
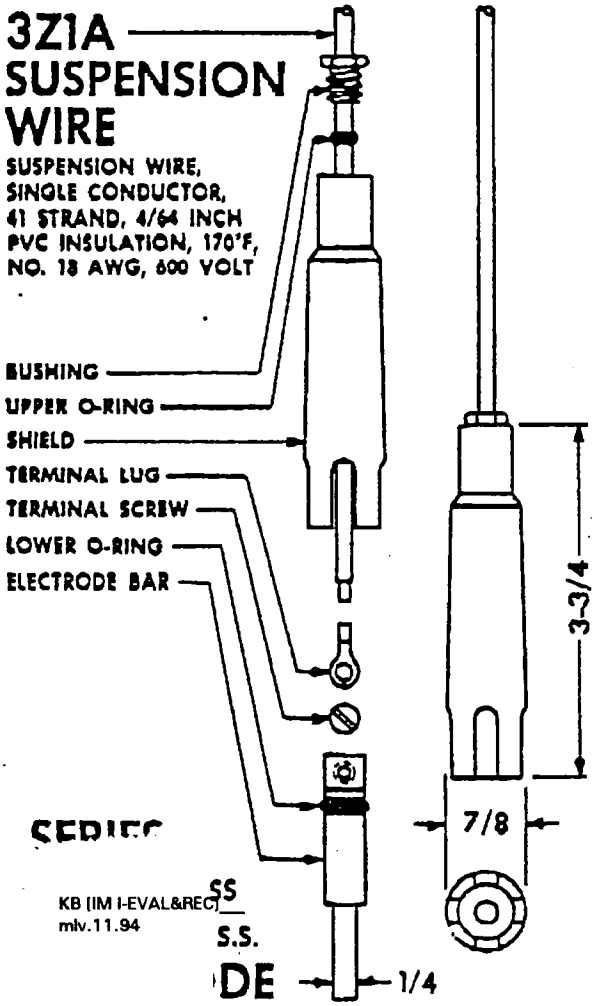
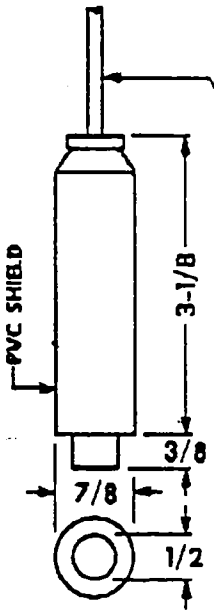
Form M 211
BM# 60000503
2M 1193

KB (IM I-EVAL&REC)
mlv.11.94









SERIES 3Y1XX ELECTRODES

SUSPENSION WIRE,
SINGLE CONDUCTOR,
41 STRAND, 4/64 INCH
PVC INSULATION, 170°F,
NO. 18 AWG, 600 VOLT

3Y1 ☐☐ ELECTRODE

	ELECTRODE TIP MATERIAL
C	316 S.S.
D	CARPENTER-20
E	HASTELLOY B
F	HASTELLOY C

	LENGTH OF WIRE
1	10 FEET
2	20 FEET
3	30 FEET
ET	CETERA

SYSTEM REQUIREMENTS

REQ'D	COMPONENT NUMBER	TAG NUMBER

KB [IM I-EVAL&REC]
mlv.11.94

L-104

APPENDIX M

SCREEN MODEL

TO: Ted Taylor

FROM: Valerie A. Rule VAR

DATE: October 18, 1994

SUBJECT: NSB Kings Bay - Vapor Emission Dispersion Modeling

cc: Tracey Keel

The USEPA SCREEN Model for estimating the air quality impact of stationary sources has been used to model the air quality impacts of actual emissions at the NSB Kings Bay groundwater treatment system. The analysis reaffirms that air emissions will result in negligible impact on air quality during the operation of the groundwater treatment system. A short report including tables and model output is attached.

Knowing this, two related issues can be resolved. These issues are:

1) The vapor analysis shows that some constituent concentrations actually increased following the vapor phase carbon vessels. Does this indicate the carbon is saturated? Does this indicate the carbon should be replaced?

2) Are 4 parallel streams of carbon needed?

3) With the knowledge that carbon that is saturated with water is less efficient at adsorbing volatile organic compounds, should a dehumidifier be placed in-line?

EVALUATION:

1) Granular Activated Carbon (GAC) adsorbs different constituents at different rates. Typically, organic compounds with higher molecular weights are removed more readily by carbon, and smaller organic compounds are less readily adsorbed, and show breakthrough earlier. Also, the larger chain compounds are more readily adsorbed.

   The stack sample indicates that the larger organic compounds are still being removed by the vapor phase GAC. However, the smaller organic compounds actually show an increase in concentration at the stack, than before the GAC. This indicates that the smaller compounds that were adsorbed previously by the GAC, are being displaced by the larger compounds. Four rounds of samples from the inlet to and the effluent from the carbon units have been collected and analyzed. Table 1 provides the maximum concentrations detected from the vapor samples and corresponding information on the constituent molecular

weight and chain size. Table 2 provides the most recent analytical data available for vapor samples before and following the carbon units.

TABLE 1
VAPOR EMISSION CONSTITUENTS OF CONCERN

CONSTITUENT	CONC. BEFORE GAC (mg/m^3)	CONC. AT STACK (mg/m^3)	NO. OF CARBONS IN CHAIN	MOLECULAR WEIGHT
1,1-Dichloroethane	0.12	0.11	2	99
cis-1,2-Dichloroethene	1.3	1.4	2	99
trans-1,2-Dichloroethene	0.013	0.014	2	99
Ethylbenzene	0.28	ND	8	106
Methylene Chloride	0.099	0.87	2	85
4-Methyl-2-Pentanone	0.3	ND		100
Tetrachloroethene	0.17	ND	2	166
Toluene	0.32	0.013	7	92
Total Xylenes	0.297	ND	8	106
Vinyl Chloride	0.1	0.084	2	63

Since the carbon vessels are in place to meet best available control technology standards, the best engineering judgement based on evaluation of the vapor samples is to change the carbon out. The existing carbon vessels have been in service for 8 months, which is considered a cost efficient period for any application. Although the secondary units also indicate breakthrough of smaller chain organic compounds, the secondary units can be placed in the primary positions. These units will then adsorb the larger chain organic compounds, and the fresh carbon in the secondary positions will provide removal of smaller chain organic compounds.

TABLE 2

VAPOR TREATMENT EVALUATION
DETECTED CONSTITUENTS AT CARBON INFLUENT AND EFFLUENT
GROUNDWATER TREATMENT SYSTEM
NSB KINGS BAY

CONSTITUENT	9/06 Influent (ug/m3)	9/06 Effluent (ug/m3)	9/13 Influent (ug/m3)	9/13 Effluent (ug/m3)	9/20 Influent (ug/m3)	9/20 Effluent (ug/m3)	9/27 Influent (ug/m3)	9/27 Effluent (ug/m3)
Vinyl Chloride	55	81	52	57	71	67	100	84
Acetone	53	84	72	76	71	84	79	68
Methylene Chloride	50	85	81	79	88	87	99	81
trans-1,2-Dichloroethene	ND	14	ND	ND	11	12	13	8.8
1,1-Dichloroethane	60	110	97	110	98	100	120	90
cis-1,2-Dichloroethene	710	1400	1100	1200	1200	1300	1300	960
2-Butanone	ND	ND	79	ND	77	38	86	30
Benzene	ND	ND	14	ND	15	20	20	19
1,2-Dichloropropane	ND	ND	ND	ND	ND	11	ND	ND
Trichloroethene	130	400	190	520	190	610	210	430
4-Methyl-2-Pentanone (MIBK)	160	ND	260	ND	270	ND	300	ND
Toluene	180	13	250	ND	270	8.8	320	8.7
Tetrachloroethene	76	ND	110	ND	150	ND	170	ND
Ethylbenzene	110	ND	160	ND	220	ND	280	ND
p,m-Xylene	80	ND	120	ND	160	ND	200	ND
o-Xylene	38	ND	55	ND	77	ND	97	ND
4-Ethyl Toluene	ND	ND	ND	ND	19	ND	26	ND
1,2,4-Trimethylbenzene	ND	ND	20	ND	30	ND	43	ND

NOTES:
ND – Not Detected

I request when the changeout be made, that the level of water present in the vessels be noted. This information will be useful in future evaluation of whether a dehumidifier is needed.

2) For vapor phase GAC applications, the mass transfer zone is usually very short. The adsorptive zone is small relative to bed depth, and the GAC is nearly saturated at the breakpoint. Accordingly, contact time has little impact on GAC usage rates. The number of units required is based on blower capacity, pressure drop across the vessels at design flow rates, and the vessel design. The blower on-site appears to have sufficient capacity for high pressure drops. Therefore, units allowing higher flows, with greater pressure drops can be used. The number of parallel streams can be reduced according to the vessel design parameters and the system flow rate of 550 cfm. (We could also reduce the blower speed since we are meeting air stripping efficiencies required in the Diffused Aeration Tank (DAT), and the initial design flow rate was 800 cfm). Several manufacturers supply portable units that can accept up to 300 cfm. This would allow only two parallel streams of carbon units to be necessary.

3) The vapor emissions from the DAT were modeled to determine that if these vapors were emitted directly, without any removal efficiencies provided by the carbon, would the emissions meet Acceptable Ambient Concentrations (AACs). The modeling showed that the emissions direct from the DAT will meet AACs. Carbon can provide removal without dehumidification of the stream. Leaving humidity in the stream reduces the risk of carbon fires, due to the heat sink provided by water vapor. Carbon fires are a risk for vapor phase carbon.

   I suggest the carbon vessels be drained periodically of any standing water. We should continue to monitor the GAC influent and effluent (as we stated in permit application that we would) to determine approximately when breakthrough occurs. If the GAC becomes saturated quickly, a dehumidifier to improve removal efficiencies of the GAC should be evaluated at that time.

The state has accepted monitoring for emissions to be based on vinyl chloride, based on the fact that vinyl chloride will be the first constituent to break through. A corrective action level of 0.37 mg/m^3 at the stack will initiate replacement of the carbon units. A maximum detection limit of 0.1 mg/m^3 has been accepted. If a sample method such as Draeger Tubes meets this criteria, than this is the only sampling necessary. Although a full sweep of constituents will provide more information on carbon usage, analysis for vinyl chloride is all that is required.

SCREEN MODEL EVALUATION
NSB KINGS BAY TREATMENT SYSTEM

The USEPA SCREEN Model for estimating the air quality impact of stationary sources has been used to model the air quality impact of emissions at the NSB Kings Bay groundwater treatment system.

The model was run based on a 1 gram per second (g/s) basis. The results of the modeling can then be directly correlated to the actual emission rate of individual constituents, based on recent vapor testing.

The point source algorithm in the SCREEN model was used in the analysis, since the single point source of organic compounds is the stack, assuming fugitive emissions to be negligible. Flat terrain and rural dispersion were assumed. Concentrations were calculated for the full range of meteorological conditions available in the model. Automated receptor distances from one meter to 2000 meters were selected for a single wind direction. Because stack temperature is expected to be close to ambient temperature, the default ambient temperature assumed by the model, 293 Kelvin, was also used as the stack gas temperature. The stack gas velocity is based on the actual measured stack flow (550 cubic feet per minute) and stack diameter (8 inches). The tallest nearby structure to the stack is the Equalization Tank (7 feet high with a 6 foot diameter). The Equalization Tank dimensions were input to the model to confirm that emissions will not be subject to downwash effects.

The following information was input into the model:

Source Type:	Point	
Emission Rate:	1 grams/sec	0.1323 pounds/hr
Stack Height:	4.88 meters	16 feet
Stack Inside Diameter:	0.2032 meters	8 inches
Stack Inside Area:	0.0324 meters^2	0.349 square feet
Stack Exit Velocity:	8.02 meters/s	26.3 feet/sec
Stack Exit Temperature:	293 Kelvin	68° F
Ambient Air Temperature:	293 Kelvin	68° F
Receptor Height:	0 meters	0 feet
Nearby Structure Height:	2.13 meters	7 feet
Minimum Horizontal Dimension:	1.83 meters	6 feet
Maximum Horizontal Dimension:	1.83 meters	6 feet

Modeling was performed for two scenarios:

1) dispersion of actual emissions from the carbon vessels, and
2) dispersion of actual emissions if the carbon was not in service.

Maximum daily ground level impacts were then compared with calculated acceptable ambient concentrations (AACs) (as directed by Georgia DNR July 1984 guidance) to verify public health, including the health of system operators, is not being threatened by the system operation. Table 1 represents the maximum ground level concentrations for a 24-hour averaging time following the carbon vessels. Table 2 represents the maximum ground level concentrations for a 24-hour averaging time following the Diffused Aeration Tank (DAT), if carbon was not in service.

As indicated on the tables, the maximum ground level concentrations calculated by the SCREEN Model are well below the resulting AAC's. The analysis reaffirms that air emissions will result in a negligible impact on air quality during the operation of the groundwater treatment system.

TABLE 1

SCREEN MODEL EVALUATION USING ACTUAL VAPOR EMISSION CONCENTRATIONS FROM STACK (OP08)

NSB KINGS BAY, GEORGIA

BY: Valerie A. Rule

DATE: October 18, 1994

Max. Groundwater Flow Rate (gpm):	60
Maximum Air Flow Rate (cfm):	550
Emission Point – Stack Height (feet):	16
Maximum Hours of Operation per week:	168

Contaminant Name	Actual Vapor Emission from Stack (mg/m3)	Max. Vapor Emission as (g/s)	Maximum Ground Level Concentration (mg/m3)	TLV (mg/m3)	Category (A or B)	AAC (Note 2) (mg/m3)
1,1–Dichloroethane	0.11000	0.00003	0.00002	3	A	0.00238
cis–1,2–Dichloroethene	1.40000	0.00036	0.00022	590	A	0.46825
trans–1,2–Dichloroethene	0.01400	0.00000	0.00000	350	A	0.27778
Ethylbenzene	0.00000	0.00000	0.00000	450	A	0.35714
4–Methyl–2–Pentanone (MIBK)	0.00000	0.00000	0.00000	810	A	0.64286
Tetrachloroethene	0.00000	0.00000	0.00000	40	A	0.03175
Toluene	0.01300	0.00000	0.00000	790	B	1.88095
Total Xylenes	0.00000	0.00000	0.00000	790	A	0.62698
Vinyl chloride	0.08400	0.00002	0.00001	345	A	0.27381

1) Based on 1 g/s SCREEN Mode

2) Acceptable Ambient Concentration

3) From SCREEN Model – emission rate of 1.491 mg/m3 for a 1 g/s emission rate, one–hour concentration. To convert this to a 24–hour concentration, multiply by 0.4 for 0.5964 mg/m3 emission rate.

TABLE 2

SCREEN MODEL EVALUATION USING ACTUAL VAPOR EMISSION CONCENTRATIONS FROM DAT BEFORE CARBON (OC17)

NSB KINGS BAY, GEORGIA

BY: Valerie A. Rule

DATE: October 18, 1994

Max. Groundwater Flow Rate (gpm):	60
Maximum Air Flow Rate (cfm):	550
Emission Point – Stack Height (feet):	16
Maximum Hours of Operation per week:	168

Contaminant Name	Actual Vapor Emission from DAT (mg/m3)	Max. Vapor Emission as (g/s)	Maximum Ground Level Concentration (mg/m3)	TLV (mg/m3)	Category (A or B)	AAC (Note 2) (mg/m3)
1,1–Dichloroethane	0.12000	0.00003	0.00002	3	A	0.00238
cis–1,2–Dichloroethene	1.30000	0.00034	0.00020	590	A	0.46825
trans–1,2–Dichloroethene	0.01300	0.00000	0.00000	350	A	0.27778
Ethylbenzene	0.28000	0.00007	0.00004	450	A	0.35714
4–Methyl–2–Pentanone (MIBK)	0.30000	0.00008	0.00005	810	A	0.64286
Tetrachloroethene	0.17000	0.00004	0.00003	40	A	0.03175
Toluene	0.32000	0.00008	0.00005	790	B	1.88095
Total Xylenes	0.29700	0.00008	0.00005	790	A	0.62698
Vinyl chloride	0.10000	0.00003	0.00002	345	A	0.27381

1) Based on 1 g/s SCREEN Mode

2) Acceptable Ambient Concentration

3) From SCREEN Model – emission rate of 1.491 mg/m3 for a 1 g/s emission rate, one–hour concentration. To convert this to a 24–hour concentration, multiply by 0.4 for 0.5964 mg/m3 emission rate.

10-18-94
12:36:51

*** SCREEN-1.1 MODEL RUN ***
*** VERSION DATED 88300 ***

B Kings Bay, GA

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	1.000
STACK HEIGHT (M)	=	4.88
STK INSIDE DIAM (M)	=	.20
STK EXIT VELOCITY (M/S)	=	8.02
STK GAS EXIT TEMP (K)	=	293.00
AMBIENT AIR TEMP (K)	=	293.00
RECEPTOR HEIGHT (M)	=	.00
IOPT (1=URB,2=RUR)	=	2
BUILDING HEIGHT (M)	=	2.13
MIN HORIZ BLDG DIM (M)	=	1.83
MAX HORIZ BLDG DIM (M)	=	1.83

BUOY. FLUX = .00 M**4/S**3; MOM. FLUX = .66 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	0	.0	.0	.0	.0	.0	.0	NA
100.	1458.	3	1.0	1.0	320.0	9.8	12.5	7.6	NO
200.	1475.	5	1.0	1.0	5000.0	9.3	11.7	6.4	NO
300.	1488.	6	1.0	1.0	5000.0	8.9	11.3	5.8	NO
400.	1397.	6	1.0	1.0	5000.0	8.9	14.7	7.2	NO
500.	1200.	6	1.0	1.0	5000.0	8.9	18.0	8.5	NO
600.	1010.	6	1.0	1.0	5000.0	8.9	21.3	9.8	NO
700.	850.4	6	1.0	1.0	5000.0	8.9	24.5	11.0	NO
800.	726.1	6	1.0	1.0	5000.0	8.9	27.7	12.1	NO
900.	626.9	6	1.0	1.0	5000.0	8.9	30.8	13.1	NO
1000.	547.0	6	1.0	1.0	5000.0	8.9	33.9	14.0	NO
1100.	483.3	6	1.0	1.0	5000.0	8.9	37.0	14.9	NO
1200.	430.7	6	1.0	1.0	5000.0	8.9	40.0	15.7	NO
1300.	386.7	6	1.0	1.0	5000.0	8.9	43.1	16.5	NO
1400.	349.5	6	1.0	1.0	5000.0	8.9	46.1	17.3	NO
1500.	317.8	6	1.0	1.0	5000.0	8.9	49.1	18.1	NO
1600.	290.5	6	1.0	1.0	5000.0	8.9	52.0	18.8	NO
1700.	266.9	6	1.0	1.0	5000.0	8.9	55.0	19.6	NO
1800.	246.2	6	1.0	1.0	5000.0	8.9	57.9	20.3	NO
1900.	228.0	6	1.0	1.0	5000.0	8.9	60.8	21.0	NO
2000.	211.9	6	1.0	1.0	5000.0	8.9	63.7	21.7	NO

AXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

313.	1491.	6	1.0	1.0	5000.0	8.9	11.8	6.0	NO

```
DWASH=   MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*********************************************
*  SUMMARY OF TERRAIN HEIGHTS ENTERED FOR   *
*    SIMPLE ELEVATED TERRAIN PROCEDURE      *
*********************************************

     TERRAIN        DISTANCE RANGE (M)
      HT (M)       MINIMUM     MAXIMUM
     -------      --------    --------
          0.            1.       2000.

*** CAVITY CALCULATION - 1 ***        *** CAVITY CALCULATION - 2 ***
 CONC (UG/M**3)      =    .0000        CONC (UG/M**3)      =    .0000
 CRIT WS @10M (M/S)  =   99.99         CRIT WS @10M (M/S)  =   99.99
 CRIT WS @ HS (M/S)  =   99.99         CRIT WS @ HS (M/S)  =   99.99
 DILUTION WS (M/S)   =   99.99         DILUTION WS (M/S)   =   99.99
 CAVITY HT (M)       =    3.25         CAVITY HT (M)       =    3.25
 CAVITY LENGTH (M)   =    3.02         CAVITY LENGTH (M)   =    3.02
 ALONGWIND DIM (M)   =    1.83         ALONGWIND DIM (M)   =    1.83

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S.  CONC SET = 0.0

     ****************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ****************************************

 CALCULATION         MAX CONC    DIST TO   TERRAIN
  PROCEDURE         (UG/M**3)    MAX (M)    HT (M)
--------------     -----------   -------   -------
SIMPLE TERRAIN       1491.         313.       0.

*****************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
*****************************************************
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PROJECT NSB Kings Bay Air Modeling- Design Calcs	COMP. BY AR	JOB NO. 08503
	CHK. BY	DATE 10-18-94

STACK DIAMETER = 4 inches

$$8 \text{ inches} \times 0.02540 \frac{m}{in} = 0.2032 m$$

STACK AREA

$$\frac{\pi (8 in)^2}{4} = \frac{50.27 in^2}{144 in^2/ft^2} = 0.349 ft^2$$

$$\pi \frac{(.2032m)^2}{4} = 0.0324 m^2$$

STACK EXIT VELOCITY

$$\frac{550 \frac{ft^3}{min} \times \frac{min}{60 sec}}{0.349 ft^2} = 26.3 fps$$

$$26.3 fps \times 0.3048 \frac{m}{ft} = 8.02 m/s$$

TO CONVERT $mg/m^3 \rightarrow g/s$

$$1 \frac{mg}{m^3} \times 8.02 \frac{m}{s} \times .0324 m^2 \times \frac{g}{1000 mg} = 0.000260 g/s$$

$$1 mg/m^3 = 0.000260 g/s$$

APPENDIX N

TREATMENT OF GROUNDWATER IN A FIELD PILOT METHANOTROPHIC ROTATING BIOLOGICAL CONTACTOR

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Naval Submarine Base
Kings Bay, Georgia

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APPENDIX N

TREATMENT OF GROUNDWATER IN A FIELD PILOT METHANOTROPHIC ROTATING BIOLOGICAL CONTACTOR

ABSTRACT. A pilot-scale Rotating Biological Contactor (RBC) was operated under field conditions for approximately 1 month to remove chlorinated and non-chlorinated groundwater constituents. Methanotrophic (methane-oxidizing) conditions were successfully established in the RBC prior to the introduction of groundwater (maximum observed methane degradation rate was 90 milli-moles [mmol] of methane per hour [CH_4/hr]). Results of the pilot program indicated that low concentrations of cis-1,2-dichloroethene (cis-DCE) and vinyl chloride (less than 1,000 and 50 micrograms per liter [$\mu g/\ell$], respectively) can be treated to below state-mandated maximum contaminant levels (MCLs). Maximum removal rates for cis-DCE and vinyl chloride measured during the pilot study were 952 micrograms (μg) of cis-DCE per milligram of volatile solids per day and 143 μg of vinyl chloride per milligram of volatile solids per day, respectively). Chlorinated ethene removal efficiencies decreased after the first 2 weeks of operation. Low concentrations of toluene, ethylbenzene, and total xylenes (TEX) were effectively removed throughout the course of the pilot study. The maximum observed TEX removal rate was 1,105 micrograms per milligram (μg/mg) volatile solids per day.

N.1.0 INTRODUCTION. Methanotrophic cometabolism of chlorinated aliphatics such as trichloroethene (TCE), dichloroethene (DCE), and vinyl chloride has been documented by several researchers (Anderson and others; Fogel and others; Speitel and Closman; Strand and others). In essence, methanotrophic cometabolism of chlorinated ethenes consists of the enzyme-catalyzed oxidation of the chlorinated ethene molecule (TCE, DCE, or vinyl chloride) by the methane monooxygenase enzyme (MMO) which is induced in certain methanotrophs in the presence of methane and oxygen.

The pilot-scale RBC study discussed herein was conducted as part of an Interim Measure (IM) program at a U.S. Navy facility in the southeast United States. The purpose of the IM program was to hydraulically contain the flow of a contaminant plume originating from a site landfill and to evaluate two *ex-situ* groundwater treatment technologies for full-scale application (air stripping and bioremediation). Groundwater contaminant characteristics observed during the IM program and MCL levels for each compound of concern are presented in Table N-1. Based on concentration and MCL requirements, the site groundwater compounds that represented the greatest concern included cis-DCE and vinyl chloride. Other compounds such as toluene, ethylbenzene, and xylenes were present in the groundwater but were present in concentrations less than the MCLs.

The purpose of the pilot RBC study was to evaluate the effectiveness of an *ex-situ* methanotrophic process for treating chlorinated and non-chlorinated organic compounds in Kings Bay groundwater. The specific objectives of the pilot RBC program were to (a) provide sufficient data to confirm that target compounds can be treated biologically, and (b) gather information for evaluation of full-scale remediation.

Table N-1
Site Groundwater Characteristics, Experiment Results, and Effluent Maximum Contaminant Levels

Interim Measure Phase I Activities:
Evaluation and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

	TEX (μg/ℓ)	Toluene (μg/ℓ)	Vinyl Chloride (μg/ℓ)	cis-DCE (μg/ℓ)	TCE (μg/ℓ)
MCL	—	1,000	2	70	5
Experiment 1 Influent	27 - 47	3 - 5	16 - 46	23 - 36	1 - 2
Effluent	ND - 12	ND - 3	ND	2 - 15	1 - 3
Percent removed	63 - 99	—	>99	57 - 93	—
Experiment 2 Influent	53 - 206	34 - 117	ND - 42	74 - 429	4 - 35
Effluent	ND - 31	ND - 16	ND - 10	1 - 202	2 - 25
Percent removed	70 - 99	80 - 99	89 - 98	20 - 99	0 - 95
Experiment 3 Influent	112 - 171	219 - 278	ND - 17	348 - 555	17 - 50
Effluent	2 - 82	25 - 159	ND - 23	203 - 368	16 - 31
Percent removed	50 - 99	40 - 90	13 - 99	19 - 62	6 - 51

Notes: TEX = toluene, ethylbenzene, and total xylene.
μg/ℓ = micrograms per liter.
cis-DCE = cis-1,2-dichloroethene.
TCE = trichloroethene.
MCL = maximum contaminant limit.
ND = detected (below practical quantitation level).

N.2.0 EXPERIMENTAL PROCEDURES AND MATERIALS.

N.2.1 System Construction A schematic of the pilot RBC system is presented in Figure N-1. The primary components of the system included the RBC unit, an influent pump, a water heater, nutrient and caustic injection systems, and monitoring instrumentation. The pilot RBC unit was constructed of aluminum and was approximately 409 liters (108 gallons) in size. The RBC was divided into four separate chamber compartments (stages) by aluminum and polyethylene baffles. The RBC was totally enclosed to prevent the emission of volatile compounds to the atmosphere and to facilitate control of the gas phase of the reactor (i.e., oxygen and methane concentrations). The RBC media discs were 18 inches in diameter and constructed of polyethylene. The total effective surface area of the disc media was 306 square feet (ft^2) (Envirex®).

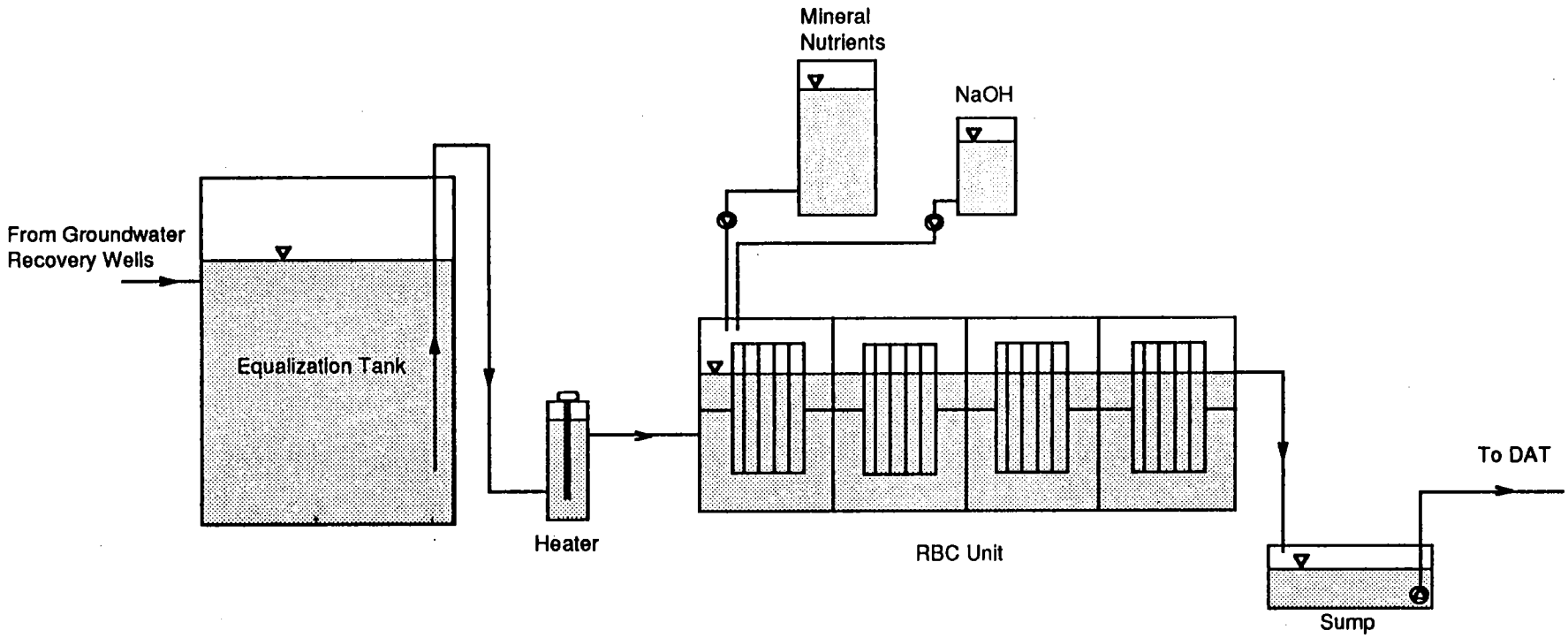
Groundwater was supplied to the RBC from a 1,500-gallon equalization tank that was fed directly from up to five groundwater extraction wells. A variable speed metering pump (Prominent™ HM-12) pumped water from the equalization tank to the RBC. The groundwater was heated to approximately 77 degrees Fahrenheit (°F) in a 5-gallon heating chamber prior to entering the RBC. Mineral nutrient media (nitrogen and phosphorus) and caustic (NaOH) solution were metered (LMI Model CC3) from storage tanks to the first chamber of the RBC.

N.2.2 System Monitoring/Evaluation Parameters that were used to assess the efficacy of the methanotrophic RBC included reactor target compound influent and effluent concentrations and oxygen and methane utilization rates measured in the RBC headspace. RBC influent and effluent water samples were analyzed using a Hewlett-Packard™ Model 5890 gas chromatograph equipped with a Tekmar™ 3000 Purge and Trap Unit, a photoionization detector (PID) and an electrolytic conductivity detector (ELCD). The quality assurance and quality control program that was maintained throughout the study consisted of continuing calibration (daily), sample duplicates, matrix spike additions, matrix spike duplicates, and offsite lab verification.

Methane and oxygen degradation rates were calculated from data gathered by the gas analyzer system. The gas analyzer system (Servomex® analyzer models 1420 and 1411) continuously measured and recorded oxygen and methane concentrations in the headspace of the RBC. Each RBC chamber headspace was monitored separately by the gas analyzer system for a duration of 1 hour at a frequency of every 4 hours. Gas control for each individual chamber, including methane and oxygen addition, was automated through the use of the gas analyzer system, solenoid valves, and a timer.

Operational parameters that were monitored throughout the study to assess the environmental condition of the reactor included reactor pH, temperature, nutrient concentrations, and volatile and total suspended solids concentrations. Reactor pH was monitored using a Signet® pH analyzer (#3-9030) and probe. Reactor water temperature was monitored using a (Dwyer) temperature gauge positioned in the final (fourth) chamber. Mineral nutrient (nitrate and phosphorus) concentrations were measured using colorimetric field test kits (LaMotte MTRL Colorimeter, LaMotte Chemical Co.). RBC influent and effluent volatile and total suspended solids concentrations were measured using Standard Method 2540E (Standard Methods, 1989) in order to assess the amount of biomass leaving the reactor.

Figure N-1: RBC System Schematic Diagram



The procedures used to estimate effective RBC surface area and biomass values were as follows. The total effective surface area of the pilot-scale RBC, as indicated by the manufacturer, was 306 ft^2. Based on observed growth on the RBC discs, however, it appeared that microorganism growth did not occur on the interior of the pilot reactor's flow-through disc design. As a result, the actual surface area occupied by the RBC microorganism consortium was most likely less than 306 ft^2. Because an accurate estimation of the actual surface area populated by microorganisms was not possible however, the RBC surface area reported by the manufacturer, 306 ft^2, was used as a conservative surface area estimate. Subsequent removal rate calculations based upon the manufacturer-reported surface area may also be conservative.

Biomass quantitations were estimated through biofilm thickness measurement (the outside surface area the of RBC discs) and through volatile solids analysis of biomass removed from a measured surface area. Total reactor biomass was calculated by applying the density of biomass per measured surface area to the manufacturer-determined effective surface area (306 ft^2).

N.2.3 Operating Conditions Prior to seeding the RBC reactor, a leak test was performed in the RBC. The leak test consisted of injecting methane gas into one of the RBC chamber headspace and monitoring methane concentrations in all four chamber headspaces for a 48-hour time period. The reactor was filled to operating level with tap water prior to injecting methane. Results of the methane leak test indicated that RBC reactor was sufficiently airtight with a leak rate of less than 1 percent total headspace volume per day.

A consortium of aerobic microorganisms, including methanotrophic bacteria, were grown and maintained in the RBC prior to the introduction of groundwater. The microbial inoculum used to seed the reactor was a methanotrophic-containing consortia isolated from fresh water sediments that had previously demonstrated chlorinated aliphatic degradation.

The RBC pilot study was divided into three tests. The first test, Experiment 1, was a 72-hour test that treated groundwater extracted from 2 of the 5 extraction wells at a rate of 0.5 gallons per minute (gpm). The second test, Experiment 2, was a 19-day test that treated water from all five extraction wells at a rate of 0.5 gpm. The third test, Experiment 3, was a 9-day test that treated water from all five extraction wells at a rate of 1.0 gpm. Operating conditions for the three RBC experiments are presented in Table N-2.

Table N-2
Operational Conditions of Rotating Biological Contactor Experiments 1, 2, and 3

Interim Measure Phase I Activities:
Evaluation and Recommendations Report
Site 11, Old Camden County Landfill
Naval Submarine Base
Kings Bay, Georgia

Parameter	Experiment 1	Experiment 2	Experiment 3
Experiment duration (days)	3	19	9
Flow rate (gpm)	0.5	0.5	1.0
Hydraulic retention time (hours)	2	2	1
Average temperature (°C)	23.8	25.6	23.3
Average reactor pH	6.3	6.2	6.0
Total volume treated (gallons)	2,097	114,653	267,428

Notes: gpm = gallons per minute.
°C = degrees Celsius.

N.3.0 RESULTS. Target compounds identified in this study included cis-DCE, vinyl chloride, and TEX. Other compounds such as TCE and perchloroethene (PCE) were often detected at low levels in influent water, however, detected concentrations of these compounds were not considered significant based on practical quantitation limits (PQLs) and blank contamination data.

The compound that was detected in the highest concentration in Kings Bay groundwater during the RBC study was cis-DCE. Vinyl chloride, although often detected in low concentrations (less than 40 $\mu g/\ell$) in groundwater influent, was considered a target compound because it was often present above its MCL (2 $\mu g/\ell$). Although influent concentrations of toluene, ethylbenzene, and total xylenes (TEX) were below MCLs, TEX was considered a family of target compounds because one of the study goals was to determine how well the methanotrophic RBC could treat non-chlorinated organic groundwater constituents. Benzene, was typically not detected in Kings Bay groundwater in significant (above Practical Quantitation Limit) concentrations.

Data. Gas utilization, reactor water and vapor-phase target compound concentration, removal efficiency, and removal rate data for each experiment of the RBC study are presented in this section of this report.

Headspace gas utilization data were used evaluate the biological conditions that existed within the RBC. The gases that were monitored during the RBC study include methane and oxygen. Methane and oxygen utilization rates are expressed as mmol of each compound removed per hour. Gas utilization was analyzed for Chambers 1 and 3 only (instead of all four chambers) in order to streamline data analysis yet gain understanding of gas utilization in different biodegradation stages of the RBC.

Target compound data was examined in the RBC study in order to help evaluate how well the RBC system treated each specific compound of concern under site conditions. For the Kings Bay pilot RBC program, target compound data were used to evaluate the following project objectives: (a) whether the RBC was effective in treating target compounds, (b) whether target compound MCLs could be achieved under site operating conditions, and (c) what factors are required for design of a full-scale RBC system to treat larger flows of site groundwater. To achieve the evaluation goals of the RBC study, target compound data were evaluated in terms of target compound concentration data, removal efficiencies, and removal rates.

Target compound concentration data are presented two ways. The first type of concentration data expresses compound concentration ($\mu g/\ell$) as a function of time (hours or days). Day time-data are presented as the day of the field program (e.g., Experiment 2 started on day 28 of the field program). The second type of concentration data expresses concentration ($\mu g/\ell$) as a function of RBC reactor location for discrete time points within the study.

Target compound removal was expressed in terms of removal efficiencies and removal rates. Removal efficiencies based on influent and effluent concentrations were expressed as a percent (1 - (effluent conc./influent conc.)*100). Removal rates, as a function of influent concentration, were expressed as mass of compound removed per unit surface area (or biomass) of reactor per unit time (μg per [ft^2-min] or $\mu g/mg$ of volatile solids per minute).

N.3.1 RBC Experiment 1 Experiment 1 started on day 21 of the field program. Results from RBC Experiment 1 are presented in Tables N-1, N-3 and Figures N-2 through N-13.

Environmental Conditions. Average flow rate, total flow, reactor temperature, and reactor pH data for Experiment 1 are presented in Figures N-2 through N-5. Analysis of these data indicate that the RBC reactor operated without any system disruptions. The RBC received groundwater from 2 of 5 extraction wells during Experiment 1. The average flow rate through the RBC was 0.5 gpm during Experiment 1, and a total of 2,097 gallons of groundwater were treated. The average recorded temperature of the reactor was approximately 23.8 degrees Celsius (°C) and an average system pH of 6.3 was maintained throughout the experiment.

Headspace Gas Utilization. Headspace methane and oxygen utilization rates for RBC Chambers 1 and 3 during Experiment 1 are presented in Figures N-6 and N-7. According to this data, methane utilization rates remained relatively constant during Experiment 1. Methane degradation was slightly higher in Chamber 3 compared to Chamber 1 (15.5 to 31 mmol of CH_4/hr versus 10.5 to 15.5 mmol CH_4/hr, respectively). Although oxygen utilization rates for RBC Chambers 1 and 3 fluctuated during Experiment 1, no removal trends, either increasing or decreasing, were observed during the experiment. Oxygen utilization rates for Chambers 1 and 3 were similar throughout Experiment 1 and ranged from 27.9 to 52.7 mmol oxygen per hour (O_2/hr) and 38.8 to 46.5 mmol O_2/hr, respectively.

Aromatic Removal. Ethylbenzene was the primary TEX component during Experiment 1 and accounted for approximately 69 percent of the total TEX concentration. TEX removal data for Experiment 1 is presented in Figures N-8 and N-9. According to the data in Figure N-8, influent TEX concentrations increased slightly during Experiment 1 and ranged from 27 $\mu g/\ell$ to 47 $\mu g/\ell$ (Figure N-8). Although not present in the influent above its total MCL (approximately 2,000 $\mu g/\ell$), TEX concentrations were further reduced in the RBC, indicating that low concentrations of aromatic hydrocarbons can be treated biologically. TEX removal efficiencies of 85 to greater than 91 percent were achieved in the RBC during Experiment 1 and are presented in Table N-3. According to data in Figure N-8, increased TEX removal occurred after Hour 12 of Experiment 1 as indicated by the decrease in effluent TEX concentrations even though influent concentrations continued to increase. This apparent acclimation of the RBC microorganisms to TEX can also be observed in TEX concentration versus sample location data (Figure N-9). Figure N-9 data indicates that the extent of TEX removal across the reactor increased with time during Experiment 1. The greatest amount of TEX removal took place in the first chamber and increased with time over the course of the experiment.

Chlorinated Volatile Organic Compound (VOC) Removal. Vinyl chloride data are presented in Figures N-10 and N-11. Influent vinyl chloride concentrations increased steadily during Experiment 1 and ranged from 16 $\mu g/\ell$ to 46 $\mu g/\ell$ (Figure N-10). Reactor effluent data indicated that vinyl chloride was effectively removed (greater than 99 percent) from groundwater, and its MCL of 2 $\mu g/\ell$ was achieved for all sampling points during Experiment 1 (Figure N-10 and Table N-3). Upon review of data plotted as concentration versus sample location (Figure N-11), removal of vinyl chloride to below the MCL (2 $\mu g/\ell$) occurred within the

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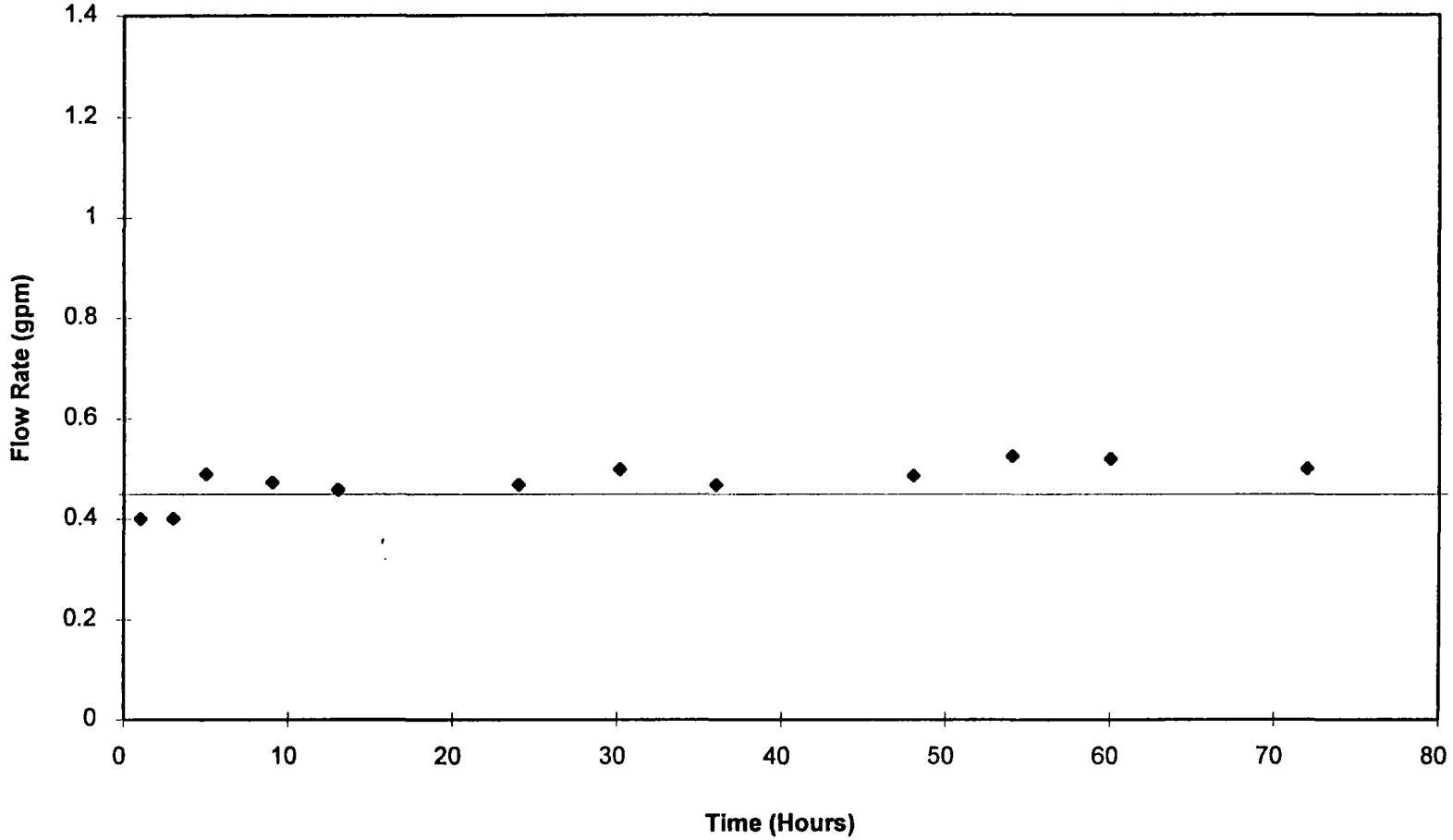
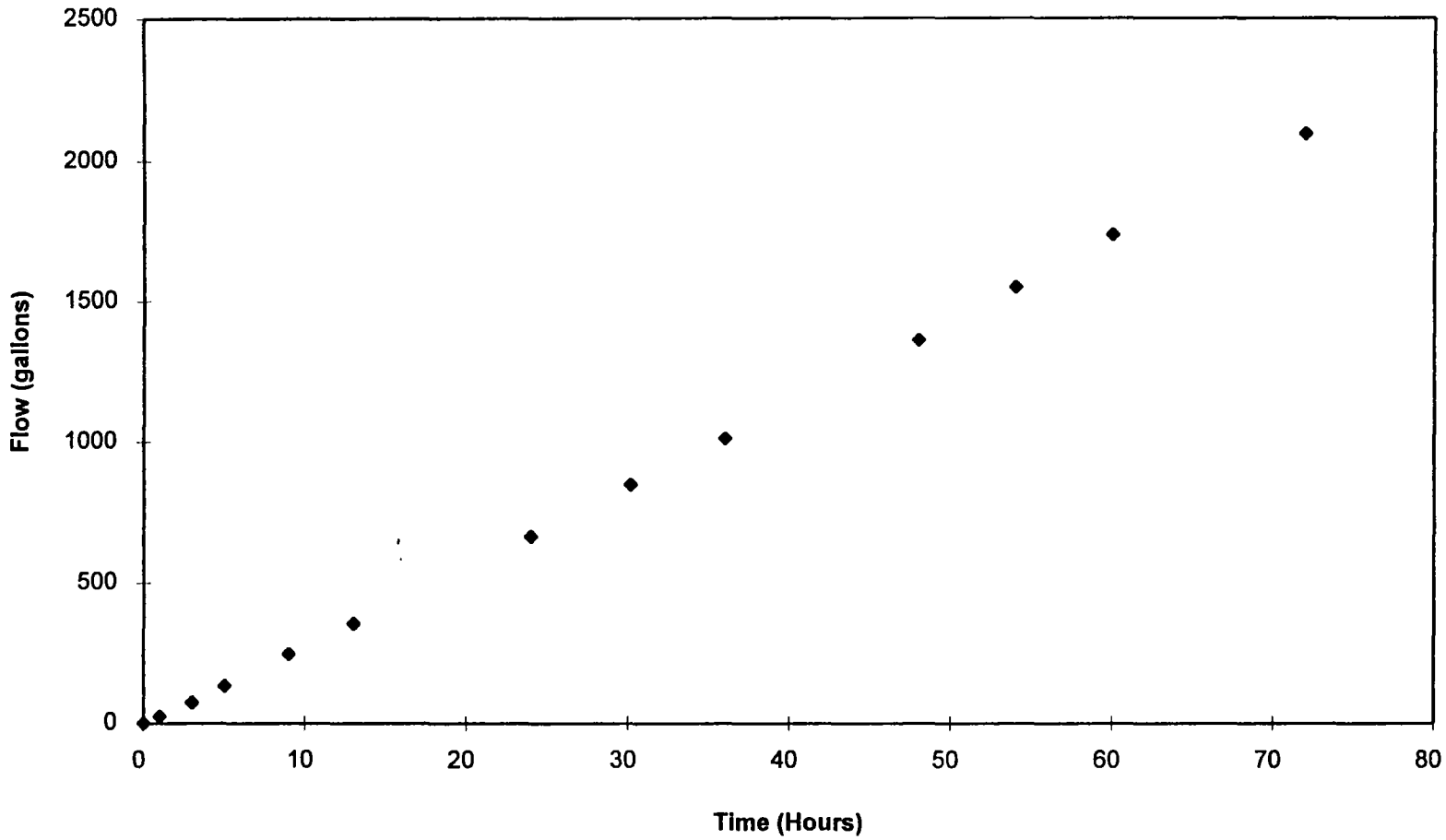
Figure N-2: Average Flow Rate vs. Time
Experiment 1



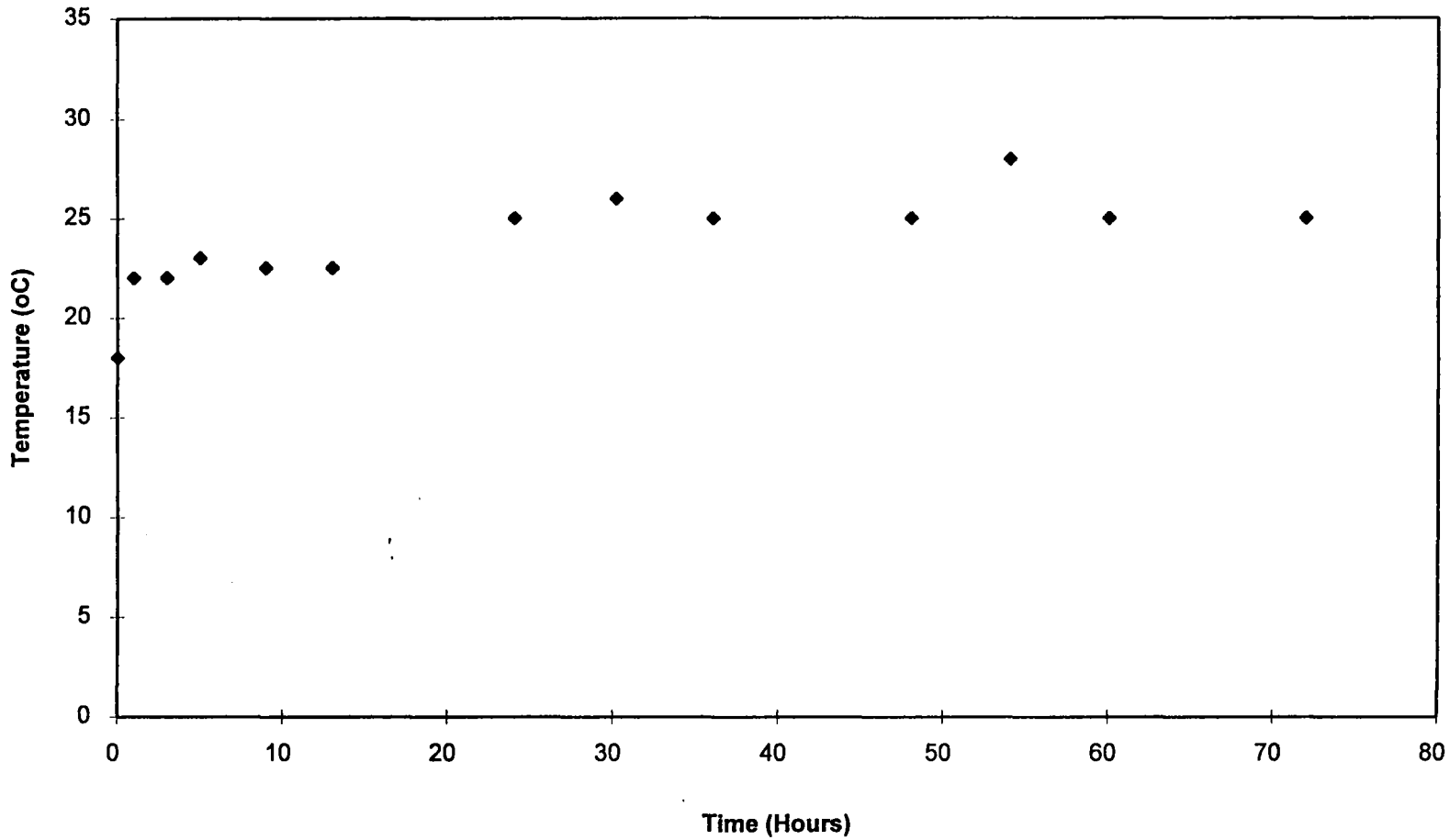
N2;N2TON13.XLS

Figure N-3: Total Flow vs. Time
Experiment 1



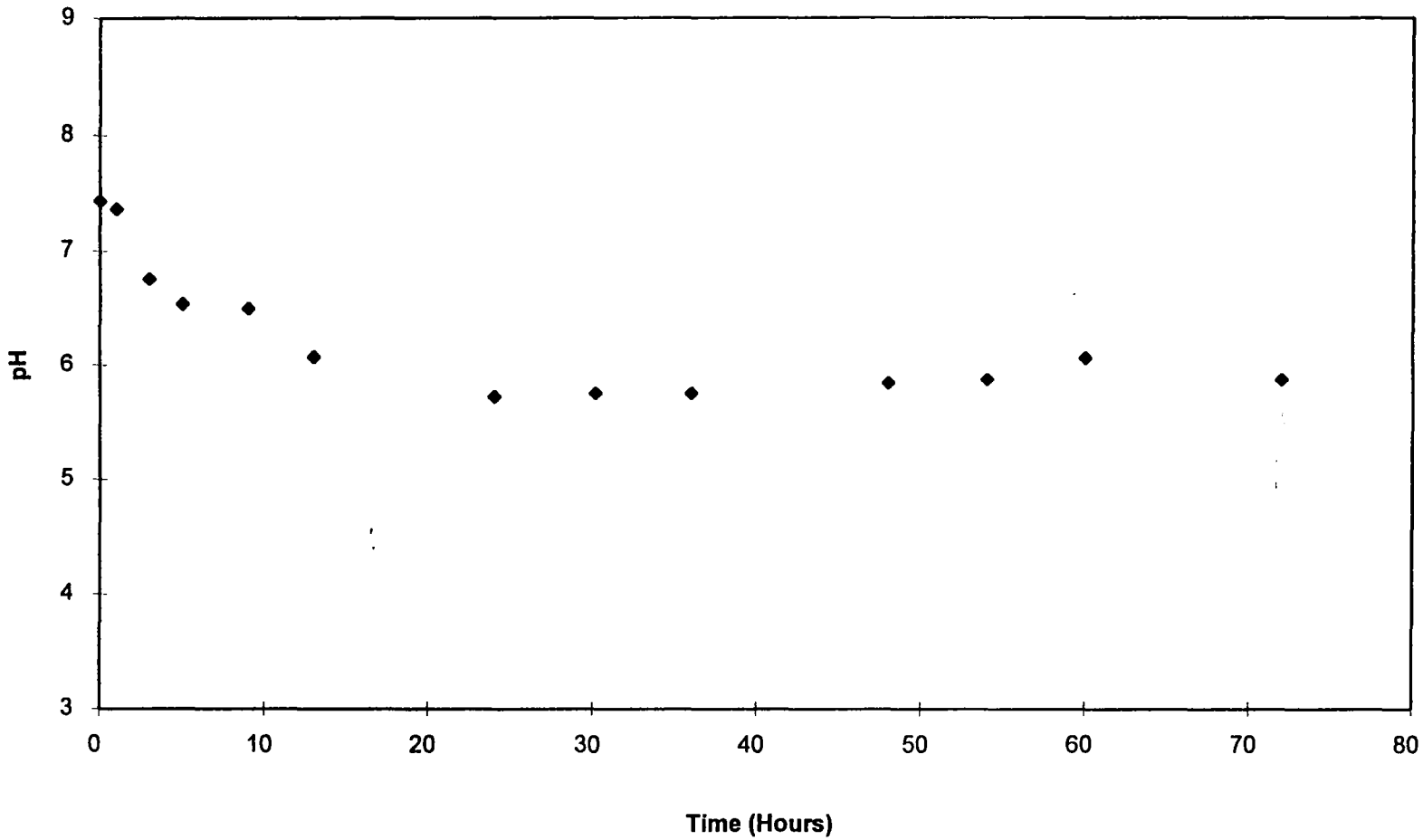
N3;N2TON13.XLS

Figure N-4: Reactor Temperature vs. Time
Experiment 1



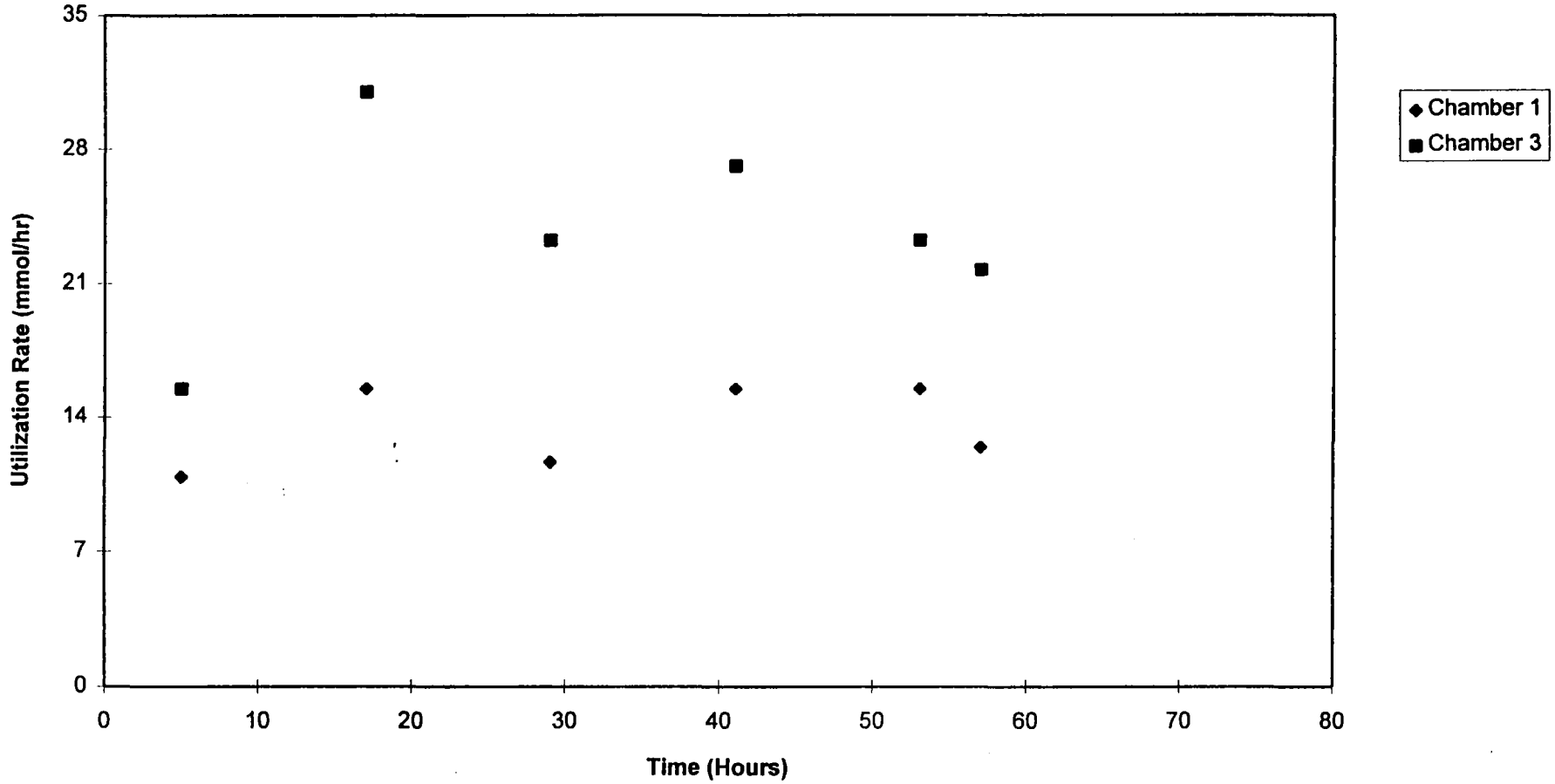
N4;N2TON13.XLS

Figure N-5: Reactor pH vs. Time
Experiment 1



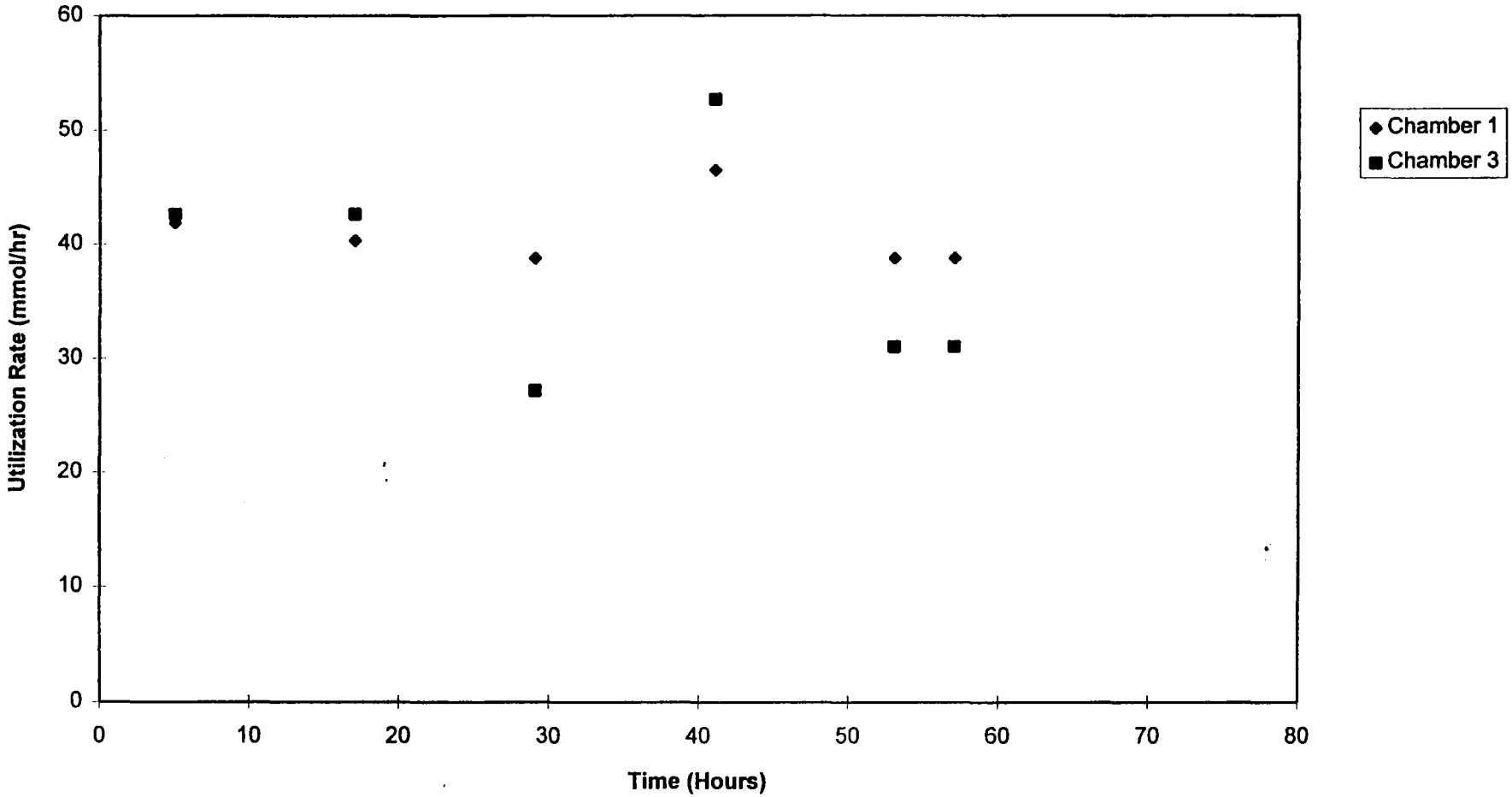
N5;N2TON13.XLS

Figure N-6: Headspace Methane Utilization vs. Time
Experiment 1



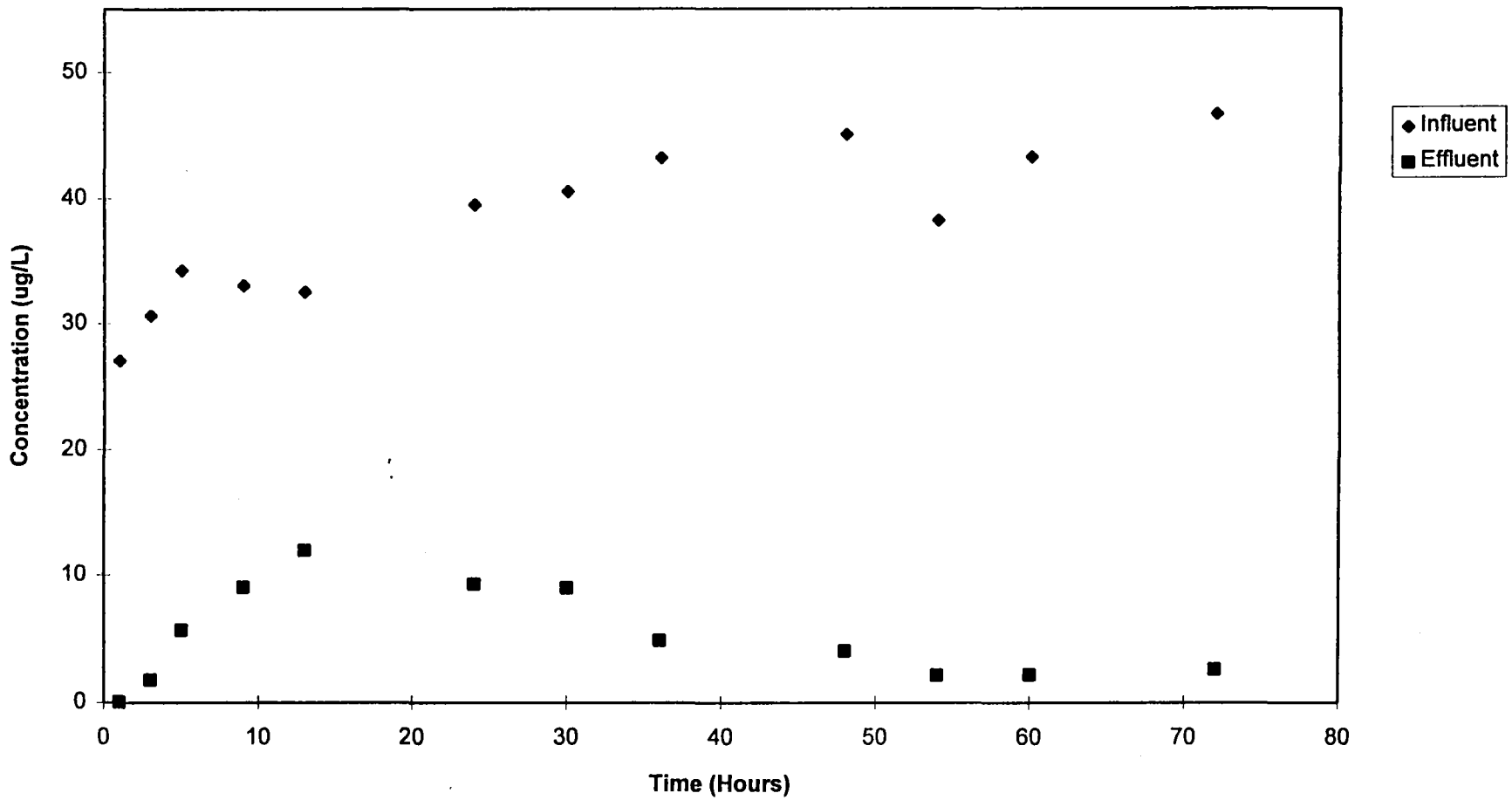
N6;N2TON13.XLS

Figure N-7: Headspace Oxygen Utilization vs. Time
Experiment 1



N7;N2TON13.XLS

FIGURE N-8: TEX Conc. vs. Time
Experiment 1



N8;N2TON13.XLS

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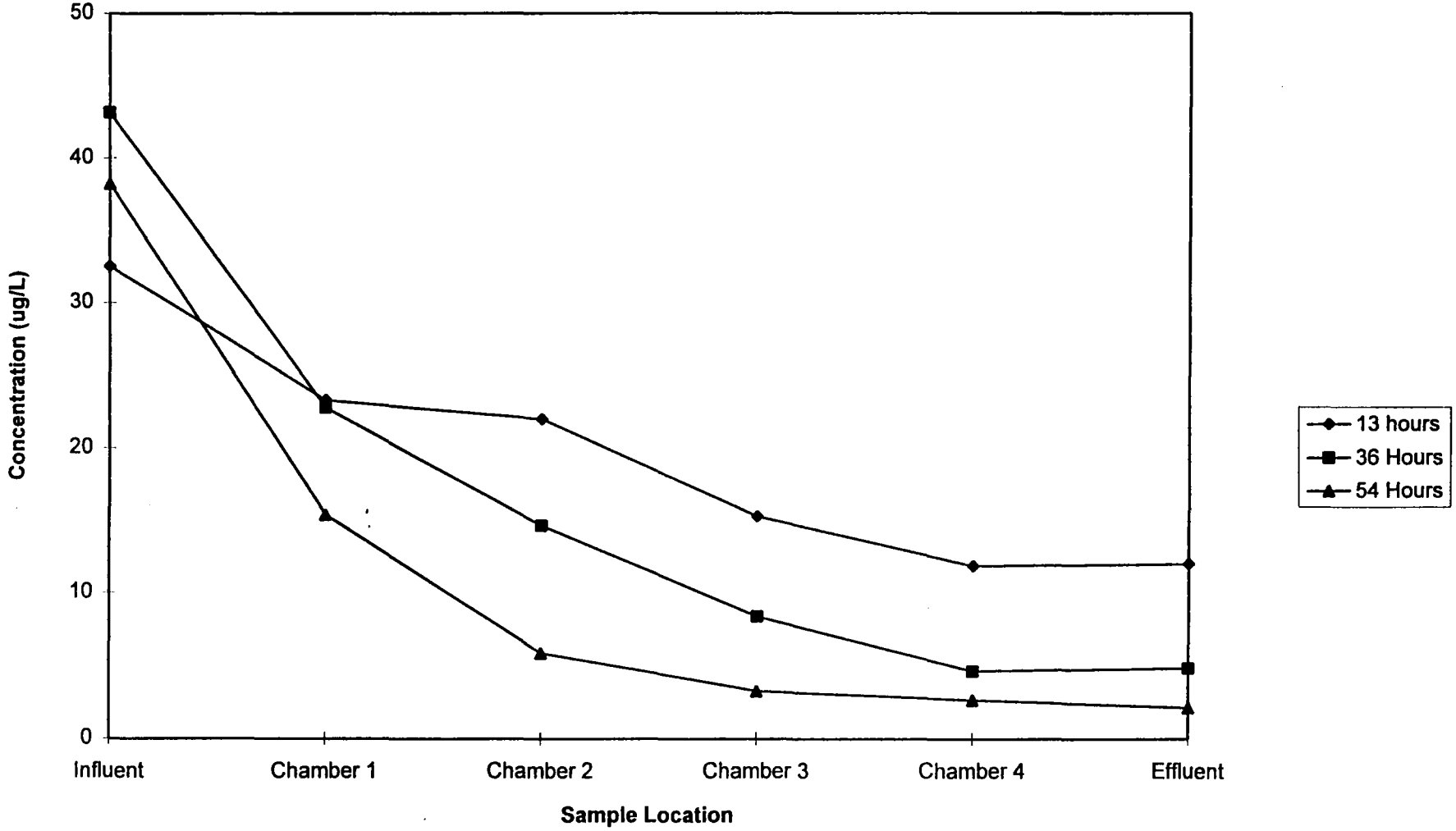
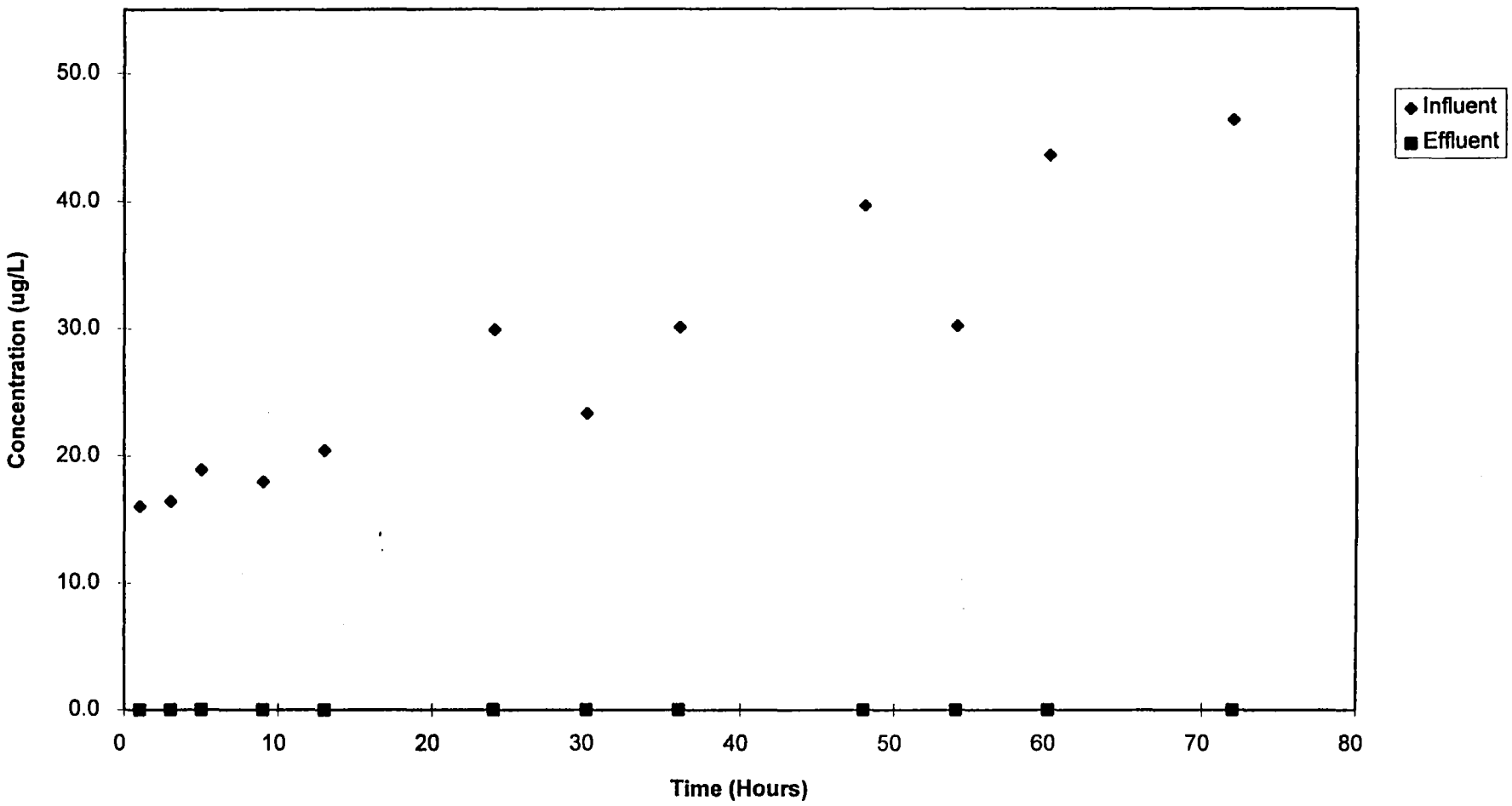
FIGURE N-9: TEX vs. Sample Location
Experiment 1



N9;N2TON13.XLS

FIGURE N-10: Vinyl Chloride Conc. vs. Time
Experiment 1



N10;N2TON13.XLS

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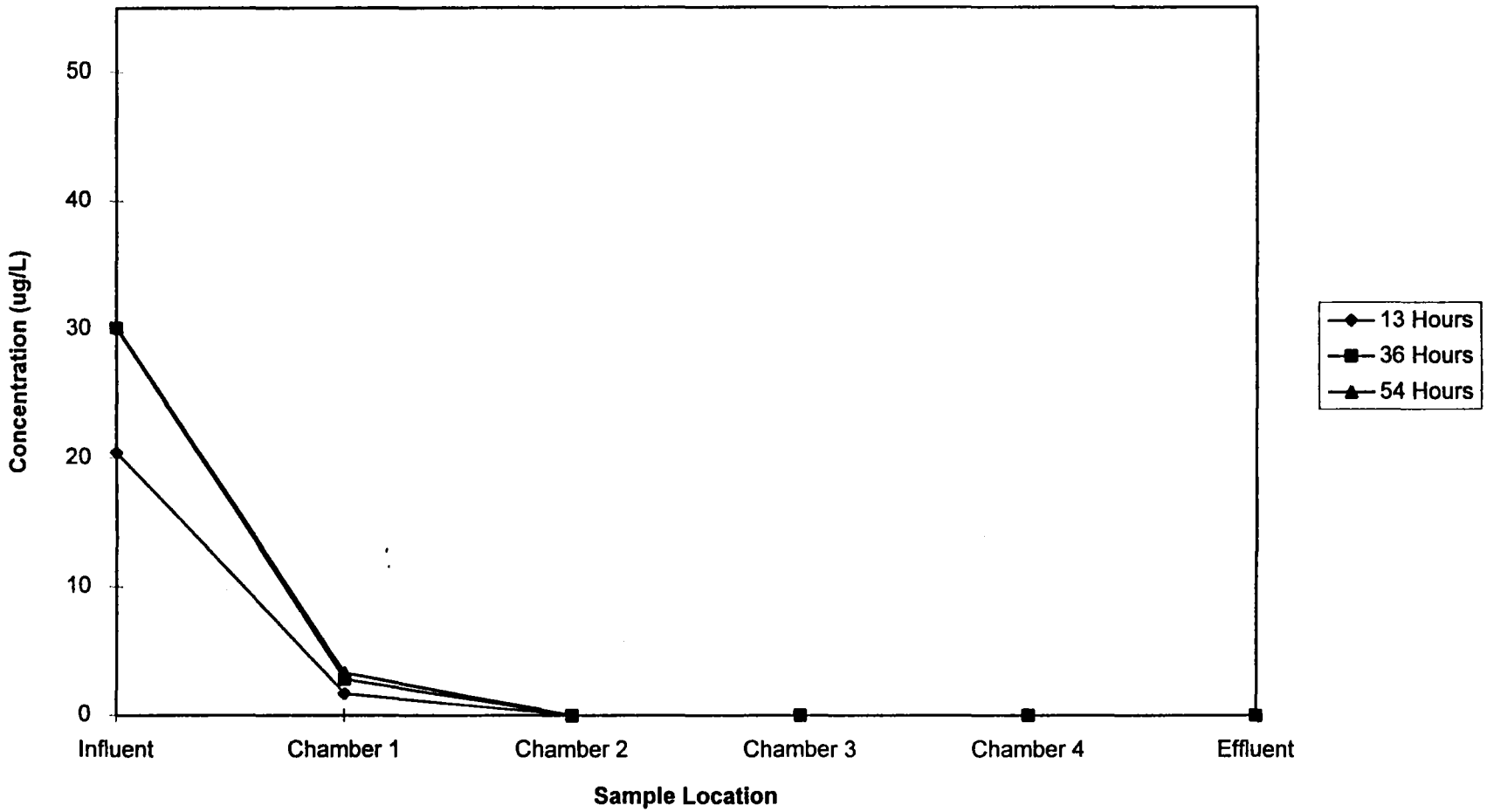
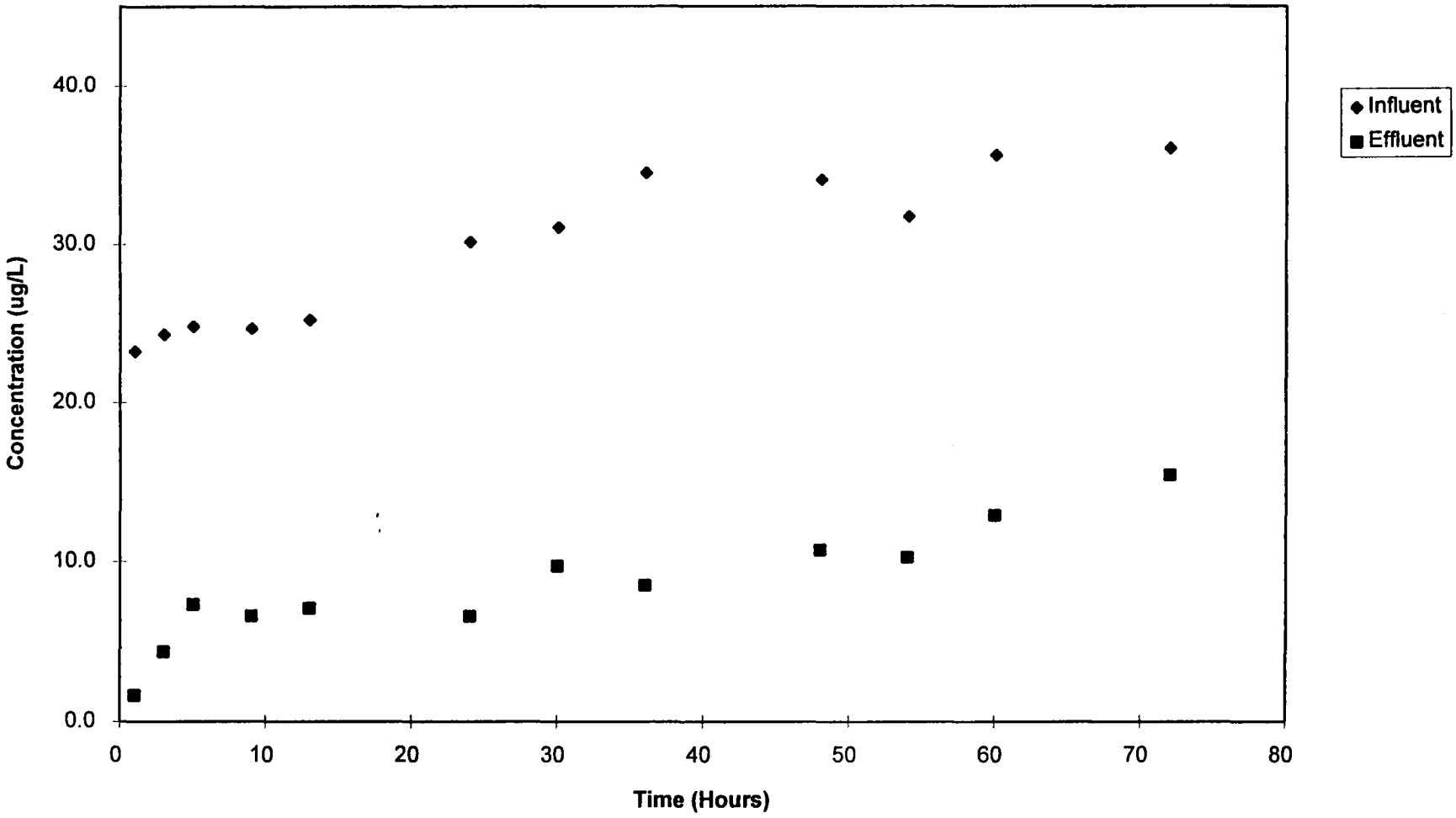
FIGURE N-11: Vinyl Chloride Conc. vs. Sample Location
Experiment 1



N11;N2TON13.XLS

KB [IM I-EVAL&REC]
mlv.11.94

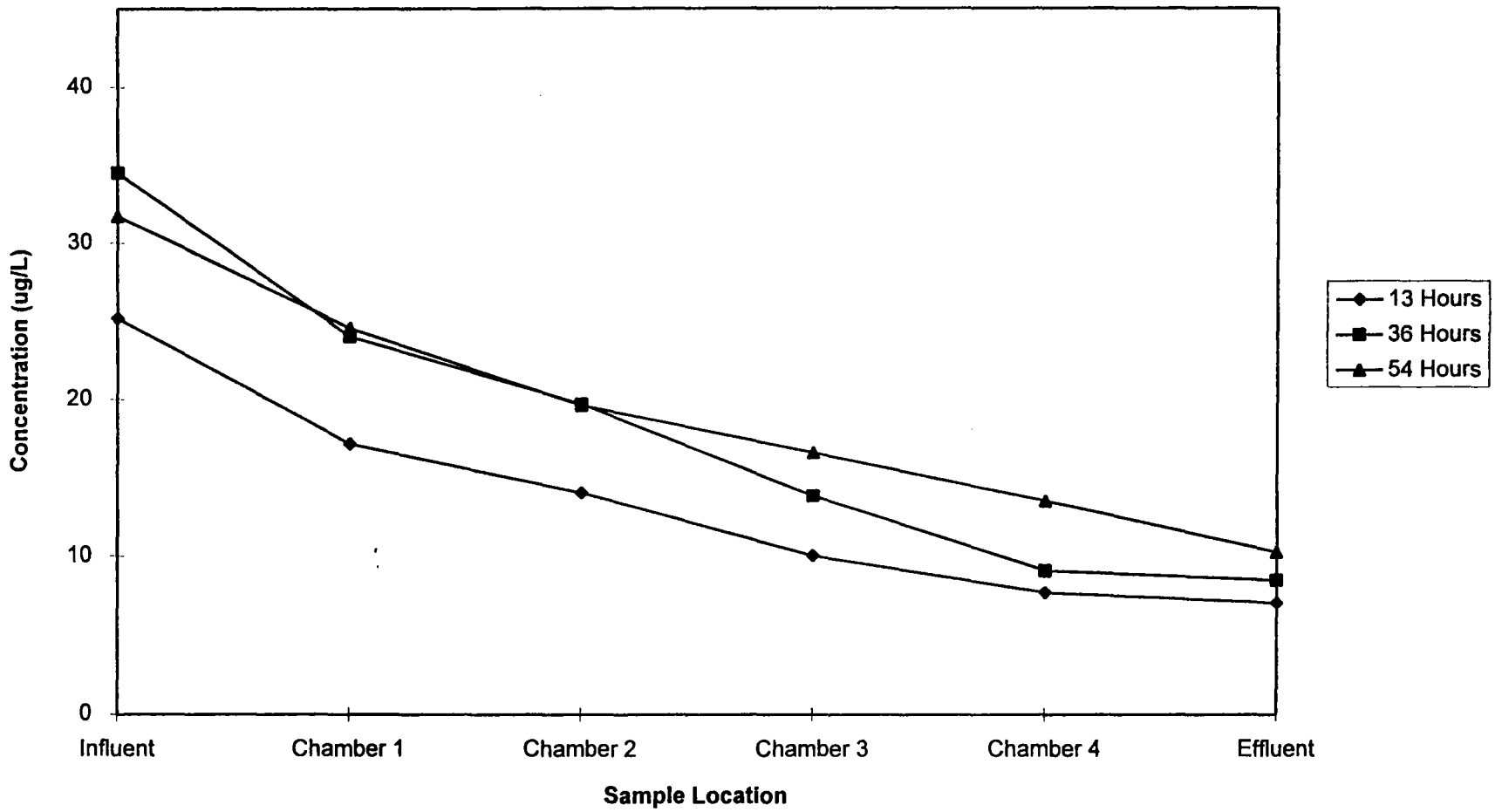
FIGURE N-12: cis-DCE Conc. vs. Time
Experiment 1



N12;N2TON13.XLS

KB [IM I-EVAL&REC]
mlv.11.94

FIGURE N-13: cis-DCE Concentration vs. Sample Location
Experiment 1



N13;N2TON13.XLS

first two chambers of the RBC consistently over the time course of the experiment.

cis-DCE data for Experiment 1 are presented in Figures N-12 and N-13. Influent cis-DCE concentrations increased slightly during Experiment 1 and ranged from 23 $\mu g/\ell$ to 36 $\mu g/\ell$ (Figure N-12) but were always below the MCL of 70 $\mu g/\ell$. Although not present in the influent above it MCL (70 $\mu g/\ell$), cis-DCE concentrations were further reduced in the RBC indicating that low concentrations of cis-DCE can be treated biologically. Effluent concentrations, which also increased slightly during Experiment 1, ranged from 2 to 15 $\mu g/\ell$ and resulted in removal efficiencies of 57 to 70 percent. cis-DCE concentration versus sample location data (Figure N-13) indicated that cis-DCE was gradually removed from groundwater as it passed through the RBC. The extent of cis-DCE removal across the RBC remained constant during the course of Experiment 1.

N.3.2 RBC Experiment 2 Experiment 2 started on day 28 of the field program. Results from RBC Experiment 2 are presented in Tables N-1 and N-3.

Environmental Conditions. Average flow rate, total flow, reactor temperature, and reactor pH data for Experiment 2 are presented in Figures N-14 through N-17. Analyses of these data indicates that the RBC reactor operated with few system disruptions during this experiment. The RBC received groundwater from all five extraction wells during Experiment 2. The average flow rate through the RBC during Experiment 2 was maintained at 0.5 gpm and a total of 114,653 gallons of groundwater were treated during this experiment. The average recorded temperature of the reactor during Experiment 2 was 25.6 °C and the average system pH level was 6.2. According to nutrient utilization data, an average nitrogen as nitrate concentration of 0.5 milligram per liter (mg/ℓ) was utilized across the reactor during Experiment 2. The average influent and effluent total suspended solids concentrations for Experiment 2 were not detected and 5 mg/ℓ, respectively.

Headspace Gas Utilization. Headspace methane and oxygen utilization rates for RBC Chambers 1 and 3 during Experiment 2 are presented in Figures N-18 and N-19. According to these data, methane utilization rates for RBC Chambers 1 and 3 steadily decreased during Experiment 2. At approximately day 15 of Experiment 2 (day 43 of the field program), methane degradation was no longer detected in the RBC headspace as measured by the gas analyzer system. This was due to methane, found naturally in the groundwater, that was entering the reactor headspace at a rate greater than or equal to biological methane removal. Oxygen utilization rates for RBC Chambers 1 and 3 steadily increased during Experiment 2 indicating that microbiological activity most likely increased during this experiment. Oxygen utilization rates were similar for Chambers 1 and 3 with utilization rates of 22 to 64 mmol O_2/hr and 25 to 57 mmol O_2/hr, respectively.

Aromatic Removal. Toluene was the primary TEX component observed during Experiment 2 and accounted for approximately 60 percent of the total TEX concentration. TEX concentration data is presented in Figures N-20 and N-21. According to data in Figure N-20, influent TEX concentrations fluctuated during Experiment 2 and ranged from 53 $\mu g/\ell$ to 206 $\mu g/\ell$ (Figure N-20). TEX removal efficiencies of 75 to greater than 99 percent were achieved in the RBC during Experiment 2 and are presented in Table N-3. According to concentration versus sample location data (Figure N-21, days 28.5, 30.5, 40, and 47), TEX was primarily removed in Stages 1 through 3 of the RBC reactor during Experiment 2. This data also indicates that the treatment time for TEX within the RBC reactor decreased over the course

Figure N-14: Average Flow Rate vs. Time
Experiments 2 and 3

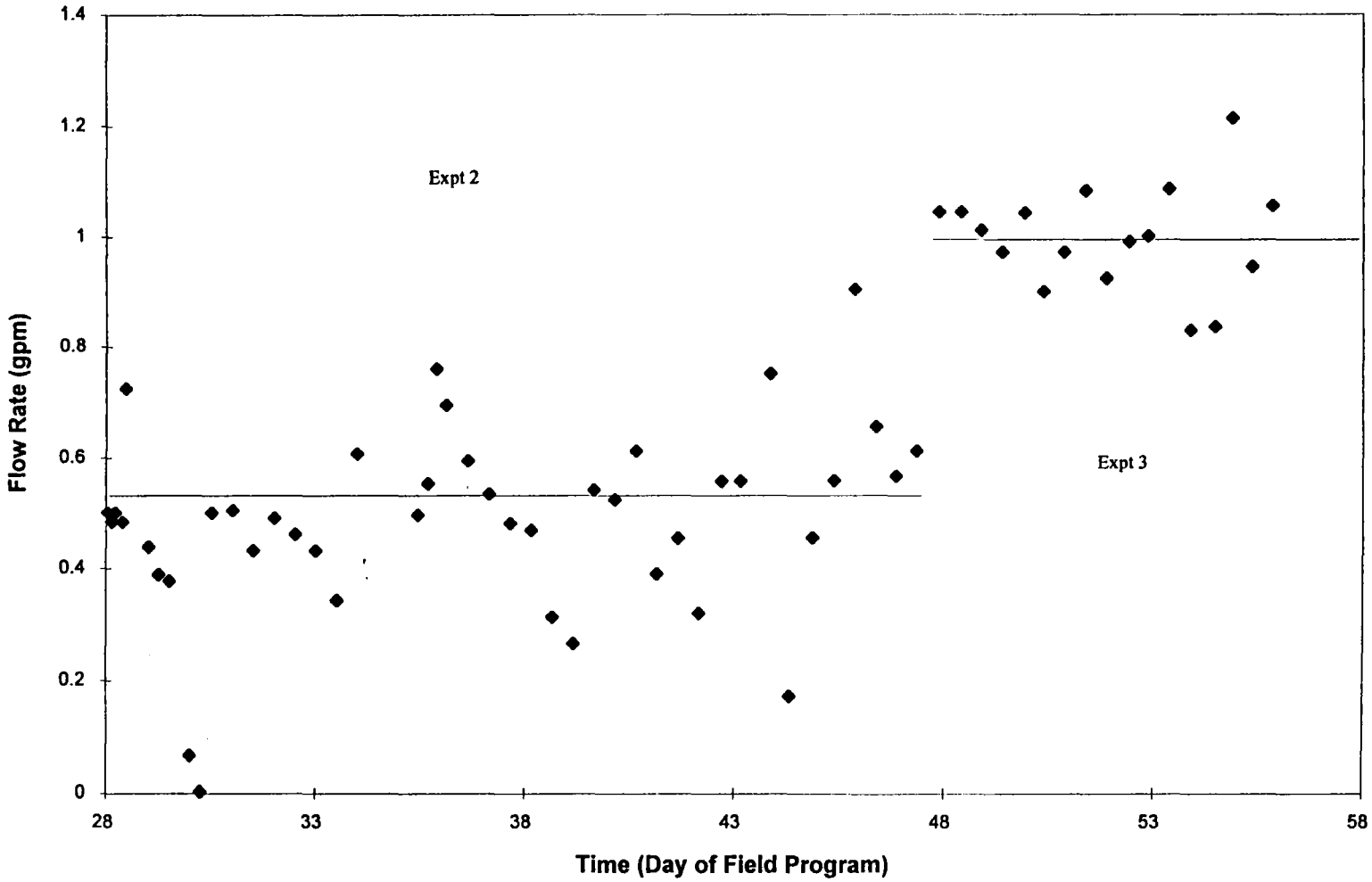


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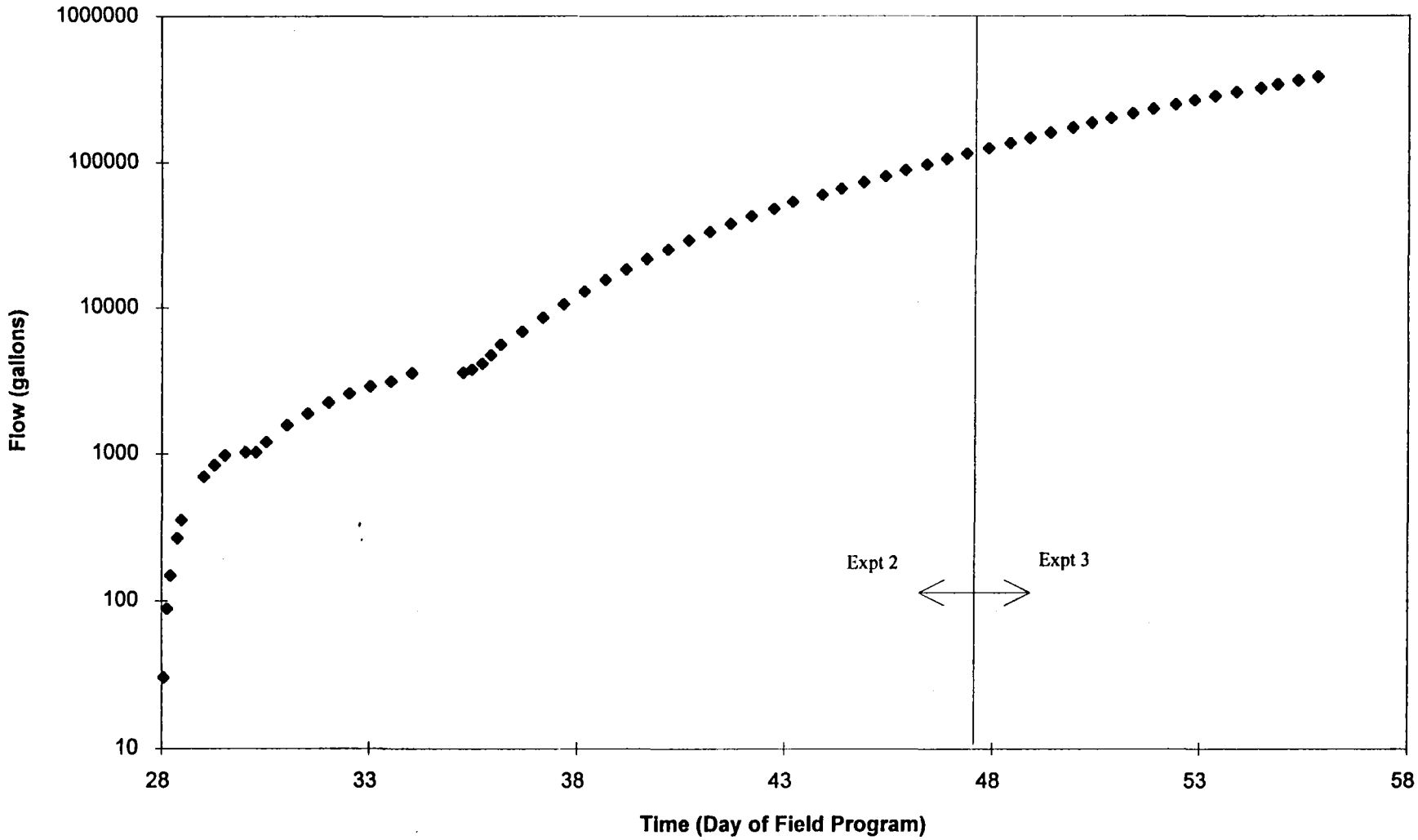
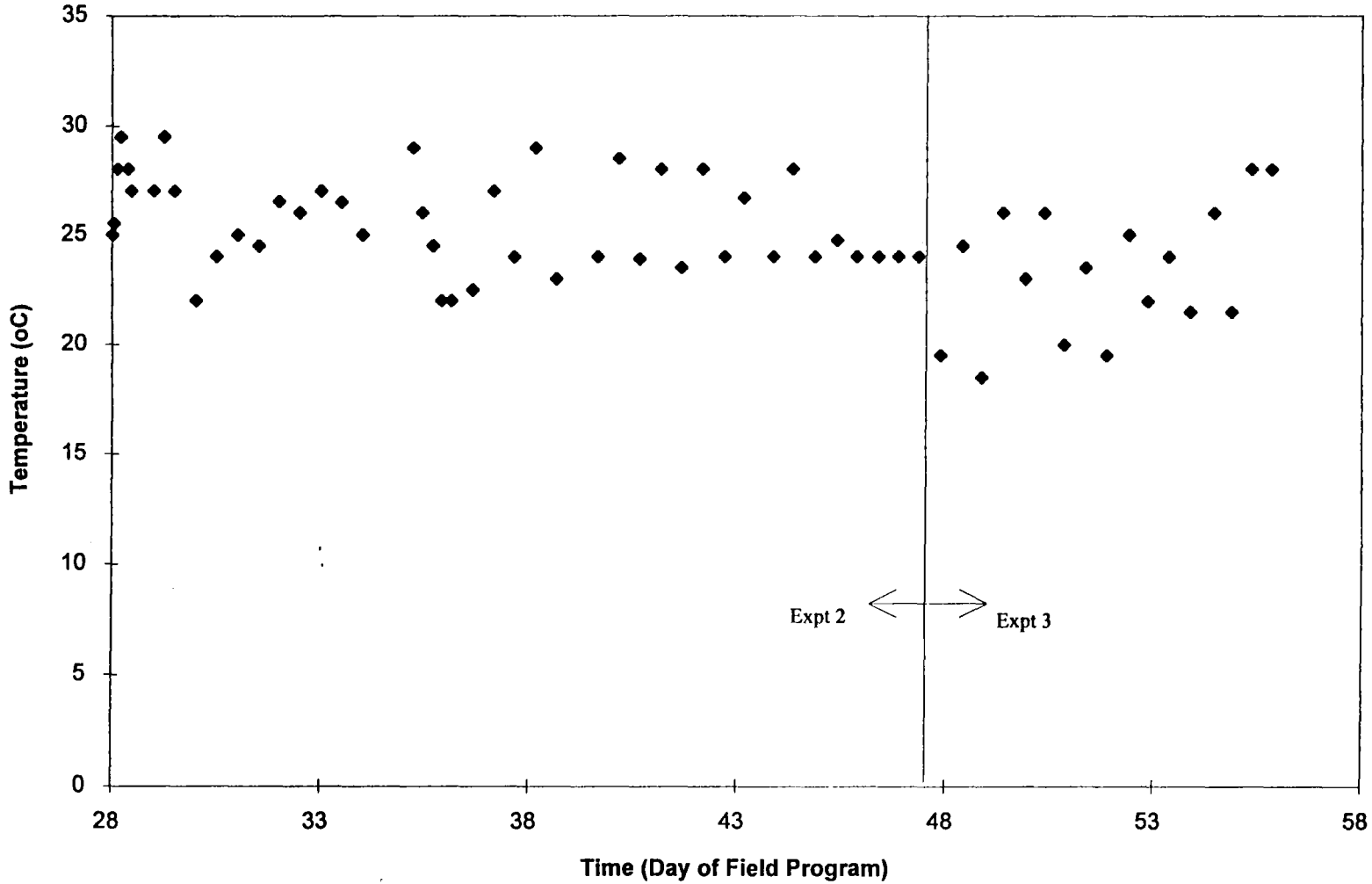
Figure N-15: Total Flow vs. Time
Experiments 2 and 3



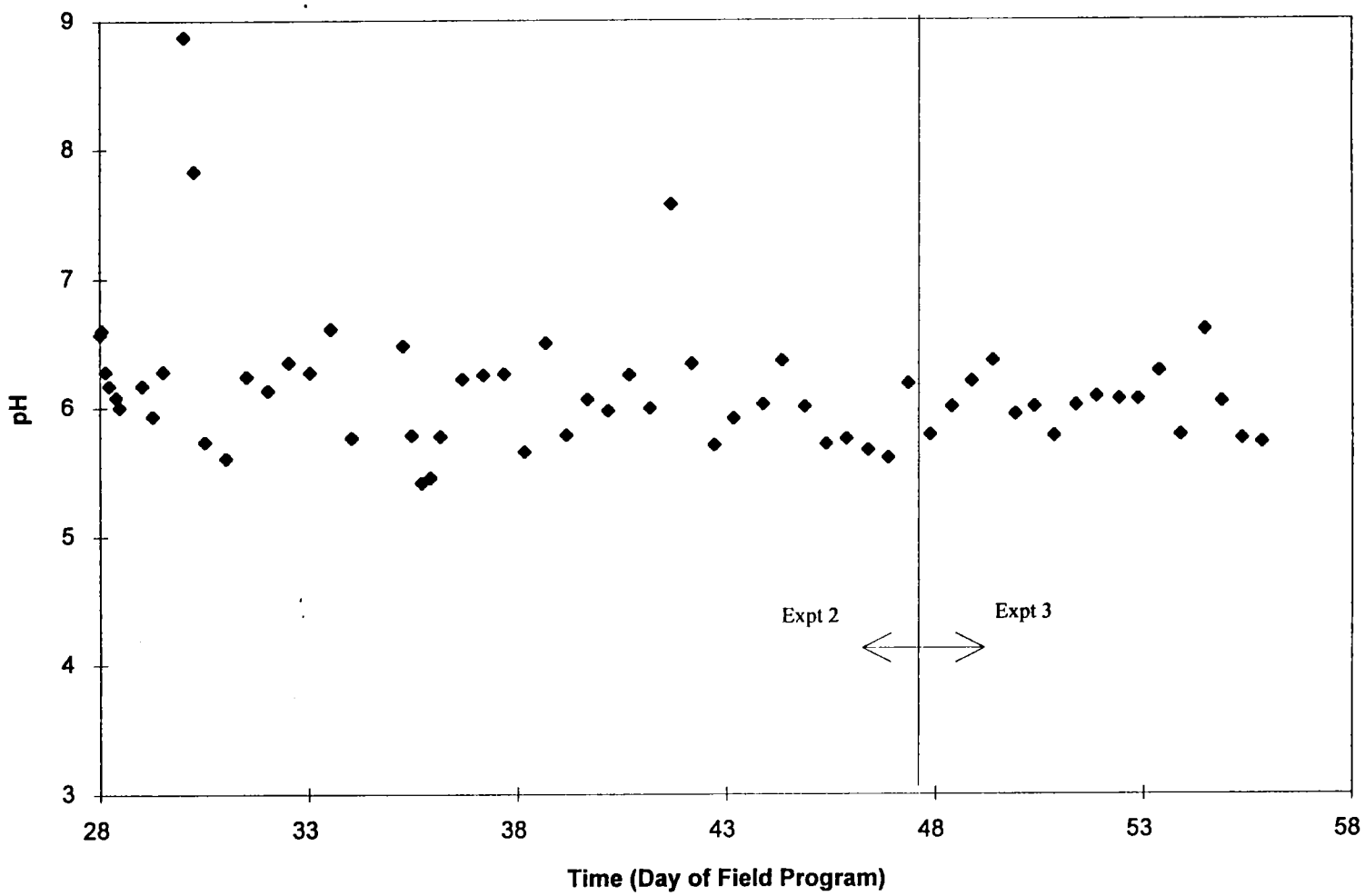
N15;N14TON19.XLS

Figure N-16: Reactor Temperature vs. Time
Experiments 2 and 3



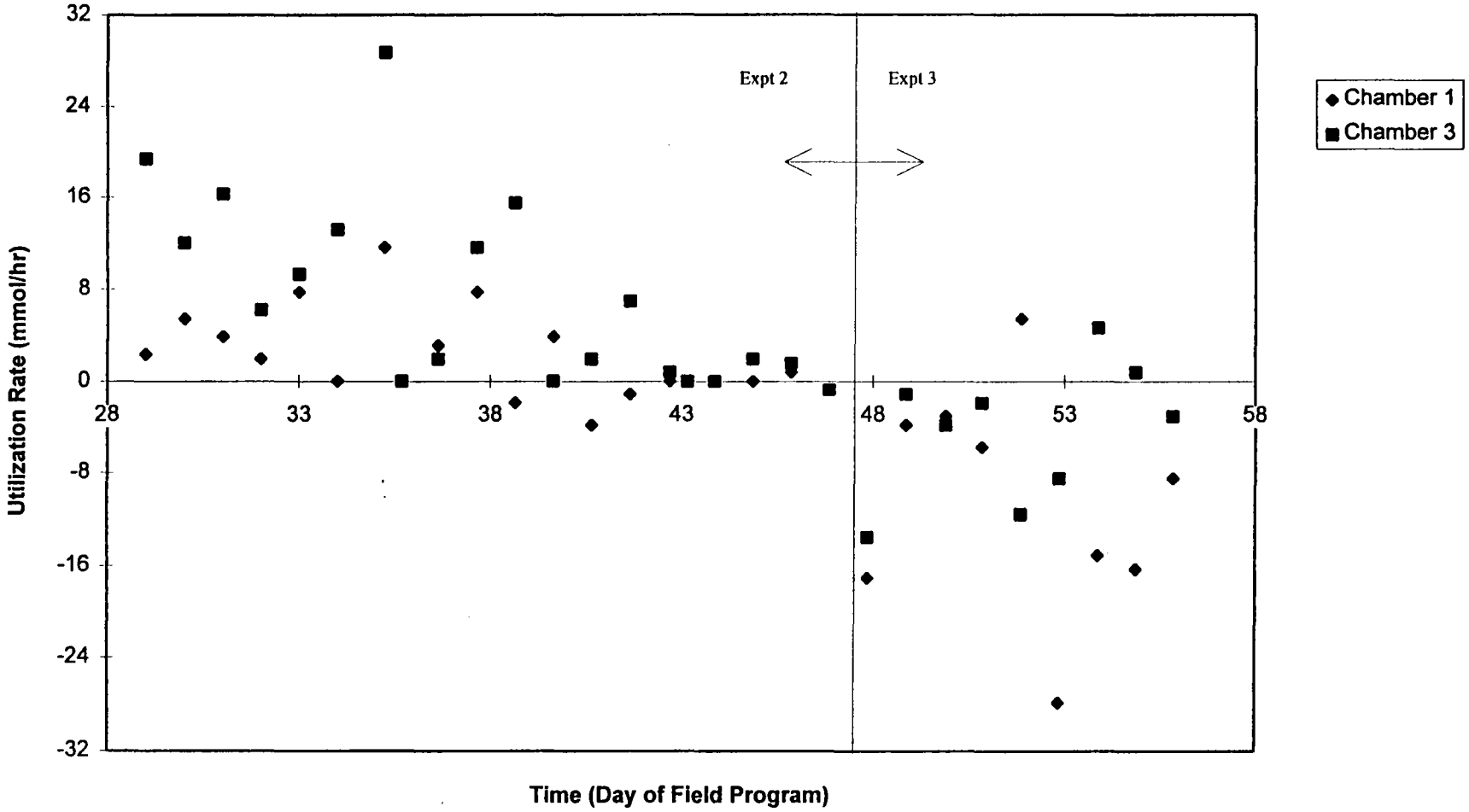
N16;N14TON19.XLS

Figure N-17: Reactor pH vs. Time
Experiments 2 and 3



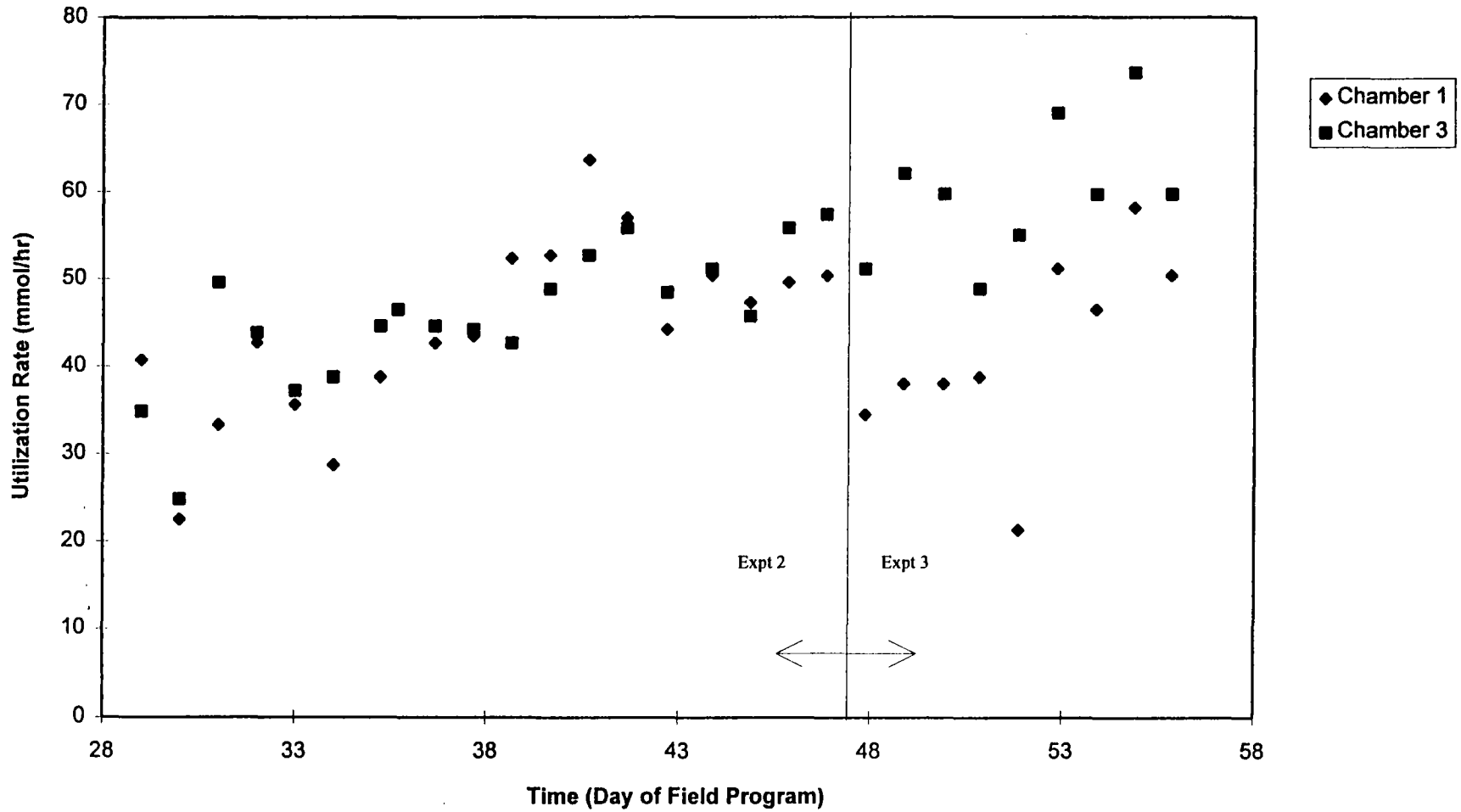
N17;N14TON19.XLS

FIGURE N-18: Headspace Methane Utilization Rate vs. Time
Experiments 2 and 3



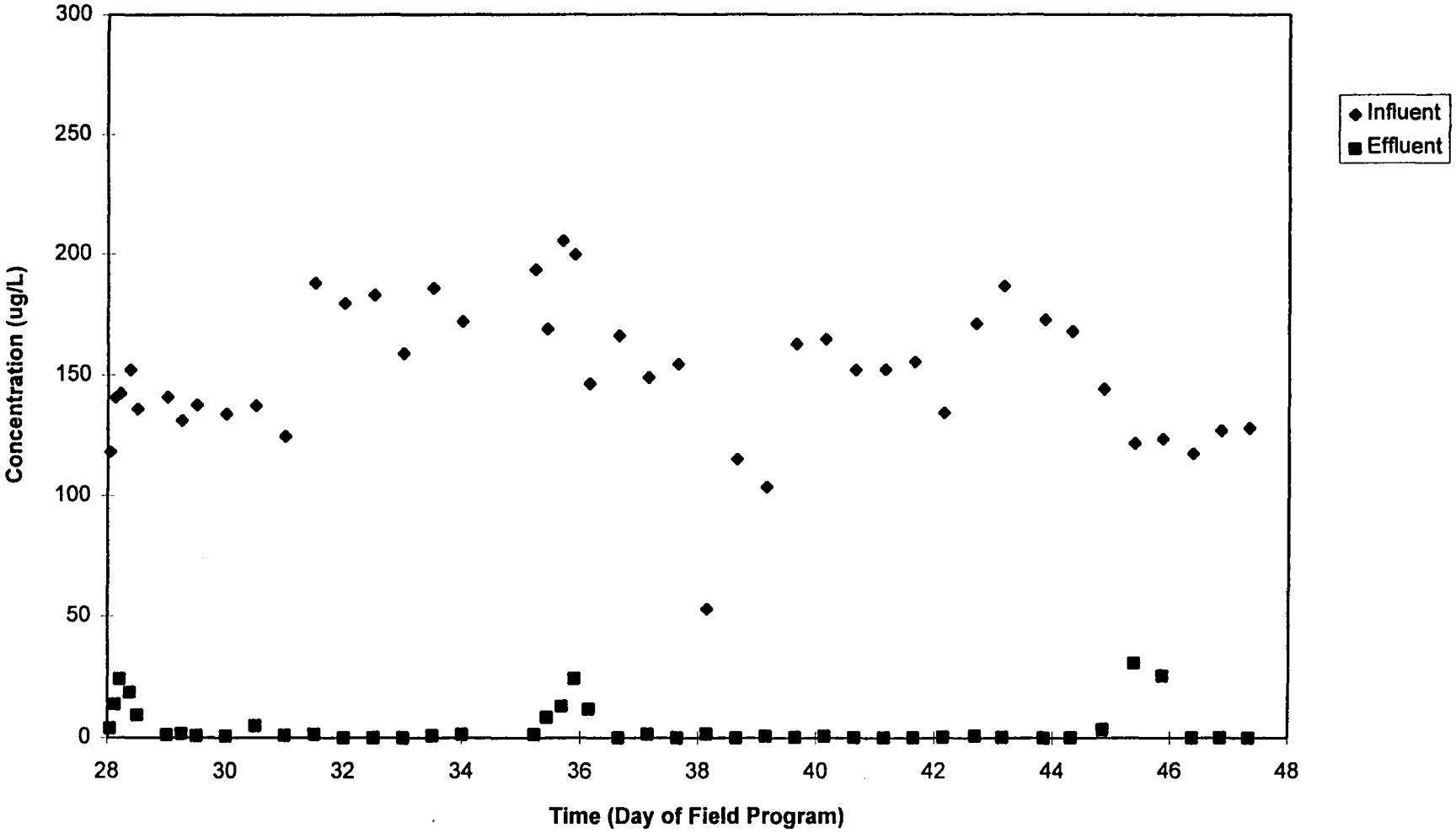
N18;N14TON19.XLS

Figure N-19: Oxygen Utilization Rate vs. Time
Experiments 2 and 3



N19;N14TON19.XLS

Figure N-20: TEX Conc. vs. Time
Experiment 2



N20;N20TON44.XLS

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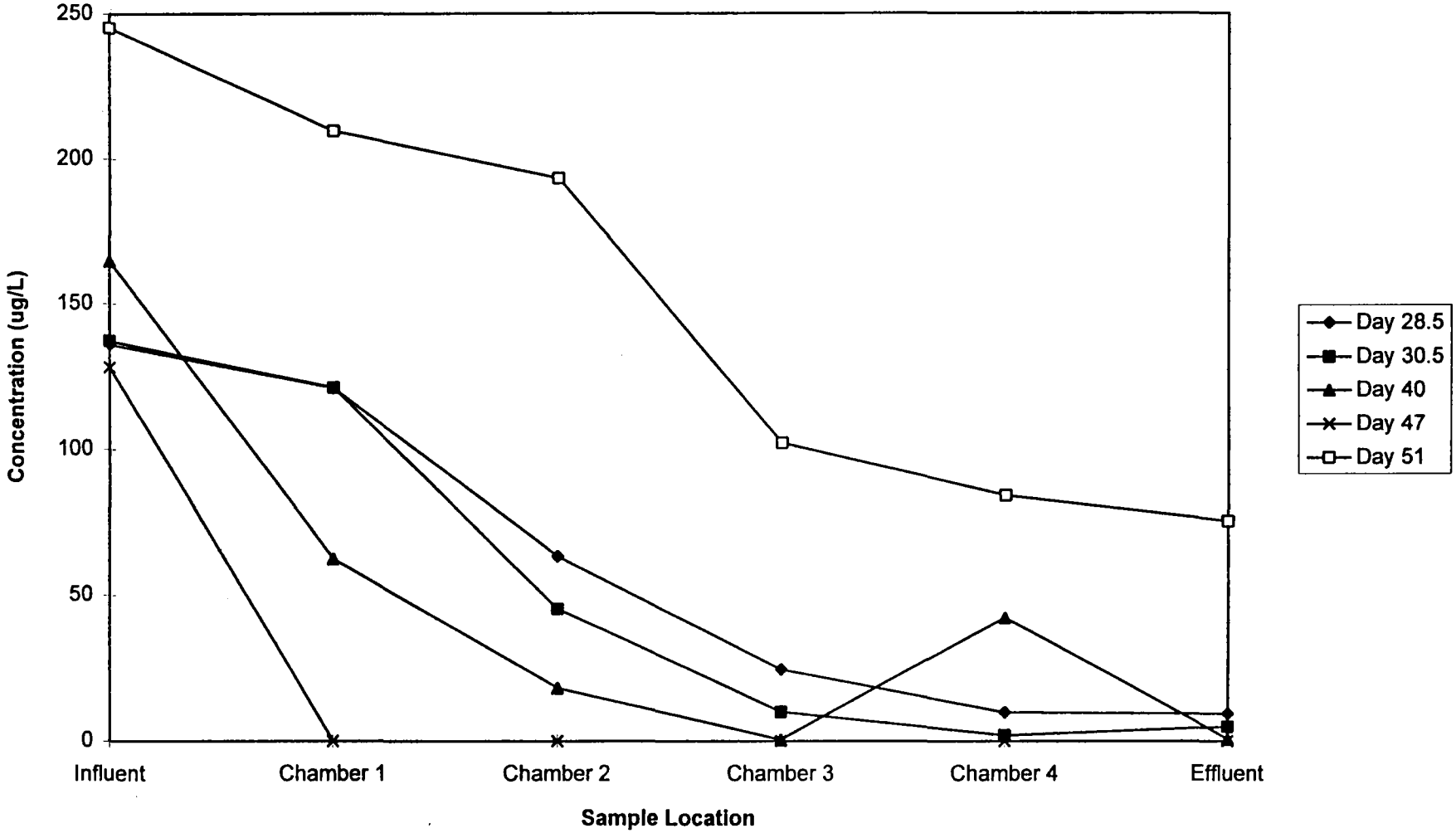
Figure N-21: TEX Conc. vs. Sample Location
Experiments 2 and 3



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of Experiment 2 as the location of greatest TEX removal shifted forward from Chambers 2 and 3 (days 28.5, 30.5, and 40) to Chamber 1 (day 47) during the experiment.

Chlorinated VOC Removal. Vinyl chloride data is presented in Figures N-22 and N-23. In general, influent vinyl chloride concentrations decreased during Experiment 2 and ranged from 42 $\mu g/\ell$ to not detected (Figure N-22). It is important to note that although influent concentrations were reported as not detected, the practical quantitation limit of influent vinyl chloride was 10 $\mu g/\ell$ during Experiment 2. As a result, vinyl chloride removal was difficult to interpret when influent concentrations were less than or approximately equal to 10 $\mu g/\ell$. Effluent vinyl chloride practical quantitation limits ranged from 1 to 2.5 $\mu g/\ell$ during most of Experiment 2. Vinyl chloride was effectively removed (greater than 99 percent), and its MCL (2 $\mu g/\ell$) was achieved throughout the course of Experiment 2 except for two occasions (sample points on days 35 and 45). Vinyl chloride concentration versus sample location data are presented in Figure N-23. These data (except for day 47) indicate that the time required to remove vinyl chloride to below the detection limit across the RBC increased during the course of Experiment 2, with complete removal shifting from Chamber 1 (day 28.5) to Chamber 3 (day 40).

Experiment 2 cis-DCE data are presented in Figures N-24 and N-25. According to concentration versus time data (Figure N-24), influent cis-DCE concentrations fluctuated but appeared to increase slightly during Experiment 2, ranging from 74 $\mu g/\ell$ to 429 $\mu g/\ell$. Effluent concentrations also fluctuated during Experiment 2 and ranged from 1 $\mu g/\ell$ to 202 $\mu g/\ell$, resulting in removal efficiencies of approximately 20 to greater than 99 percent. Abrupt changes in removal patterns of cis-DCE, such as the increase and decrease in effluent concentrations observed on days 35 through 37 in Figure N-24, were the result of several operational and environmental changes in the system and are explained in Section 4.0. Concentration versus sample location data (Figure N-25), indicated that cis-DCE was gradually removed from groundwater as it passed through the different chambers of the reactor during Experiment 2.

N.3.3 RBC Experiment 3 Experiment 3 started on day 47 of the field program. Results from RBC Experiment 3 are presented in Tables N-1 and N-3.

Environmental Conditions. Average flow rate, total flow, reactor temperature, and reactor pH data for Experiment 3 are presented in Figures N-14 through N-17. Analysis of these data indicate that the RBC reactor operated with few system disruptions during this experiment. The RBC continued to receive groundwater from all five groundwater extraction wells during Experiment 3. The average flow rate through the RBC during Experiment 3 was increased to 1.0 gpm and a total of 267,428 gallons of groundwater were treated during this experiment. The average recorded temperature of the reactor during Experiment 3 was 23.3 °C and the average system pH level was 6.0. According to nutrient utilization data, an average nitrogen as nitrate concentration of 1.0 mg/ℓ (double Experiment 1 and Experiment 2 results) was utilized across the reactor during Experiment 3. The average influent and effluent total and volatile suspended solids concentrations for Experiment 3 were 5 milligrams (mg) total solids per liter and 2 mg volatile suspended solids per liter, and 17 mg total solids per liter and 11.4 mg volatile suspended solids per liter, respectively.

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Figure N-22: Vinyl Chloride Conc. vs. Time
Experiment 2

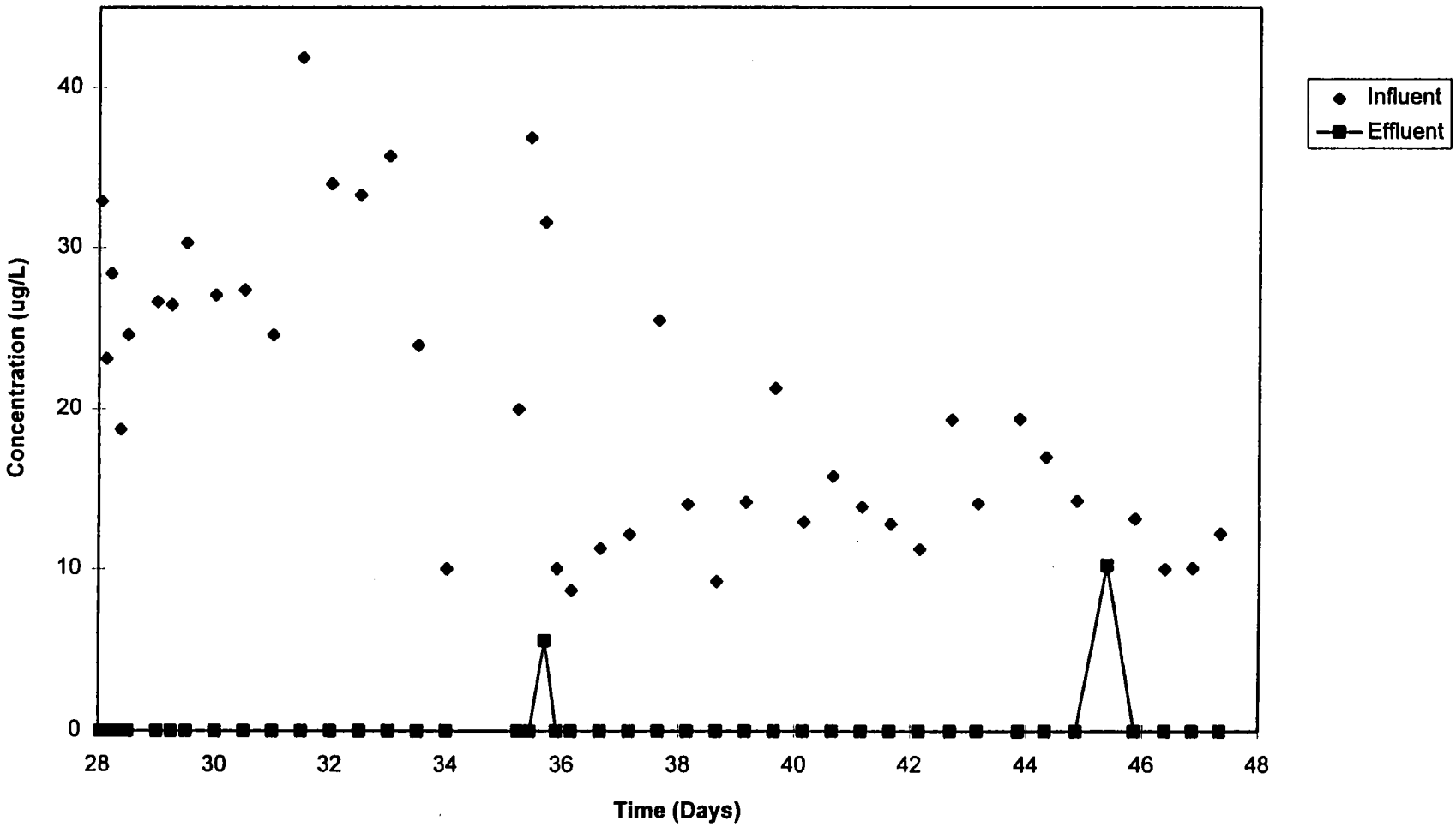

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Figure N-23: Vinyl Chloride Conc. vs. Sample Location
Experiments 2 and 3

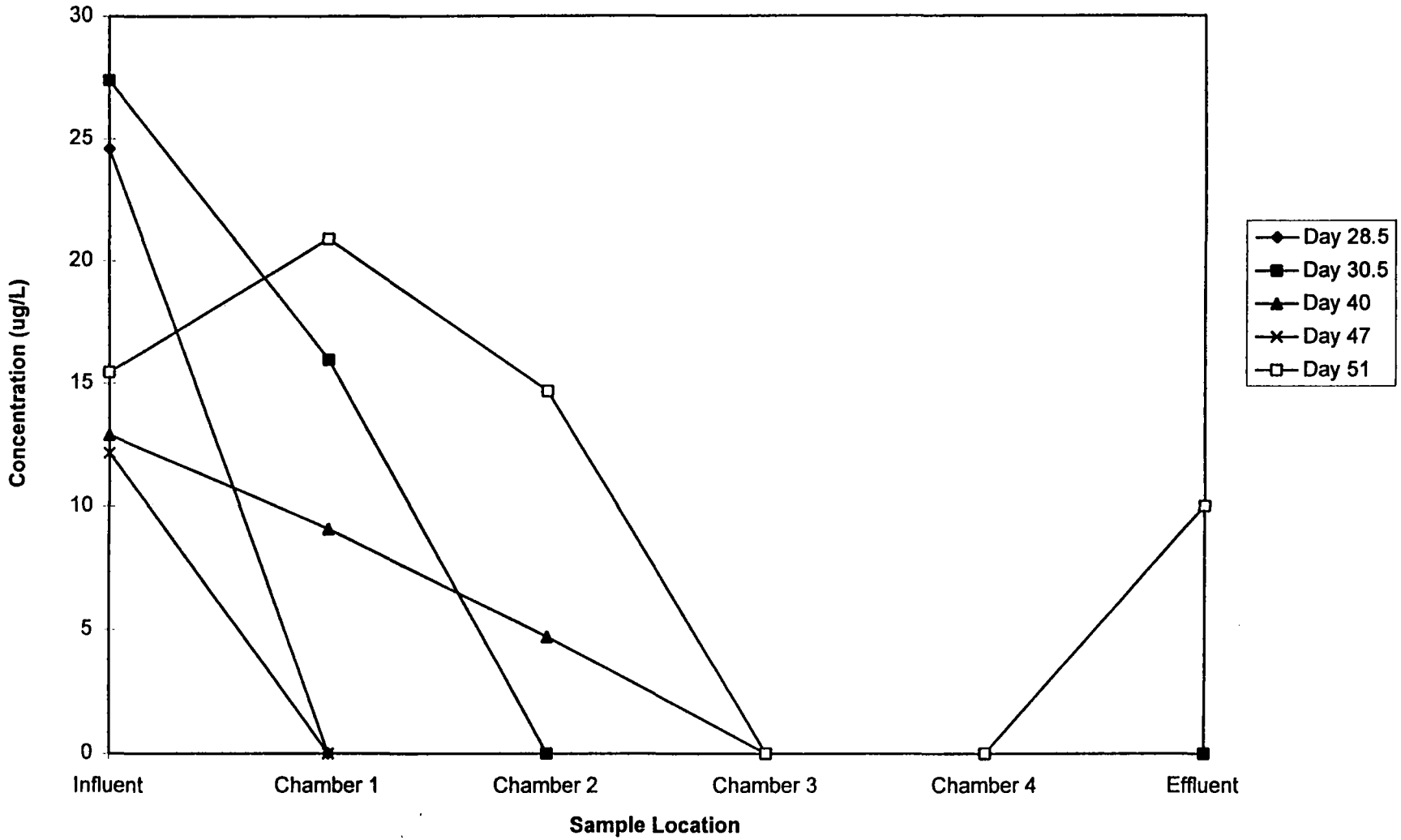

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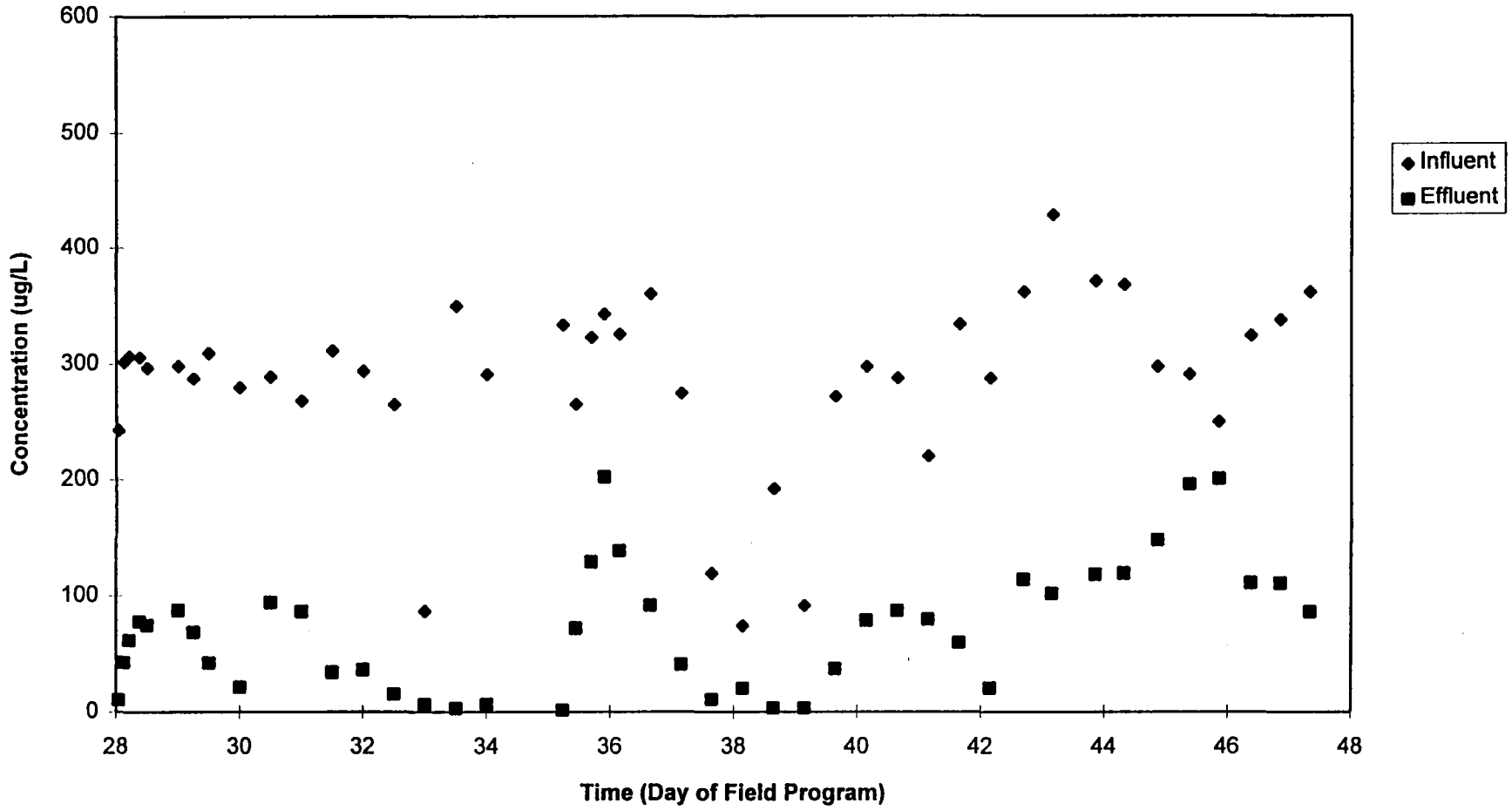
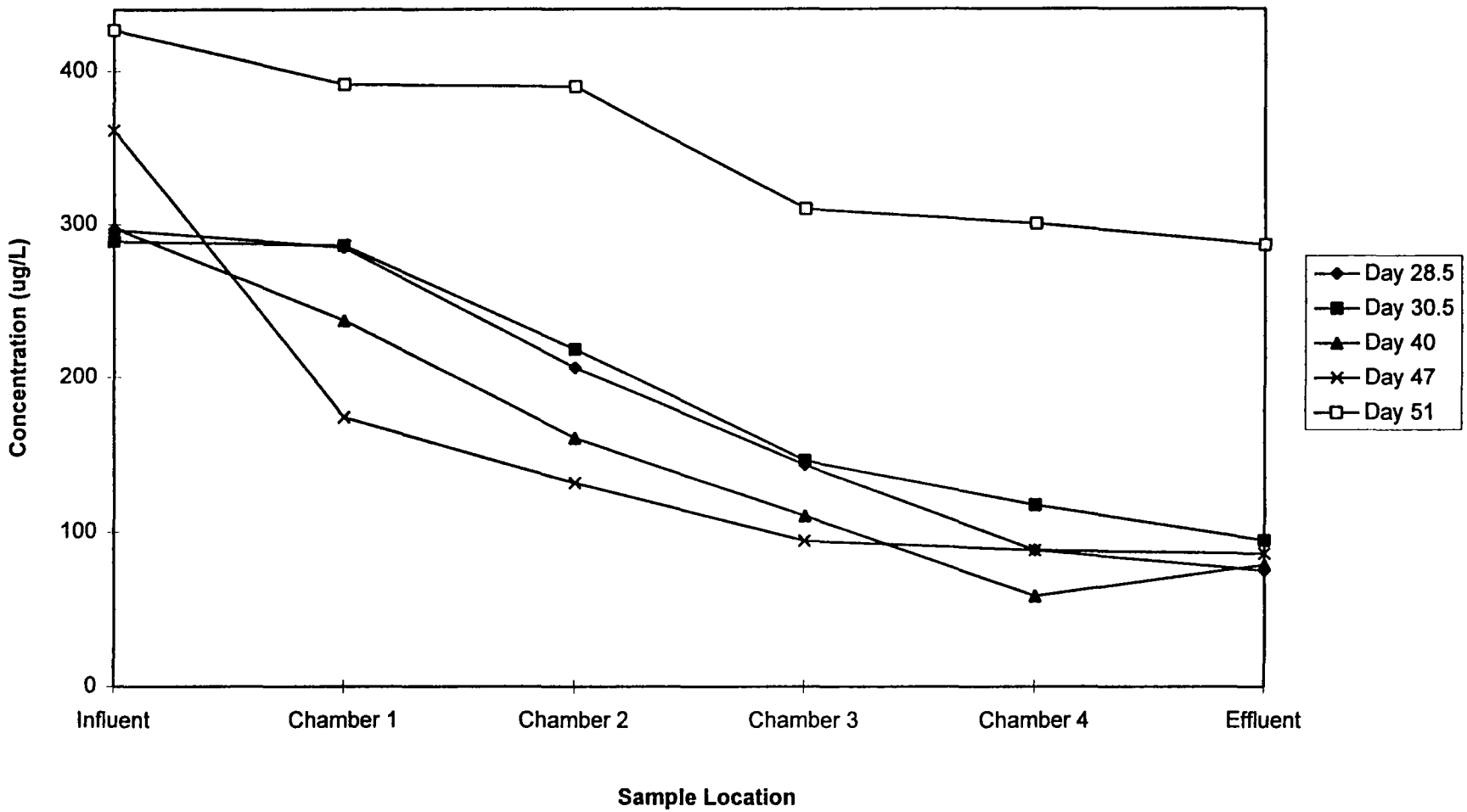
Figure N-24: cis-DCE Conc. vs. Time
Experiment 2



N24;N20TON44.XLS

Figure N-25: cis-DCE Conc. vs. Sample Location
Experiments 2 and 3



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Gas Utilization Rates. Headspace methane and oxygen utilization rates for RBC Chambers 1 and 3 during Experiment 3 are presented in Figures N-18 and N-19. Headspace methane utilization rates for RBC Chambers 1 and 3 were not discernible by the gas analyzer system during Experiment 3 as methane entered the reactor headspace at a rate greater than or equal to biological methane removal (due to natural methane in the groundwater). Headspace oxygen utilization rates for RBC Chambers 1 and 3 fluctuated slightly but appeared to increase during Experiment 3, ranging from approximately 21 to 58 mmol O_2/hr and 48 to 73 mmol O_2/hr, respectively. An abrupt decrease in oxygen utilization (from Experiment 2 utilization) occurred in Chamber 1 on day 47 when Experiment 3 started (influent flow rate doubled), however, oxygen utilization rates in Chamber 1 continued to increase during Experiment 3.

Aromatic Removal. Toluene was the primary TEX component observed during Experiment 3 and accounted for approximately 56 percent of the total TEX concentration. TEX concentration data is presented in Figures N-26 and N-21. According to data in Figure N-26, influent TEX concentrations increased during Experiment 3 and ranged from 219 $\mu g/\ell$ to 278 $\mu g/\ell$. Although present in the reactor influent below their respective MCLs, TEX compounds were further reduced in concentration during Experiment 3. Effluent concentrations fluctuated somewhat during Experiment 3 and TEX removal efficiencies of approximately 40 to greater than 90 percent were achieved. According to concentration versus sample location data (Figure N-21, day 51), the total amount of TEX removal did not change across the RBC reactor during Experiment 3 but the location of greatest TEX removal shifted. During Experiment 2, the majority of TEX removal took place in Chambers 1 and 2 (days 28.5, 30.5, 40, and 47). During Experiment 3, the majority of TEX removal shifted to Chamber 3 (day 51).

Chlorinated VOC Removal. Vinyl chloride removal data for Experiment 3 are presented in Figures N-27 and N-23. Influent vinyl chloride concentrations averaged approximately 13 $\mu g/\ell$ for the first 5 days, then decreased to non-detected concentrations for the last 4 days of Experiment 3 (Figure N-27). Because the PQL for influent vinyl chloride data was 10 $\mu g/\ell$ during Experiment 3, the non-detected data points for vinyl chloride were presented as 10 $\mu g/\ell$ in Figure N-27. Little or no vinyl chloride removal was observed during Experiment 3. Vinyl chloride versus sample location data (day 51 of Figure N-23) indicated that the greatest amount of vinyl chloride removal took place in Chamber 3 during Experiment 3 compared to removal in Chambers 1 and 2 during Experiment 2 (days 28.5, 30.5, and 40).

cis-DCE removal data for Experiment 3 are presented in Figures N-28 and N-25. According to concentration versus time data (Figure N-28), influent cis-DCE concentrations increased during the course of Experiment 3 and ranged from 348 to 517 $\mu g/\ell$. Effluent cis-DCE concentrations also increased during Experiment 3 and resulted in removal efficiencies of 19 to 41 percent. cis-DCE versus sample location data (day 51 of Figure N-25) indicated that a slight decrease in the extent of cis-DCE removal occurred in Experiment 3 compared to the extent of cis-DCE removed during Experiment 2 (days 28 through 47).

N.3.4 Target Compound Removal Rates (Summarized for Experiments 1 through 3)

Full-scale RBC designs are prepared using pilot-scale removal rate data. Removal rates are a function of operating conditions such as influent flow and disc surface area, and are expressed either as mass of compound removed per unit disc

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FIGURE N-26: TEX Conc. vs. Time
Experiment 3

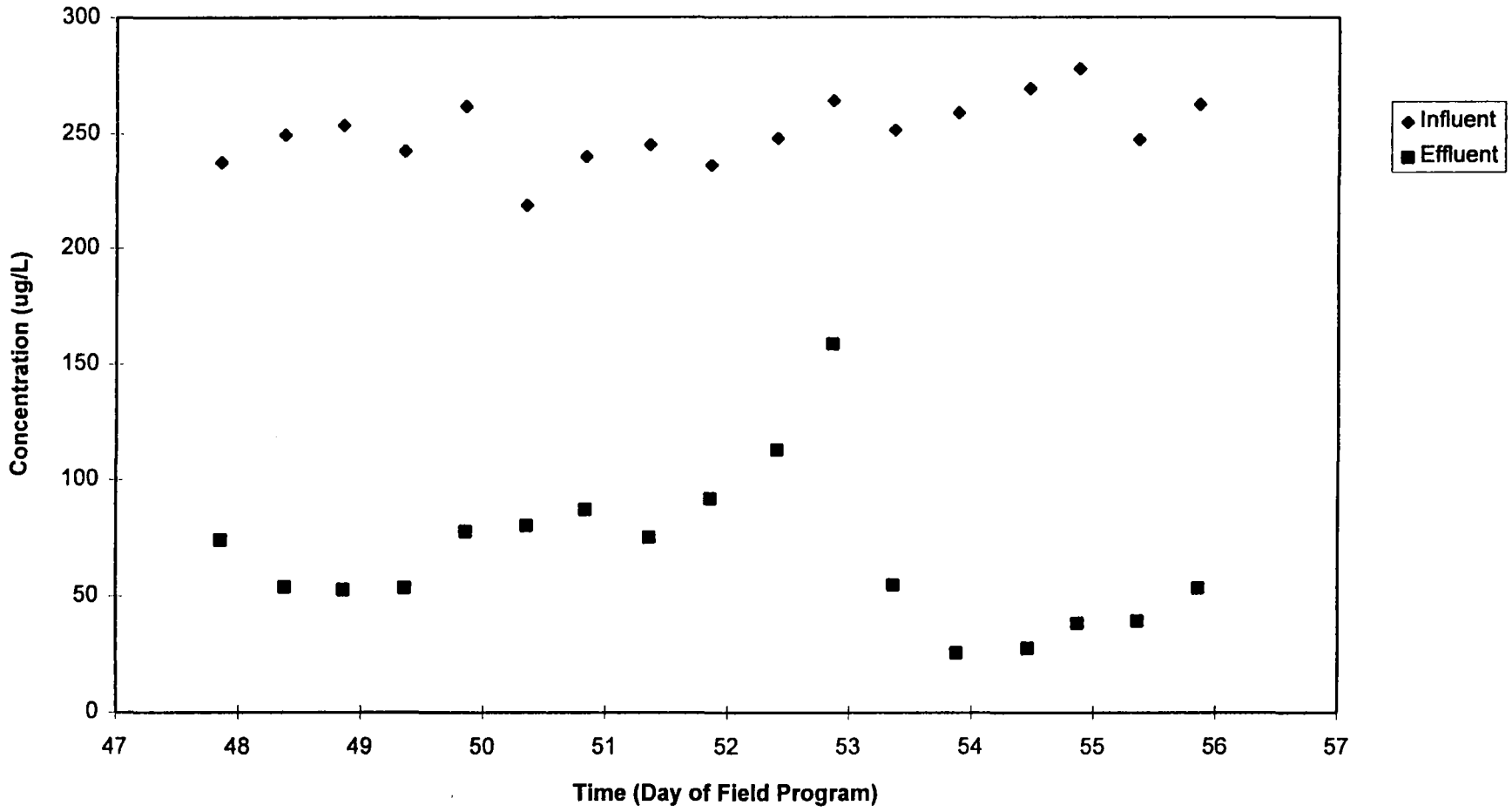

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Figure N-27: Vinyl Chloride Conc. vs. Time
Experiment 3

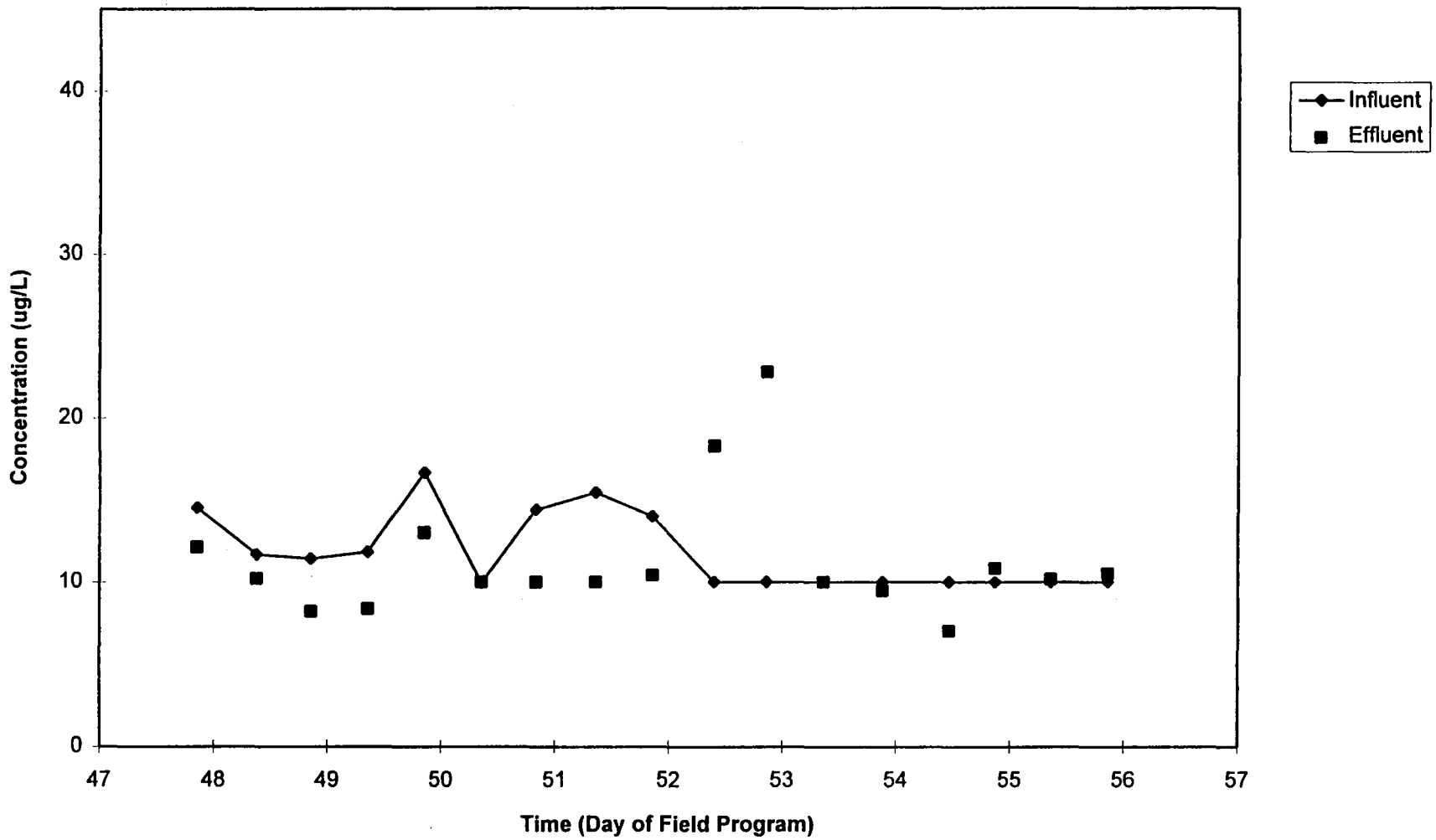

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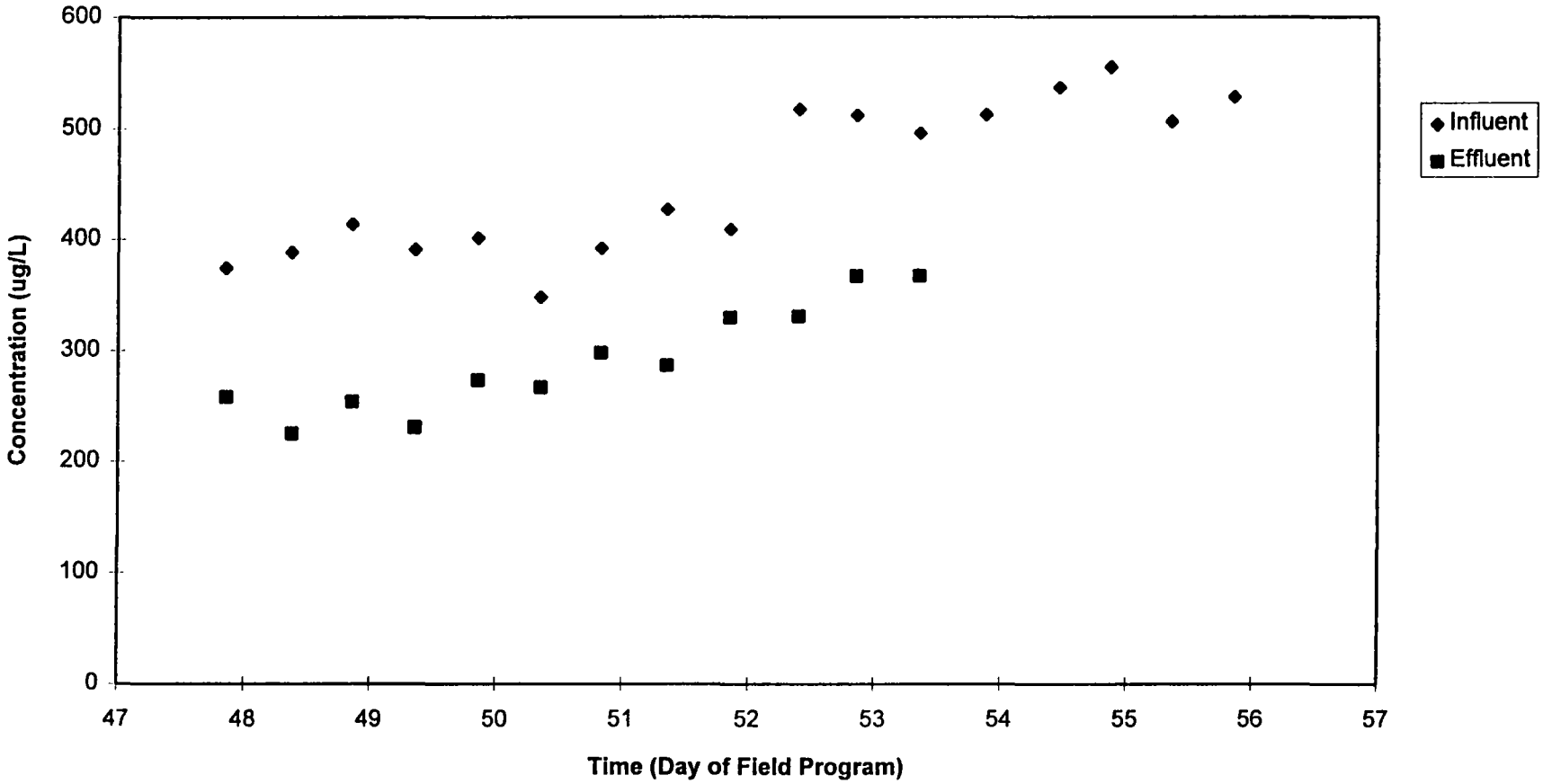
Figure N-28: cis-DCE Conc. vs. Time
Experiment 3



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surface area per unit time (ug/sf-min), or as mass of compound removed per mass of biomass per unit time (ug/g VS-day). Target compound removal rates for all three RBC study experiments are presented in Figures N-29 through N-34.

Paramount to obtaining accurate removal rate data is obtaining accurate system parameter data. As discussed in the System Monitoring/Evaluation section, some difficulty was experienced in obtaining Kings Bay RBC surface area and biomass estimates for the Kings Bay pilot RBC. As a result, removal rates based on surface area and biomass presented in this report are approximate and most likely conservative.

TEX. Removal rate versus influent concentration data for TEX during Experiments 1, 2, and 3 are presented in Figure N-29 and N-30. Analysis of these data indicated that the removal of TEX was for the most part first order with respect to concentration (removal rates increased with influent concentration). Because TEX was completely removed during most of Experiments 1 and 2, the straight line formed by Experiment 1 and 2 TEX removal data represents the maximum system removal rate for the operating conditions of 0.5 gpm and 306 ft^2. The first order removal coefficient for TEX in terms of surface area during Experiments 1 and 2 was calculated to be 0.0062 liters per square feet (L/ft^2-min). The first order removal coefficients for TEX in terms of biomass during Experiments 1 and 2 were calculated to be 3.16 and 2.67 L/mg VS-min, respectively. The general TEX removal trend that was observed for Experiment 3 data was an increase in removal rate with respect to concentration, however, good correlation of fit was not obtained due to data scatter.

Vinyl Chloride. Removal rate versus influent concentration data for vinyl chloride during Experiments 1, 2, and 3 are presented in Figures N-31 and N-32. Analysis of this data indicated that the removal of vinyl chloride increased with influent concentrations (first order removal with respect to concentration). Similar to TEX removal data where complete removal took place during Experiments 1 and 2, the straight line formed by Experiment 1 and 2 vinyl chloride removal data represents the maximum system removal rate for the operating conditions of 0.5 gpm and 306 ft^2. The first order removal coefficient for vinyl chloride in terms of surface area during Experiments 1 and 2 was calculated to be 0.0061 L/ft^2-min. The first order removal coefficients for vinyl chloride in terms of biomass during Experiments 1 and 2 were calculated to be 3.09 and 2.67 L/mg VS-min, respectively. Vinyl chloride removal data for Experiment 3 was scattered and difficult to interpret due to variability in analytical detection limits (effluent concentrations were often detected higher than influent concentrations).

cis-DCE. Removal rate versus influent concentration data for cis-DCE are presented in Figures N-33 and N-34. Analysis of cis-DCE removal rate data indicate that although there is some data scatter, removal of cis-DCE during Experiments 1, 2, and 3 was roughly first order with respect to influent concentration (removal rate increased when influent concentrations increased). This trend is apparent and is indicated by parallel bracket lines shown in Figures N-33 and N-34. Best fit first order removal coefficients of 0.036 L/ft^2-min and (x L/mg VS-min) were calculated for the cis-DCE data for Experiments 1, 2, and 3 to describe the removal rate in terms of surface area of reactor and mass of biomass in the reactor. (Figures N-33 and N-34, which distinguish Experiment 3 data from Experiment 1 and 2 data, indicate that removal rates during Experiment 3 were on the lower portion of the first order removal bracket.)

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Figure N-29
TEX Removal Rate vs. Influent Concentration
SA = 306 ft2

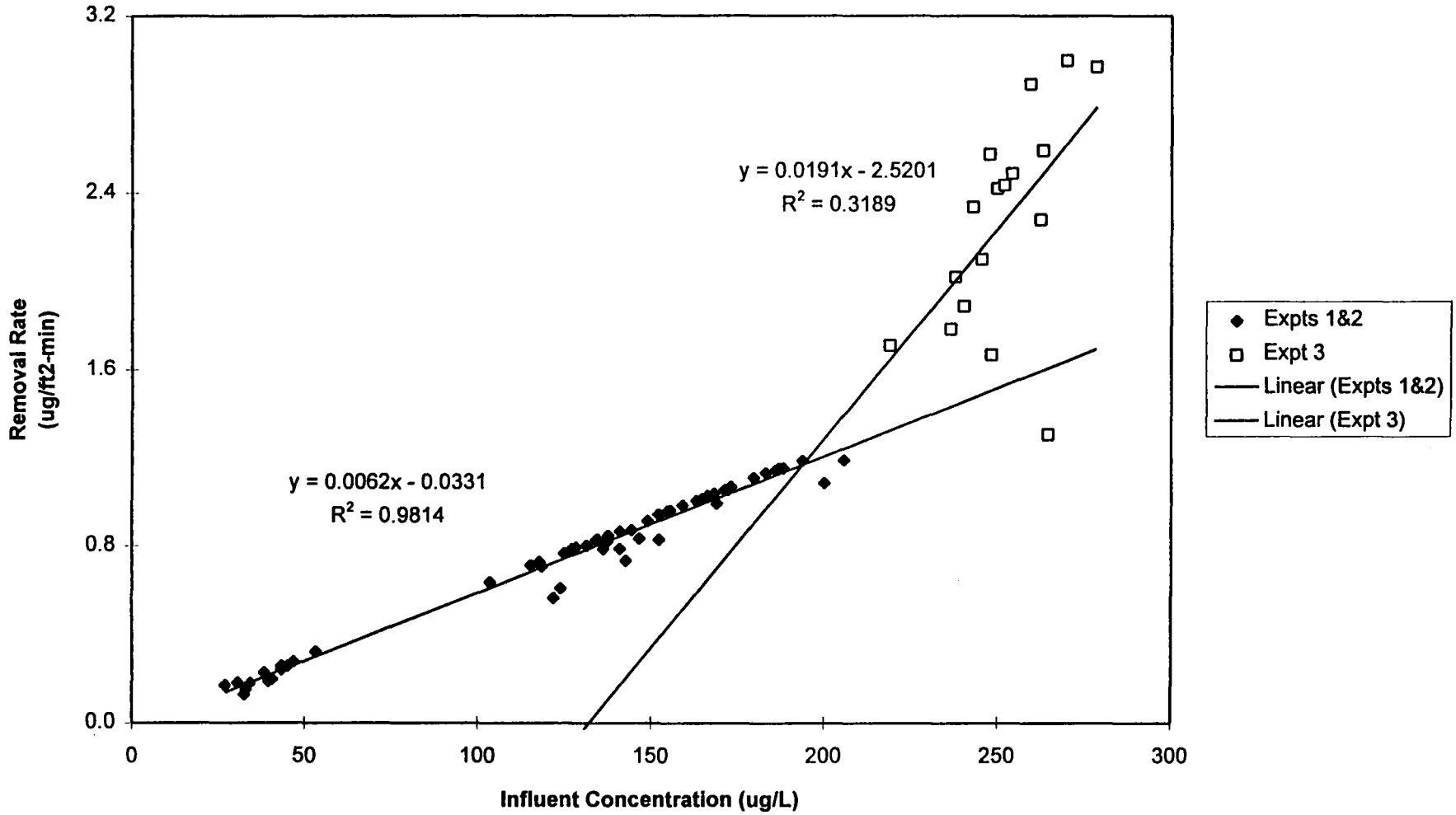

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Figure D-30:
TEX Removal Rate vs. Influent Concentration
(Biomass on 306 ft2)

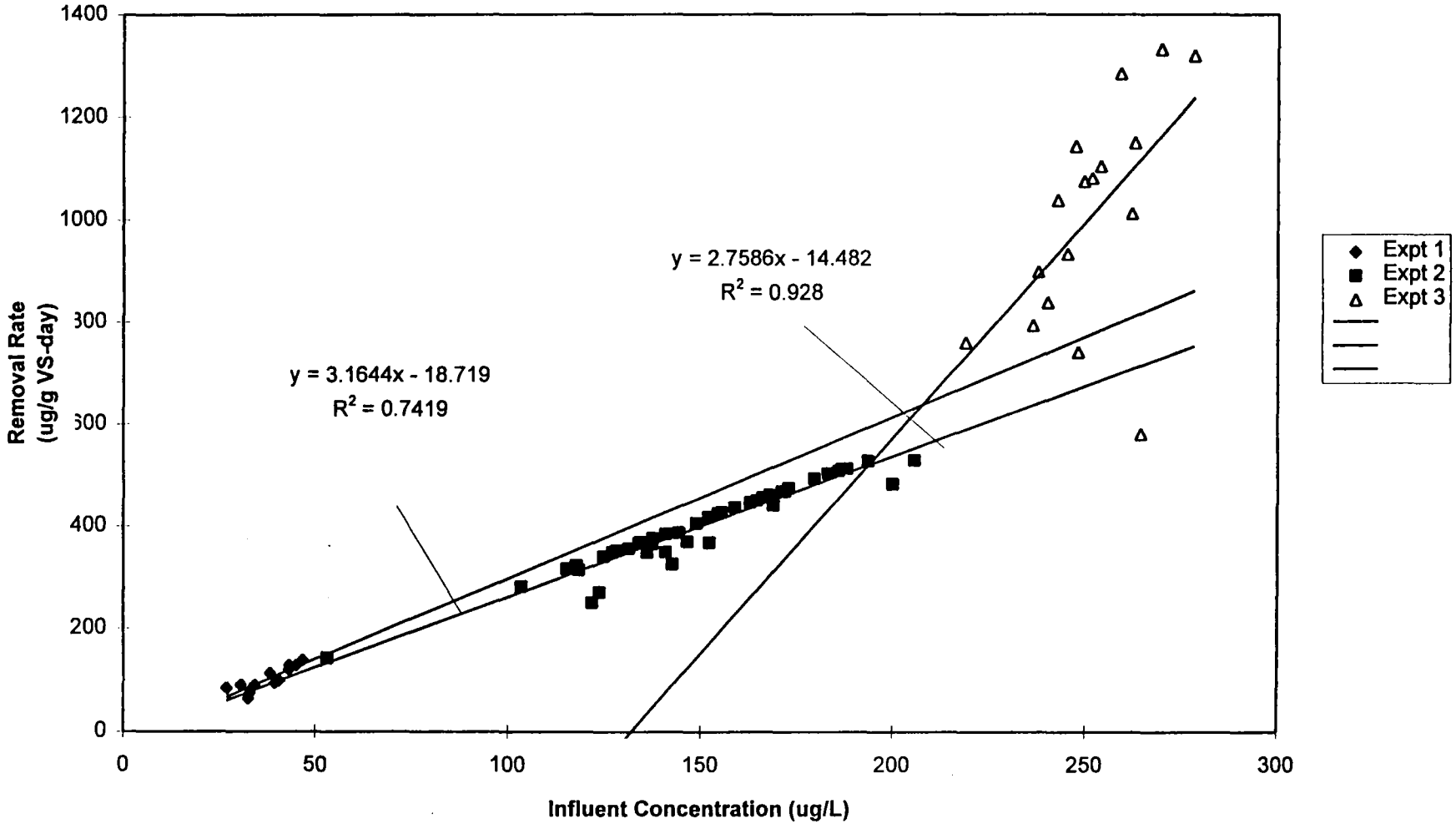

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Figure N-31
Vinyl Chloride Removal Rate vs. Influent Concentration
(for Cin > 0) SA = 306 ft2

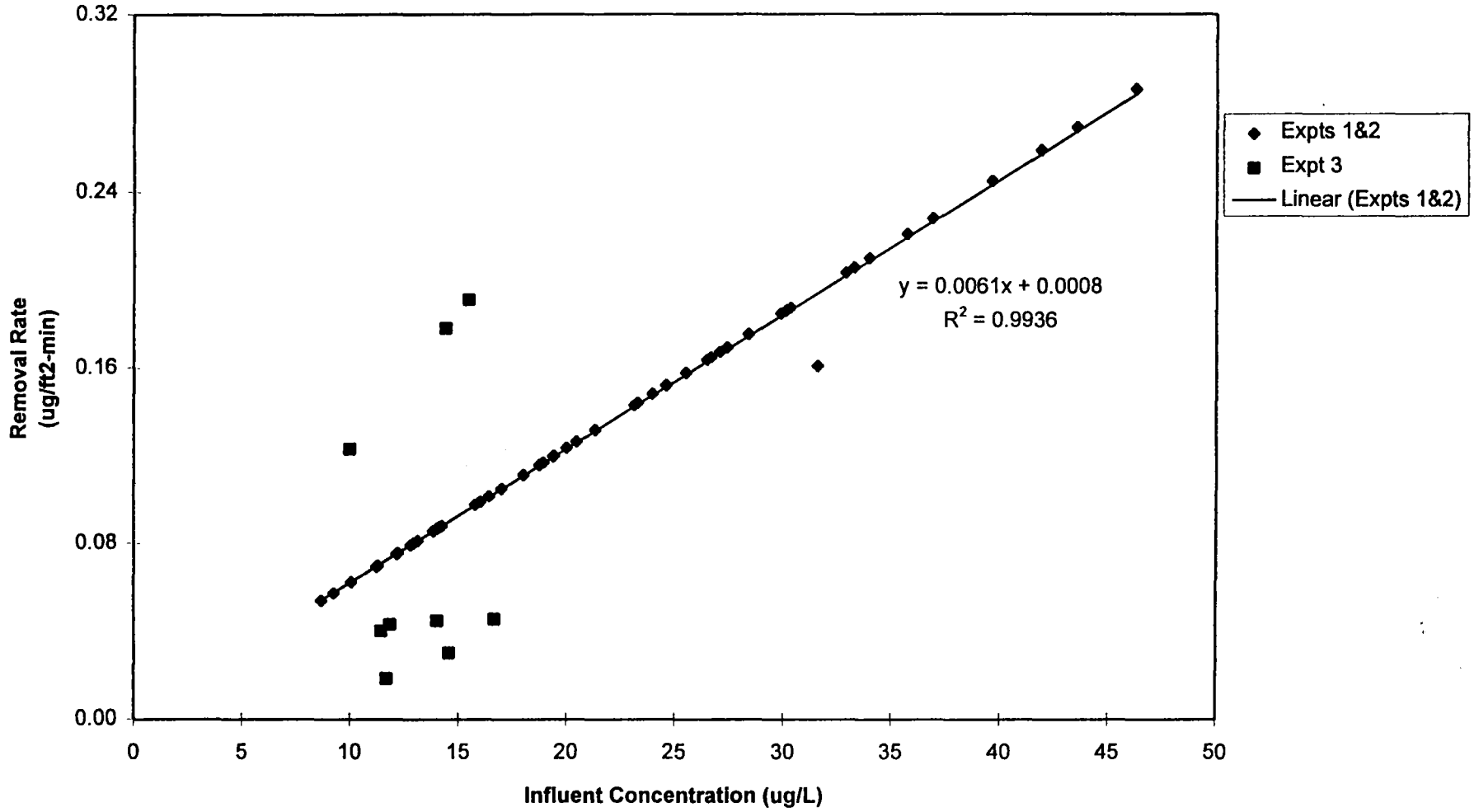

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Figure N-32
Vinyl Chloride Removal Rate vs. Influent Concentration
(for Cin > 0 ug/L) (Biomass on 306 ft2)

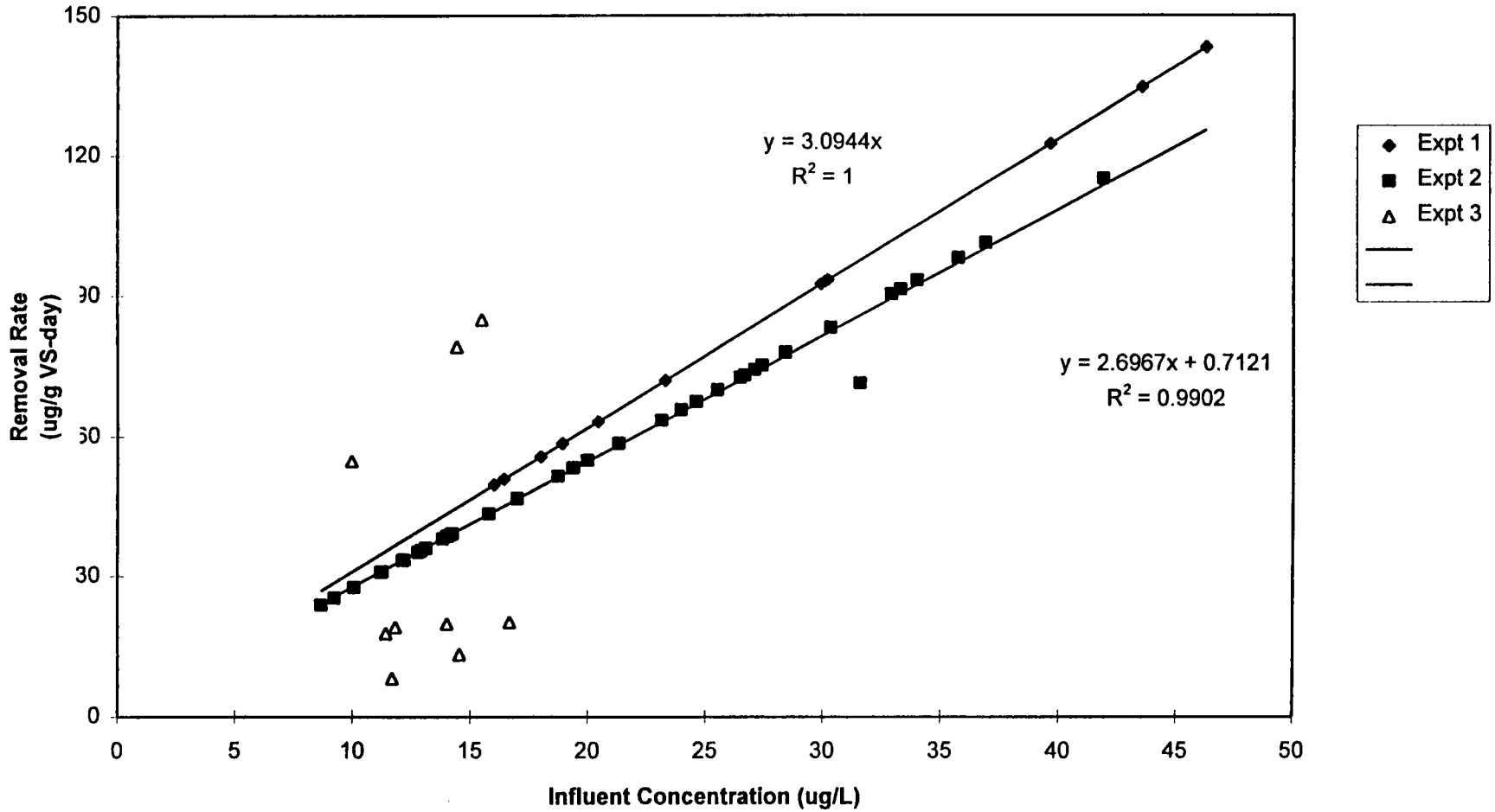

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Figure N-33
cis-DCE Removal Rate vs. Influent Concentration
SA = 306 ft2

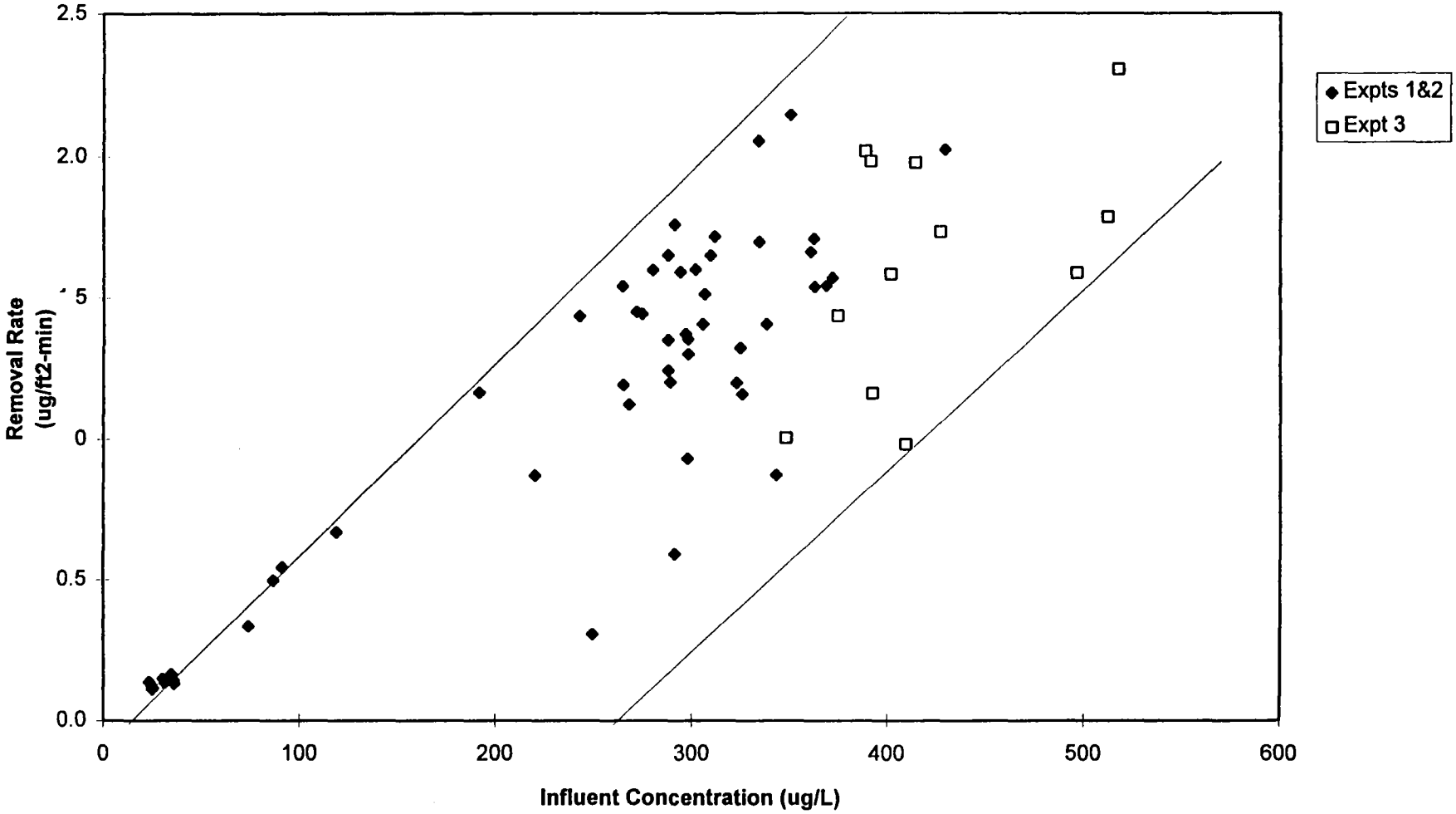

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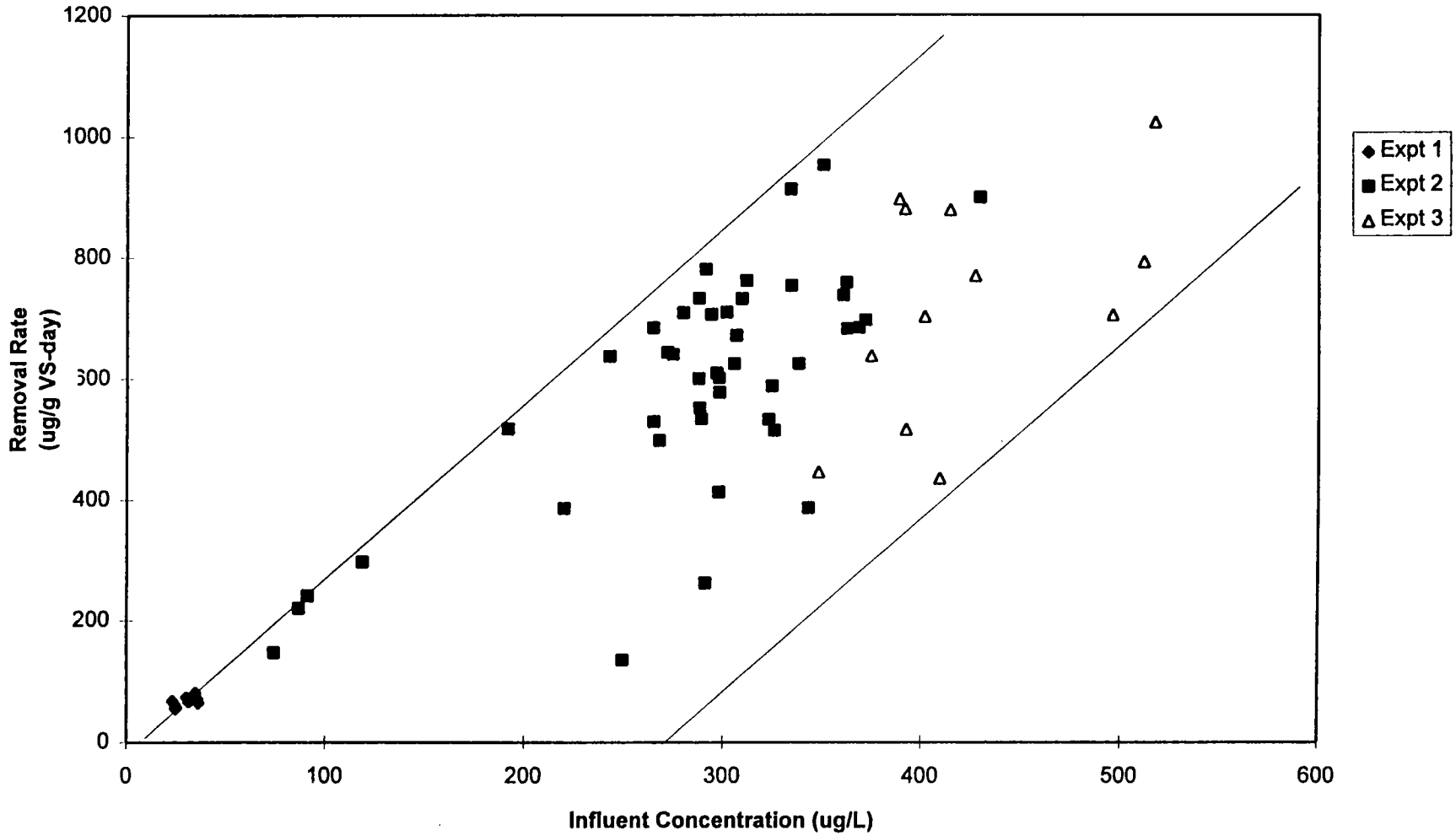
Figure N-34
cis-DCE Removal Rate vs. Influent Concentration
(Biomass on 306 ft2)



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N.3.5 Headspace Analysis for Gas-phase Target Compounds The headspaces of the RBC chambers were analyzed during the pilot RBC study in order to gain understanding of the amount of target compound volatilization that took place within the reactor. Headspace concentration data trends were (in general) similar to water concentration trends. Headspace concentrations of TEX, vinyl chloride, and cis-DCE for Chamber 1 as a function of time are presented in Figure N-35. According to these data, headspace concentrations of vinyl chloride and cis-DCE fluctuated during Experiment 2 and increased significantly during Experiment 3 (day 53). This increase in headspace concentration during the course of the Experiments 2 and 3 parallels the increase in influent and effluent water concentrations of cis-DCE compounds observed.

Headspace target compound concentration versus sample location data are presented in Figures N-36, N-37, and N-38. According to Figure N-36, in general there was not much TEX volatilization during Experiments 2 and 3. An increase in the amount of time required to remove TEX in the RBC, similar to that observed for aqueous TEX samples, was observed in the headspace. According to Figure N-36 data, a considerably higher TEX concentration was observed in Chamber 1 on day 51 (Experiment 3) compared to days 40 and 43 (Experiment 2). The majority of headspace TEX removal took place in Chamber 2 during Experiment 3 (day 53).

Data from Figures N-37 and N-38 indicated that the greatest volatilization of vinyl chloride took place in Chambers 2 and 3 during Experiment 2 (days 40 and 43) and in Chamber 1 during Experiment 3 (day 53). Similarly, the greatest volatilization of cis-DCE occurred in Chambers 3 and 4 of the reactor during Experiment 2 (days 40 and 43) and in Chamber 1 during Experiment 3 (day 53).

N.3.6 Removal of Non-Target Compounds Semivolatile analysis of influent and effluent groundwater was conducted by an offsite laboratory using modified U.S. Environmental Protection Agency (USEPA) Method 3510/8100. This is a gas chromatographic and flame ionization detector (GC/FID) method that is used to measure total chromatographable carbon. Results of offsite semivolatile analyses indicated that approximately 93 percent of the semivolatile compounds were removed from the groundwater stream. Offsite analysis was also conducted to measure methane levels in groundwater using a GC/FID method. Review of the chromatogram and gas chromatographic (GC) fingerprint indicated that a weathered petroleum pattern was observed similar to weathered gasoline and a JP-4. Based on results from samples collected at the end of Experiment 2, methane entering the RBC in concentrations up to 8 mg/ℓ was reduced by 98 percent by the RBC.

N.4.0 DISCUSSION.

N.4.1 Biological Degradation of Chlorinated Ethenes Biological activity (most likely methanotrophic cometabolism) was the major mechanism responsible for removal of vinyl chloride and cis-DCE from groundwater during the RBC pilot program. As discussed in this section, analysis of results that led to this conclusion include the appearance of cis-DCE epoxide in reactor water, the limited role of volatilization of target compounds based on reactor headspace analyses, and, to a lesser degree, the establishment of methanotrophic conditions within the RBC reactor.

cis-DCE Epoxide Formation. The oxidation of cis-DCE to cis-DCE epoxide under methanotrophic conditions has been documented by several researchers (Fogel and others, 1986; Oldenhuis and others; DiSpirito and others). These studies have shown that cis-DCE epoxide is a transient chlorinated intermediate compound that

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Figure N-35: Measured and Equilibrium Headspace Target Compound Concentrations vs. Time Experiments 2 and 3

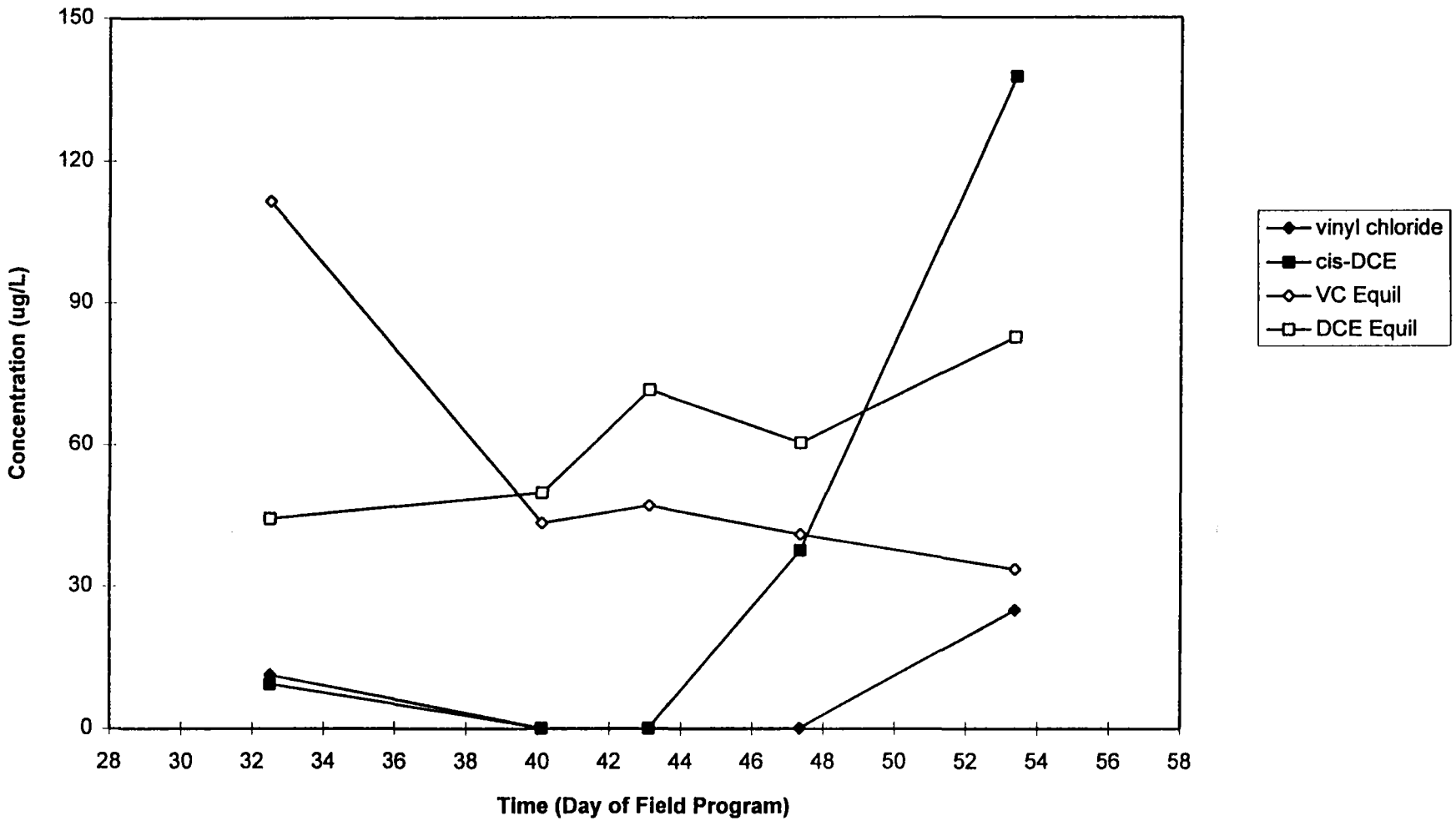

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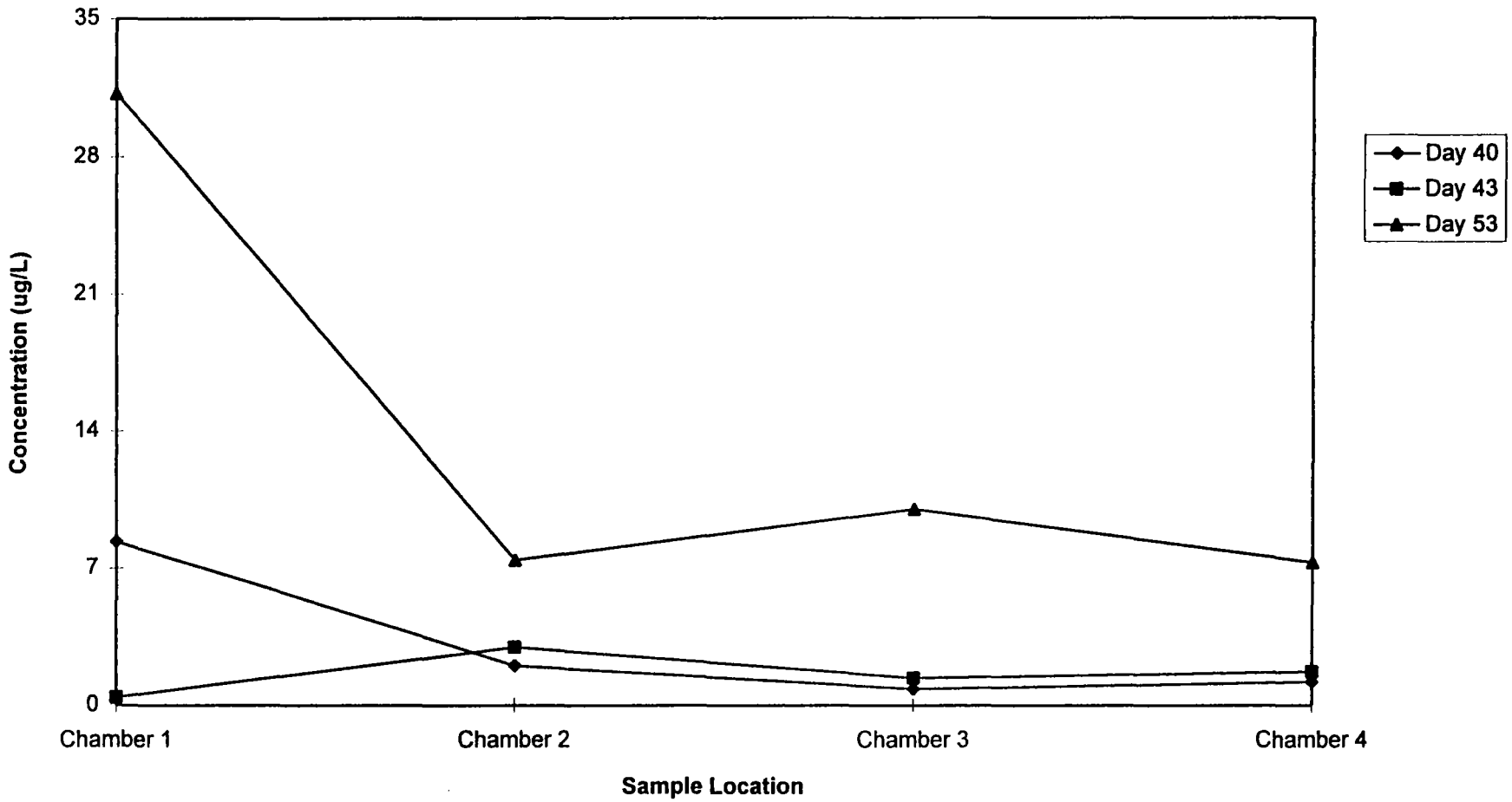
Figure N-36: Headspace TEX Conc. vs. Sample Location
Experiments 2 and 3



N36;N20TON44.XLS

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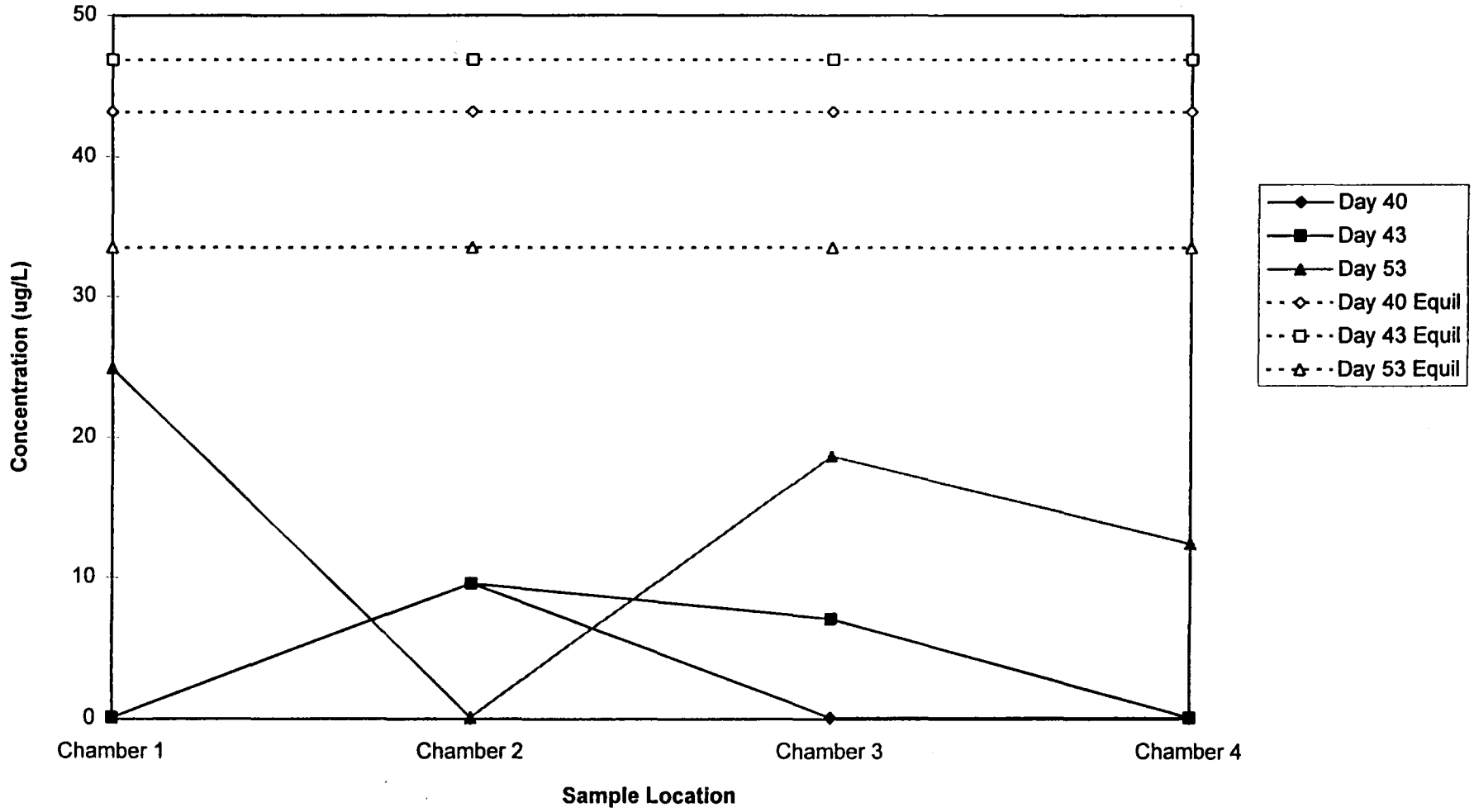
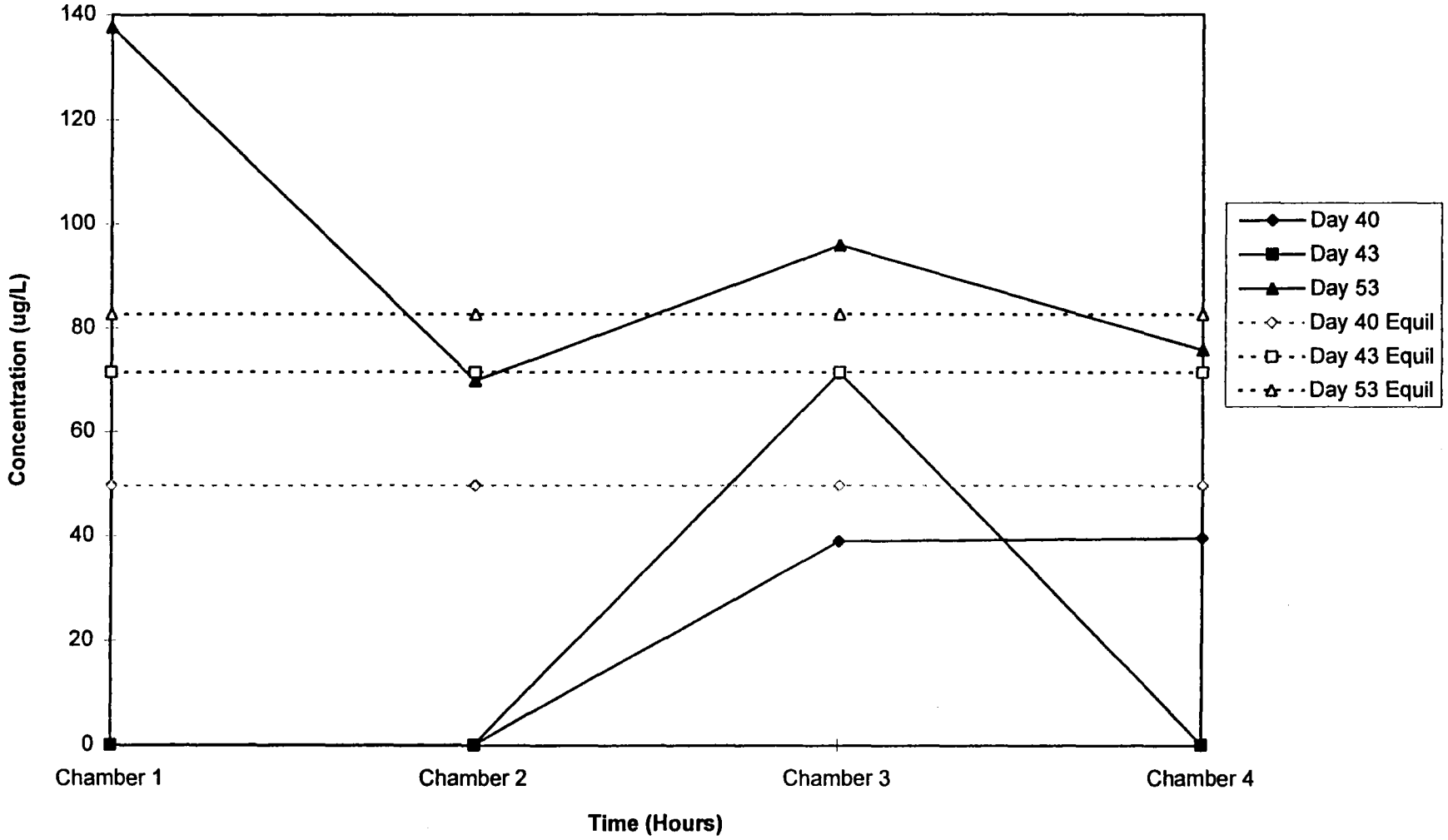
Figure N-37: Equilibrium and Headspace Vinyl Chloride Concentration vs.Sample Location Experiments 2 and 3



N-37;N20TON44.XLS

Figure N-38: Equilibrium and Headspace cis-DCE Concentration vs. Sample Location Experiments 2 and 3



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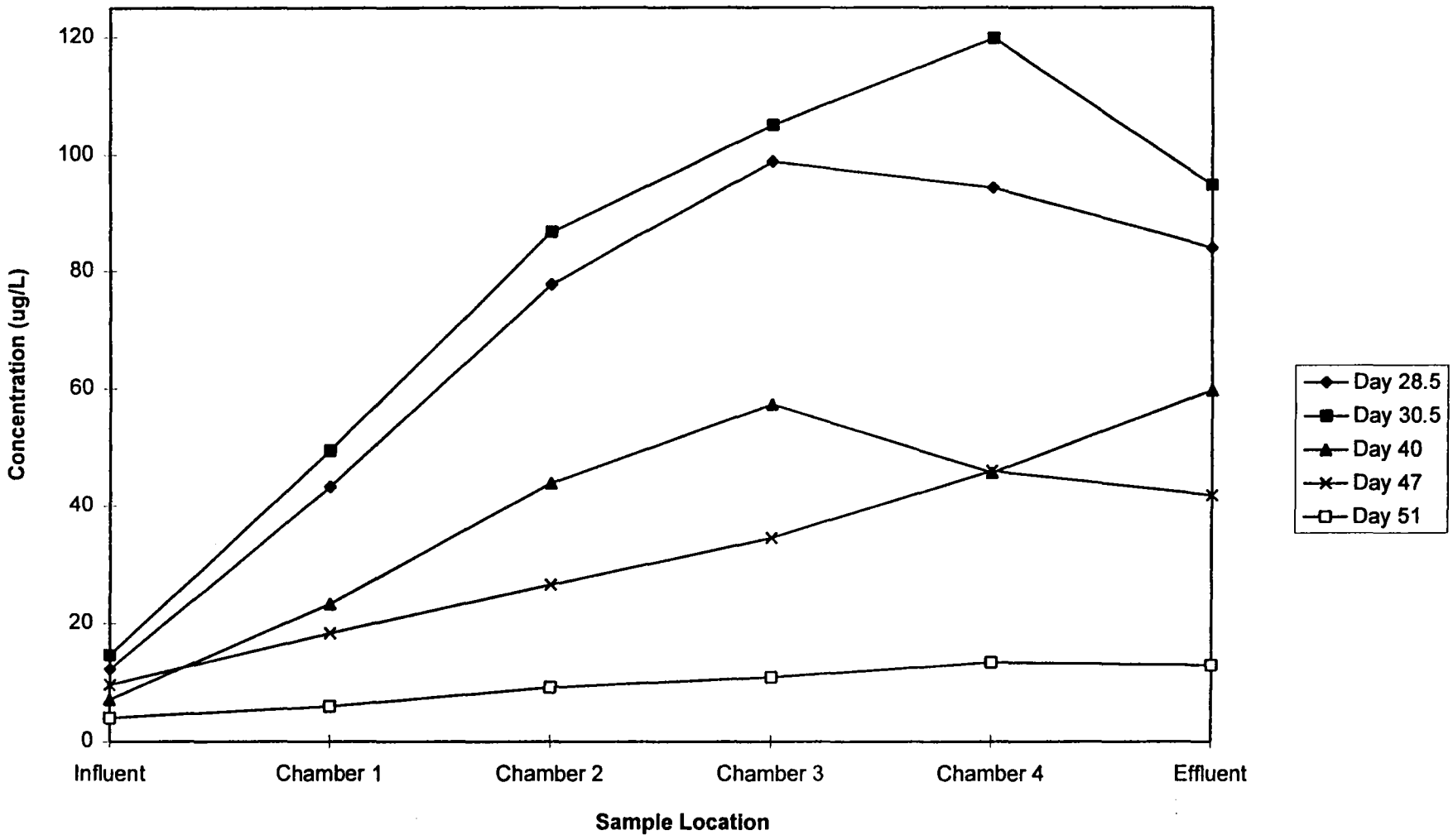
is formed when the MMO expressed by certain methanotrophs, oxidizes the cis-DCE molecule. cis-DCE epoxide has a half-life of approximately 1 day and is readily detected on a GC (Fogel and others, 1987). Because cis-DCE epoxide formation is unique to enzyme catalysis of cis-DCE, the appearance of cis-DCE epoxide is the definitive indication that biological cometabolism of cis-DCE has occurred.

Offsite laboratory analysis confirmed the existence of cis-DCE epoxide in Kings Bay groundwater. Comparison of offsite analysis results to onsite GC results also indicated that cis-DCE epoxide was co-eluting with PCE in onsite GC analyses. This co-elution of cis-DCE epoxide and PCE explained why this compound peak increased in groundwater as it flowed through the RBC reactor (Figure N-39). Although quantitation of cis-DCE epoxide was not possible through offsite analysis (cis-DCE epoxide standards are not readily available), the ratio of cis-DCE to PCE GC area counts was calculated to be 70 percent compared to 30 percent PCE indicating that cis-DCE epoxide represented the major portion of the onsite PCE chromatograph peak. Peak identification was made based on prior experience with cis-DCE epoxide, where confirmation was made using GC and mass spectroscopy (Leahy and others).

Volatilization. The headspaces of the RBC chambers were analyzed during the pilot RBC study in order to estimate the extent of target compound volatilization that took place within the reactor. RBC chamber headspace concentrations for vinyl chloride, cis-DCE, and toluene along with theoretical headspace equilibrium concentrations, based on influent groundwater concentrations, are presented in Figures N-35 through N-38. Analysis of these data indicated that, although some volatilization occurred within the RBC reactor, the total amount of target compounds measured in the reactor headspace was considerably less than equilibrium concentrations during Experiments 1 and 2. Slightly more volatilization of cis-DCE and perhaps vinyl chloride took place during Experiment 3, especially in Chamber 1 of the RBC, however the average concentration of headspace target compound concentrations were less than the equilibrium gas-phase concentrations. Coupled with results of the leak test performed prior to reactor seeding, which indicated that the RBC was relatively air-tight (a leak rate of less than 1 percent by volume of methane per day), theoretical equilibrium and measured headspace concentration data results indicate that significant volatilization of vinyl chloride, cis-DCE, and toluene did not take place during the RBC study. Furthermore, volatilization did not appear to be a primary removal mechanism of target compounds because Experiment 2 cis-DCE and TEX effluent concentration patterns did not correlate with influent concentration patterns. If volatilization was the primary removal mechanism for these compounds, effluent concentrations would directly correlate with influent concentrations as opposed to patterns observed in the study (Figures N-20, N-22, and N-24).

Methanotrophic Conditions. Although methane and oxygen utilization are not direct indicators of chlorinated VOC cometabolism, the successful establishment and maintenance of methanotrophic conditions within an environment ensures that the potential for methanotrophic cometabolism of chlorinated VOCs exists. A well-documented record of headspace methane and oxygen utilization for the pilot RBC program indicates that methanotrophic conditions were successfully established and maintained in the RBC during the course of the Kings Bay pilot RBC program (Figures N-6, N-7, N-18, and N-19). Coupled with the occurrence of cis-DCE epoxide and the small role of volatilization in overall compound removal, the existence of a methanotrophic environment indicates that biological degradation was a major removal mechanism for groundwater vinyl chloride and cis-DCE during the Kings Bay pilot RBC study.

Figure N-39: c-DCE Epoxide/PCE Conc. vs. Sample Location
Experiments 2 and 3



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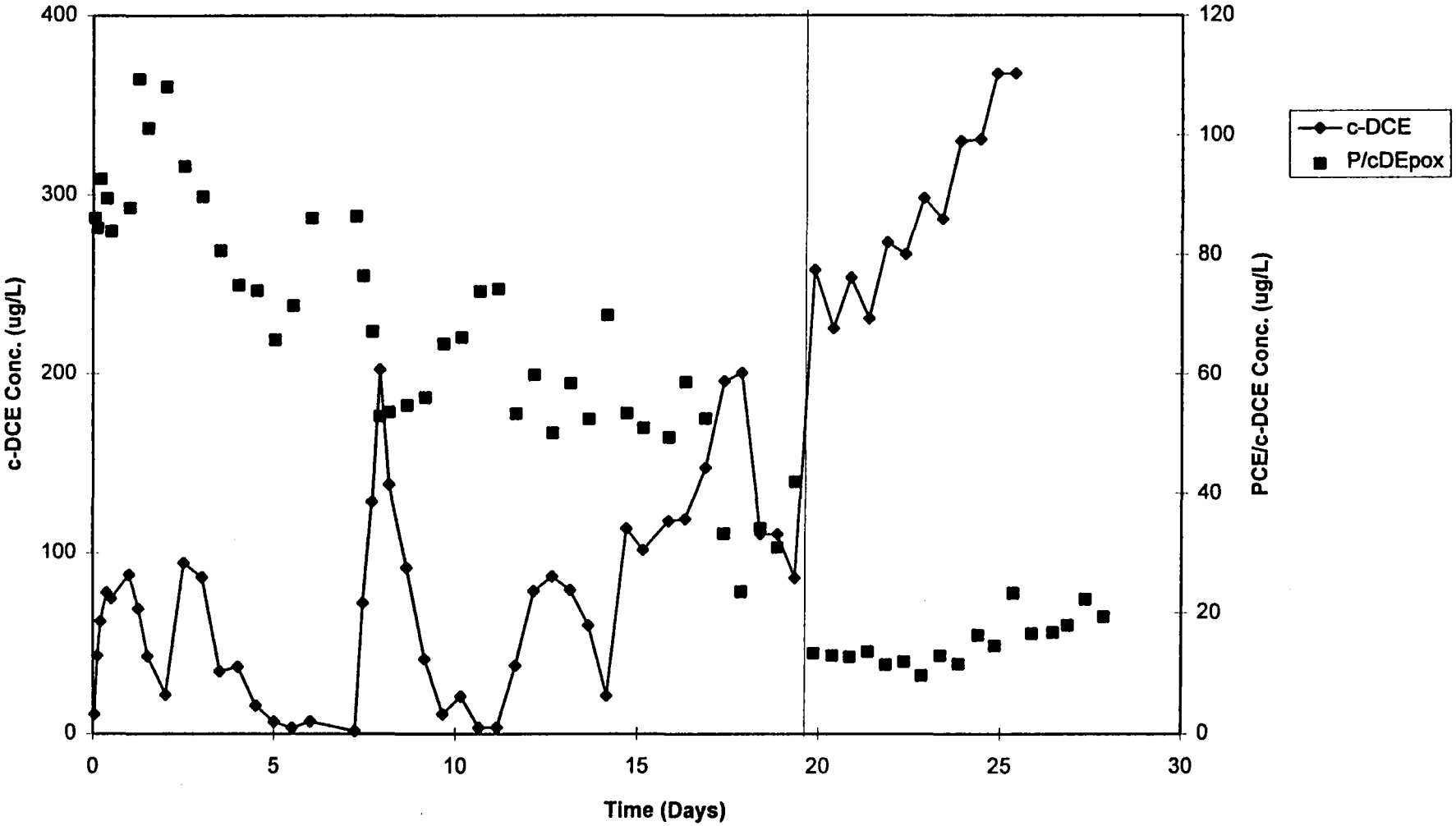
Toluene-oxygenase Cometabolism. The removal of low concentrations of toluene (less than 500 $\mu g/\ell$) was observed throughout the pilot RBC program. Several researchers have shown that the degradation of toluene can also promote the cometabolism of chlorinated VOCs (Speitel and others, Wackett and Gibson). The extent of toluene cometabolism of vinyl chloride and cis-DCE in the Kings Bay RBC program is unknown. According to researchers, however, toluene cometabolism can account for a significant amount of chlorinated solvent degradation (Speitel and others). Although the cometabolism pathway most commonly associated with toluene degradation (dioxygenase activity) is different from the methanotrophic degradation cometabolism pathway (monooxygenase activity), Wackett and Gibson have indicated that the toluene dioxygenase enzyme can also have monooxygenase activity which could result in cis-DCE epoxide production. Methods to determine the amount of vinyl chloride and cis-DCE degradation responsible from toluene degradation were not utilized in this project. Although it is presumed that Kings Bay VOC cometabolism was primarily due to methanotrophic activity, the role of toluene degradation in VOC cometabolism cannot be completely discounted.

N.4.2 General Trends of Removal Although the removal rates of vinyl chloride, cis-DCE, and TEX increased with respect to influent concentration during the course of the field pilot program (Figures N-29 though N-34), the removal efficiencies of cis-DCE and vinyl chloride decreased with respect to time during Experiment 3 (Figures N-27 and N-28). The decrease in cis-DCE removal efficiency is also reflected in Figure N-33 where Experiment 3 data points are found on the lower portion of the first-order removal rate versus influent concentration band. A similar pattern for vinyl chloride is seen in Figure N-31, and should be noted that there is little confidence in the three Experiment 3 vinyl chloride data points that appear above the Experiments 1 and 2 maximum removal line because these effluent concentrations were reported at values below their PQL.

In addition to the long-term decline in cis-DCE and vinyl chloride removal observed during the latter stage of Experiments 2 and 3, short-term (1- to 3-day) declines and fluctuations in removal were also observed during the RBC study. There were several potential causes for the long- and short-term changes in target compound removal observed during the field pilot study including: influent characteristic changes and reactor environment changes. A more detailed discussion of each potential cause for change in target compound removal is presented below.

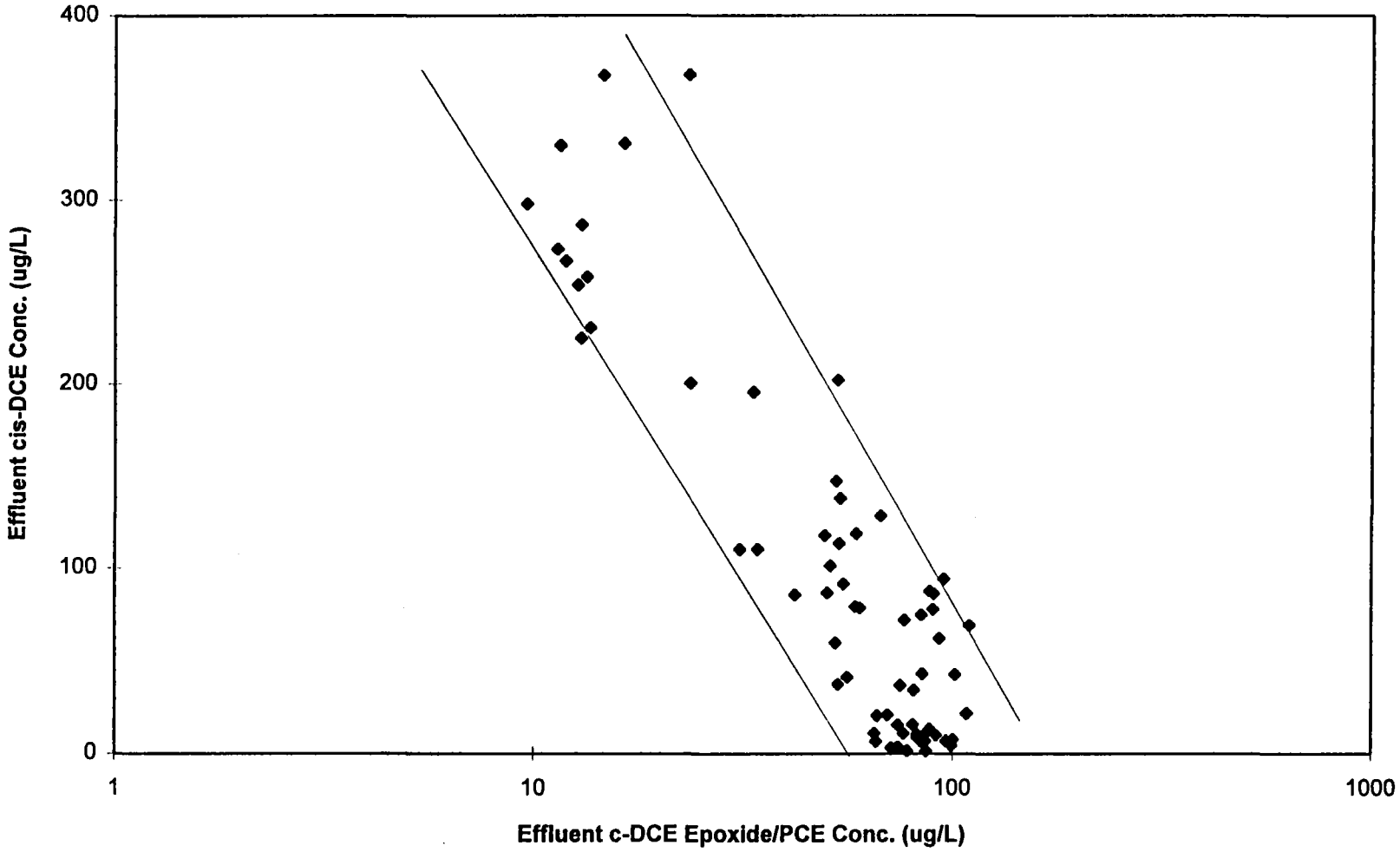
cis-DCE Epoxide Formation and the Activity of MMO. As described earlier, MMO is the enzyme responsible for the oxidation of chlorinated VOCs during methanotrophic cometabolism. cis-DCE epoxide is the compound formed by the monooxygenase-catalyzed oxidation of cis-DCE. Figures N-40 through N-43 indicate that there was a strong correlation between the amount of cis-DCE removal that took place within the RBC and the amount of cis-DCE epoxide that was present in the effluent. According to these data, when cis-DCE epoxide concentrations dropped below approximately 50 $\mu g/\ell$, extensive cis-DCE removal (greater than 60 percent) did not occur. Analysis of cis-DCE epoxide concentration versus time data indicated that cis-DCE epoxide present in the reactor decreased during the course of the experiment (Figure N-41). The decline in cis-DCE epoxide concentrations and hence cis-DCE removal was most likely due to a decline in MMO activity. Causes for the decline in MMO activity may include competitive inhibition, that occurs with increasing methane levels and microbiological population changes brought about by changes in influent characteristics, toxicity, or RBC system operation disruptions such as system downtime.

Figure N-40: cis-DCE and cis-DCE Epoxide/PCE Concentrations vs. Time Experiments 2 and 3



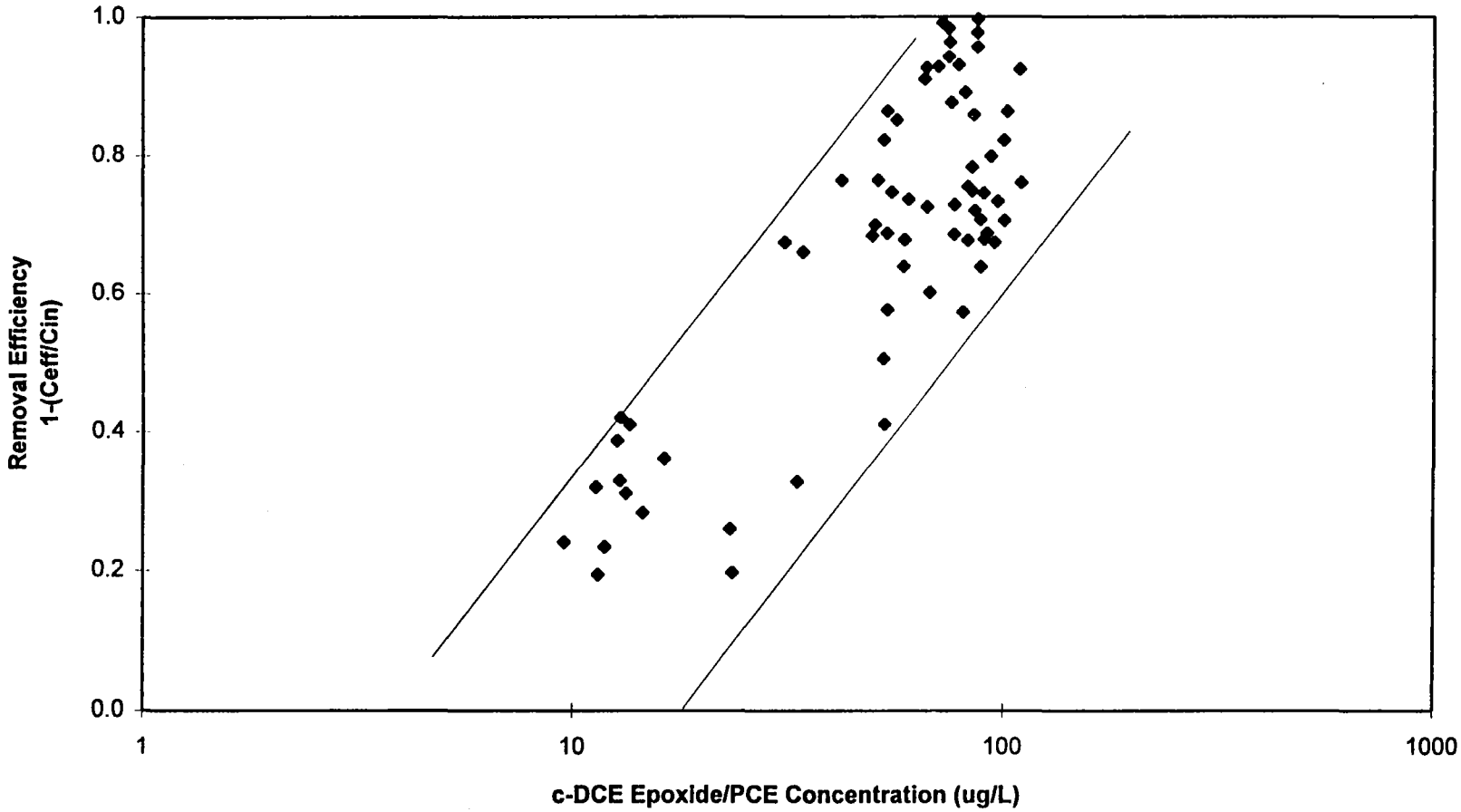
N40;N20TON44.XLS

**Figure N-41: Effluent cis-DCE Conc. vs.
Effluent cis-DCE Epoxide/PCE Concentration
Experiments 1, 2, and 3**



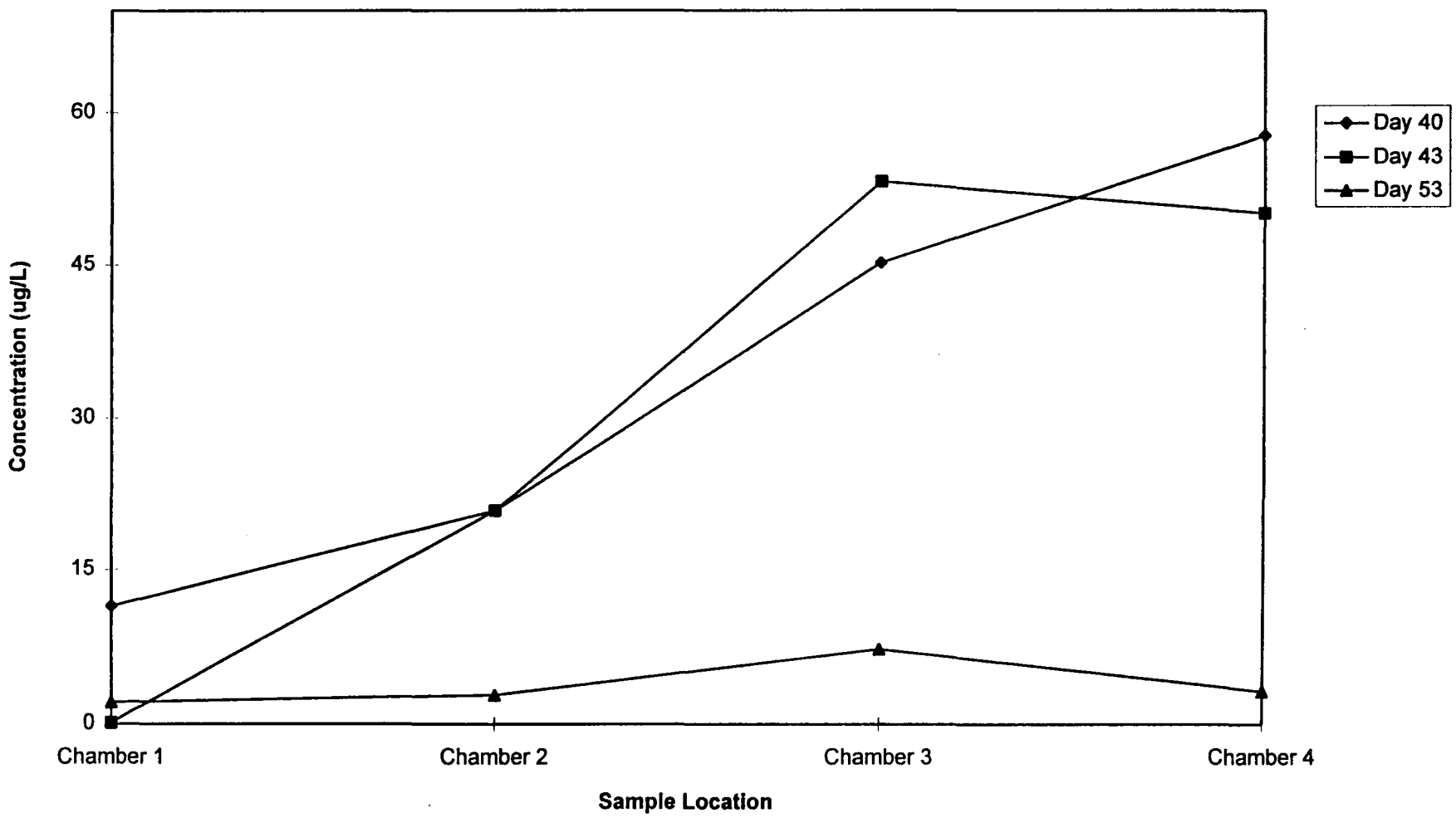
N41;N20TON44.XLS

Figure N-42: cis-DCE Removal Efficiency vs. cis-DCE Epoxide/PCE Conc.
Experiments 1, 2, and 3



N42;N20TON44.XLS

Figure N-43: Headspace cis-DCE Epoxide/PCE Conc. vs. Sample Location
Experiments 2 and 3



N43;N20TON44.XLS

Changes in Influent Characteristics. Two types of influent characteristic changes took place during the RBC study: abrupt changes and long-term changes.

Abrupt influent characteristic changes were sudden fluctuations in influent characteristics that were caused by changes in groundwater recovery system operation. These abrupt influent characteristic changes generally affected short-term target compound removal (especially cis-DCE) by causing apparent re-acclimation conditions within the reactor. More detailed discussion of parameters affecting biodegradation of target compounds is presented in the next section.

Changes in groundwater recovery system operation during Experiment 2 and responses in influent and effluent cis-DCE concentrations are presented in Figure N-44. On day 34 of Experiment 2, the groundwater recovery system was shut down for 21 hours. Following restart of the system, effluent concentrations of cis-DCE sharply increased for 18 hours before gradually decreasing to pre-shut down levels. This pattern of increasing followed by decreasing effluent concentrations that followed system disruption was also observed in vinyl chloride and TEX data (Figures N-20 and N-22), and appeared to be a result of re-acclimation of the RBC microorganisms to groundwater constituents.

A similar short-term re-acclimation of the RBC microorganisms to cis-DCE appeared to have occurred on days 39 through 42 (Figure N-44) as a result of another change in the groundwater recovery system operation. In this circumstance, a lag in cis-DCE degradation occurred in response to a sudden shift in groundwater characteristics resulting from changes in operation of RW-3, the most contaminated groundwater well at the site. During the two day period when RW-3 was shut off for repairs (days 37 through 39 of the field program), influent concentrations of cis-DCE and other potential problem constituents to the RBC significantly decreased (Figure 44). When RW-3 was brought back on line (day 39), and influent cis-DCE concentrations returned to normal, effluent concentrations from the RBC abruptly increased for a period of 36 hours before decreasing to pre-RW-3 off-line concentrations.

Long-term RBC influent characteristic changes can be described as the gradual change in groundwater constituent concentrations observed during the course of the RBC study. The change in groundwater constituent concentrations included patterns of increasing cis-DCE, TEX, and methane concentrations and decreasing vinyl chloride concentrations. Other groundwater constituents concentration patterns, such as TCE, were inconclusive.

The long-term increase or exposure of certain influent constituent concentrations observed during the study may have affected the removal of target compounds such as cis-DCE by creating conditions of competitive inhibition, toxicity, or microbiological change within the reactor.

Competitive inhibition is the inhibition of biological degradation or cometabolism of target compound(s) caused by competitive or preferential degradation of another compound or compounds by the system microorganism population. The increase in methane concentrations observed during the course of Experiments 2 and 3 may have had a deleterious effect on cis-DCE removal due to competitive inhibition caused by increasing methane levels in groundwater. Several researchers have shown that high methane concentrations can lead to competitive inhibition of chlorinated VOC cometabolism as methane will compete with target chlorinated VOCs for available MMO (Leahy and others, Semprini and others).

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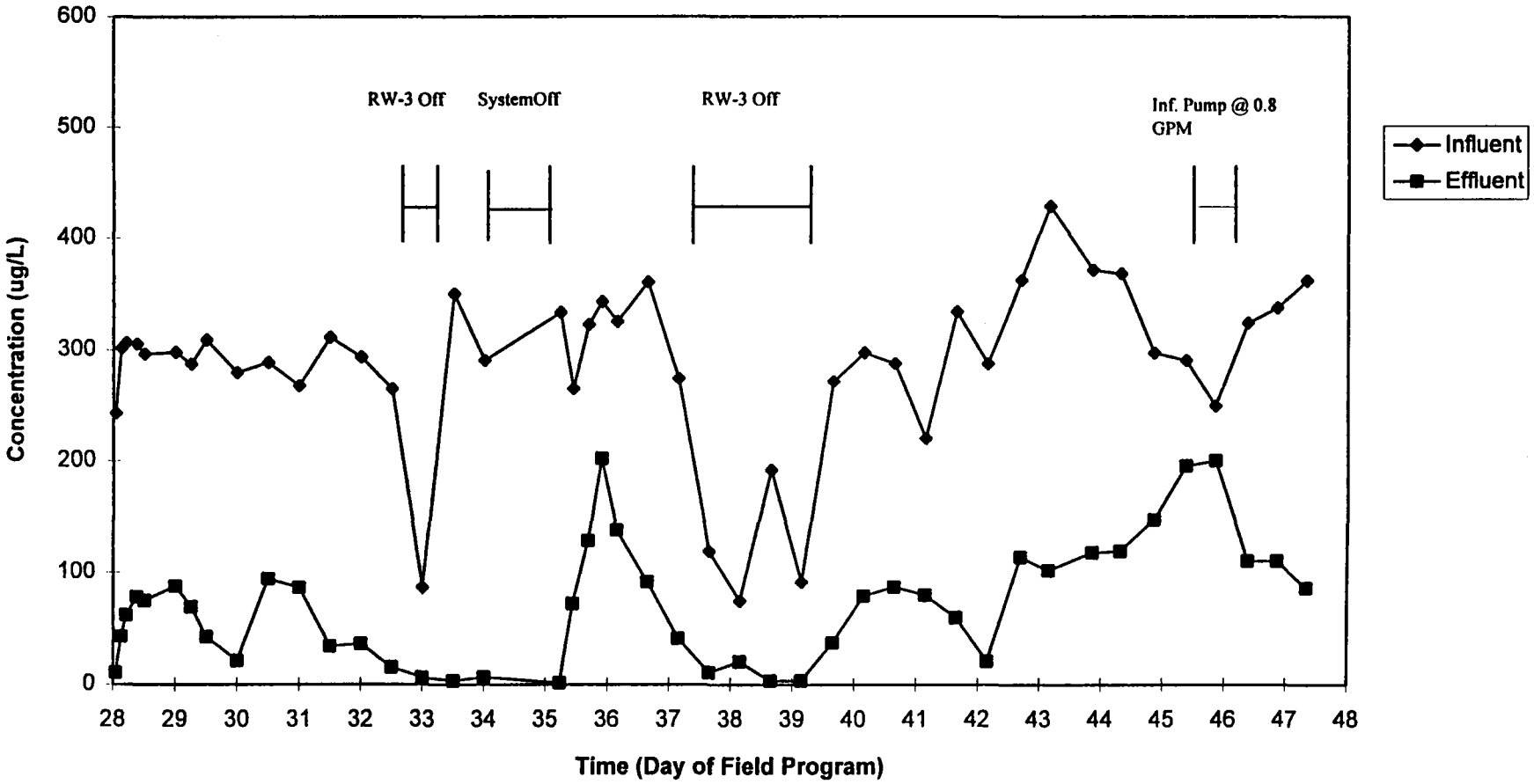
FIGURE N-44: System Operation Changes and cis-DCE Conc. vs. Time (Experiment 2)



N44;N20TON44.XLS

A distinct increase in influent methane concentrations was observed during the course of the RBC study. According to methane concentrations in the reactor headspace, methane began to enter the RBC at a rate faster than methanotrophic removal could occur at approximately day 43 of Experiment 2 (see Figure N-18). This high methane condition persisted in the RBC for the remainder of the study. A groundwater analyses conducted at the end of Experiment 2 indicated that methane in the influent was on the order of 8 mg/ℓ, which represents a significant soluble methane concentration.

In addition to competitive inhibition effects caused by increasing groundwater constituent concentrations, toxicity effects towards the methanotrophic RBC system may also have occurred as a result of increasing groundwater constituent concentrations. Several researchers have demonstrated that there are inhibitory concentrations of target compounds and compound degradation byproducts, such as TCE degradation byproducts, which can cause a decrease in methanotrophic chlorinated VOC removal due to microbiological toxicity effects (Alvarez-Cohen and McCarty, 1991; Oldenhuis and others, 1991). Although influent TCE concentrations fluctuated throughout the RBC study, TCE was generally encountered at low concentrations (less than 50 μg/ℓ), that should not adversely affect VOC biodegradation. It is unknown whether these concentrations of TCE, resulting TCE byproducts, or perhaps other non-target compounds or compound byproducts had an effect on the Kings Bay methanotrophic RBC operation.

Increasing or long-term exposure to groundwater constituents also may have affected the microbiology of the methanotrophic RBC system. For example, an increase in concentration(s) or long-term exposure to certain groundwater constituents may have caused a population shift, where increase in TEX or hydrocarbon-degrading microorganisms may have out-competed or replaced methanotrophs on the RBC disc surface. The result of such a shift in microorganism populations could have caused a reduction in methanotrophic activity and subsequent cometabolism of target chlorinated VOCs.

Hydraulic Retention Time. The increase in flow and decrease in hydraulic retention time (HRT) may have had a considerable effect on the reduction in cis-DCE and vinyl chloride removal observed in the latter stages of the RBC study. In general, it can be said that when the reactor HRT was reduced from 2 to 1 hours, the extent of cis-DCE and vinyl chloride removal decreased considerably. An increase in HRT may have affected target chlorinated VOC removal by not allowing enough time for methane degradation and chlorinated VOC cometabolism, or by causing a shift within the RBC microorganism population.

The effect of reducing the HRT on target compound removal is also demonstrated in Figures N-44, N-20, and N-22 where on day 45 the flow rate into the RBC was higher than normal (0.8 gpm instead of 0.5 gpm, a 60 percent increase) and corresponding effluent concentrations of cis-DCE, vinyl chloride, and TEX increased. Effluent target compound concentrations decreased accordingly when the flow rate was decreased again to 0.5 gpm (days 46 and 47).

The premise that the increase in influent flow did not allow enough time for degradation of the chlorinated compound to occur within the reactor is supported by concentration versus sample location data (see Figures N-21, N-23, and N-25). According to Figure N-21, a shift in the removal of TEX occurred when the HRT was reduced (Experiment 3, day 51). The bulk of TEX removal occurred in Chambers 1 and 2 (and shifts forward) during Experiment 2 (days 0.5, 2.5, 5, 9, and 15), but then shifts back to Chambers 2 and 3 during Experiment 3 when the flow rate

increased. Similar patterns are seen in vinyl chloride removal data (see Figure N-23), cis-DCE vs. sample location data (Figure N-25) and headspace concentration versus sample location information (see Figures N-36 through N-38). It is not known whether microbial populations shifted within the reactor in response to changes in operating conditions and whether improved target compound removal would have resulted from longer system operation.

N.5.0 CONCLUSIONS AND RECOMMENDATIONS. The test objectives of the pilot RBC program were met in that:

- sufficient data were obtained to confirm that vinyl chloride, cis-DCE, and volatile aromatics present in Kings Bay groundwater can be treated in an *ex-situ* methanotrophic RBC; and

- conceptual design, including sizing and cost estimates, could be outlined based on biodegradation rates observed in the pilot-scale study.

Specifically, the following target compound removal information was obtained.

- Up to 99 percent removal of vinyl chloride, cis-dichloroethene, and TEX was achieved by the Kings Bay methanotrophic RBC with a 2-hour hydraulic retention time.

- Up to 93 percent removal of total semi-volatile compounds was achieved by the Kings Bay methanotrophic RBC with a 2-hour hydraulic retention time.

- Removal of groundwater vinyl chloride and cis-DCE to maximum contaminant levels was achieved in the Kings Bay methanotrophic RBC with a 2-hour hydraulic retention time.

- The maximum removal rate of vinyl chloride in the Kings Bay methanotrophic RBC was 0.3 ug/SF-min (143 ug/g VS-day).

- The maximum removal rate of cis-DCE in the Kings Bay methanotrophic RBC was 2.14 ug/SF-min (952 ug/g VS-day).

- The maximum removal rate of TEX in the Kings Bay methanotrophic RBC was 3.0 ug/SF-min (1331 ug/g VS-day).

Recommendations. Although the test objective of the pilot RBC study were met, additional pilot scale testing is recommended prior to full-scale implementation in order to gain better process understanding. In particular:

- further investigation to the cause of the decline in cis-DCE and vinyl chloride removal observed in the latter portion of the pilot-scale operation is recommended,

- more accurate surface area and active biomass estimation methods are recommended for better removal rate information (more accurate scale-up information),

- better control studies to evaluate abiotic mechanisms of removal such as adsorption are recommended, and

- calculations and cost estimations for full-scale application of methanotrophic RBC technology to treat Kings Bay groundwater are recommended.