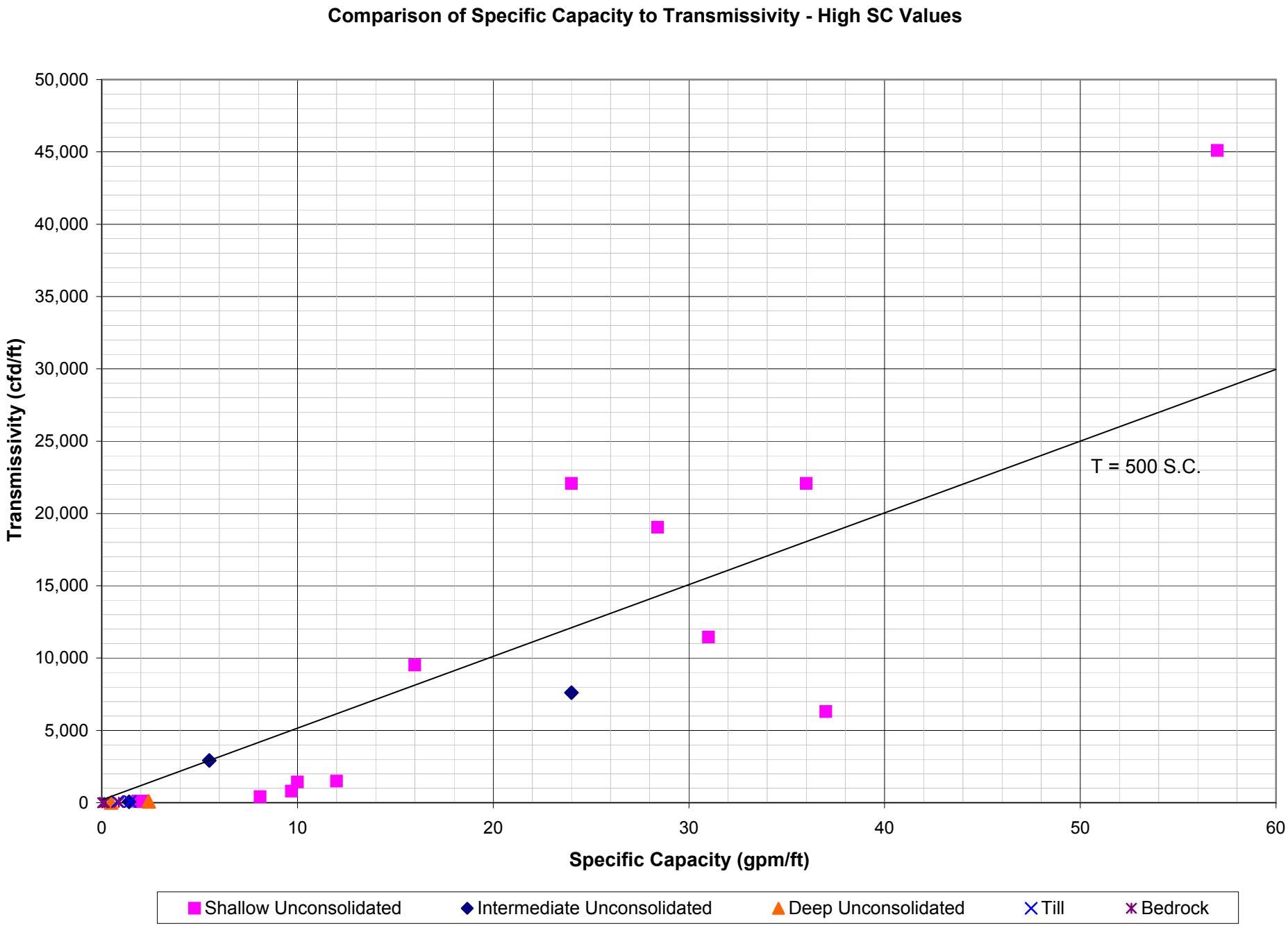
Appendix F

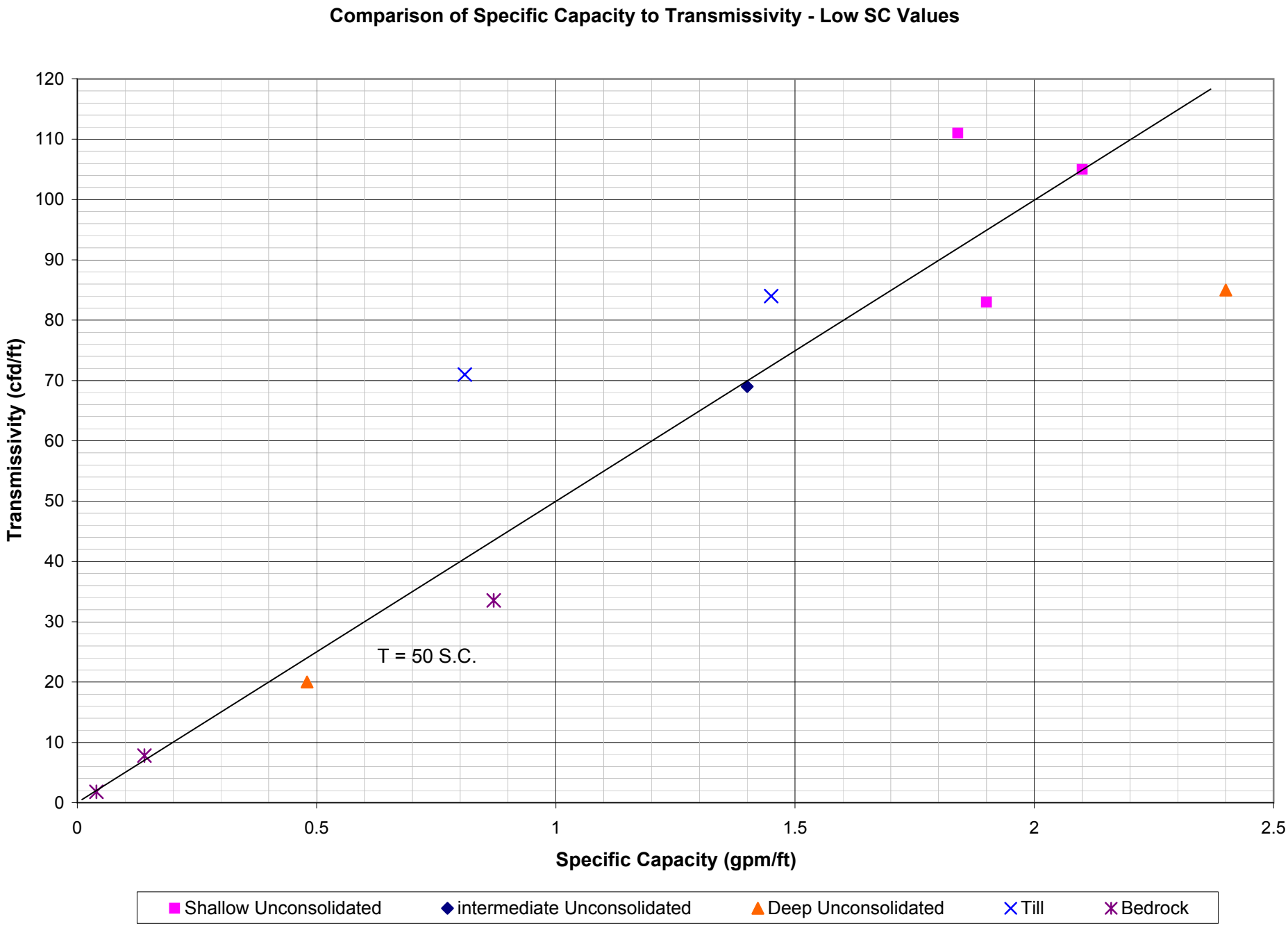
Appendix F Subsurface Testing

Appendix F1 Hydraulic Tests

Table F1-1
Summary of Single Well Pump-and-Recovery Test Results - October 2003
Peterson/Puritan OU2

Well Number	FM	Trans-missivity cfd/ft	Hydraulic Conductivity fpd	Hydraulic Conductivity cm/sec	Specific Capacity During Testing gpm/ft	Specific Capacity During Sampling gpm/ft
Shallow Unconsolidated						
SEA-601	SH	45,095	4,510	1.6E+00	57	8.6
SEA-602A	SH	22,078	2,208	7.8E-01	24	79
SEA-603	SH	19,047	1,905	6.7E-01	28	66
SEA-604	SH	105	11	3.7E-03	2.1	3.6
SEA-605	SH	6,302	630	2.2E-01	37	82
SEA-606	SH	415	42	1.5E-02	8.1	7.3
SEA-607	SH	1,427	143	5.0E-02	10	8.1
SEA-608	SH	9,512	951	3.4E-01	16	78
MW-106A	SH	---	---	---	---	6.3
MW-108AA	SH	11,450	1,318	4.6E-01	31	74
MW-109AA	SH	796	81	2.9E-02	9.7	2.9
MW-110A	SH	111	18	6.2E-03	1.8	2.6
MW-111AA	SH	83	8.3	2.9E-03	1.9	2.4
MW-112AA	SH	---	---	---	---	82
MW-A2	SH	---	---	---	---	21
MW-B2	SH	---	---	---	---	32
MW-C2	SH	---	---	---	---	1.3
P-7	SH	1,497	150	5.3E-02	12	82
P-8	SH	22,078	2,208	7.8E-01	36	66
GZ-4-1	SH	---	---	---	---	95
Maximum			**4,510**	**1.6E+00**	**57**	**95**
Minimum			**8.3**	**2.9E-03**	**1.8**	**1.3**
Geometric Mean			**251**	**8.8E-02**	**12**	**18**
Intermediate Unconsolidated						
SEA-602B	IN	7,613	761	2.7E-01	24	6.9
MW-108A	IN	69	6.9	2.4E-03	1.4	1.7
MW-111A	IN	2,915	292	1.0E-01	5.5	6.6
MW-112A	IN	---	---	---	---	6.3
MW-B1	IN	---	---	---	---	0.3
MW-C1	IN	---	---	---	---	0.3
Maximum			**761**	**2.7E-01**	**24**	**7**
Minimum			**6.9**	**2.4E-03**	**1.4**	**0.3**
Geometric Mean			**115**	**4.1E-02**	**6**	**2**
Deep Unconsolidated						
MW-108B	DP	85	8.2	3.0E-03	2.4	---
MW-109A	DP	20	2.0	7.1E-04	0.5	0.2
Maximum			**8.2**	**3.0E-03**	**2.4**	
Minimum			**2.0**	**7.1E-04**	**0.5**	
Geometric Mean			**4.0**	**1.5E-03**	**1.1**	
Till						
MW-109B	TL	71	7.1	2.5E-03	0.81	---
MW-110B	TL	84	8.4	3.0E-03	1.5	3.6
Maximum			**8.4**	**3.0E-03**	**1.5**	
Minimum			**7.1**	**2.5E-03**	**0.81**	
Geometric Mean			**7.7**	**2.7E-03**	**1.1**	
Bedrock						
MW-108C	BR	34	1.7	5.9E-04	0.87	---
MW-109C	BR	1.8	0.09	3.2E-05	0.04	---
MW-110C	BR	7.8	0.39	1.4E-04	0.14	---
Maximum			**1.7**	**5.9E-04**	**0.87**	
Minimum			**0.09**	**3.2E-05**	**0.04**	
Geometric Mean			**0.39**	**1.4E-04**	**0.17**	

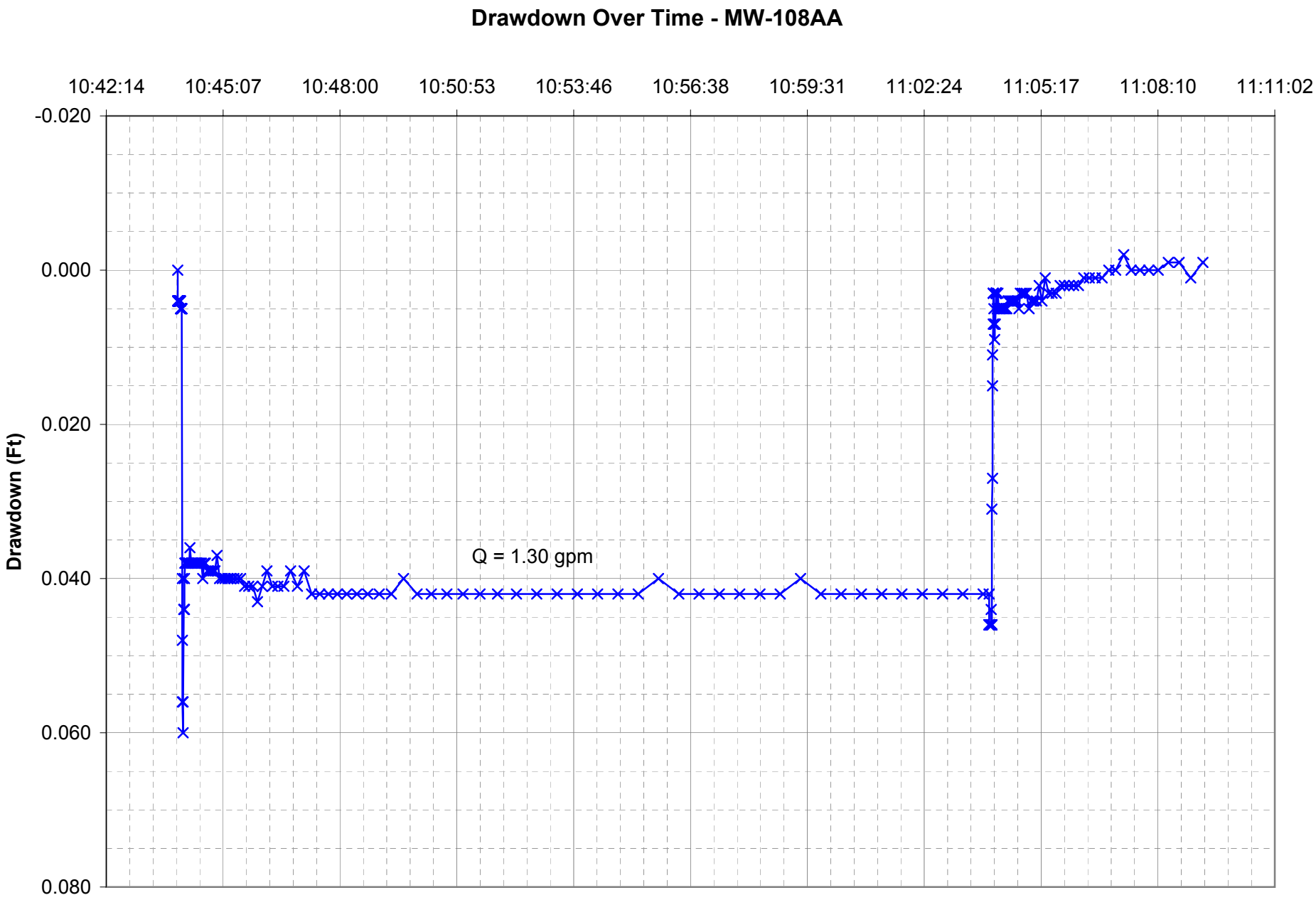


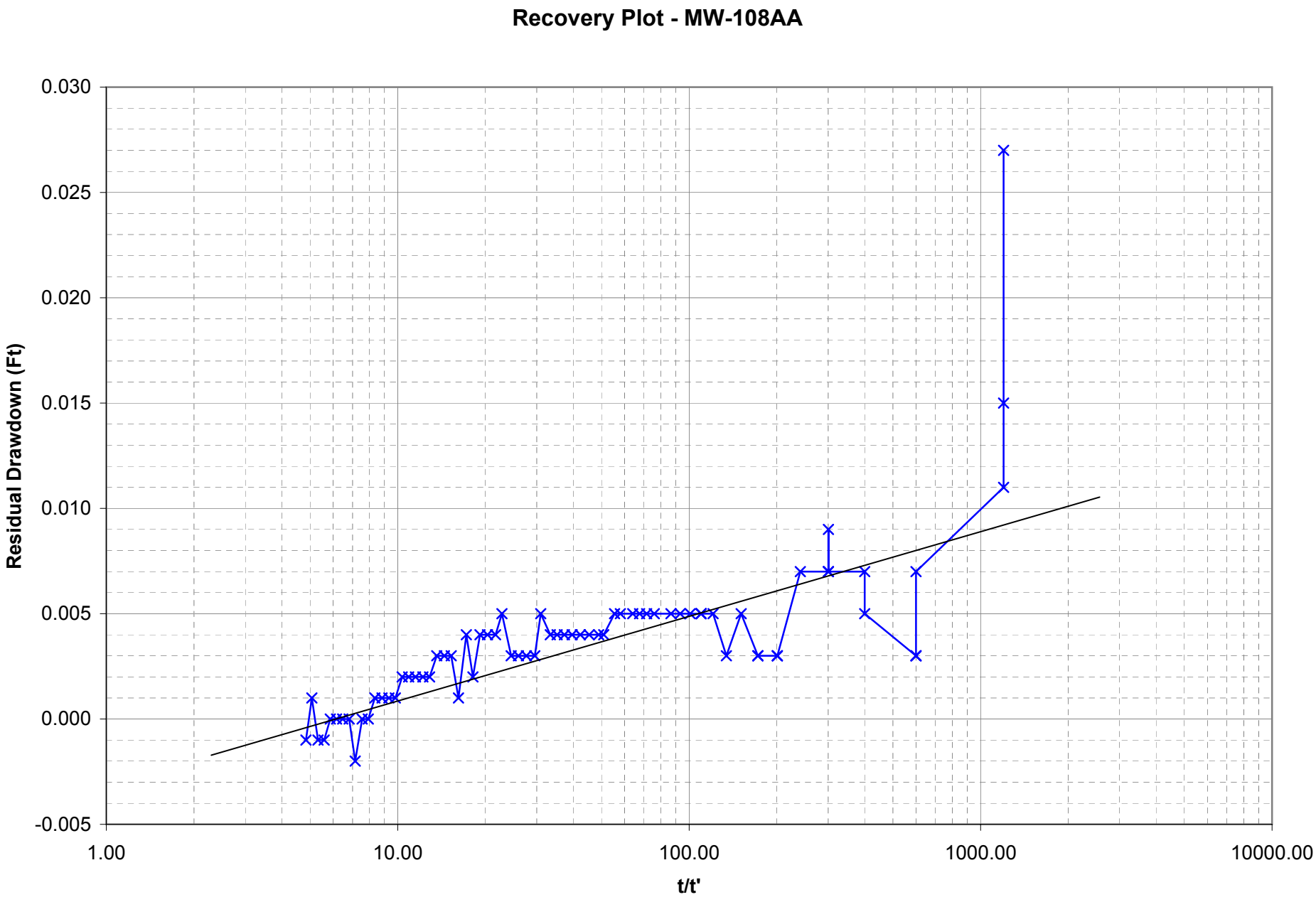


Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-108AA**

Equipment:	In-Situ Inc.	MiniTroll Pro			
Test start date and time	10/8/2003	10:44:00			
Test end date and time	10/8/2003	11:09:16			
Period of pumping	20	minutes			
Static depth to water	13.51	feet below top of casing			
Starting transducer depth	3.3	feet below static water level			
Total well depth	22.2	feet below top of casing			
Depth to top of screen	12.2	feet below top of casing			
Height of interval tested [b]	8.7	feet			
Average pumping rate [Q]	1.3	gpm, or	250	cfd	
Average drawdown [s]	0.042	ft			
Specific capacity [Q/s]	30.95	gpm/ft			
Residual drawdown over one log cycle [Δs]			0.004	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			11,450	cfd/ft	
Hydraulic conductivity [K = T/b]			1,318	fpd, or	4.6E-01 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-108AA**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	10:15:00								DTW = 13.51 at 10:15
10/8/2003	10:37:00								DTW = 13.51 at 10:37
10/8/2003	10:44:00	0	67.93	3.3	0.000				Start Test 1
10/8/2003	10:44:00	0.3	67.95	3.296	0.004				
10/8/2003	10:44:00	0.6	67.98	3.296	0.004				
10/8/2003	10:44:00	0.9	67.98	3.296	0.004				
10/8/2003	10:44:01	1.2	67.98	3.296	0.004				
10/8/2003	10:44:01	1.5	67.98	3.296	0.004				
10/8/2003	10:44:01	1.8	68	3.296	0.004				
10/8/2003	10:44:02	2.1	68	3.296	0.004				
10/8/2003	10:44:02	2.4	68	3.296	0.004				
10/8/2003	10:44:02	2.7	68	3.296	0.004				
10/8/2003	10:44:03	3	68	3.296	0.004				
10/8/2003	10:44:03	3.3	68	3.296	0.004				
10/8/2003	10:44:03	3.6	68	3.296	0.004				
10/8/2003	10:44:03	3.9	68	3.296	0.004				
10/8/2003	10:44:04	4.2	68	3.296	0.004				
10/8/2003	10:44:04	4.5	68.02	3.295	0.005				
10/8/2003	10:44:04	4.8	68	3.296	0.004				
10/8/2003	10:44:05	5.1	68.02	3.295	0.005				
10/8/2003	10:44:05	5.4	68.02	3.295	0.005				
10/8/2003	10:44:05	5.7	68.02	3.295	0.005				
10/8/2003	10:44:06	6	68.02	3.295	0.005				
10/8/2003	10:44:06	6.4	68.02	3.295	0.005				
10/8/2003	10:44:06	6.7	68.02	3.295	0.005	0.00			Pump Start
10/8/2003	10:44:07	7.1	68.02	3.252	0.048	0.02			
10/8/2003	10:44:07	7.5	68.02	3.26	0.040	0.02			
10/8/2003	10:44:07	8	68.02	3.244	0.056	0.02			
10/8/2003	10:44:08	8.4	68.02	3.24	0.060	0.03			
10/8/2003	10:44:08	8.9	68.02	3.244	0.056	0.03			
10/8/2003	10:44:09	9.5	68.02	3.256	0.044	0.05			
10/8/2003	10:44:10	10	68.02	3.256	0.044	0.07			
10/8/2003	10:44:10	10.6	68.02	3.26	0.040	0.07			
10/8/2003	10:44:11	11.3	68.02	3.262	0.038	0.08			
10/8/2003	10:44:11	11.9	68.02	3.262	0.038	0.08			
10/8/2003	10:44:12	12.6	68	3.262	0.038	0.10			
10/8/2003	10:44:13	13.4	68	3.262	0.038	0.12			
10/8/2003	10:44:14	14.2	68	3.262	0.038	0.13			
10/8/2003	10:44:15	15	68	3.262	0.038	0.15			
10/8/2003	10:44:15	15.9	68	3.262	0.038	0.15			
10/8/2003	10:44:16	16.8	68	3.262	0.038	0.17			
10/8/2003	10:44:17	17.8	68	3.262	0.038	0.18			
10/8/2003	10:44:18	18.9	68	3.264	0.036	0.20			
10/8/2003	10:44:20	20	68	3.262	0.038	0.23			
10/8/2003	10:44:21	21.2	68	3.262	0.038	0.25			
10/8/2003	10:44:22	22.4	68	3.262	0.038	0.27			
10/8/2003	10:44:23	23.8	68	3.262	0.038	0.28			
10/8/2003	10:44:25	25.2	68.02	3.262	0.038	0.32			
10/8/2003	10:44:26	26.7	68.02	3.262	0.038	0.33			
10/8/2003	10:44:28	28.2	68.02	3.262	0.038	0.37			
10/8/2003	10:44:29	29.8	68.02	3.262	0.038	0.38			
10/8/2003	10:44:31	31.5	68.04	3.262	0.038	0.42			
10/8/2003	10:44:33	33.3	68.04	3.262	0.038	0.45			
10/8/2003	10:44:35	35.2	68.04	3.262	0.038	0.48			
10/8/2003	10:44:37	37.3	68.04	3.26	0.040	0.52			
10/8/2003	10:44:39	39.5	68.07	3.262	0.038	0.55			
10/8/2003	10:44:41	41.8	68.07	3.262	0.038	0.58			
10/8/2003	10:44:44	44.3	68.09	3.261	0.039	0.63			
10/8/2003	10:44:46	46.9	68.11	3.261	0.039	0.67			
10/8/2003	10:44:49	49.7	68.11	3.261	0.039	0.72			
10/8/2003	10:44:52	52.6	68.14	3.261	0.039	0.77			
10/8/2003	10:44:55	55.7	68.16	3.261	0.039	0.82			
10/8/2003	10:44:58	59	68.16	3.263	0.037	0.87			
10/8/2003	10:45:02	62.5	68.18	3.26	0.040	0.93			
10/8/2003	10:45:06	66.2	68.2	3.26	0.040	1.00			

Well No. **MW-108AA**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	10:45:10	70.1	68.2	3.26	0.040	1.07			
10/8/2003	10:45:14	74.3	68.23	3.26	0.040	1.13			
10/8/2003	10:45:18	78.7	68.25	3.26	0.040	1.20			
10/8/2003	10:45:23	83.4	68.25	3.26	0.040	1.28			
10/8/2003	10:45:28	88.4	68.27	3.26	0.040	1.37			
10/8/2003	10:45:33	93.7	68.27	3.26	0.040	1.45			
10/8/2003	10:45:39	99.3	68.29	3.259	0.041	1.55			
10/8/2003	10:45:45	105.2	68.29	3.259	0.041	1.65			
10/8/2003	10:45:51	111.5	68.32	3.259	0.041	1.75			
10/8/2003	10:45:58	118.1	68.32	3.257	0.043	1.87			
10/8/2003	10:46:05	125.1	68.34	3.259	0.041	1.98			1.33 gpm flow rate
10/8/2003	10:46:12	132.6	68.34	3.261	0.039	2.10			
10/8/2003	10:46:20	140.5	68.34	3.259	0.041	2.23			
10/8/2003	10:46:28	148.9	68.36	3.259	0.041	2.37			
10/8/2003	10:46:37	157.8	68.36	3.259	0.041	2.52			
10/8/2003	10:46:47	167.2	68.36	3.261	0.039	2.68			
10/8/2003	10:46:57	177.2	68.36	3.259	0.041	2.85			
10/8/2003	10:47:07	187.8	68.36	3.261	0.039	3.02			
10/8/2003	10:47:18	199	68.38	3.258	0.042	3.20			
10/8/2003	10:47:30	210.9	68.38	3.258	0.042	3.40			
10/8/2003	10:47:43	223.5	68.38	3.258	0.042	3.62			
10/8/2003	10:47:56	236.8	68.38	3.258	0.042	3.83			
10/8/2003	10:48:10	250.9	68.38	3.258	0.042	4.07			
10/8/2003	10:48:25	265.8	68.38	3.258	0.042	4.32			
10/8/2003	10:48:41	281.6	68.38	3.258	0.042	4.58			
10/8/2003	10:48:58	298.4	68.38	3.258	0.042	4.87			
10/8/2003	10:49:16	316.2	68.38	3.258	0.042	5.17			1.40 gpm flow rate
10/8/2003	10:49:34	335	68.38	3.26	0.040	5.47			
10/8/2003	10:49:54	354.9	68.38	3.258	0.042	5.80			
10/8/2003	10:50:15	376	68.38	3.258	0.042	6.15			
10/8/2003	10:50:38	398.4	68.38	3.258	0.042	6.53			
10/8/2003	10:51:02	422.1	68.38	3.258	0.042	6.93			
10/8/2003	10:51:27	447.2	68.38	3.258	0.042	7.35			
10/8/2003	10:51:53	473.8	68.38	3.258	0.042	7.78			
10/8/2003	10:52:21	502	68.38	3.258	0.042	8.25			
10/8/2003	10:52:51	531.9	68.38	3.258	0.042	8.75			
10/8/2003	10:53:21	561.9	68.38	3.258	0.042	9.25			
10/8/2003	10:53:51	591.9	68.38	3.258	0.042	9.75			
10/8/2003	10:54:21	621.9	68.38	3.258	0.042	10.25			
10/8/2003	10:54:51	651.9	68.38	3.258	0.042	10.75			
10/8/2003	10:55:21	681.9	68.38	3.258	0.042	11.25			1.30 gpm flow rate
10/8/2003	10:55:51	711.9	68.41	3.26	0.040	11.75			
10/8/2003	10:56:21	741.9	68.38	3.258	0.042	12.25			
10/8/2003	10:56:51	771.9	68.41	3.258	0.042	12.75			
10/8/2003	10:57:21	801.9	68.41	3.258	0.042	13.25			
10/8/2003	10:57:51	831.9	68.38	3.258	0.042	13.75			
10/8/2003	10:58:21	861.9	68.38	3.258	0.042	14.25			
10/8/2003	10:58:51	891.9	68.41	3.258	0.042	14.75			
10/8/2003	10:59:21	921.9	68.38	3.26	0.040	15.25			
10/8/2003	10:59:51	951.9	68.41	3.258	0.042	15.75			
10/8/2003	11:00:21	981.9	68.41	3.258	0.042	16.25			1.25 gpm flow rate
10/8/2003	11:00:51	1011.9	68.41	3.258	0.042	16.75			
10/8/2003	11:01:21	1041.9	68.41	3.258	0.042	17.25			
10/8/2003	11:01:51	1071.9	68.41	3.258	0.042	17.75			
10/8/2003	11:02:21	1101.9	68.41	3.258	0.042	18.25			
10/8/2003	11:02:51	1131.9	68.41	3.258	0.042	18.75			
10/8/2003	11:03:21	1161.9	68.41	3.258	0.042	19.25			
10/8/2003	11:03:51	1191.9	68.41	3.258	0.042	19.75			
10/8/2003	11:04:00	0	68.41	3.258	0.042	19.90			Start Test 2
10/8/2003	11:04:00	0.3	68.43	3.254	0.046	19.90			
10/8/2003	11:04:00	0.6	68.43	3.254	0.046	19.90			
10/8/2003	11:04:00	0.9	68.45	3.254	0.046	19.90			
10/8/2003	11:04:01	1.2	68.45	3.254	0.046	19.92			
10/8/2003	11:04:01	1.5	68.45	3.254	0.046	19.92			
10/8/2003	11:04:01	1.8	68.45	3.254	0.046	19.92			
10/8/2003	11:04:02	2.1	68.45	3.254	0.046	19.93			
10/8/2003	11:04:02	2.4	68.47	3.254	0.046	19.93			
10/8/2003	11:04:02	2.7	68.47	3.254	0.046	19.93			
10/8/2003	11:04:03	3	68.47	3.254	0.046	19.95			

Well No. **MW-108AA**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	11:04:03	3.3	68.47	3.254	0.046	19.95			
10/8/2003	11:04:03	3.6	68.47	3.256	0.044	19.95			
10/8/2003	11:04:03	3.9	68.47	3.254	0.046	19.95			
10/8/2003	11:04:04	4.2	68.47	3.254	0.046	19.97			
10/8/2003	11:04:04	4.5	68.47	3.254	0.046	19.97	0.00		Pump Stop
10/8/2003	11:04:04	4.8	68.47	3.269	0.031	19.97	0.00		
10/8/2003	11:04:05	5.1	68.47	3.273	0.027	19.98	0.02	1199.00	
10/8/2003	11:04:05	5.4	68.47	3.285	0.015	19.98	0.02	1199.00	
10/8/2003	11:04:05	5.7	68.47	3.289	0.011	19.98	0.02	1199.00	
10/8/2003	11:04:06	6	68.5	3.293	0.007	20.00	0.03	600.00	
10/8/2003	11:04:06	6.4	68.5	3.297	0.003	20.00	0.03	600.00	
10/8/2003	11:04:06	6.7	68.5	3.297	0.003	20.00	0.03	600.00	
10/8/2003	11:04:07	7.1	68.5	3.295	0.005	20.02	0.05	400.33	
10/8/2003	11:04:07	7.5	68.5	3.293	0.007	20.02	0.05	400.33	
10/8/2003	11:04:08	8	68.5	3.293	0.007	20.03	0.07	300.50	
10/8/2003	11:04:08	8.4	68.5	3.291	0.009	20.03	0.07	300.50	
10/8/2003	11:04:08	8.9	68.5	3.293	0.007	20.03	0.07	300.50	
10/8/2003	11:04:09	9.5	68.5	3.293	0.007	20.05	0.08	240.60	
10/8/2003	11:04:10	10	68.5	3.297	0.003	20.07	0.10	200.67	
10/8/2003	11:04:10	10.6	68.47	3.297	0.003	20.07	0.10	200.67	
10/8/2003	11:04:11	11.3	68.47	3.297	0.003	20.08	0.12	172.14	
10/8/2003	11:04:11	11.9	68.47	3.297	0.003	20.08	0.12	172.14	
10/8/2003	11:04:12	12.6	68.47	3.295	0.005	20.10	0.13	150.75	
10/8/2003	11:04:13	13.4	68.47	3.297	0.003	20.12	0.15	134.11	
10/8/2003	11:04:14	14.2	68.47	3.295	0.005	20.13	0.17	120.80	
10/8/2003	11:04:15	15	68.47	3.295	0.005	20.15	0.18	109.91	
10/8/2003	11:04:15	15.9	68.45	3.295	0.005	20.15	0.18	109.91	
10/8/2003	11:04:16	16.8	68.45	3.295	0.005	20.17	0.20	100.83	
10/8/2003	11:04:17	17.8	68.45	3.295	0.005	20.18	0.22	93.15	
10/8/2003	11:04:18	18.9	68.45	3.295	0.005	20.20	0.23	86.57	
10/8/2003	11:04:20	20	68.45	3.295	0.005	20.23	0.27	75.87	
10/8/2003	11:04:21	21.2	68.45	3.295	0.005	20.25	0.28	71.47	
10/8/2003	11:04:22	22.4	68.45	3.295	0.005	20.27	0.30	67.56	
10/8/2003	11:04:23	23.8	68.43	3.295	0.005	20.28	0.32	64.05	
10/8/2003	11:04:25	25.2	68.43	3.295	0.005	20.32	0.35	58.05	
10/8/2003	11:04:26	26.7	68.43	3.295	0.005	20.33	0.37	55.45	
10/8/2003	11:04:28	28.2	68.41	3.296	0.004	20.37	0.40	50.92	
10/8/2003	11:04:29	29.8	68.41	3.296	0.004	20.38	0.42	48.92	
10/8/2003	11:04:31	31.5	68.41	3.296	0.004	20.42	0.45	45.37	
10/8/2003	11:04:33	33.3	68.38	3.296	0.004	20.45	0.48	42.31	
10/8/2003	11:04:35	35.2	68.36	3.296	0.004	20.48	0.52	39.65	
10/8/2003	11:04:37	37.3	68.36	3.296	0.004	20.52	0.55	37.30	
10/8/2003	11:04:39	39.5	68.34	3.296	0.004	20.55	0.58	35.23	
10/8/2003	11:04:41	41.8	68.32	3.296	0.004	20.58	0.62	33.38	
10/8/2003	11:04:44	44.3	68.32	3.295	0.005	20.63	0.67	30.95	
10/8/2003	11:04:46	46.9	68.29	3.297	0.003	20.67	0.70	29.52	
10/8/2003	11:04:49	49.7	68.27	3.297	0.003	20.72	0.75	27.62	
10/8/2003	11:04:52	52.6	68.25	3.297	0.003	20.77	0.80	25.96	
10/8/2003	11:04:55	55.7	68.25	3.297	0.003	20.82	0.85	24.49	
10/8/2003	11:04:59	59	68.23	3.295	0.005	20.88	0.92	22.78	
10/8/2003	11:05:02	62.5	68.2	3.296	0.004	20.93	0.97	21.66	
10/8/2003	11:05:06	66.2	68.18	3.296	0.004	21.00	1.03	20.32	
10/8/2003	11:05:10	70.1	68.16	3.296	0.004	21.07	1.10	19.15	
10/8/2003	11:05:14	74.3	68.14	3.298	0.002	21.13	1.17	18.11	
10/8/2003	11:05:18	78.7	68.11	3.296	0.004	21.20	1.23	17.19	
10/8/2003	11:05:23	83.4	68.09	3.299	0.001	21.28	1.32	16.16	
10/8/2003	11:05:28	88.4	68.04	3.297	0.003	21.37	1.40	15.26	
10/8/2003	11:05:33	93.7	68.04	3.297	0.003	21.45	1.48	14.46	
10/8/2003	11:05:39	99.3	68.02	3.297	0.003	21.55	1.58	13.61	
10/8/2003	11:05:45	105.2	67.98	3.298	0.002	21.65	1.68	12.86	
10/8/2003	11:05:51	111.5	67.98	3.298	0.002	21.75	1.78	12.20	
10/8/2003	11:05:58	118.1	67.93	3.298	0.002	21.87	1.90	11.51	
10/8/2003	11:06:05	125.1	67.93	3.298	0.002	21.98	2.02	10.90	
10/8/2003	11:06:12	132.6	67.91	3.298	0.002	22.10	2.13	10.36	
10/8/2003	11:06:20	140.5	67.89	3.299	0.001	22.23	2.27	9.81	
10/8/2003	11:06:28	148.9	67.86	3.299	0.001	22.37	2.40	9.32	
10/8/2003	11:06:37	157.8	67.84	3.299	0.001	22.52	2.55	8.83	
10/8/2003	11:06:47	167.2	67.82	3.299	0.001	22.68	2.72	8.35	
10/8/2003	11:06:57	177.2	67.8	3.3	0.000	22.85	2.88	7.92	

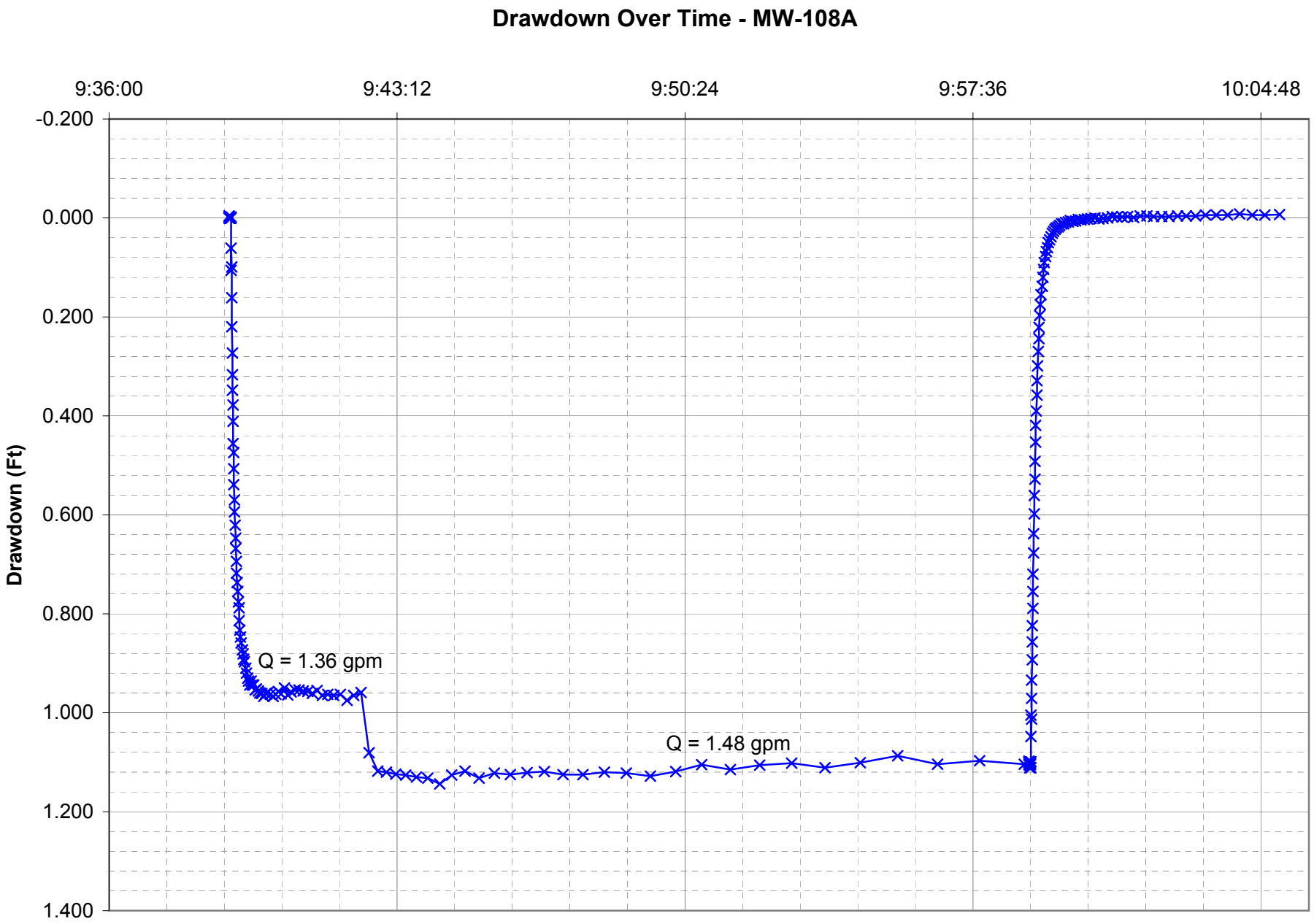
Well No. **MW-108AA**

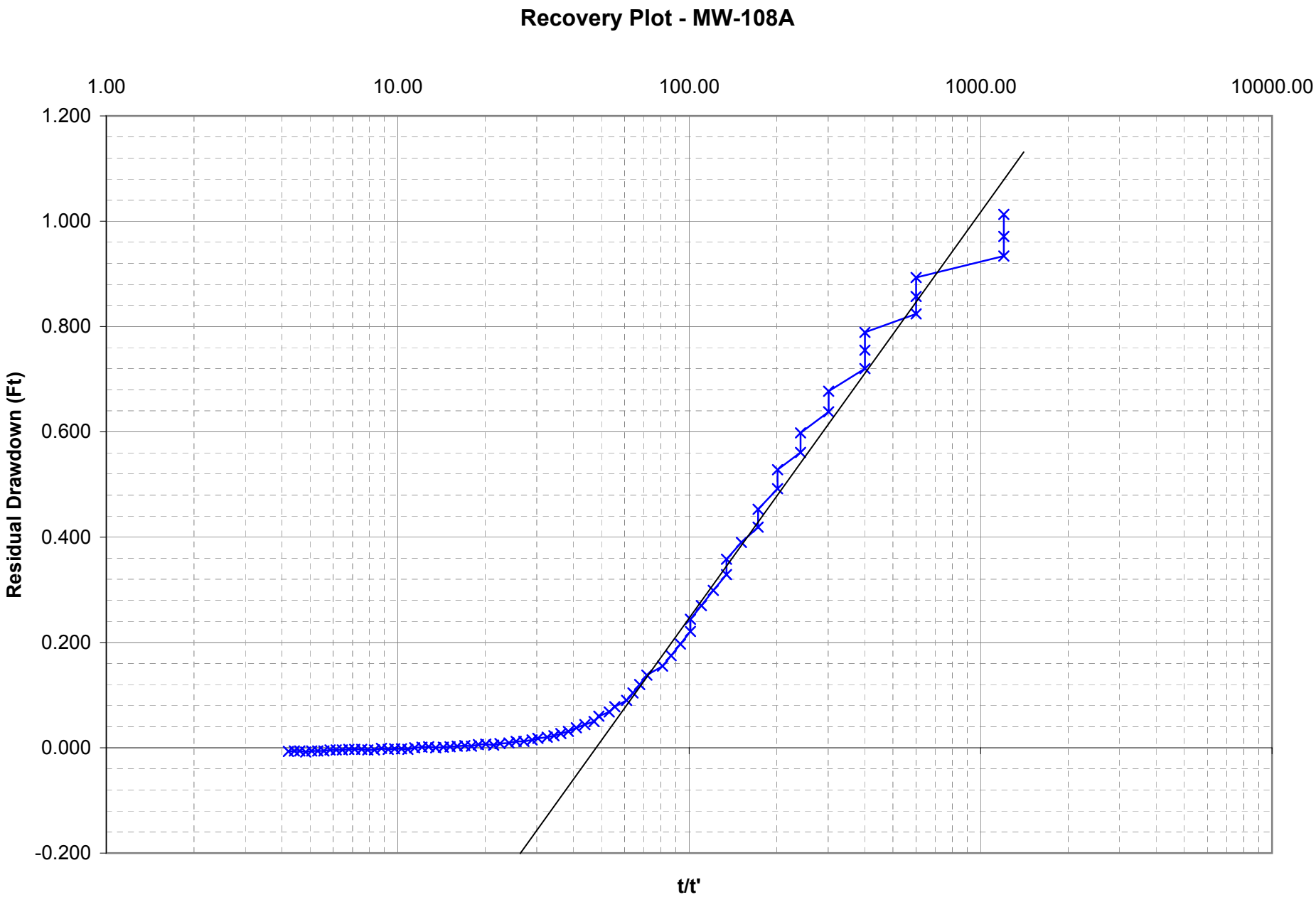
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	11:07:07	187.8	67.77	3.3	0.000	23.02	3.05	7.55	
10/8/2003	11:07:19	199	67.77	3.302	-0.002	23.22	3.25	7.14	
10/8/2003	11:07:30	210.9	67.75	3.3	0.000	23.40	3.43	6.82	
10/8/2003	11:07:43	223.5	67.73	3.3	0.000	23.62	3.65	6.47	
10/8/2003	11:07:56	236.8	67.71	3.3	0.000	23.83	3.87	6.16	
10/8/2003	11:08:10	250.9	67.71	3.3	0.000	24.07	4.10	5.87	
10/8/2003	11:08:25	265.8	67.68	3.301	-0.001	24.32	4.35	5.59	
10/8/2003	11:08:41	281.6	67.68	3.301	-0.001	24.58	4.62	5.32	
10/8/2003	11:08:58	298.4	67.68	3.299	0.001	24.87	4.90	5.07	
10/8/2003	11:09:16	316.2	67.66	3.301	-0.001	25.17	5.20	4.84	

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-108A**

Equipment:	In-Situ Inc.	MiniTroll Pro		
Test start date and time	10/8/2003	9:39:00		
Test end date and time	10/8/2003	10:05:16		
Period of pumping	20	minutes		
Static depth to water	13.38	feet below top of casing		
Starting transducer depth	4.271	feet below static water level		
Total well depth	45.5	feet below top of casing		
Depth to top of screen	35.5	feet below top of casing		
Height of interval tested [b]	10.0	feet		
Average pumping rate [Q]	1.48	gpm, or	285	cfd
Average drawdown [s]	1.10	ft		
Specific capacity [Q/s]	1.35	gpm/ft		
Residual drawdown over one log cycle [Δs]			0.76	feet
Transmissivity [T = (2.3Q)/(4*π*Δs)]			68.6	cfd/ft
Hydraulic conductivity [K = T/b]			6.9	fpd, or 2.4E-03 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-108A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	9:08:00								DTW = 13.38 at 9:08
10/8/2003	9:39:00	0	65.06	4.275	-0.004				Start Test 1
10/8/2003	9:39:00	0.3	65.08	4.273	-0.002				
10/8/2003	9:39:00	0.6	65.08	4.271	0.000				
10/8/2003	9:39:00	0.9	65.11	4.271	0.000				
10/8/2003	9:39:01	1.2	65.11	4.271	0.000				
10/8/2003	9:39:01	1.5	65.11	4.271	0.000				
10/8/2003	9:39:01	1.8	65.11	4.271	0.000				
10/8/2003	9:39:02	2.1	65.11	4.271	0.000				
10/8/2003	9:39:02	2.4	65.13	4.271	0.000				
10/8/2003	9:39:02	2.7	65.13	4.271	0.000				
10/8/2003	9:39:03	3	65.13	4.273	-0.002				
10/8/2003	9:39:03	3.3	65.13	4.271	0.000	0.00			Pump Start
10/8/2003	9:39:03	3.6	65.13	4.165	0.106	0.00			
10/8/2003	9:39:03	3.9	65.13	4.21	0.061	0.00			
10/8/2003	9:39:04	4.2	65.13	4.172	0.099	0.02			
10/8/2003	9:39:04	4.5	65.13	4.11	0.161	0.02			
10/8/2003	9:39:04	4.8	65.13	4.051	0.220	0.02			
10/8/2003	9:39:05	5.1	65.13	3.998	0.273	0.03			
10/8/2003	9:39:05	5.4	65.13	3.954	0.317	0.03			
10/8/2003	9:39:05	5.7	65.13	3.923	0.348	0.03			
10/8/2003	9:39:06	6	65.13	3.893	0.378	0.05			
10/8/2003	9:39:06	6.4	65.13	3.86	0.411	0.05			
10/8/2003	9:39:06	6.7	65.15	3.815	0.456	0.05			
10/8/2003	9:39:07	7.1	65.15	3.797	0.474	0.07			
10/8/2003	9:39:07	7.5	65.15	3.764	0.507	0.07			
10/8/2003	9:39:07	8	65.15	3.732	0.539	0.07			
10/8/2003	9:39:08	8.4	65.15	3.701	0.570	0.08			
10/8/2003	9:39:08	8.9	65.15	3.677	0.594	0.08			
10/8/2003	9:39:09	9.5	65.15	3.65	0.621	0.10			
10/8/2003	9:39:10	10	65.15	3.624	0.647	0.12			
10/8/2003	9:39:10	10.6	65.13	3.603	0.668	0.12			
10/8/2003	9:39:11	11.3	65.13	3.577	0.694	0.13			
10/8/2003	9:39:11	11.9	65.13	3.553	0.718	0.13			
10/8/2003	9:39:12	12.6	65.13	3.534	0.737	0.15			
10/8/2003	9:39:13	13.4	65.13	3.516	0.755	0.17			
10/8/2003	9:39:14	14.2	65.13	3.495	0.776	0.18			
10/8/2003	9:39:15	15	65.13	3.483	0.788	0.20			
10/8/2003	9:39:15	15.9	65.13	3.457	0.814	0.20			
10/8/2003	9:39:16	16.8	65.13	3.438	0.833	0.22			
10/8/2003	9:39:17	17.8	65.13	3.424	0.847	0.23			
10/8/2003	9:39:18	18.9	65.13	3.412	0.859	0.25			
10/8/2003	9:39:20	20	65.13	3.398	0.873	0.28			
10/8/2003	9:39:21	21.2	65.13	3.39	0.881	0.30			
10/8/2003	9:39:22	22.4	65.13	3.379	0.892	0.32			
10/8/2003	9:39:23	23.8	65.15	3.374	0.897	0.33			
10/8/2003	9:39:25	25.2	65.15	3.361	0.910	0.37			
10/8/2003	9:39:26	26.7	65.15	3.351	0.920	0.38			
10/8/2003	9:39:28	28.2	65.15	3.341	0.930	0.42			
10/8/2003	9:39:29	29.8	65.17	3.335	0.936	0.43			
10/8/2003	9:39:31	31.5	65.17	3.327	0.944	0.47			
10/8/2003	9:39:33	33.3	65.17	3.335	0.936	0.50			
10/8/2003	9:39:35	35.2	65.2	3.327	0.944	0.53			
10/8/2003	9:39:37	37.3	65.2	3.327	0.944	0.57			
10/8/2003	9:39:39	39.5	65.22	3.317	0.954	0.60			
10/8/2003	9:39:41	41.8	65.22	3.319	0.952	0.63			
10/8/2003	9:39:44	44.3	65.24	3.315	0.956	0.68			
10/8/2003	9:39:46	46.9	65.24	3.311	0.960	0.72			
10/8/2003	9:39:49	49.7	65.26	3.31	0.961	0.77			
10/8/2003	9:39:52	52.6	65.29	3.304	0.967	0.82			
10/8/2003	9:39:55	55.7	65.29	3.31	0.961	0.87			
10/8/2003	9:39:58	59	65.31	3.312	0.959	0.92			
10/8/2003	9:40:02	62.5	65.33	3.308	0.963	0.98			
10/8/2003	9:40:06	66.2	65.33	3.304	0.967	1.05			
10/8/2003	9:40:10	70.1	65.35	3.308	0.963	1.12			

Well No. **MW-108A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	9:40:14	74.3	65.35	3.314	0.957	1.18			
10/8/2003	9:40:18	78.7	65.38	3.309	0.962	1.25			
10/8/2003	9:40:23	83.4	65.4	3.321	0.950	1.33			
10/8/2003	9:40:28	88.4	65.4	3.307	0.964	1.42			
10/8/2003	9:40:33	93.7	65.42	3.313	0.958	1.50			
10/8/2003	9:40:39	99.3	65.42	3.317	0.954	1.60			
10/8/2003	9:40:45	105.2	65.44	3.317	0.954	1.70			
10/8/2003	9:40:51	111.5	65.44	3.315	0.956	1.80			
10/8/2003	9:40:58	118.1	65.47	3.314	0.957	1.92			
10/8/2003	9:41:05	125.1	65.47	3.31	0.961	2.03			1.36 gpm flow rate
10/8/2003	9:41:12	132.6	65.49	3.316	0.955	2.15			
10/8/2003	9:41:20	140.5	65.49	3.306	0.965	2.28			
10/8/2003	9:41:28	148.9	65.49	3.308	0.963	2.42			
10/8/2003	9:41:37	157.8	65.51	3.306	0.965	2.57			
10/8/2003	9:41:47	167.2	65.51	3.308	0.963	2.73			
10/8/2003	9:41:57	177.2	65.51	3.296	0.975	2.90			
10/8/2003	9:42:07	187.8	65.51	3.306	0.965	3.07			
10/8/2003	9:42:18	199	65.51	3.312	0.959	3.25			
10/8/2003	9:42:30	210.9	65.51	3.19	1.081	3.45			
10/8/2003	9:42:43	223.5	65.53	3.153	1.118	3.67			
10/8/2003	9:42:56	236.8	65.53	3.151	1.120	3.88			
10/8/2003	9:43:10	250.9	65.53	3.147	1.124	4.12			
10/8/2003	9:43:25	265.8	65.53	3.145	1.126	4.37			
10/8/2003	9:43:41	281.6	65.53	3.141	1.130	4.63			
10/8/2003	9:43:58	298.4	65.53	3.139	1.132	4.92			
10/8/2003	9:44:16	316.2	65.53	3.127	1.144	5.22			
10/8/2003	9:44:34	335	65.51	3.145	1.126	5.52			
10/8/2003	9:44:54	354.9	65.49	3.153	1.118	5.85			
10/8/2003	9:45:15	376	65.47	3.139	1.132	6.20			
10/8/2003	9:45:38	398.4	65.47	3.149	1.122	6.58			
10/8/2003	9:46:02	422.1	65.44	3.146	1.125	6.98			1.5 gpm flow rate
10/8/2003	9:46:27	447.2	65.42	3.15	1.121	7.40			
10/8/2003	9:46:53	473.8	65.4	3.152	1.119	7.83			
10/8/2003	9:47:21	502	65.38	3.146	1.125	8.30			
10/8/2003	9:47:51	531.9	65.35	3.146	1.125	8.80			
10/8/2003	9:48:23	563.5	65.33	3.151	1.120	9.33			
10/8/2003	9:48:56	597	65.31	3.149	1.122	9.88			
10/8/2003	9:49:32	632.5	65.26	3.143	1.128	10.48			
10/8/2003	9:50:10	670.1	65.24	3.152	1.119	11.12			1.5 gpm flow rate
10/8/2003	9:50:49	709.9	65.2	3.166	1.105	11.77			
10/8/2003	9:51:32	752.1	65.15	3.156	1.115	12.48			
10/8/2003	9:52:16	796.8	65.11	3.165	1.106	13.22			
10/8/2003	9:53:04	844.2	65.06	3.169	1.102	14.02			
10/8/2003	9:53:54	894.4	65.01	3.16	1.111	14.85			
10/8/2003	9:54:47	947.5	64.97	3.17	1.101	15.73			
10/8/2003	9:55:43	1003.8	64.9	3.184	1.087	16.67			1.46 gpm flow rate
10/8/2003	9:56:43	1063.4	64.86	3.167	1.104	17.67			
10/8/2003	9:57:46	1126.6	64.77	3.174	1.097	18.72			
10/8/2003	9:58:53	1193.5	64.7	3.167	1.104	19.83			
10/8/2003	9:59:00	0	64.7	3.173	1.098	19.95			Start Test 2
10/8/2003	9:59:00	0.3	64.7	3.171	1.100	19.95			
10/8/2003	9:59:00	0.6	64.72	3.166	1.105	19.95			
10/8/2003	9:59:00	0.9	64.74	3.17	1.101	19.95			
10/8/2003	9:59:01	1.2	64.74	3.166	1.105	19.97			
10/8/2003	9:59:01	1.5	64.74	3.172	1.099	19.97			
10/8/2003	9:59:01	1.8	64.74	3.16	1.111	19.97			
10/8/2003	9:59:02	2.1	64.74	3.168	1.103	19.98			
10/8/2003	9:59:02	2.4	64.77	3.168	1.103	19.98			
10/8/2003	9:59:02	2.7	64.77	3.166	1.105	19.98			
10/8/2003	9:59:03	3	64.77	3.16	1.111	20.00			
10/8/2003	9:59:03	3.3	64.77	3.172	1.099	20.00			
10/8/2003	9:59:03	3.6	64.77	3.266	1.005	20.00	0.00		Pump Stop
10/8/2003	9:59:03	3.9	64.77	3.223	1.048	20.00	0.00		
10/8/2003	9:59:04	4.2	64.77	3.258	1.013	20.02	0.02	1201.00	
10/8/2003	9:59:04	4.5	64.77	3.3	0.971	20.02	0.02	1201.00	
10/8/2003	9:59:04	4.8	64.77	3.337	0.934	20.02	0.02	1201.00	
10/8/2003	9:59:05	5.1	64.77	3.378	0.893	20.03	0.03	601.00	
10/8/2003	9:59:05	5.4	64.77	3.414	0.857	20.03	0.03	601.00	
10/8/2003	9:59:05	5.7	64.77	3.447	0.824	20.03	0.03	601.00	

Well No. **MW-108A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	9:59:06	6	64.77	3.482	0.789	20.05	0.05	401.00	
10/8/2003	9:59:06	6.4	64.79	3.516	0.755	20.05	0.05	401.00	
10/8/2003	9:59:06	6.7	64.77	3.551	0.720	20.05	0.05	401.00	
10/8/2003	9:59:07	7.1	64.79	3.594	0.677	20.07	0.07	301.00	
10/8/2003	9:59:07	7.5	64.79	3.633	0.638	20.07	0.07	301.00	
10/8/2003	9:59:08	8	64.79	3.673	0.598	20.08	0.08	241.00	
10/8/2003	9:59:08	8.4	64.77	3.71	0.561	20.08	0.08	241.00	
10/8/2003	9:59:09	8.9	64.79	3.743	0.528	20.10	0.10	201.00	
10/8/2003	9:59:09	9.5	64.79	3.779	0.492	20.10	0.10	201.00	
10/8/2003	9:59:10	10	64.77	3.818	0.453	20.12	0.12	172.43	
10/8/2003	9:59:10	10.6	64.77	3.852	0.419	20.12	0.12	172.43	
10/8/2003	9:59:11	11.3	64.77	3.881	0.390	20.13	0.13	151.00	
10/8/2003	9:59:12	11.9	64.77	3.913	0.358	20.15	0.15	134.33	
10/8/2003	9:59:12	12.6	64.74	3.942	0.329	20.15	0.15	134.33	
10/8/2003	9:59:13	13.4	64.74	3.972	0.299	20.17	0.17	121.00	
10/8/2003	9:59:14	14.2	64.74	4.001	0.270	20.18	0.18	110.09	
10/8/2003	9:59:15	15	64.74	4.027	0.244	20.20	0.20	101.00	
10/8/2003	9:59:15	15.9	64.74	4.05	0.221	20.20	0.20	101.00	
10/8/2003	9:59:16	16.8	64.72	4.074	0.197	20.22	0.22	93.31	
10/8/2003	9:59:17	17.8	64.72	4.096	0.175	20.23	0.23	86.71	
10/8/2003	9:59:18	18.9	64.72	4.116	0.155	20.25	0.25	81.00	
10/8/2003	9:59:20	20	64.7	4.133	0.138	20.28	0.28	71.59	
10/8/2003	9:59:21	21.2	64.7	4.151	0.120	20.30	0.30	67.67	
10/8/2003	9:59:22	22.4	64.68	4.167	0.104	20.32	0.32	64.16	
10/8/2003	9:59:23	23.8	64.68	4.181	0.090	20.33	0.33	61.00	
10/8/2003	9:59:25	25.2	64.65	4.193	0.078	20.37	0.37	55.55	
10/8/2003	9:59:26	26.7	64.63	4.203	0.068	20.38	0.38	53.17	
10/8/2003	9:59:28	28.2	64.61	4.211	0.060	20.42	0.42	49.00	
10/8/2003	9:59:29	29.8	64.58	4.221	0.050	20.43	0.43	47.15	
10/8/2003	9:59:31	31.5	64.56	4.227	0.044	20.47	0.47	43.86	
10/8/2003	9:59:33	33.3	64.52	4.233	0.038	20.50	0.50	41.00	
10/8/2003	9:59:35	35.2	64.49	4.24	0.031	20.53	0.53	38.50	
10/8/2003	9:59:37	37.3	64.45	4.244	0.027	20.57	0.57	36.29	
10/8/2003	9:59:39	39.5	64.4	4.248	0.023	20.60	0.60	34.33	
10/8/2003	9:59:41	41.8	64.36	4.251	0.020	20.63	0.63	32.58	
10/8/2003	9:59:44	44.3	64.29	4.253	0.018	20.68	0.68	30.27	
10/8/2003	9:59:46	46.9	64.22	4.256	0.015	20.72	0.72	28.91	
10/8/2003	9:59:49	49.7	64.15	4.259	0.012	20.77	0.77	27.09	
10/8/2003	9:59:52	52.6	64.09	4.259	0.012	20.82	0.82	25.49	
10/8/2003	9:59:55	55.7	64.02	4.262	0.009	20.87	0.87	24.08	
10/8/2003	9:59:59	59	63.93	4.263	0.008	20.93	0.93	22.43	
10/8/2003	10:00:02	62.5	63.84	4.266	0.005	20.98	0.98	21.34	
10/8/2003	10:00:06	66.2	63.77	4.264	0.007	21.05	1.05	20.05	
10/8/2003	10:00:10	70.1	63.68	4.265	0.006	21.12	1.12	18.91	
10/8/2003	10:00:14	74.3	63.59	4.268	0.003	21.18	1.18	17.90	
10/8/2003	10:00:18	78.7	63.5	4.267	0.004	21.25	1.25	17.00	
10/8/2003	10:00:23	83.4	63.41	4.268	0.003	21.33	1.33	16.00	
10/8/2003	10:00:28	88.4	63.3	4.269	0.002	21.42	1.42	15.12	
10/8/2003	10:00:33	93.7	63.23	4.27	0.001	21.50	1.50	14.33	
10/8/2003	10:00:39	99.3	63.14	4.271	0.000	21.60	1.60	13.50	
10/8/2003	10:00:45	105.2	63.05	4.269	0.002	21.70	1.70	12.76	
10/8/2003	10:00:51	111.5	62.96	4.27	0.001	21.80	1.80	12.11	
10/8/2003	10:00:58	118.1	62.89	4.271	0.000	21.92	1.92	11.43	
10/8/2003	10:01:05	125.1	62.8	4.274	-0.003	22.03	2.03	10.84	
10/8/2003	10:01:12	132.6	62.73	4.273	-0.002	22.15	2.15	10.30	
10/8/2003	10:01:20	140.5	62.66	4.273	-0.002	22.28	2.28	9.76	
10/8/2003	10:01:28	148.9	62.59	4.274	-0.003	22.42	2.42	9.28	
10/8/2003	10:01:37	157.8	62.55	4.272	-0.001	22.57	2.57	8.79	
10/8/2003	10:01:47	167.2	62.5	4.275	-0.004	22.73	2.73	8.32	
10/8/2003	10:01:57	177.2	62.44	4.275	-0.004	22.90	2.90	7.90	
10/8/2003	10:02:07	187.8	62.41	4.274	-0.003	23.07	3.07	7.52	
10/8/2003	10:02:19	199	62.37	4.274	-0.003	23.27	3.27	7.12	
10/8/2003	10:02:30	210.9	62.34	4.274	-0.003	23.45	3.45	6.80	
10/8/2003	10:02:43	223.5	62.32	4.275	-0.004	23.67	3.67	6.45	
10/8/2003	10:02:56	236.8	62.3	4.275	-0.004	23.88	3.88	6.15	
10/8/2003	10:03:10	250.9	62.28	4.275	-0.004	24.12	4.12	5.86	
10/8/2003	10:03:25	265.8	62.28	4.277	-0.006	24.37	4.37	5.58	
10/8/2003	10:03:41	281.6	62.28	4.277	-0.006	24.63	4.63	5.32	
10/8/2003	10:03:58	298.4	62.28	4.277	-0.006	24.92	4.92	5.07	

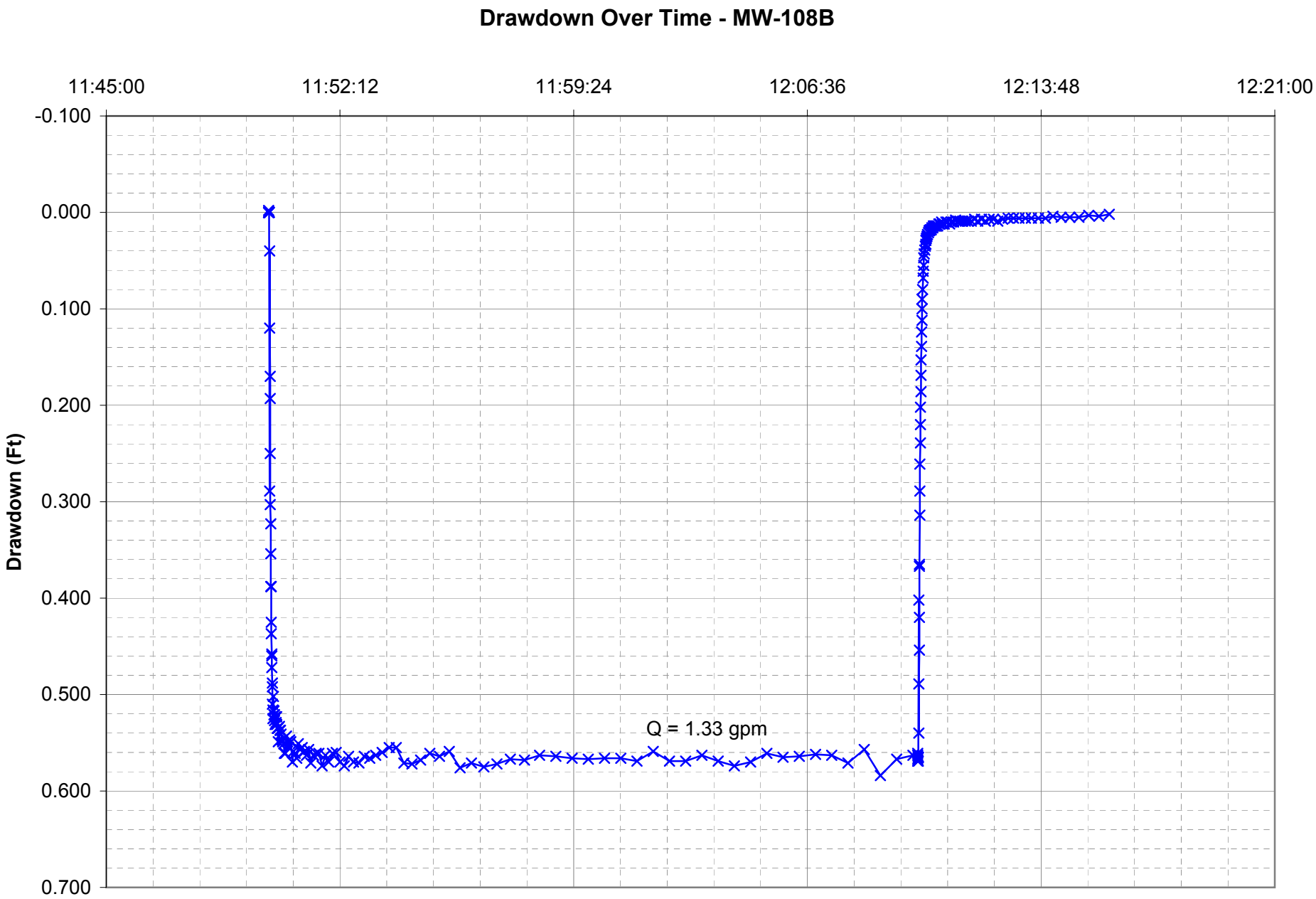
Well No. **MW-108A**

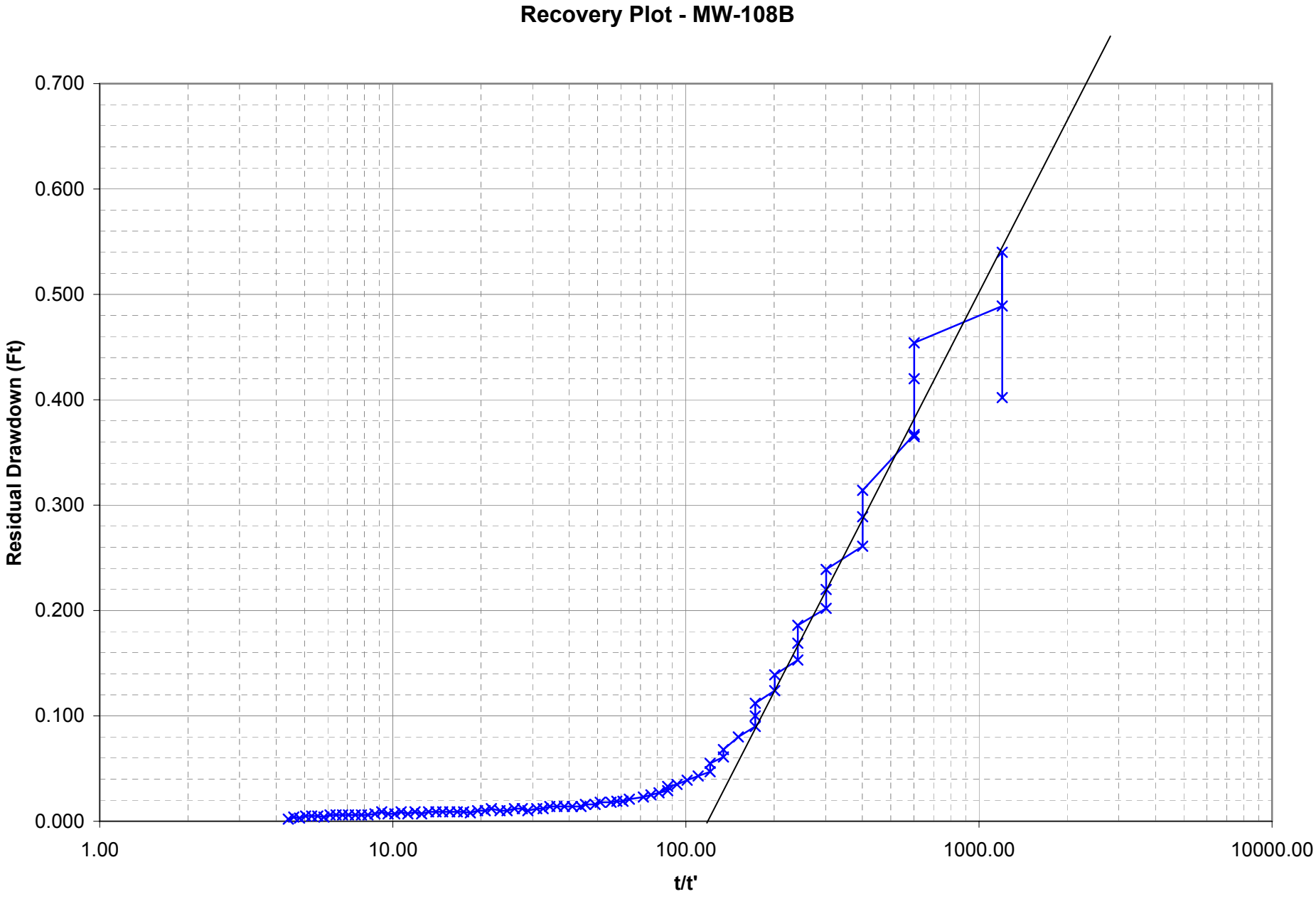
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	10:04:16	316.2	62.28	4.279	-0.008	25.22	5.22	4.83	
10/8/2003	10:04:35	335	62.3	4.277	-0.006	25.53	5.53	4.61	
10/8/2003	10:04:54	354.9	62.3	4.277	-0.006	25.85	5.85	4.42	
10/8/2003	10:05:16	376	62.32	4.278	-0.007	26.22	6.22	4.22	
10/8/2003	10:53:00								DTW = 13.38 at 10:53

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-108B**

Equipment:	In-Situ Inc.	MiniTroll Pro			
Test start date and time	10/8/2003	11:50:00			
Test end date and time	10/8/2003	12:15:54			
Period of pumping	20	minutes			
Static depth to water	14.14	feet below top of casing			
Starting transducer depth	5.695	feet below static water level			
Total well depth	99.0	feet below top of casing			
Depth to top of screen	89.0	feet below top of casing			
Height of interval tested [b]	10.0	feet			
Average pumping rate [Q]	1.33	gpm, or	256	cfd	
Average drawdown [s]	0.56	ft			
Specific capacity [Q/s]	2.38	gpm/ft			
Residual drawdown over one log cycle [Δs]			0.55	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			85.2	cfd/ft	
Hydraulic conductivity [K = T/b]			8.5	fpd, or	3.0E-03 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-108B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	11:24:00								DTW = 14.14 at 11:24
10/8/2003	11:42:00								DTW = 14.14 at 11:42
10/8/2003	11:50:00	0	64.74	5.697	-0.002				Start Test 1
10/8/2003	11:50:00	0.3	64.77	5.695	0.000				
10/8/2003	11:50:00	0.6	64.77	5.695	0.000				
10/8/2003	11:50:00	0.9	64.79	5.695	0.000				
10/8/2003	11:50:01	1.2	64.79	5.695	0.000				
10/8/2003	11:50:01	1.5	64.79	5.695	0.000				
10/8/2003	11:50:01	1.8	64.79	5.695	0.000	0.00			Pump Start
10/8/2003	11:50:02	2.1	64.81	5.406	0.289	0.02			
10/8/2003	11:50:02	2.4	64.79	5.655	0.040	0.02			
10/8/2003	11:50:02	2.7	64.81	5.575	0.120	0.02			
10/8/2003	11:50:03	3	64.81	5.525	0.170	0.03			
10/8/2003	11:50:03	3.3	64.81	5.502	0.193	0.03			
10/8/2003	11:50:03	3.6	64.81	5.445	0.250	0.03			
10/8/2003	11:50:03	3.9	64.81	5.392	0.303	0.03			
10/8/2003	11:50:04	4.2	64.81	5.372	0.323	0.05			
10/8/2003	11:50:04	4.5	64.81	5.341	0.354	0.05			
10/8/2003	11:50:04	4.8	64.81	5.307	0.388	0.05			
10/8/2003	11:50:05	5.1	64.81	5.307	0.388	0.07			
10/8/2003	11:50:05	5.4	64.81	5.27	0.425	0.07			
10/8/2003	11:50:05	5.7	64.81	5.258	0.437	0.07			
10/8/2003	11:50:06	6	64.81	5.237	0.458	0.08			
10/8/2003	11:50:06	6.4	64.81	5.235	0.460	0.08			
10/8/2003	11:50:06	6.7	64.81	5.223	0.472	0.08			
10/8/2003	11:50:07	7.1	64.81	5.203	0.492	0.10			
10/8/2003	11:50:07	7.5	64.83	5.207	0.488	0.10			
10/8/2003	11:50:07	8	64.81	5.185	0.510	0.10			
10/8/2003	11:50:08	8.4	64.83	5.17	0.525	0.12			
10/8/2003	11:50:08	8.9	64.83	5.179	0.516	0.12			
10/8/2003	11:50:09	9.5	64.83	5.193	0.502	0.13			
10/8/2003	11:50:10	10	64.81	5.174	0.521	0.15			
10/8/2003	11:50:10	10.6	64.81	5.178	0.517	0.15			
10/8/2003	11:50:11	11.3	64.81	5.174	0.521	0.17			
10/8/2003	11:50:11	11.9	64.81	5.168	0.527	0.17			
10/8/2003	11:50:12	12.6	64.81	5.164	0.531	0.18			
10/8/2003	11:50:13	13.4	64.79	5.172	0.523	0.20			
10/8/2003	11:50:14	14.2	64.81	5.166	0.529	0.22			
10/8/2003	11:50:15	15	64.81	5.172	0.523	0.23			
10/8/2003	11:50:15	15.9	64.81	5.164	0.531	0.23			
10/8/2003	11:50:16	16.8	64.79	5.16	0.535	0.25			
10/8/2003	11:50:17	17.8	64.79	5.16	0.535	0.27			
10/8/2003	11:50:18	18.9	64.79	5.146	0.549	0.28			
10/8/2003	11:50:20	20	64.79	5.162	0.533	0.32			
10/8/2003	11:50:21	21.2	64.79	5.158	0.537	0.33			
10/8/2003	11:50:22	22.4	64.79	5.158	0.537	0.35			
10/8/2003	11:50:23	23.8	64.79	5.154	0.541	0.37			
10/8/2003	11:50:25	25.2	64.79	5.148	0.547	0.40			
10/8/2003	11:50:26	26.7	64.81	5.146	0.549	0.42			
10/8/2003	11:50:28	28.2	64.81	5.144	0.551	0.45			
10/8/2003	11:50:29	29.8	64.81	5.134	0.561	0.47			
10/8/2003	11:50:31	31.5	64.81	5.134	0.561	0.50			
10/8/2003	11:50:33	33.3	64.81	5.152	0.543	0.53			
10/8/2003	11:50:35	35.2	64.81	5.146	0.549	0.57			
10/8/2003	11:50:37	37.3	64.81	5.14	0.555	0.60			
10/8/2003	11:50:39	39.5	64.81	5.148	0.547	0.63			
10/8/2003	11:50:41	41.8	64.81	5.146	0.549	0.67			
10/8/2003	11:50:44	44.3	64.81	5.125	0.570	0.72			
10/8/2003	11:50:46	46.9	64.83	5.136	0.559	0.75			
10/8/2003	11:50:49	49.7	64.83	5.134	0.561	0.80			
10/8/2003	11:50:52	52.6	64.81	5.129	0.566	0.85			
10/8/2003	11:50:55	55.7	64.83	5.144	0.551	0.90			
10/8/2003	11:50:58	59	64.83	5.138	0.557	0.95			
10/8/2003	11:51:02	62.5	64.83	5.14	0.555	1.02			
10/8/2003	11:51:06	66.2	64.83	5.136	0.559	1.08			

Well No. **MW-108B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	11:51:10	70.1	64.83	5.132	0.563	1.15			
10/8/2003	11:51:14	74.3	64.83	5.138	0.557	1.22			
10/8/2003	11:51:18	78.7	64.83	5.124	0.571	1.28			
10/8/2003	11:51:23	83.4	64.83	5.132	0.563	1.37			
10/8/2003	11:51:28	88.4	64.83	5.134	0.561	1.45			
10/8/2003	11:51:33	93.7	64.81	5.134	0.561	1.53			
10/8/2003	11:51:39	99.3	64.81	5.121	0.574	1.63			
10/8/2003	11:51:45	105.2	64.81	5.132	0.563	1.73			
10/8/2003	11:51:51	111.5	64.81	5.125	0.570	1.83			
10/8/2003	11:51:58	118.1	64.81	5.134	0.561	1.95			
10/8/2003	11:52:05	125.1	64.79	5.135	0.560	2.07			
10/8/2003	11:52:12	132.6	64.79	5.125	0.570	2.18			
10/8/2003	11:52:20	140.5	64.77	5.121	0.574	2.32			
10/8/2003	11:52:28	148.9	64.74	5.131	0.564	2.45			
10/8/2003	11:52:37	157.8	64.72	5.125	0.570	2.60			
10/8/2003	11:52:47	167.2	64.68	5.124	0.571	2.77			
10/8/2003	11:52:57	177.2	64.61	5.131	0.564	2.93			
10/8/2003	11:53:07	187.8	64.54	5.129	0.566	3.10			1.30 gpm flow rate
10/8/2003	11:53:18	199	64.45	5.132	0.563	3.28			
10/8/2003	11:53:30	210.9	64.38	5.135	0.560	3.48			
10/8/2003	11:53:43	223.5	64.29	5.14	0.555	3.70			
10/8/2003	11:53:56	236.8	64.2	5.14	0.555	3.92			
10/8/2003	11:54:10	250.9	64.11	5.124	0.571	4.15			
10/8/2003	11:54:25	265.8	64.02	5.123	0.572	4.40			
10/8/2003	11:54:41	281.6	63.93	5.127	0.568	4.67			
10/8/2003	11:54:58	298.4	63.82	5.134	0.561	4.95			
10/8/2003	11:55:16	316.2	63.73	5.131	0.564	5.25			1.33 gpm flow rate
10/8/2003	11:55:34	335	63.66	5.136	0.559	5.55			
10/8/2003	11:55:54	354.9	63.57	5.119	0.576	5.88			
10/8/2003	11:56:15	376	63.5	5.124	0.571	6.23			
10/8/2003	11:56:38	398.4	63.45	5.12	0.575	6.62			
10/8/2003	11:57:02	422.1	63.39	5.123	0.572	7.02			
10/8/2003	11:57:27	447.2	63.3	5.128	0.567	7.43			
10/8/2003	11:57:53	473.8	63.2	5.127	0.568	7.87			
10/8/2003	11:58:21	502	63.09	5.132	0.563	8.33			
10/8/2003	11:58:51	531.9	63	5.131	0.564	8.83			
10/8/2003	11:59:21	561.9	62.91	5.129	0.566	9.33			
10/8/2003	11:59:51	591.9	62.84	5.128	0.567	9.83			
10/8/2003	12:00:21	621.9	62.8	5.129	0.566	10.33			1.33 gpm flow rate
10/8/2003	12:00:51	651.9	62.8	5.129	0.566	10.83			
10/8/2003	12:01:21	681.9	62.71	5.126	0.569	11.33			
10/8/2003	12:01:51	711.9	62.59	5.136	0.559	11.83			
10/8/2003	12:02:21	741.9	62.48	5.126	0.569	12.33			
10/8/2003	12:02:51	771.9	62.41	5.126	0.569	12.83			
10/8/2003	12:03:21	801.9	62.41	5.132	0.563	13.33			
10/8/2003	12:03:51	831.9	62.3	5.126	0.569	13.83			
10/8/2003	12:04:21	861.9	62.19	5.121	0.574	14.33			
10/8/2003	12:04:51	891.9	62.12	5.125	0.570	14.83			
10/8/2003	12:05:21	921.9	62.07	5.134	0.561	15.33			1.33 gpm flow rate
10/8/2003	12:05:51	951.9	62.03	5.13	0.565	15.83			
10/8/2003	12:06:21	981.9	61.98	5.131	0.564	16.33			
10/8/2003	12:06:51	1011.9	61.96	5.133	0.562	16.83			
10/8/2003	12:07:21	1041.9	61.89	5.132	0.563	17.33			
10/8/2003	12:07:51	1071.9	61.85	5.124	0.571	17.83			
10/8/2003	12:08:21	1101.9	61.8	5.138	0.557	18.33			
10/8/2003	12:08:51	1131.9	61.78	5.111	0.584	18.83			
10/8/2003	12:09:21	1161.9	61.69	5.128	0.567	19.33			
10/8/2003	12:09:51	1191.9	61.64	5.132	0.563	19.83			
10/8/2003	12:10:00	0	61.64	5.134	0.561	19.98			Start Test 2
10/8/2003	12:10:00	0.3	61.67	5.132	0.563	19.98			
10/8/2003	12:10:00	0.6	61.67	5.126	0.569	19.98			
10/8/2003	12:10:00	0.9	61.69	5.128	0.567	19.98			
10/8/2003	12:10:01	1.2	61.69	5.13	0.565	20.00			
10/8/2003	12:10:01	1.5	61.69	5.13	0.565	20.00			
10/8/2003	12:10:01	1.8	61.69	5.126	0.569	20.00	0.00		Pump Stop
10/8/2003	12:10:02	2.1	61.69	5.293	0.402	20.02	0.02	1201.00	
10/8/2003	12:10:02	2.4	61.71	5.155	0.540	20.02	0.02	1201.00	
10/8/2003	12:10:02	2.7	61.71	5.206	0.489	20.02	0.02	1201.00	
10/8/2003	12:10:03	3	61.71	5.241	0.454	20.03	0.03	601.00	

Well No. **MW-108B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	12:10:03	3.3	61.71	5.275	0.420	20.03	0.03	601.00	
10/8/2003	12:10:03	3.6	61.71	5.33	0.365	20.03	0.03	601.00	
10/8/2003	12:10:03	3.9	61.71	5.328	0.367	20.03	0.03	601.00	
10/8/2003	12:10:04	4.2	61.71	5.381	0.314	20.05	0.05	401.00	
10/8/2003	12:10:04	4.5	61.71	5.406	0.289	20.05	0.05	401.00	
10/8/2003	12:10:04	4.8	61.71	5.434	0.261	20.05	0.05	401.00	
10/8/2003	12:10:05	5.1	61.71	5.456	0.239	20.07	0.07	301.00	
10/8/2003	12:10:05	5.4	61.71	5.475	0.220	20.07	0.07	301.00	
10/8/2003	12:10:05	5.7	61.71	5.493	0.202	20.07	0.07	301.00	
10/8/2003	12:10:06	6	61.71	5.509	0.186	20.08	0.08	241.00	
10/8/2003	12:10:06	6.4	61.71	5.526	0.169	20.08	0.08	241.00	
10/8/2003	12:10:06	6.7	61.73	5.542	0.153	20.08	0.08	241.00	
10/8/2003	12:10:07	7.1	61.73	5.556	0.139	20.10	0.10	201.00	
10/8/2003	12:10:07	7.5	61.73	5.571	0.124	20.10	0.10	201.00	
10/8/2003	12:10:08	8	61.73	5.583	0.112	20.12	0.12	172.43	
10/8/2003	12:10:08	8.4	61.73	5.595	0.100	20.12	0.12	172.43	
10/8/2003	12:10:08	8.9	61.73	5.605	0.090	20.12	0.12	172.43	
10/8/2003	12:10:09	9.5	61.73	5.615	0.080	20.13	0.13	151.00	
10/8/2003	12:10:10	10	61.71	5.627	0.068	20.15	0.15	134.33	
10/8/2003	12:10:10	10.6	61.71	5.634	0.061	20.15	0.15	134.33	
10/8/2003	12:10:11	11.3	61.71	5.64	0.055	20.17	0.17	121.00	
10/8/2003	12:10:11	11.9	61.71	5.648	0.047	20.17	0.17	121.00	
10/8/2003	12:10:12	12.6	61.71	5.652	0.043	20.18	0.18	110.09	
10/8/2003	12:10:13	13.4	61.71	5.656	0.039	20.20	0.20	101.00	
10/8/2003	12:10:14	14.2	61.71	5.66	0.035	20.22	0.22	93.31	
10/8/2003	12:10:15	15	61.71	5.662	0.033	20.23	0.23	86.71	
10/8/2003	12:10:15	15.9	61.71	5.666	0.029	20.23	0.23	86.71	
10/8/2003	12:10:16	16.8	61.71	5.668	0.027	20.25	0.25	81.00	
10/8/2003	12:10:17	17.8	61.71	5.67	0.025	20.27	0.27	76.00	
10/8/2003	12:10:18	18.9	61.71	5.672	0.023	20.28	0.28	71.59	
10/8/2003	12:10:20	20	61.71	5.674	0.021	20.32	0.32	64.16	
10/8/2003	12:10:21	21.2	61.71	5.676	0.019	20.33	0.33	61.00	
10/8/2003	12:10:22	22.4	61.71	5.676	0.019	20.35	0.35	58.14	
10/8/2003	12:10:23	23.8	61.73	5.677	0.018	20.37	0.37	55.55	
10/8/2003	12:10:25	25.2	61.73	5.677	0.018	20.40	0.40	51.00	
10/8/2003	12:10:26	26.7	61.73	5.679	0.016	20.42	0.42	49.00	
10/8/2003	12:10:28	28.2	61.73	5.679	0.016	20.45	0.45	45.44	
10/8/2003	12:10:29	29.8	61.73	5.681	0.014	20.47	0.47	43.86	
10/8/2003	12:10:31	31.5	61.73	5.681	0.014	20.50	0.50	41.00	
10/8/2003	12:10:33	33.3	61.73	5.681	0.014	20.53	0.53	38.50	
10/8/2003	12:10:35	35.2	61.73	5.681	0.014	20.57	0.57	36.29	
10/8/2003	12:10:37	37.3	61.76	5.681	0.014	20.60	0.60	34.33	
10/8/2003	12:10:39	39.5	61.76	5.683	0.012	20.63	0.63	32.58	
10/8/2003	12:10:41	41.8	61.76	5.683	0.012	20.67	0.67	31.00	
10/8/2003	12:10:44	44.3	61.76	5.685	0.010	20.72	0.72	28.91	
10/8/2003	12:10:46	46.9	61.76	5.683	0.012	20.75	0.75	27.67	
10/8/2003	12:10:49	49.7	61.78	5.683	0.012	20.80	0.80	26.00	
10/8/2003	12:10:52	52.6	61.78	5.685	0.010	20.85	0.85	24.53	
10/8/2003	12:10:55	55.7	61.78	5.685	0.010	20.90	0.90	23.22	
10/8/2003	12:10:59	59	61.78	5.683	0.012	20.97	0.97	21.69	
10/8/2003	12:11:02	62.5	61.8	5.685	0.010	21.02	1.02	20.67	
10/8/2003	12:11:06	66.2	61.8	5.685	0.010	21.08	1.08	19.46	
10/8/2003	12:11:10	70.1	61.8	5.687	0.008	21.15	1.15	18.39	
10/8/2003	12:11:14	74.3	61.82	5.686	0.009	21.22	1.22	17.44	
10/8/2003	12:11:18	78.7	61.82	5.686	0.009	21.28	1.28	16.58	
10/8/2003	12:11:23	83.4	61.85	5.686	0.009	21.37	1.37	15.63	
10/8/2003	12:11:28	88.4	61.85	5.686	0.009	21.45	1.45	14.79	
10/8/2003	12:11:33	93.7	61.85	5.686	0.009	21.53	1.53	14.04	
10/8/2003	12:11:39	99.3	61.87	5.686	0.009	21.63	1.63	13.24	
10/8/2003	12:11:45	105.2	61.87	5.688	0.007	21.73	1.73	12.54	
10/8/2003	12:11:51	111.5	61.87	5.686	0.009	21.83	1.83	11.91	
10/8/2003	12:11:58	118.1	61.85	5.688	0.007	21.95	1.95	11.26	
10/8/2003	12:12:05	125.1	61.85	5.686	0.009	22.07	2.07	10.68	
10/8/2003	12:12:12	132.6	61.85	5.688	0.007	22.18	2.18	10.16	
10/8/2003	12:12:20	140.5	61.82	5.688	0.007	22.32	2.32	9.63	
10/8/2003	12:12:28	148.9	61.82	5.686	0.009	22.45	2.45	9.16	
10/8/2003	12:12:37	157.8	61.82	5.688	0.007	22.60	2.60	8.69	
10/8/2003	12:12:47	167.2	61.8	5.689	0.006	22.77	2.77	8.23	
10/8/2003	12:12:57	177.2	61.8	5.689	0.006	22.93	2.93	7.82	

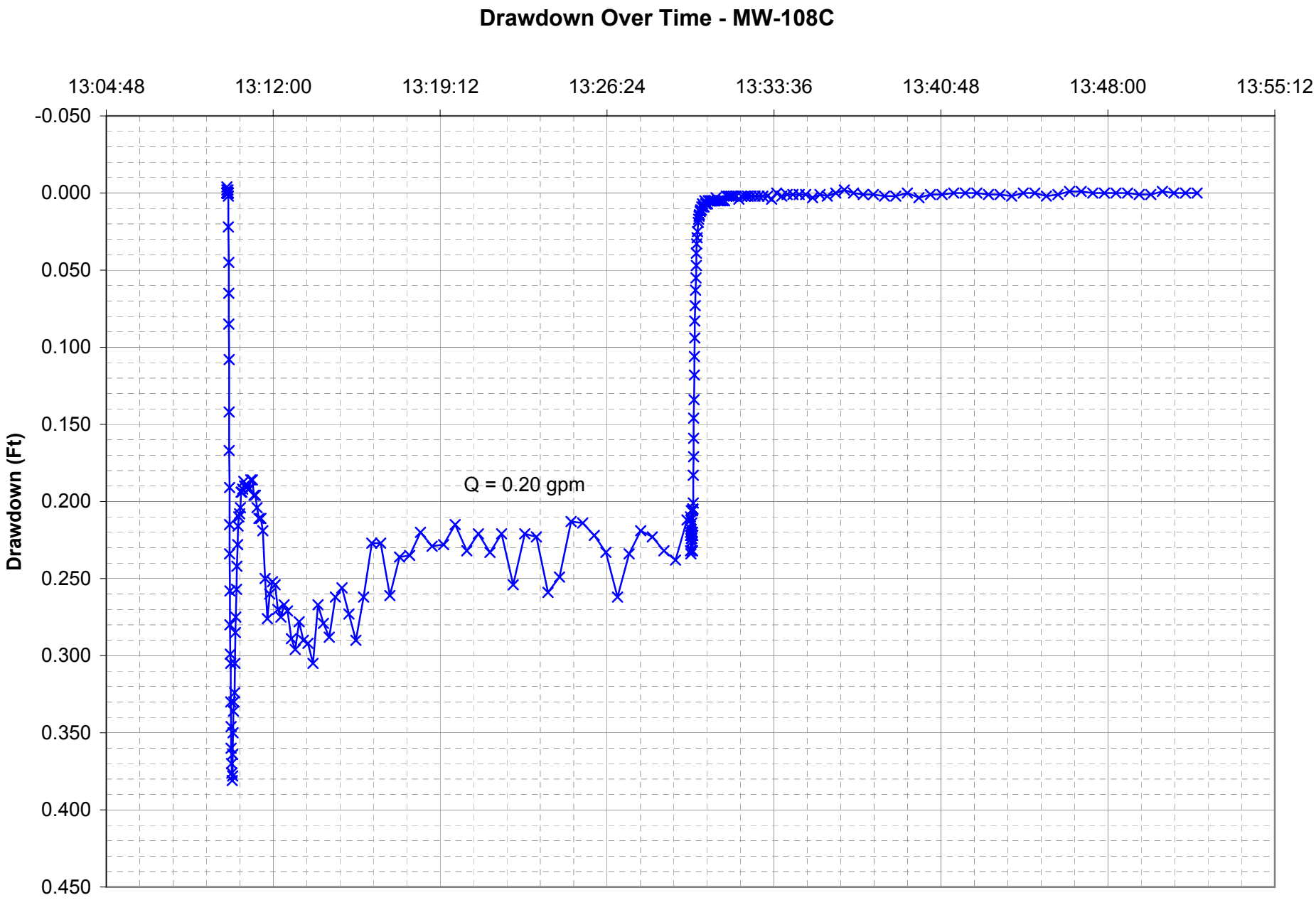
Well No. **MW-108B**

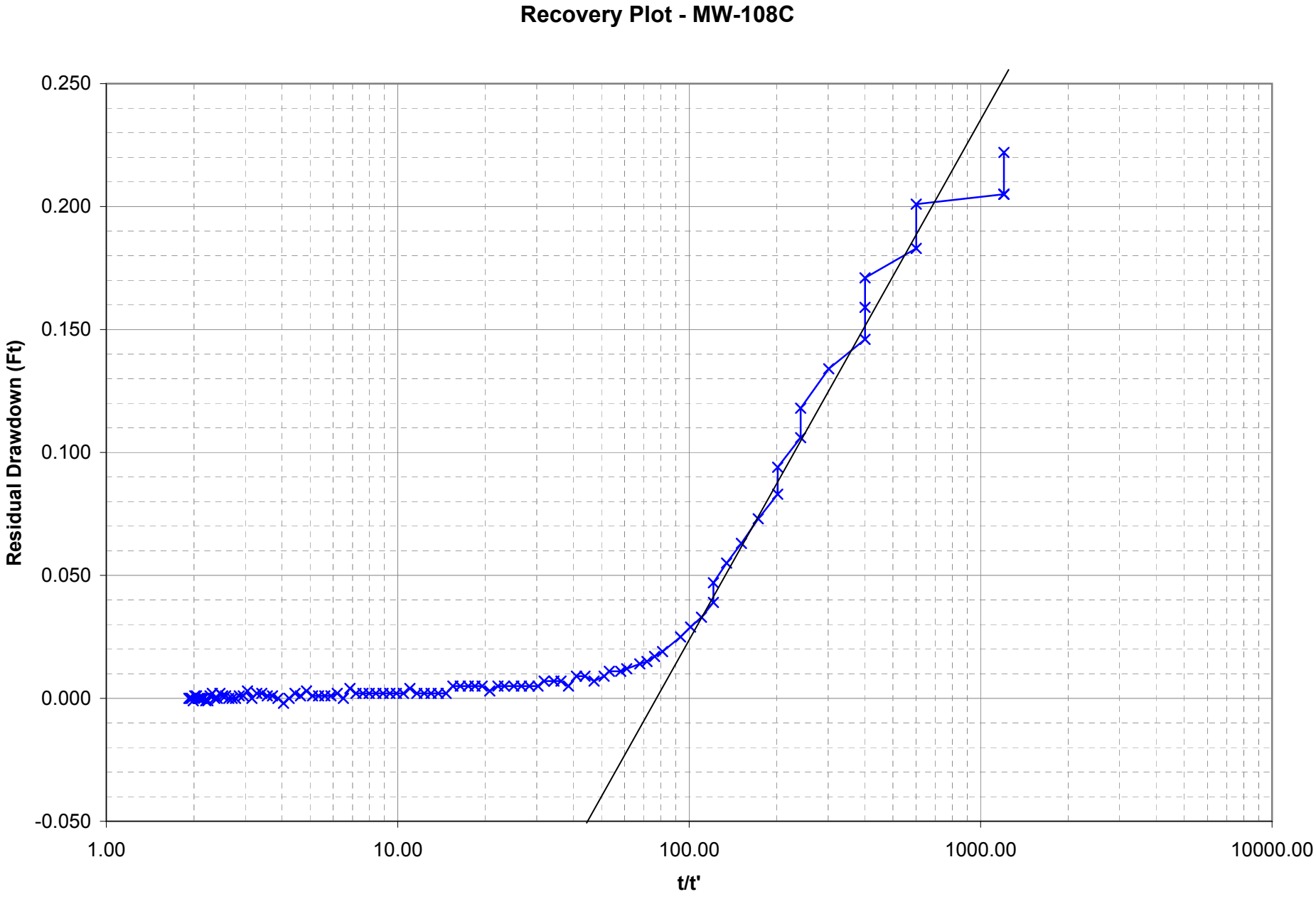
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	12:13:07	187.8	61.8	5.689	0.006	23.10	3.10	7.45	
10/8/2003	12:13:19	199	61.78	5.689	0.006	23.30	3.30	7.06	
10/8/2003	12:13:30	210.9	61.78	5.689	0.006	23.48	3.48	6.74	
10/8/2003	12:13:43	223.5	61.78	5.689	0.006	23.70	3.70	6.41	
10/8/2003	12:13:56	236.8	61.8	5.689	0.006	23.92	3.92	6.11	
10/8/2003	12:14:10	250.9	61.8	5.691	0.004	24.15	4.15	5.82	
10/8/2003	12:14:25	265.8	61.82	5.69	0.005	24.40	4.40	5.55	
10/8/2003	12:14:41	281.6	61.85	5.69	0.005	24.67	4.67	5.29	
10/8/2003	12:14:58	298.4	61.87	5.69	0.005	24.95	4.95	5.04	
10/8/2003	12:15:16	316.2	61.89	5.692	0.003	25.25	5.25	4.81	
10/8/2003	12:15:35	335	61.92	5.691	0.004	25.57	5.57	4.59	
10/8/2003	12:15:54	354.9	61.96	5.693	0.002	25.88	5.88	4.40	
10/8/2003	12:25:00								DTW = 14.14 at 12:25

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-108C**

Equipment:	In-Situ Inc. MiniTroll Pro				
Test start date and time	10/8/2003 13:10:00				
Test end date and time	10/8/2003 13:51:51				
Period of pumping	20	minutes			
Static depth to water	14.16	feet below top of casing			
Startiing transducer depth	3.892	feet below static water level			
Total well depth	139.4	feet below top of casing			
Depth to top of screen	119.4	feet below top of casing			
Height of interval tested [b]	20.0	feet			
Average pumping rate [Q]	0.20	gpm, or	38	cfd	
Average drawdown [s]	0.23	ft			
Specific capacity [Q/s]	0.87	gpm/ft			
Residual drawdown over one log cycle [Δs]			0.21	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			33.6	cfd/ft	
Hydraulic conductivity [K = T/b]			1.7	fpd, or	5.9E-04 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-108C**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	12:45:00								DTW = 14.16 at 12:45
10/8/2003	12:52:00								DTW = 14.16 at 12:52
10/8/2003	12:54:00								DTW = 14.16 at 12:54
10/8/2003	13:08:00								DTW = 14.16 at 13:08
10/8/2003	13:10:00	0	64.63	3.896	-0.004				Start Test 1
10/8/2003	13:10:00	0.3	64.63	3.894	-0.002				
10/8/2003	13:10:00	0.6	64.65	3.892	0.000				
10/8/2003	13:10:00	0.9	64.68	3.892	0.000				
10/8/2003	13:10:01	1.2	64.68	3.892	0.000				
10/8/2003	13:10:01	1.5	64.68	3.892	0.000				
10/8/2003	13:10:01	1.8	64.68	3.892	0.000				
10/8/2003	13:10:02	2.1	64.68	3.892	0.000				
10/8/2003	13:10:02	2.4	64.7	3.892	0.000				
10/8/2003	13:10:02	2.7	64.7	3.892	0.000				
10/8/2003	13:10:03	3	64.7	3.892	0.000				
10/8/2003	13:10:03	3.3	64.7	3.894	-0.002				
10/8/2003	13:10:03	3.6	64.7	3.892	0.000				
10/8/2003	13:10:03	3.9	64.7	3.892	0.000				
10/8/2003	13:10:04	4.2	64.7	3.892	0.000	0.00			Pump Start
10/8/2003	13:10:04	4.5	64.7	3.89	0.002	0.00			
10/8/2003	13:10:04	4.8	64.7	3.87	0.022	0.00			
10/8/2003	13:10:05	5.1	64.7	3.847	0.045	0.02			
10/8/2003	13:10:05	5.4	64.7	3.827	0.065	0.02			
10/8/2003	13:10:05	5.7	64.7	3.807	0.085	0.02			
10/8/2003	13:10:06	6	64.7	3.784	0.108	0.03			
10/8/2003	13:10:06	6.4	64.7	3.75	0.142	0.03			
10/8/2003	13:10:06	6.7	64.7	3.725	0.167	0.03			
10/8/2003	13:10:07	7.1	64.72	3.701	0.191	0.05			
10/8/2003	13:10:07	7.5	64.72	3.677	0.215	0.05			
10/8/2003	13:10:07	8	64.72	3.658	0.234	0.05			
10/8/2003	13:10:08	8.4	64.72	3.634	0.258	0.07			
10/8/2003	13:10:08	8.9	64.72	3.612	0.280	0.07			
10/8/2003	13:10:09	9.5	64.72	3.593	0.299	0.08			
10/8/2003	13:10:10	10	64.7	3.587	0.305	0.10			
10/8/2003	13:10:10	10.6	64.7	3.562	0.330	0.10			
10/8/2003	13:10:11	11.3	64.7	3.546	0.346	0.12			
10/8/2003	13:10:11	11.9	64.7	3.532	0.360	0.12			
10/8/2003	13:10:12	12.6	64.7	3.522	0.370	0.13			
10/8/2003	13:10:13	13.4	64.7	3.516	0.376	0.15			
10/8/2003	13:10:14	14.2	64.7	3.511	0.381	0.17			
10/8/2003	13:10:15	15	64.7	3.514	0.378	0.18			
10/8/2003	13:10:15	15.9	64.7	3.528	0.364	0.18			
10/8/2003	13:10:16	16.8	64.68	3.542	0.350	0.20			
10/8/2003	13:10:17	17.8	64.68	3.556	0.336	0.22			
10/8/2003	13:10:18	18.9	64.68	3.562	0.330	0.23			
10/8/2003	13:10:20	20	64.68	3.568	0.324	0.27			
10/8/2003	13:10:21	21.2	64.68	3.587	0.305	0.28			
10/8/2003	13:10:22	22.4	64.68	3.607	0.285	0.30			
10/8/2003	13:10:23	23.8	64.68	3.617	0.275	0.32			
10/8/2003	13:10:25	25.2	64.68	3.635	0.257	0.35			
10/8/2003	13:10:26	26.7	64.68	3.65	0.242	0.37			
10/8/2003	13:10:28	28.2	64.68	3.664	0.228	0.40			
10/8/2003	13:10:29	29.8	64.68	3.676	0.216	0.42			
10/8/2003	13:10:31	31.5	64.68	3.682	0.210	0.45			
10/8/2003	13:10:33	33.3	64.65	3.684	0.208	0.48			
10/8/2003	13:10:35	35.2	64.65	3.688	0.204	0.52			
10/8/2003	13:10:37	37.3	64.65	3.698	0.194	0.55			
10/8/2003	13:10:39	39.5	64.65	3.698	0.194	0.58			
10/8/2003	13:10:41	41.8	64.65	3.7	0.192	0.62			
10/8/2003	13:10:44	44.3	64.65	3.705	0.187	0.67			
10/8/2003	13:10:46	46.9	64.63	3.702	0.190	0.70			
10/8/2003	13:10:49	49.7	64.65	3.702	0.190	0.75			
10/8/2003	13:10:52	52.6	64.63	3.702	0.190	0.80			
10/8/2003	13:10:55	55.7	64.63	3.7	0.192	0.85			
10/8/2003	13:10:58	59	64.63	3.7	0.192	0.90			

Well No. **MW-108C**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	13:11:02	62.5	64.63	3.706	0.186	0.97			
10/8/2003	13:11:06	66.2	64.61	3.706	0.186	1.03			
10/8/2003	13:11:10	70.1	64.61	3.696	0.196	1.10			
10/8/2003	13:11:14	74.3	64.61	3.696	0.196	1.17			
10/8/2003	13:11:18	78.7	64.61	3.688	0.204	1.23			
10/8/2003	13:11:23	83.4	64.58	3.681	0.211	1.32			
10/8/2003	13:11:28	88.4	64.58	3.681	0.211	1.40			
10/8/2003	13:11:33	93.7	64.56	3.673	0.219	1.48			
10/8/2003	13:11:39	99.3	64.56	3.642	0.250	1.58			
10/8/2003	13:11:45	105.2	64.56	3.616	0.276	1.68			
10/8/2003	13:11:51	111.5	64.54	3.632	0.260	1.78			
10/8/2003	13:11:58	118.1	64.54	3.64	0.252	1.90			
10/8/2003	13:12:05	125.1	64.52	3.638	0.254	2.02			
10/8/2003	13:12:12	132.6	64.52	3.622	0.270	2.13			
10/8/2003	13:12:20	140.5	64.49	3.617	0.275	2.27			
10/8/2003	13:12:28	148.9	64.49	3.625	0.267	2.40			
10/8/2003	13:12:37	157.8	64.47	3.621	0.271	2.55			
10/8/2003	13:12:47	167.2	64.45	3.603	0.289	2.72			
10/8/2003	13:12:57	177.2	64.43	3.596	0.296	2.88			
10/8/2003	13:13:07	187.8	64.4	3.614	0.278	3.05			
10/8/2003	13:13:18	199	64.38	3.602	0.290	3.23			
10/8/2003	13:13:30	210.9	64.36	3.6	0.292	3.43			
10/8/2003	13:13:43	223.5	64.34	3.587	0.305	3.65			
10/8/2003	13:13:56	236.8	64.29	3.625	0.267	3.87			
10/8/2003	13:14:10	250.9	64.27	3.613	0.279	4.10			
10/8/2003	13:14:25	265.8	64.22	3.604	0.288	4.35			
10/8/2003	13:14:41	281.6	64.18	3.63	0.262	4.62			
10/8/2003	13:14:58	298.4	64.11	3.636	0.256	4.90			
10/8/2003	13:15:16	316.2	64.06	3.619	0.273	5.20			0.233 gpm flow rate
10/8/2003	13:15:34	335	63.97	3.602	0.290	5.50			
10/8/2003	13:15:54	354.9	63.91	3.63	0.262	5.83			
10/8/2003	13:16:15	376	63.82	3.665	0.227	6.18			
10/8/2003	13:16:38	398.4	63.73	3.665	0.227	6.57			
10/8/2003	13:17:02	422.1	63.61	3.631	0.261	6.97			0.202 gpm flow rate
10/8/2003	13:17:27	447.2	63.5	3.656	0.236	7.38			
10/8/2003	13:17:53	473.8	63.39	3.657	0.235	7.82			
10/8/2003	13:18:21	502	63.3	3.672	0.220	8.28			
10/8/2003	13:18:51	531.9	63.16	3.663	0.229	8.78			
10/8/2003	13:19:21	561.9	63.05	3.664	0.228	9.28			
10/8/2003	13:19:51	591.9	62.93	3.677	0.215	9.78			
10/8/2003	13:20:21	621.9	62.82	3.66	0.232	10.28			
10/8/2003	13:20:51	651.9	62.73	3.671	0.221	10.78			
10/8/2003	13:21:21	681.9	62.62	3.659	0.233	11.28			
10/8/2003	13:21:51	711.9	62.55	3.671	0.221	11.78			
10/8/2003	13:22:21	741.9	62.46	3.638	0.254	12.28			
10/8/2003	13:22:51	771.9	62.39	3.671	0.221	12.78			
10/8/2003	13:23:21	801.9	62.32	3.669	0.223	13.28			
10/8/2003	13:23:51	831.9	62.25	3.633	0.259	13.78			0.194 gpm flow rate
10/8/2003	13:24:21	861.9	62.19	3.643	0.249	14.28			
10/8/2003	13:24:51	891.9	62.12	3.679	0.213	14.78			
10/8/2003	13:25:21	921.9	62.07	3.678	0.214	15.28			
10/8/2003	13:25:51	951.9	62.01	3.67	0.222	15.78			
10/8/2003	13:26:21	981.9	61.94	3.659	0.233	16.28			
10/8/2003	13:26:51	1011.9	61.89	3.63	0.262	16.78			
10/8/2003	13:27:21	1041.9	61.82	3.658	0.234	17.28			0.207 gpm flow rate
10/8/2003	13:27:51	1071.9	61.78	3.673	0.219	17.78			
10/8/2003	13:28:21	1101.9	61.73	3.669	0.223	18.28			
10/8/2003	13:28:51	1131.9	61.67	3.66	0.232	18.78			
10/8/2003	13:29:21	1161.9	61.62	3.654	0.238	19.28			
10/8/2003	13:29:51	1191.9	61.58	3.68	0.212	19.78			
10/8/2003	13:30:00	0	61.58	3.682	0.210	19.93			Start Test 2
10/8/2003	13:30:00	0.3	61.6	3.67	0.222	19.93			
10/8/2003	13:30:00	0.6	61.62	3.66	0.232	19.93			
10/8/2003	13:30:00	0.9	61.62	3.672	0.220	19.93			
10/8/2003	13:30:01	1.2	61.62	3.674	0.218	19.95			
10/8/2003	13:30:01	1.5	61.62	3.68	0.212	19.95			
10/8/2003	13:30:01	1.8	61.62	3.658	0.234	19.95			
10/8/2003	13:30:02	2.1	61.64	3.67	0.222	19.97			
10/8/2003	13:30:02	2.4	61.64	3.668	0.224	19.97			

Well No. **MW-108C**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	13:30:02	2.7	61.64	3.686	0.206	19.97			
10/8/2003	13:30:03	3	61.64	3.666	0.226	19.98			
10/8/2003	13:30:03	3.3	61.64	3.67	0.222	19.98			
10/8/2003	13:30:03	3.6	61.64	3.668	0.224	19.98			
10/8/2003	13:30:03	3.9	61.64	3.678	0.214	19.98			
10/8/2003	13:30:04	4.2	61.64	3.672	0.220	20.00			
10/8/2003	13:30:04	4.5	61.64	3.66	0.232	20.00			
10/8/2003	13:30:04	4.8	61.64	3.67	0.222	20.00			
10/8/2003	13:30:05	5.1	61.64	3.672	0.220	20.02			
10/8/2003	13:30:05	5.4	61.64	3.686	0.206	20.02			
10/8/2003	13:30:05	5.7	61.64	3.66	0.232	20.02	0.00		Pump Stop
10/8/2003	13:30:06	6	61.64	3.67	0.222	20.03	0.02	1202.00	
10/8/2003	13:30:06	6.4	61.67	3.687	0.205	20.03	0.02	1202.00	
10/8/2003	13:30:06	6.7	61.67	3.687	0.205	20.03	0.02	1202.00	
10/8/2003	13:30:07	7.1	61.67	3.691	0.201	20.05	0.03	601.50	
10/8/2003	13:30:07	7.5	61.67	3.709	0.183	20.05	0.03	601.50	
10/8/2003	13:30:08	8	61.67	3.721	0.171	20.07	0.05	401.33	
10/8/2003	13:30:08	8.4	61.67	3.733	0.159	20.07	0.05	401.33	
10/8/2003	13:30:08	8.9	61.67	3.746	0.146	20.07	0.05	401.33	
10/8/2003	13:30:09	9.5	61.67	3.758	0.134	20.08	0.07	301.25	
10/8/2003	13:30:10	10	61.64	3.774	0.118	20.10	0.08	241.20	
10/8/2003	13:30:10	10.6	61.64	3.786	0.106	20.10	0.08	241.20	
10/8/2003	13:30:11	11.3	61.64	3.798	0.094	20.12	0.10	201.17	
10/8/2003	13:30:11	11.9	61.64	3.809	0.083	20.12	0.10	201.17	
10/8/2003	13:30:12	12.6	61.64	3.819	0.073	20.13	0.12	172.57	
10/8/2003	13:30:13	13.4	61.62	3.829	0.063	20.15	0.13	151.12	
10/8/2003	13:30:14	14.2	61.62	3.837	0.055	20.17	0.15	134.44	
10/8/2003	13:30:15	15	61.62	3.845	0.047	20.18	0.17	121.10	
10/8/2003	13:30:15	15.9	61.62	3.853	0.039	20.18	0.17	121.10	
10/8/2003	13:30:16	16.8	61.62	3.859	0.033	20.20	0.18	110.18	
10/8/2003	13:30:17	17.8	61.62	3.863	0.029	20.22	0.20	101.08	
10/8/2003	13:30:18	18.9	61.62	3.867	0.025	20.23	0.22	93.38	
10/8/2003	13:30:20	20	61.62	3.873	0.019	20.27	0.25	81.07	
10/8/2003	13:30:21	21.2	61.62	3.875	0.017	20.28	0.27	76.06	
10/8/2003	13:30:22	22.4	61.62	3.877	0.015	20.30	0.28	71.65	
10/8/2003	13:30:23	23.8	61.62	3.878	0.014	20.32	0.30	67.72	
10/8/2003	13:30:25	25.2	61.62	3.88	0.012	20.35	0.33	61.05	
10/8/2003	13:30:26	26.7	61.6	3.881	0.011	20.37	0.35	58.19	
10/8/2003	13:30:28	28.2	61.6	3.881	0.011	20.40	0.38	53.22	
10/8/2003	13:30:29	29.8	61.6	3.883	0.009	20.42	0.40	51.04	
10/8/2003	13:30:31	31.5	61.6	3.885	0.007	20.45	0.43	47.19	
10/8/2003	13:30:33	33.3	61.6	3.883	0.009	20.48	0.47	43.89	
10/8/2003	13:30:35	35.2	61.6	3.883	0.009	20.52	0.50	41.03	
10/8/2003	13:30:37	37.3	61.6	3.887	0.005	20.55	0.53	38.53	
10/8/2003	13:30:39	39.5	61.6	3.885	0.007	20.58	0.57	36.32	
10/8/2003	13:30:41	41.8	61.6	3.885	0.007	20.62	0.60	34.36	
10/8/2003	13:30:44	44.3	61.6	3.885	0.007	20.67	0.65	31.79	
10/8/2003	13:30:46	46.9	61.58	3.887	0.005	20.70	0.68	30.29	
10/8/2003	13:30:49	49.7	61.58	3.887	0.005	20.75	0.73	28.30	
10/8/2003	13:30:52	52.6	61.58	3.887	0.005	20.80	0.78	26.55	
10/8/2003	13:30:55	55.7	61.55	3.887	0.005	20.85	0.83	25.02	
10/8/2003	13:30:59	59	61.55	3.887	0.005	20.92	0.90	23.24	
10/8/2003	13:31:02	62.5	61.55	3.887	0.005	20.97	0.95	22.07	
10/8/2003	13:31:06	66.2	61.53	3.889	0.003	21.03	1.02	20.69	
10/8/2003	13:31:10	70.1	61.53	3.887	0.005	21.10	1.08	19.48	
10/8/2003	13:31:14	74.3	61.51	3.887	0.005	21.17	1.15	18.41	
10/8/2003	13:31:18	78.7	61.51	3.887	0.005	21.23	1.22	17.45	
10/8/2003	13:31:23	83.4	61.51	3.887	0.005	21.32	1.30	16.40	
10/8/2003	13:31:28	88.4	61.51	3.887	0.005	21.40	1.38	15.47	
10/8/2003	13:31:33	93.7	61.49	3.89	0.002	21.48	1.47	14.65	
10/8/2003	13:31:39	99.3	61.49	3.89	0.002	21.58	1.57	13.78	
10/8/2003	13:31:45	105.2	61.49	3.89	0.002	21.68	1.67	13.01	
10/8/2003	13:31:51	111.5	61.46	3.89	0.002	21.78	1.77	12.33	
10/8/2003	13:31:58	118.1	61.46	3.89	0.002	21.90	1.88	11.63	
10/8/2003	13:32:05	125.1	61.46	3.888	0.004	22.02	2.00	11.01	
10/8/2003	13:32:12	132.6	61.46	3.89	0.002	22.13	2.12	10.46	
10/8/2003	13:32:20	140.5	61.46	3.89	0.002	22.27	2.25	9.90	
10/8/2003	13:32:28	148.9	61.46	3.89	0.002	22.40	2.38	9.40	
10/8/2003	13:32:37	157.8	61.46	3.89	0.002	22.55	2.53	8.90	

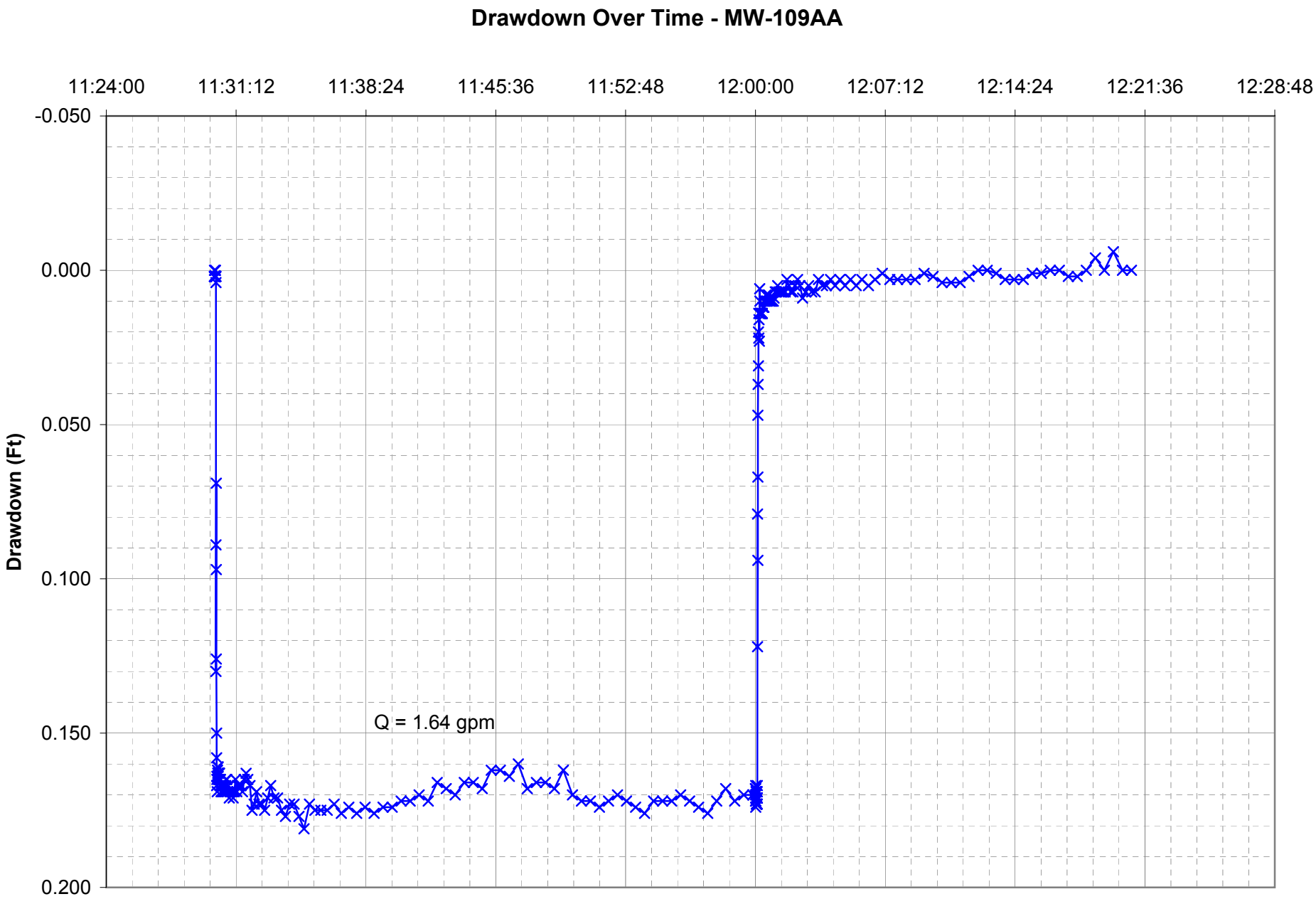
Well No. **MW-108C**

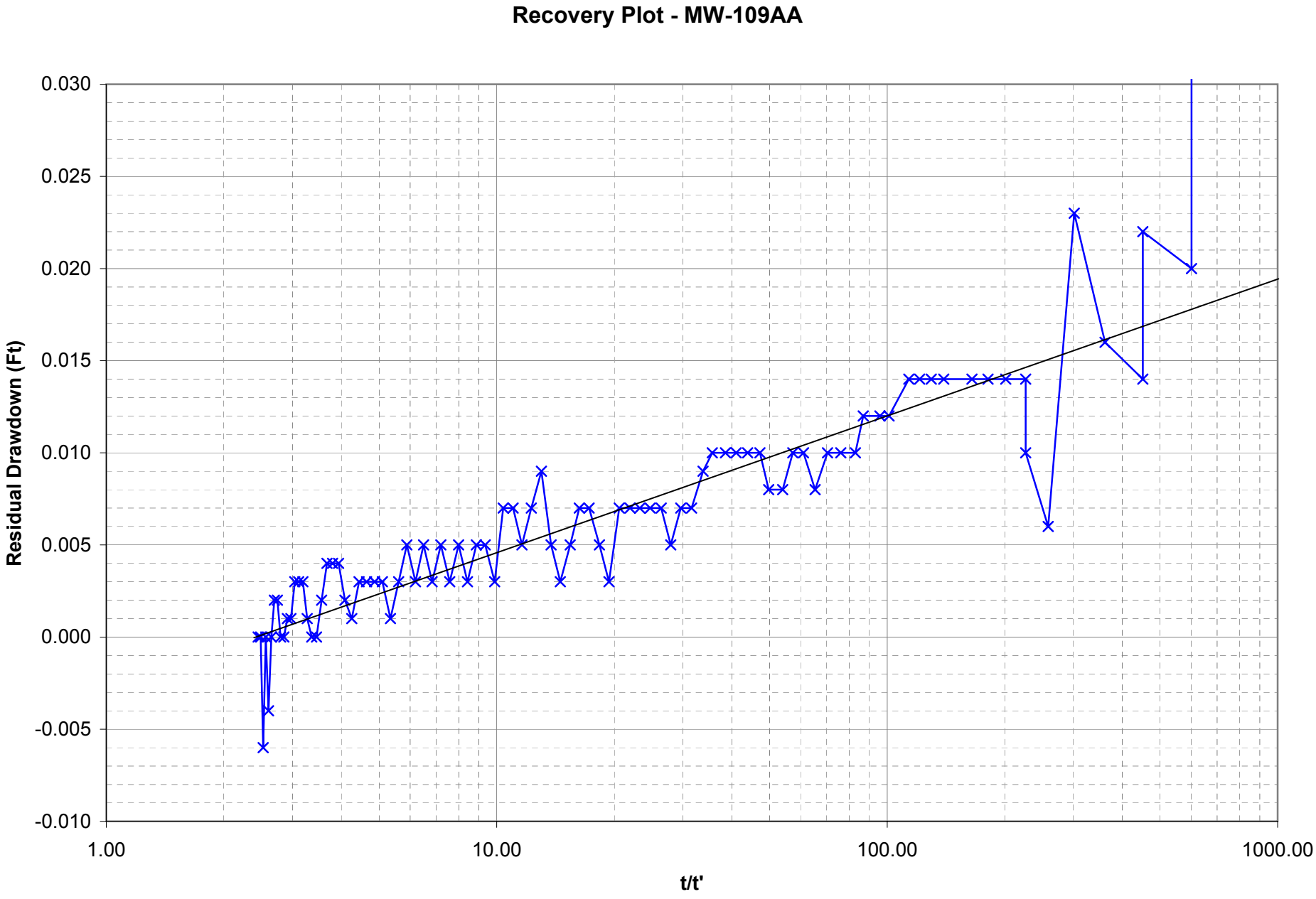
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	13:32:47	167.2	61.46	3.89	0.002	22.72	2.70	8.41	
10/8/2003	13:32:57	177.2	61.46	3.89	0.002	22.88	2.87	7.98	
10/8/2003	13:33:07	187.8	61.46	3.89	0.002	23.05	3.03	7.60	
10/8/2003	13:33:19	199	61.46	3.89	0.002	23.25	3.23	7.19	
10/8/2003	13:33:30	210.9	61.49	3.888	0.004	23.43	3.42	6.86	
10/8/2003	13:33:43	223.5	61.49	3.892	0.000	23.65	3.63	6.51	
10/8/2003	13:33:56	236.8	61.49	3.89	0.002	23.87	3.85	6.20	
10/8/2003	13:34:10	250.9	61.51	3.891	0.001	24.10	4.08	5.90	
10/8/2003	13:34:25	265.8	61.53	3.891	0.001	24.35	4.33	5.62	
10/8/2003	13:34:41	281.6	61.53	3.891	0.001	24.62	4.60	5.35	
10/8/2003	13:34:58	298.4	61.55	3.891	0.001	24.90	4.88	5.10	
10/8/2003	13:35:16	316.2	61.58	3.889	0.003	25.20	5.18	4.86	
10/8/2003	13:35:35	335	61.58	3.891	0.001	25.52	5.50	4.64	
10/8/2003	13:35:54	354.9	61.62	3.89	0.002	25.83	5.82	4.44	
10/8/2003	13:36:16	376	61.64	3.892	0.000	26.20	6.18	4.24	
10/8/2003	13:36:38	398.4	61.67	3.894	-0.002	26.57	6.55	4.06	
10/8/2003	13:37:02	422.1	61.69	3.892	0.000	26.97	6.95	3.88	
10/8/2003	13:37:27	447.2	61.73	3.891	0.001	27.38	7.37	3.72	
10/8/2003	13:37:53	473.8	61.76	3.891	0.001	27.82	7.80	3.57	
10/8/2003	13:38:22	502	61.8	3.89	0.002	28.30	8.28	3.42	
10/8/2003	13:38:51	531.9	61.85	3.89	0.002	28.78	8.77	3.28	
10/8/2003	13:39:21	561.9	61.87	3.892	0.000	29.28	9.27	3.16	
10/8/2003	13:39:51	591.9	61.92	3.889	0.003	29.78	9.77	3.05	
10/8/2003	13:40:21	621.9	61.96	3.891	0.001	30.28	10.27	2.95	
10/8/2003	13:40:51	651.9	61.98	3.891	0.001	30.78	10.77	2.86	
10/8/2003	13:41:21	681.9	62.03	3.892	0.000	31.28	11.27	2.78	
10/8/2003	13:41:51	711.9	62.07	3.892	0.000	31.78	11.77	2.70	
10/8/2003	13:42:21	741.9	62.1	3.892	0.000	32.28	12.27	2.63	
10/8/2003	13:42:51	771.9	62.14	3.891	0.001	32.78	12.77	2.57	
10/8/2003	13:43:21	801.9	62.16	3.891	0.001	33.28	13.27	2.51	
10/8/2003	13:43:51	831.9	62.21	3.89	0.002	33.78	13.77	2.45	
10/8/2003	13:44:21	861.9	62.23	3.892	0.000	34.28	14.27	2.40	
10/8/2003	13:44:51	891.9	62.25	3.892	0.000	34.78	14.77	2.36	
10/8/2003	13:45:21	921.9	62.3	3.89	0.002	35.28	15.27	2.31	
10/8/2003	13:45:51	951.9	62.32	3.891	0.001	35.78	15.77	2.27	
10/8/2003	13:46:21	981.9	62.37	3.893	-0.001	36.28	16.27	2.23	
10/8/2003	13:46:51	1011.9	62.39	3.893	-0.001	36.78	16.77	2.19	
10/8/2003	13:47:21	1041.9	62.41	3.892	0.000	37.28	17.27	2.16	
10/8/2003	13:47:51	1071.9	62.44	3.892	0.000	37.78	17.77	2.13	
10/8/2003	13:48:21	1101.9	62.48	3.892	0.000	38.28	18.27	2.10	
10/8/2003	13:48:51	1131.9	62.5	3.892	0.000	38.78	18.77	2.07	
10/8/2003	13:49:21	1161.9	62.53	3.891	0.001	39.28	19.27	2.04	
10/8/2003	13:49:51	1191.9	62.55	3.891	0.001	39.78	19.77	2.01	
10/8/2003	13:50:21	1221.9	62.59	3.893	-0.001	40.28	20.27	1.99	
10/8/2003	13:50:51	1251.9	62.62	3.892	0.000	40.78	20.77	1.96	
10/8/2003	13:51:21	1281.9	62.64	3.892	0.000	41.28	21.27	1.94	
10/8/2003	13:51:51	1311.9	62.66	3.892	0.000	41.78	21.77	1.92	

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-109AA**

Equipment:	In-Situ Inc. MiniTroll Pro				
Test start date and time	10/2/2003 11:30:00				
Test end date and time	10/2/2003 12:20:51				
Period of pumping	30	minutes			
Static depth to water	13.48	feet below top of casing			
Starting transducer depth	5.103	feet below static water level			
Total well depth	23.3	feet below top of casing			
Depth to top of screen	13.3	feet below top of casing			
Height of interval tested [b]	9.8	feet			
Average pumping rate [Q]	1.65	gpm, or	318	cfd	
Average drawdown [s]	0.17	ft			
Specific capacity [Q/s]	9.71	gpm/ft			
Residual drawdown over one log cycle [Δs]			0.073	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			796	cfd/ft	
Hydraulic conductivity [K = T/b]			81	fpd, or	2.9E-02 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-109AA**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	11:20:00								DTW = 13.48 at 11:20
10/2/2003	11:30:00	0	71.16	5.103	0.000				Start Test 1
10/2/2003	11:30:00	0.3	71.19	5.101	0.002				
10/2/2003	11:30:00	0.6	71.19	5.101	0.002				
10/2/2003	11:30:00	0.9	71.21	5.101	0.002				
10/2/2003	11:30:01	1.2	71.21	5.101	0.002				
10/2/2003	11:30:01	1.5	71.21	5.101	0.002				
10/2/2003	11:30:01	1.8	71.21	5.101	0.002				
10/2/2003	11:30:02	2.1	71.23	5.101	0.002				
10/2/2003	11:30:02	2.4	71.23	5.101	0.002				
10/2/2003	11:30:02	2.7	71.23	5.103	0.000				
10/2/2003	11:30:03	3	71.23	5.101	0.002				
10/2/2003	11:30:03	3.3	71.23	5.101	0.002				
10/2/2003	11:30:03	3.6	71.23	5.101	0.002				
10/2/2003	11:30:03	3.9	71.23	5.103	0.000				
10/2/2003	11:30:04	4.2	71.23	5.101	0.002				
10/2/2003	11:30:04	4.5	71.23	5.101	0.002				
10/2/2003	11:30:04	4.8	71.23	5.101	0.002				
10/2/2003	11:30:05	5.1	71.23	5.099	0.004				Pump Start
10/2/2003	11:30:05	5.4	71.23	5.014	0.089	0.00			
10/2/2003	11:30:05	5.7	71.23	4.973	0.130	0.00			
10/2/2003	11:30:06	6	71.25	5.034	0.069	0.02			
10/2/2003	11:30:06	6.4	71.25	5.006	0.097	0.02			
10/2/2003	11:30:06	6.7	71.25	4.977	0.126	0.02			
10/2/2003	11:30:07	7.1	71.25	4.953	0.150	0.03			
10/2/2003	11:30:07	7.5	71.25	4.945	0.158	0.03			
10/2/2003	11:30:07	8	71.25	4.936	0.167	0.03			
10/2/2003	11:30:08	8.4	71.25	4.939	0.164	0.05			
10/2/2003	11:30:08	8.9	71.25	4.938	0.165	0.05			
10/2/2003	11:30:09	9.5	71.25	4.934	0.169	0.07			
10/2/2003	11:30:10	10	71.25	4.941	0.162	0.08			
10/2/2003	11:30:10	10.6	71.25	4.939	0.164	0.08			
10/2/2003	11:30:11	11.3	71.23	4.942	0.161	0.10			
10/2/2003	11:30:11	11.9	71.23	4.94	0.163	0.10			
10/2/2003	11:30:12	12.6	71.23	4.942	0.161	0.12			
10/2/2003	11:30:13	13.4	71.23	4.94	0.163	0.13			
10/2/2003	11:30:14	14.2	71.23	4.938	0.165	0.15			
10/2/2003	11:30:15	15	71.23	4.938	0.165	0.17			
10/2/2003	11:30:15	15.9	71.23	4.94	0.163	0.17			
10/2/2003	11:30:16	16.8	71.23	4.938	0.165	0.18			
10/2/2003	11:30:17	17.8	71.23	4.94	0.163	0.20			
10/2/2003	11:30:18	18.9	71.23	4.936	0.167	0.22			
10/2/2003	11:30:20	20	71.21	4.938	0.165	0.25			
10/2/2003	11:30:21	21.2	71.21	4.936	0.167	0.27			
10/2/2003	11:30:22	22.4	71.21	4.934	0.169	0.28			
10/2/2003	11:30:23	23.8	71.21	4.936	0.167	0.30			
10/2/2003	11:30:25	25.2	71.21	4.934	0.169	0.33			
10/2/2003	11:30:26	26.7	71.21	4.934	0.169	0.35			
10/2/2003	11:30:28	28.2	71.21	4.934	0.169	0.38			
10/2/2003	11:30:29	29.8	71.21	4.936	0.167	0.40			
10/2/2003	11:30:31	31.5	71.21	4.936	0.167	0.43			
10/2/2003	11:30:33	33.3	71.21	4.934	0.169	0.47			
10/2/2003	11:30:35	35.2	71.21	4.934	0.169	0.50			
10/2/2003	11:30:37	37.3	71.21	4.936	0.167	0.53			
10/2/2003	11:30:39	39.5	71.21	4.938	0.165	0.57			
10/2/2003	11:30:41	41.8	71.21	4.938	0.165	0.60			
10/2/2003	11:30:44	44.3	71.21	4.934	0.169	0.65			
10/2/2003	11:30:46	46.9	71.21	4.936	0.167	0.68			
10/2/2003	11:30:49	49.7	71.21	4.932	0.171	0.73			
10/2/2003	11:30:52	52.6	71.21	4.934	0.169	0.78			
10/2/2003	11:30:55	55.7	71.21	4.934	0.169	0.83			
10/2/2003	11:30:58	59	71.21	4.934	0.169	0.88			
10/2/2003	11:31:02	62.5	71.21	4.932	0.171	0.95			
10/2/2003	11:31:06	66.2	71.21	4.934	0.169	1.02			
10/2/2003	11:31:10	70.1	71.21	4.938	0.165	1.08			
10/2/2003	11:31:14	74.3	71.21	4.934	0.169	1.15			
10/2/2003	11:31:18	78.7	71.21	4.936	0.167	1.22			

Well No. **MW-109AA**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	11:31:23	83.4	71.21	4.936	0.167	1.30			
10/2/2003	11:31:28	88.4	71.21	4.936	0.167	1.38			
10/2/2003	11:31:33	93.7	71.21	4.934	0.169	1.47			
10/2/2003	11:31:39	99.3	71.21	4.938	0.165	1.57			
10/2/2003	11:31:45	105.2	71.21	4.94	0.163	1.67			
10/2/2003	11:31:51	111.5	71.21	4.938	0.165	1.77			
10/2/2003	11:31:58	118.1	71.21	4.936	0.167	1.88			
10/2/2003	11:32:05	125.1	71.21	4.928	0.175	2.00			
10/2/2003	11:32:12	132.6	71.21	4.93	0.173	2.12			
10/2/2003	11:32:20	140.5	71.21	4.934	0.169	2.25			
10/2/2003	11:32:28	148.9	71.21	4.93	0.173	2.38			
10/2/2003	11:32:37	157.8	71.21	4.93	0.173	2.53			
10/2/2003	11:32:47	167.2	71.23	4.928	0.175	2.70			
10/2/2003	11:32:57	177.2	71.23	4.932	0.171	2.87			
10/2/2003	11:33:07	187.8	71.23	4.936	0.167	3.03			
10/2/2003	11:33:18	199	71.23	4.932	0.171	3.22			
10/2/2003	11:33:30	210.9	71.23	4.932	0.171	3.42			1.62 gpm flow rate
10/2/2003	11:33:43	223.5	71.23	4.928	0.175	3.63			
10/2/2003	11:33:56	236.8	71.23	4.926	0.177	3.85			
10/2/2003	11:34:10	250.9	71.23	4.93	0.173	4.08			
10/2/2003	11:34:25	265.8	71.23	4.93	0.173	4.33			
10/2/2003	11:34:41	281.6	71.25	4.926	0.177	4.60			
10/2/2003	11:34:58	298.4	71.23	4.922	0.181	4.88			
10/2/2003	11:35:16	316.2	71.25	4.93	0.173	5.18			
10/2/2003	11:35:34	335	71.25	4.928	0.175	5.48			
10/2/2003	11:35:54	354.9	71.25	4.928	0.175	5.82			
10/2/2003	11:36:15	376	71.25	4.928	0.175	6.17			
10/2/2003	11:36:38	398.4	71.25	4.93	0.173	6.55			
10/2/2003	11:37:02	422.1	71.28	4.927	0.176	6.95			
10/2/2003	11:37:27	447.2	71.28	4.929	0.174	7.37			
10/2/2003	11:37:53	473.8	71.28	4.927	0.176	7.80			
10/2/2003	11:38:21	502	71.28	4.929	0.174	8.27			1.67 gpm flow rate
10/2/2003	11:38:51	531.9	71.28	4.927	0.176	8.77			
10/2/2003	11:39:21	561.9	71.28	4.929	0.174	9.27			
10/2/2003	11:39:51	591.9	71.28	4.929	0.174	9.77			
10/2/2003	11:40:21	621.9	71.28	4.931	0.172	10.27			
10/2/2003	11:40:51	651.9	71.28	4.931	0.172	10.77			
10/2/2003	11:41:21	681.9	71.28	4.933	0.170	11.27			
10/2/2003	11:41:51	711.9	71.28	4.931	0.172	11.77			
10/2/2003	11:42:21	741.9	71.28	4.937	0.166	12.27			
10/2/2003	11:42:51	771.9	71.3	4.935	0.168	12.77			
10/2/2003	11:43:21	801.9	71.3	4.933	0.170	13.27			1.67 gpm flow rate
10/2/2003	11:43:51	831.9	71.3	4.937	0.166	13.77			
10/2/2003	11:44:21	861.9	71.3	4.937	0.166	14.27			
10/2/2003	11:44:51	891.9	71.3	4.935	0.168	14.77			
10/2/2003	11:45:21	921.9	71.3	4.941	0.162	15.27			
10/2/2003	11:45:51	951.9	71.3	4.941	0.162	15.77			
10/2/2003	11:46:21	981.9	71.3	4.939	0.164	16.27			
10/2/2003	11:46:51	1011.9	71.3	4.943	0.160	16.77			
10/2/2003	11:47:21	1041.9	71.3	4.935	0.168	17.27			
10/2/2003	11:47:51	1071.9	71.3	4.937	0.166	17.77			
10/2/2003	11:48:21	1101.9	71.3	4.937	0.166	18.27			
10/2/2003	11:48:51	1131.9	71.3	4.935	0.168	18.77			
10/2/2003	11:49:21	1161.9	71.3	4.941	0.162	19.27			
10/2/2003	11:49:51	1191.9	71.32	4.933	0.170	19.77			
10/2/2003	11:50:21	1221.9	71.32	4.931	0.172	20.27			1.64 gpm flow rate
10/2/2003	11:50:51	1251.9	71.32	4.931	0.172	20.77			
10/2/2003	11:51:21	1281.9	71.32	4.929	0.174	21.27			
10/2/2003	11:51:51	1311.9	71.32	4.931	0.172	21.77			
10/2/2003	11:52:21	1341.9	71.32	4.933	0.170	22.27			
10/2/2003	11:52:51	1371.9	71.32	4.931	0.172	22.77			
10/2/2003	11:53:21	1401.9	71.32	4.929	0.174	23.27			
10/2/2003	11:53:51	1431.9	71.3	4.927	0.176	23.77			
10/2/2003	11:54:21	1461.9	71.32	4.931	0.172	24.27			
10/2/2003	11:54:51	1491.9	71.32	4.931	0.172	24.77			
10/2/2003	11:55:21	1521.9	71.32	4.931	0.172	25.27			
10/2/2003	11:55:51	1551.9	71.32	4.933	0.170	25.77			
10/2/2003	11:56:21	1581.9	71.32	4.931	0.172	26.27			
10/2/2003	11:56:51	1611.9	71.32	4.929	0.174	26.77			
10/2/2003	11:57:21	1641.9	71.32	4.927	0.176	27.27			
10/2/2003	11:57:51	1671.9	71.32	4.931	0.172	27.77			

Well No. **MW-109AA**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	11:58:21	1701.9	71.32	4.935	0.168	28.27			
10/2/2003	11:58:51	1731.9	71.32	4.931	0.172	28.77			
10/2/2003	11:59:21	1761.9	71.32	4.933	0.170	29.27			
10/2/2003	11:59:51	1791.9	71.32	4.933	0.170	29.77			
10/2/2003	12:00:00	0	71.32	4.935	0.168	29.92			Start Test 2
10/2/2003	12:00:00	0.3	71.34	4.933	0.170	29.92			
10/2/2003	12:00:00	0.6	71.34	4.935	0.168	29.92			
10/2/2003	12:00:00	0.9	71.37	4.931	0.172	29.92			
10/2/2003	12:00:01	1.2	71.37	4.929	0.174	29.93			
10/2/2003	12:00:01	1.5	71.37	4.931	0.172	29.93			
10/2/2003	12:00:01	1.8	71.37	4.936	0.167	29.93			
10/2/2003	12:00:02	2.1	71.39	4.932	0.171	29.95			
10/2/2003	12:00:02	2.4	71.39	4.932	0.171	29.95			
10/2/2003	12:00:02	2.7	71.39	4.934	0.169	29.95			
10/2/2003	12:00:03	3	71.39	4.932	0.171	29.97			
10/2/2003	12:00:03	3.3	71.39	4.93	0.173	29.97			
10/2/2003	12:00:03	3.6	71.39	4.932	0.171	29.97			
10/2/2003	12:00:03	3.9	71.39	4.934	0.169	29.97			
10/2/2003	12:00:04	4.2	71.39	4.93	0.173	29.98			
10/2/2003	12:00:04	4.5	71.39	4.932	0.171	29.98			
10/2/2003	12:00:04	4.8	71.39	4.934	0.169	29.98			
10/2/2003	12:00:05	5.1	71.41	4.934	0.169	30.00			
10/2/2003	12:00:05	5.4	71.41	4.932	0.171	30.00			
10/2/2003	12:00:05	5.7	71.41	4.934	0.169	30.00			
10/2/2003	12:00:06	6	71.41	4.932	0.171	30.02			
10/2/2003	12:00:06	6.4	71.41	4.936	0.167	30.02			
10/2/2003	12:00:06	6.7	71.41	4.93	0.173	30.02			
10/2/2003	12:00:07	7.1	71.41	5.024	0.079	30.03	0.00		Pump Stop
10/2/2003	12:00:07	7.5	71.41	4.981	0.122	30.03	0.00		
10/2/2003	12:00:08	8	71.41	5.009	0.094	30.05	0.02	1803.00	
10/2/2003	12:00:08	8.4	71.41	5.036	0.067	30.05	0.02	1803.00	
10/2/2003	12:00:08	8.9	71.41	5.056	0.047	30.05	0.02	1803.00	
10/2/2003	12:00:09	9.5	71.41	5.066	0.037	30.07	0.03	902.00	
10/2/2003	12:00:10	10	71.41	5.072	0.031	30.08	0.05	601.67	
10/2/2003	12:00:10	10.6	71.41	5.083	0.020	30.08	0.05	601.67	
10/2/2003	12:00:11	11.3	71.41	5.081	0.022	30.10	0.07	451.50	
10/2/2003	12:00:11	11.9	71.39	5.089	0.014	30.10	0.07	451.50	
10/2/2003	12:00:12	12.6	71.39	5.087	0.016	30.12	0.08	361.40	
10/2/2003	12:00:13	13.4	71.39	5.08	0.023	30.13	0.10	301.33	
10/2/2003	12:00:14	14.2	71.39	5.097	0.006	30.15	0.12	258.43	
10/2/2003	12:00:15	15	71.39	5.093	0.010	30.17	0.13	226.25	
10/2/2003	12:00:15	15.9	71.39	5.089	0.014	30.17	0.13	226.25	
10/2/2003	12:00:16	16.8	71.39	5.089	0.014	30.18	0.15	201.22	
10/2/2003	12:00:17	17.8	71.39	5.089	0.014	30.20	0.17	181.20	
10/2/2003	12:00:18	18.9	71.39	5.089	0.014	30.22	0.18	164.82	
10/2/2003	12:00:20	20	71.39	5.089	0.014	30.25	0.22	139.62	
10/2/2003	12:00:21	21.2	71.39	5.089	0.014	30.27	0.23	129.71	
10/2/2003	12:00:22	22.4	71.39	5.089	0.014	30.28	0.25	121.13	
10/2/2003	12:00:23	23.8	71.39	5.089	0.014	30.30	0.27	113.63	
10/2/2003	12:00:25	25.2	71.39	5.091	0.012	30.33	0.30	101.11	
10/2/2003	12:00:26	26.7	71.39	5.091	0.012	30.35	0.32	95.84	
10/2/2003	12:00:28	28.2	71.41	5.091	0.012	30.38	0.35	86.81	
10/2/2003	12:00:29	29.8	71.41	5.093	0.010	30.40	0.37	82.91	
10/2/2003	12:00:31	31.5	71.41	5.093	0.010	30.43	0.40	76.08	
10/2/2003	12:00:33	33.3	71.41	5.093	0.010	30.47	0.43	70.31	
10/2/2003	12:00:35	35.2	71.41	5.095	0.008	30.50	0.47	65.36	
10/2/2003	12:00:37	37.3	71.44	5.093	0.010	30.53	0.50	61.07	
10/2/2003	12:00:39	39.5	71.44	5.093	0.010	30.57	0.53	57.31	
10/2/2003	12:00:41	41.8	71.44	5.095	0.008	30.60	0.57	54.00	
10/2/2003	12:00:44	44.3	71.44	5.095	0.008	30.65	0.62	49.70	
10/2/2003	12:00:46	46.9	71.44	5.093	0.010	30.68	0.65	47.21	
10/2/2003	12:00:49	49.7	71.46	5.093	0.010	30.73	0.70	43.90	
10/2/2003	12:00:52	52.6	71.46	5.093	0.010	30.78	0.75	41.04	
10/2/2003	12:00:55	55.7	71.46	5.093	0.010	30.83	0.80	38.54	
10/2/2003	12:00:59	59	71.46	5.093	0.010	30.90	0.87	35.65	
10/2/2003	12:01:02	62.5	71.48	5.094	0.009	30.95	0.92	33.76	
10/2/2003	12:01:06	66.2	71.48	5.096	0.007	31.02	0.98	31.54	
10/2/2003	12:01:10	70.1	71.48	5.096	0.007	31.08	1.05	29.60	
10/2/2003	12:01:14	74.3	71.48	5.098	0.005	31.15	1.12	27.90	
10/2/2003	12:01:18	78.7	71.5	5.096	0.007	31.22	1.18	26.38	
10/2/2003	12:01:23	83.4	71.5	5.096	0.007	31.30	1.27	24.71	

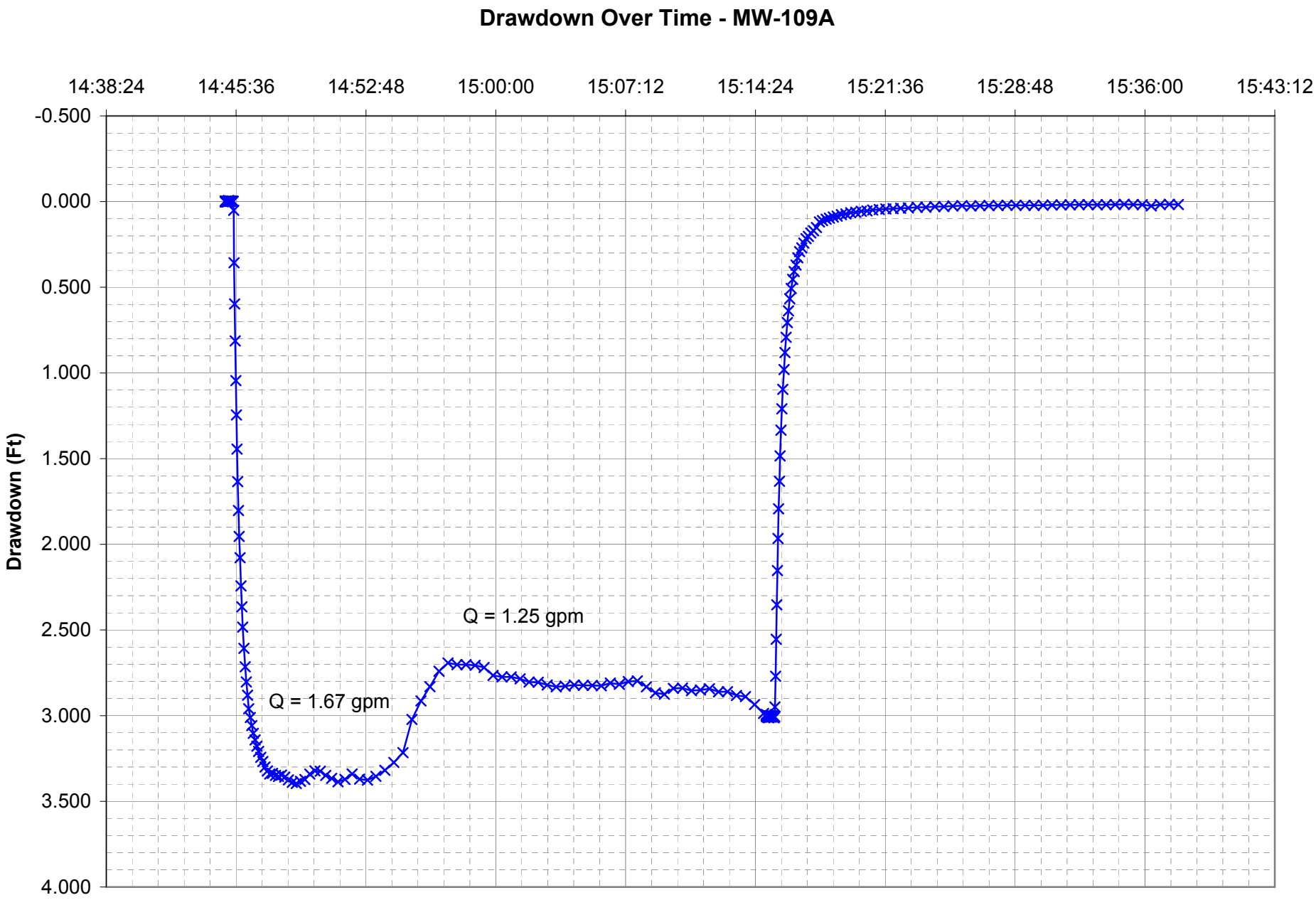
Well No. **MW-109AA**

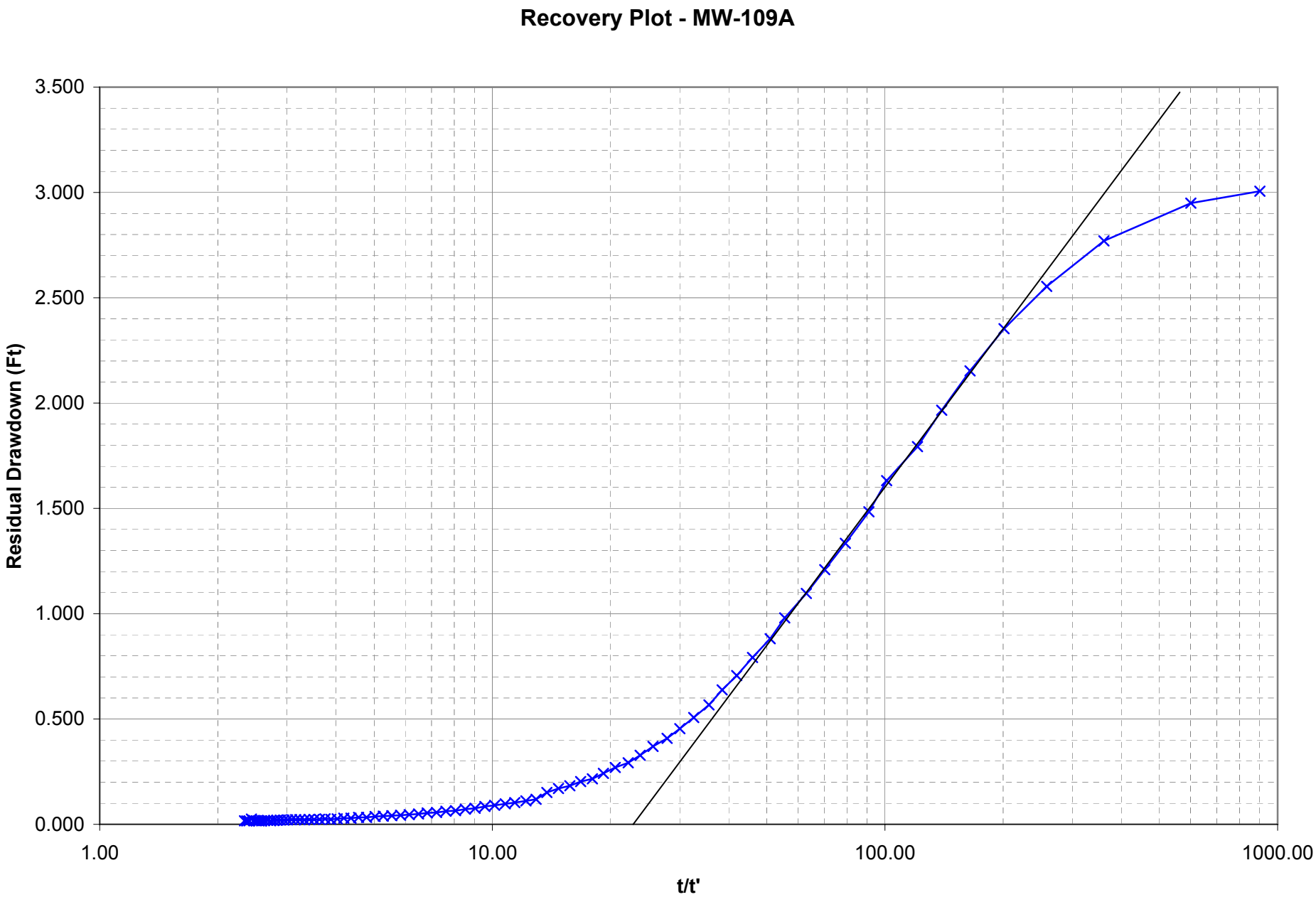
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	12:01:28	88.4	71.5	5.096	0.007	31.38	1.35	23.25	
10/2/2003	12:01:33	93.7	71.5	5.096	0.007	31.47	1.43	21.95	
10/2/2003	12:01:39	99.3	71.5	5.096	0.007	31.57	1.53	20.59	
10/2/2003	12:01:45	105.2	71.5	5.1	0.003	31.67	1.63	19.39	
10/2/2003	12:01:51	111.5	71.5	5.098	0.005	31.77	1.73	18.33	
10/2/2003	12:01:58	118.1	71.5	5.096	0.007	31.88	1.85	17.23	
10/2/2003	12:02:05	125.1	71.53	5.096	0.007	32.00	1.97	16.27	
10/2/2003	12:02:12	132.6	71.53	5.098	0.005	32.12	2.08	15.42	
10/2/2003	12:02:20	140.5	71.53	5.1	0.003	32.25	2.22	14.55	
10/2/2003	12:02:28	148.9	71.53	5.098	0.005	32.38	2.35	13.78	
10/2/2003	12:02:37	157.8	71.53	5.094	0.009	32.53	2.50	13.01	
10/2/2003	12:02:47	167.2	71.53	5.096	0.007	32.70	2.67	12.26	
10/2/2003	12:02:57	177.2	71.53	5.098	0.005	32.87	2.83	11.60	
10/2/2003	12:03:07	187.8	71.53	5.096	0.007	33.03	3.00	11.01	
10/2/2003	12:03:19	199	71.53	5.096	0.007	33.23	3.20	10.39	
10/2/2003	12:03:30	210.9	71.53	5.1	0.003	33.42	3.38	9.88	
10/2/2003	12:03:43	223.5	71.53	5.098	0.005	33.63	3.60	9.34	
10/2/2003	12:03:56	236.8	71.53	5.098	0.005	33.85	3.82	8.87	
10/2/2003	12:04:10	250.9	71.53	5.1	0.003	34.08	4.05	8.42	
10/2/2003	12:04:25	265.8	71.53	5.098	0.005	34.33	4.30	7.98	
10/2/2003	12:04:41	281.6	71.53	5.1	0.003	34.60	4.57	7.58	
10/2/2003	12:04:58	298.4	71.53	5.098	0.005	34.88	4.85	7.19	
10/2/2003	12:05:16	316.2	71.53	5.1	0.003	35.18	5.15	6.83	
10/2/2003	12:05:35	335	71.53	5.098	0.005	35.50	5.47	6.49	
10/2/2003	12:05:54	354.9	71.5	5.1	0.003	35.82	5.78	6.19	
10/2/2003	12:06:16	376	71.5	5.098	0.005	36.18	6.15	5.88	
10/2/2003	12:06:38	398.4	71.5	5.1	0.003	36.55	6.52	5.61	
10/2/2003	12:07:02	422.1	71.5	5.102	0.001	36.95	6.92	5.34	
10/2/2003	12:07:27	447.2	71.5	5.1	0.003	37.37	7.33	5.10	
10/2/2003	12:07:53	473.8	71.5	5.1	0.003	37.80	7.77	4.87	
10/2/2003	12:08:22	502	71.48	5.1	0.003	38.28	8.25	4.64	
10/2/2003	12:08:51	531.9	71.48	5.1	0.003	38.77	8.73	4.44	
10/2/2003	12:09:21	561.9	71.46	5.102	0.001	39.27	9.23	4.25	
10/2/2003	12:09:51	591.9	71.46	5.101	0.002	39.77	9.73	4.09	
10/2/2003	12:10:21	621.9	71.46	5.099	0.004	40.27	10.23	3.93	
10/2/2003	12:10:51	651.9	71.44	5.099	0.004	40.77	10.73	3.80	
10/2/2003	12:11:21	681.9	71.41	5.099	0.004	41.27	11.23	3.67	
10/2/2003	12:11:51	711.9	71.39	5.101	0.002	41.77	11.73	3.56	
10/2/2003	12:12:21	741.9	71.37	5.103	0.000	42.27	12.23	3.46	
10/2/2003	12:12:51	771.9	71.37	5.103	0.000	42.77	12.73	3.36	
10/2/2003	12:13:21	801.9	71.34	5.102	0.001	43.27	13.23	3.27	
10/2/2003	12:13:51	831.9	71.32	5.1	0.003	43.77	13.73	3.19	
10/2/2003	12:14:21	861.9	71.3	5.1	0.003	44.27	14.23	3.11	
10/2/2003	12:14:51	891.9	71.3	5.1	0.003	44.77	14.73	3.04	
10/2/2003	12:15:21	921.9	71.28	5.102	0.001	45.27	15.23	2.97	
10/2/2003	12:15:51	951.9	71.28	5.102	0.001	45.77	15.73	2.91	
10/2/2003	12:16:21	981.9	71.25	5.103	0.000	46.27	16.23	2.85	
10/2/2003	12:16:51	1011.9	71.23	5.103	0.000	46.77	16.73	2.79	
10/2/2003	12:17:21	1041.9	71.23	5.101	0.002	47.27	17.23	2.74	
10/2/2003	12:17:51	1071.9	71.23	5.101	0.002	47.77	17.73	2.69	
10/2/2003	12:18:21	1101.9	71.21	5.103	0.000	48.27	18.23	2.65	
10/2/2003	12:18:51	1131.9	71.21	5.107	-0.004	48.77	18.73	2.60	
10/2/2003	12:19:21	1161.9	71.21	5.103	0.000	49.27	19.23	2.56	
10/2/2003	12:19:51	1191.9	71.19	5.109	-0.006	49.77	19.73	2.52	
10/2/2003	12:20:21	1221.9	71.19	5.103	0.000	50.27	20.23	2.48	
10/2/2003	12:20:51	1251.9	71.19	5.103	0.000	50.77	20.73	2.45	
10/2/2003	12:21:00								DTW = 13.51 at 12:21

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-109A**

Equipment:	In-Situ Inc. MiniTroll Pro				
Test start date and time	10/2/2003	14:45:00			
Test end date and time	10/2/2003	15:37:51			
Period of pumping	30	minutes			
Static depth to water	13.65	feet below top of casing			
Starting transducer depth	5.042	feet below static water level			
Total well depth	88.7	feet below top of casing			
Depth to top of screen	78.7	feet below top of casing			
Height of interval tested [b]	10.0	feet			
Average pumping rate [Q]	1.43	gpm, or	275	cfd	
Average drawdown [s]	3.00	ft			
Specific capacity [Q/s]	0.48	gpm/ft			
Residual drawdown over one log cycle [Δs]			2.50	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			20.2	cfd/ft	
Hydraulic conductivity [K = T/b]			2.0	fpd, or	7.1E-04 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-109A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	13:49:00								DTW = 13.65 at 13:49
10/2/2003	14:30:00								DTW = 13.66 at 14:30
10/2/2003	14:45:00	0	70.96	5.045	-0.003				Start Test 1
10/2/2003	14:45:00	0.3	70.98	5.042	0.000				
10/2/2003	14:45:00	0.6	70.98	5.042	0.000				
10/2/2003	14:45:00	0.9	71.01	5.042	0.000				
10/2/2003	14:45:01	1.2	71.01	5.042	0.000				
10/2/2003	14:45:01	1.5	71.01	5.042	0.000				
10/2/2003	14:45:01	1.8	71.01	5.042	0.000				
10/2/2003	14:45:02	2.1	71.01	5.042	0.000				
10/2/2003	14:45:02	2.4	71.03	5.042	0.000				
10/2/2003	14:45:02	2.7	71.03	5.042	0.000				
10/2/2003	14:45:03	3	71.03	5.042	0.000				
10/2/2003	14:45:03	3.3	71.03	5.042	0.000				
10/2/2003	14:45:03	3.6	71.03	5.042	0.000				
10/2/2003	14:45:03	3.9	71.03	5.042	0.000				
10/2/2003	14:45:04	4.2	71.03	5.042	0.000				
10/2/2003	14:45:04	4.5	71.03	5.042	0.000				
10/2/2003	14:45:04	4.8	71.03	5.042	0.000				
10/2/2003	14:45:05	5.1	71.03	5.042	0.000				
10/2/2003	14:45:05	5.4	71.05	5.042	0.000				
10/2/2003	14:45:05	5.7	71.05	5.042	0.000				
10/2/2003	14:45:06	6	71.05	5.042	0.000				
10/2/2003	14:45:06	6.4	71.05	5.042	0.000				
10/2/2003	14:45:06	6.7	71.05	5.042	0.000				
10/2/2003	14:45:07	7.1	71.05	5.042	0.000				
10/2/2003	14:45:07	7.5	71.05	5.042	0.000				
10/2/2003	14:45:07	8	71.05	5.042	0.000				
10/2/2003	14:45:08	8.4	71.05	5.042	0.000				
10/2/2003	14:45:08	8.9	71.05	5.042	0.000				
10/2/2003	14:45:09	9.5	71.05	5.044	-0.002				
10/2/2003	14:45:10	10	71.05	5.046	-0.004				
10/2/2003	14:45:10	10.6	71.03	5.046	-0.004				
10/2/2003	14:45:11	11.3	71.03	5.046	-0.004				
10/2/2003	14:45:11	11.9	71.03	5.046	-0.004				
10/2/2003	14:45:12	12.6	71.03	5.046	-0.004				
10/2/2003	14:45:13	13.4	71.03	5.044	-0.002				
10/2/2003	14:45:14	14.2	71.03	5.044	-0.002				
10/2/2003	14:45:15	15	71.03	5.044	-0.002				
10/2/2003	14:45:15	15.9	71.03	5.044	-0.002				
10/2/2003	14:45:16	16.8	71.03	5.044	-0.002				
10/2/2003	14:45:17	17.8	71.01	5.046	-0.004				
10/2/2003	14:45:18	18.9	71.01	5.044	-0.002				
10/2/2003	14:45:20	20	71.01	5.044	-0.002				
10/2/2003	14:45:21	21.2	71.01	5.044	-0.002				
10/2/2003	14:45:22	22.4	71.01	5.044	-0.002				
10/2/2003	14:45:23	23.8	71.01	5.042	0.000				
10/2/2003	14:45:25	25.2	71.01	5.042	0.000				
10/2/2003	14:45:26	26.7	71.01	5.044	-0.002	0.00			Pump Start
10/2/2003	14:45:28	28.2	71.01	4.991	0.051	0.03			
10/2/2003	14:45:29	29.8	71.01	4.685	0.357	0.05			
10/2/2003	14:45:31	31.5	71.01	4.445	0.597	0.08			
10/2/2003	14:45:33	33.3	71.01	4.229	0.813	0.12			
10/2/2003	14:45:35	35.2	71.01	3.997	1.045	0.15			
10/2/2003	14:45:37	37.3	71.01	3.797	1.245	0.18			
10/2/2003	14:45:39	39.5	71.01	3.598	1.444	0.22			
10/2/2003	14:45:41	41.8	71.01	3.408	1.634	0.25			
10/2/2003	14:45:44	44.3	71.01	3.239	1.803	0.30			
10/2/2003	14:45:46	46.9	71.01	3.088	1.954	0.33			
10/2/2003	14:45:49	49.7	70.98	2.964	2.078	0.38			
10/2/2003	14:45:52	52.6	70.98	2.799	2.243	0.43			
10/2/2003	14:45:55	55.7	70.98	2.677	2.365	0.48			
10/2/2003	14:45:58	59	70.98	2.559	2.483	0.53			
10/2/2003	14:46:02	62.5	70.98	2.435	2.607	0.60			1.66 gpm flow rate
10/2/2003	14:46:06	66.2	70.98	2.327	2.715	0.67			

Well No. **MW-109A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	14:46:10	70.1	70.96	2.239	2.803	0.73			
10/2/2003	14:46:14	74.3	70.96	2.161	2.881	0.80			
10/2/2003	14:46:18	78.7	70.96	2.082	2.960	0.87			
10/2/2003	14:46:23	83.4	70.96	2.031	3.011	0.95			
10/2/2003	14:46:28	88.4	70.96	1.984	3.058	1.03			
10/2/2003	14:46:33	93.7	70.94	1.939	3.103	1.12			
10/2/2003	14:46:39	99.3	70.94	1.9	3.142	1.22			
10/2/2003	14:46:45	105.2	70.94	1.864	3.178	1.32			
10/2/2003	14:46:51	111.5	70.94	1.833	3.209	1.42			
10/2/2003	14:46:58	118.1	70.94	1.799	3.243	1.53			
10/2/2003	14:47:05	125.1	70.94	1.774	3.268	1.65			
10/2/2003	14:47:12	132.6	70.94	1.742	3.300	1.77			
10/2/2003	14:47:20	140.5	70.94	1.719	3.323	1.90			
10/2/2003	14:47:28	148.9	70.94	1.701	3.341	2.03			
10/2/2003	14:47:37	157.8	70.94	1.705	3.337	2.18			
10/2/2003	14:47:47	167.2	70.96	1.693	3.349	2.35			
10/2/2003	14:47:57	177.2	70.96	1.687	3.355	2.52			
10/2/2003	14:48:07	187.8	70.96	1.695	3.347	2.68			
10/2/2003	14:48:18	199	70.96	1.683	3.359	2.87			
10/2/2003	14:48:30	210.9	70.96	1.667	3.375	3.07			
10/2/2003	14:48:43	223.5	70.98	1.653	3.389	3.28			
10/2/2003	14:48:56	236.8	70.98	1.646	3.396	3.50			
10/2/2003	14:49:10	250.9	70.98	1.659	3.383	3.73			
10/2/2003	14:49:25	265.8	70.98	1.669	3.373	3.98			
10/2/2003	14:49:41	281.6	70.98	1.701	3.341	4.25			
10/2/2003	14:49:58	298.4	70.98	1.72	3.322	4.53			
10/2/2003	14:50:16	316.2	70.98	1.718	3.324	4.83			1.65 gpm flow rate
10/2/2003	14:50:34	335	70.96	1.693	3.349	5.13			
10/2/2003	14:50:54	354.9	70.94	1.676	3.366	5.47			
10/2/2003	14:51:15	376	70.94	1.656	3.386	5.82			1.28 gpm flow rate
10/2/2003	14:51:38	398.4	70.89	1.67	3.372	6.20			
10/2/2003	14:52:02	422.1	70.82	1.702	3.340	6.60			
10/2/2003	14:52:27	447.2	70.76	1.671	3.371	7.02			
10/2/2003	14:52:53	473.8	70.69	1.666	3.376	7.45			
10/2/2003	14:53:21	502	70.62	1.688	3.354	7.92			
10/2/2003	14:53:51	531.9	70.49	1.723	3.319	8.42			
10/2/2003	14:54:21	561.9	70.37	1.769	3.273	8.92			
10/2/2003	14:54:51	591.9	70.21	1.826	3.216	9.42			
10/2/2003	14:55:21	621.9	70.08	2.02	3.022	9.92			
10/2/2003	14:55:51	651.9	69.88	2.128	2.914	10.42			
10/2/2003	14:56:21	681.9	69.65	2.211	2.831	10.92			
10/2/2003	14:56:51	711.9	69.45	2.301	2.741	11.42			
10/2/2003	14:57:21	741.9	69.24	2.35	2.692	11.92			1.25 gpm flow rate
10/2/2003	14:57:51	771.9	69.04	2.34	2.702	12.42			
10/2/2003	14:58:21	801.9	68.86	2.34	2.702	12.92			
10/2/2003	14:58:51	831.9	68.72	2.336	2.706	13.42			
10/2/2003	14:59:21	861.9	68.59	2.323	2.719	13.92			
10/2/2003	14:59:51	891.9	68.5	2.277	2.765	14.42			
10/2/2003	15:00:21	921.9	68.41	2.268	2.774	14.92			
10/2/2003	15:00:51	951.9	68.36	2.268	2.774	15.42			
10/2/2003	15:01:21	981.9	68.29	2.257	2.785	15.92			
10/2/2003	15:01:51	1011.9	68.25	2.238	2.804	16.42			
10/2/2003	15:02:21	1041.9	68.18	2.237	2.805	16.92			1.43 gpm flow rate
10/2/2003	15:02:51	1071.9	68.16	2.221	2.821	17.42			
10/2/2003	15:03:21	1101.9	68.11	2.21	2.832	17.92			
10/2/2003	15:03:51	1131.9	68.07	2.214	2.828	18.42			
10/2/2003	15:04:21	1161.9	68.02	2.221	2.821	18.92			
10/2/2003	15:04:51	1191.9	67.98	2.219	2.823	19.42			
10/2/2003	15:05:21	1221.9	67.93	2.218	2.824	19.92			
10/2/2003	15:05:51	1251.9	67.91	2.216	2.826	20.42			
10/2/2003	15:06:21	1281.9	67.86	2.232	2.810	20.92			
10/2/2003	15:06:51	1311.9	67.82	2.225	2.817	21.42			
10/2/2003	15:07:21	1341.9	67.77	2.241	2.801	21.92			
10/2/2003	15:07:51	1371.9	67.73	2.245	2.797	22.42			
10/2/2003	15:08:21	1401.9	67.68	2.21	2.832	22.92			
10/2/2003	15:08:51	1431.9	67.66	2.175	2.867	23.42			
10/2/2003	15:09:21	1461.9	67.64	2.167	2.875	23.92			
10/2/2003	15:09:51	1491.9	67.64	2.201	2.841	24.42			
10/2/2003	15:10:21	1521.9	67.59	2.203	2.839	24.92			

Well No. **MW-109A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	15:10:51	1551.9	67.55	2.188	2.854	25.42			
10/2/2003	15:11:21	1581.9	67.5	2.192	2.850	25.92			
10/2/2003	15:11:51	1611.9	67.46	2.199	2.843	26.42			
10/2/2003	15:12:21	1641.9	67.41	2.181	2.861	26.92			
10/2/2003	15:12:51	1671.9	67.39	2.182	2.860	27.42			
10/2/2003	15:13:21	1701.9	67.34	2.16	2.882	27.92			
10/2/2003	15:13:51	1731.9	67.32	2.153	2.889	28.42			
10/2/2003	15:14:21	1761.9	67.32	2.107	2.935	28.92			
10/2/2003	15:14:51	1791.9	67.3	2.055	2.987	29.42			
10/2/2003	15:15:00	0	67.3	2.049	2.993	29.57			Start Test 2
10/2/2003	15:15:00	0.3	67.32	2.043	2.999	29.57			
10/2/2003	15:15:00	0.6	67.32	2.043	2.999	29.57			
10/2/2003	15:15:00	0.9	67.34	2.04	3.002	29.57			
10/2/2003	15:15:01	1.2	67.34	2.042	3.000	29.58			
10/2/2003	15:15:01	1.5	67.34	2.038	3.004	29.58			
10/2/2003	15:15:01	1.8	67.37	2.04	3.002	29.58			
10/2/2003	15:15:02	2.1	67.37	2.042	3.000	29.60			
10/2/2003	15:15:02	2.4	67.37	2.036	3.006	29.60			
10/2/2003	15:15:02	2.7	67.37	2.036	3.006	29.60			
10/2/2003	15:15:03	3	67.37	2.04	3.002	29.62			
10/2/2003	15:15:03	3.3	67.37	2.038	3.004	29.62			
10/2/2003	15:15:03	3.6	67.37	2.04	3.002	29.62			
10/2/2003	15:15:03	3.9	67.37	2.034	3.008	29.62			
10/2/2003	15:15:04	4.2	67.37	2.038	3.004	29.63			
10/2/2003	15:15:04	4.5	67.37	2.04	3.002	29.63			
10/2/2003	15:15:04	4.8	67.37	2.038	3.004	29.63			
10/2/2003	15:15:05	5.1	67.37	2.044	2.998	29.65			
10/2/2003	15:15:05	5.4	67.37	2.04	3.002	29.65			
10/2/2003	15:15:05	5.7	67.39	2.036	3.006	29.65			
10/2/2003	15:15:06	6	67.39	2.04	3.002	29.67			
10/2/2003	15:15:06	6.4	67.39	2.04	3.002	29.67			
10/2/2003	15:15:06	6.7	67.39	2.034	3.008	29.67			
10/2/2003	15:15:07	7.1	67.39	2.042	3.000	29.68			
10/2/2003	15:15:07	7.5	67.39	2.036	3.006	29.68			
10/2/2003	15:15:08	8	67.39	2.036	3.006	29.70			
10/2/2003	15:15:08	8.4	67.39	2.03	3.012	29.70			
10/2/2003	15:15:08	8.9	67.39	2.036	3.006	29.70			
10/2/2003	15:15:09	9.5	67.39	2.032	3.010	29.72			
10/2/2003	15:15:10	10	67.39	2.04	3.002	29.73			
10/2/2003	15:15:10	10.6	67.39	2.036	3.006	29.73			
10/2/2003	15:15:11	11.3	67.39	2.036	3.006	29.75			
10/2/2003	15:15:11	11.9	67.39	2.038	3.004	29.75			
10/2/2003	15:15:12	12.6	67.37	2.038	3.004	29.77			
10/2/2003	15:15:13	13.4	67.37	2.038	3.004	29.78			
10/2/2003	15:15:14	14.2	67.37	2.042	3.000	29.80			
10/2/2003	15:15:15	15	67.37	2.034	3.008	29.82			
10/2/2003	15:15:15	15.9	67.37	2.042	3.000	29.82			
10/2/2003	15:15:16	16.8	67.37	2.042	3.000	29.83			
10/2/2003	15:15:17	17.8	67.37	2.038	3.004	29.85			
10/2/2003	15:15:18	18.9	67.37	2.034	3.008	29.87			
10/2/2003	15:15:20	20	67.37	2.04	3.002	29.90			
10/2/2003	15:15:21	21.2	67.37	2.038	3.004	29.92			
10/2/2003	15:15:22	22.4	67.37	2.04	3.002	29.93			
10/2/2003	15:15:23	23.8	67.37	2.038	3.004	29.95			
10/2/2003	15:15:25	25.2	67.37	2.032	3.010	29.98			
10/2/2003	15:15:26	26.7	67.37	2.03	3.012	30.00	0.00		Pump Stop
10/2/2003	15:15:28	28.2	67.37	2.036	3.006	30.03	0.03	901.00	
10/2/2003	15:15:29	29.8	67.37	2.093	2.949	30.05	0.05	601.00	
10/2/2003	15:15:31	31.5	67.37	2.272	2.770	30.08	0.08	361.00	
10/2/2003	15:15:33	33.3	67.37	2.488	2.554	30.12	0.12	258.14	
10/2/2003	15:15:35	35.2	67.37	2.689	2.353	30.15	0.15	201.00	
10/2/2003	15:15:37	37.3	67.37	2.889	2.153	30.18	0.18	164.64	
10/2/2003	15:15:39	39.5	67.34	3.076	1.966	30.22	0.22	139.46	
10/2/2003	15:15:41	41.8	67.34	3.249	1.793	30.25	0.25	121.00	
10/2/2003	15:15:44	44.3	67.32	3.41	1.632	30.30	0.30	101.00	
10/2/2003	15:15:46	46.9	67.28	3.558	1.484	30.33	0.33	91.00	
10/2/2003	15:15:49	49.7	67.21	3.708	1.334	30.38	0.38	79.26	
10/2/2003	15:15:52	52.6	67.12	3.833	1.209	30.43	0.43	70.23	
10/2/2003	15:15:55	55.7	66.96	3.946	1.096	30.48	0.48	63.07	

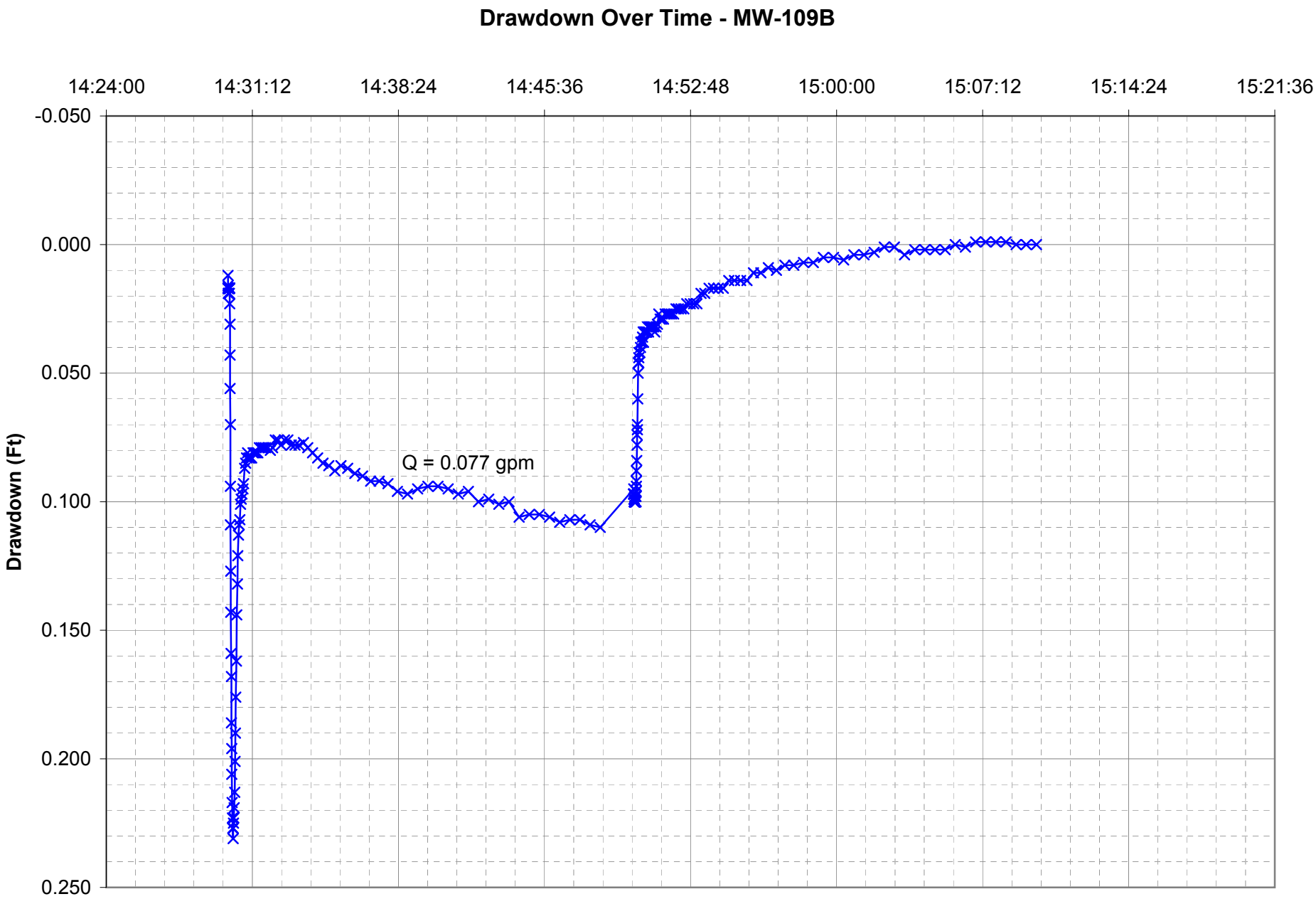
Well No. **MW-109A**

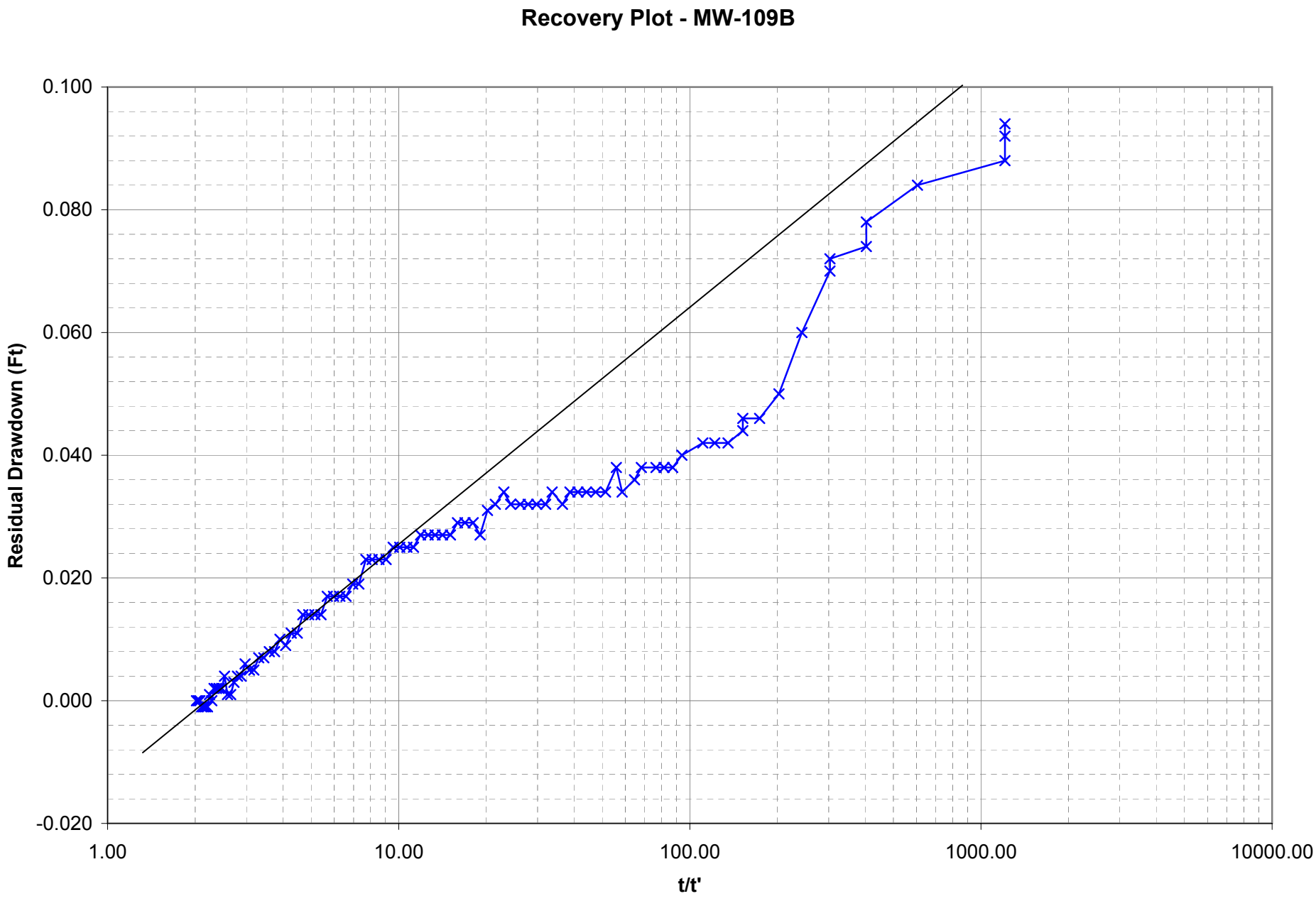
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/2/2003	15:15:59	59	66.78	4.062	0.980	30.55	0.55	55.55	
10/2/2003	15:16:02	62.5	66.53	4.161	0.881	30.60	0.60	51.00	
10/2/2003	15:16:06	66.2	66.26	4.25	0.792	30.67	0.67	46.00	
10/2/2003	15:16:10	70.1	65.9	4.336	0.706	30.73	0.73	41.91	
10/2/2003	15:16:14	74.3	65.51	4.404	0.638	30.80	0.80	38.50	
10/2/2003	15:16:18	78.7	65.11	4.475	0.567	30.87	0.87	35.62	
10/2/2003	15:16:23	83.4	64.68	4.535	0.507	30.95	0.95	32.58	
10/2/2003	15:16:28	88.4	64.2	4.588	0.454	31.03	1.03	30.03	
10/2/2003	15:16:33	93.7	63.73	4.634	0.408	31.12	1.12	27.87	
10/2/2003	15:16:39	99.3	63.25	4.672	0.370	31.22	1.22	25.66	
10/2/2003	15:16:45	105.2	62.8	4.714	0.328	31.32	1.32	23.78	
10/2/2003	15:16:51	111.5	62.32	4.75	0.292	31.42	1.42	22.18	
10/2/2003	15:16:58	118.1	61.89	4.772	0.270	31.53	1.53	20.57	
10/2/2003	15:17:05	125.1	61.46	4.8	0.242	31.65	1.65	19.18	
10/2/2003	15:17:12	132.6	61.03	4.826	0.216	31.77	1.77	17.98	
10/2/2003	15:17:20	140.5	60.62	4.839	0.203	31.90	1.90	16.79	
10/2/2003	15:17:28	148.9	60.26	4.859	0.183	32.03	2.03	15.75	
10/2/2003	15:17:37	157.8	59.9	4.872	0.170	32.18	2.18	14.74	
10/2/2003	15:17:47	167.2	59.61	4.891	0.151	32.35	2.35	13.77	
10/2/2003	15:17:57	177.2	59.31	4.923	0.119	32.52	2.52	12.92	
10/2/2003	15:18:07	187.8	59.09	4.931	0.111	32.68	2.68	12.18	
10/2/2003	15:18:19	199	58.86	4.939	0.103	32.88	2.88	11.40	
10/2/2003	15:18:30	210.9	58.68	4.945	0.097	33.07	3.07	10.78	
10/2/2003	15:18:43	223.5	58.54	4.952	0.090	33.28	3.28	10.14	
10/2/2003	15:18:56	236.8	58.43	4.957	0.085	33.50	3.50	9.57	
10/2/2003	15:19:10	250.9	58.34	4.966	0.076	33.73	3.73	9.04	
10/2/2003	15:19:25	265.8	58.29	4.97	0.072	33.98	3.98	8.53	
10/2/2003	15:19:41	281.6	58.25	4.977	0.065	34.25	4.25	8.06	
10/2/2003	15:19:58	298.4	58.27	4.98	0.062	34.53	4.53	7.62	
10/2/2003	15:20:16	316.2	58.29	4.986	0.056	34.83	4.83	7.21	
10/2/2003	15:20:35	335	58.34	4.988	0.054	35.15	5.15	6.83	
10/2/2003	15:20:54	354.9	58.41	4.993	0.049	35.47	5.47	6.49	
10/2/2003	15:21:16	376	58.5	4.996	0.046	35.83	5.83	6.14	
10/2/2003	15:21:38	398.4	58.61	4.999	0.043	36.20	6.20	5.84	
10/2/2003	15:22:02	422.1	58.77	5.001	0.041	36.60	6.60	5.55	
10/2/2003	15:22:27	447.2	58.95	5.003	0.039	37.02	7.02	5.28	
10/2/2003	15:22:53	473.8	59.13	5.005	0.037	37.45	7.45	5.03	
10/2/2003	15:23:22	502	59.31	5.009	0.033	37.93	7.93	4.78	
10/2/2003	15:23:51	531.9	59.52	5.009	0.033	38.42	8.42	4.56	
10/2/2003	15:24:21	561.9	59.74	5.013	0.029	38.92	8.92	4.36	
10/2/2003	15:24:51	591.9	59.92	5.013	0.029	39.42	9.42	4.19	
10/2/2003	15:25:21	621.9	60.08	5.016	0.026	39.92	9.92	4.03	
10/2/2003	15:25:51	651.9	60.26	5.018	0.024	40.42	10.42	3.88	
10/2/2003	15:26:21	681.9	60.44	5.016	0.026	40.92	10.92	3.75	
10/2/2003	15:26:51	711.9	60.6	5.018	0.024	41.42	11.42	3.63	
10/2/2003	15:27:21	741.9	60.78	5.019	0.023	41.92	11.92	3.52	
10/2/2003	15:27:51	771.9	60.96	5.019	0.023	42.42	12.42	3.42	
10/2/2003	15:28:21	801.9	61.12	5.021	0.021	42.92	12.92	3.32	
10/2/2003	15:28:51	831.9	61.28	5.02	0.022	43.42	13.42	3.24	
10/2/2003	15:29:21	861.9	61.44	5.02	0.022	43.92	13.92	3.16	
10/2/2003	15:29:51	891.9	61.6	5.02	0.022	44.42	14.42	3.08	
10/2/2003	15:30:21	921.9	61.73	5.021	0.021	44.92	14.92	3.01	
10/2/2003	15:30:51	951.9	61.87	5.022	0.020	45.42	15.42	2.95	
10/2/2003	15:31:21	981.9	62.01	5.022	0.020	45.92	15.92	2.88	
10/2/2003	15:31:51	1011.9	62.14	5.023	0.019	46.42	16.42	2.83	
10/2/2003	15:32:21	1041.9	62.25	5.024	0.018	46.92	16.92	2.77	
10/2/2003	15:32:51	1071.9	62.39	5.025	0.017	47.42	17.42	2.72	
10/2/2003	15:33:21	1101.9	62.5	5.023	0.019	47.92	17.92	2.67	
10/2/2003	15:33:51	1131.9	62.64	5.024	0.018	48.42	18.42	2.63	
10/2/2003	15:34:21	1161.9	62.75	5.025	0.017	48.92	18.92	2.59	
10/2/2003	15:34:51	1191.9	62.87	5.026	0.016	49.42	19.42	2.55	
10/2/2003	15:35:21	1221.9	62.98	5.025	0.017	49.92	19.92	2.51	
10/2/2003	15:35:51	1251.9	63.09	5.024	0.018	50.42	20.42	2.47	
10/2/2003	15:36:21	1281.9	63.2	5.017	0.025	50.92	20.92	2.43	DTW = 13.69 at 15:26
10/2/2003	15:36:51	1311.9	63.3	5.025	0.017	51.42	21.42	2.40	
10/2/2003	15:37:21	1341.9	63.41	5.026	0.016	51.92	21.92	2.37	
10/2/2003	15:37:51	1371.9	63.52	5.025	0.017	52.42	22.42	2.34	

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-109B**

Equipment:	In-Situ Inc.	MiniTroll Pro			
Test start date and time	10/8/2003	14:30:00			
Test end date and time	10/8/2003	15:09:51			
Period of pumping	20	minutes			
Static depth to water	14.61	feet below top of casing			
Starting transducer depth	3.35	feet below static water level			
Total well depth	149.1	feet below top of casing			
Depth to top of screen	139.1	feet below top of casing			
Height of interval tested [b]	10.0	feet			
Average pumping rate [Q]	0.077	gpm, or	15	cfd	
Average drawdown [s]	0.10	ft			
Specific capacity [Q/s]	0.81	gpm/ft			
Residual drawdown over one log cycle [Δs]			0.038	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			71.4	cfd/ft	
Hydraulic conductivity [K = T/b]			7.1	fpd, or	2.5E-03 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-109B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	14:27:00								DTW = 14.60 at 14:27
10/8/2003	14:28:00								DTW = 14.61 at 14:28
10/8/2003	14:29:59								Pump Start
10/8/2003	14:30:00	0	69.54	3.338	0.012	0.02			Start Test 1
10/8/2003	14:30:00	0.3	69.54	3.334	0.016	0.02			
10/8/2003	14:30:00	0.6	69.56	3.333	0.017	0.02			
10/8/2003	14:30:00	0.9	69.56	3.333	0.017	0.02			
10/8/2003	14:30:01	1.2	69.56	3.333	0.017	0.03			
10/8/2003	14:30:01	1.5	69.58	3.333	0.017	0.03			
10/8/2003	14:30:01	1.8	69.58	3.331	0.019	0.03			
10/8/2003	14:30:02	2.1	69.58	3.333	0.017	0.05			
10/8/2003	14:30:02	2.4	69.58	3.333	0.017	0.05			
10/8/2003	14:30:02	2.7	69.58	3.331	0.019	0.05			
10/8/2003	14:30:03	3	69.58	3.333	0.017	0.07			
10/8/2003	14:30:03	3.3	69.6	3.333	0.017	0.07			
10/8/2003	14:30:03	3.6	69.6	3.333	0.017	0.07			
10/8/2003	14:30:03	3.9	69.6	3.333	0.017	0.07			
10/8/2003	14:30:04	4.2	69.6	3.333	0.017	0.08			
10/8/2003	14:30:04	4.5	69.6	3.333	0.017	0.08			
10/8/2003	14:30:04	4.8	69.6	3.331	0.019	0.08			
10/8/2003	14:30:05	5.1	69.6	3.333	0.017	0.10			
10/8/2003	14:30:05	5.4	69.6	3.333	0.017	0.10			
10/8/2003	14:30:05	5.7	69.6	3.327	0.023	0.10			
10/8/2003	14:30:06	6	69.6	3.319	0.031	0.12			
10/8/2003	14:30:06	6.4	69.6	3.307	0.043	0.12			
10/8/2003	14:30:06	6.7	69.6	3.294	0.056	0.12			
10/8/2003	14:30:07	7.1	69.6	3.28	0.070	0.13			
10/8/2003	14:30:07	7.5	69.6	3.256	0.094	0.13			
10/8/2003	14:30:07	8	69.6	3.241	0.109	0.13			
10/8/2003	14:30:08	8.4	69.6	3.223	0.127	0.15			
10/8/2003	14:30:08	8.9	69.63	3.207	0.143	0.15			
10/8/2003	14:30:09	9.5	69.63	3.191	0.159	0.17			
10/8/2003	14:30:10	10	69.6	3.182	0.168	0.18			
10/8/2003	14:30:10	10.6	69.6	3.164	0.186	0.18			
10/8/2003	14:30:11	11.3	69.6	3.154	0.196	0.20			
10/8/2003	14:30:11	11.9	69.6	3.144	0.206	0.20			
10/8/2003	14:30:12	12.6	69.6	3.133	0.217	0.22			
10/8/2003	14:30:13	13.4	69.58	3.127	0.223	0.23			
10/8/2003	14:30:14	14.2	69.58	3.123	0.227	0.25			
10/8/2003	14:30:15	15	69.58	3.119	0.231	0.27			
10/8/2003	14:30:15	15.9	69.58	3.123	0.227	0.27			
10/8/2003	14:30:16	16.8	69.58	3.125	0.225	0.28			
10/8/2003	14:30:17	17.8	69.58	3.127	0.223	0.30			
10/8/2003	14:30:18	18.9	69.58	3.131	0.219	0.32			
10/8/2003	14:30:20	20	69.58	3.137	0.213	0.35			
10/8/2003	14:30:21	21.2	69.58	3.149	0.201	0.37			
10/8/2003	14:30:22	22.4	69.58	3.16	0.190	0.38			
10/8/2003	14:30:23	23.8	69.58	3.174	0.176	0.40			
10/8/2003	14:30:25	25.2	69.58	3.188	0.162	0.43			
10/8/2003	14:30:26	26.7	69.58	3.206	0.144	0.45			Pump Start
10/8/2003	14:30:28	28.2	69.56	3.218	0.132	0.48			
10/8/2003	14:30:29	29.8	69.58	3.229	0.121	0.50			
10/8/2003	14:30:31	31.5	69.58	3.237	0.113	0.53			
10/8/2003	14:30:33	33.3	69.56	3.241	0.109	0.57			
10/8/2003	14:30:35	35.2	69.56	3.243	0.107	0.60			
10/8/2003	14:30:37	37.3	69.56	3.249	0.101	0.63			
10/8/2003	14:30:39	39.5	69.56	3.251	0.099	0.67			
10/8/2003	14:30:41	41.8	69.56	3.253	0.097	0.70			
10/8/2003	14:30:44	44.3	69.56	3.255	0.095	0.75			
10/8/2003	14:30:46	46.9	69.56	3.257	0.093	0.78			
10/8/2003	14:30:49	49.7	69.56	3.263	0.087	0.83			
10/8/2003	14:30:52	52.6	69.56	3.265	0.085	0.88			
10/8/2003	14:30:55	55.7	69.56	3.267	0.083	0.93			
10/8/2003	14:30:58	59	69.56	3.269	0.081	0.98			
10/8/2003	14:31:02	62.5	69.54	3.267	0.083	1.05			

Well No. **MW-109B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	14:31:06	66.2	69.54	3.267	0.083	1.12			
10/8/2003	14:31:10	70.1	69.54	3.267	0.083	1.18			
10/8/2003	14:31:14	74.3	69.54	3.269	0.081	1.25			
10/8/2003	14:31:18	78.7	69.54	3.269	0.081	1.32			
10/8/2003	14:31:23	83.4	69.51	3.269	0.081	1.40			
10/8/2003	14:31:28	88.4	69.51	3.269	0.081	1.48			
10/8/2003	14:31:33	93.7	69.51	3.271	0.079	1.57			
10/8/2003	14:31:39	99.3	69.51	3.271	0.079	1.67			
10/8/2003	14:31:45	105.2	69.49	3.271	0.079	1.77			
10/8/2003	14:31:51	111.5	69.49	3.271	0.079	1.87			
10/8/2003	14:31:58	118.1	69.49	3.271	0.079	1.98			
10/8/2003	14:32:05	125.1	69.47	3.27	0.080	2.10			
10/8/2003	14:32:12	132.6	69.47	3.271	0.079	2.22			
10/8/2003	14:32:20	140.5	69.45	3.274	0.076	2.35			
10/8/2003	14:32:28	148.9	69.45	3.274	0.076	2.48			
10/8/2003	14:32:37	157.8	69.45	3.272	0.078	2.63			
10/8/2003	14:32:47	167.2	69.42	3.274	0.076	2.80			
10/8/2003	14:32:57	177.2	69.42	3.274	0.076	2.97			
10/8/2003	14:33:07	187.8	69.4	3.272	0.078	3.13			0.085 gpm flow rate
10/8/2003	14:33:18	199	69.38	3.272	0.078	3.32			
10/8/2003	14:33:30	210.9	69.38	3.272	0.078	3.52			
10/8/2003	14:33:43	223.5	69.36	3.273	0.077	3.73			
10/8/2003	14:33:56	236.8	69.33	3.271	0.079	3.95			
10/8/2003	14:34:10	250.9	69.31	3.269	0.081	4.18			
10/8/2003	14:34:25	265.8	69.31	3.267	0.083	4.43			
10/8/2003	14:34:41	281.6	69.29	3.265	0.085	4.70			
10/8/2003	14:34:58	298.4	69.24	3.264	0.086	4.98			
10/8/2003	14:35:16	316.2	69.22	3.262	0.088	5.28			
10/8/2003	14:35:34	335	69.2	3.264	0.086	5.58			
10/8/2003	14:35:54	354.9	69.15	3.263	0.087	5.92			
10/8/2003	14:36:15	376	69.13	3.261	0.089	6.27			
10/8/2003	14:36:38	398.4	69.08	3.26	0.090	6.65			
10/8/2003	14:37:02	422.1	69.04	3.258	0.092	7.05			
10/8/2003	14:37:27	447.2	68.99	3.258	0.092	7.47			
10/8/2003	14:37:53	473.8	68.93	3.257	0.093	7.90			
10/8/2003	14:38:21	502	68.86	3.254	0.096	8.37			0.073 gpm flow rate
10/8/2003	14:38:51	531.9	68.79	3.253	0.097	8.87			
10/8/2003	14:39:21	561.9	68.75	3.255	0.095	9.37			
10/8/2003	14:39:51	591.9	68.68	3.256	0.094	9.87			
10/8/2003	14:40:21	621.9	68.63	3.256	0.094	10.37			
10/8/2003	14:40:51	651.9	68.59	3.255	0.095	10.87			
10/8/2003	14:41:21	681.9	68.52	3.253	0.097	11.37			
10/8/2003	14:41:51	711.9	68.47	3.254	0.096	11.87			
10/8/2003	14:42:21	741.9	68.43	3.25	0.100	12.37			
10/8/2003	14:42:51	771.9	68.38	3.251	0.099	12.87			
10/8/2003	14:43:21	801.9	68.34	3.249	0.101	13.37			0.075 gpm flow rate
10/8/2003	14:43:51	831.9	68.27	3.25	0.100	13.87			
10/8/2003	14:44:21	861.9	68.23	3.244	0.106	14.37			
10/8/2003	14:44:51	891.9	68.18	3.245	0.105	14.87			
10/8/2003	14:45:21	921.9	68.14	3.245	0.105	15.37			
10/8/2003	14:45:51	951.9	68.09	3.244	0.106	15.87			
10/8/2003	14:46:21	981.9	68.04	3.242	0.108	16.37			
10/8/2003	14:46:51	1011.9	68	3.243	0.107	16.87			
10/8/2003	14:47:21	1041.9	67.95	3.243	0.107	17.37			
10/8/2003	14:47:51	1071.9	67.91	3.241	0.109	17.87			
10/8/2003	14:48:21	1101.9	67.86	3.24	0.110	18.37			0.073 gpm flow rate
10/8/2003	14:50:00	0	67.73	3.255	0.095	20.02			Start Test 2
10/8/2003	14:50:00	0.3	67.75	3.253	0.097	20.02			
10/8/2003	14:50:00	0.6	67.77	3.253	0.097	20.02			
10/8/2003	14:50:00	0.9	67.77	3.253	0.097	20.02			
10/8/2003	14:50:01	1.2	67.77	3.251	0.099	20.03			
10/8/2003	14:50:01	1.5	67.77	3.251	0.099	20.03			
10/8/2003	14:50:01	1.8	67.77	3.251	0.099	20.03			
10/8/2003	14:50:02	2.1	67.8	3.25	0.100	20.05			
10/8/2003	14:50:02	2.4	67.8	3.25	0.100	20.05			
10/8/2003	14:50:02	2.7	67.8	3.25	0.100	20.05			
10/8/2003	14:50:03	3	67.8	3.252	0.098	20.07			
10/8/2003	14:50:03	3.3	67.8	3.25	0.100	20.07			
10/8/2003	14:50:03	3.6	67.8	3.25	0.100	20.07			

Well No. **MW-109B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	14:50:03	3.9	67.8	3.25	0.100	20.07			
10/8/2003	14:50:04	4.2	67.8	3.25	0.100	20.08			
10/8/2003	14:50:04	4.5	67.8	3.252	0.098	20.08			
10/8/2003	14:50:04	4.8	67.8	3.252	0.098	20.08			
10/8/2003	14:50:05	5.1	67.8	3.252	0.098	20.10			
10/8/2003	14:50:05	5.4	67.8	3.25	0.100	20.10			
10/8/2003	14:50:05	5.7	67.8	3.252	0.098	20.10			
10/8/2003	14:50:06	6	67.8	3.252	0.098	20.12			
10/8/2003	14:50:06	6.4	67.8	3.25	0.100	20.12			
10/8/2003	14:50:06	6.7	67.82	3.252	0.098	20.12			
10/8/2003	14:50:07	7.1	67.82	3.25	0.100	20.13	0.00		Pump Stop
10/8/2003	14:50:07	7.5	67.82	3.254	0.096	20.13	0.00		
10/8/2003	14:50:08	8	67.82	3.256	0.094	20.15	0.02	1209.00	
10/8/2003	14:50:08	8.4	67.82	3.258	0.092	20.15	0.02	1209.00	
10/8/2003	14:50:08	8.9	67.82	3.262	0.088	20.15	0.02	1209.00	
10/8/2003	14:50:09	9.5	67.82	3.266	0.084	20.17	0.03	605.00	
10/8/2003	14:50:10	10	67.8	3.272	0.078	20.18	0.05	403.67	
10/8/2003	14:50:10	10.6	67.8	3.276	0.074	20.18	0.05	403.67	
10/8/2003	14:50:11	11.3	67.8	3.278	0.072	20.20	0.07	303.00	
10/8/2003	14:50:11	11.9	67.8	3.28	0.070	20.20	0.07	303.00	
10/8/2003	14:50:12	12.6	67.77	3.29	0.060	20.22	0.08	242.60	
10/8/2003	14:50:13	13.4	67.77	3.3	0.050	20.23	0.10	202.33	
10/8/2003	14:50:14	14.2	67.77	3.304	0.046	20.25	0.12	173.57	
10/8/2003	14:50:15	15	67.77	3.304	0.046	20.27	0.13	152.00	
10/8/2003	14:50:15	15.9	67.77	3.306	0.044	20.27	0.13	152.00	
10/8/2003	14:50:16	16.8	67.77	3.308	0.042	20.28	0.15	135.22	
10/8/2003	14:50:17	17.8	67.77	3.308	0.042	20.30	0.17	121.80	
10/8/2003	14:50:18	18.9	67.77	3.308	0.042	20.32	0.18	110.82	
10/8/2003	14:50:20	20	67.77	3.31	0.040	20.35	0.22	93.92	
10/8/2003	14:50:21	21.2	67.75	3.312	0.038	20.37	0.23	87.29	
10/8/2003	14:50:22	22.4	67.75	3.312	0.038	20.38	0.25	81.53	
10/8/2003	14:50:23	23.8	67.75	3.312	0.038	20.40	0.27	76.50	
10/8/2003	14:50:25	25.2	67.75	3.312	0.038	20.43	0.30	68.11	
10/8/2003	14:50:26	26.7	67.75	3.314	0.036	20.45	0.32	64.58	
10/8/2003	14:50:28	28.2	67.75	3.316	0.034	20.48	0.35	58.52	
10/8/2003	14:50:29	29.8	67.75	3.312	0.038	20.50	0.37	55.91	
10/8/2003	14:50:31	31.5	67.75	3.316	0.034	20.53	0.40	51.33	
10/8/2003	14:50:33	33.3	67.73	3.316	0.034	20.57	0.43	47.46	
10/8/2003	14:50:35	35.2	67.73	3.316	0.034	20.60	0.47	44.14	
10/8/2003	14:50:37	37.3	67.73	3.316	0.034	20.63	0.50	41.27	
10/8/2003	14:50:39	39.5	67.73	3.316	0.034	20.67	0.53	38.75	
10/8/2003	14:50:41	41.8	67.73	3.318	0.032	20.70	0.57	36.53	
10/8/2003	14:50:44	44.3	67.73	3.316	0.034	20.75	0.62	33.65	
10/8/2003	14:50:46	46.9	67.71	3.318	0.032	20.78	0.65	31.97	
10/8/2003	14:50:49	49.7	67.71	3.318	0.032	20.83	0.70	29.76	
10/8/2003	14:50:52	52.6	67.71	3.318	0.032	20.88	0.75	27.84	
10/8/2003	14:50:55	55.7	67.71	3.318	0.032	20.93	0.80	26.17	
10/8/2003	14:50:59	59	67.68	3.318	0.032	21.00	0.87	24.23	
10/8/2003	14:51:02	62.5	67.68	3.316	0.034	21.05	0.92	22.96	
10/8/2003	14:51:06	66.2	67.68	3.318	0.032	21.12	0.98	21.47	
10/8/2003	14:51:10	70.1	67.66	3.319	0.031	21.18	1.05	20.17	
10/8/2003	14:51:14	74.3	67.66	3.323	0.027	21.25	1.12	19.03	
10/8/2003	14:51:18	78.7	67.66	3.321	0.029	21.32	1.18	18.01	
10/8/2003	14:51:23	83.4	67.64	3.321	0.029	21.40	1.27	16.89	
10/8/2003	14:51:28	88.4	67.64	3.321	0.029	21.48	1.35	15.91	
10/8/2003	14:51:33	93.7	67.64	3.323	0.027	21.57	1.43	15.05	
10/8/2003	14:51:39	99.3	67.64	3.323	0.027	21.67	1.53	14.13	
10/8/2003	14:51:45	105.2	67.62	3.323	0.027	21.77	1.63	13.33	
10/8/2003	14:51:51	111.5	67.62	3.323	0.027	21.87	1.73	12.62	
10/8/2003	14:51:58	118.1	67.62	3.323	0.027	21.98	1.85	11.88	
10/8/2003	14:52:05	125.1	67.62	3.325	0.025	22.10	1.97	11.24	
10/8/2003	14:52:12	132.6	67.59	3.325	0.025	22.22	2.08	10.66	
10/8/2003	14:52:20	140.5	67.59	3.325	0.025	22.35	2.22	10.08	
10/8/2003	14:52:28	148.9	67.59	3.325	0.025	22.48	2.35	9.57	
10/8/2003	14:52:37	157.8	67.59	3.327	0.023	22.63	2.50	9.05	
10/8/2003	14:52:47	167.2	67.59	3.327	0.023	22.80	2.67	8.55	
10/8/2003	14:52:57	177.2	67.59	3.327	0.023	22.97	2.83	8.11	
10/8/2003	14:53:07	187.8	67.59	3.327	0.023	23.13	3.00	7.71	
10/8/2003	14:53:19	199	67.59	3.331	0.019	23.33	3.20	7.29	

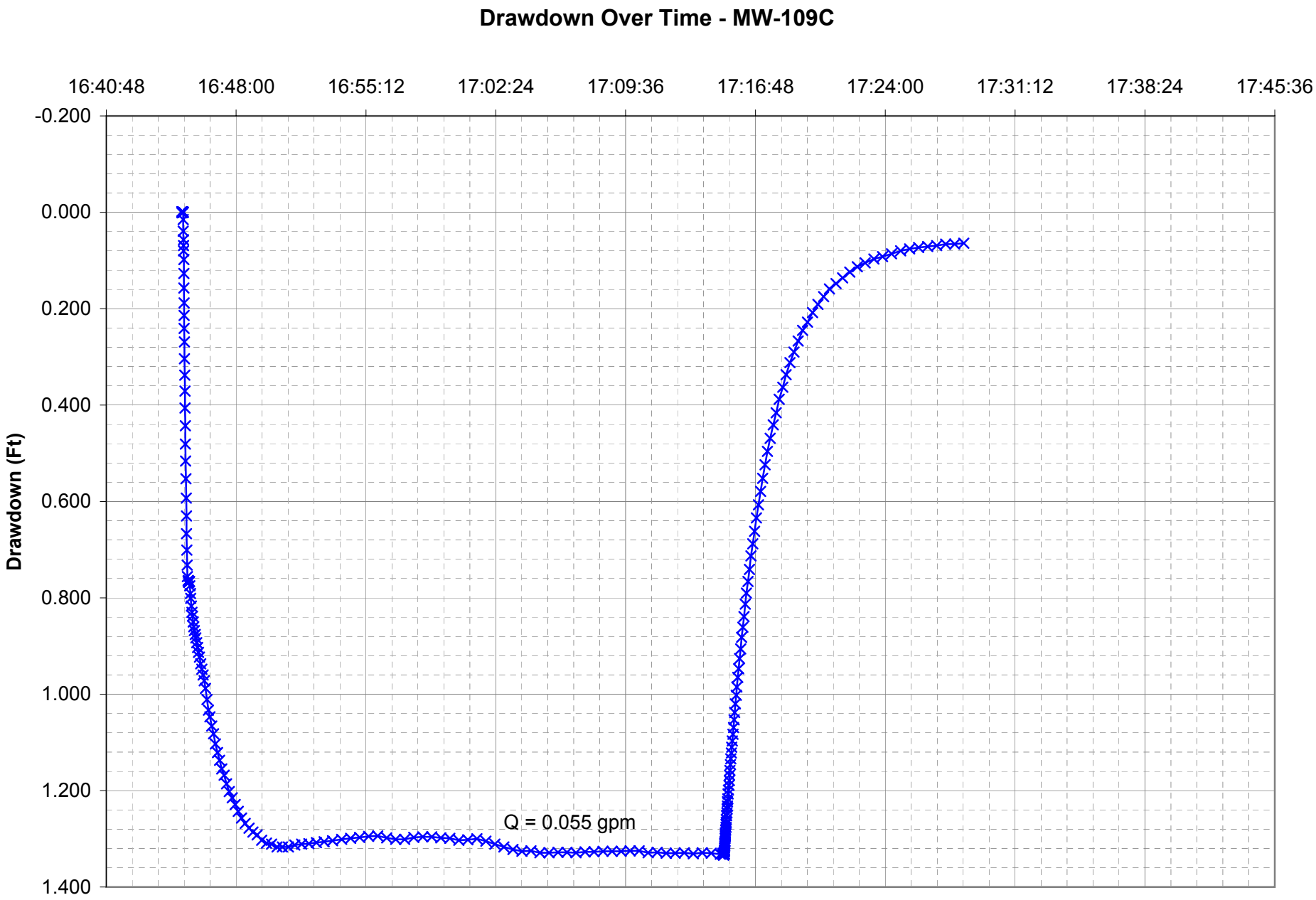
Well No. **MW-109B**

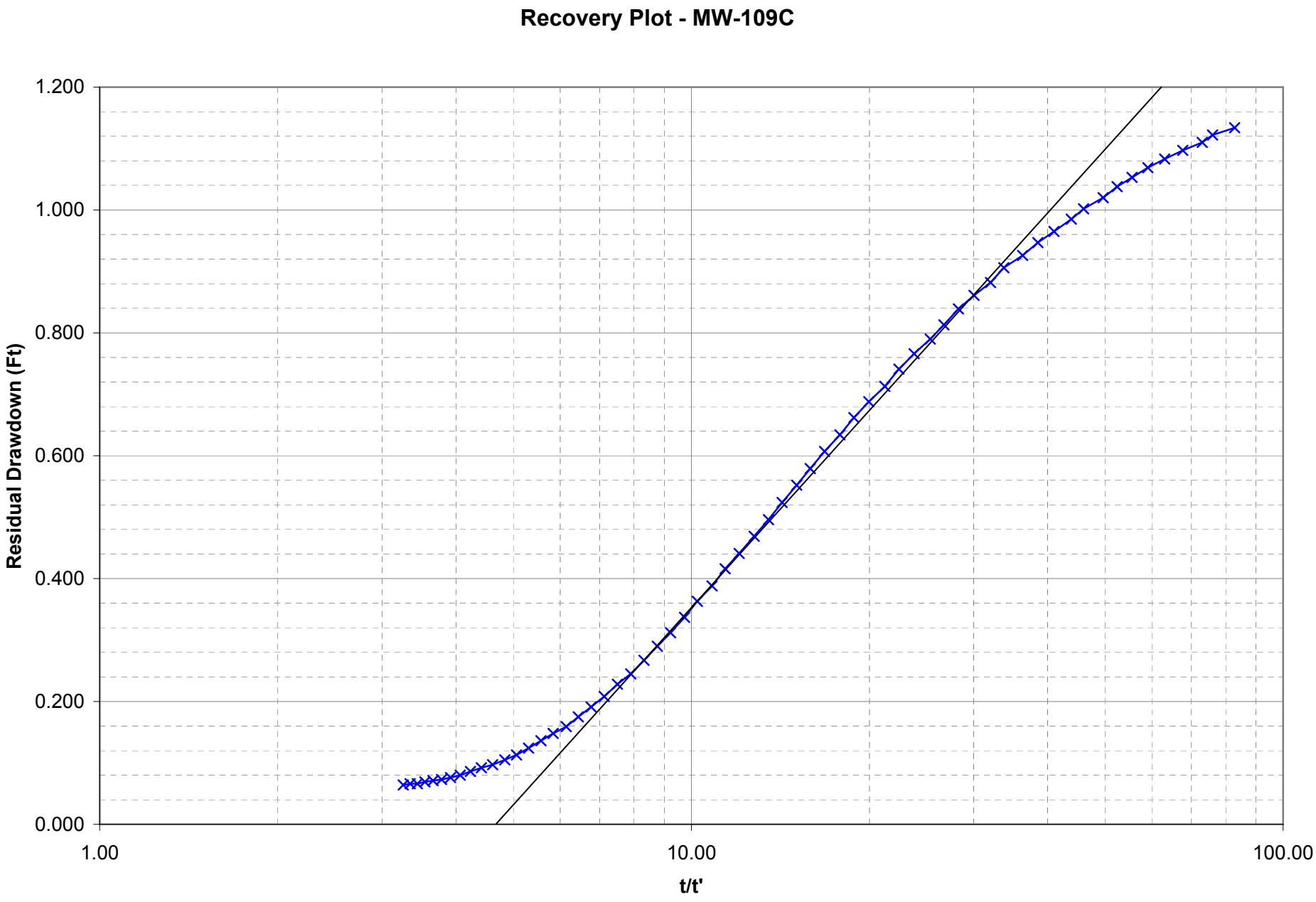
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/8/2003	14:53:30	210.9	67.62	3.331	0.019	23.52	3.38	6.95	
10/8/2003	14:53:43	223.5	67.62	3.333	0.017	23.73	3.60	6.59	
10/8/2003	14:53:56	236.8	67.62	3.333	0.017	23.95	3.82	6.28	
10/8/2003	14:54:10	250.9	67.64	3.333	0.017	24.18	4.05	5.97	
10/8/2003	14:54:25	265.8	67.64	3.333	0.017	24.43	4.30	5.68	
10/8/2003	14:54:41	281.6	67.66	3.336	0.014	24.70	4.57	5.41	
10/8/2003	14:54:58	298.4	67.68	3.336	0.014	24.98	4.85	5.15	
10/8/2003	14:55:16	316.2	67.71	3.336	0.014	25.28	5.15	4.91	
10/8/2003	14:55:35	335	67.73	3.336	0.014	25.60	5.47	4.68	
10/8/2003	14:55:54	354.9	67.75	3.339	0.011	25.92	5.78	4.48	
10/8/2003	14:56:16	376	67.77	3.339	0.011	26.28	6.15	4.27	
10/8/2003	14:56:38	398.4	67.82	3.341	0.009	26.65	6.52	4.09	
10/8/2003	14:57:02	422.1	67.84	3.34	0.010	27.05	6.92	3.91	
10/8/2003	14:57:27	447.2	67.86	3.342	0.008	27.47	7.33	3.75	
10/8/2003	14:57:53	473.8	67.89	3.342	0.008	27.90	7.77	3.59	
10/8/2003	14:58:22	502	67.93	3.343	0.007	28.38	8.25	3.44	
10/8/2003	14:58:51	531.9	67.98	3.343	0.007	28.87	8.73	3.31	
10/8/2003	14:59:21	561.9	68	3.345	0.005	29.37	9.23	3.18	
10/8/2003	14:59:51	591.9	68.02	3.345	0.005	29.87	9.73	3.07	
10/8/2003	15:00:21	621.9	68.07	3.344	0.006	30.37	10.23	2.97	
10/8/2003	15:00:51	651.9	68.09	3.346	0.004	30.87	10.73	2.88	
10/8/2003	15:01:21	681.9	68.11	3.346	0.004	31.37	11.23	2.79	
10/8/2003	15:01:51	711.9	68.14	3.347	0.003	31.87	11.73	2.72	
10/8/2003	15:02:21	741.9	68.16	3.349	0.001	32.37	12.23	2.65	
10/8/2003	15:02:51	771.9	68.2	3.349	0.001	32.87	12.73	2.58	
10/8/2003	15:03:21	801.9	68.23	3.346	0.004	33.37	13.23	2.52	
10/8/2003	15:03:51	831.9	68.25	3.348	0.002	33.87	13.73	2.47	
10/8/2003	15:04:21	861.9	68.27	3.348	0.002	34.37	14.23	2.41	
10/8/2003	15:04:51	891.9	68.29	3.348	0.002	34.87	14.73	2.37	
10/8/2003	15:05:21	921.9	68.29	3.348	0.002	35.37	15.23	2.32	
10/8/2003	15:05:51	951.9	68.32	3.35	0.000	35.87	15.73	2.28	
10/8/2003	15:06:21	981.9	68.34	3.349	0.001	36.37	16.23	2.24	
10/8/2003	15:06:51	1011.9	68.36	3.351	-0.001	36.87	16.73	2.20	
10/8/2003	15:07:21	1041.9	68.38	3.351	-0.001	37.37	17.23	2.17	
10/8/2003	15:07:51	1071.9	68.41	3.351	-0.001	37.87	17.73	2.14	
10/8/2003	15:08:21	1101.9	68.41	3.351	-0.001	38.37	18.23	2.10	
10/8/2003	15:08:51	1131.9	68.43	3.35	0.000	38.87	18.73	2.07	
10/8/2003	15:09:21	1161.9	68.45	3.35	0.000	39.37	19.23	2.05	
10/8/2003	15:09:51	1191.9	68.45	3.35	0.000	39.87	19.73	2.02	
10/8/2003	15:15:00								DTW = 14.61 at 15:15

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-109C**

Equipment:	In-Situ Inc. MiniTroll Pro				
Test start date and time	10/6/2003 16:45:00				
Test end date and time	10/6/2003 17:28:21				
Period of pumping	30	minutes			
Static depth to water	14.51	feet below top of casing			
Starting transducer depth	7.028	feet below static water level			
Total well depth	180.6	feet below top of casing			
Depth to top of screen	160.6	feet below top of casing			
Height of interval tested [b]	20.0	feet			
Average pumping rate [Q]	0.055	gpm, or	11	cfd	
Average drawdown [s]	1.32	ft			
Specific capacity [Q/s]	0.042	gpm/ft			
Residual drawdown over one log cycle [Δs]			1.08	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			1.8	cfd/ft	
Hydraulic conductivity [K = T/b]			0.09	fpd, or	3.2E-05 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-109C**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/6/2003	16:25:00								DTW = 14.51 at 16:25
10/6/2003	16:45:00	0	67.5	7.029	-0.001				Start Test 1
10/6/2003	16:45:00	0.3	67.52	7.029	-0.001				
10/6/2003	16:45:00	0.6	67.52	7.029	-0.001				
10/6/2003	16:45:00	0.9	67.55	7.027	0.001				
10/6/2003	16:45:01	1.2	67.55	7.029	-0.001				
10/6/2003	16:45:01	1.5	67.55	7.029	-0.001				
10/6/2003	16:45:01	1.8	67.57	7.028	0.000				
10/6/2003	16:45:02	2.1	67.57	7.028	0.000				
10/6/2003	16:45:02	2.4	67.57	7.028	0.000				
10/6/2003	16:45:02	2.7	67.57	7.028	0.000				
10/6/2003	16:45:03	3	67.57	7.028	0.000				
10/6/2003	16:45:03	3.3	67.57	7.028	0.000				
10/6/2003	16:45:03	3.6	67.57	7.028	0.000				
10/6/2003	16:45:03	3.9	67.57	7.028	0.000				
10/6/2003	16:45:04	4.2	67.59	7.028	0.000	0.00			Pump Start
10/6/2003	16:45:04	4.5	67.57	7.013	0.015	0.00			
10/6/2003	16:45:04	4.8	67.59	6.989	0.039	0.00			
10/6/2003	16:45:05	5.1	67.59	6.971	0.057	0.02			
10/6/2003	16:45:05	5.4	67.59	6.959	0.069	0.02			
10/6/2003	16:45:05	5.7	67.59	6.948	0.080	0.02			
10/6/2003	16:45:06	6	67.59	6.93	0.098	0.03			
10/6/2003	16:45:06	6.4	67.59	6.901	0.127	0.03			
10/6/2003	16:45:06	6.7	67.59	6.871	0.157	0.03			
10/6/2003	16:45:07	7.1	67.59	6.84	0.188	0.05			
10/6/2003	16:45:07	7.5	67.59	6.814	0.214	0.05			
10/6/2003	16:45:07	8	67.59	6.787	0.241	0.05			
10/6/2003	16:45:08	8.4	67.59	6.759	0.269	0.07			
10/6/2003	16:45:08	8.9	67.59	6.724	0.304	0.07			
10/6/2003	16:45:09	9.5	67.59	6.69	0.338	0.08			
10/6/2003	16:45:10	10	67.59	6.657	0.371	0.10			
10/6/2003	16:45:10	10.6	67.57	6.622	0.406	0.10			
10/6/2003	16:45:11	11.3	67.57	6.585	0.443	0.12			
10/6/2003	16:45:11	11.9	67.57	6.547	0.481	0.12			
10/6/2003	16:45:12	12.6	67.57	6.512	0.516	0.13			
10/6/2003	16:45:13	13.4	67.57	6.475	0.553	0.15			
10/6/2003	16:45:14	14.2	67.57	6.435	0.593	0.17			
10/6/2003	16:45:15	15	67.57	6.398	0.630	0.18			
10/6/2003	16:45:15	15.9	67.57	6.361	0.667	0.18			
10/6/2003	16:45:16	16.8	67.57	6.327	0.701	0.20			
10/6/2003	16:45:17	17.8	67.57	6.296	0.732	0.22			
10/6/2003	16:45:18	18.9	67.57	6.272	0.756	0.23			
10/6/2003	16:45:20	20	67.55	6.263	0.765	0.27			
10/6/2003	16:45:21	21.2	67.57	6.264	0.764	0.28			
10/6/2003	16:45:22	22.4	67.57	6.26	0.768	0.30			
10/6/2003	16:45:23	23.8	67.55	6.261	0.767	0.32			
10/6/2003	16:45:25	25.2	67.57	6.262	0.766	0.35			
10/6/2003	16:45:26	26.7	67.57	6.253	0.775	0.37			
10/6/2003	16:45:28	28.2	67.57	6.237	0.791	0.40			
10/6/2003	16:45:29	29.8	67.55	6.227	0.801	0.42			
10/6/2003	16:45:31	31.5	67.57	6.211	0.817	0.45			
10/6/2003	16:45:33	33.3	67.57	6.198	0.830	0.48			
10/6/2003	16:45:35	35.2	67.57	6.19	0.838	0.52			
10/6/2003	16:45:37	37.3	67.57	6.178	0.850	0.55			
10/6/2003	16:45:39	39.5	67.55	6.168	0.860	0.58			
10/6/2003	16:45:41	41.8	67.55	6.16	0.868	0.62			
10/6/2003	16:45:44	44.3	67.57	6.152	0.876	0.67			
10/6/2003	16:45:46	46.9	67.57	6.145	0.883	0.70			
10/6/2003	16:45:49	49.7	67.57	6.135	0.893	0.75			
10/6/2003	16:45:52	52.6	67.57	6.125	0.903	0.80			
10/6/2003	16:45:55	55.7	67.57	6.115	0.913	0.85			
10/6/2003	16:45:58	59	67.57	6.105	0.923	0.90			
10/6/2003	16:46:02	62.5	67.57	6.091	0.937	0.97			
10/6/2003	16:46:06	66.2	67.57	6.08	0.948	1.03			
10/6/2003	16:46:10	70.1	67.57	6.068	0.960	1.10			

Well No. **MW-109C**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/6/2003	16:46:14	74.3	67.57	6.056	0.972	1.17			
10/6/2003	16:46:18	78.7	67.57	6.04	0.988	1.23			
10/6/2003	16:46:23	83.4	67.57	6.017	1.011	1.32			
10/6/2003	16:46:28	88.4	67.57	5.995	1.033	1.40			
10/6/2003	16:46:33	93.7	67.57	5.981	1.047	1.48			
10/6/2003	16:46:39	99.3	67.57	5.962	1.066	1.58			
10/6/2003	16:46:45	105.2	67.57	5.946	1.082	1.68			
10/6/2003	16:46:51	111.5	67.57	5.925	1.103	1.78			
10/6/2003	16:46:58	118.1	67.57	5.907	1.121	1.90			
10/6/2003	16:47:05	125.1	67.57	5.891	1.137	2.02			
10/6/2003	16:47:12	132.6	67.57	5.873	1.155	2.13			
10/6/2003	16:47:20	140.5	67.57	5.86	1.168	2.27			
10/6/2003	16:47:28	148.9	67.57	5.842	1.186	2.40			
10/6/2003	16:47:37	157.8	67.57	5.826	1.202	2.55			
10/6/2003	16:47:47	167.2	67.57	5.813	1.215	2.72			
10/6/2003	16:47:57	177.2	67.57	5.799	1.229	2.88			
10/6/2003	16:48:07	187.8	67.57	5.785	1.243	3.05			
10/6/2003	16:48:18	199	67.57	5.771	1.257	3.23			
10/6/2003	16:48:30	210.9	67.55	5.76	1.268	3.43			
10/6/2003	16:48:43	223.5	67.55	5.75	1.278	3.65			
10/6/2003	16:48:56	236.8	67.55	5.742	1.286	3.87			
10/6/2003	16:49:10	250.9	67.55	5.736	1.292	4.10			
10/6/2003	16:49:25	265.8	67.52	5.725	1.303	4.35			
10/6/2003	16:49:41	281.6	67.52	5.719	1.309	4.62			
10/6/2003	16:49:58	298.4	67.52	5.717	1.311	4.90			
10/6/2003	16:50:16	316.2	67.5	5.711	1.317	5.20			
10/6/2003	16:50:34	335	67.5	5.711	1.317	5.50			
10/6/2003	16:50:54	354.9	67.48	5.711	1.317	5.83			
10/6/2003	16:51:15	376	67.46	5.715	1.313	6.18			
10/6/2003	16:51:38	398.4	67.46	5.717	1.311	6.57			
10/6/2003	16:52:02	422.1	67.43	5.718	1.310	6.97			0.053 gpm flow rate
10/6/2003	16:52:27	447.2	67.41	5.72	1.308	7.38			
10/6/2003	16:52:53	473.8	67.39	5.722	1.306	7.82			
10/6/2003	16:53:21	502	67.37	5.724	1.304	8.28			
10/6/2003	16:53:51	531.9	67.32	5.727	1.301	8.78			
10/6/2003	16:54:21	561.9	67.3	5.729	1.299	9.28			
10/6/2003	16:54:51	591.9	67.25	5.731	1.297	9.78			
10/6/2003	16:55:21	621.9	67.23	5.733	1.295	10.28			
10/6/2003	16:55:51	651.9	67.21	5.734	1.294	10.78			
10/6/2003	16:56:21	681.9	67.16	5.73	1.298	11.28			
10/6/2003	16:56:51	711.9	67.12	5.727	1.301	11.78			
10/6/2003	16:57:21	741.9	67.07	5.727	1.301	12.28			0.054 gpm flow rate
10/6/2003	16:57:51	771.9	67.05	5.731	1.297	12.78			
10/6/2003	16:58:21	801.9	67	5.732	1.296	13.28			
10/6/2003	16:58:51	831.9	66.96	5.732	1.296	13.78			
10/6/2003	16:59:21	861.9	66.94	5.73	1.298	14.28			
10/6/2003	16:59:51	891.9	66.89	5.729	1.299	14.78			
10/6/2003	17:00:21	921.9	66.85	5.725	1.303	15.28			
10/6/2003	17:00:51	951.9	66.82	5.726	1.302	15.78			
10/6/2003	17:01:21	981.9	66.78	5.728	1.300	16.28			
10/6/2003	17:01:51	1011.9	66.73	5.723	1.305	16.78			
10/6/2003	17:02:21	1041.9	66.71	5.717	1.311	17.28			
10/6/2003	17:02:51	1071.9	66.67	5.711	1.317	17.78			
10/6/2003	17:03:21	1101.9	66.62	5.706	1.322	18.28			0.058 gpm flow rate
10/6/2003	17:03:51	1131.9	66.6	5.702	1.326	18.78			
10/6/2003	17:04:21	1161.9	66.55	5.703	1.325	19.28			
10/6/2003	17:04:51	1191.9	66.53	5.699	1.329	19.78			
10/6/2003	17:05:21	1221.9	66.48	5.699	1.329	20.28			
10/6/2003	17:05:51	1251.9	66.44	5.7	1.328	20.78			
10/6/2003	17:06:21	1281.9	66.42	5.7	1.328	21.28			
10/6/2003	17:06:51	1311.9	66.37	5.699	1.329	21.78			
10/6/2003	17:07:21	1341.9	66.33	5.701	1.327	22.28			
10/6/2003	17:07:51	1371.9	66.3	5.701	1.327	22.78			
10/6/2003	17:08:21	1401.9	66.26	5.702	1.326	23.28			
10/6/2003	17:08:51	1431.9	66.24	5.702	1.326	23.78			
10/6/2003	17:09:21	1461.9	66.21	5.702	1.326	24.28			
10/6/2003	17:09:51	1491.9	66.17	5.703	1.325	24.78			
10/6/2003	17:10:21	1521.9	66.12	5.703	1.325	25.28			0.055 gpm flow rate
10/6/2003	17:10:51	1551.9	66.1	5.699	1.329	25.78			

Well No. **MW-109C**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/6/2003	17:11:21	1581.9	66.05	5.7	1.328	26.28			
10/6/2003	17:11:51	1611.9	66.03	5.698	1.330	26.78			
10/6/2003	17:12:21	1641.9	65.99	5.698	1.330	27.28			
10/6/2003	17:12:51	1671.9	65.96	5.699	1.329	27.78			
10/6/2003	17:13:21	1701.9	65.92	5.697	1.331	28.28			
10/6/2003	17:13:51	1731.9	65.9	5.699	1.329	28.78			
10/6/2003	17:14:21	1761.9	65.87	5.698	1.330	29.28			
10/6/2003	17:14:51	1791.9	65.85	5.696	1.332	29.78			
10/6/2003	17:15:00	0	65.83	5.698	1.330	29.93			Start Test 2
10/6/2003	17:15:00	0.3	65.85	5.696	1.332	29.93			
10/6/2003	17:15:00	0.6	65.87	5.696	1.332	29.93			
10/6/2003	17:15:00	0.9	65.9	5.695	1.333	29.93			
10/6/2003	17:15:01	1.2	65.9	5.695	1.333	29.95			
10/6/2003	17:15:01	1.5	65.9	5.695	1.333	29.95			
10/6/2003	17:15:01	1.8	65.9	5.695	1.333	29.95			
10/6/2003	17:15:02	2.1	65.9	5.695	1.333	29.97			
10/6/2003	17:15:02	2.4	65.9	5.695	1.333	29.97			
10/6/2003	17:15:02	2.7	65.92	5.695	1.333	29.97			
10/6/2003	17:15:03	3	65.92	5.695	1.333	29.98			
10/6/2003	17:15:03	3.3	65.92	5.695	1.333	29.98			
10/6/2003	17:15:03	3.6	65.92	5.695	1.333	29.98			
10/6/2003	17:15:03	3.9	65.92	5.697	1.331	29.98			
10/6/2003	17:15:04	4.2	65.92	5.697	1.331	30.00			
10/6/2003	17:15:04	4.5	65.92	5.697	1.331	30.00	0.00		Pump Stop
10/6/2003	17:15:04	4.8	65.92	5.701	1.327	30.00	0.00		
10/6/2003	17:15:05	5.1	65.92	5.703	1.325	30.02	0.02	1801.00	
10/6/2003	17:15:05	5.4	65.92	5.705	1.323	30.02	0.02	1801.00	
10/6/2003	17:15:05	5.7	65.92	5.709	1.319	30.02	0.02	1801.00	
10/6/2003	17:15:06	6	65.92	5.713	1.315	30.03	0.03	901.00	
10/6/2003	17:15:06	6.4	65.92	5.717	1.311	30.03	0.03	901.00	
10/6/2003	17:15:06	6.7	65.92	5.719	1.309	30.03	0.03	901.00	
10/6/2003	17:15:07	7.1	65.92	5.723	1.305	30.05	0.05	601.00	
10/6/2003	17:15:07	7.5	65.92	5.729	1.299	30.05	0.05	601.00	
10/6/2003	17:15:08	8	65.92	5.733	1.295	30.07	0.07	451.00	
10/6/2003	17:15:08	8.4	65.92	5.736	1.292	30.07	0.07	451.00	
10/6/2003	17:15:08	8.9	65.92	5.74	1.288	30.07	0.07	451.00	
10/6/2003	17:15:09	9.5	65.92	5.746	1.282	30.08	0.08	361.00	
10/6/2003	17:15:10	10	65.92	5.752	1.276	30.10	0.10	301.00	
10/6/2003	17:15:10	10.6	65.92	5.758	1.270	30.10	0.10	301.00	
10/6/2003	17:15:11	11.3	65.92	5.762	1.266	30.12	0.12	258.14	
10/6/2003	17:15:11	11.9	65.9	5.768	1.260	30.12	0.12	258.14	
10/6/2003	17:15:12	12.6	65.9	5.776	1.252	30.13	0.13	226.00	
10/6/2003	17:15:13	13.4	65.9	5.782	1.246	30.15	0.15	201.00	
10/6/2003	17:15:14	14.2	65.9	5.79	1.238	30.17	0.17	181.00	
10/6/2003	17:15:15	15	65.9	5.796	1.232	30.18	0.18	164.64	
10/6/2003	17:15:15	15.9	65.9	5.805	1.223	30.18	0.18	164.64	
10/6/2003	17:15:16	16.8	65.9	5.811	1.217	30.20	0.20	151.00	
10/6/2003	17:15:17	17.8	65.9	5.821	1.207	30.22	0.22	139.46	
10/6/2003	17:15:18	18.9	65.9	5.829	1.199	30.23	0.23	129.57	
10/6/2003	17:15:20	20	65.9	5.839	1.189	30.27	0.27	113.50	
10/6/2003	17:15:21	21.2	65.9	5.849	1.179	30.28	0.28	106.88	
10/6/2003	17:15:22	22.4	65.9	5.86	1.168	30.30	0.30	101.00	
10/6/2003	17:15:23	23.8	65.9	5.87	1.158	30.32	0.32	95.74	
10/6/2003	17:15:25	25.2	65.87	5.882	1.146	30.35	0.35	86.71	
10/6/2003	17:15:26	26.7	65.87	5.894	1.134	30.37	0.37	82.82	
10/6/2003	17:15:28	28.2	65.87	5.906	1.122	30.40	0.40	76.00	
10/6/2003	17:15:29	29.8	65.87	5.918	1.110	30.42	0.42	73.00	
10/6/2003	17:15:31	31.5	65.87	5.931	1.097	30.45	0.45	67.67	
10/6/2003	17:15:33	33.3	65.87	5.945	1.083	30.48	0.48	63.07	
10/6/2003	17:15:35	35.2	65.87	5.959	1.069	30.52	0.52	59.06	
10/6/2003	17:15:37	37.3	65.87	5.975	1.053	30.55	0.55	55.55	
10/6/2003	17:15:39	39.5	65.87	5.99	1.038	30.58	0.58	52.43	
10/6/2003	17:15:41	41.8	65.87	6.008	1.020	30.62	0.62	49.65	
10/6/2003	17:15:44	44.3	65.87	6.026	1.002	30.67	0.67	46.00	
10/6/2003	17:15:46	46.9	65.87	6.043	0.985	30.70	0.70	43.86	
10/6/2003	17:15:49	49.7	65.87	6.063	0.965	30.75	0.75	41.00	
10/6/2003	17:15:52	52.6	65.87	6.081	0.947	30.80	0.80	38.50	
10/6/2003	17:15:55	55.7	65.87	6.102	0.926	30.85	0.85	36.29	
10/6/2003	17:15:59	59	65.87	6.122	0.906	30.92	0.92	33.73	

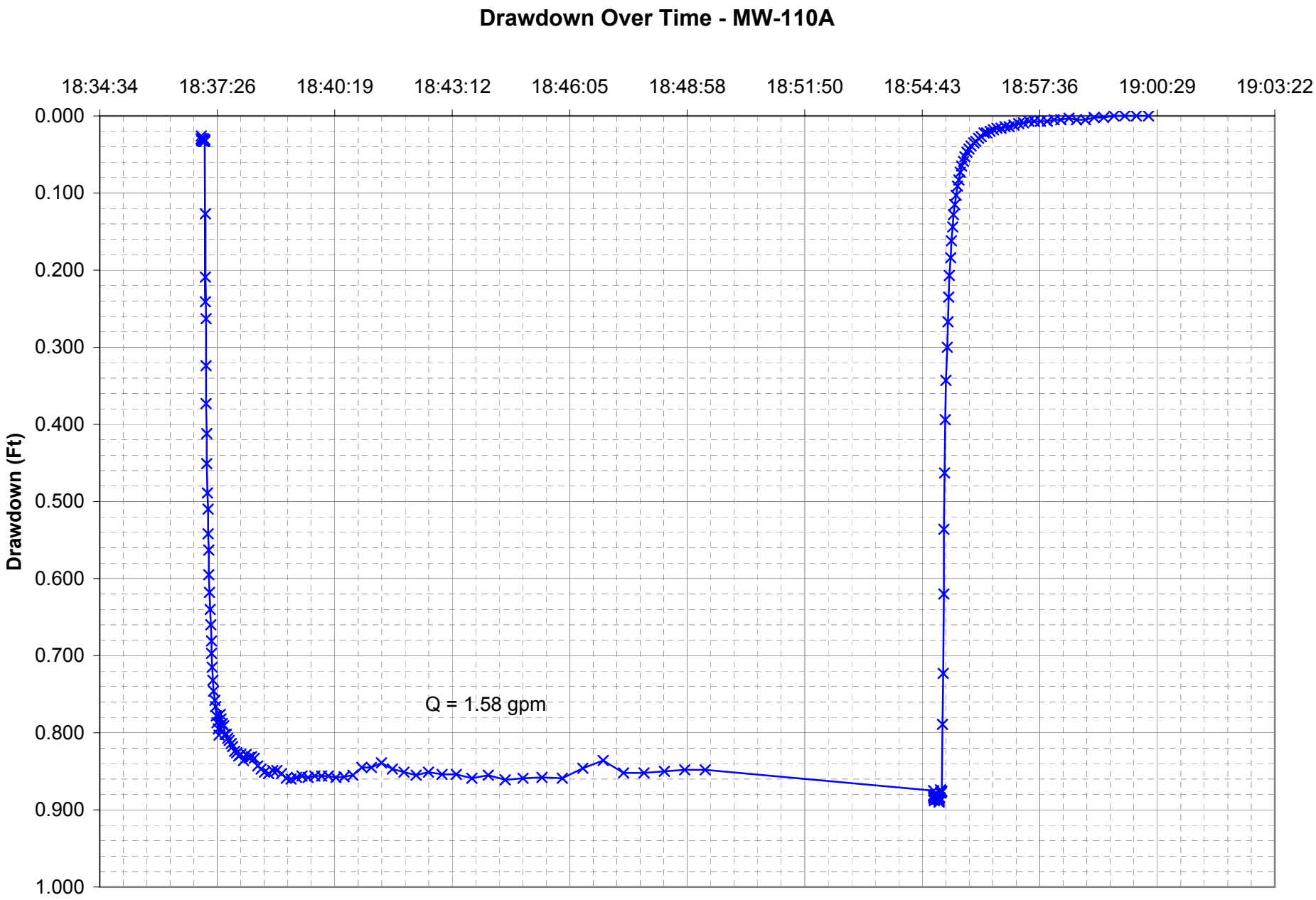
Well No. **MW-109C**

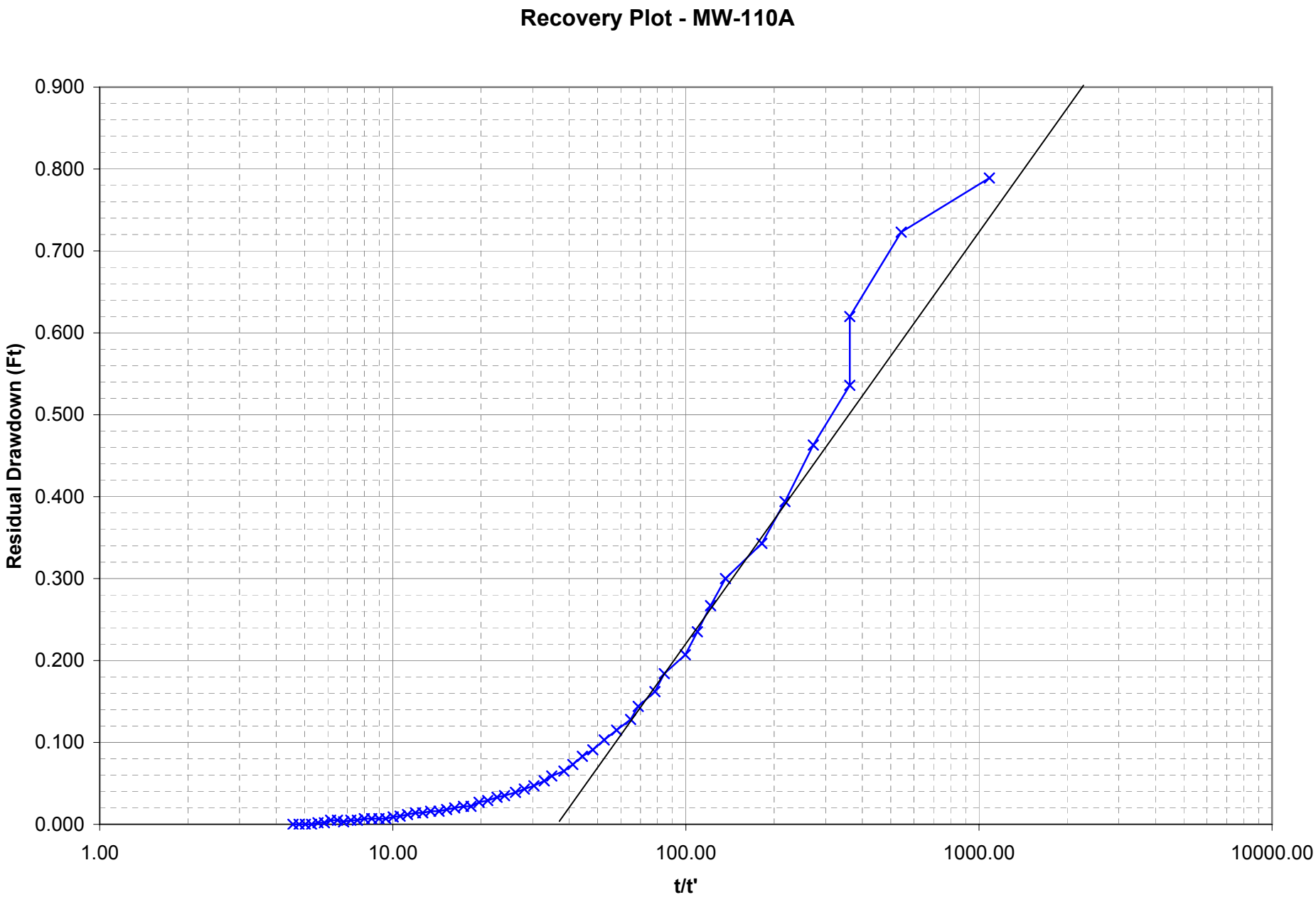
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/6/2003	17:16:02	62.5	65.85	6.146	0.882	30.97	0.97	32.03	
10/6/2003	17:16:06	66.2	65.85	6.167	0.861	31.03	1.03	30.03	
10/6/2003	17:16:10	70.1	65.85	6.189	0.839	31.10	1.10	28.27	
10/6/2003	17:16:14	74.3	65.85	6.215	0.813	31.17	1.17	26.71	
10/6/2003	17:16:18	78.7	65.85	6.238	0.790	31.23	1.23	25.32	
10/6/2003	17:16:23	83.4	65.83	6.262	0.766	31.32	1.32	23.78	
10/6/2003	17:16:28	88.4	65.83	6.287	0.741	31.40	1.40	22.43	
10/6/2003	17:16:33	93.7	65.83	6.315	0.713	31.48	1.48	21.22	
10/6/2003	17:16:39	99.3	65.83	6.34	0.688	31.58	1.58	19.95	
10/6/2003	17:16:45	105.2	65.81	6.366	0.662	31.68	1.68	18.82	
10/6/2003	17:16:51	111.5	65.81	6.394	0.634	31.78	1.78	17.82	
10/6/2003	17:16:58	118.1	65.81	6.421	0.607	31.90	1.90	16.79	
10/6/2003	17:17:05	125.1	65.78	6.449	0.579	32.02	2.02	15.88	
10/6/2003	17:17:12	132.6	65.78	6.476	0.552	32.13	2.13	15.06	
10/6/2003	17:17:20	140.5	65.78	6.504	0.524	32.27	2.27	14.24	
10/6/2003	17:17:28	148.9	65.76	6.532	0.496	32.40	2.40	13.50	
10/6/2003	17:17:37	157.8	65.76	6.559	0.469	32.55	2.55	12.76	
10/6/2003	17:17:47	167.2	65.76	6.587	0.441	32.72	2.72	12.04	
10/6/2003	17:17:57	177.2	65.76	6.612	0.416	32.88	2.88	11.40	
10/6/2003	17:18:07	187.8	65.76	6.64	0.388	33.05	3.05	10.84	
10/6/2003	17:18:19	199	65.76	6.665	0.363	33.25	3.25	10.23	
10/6/2003	17:18:30	210.9	65.76	6.691	0.337	33.43	3.43	9.74	
10/6/2003	17:18:43	223.5	65.76	6.716	0.312	33.65	3.65	9.22	
10/6/2003	17:18:56	236.8	65.78	6.738	0.290	33.87	3.87	8.76	
10/6/2003	17:19:10	250.9	65.78	6.761	0.267	34.10	4.10	8.32	
10/6/2003	17:19:25	265.8	65.78	6.783	0.245	34.35	4.35	7.90	
10/6/2003	17:19:41	281.6	65.81	6.8	0.228	34.62	4.62	7.50	
10/6/2003	17:19:58	298.4	65.81	6.82	0.208	34.90	4.90	7.12	
10/6/2003	17:20:16	316.2	65.83	6.837	0.191	35.20	5.20	6.77	
10/6/2003	17:20:35	335	65.83	6.853	0.175	35.52	5.52	6.44	
10/6/2003	17:20:54	354.9	65.85	6.869	0.159	35.83	5.83	6.14	
10/6/2003	17:21:16	376	65.85	6.88	0.148	36.20	6.20	5.84	
10/6/2003	17:21:38	398.4	65.87	6.892	0.136	36.57	6.57	5.57	
10/6/2003	17:22:02	422.1	65.9	6.904	0.124	36.97	6.97	5.31	
10/6/2003	17:22:27	447.2	65.9	6.915	0.113	37.38	7.38	5.06	
10/6/2003	17:22:53	473.8	65.92	6.923	0.105	37.82	7.82	4.84	
10/6/2003	17:23:22	502	65.94	6.931	0.097	38.30	8.30	4.61	
10/6/2003	17:23:51	531.9	65.96	6.936	0.092	38.78	8.78	4.42	
10/6/2003	17:24:21	561.9	65.99	6.942	0.086	39.28	9.28	4.23	
10/6/2003	17:24:51	591.9	65.99	6.948	0.080	39.78	9.78	4.07	
10/6/2003	17:25:21	621.9	66.01	6.952	0.076	40.28	10.28	3.92	
10/6/2003	17:25:51	651.9	66.03	6.955	0.073	40.78	10.78	3.78	
10/6/2003	17:26:21	681.9	66.05	6.957	0.071	41.28	11.28	3.66	
10/6/2003	17:26:51	711.9	66.08	6.959	0.069	41.78	11.78	3.55	
10/6/2003	17:27:21	741.9	66.1	6.962	0.066	42.28	12.28	3.44	
10/6/2003	17:27:51	771.9	66.12	6.962	0.066	42.78	12.78	3.35	
10/6/2003	17:28:21	801.9	66.15	6.964	0.064	43.28	13.28	3.26	
10/6/2003	17:38:00								DTW = 14.55 at 17:38

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-110A**

Equipment:	In-Situ Inc. MiniTroll Pro				
Test start date and time	10/7/2003 18:37:03				
Test end date and time	10/7/2003 19:00:16				
Period of pumping	18	minutes			
Static depth to water	12.30	feet below top of casing			
Startiing transducer depth	2.748	feet below static water level			
Total well depth	18.6	feet below top of casing			
Depth to top of screen	8.6	feet below top of casing			
Height of interval tested [b]	6.3	feet			
Average pumping rate [Q]	1.58	gpm, or	304	cfd	
Average drawdown [s]	0.86	ft			
Specific capacity [Q/s]	1.84	gpm/ft			
Residual drawdown over one log cycle [Δs]			0.50	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			111.3	cfd/ft	
Hydraulic conductivity [K = T/b]			17.7	fpd, or	6.2E-03 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-110A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/7/2003	18:02:00								DTW = 12.32 at 18:02
10/7/2003	18:19:00								DTW = 12.32 at 18:19
10/7/2003	18:37:03	0	55.98	2.722	0.026				Start Test 1
10/7/2003	18:37:03	0.3	56.01	2.718	0.030				
10/7/2003	18:37:03	0.6	56.01	2.718	0.030				
10/7/2003	18:37:03	0.9	56.03	2.718	0.030				
10/7/2003	18:37:04	1.2	56.03	2.718	0.030				
10/7/2003	18:37:04	1.5	56.03	2.716	0.032				
10/7/2003	18:37:04	1.8	56.03	2.716	0.032				
10/7/2003	18:37:05	2.1	56.05	2.716	0.032				
10/7/2003	18:37:05	2.4	56.05	2.716	0.032				
10/7/2003	18:37:05	2.7	56.05	2.718	0.030				
10/7/2003	18:37:06	3	56.05	2.716	0.032				
10/7/2003	18:37:06	3.3	56.05	2.718	0.030				
10/7/2003	18:37:06	3.6	56.05	2.718	0.030				
10/7/2003	18:37:06	3.9	56.05	2.718	0.030				
10/7/2003	18:37:07	4.2	56.05	2.716	0.032				
10/7/2003	18:37:07	4.5	56.07	2.715	0.033				
10/7/2003	18:37:07	4.8	56.07	2.715	0.033				
10/7/2003	18:37:08	5.1	56.07	2.717	0.031				
10/7/2003	18:37:08	5.4	56.07	2.717	0.031				
10/7/2003	18:37:08	5.7	56.07	2.715	0.033	0.00			Pump Start
10/7/2003	18:37:09	6	56.07	2.507	0.241	0.02			
10/7/2003	18:37:09	6.4	56.07	2.621	0.127	0.02			
10/7/2003	18:37:09	6.7	56.07	2.539	0.209	0.02			
10/7/2003	18:37:10	7.1	56.07	2.485	0.263	0.03			
10/7/2003	18:37:10	7.5	56.07	2.424	0.324	0.03			
10/7/2003	18:37:10	8	56.07	2.375	0.373	0.03			
10/7/2003	18:37:11	8.4	56.07	2.336	0.412	0.05			
10/7/2003	18:37:11	8.9	56.07	2.297	0.451	0.05			
10/7/2003	18:37:12	9.5	56.07	2.259	0.489	0.07			
10/7/2003	18:37:13	10	56.07	2.238	0.510	0.08			
10/7/2003	18:37:13	10.6	56.07	2.206	0.542	0.08			
10/7/2003	18:37:14	11.3	56.07	2.185	0.563	0.10			
10/7/2003	18:37:14	11.9	56.07	2.153	0.595	0.10			
10/7/2003	18:37:15	12.6	56.07	2.13	0.618	0.12			
10/7/2003	18:37:16	13.4	56.05	2.108	0.640	0.13			
10/7/2003	18:37:17	14.2	56.05	2.088	0.660	0.15			
10/7/2003	18:37:18	15	56.05	2.067	0.681	0.17			
10/7/2003	18:37:18	15.9	56.05	2.051	0.697	0.17			
10/7/2003	18:37:19	16.8	56.05	2.033	0.715	0.18			
10/7/2003	18:37:20	17.8	56.05	2.016	0.732	0.20			
10/7/2003	18:37:21	18.9	56.05	2.002	0.746	0.22			
10/7/2003	18:37:23	20	56.05	1.99	0.758	0.25			
10/7/2003	18:37:24	21.2	56.05	1.982	0.766	0.27			
10/7/2003	18:37:25	22.4	56.05	1.97	0.778	0.28			
10/7/2003	18:37:26	23.8	56.05	1.961	0.787	0.30			
10/7/2003	18:37:28	25.2	56.05	1.953	0.795	0.33			
10/7/2003	18:37:29	26.7	56.05	1.945	0.803	0.35			
10/7/2003	18:37:31	28.2	56.07	1.972	0.776	0.38			
10/7/2003	18:37:32	29.8	56.07	1.966	0.782	0.40			
10/7/2003	18:37:34	31.5	56.07	1.96	0.788	0.43			
10/7/2003	18:37:36	33.3	56.07	1.957	0.791	0.47			
10/7/2003	18:37:38	35.2	56.1	1.946	0.802	0.50			
10/7/2003	18:37:40	37.3	56.1	1.946	0.802	0.53			
10/7/2003	18:37:42	39.5	56.1	1.941	0.807	0.57			
10/7/2003	18:37:44	41.8	56.12	1.938	0.810	0.60			
10/7/2003	18:37:47	44.3	56.12	1.934	0.814	0.65			
10/7/2003	18:37:49	46.9	56.14	1.93	0.818	0.68			
10/7/2003	18:37:52	49.7	56.14	1.924	0.824	0.73			
10/7/2003	18:37:55	52.6	56.16	1.922	0.826	0.78			
10/7/2003	18:37:58	55.7	56.16	1.918	0.830	0.83			
10/7/2003	18:38:01	59	56.19	1.92	0.828	0.88			
10/7/2003	18:38:05	62.5	56.21	1.912	0.836	0.95			
10/7/2003	18:38:09	66.2	56.23	1.92	0.828	1.02			

Well No. **MW-110A**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/7/2003	18:38:13	70.1	56.23	1.916	0.832	1.08			
10/7/2003	18:38:17	74.3	56.26	1.917	0.831	1.15			
10/7/2003	18:38:21	78.7	56.28	1.915	0.833	1.22			
10/7/2003	18:38:26	83.4	56.3	1.905	0.843	1.30			
10/7/2003	18:38:31	88.4	56.3	1.901	0.847	1.38			
10/7/2003	18:38:36	93.7	56.32	1.897	0.851	1.47			
10/7/2003	18:38:42	99.3	56.32	1.895	0.853	1.57			
10/7/2003	18:38:48	105.2	56.35	1.899	0.849	1.67			
10/7/2003	18:38:54	111.5	56.37	1.899	0.849	1.77			
10/7/2003	18:39:01	118.1	56.37	1.895	0.853	1.88			1.54 gpm flow rate
10/7/2003	18:39:08	125.1	56.39	1.889	0.859	2.00			
10/7/2003	18:39:15	132.6	56.41	1.888	0.860	2.12			
10/7/2003	18:39:23	140.5	56.41	1.89	0.858	2.25			
10/7/2003	18:39:31	148.9	56.44	1.892	0.856	2.38			
10/7/2003	18:39:40	157.8	56.44	1.89	0.858	2.53			
10/7/2003	18:39:50	167.2	56.46	1.892	0.856	2.70			
10/7/2003	18:40:00	177.2	56.46	1.892	0.856	2.87			
10/7/2003	18:40:10	187.8	56.48	1.892	0.856	3.03			
10/7/2003	18:40:21	199	56.48	1.89	0.858	3.22			
10/7/2003	18:40:33	210.9	56.5	1.891	0.857	3.42			
10/7/2003	18:40:46	223.5	56.53	1.893	0.855	3.63			
10/7/2003	18:40:59	236.8	56.53	1.903	0.845	3.85			
10/7/2003	18:41:13	250.9	56.53	1.903	0.845	4.08			
10/7/2003	18:41:28	265.8	56.53	1.909	0.839	4.33			
10/7/2003	18:41:44	281.6	56.55	1.901	0.847	4.60			
10/7/2003	18:42:01	298.4	56.57	1.897	0.851	4.88			
10/7/2003	18:42:19	316.2	56.57	1.893	0.855	5.18			
10/7/2003	18:42:37	335	56.57	1.897	0.851	5.48			
10/7/2003	18:42:57	354.9	56.59	1.894	0.854	5.82			
10/7/2003	18:43:18	376	56.59	1.894	0.854	6.17			1.62 gpm flow rate
10/7/2003	18:43:41	398.4	56.59	1.889	0.859	6.55			
10/7/2003	18:44:05	422.1	56.59	1.893	0.855	6.95			
10/7/2003	18:44:30	447.2	56.59	1.887	0.861	7.37			
10/7/2003	18:44:56	473.8	56.59	1.889	0.859	7.80			
10/7/2003	18:45:24	502	56.62	1.89	0.858	8.27			
10/7/2003	18:45:54	531.9	56.59	1.889	0.859	8.77			
10/7/2003	18:46:24	561.9	56.59	1.902	0.846	9.27			
10/7/2003	18:46:54	591.9	56.59	1.912	0.836	9.77			
10/7/2003	18:47:24	621.9	56.59	1.896	0.852	10.27			
10/7/2003	18:47:54	651.9	56.59	1.896	0.852	10.77			
10/7/2003	18:48:24	681.9	56.59	1.898	0.850	11.27			
10/7/2003	18:48:54	711.9	56.62	1.9	0.848	11.77			
10/7/2003	18:49:24	741.9	56.62	1.9	0.848	12.27			1.58 gpm flow rate at 18:52
10/7/2003	18:55:00	0	56.62	1.873	0.875	17.87			Start Test 2
10/7/2003	18:55:00	0.3	56.64	1.867	0.881	17.87			
10/7/2003	18:55:00	0.6	56.66	1.864	0.884	17.87			
10/7/2003	18:55:00	0.9	56.66	1.866	0.882	17.87			
10/7/2003	18:55:01	1.2	56.66	1.866	0.882	17.88			
10/7/2003	18:55:01	1.5	56.66	1.86	0.888	17.88			
10/7/2003	18:55:01	1.8	56.69	1.862	0.886	17.88			
10/7/2003	18:55:02	2.1	56.69	1.866	0.882	17.90			
10/7/2003	18:55:02	2.4	56.69	1.862	0.886	17.90			
10/7/2003	18:55:02	2.7	56.69	1.862	0.886	17.90			
10/7/2003	18:55:03	3	56.69	1.862	0.886	17.92			
10/7/2003	18:55:03	3.3	56.69	1.862	0.886	17.92			
10/7/2003	18:55:03	3.6	56.69	1.864	0.884	17.92			
10/7/2003	18:55:03	3.9	56.69	1.868	0.880	17.92			
10/7/2003	18:55:04	4.2	56.69	1.866	0.882	17.93			
10/7/2003	18:55:04	4.5	56.69	1.862	0.886	17.93			
10/7/2003	18:55:04	4.8	56.69	1.866	0.882	17.93			
10/7/2003	18:55:05	5.1	56.71	1.866	0.882	17.95			
10/7/2003	18:55:05	5.4	56.71	1.866	0.882	17.95			
10/7/2003	18:55:05	5.7	56.71	1.864	0.884	17.95			
10/7/2003	18:55:06	6	56.71	1.866	0.882	17.97			
10/7/2003	18:55:06	6.4	56.71	1.866	0.882	17.97			
10/7/2003	18:55:06	6.7	56.71	1.862	0.886	17.97			
10/7/2003	18:55:07	7.1	56.71	1.862	0.886	17.98			
10/7/2003	18:55:07	7.5	56.71	1.862	0.886	17.98			
10/7/2003	18:55:08	8	56.71	1.862	0.886	18.00			

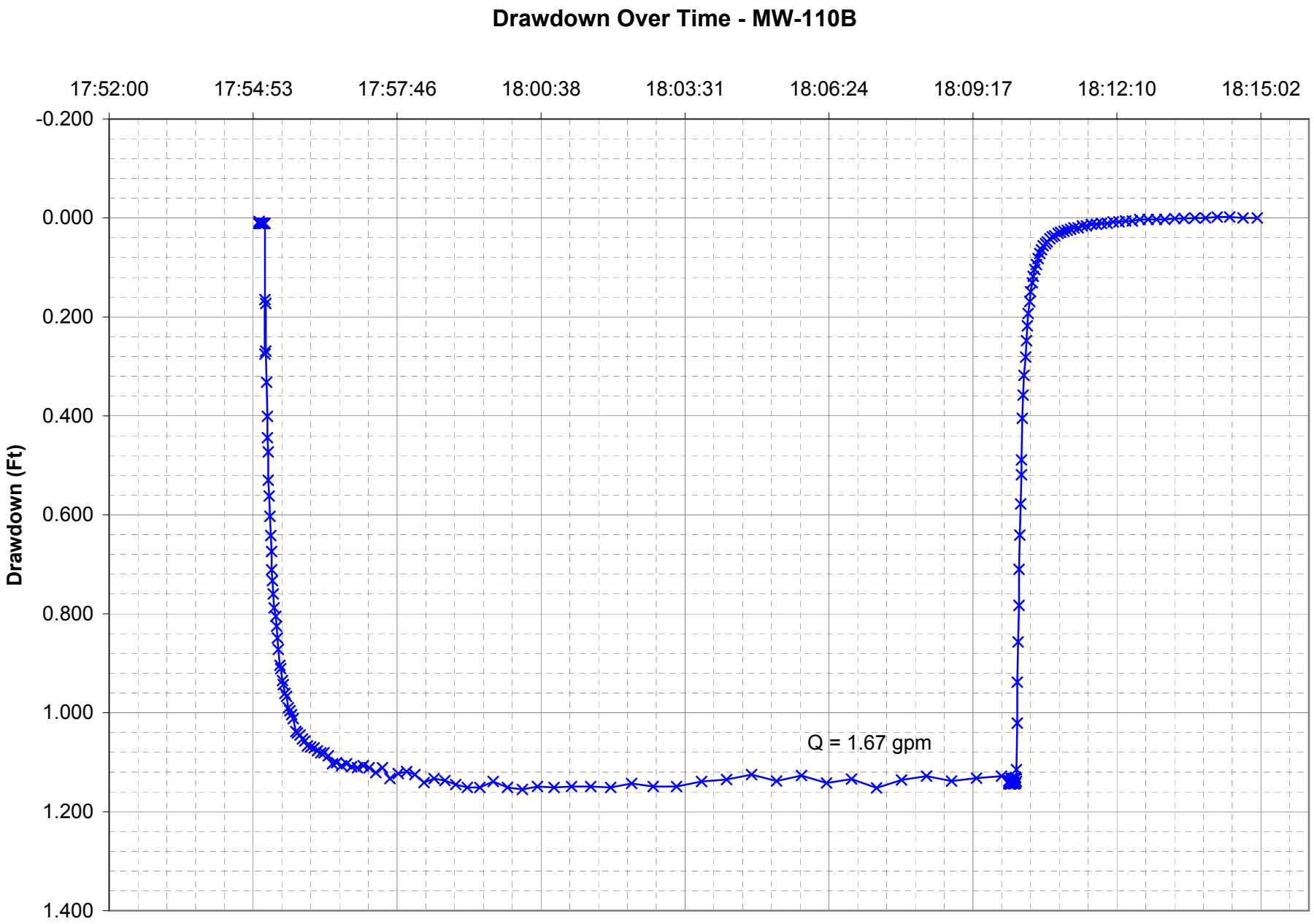
Well No. **MW-110A**

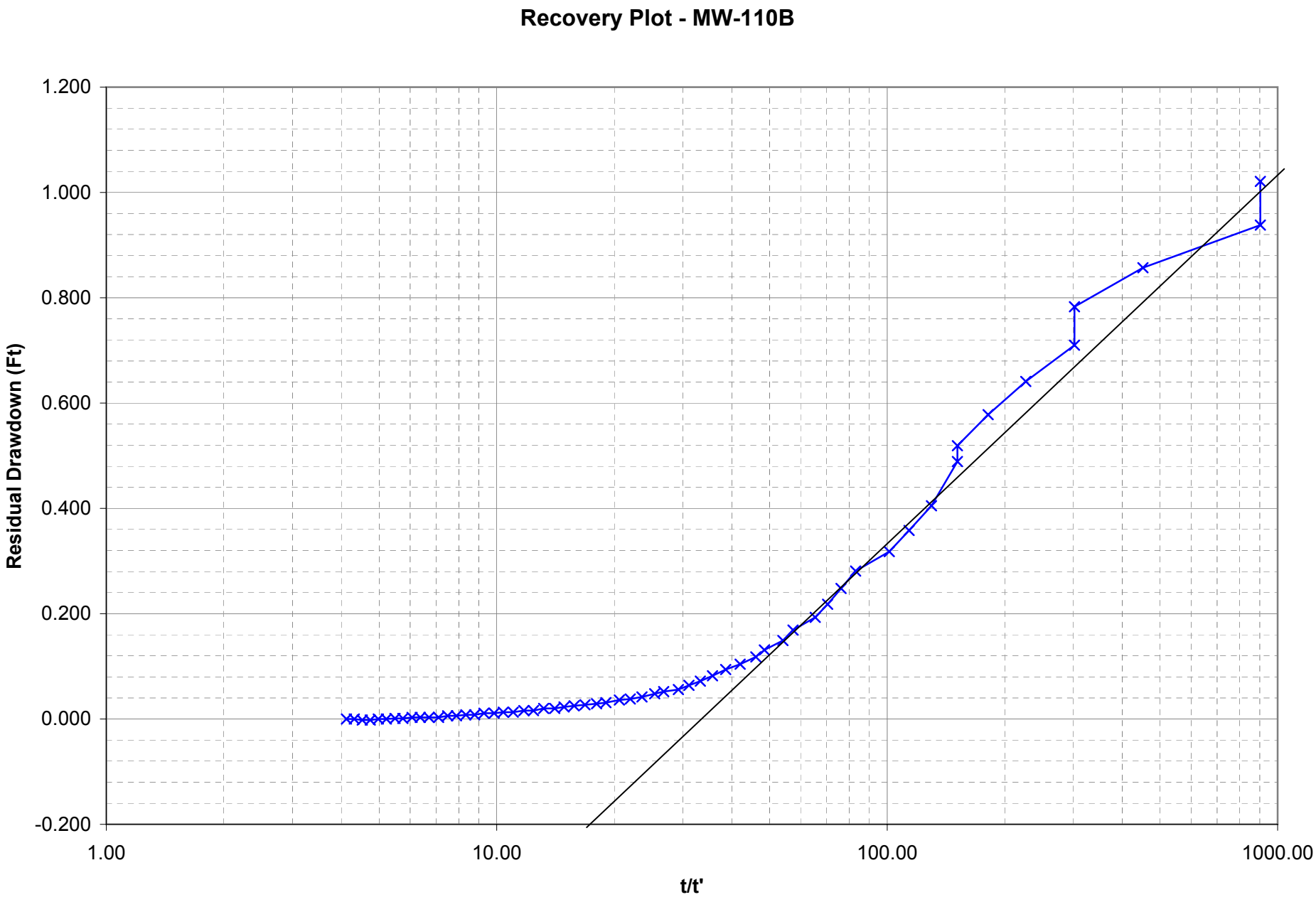
Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/7/2003	18:55:08	8.4	56.71	1.858	0.890	18.00			
10/7/2003	18:55:08	8.9	56.71	1.86	0.888	18.00			
10/7/2003	18:55:09	9.5	56.71	1.864	0.884	18.02			
10/7/2003	18:55:10	10	56.71	1.87	0.878	18.03			
10/7/2003	18:55:10	10.6	56.71	1.874	0.874	18.03			
10/7/2003	18:55:11	11.3	56.71	1.872	0.876	18.05			
10/7/2003	18:55:11	11.9	56.69	1.87	0.878	18.05			
10/7/2003	18:55:12	12.6	56.69	1.872	0.876	18.07	0.00		Pump Stop
10/7/2003	18:55:13	13.4	56.69	1.959	0.789	18.08	0.02	1085.00	
10/7/2003	18:55:14	14.2	56.69	2.025	0.723	18.10	0.03	543.00	
10/7/2003	18:55:15	15	56.69	2.128	0.620	18.12	0.05	362.33	
10/7/2003	18:55:15	15.9	56.69	2.212	0.536	18.12	0.05	362.33	
10/7/2003	18:55:16	16.8	56.69	2.285	0.463	18.13	0.07	272.00	
10/7/2003	18:55:17	17.8	56.69	2.354	0.394	18.15	0.08	217.80	
10/7/2003	18:55:18	18.9	56.69	2.405	0.343	18.17	0.10	181.67	
10/7/2003	18:55:20	20	56.66	2.448	0.300	18.20	0.13	136.50	
10/7/2003	18:55:21	21.2	56.69	2.481	0.267	18.22	0.15	121.44	
10/7/2003	18:55:22	22.4	56.66	2.513	0.235	18.23	0.17	109.40	
10/7/2003	18:55:23	23.8	56.66	2.541	0.207	18.25	0.18	99.55	
10/7/2003	18:55:25	25.2	56.66	2.564	0.184	18.28	0.22	84.38	
10/7/2003	18:55:26	26.7	56.66	2.586	0.162	18.30	0.23	78.43	
10/7/2003	18:55:28	28.2	56.66	2.604	0.144	18.33	0.27	68.75	
10/7/2003	18:55:29	29.8	56.64	2.62	0.128	18.35	0.28	64.76	
10/7/2003	18:55:31	31.5	56.64	2.633	0.115	18.38	0.32	58.05	
10/7/2003	18:55:33	33.3	56.64	2.645	0.103	18.42	0.35	52.62	
10/7/2003	18:55:35	35.2	56.62	2.657	0.091	18.45	0.38	48.13	
10/7/2003	18:55:37	37.3	56.62	2.665	0.083	18.48	0.42	44.36	
10/7/2003	18:55:39	39.5	56.59	2.675	0.073	18.52	0.45	41.15	
10/7/2003	18:55:41	41.8	56.59	2.683	0.065	18.55	0.48	38.38	
10/7/2003	18:55:44	44.3	56.59	2.689	0.059	18.60	0.53	34.88	
10/7/2003	18:55:46	46.9	56.57	2.695	0.053	18.63	0.57	32.88	
10/7/2003	18:55:49	49.7	56.55	2.701	0.047	18.68	0.62	30.30	
10/7/2003	18:55:52	52.6	56.55	2.705	0.043	18.73	0.67	28.10	
10/7/2003	18:55:55	55.7	56.53	2.709	0.039	18.78	0.72	26.21	
10/7/2003	18:55:59	59	56.53	2.713	0.035	18.85	0.78	24.06	
10/7/2003	18:56:02	62.5	56.5	2.715	0.033	18.90	0.83	22.68	
10/7/2003	18:56:06	66.2	56.48	2.719	0.029	18.97	0.90	21.07	
10/7/2003	18:56:10	70.1	56.48	2.721	0.027	19.03	0.97	19.69	
10/7/2003	18:56:14	74.3	56.46	2.726	0.022	19.10	1.03	18.48	
10/7/2003	18:56:18	78.7	56.44	2.726	0.022	19.17	1.10	17.42	
10/7/2003	18:56:23	83.4	56.44	2.728	0.020	19.25	1.18	16.27	
10/7/2003	18:56:28	88.4	56.41	2.73	0.018	19.33	1.27	15.26	
10/7/2003	18:56:33	93.7	56.41	2.732	0.016	19.42	1.35	14.38	
10/7/2003	18:56:39	99.3	56.39	2.732	0.016	19.52	1.45	13.46	
10/7/2003	18:56:45	105.2	56.37	2.734	0.014	19.62	1.55	12.66	
10/7/2003	18:56:51	111.5	56.37	2.734	0.014	19.72	1.65	11.95	
10/7/2003	18:56:58	118.1	56.35	2.736	0.012	19.83	1.77	11.23	
10/7/2003	18:57:05	125.1	56.35	2.738	0.010	19.95	1.88	10.59	
10/7/2003	18:57:12	132.6	56.32	2.739	0.009	20.07	2.00	10.03	
10/7/2003	18:57:20	140.5	56.3	2.741	0.007	20.20	2.13	9.47	
10/7/2003	18:57:28	148.9	56.3	2.741	0.007	20.33	2.27	8.97	
10/7/2003	18:57:37	157.8	56.3	2.741	0.007	20.48	2.42	8.48	
10/7/2003	18:57:47	167.2	56.28	2.741	0.007	20.65	2.58	7.99	
10/7/2003	18:57:57	177.2	56.28	2.743	0.005	20.82	2.75	7.57	
10/7/2003	18:58:07	187.8	56.26	2.743	0.005	20.98	2.92	7.19	
10/7/2003	18:58:19	199	56.26	2.745	0.003	21.18	3.12	6.80	
10/7/2003	18:58:30	210.9	56.23	2.743	0.005	21.37	3.30	6.47	
10/7/2003	18:58:43	223.5	56.23	2.743	0.005	21.58	3.52	6.14	
10/7/2003	18:58:56	236.8	56.21	2.746	0.002	21.80	3.73	5.84	
10/7/2003	18:59:10	250.9	56.21	2.746	0.002	22.03	3.97	5.55	
10/7/2003	18:59:25	265.8	56.21	2.748	0.000	22.28	4.22	5.28	
10/7/2003	18:59:41	281.6	56.19	2.748	0.000	22.55	4.48	5.03	
10/7/2003	18:59:58	298.4	56.19	2.748	0.000	22.83	4.77	4.79	
10/7/2003	19:00:16	316.2	56.19	2.748	0.000	23.13	5.07	4.57	DTW = 12.30 at 19:00

Pump and Recovery Tests - Summary
Peterson/Puritan OU2
October 2003

Well No. **MW-110B**

Equipment:	In-Situ Inc.	MiniTroll Pro			
Test start date and time	10/7/2003	17:55:00			
Test end date and time	10/7/2003	18:14:58			
Period of pumping	15	minutes			
Static depth to water	13.17	feet below top of casing			
Startiing transducer depth	4.312	feet below static water level			
Total well depth	66.0	feet below top of casing			
Depth to top of screen	56.0	feet below top of casing			
Height of interval tested [b]	10.0	feet			
Average pumping rate [Q]	1.67	gpm, or	321	cfd	
Average drawdown [s]	1.15	ft			
Specific capacity [Q/s]	1.45	gpm/ft			
Residual drawdown over one log cycle [Δs]			0.70	feet	
Transmissivity [T = (2.3Q)/(4*π*Δs)]			84.1	cfd/ft	
Hydraulic conductivity [K = T/b]			8.4	fpd, or	3.0E-03 cm/sec





Pump and Recovery Tests - Data
Peterson/Puritan OU2
October 2003

Well No. **MW-110B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/7/2003	17:41:00								DTW = 13.17 at 17:41
10/7/2003	17:55:00	0	55.92	4.305	0.007				Start Test 1
10/7/2003	17:55:00	0.3	55.94	4.301	0.011				
10/7/2003	17:55:00	0.6	55.96	4.301	0.011				
10/7/2003	17:55:00	0.9	55.96	4.301	0.011				
10/7/2003	17:55:01	1.2	55.96	4.301	0.011				
10/7/2003	17:55:01	1.5	55.96	4.301	0.011				
10/7/2003	17:55:01	1.8	55.96	4.301	0.011				
10/7/2003	17:55:02	2.1	55.98	4.301	0.011				
10/7/2003	17:55:02	2.4	55.98	4.301	0.011				
10/7/2003	17:55:02	2.7	55.98	4.301	0.011				
10/7/2003	17:55:03	3	55.98	4.301	0.011				
10/7/2003	17:55:03	3.3	55.98	4.301	0.011				
10/7/2003	17:55:03	3.6	55.98	4.301	0.011				
10/7/2003	17:55:03	3.9	55.98	4.301	0.011				
10/7/2003	17:55:04	4.2	55.98	4.301	0.011				
10/7/2003	17:55:04	4.5	55.98	4.301	0.011				
10/7/2003	17:55:04	4.8	55.98	4.301	0.011				
10/7/2003	17:55:05	5.1	56.01	4.301	0.011				
10/7/2003	17:55:05	5.4	56.01	4.301	0.011				
10/7/2003	17:55:05	5.7	56.01	4.301	0.011				
10/7/2003	17:55:06	6	56.01	4.301	0.011				
10/7/2003	17:55:06	6.4	56.01	4.301	0.011				
10/7/2003	17:55:06	6.7	56.01	4.301	0.011				
10/7/2003	17:55:07	7.1	56.01	4.301	0.011	0.00			Pump Start
10/7/2003	17:55:07	7.5	56.01	4.037	0.275	0.00			
10/7/2003	17:55:07	8	56.01	4.147	0.165	0.00			
10/7/2003	17:55:08	8.4	56.01	4.139	0.173	0.02			
10/7/2003	17:55:08	8.9	56.01	4.043	0.269	0.02			
10/7/2003	17:55:09	9.5	56.01	3.98	0.332	0.03			
10/7/2003	17:55:10	10	56.01	3.911	0.401	0.05			
10/7/2003	17:55:10	10.6	55.98	3.868	0.444	0.05			
10/7/2003	17:55:11	11.3	55.98	3.839	0.473	0.07			
10/7/2003	17:55:11	11.9	55.98	3.782	0.530	0.07			
10/7/2003	17:55:12	12.6	55.98	3.75	0.562	0.08			
10/7/2003	17:55:13	13.4	55.98	3.709	0.603	0.10			
10/7/2003	17:55:14	14.2	55.98	3.67	0.642	0.12			
10/7/2003	17:55:15	15	55.98	3.638	0.674	0.13			
10/7/2003	17:55:15	15.9	55.98	3.601	0.711	0.13			
10/7/2003	17:55:16	16.8	55.98	3.579	0.733	0.15			
10/7/2003	17:55:17	17.8	55.98	3.552	0.760	0.17			
10/7/2003	17:55:18	18.9	55.98	3.524	0.788	0.18			
10/7/2003	17:55:20	20	55.96	3.507	0.805	0.22			
10/7/2003	17:55:21	21.2	55.96	3.487	0.825	0.23			
10/7/2003	17:55:22	22.4	55.98	3.463	0.849	0.25			
10/7/2003	17:55:23	23.8	55.98	3.44	0.872	0.27			
10/7/2003	17:55:25	25.2	55.98	3.408	0.904	0.30			
10/7/2003	17:55:26	26.7	55.98	3.401	0.911	0.32			
10/7/2003	17:55:28	28.2	55.98	3.377	0.935	0.35			
10/7/2003	17:55:29	29.8	55.98	3.369	0.943	0.37			
10/7/2003	17:55:31	31.5	55.98	3.351	0.961	0.40			
10/7/2003	17:55:33	33.3	55.98	3.345	0.967	0.43			
10/7/2003	17:55:35	35.2	55.98	3.322	0.990	0.47			
10/7/2003	17:55:37	37.3	55.98	3.316	0.996	0.50			
10/7/2003	17:55:39	39.5	56.01	3.308	1.004	0.53			
10/7/2003	17:55:41	41.8	56.01	3.3	1.012	0.57			
10/7/2003	17:55:44	44.3	56.01	3.274	1.038	0.62			
10/7/2003	17:55:46	46.9	56.01	3.271	1.041	0.65			
10/7/2003	17:55:49	49.7	56.01	3.267	1.045	0.70			
10/7/2003	17:55:52	52.6	56.01	3.259	1.053	0.75			
10/7/2003	17:55:55	55.7	56.03	3.255	1.057	0.80			
10/7/2003	17:55:58	59	56.03	3.245	1.067	0.85			
10/7/2003	17:56:02	62.5	56.03	3.243	1.069	0.92			
10/7/2003	17:56:06	66.2	56.03	3.241	1.071	0.98			
10/7/2003	17:56:10	70.1	56.05	3.235	1.077	1.05			

Well No. **MW-110B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/7/2003	17:56:14	74.3	56.05	3.231	1.081	1.12			
10/7/2003	17:56:18	78.7	56.05	3.231	1.081	1.18			
10/7/2003	17:56:23	83.4	56.05	3.225	1.087	1.27			
10/7/2003	17:56:28	88.4	56.07	3.209	1.103	1.35			
10/7/2003	17:56:33	93.7	56.07	3.211	1.101	1.43			
10/7/2003	17:56:39	99.3	56.07	3.205	1.107	1.53			
10/7/2003	17:56:45	105.2	56.07	3.209	1.103	1.63			
10/7/2003	17:56:51	111.5	56.1	3.203	1.109	1.73			
10/7/2003	17:56:58	118.1	56.1	3.201	1.111	1.85			
10/7/2003	17:57:05	125.1	56.1	3.205	1.107	1.97			
10/7/2003	17:57:12	132.6	56.1	3.201	1.111	2.08			
10/7/2003	17:57:20	140.5	56.1	3.191	1.121	2.22			
10/7/2003	17:57:28	148.9	56.12	3.201	1.111	2.35			
10/7/2003	17:57:37	157.8	56.12	3.179	1.133	2.50			
10/7/2003	17:57:47	167.2	56.12	3.189	1.123	2.67			
10/7/2003	17:57:57	177.2	56.12	3.193	1.119	2.83			
10/7/2003	17:58:07	187.8	56.14	3.187	1.125	3.00			1.67 gpm flow rate
10/7/2003	17:58:18	199	56.14	3.171	1.141	3.18			
10/7/2003	17:58:30	210.9	56.14	3.179	1.133	3.38			
10/7/2003	17:58:43	223.5	56.14	3.175	1.137	3.60			
10/7/2003	17:58:56	236.8	56.14	3.167	1.145	3.82			
10/7/2003	17:59:10	250.9	56.14	3.161	1.151	4.05			
10/7/2003	17:59:25	265.8	56.16	3.161	1.151	4.30			
10/7/2003	17:59:41	281.6	56.14	3.173	1.139	4.57			
10/7/2003	17:59:58	298.4	56.14	3.161	1.151	4.85			
10/7/2003	18:00:16	316.2	56.14	3.157	1.155	5.15			1.67 gpm flow rate
10/7/2003	18:00:34	335	56.14	3.163	1.149	5.45			
10/7/2003	18:00:54	354.9	56.14	3.161	1.151	5.78			
10/7/2003	18:01:15	376	56.14	3.163	1.149	6.13			
10/7/2003	18:01:38	398.4	56.14	3.163	1.149	6.52			
10/7/2003	18:02:02	422.1	56.14	3.161	1.151	6.92			
10/7/2003	18:02:27	447.2	56.12	3.169	1.143	7.33			
10/7/2003	18:02:53	473.8	56.12	3.163	1.149	7.77			
10/7/2003	18:03:21	502	56.12	3.163	1.149	8.23			
10/7/2003	18:03:51	531.9	56.1	3.173	1.139	8.73			
10/7/2003	18:04:21	561.9	56.1	3.177	1.135	9.23			1.67 gpm flow rate
10/7/2003	18:04:51	591.9	56.07	3.187	1.125	9.73			
10/7/2003	18:05:21	621.9	56.07	3.174	1.138	10.23			
10/7/2003	18:05:51	651.9	56.07	3.185	1.127	10.73			
10/7/2003	18:06:21	681.9	56.07	3.17	1.142	11.23			
10/7/2003	18:06:51	711.9	56.05	3.178	1.134	11.73			
10/7/2003	18:07:21	741.9	56.05	3.16	1.152	12.23			
10/7/2003	18:07:51	771.9	56.03	3.176	1.136	12.73			
10/7/2003	18:08:21	801.9	56.03	3.184	1.128	13.23			1.62 gpm flow rate
10/7/2003	18:08:51	831.9	56.03	3.174	1.138	13.73			
10/7/2003	18:09:21	861.9	56.01	3.18	1.132	14.23			
10/7/2003	18:09:51	891.9	56.01	3.184	1.128	14.73			
10/7/2003	18:10:00	0	56.01	3.174	1.138	14.88			Start Test 2
10/7/2003	18:10:00	0.3	56.03	3.17	1.142	14.88			
10/7/2003	18:10:00	0.6	56.03	3.168	1.144	14.88			
10/7/2003	18:10:00	0.9	56.03	3.174	1.138	14.88			
10/7/2003	18:10:01	1.2	56.05	3.174	1.138	14.90			
10/7/2003	18:10:01	1.5	56.05	3.168	1.144	14.90			
10/7/2003	18:10:01	1.8	56.05	3.168	1.144	14.90			
10/7/2003	18:10:02	2.1	56.05	3.168	1.144	14.92			
10/7/2003	18:10:02	2.4	56.07	3.17	1.142	14.92			
10/7/2003	18:10:02	2.7	56.07	3.172	1.140	14.92			
10/7/2003	18:10:03	3	56.07	3.179	1.133	14.93			
10/7/2003	18:10:03	3.3	56.07	3.17	1.142	14.93			
10/7/2003	18:10:03	3.6	56.07	3.176	1.136	14.93			
10/7/2003	18:10:03	3.9	56.07	3.172	1.140	14.93			
10/7/2003	18:10:04	4.2	56.07	3.17	1.142	14.95			
10/7/2003	18:10:04	4.5	56.07	3.174	1.138	14.95			
10/7/2003	18:10:04	4.8	56.07	3.174	1.138	14.95			
10/7/2003	18:10:05	5.1	56.07	3.179	1.133	14.97			
10/7/2003	18:10:05	5.4	56.07	3.176	1.136	14.97			
10/7/2003	18:10:05	5.7	56.07	3.17	1.142	14.97			
10/7/2003	18:10:06	6	56.07	3.168	1.144	14.98			
10/7/2003	18:10:06	6.4	56.07	3.17	1.142	14.98			

Click Here to Continue to Appendix F, Part 2

Well No. **MW-110B**

Date	Time	Test Time Elapsed Sec	Temp-erature oF	Depth Below SWL Ft	Draw-down Ft	Time Since Pump Start t min	Time Since Pump Stop t' min	t/t'	Comments
10/7/2003	18:10:06	6.7	56.07	3.176	1.136	14.98			
10/7/2003	18:10:07	7.1	56.1	3.177	1.135	15.00			
10/7/2003	18:10:07	7.5	56.1	3.179	1.133	15.00			
10/7/2003	18:10:08	8	56.1	3.181	1.131	15.02			
10/7/2003	18:10:08	8.4	56.1	3.169	1.143	15.02			
10/7/2003	18:10:09	8.9	56.1	3.173	1.139	15.03	0.00		Pump Stop
10/7/2003	18:10:09	9.5	56.1	3.197	1.115	15.03	0.00		
10/7/2003	18:10:10	10	56.1	3.291	1.021	15.05	0.02	903.00	
10/7/2003	18:10:10	10.6	56.07	3.374	0.938	15.05	0.02	903.00	
10/7/2003	18:10:11	11.3	56.07	3.455	0.857	15.07	0.03	452.00	
10/7/2003	18:10:12	11.9	56.07	3.529	0.783	15.08	0.05	301.67	
10/7/2003	18:10:12	12.6	56.07	3.602	0.710	15.08	0.05	301.67	
10/7/2003	18:10:13	13.4	56.07	3.671	0.641	15.10	0.07	226.50	
10/7/2003	18:10:14	14.2	56.07	3.734	0.578	15.12	0.08	181.40	
10/7/2003	18:10:15	15	56.05	3.793	0.519	15.13	0.10	151.33	
10/7/2003	18:10:15	15.9	56.05	3.823	0.489	15.13	0.10	151.33	
10/7/2003	18:10:16	16.8	56.05	3.907	0.405	15.15	0.12	129.86	
10/7/2003	18:10:17	17.8	56.05	3.954	0.358	15.17	0.13	113.75	
10/7/2003	18:10:18	18.9	56.05	3.994	0.318	15.18	0.15	101.22	
10/7/2003	18:10:20	20	56.05	4.031	0.281	15.22	0.18	83.00	
10/7/2003	18:10:21	21.2	56.05	4.064	0.248	15.23	0.20	76.17	
10/7/2003	18:10:22	22.4	56.05	4.094	0.218	15.25	0.22	70.38	
10/7/2003	18:10:23	23.8	56.05	4.119	0.193	15.27	0.23	65.43	
10/7/2003	18:10:25	25.2	56.05	4.143	0.169	15.30	0.27	57.38	
10/7/2003	18:10:26	26.7	56.03	4.163	0.149	15.32	0.28	54.06	
10/7/2003	18:10:28	28.2	56.03	4.181	0.131	15.35	0.32	48.47	
10/7/2003	18:10:29	29.8	56.03	4.194	0.118	15.37	0.33	46.10	
10/7/2003	18:10:31	31.5	56.03	4.208	0.104	15.40	0.37	42.00	
10/7/2003	18:10:33	33.3	56.03	4.218	0.094	15.43	0.40	38.58	
10/7/2003	18:10:35	35.2	56.03	4.23	0.082	15.47	0.43	35.69	
10/7/2003	18:10:37	37.3	56.01	4.24	0.072	15.50	0.47	33.21	
10/7/2003	18:10:39	39.5	55.98	4.248	0.064	15.53	0.50	31.07	
10/7/2003	18:10:41	41.8	55.98	4.256	0.056	15.57	0.53	29.19	
10/7/2003	18:10:44	44.3	55.96	4.26	0.052	15.62	0.58	26.77	
10/7/2003	18:10:46	46.9	55.94	4.264	0.048	15.65	0.62	25.38	
10/7/2003	18:10:49	49.7	55.92	4.27	0.042	15.70	0.67	23.55	
10/7/2003	18:10:52	52.6	55.92	4.274	0.038	15.75	0.72	21.98	
10/7/2003	18:10:55	55.7	55.87	4.276	0.036	15.80	0.77	20.61	
10/7/2003	18:10:59	59	55.85	4.281	0.031	15.87	0.83	19.04	
10/7/2003	18:11:02	62.5	55.82	4.283	0.029	15.92	0.88	18.02	
10/7/2003	18:11:06	66.2	55.8	4.285	0.027	15.98	0.95	16.82	
10/7/2003	18:11:10	70.1	55.78	4.287	0.025	16.05	1.02	15.79	
10/7/2003	18:11:14	74.3	55.76	4.289	0.023	16.12	1.08	14.88	
10/7/2003	18:11:18	78.7	55.73	4.292	0.020	16.18	1.15	14.07	
10/7/2003	18:11:23	83.4	55.69	4.292	0.020	16.27	1.23	13.19	
10/7/2003	18:11:28	88.4	55.67	4.296	0.016	16.35	1.32	12.42	
10/7/2003	18:11:33	93.7	55.64	4.296	0.016	16.43	1.40	11.74	
10/7/2003	18:11:39	99.3	55.6	4.299	0.013	16.53	1.50	11.02	
10/7/2003	18:11:45	105.2	55.58	4.299	0.013	16.63	1.60	10.40	
10/7/2003	18:11:51	111.5	55.55	4.301	0.011	16.73	1.70	9.84	
10/7/2003	18:11:58	118.1	55.53	4.301	0.011	16.85	1.82	9.28	
10/7/2003	18:12:05	125.1	55.51	4.304	0.008	16.97	1.93	8.78	
10/7/2003	18:12:12	132.6	55.46	4.304	0.008	17.08	2.05	8.33	
10/7/2003	18:12:20	140.5	55.44	4.306	0.006	17.22	2.18	7.89	
10/7/2003	18:12:28	148.9	55.42	4.306	0.006	17.35	2.32	7.49	
10/7/2003	18:12:37	157.8	55.39	4.309	0.003	17.50	2.47	7.09	
10/7/2003	18:12:47	167.2	55.37	4.309	0.003	17.67	2.63	6.71	
10/7/2003	18:12:57	177.2	55.37	4.309	0.003	17.83	2.80	6.37	
10/7/2003	18:13:07	187.8	55.35	4.309	0.003	18.00	2.97	6.07	
10/7/2003	18:13:19	199	55.33	4.311	0.001	18.20	3.17	5.75	
10/7/2003	18:13:30	210.9	55.3	4.311	0.001	18.38	3.35	5.49	
10/7/2003	18:13:43	223.5	55.28	4.312	0.000	18.60	3.57	5.21	
10/7/2003	18:13:56	236.8	55.28	4.312	0.000	18.82	3.78	4.97	
10/7/2003	18:14:10	250.9	55.26	4.314	-0.002	19.05	4.02	4.74	
10/7/2003	18:14:25	265.8	55.26	4.314	-0.002	19.30	4.27	4.52	
10/7/2003	18:14:41	281.6	55.24	4.312	0.000	19.57	4.53	4.32	
10/7/2003	18:14:58	298.4	55.24	4.312	0.000	19.85	4.82	4.12	
10/7/2003	18:26:00								DTW = 13.17 at 18:26