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Date: 6/19/2006 8:26:15 AM
Subject: Grassy Trail Dam Seismic update June 17, 2006

Here is our two week update. Due to the large number of events recorded during the past two weeks we are planing on taking our next readings on Monday 6/26/06

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RB&G ENGINEERING
Grassy Trail Dam, Seismic Summary for June 17, 2006

For the two-week period between June 3 and June 17, 2006 the number of MIS (Mining Induced Seismicity) earthquakes recorded near the site by the UUSS increased significantly from 9 during the one week period ending on June 3 to a total of 36 for the past 2 weeks. These MIS earthquakes ranged in magnitude from 1.1 to a high of 2.0. Due to the increased distance between the dam and the current longwall mining some of these events were not recorded on the Dam or Hillside monitoring units.

With the increased number of earthquakes, the number of events recorded on the Hillside and Dam seismic units only increased slightly. For the two-week period the Hillside unit recorded a total of 75 events. MIS events on the Dam totaled 59. There were also 11 additional events recorded on the dam which were generated by people or other movement directly on the dam, which were not mining related. No events with a PGA value greater than 0.1g were recorded at the site.

During the past two weeks the highest Peak Ground Acceleration (PGA) value recorded on the Hillside decreased from a high of 0.108g to **0.0895g.** Highest PGA value on the Dam decreased from 0.113g to **0.0746g**. These high PGA value occurred during a 1.6 mag earthquake event on 6/9/06. The 0.0746g PGA occurred during the 2.0 magnitude event on 6/13/06.

Inclinometers I-2, I-3 and I-4 showed a slight increase in rate of movement relative to the previous reading on June 3. As shown on the graphs the rate of movement is still less than that recorded earlier in the year.

No cracks or signs of movement were noted on the dam or abutments above the dam.

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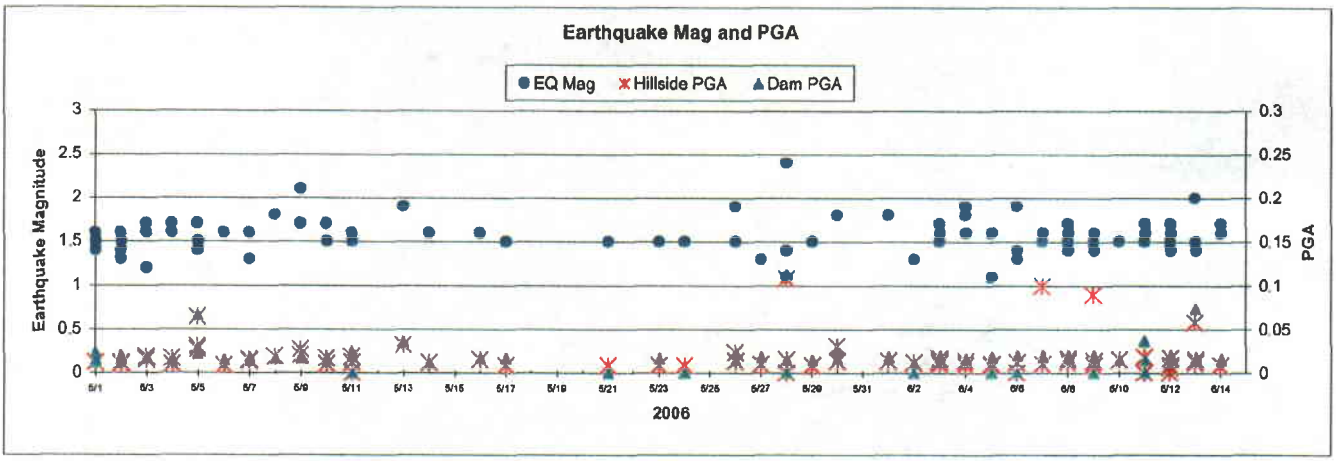
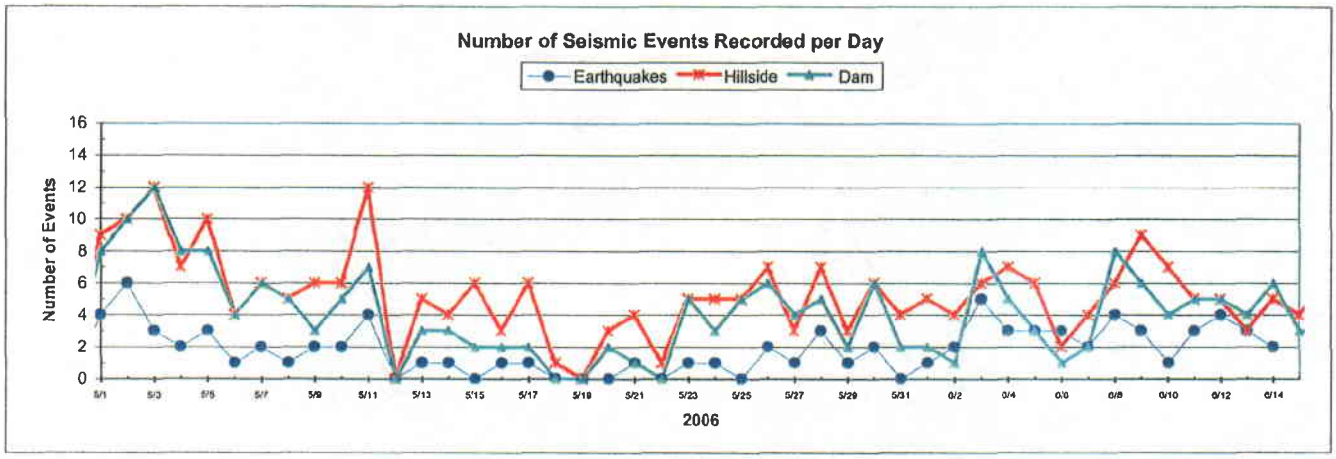
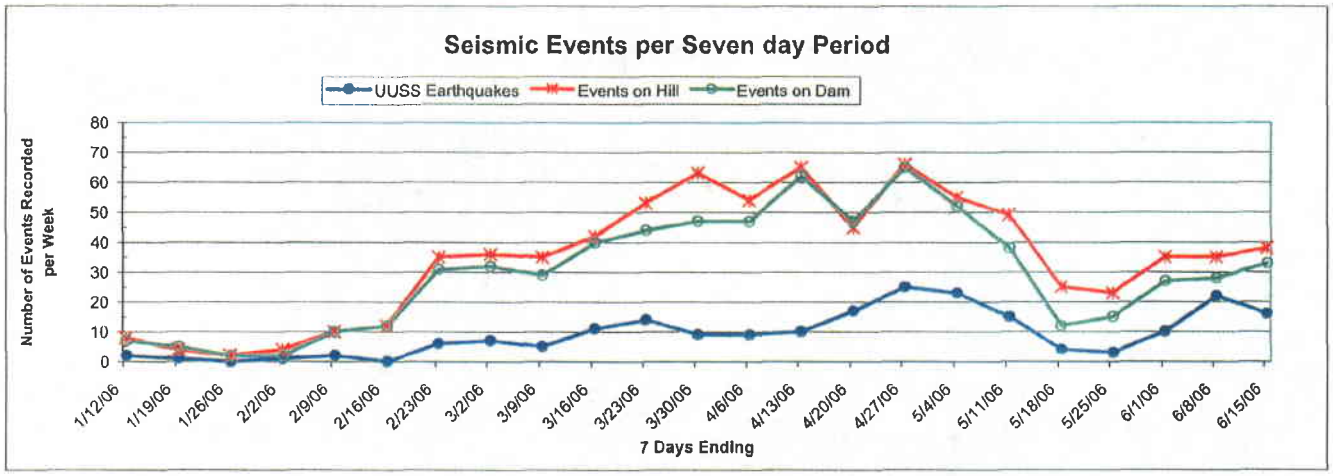
Grassy Trail Dam, Carbon County, Utah
########### 6/17/06

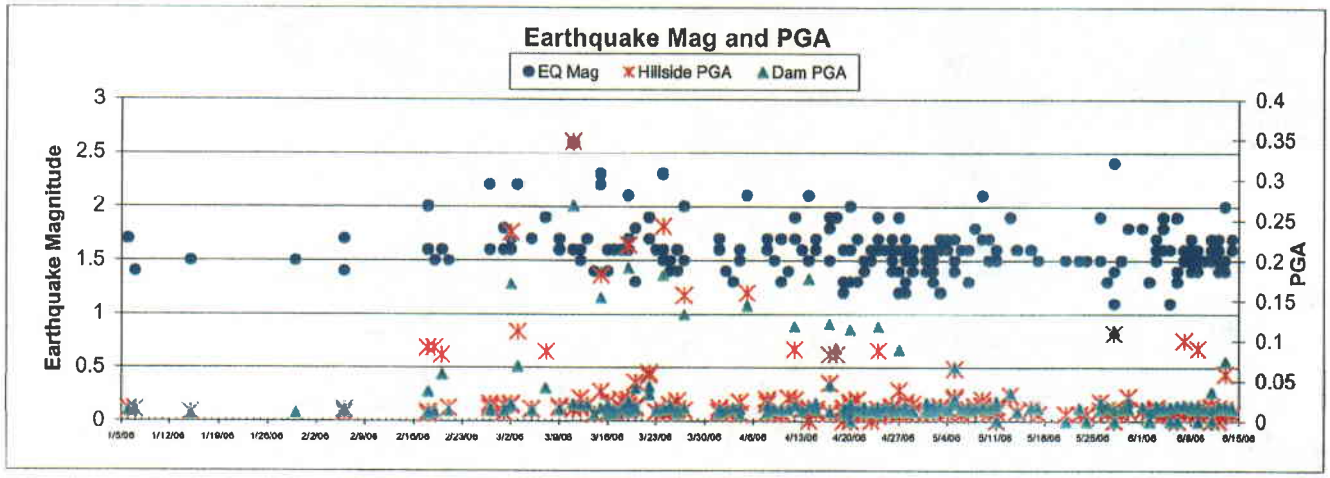
Type	Serial No.	Date	Time	Tran Peak (mm/s)	Vert Peak (mm/s)	Long Peak (mm/s)	PVS1 (mm/s)	Trigger	Tran Accel (g)	Vert Accel (g)	Long Accel (g)	Description	Post Event Note first line
LOG	BE9689	6/3/06	11:42:19	***	***	***	***	***	***	***	***	Start Monitoring	Start Monitoring
W	BE9689	6/3/06	11:48:23	1.21	0.968	1.24	1.65	Long	0.0116	0.00829	0.0199	Grassy Tr. Dam	Eq Mag 1.6
LOG	BE9690	6/3/06	12:32:14	***	***	***	***	***	***	***	***	Start Monitoring	Start Monitoring
W	BE9689	6/3/06	13:54:43	0.81	0.46	0.857	0.92	Long	0.00994	0.00829	0.0199	Grassy Tr. Dam	Eq Mag 1.6
W	BE9690	6/3/06	13:54:43	0.73	0.603	1.25	1.38	Vert	0.00829	0.00994	0.0116	Hillside	Eq Mag 1.6
W	BE9689	6/3/06	15:28:28	0.317	0.794	0.794	0.929	Vert	0.0331	0.0613	0.0514	Grassy Tr. Dam	
W	BE9689	6/3/06	16:49:37	0.381	0.317	0.619	0.705	Long	0.00663	0.00663	0.0149	Grassy Tr. Dam	
W	BE9689	6/3/06	18:06:22	1	0.54	0.683	1.16	Long	0.0133	0.00663	0.0149	Grassy Tr. Dam	Eq Mag 1.7
W	BE9690	6/3/06	18:06:22	0.603	0.381	0.937	0.938	Long	0.00829	0.00663	0.00994	Hillside	Eq Mag 1.7
W	BE9689	6/3/06	21:10:33	0.968	0.587	0.952	1.13	Long	0.0116	0.00663	0.0166	Grassy Tr. Dam	Eq mag 1.5
W	BE9690	6/3/06	21:10:33	0.762	0.635	0.968	1.01	Vert	0.00829	0.00829	0.0116	Hillside	Eq mag 1.5
W	BE9690	6/4/06	10:32:50	0.254	0.286	0.603	0.616	Long	0.00497	0.00663	0.00829	Hillside	
W	BE9689	6/4/06	10:55:00	0.825	0.556	0.857	0.926	Long	0.00829	0.00663	0.0133	Grassy Tr. Dam	
W	BE9690	6/4/06	10:55:00	0.921	0.333	0.603	0.931	Long	0.00994	0.00663	0.00663	Hillside	
W	BE9689	6/4/06	11:58:49	1.16	0.619	0.873	1.38	Long	0.0149	0.00663	0.0149	Grassy Tr. Dam	Eq mag 1.8
W	BE9690	6/4/06	11:58:49	0.873	0.81	1.4	1.48	Vert	0.00994	0.00994	0.0133	Hillside	Eq mag 1.8
W	BE9690	6/4/06	13:42:52	0.635	0.413	0.937	1	Long	0.00663	0.00663	0.00829	Hillside	Eq Mag 1.6
W	BE9689	6/4/06	13:42:53	0.746	0.429	0.841	0.975	Tran	0.0116	0.00663	0.0166	Grassy Tr. Dam	Eq Mag 1.6
W	BE9690	6/4/06	15:30:17	0.698	0.603	0.683	0.77	Vert	0.00829	0.00829	0.00829	Hillside	
W	BE9689	6/4/06	15:30:18	0.571	0.444	0.762	0.856	Long	0.00829	0.00663	0.0182	Grassy Tr. Dam	
W	BE9689	6/4/06	16:26:09	0.81	0.524	0.651	1.04	Long	0.00994	0.00663	0.0149	Grassy Tr. Dam	Eq Mag 1.9
W	BE9690	6/4/06	16:26:09	0.698	0.587	1.22	1.31	Long	0.00994	0.00829	0.0133	Hillside	Eq Mag 1.9
W	BE9690	6/4/06	21:31:46	0.603	0.413	0.73	0.872	Long	0.00663	0.00663	0.00663	Hillside	
W	BE9690	6/5/06	0:12:17	0.365	0.381	0.762	0.766	Long	0.00663	0.00663	0.00663	Hillside	
W	BE9690	6/5/06	2:23:40	0.333	0.333	0.714	0.729	Long	0.00663	0.00497	0.00829	Hillside	
W	BE9690	6/5/06	2:57:16	0.683	0.619	0.873	1.12	Vert	0.00829	0.00829	0.00829	Hillside	
W	BE9689	6/5/06	2:57:17	0.603	0.413	0.46	0.663	Tran	0.00829	0.00663	0.0182	Grassy Tr. Dam	
W	BE9690	6/5/06	11:30:16	0.365	0.492	0.921	0.923	Long	0.00663	0.00663	0.00994	Hillside	Eq Mag 1.6
W	BE9690	6/5/06	14:58:11	0.746	0.286	0.444	0.752	Tran	0.00829	0.00663	0.00663	Hillside	Eq Mag 1.6
W	BE9689	6/5/06	14:58:12	0.651	0.429	0.603	0.762	Tran	0.00829	0.00663	0.0182	Grassy Tr. Dam	Eq Mag 1.6
W	BE9690	6/5/06	17:49:18	0.889	0.556	0.968	1.02	Long	0.00663	0.00663	0.00829	Hillside	Eq Mag 1.6
W	BE9689	6/5/06	17:49:19	1.02	0.635	1.33	1.52	Long	0.0116	0.00663	0.0166	Grassy Tr. Dam	Eq Mag 1.6
W	BE9690	6/6/06	20:09:58	0.317	0.349	0.651	0.67	Long	0.00663	0.00497	0.00829	Hillside	
W	BE9690	6/6/06	21:39:51	1.25	1.02	1.35	1.39	Vert	0.00994	0.00994	0.0116	Hillside	Eq Mag 1.9
W	BE9689	6/6/06	21:39:53	1.38	0.81	1.32	1.63	Long	0.0116	0.00829	0.0199	Grassy Tr. Dam	Eq Mag 1.9
W	BE9690	6/7/06	3:42:02	0.381	0.365	0.746	0.749	Long	0.00663	0.00829	0.00994	Hillside	
W	BE9690	6/7/06	9:43:23	1.1	0.524	0.952	1.21	Long	0.00994	0.00663	0.00994	Hillside	Eq Mag 1.6
W	BE9689	6/7/06	9:43:24	1.06	0.937	1.22	1.5	Long	0.0116	0.00829	0.0182	Grassy Tr. Dam	Eq Mag 1.6
W	BE9690	6/7/06	15:28:55	1.05	0.73	1.14	1.19	Vert	0.00994	0.00829	0.00994	Hillside	Eq mag 1.5
W	BE9689	6/7/06	15:28:57	1.19	0.873	1.25	1.44	Vert	0.00994	0.00994	0.0199	Grassy Tr. Dam	Eq mag 1.5
W	BE9690	6/7/06	19:39:24	0.54	0.635	1.16	1.17	Vert	0.00663	0.00829	0.0133	Hillside	
W	BE9690	6/8/06	0:22:24	1.05	0.937	1.87	1.98	Vert	0.00994	0.00994	0.0166	Hillside	Eq Mag 1.6
W	BE9689	6/8/06	0:22:26	1.51	0.794	1.05	1.56	Tran	0.0149	0.00829	0.0182	Grassy Tr. Dam	Eq Mag 1.6
W	BE9690	6/8/06	7:22:35	0.698	0.603	0.571	0.713	Vert	0.00829	0.0116	0.00829	Hillside	Eq Mag 1.4
W	BE9689	6/8/06	7:22:38	0.825	0.54	0.857	1.09	Long	0.00994	0.00829	0.0182	Grassy Tr. Dam	Eq Mag 1.4
W	BE9690	6/8/06	9:04:06	0.698	0.54	0.73	0.744	Long	0.00829	0.00829	0.00829	Hillside	
W	BE9689	6/8/06	9:04:08	0.921	0.651	0.778	0.979	Long	0.00994	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/8/06	15:13:51	1.02	0.667	1.49	1.65	Vert	0.0116	0.00829	0.0133	Hillside	Eq mag 1.5
W	BE9689	6/8/06	15:13:53	1.16	0.714	1.05	1.21	Long	0.0133	0.00829	0.0199	Grassy Tr. Dam	Eq mag 1.5
W	BE9689	6/8/06	19:10:34	0.619	0.508	0.556	0.753	Tran	0.00663	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/8/06	19:20:56	1.27	0.873	1.17	1.57	Vert	0.0149	0.0116	0.0116	Hillside	
W	BE9689	6/8/06	19:20:58	1.81	1.24	1.84	2.11	Vert	0.0232	0.0116	0.0182	Grassy Tr. Dam	
W	BE9690	6/8/06	22:29:14	1.29	0.81	1.05	1.36	Vert	0.0149	0.00829	0.0133	Hillside	Eq mag 1.7
W	BE9689	6/8/06	22:29:16	1.78	1.32	1.7	2.4	Long	0.0182	0.0116	0.0149	Grassy Tr. Dam	Eq mag 1.7
W	BE9689	6/8/06	23:39:53	0.698	0.381	0.524	0.74	Tran	0.00829	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/9/06	6:49:03	0.556	0.476	0.667	0.759	Long	0.00663	0.00663	0.00829	Hillside	
LOG	BE9689	6/9/06	8:18:20	***	***	***	***	***	***	***	***	Keyboard Stop	No events recorded.
LOG	BE9689	6/9/06	8:19:39	***	***	***	***	***	***	***	***	Start Monitoring	Start Monitoring
W	BE9690	6/9/06	9:46:33	1.06	0.651	1.51	1.77	Vert	0.0116	0.00829	0.0133	Hillside	Eq Mag 1.4
W	BE9689	6/9/06	9:46:35	1.25	0.778	1.21	1.28	Long	0.0116	0.00829	0.0199	Grassy Tr. Dam	Eq Mag 1.4
W	BE9690	6/9/06	12:51:42	0.349	0.476	0.73	0.779	Long	0.00663	0.00829	0.00994	Hillside	
W	BE9690	6/9/06	13:36:04	0.683	0.333	0.508	0.726	Tran	0.00829	0.00663	0.00663	Hillside	Eq mag 1.5
W	BE9689	6/9/06	13:36:06	0.73	0.492	0.651	0.779	Long	0.00663	0.00663	0.0166	Grassy Tr. Dam	Eq mag 1.5
W	BE9690	6/9/06	16:23:08	0.825	0.508	1.02	1.1	Tran	0.00994	0.00829	0.00994	Hillside	
W	BE9689	6/9/06	16:23:10	0.921	0.651	0.857	1.07	Vert	0.00829	0.00829	0.0166	Grassy Tr. Dam	
W	BE9690	6/9/06	18:45:36	0.429	0.286	0.635	0.726	Long	0.00829	0.00663	0.00829	Hillside	
W	BE9689	6/9/06	18:45:39	0.317	0.397	0.619	0.685	Long	0.00663	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/9/06	19:02:42	0.429	0.27	0.73	0.741	Long	0.0464	0.0398	0.0895	Hillside	Eq Mag 1.6
W	BE9690	6/9/06	19:02:52	1.54	1.06	2.54	2.6	Vert	0.0149	0.00994	0.0215	Hillside	Eq Mag 1.6

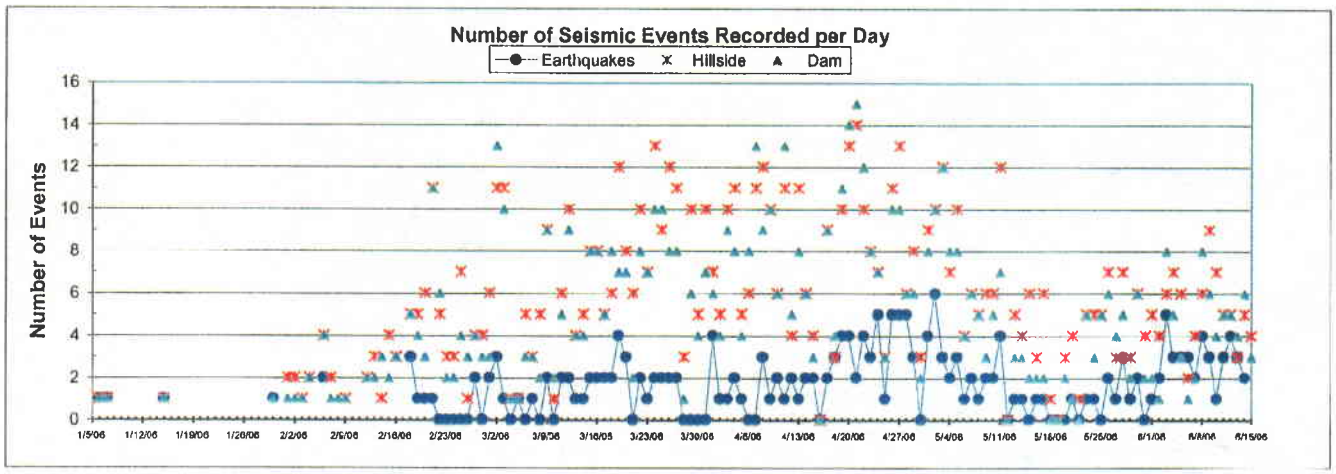
W	BE9689	6/9/06	19:02:55	1.94	1.48	1.59	2.46	Long	0.0166	0.0116	0.0166	Grassy Tr. Dam	
W	BE9690	6/9/06	23:11:00	0.746	0.238	0.46	0.772	Tran	0.00994	0.00663	0.00663	Hillside	
W	BE9690	6/10/06	1:25:00	0.349	0.222	0.619	0.669	Long	0.00663	0.00663	0.00663	Hillside	
W	BE9690	6/10/06	14:13:38	1.25	0.619	1.1	1.38	Long	0.00994	0.00829	0.0149	Hillside	Eq Mag 1.5
W	BE9689	6/10/06	14:13:41	1.64	1.17	1.64	2.28	Tran	0.0149	0.00994	0.0166	Grassy Tr. Dam	Eq Mag 1.5
W	BE9690	6/10/06	15:28:09	0.365	0.397	0.889	0.918	Long	0.00663	0.00663	0.0116	Hillside	
W	BE9690	6/10/06	20:04:51	0.841	0.46	0.603	0.869	Tran	0.00829	0.00663	0.00663	Hillside	
W	BE9689	6/10/06	20:04:53	0.952	0.714	0.714	1.04	Tran	0.00994	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/10/06	20:14:18	0.635	0.571	0.873	0.885	Long	0.00663	0.00663	0.00829	Hillside	
W	BE9689	6/10/06	20:14:21	0.667	0.524	0.714	0.878	Long	0.00663	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/10/06	23:04:47	0.27	0.349	0.714	0.73	Long	0.00663	0.00663	0.00829	Hillside	
W	BE9689	6/10/06	23:13:54	0.444	0.349	0.683	0.768	Long	0.00663	0.00829	0.0166	Grassy Tr. Dam	
W	BE9690	6/10/06	23:51:56	0.381	0.381	0.73	0.741	Long	0.00829	0.00663	0.00829	Hillside	
W	BE9690	6/11/06	0:26:59	1.84	0.889	1.94	2.29	Vert	0.0182	0.00994	0.0166	Hillside	Eq mag 1.7
W	BE9689	6/11/06	0:27:02	3.27	1.7	2.49	3.93	Vert	0.0365	0.0133	0.0182	Grassy Tr. Dam	Eq mag 1.7
W	BE9690	6/11/06	9:01:36	0.651	0.222	0.508	0.668	Tran	0.00663	0.00663	0.00663	Hillside	
W	BE9689	6/11/06	9:01:39	0.778	0.587	0.952	1.09	Long	0.00829	0.00663	0.0182	Grassy Tr. Dam	
W	BE9690	6/11/06	11:34:48	0.286	0.222	0.603	0.611	Long	0.00663	0.00497	0.00829	Hillside	
W	BE9689	6/11/06	13:59:28	0.619	0.365	0.635	0.857	Long	0.00829	0.00663	0.0149	Grassy Tr. Dam	
W	BE9689	6/11/06	15:20:22	0.603	0.429	0.714	0.804	Long	0.00994	0.00994	0.0149	Grassy Tr. Dam	
W	BE9690	6/11/06	20:05:44	0.635	0.413	0.54	0.644	Tran	0.00829	0.00663	0.00663	Hillside	
W	BE9689	6/11/06	20:05:47	0.794	0.492	0.651	0.843	Tran	0.00829	0.00663	0.0182	Grassy Tr. Dam	
W	BE9690	6/11/06	22:40:14	0.349	0.365	0.81	0.836	Long	0.00663	0.00663	0.00994	Hillside	
W	BE9690	6/12/06	9:56:53	0.81	0.397	0.73	0.917	Tran	0.00829	0.00663	0.00663	Hillside	Eq mag 1.4
W	BE9689	6/12/06	9:56:56	1.02	0.825	0.921	1.23	Long	0.0116	0.00829	0.0182	Grassy Tr. Dam	Eq mag 1.4
W	BE9690	6/12/06	18:31:49	1.68	0.921	2.08	2.44	Vert	0.0166	0.00994	0.0166	Hillside	Eq mag 1.7
W	BE9689	6/12/06	18:31:53	2.41	1.86	1.9	2.87	Vert	0.0199	0.0116	0.0166	Grassy Tr. Dam	Eq mag 1.7
W	BE9690	6/12/06	20:07:18	0.333	0.397	0.762	0.772	Long	0.00663	0.00663	0.00994	Hillside	
W	BE9689	6/12/06	20:38:17	0.508	0.349	0.635	0.768	Long	0.00829	0.00663	0.0166	Grassy Tr. Dam	Eq Mag 1.5
W	BE9690	6/12/06	22:50:48	0.667	0.397	0.746	0.835	Tran	0.00663	0.00663	0.00663	Hillside	Eq Mag 1.6
W	BE9689	6/12/06	22:50:52	0.905	0.619	1.24	1.36	Long	0.00829	0.00829	0.0166	Grassy Tr. Dam	Eq Mag 1.6
W	BE9690	6/12/06	23:06:09	0.952	0.365	0.698	1.13	Tran	0.00994	0.00663	0.00663	Hillside	
W	BE9689	6/12/06	23:06:13	0.825	0.587	0.556	0.866	Tran	0.00829	0.00829	0.0182	Grassy Tr. Dam	
W	BE9689	6/13/06	0:40:00	0.698	0.508	0.46	0.796	Tran	0.00829	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/13/06	13:18:22	5.68	3.54	6.38	7.3	Vert	0.053	0.0348	0.058	Hillside	Eq Mag 2.0
W	BE9689	6/13/06	13:18:26	7.54	4.3	4.7	8.8	Vert	0.0746	0.0331	0.0464	Grassy Tr. Dam	Eq Mag 2.0
W	BE9690	6/13/06	16:51:26	0.905	0.635	1.11	1.12	Long	0.00829	0.00663	0.0116	Hillside	Eq mag 1.4
W	BE9689	6/13/06	16:51:30	0.81	0.825	1.13	1.32	Long	0.0133	0.00829	0.0182	Grassy Tr. Dam	Eq mag 1.4
W	BE9690	6/13/06	19:49:39	1.71	0.952	1.37	1.74	Vert	0.0133	0.0116	0.0149	Hillside	Eq Mag 1.5
W	BE9689	6/13/06	19:49:44	1.46	1.35	1.32	1.81	Long	0.0133	0.00994	0.0166	Grassy Tr. Dam	Eq Mag 1.5
W	BE9690	6/14/06	7:37:24	0.873	0.381	0.651	0.88	Tran	0.00829	0.00663	0.00663	Hillside	Eq Mag 1.6
W	BE9689	6/14/06	7:37:28	1.19	0.683	0.762	1.25	Long	0.00994	0.00663	0.0166	Grassy Tr. Dam	Eq Mag 1.6
W	BE9689	6/14/06	9:54:07	0.905	0.571	0.968	1.19	Long	0.00994	0.00663	0.0182	Grassy Tr. Dam	
W	BE9690	6/14/06	10:26:47	0.429	0.46	0.619	0.692	Long	0.00663	0.00829	0.00829	Hillside	
W	BE9690	6/14/06	17:39:54	0.857	0.365	0.81	1.12	Long	0.00663	0.00663	0.00829	Hillside	
W	BE9689	6/14/06	17:39:59	0.952	0.587	0.762	1	Long	0.00829	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/14/06	18:08:23	0.571	0.27	0.698	0.807	Long	0.00829	0.00663	0.00829	Hillside	
W	BE9689	6/14/06	18:08:28	0.476	0.429	0.603	0.748	Long	0.00663	0.00829	0.0182	Grassy Tr. Dam	
W	BE9690	6/14/06	21:15:38	0.762	0.667	0.746	0.787	Vert	0.00829	0.00663	0.00829	Hillside	Eq mag 1.7
W	BE9689	6/14/06	21:15:42	0.794	0.571	0.952	1.15	Long	0.00829	0.00829	0.0149	Grassy Tr. Dam	Eq mag 1.7
W	BE9689	6/14/06	21:23:42	0.778	0.381	0.603	0.809	Tran	0.00994	0.00663	0.0166	Grassy Tr. Dam	
W	BE9690	6/15/06	2:55:41	0.54	0.603	1.03	1.05	Vert	0.00663	0.00663	0.0116	Hillside	
W	BE9689	6/15/06	8:49:24	0.603	0.365	0.476	0.617	Tran	0.00994	0.00829	0.0182	Grassy Tr. Dam	
W	BE9690	6/15/06	11:38:38	0.714	0.27	0.619	0.727	Tran	0.00663	0.00497	0.00663	Hillside	
W	BE9689	6/15/06	11:38:43	0.746	0.556	0.81	1.1	Long	0.00829	0.00663	0.0166	Grassy Tr. Dam	
W	BE9689	6/15/06	13:48:42	0.635	0.381	0.587	0.707	Tran	0.00994	0.00829	0.0149	Grassy Tr. Dam	
W	BE9690	6/15/06	17:29:19	0.429	0.349	0.73	0.735	Long	0.00663	0.00829	0.00829	Hillside	
W	BE9690	6/15/06	21:56:31	0.556	0.698	0.873	0.895	Long	0.00663	0.00829	0.00994	Hillside	
W	BE9690	6/16/06	3:18:20	0.952	0.841	1.6	1.87	Vert	0.0116	0.00994	0.0149	Hillside	
W	BE9689	6/16/06	3:18:26	0.857	0.54	0.73	0.951	Tran	0.00829	0.00829	0.0182	Grassy Tr. Dam	
W	BE9690	6/16/06	6:15:07	0.349	0.444	0.778	0.814	Long	0.00663	0.00663	0.0116	Hillside	
W	BE9690	6/16/06	10:39:33	0.73	0.254	0.587	0.883	Tran	0.00829	0.00663	0.00829	Hillside	
W	BE9690	6/16/06	11:03:18	0.317	0.365	0.683	0.684	Long	0.00663	0.00663	0.00994	Hillside	
W	BE9690	6/16/06	12:47:30	0.429	0.571	0.968	0.998	Long	0.00663	0.00663	0.00994	Hillside	
W	BE9690	6/16/06	14:00:19	0.317	0.286	0.698	0.771	Long	0.00663	0.00663	0.00663	Hillside	
W	BE9690	6/17/06	4:43:01	0.556	0.762	1.14	1.17	Long	0.00829	0.0116	0.0116	Hillside	
W	BE9690	6/17/06	8:00:03	2.68	1.24	2.48	3.47	Vert	0.0249	0.0133	0.0215	Hillside	
W	BE9689	6/17/06	8:00:09	3.7	2.67	4.4	5.47	Long	0.0414	0.0166	0.0298	Grassy Tr. Dam	
LOG	BE9689	6/17/06	8:00:12	***	***	***	***	***	***	***	***	Stop Monitoring	Event recorded. MF
W	BE9690	6/17/06	12:38:05	0.46	0.603	1	1.02	Vert	0.00663	0.00663	0.00994	Hillside	
LOG	BE9690	6/17/06	12:38:11	***	***	***	***	***	***	***	***	Stop Monitoring	Event recorded. MF


Earthquake Mag and PGA
EQ Mag
Hillside PGA
Dam PGA
Earthquake Magnitude
PGA
2006


Number of Seismic Events Recorded per Day
Earthquakes
Hillside
Dam
Number of Events
2006


Seismic Events per Seven day Period
UUSS Earthquakes
Events on Hill
Events on Dam
Number of Events Recorded per Week
7 Days Ending


Earthquake Mag and PGA
EQ Mag
Hillside PGA
Dam PGA
Earthquake Magnitude
PGA
3
2.5
2
1.5
1
0.5
0
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
1/5/06
1/12/06
1/19/06
1/26/06
2/2/06
2/9/06
2/16/06
2/23/06
3/2/06
3/9/06
3/16/06
3/23/06
3/30/06
4/6/06
4/13/06
4/20/06
4/27/06
5/4/06
5/11/06
5/18/06
5/25/06
6/1/06
6/8/06
6/15/06


Number of Seismic Events Recorded per Day
Earthquakes
Hillside
Dam
Number of Events
16
14
12
10
8
6
4
2
0
1/5/06
1/12/06
1/19/06
1/26/06
2/2/06
2/9/06
2/16/06
2/23/06
3/2/06
3/9/06
3/16/06
3/23/06
3/30/06
4/6/06
4/13/06
4/20/06
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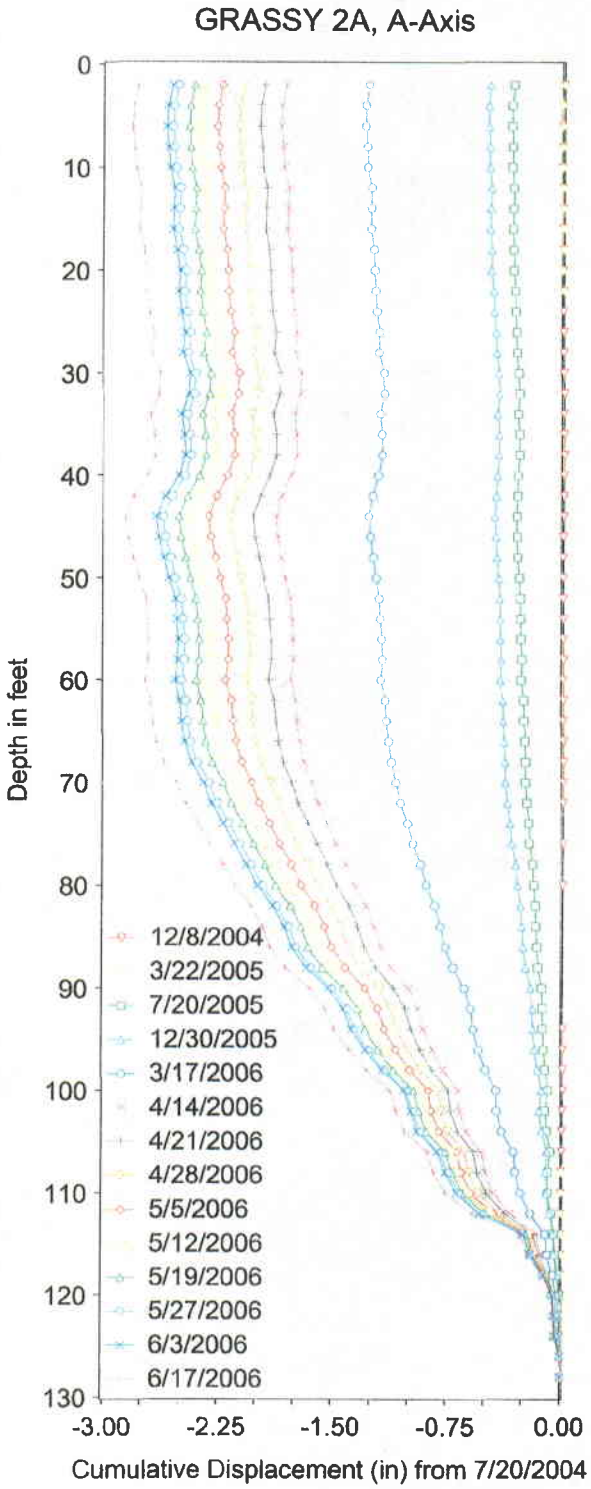
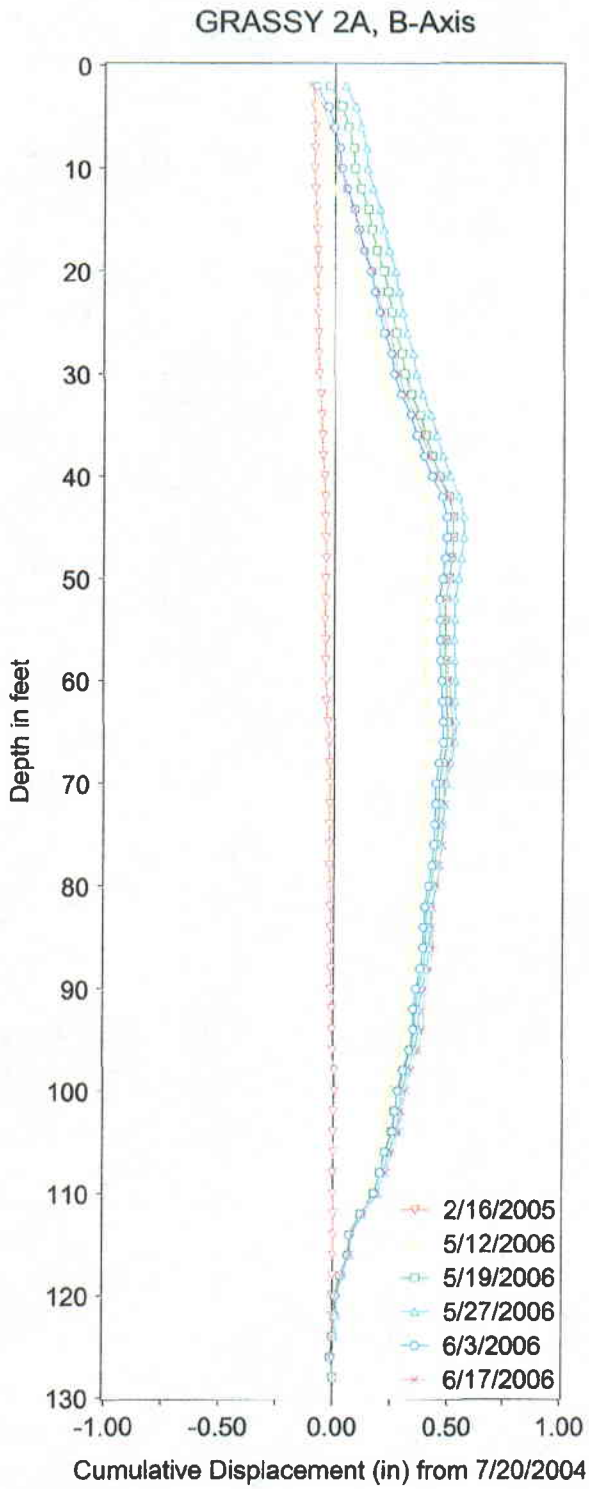
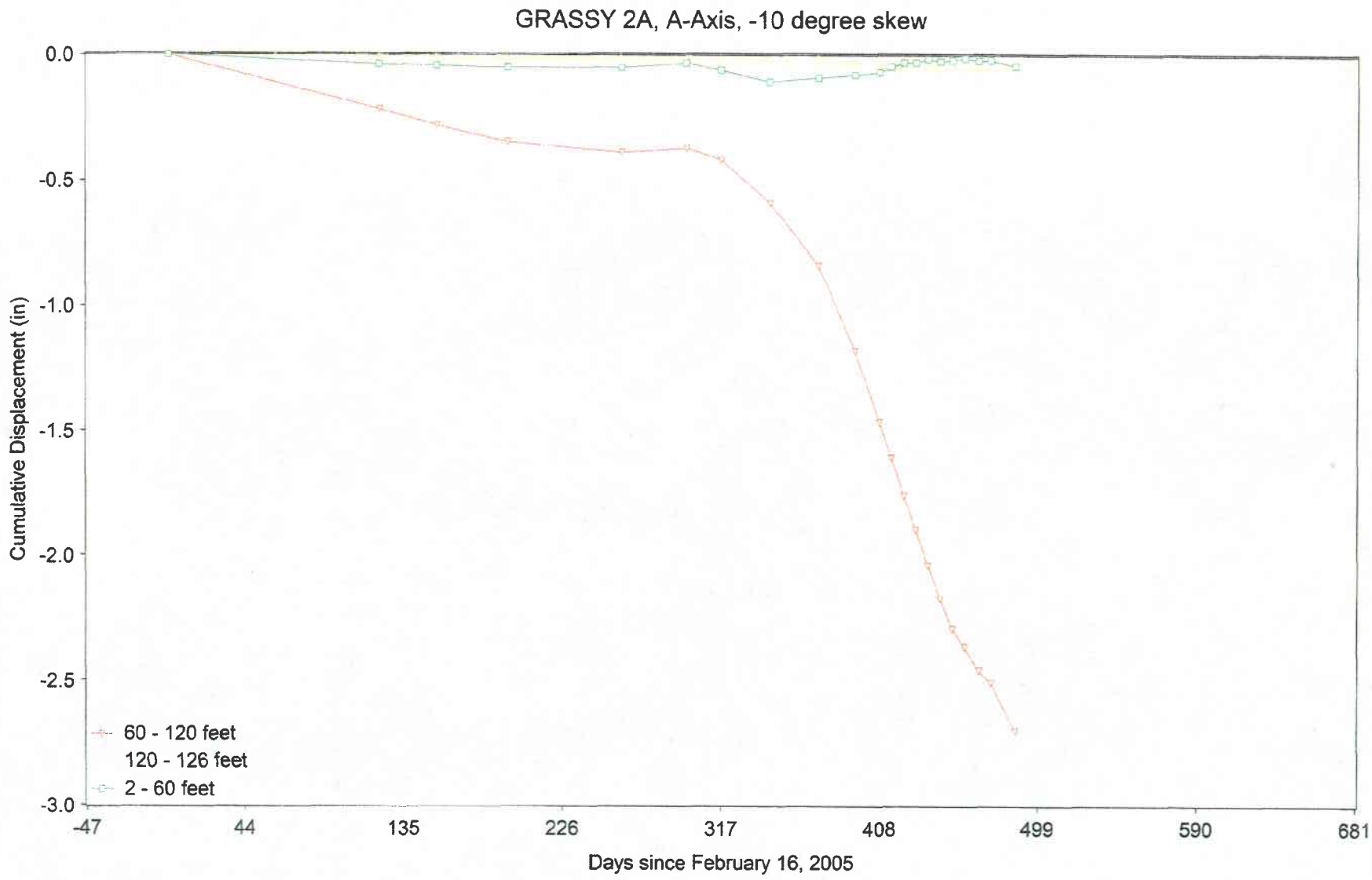
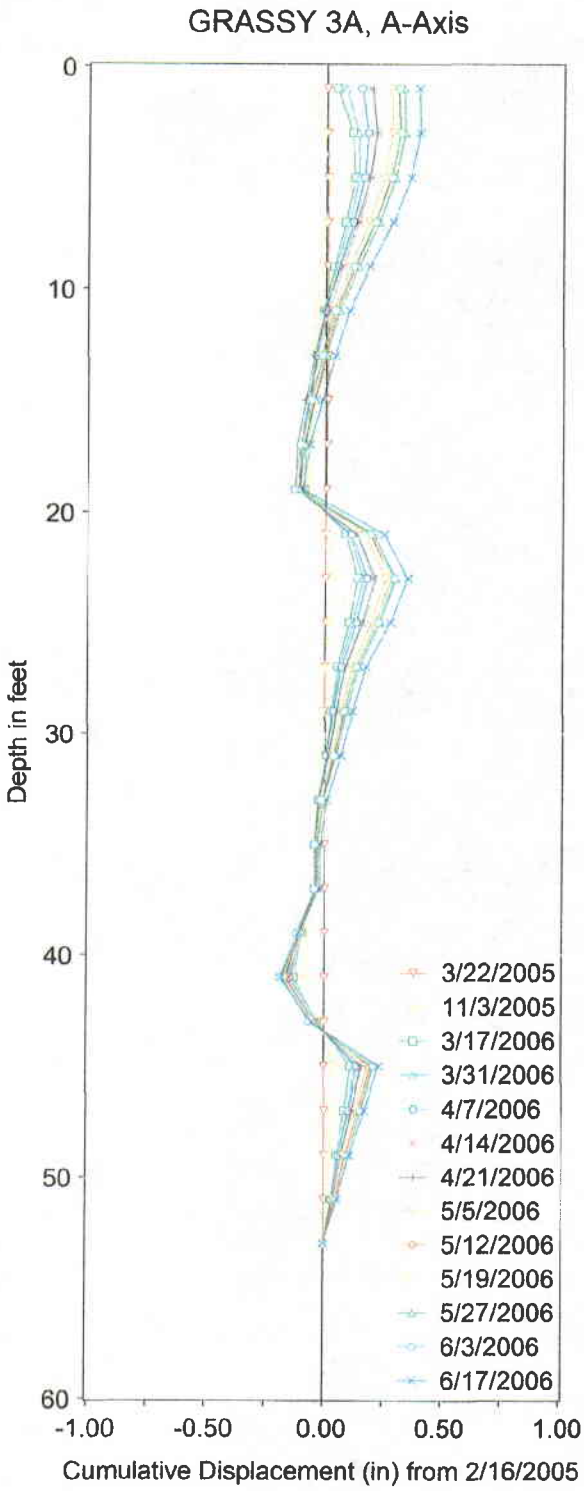
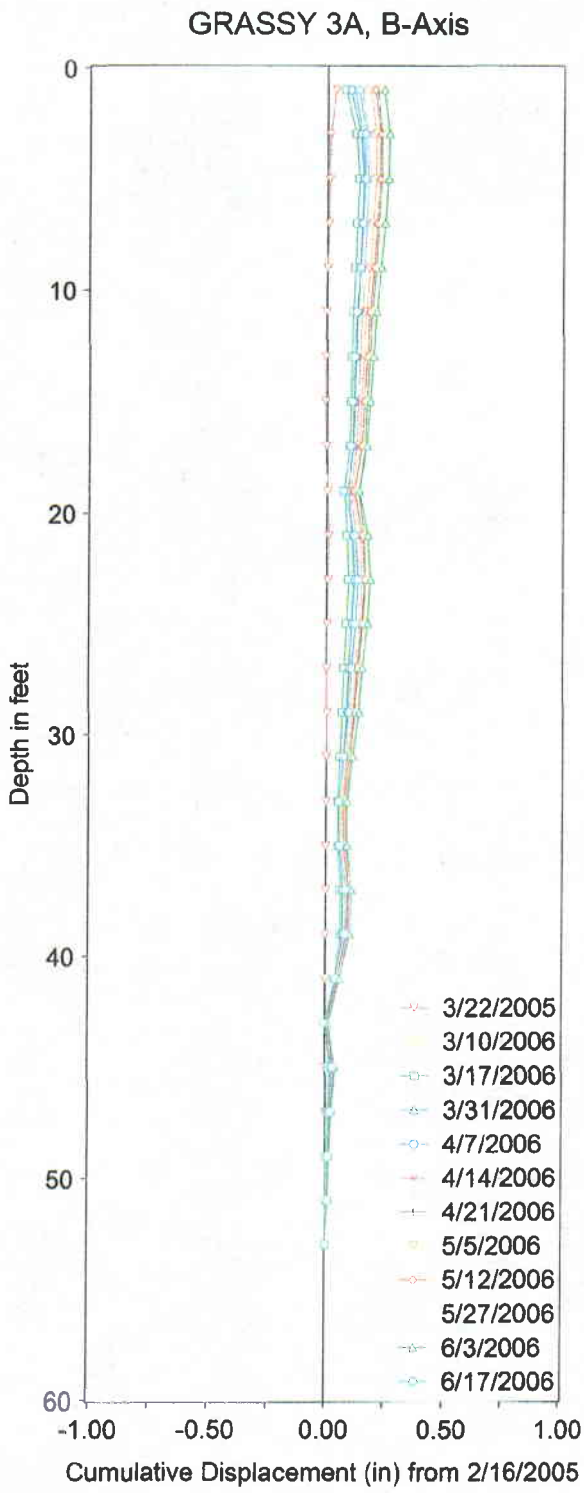
5/25/06
6/1/06
6/8/06
6/15/06


GRASSY 2A, A-Axis
Depth in feet
0
10
20
30
40
50
60
70
80
90
100
110
120
130
-3.00
-2.25
-1.50
-0.75
0.00
Cumulative Displacement (in) from 7/20/2004
12/8/2004
3/22/2005
7/20/2005
12/30/2005
3/17/2006
4/14/2006
4/21/2006
4/28/2006
5/5/2006
5/12/2006
5/19/2006
5/27/2006
6/3/2006
6/17/2006

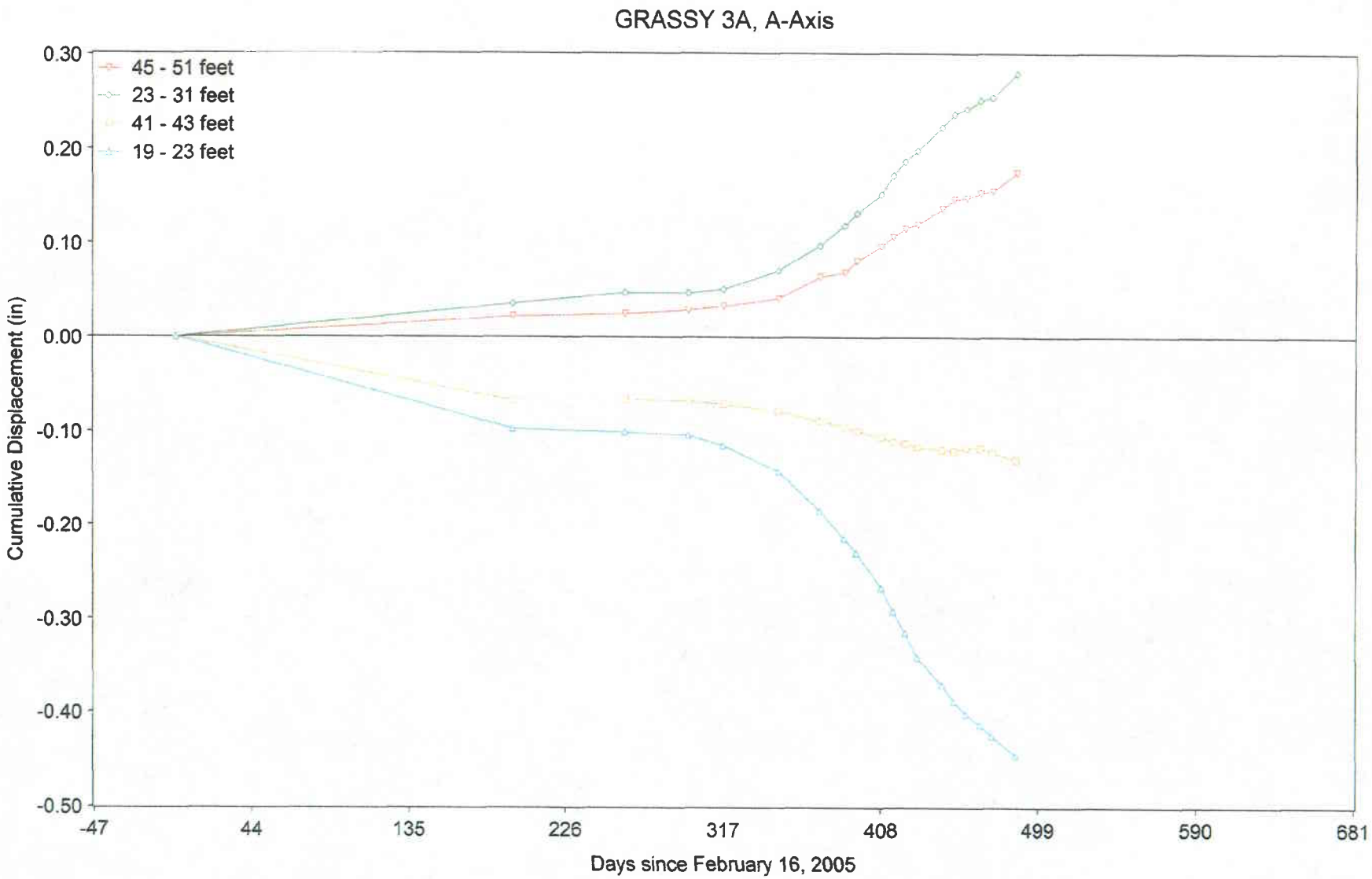

GRASSY 2A, B-Axis
Depth in feet
0
10
20
30
40
50
60
70
80
90
100
110
120
130
-1.00
-0.50
0.00
0.50
1.00
Cumulative Displacement (in) from 7/20/2004
2/16/2005
5/12/2006
5/19/2006
5/27/2006
6/3/2006
6/17/2006

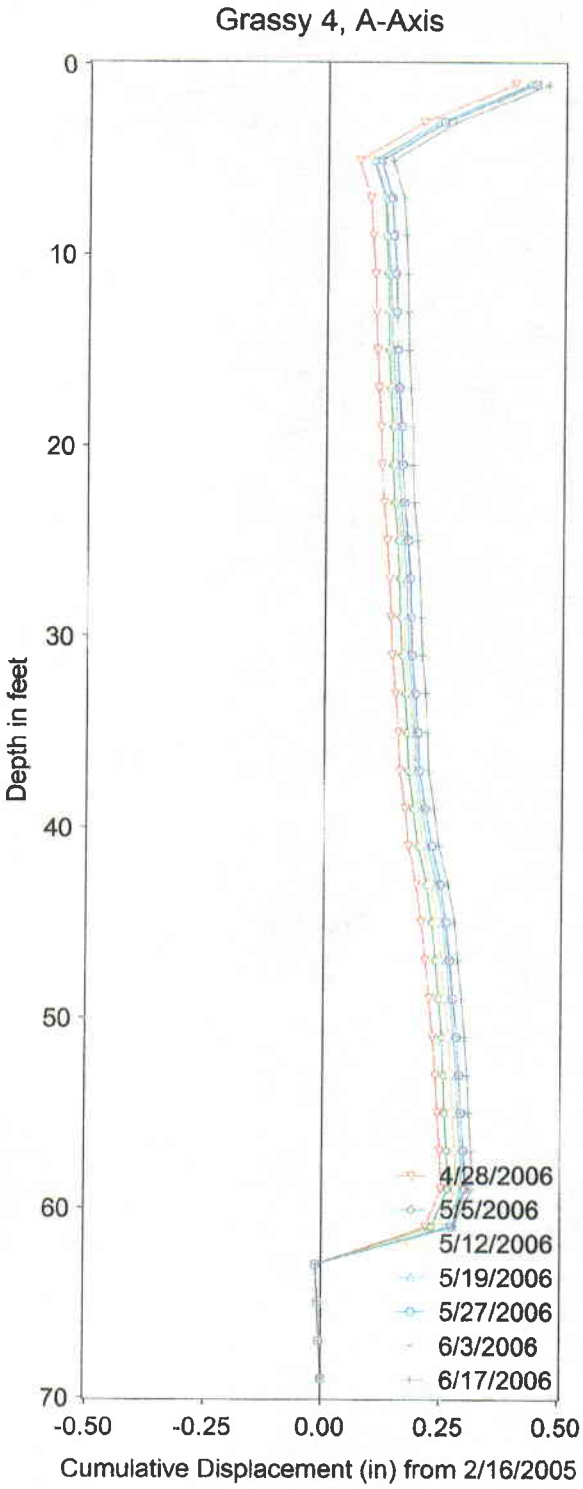

GRASSY 2A, A-Axis, -10 degree skew
Cumulative Displacement (in)
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
-47
44
135
226
317
408
499
590
681
Days since February 16, 2005
60 - 120 feet
120 - 126 feet
2 - 60 feet

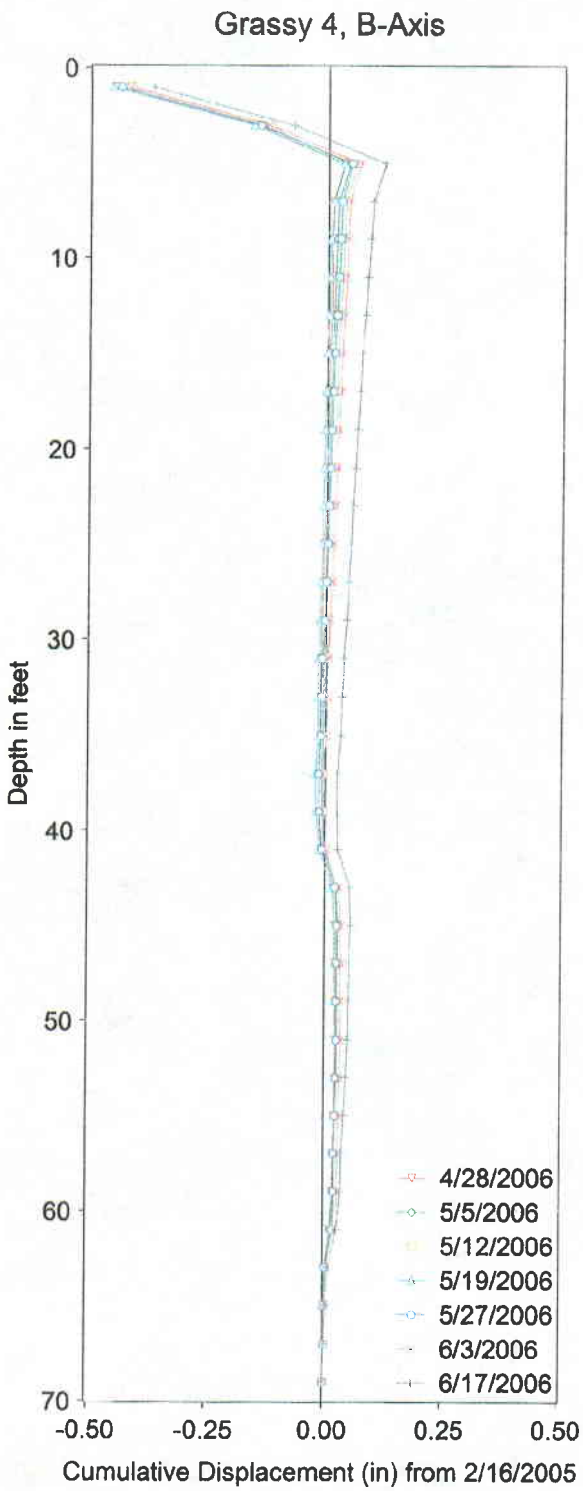


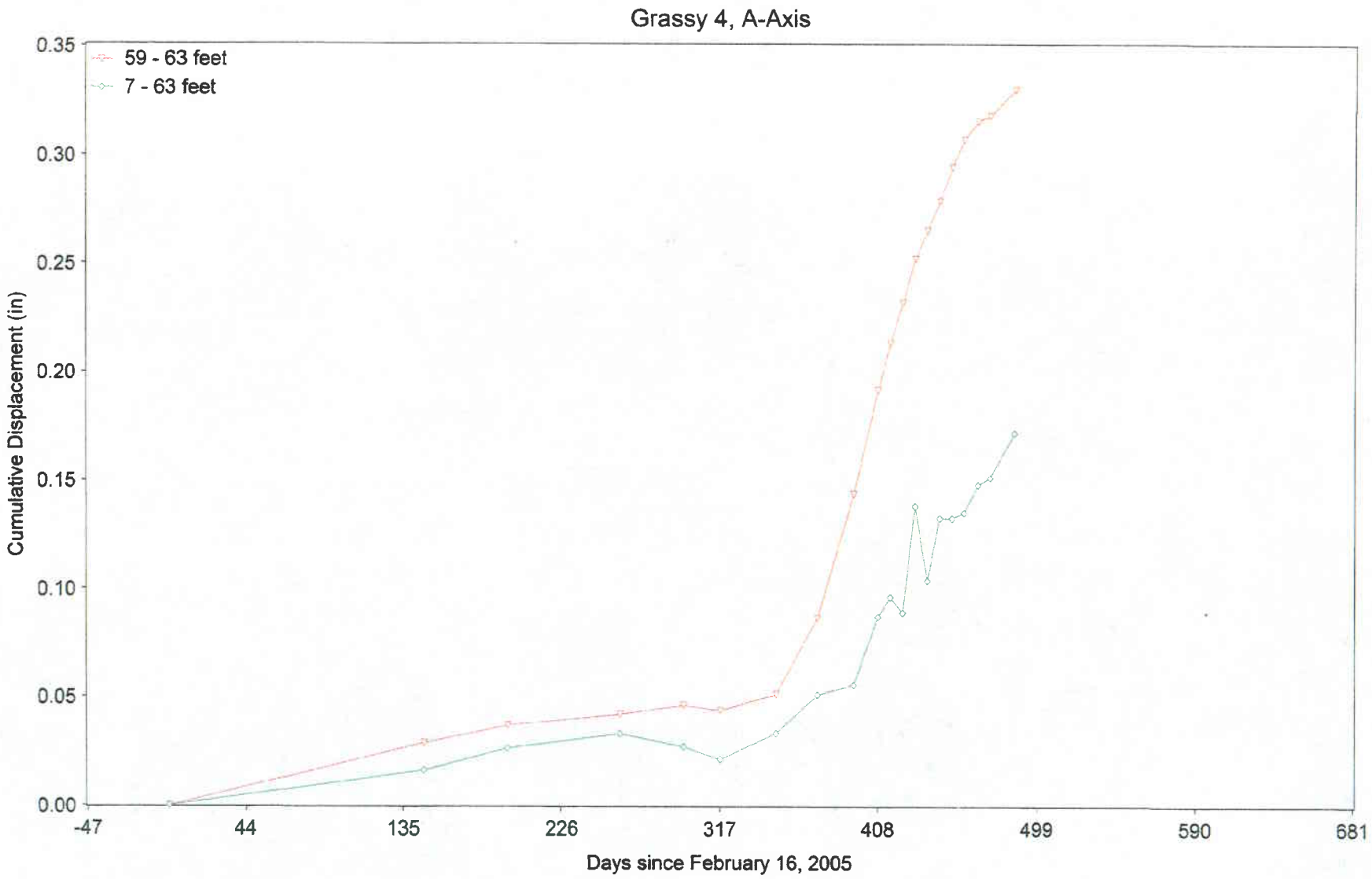


-30 degree skew


GRASSY 3A, A-Axis
45 - 51 feet
23 - 31 feet
41 - 43 feet
19 - 23 feet
Cumulative Displacement (in)
0.30
0.20
0.10
0.00
-0.10
-0.20
-0.30
-0.40
-0.50
-47
44
135
226
317
408
499
590
681
Days since February 16, 2005


Grassy 4, A-Axis
Depth in feet
0
10
20
30
40
50
60
70
-0.50
-0.25
0.00
0.25
0.50
Cumulative Displacement (in) from 2/16/2005
4/28/2006
5/5/2006
5/12/2006
5/19/2006
5/27/2006
6/3/2006
6/17/2006


Grassy 4, B-Axis
Depth in feet
0
10
20
30
40
50
60
70
-0.50
-0.25
0.00
0.25
0.50
Cumulative Displacement (in) from 2/16/2005
4/28/2006
5/5/2006
5/12/2006
5/19/2006
5/27/2006
6/3/2006
6/17/2006


Grassy 4, A-Axis
59 - 63 feet
7 - 63 feet
Cumulative Displacement (in)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-47
44
135
226
317
408
499
590
681
Days since February 16, 2005