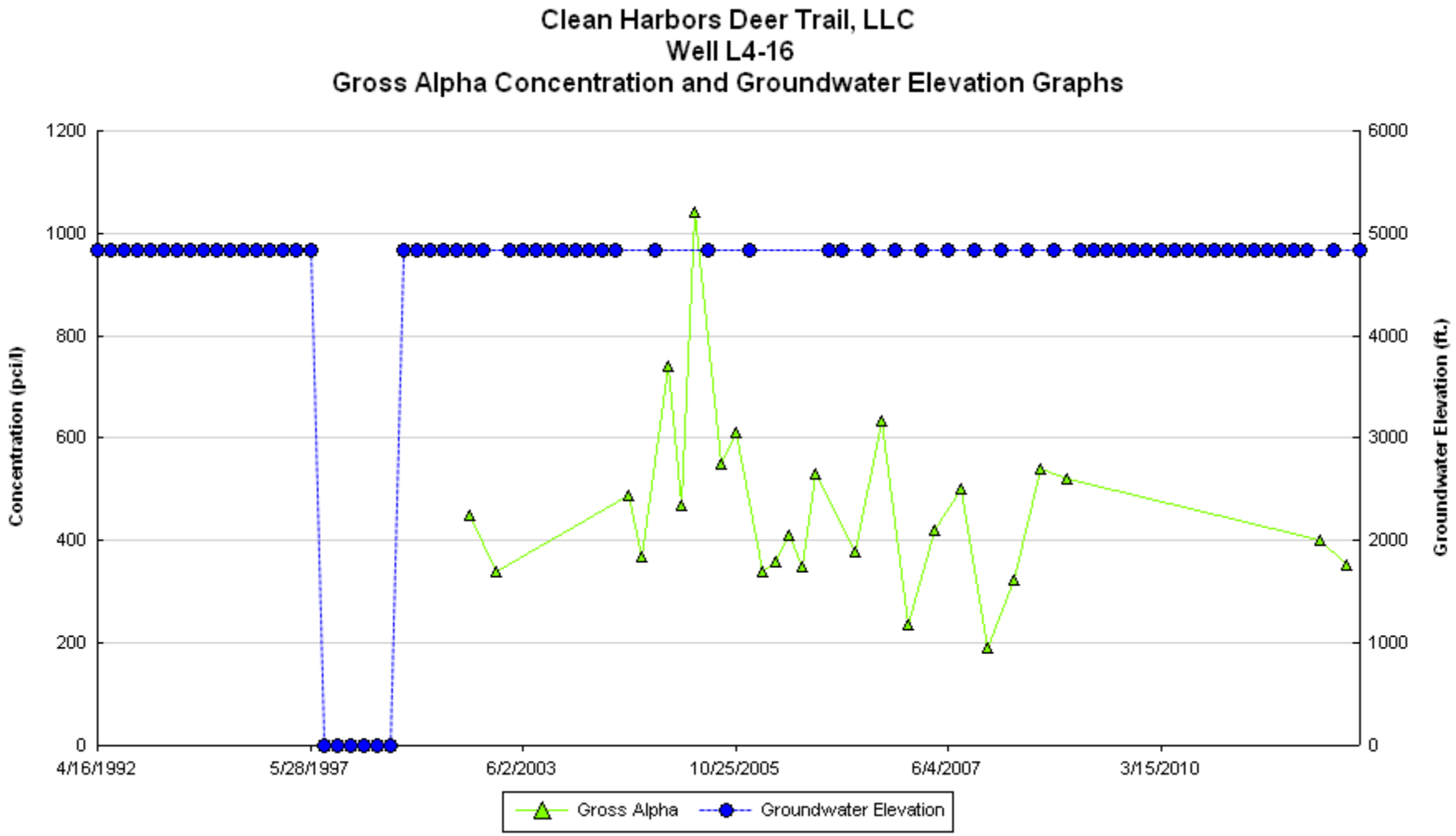
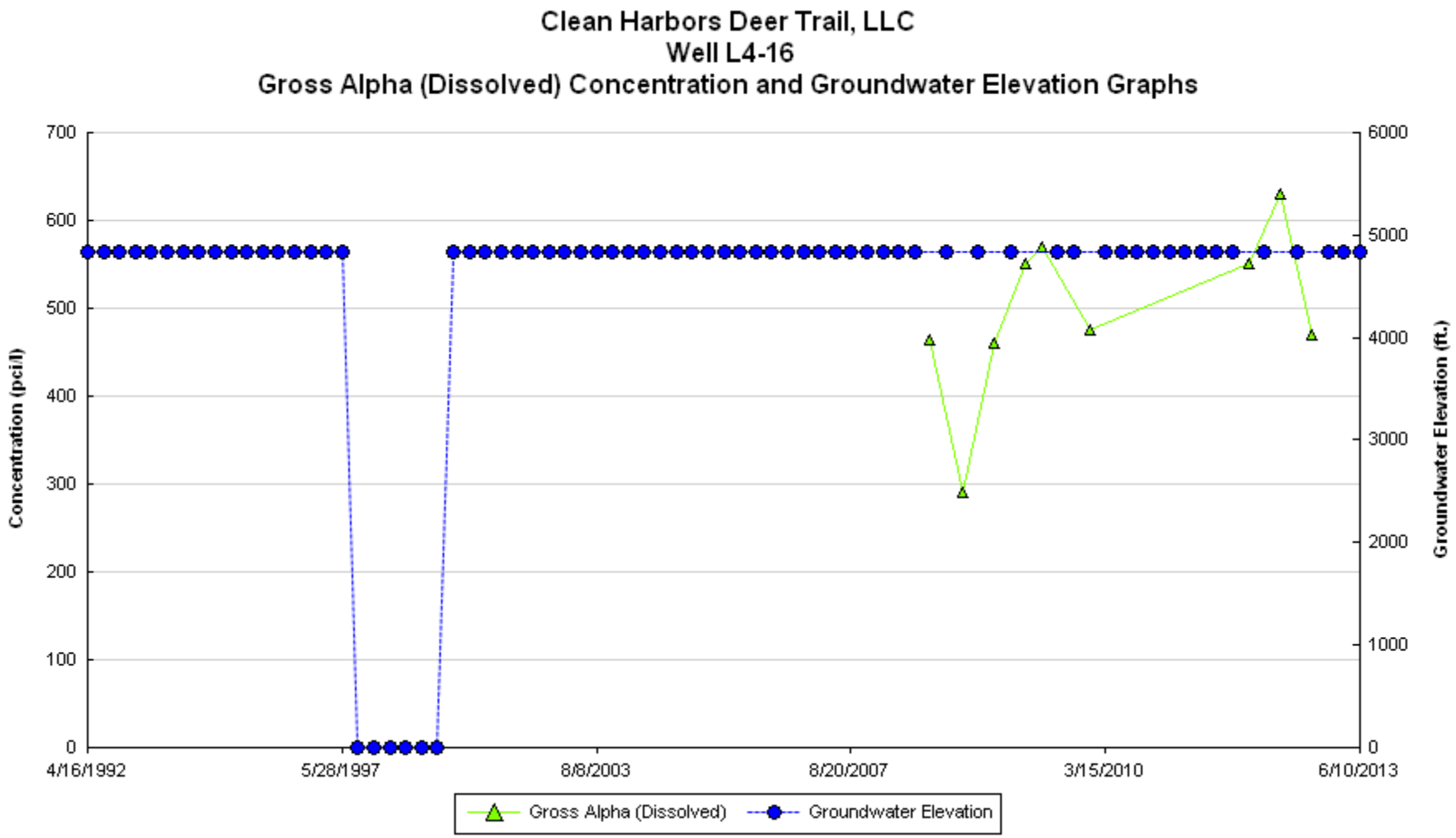
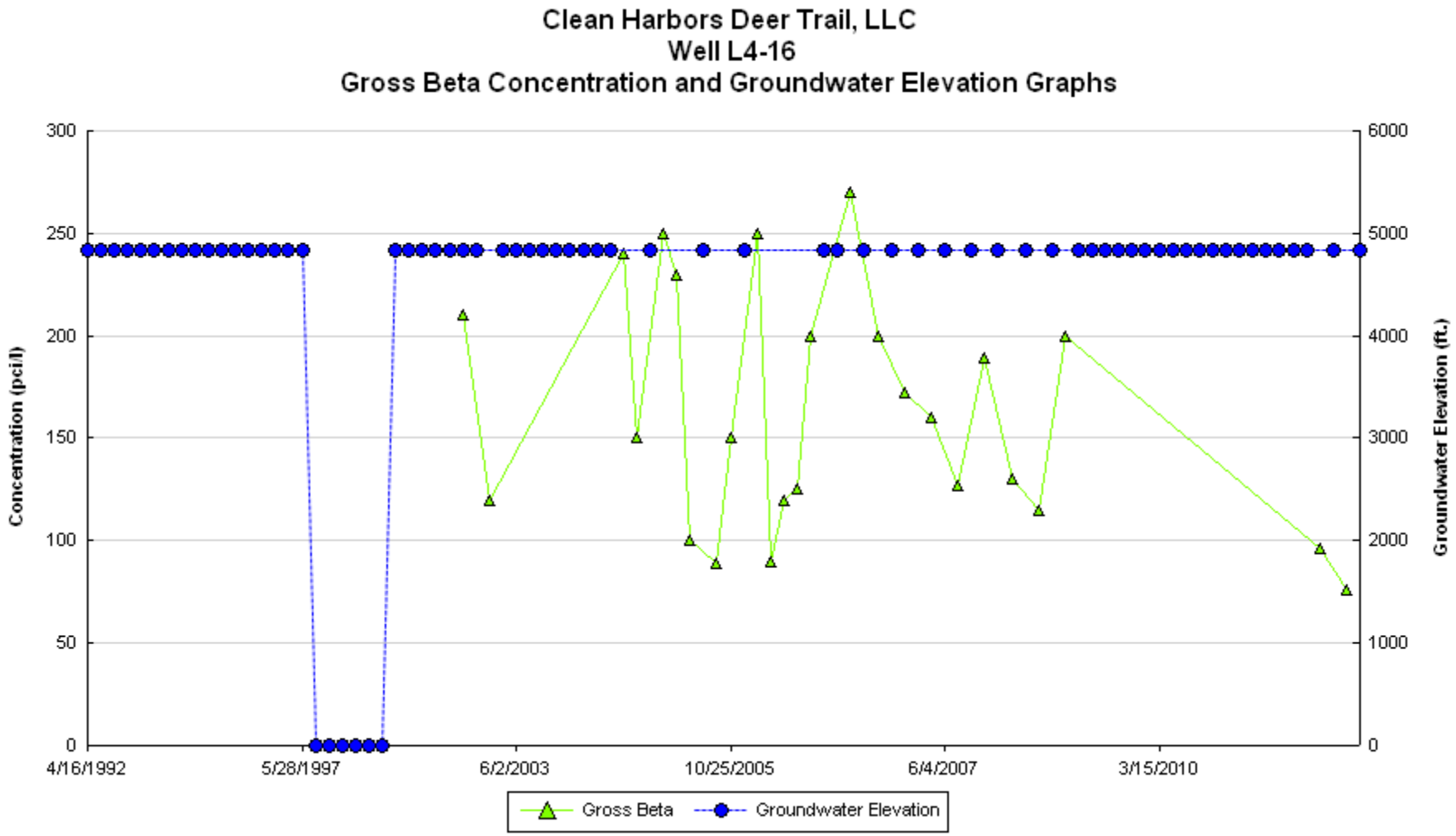
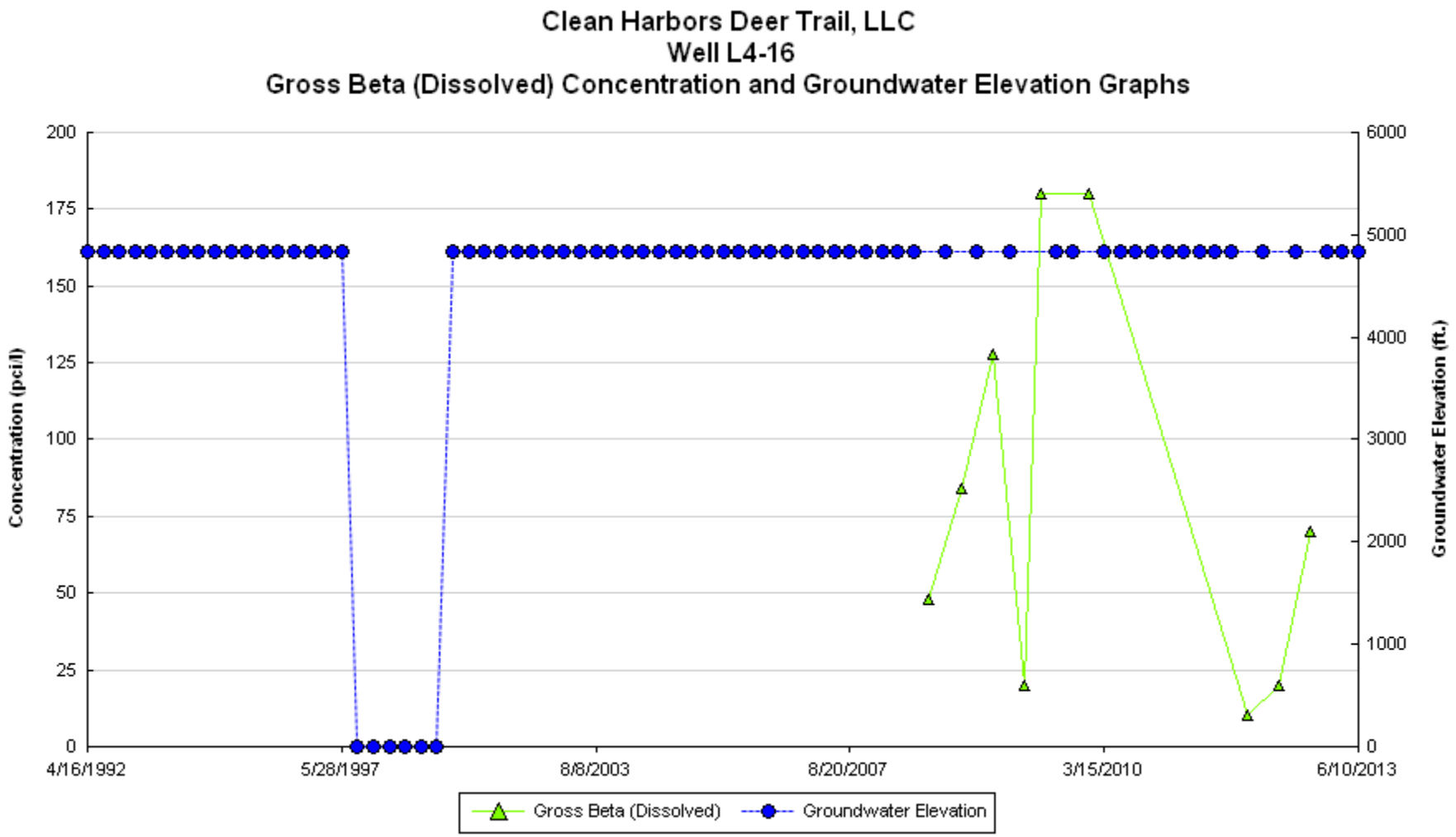
APPENDIX A

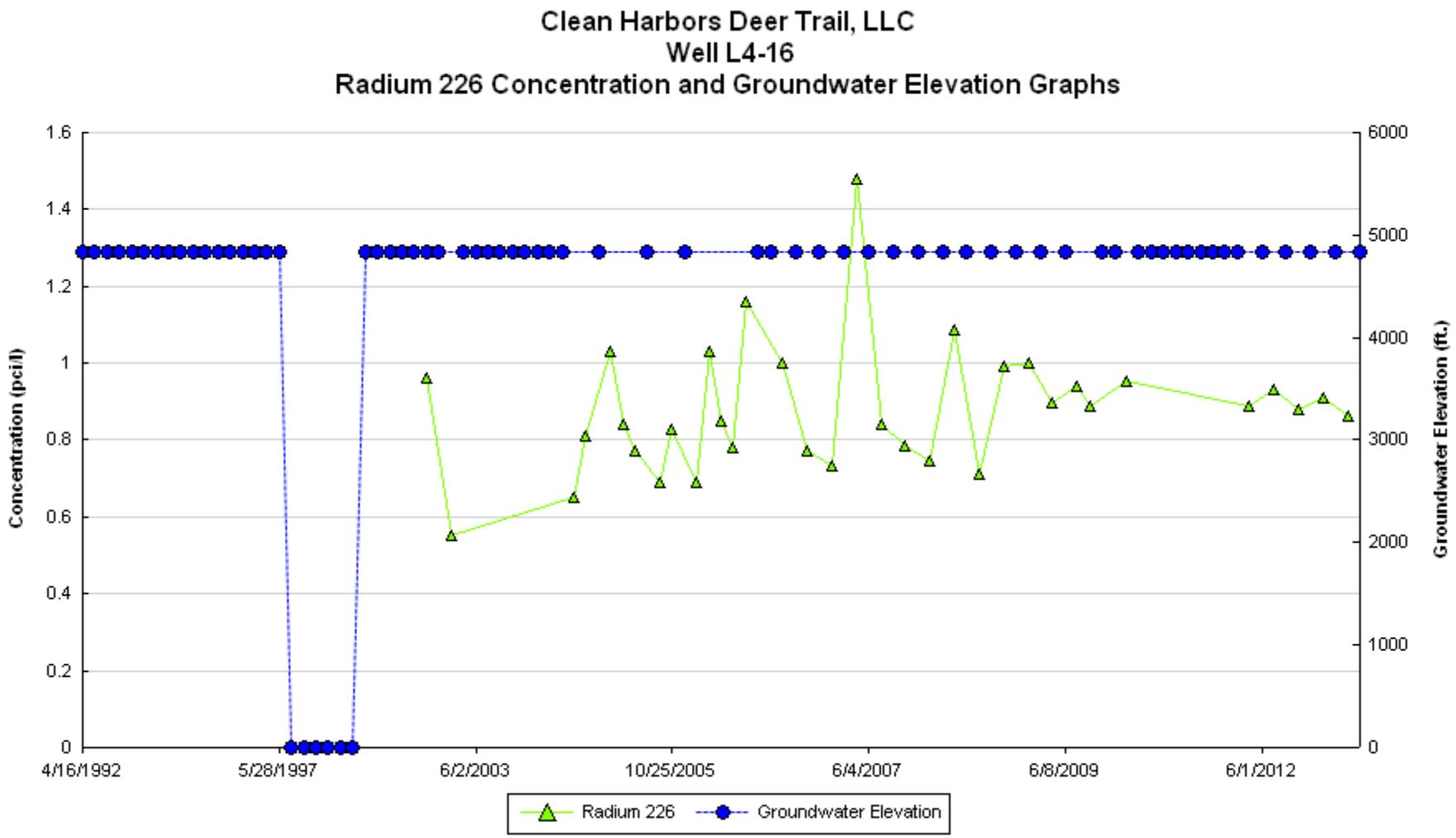
Concentration versus Time Plots for Radiochemistry Data

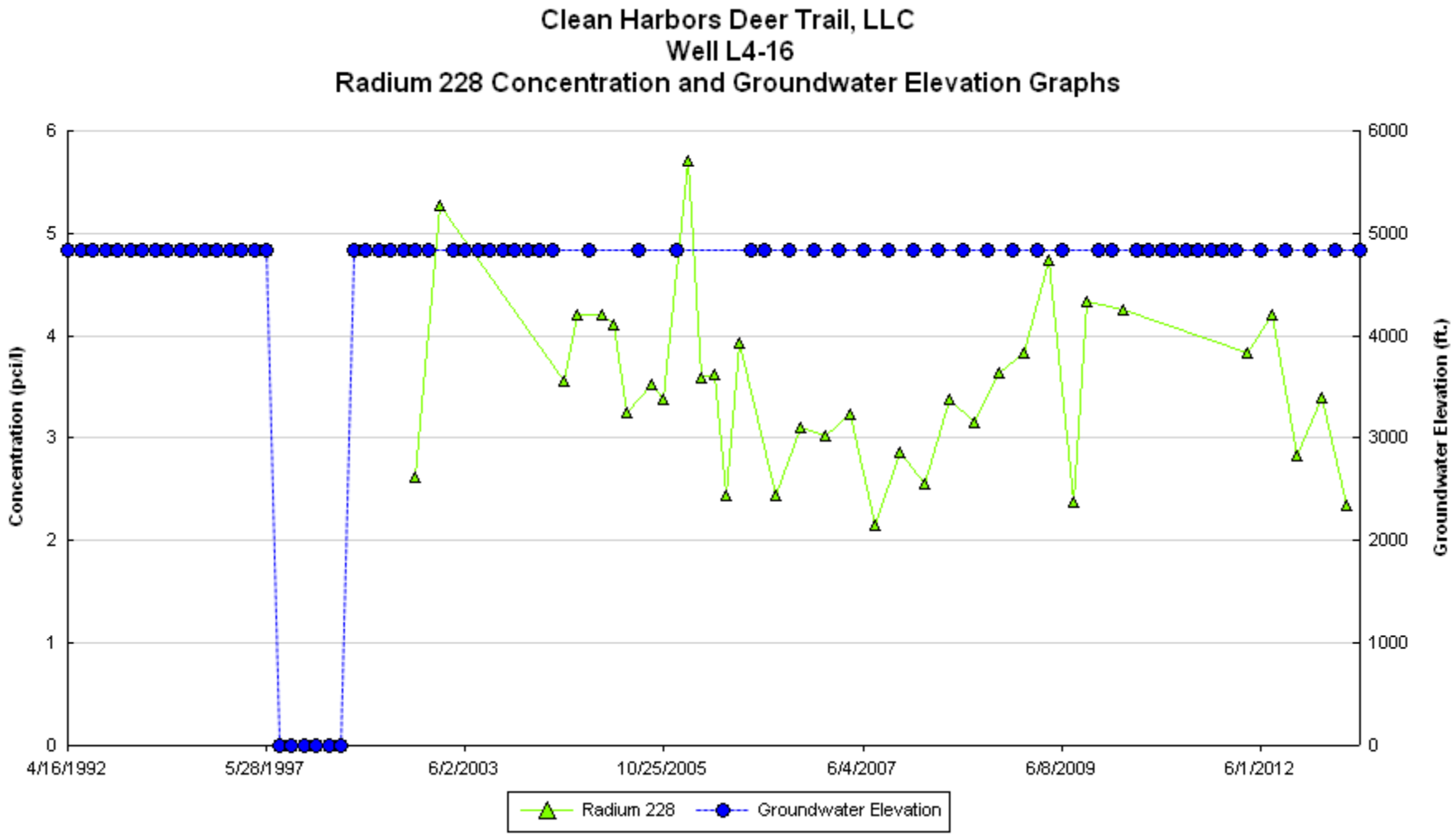

Clean Harbors Deer Trail, LLC
Well L4-16
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1200
1000
800
600
400
200
0
6000
5000
4000
3000
2000
1000
0
4/16/1992
5/28/1997
6/2/2003
10/25/2005
6/4/2007
3/15/2010
Gross Alpha
Groundwater Elevation

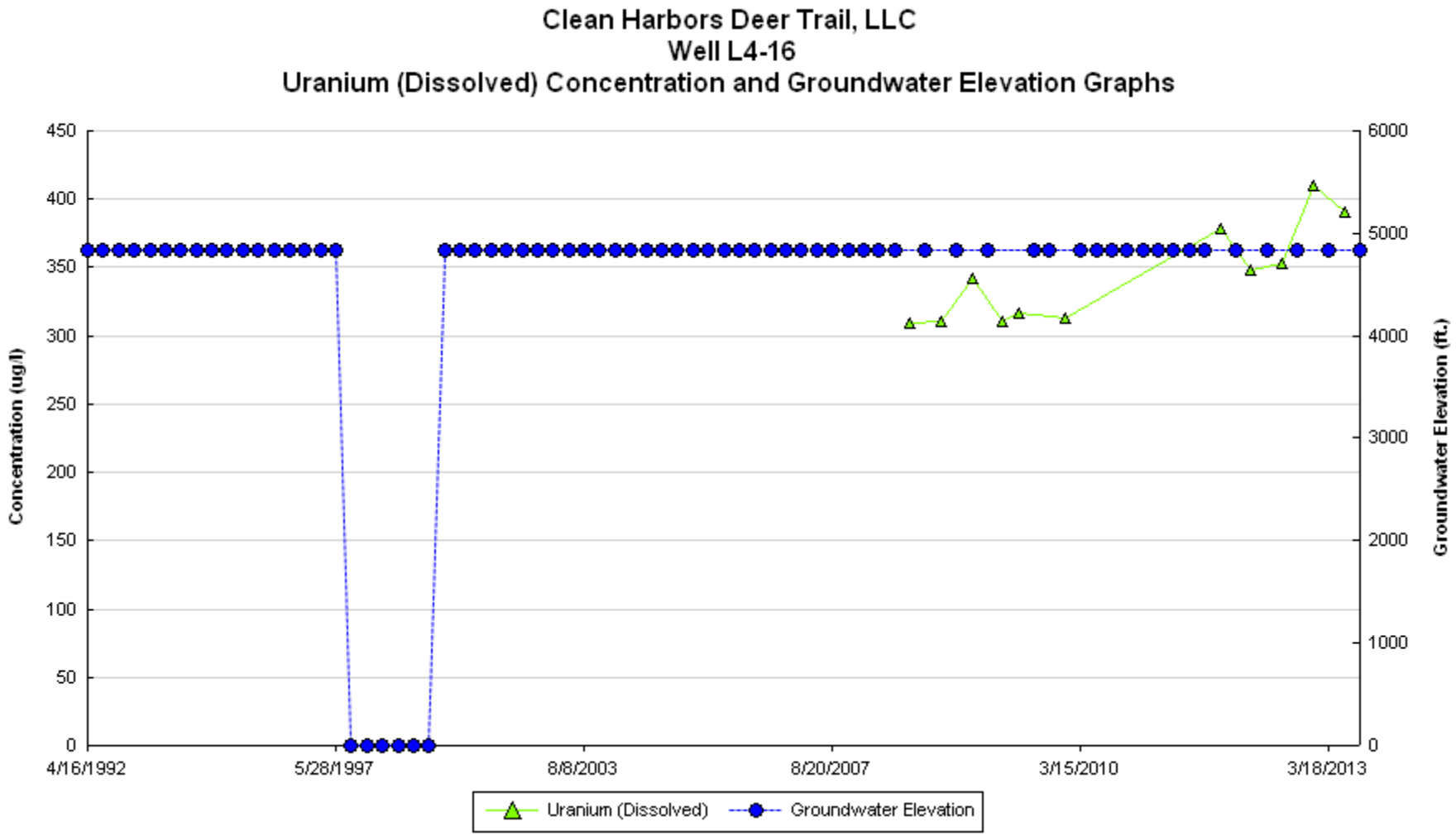

Clean Harbors Deer Trail, LLC
Well L4-16
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
700
600
500
400
300
200
100
0
6000
5000
4000
3000
2000
1000
0
4/16/1992
5/28/1997
8/8/2003
8/20/2007
3/15/2010
6/10/2013
Gross Alpha (Dissolved)
Groundwater Elevation

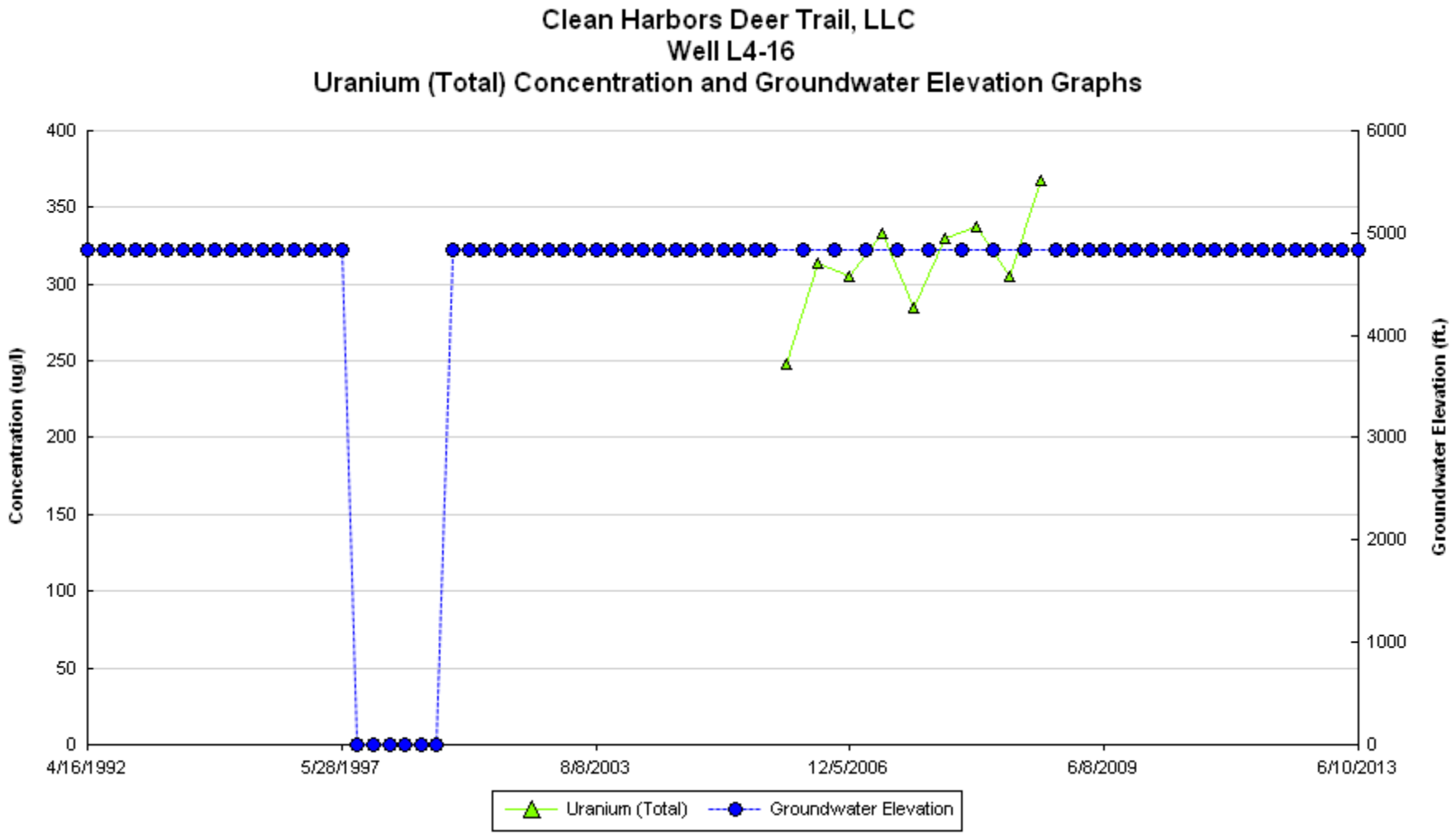

Clean Harbors Deer Trail, LLC
Well L4-16
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
4/16/1992
5/28/1997
6/2/2003
10/25/2005
6/4/2007
3/15/2010
Gross Beta
Groundwater Elevation

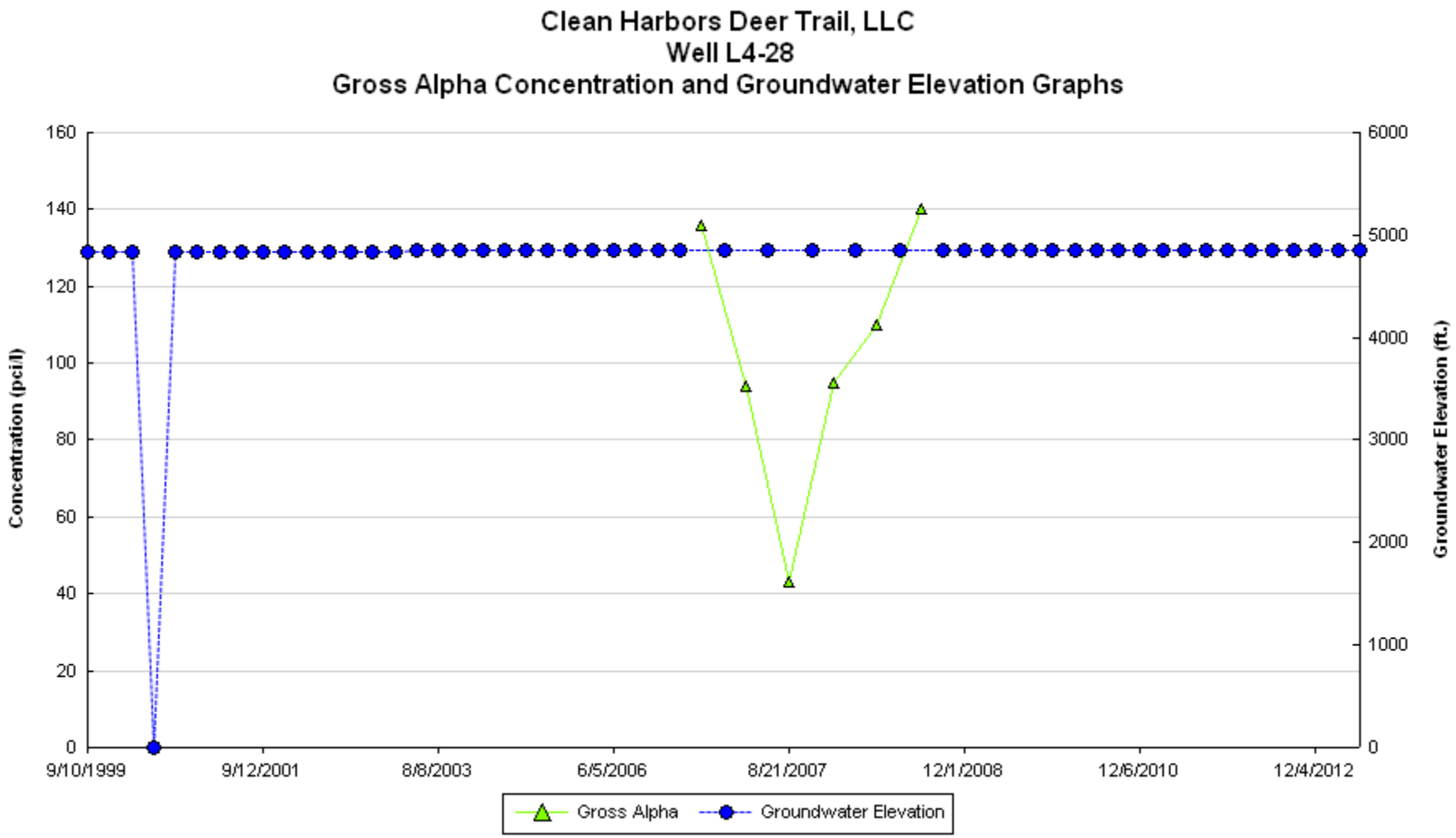

Clean Harbors Deer Trail, LLC
Well L4-16
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
200
175
150
125
100
75
50
25
0
6000
5000
4000
3000
2000
1000
0
4/16/1992
5/28/1997
8/8/2003
8/20/2007
3/15/2010
6/10/2013
Gross Beta (Dissolved)
Groundwater Elevation

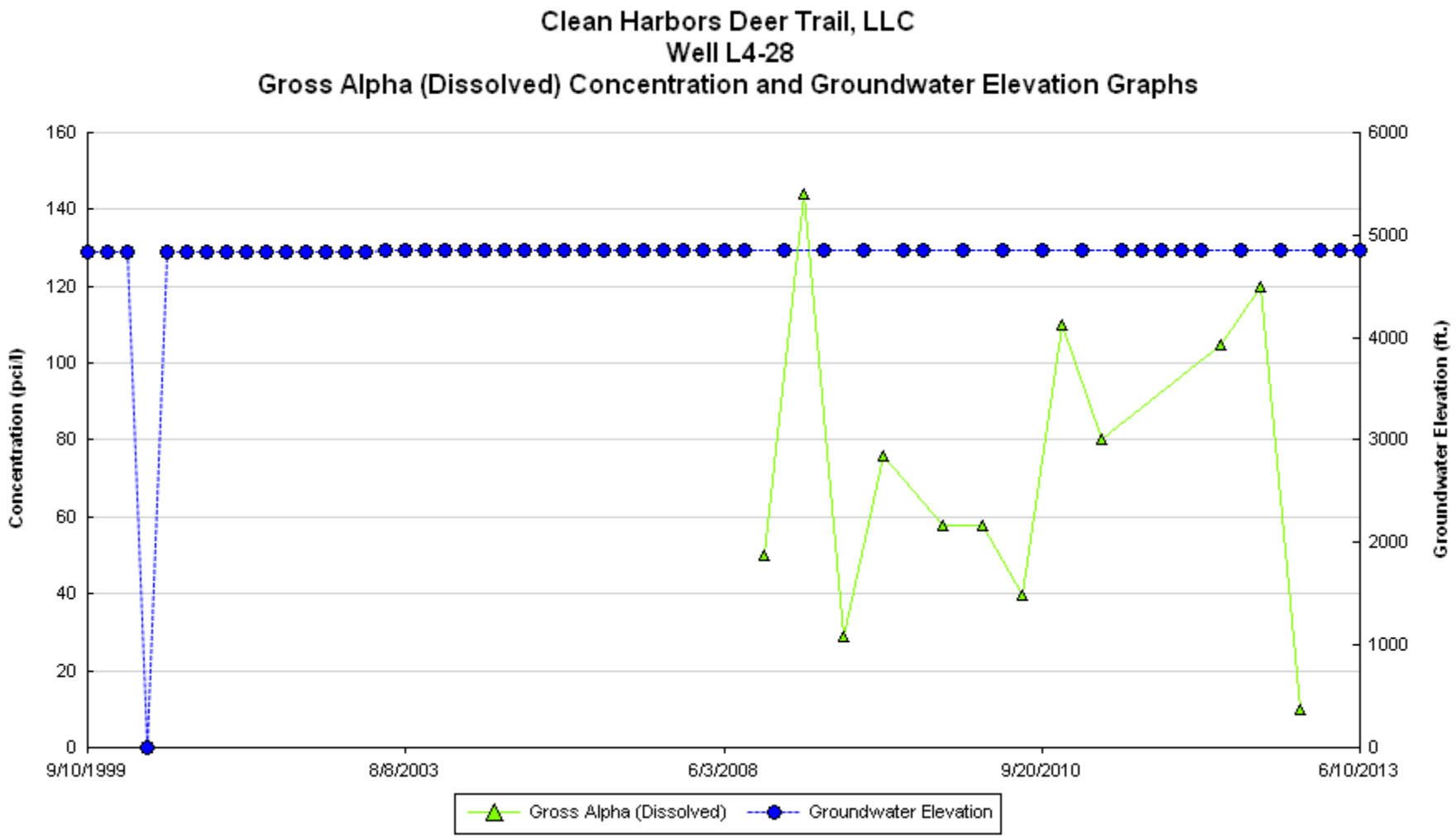

Clean Harbors Deer Trail, LLC
Well L4-16
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
6000
5000
4000
3000
2000
1000
0
4/16/1992
5/28/1997
6/2/2003
10/25/2005
6/4/2007
6/8/2009
6/1/2012
Radium 226
Groundwater Elevation

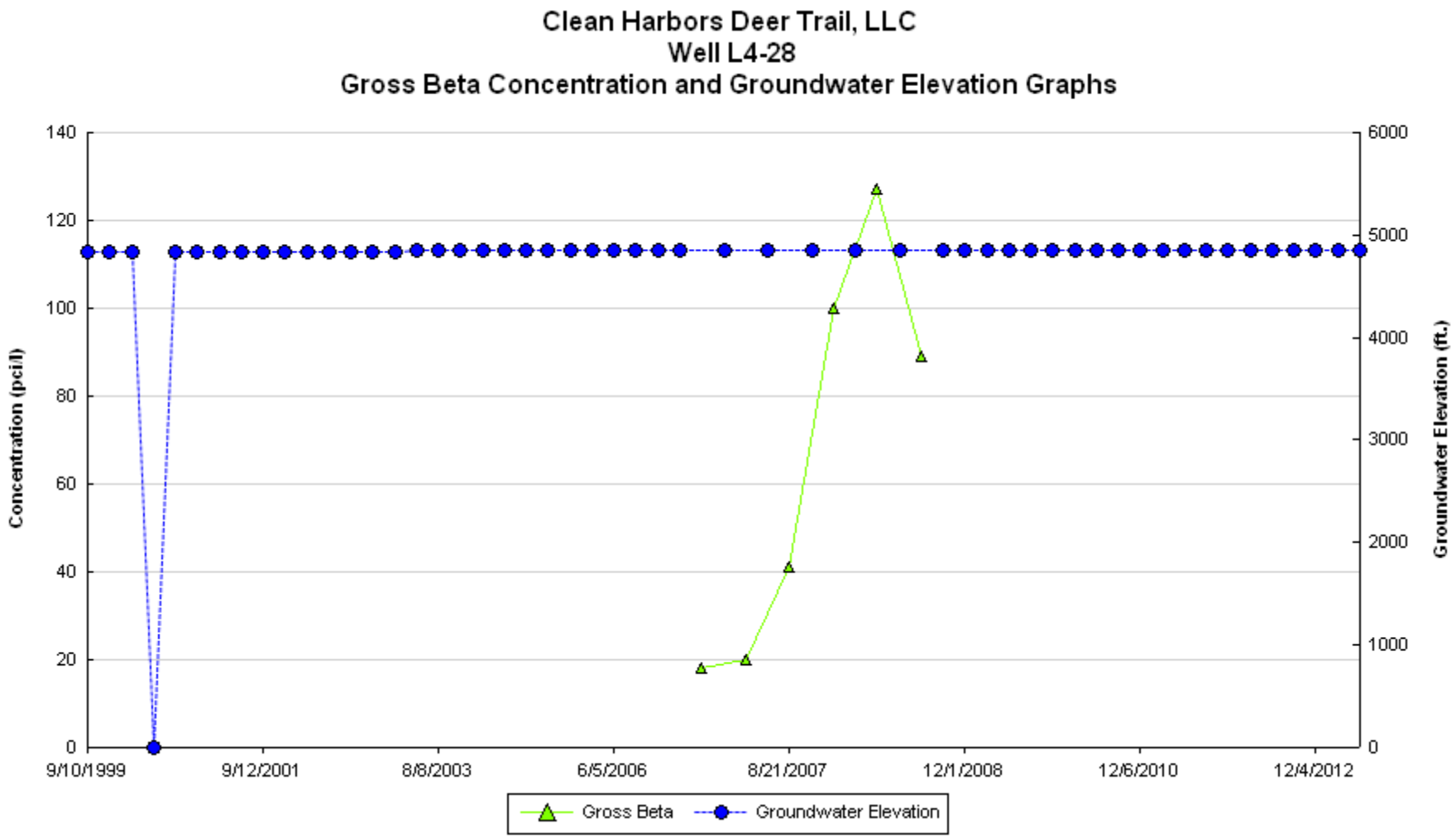

Clean Harbors Deer Trail, LLC
Well L4-16
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
1
2
3
4
5
6
0
1000
2000
3000
4000
5000
6000
4/16/1992
5/28/1997
6/2/2003
10/25/2005
6/4/2007
6/8/2009
6/1/2012
Radium 228
Groundwater Elevation

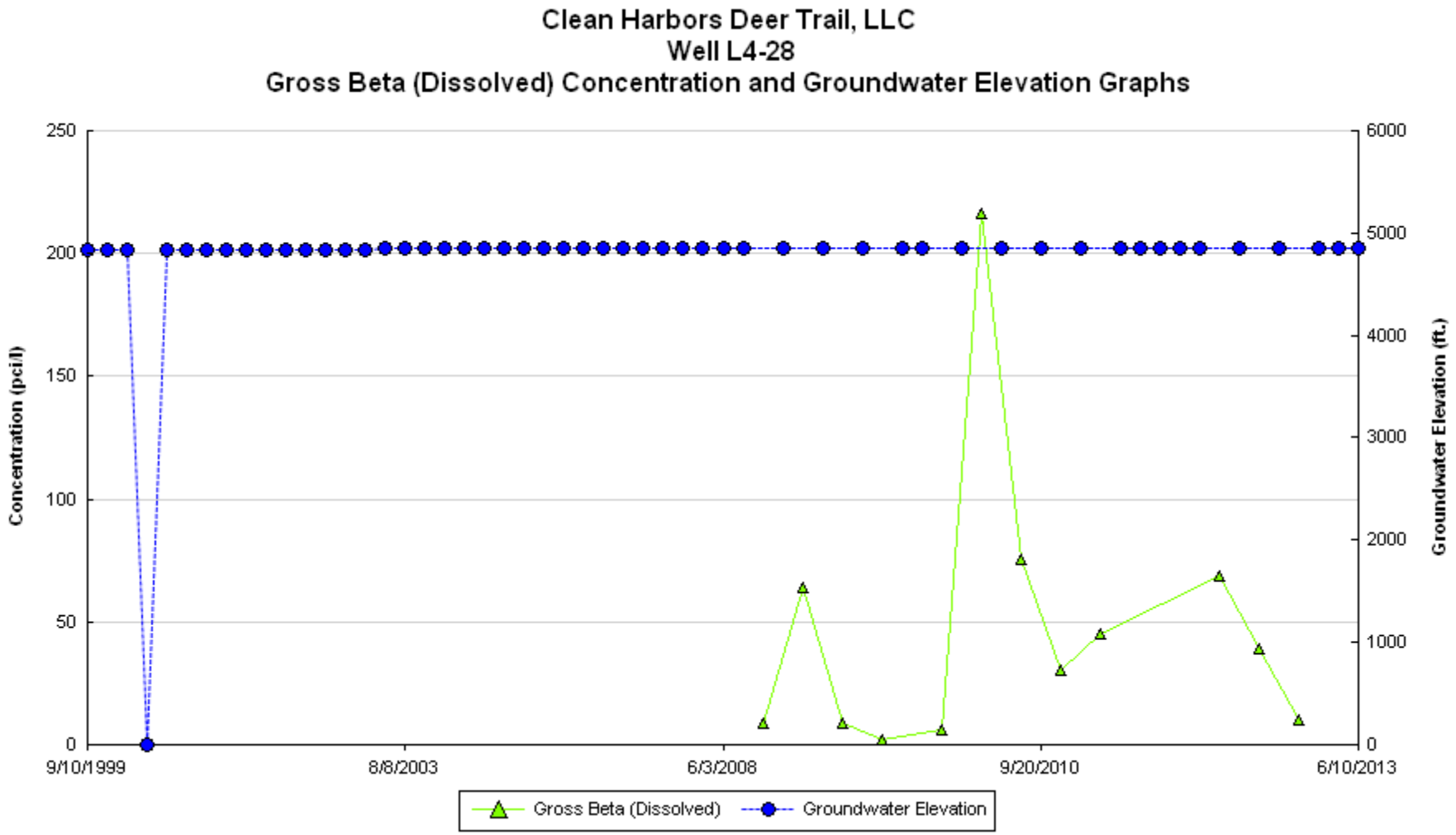

Clean Harbors Deer Trail, LLC
Well L4-16
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
450
400
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
4/16/1992
5/28/1997
8/8/2003
8/20/2007
3/15/2010
3/18/2013
Uranium (Dissolved)
Groundwater Elevation

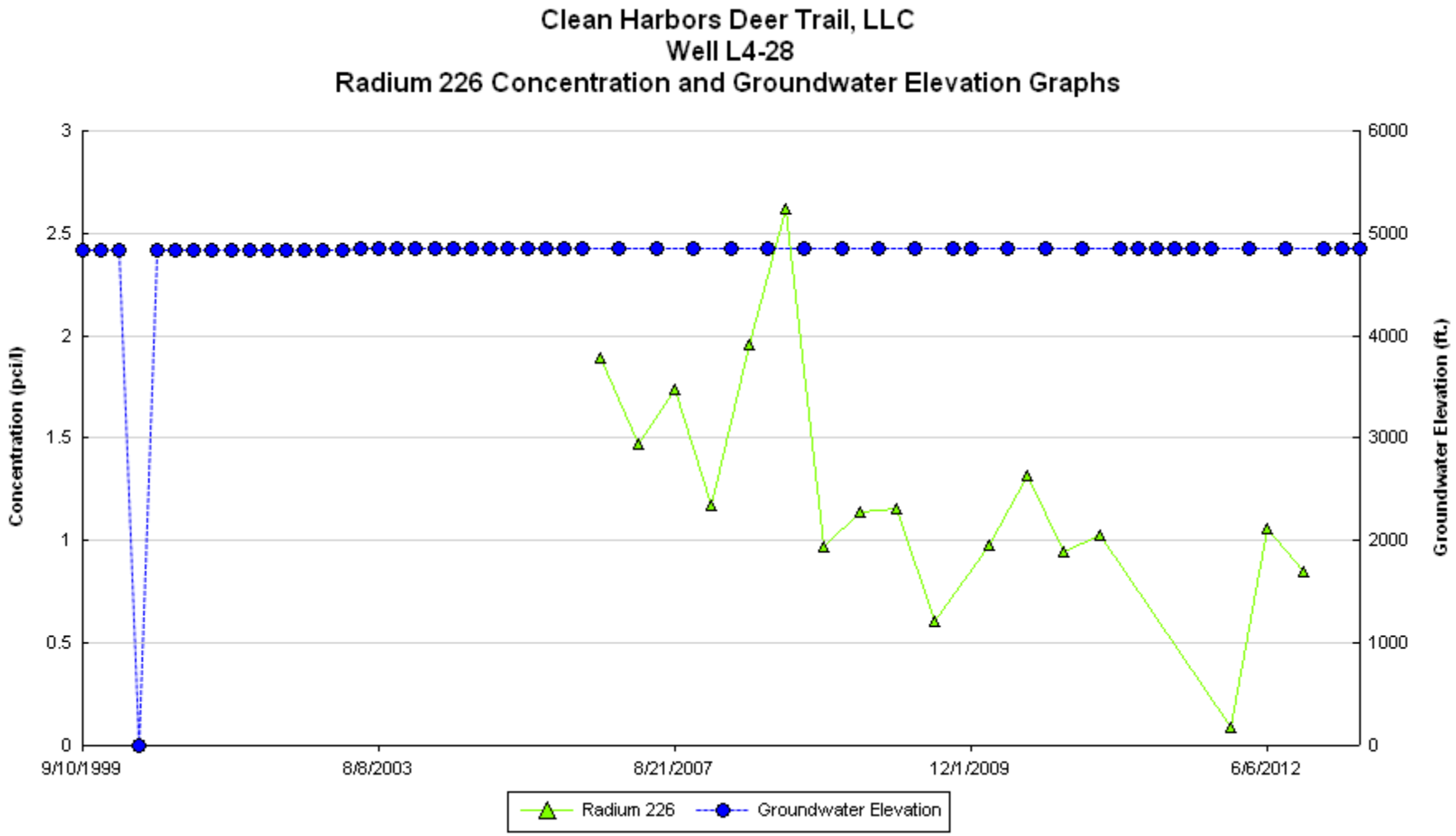

Clean Harbors Deer Trail, LLC
Well L4-16
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
400
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
4/16/1992
5/28/1997
8/8/2003
12/5/2006
6/8/2009
6/10/2013
Uranium (Total)
Groundwater Elevation

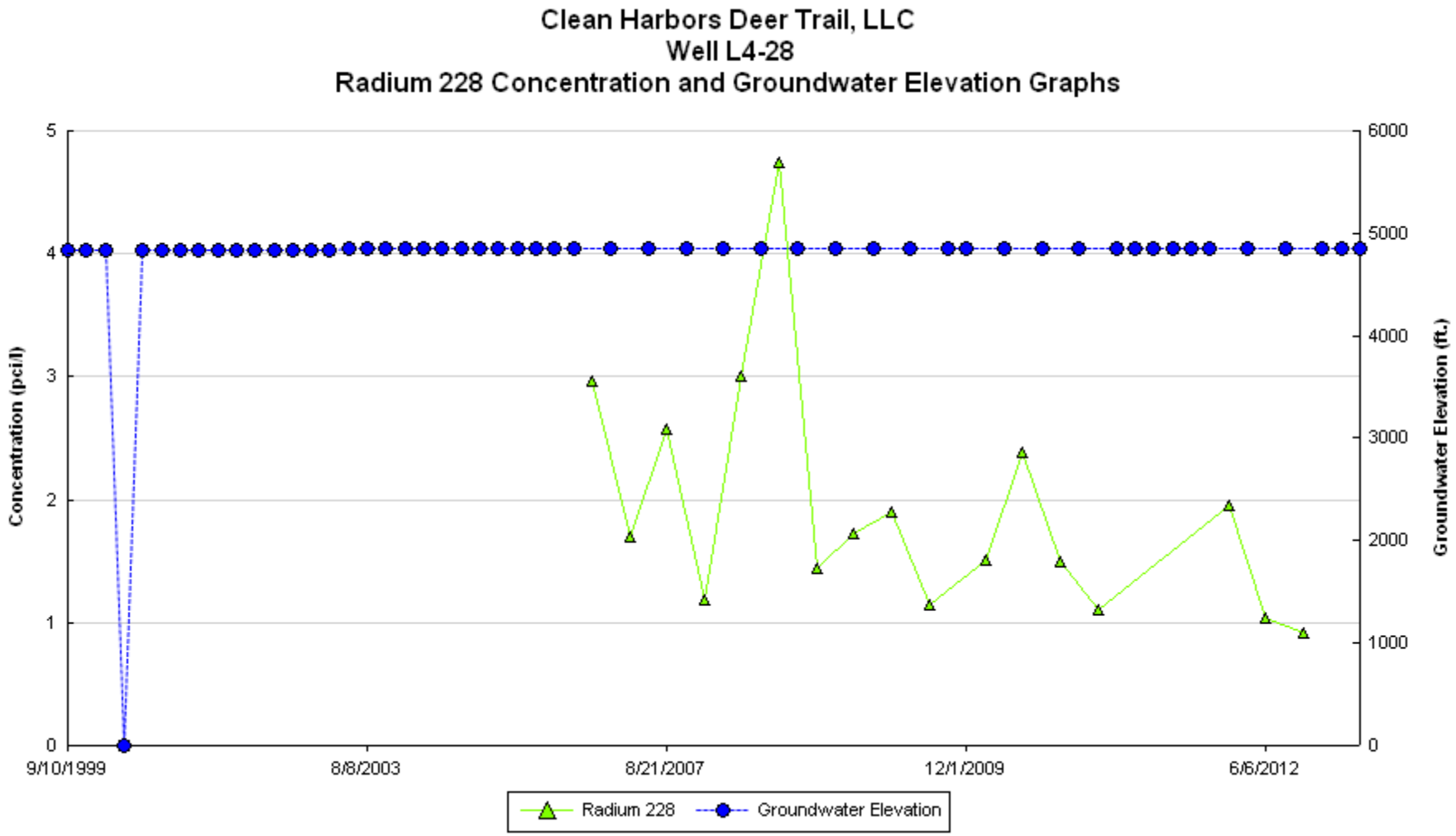

Clean Harbors Deer Trail, LLC
Well L4-28
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
160
140
120
100
80
60
40
20
0
6000
5000
4000
3000
2000
1000
0
9/10/1999
9/12/2001
8/8/2003
6/5/2006
8/21/2007
12/1/2008
12/6/2010
12/4/2012
Gross Alpha
Groundwater Elevation

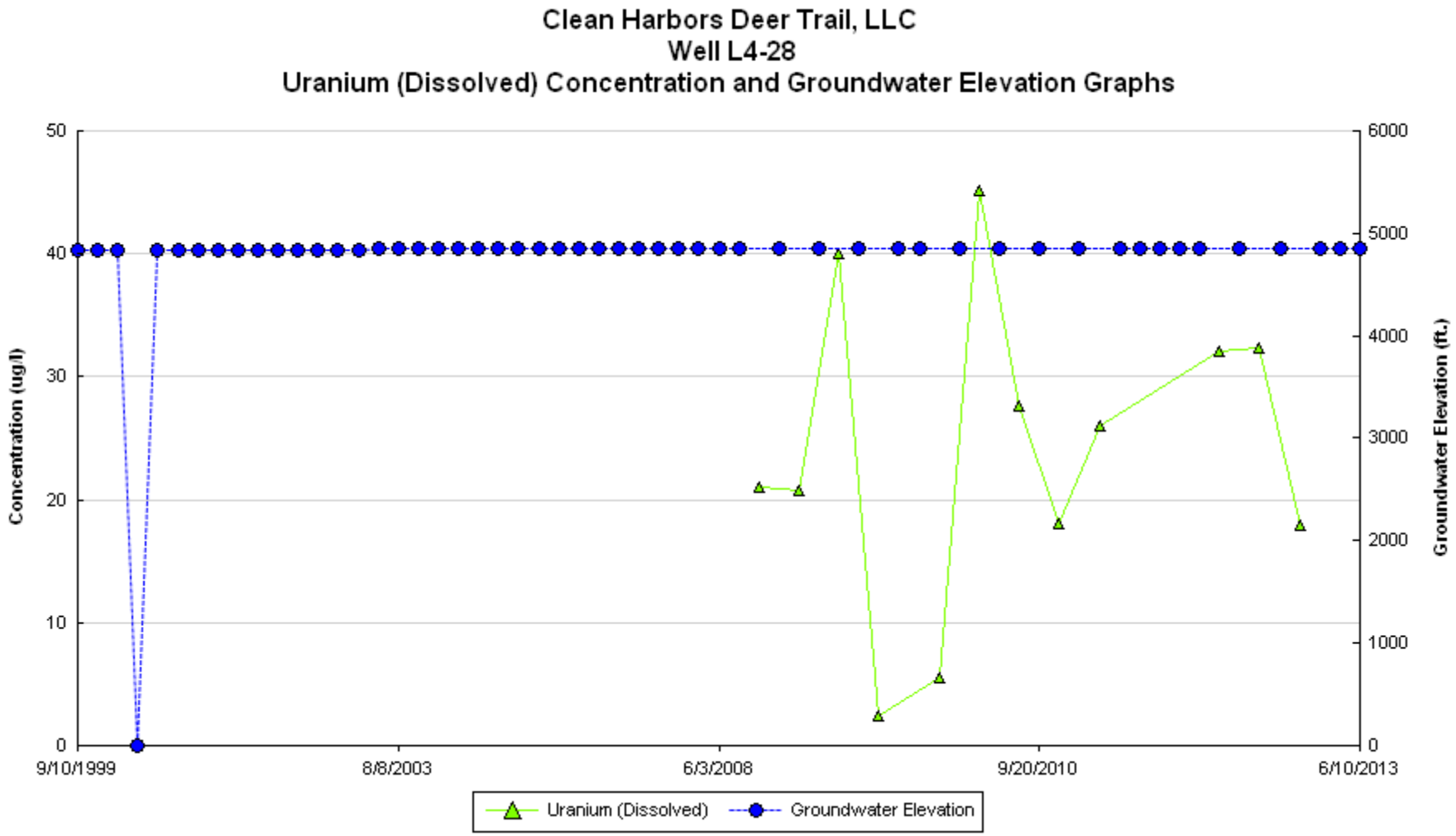

Clean Harbors Deer Trail, LLC
Well L4-28
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
160
140
120
100
80
60
40
20
0
6000
5000
4000
3000
2000
1000
0
9/10/1999
8/8/2003
6/3/2008
9/20/2010
6/10/2013
Gross Alpha (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-28
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
140
120
100
80
60
40
20
0
6000
5000
4000
3000
2000
1000
0
9/10/1999
9/12/2001
8/8/2003
6/5/2006
8/21/2007
12/1/2008
12/6/2010
12/4/2012
Gross Beta
Groundwater Elevation

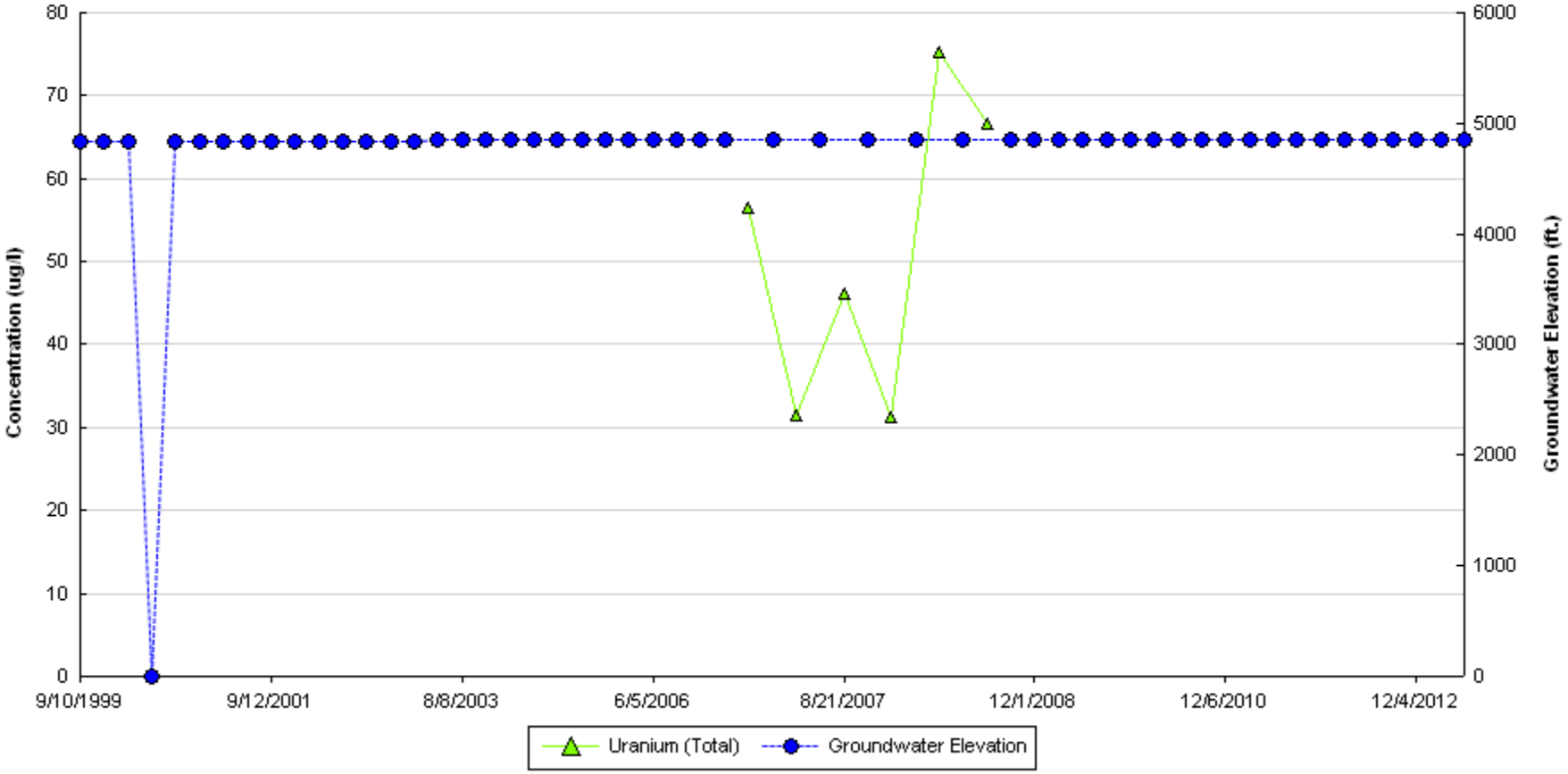

Clean Harbors Deer Trail, LLC
Well L4-28
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
9/10/1999
8/8/2003
6/3/2008
9/20/2010
6/10/2013
Gross Beta (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-28
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3
2.5
2
1.5
1
0.5
0
6000
5000
4000
3000
2000
1000
0
9/10/1999
8/8/2003
8/21/2007
12/1/2009
6/6/2012
Radium 226
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-28
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
1
2
3
4
5
0
1000
2000
3000
4000
5000
6000
9/10/1999
8/8/2003
8/21/2007
12/1/2009
6/6/2012
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-28
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
50
40
30
20
10
0
6000
5000
4000
3000
2000
1000
0
9/10/1999
8/8/2003
6/3/2008
9/20/2010
6/10/2013
Uranium (Dissolved)
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L4-28
Uranium (Total) Concentration and Groundwater Elevation Graphs



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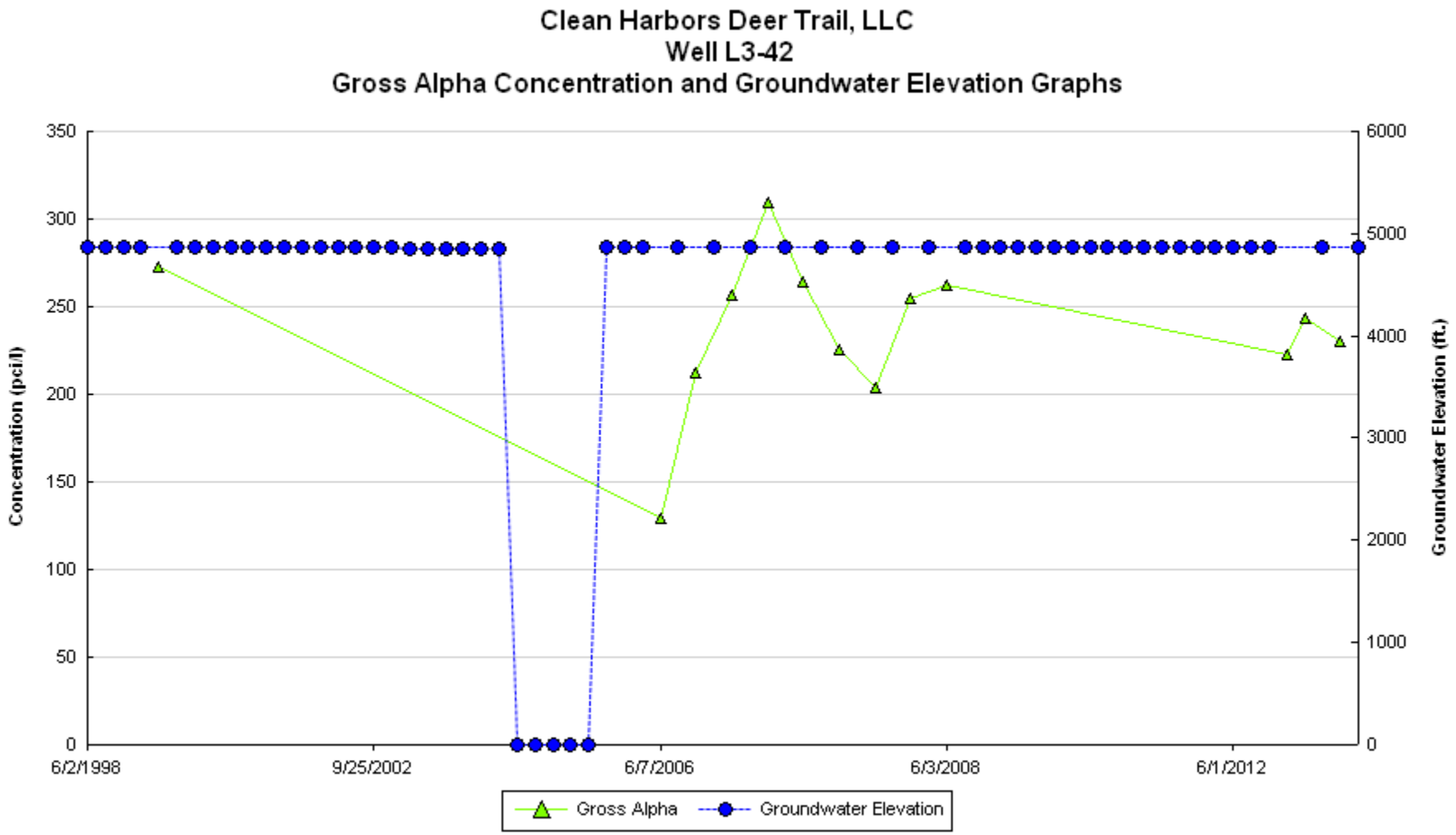
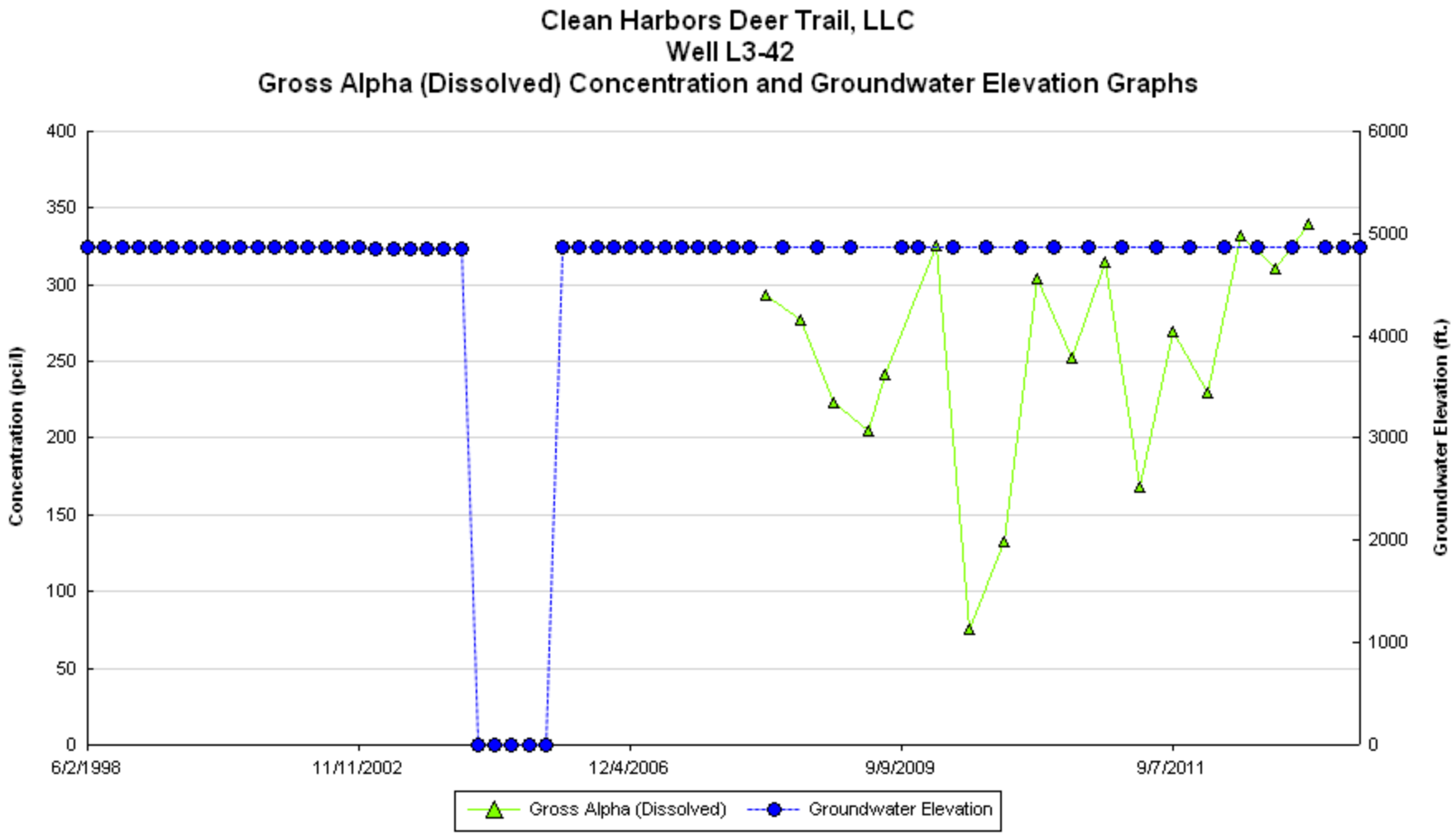
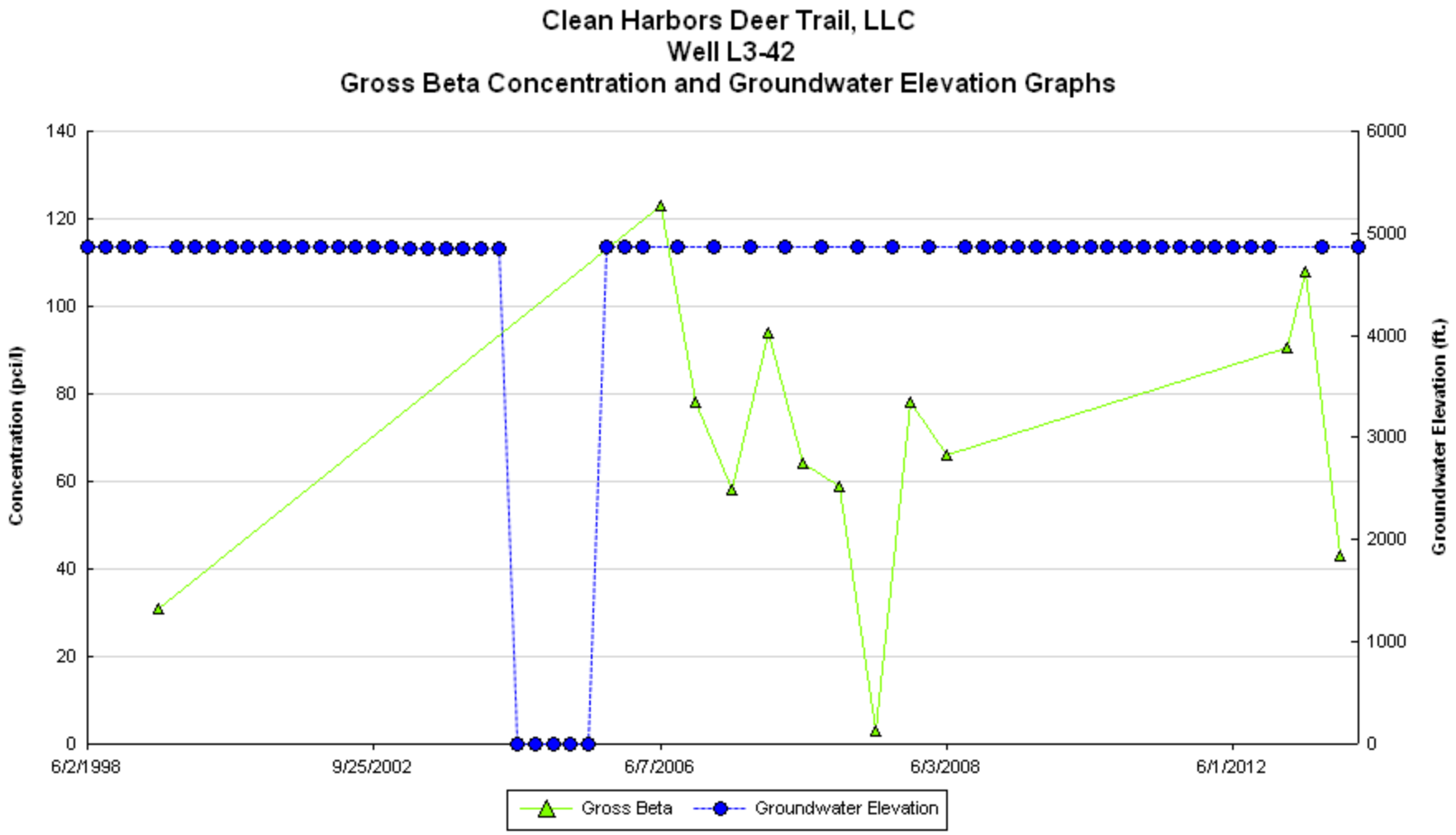
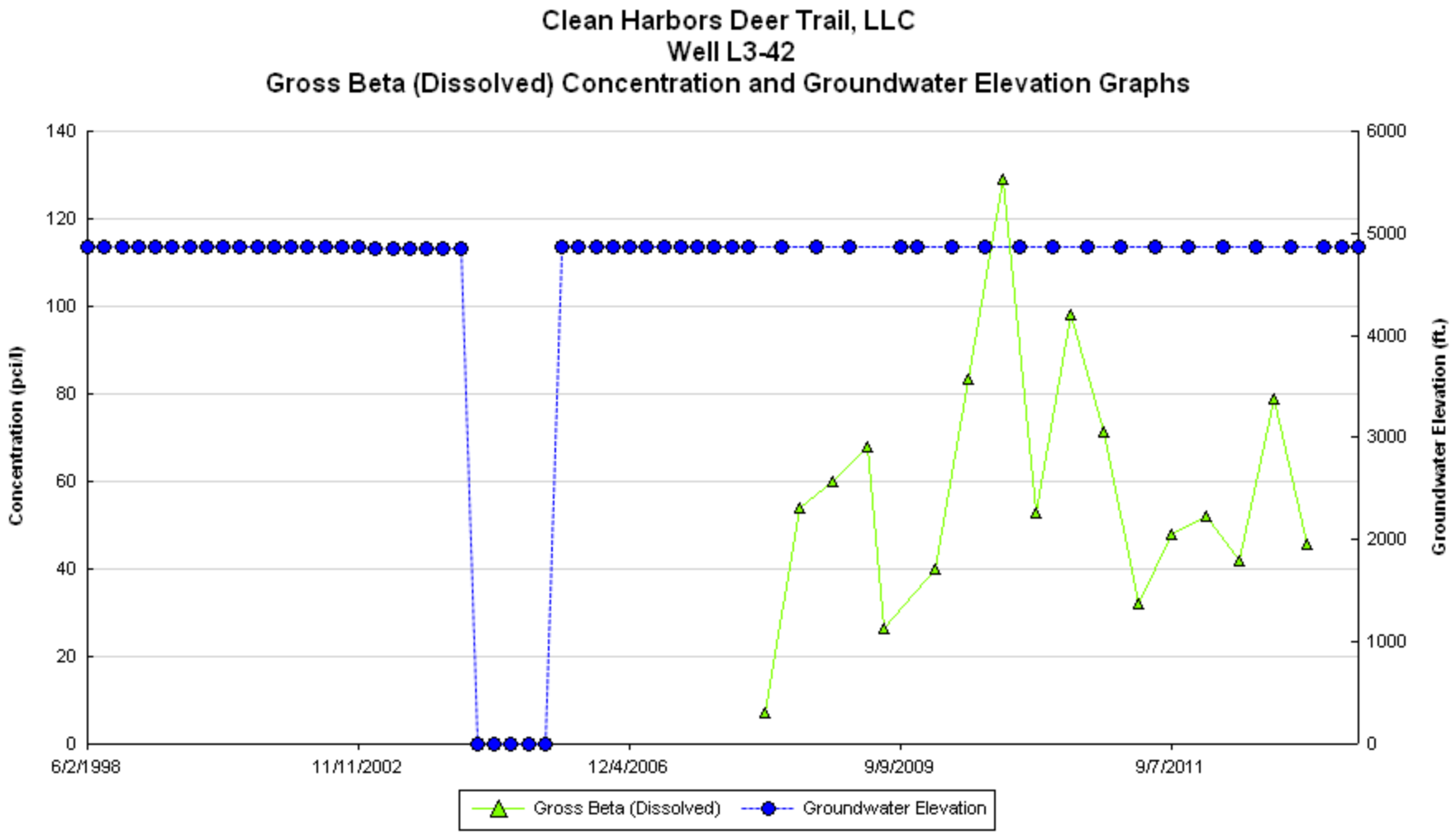
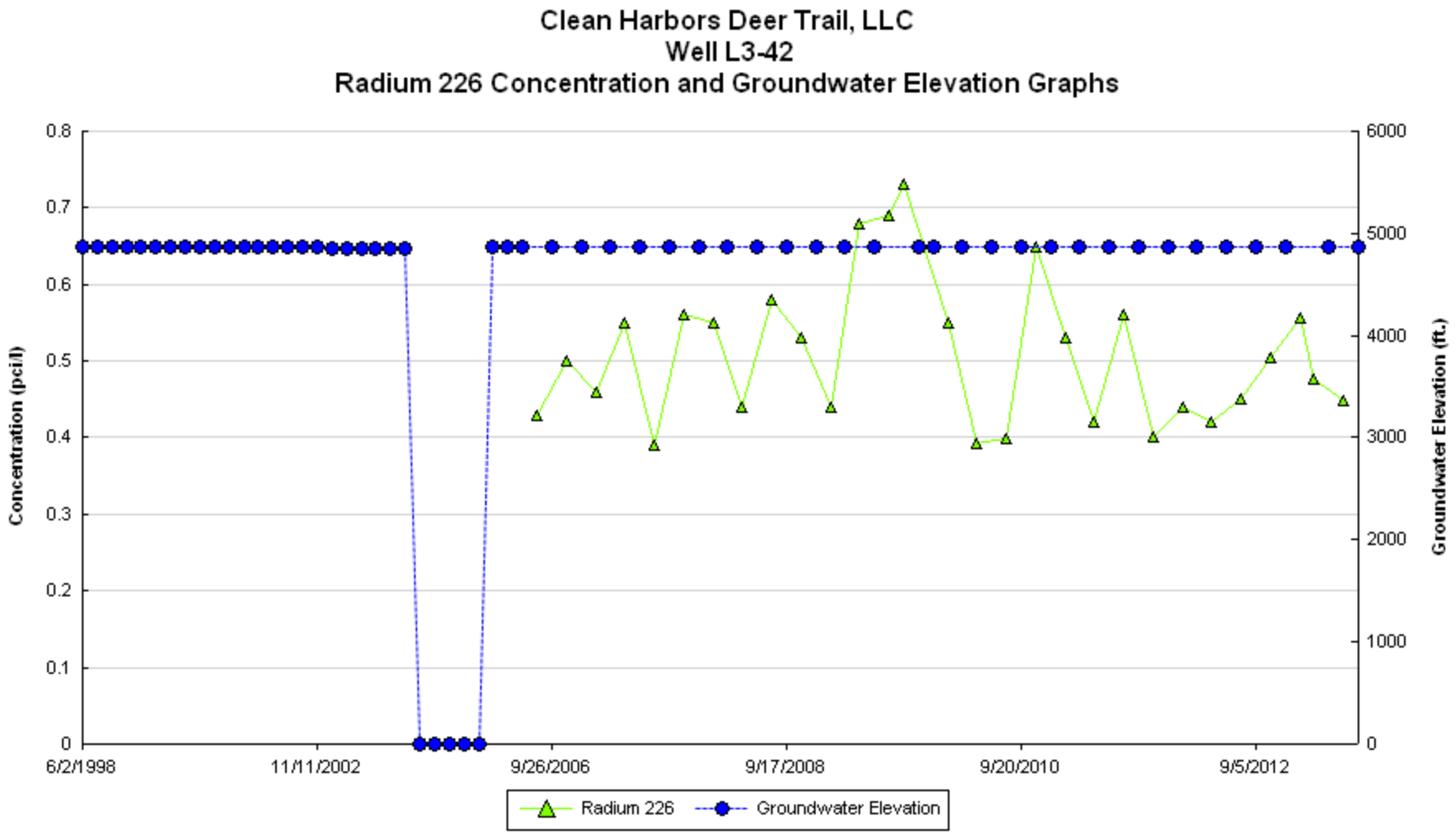
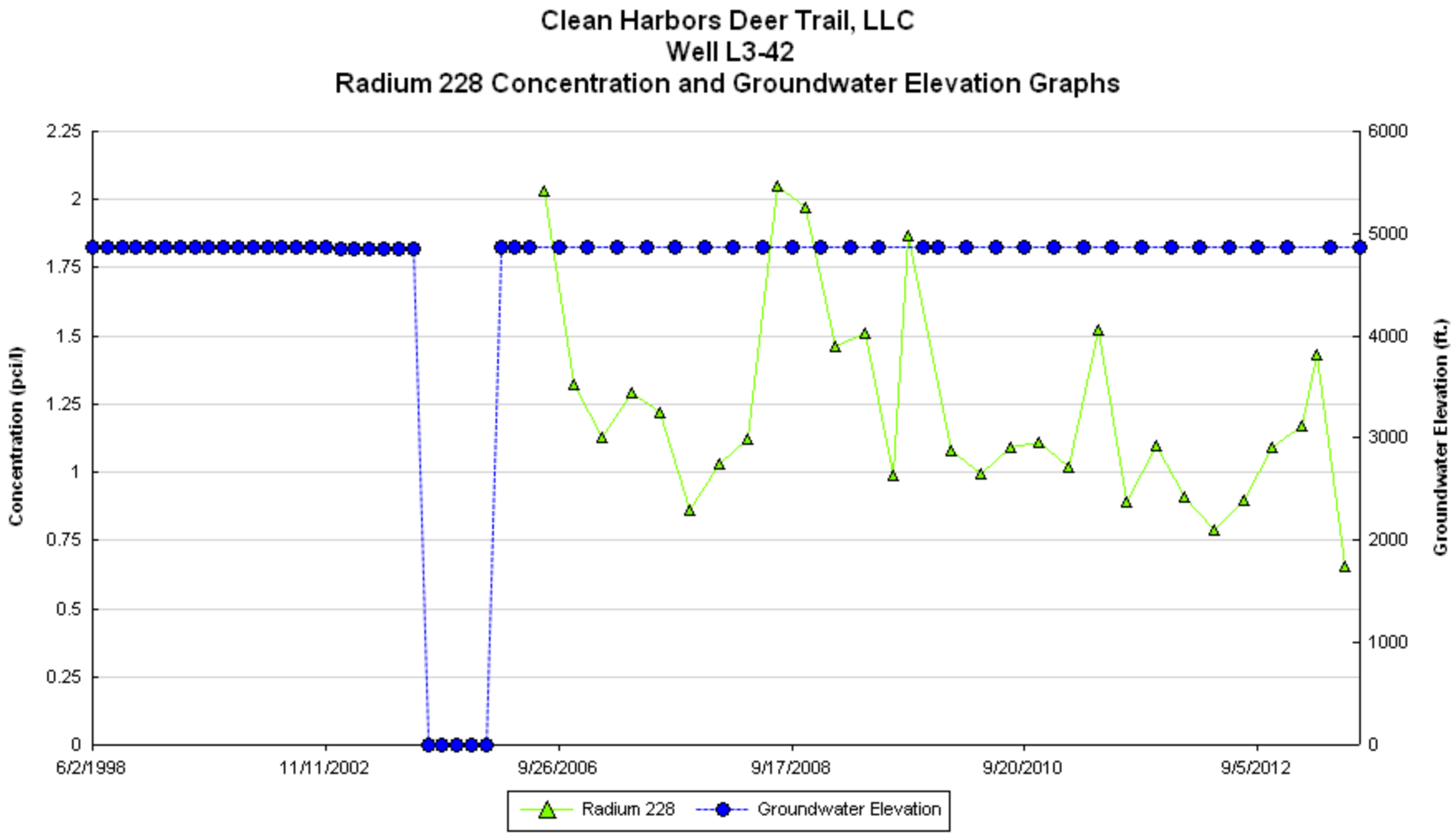

Clean Harbors Deer Trail, LLC
Well L3-42
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
6/2/1998
9/25/2002
6/7/2006
6/3/2008
6/1/2012
Gross Alpha
Groundwater Elevation

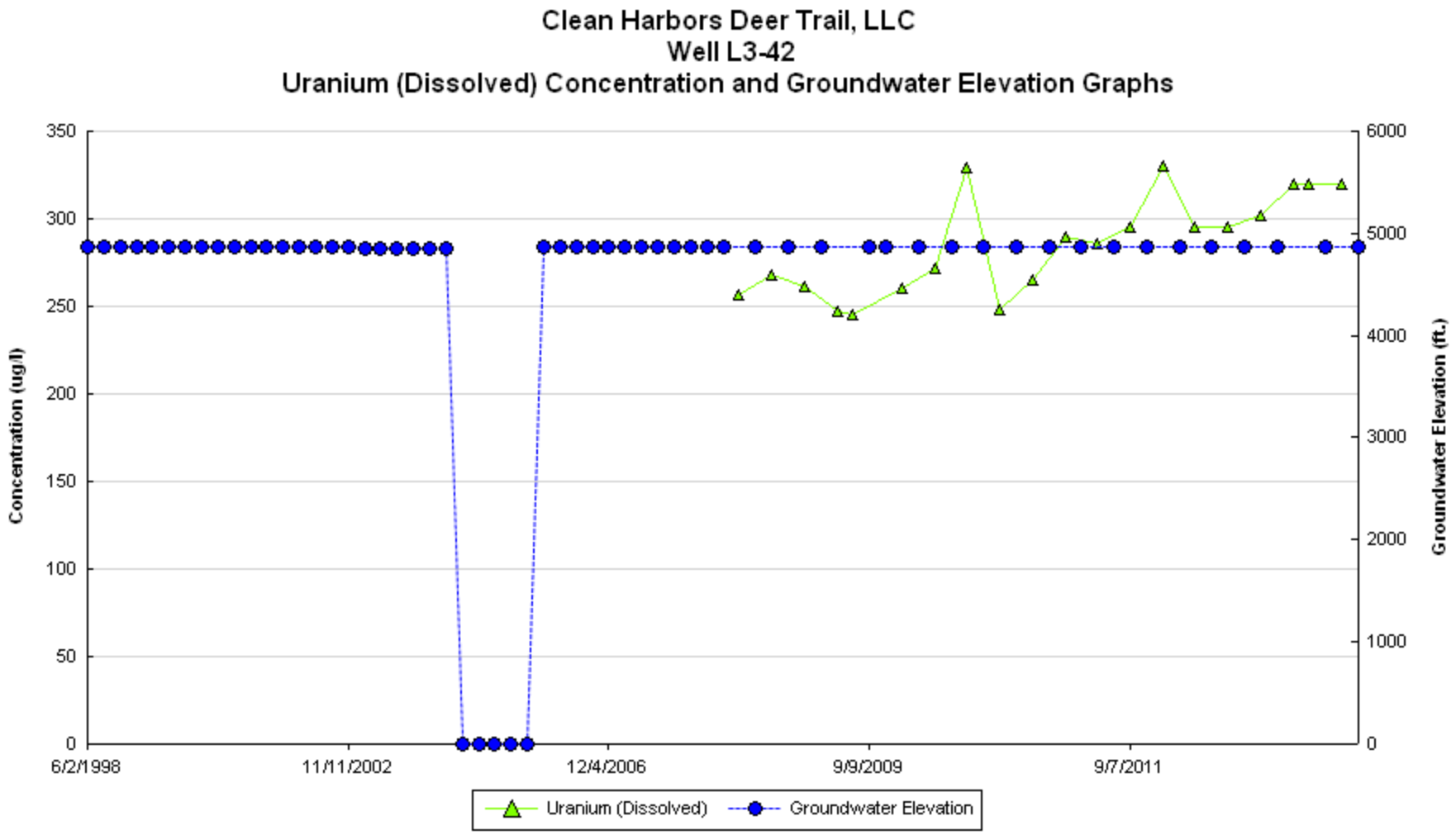

Clean Harbors Deer Trail, LLC
Well L3-42
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
400
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
6/2/1998
11/11/2002
12/4/2006
9/9/2009
9/7/2011
Gross Alpha (Dissolved)
Groundwater Elevation

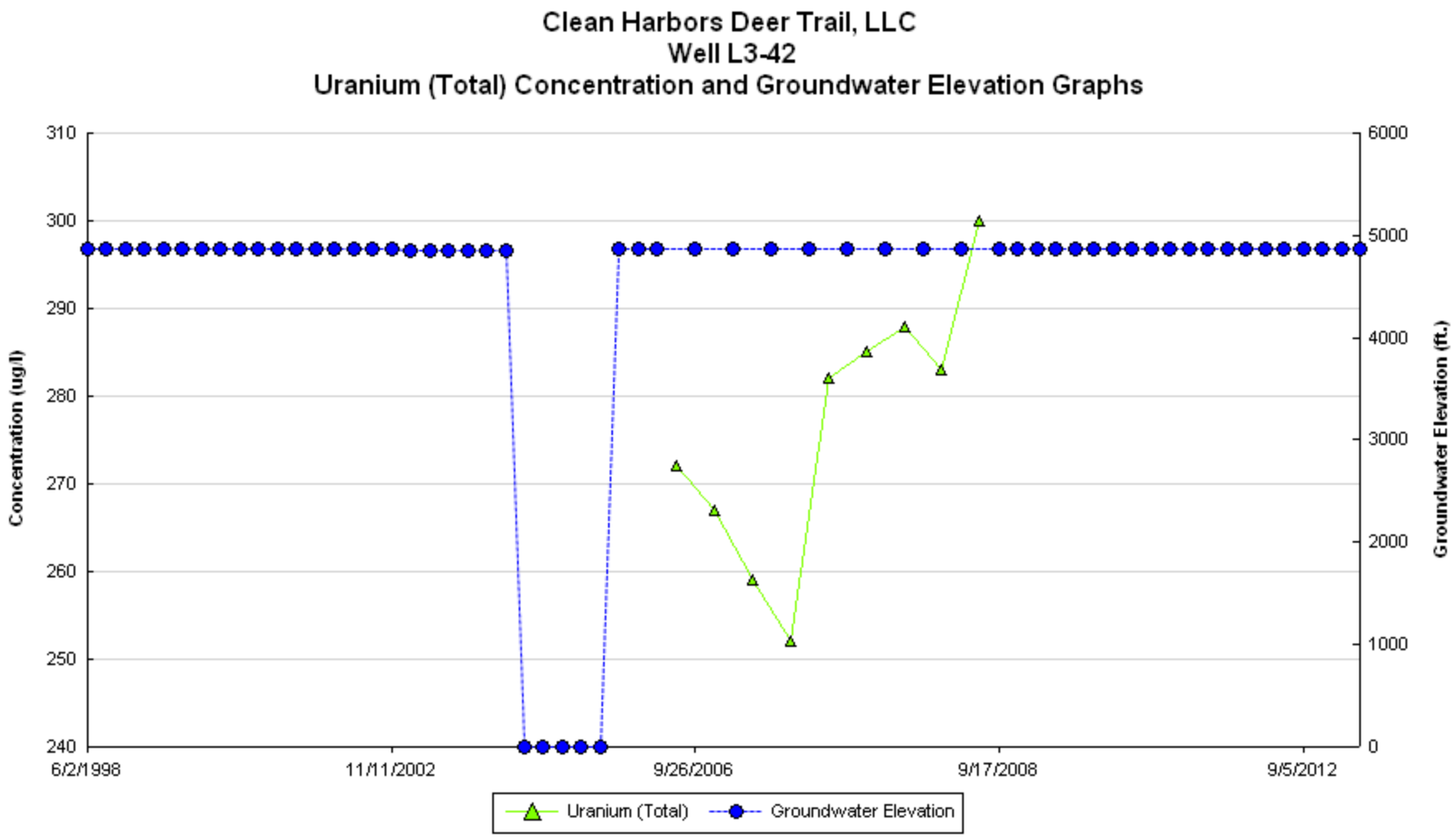

Clean Harbors Deer Trail, LLC
Well L3-42
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
140
120
100
80
60
40
20
0
6000
5000
4000
3000
2000
1000
0
6/2/1998
9/25/2002
6/7/2006
6/3/2008
6/1/2012
Gross Beta
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L3-42
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
140
120
100
80
60
40
20
0
6000
5000
4000
3000
2000
1000
0
6/2/1998
11/11/2002
12/4/2006
9/9/2009
9/7/2011
Gross Beta (Dissolved)
Groundwater Elevation

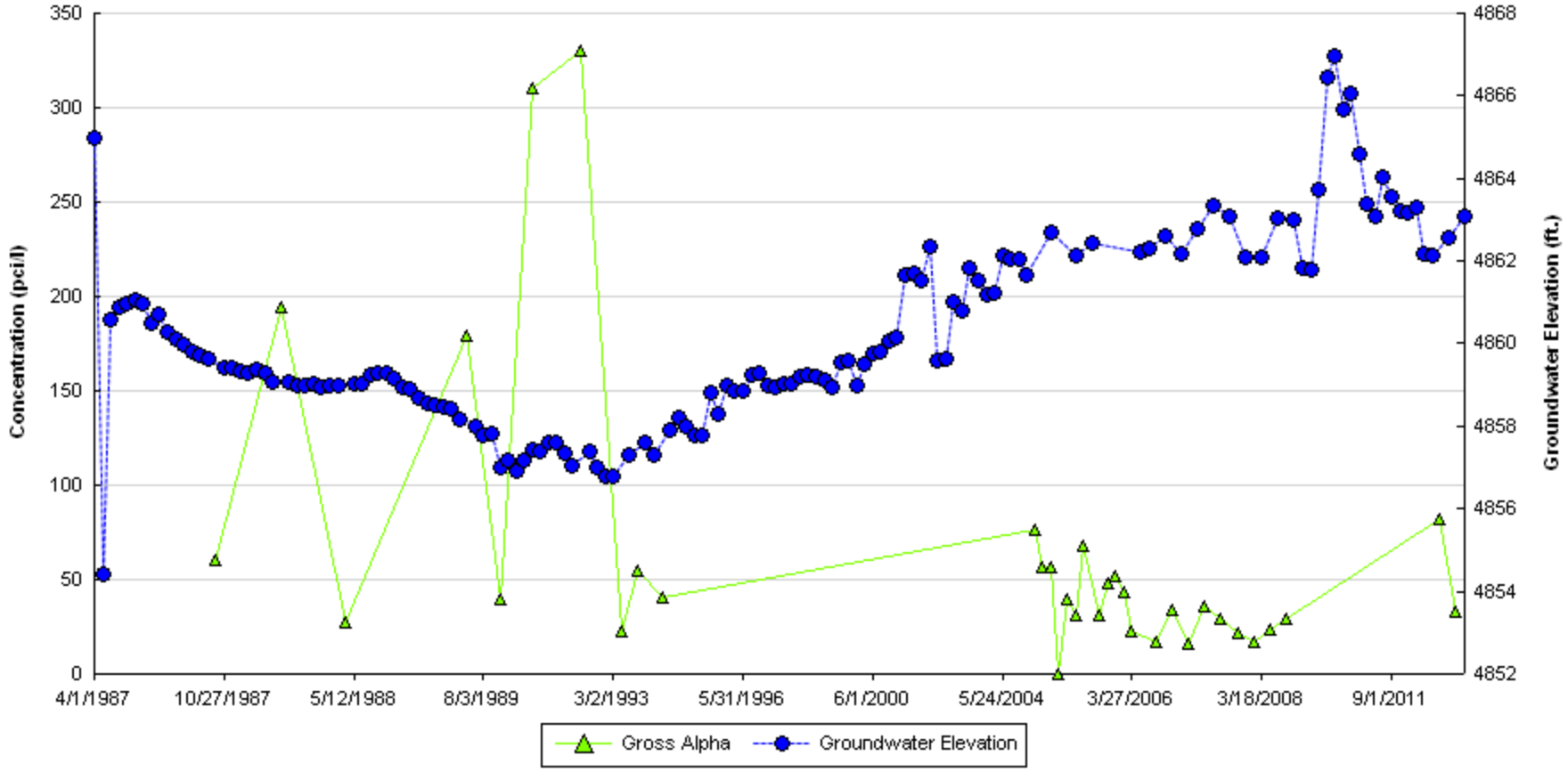

Clean Harbors Deer Trail, LLC
Well L3-42
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
6000
5000
4000
3000
2000
1000
0
6/2/1998
11/11/2002
9/26/2006
9/17/2008
9/20/2010
9/5/2012
Radium 226
Groundwater Elevation

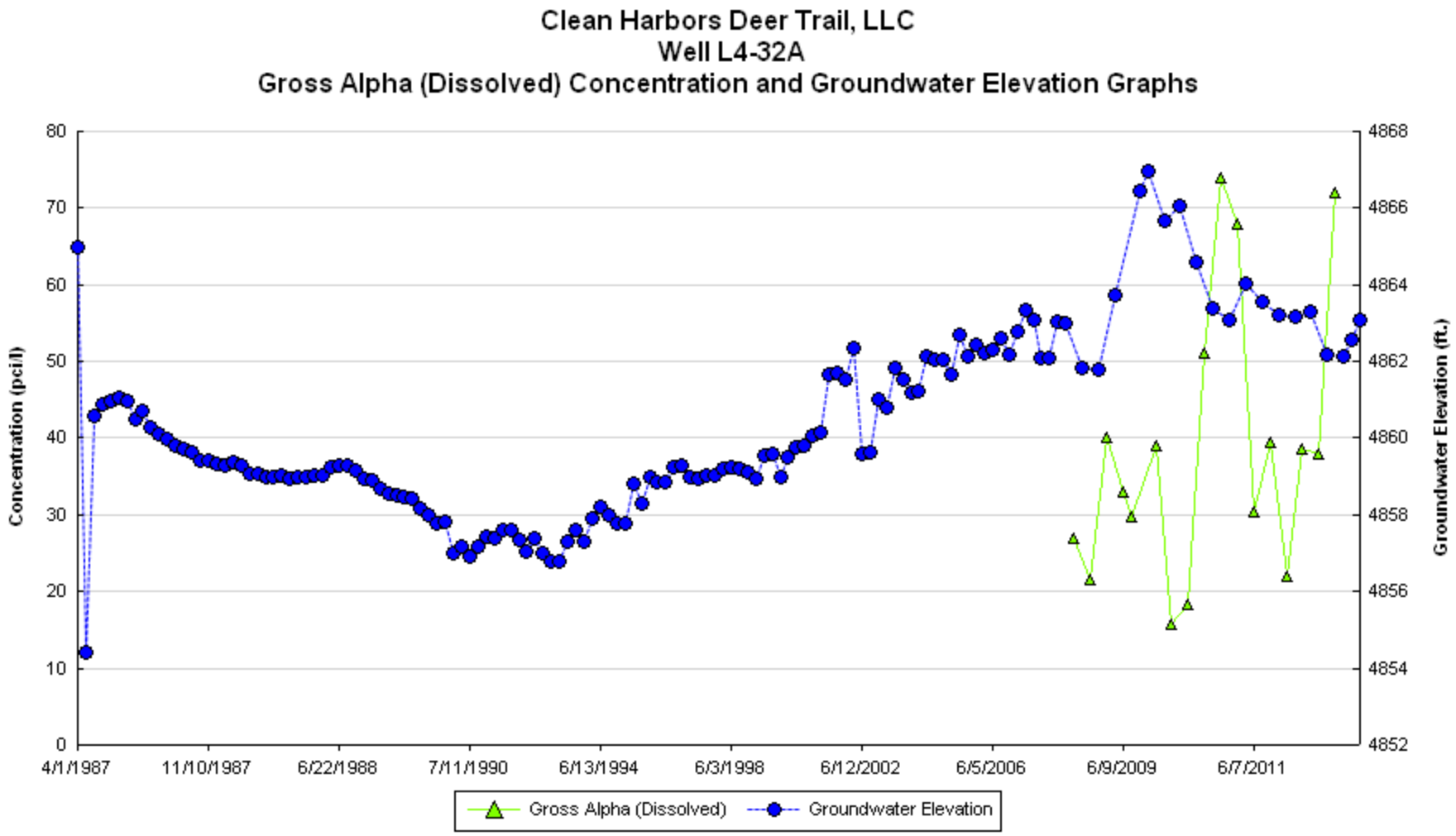

Clean Harbors Deer Trail, LLC
Well L3-42
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2.25
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
6000
5000
4000
3000
2000
1000
0
6/2/1998
11/11/2002
9/26/2006
9/17/2008
9/20/2010
9/5/2012
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L3-42
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
6/2/1998
11/11/2002
12/4/2006
9/9/2009
9/7/2011
Uranium (Dissolved)
Groundwater Elevation

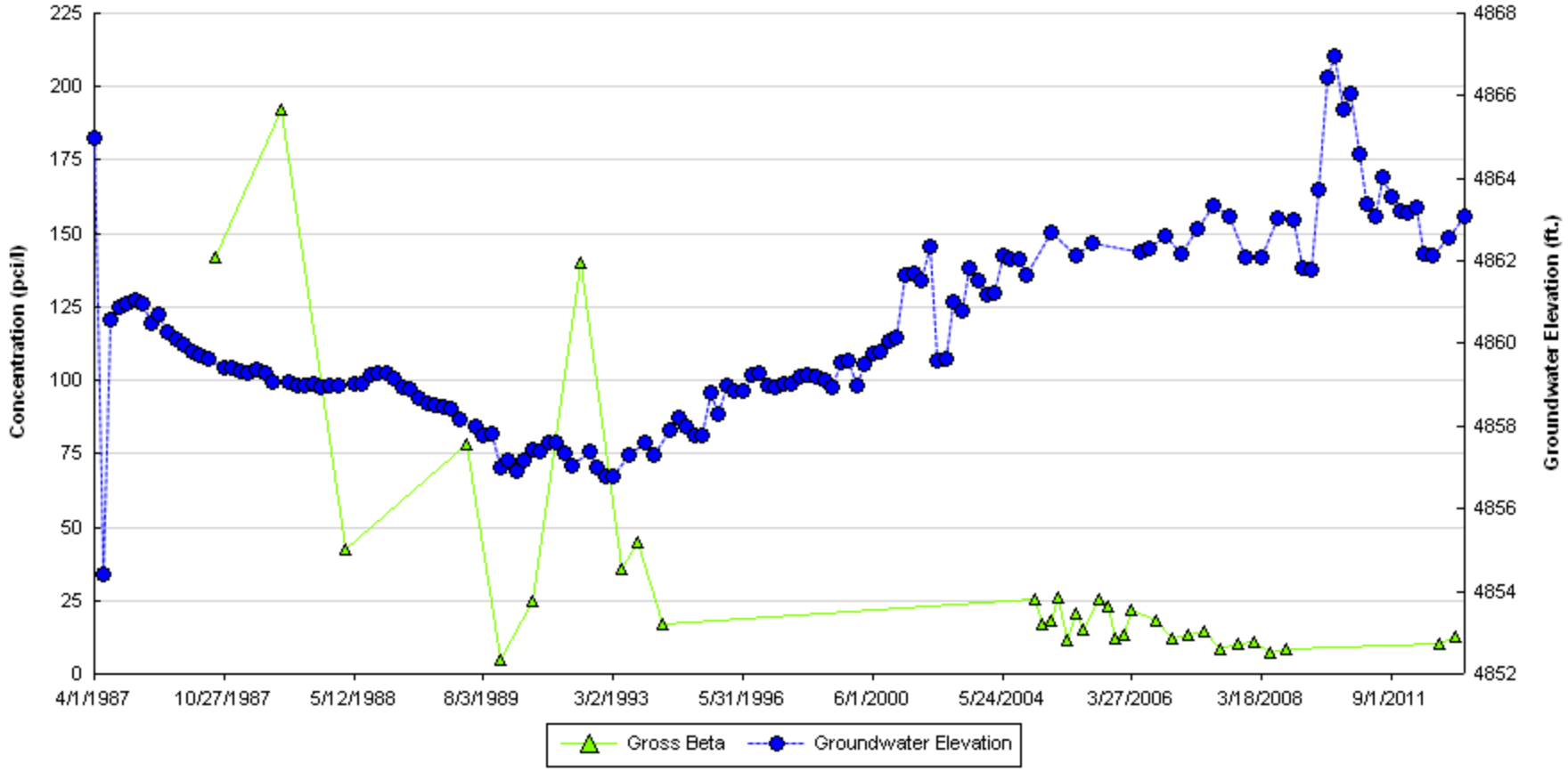

Clean Harbors Deer Trail, LLC
Well L3-42
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
310
300
290
280
270
260
250
240
6000
5000
4000
3000
2000
1000
0
6/2/1998
11/11/2002
9/26/2006
9/17/2008
9/5/2012
Uranium (Total)
Groundwater Elevation

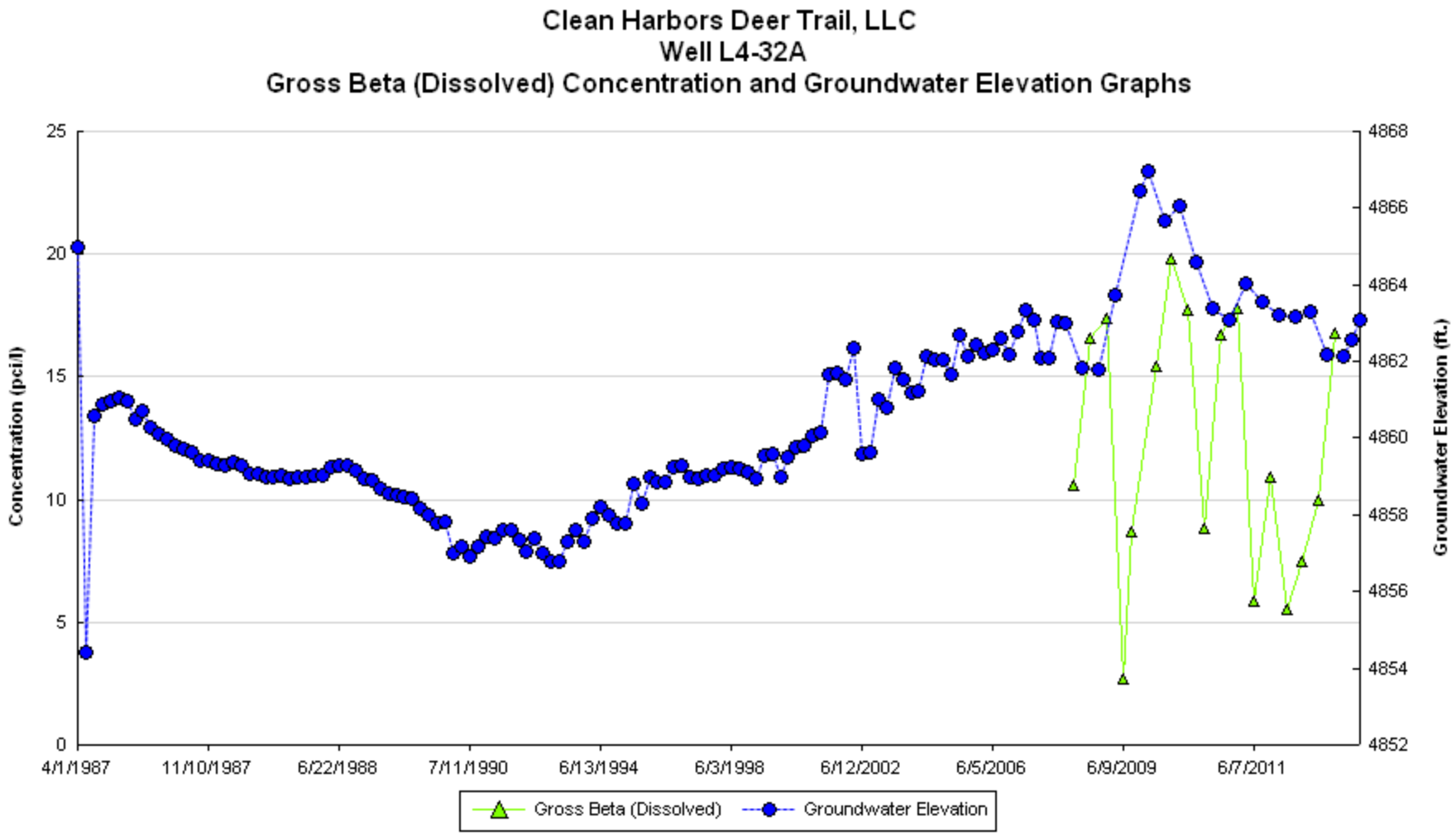
Clean Harbors Deer Trail, LLC
Well L4-32A
Gross Alpha Concentration and Groundwater Elevation Graphs



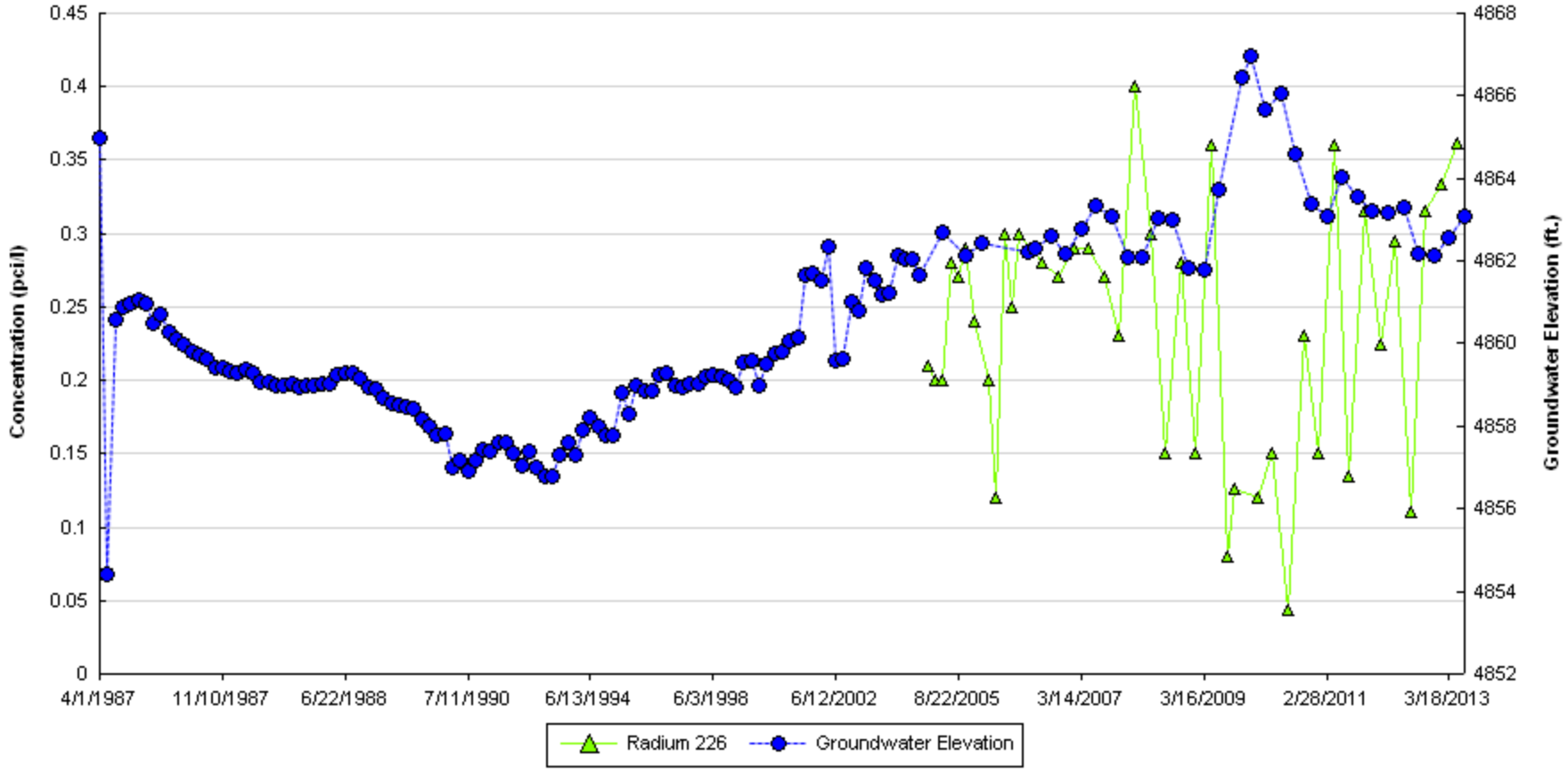

Clean Harbors Deer Trail, LLC
Well L4-32A
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
10
20
30
40
50
60
70
80
4852
4854
4856
4858
4860
4862
4864
4866
4868
4/1/1987
11/10/1987
6/22/1988
7/11/1990
6/13/1994
6/3/1998
6/12/2002
6/5/2006
6/9/2009
6/7/2011
Gross Alpha (Dissolved)
Groundwater Elevation

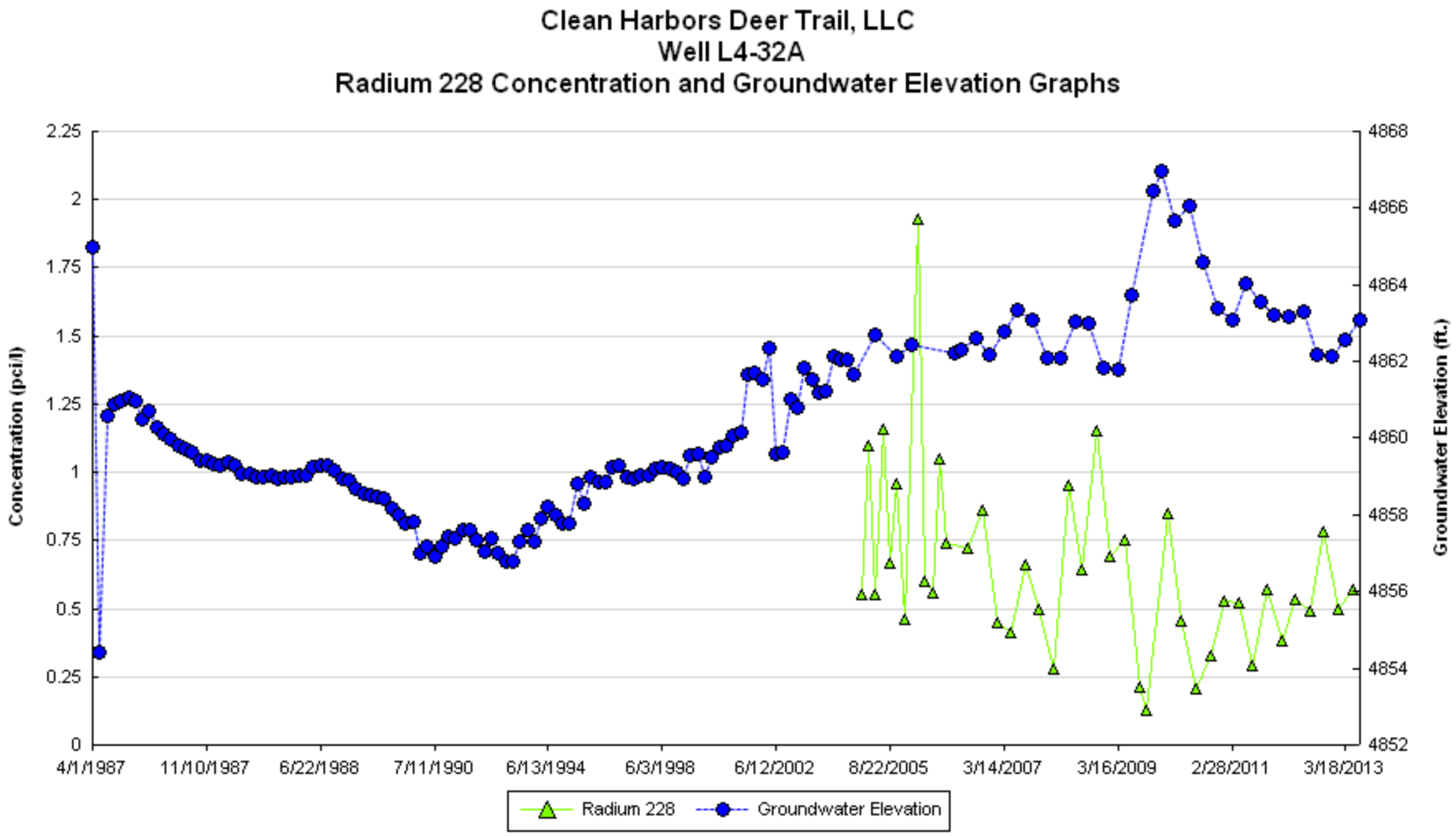
Clean Harbors Deer Trail, LLC
Well L4-32A
Gross Beta Concentration and Groundwater Elevation Graphs




Clean Harbors Deer Trail, LLC
Well L4-32A
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
25
20
15
10
5
0
4868
4866
4864
4862
4860
4858
4856
4854
4852
4/1/1987
11/10/1987
6/22/1988
7/11/1990
6/13/1994
6/3/1998
6/12/2002
6/5/2006
6/9/2009
6/7/2011
Gross Beta (Dissolved)
Groundwater Elevation

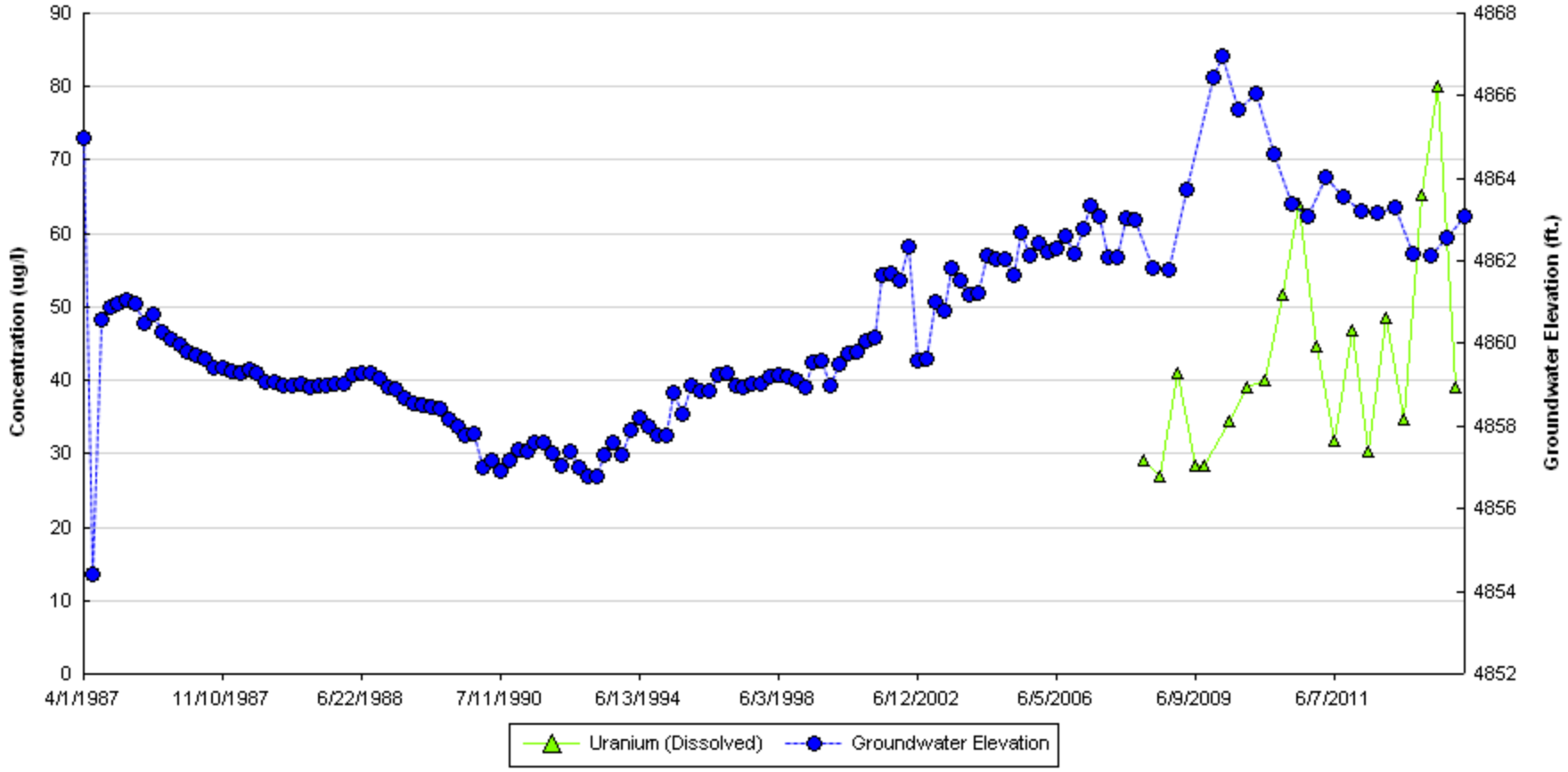
Clean Harbors Deer Trail, LLC
Well L4-32A
Radium 226 Concentration and Groundwater Elevation Graphs

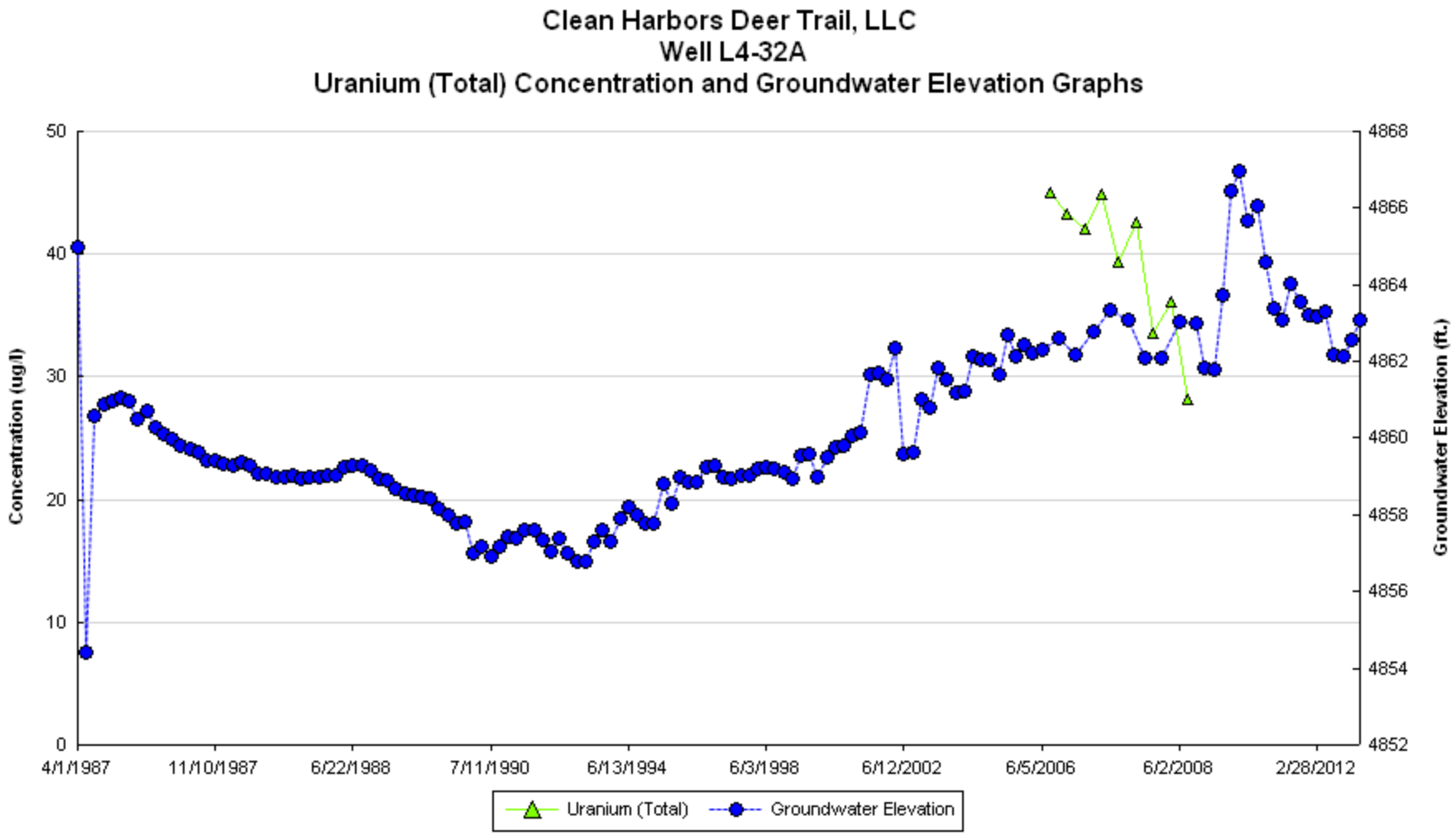


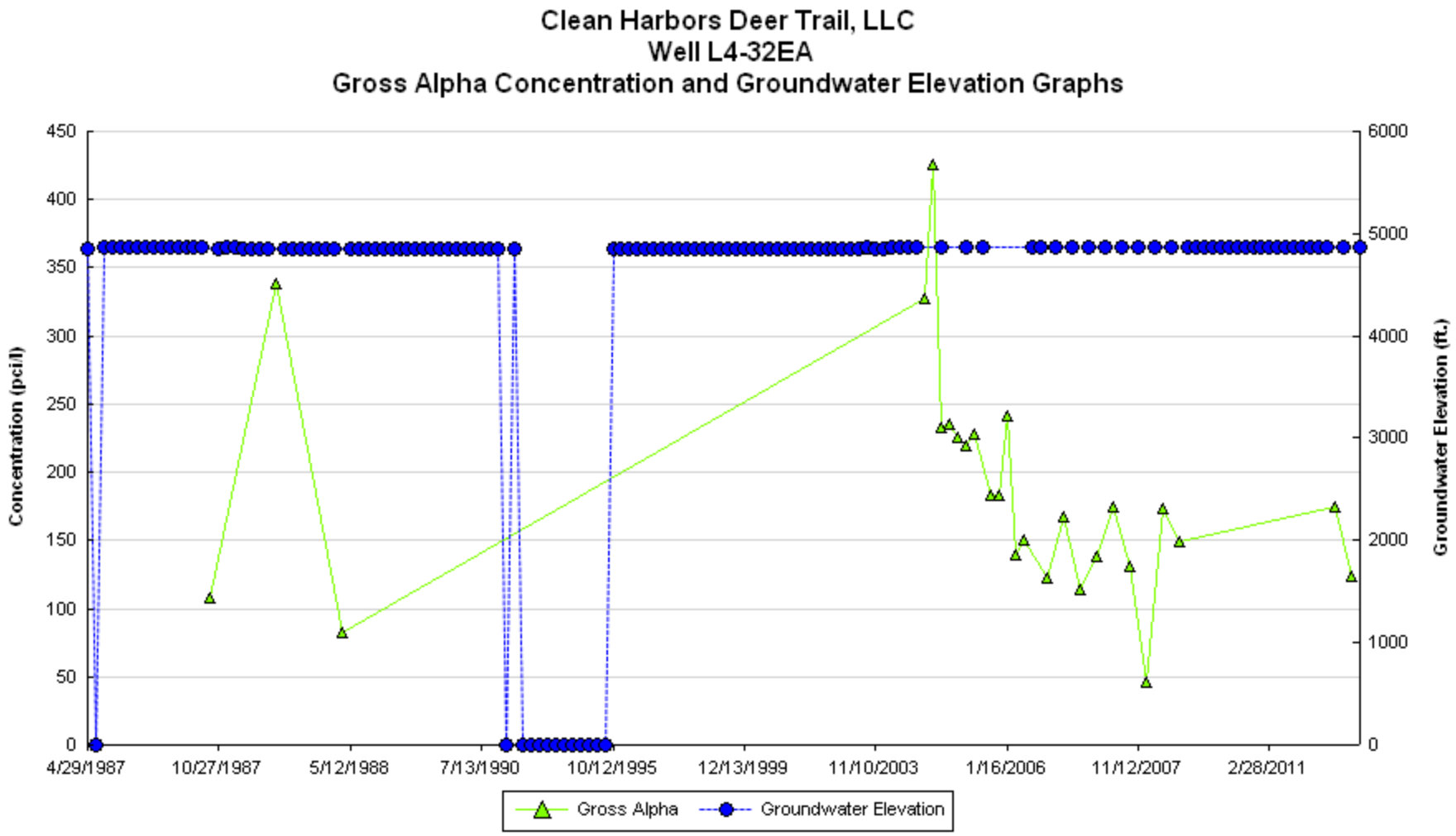


Clean Harbors Deer Trail, LLC
Well L4-32A
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2.25
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
4868
4866
4864
4862
4860
4858
4856
4854
4852
4/1/1987
11/10/1987
6/22/1988
7/11/1990
6/13/1994
6/3/1998
6/12/2002
8/22/2005
3/14/2007
3/16/2009
2/28/2011
3/18/2013
Radium 228
Groundwater Elevation

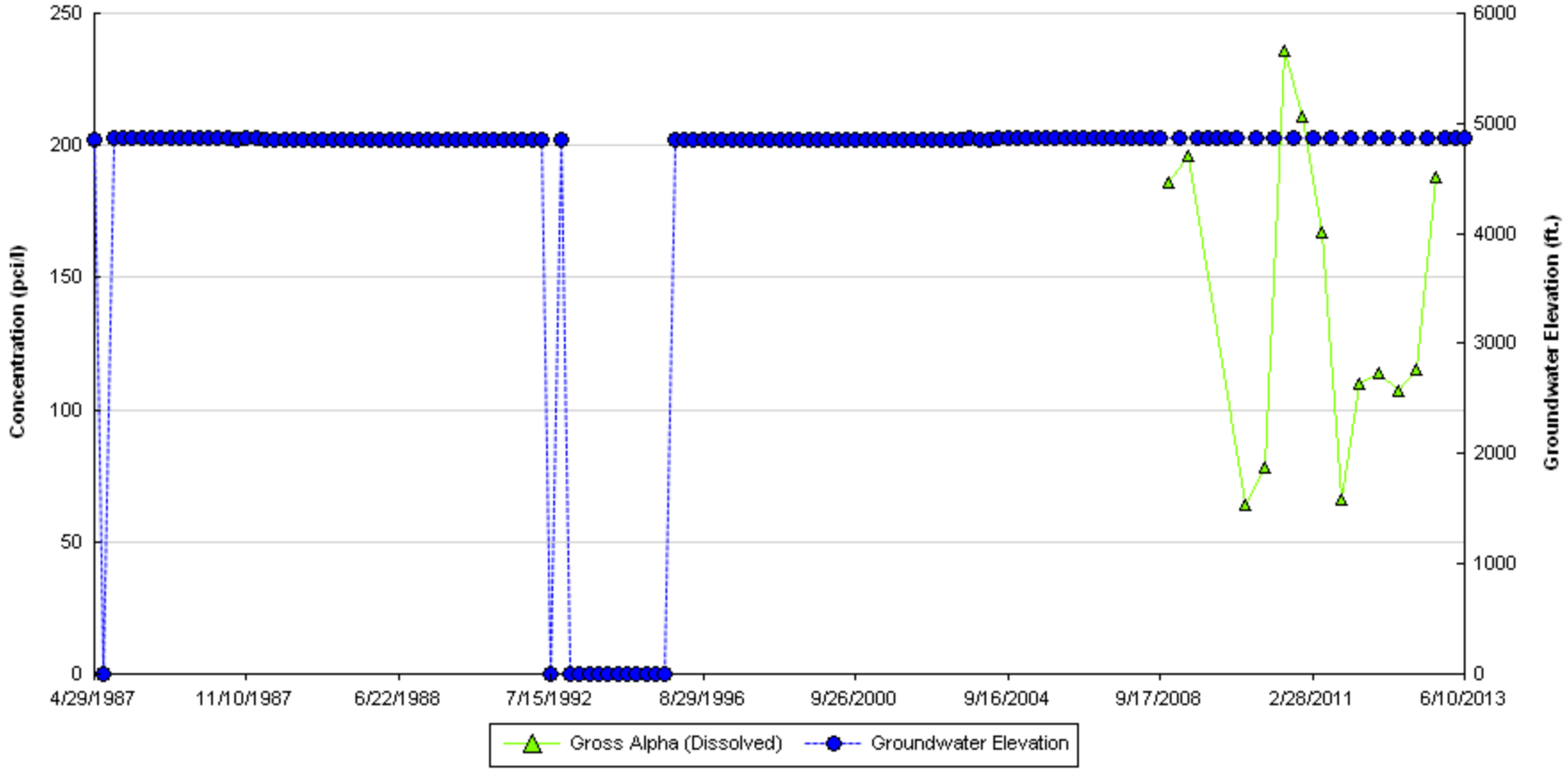
Clean Harbors Deer Trail, LLC
Well L4-32A
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs



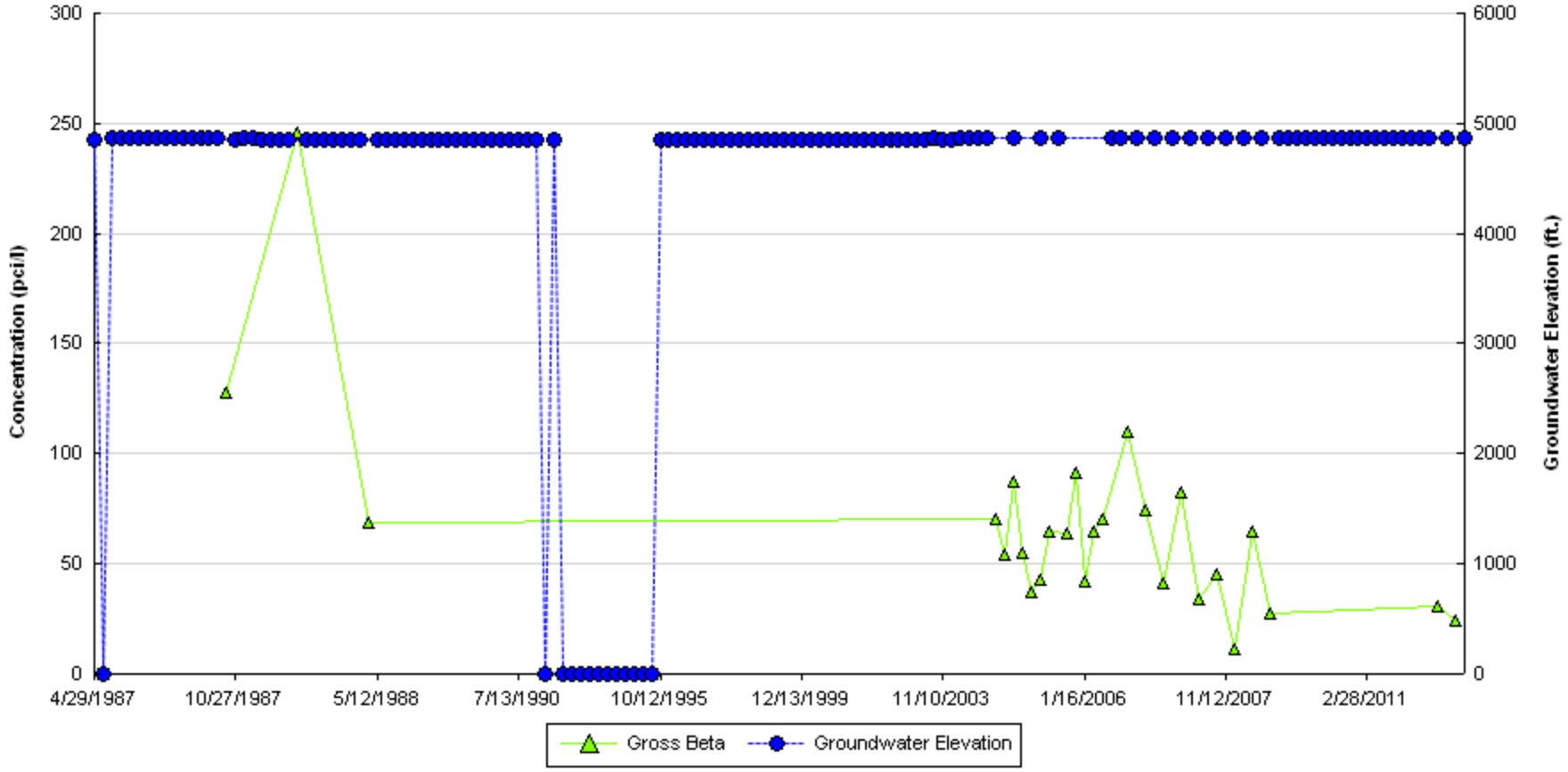

Clean Harbors Deer Trail, LLC
Well L4-32A
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
50
40
30
20
10
0
4868
4866
4864
4862
4860
4858
4856
4854
4852
4/1/1987
11/10/1987
6/22/1988
7/11/1990
6/13/1994
6/3/1998
6/12/2002
6/5/2006
6/2/2008
2/28/2012
Uranium (Total)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-32EA
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
450
400
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
4/29/1987
10/27/1987
5/12/1988
7/13/1990
10/12/1995
12/13/1999
11/10/2003
1/16/2006
11/12/2007
2/28/2011
Gross Alpha
Groundwater Elevation

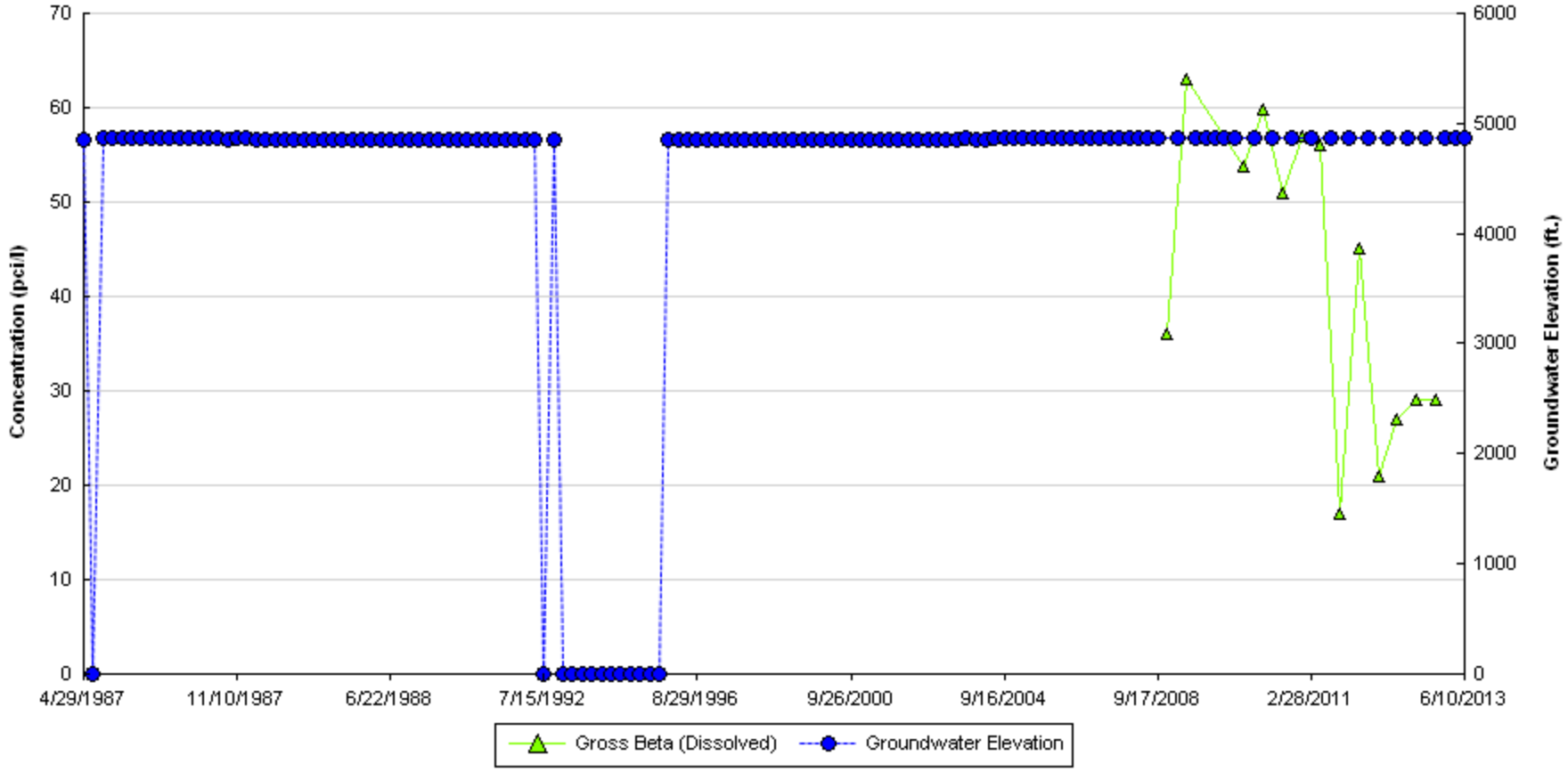
Clean Harbors Deer Trail, LLC
Well L4-32EA
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs

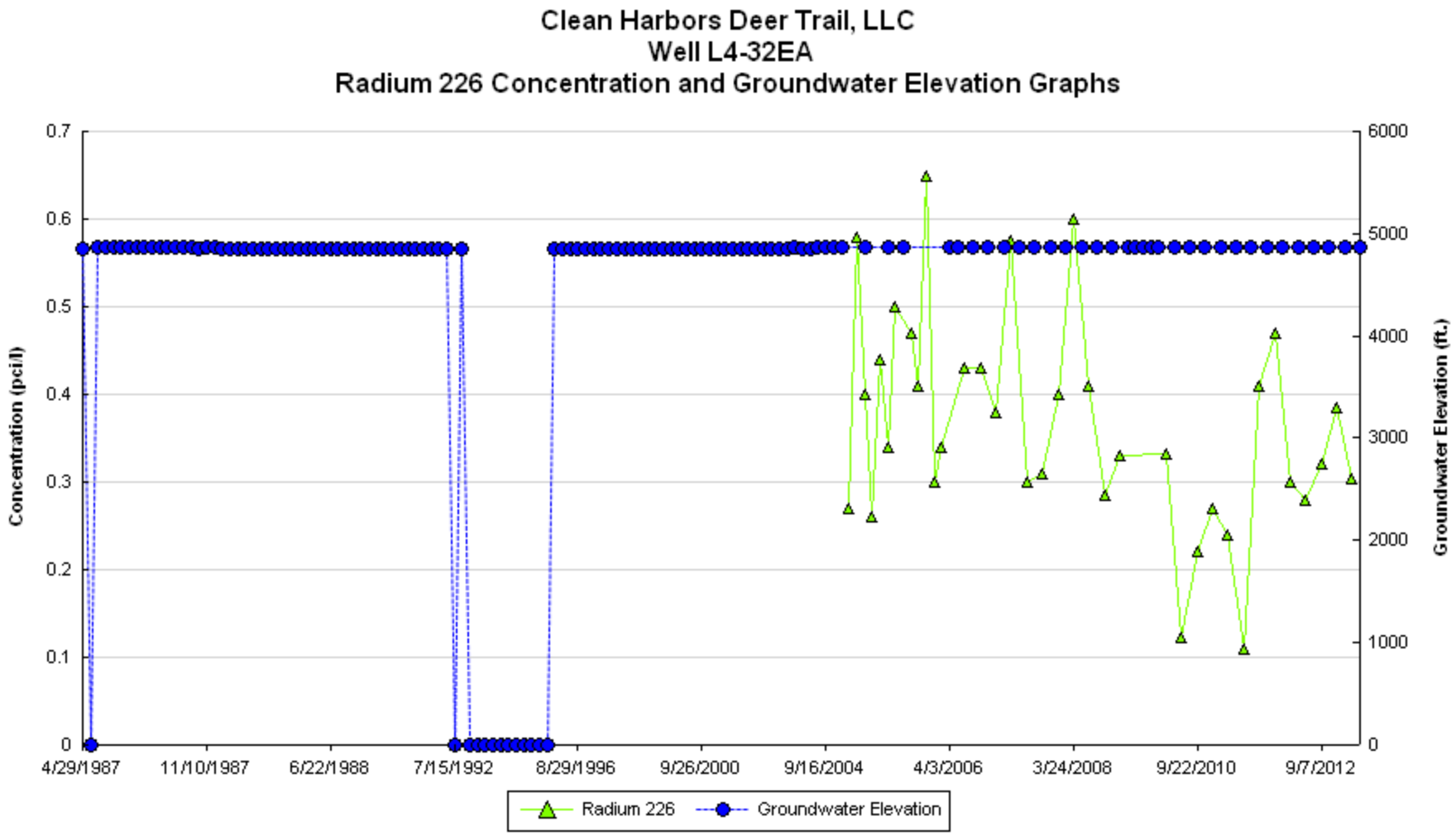


Clean Harbors Deer Trail, LLC
Well L4-32EA
Gross Beta Concentration and Groundwater Elevation Graphs

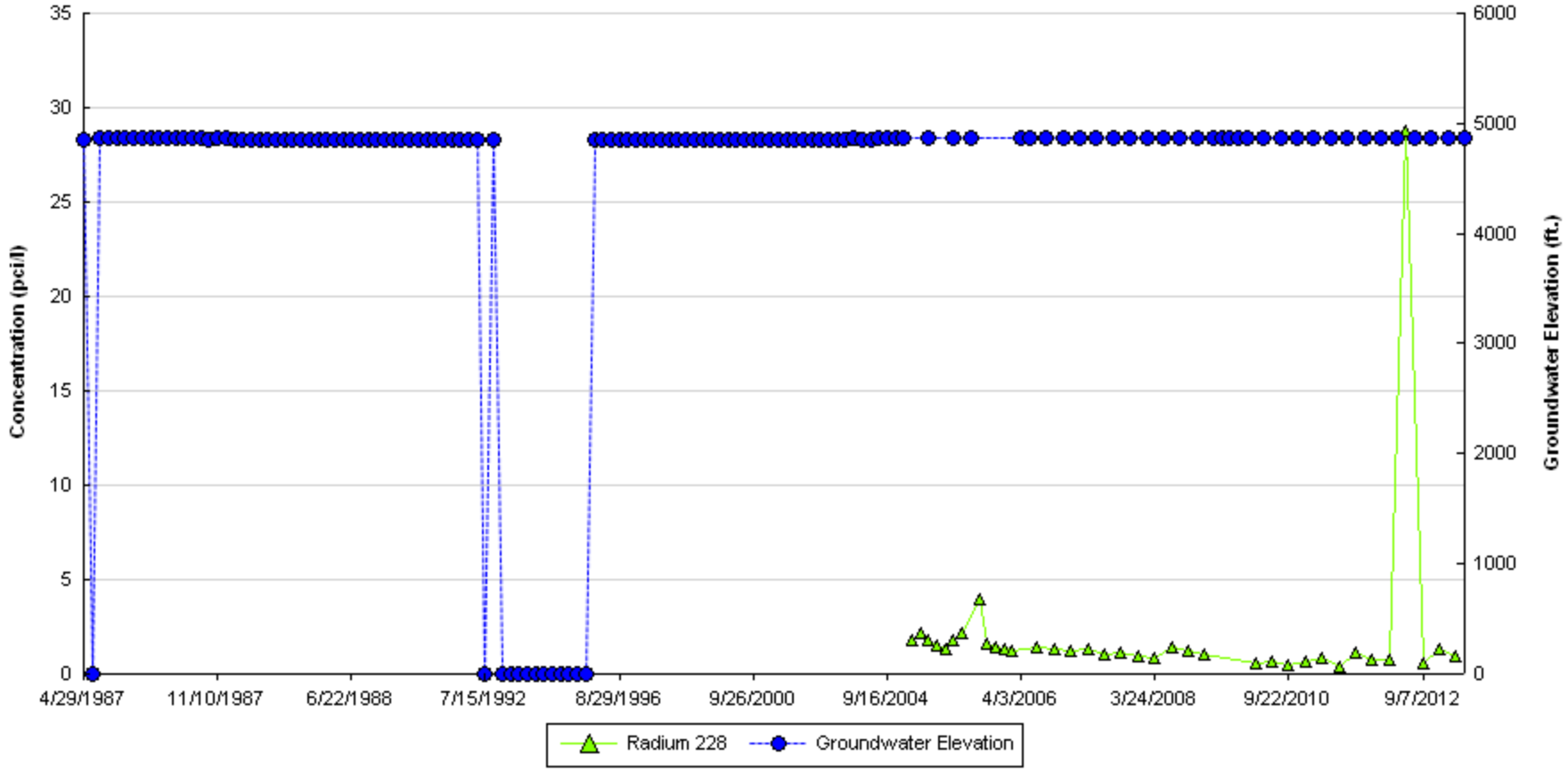


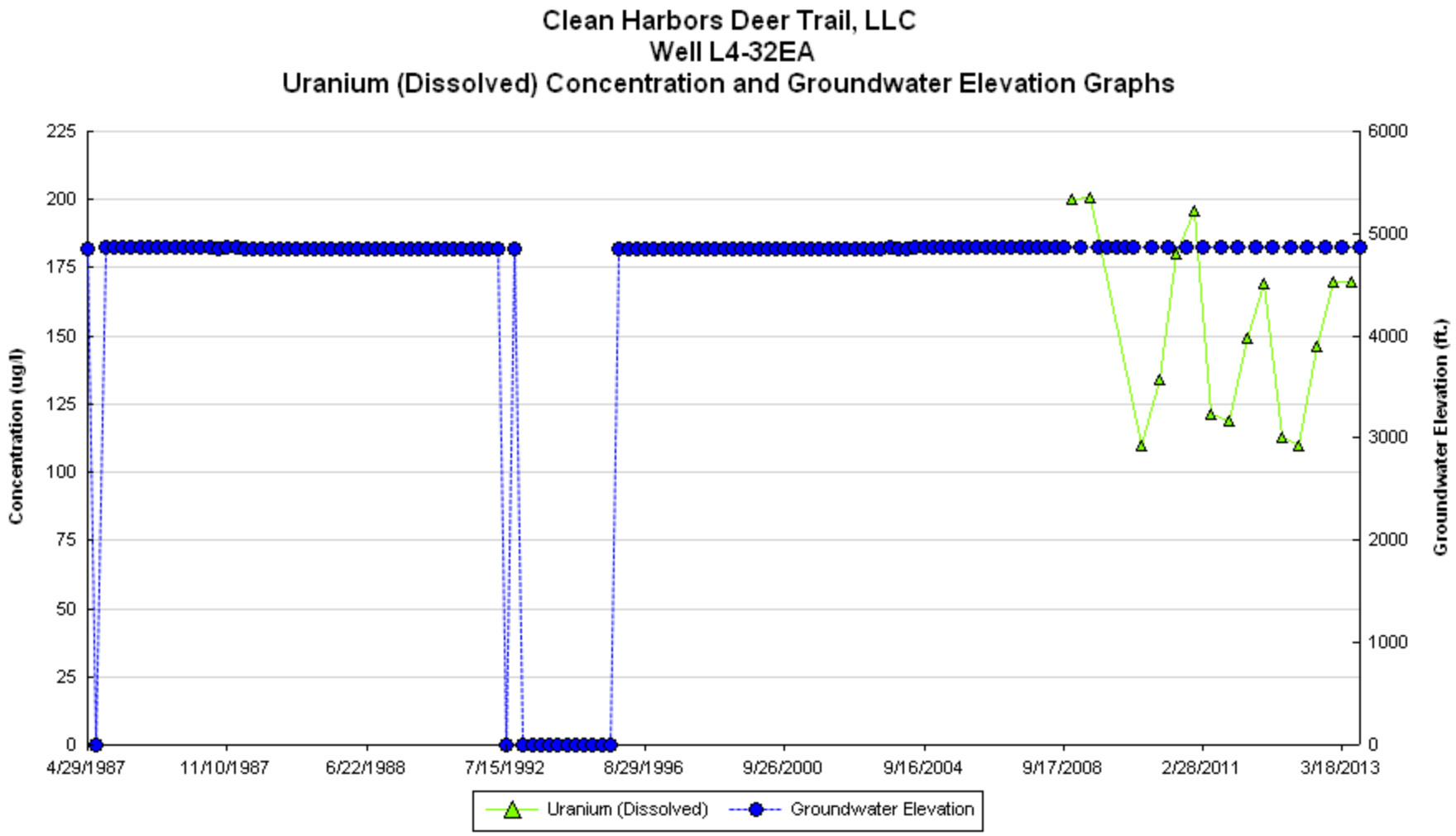
Clean Harbors Deer Trail, LLC
Well L4-32EA
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs

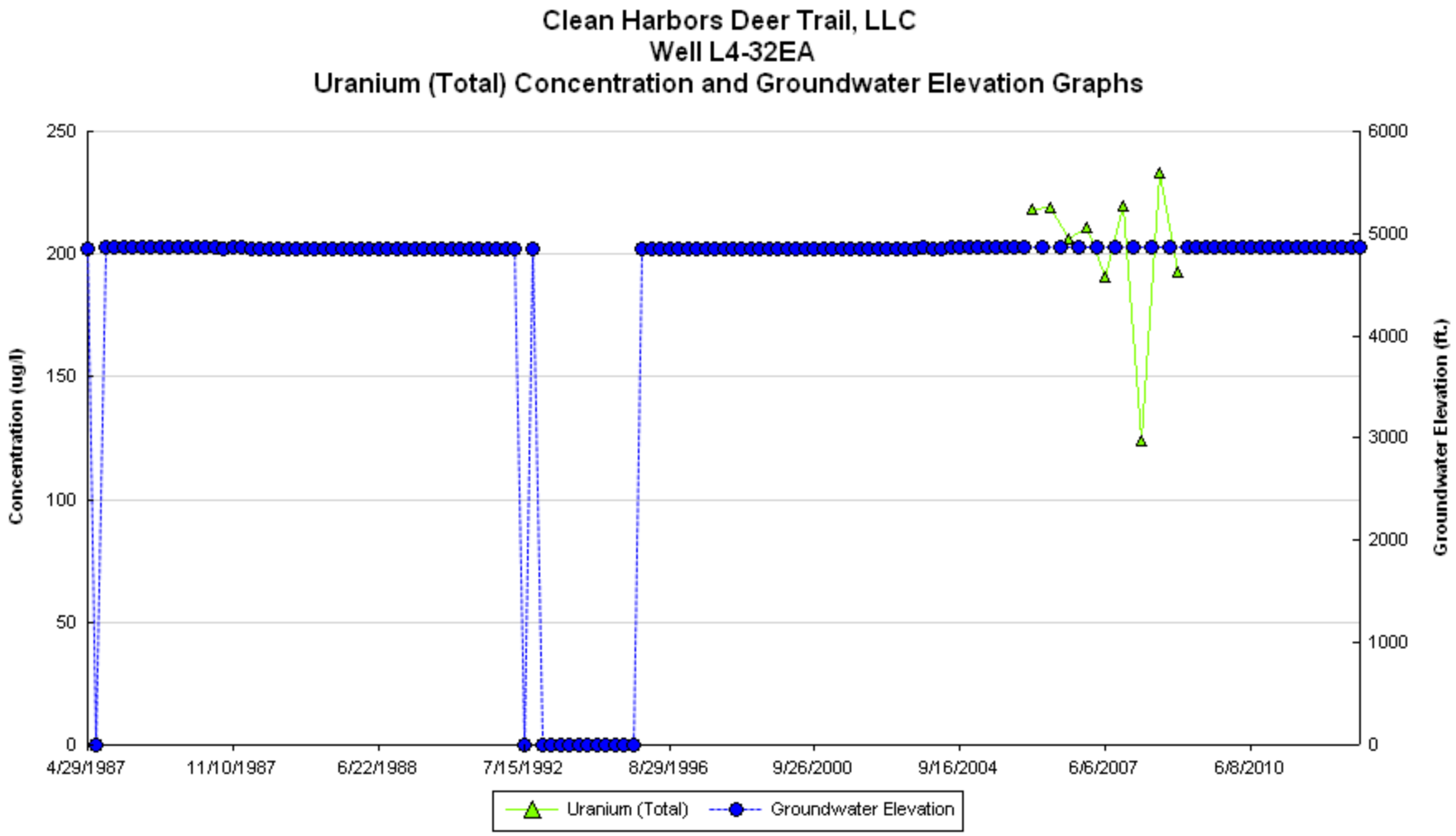


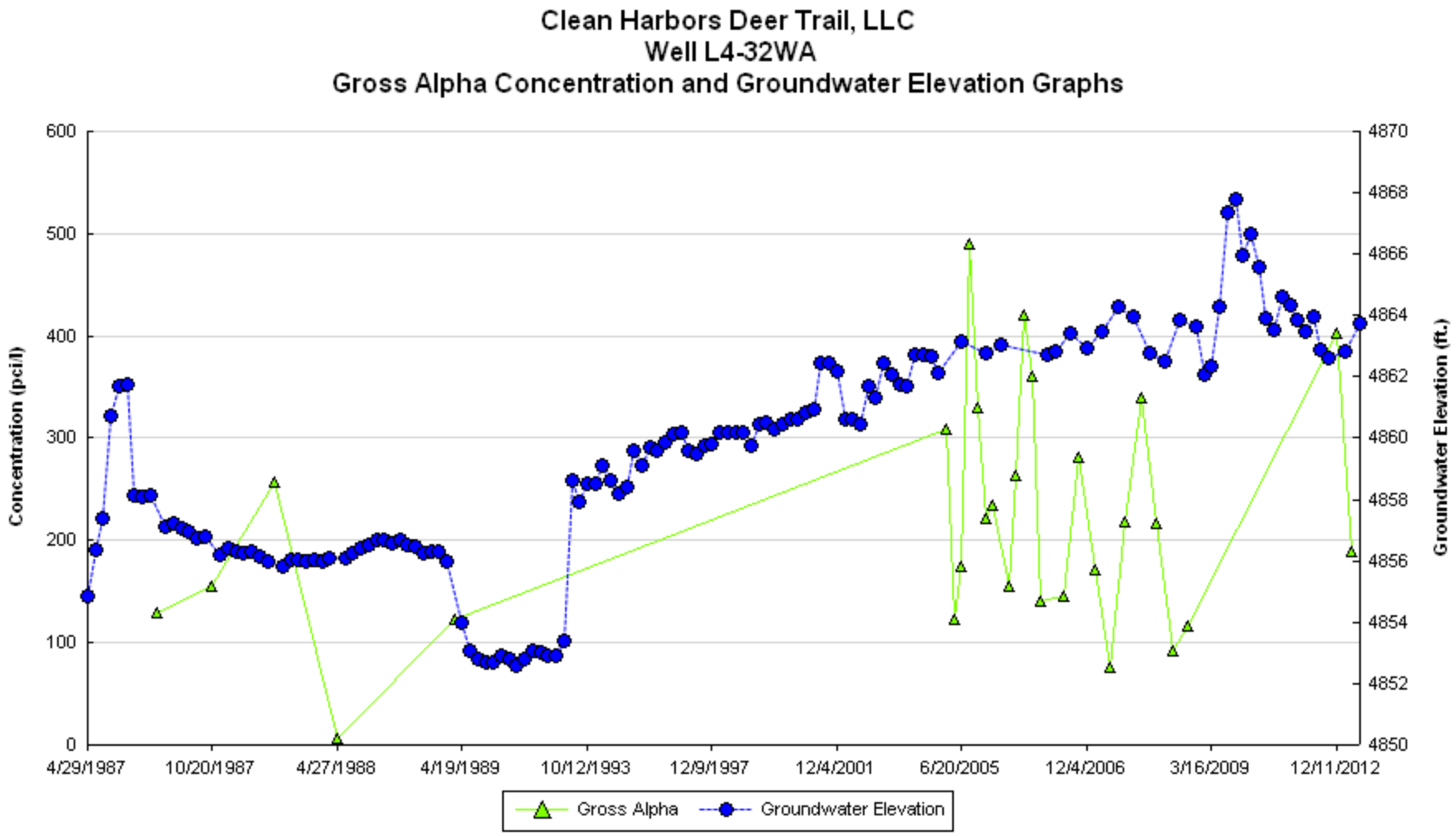

Clean Harbors Deer Trail, LLC
Well L4-32EA
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
6000
5000
4000
3000
2000
1000
0
4/29/1987
11/10/1987
6/22/1988
7/15/1992
8/29/1996
9/26/2000
9/16/2004
4/3/2006
3/24/2008
9/22/2010
9/7/2012
Radium 226
Groundwater Elevation

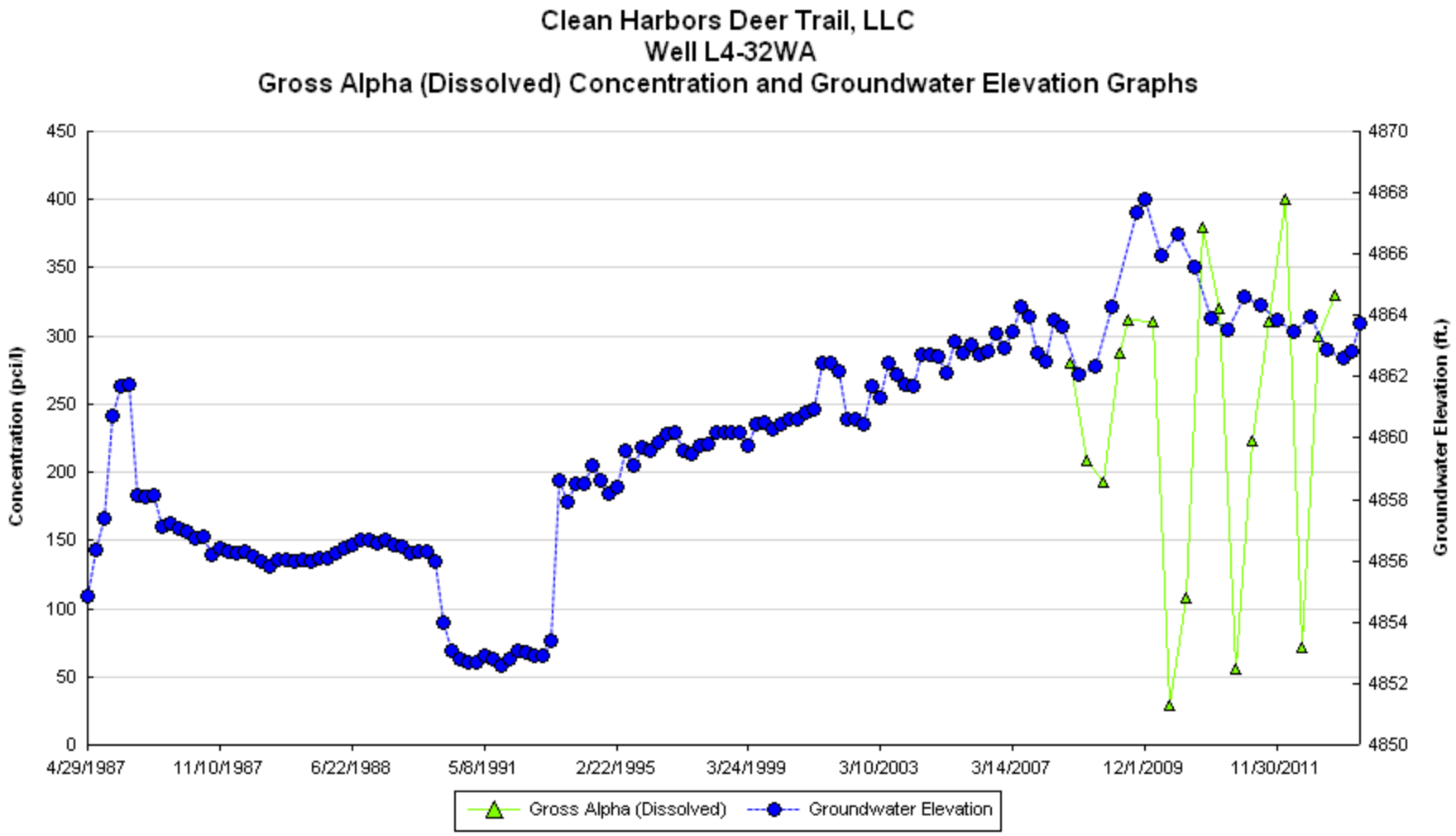
Clean Harbors Deer Trail, LLC
Well L4-32EA
Radium 228 Concentration and Groundwater Elevation Graphs

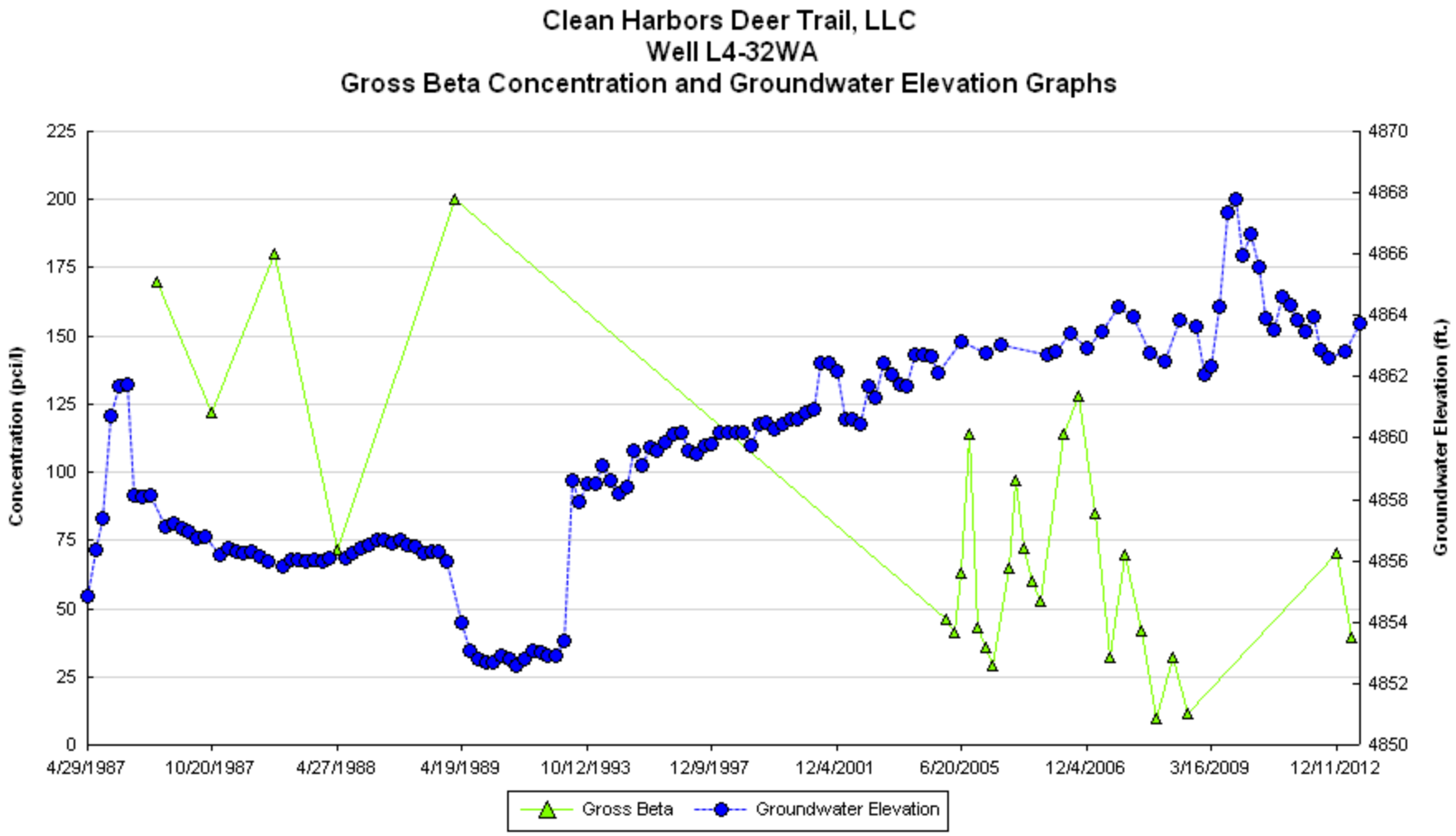


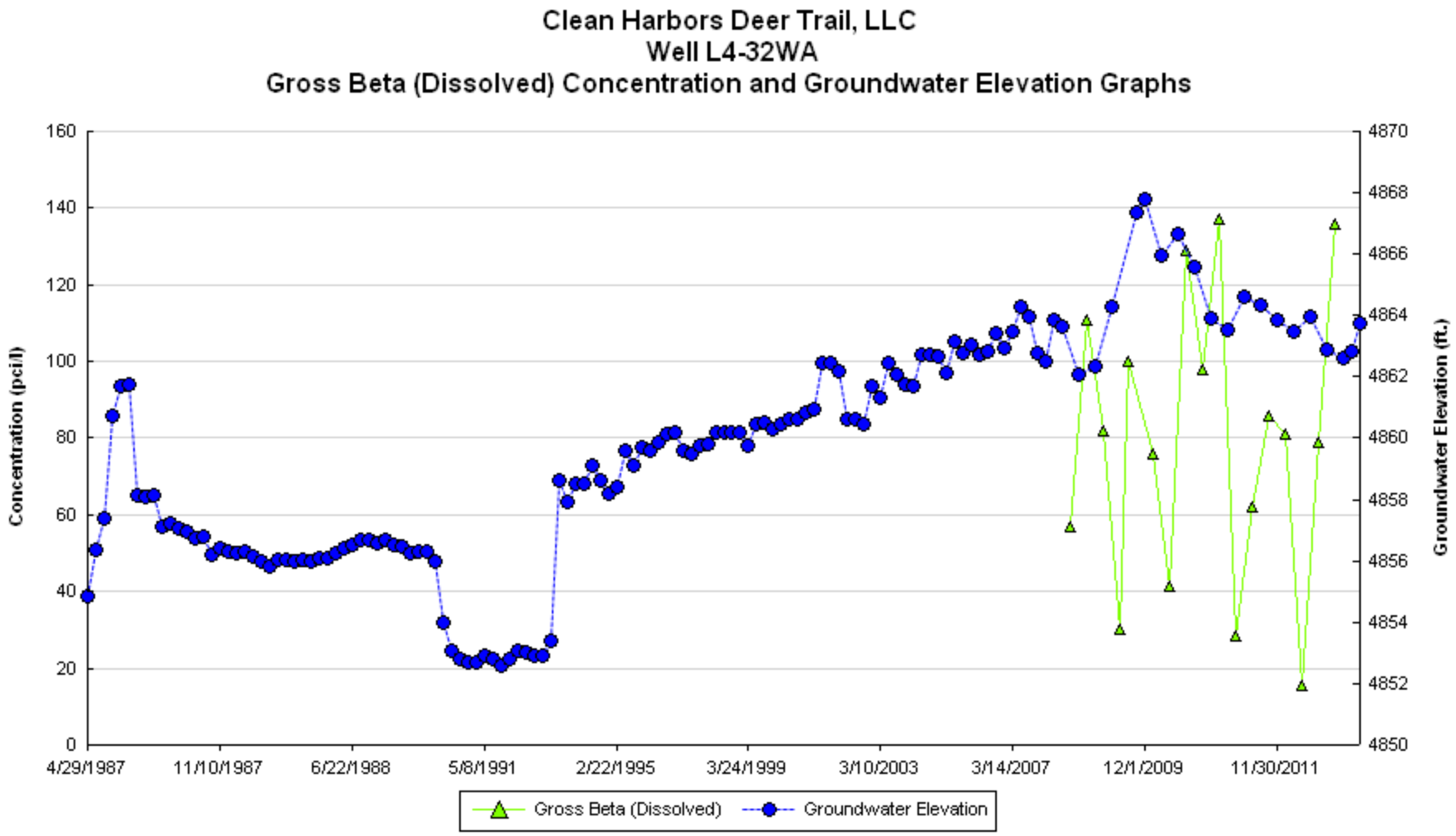

Clean Harbors Deer Trail, LLC
Well L4-32EA
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
225
200
175
150
125
100
75
50
25
0
6000
5000
4000
3000
2000
1000
0
4/29/1987
11/10/1987
6/22/1988
7/15/1992
8/29/1996
9/26/2000
9/16/2004
9/17/2008
2/28/2011
3/18/2013
Uranium (Dissolved)
Groundwater Elevation

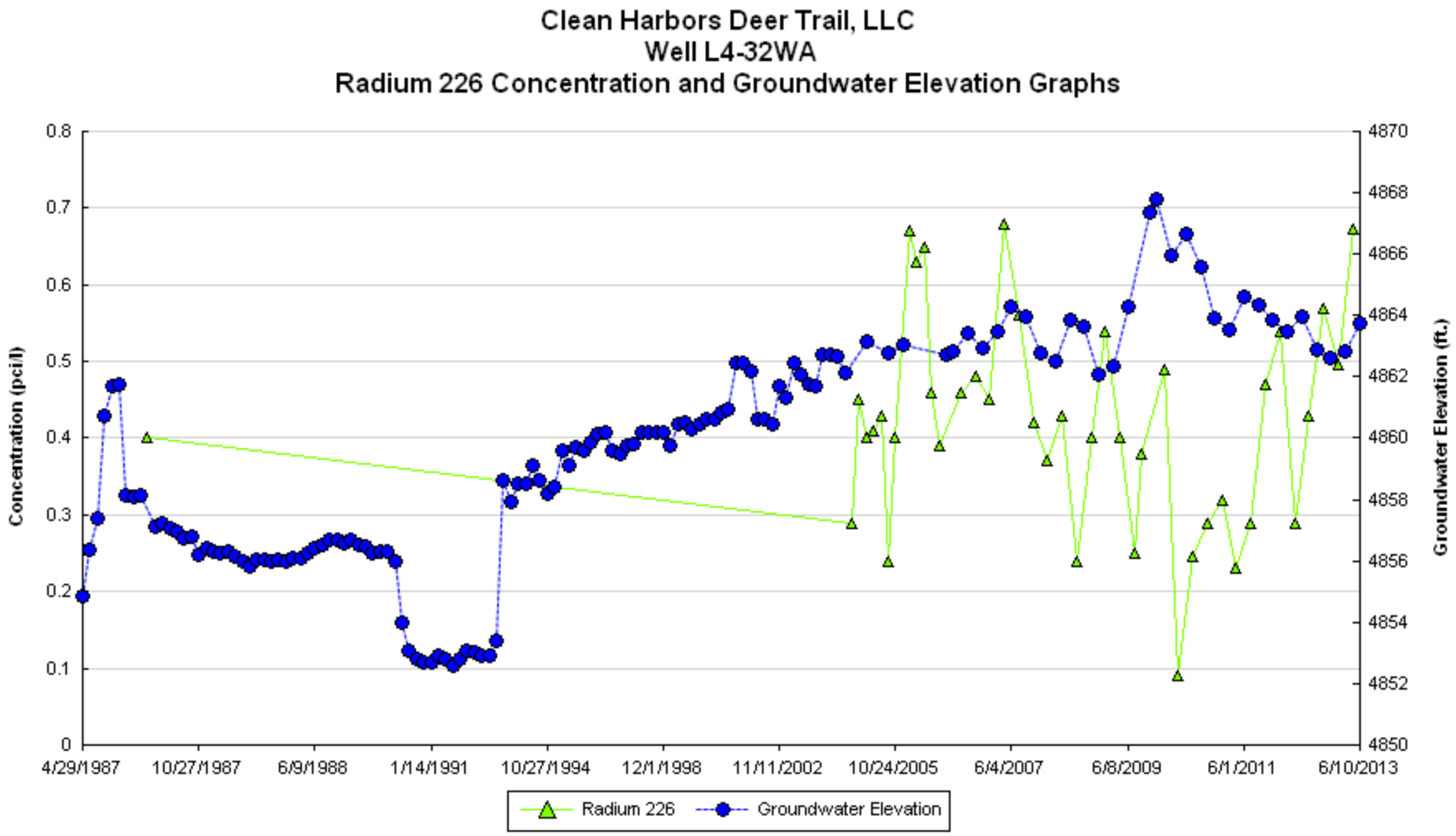

Clean Harbors Deer Trail, LLC
Well L4-32EA
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
4/29/1987
11/10/1987
6/22/1988
7/15/1992
8/29/1996
9/26/2000
9/16/2004
6/6/2007
6/8/2010
Uranium (Total)
Groundwater Elevation

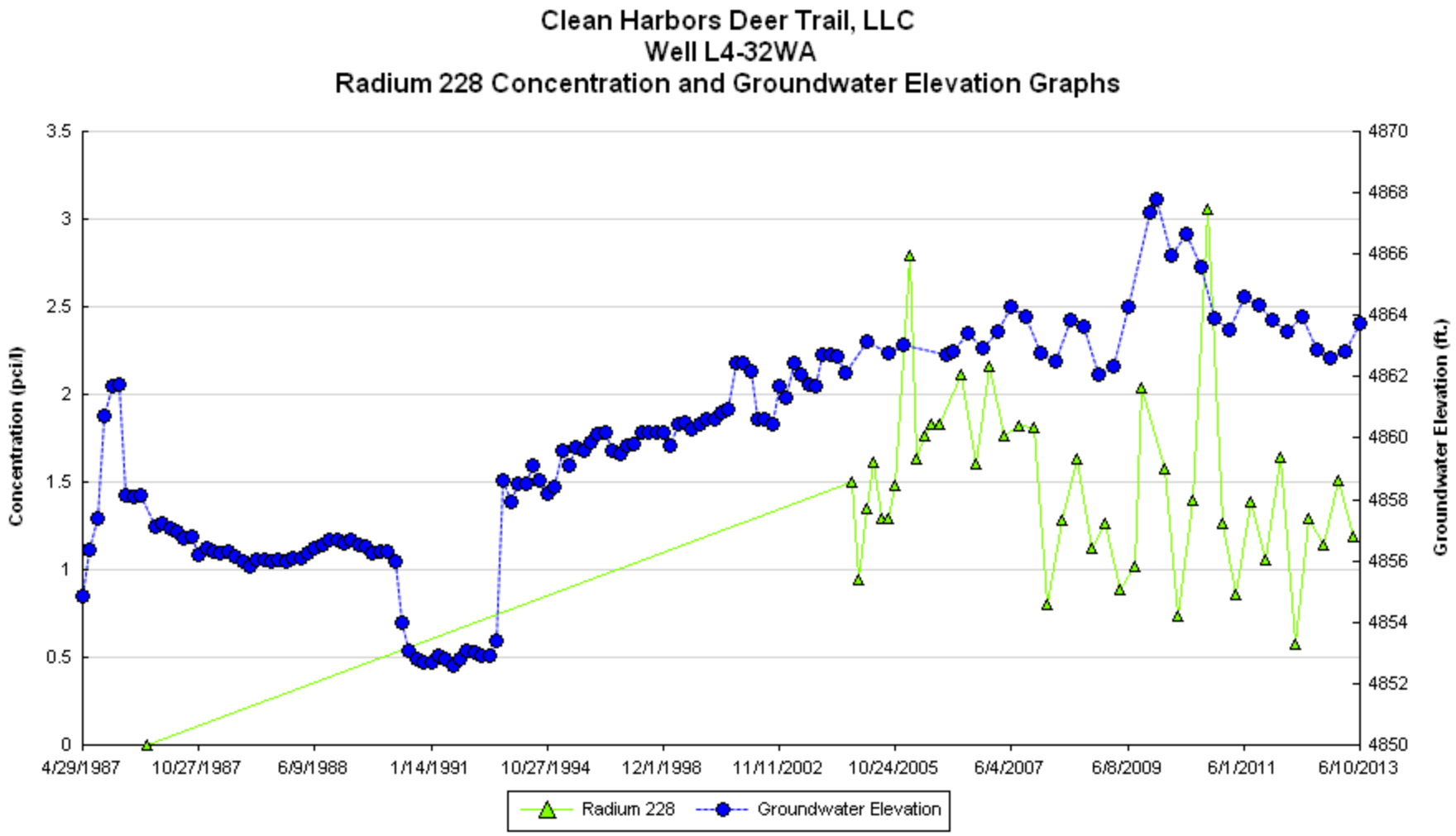

Clean Harbors Deer Trail, LLC
Well L4-32WA
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
600
500
400
300
200
100
0
4870
4868
4866
4864
4862
4860
4858
4856
4854
4852
4850
4/29/1987
10/20/1987
4/27/1988
4/19/1989
10/12/1993
12/9/1997
12/4/2001
6/20/2005
12/4/2006
3/16/2009
12/11/2012
Gross Alpha
Groundwater Elevation

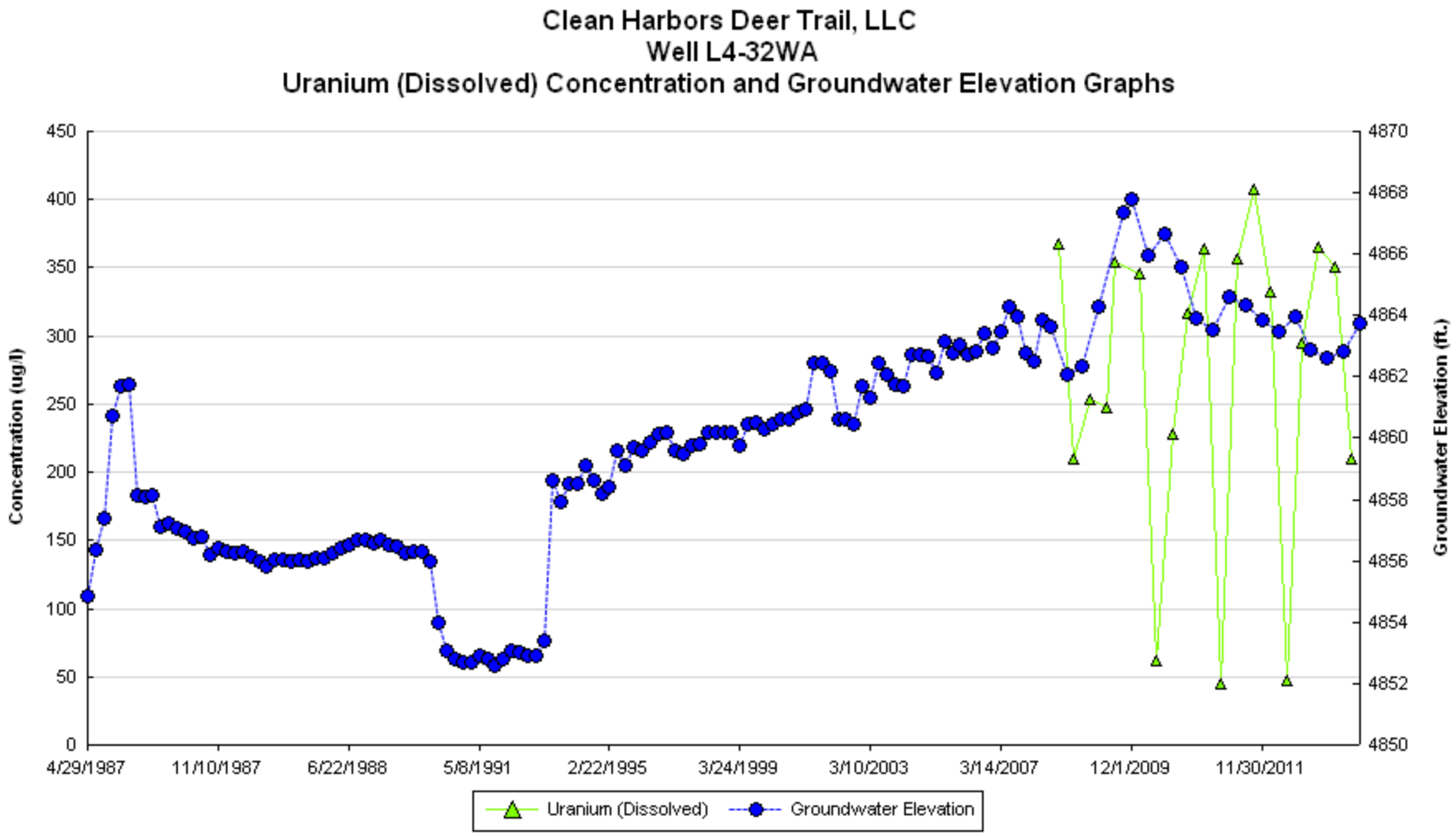

Clean Harbors Deer Trail, LLC
Well L4-32WA
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
450
400
350
300
250
200
150
100
50
0
4870
4868
4866
4864
4862
4860
4858
4856
4854
4852
4850
4/29/1987
11/10/1987
6/22/1988
5/8/1991
2/22/1995
3/24/1999
3/10/2003
3/14/2007
12/1/2009
11/30/2011
Gross Alpha (Dissolved)
Groundwater Elevation

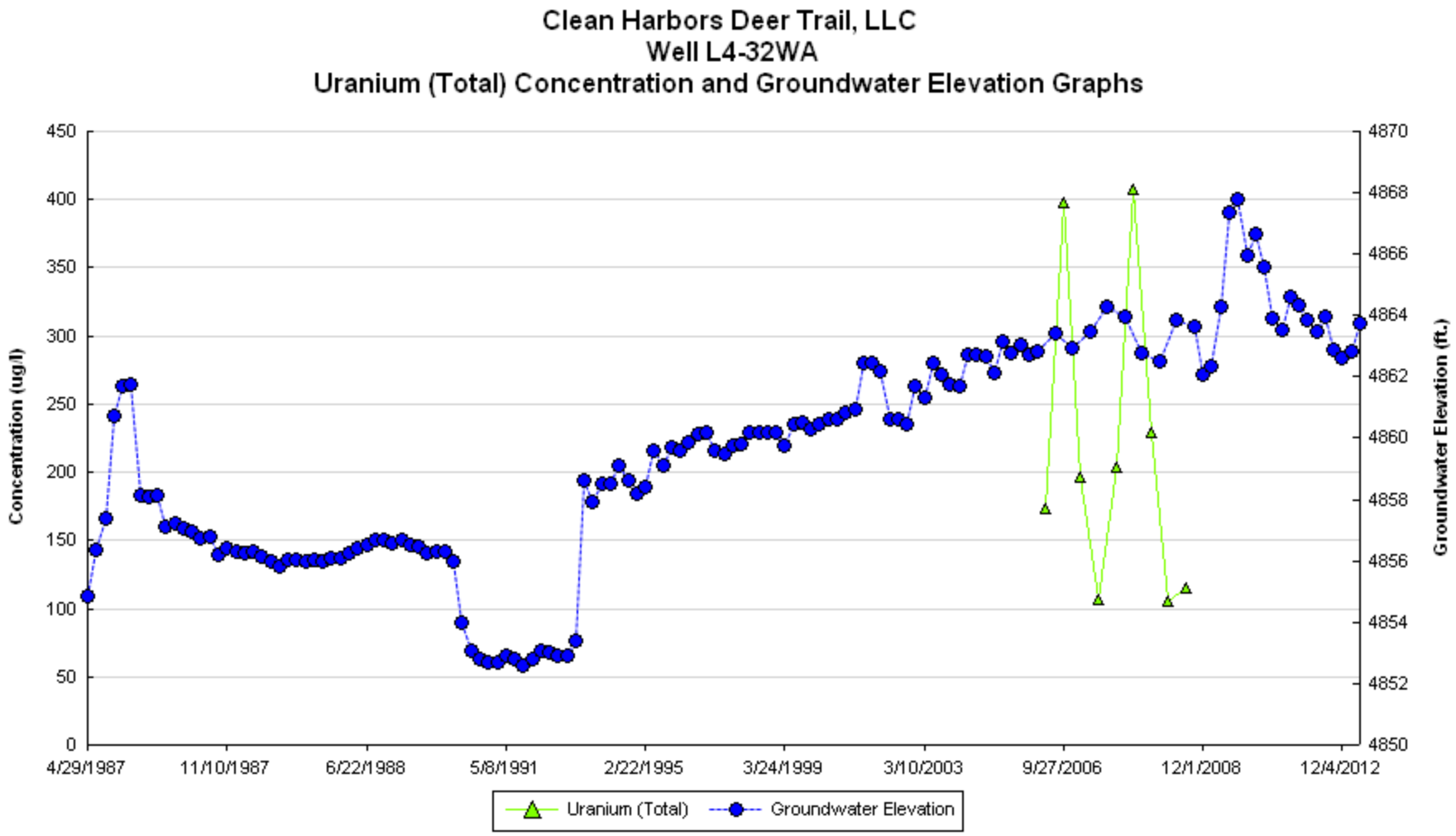

Clean Harbors Deer Trail, LLC
Well L4-32WA
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
225
200
175
150
125
100
75
50
25
0
4870
4868
4866
4864
4862
4860
4858
4856
4854
4852
4850
4/29/1987
10/20/1987
4/27/1988
4/19/1989
10/12/1993
12/9/1997
12/4/2001
6/20/2005
12/4/2006
3/16/2009
12/11/2012
Gross Beta
Groundwater Elevation

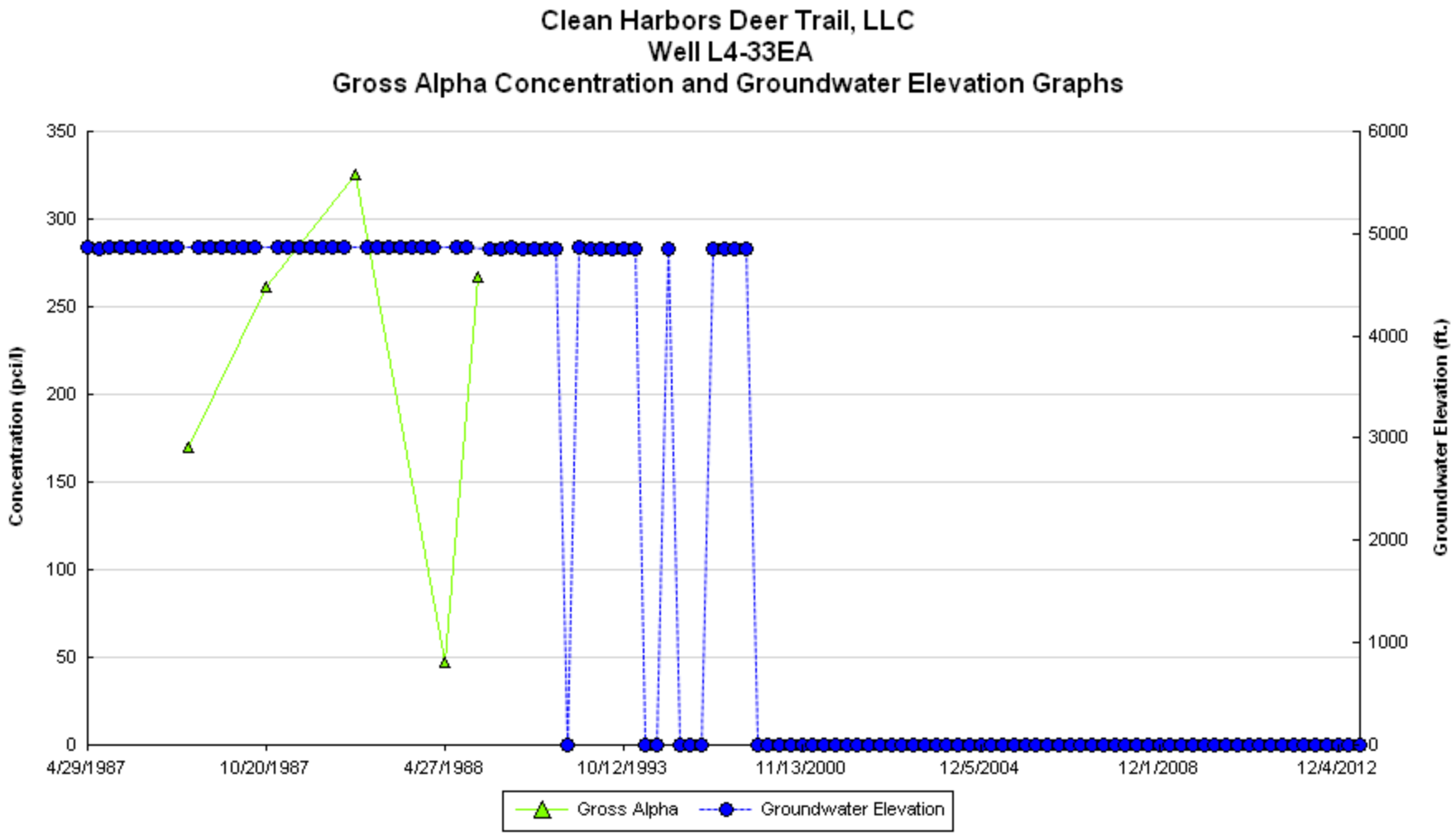

Clean Harbors Deer Trail, LLC
Well L4-32WA
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
20
40
60
80
100
120
140
160
4850
4852
4854
4856
4858
4860
4862
4864
4866
4868
4870
4/29/1987
11/10/1987
6/22/1988
5/8/1991
2/22/1995
3/24/1999
3/10/2003
3/14/2007
12/1/2009
11/30/2011
Gross Beta (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-32WA
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
4870
4868
4866
4864
4862
4860
4858
4856
4854
4852
4850
4/29/1987
10/27/1987
6/9/1988
1/14/1991
10/27/1994
12/1/1998
11/11/2002
10/24/2005
6/4/2007
6/8/2009
6/1/2011
6/10/2013
Radium 226
Groundwater Elevation

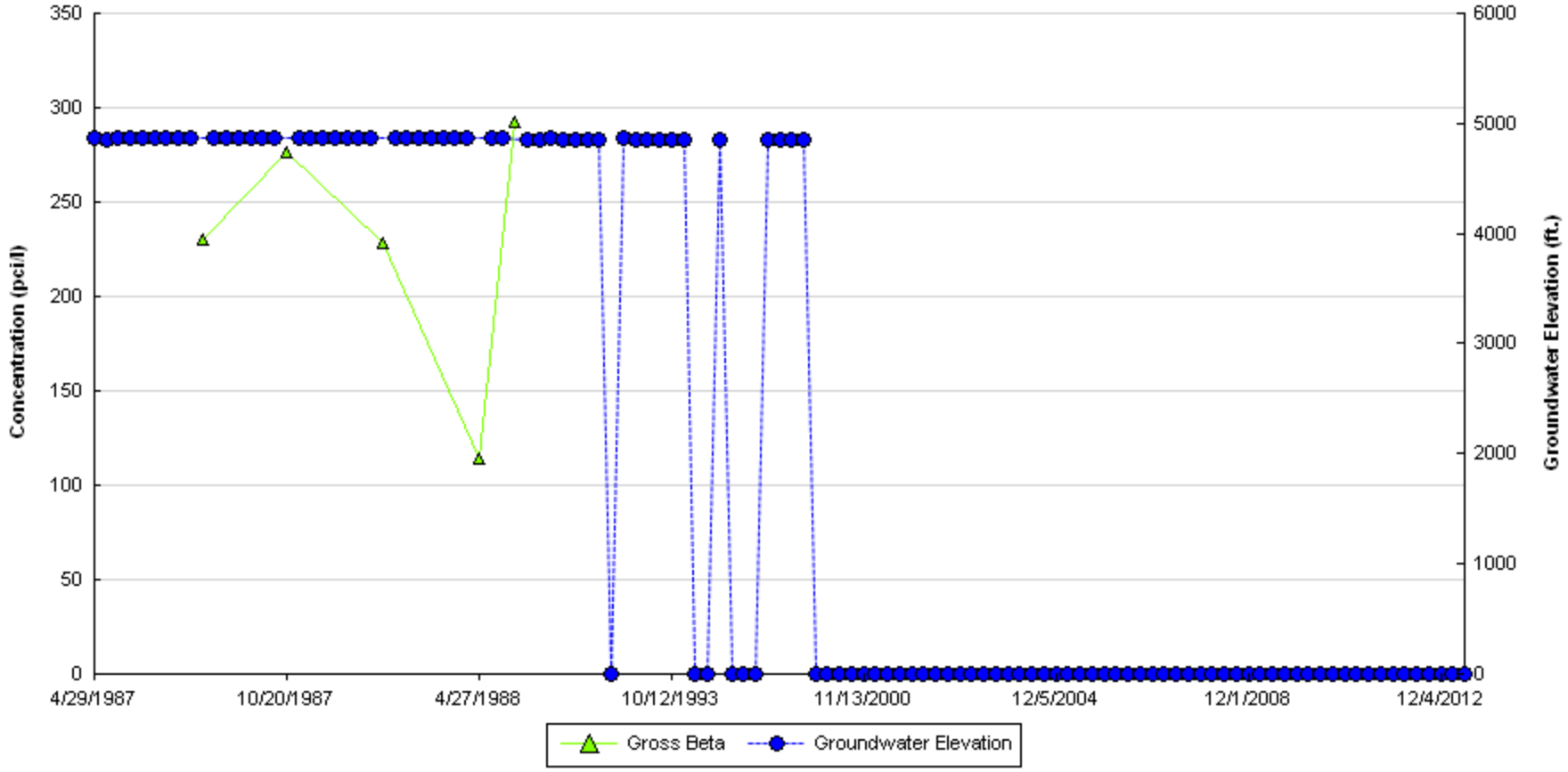

Clean Harbors Deer Trail, LLC
Well L4-32WA
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3.5
3
2.5
2
1.5
1
0.5
0
4870
4868
4866
4864
4862
4860
4858
4856
4854
4852
4850
4/29/1987
10/27/1987
6/9/1988
1/14/1991
10/27/1994
12/1/1998
11/11/2002
10/24/2005
6/4/2007
6/8/2009
6/1/2011
6/10/2013
Radium 228
Groundwater Elevation

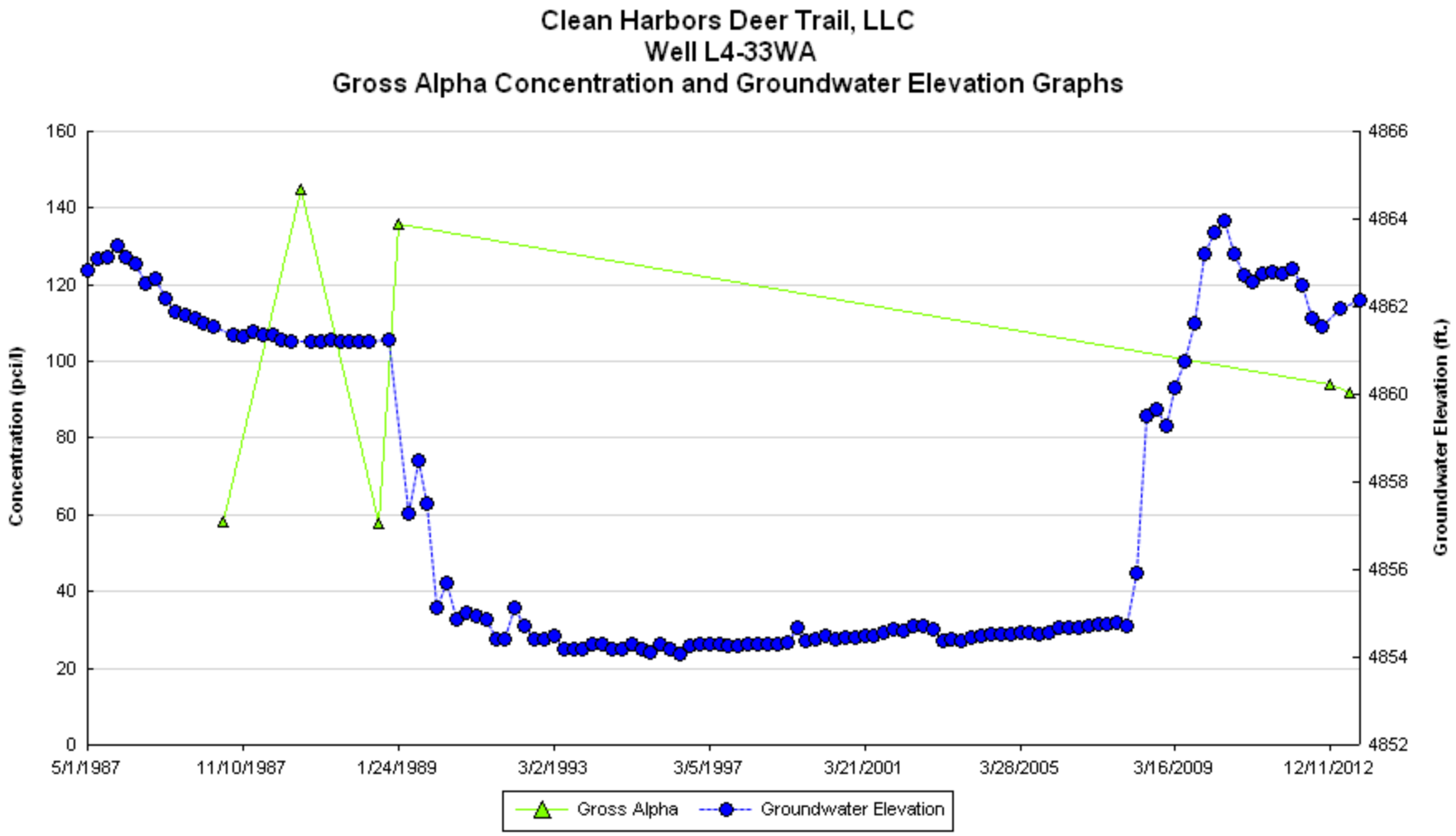

Clean Harbors Deer Trail, LLC
Well L4-32WA
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
450
400
350
300
250
200
150
100
50
0
4870
4868
4866
4864
4862
4860
4858
4856
4854
4852
4850
4/29/1987
11/10/1987
6/22/1988
5/8/1991
2/22/1995
3/24/1999
3/10/2003
3/14/2007
12/1/2009
11/30/2011
Uranium (Dissolved)
Groundwater Elevation

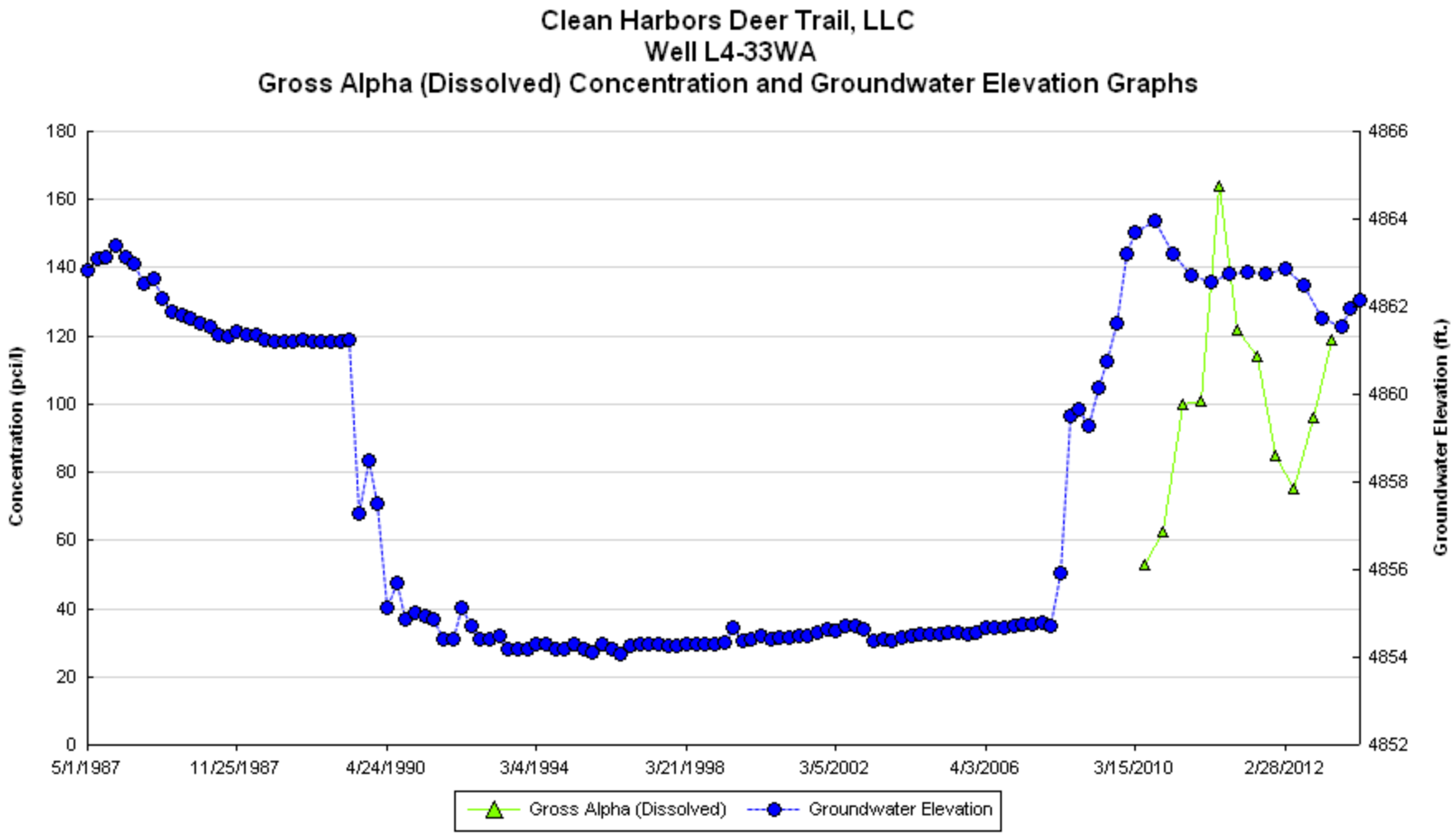

Clean Harbors Deer Trail, LLC
Well L4-32WA
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
450
400
350
300
250
200
150
100
50
0
4870
4868
4866
4864
4862
4860
4858
4856
4854
4852
4850
4/29/1987
11/10/1987
6/22/1988
5/8/1991
2/22/1995
3/24/1999
3/10/2003
9/27/2006
12/1/2008
12/4/2012
Uranium (Total)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-33EA
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
4/29/1987
10/20/1987
4/27/1988
10/12/1993
11/13/2000
12/5/2004
12/1/2008
12/4/2012
Gross Alpha
Groundwater Elevation

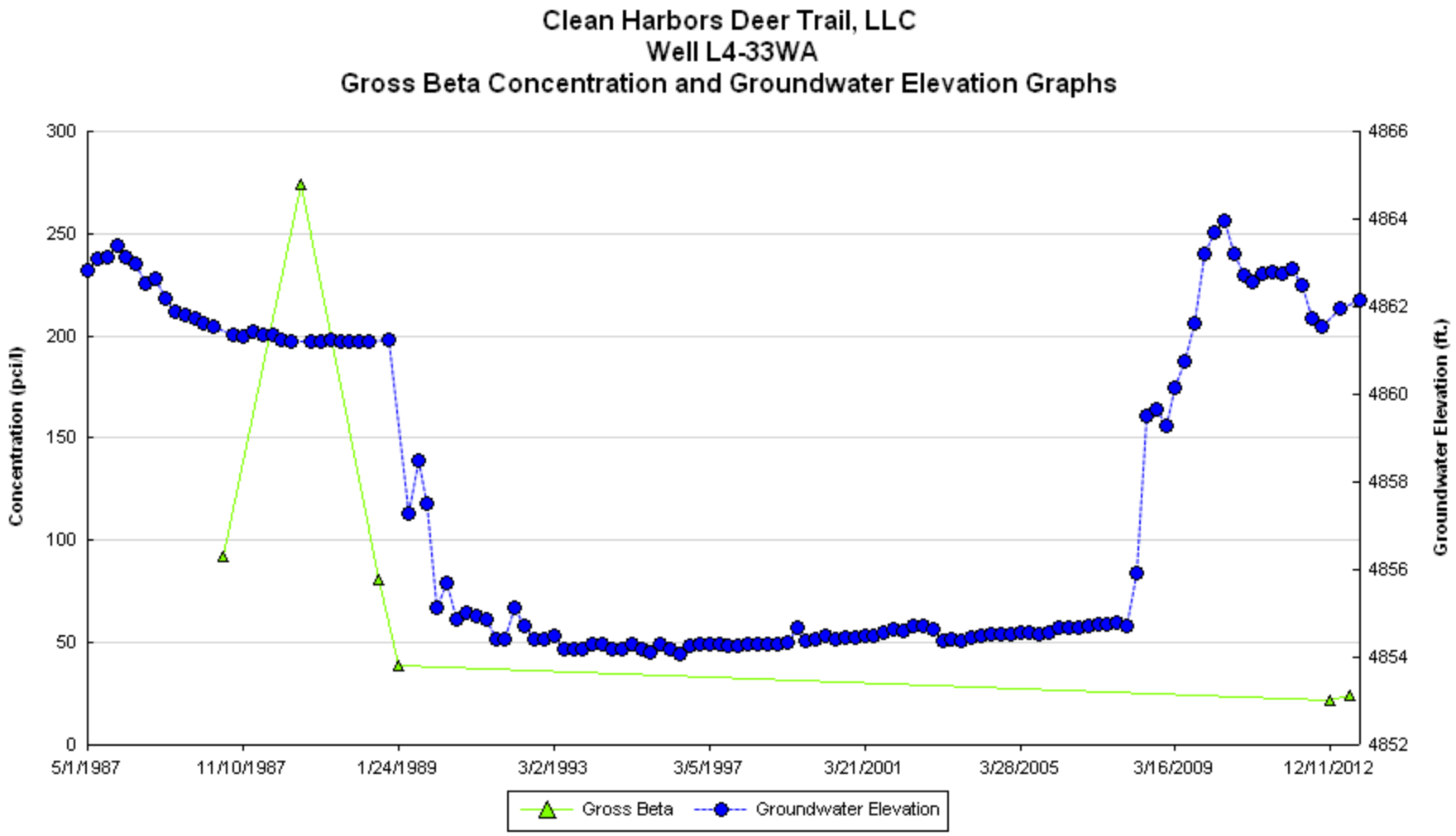
Clean Harbors Deer Trail, LLC
Well L4-33EA
Gross Beta Concentration and Groundwater Elevation Graphs

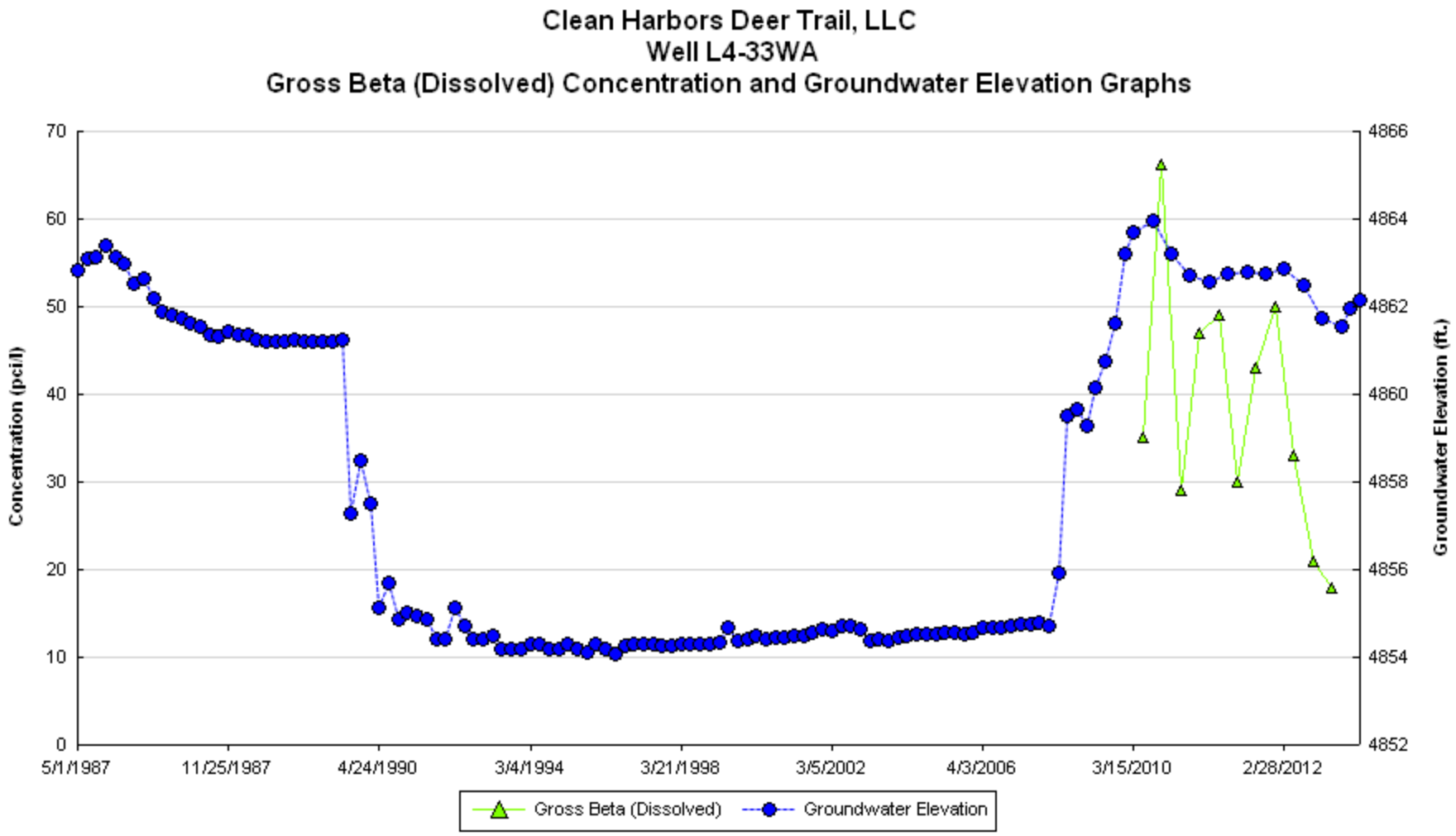


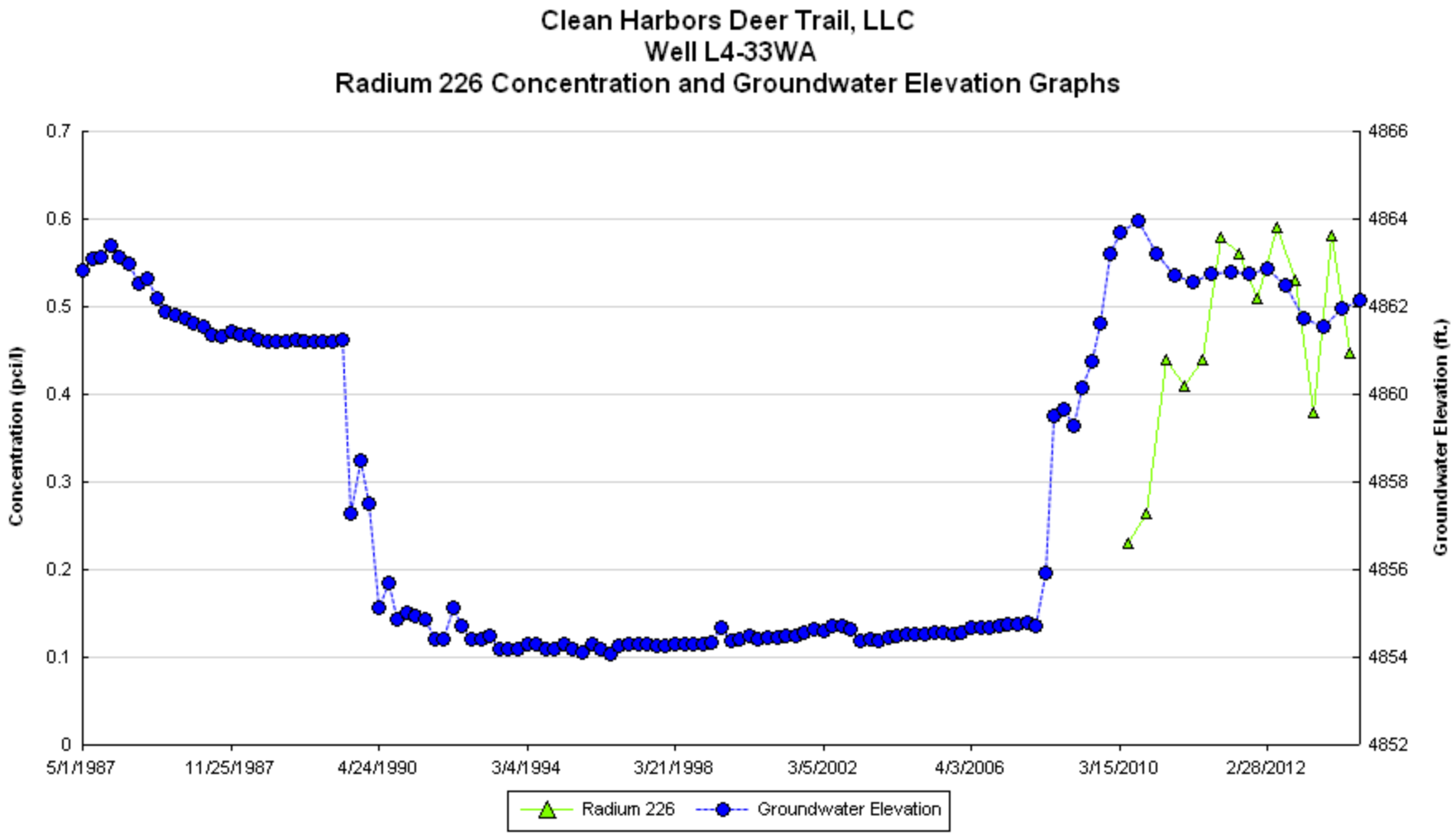

Clean Harbors Deer Trail, LLC
Well L4-33WA
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
160
140
120
100
80
60
40
20
0
4866
4864
4862
4860
4858
4856
4854
4852
5/1/1987
11/10/1987
1/24/1989
3/2/1993
3/5/1997
3/21/2001
3/28/2005
3/16/2009
12/11/2012
Gross Alpha
Groundwater Elevation

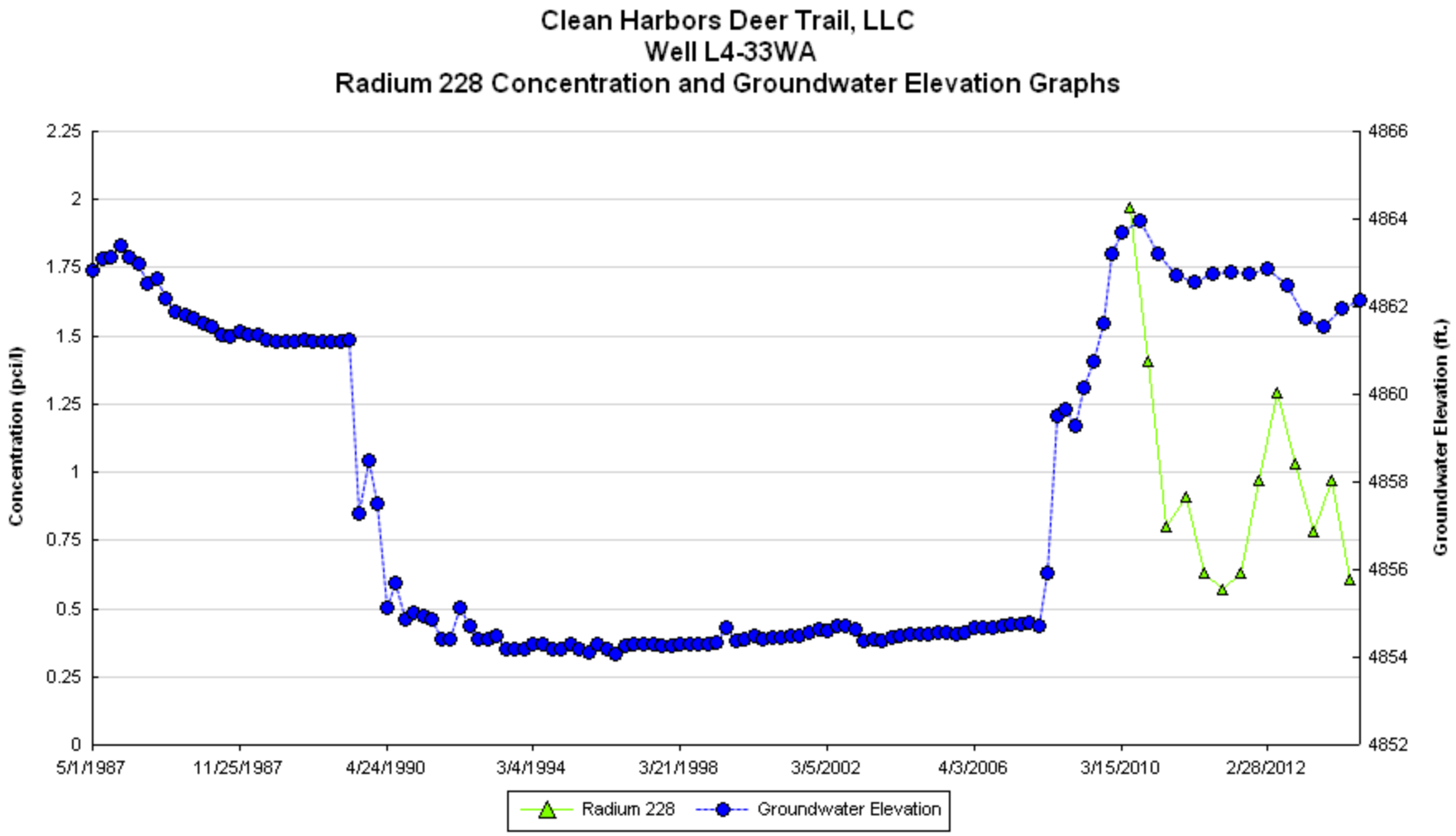


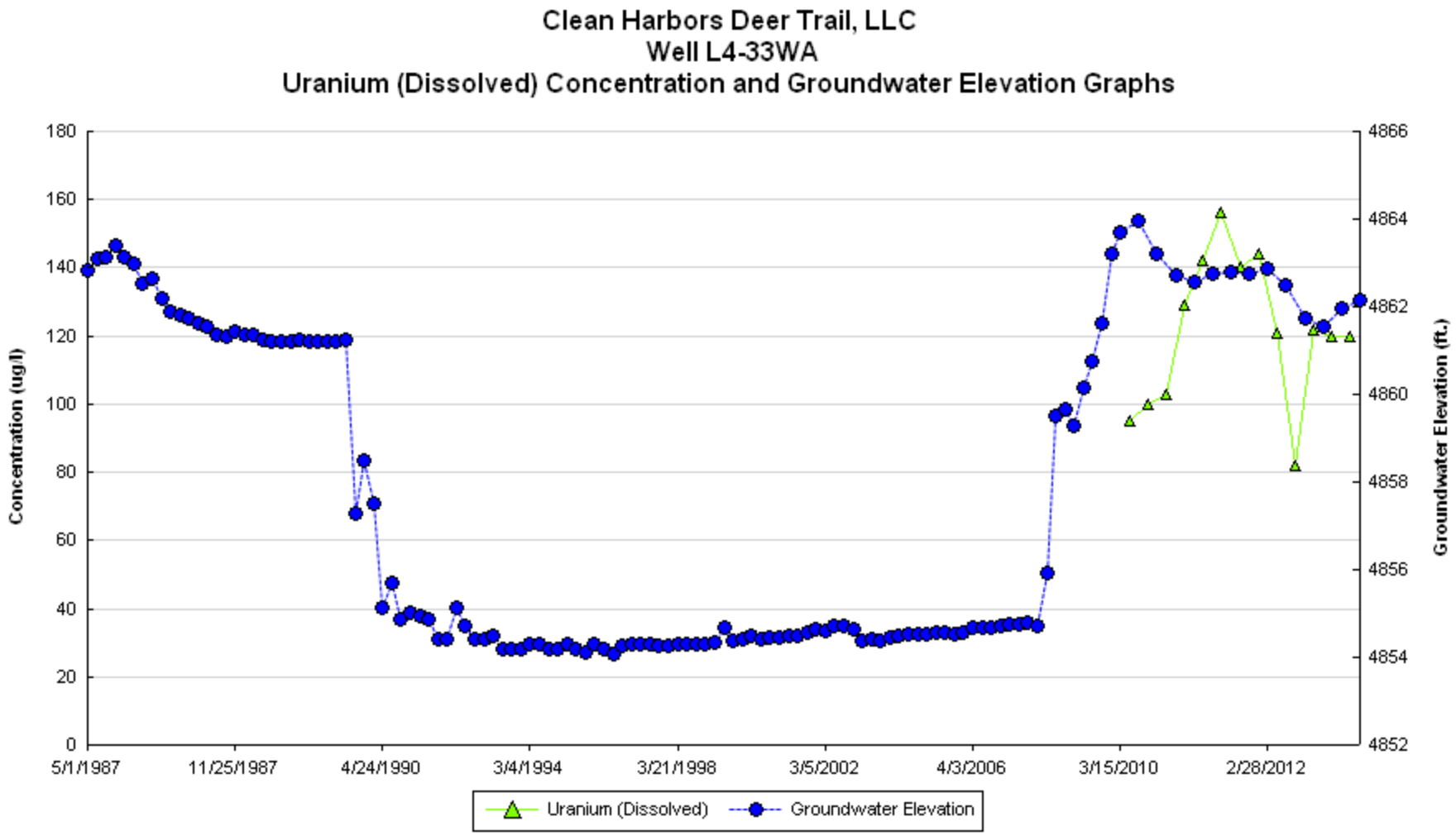
Clean Harbors Deer Trail, LLC
Well L4-33WA
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
180
160
140
120
100
80
60
40
20
0
4866
4864
4862
4860
4858
4856
4854
4852
5/1/1987
11/25/1987
4/24/1990
3/4/1994
3/21/1998
3/5/2002
4/3/2006
3/15/2010
2/28/2012
Gross Alpha (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-33WA
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
300
250
200
150
100
50
0
4866
4864
4862
4860
4858
4856
4854
4852
5/1/1987
11/10/1987
1/24/1989
3/2/1993
3/5/1997
3/21/2001
3/28/2005
3/16/2009
12/11/2012
Gross Beta
Groundwater Elevation

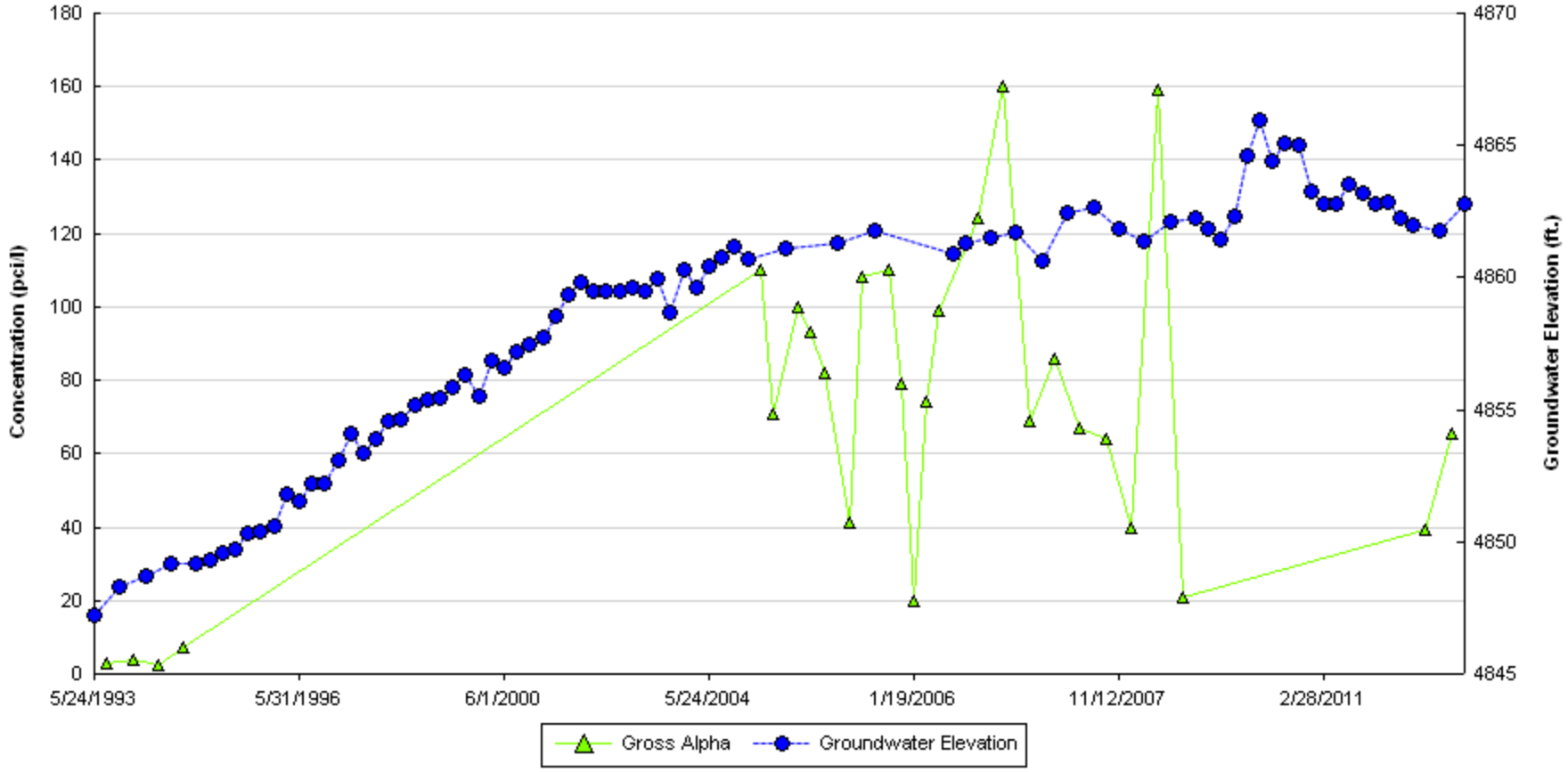

Clean Harbors Deer Trail, LLC
Well L4-33WA
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
70
60
50
40
30
20
10
0
4866
4864
4862
4860
4858
4856
4854
4852
5/1/1987
11/25/1987
4/24/1990
3/4/1994
3/21/1998
3/5/2002
4/3/2006
3/15/2010
2/28/2012
Gross Beta (Dissolved)
Groundwater Elevation

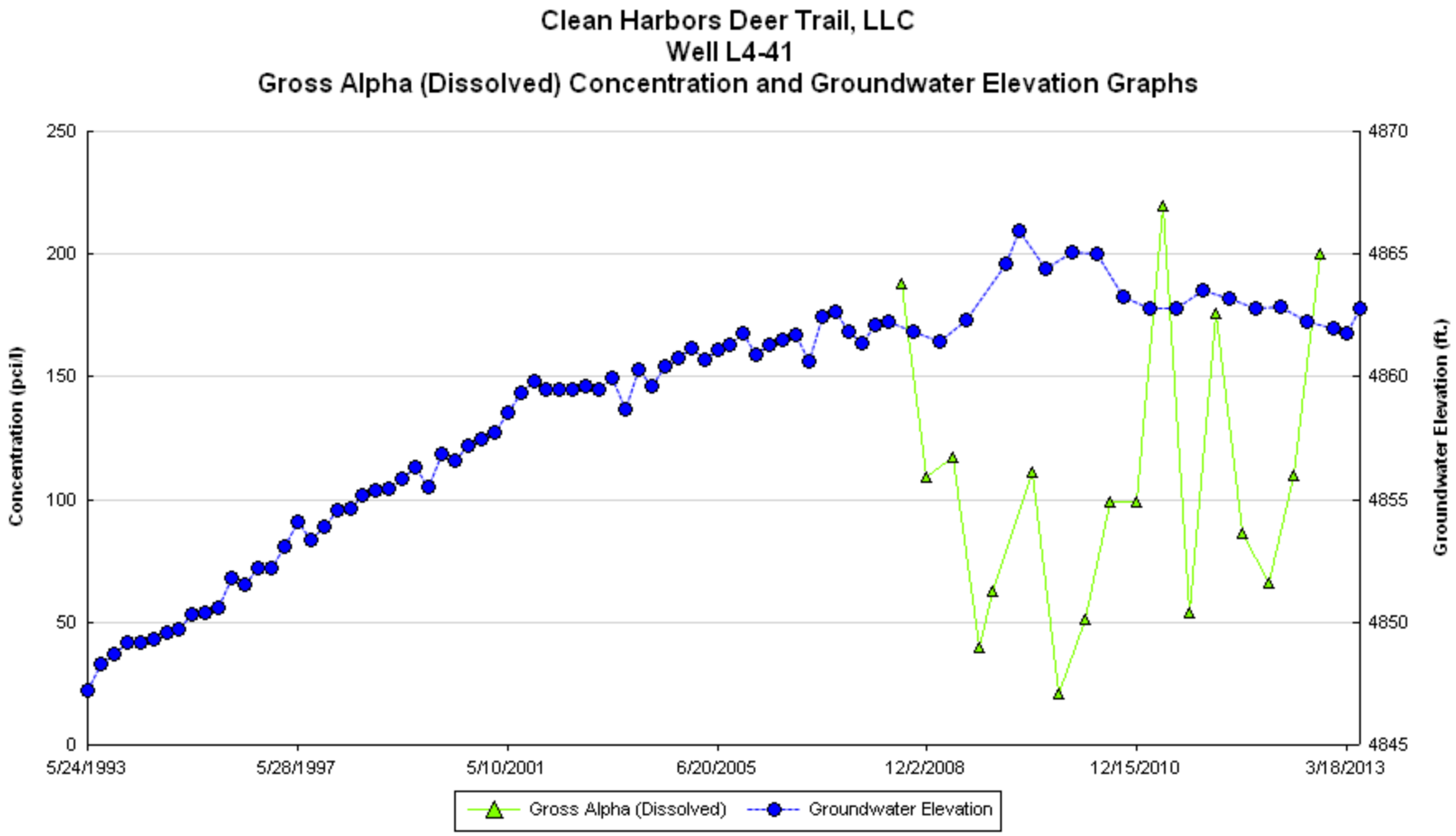

Clean Harbors Deer Trail, LLC
Well L4-33WA
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
4866
4864
4862
4860
4858
4856
4854
4852
5/1/1987
11/25/1987
4/24/1990
3/4/1994
3/21/1998
3/5/2002
4/3/2006
3/15/2010
2/28/2012
Radium 226
Groundwater Elevation

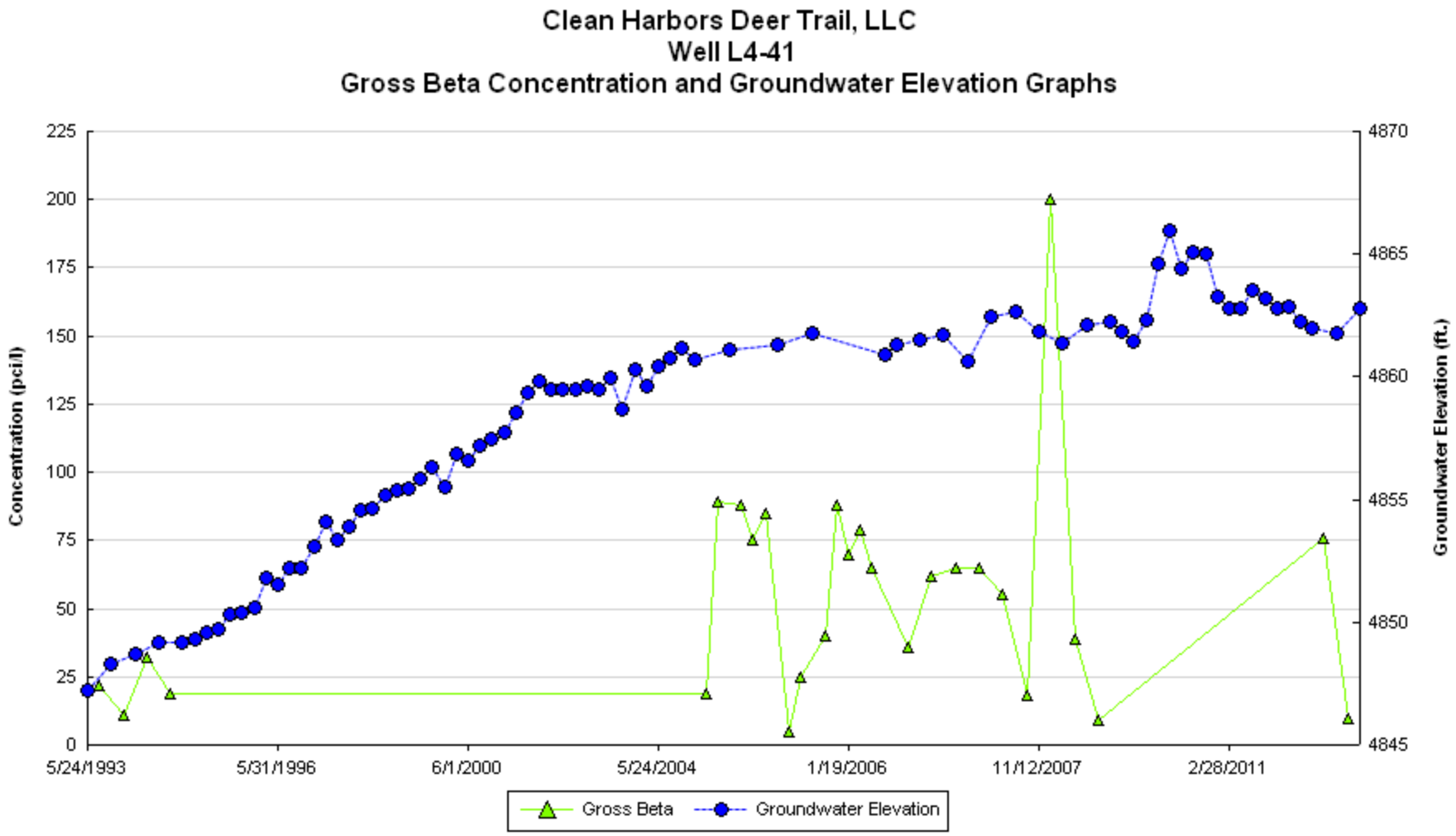

Clean Harbors Deer Trail, LLC
Well L4-33WA
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2.25
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
4866
4864
4862
4860
4858
4856
4854
4852
5/1/1987
11/25/1987
4/24/1990
3/4/1994
3/21/1998
3/5/2002
4/3/2006
3/15/2010
2/28/2012
Radium 228
Groundwater Elevation

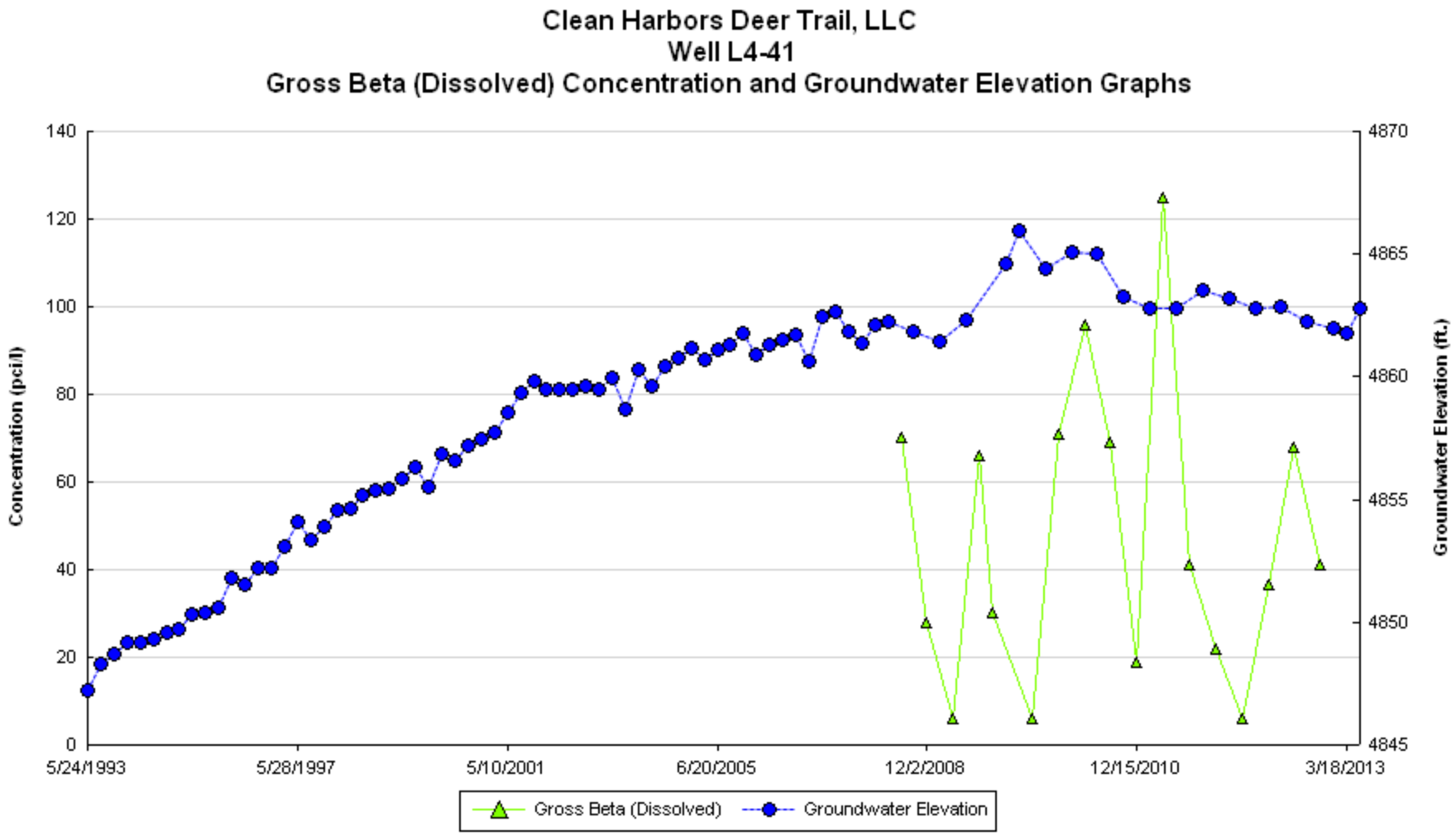

Clean Harbors Deer Trail, LLC
Well L4-33WA
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
180
160
140
120
100
80
60
40
20
0
4866
4864
4862
4860
4858
4856
4854
4852
5/1/1987
11/25/1987
4/24/1990
3/4/1994
3/21/1998
3/5/2002
4/3/2006
3/15/2010
2/28/2012
Uranium (Dissolved)
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L4-41
Gross Alpha Concentration and Groundwater Elevation Graphs

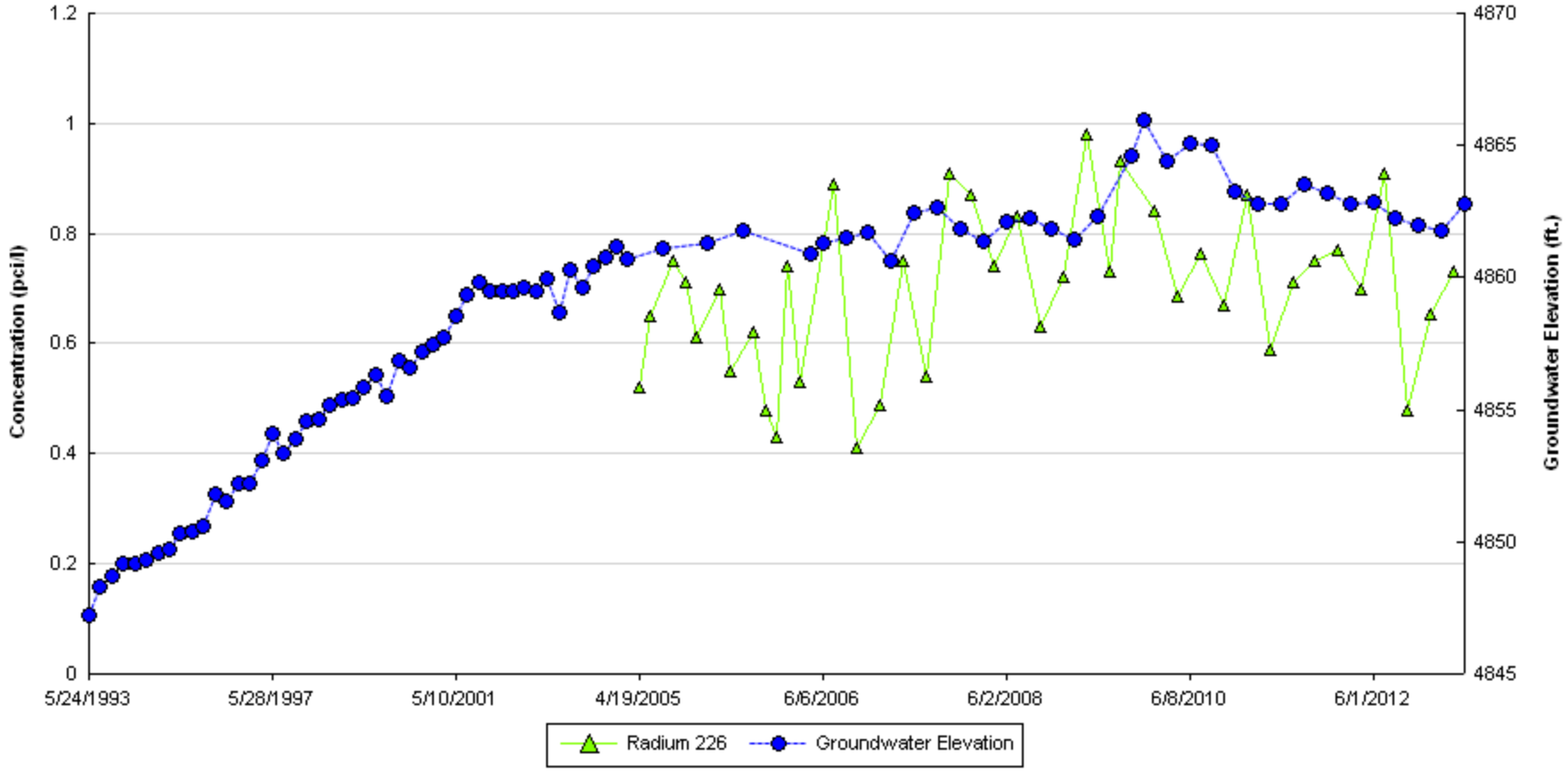


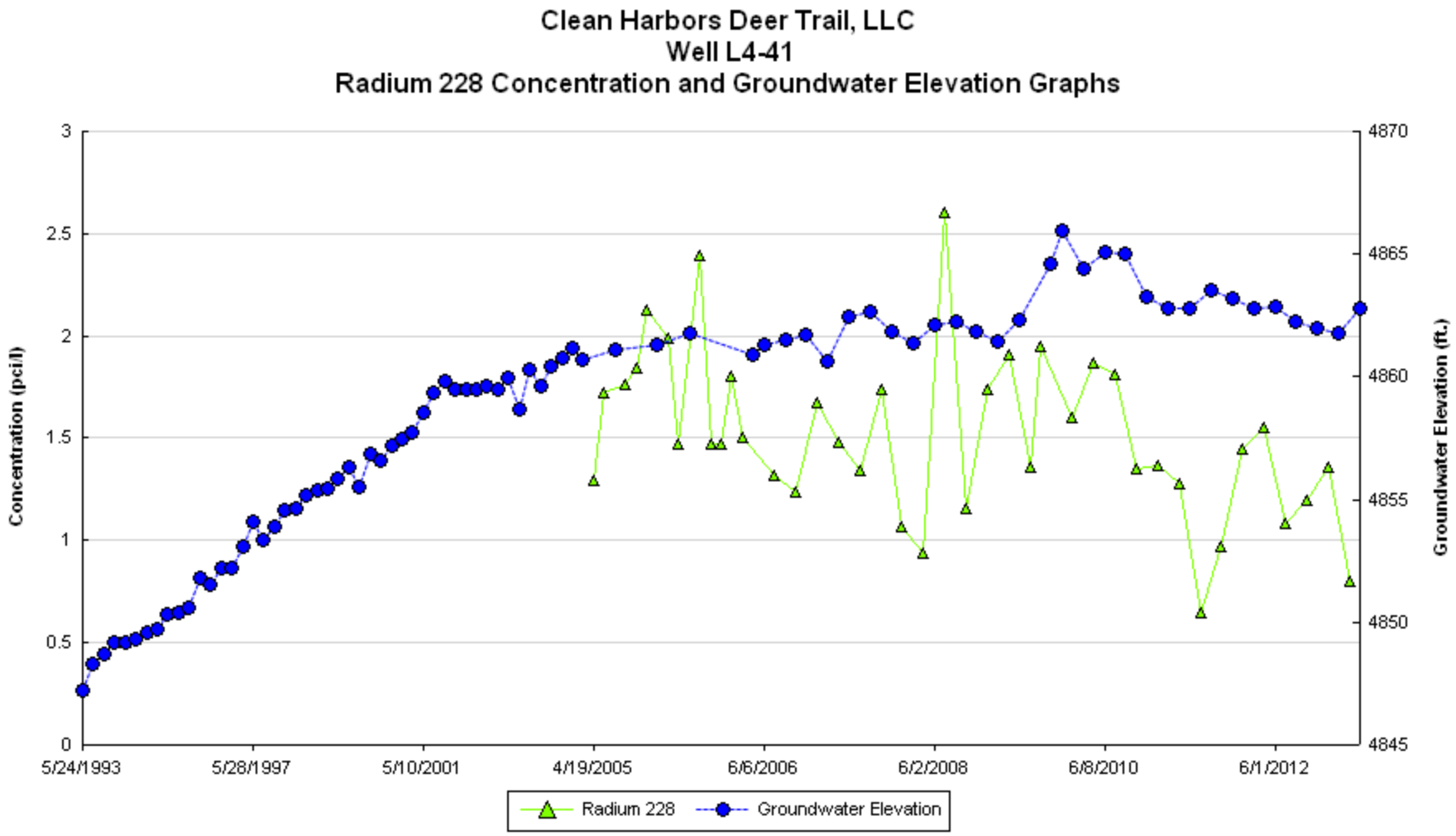

Clean Harbors Deer Trail, LLC
Well L4-41
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
250
200
150
100
50
0
4870
4865
4860
4855
4850
4845
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/2/2008
12/15/2010
3/18/2013
Gross Alpha (Dissolved)
Groundwater Elevation

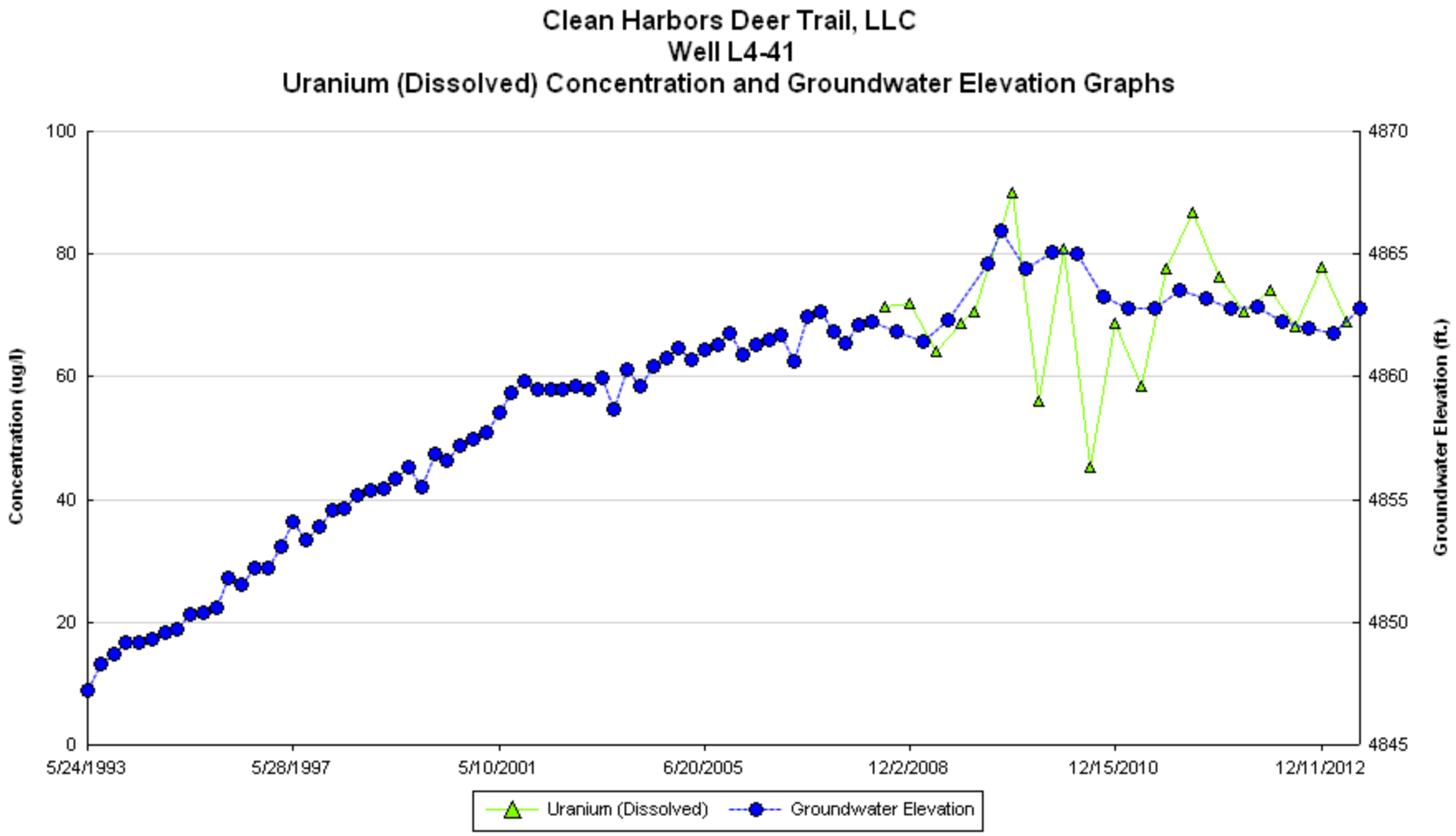

Clean Harbors Deer Trail, LLC
Well L4-41
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
225
200
175
150
125
100
75
50
25
0
4870
4865
4860
4855
4850
4845
5/24/1993
5/31/1996
6/1/2000
5/24/2004
1/19/2006
11/12/2007
2/28/2011
Gross Beta
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-41
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
140
120
100
80
60
40
20
0
4870
4865
4860
4855
4850
4845
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/2/2008
12/15/2010
3/18/2013
Gross Beta (Dissolved)
Groundwater Elevation

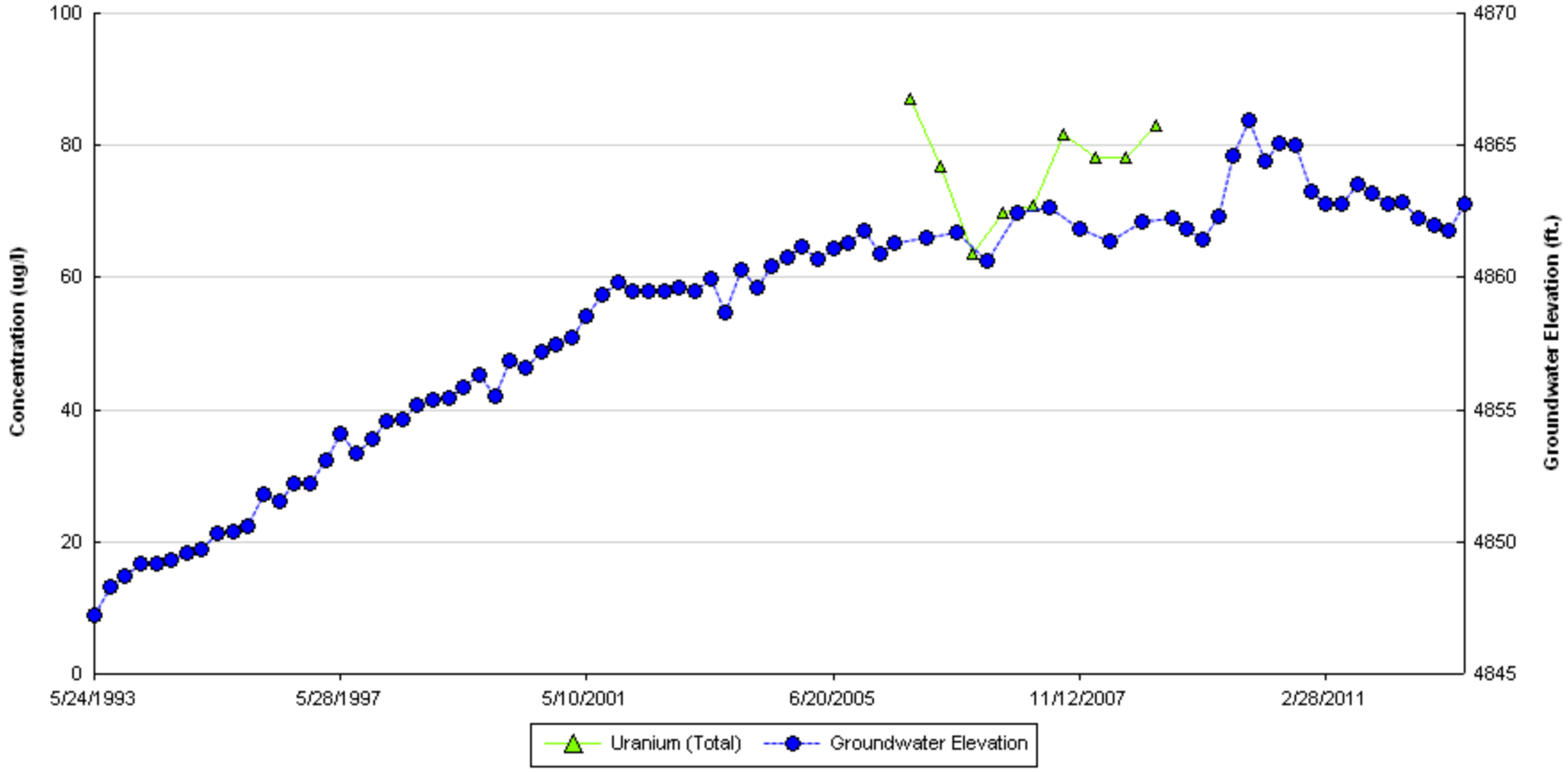
Clean Harbors Deer Trail, LLC
Well L4-41
Radium 226 Concentration and Groundwater Elevation Graphs




Clean Harbors Deer Trail, LLC
Well L4-41
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3
2.5
2
1.5
1
0.5
0
4870
4865
4860
4855
4850
4845
5/24/1993
5/28/1997
5/10/2001
4/19/2005
6/6/2006
6/2/2008
6/8/2010
6/1/2012
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-41
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
100
80
60
40
20
0
4870
4865
4860
4855
4850
4845
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/2/2008
12/15/2010
12/11/2012
Uranium (Dissolved)
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L4-41
Uranium (Total) Concentration and Groundwater Elevation Graphs



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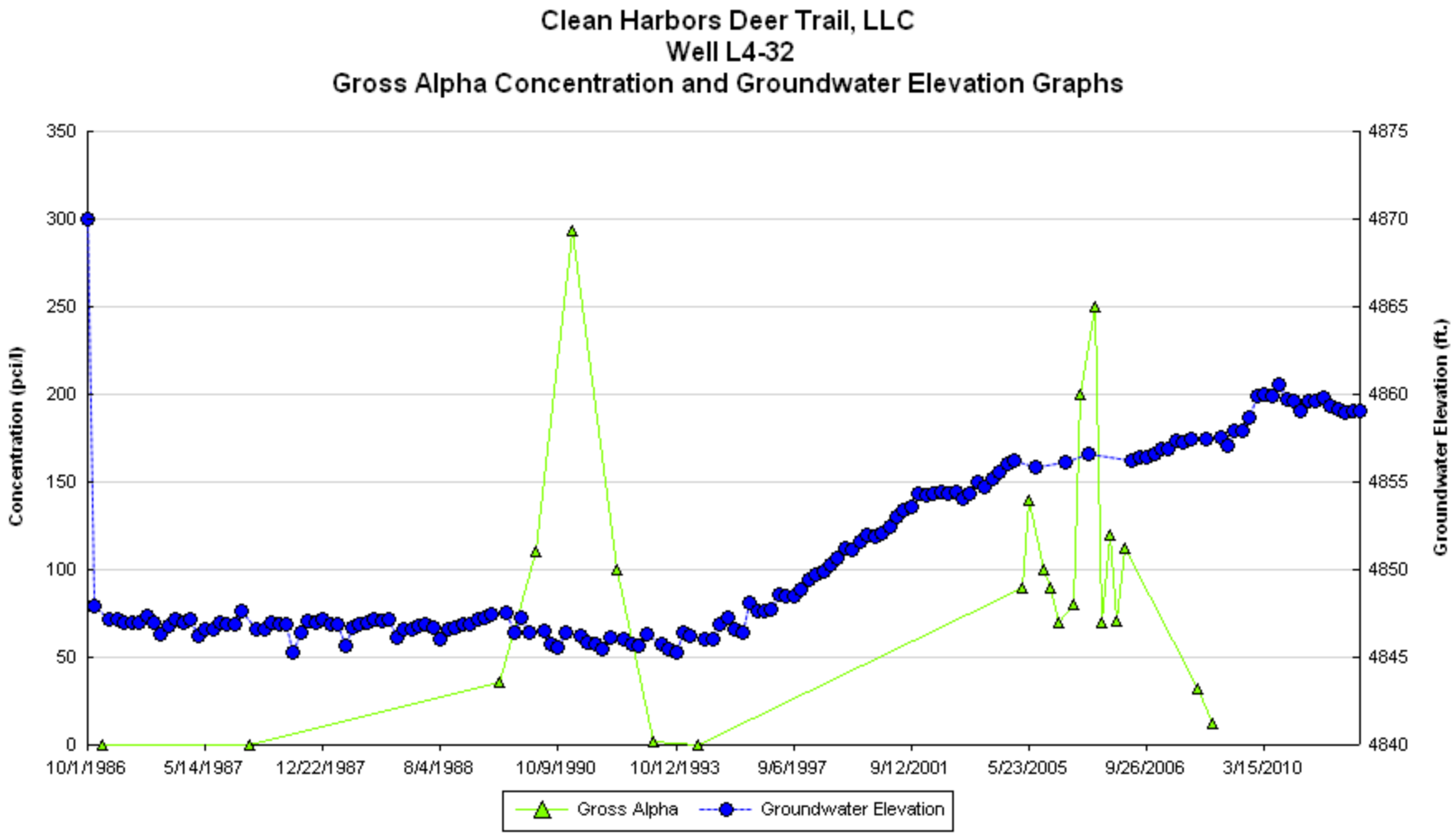
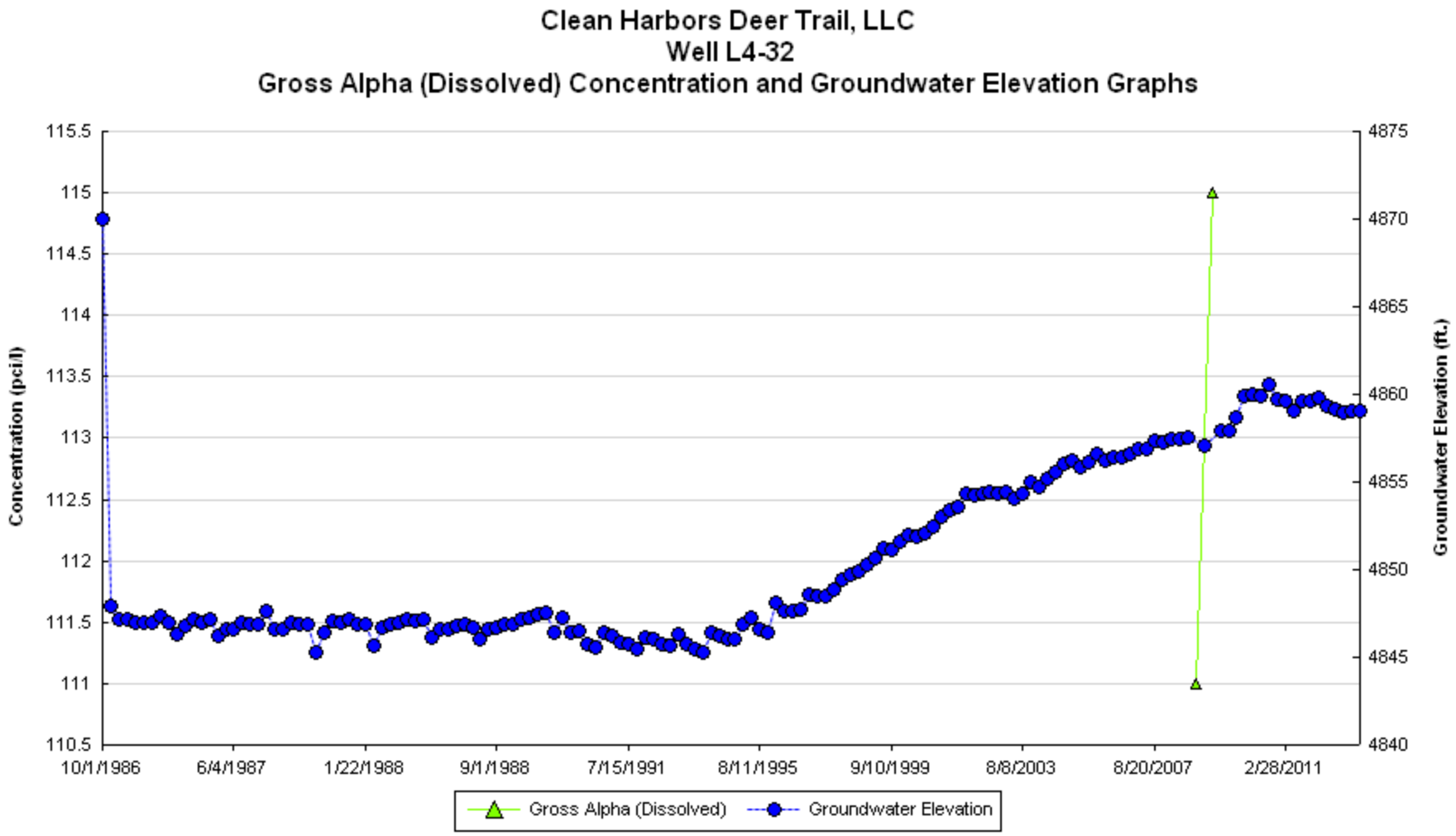
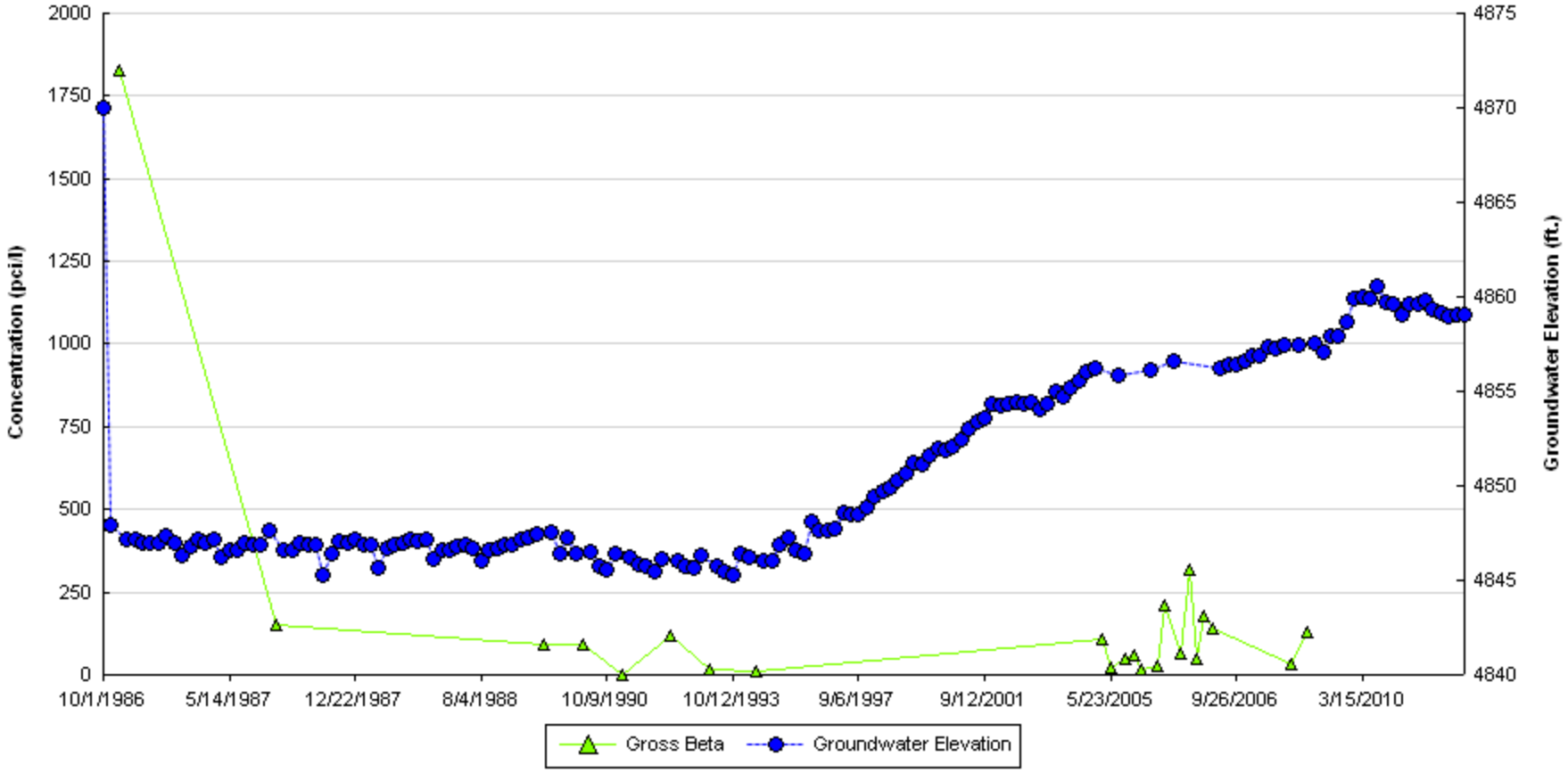
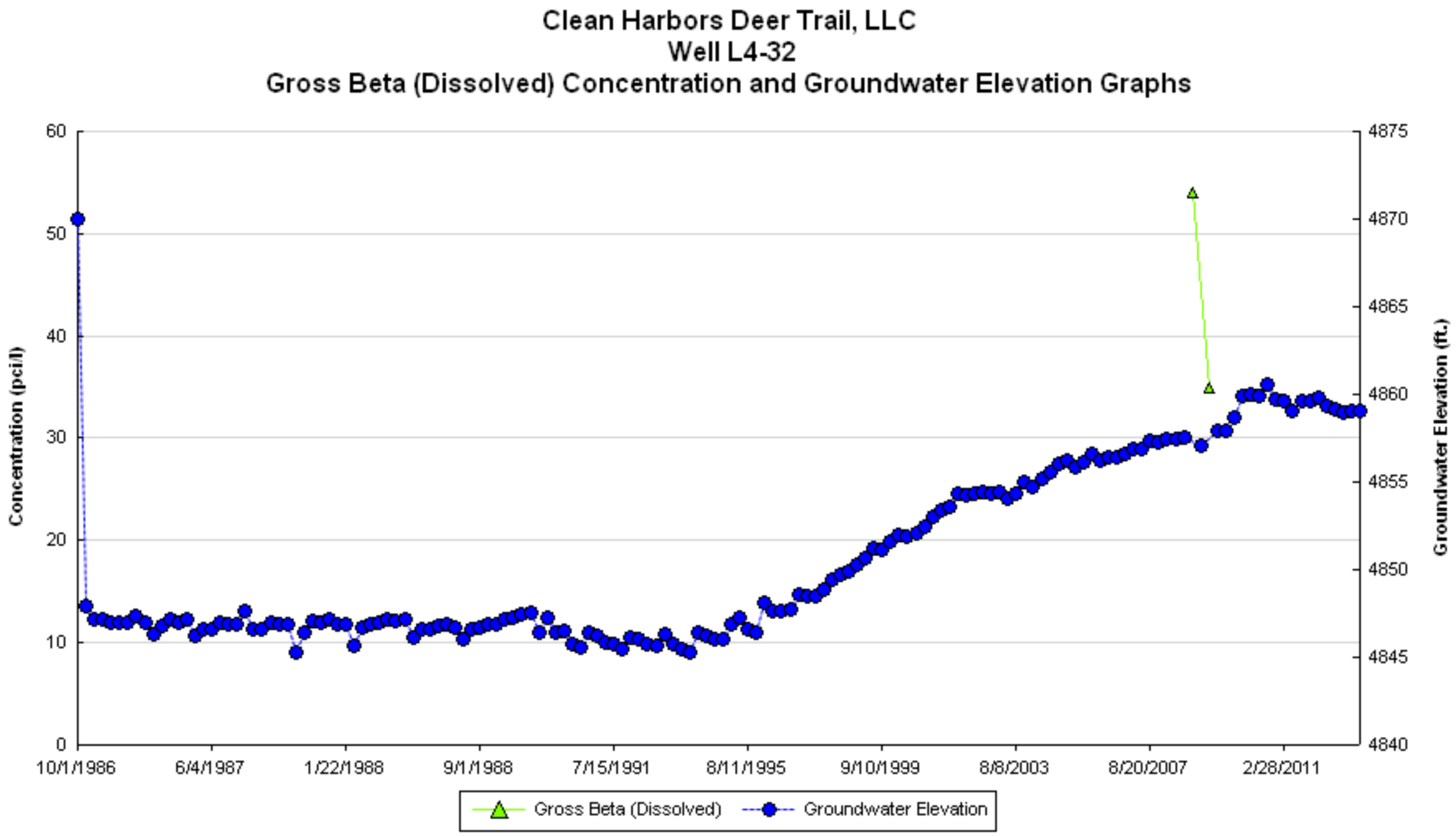

Clean Harbors Deer Trail, LLC
Well L4-32
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
4875
4870
4865
4860
4855
4850
4845
4840
10/1/1986
5/14/1987
12/22/1987
8/4/1988
10/9/1990
10/12/1993
9/6/1997
9/12/2001
5/23/2005
9/26/2006
3/15/2010
Gross Alpha
Groundwater Elevation

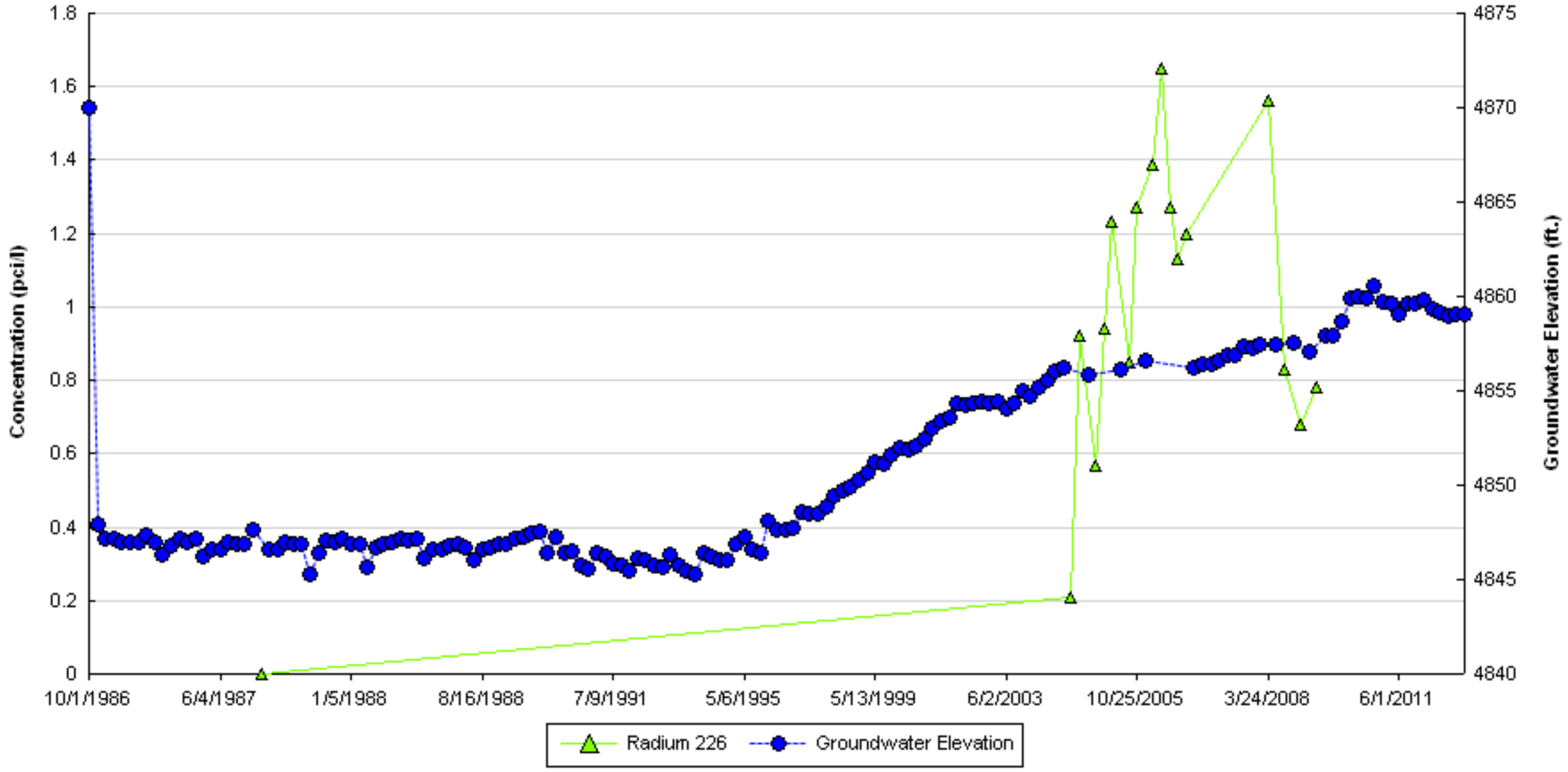

Clean Harbors Deer Trail, LLC
Well L4-32
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
115.5
115
114.5
114
113.5
113
112.5
112
111.5
111
110.5
4875
4870
4865
4860
4855
4850
4845
4840
10/1/1986
6/4/1987
1/22/1988
9/1/1988
7/15/1991
8/11/1995
9/10/1999
8/8/2003
8/20/2007
2/28/2011
Gross Alpha (Dissolved)
Groundwater Elevation

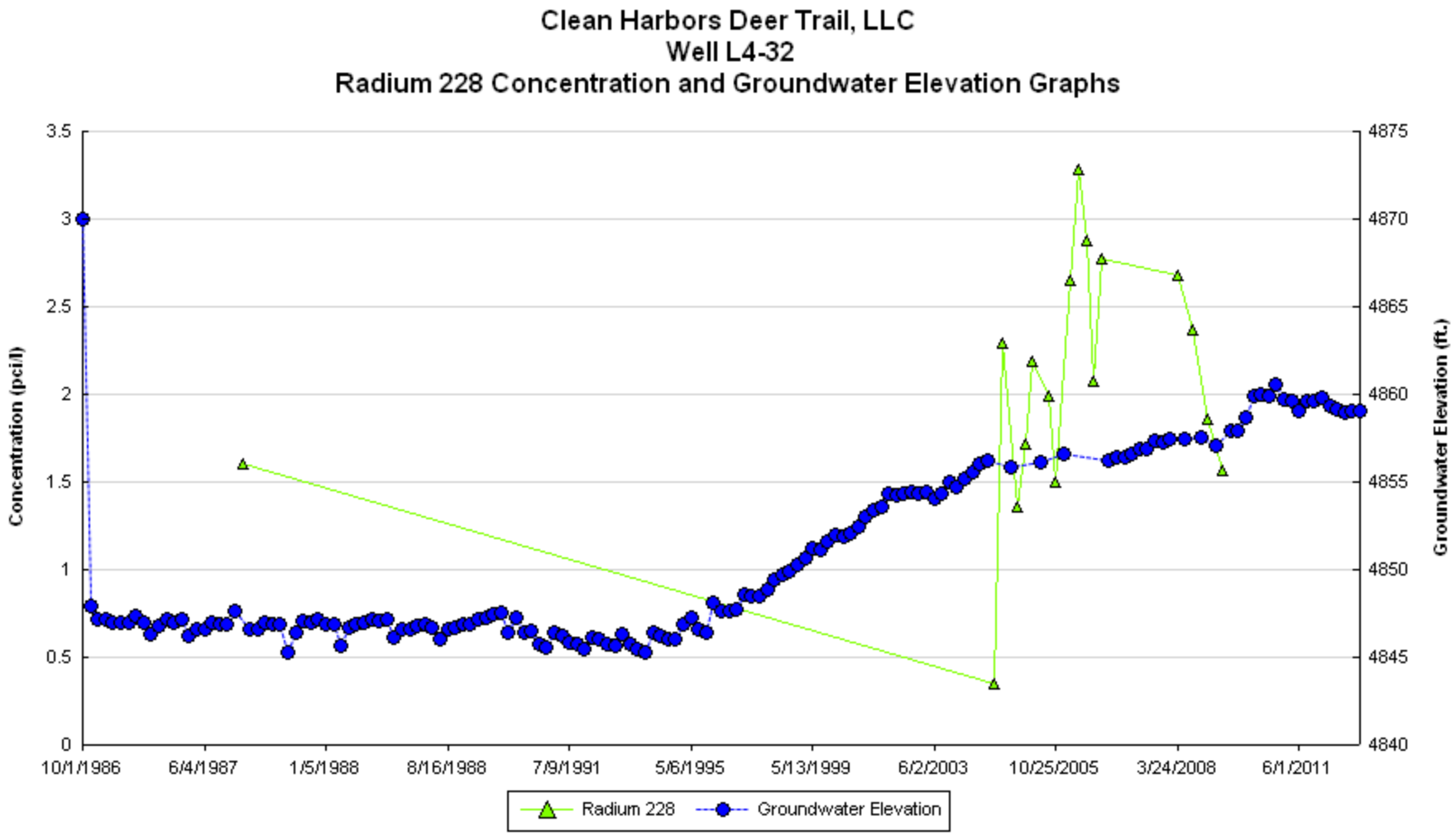
Clean Harbors Deer Trail, LLC
Well L4-32
Gross Beta Concentration and Groundwater Elevation Graphs

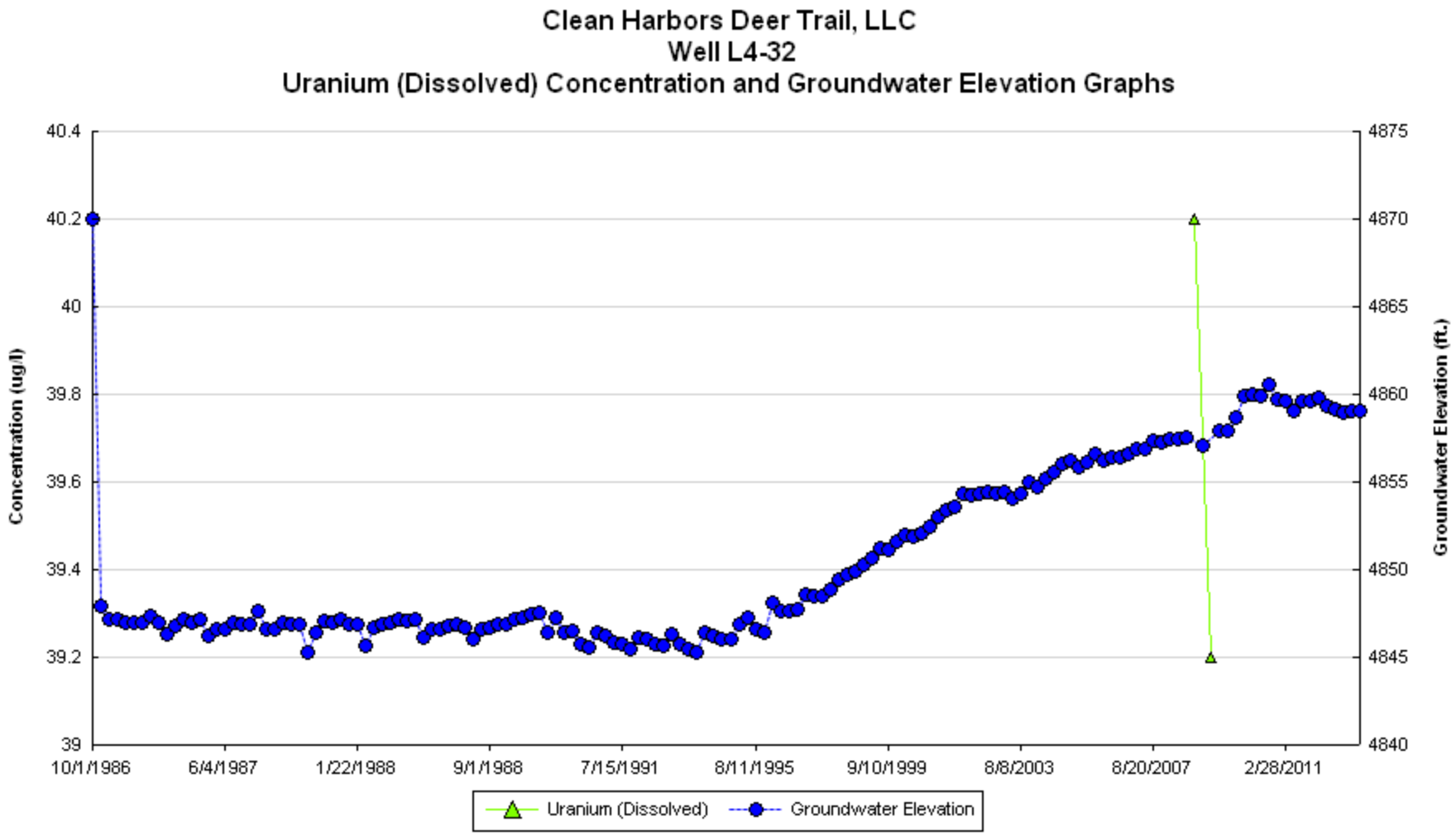


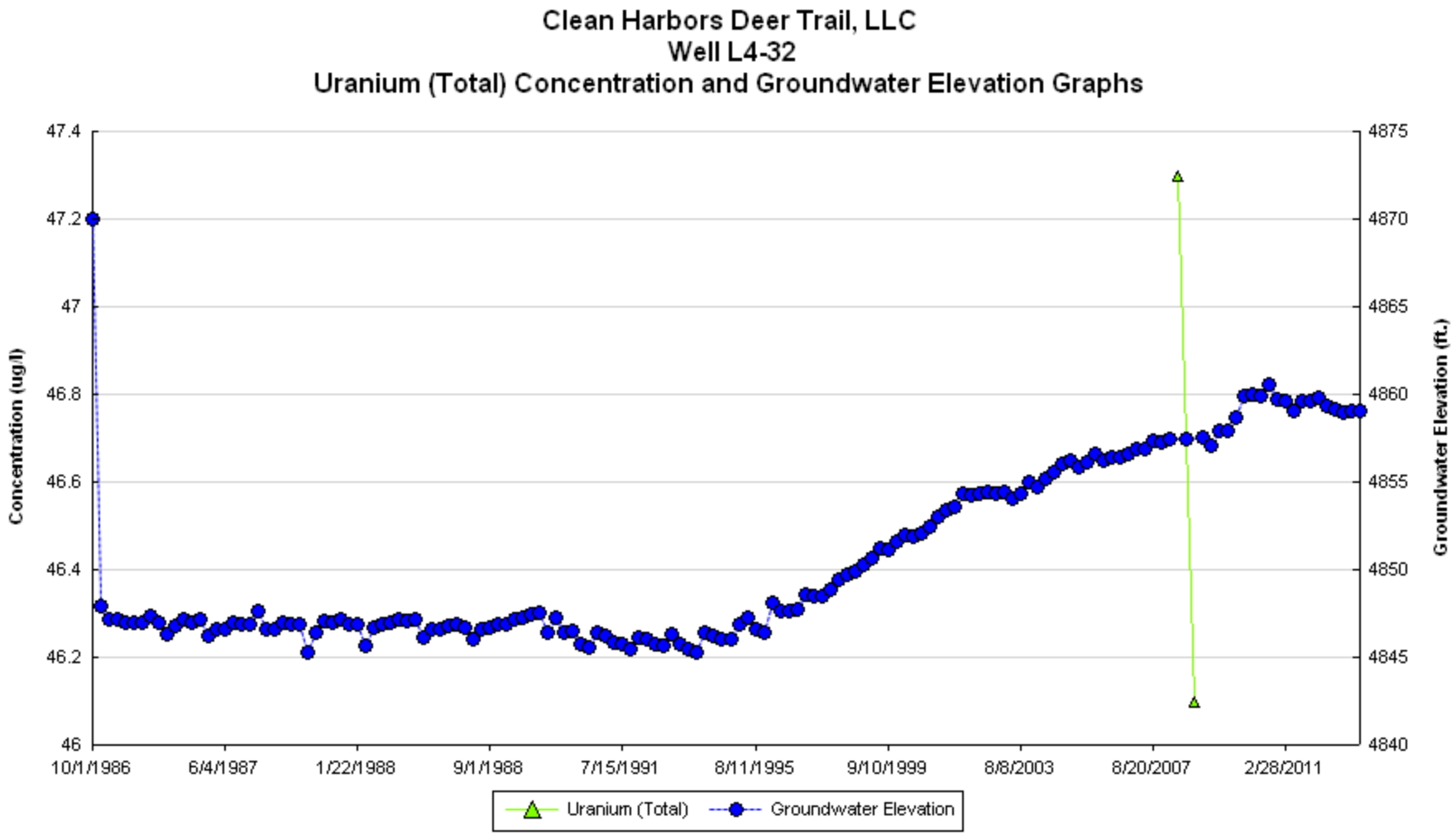

Clean Harbors Deer Trail, LLC
Well L4-32
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
60
50
40
30
20
10
0
4875
4870
4865
4860
4855
4850
4845
4840
10/1/1986
6/4/1987
1/22/1988
9/1/1988
7/15/1991
8/11/1995
9/10/1999
8/8/2003
8/20/2007
2/28/2011
Gross Beta (Dissolved)
Groundwater Elevation

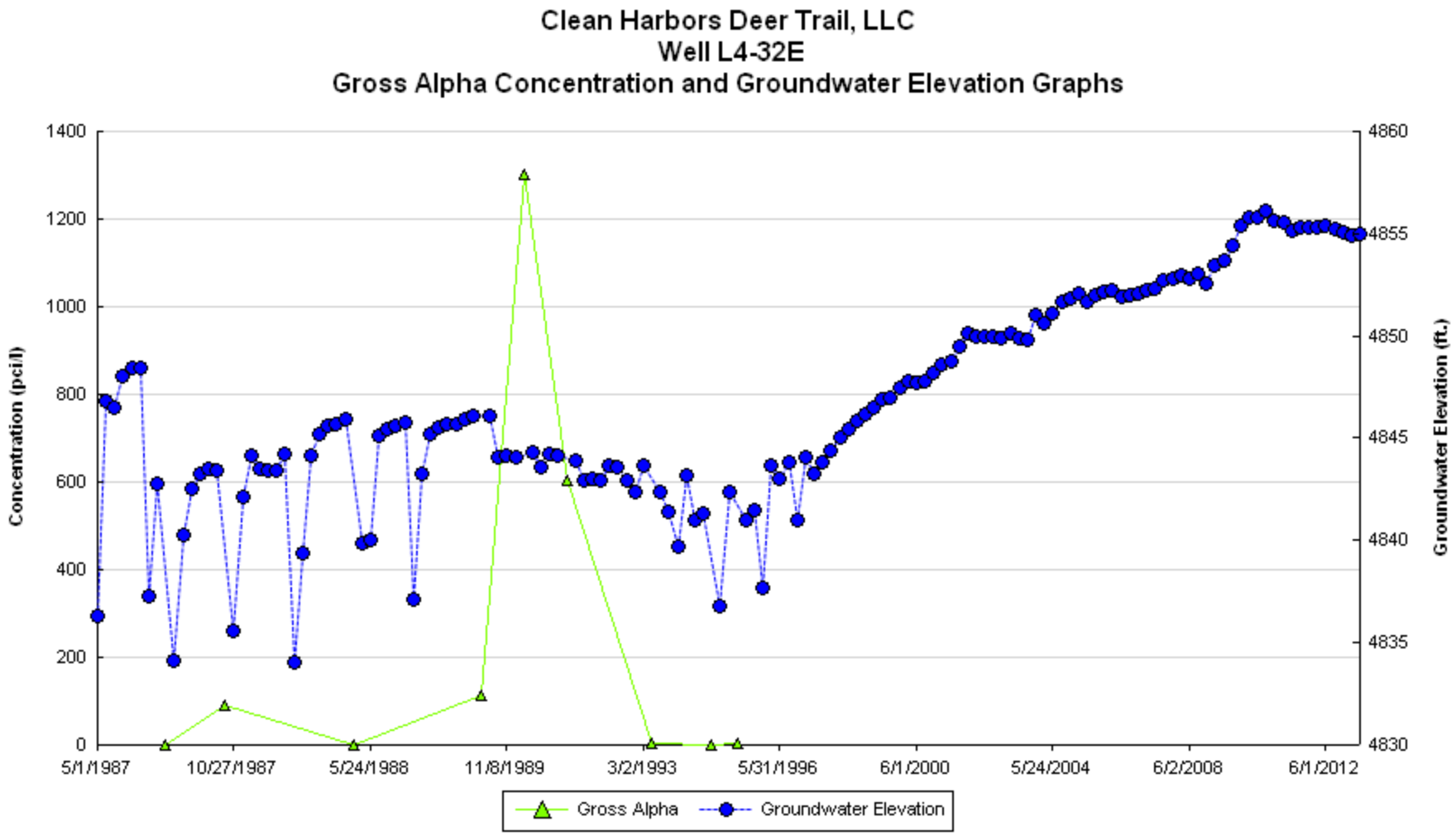
Clean Harbors Deer Trail, LLC
Well L4-32
Radium 226 Concentration and Groundwater Elevation Graphs

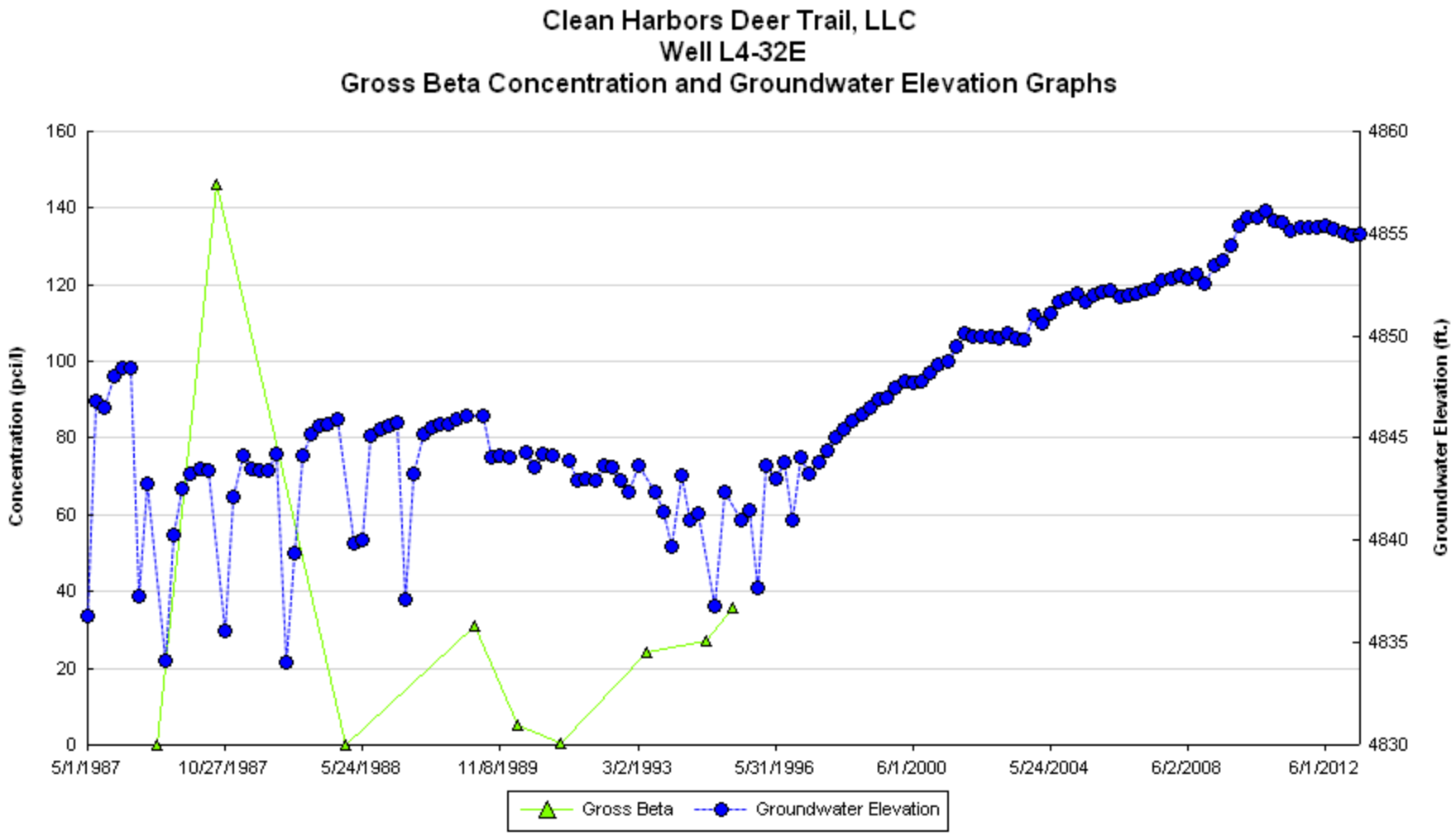


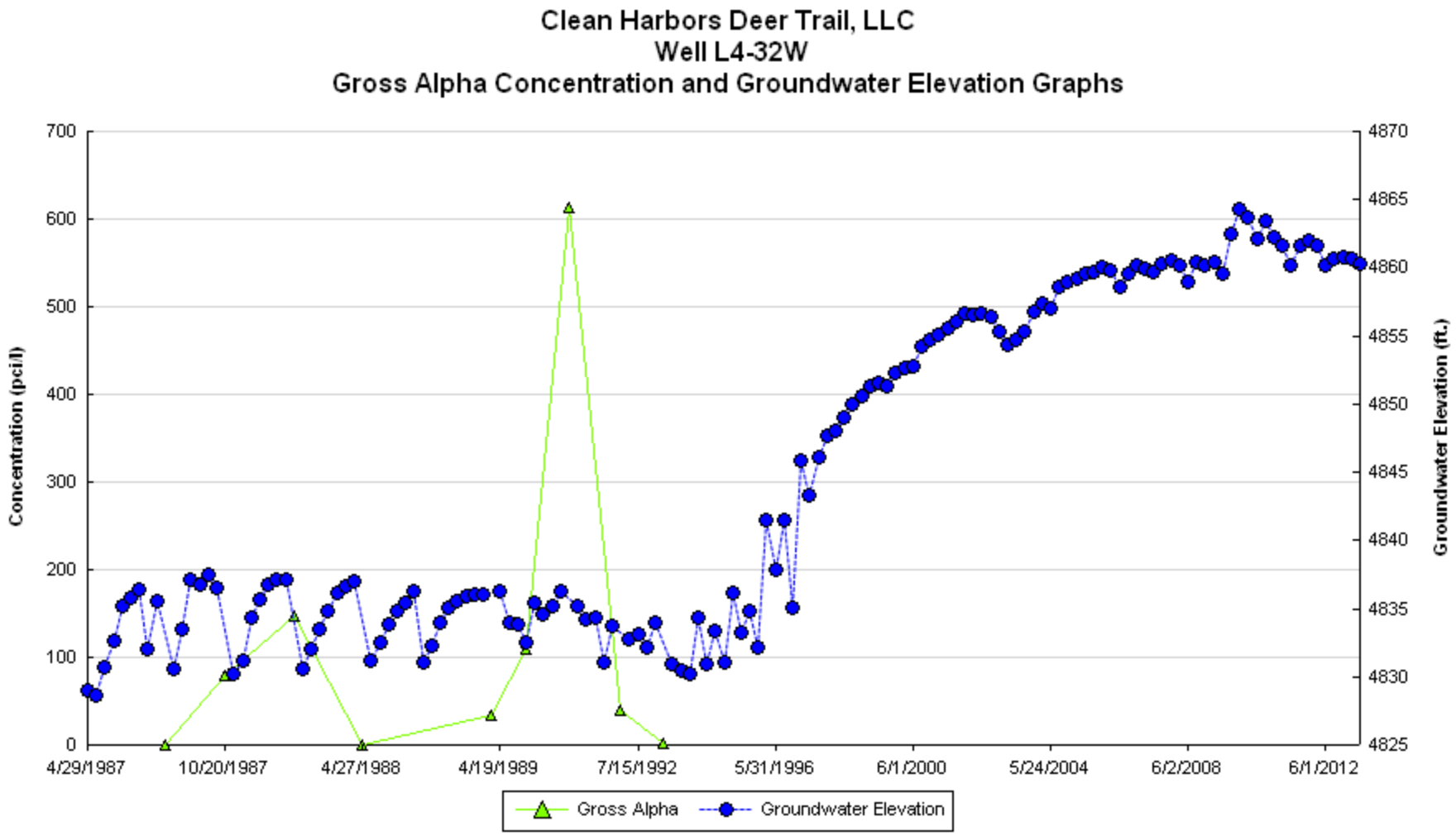

Clean Harbors Deer Trail, LLC
Well L4-32
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3.5
3
2.5
2
1.5
1
0.5
0
4875
4870
4865
4860
4855
4850
4845
4840
10/1/1986
6/4/1987
1/5/1988
8/16/1988
7/9/1991
5/6/1995
5/13/1999
6/2/2003
10/25/2005
3/24/2008
6/1/2011
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-32
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
40.4
40.2
40
39.8
39.6
39.4
39.2
39
4875
4870
4865
4860
4855
4850
4845
4840
10/1/1986
6/4/1987
1/22/1988
9/1/1988
7/15/1991
8/11/1995
9/10/1999
8/8/2003
8/20/2007
2/28/2011
Uranium (Dissolved)
Groundwater Elevation

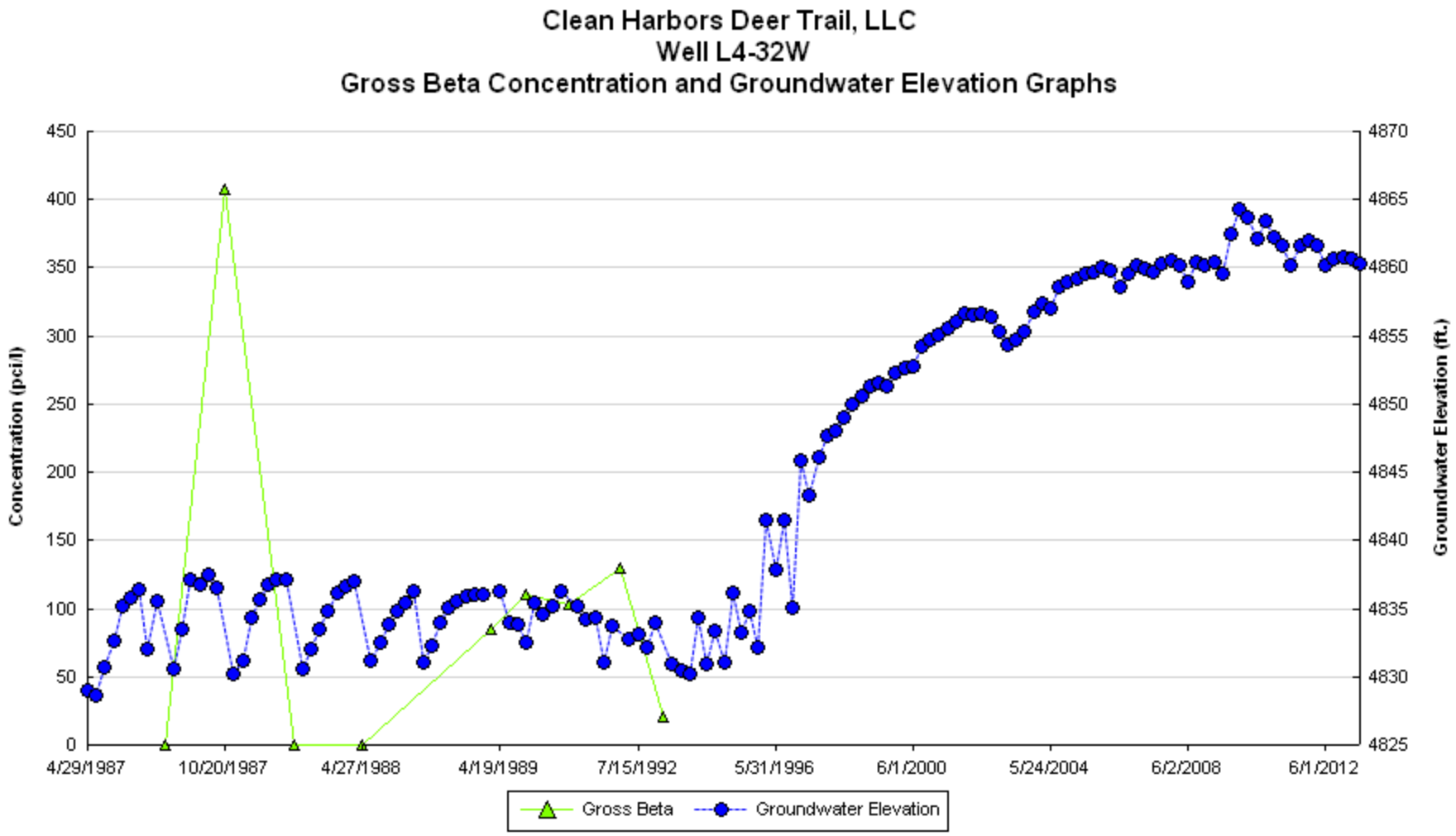

Clean Harbors Deer Trail, LLC
Well L4-32
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
47.4
47.2
47
46.8
46.6
46.4
46.2
46
4875
4870
4865
4860
4855
4850
4845
4840
10/1/1986
6/4/1987
1/22/1988
9/1/1988
7/15/1991
8/11/1995
9/10/1999
8/8/2003
8/20/2007
2/28/2011
Uranium (Total)
Groundwater Elevation

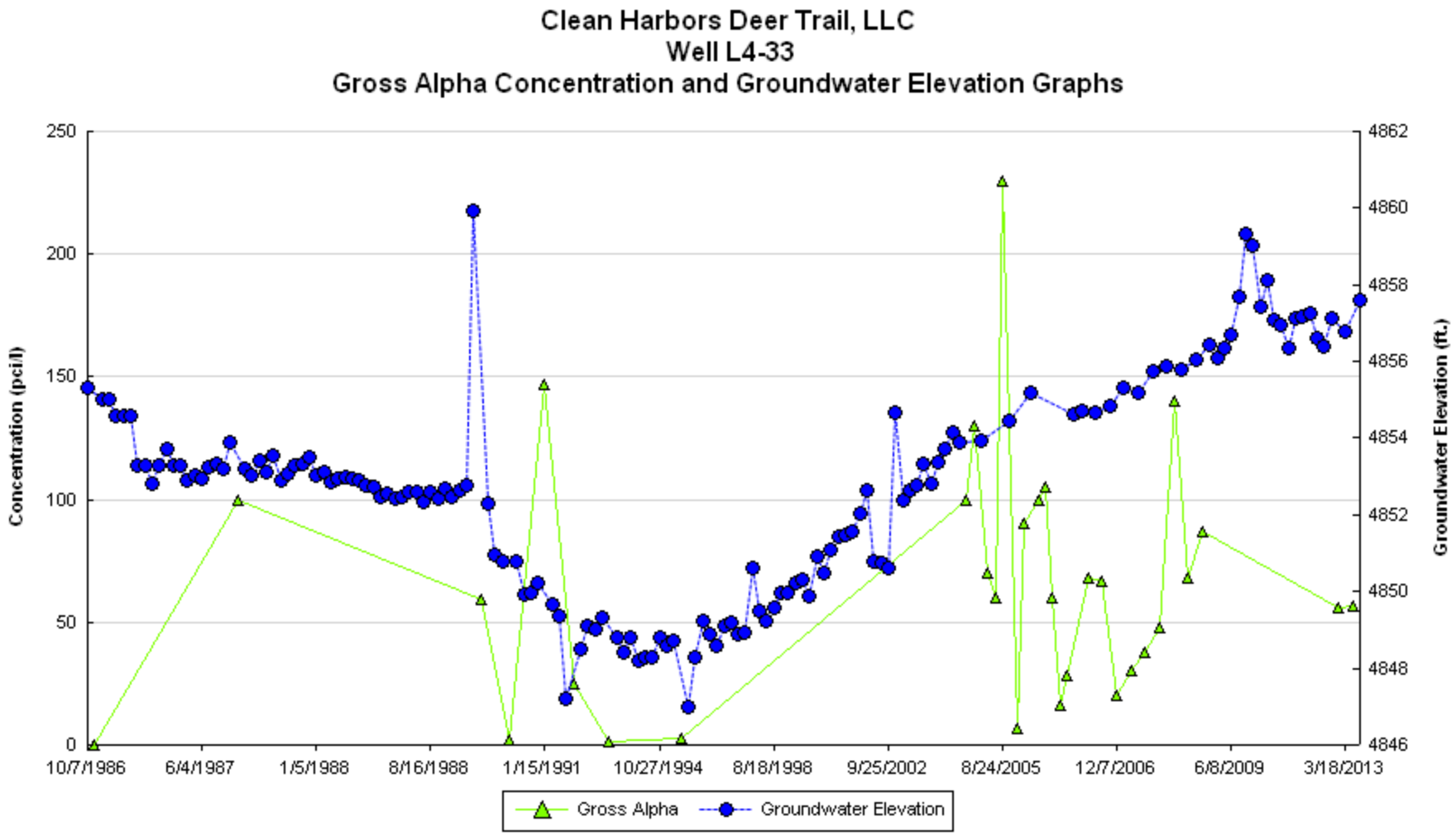

Clean Harbors Deer Trail, LLC
Well L4-32E
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1400
1200
1000
800
600
400
200
0
4860
4855
4850
4845
4840
4835
4830
5/1/1987
10/27/1987
5/24/1988
11/8/1989
3/2/1993
5/31/1996
6/1/2000
5/24/2004
6/2/2008
6/1/2012
Gross Alpha
Groundwater Elevation

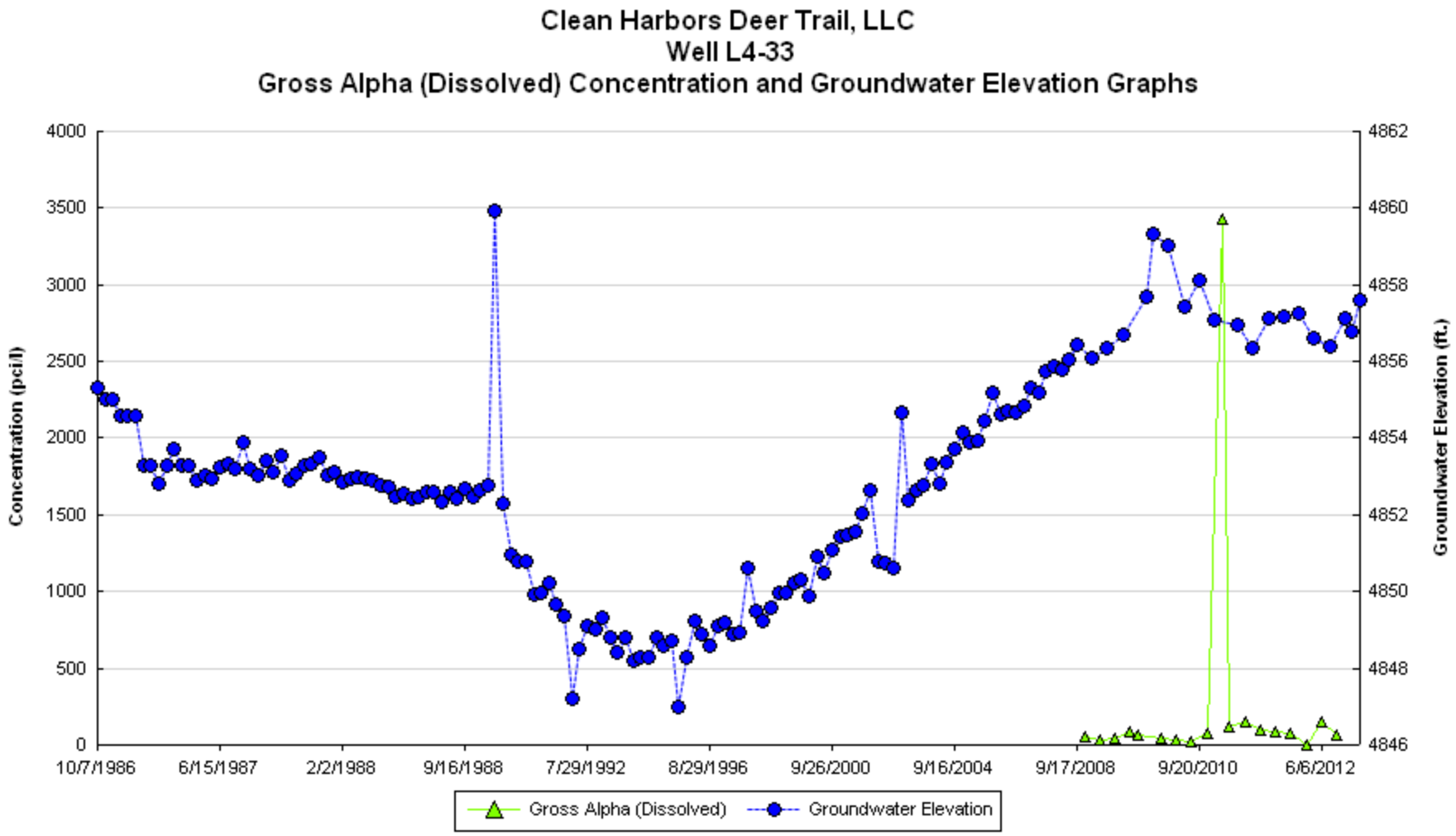

Clean Harbors Deer Trail, LLC
Well L4-32E
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
160
140
120
100
80
60
40
20
0
4860
4855
4850
4845
4840
4835
4830
5/1/1987
10/27/1987
5/24/1988
11/8/1989
3/2/1993
5/31/1996
6/1/2000
5/24/2004
6/2/2008
6/1/2012
Gross Beta
Groundwater Elevation



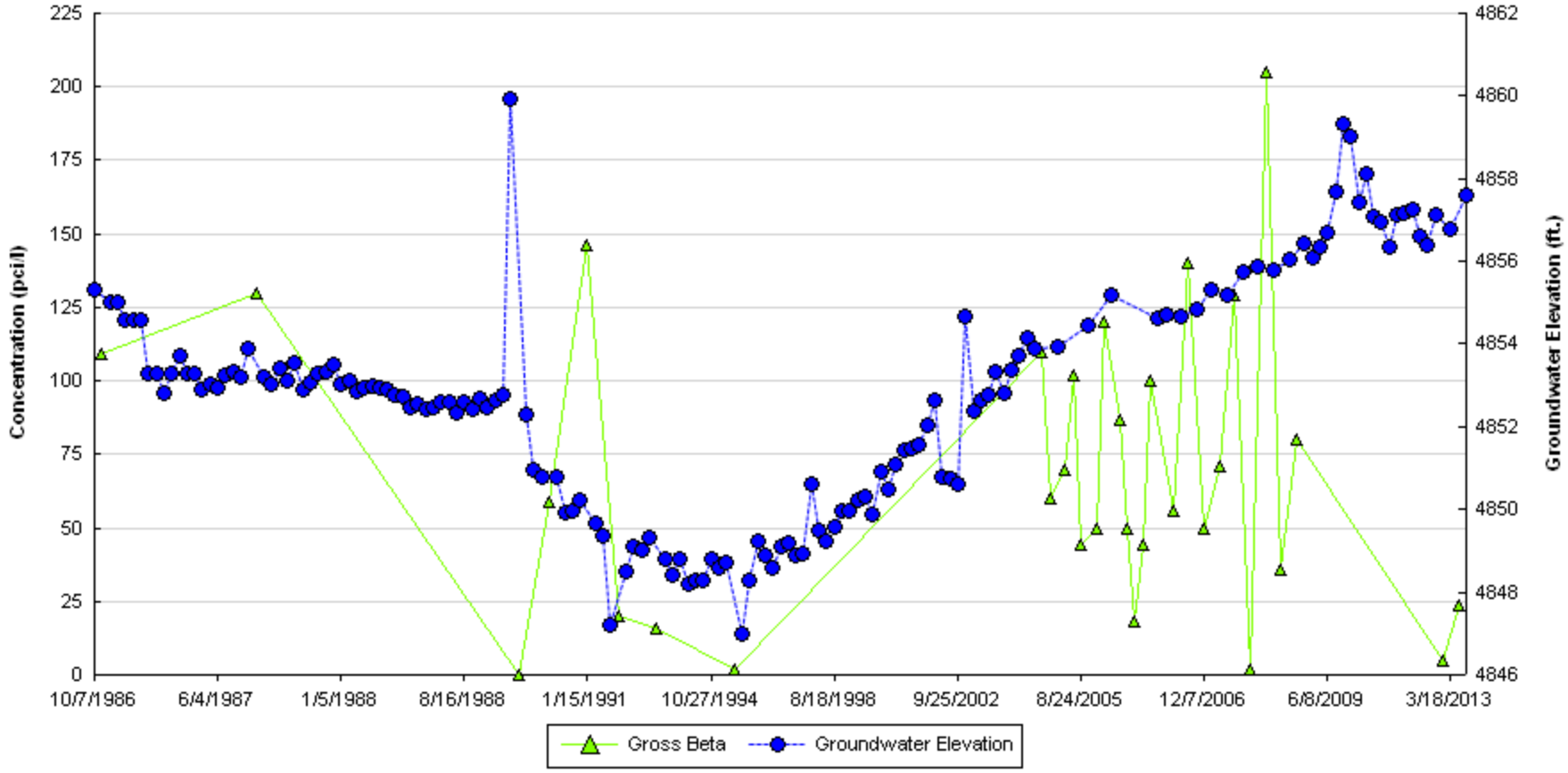
Clean Harbors Deer Trail, LLC
Well L4-32W
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
700
600
500
400
300
200
100
0
4870
4865
4860
4855
4850
4845
4840
4835
4830
4825
4/29/1987
10/20/1987
4/27/1988
4/19/1989
7/15/1992
5/31/1996
6/1/2000
5/24/2004
6/2/2008
6/1/2012
Gross Alpha
Groundwater Elevation

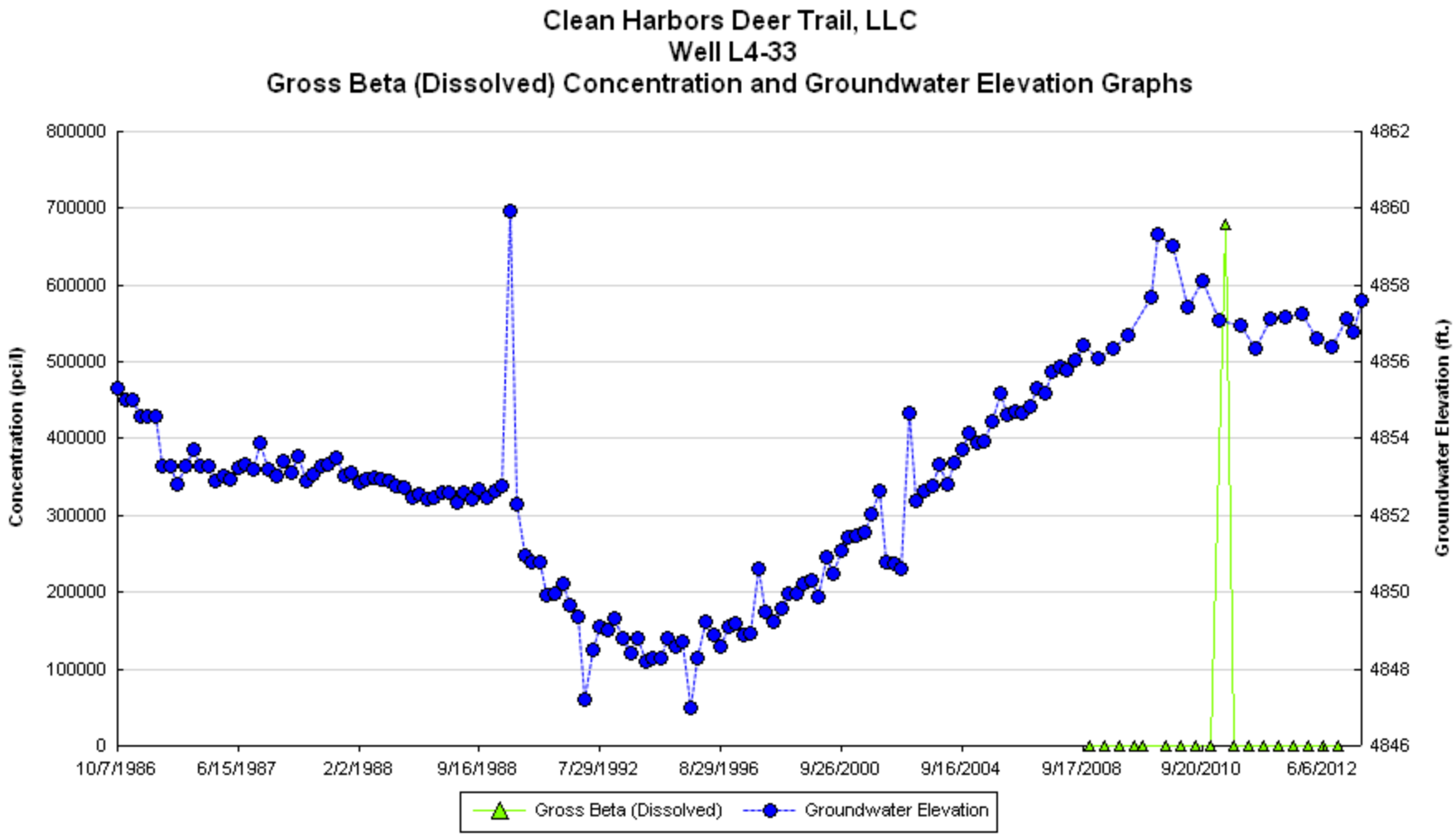

Clean Harbors Deer Trail, LLC
Well L4-32W
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
450
400
350
300
250
200
150
100
50
0
4870
4865
4860
4855
4850
4845
4840
4835
4830
4825
4/29/1987
10/20/1987
4/27/1988
4/19/1989
7/15/1992
5/31/1996
6/1/2000
5/24/2004
6/2/2008
6/1/2012
Gross Beta
Groundwater Elevation

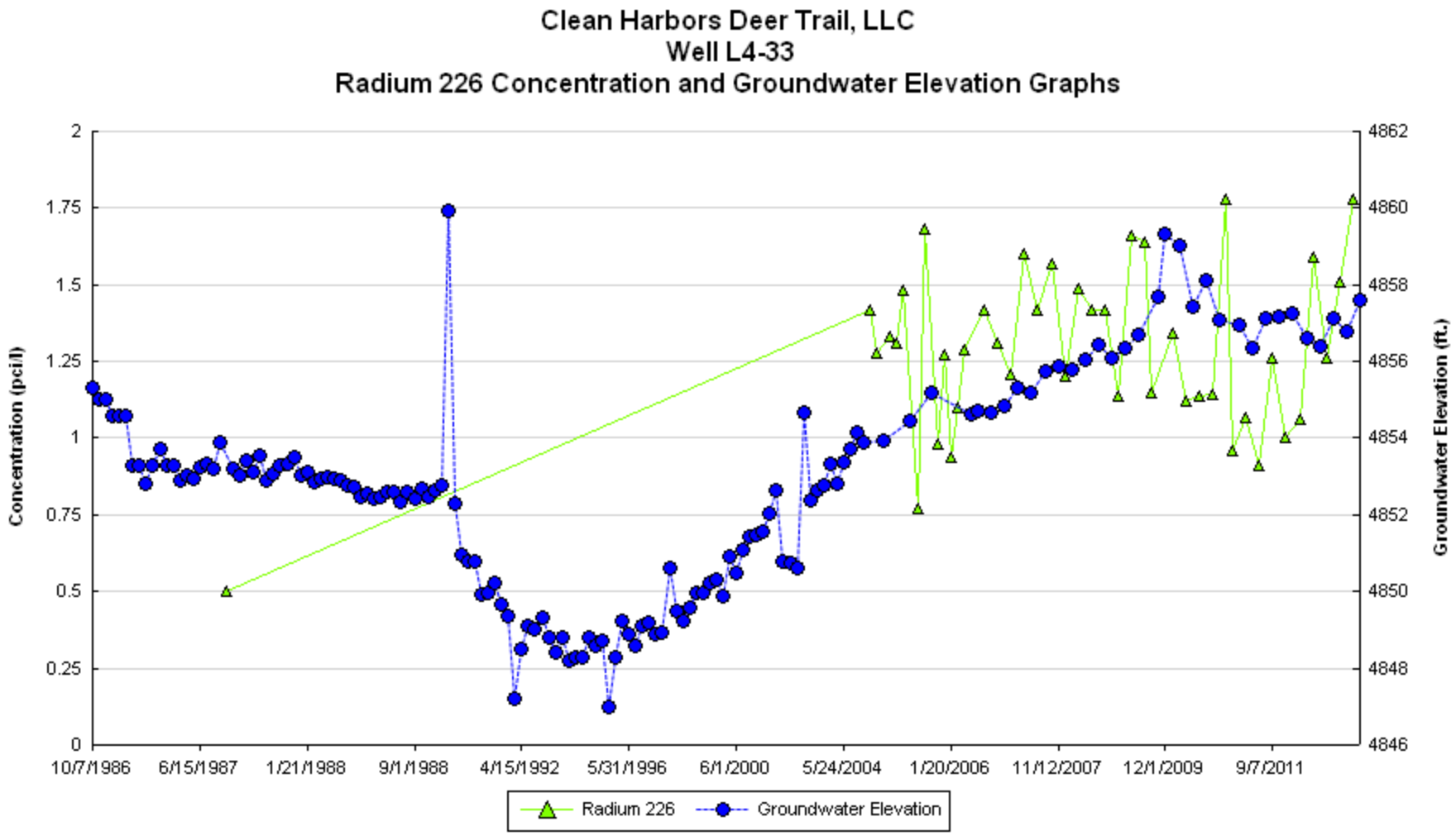

Clean Harbors Deer Trail, LLC
Well L4-33
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
250
200
150
100
50
0
4862
4860
4858
4856
4854
4852
4850
4848
4846
10/7/1986
6/4/1987
1/5/1988
8/16/1988
1/15/1991
10/27/1994
8/18/1998
9/25/2002
8/24/2005
12/7/2006
6/8/2009
3/18/2013
Gross Alpha
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-33
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
4000
3500
3000
2500
2000
1500
1000
500
0
4862
4860
4858
4856
4854
4852
4850
4848
4846
10/7/1986
6/15/1987
2/2/1988
9/16/1988
7/29/1992
8/29/1996
9/26/2000
9/16/2004
9/17/2008
9/20/2010
6/6/2012
Gross Alpha (Dissolved)
Groundwater Elevation

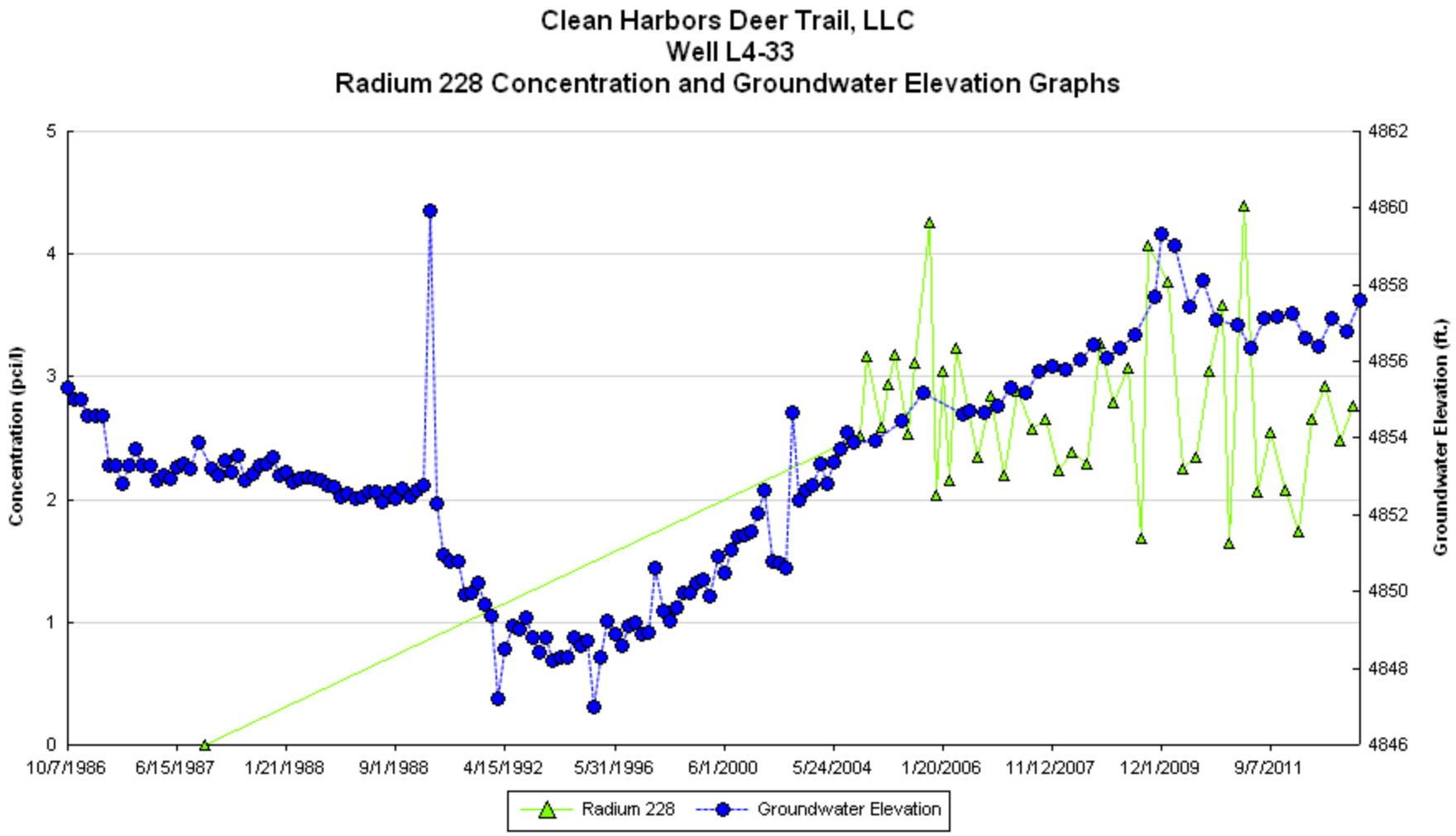
Clean Harbors Deer Trail, LLC
Well L4-33
Gross Beta Concentration and Groundwater Elevation Graphs

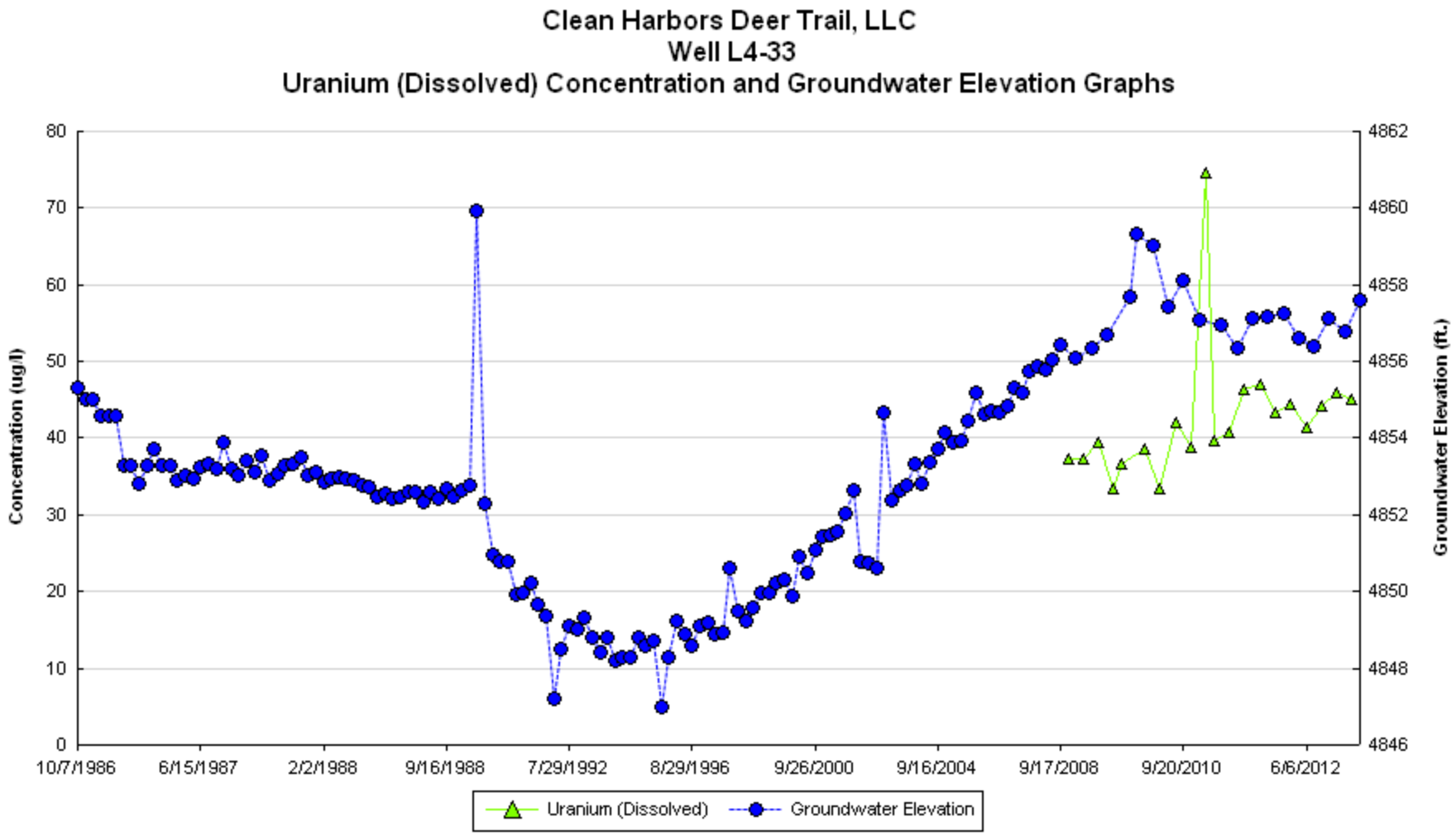


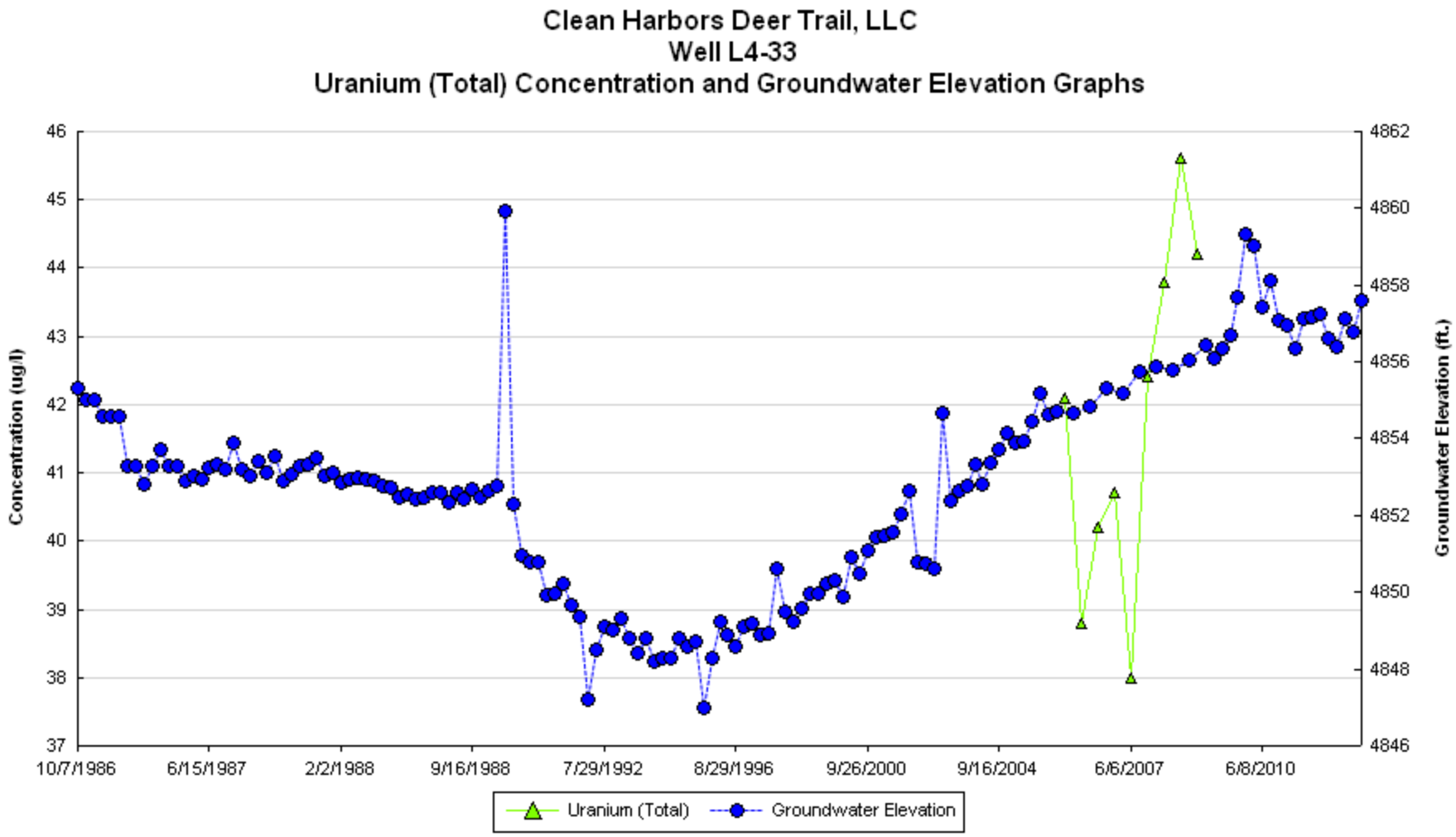

Clean Harbors Deer Trail, LLC
Well L4-33
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
800000
700000
600000
500000
400000
300000
200000
100000
0
4862
4860
4858
4856
4854
4852
4850
4848
4846
10/7/1986
6/15/1987
2/2/1988
9/16/1988
7/29/1992
8/29/1996
9/26/2000
9/16/2004
9/17/2008
9/20/2010
6/6/2012
Gross Beta (Dissolved)
Groundwater Elevation

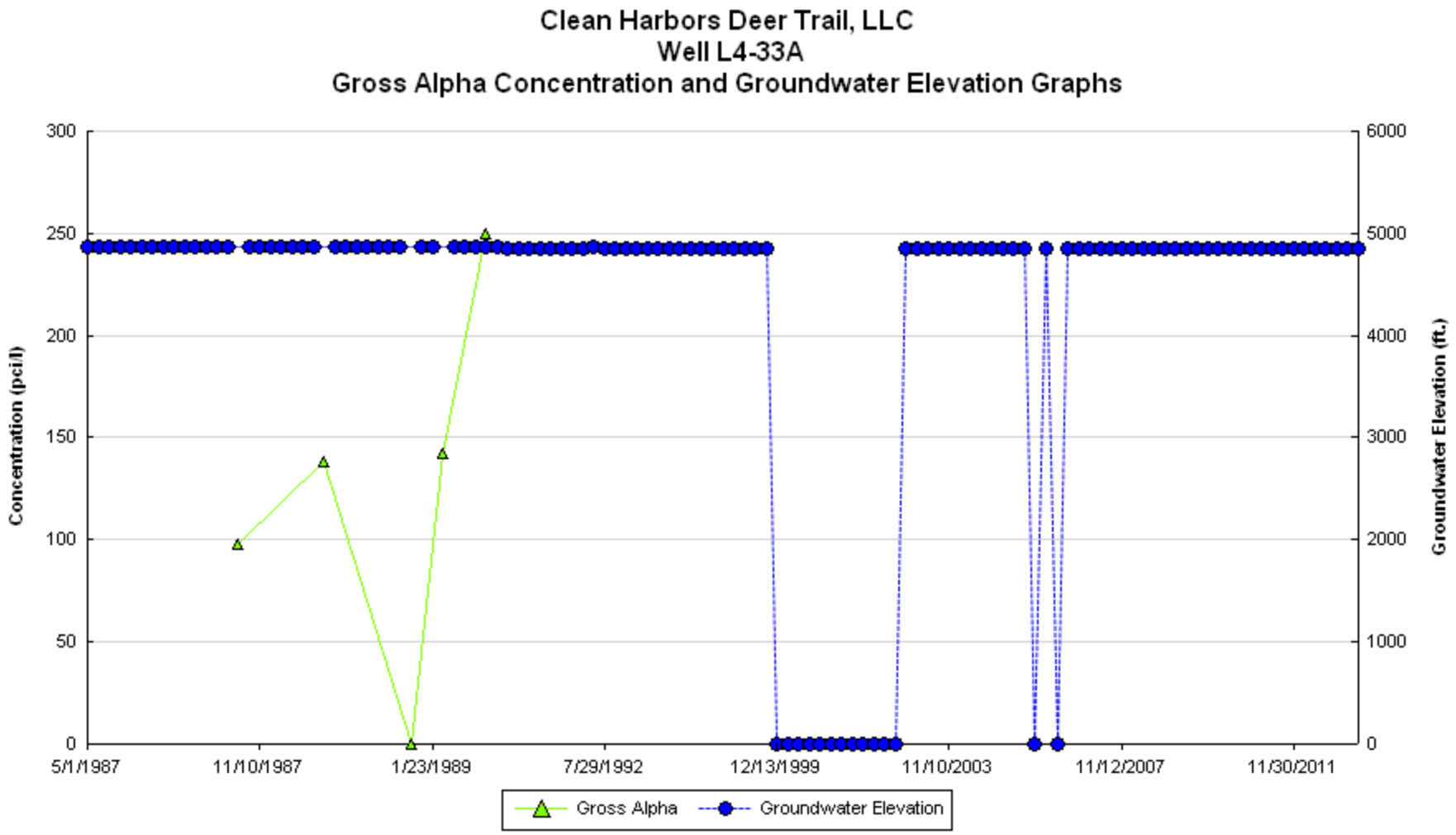


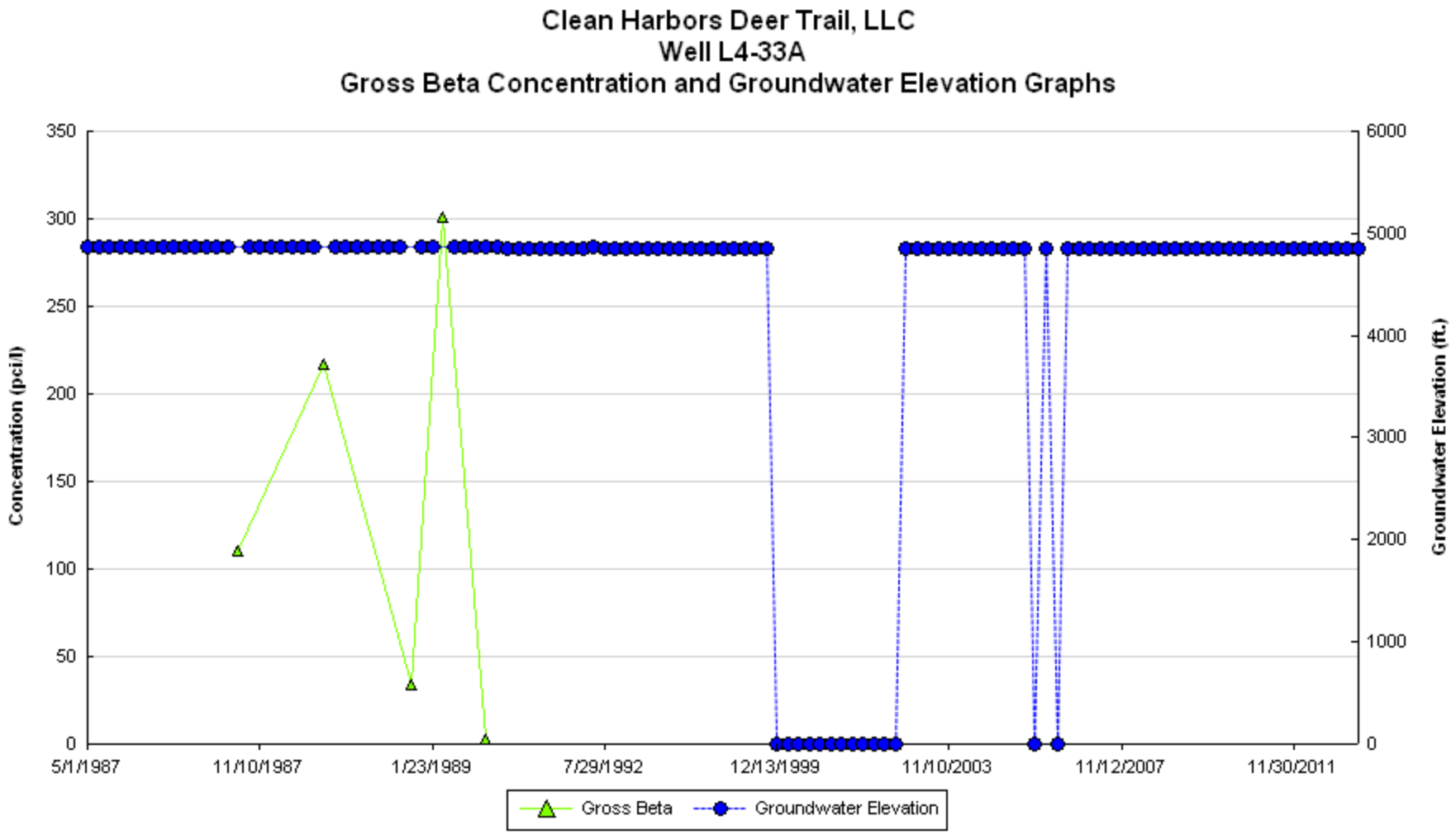
Clean Harbors Deer Trail, LLC
Well L4-33
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
4862
4860
4858
4856
4854
4852
4850
4848
4846
10/7/1986
6/15/1987
1/21/1988
9/1/1988
4/15/1992
5/31/1996
6/1/2000
5/24/2004
1/20/2006
11/12/2007
12/1/2009
9/7/2011
Radium 226
Groundwater Elevation

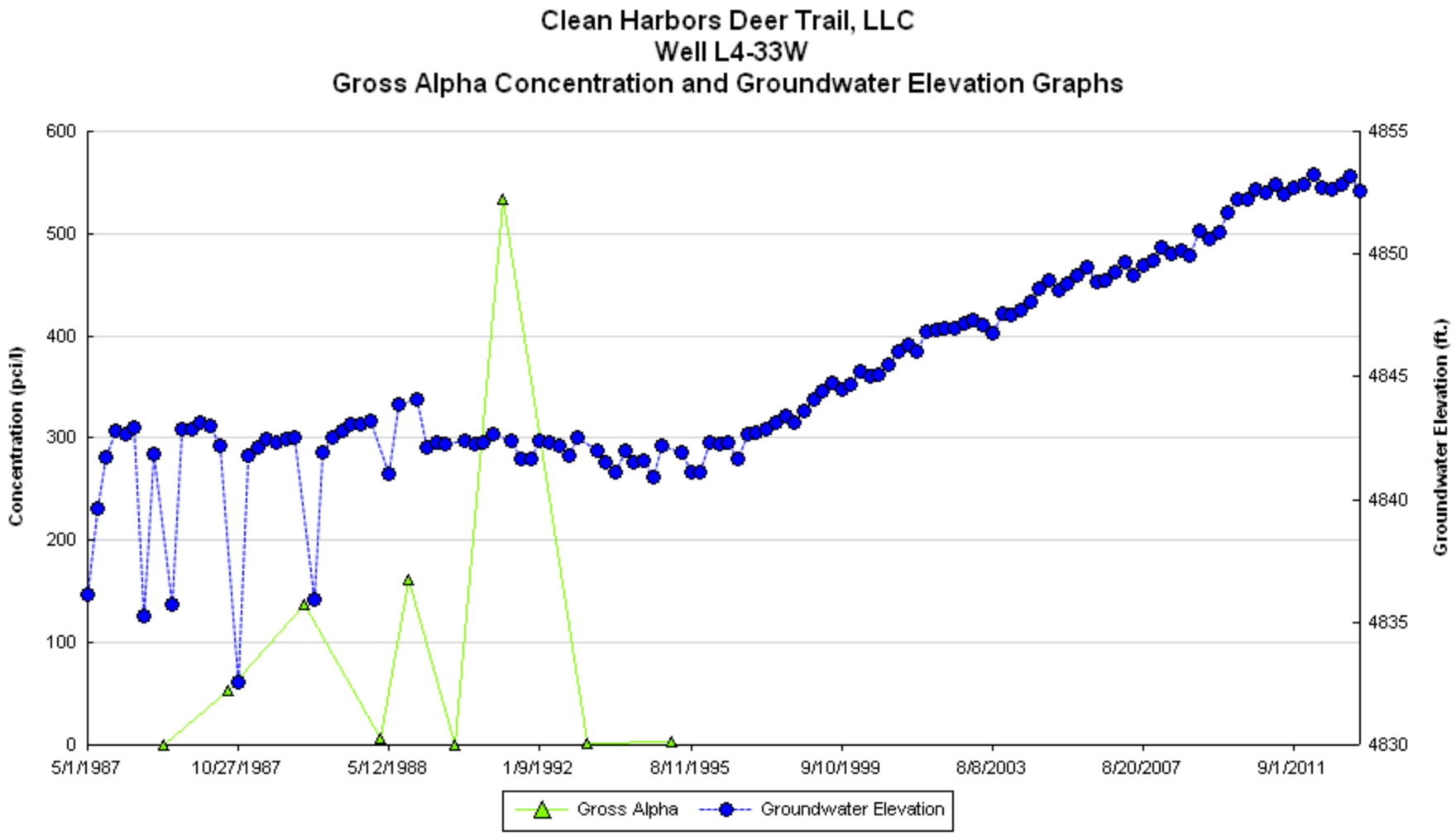

Clean Harbors Deer Trail, LLC
Well L4-33
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
1
2
3
4
5
4846
4848
4850
4852
4854
4856
4858
4860
4862
10/7/1986
6/15/1987
1/21/1988
9/1/1988
4/15/1992
5/31/1996
6/1/2000
5/24/2004
1/20/2006
11/12/2007
12/1/2009
9/7/2011
Radium 228
Groundwater Elevation

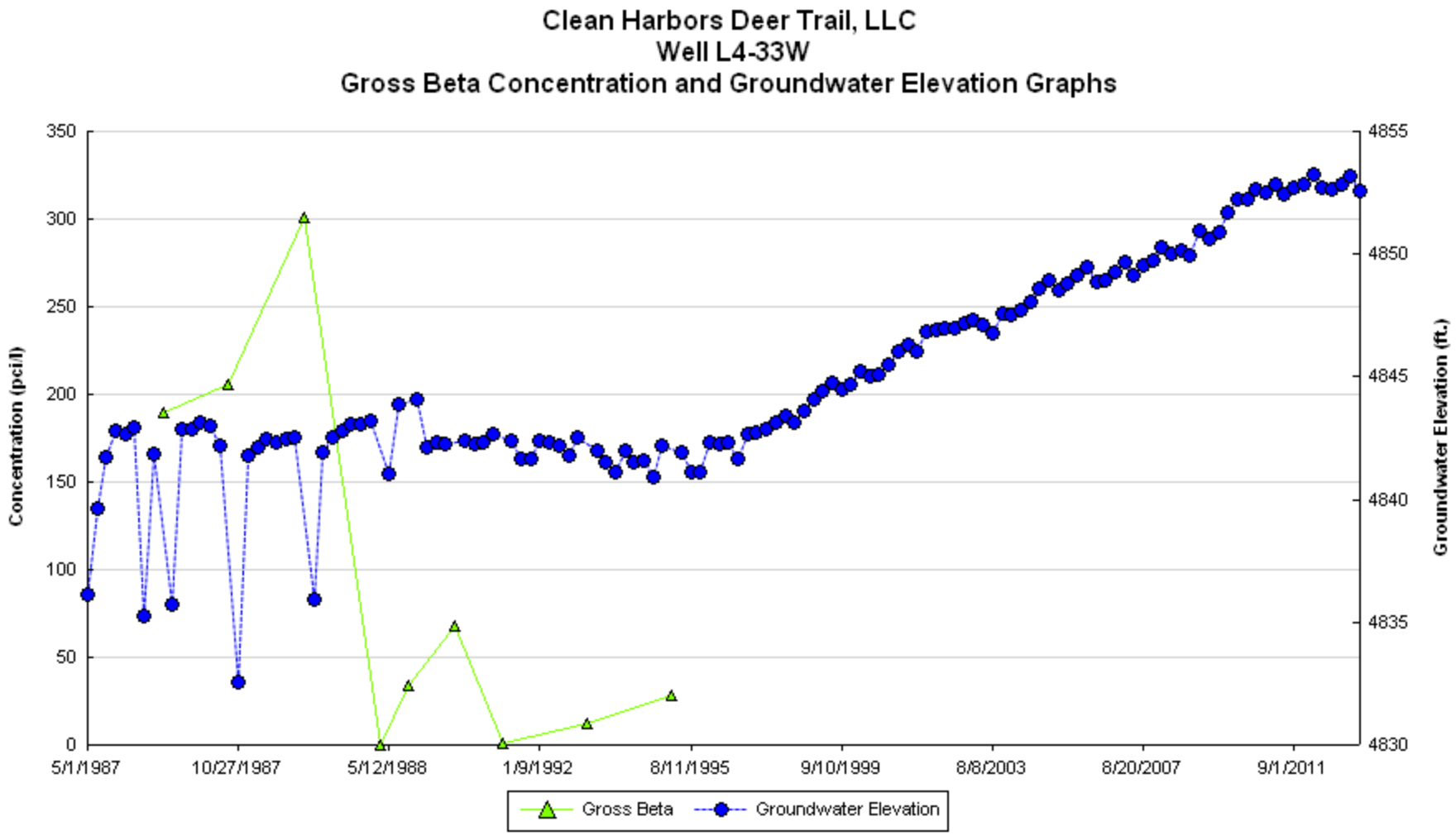

Clean Harbors Deer Trail, LLC
Well L4-33
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0
10
20
30
40
50
60
70
80
4846
4848
4850
4852
4854
4856
4858
4860
4862
10/7/1986
6/15/1987
2/2/1988
9/16/1988
7/29/1992
8/29/1996
9/26/2000
9/16/2004
9/17/2008
9/20/2010
6/6/2012
Uranium (Dissolved)
Groundwater Elevation

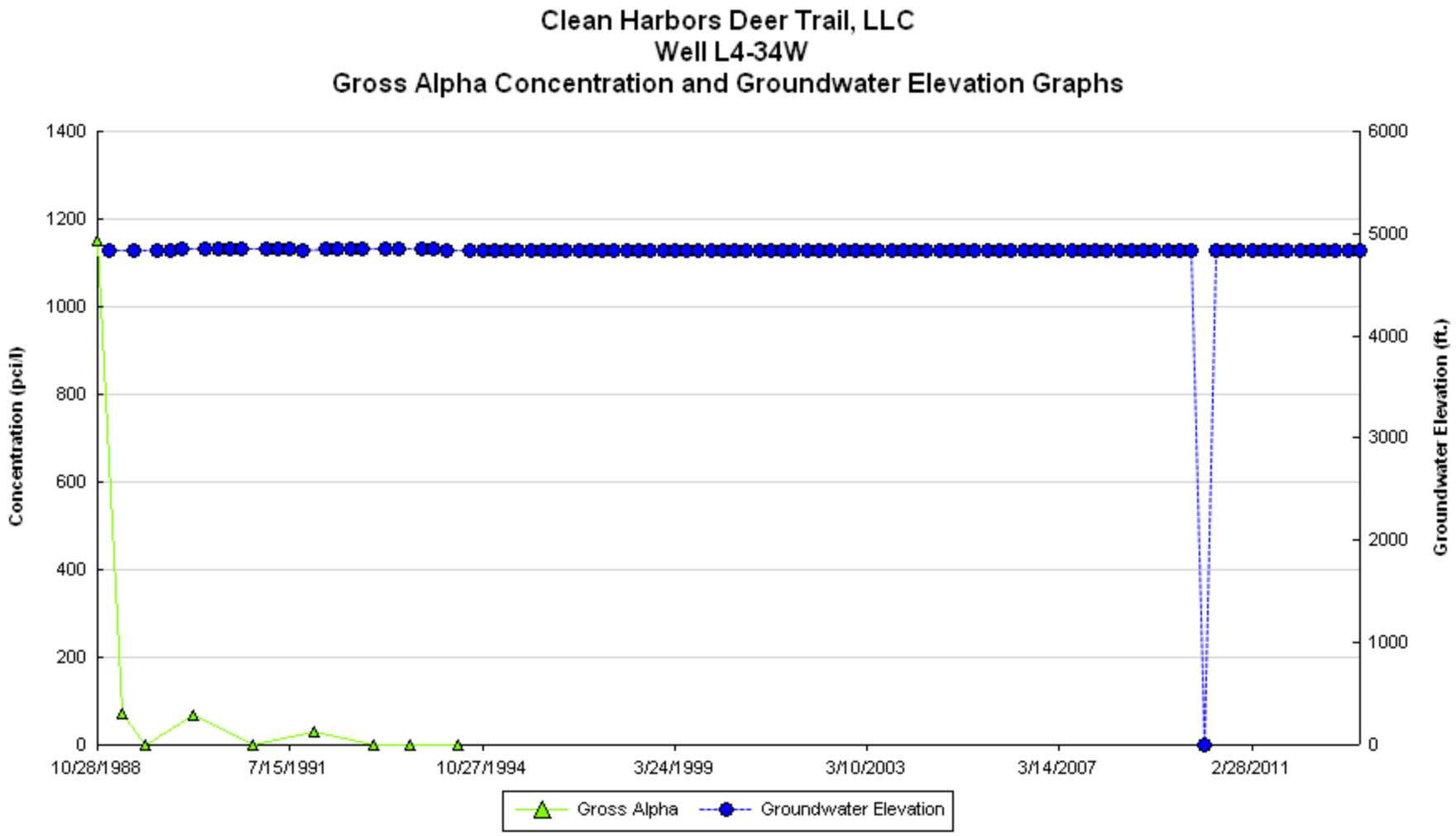

Clean Harbors Deer Trail, LLC
Well L4-33
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
46
45
44
43
42
41
40
39
38
37
4862
4860
4858
4856
4854
4852
4850
4848
4846
10/7/1986
6/15/1987
2/2/1988
9/16/1988
7/29/1992
8/29/1996
9/26/2000
9/16/2004
6/6/2007
6/8/2010
Uranium (Total)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-33A
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
5/1/1987
11/10/1987
1/23/1989
7/29/1992
12/13/1999
11/10/2003
11/12/2007
11/30/2011
Gross Alpha
Groundwater Elevation

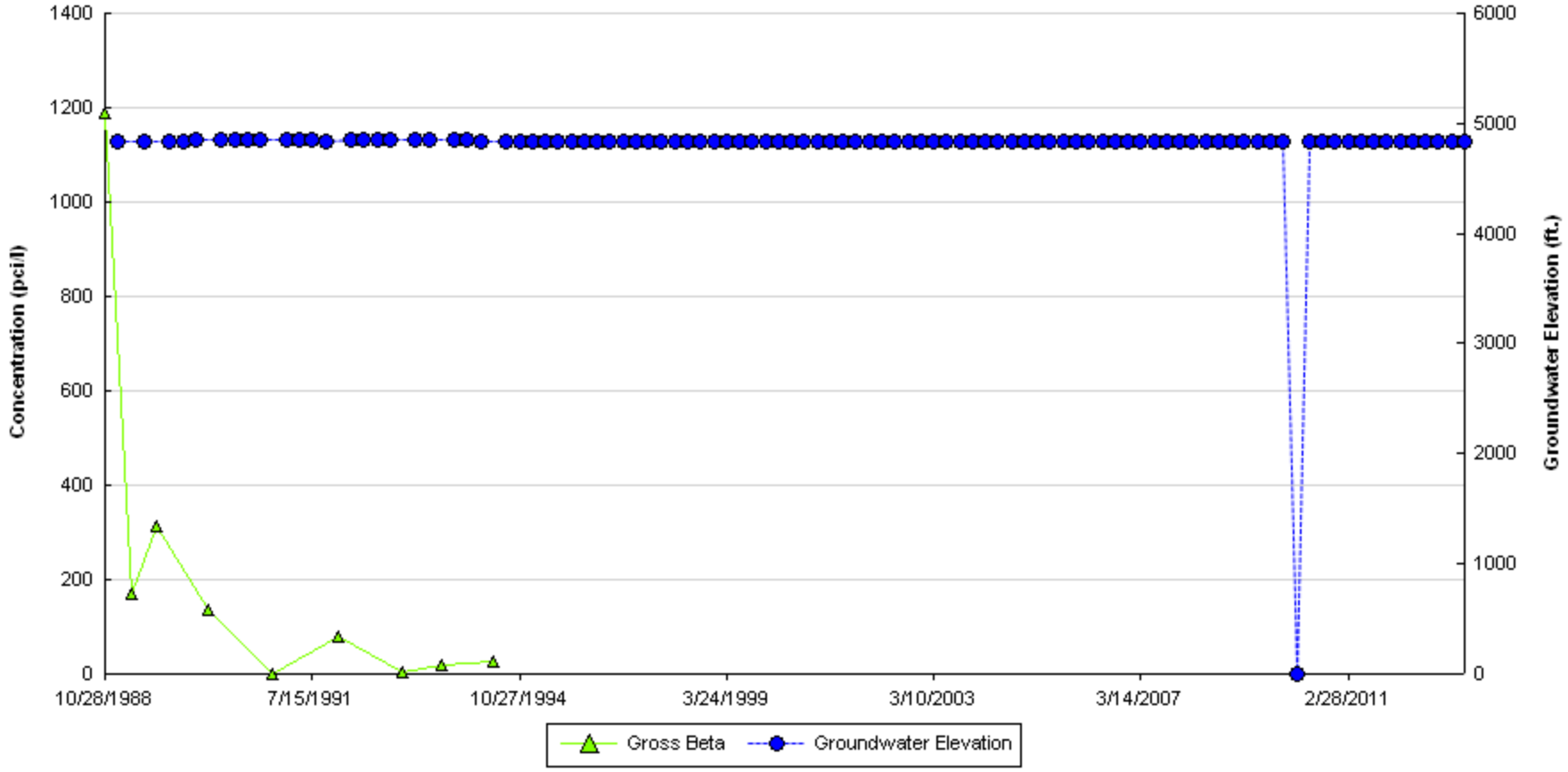

Clean Harbors Deer Trail, LLC
Well L4-33A
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
5/1/1987
11/10/1987
1/23/1989
7/29/1992
12/13/1999
11/10/2003
11/12/2007
11/30/2011
Gross Beta
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-33W
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
600
500
400
300
200
100
0
4855
4850
4845
4840
4835
4830
5/1/1987
10/27/1987
5/12/1988
1/9/1992
8/11/1995
9/10/1999
8/8/2003
8/20/2007
9/1/2011
Gross Alpha
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-33W
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
4855
4850
4845
4840
4835
4830
5/1/1987
10/27/1987
5/12/1988
1/9/1992
8/11/1995
9/10/1999
8/8/2003
8/20/2007
9/1/2011
Gross Beta
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-34W
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1400
1200
1000
800
600
400
200
0
6000
5000
4000
3000
2000
1000
0
10/28/1988
7/15/1991
10/27/1994
3/24/1999
3/10/2003
3/14/2007
2/28/2011
Gross Alpha
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L4-34W
Gross Beta Concentration and Groundwater Elevation Graphs



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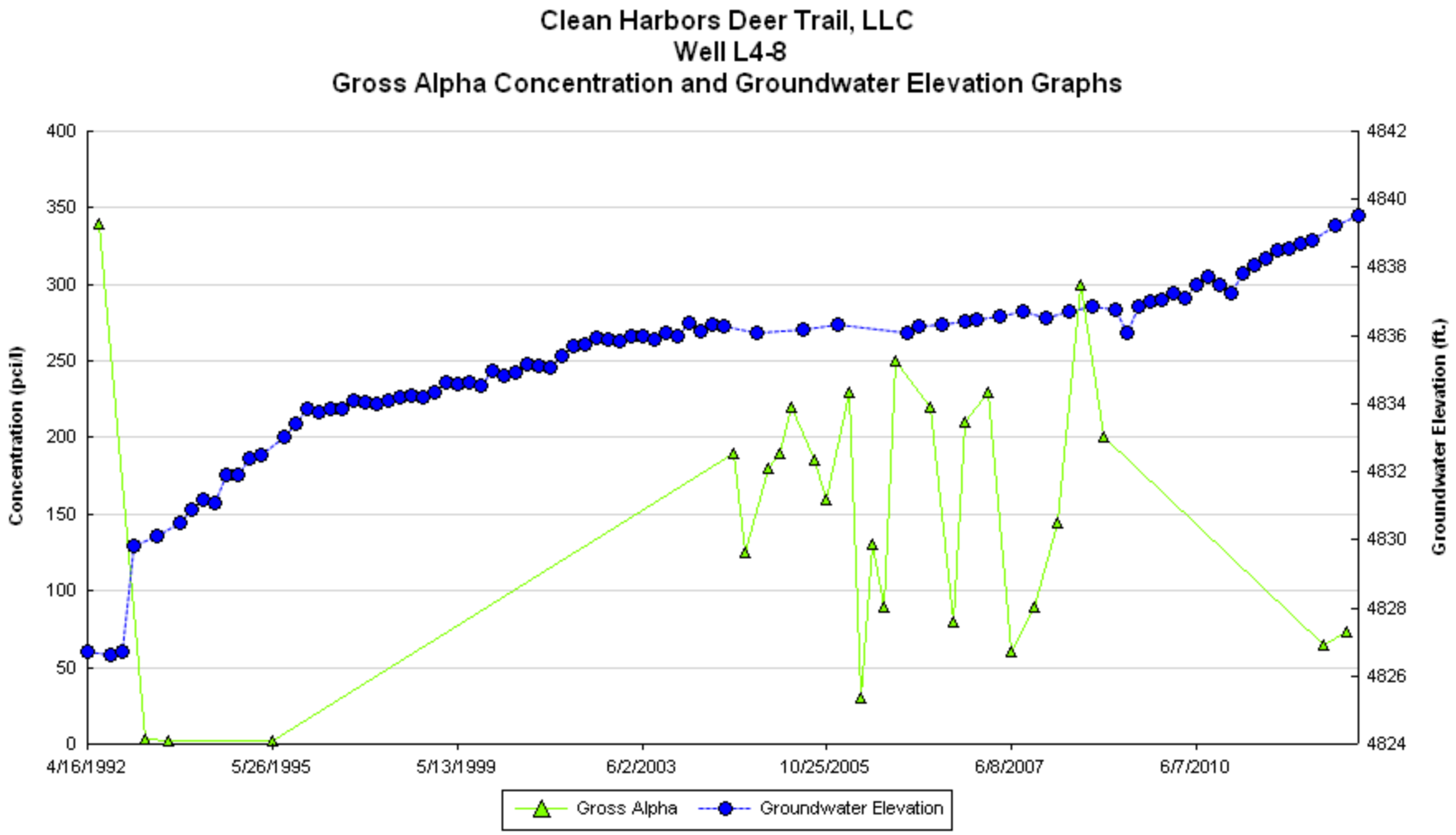
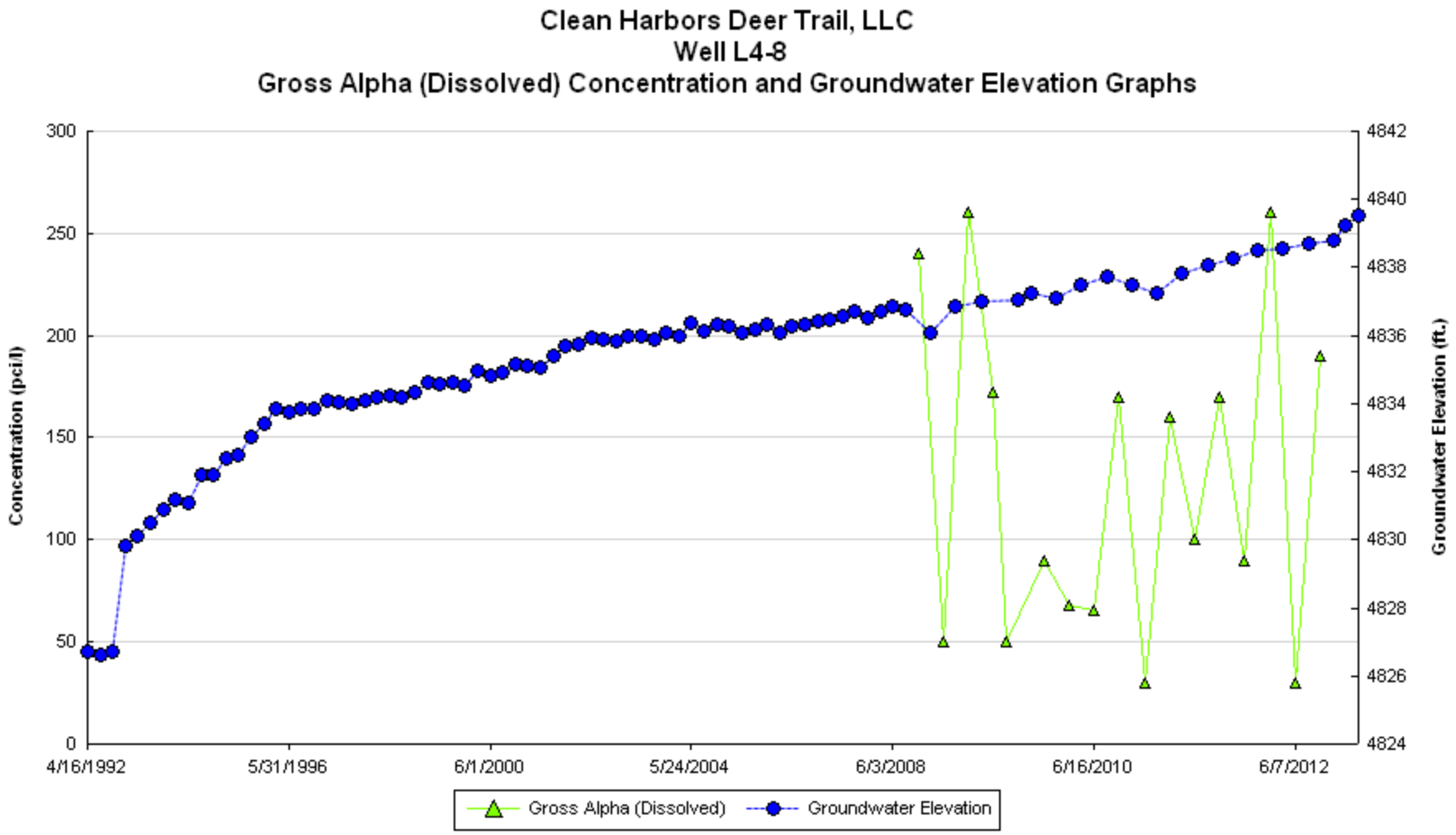
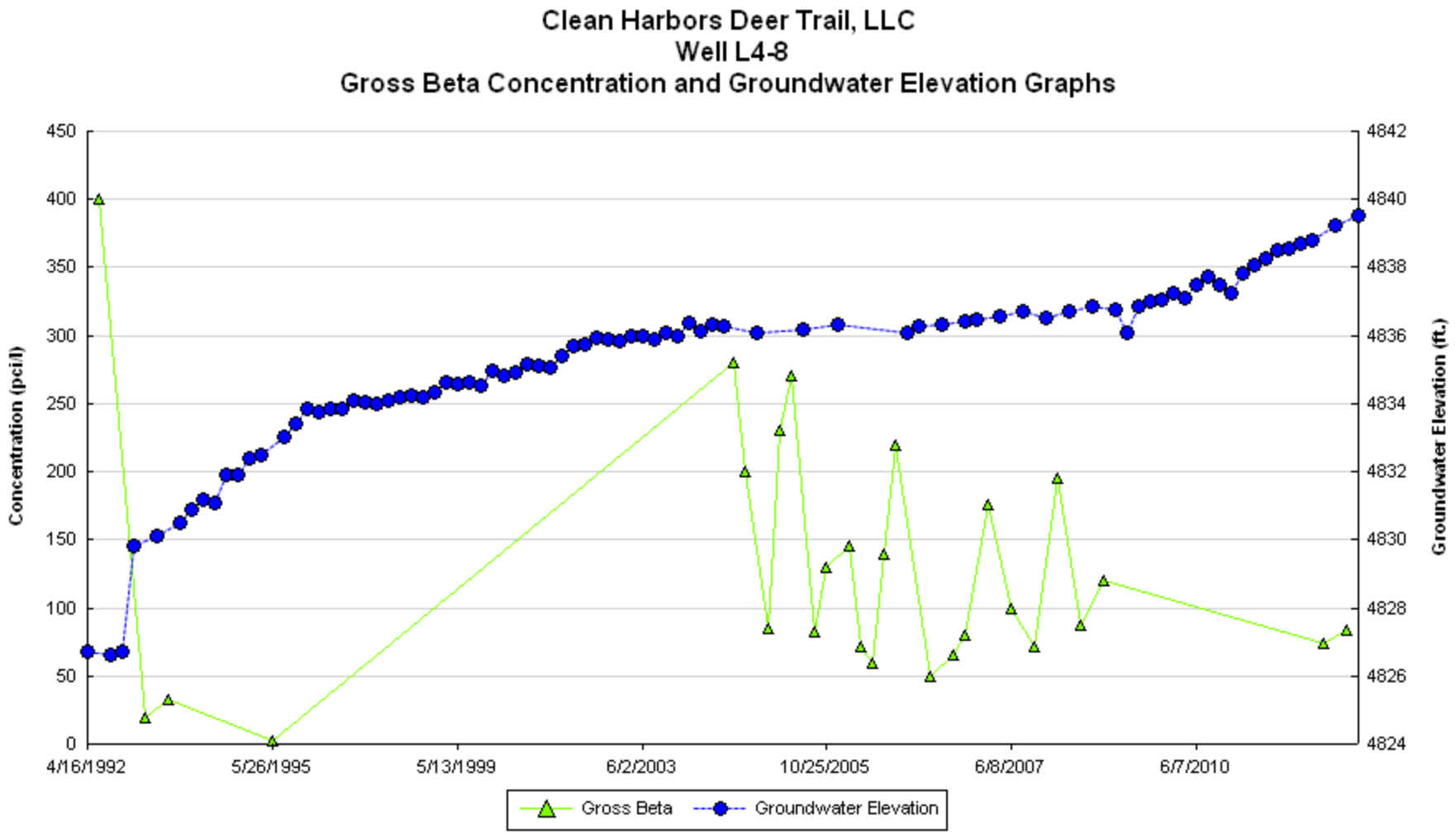
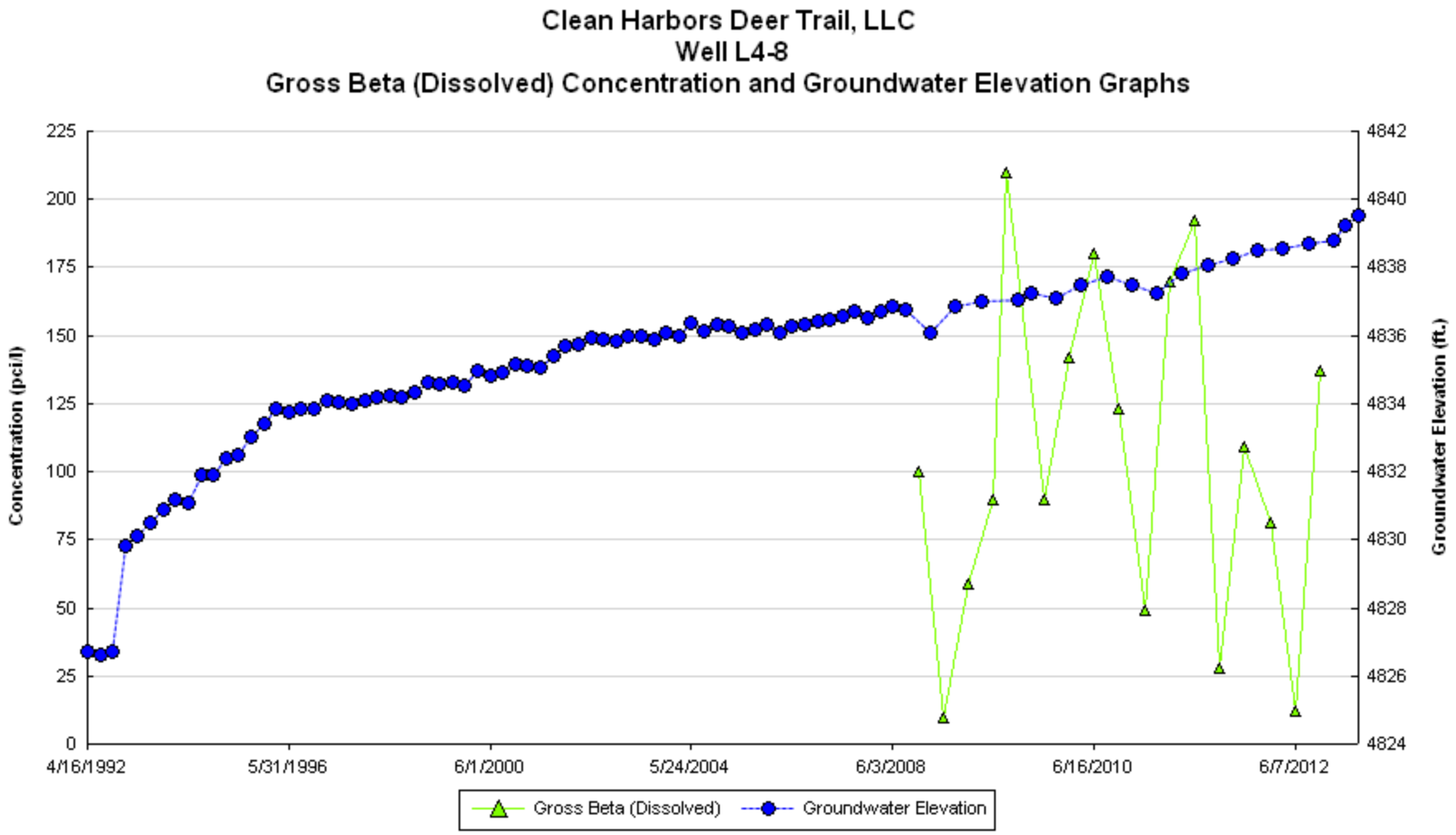
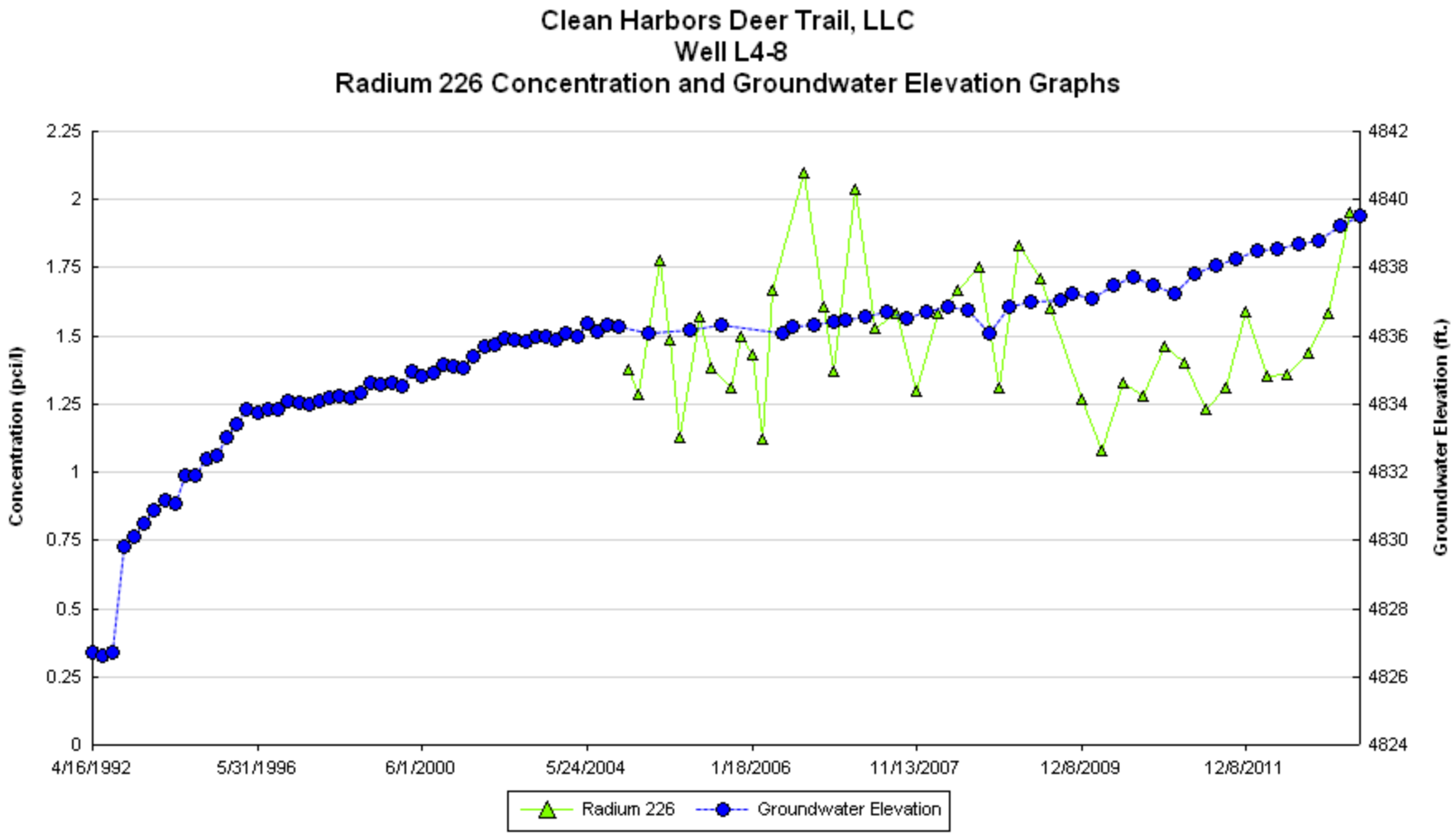
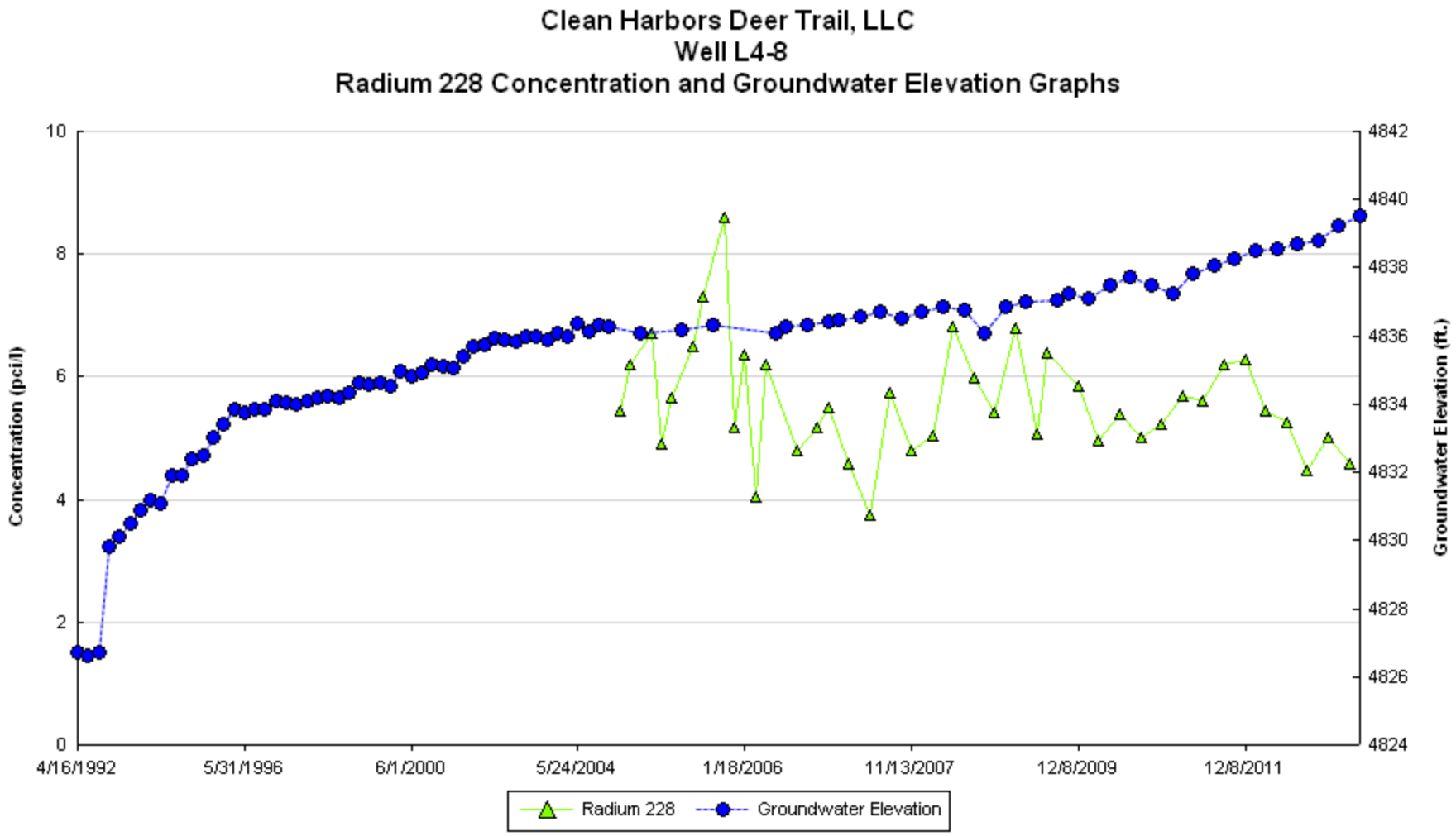

Clean Harbors Deer Trail, LLC
Well L4-8
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
400
350
300
250
200
150
100
50
0
4842
4840
4838
4836
4834
4832
4830
4828
4826
4824
4/16/1992
5/26/1995
5/13/1999
6/2/2003
10/25/2005
6/8/2007
6/7/2010
Gross Alpha
Groundwater Elevation

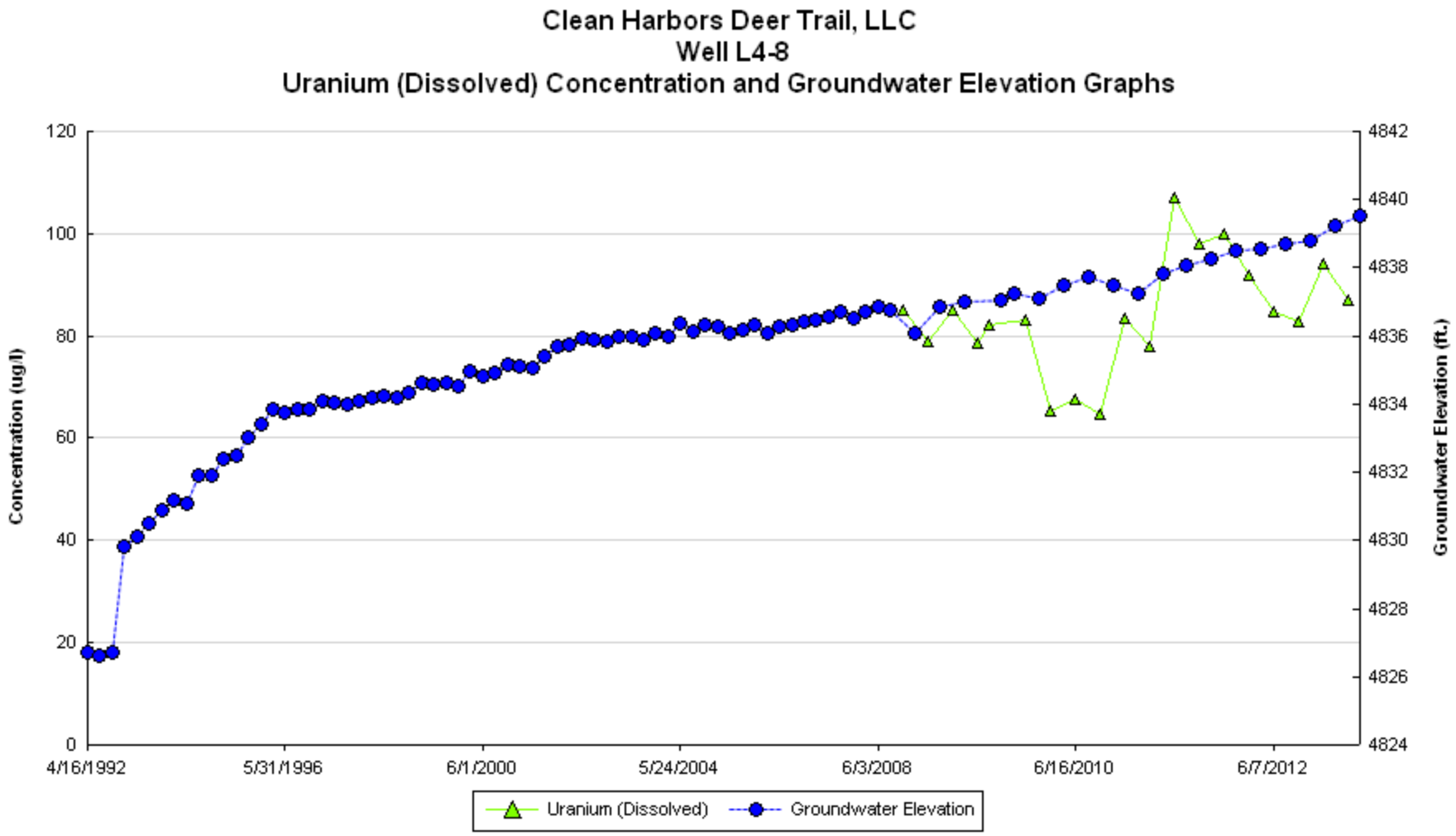

Clean Harbors Deer Trail, LLC
Well L4-8
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
300
250
200
150
100
50
0
4842
4840
4838
4836
4834
4832
4830
4828
4826
4824
4/16/1992
5/31/1996
6/1/2000
5/24/2004
6/3/2008
6/16/2010
6/7/2012
Gross Alpha (Dissolved)
Groundwater Elevation

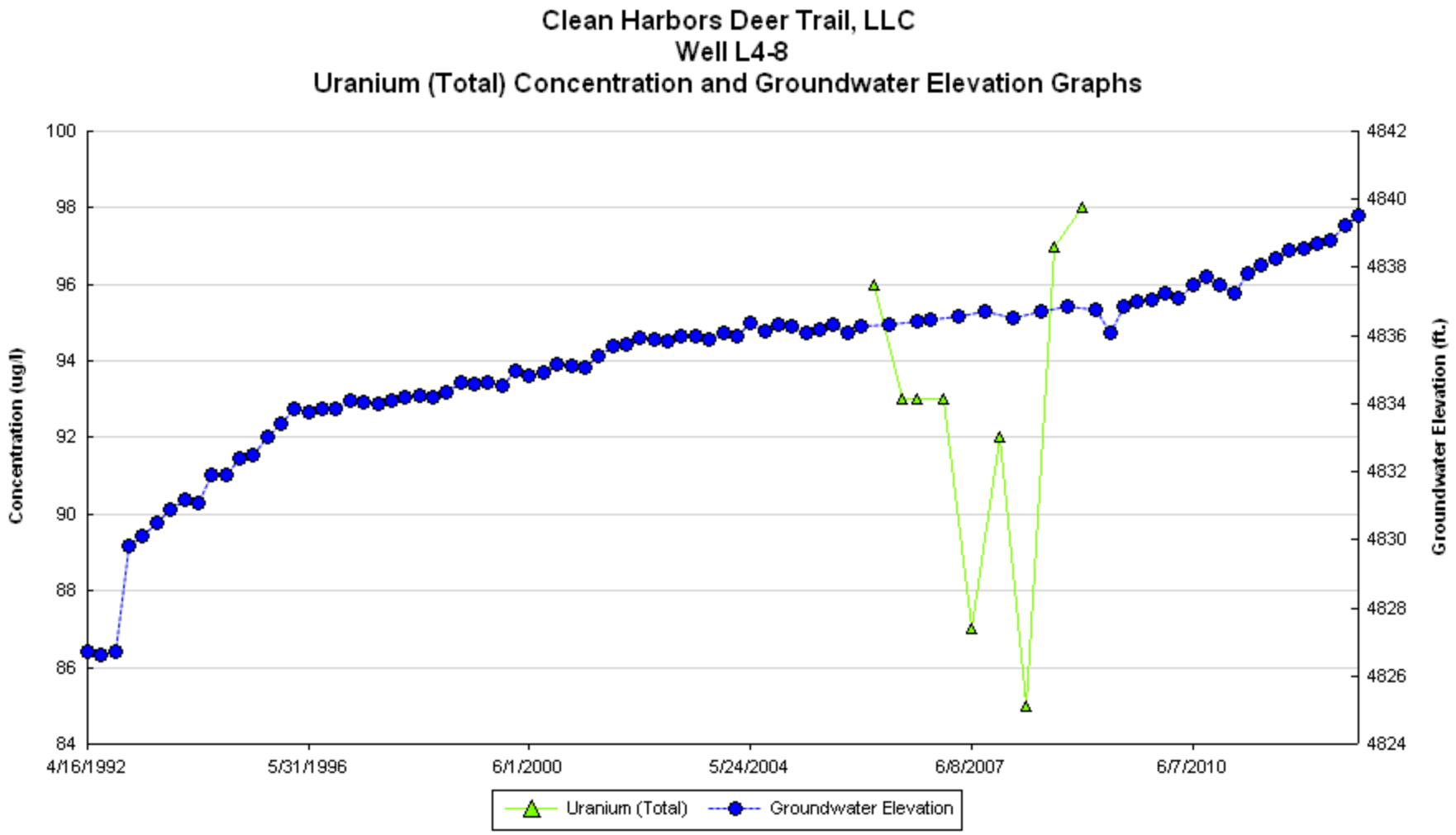

Clean Harbors Deer Trail, LLC
Well L4-8
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
450
400
350
300
250
200
150
100
50
0
4842
4840
4838
4836
4834
4832
4830
4828
4826
4824
4/16/1992
5/26/1995
5/13/1999
6/2/2003
10/25/2005
6/8/2007
6/7/2010
Gross Beta
Groundwater Elevation

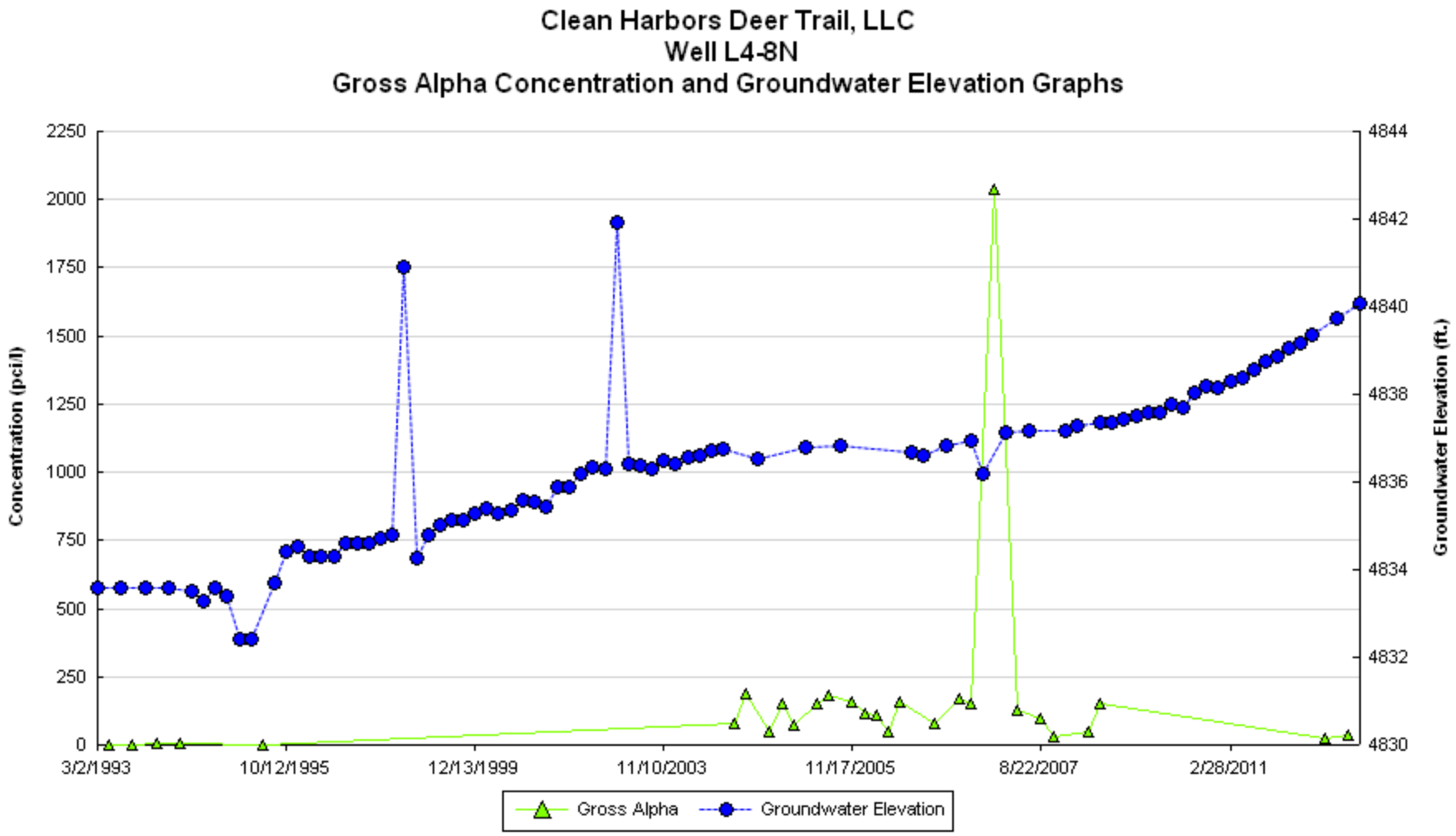

Clean Harbors Deer Trail, LLC
Well L4-8
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
225
200
175
150
125
100
75
50
25
0
4842
4840
4838
4836
4834
4832
4830
4828
4826
4824
4/16/1992
5/31/1996
6/1/2000
5/24/2004
6/3/2008
6/16/2010
6/7/2012
Gross Beta (Dissolved)
Groundwater Elevation

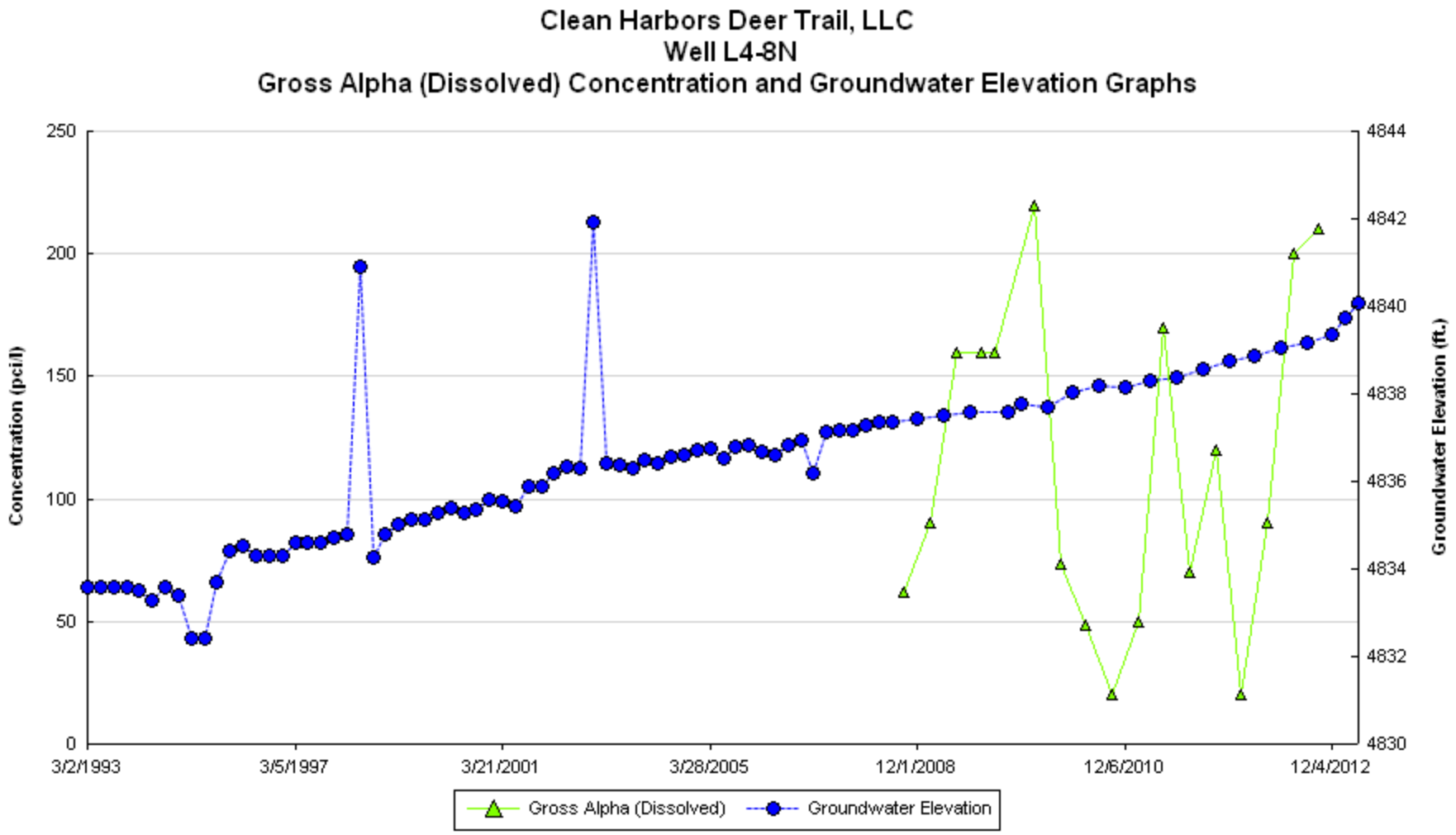

Clean Harbors Deer Trail, LLC
Well L4-8
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2.25
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
4842
4840
4838
4836
4834
4832
4830
4828
4826
4824
4/16/1992
5/31/1996
6/1/2000
5/24/2004
1/18/2006
11/13/2007
12/8/2009
12/8/2011
Radium 226
Groundwater Elevation

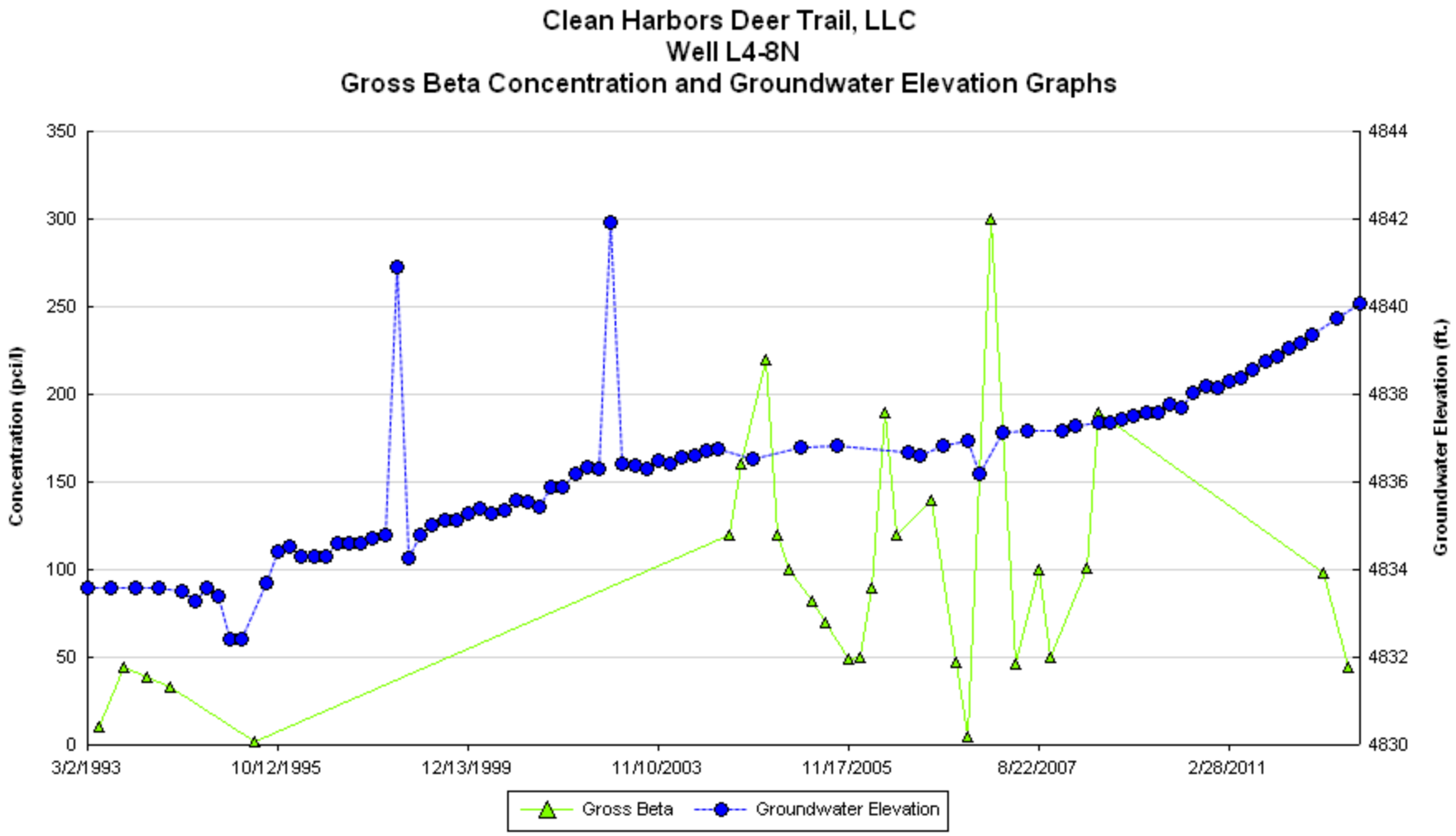

Clean Harbors Deer Trail, LLC
Well L4-8
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
4824
4826
4828
4830
4832
4834
4836
4838
4840
4842
4/16/1992
5/31/1996
6/1/2000
5/24/2004
1/18/2006
11/13/2007
12/8/2009
12/8/2011
Radium 228
Groundwater Elevation

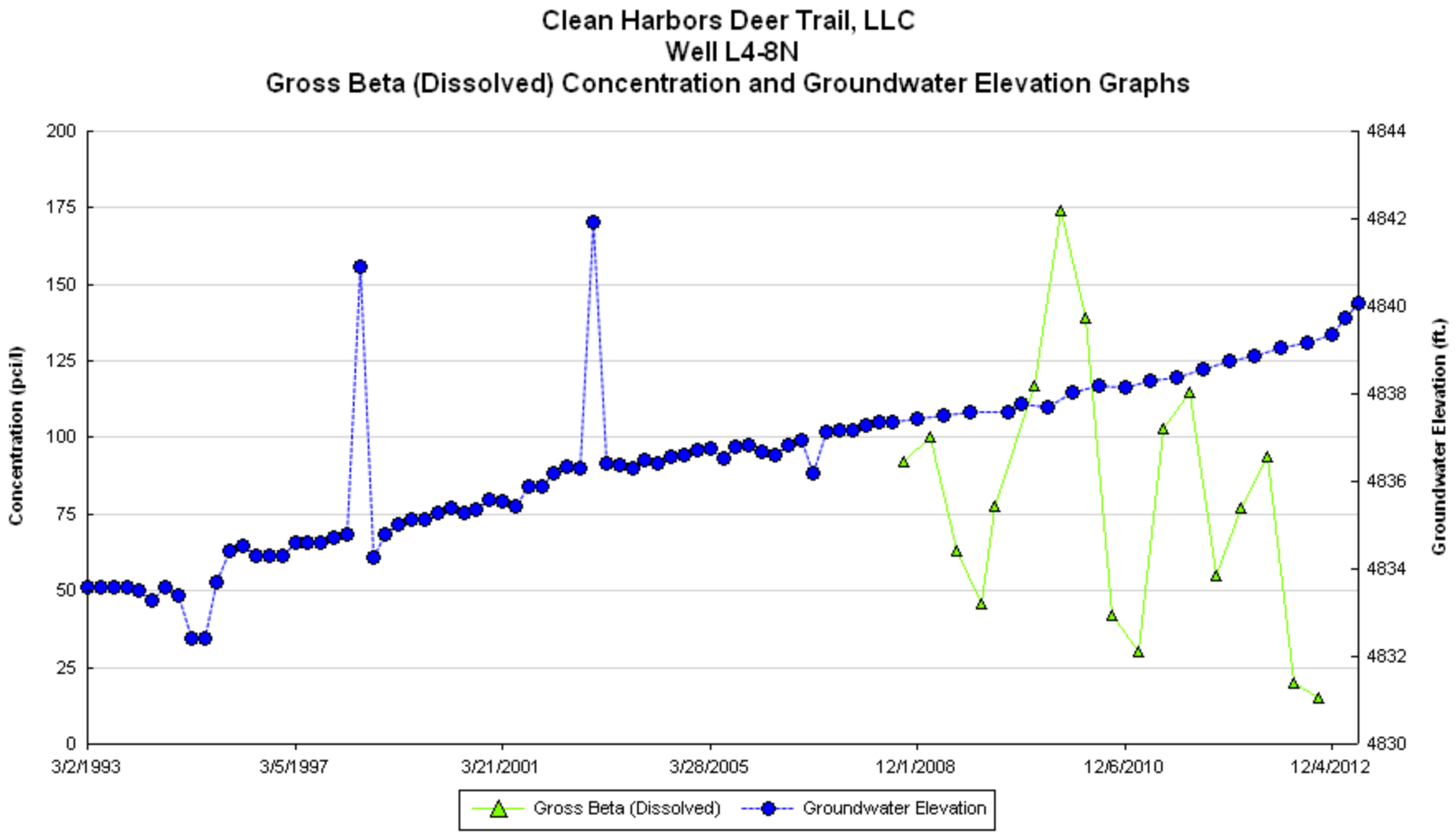

Clean Harbors Deer Trail, LLC
Well L4-8
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
120
100
80
60
40
20
0
4842
4840
4838
4836
4834
4832
4830
4828
4826
4824
4/16/1992
5/31/1996
6/1/2000
5/24/2004
6/3/2008
6/16/2010
6/7/2012
Uranium (Dissolved)
Groundwater Elevation

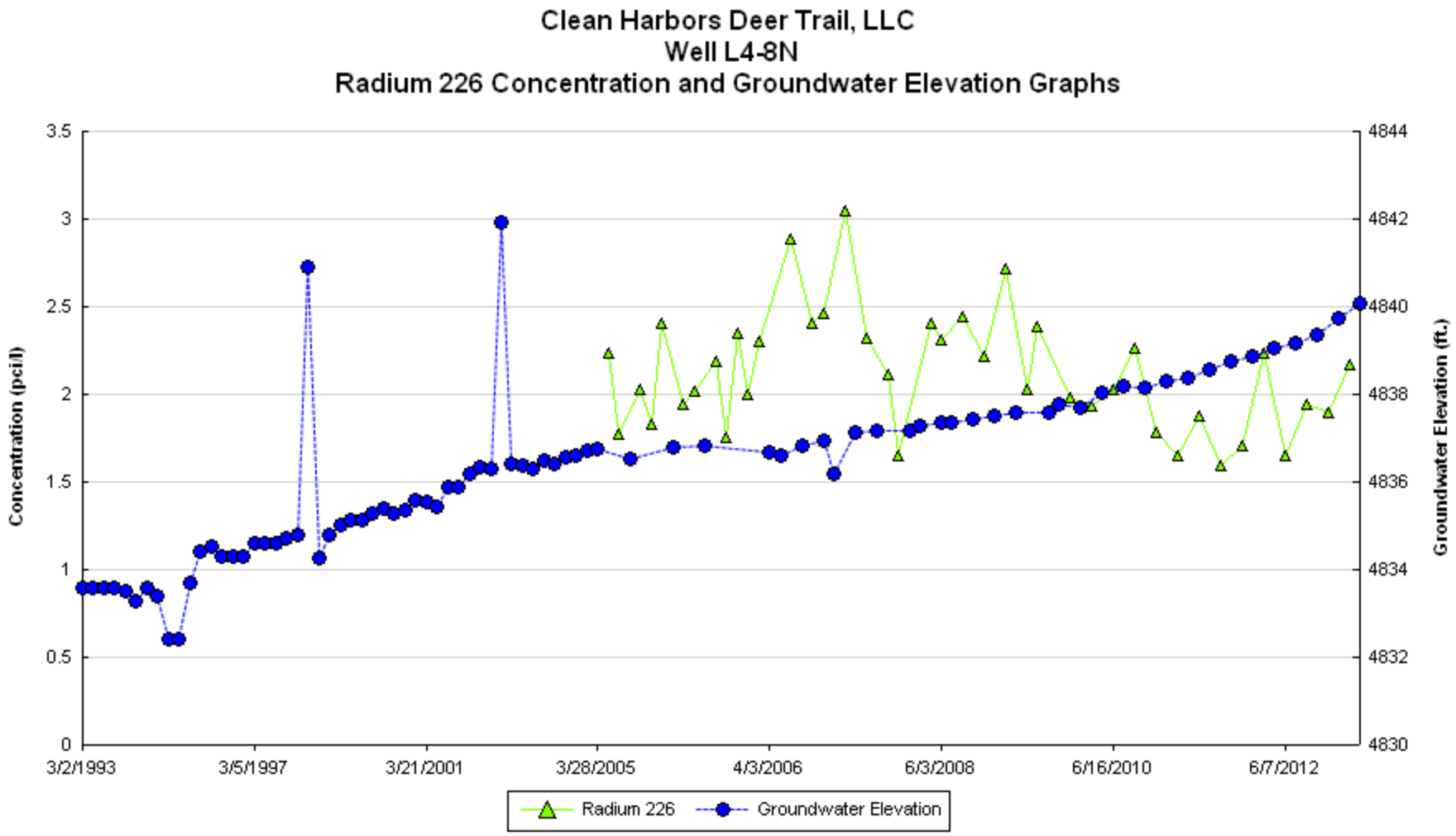

Clean Harbors Deer Trail, LLC
Well L4-8
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
100
98
96
94
92
90
88
86
84
4842
4840
4838
4836
4834
4832
4830
4828
4826
4824
4/16/1992
5/31/1996
6/1/2000
5/24/2004
6/8/2007
6/7/2010
Uranium (Total)
Groundwater Elevation

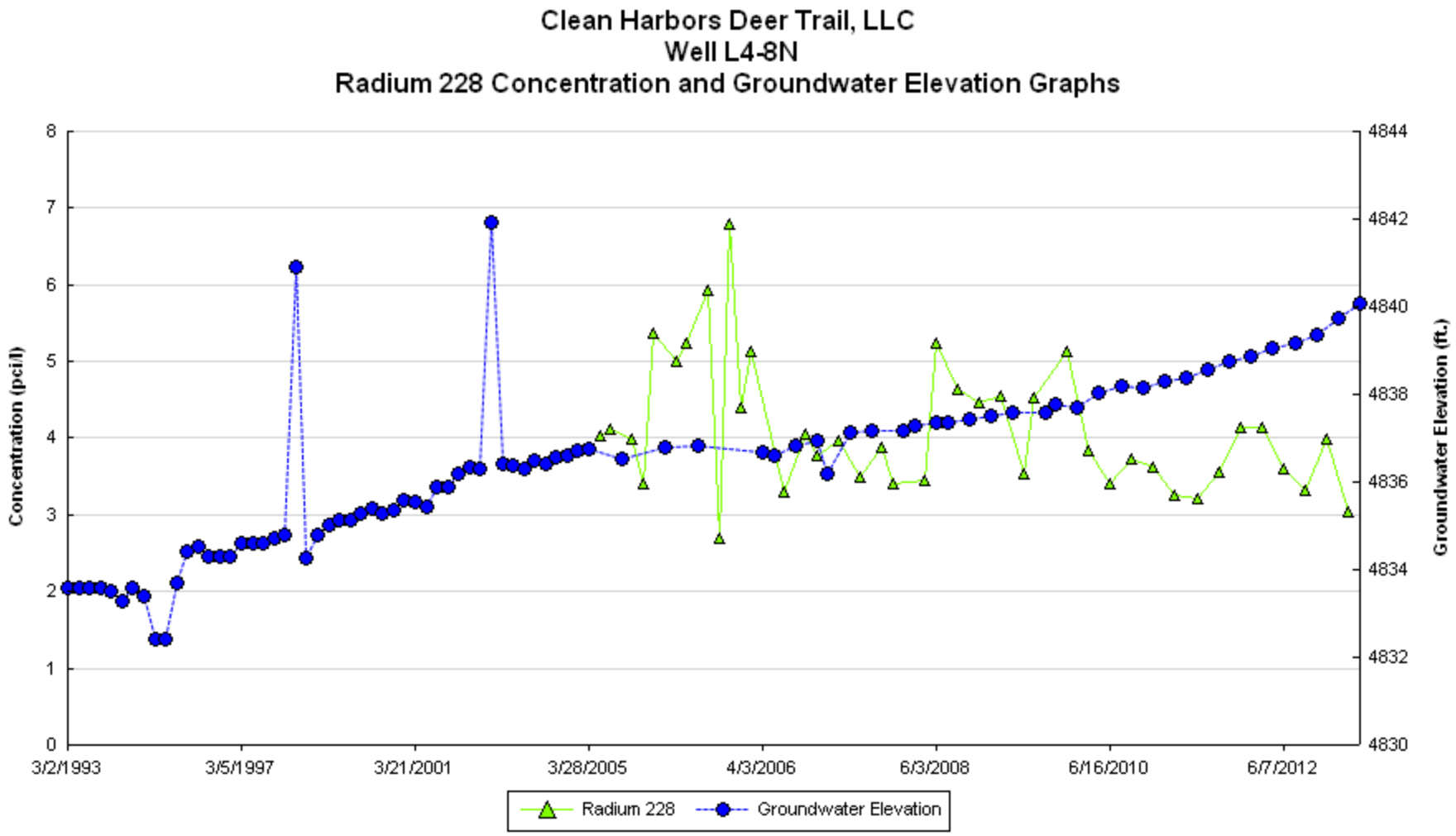

Clean Harbors Deer Trail, LLC
Well L4-8N
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2250
2000
1750
1500
1250
1000
750
500
250
0
4844
4842
4840
4838
4836
4834
4832
4830
3/2/1993
10/12/1995
12/13/1999
11/10/2003
11/17/2005
8/22/2007
2/28/2011
Gross Alpha
Groundwater Elevation

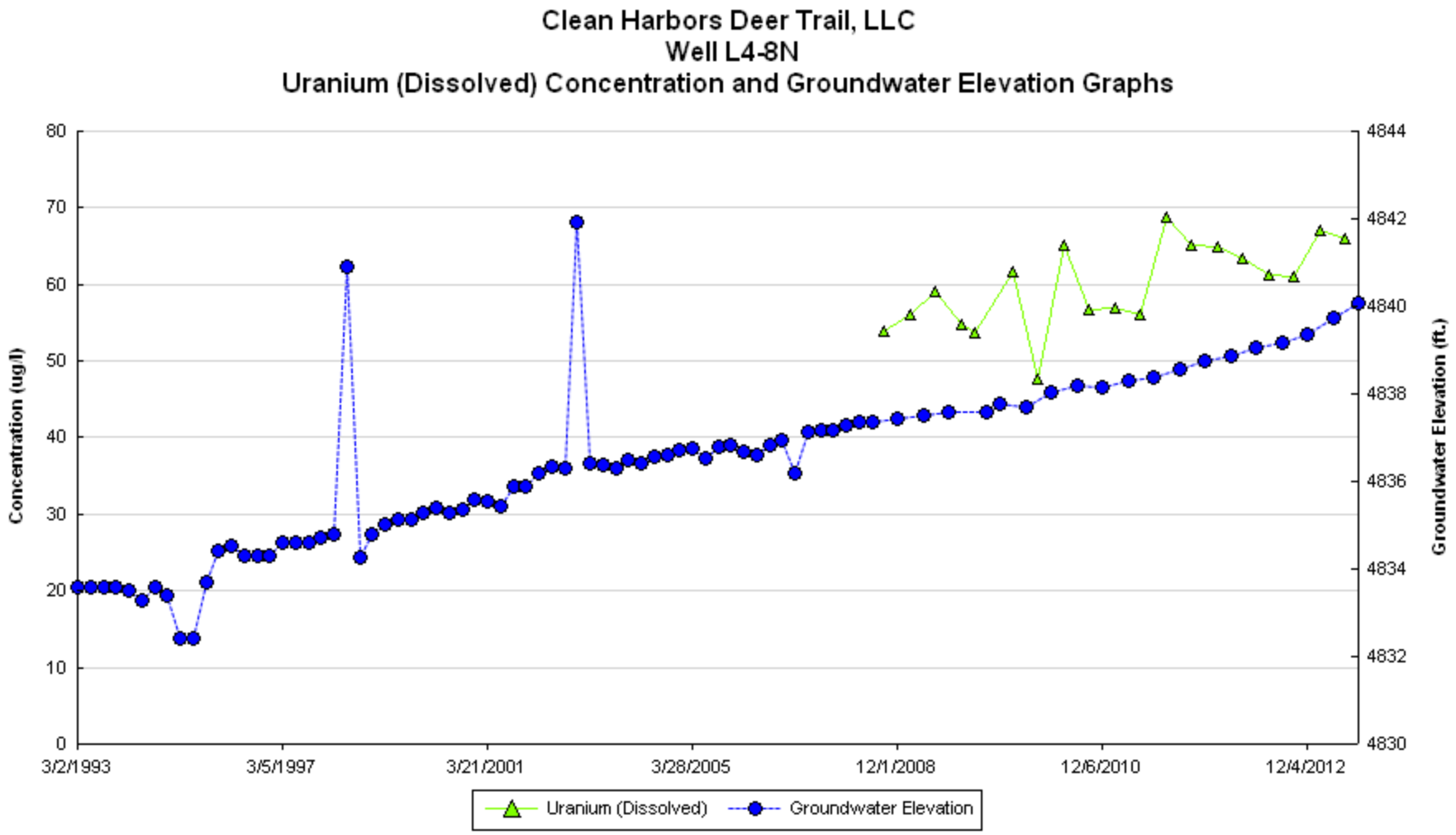

Clean Harbors Deer Trail, LLC
Well L4-8N
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
250
200
150
100
50
0
4844
4842
4840
4838
4836
4834
4832
4830
3/2/1993
3/5/1997
3/21/2001
3/28/2005
12/1/2008
12/6/2010
12/4/2012
Gross Alpha (Dissolved)
Groundwater Elevation

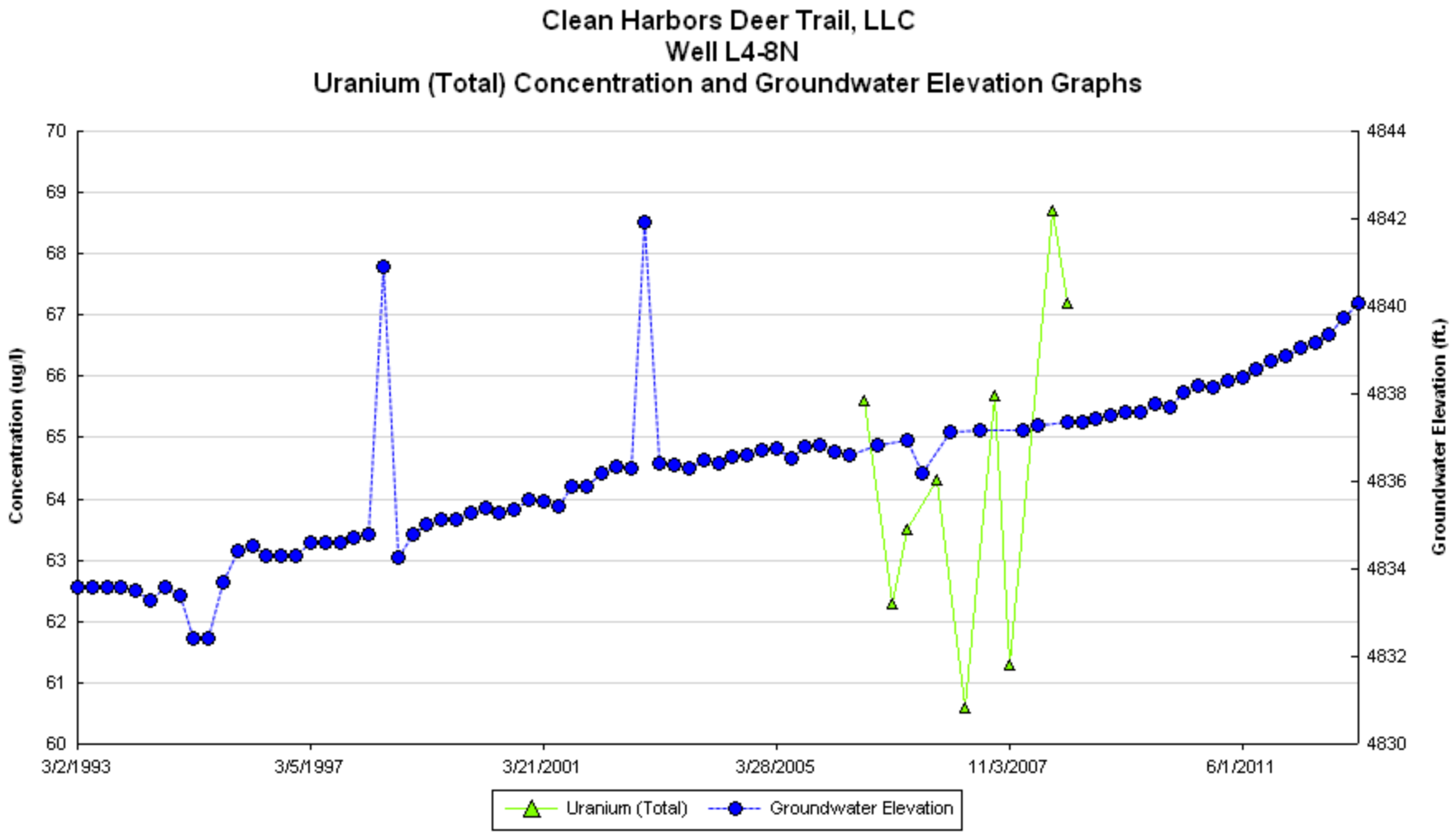

Clean Harbors Deer Trail, LLC
Well L4-8N
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
4844
4842
4840
4838
4836
4834
4832
4830
3/2/1993
10/12/1995
12/13/1999
11/10/2003
11/17/2005
8/22/2007
2/28/2011
Gross Beta
Groundwater Elevation

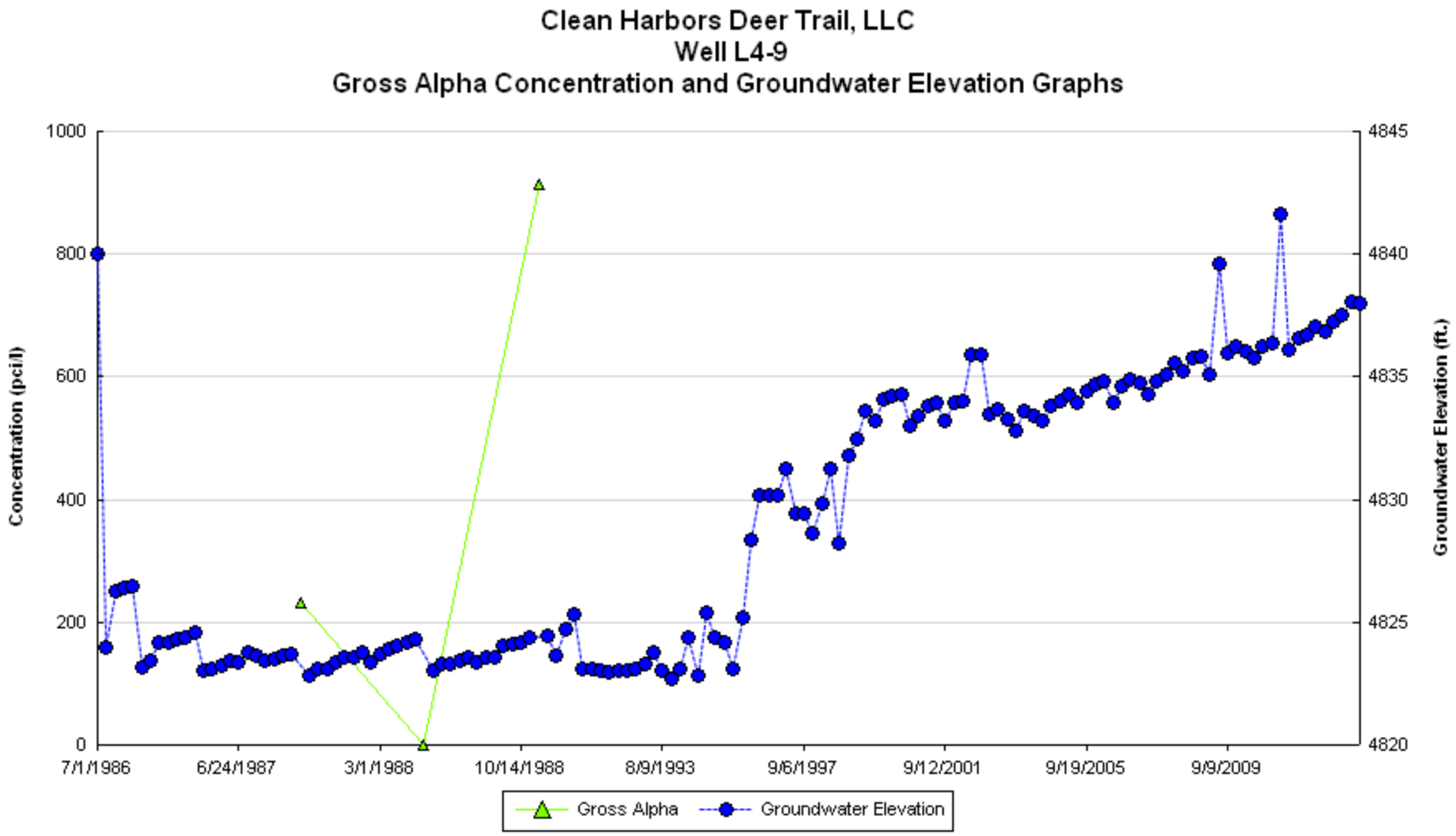

Clean Harbors Deer Trail, LLC
Well L4-8N
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
200
175
150
125
100
75
50
25
0
4844
4842
4840
4838
4836
4834
4832
4830
3/2/1993
3/5/1997
3/21/2001
3/28/2005
12/1/2008
12/6/2010
12/4/2012
Gross Beta (Dissolved)
Groundwater Elevation

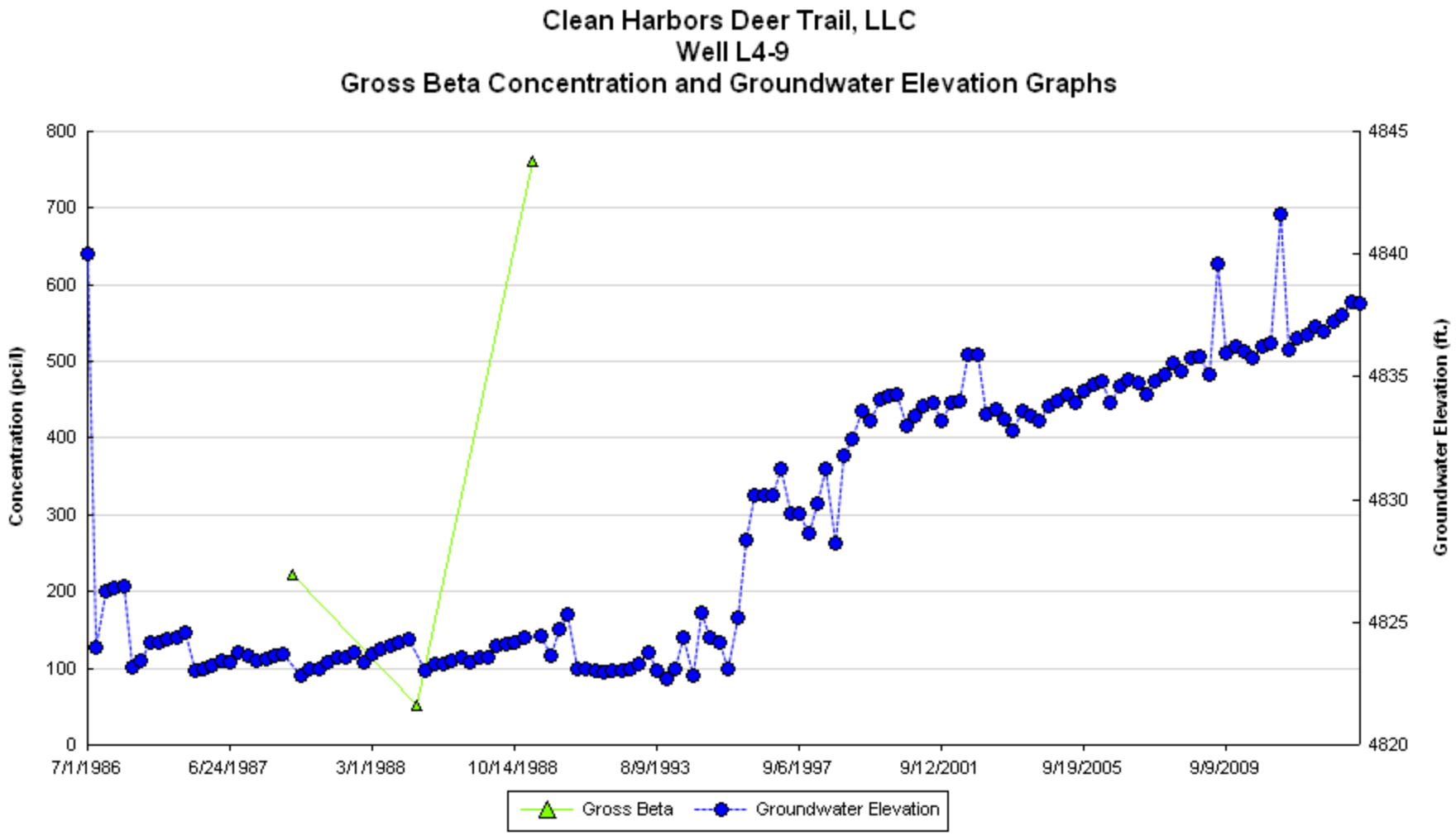

Clean Harbors Deer Trail, LLC
Well L4-8N
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3.5
3
2.5
2
1.5
1
0.5
0
4844
4842
4840
4838
4836
4834
4832
4830
3/2/1993
3/5/1997
3/21/2001
3/28/2005
4/3/2006
6/3/2008
6/16/2010
6/7/2012
Radium 226
Groundwater Elevation

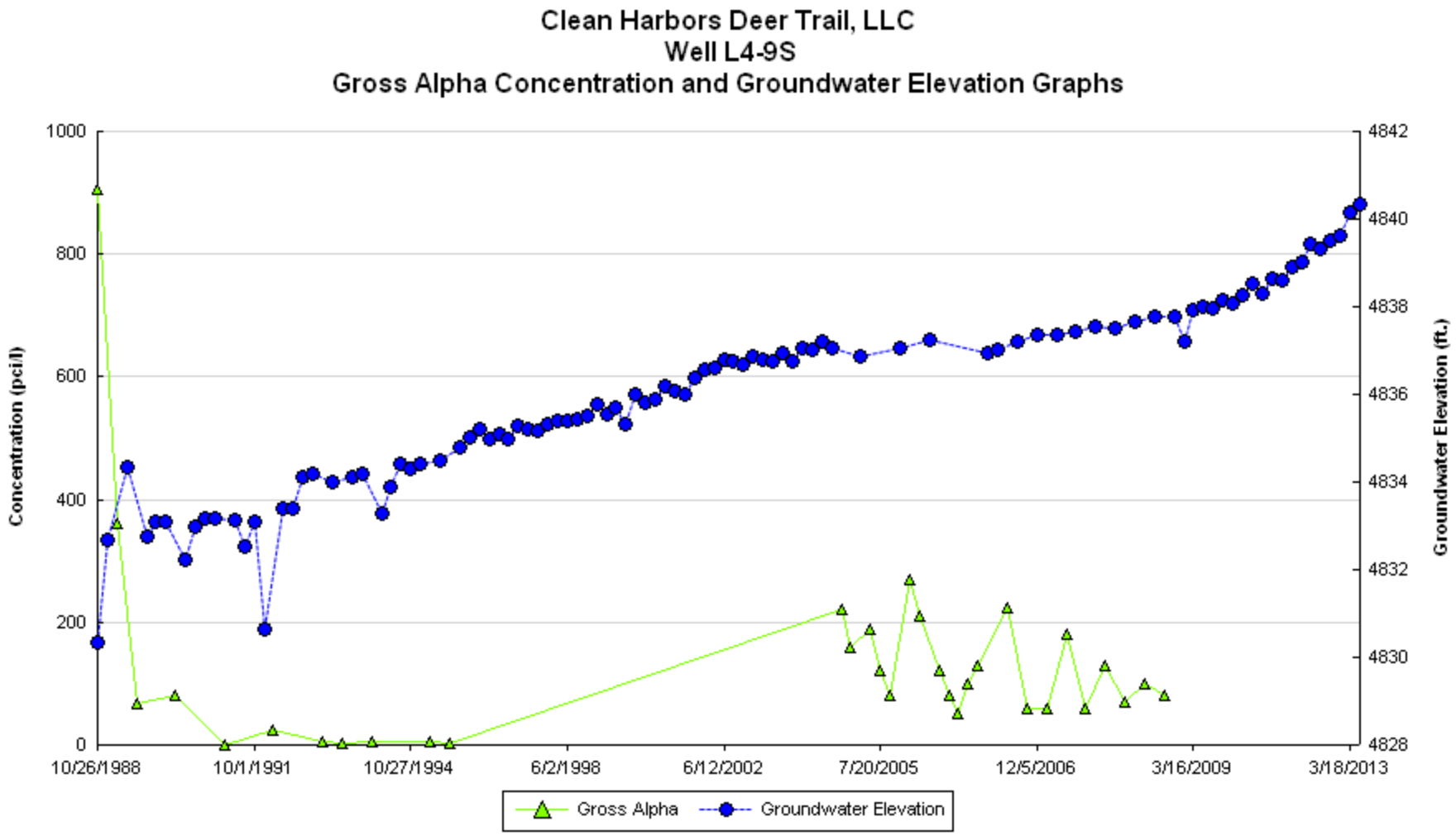

Clean Harbors Deer Trail, LLC
Well L4-8N
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
1
2
3
4
5
6
7
8
4830
4832
4834
4836
4838
4840
4842
4844
3/2/1993
3/5/1997
3/21/2001
3/28/2005
4/3/2006
6/3/2008
6/16/2010
6/7/2012
Radium 228
Groundwater Elevation

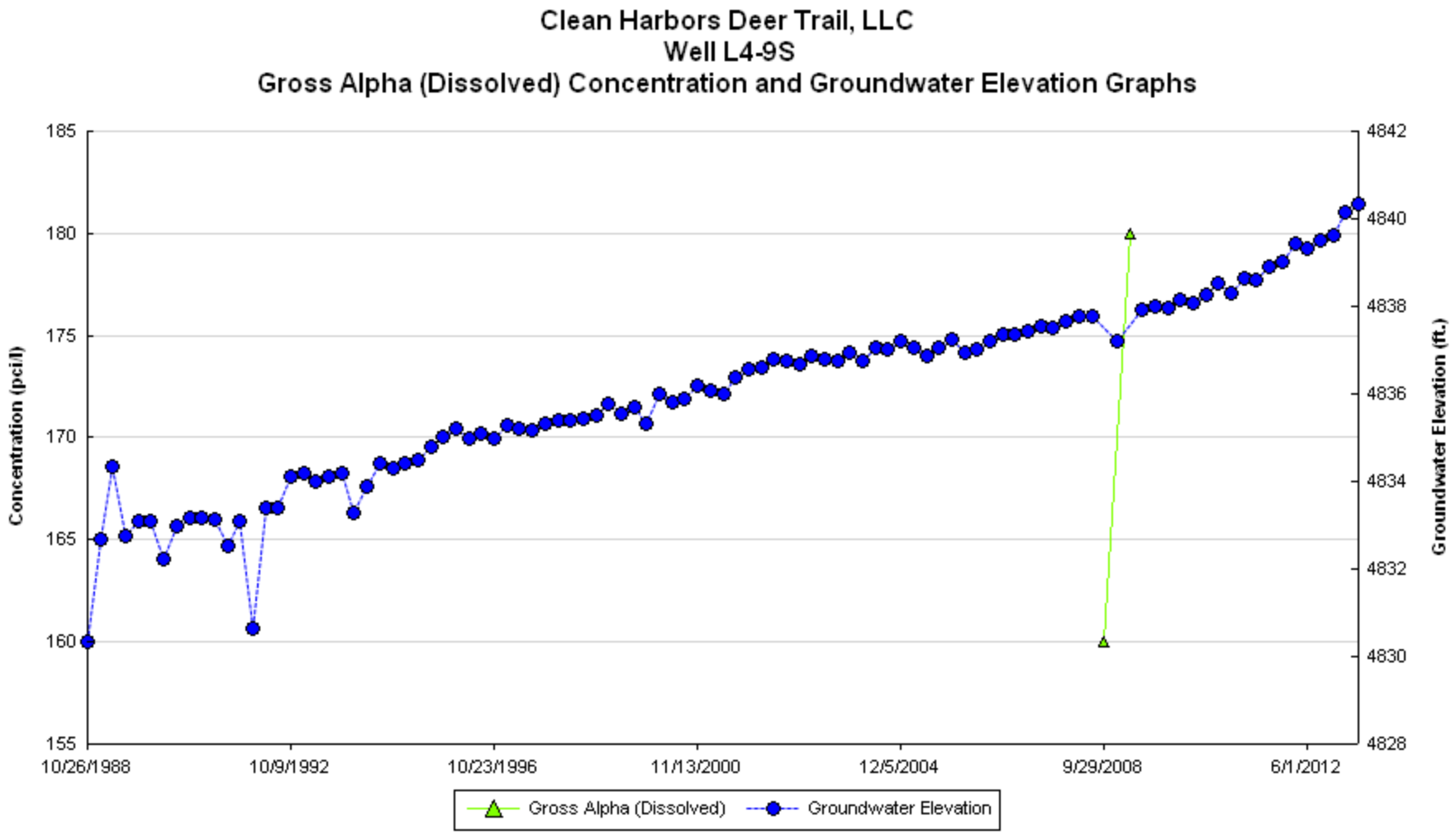

Clean Harbors Deer Trail, LLC
Well L4-8N
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
80
70
60
50
40
30
20
10
0
4844
4842
4840
4838
4836
4834
4832
4830
3/2/1993
3/5/1997
3/21/2001
3/28/2005
12/1/2008
12/6/2010
12/4/2012
Uranium (Dissolved)
Groundwater Elevation

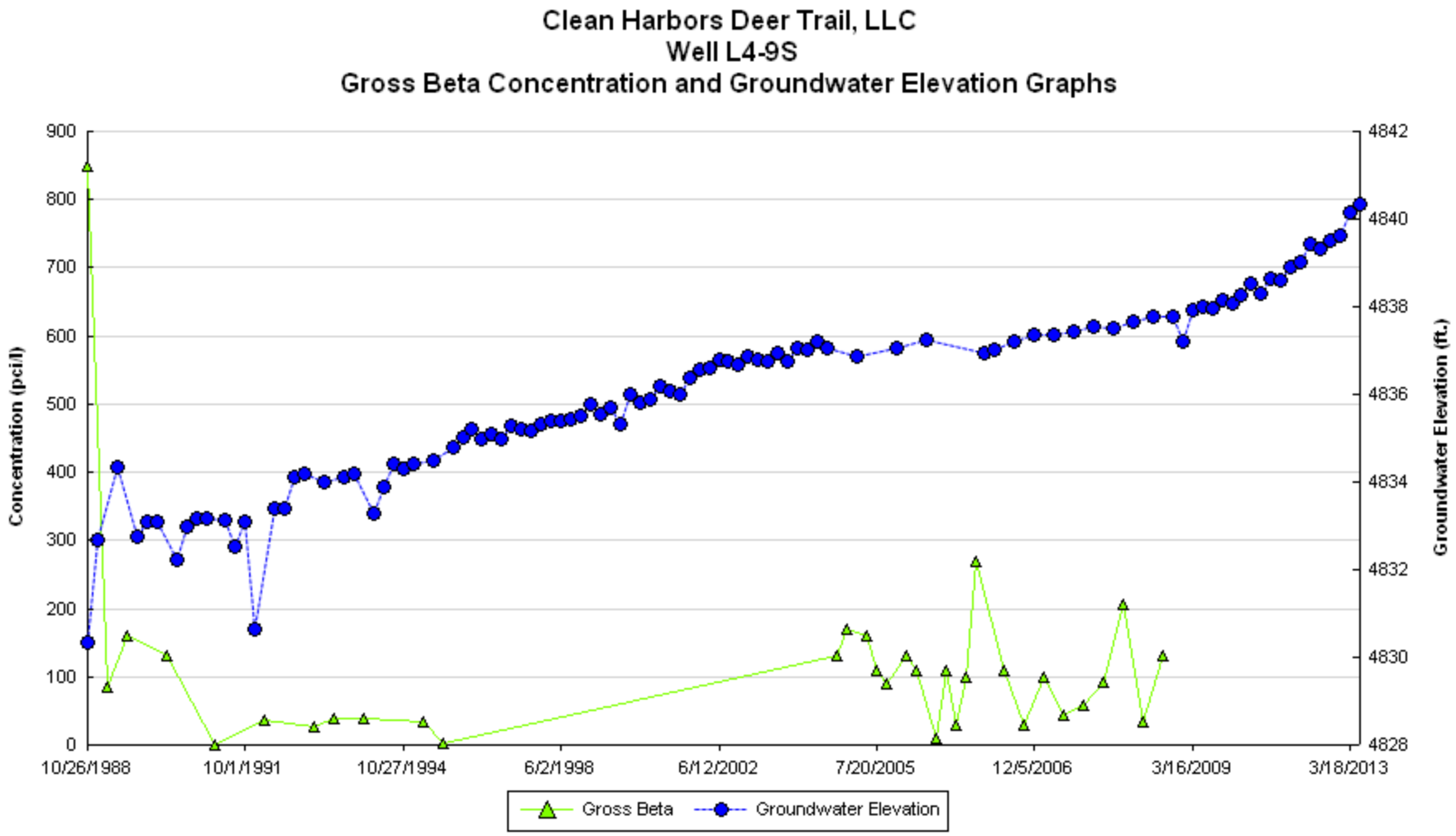

Clean Harbors Deer Trail, LLC
Well L4-8N
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
70
69
68
67
66
65
64
63
62
61
60
4844
4842
4840
4838
4836
4834
4832
4830
3/2/1993
3/5/1997
3/21/2001
3/28/2005
11/3/2007
6/1/2011
Uranium (Total)
Groundwater Elevation

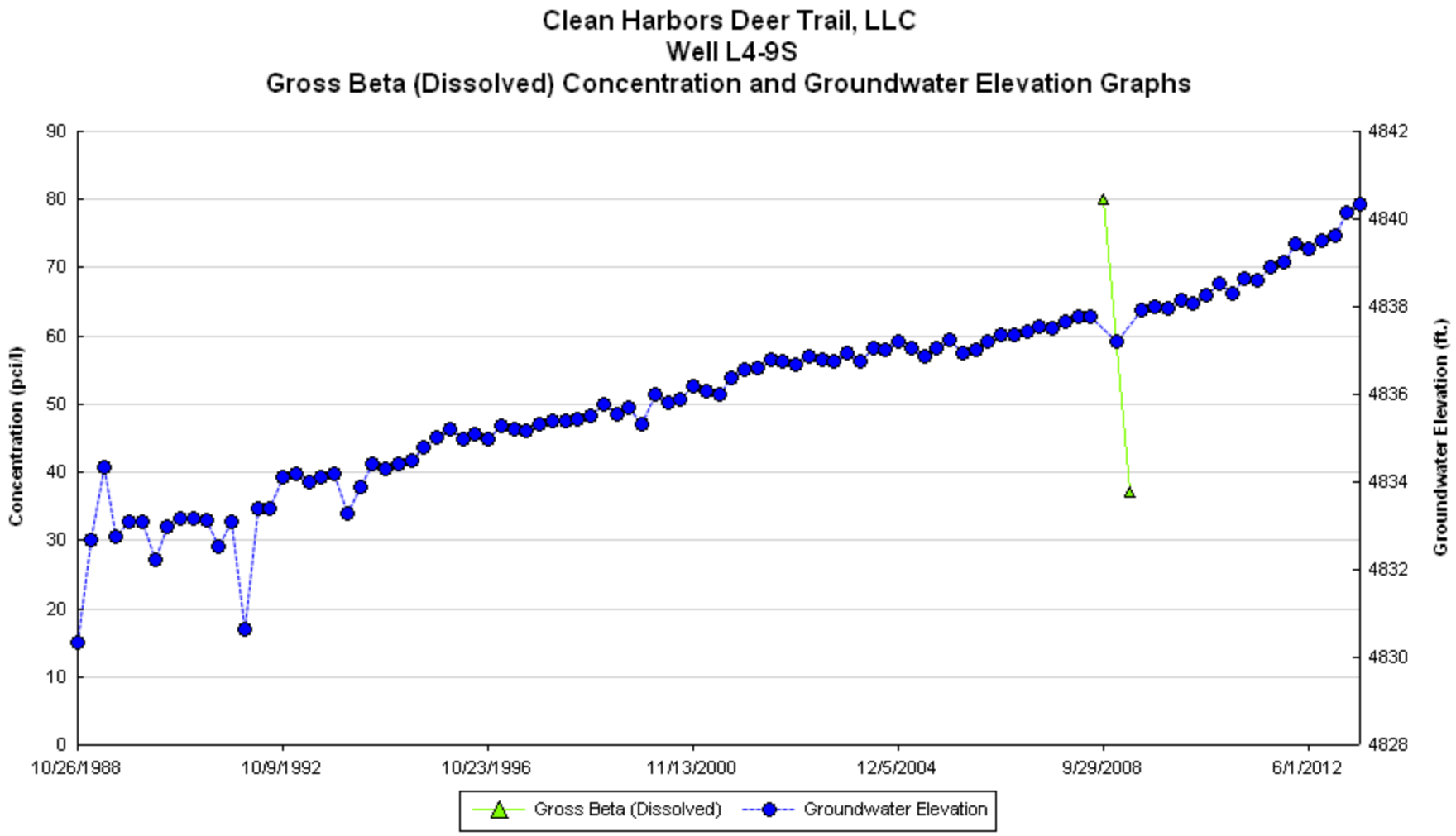

Clean Harbors Deer Trail, LLC
Well L4-9
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1000
800
600
400
200
0
4845
4840
4835
4830
4825
4820
7/1/1986
6/24/1987
3/1/1988
10/14/1988
8/9/1993
9/6/1997
9/12/2001
9/19/2005
9/9/2009
Gross Alpha
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-9
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
800
700
600
500
400
300
200
100
0
4845
4840
4835
4830
4825
4820
7/1/1986
6/24/1987
3/1/1988
10/14/1988
8/9/1993
9/6/1997
9/12/2001
9/19/2005
9/9/2009
Gross Beta
Groundwater Elevation

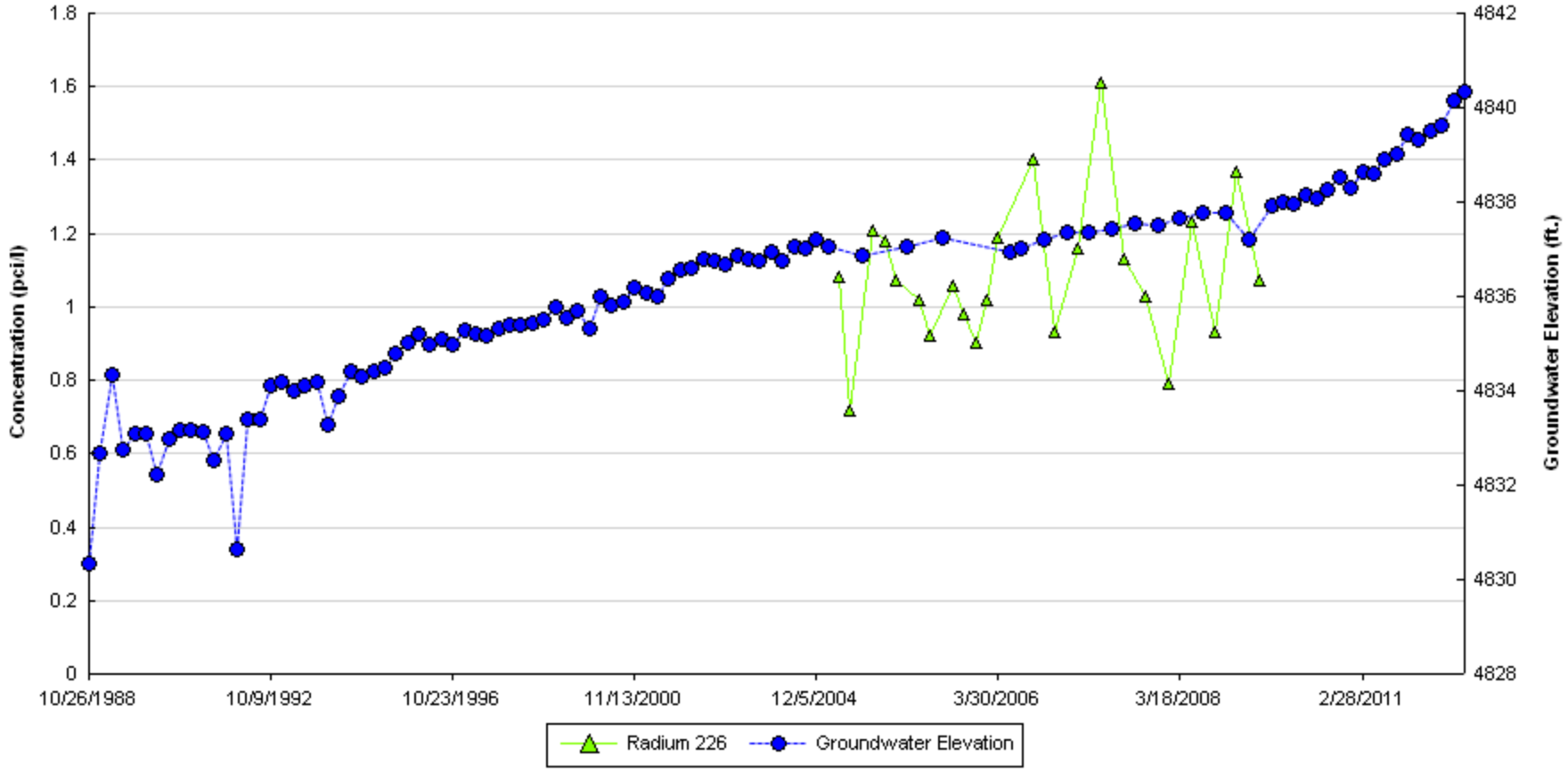

Clean Harbors Deer Trail, LLC
Well L4-9S
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1000
800
600
400
200
0
4842
4840
4838
4836
4834
4832
4830
4828
10/26/1988
10/1/1991
10/27/1994
6/2/1998
6/12/2002
7/20/2005
12/5/2006
3/16/2009
3/18/2013
Gross Alpha
Groundwater Elevation

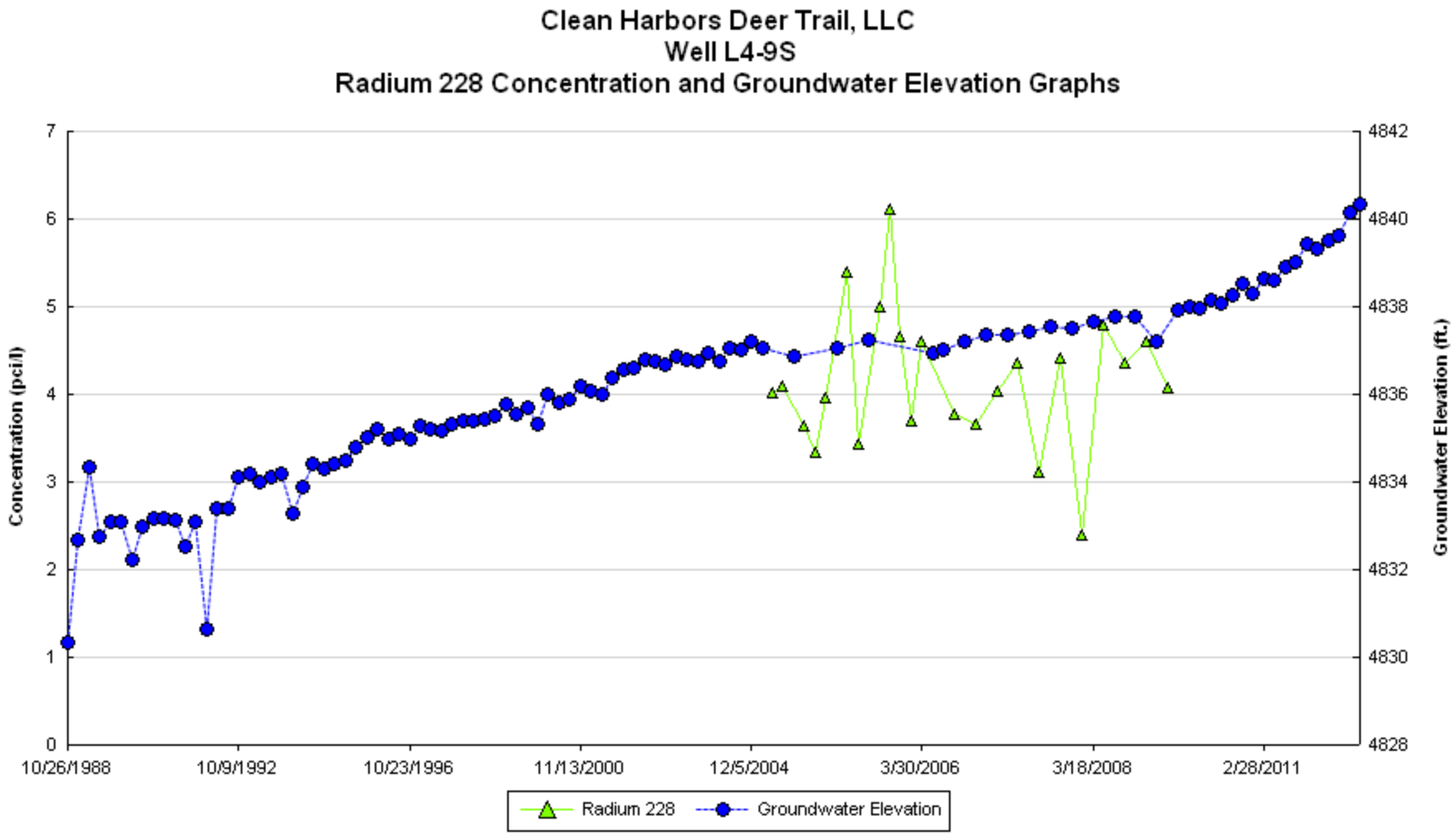

Clean Harbors Deer Trail, LLC
Well L4-9S
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
185
180
175
170
165
160
155
4842
4840
4838
4836
4834
4832
4830
4828
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
9/29/2008
6/1/2012
Gross Alpha (Dissolved)
Groundwater Elevation

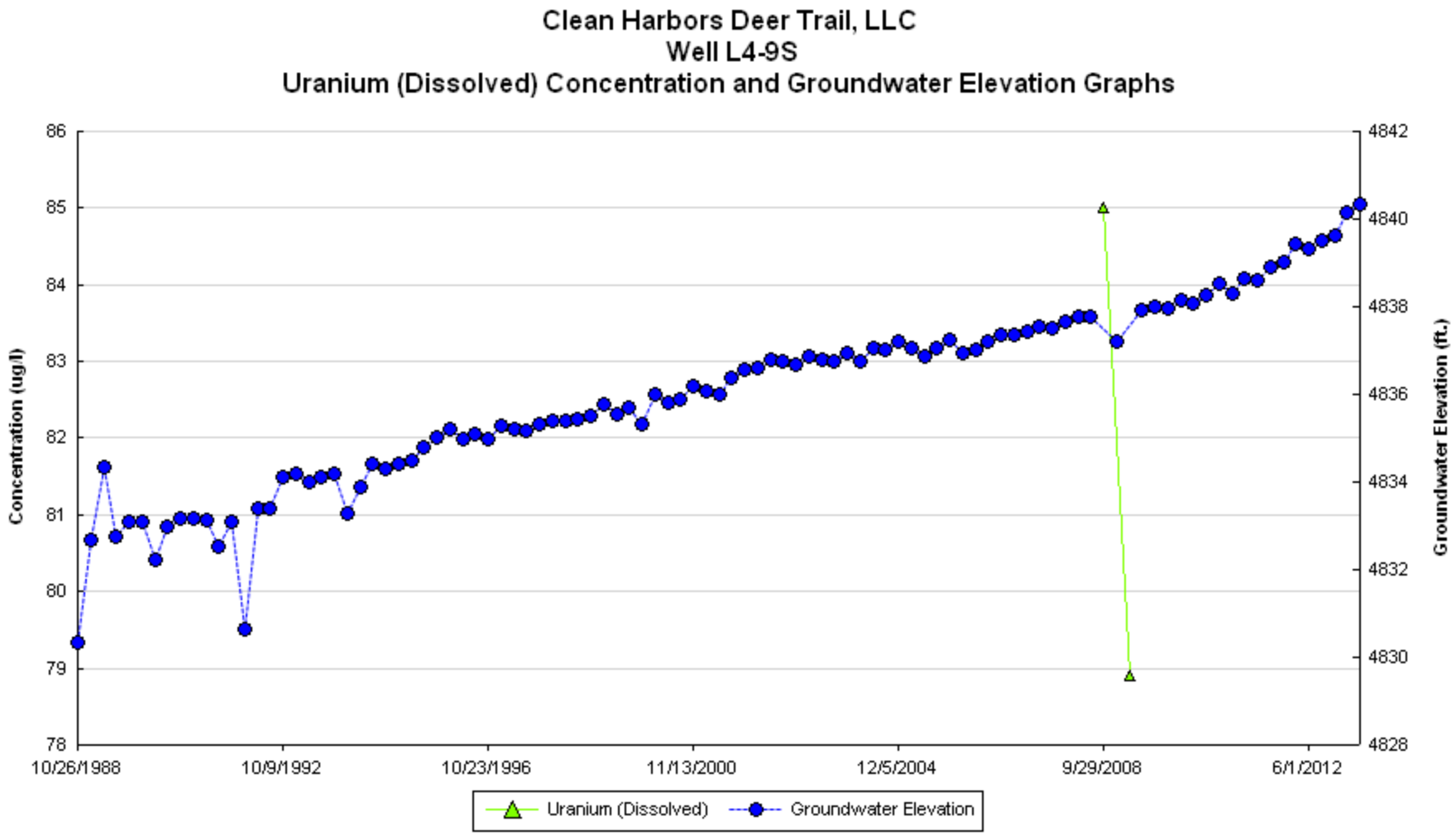

Clean Harbors Deer Trail, LLC
Well L4-9S
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
900
800
700
600
500
400
300
200
100
0
4842
4840
4838
4836
4834
4832
4830
4828
10/26/1988
10/1/1991
10/27/1994
6/2/1998
6/12/2002
7/20/2005
12/5/2006
3/16/2009
3/18/2013
Gross Beta
Groundwater Elevation

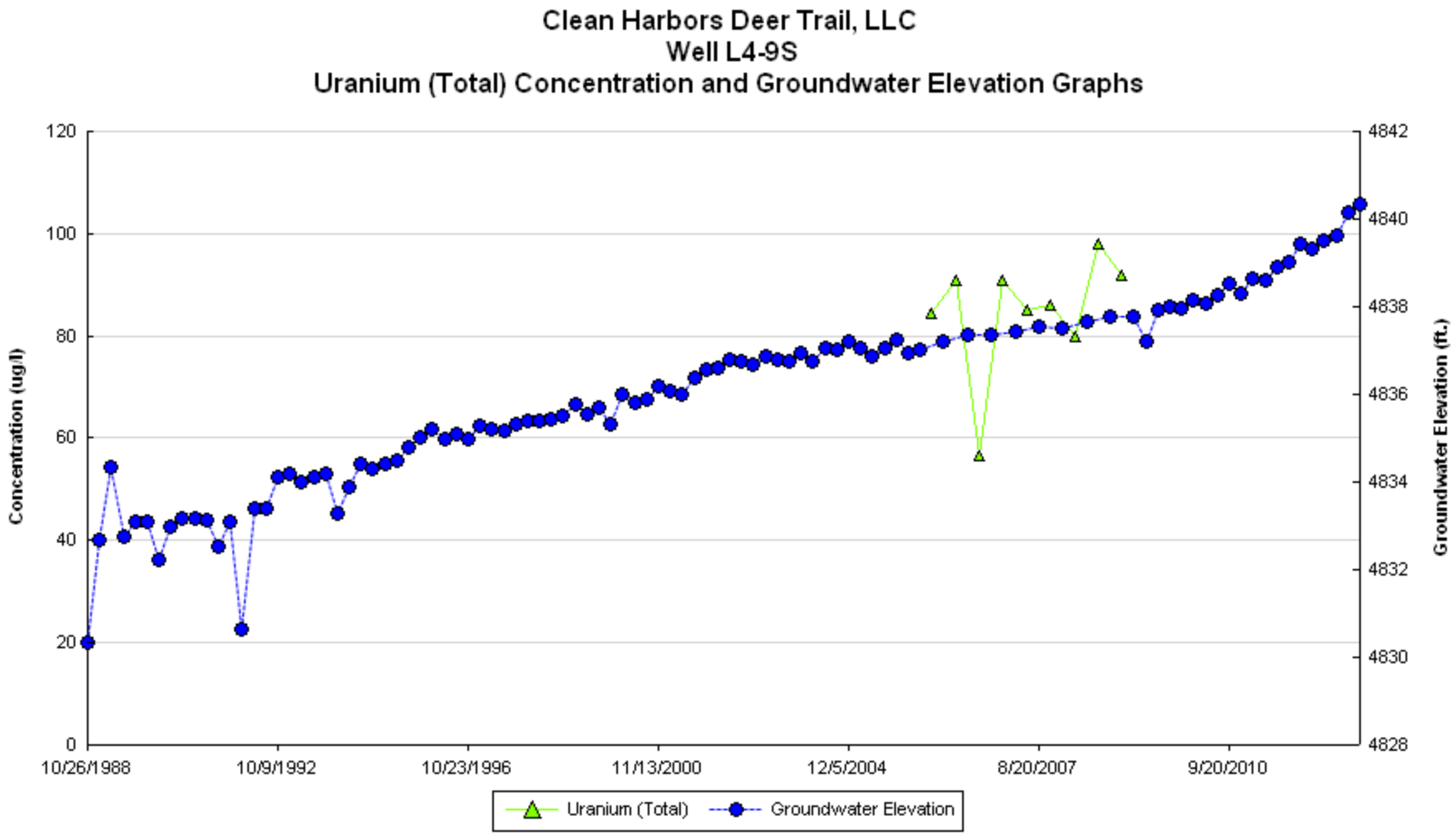

Clean Harbors Deer Trail, LLC
Well L4-9S
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
10
20
30
40
50
60
70
80
90
4828
4830
4832
4834
4836
4838
4840
4842
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
9/29/2008
6/1/2012
Gross Beta (Dissolved)
Groundwater Elevation

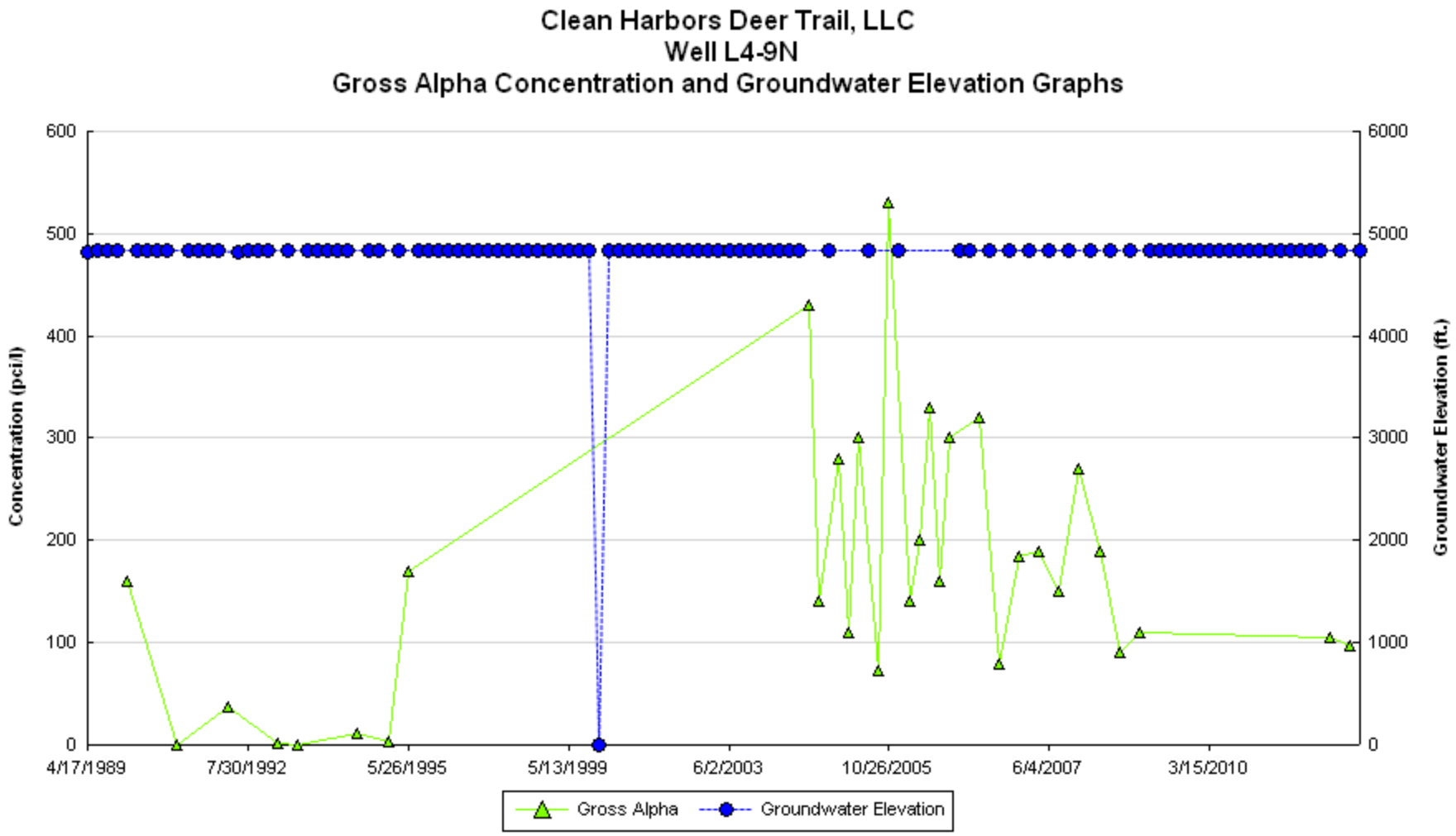
Clean Harbors Deer Trail, LLC
Well L4-9S
Radium 226 Concentration and Groundwater Elevation Graphs



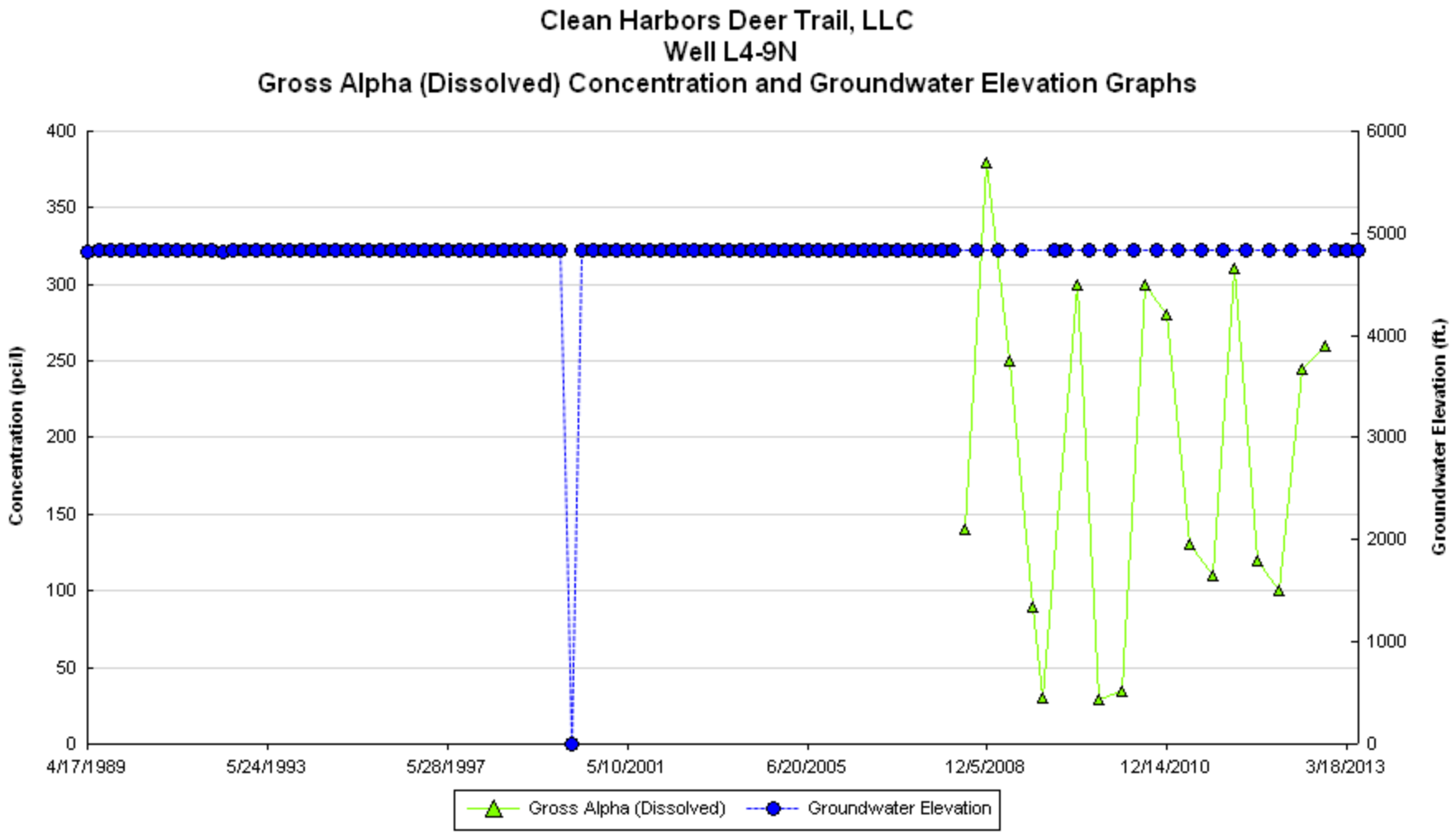

Clean Harbors Deer Trail, LLC
Well L4-9S
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
1
2
3
4
5
6
7
4828
4830
4832
4834
4836
4838
4840
4842
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
3/30/2006
3/18/2008
2/28/2011
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-9S
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
86
85
84
83
82
81
80
79
78
4842
4840
4838
4836
4834
4832
4830
4828
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
9/29/2008
6/1/2012
Uranium (Dissolved)
Groundwater Elevation

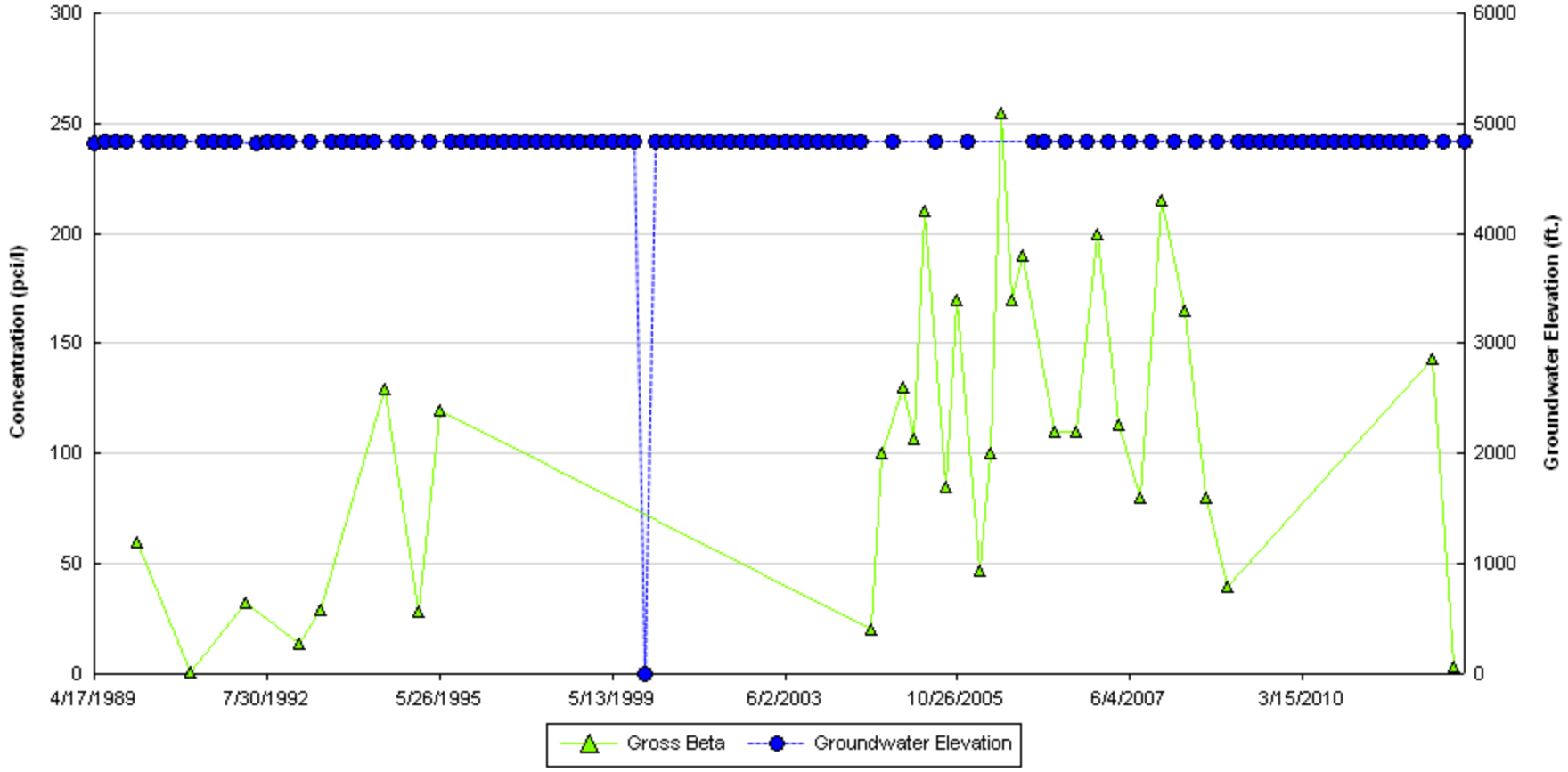

Clean Harbors Deer Trail, LLC
Well L4-9S
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
120
100
80
60
40
20
0
4842
4840
4838
4836
4834
4832
4830
4828
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
8/20/2007
9/20/2010
Uranium (Total)
Groundwater Elevation

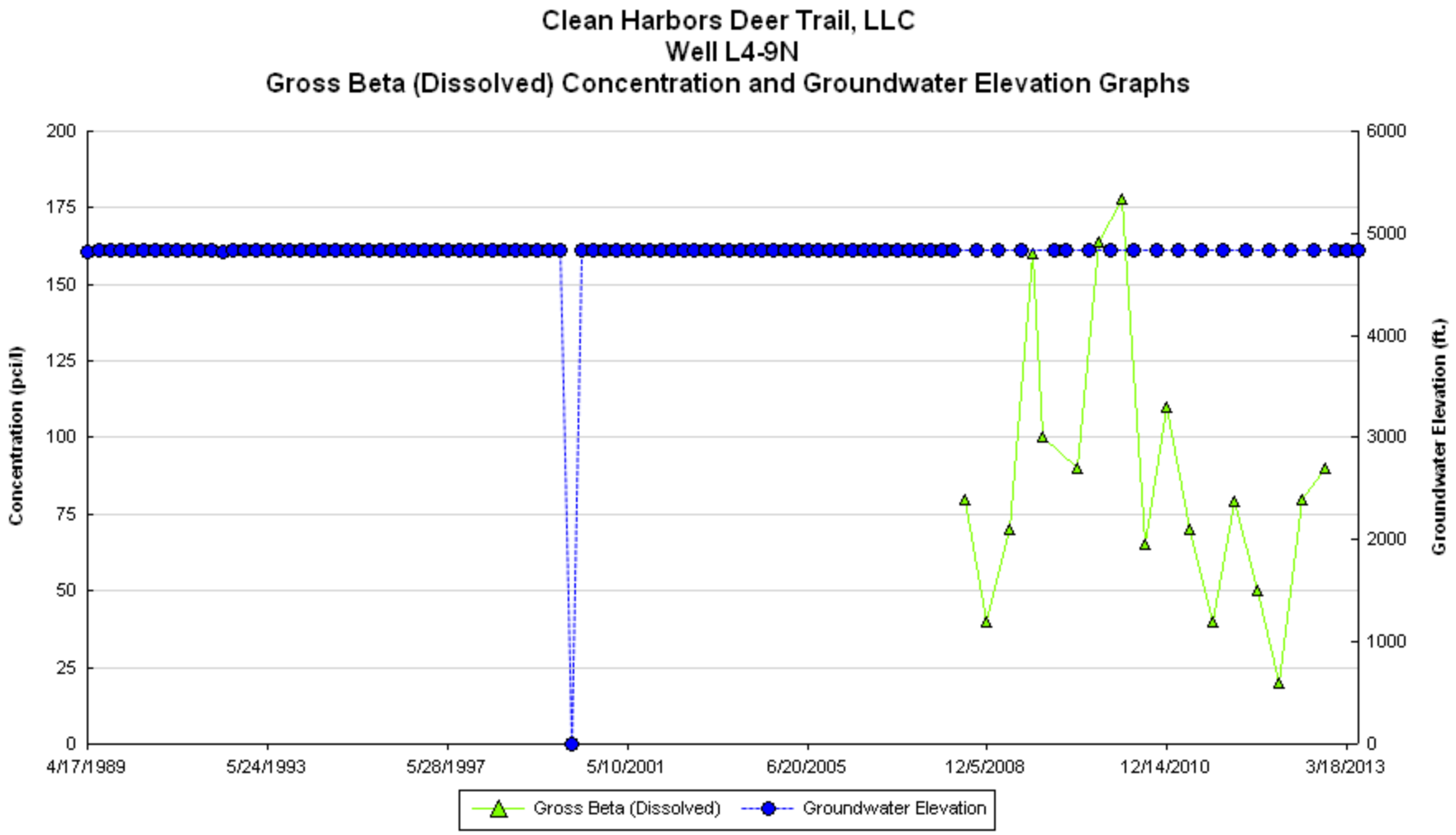


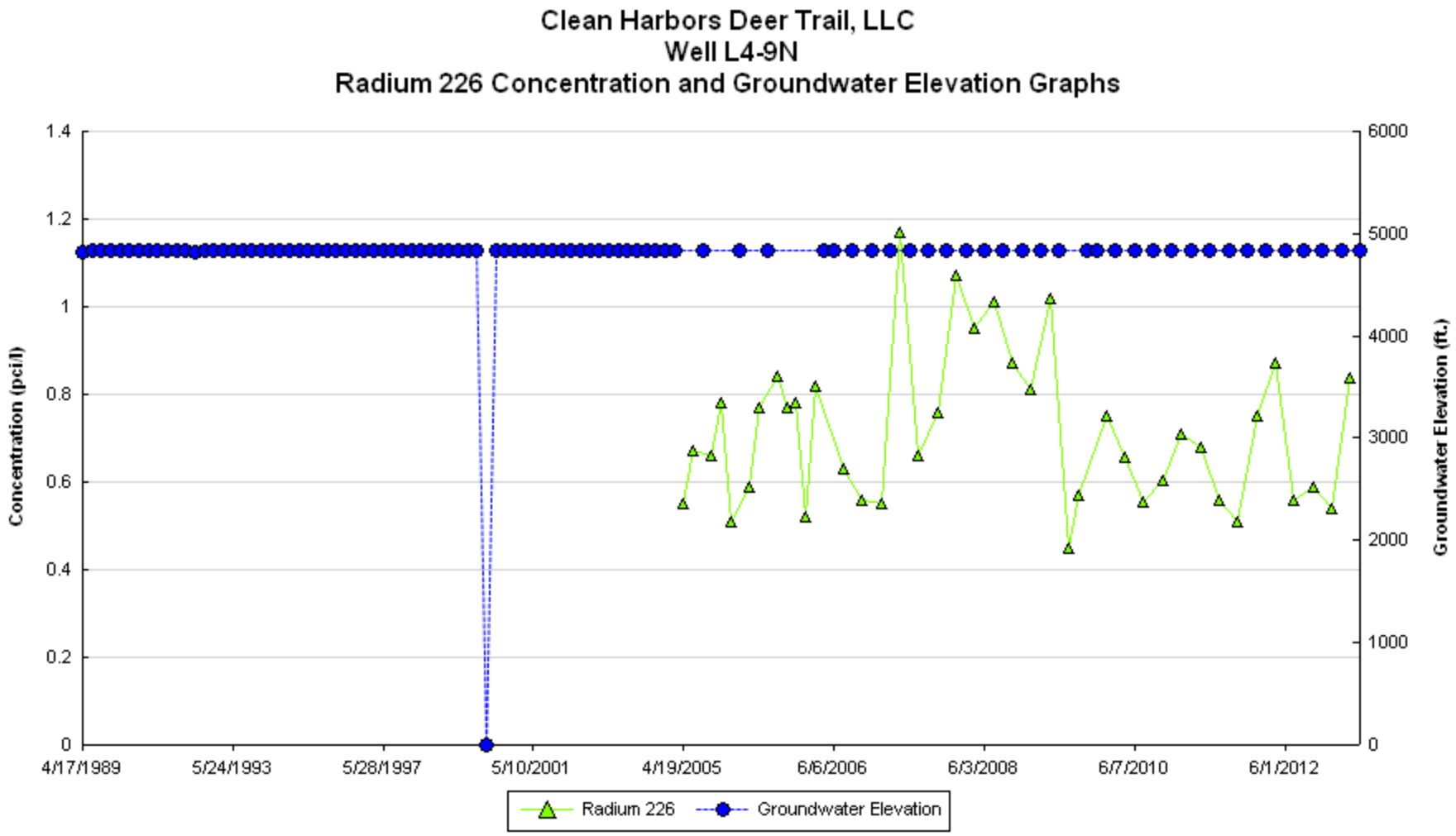
Clean Harbors Deer Trail, LLC
Well L4-9N
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
600
500
400
300
200
100
0
6000
5000
4000
3000
2000
1000
0
4/17/1989
7/30/1992
5/26/1995
5/13/1999
6/2/2003
10/26/2005
6/4/2007
3/15/2010
Gross Alpha
Groundwater Elevation

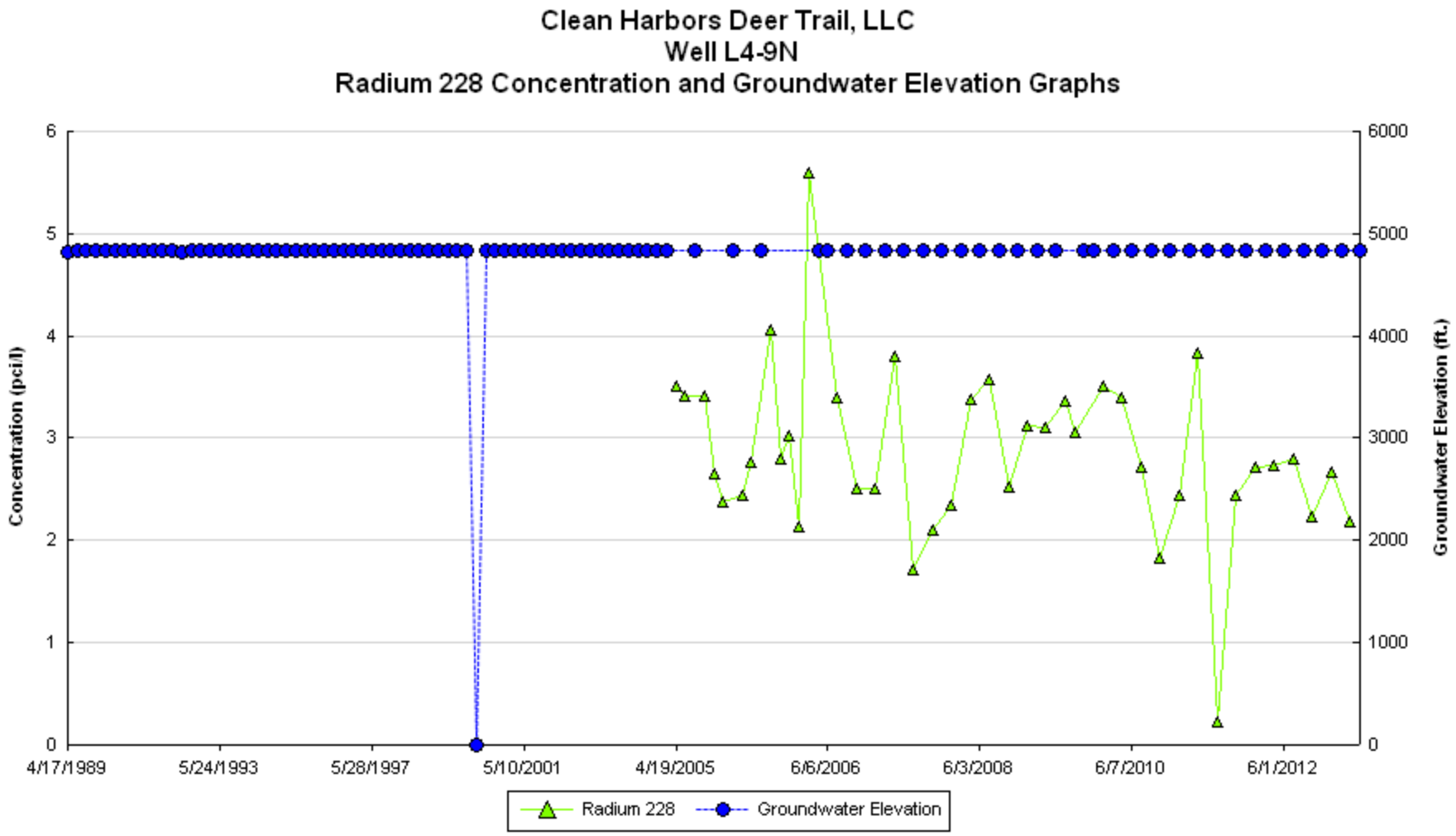

Clean Harbors Deer Trail, LLC
Well L4-9N
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
400
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
4/17/1989
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/5/2008
12/14/2010
3/18/2013
Gross Alpha (Dissolved)
Groundwater Elevation

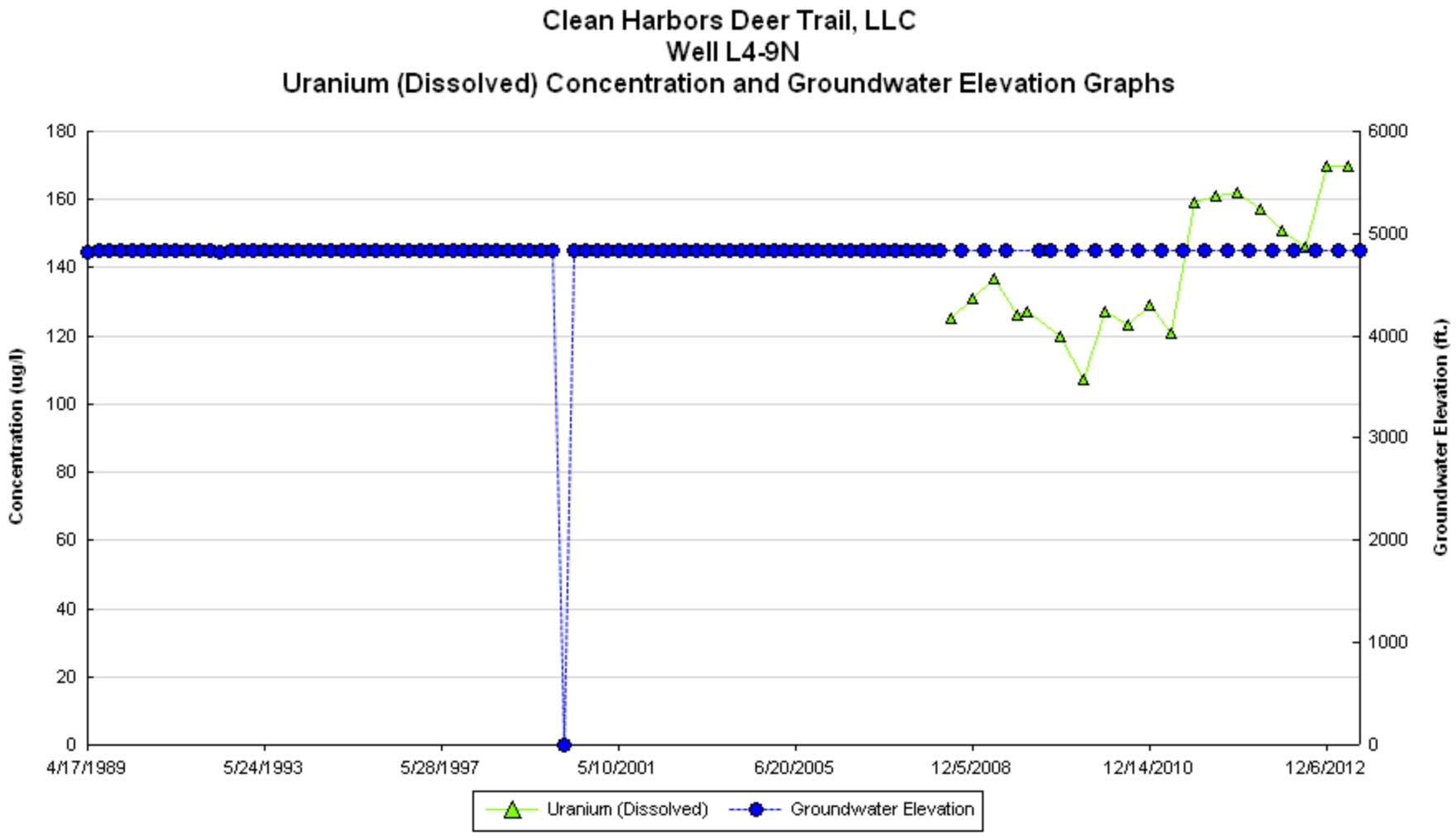
Clean Harbors Deer Trail, LLC
Well L4-9N
Gross Beta Concentration and Groundwater Elevation Graphs



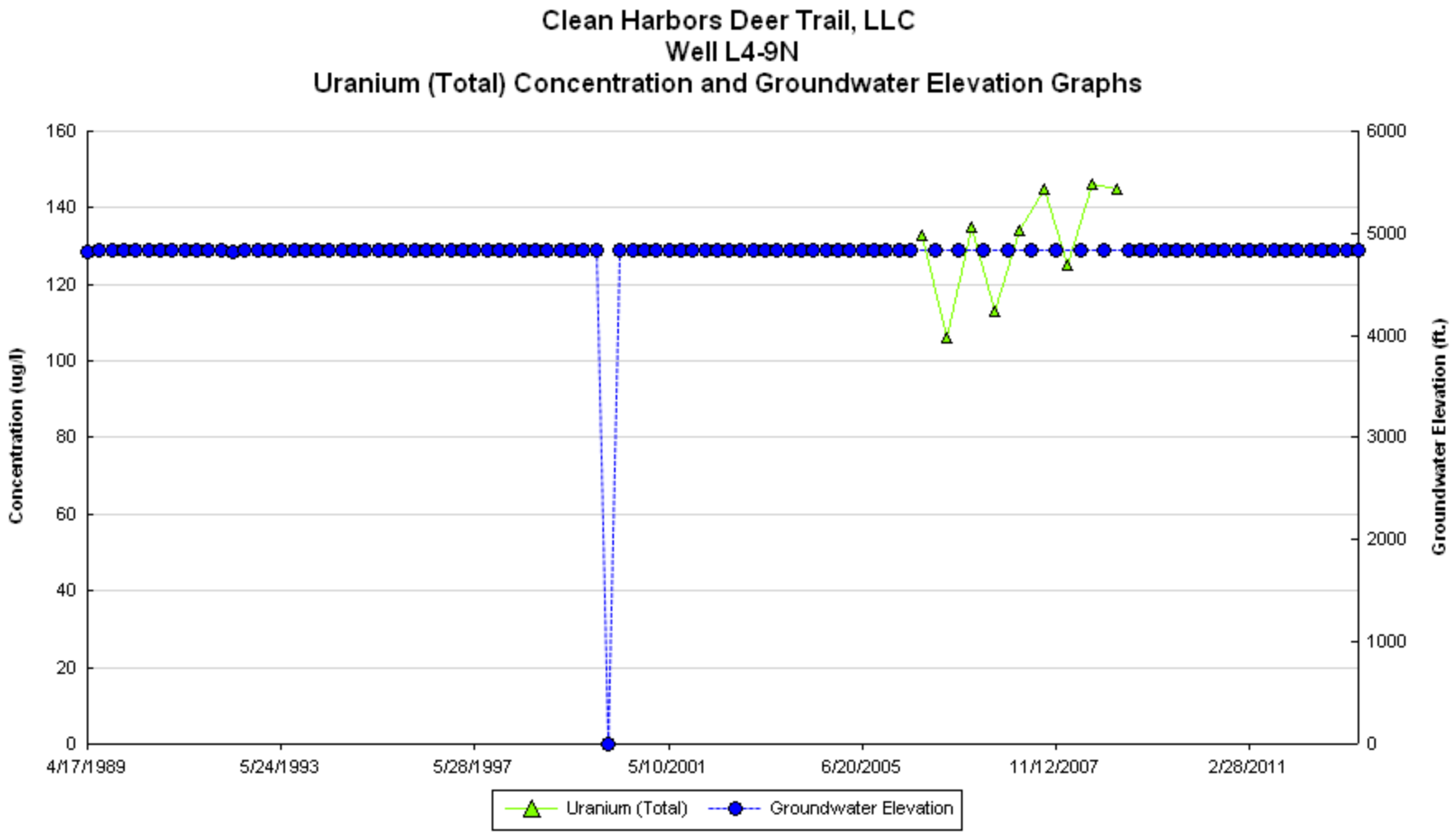

Clean Harbors Deer Trail, LLC
Well L4-9N
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
200
175
150
125
100
75
50
25
0
6000
5000
4000
3000
2000
1000
0
4/17/1989
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/5/2008
12/14/2010
3/18/2013
Gross Beta (Dissolved)
Groundwater Elevation

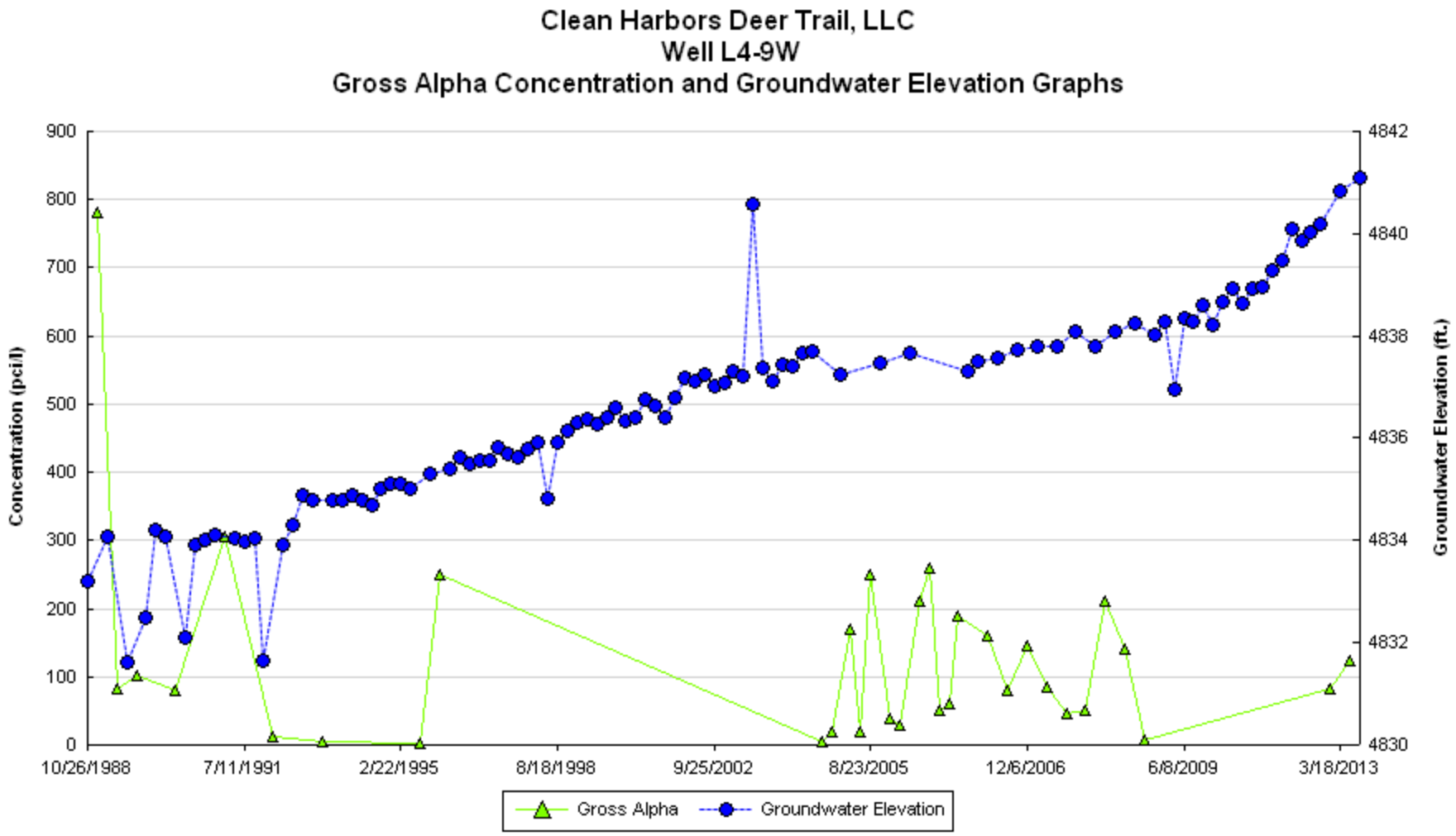

Clean Harbors Deer Trail, LLC
Well L4-9N
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
6000
5000
4000
3000
2000
1000
0
4/17/1989
5/24/1993
5/28/1997
5/10/2001
4/19/2005
6/6/2006
6/3/2008
6/7/2010
6/1/2012
Radium 226
Groundwater Elevation

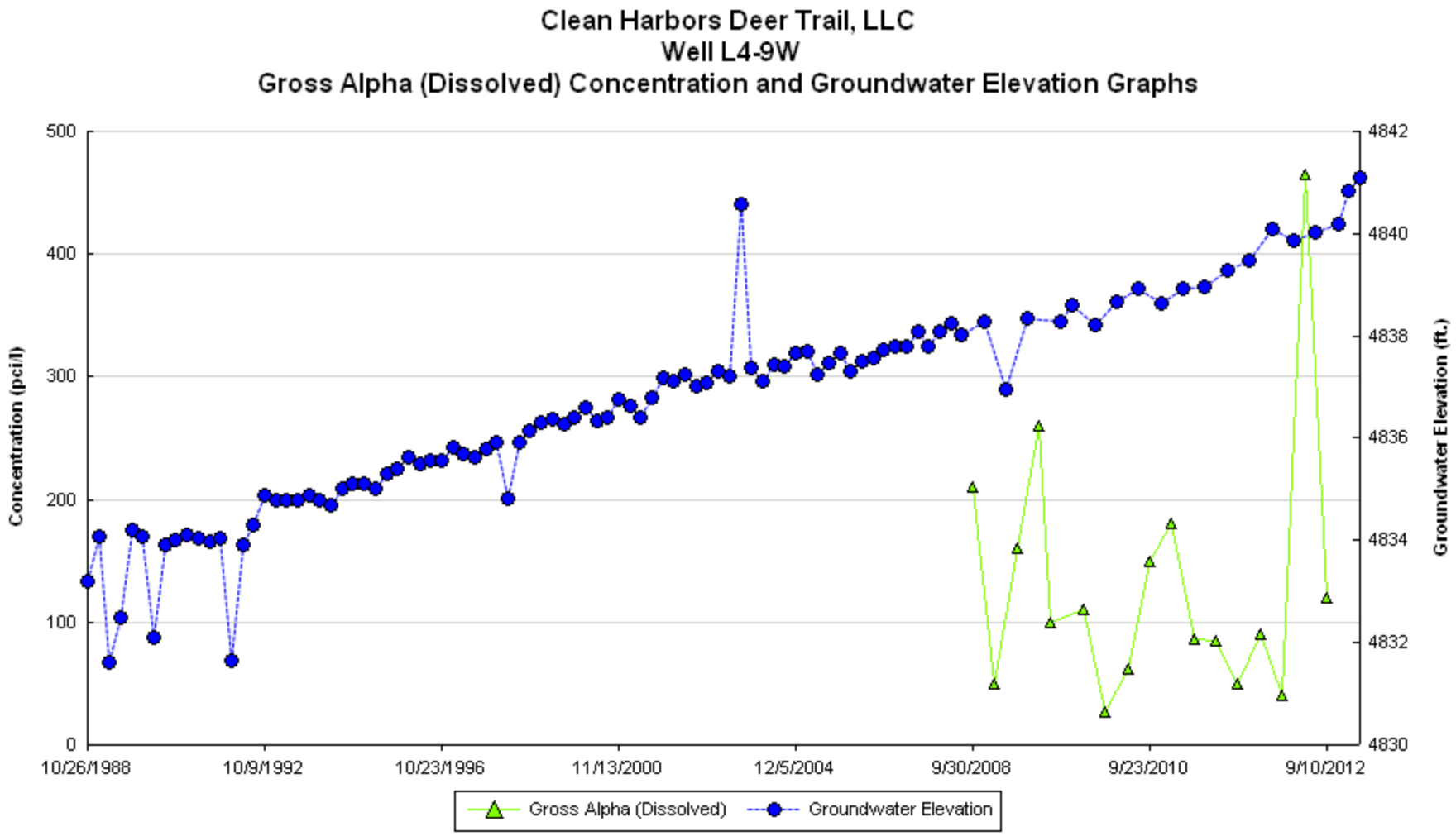

Clean Harbors Deer Trail, LLC
Well L4-9N
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
1
2
3
4
5
6
0
1000
2000
3000
4000
5000
6000
4/17/1989
5/24/1993
5/28/1997
5/10/2001
4/19/2005
6/6/2006
6/3/2008
6/7/2010
6/1/2012
Radium 228
Groundwater Elevation

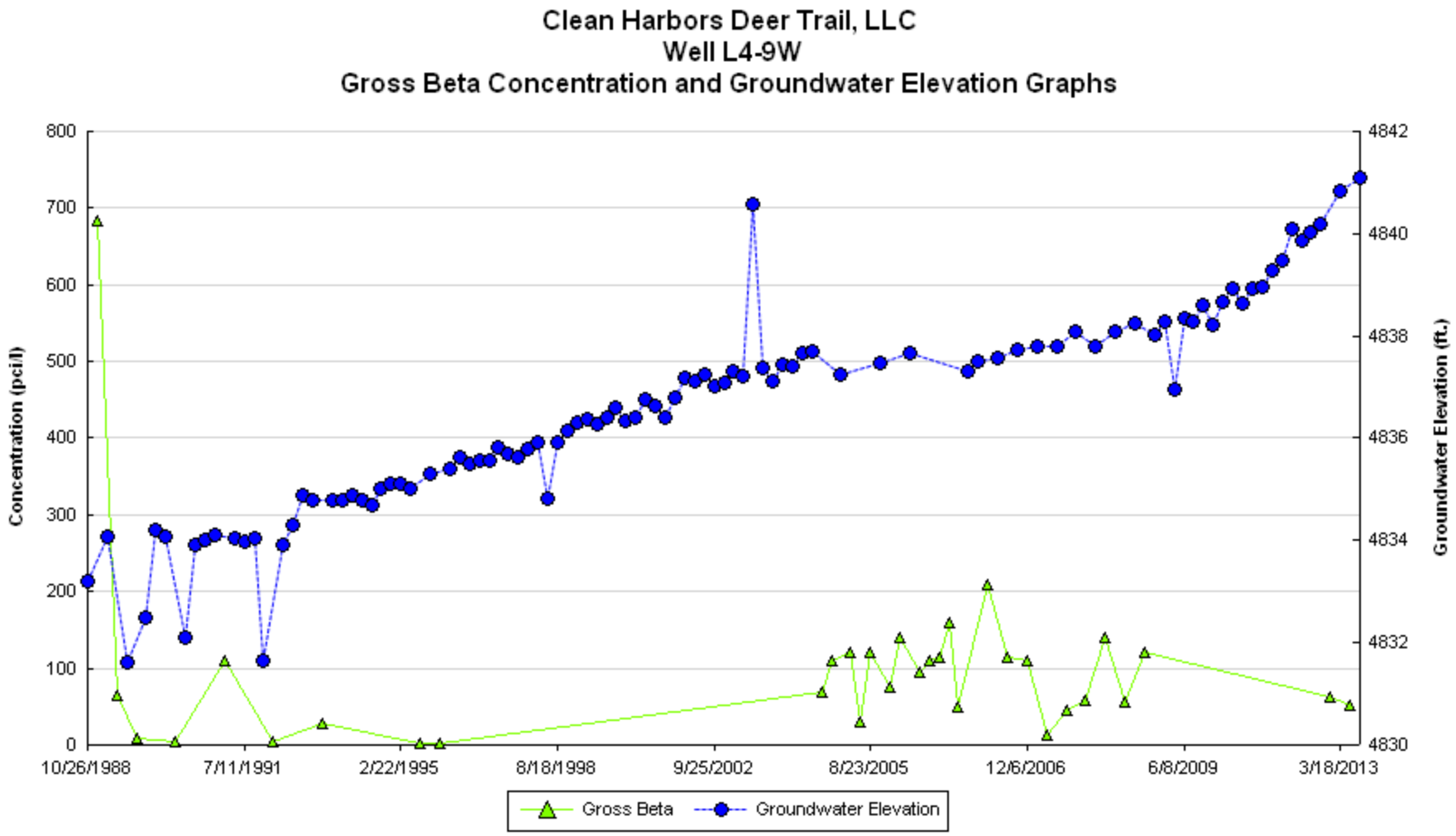


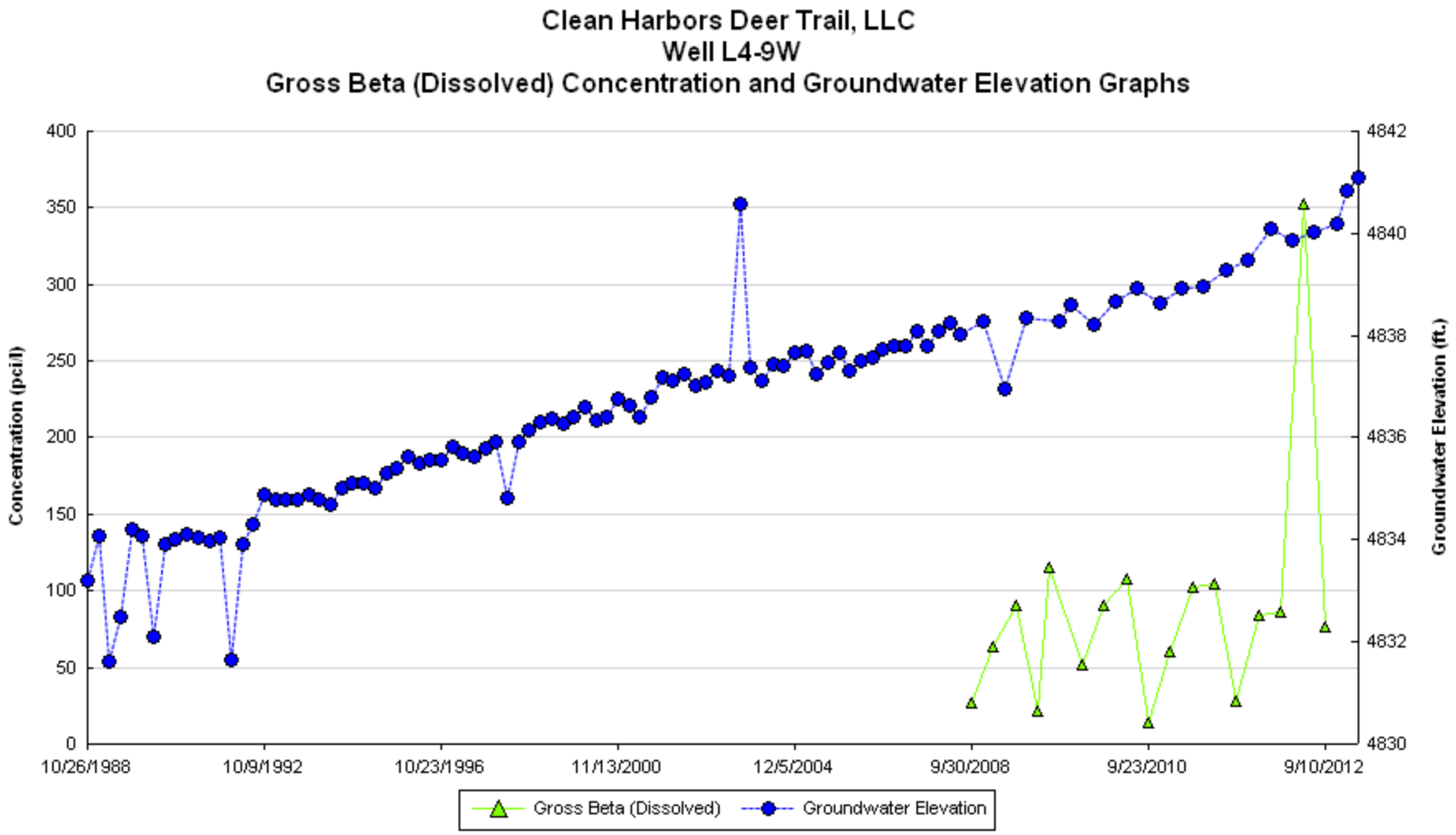
Clean Harbors Deer Trail, LLC
Well L4-9N
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
180
160
140
120
100
80
60
40
20
0
6000
5000
4000
3000
2000
1000
0
4/17/1989
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/5/2008
12/14/2010
12/6/2012
Uranium (Dissolved)
Groundwater Elevation

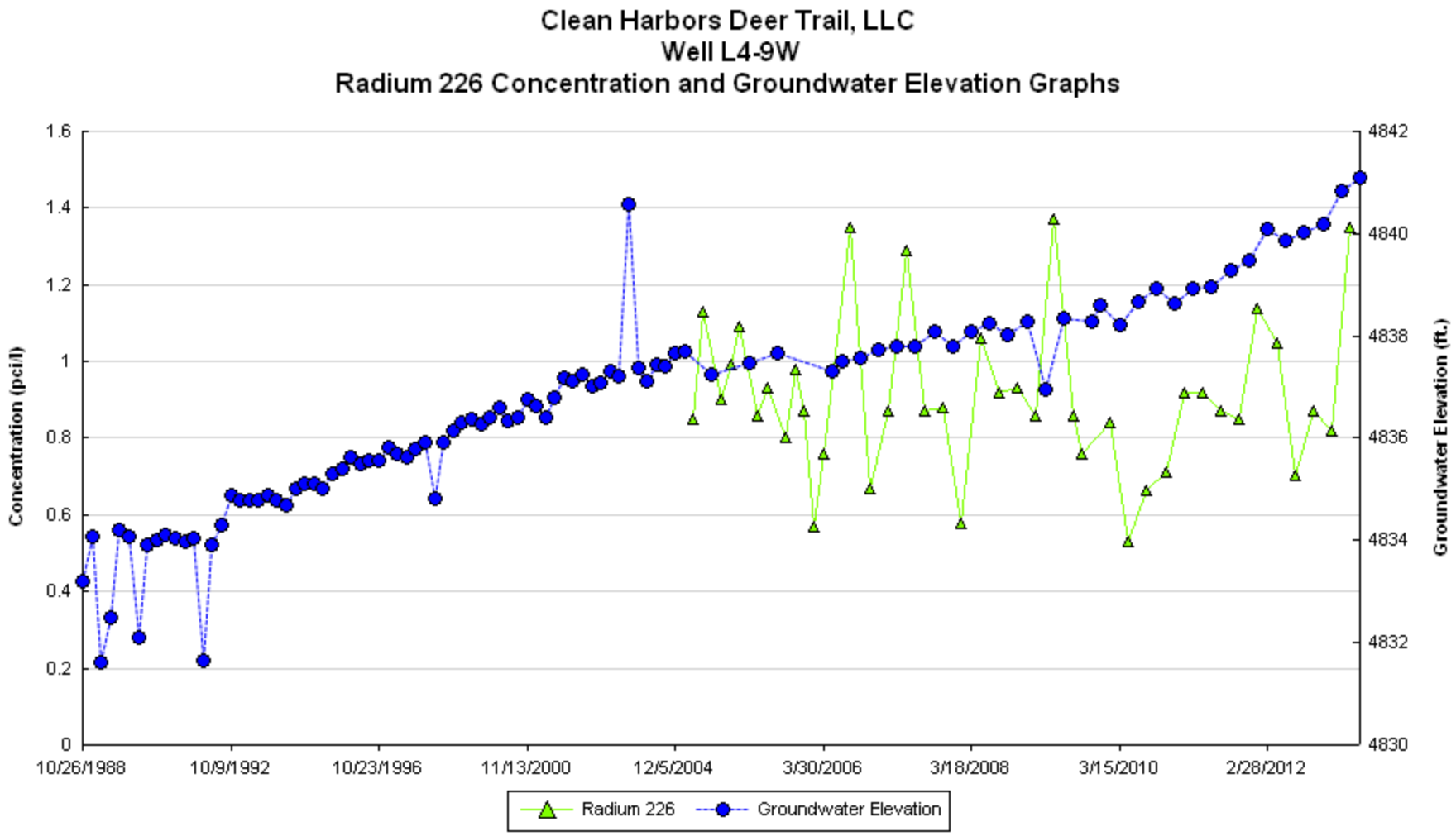

Clean Harbors Deer Trail, LLC
Well L4-9N
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
160
140
120
100
80
60
40
20
0
6000
5000
4000
3000
2000
1000
0
4/17/1989
5/24/1993
5/28/1997
5/10/2001
6/20/2005
11/12/2007
2/28/2011
Uranium (Total)
Groundwater Elevation

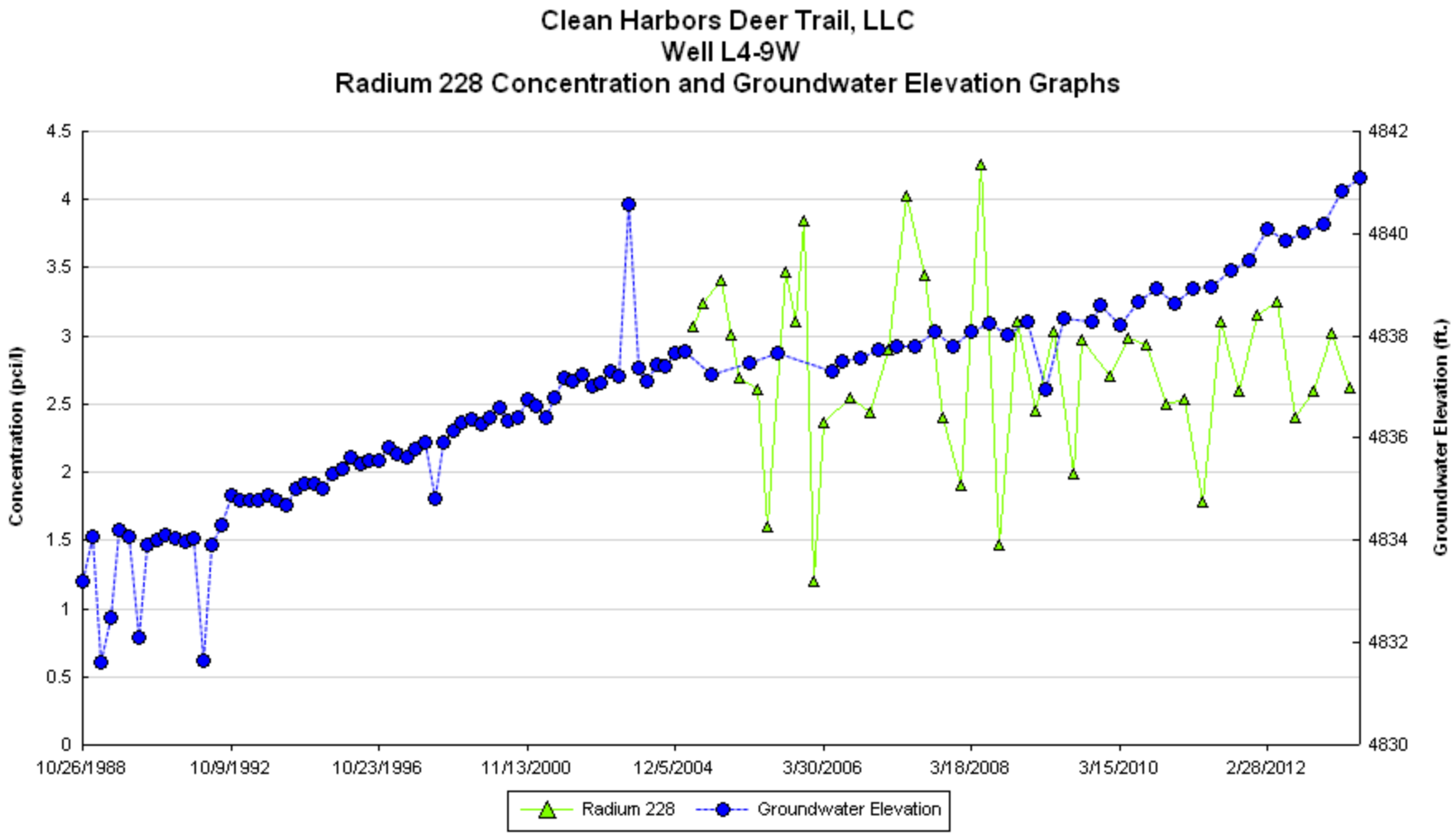

Clean Harbors Deer Trail, LLC
Well L4-9W
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
900
800
700
600
500
400
300
200
100
0
4842
4840
4838
4836
4834
4832
4830
10/26/1988
7/11/1991
2/22/1995
8/18/1998
9/25/2002
8/23/2005
12/6/2006
6/8/2009
3/18/2013
Gross Alpha
Groundwater Elevation

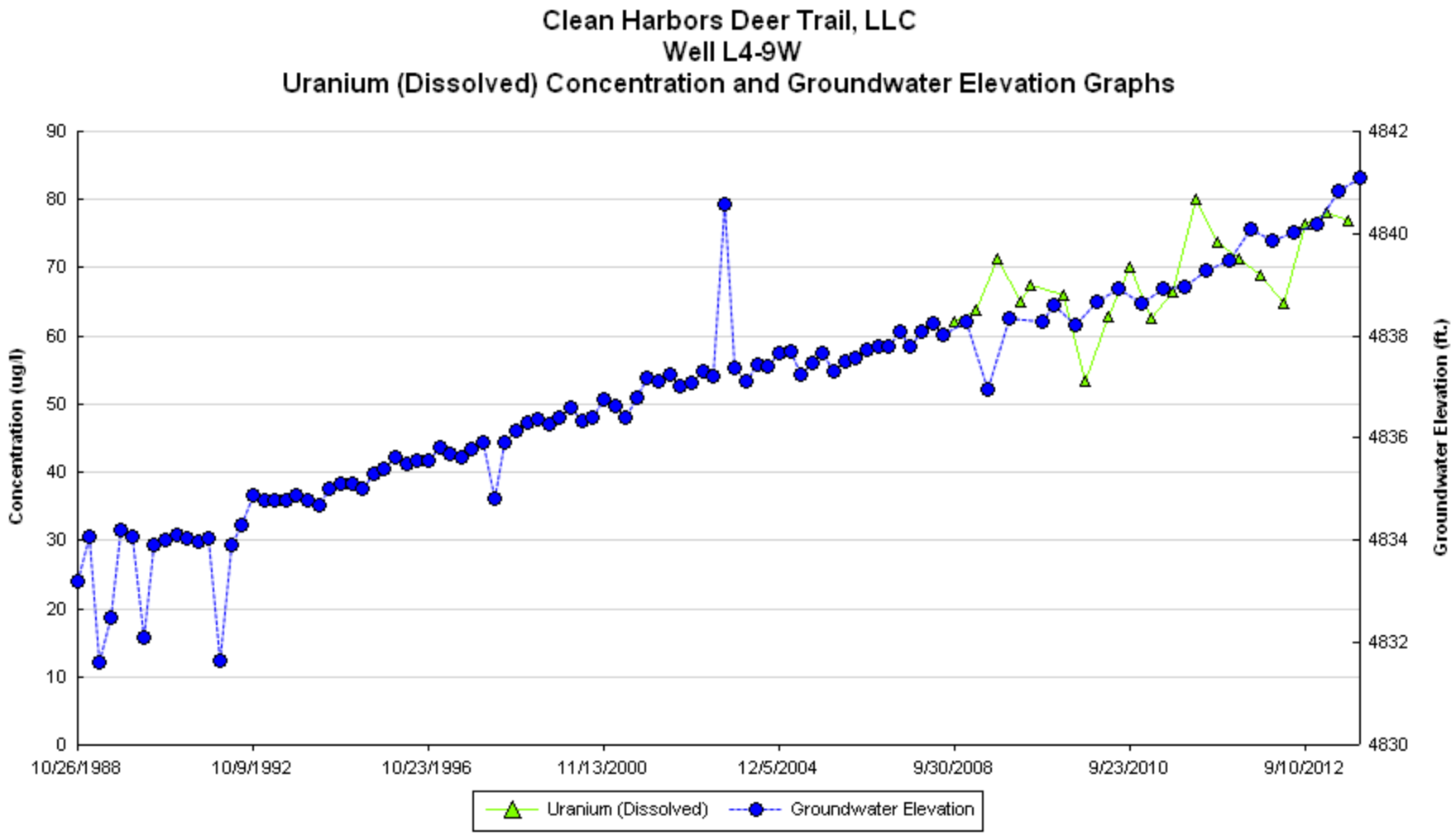

Clean Harbors Deer Trail, LLC
Well L4-9W
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
500
400
300
200
100
0
4842
4840
4838
4836
4834
4832
4830
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
9/30/2008
9/23/2010
9/10/2012
Gross Alpha (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-9W
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
800
700
600
500
400
300
200
100
0
4842
4840
4838
4836
4834
4832
4830
10/26/1988
7/11/1991
2/22/1995
8/18/1998
9/25/2002
8/23/2005
12/6/2006
6/8/2009
3/18/2013
Gross Beta
Groundwater Elevation

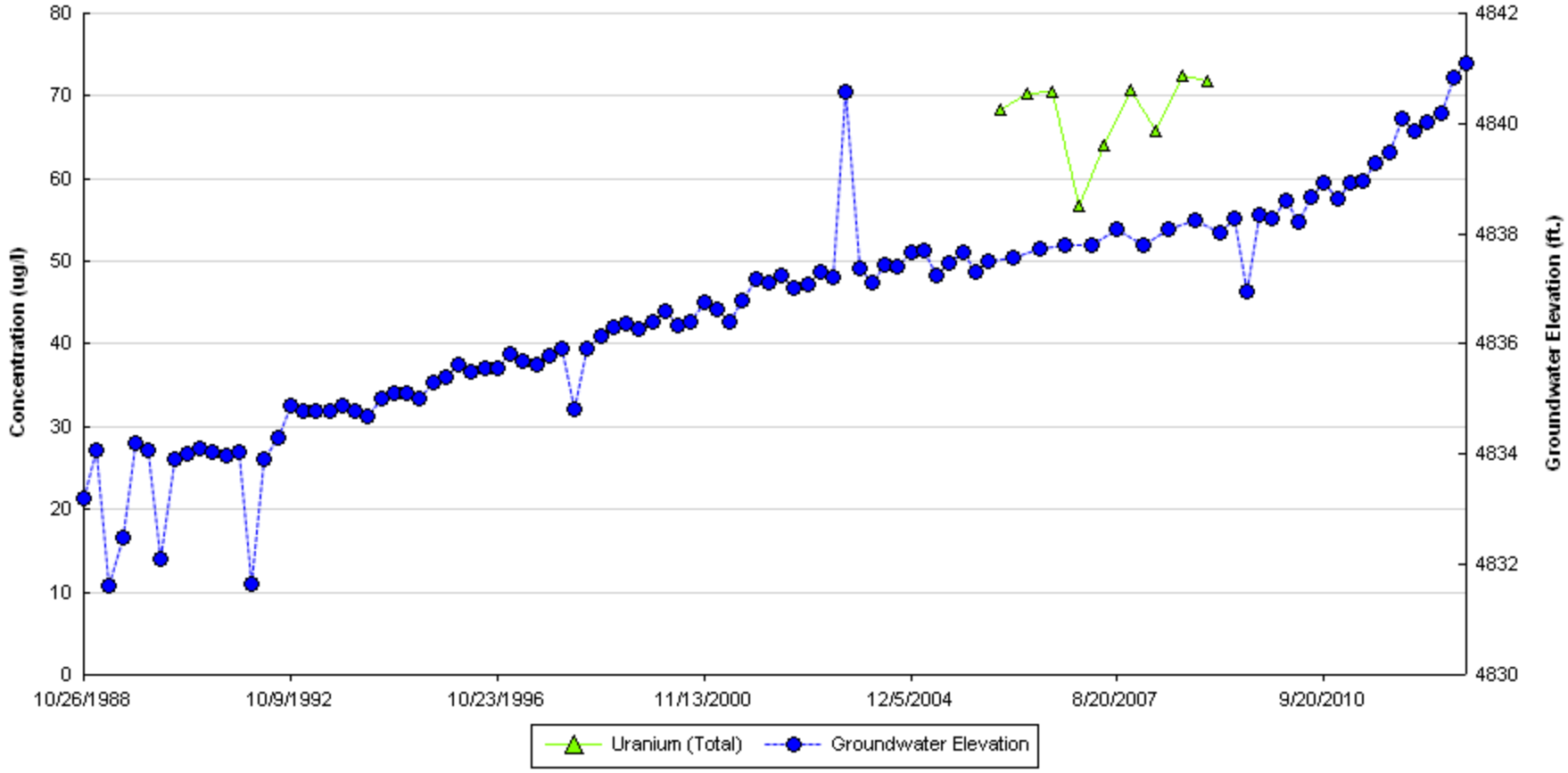

Clean Harbors Deer Trail, LLC
Well L4-9W
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
400
350
300
250
200
150
100
50
0
4842
4840
4838
4836
4834
4832
4830
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
9/30/2008
9/23/2010
9/10/2012
Gross Beta (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-9W
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
4842
4840
4838
4836
4834
4832
4830
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
3/30/2006
3/18/2008
3/15/2010
2/28/2012
Radium 226
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-9W
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
4842
4840
4838
4836
4834
4832
4830
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
3/30/2006
3/18/2008
3/15/2010
2/28/2012
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L4-9W
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0
10
20
30
40
50
60
70
80
90
4830
4832
4834
4836
4838
4840
4842
10/26/1988
10/9/1992
10/23/1996
11/13/2000
12/5/2004
9/30/2008
9/23/2010
9/10/2012
Uranium (Dissolved)
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L4-9W
Uranium (Total) Concentration and Groundwater Elevation Graphs



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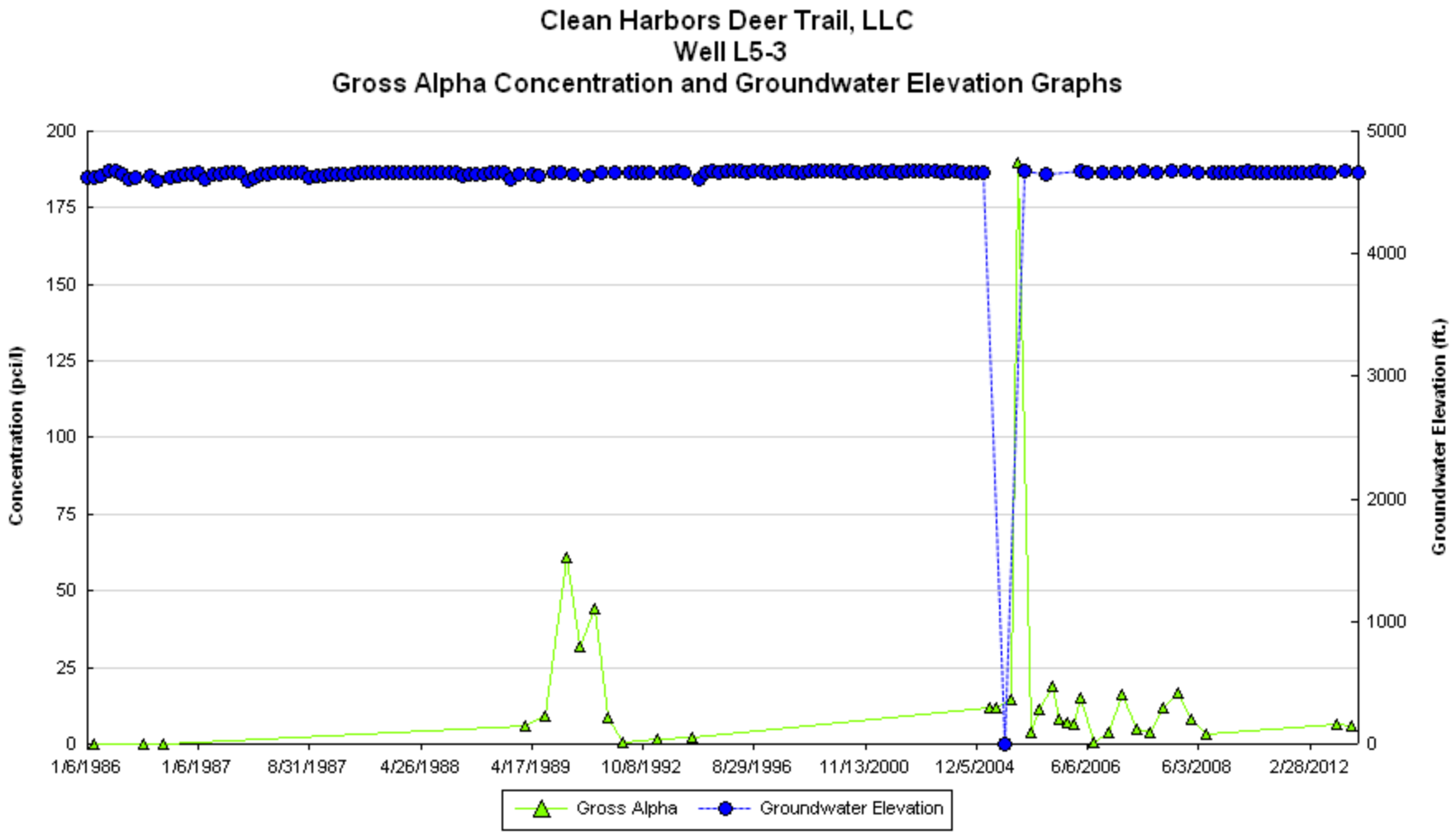
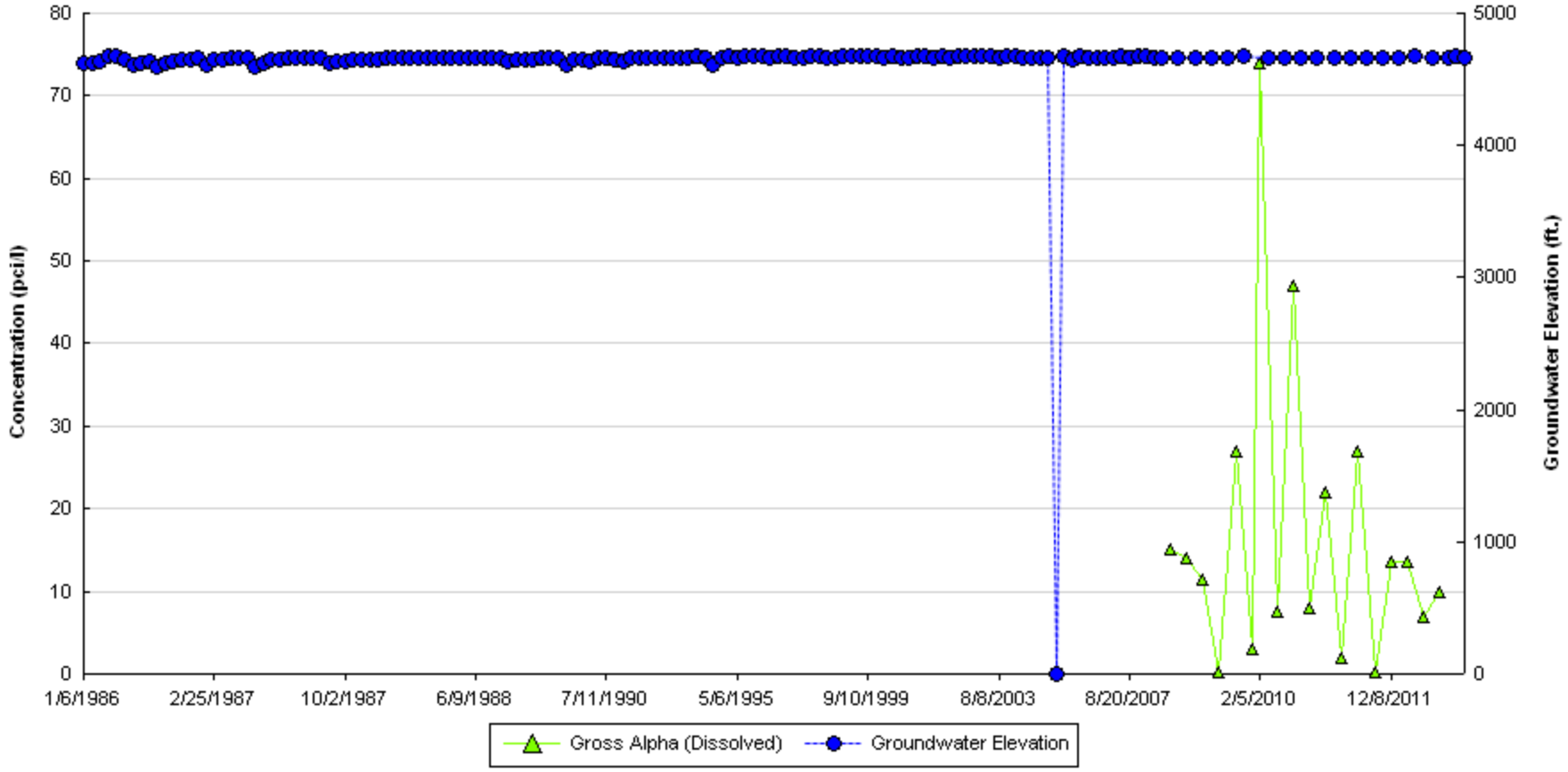
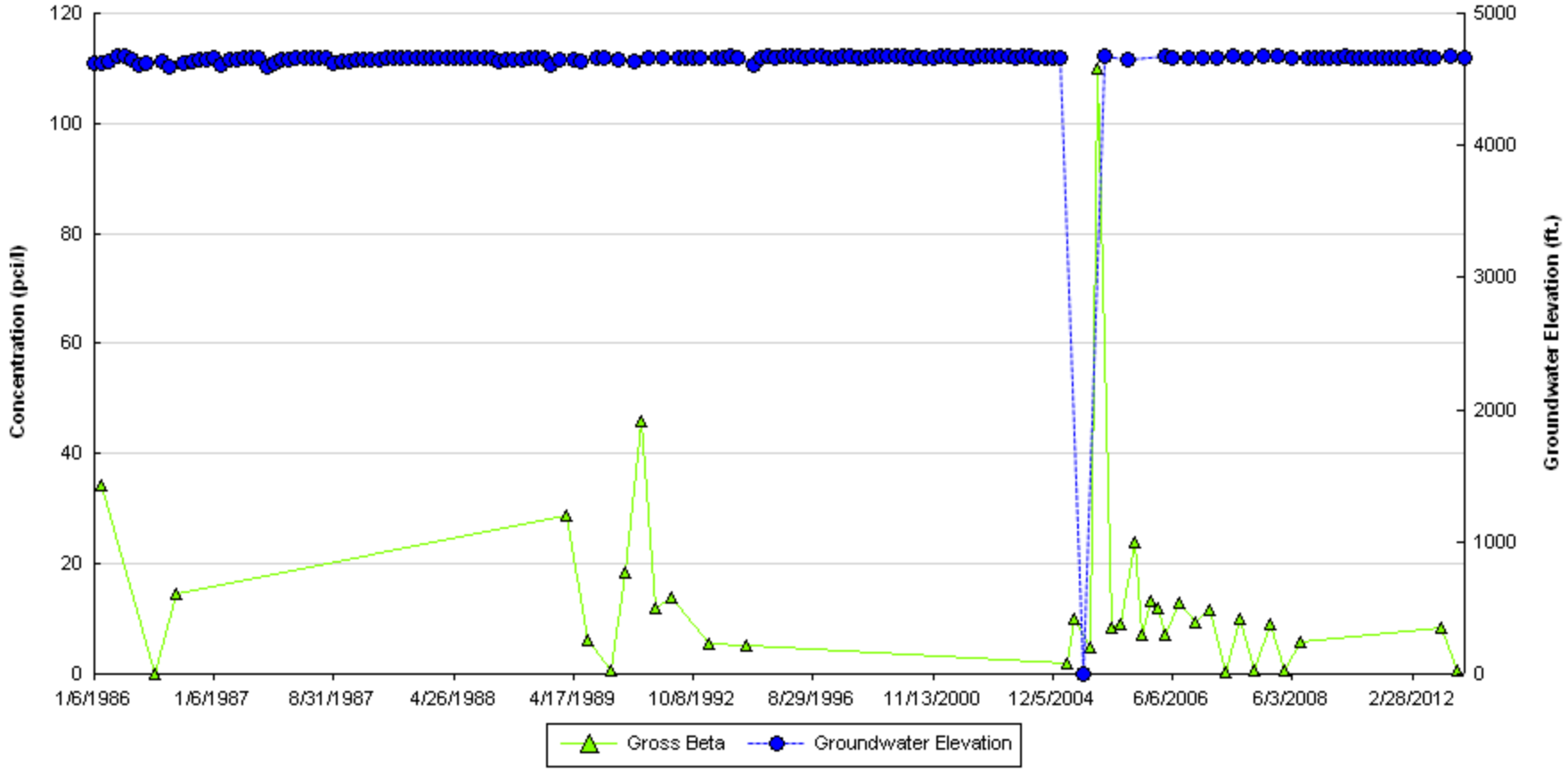
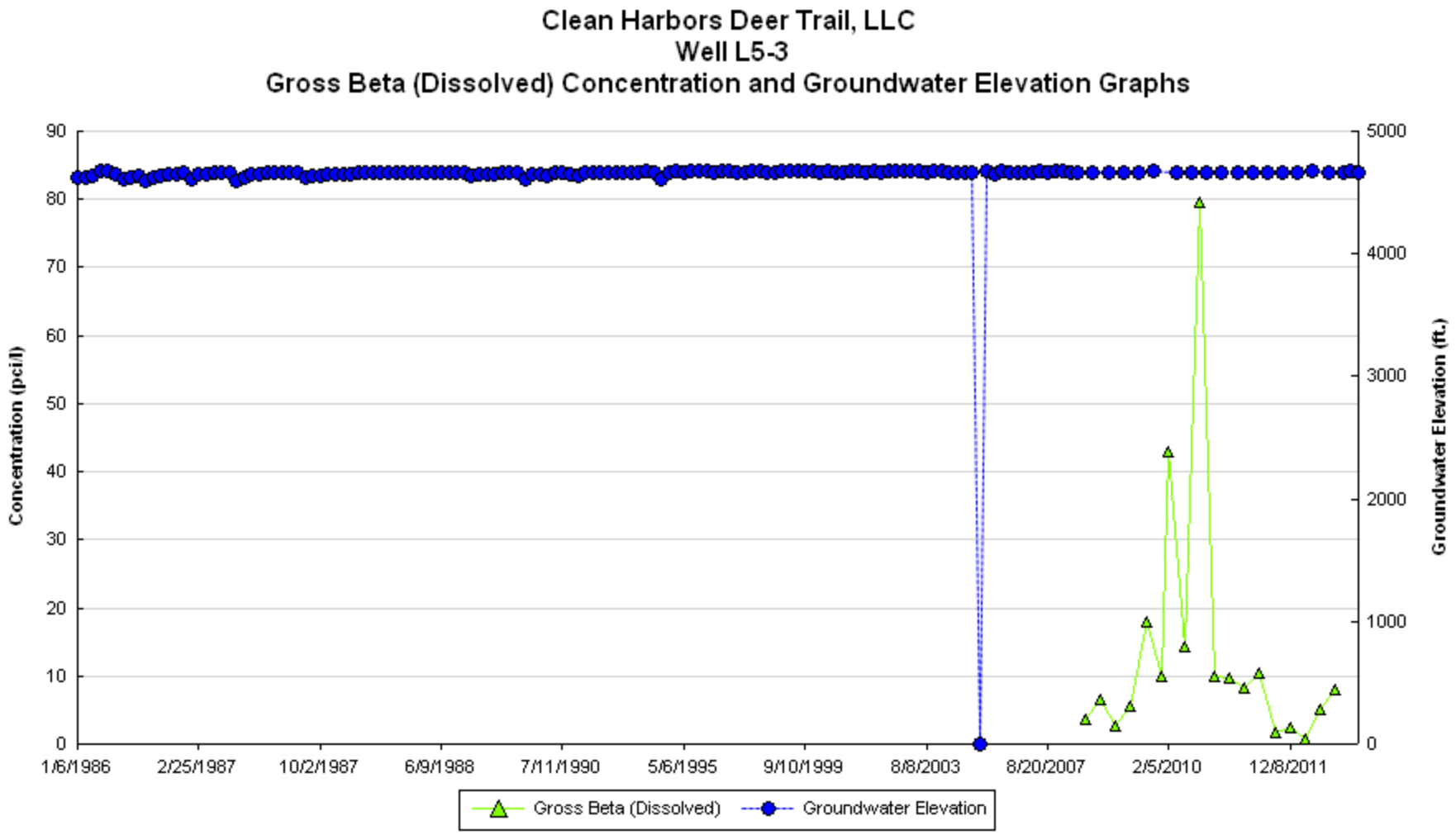

Clean Harbors Deer Trail, LLC
Well L5-3
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
200
175
150
125
100
75
50
25
0
5000
4000
3000
2000
1000
0
1/6/1986
1/6/1987
8/31/1987
4/26/1988
4/17/1989
10/8/1992
8/29/1996
11/13/2000
12/5/2004
6/6/2006
6/3/2008
2/28/2012
Gross Alpha
Groundwater Elevation

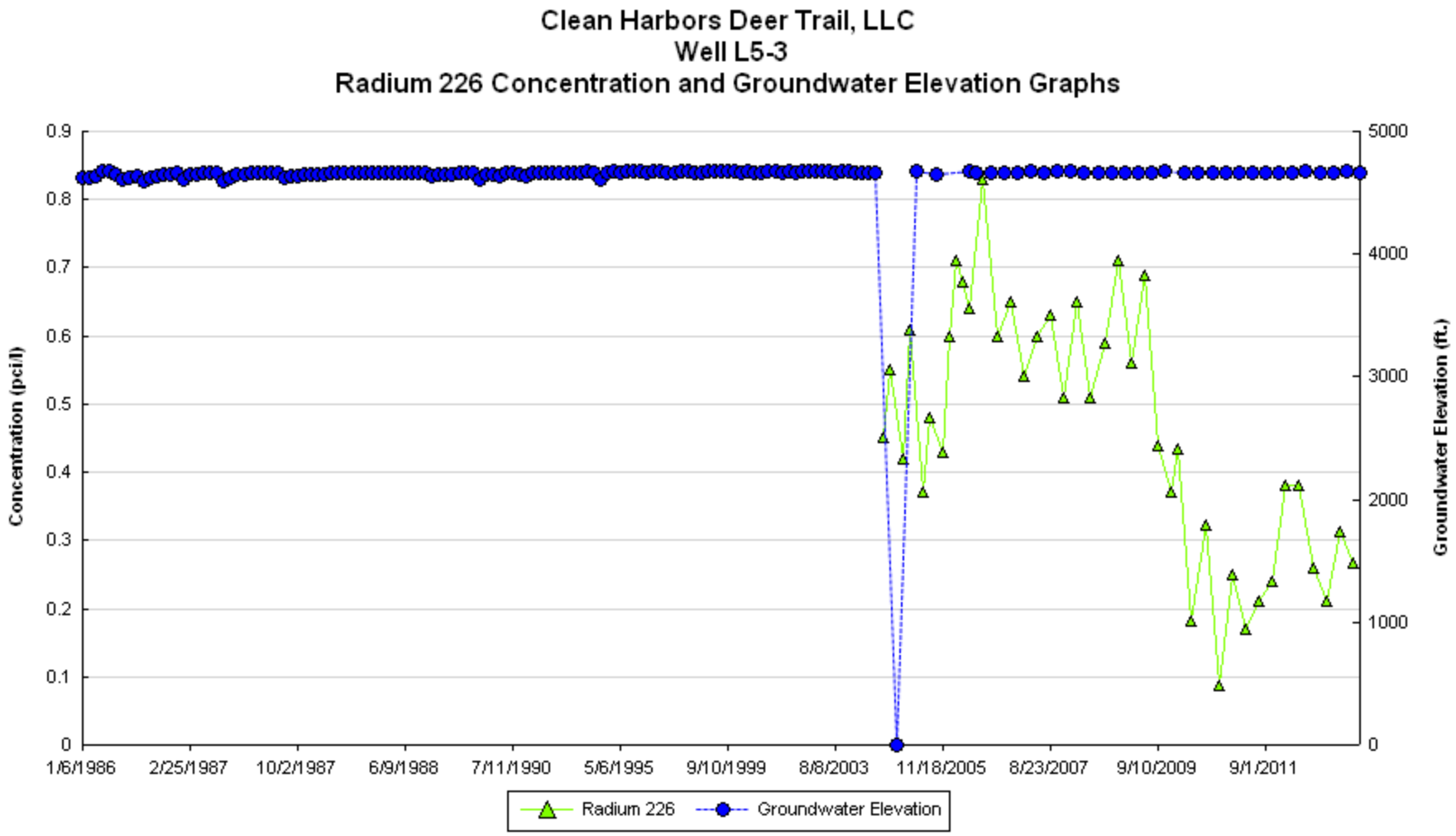
Clean Harbors Deer Trail, LLC
Well L5-3
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs

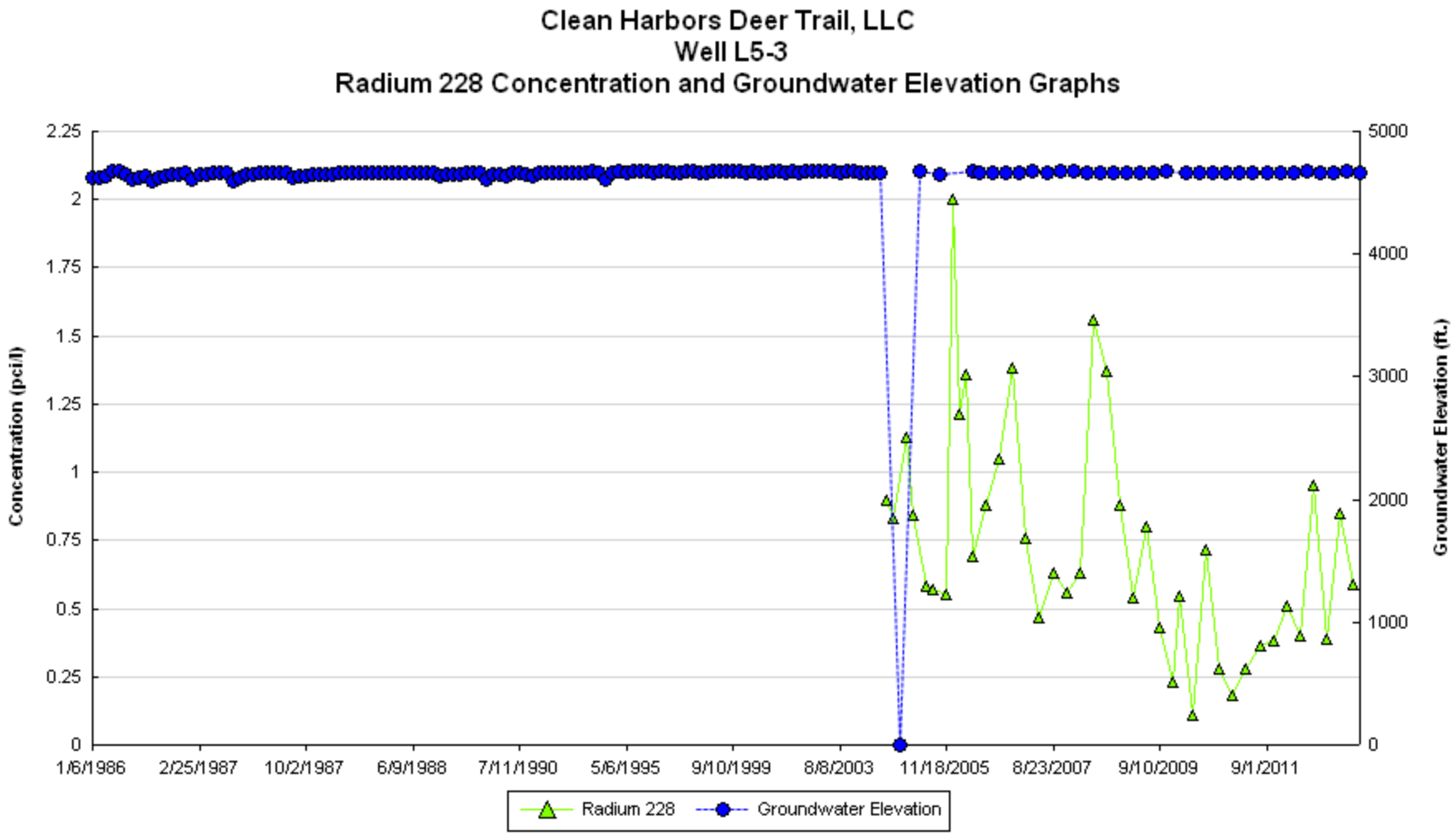


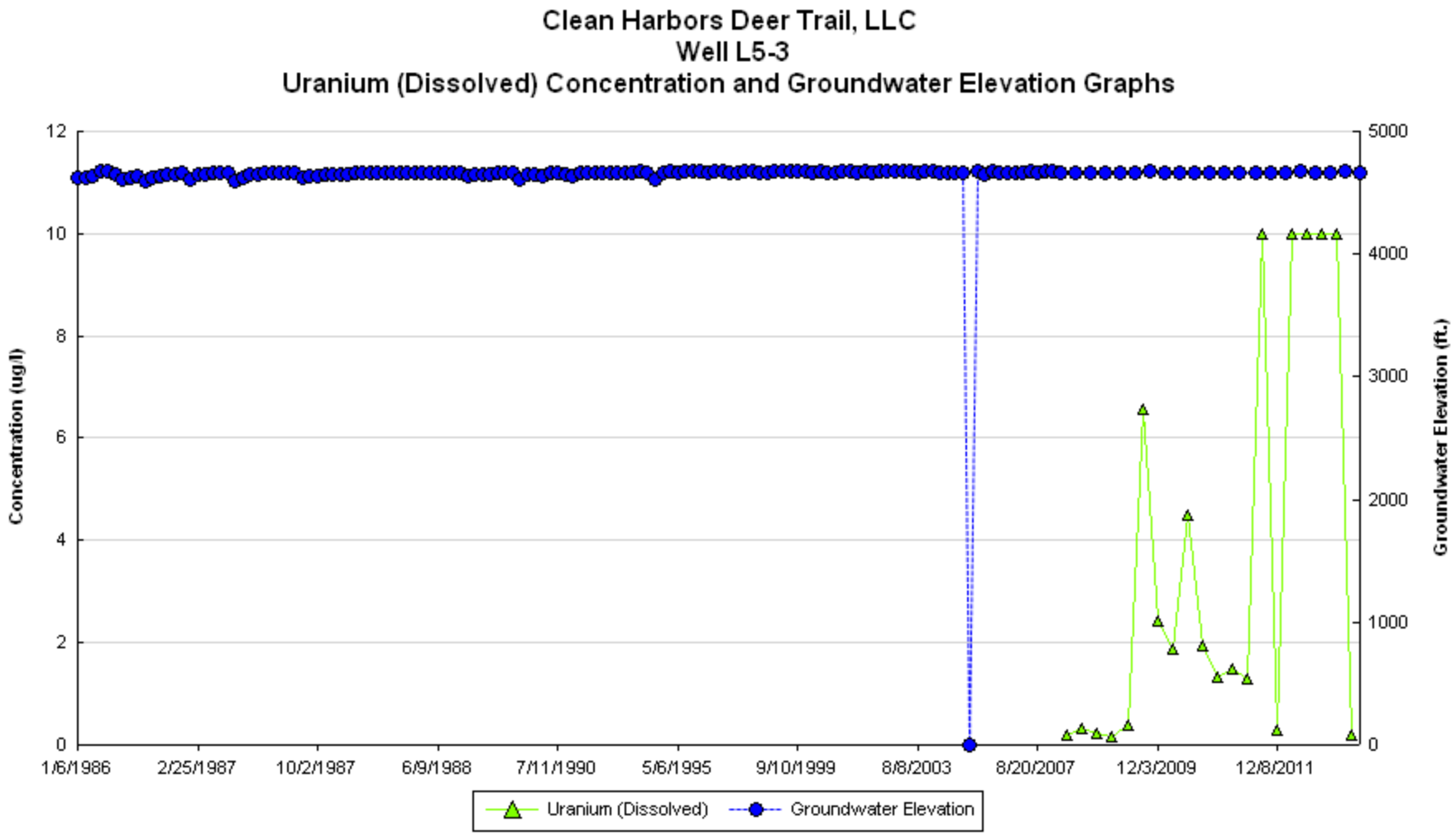
Clean Harbors Deer Trail, LLC
Well L5-3
Gross Beta Concentration and Groundwater Elevation Graphs

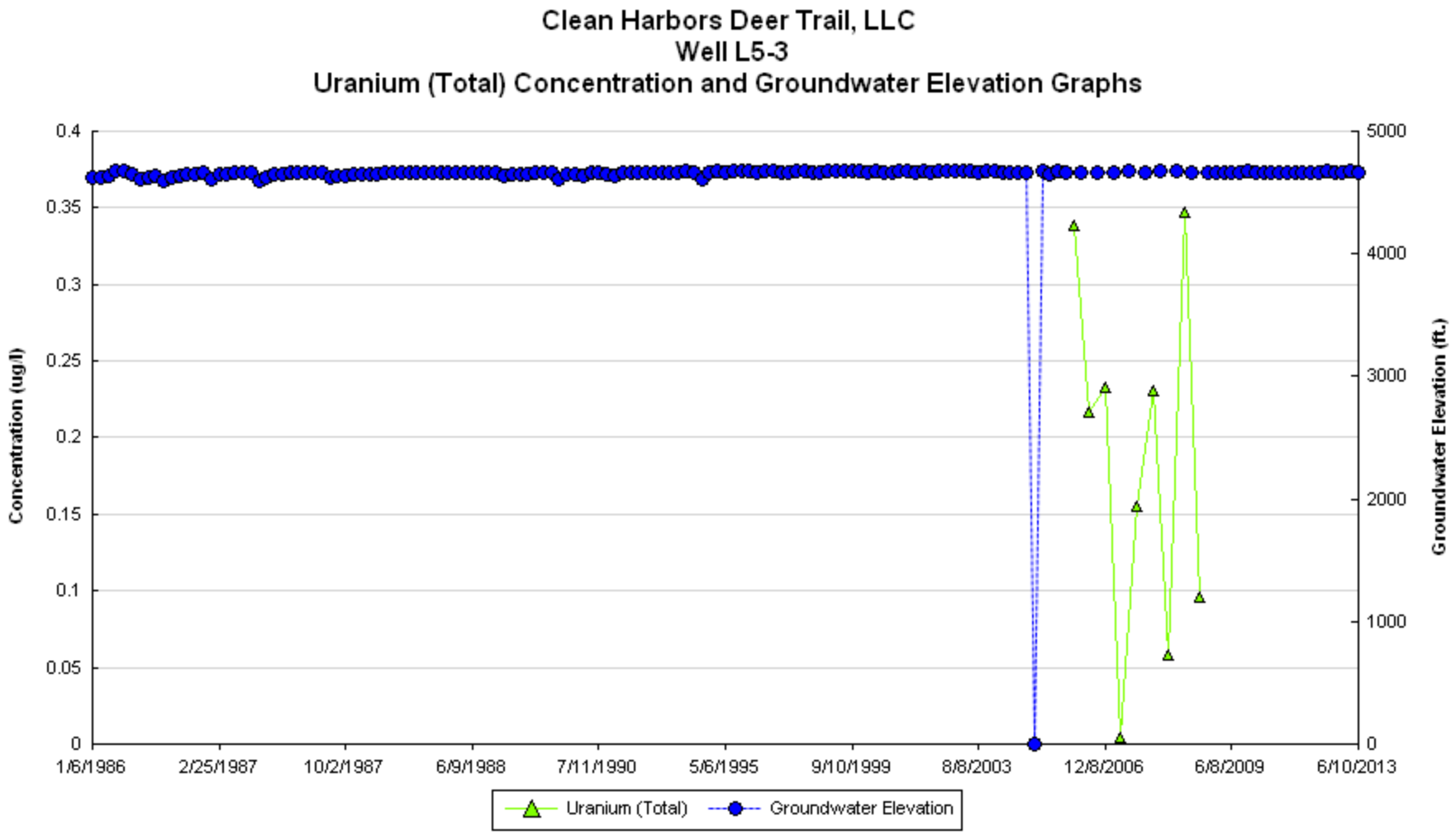


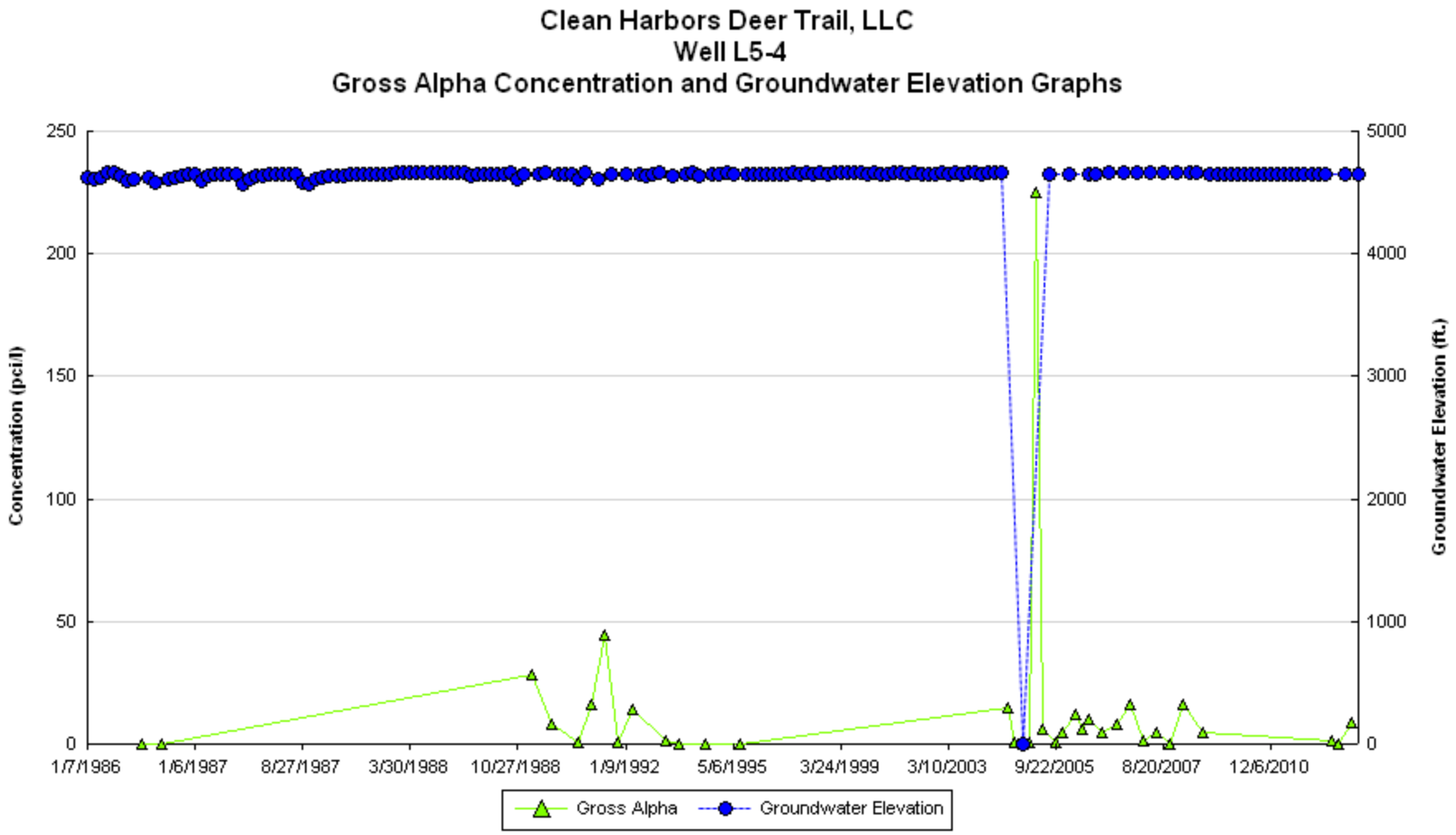

Clean Harbors Deer Trail, LLC
Well L5-3
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
90
80
70
60
50
40
30
20
10
0
5000
4000
3000
2000
1000
0
1/6/1986
2/25/1987
10/2/1987
6/9/1988
7/11/1990
5/6/1995
9/10/1999
8/8/2003
8/20/2007
2/5/2010
12/8/2011
Gross Beta (Dissolved)
Groundwater Elevation

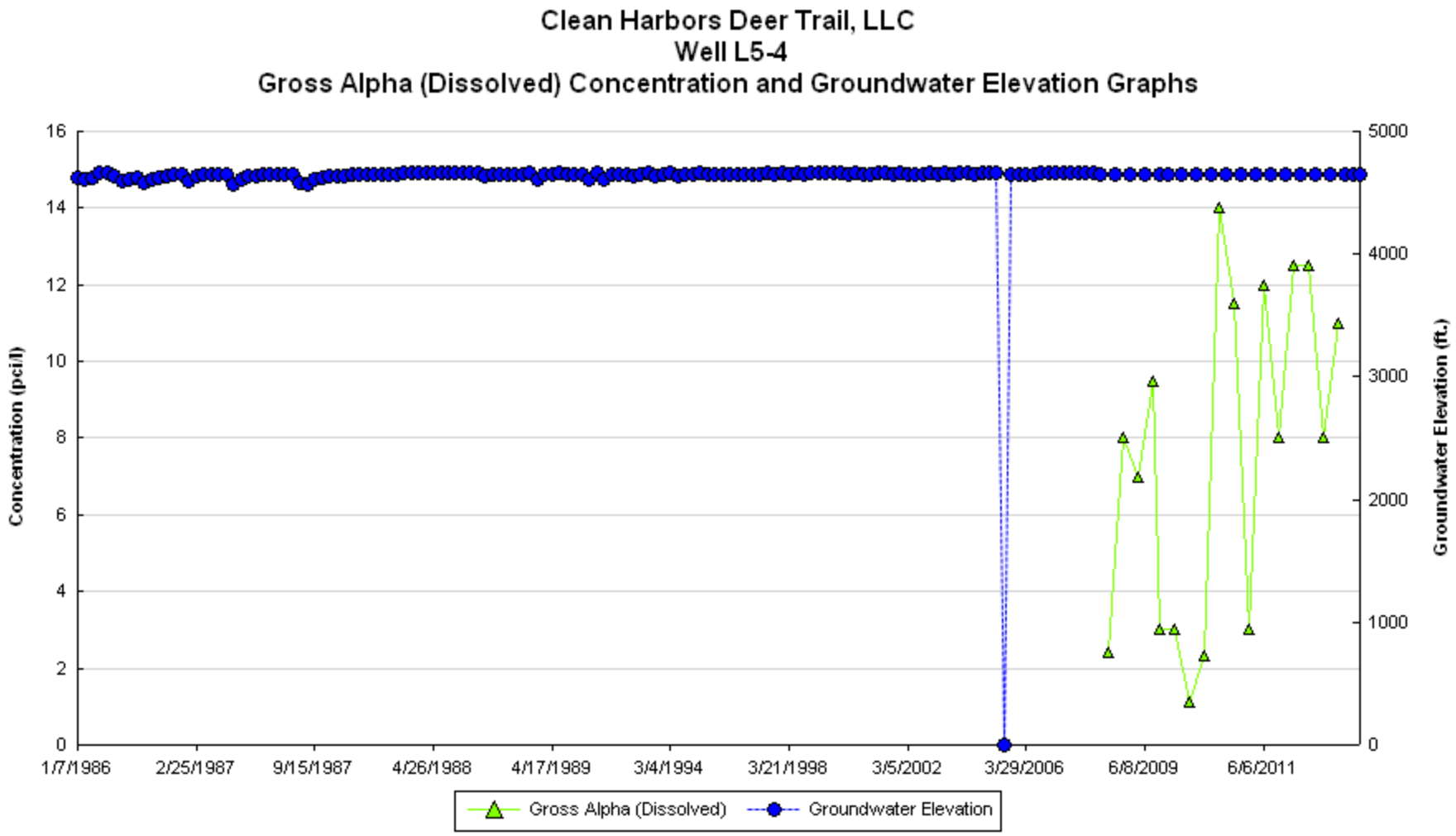

Clean Harbors Deer Trail, LLC
Well L5-3
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
5000
4000
3000
2000
1000
0
1/6/1986
2/25/1987
10/2/1987
6/9/1988
7/11/1990
5/6/1995
9/10/1999
8/8/2003
11/18/2005
8/23/2007
9/10/2009
9/1/2011
Radium 226
Groundwater Elevation

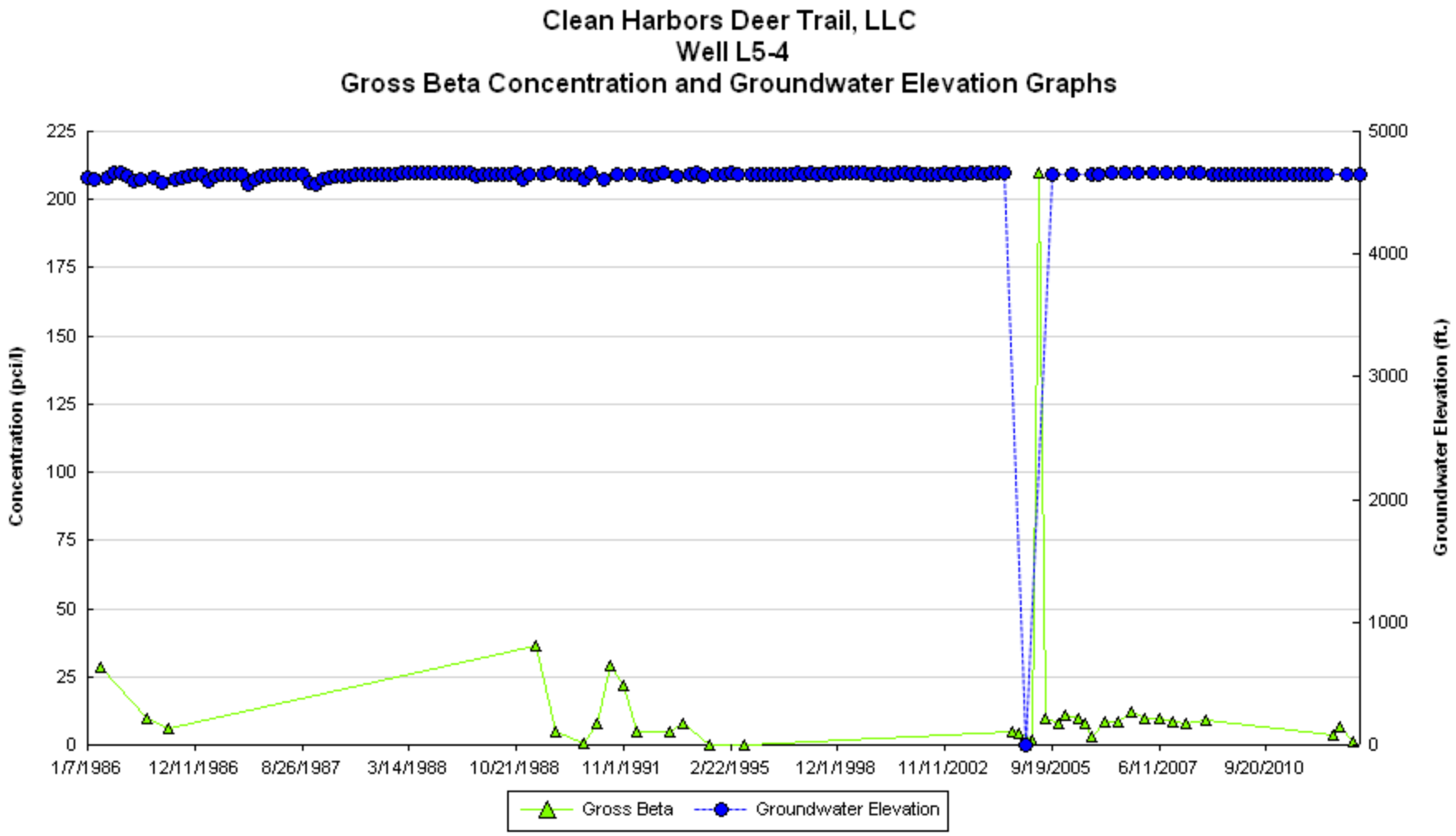

Clean Harbors Deer Trail, LLC
Well L5-3
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2.25
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
5000
4000
3000
2000
1000
0
1/6/1986
2/25/1987
10/2/1987
6/9/1988
7/11/1990
5/6/1995
9/10/1999
8/8/2003
11/18/2005
8/23/2007
9/10/2009
9/1/2011
Radium 228
Groundwater Elevation

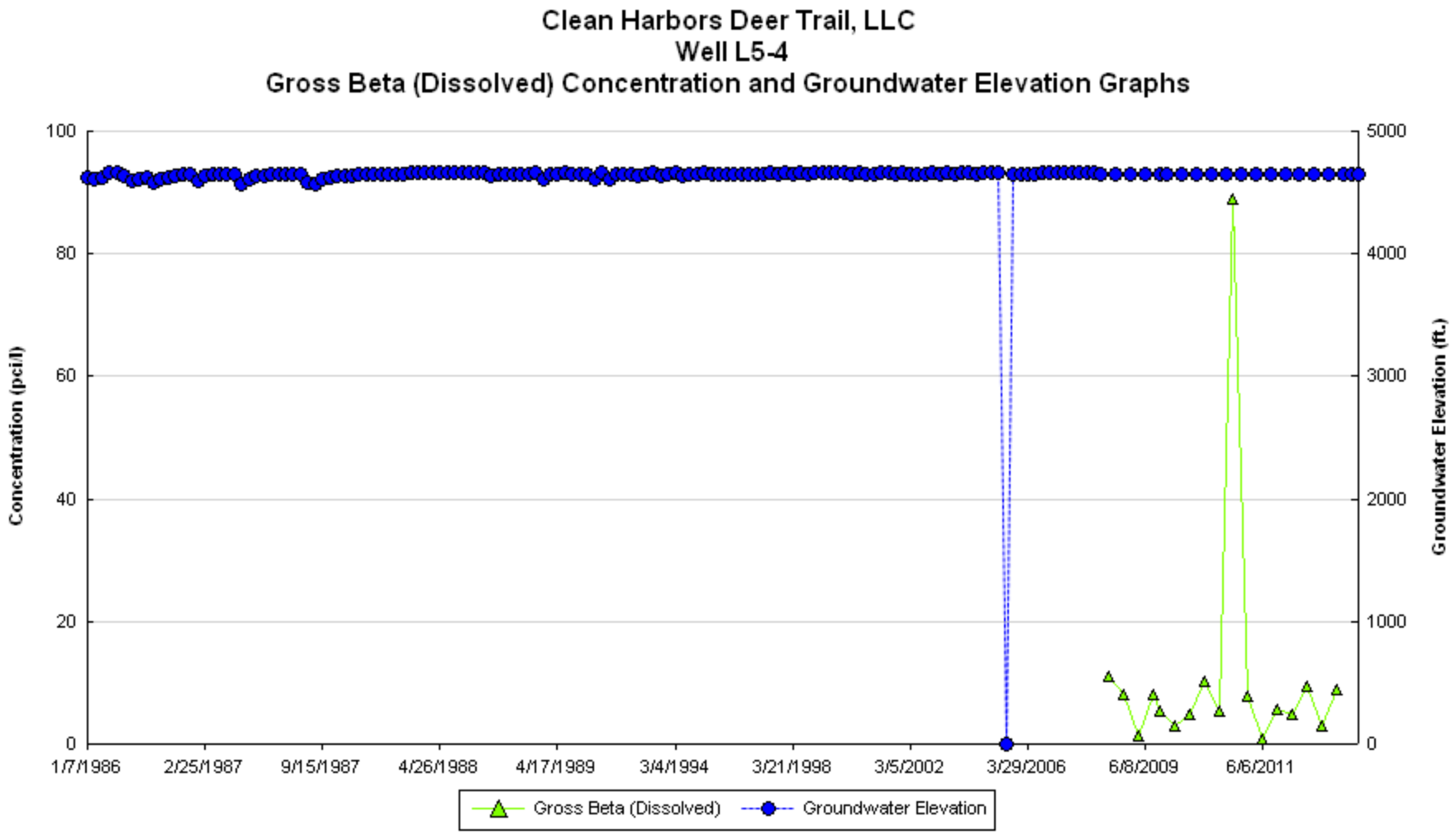

Clean Harbors Deer Trail, LLC
Well L5-3
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
12
0
1000
2000
3000
4000
5000
1/6/1986
2/25/1987
10/2/1987
6/9/1988
7/11/1990
5/6/1995
9/10/1999
8/8/2003
8/20/2007
12/3/2009
12/8/2011
Uranium (Dissolved)
Groundwater Elevation

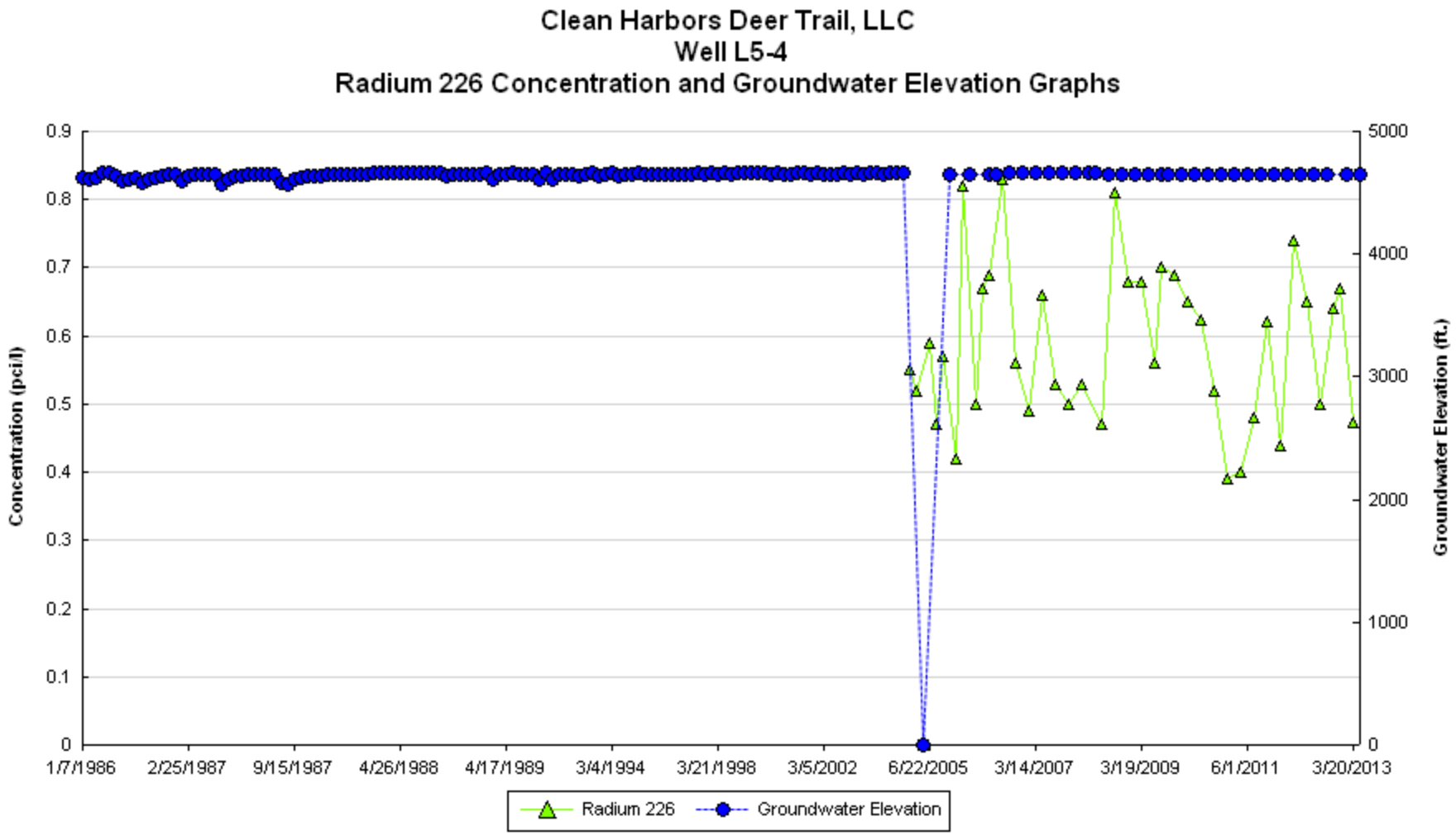

Clean Harbors Deer Trail, LLC
Well L5-3
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
5000
4000
3000
2000
1000
0
1/6/1986
2/25/1987
10/2/1987
6/9/1988
7/11/1990
5/6/1995
9/10/1999
8/8/2003
12/8/2006
6/8/2009
6/10/2013
Uranium (Total)
Groundwater Elevation

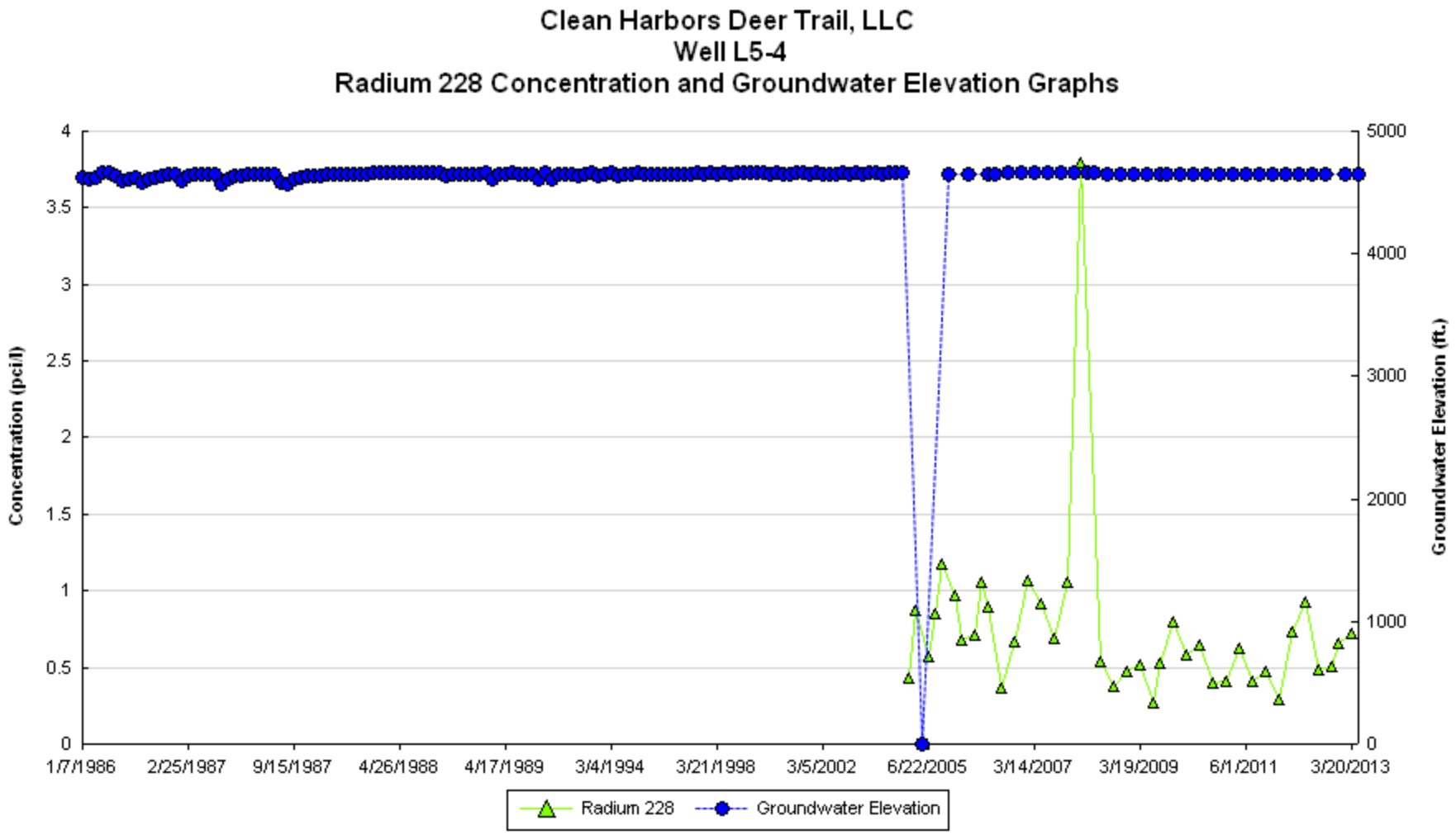

Clean Harbors Deer Trail, LLC
Well L5-4
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
250
200
150
100
50
0
5000
4000
3000
2000
1000
0
1/7/1986
1/6/1987
8/27/1987
3/30/1988
10/27/1988
1/9/1992
5/6/1995
3/24/1999
3/10/2003
9/22/2005
8/20/2007
12/6/2010
Gross Alpha
Groundwater Elevation

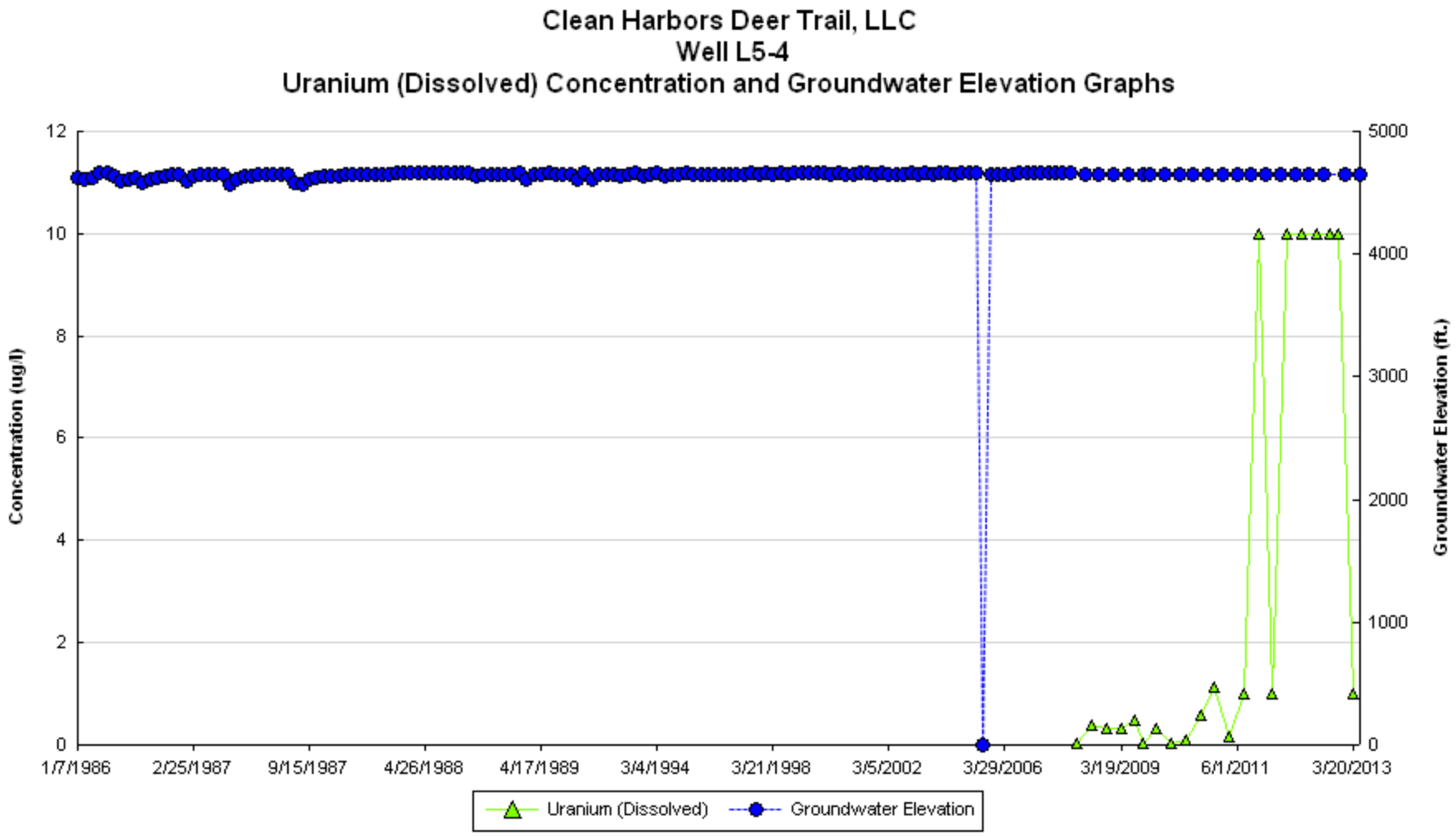

Clean Harbors Deer Trail, LLC
Well L5-4
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
16
14
12
10
8
6
4
2
0
5000
4000
3000
2000
1000
0
1/7/1986
2/25/1987
9/15/1987
4/26/1988
4/17/1989
3/4/1994
3/21/1998
3/5/2002
3/29/2006
6/8/2009
6/6/2011
Gross Alpha (Dissolved)
Groundwater Elevation

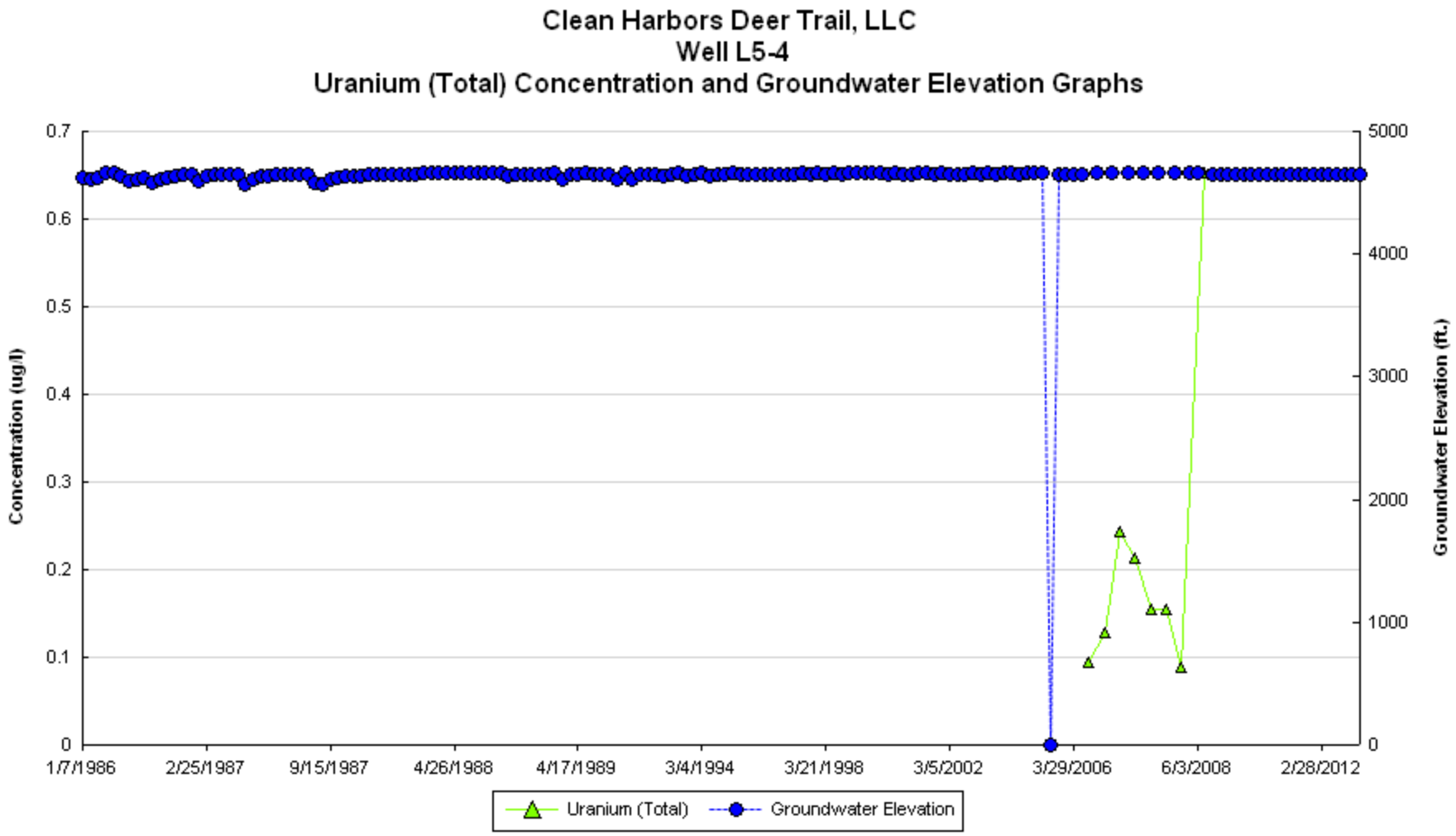

Clean Harbors Deer Trail, LLC
Well L5-4
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
225
200
175
150
125
100
75
50
25
0
5000
4000
3000
2000
1000
0
1/7/1986
12/11/1986
8/26/1987
3/14/1988
10/21/1988
11/1/1991
2/22/1995
12/1/1998
11/11/2002
9/19/2005
6/11/2007
9/20/2010
Gross Beta
Groundwater Elevation

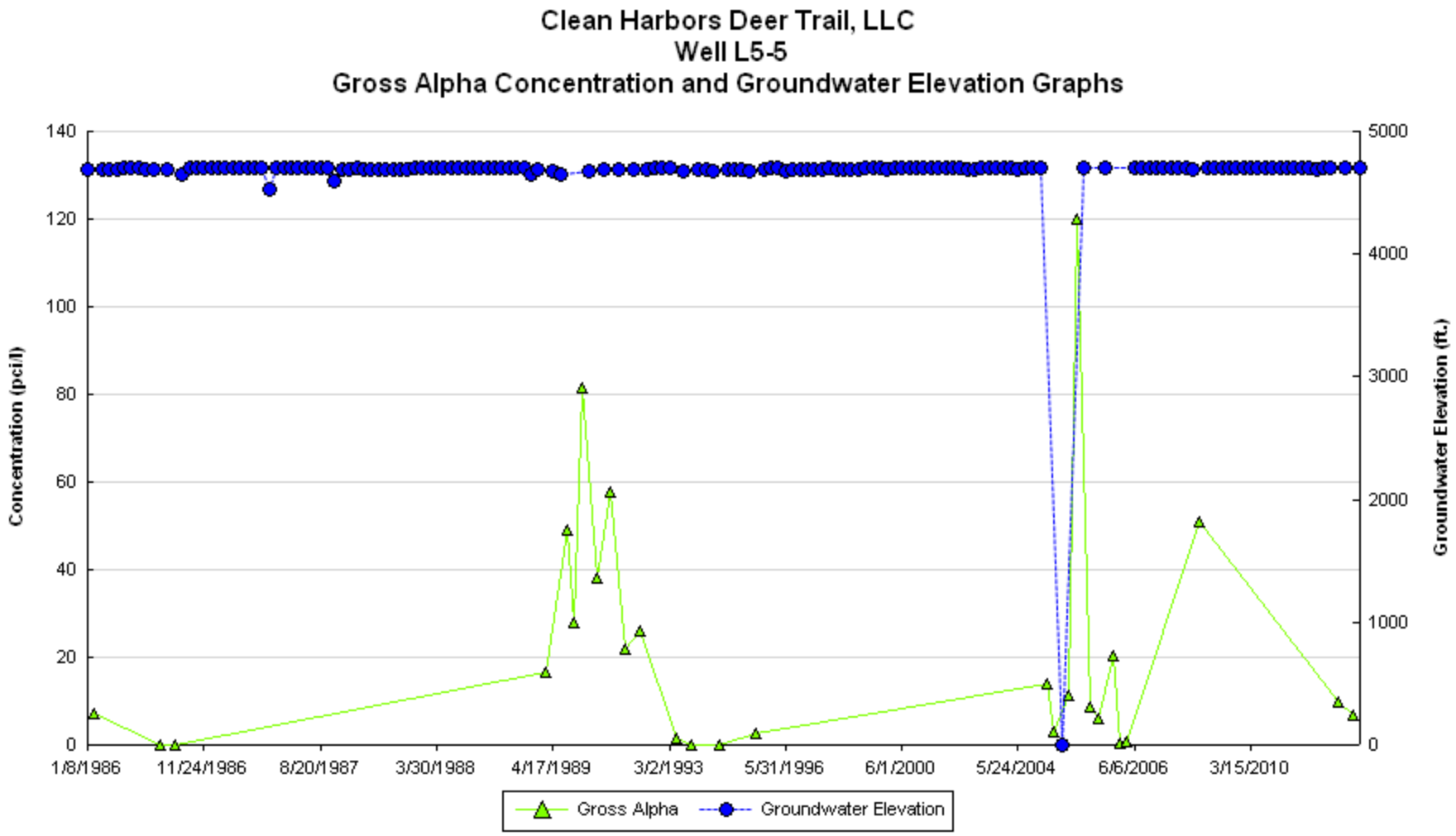

Clean Harbors Deer Trail, LLC
Well L5-4
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
100
80
60
40
20
0
5000
4000
3000
2000
1000
0
1/7/1986
2/25/1987
9/15/1987
4/26/1988
4/17/1989
3/4/1994
3/21/1998
3/5/2002
3/29/2006
6/8/2009
6/6/2011
Gross Beta (Dissolved)
Groundwater Elevation

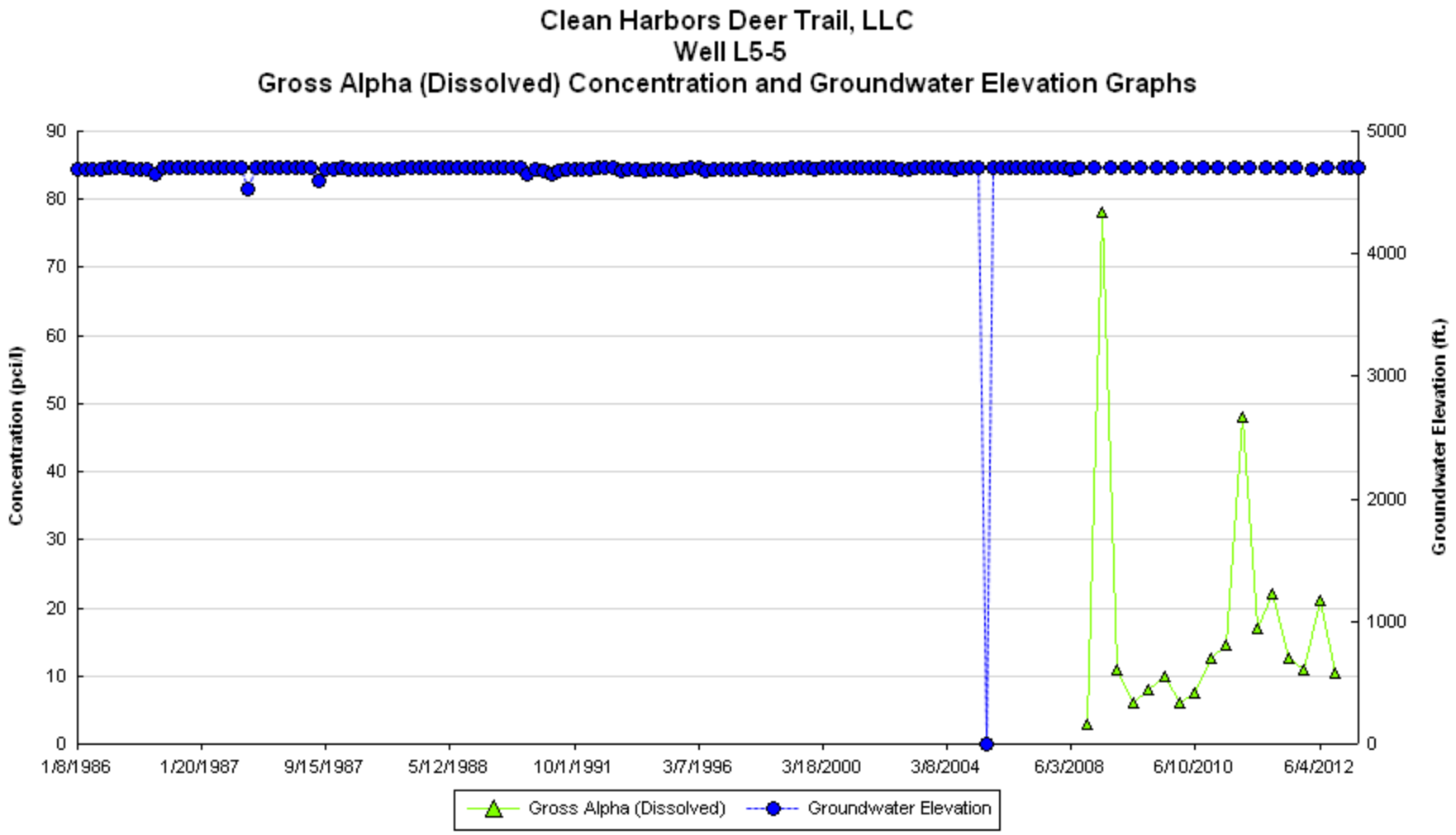

Clean Harbors Deer Trail, LLC
Well L5-4
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
5000
4000
3000
2000
1000
0
1/7/1986
2/25/1987
9/15/1987
4/26/1988
4/17/1989
3/4/1994
3/21/1998
3/5/2002
6/22/2005
3/14/2007
3/19/2009
6/1/2011
3/20/2013
Radium 226
Groundwater Elevation

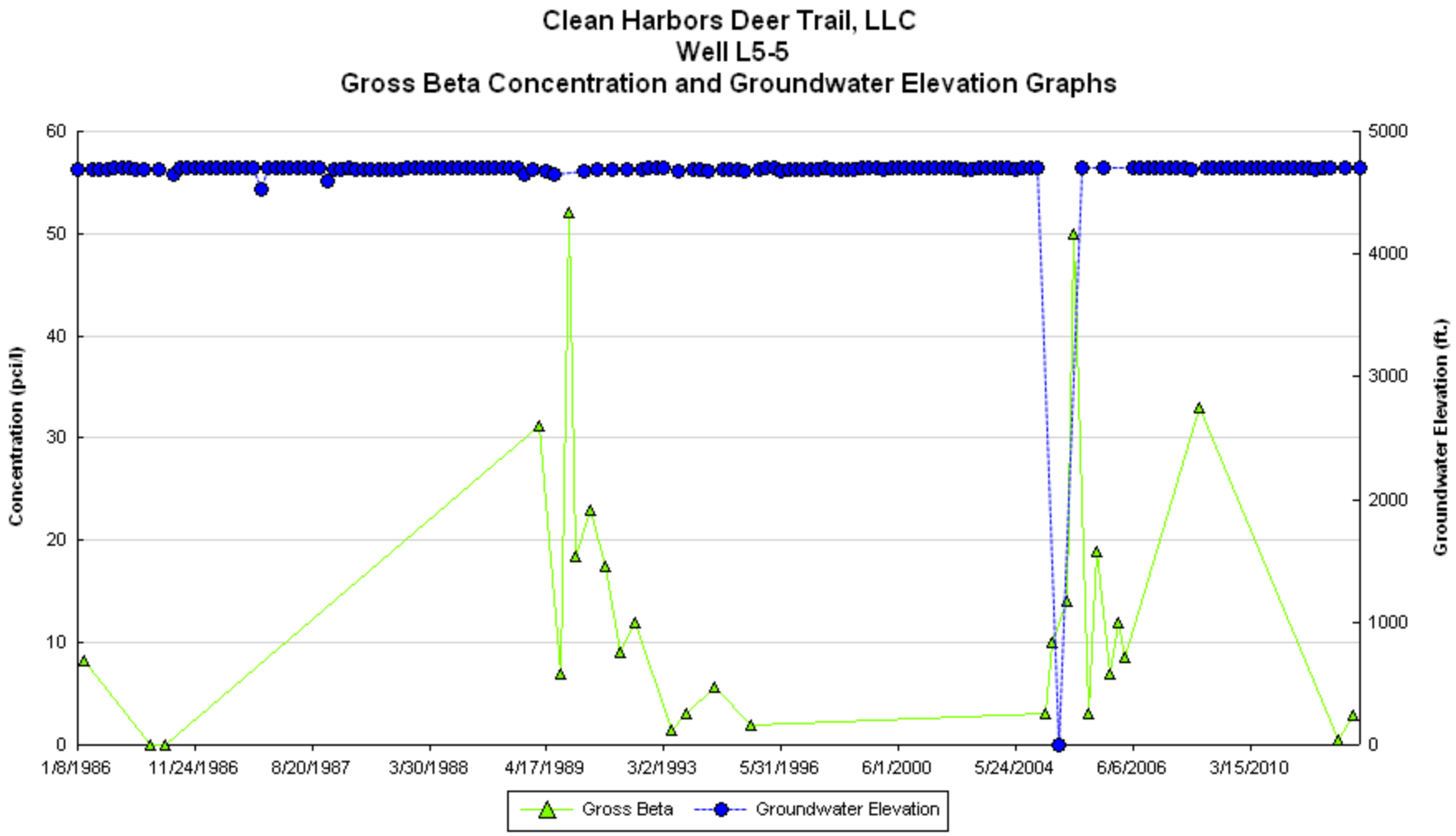

Clean Harbors Deer Trail, LLC
Well L5-4
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
4
3.5
3
2.5
2
1.5
1
0.5
0
5000
4000
3000
2000
1000
0
1/7/1986
2/25/1987
9/15/1987
4/26/1988
4/17/1989
3/4/1994
3/21/1998
3/5/2002
6/22/2005
3/14/2007
3/19/2009
6/1/2011
3/20/2013
Radium 228
Groundwater Elevation

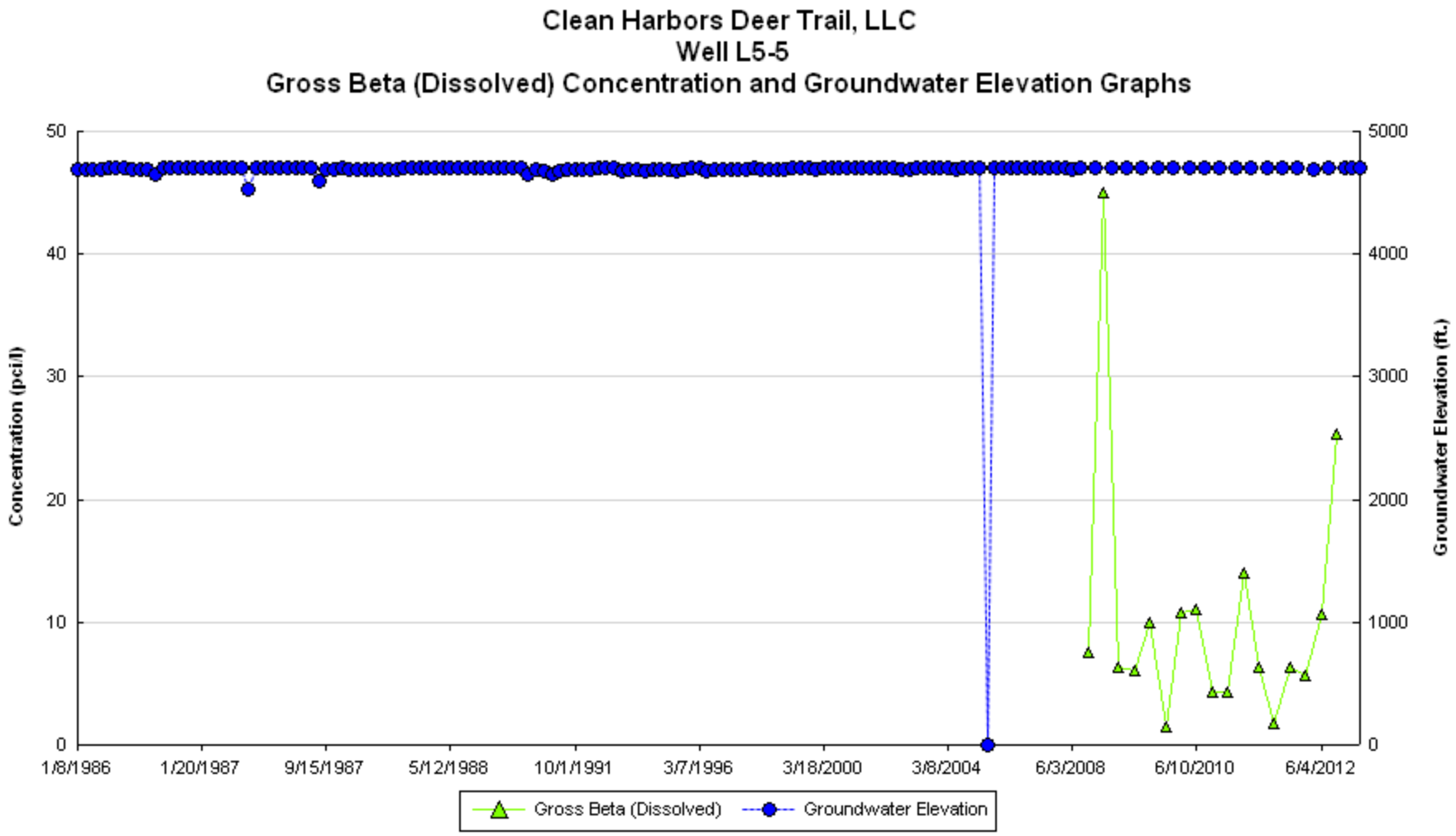

Clean Harbors Deer Trail, LLC
Well L5-4
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
12
10
8
6
4
2
0
5000
4000
3000
2000
1000
0
1/7/1986
2/25/1987
9/15/1987
4/26/1988
4/17/1989
3/4/1994
3/21/1998
3/5/2002
3/29/2006
3/19/2009
6/1/2011
3/20/2013
Uranium (Dissolved)
Groundwater Elevation

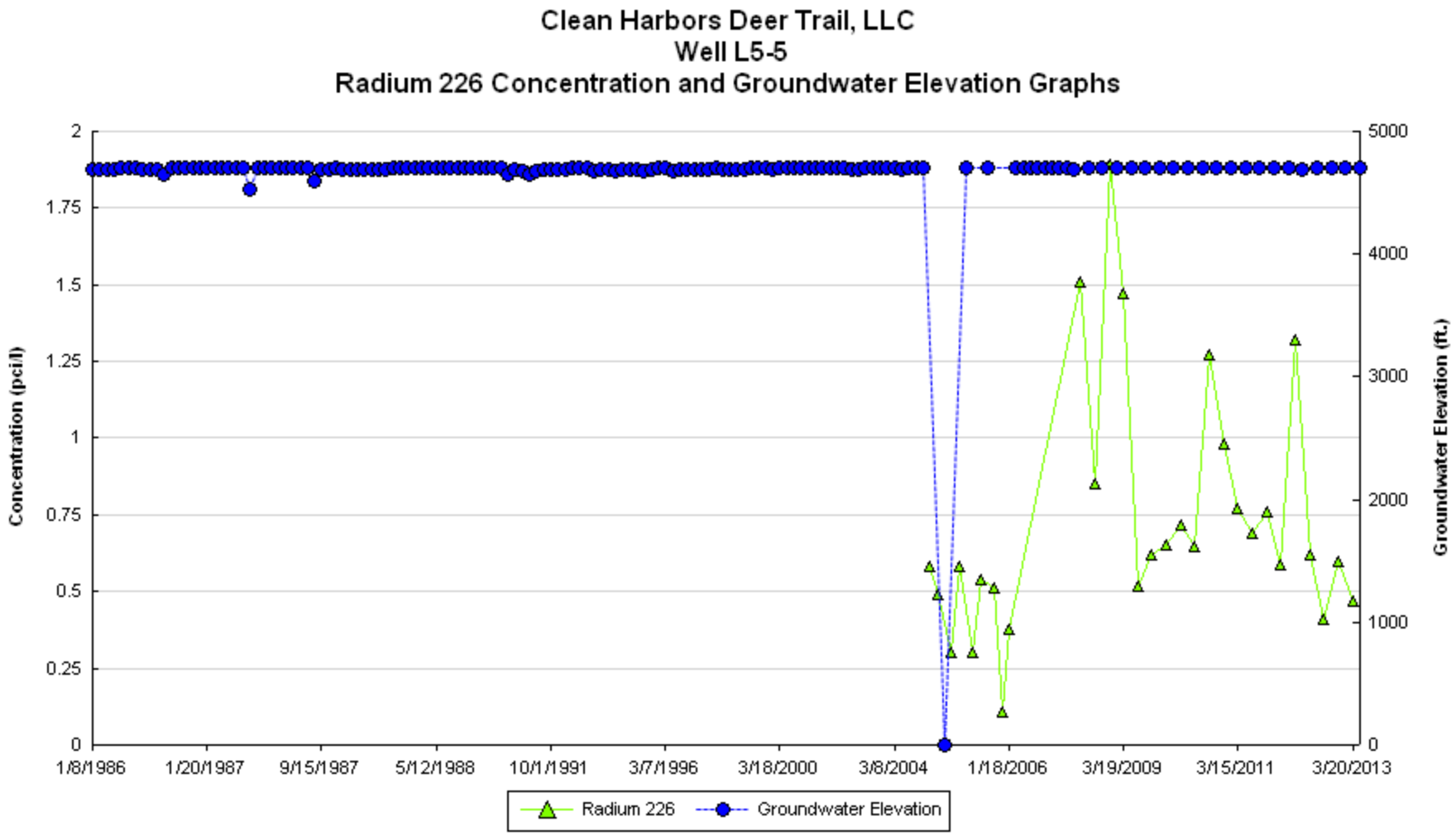

Clean Harbors Deer Trail, LLC
Well L5-4
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
5000
4000
3000
2000
1000
0
1/7/1986
2/25/1987
9/15/1987
4/26/1988
4/17/1989
3/4/1994
3/21/1998
3/5/2002
3/29/2006
6/3/2008
2/28/2012
Uranium (Total)
Groundwater Elevation

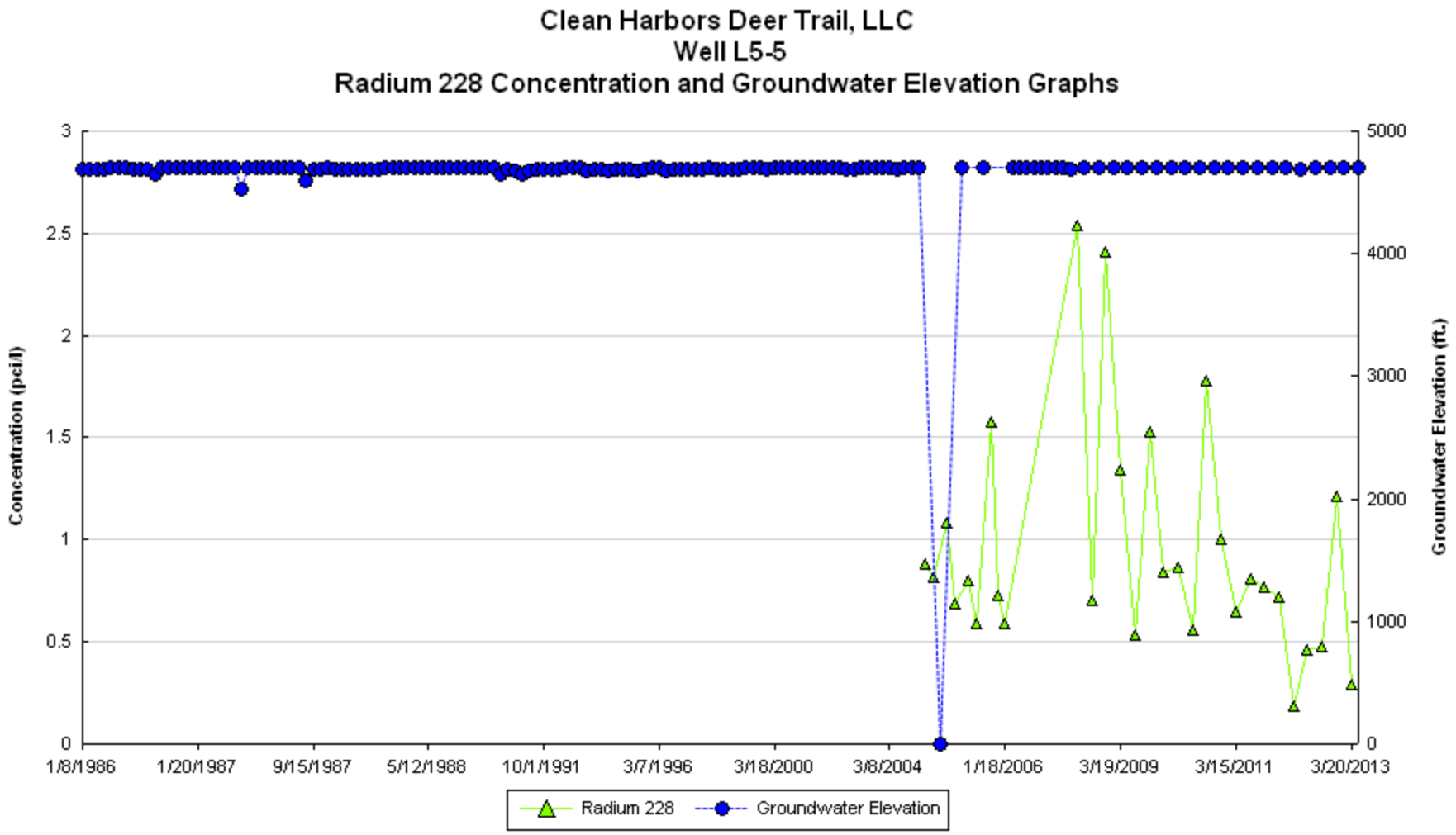

Clean Harbors Deer Trail, LLC
Well L5-5
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
140
120
100
80
60
40
20
0
5000
4000
3000
2000
1000
0
1/8/1986
11/24/1986
8/20/1987
3/30/1988
4/17/1989
3/2/1993
5/31/1996
6/1/2000
5/24/2004
6/6/2006
3/15/2010
Gross Alpha
Groundwater Elevation

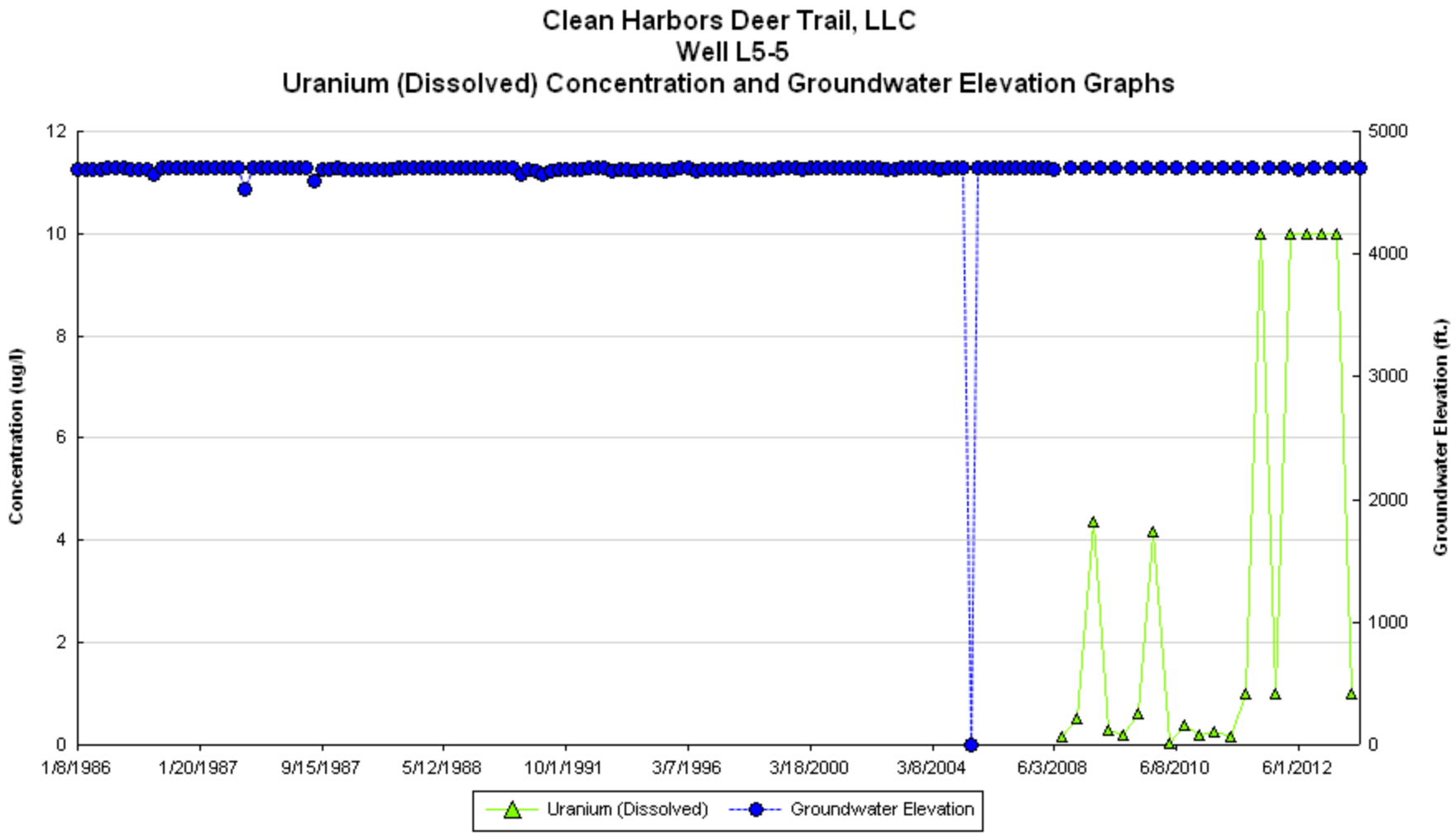

Clean Harbors Deer Trail, LLC
Well L5-5
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
90
80
70
60
50
40
30
20
10
0
5000
4000
3000
2000
1000
0
1/8/1986
1/20/1987
9/15/1987
5/12/1988
10/1/1991
3/7/1996
3/18/2000
3/8/2004
6/3/2008
6/10/2010
6/4/2012
Gross Alpha (Dissolved)
Groundwater Elevation

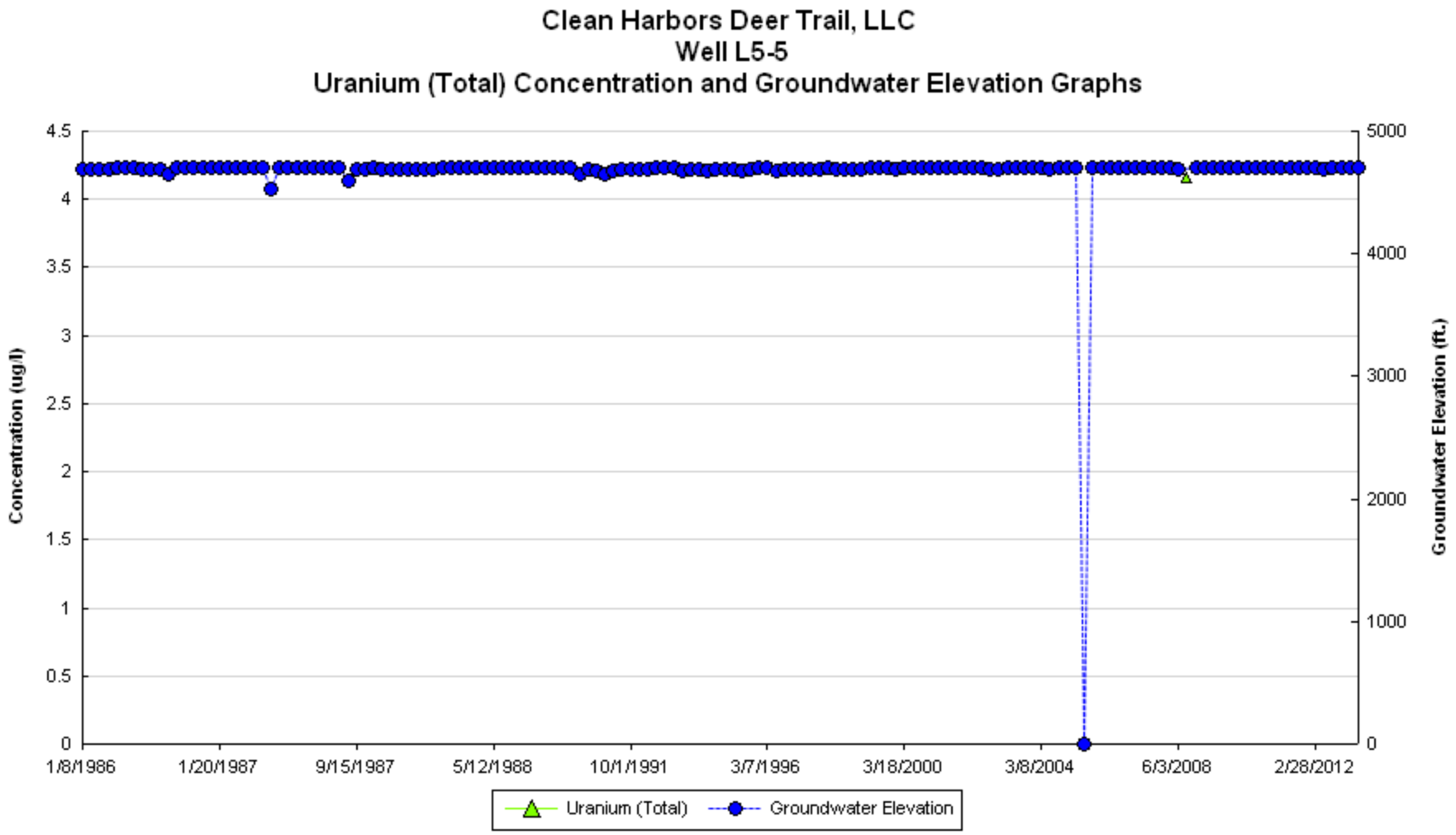

Clean Harbors Deer Trail, LLC
Well L5-5
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
60
50
40
30
20
10
0
5000
4000
3000
2000
1000
0
1/8/1986
11/24/1986
8/20/1987
3/30/1988
4/17/1989
3/2/1993
5/31/1996
6/1/2000
5/24/2004
6/6/2006
3/15/2010
Gross Beta
Groundwater Elevation

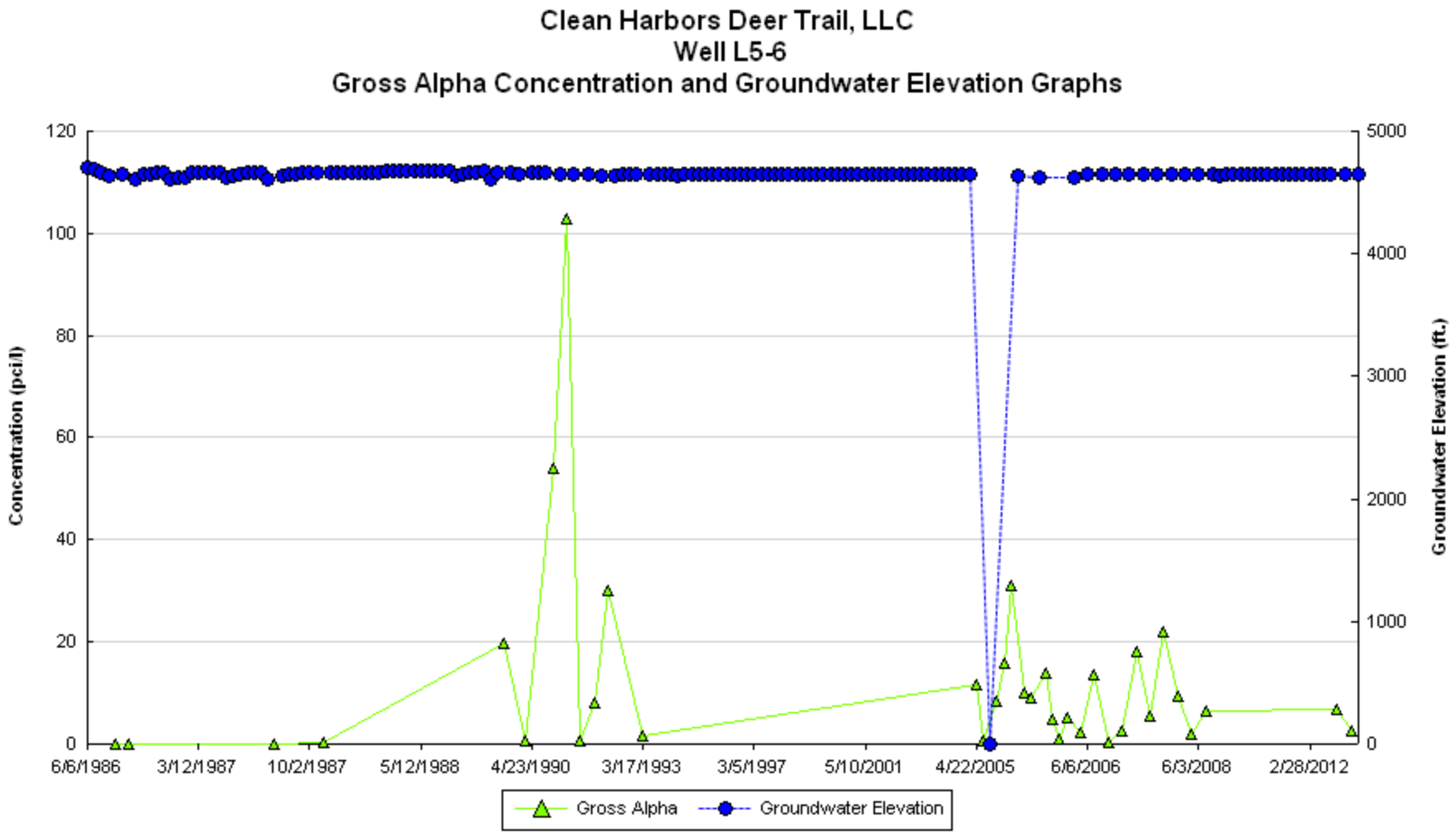

Clean Harbors Deer Trail, LLC
Well L5-5
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
50
40
30
20
10
0
5000
4000
3000
2000
1000
0
1/8/1986
1/20/1987
9/15/1987
5/12/1988
10/1/1991
3/7/1996
3/18/2000
3/8/2004
6/3/2008
6/10/2010
6/4/2012
Gross Beta (Dissolved)
Groundwater Elevation

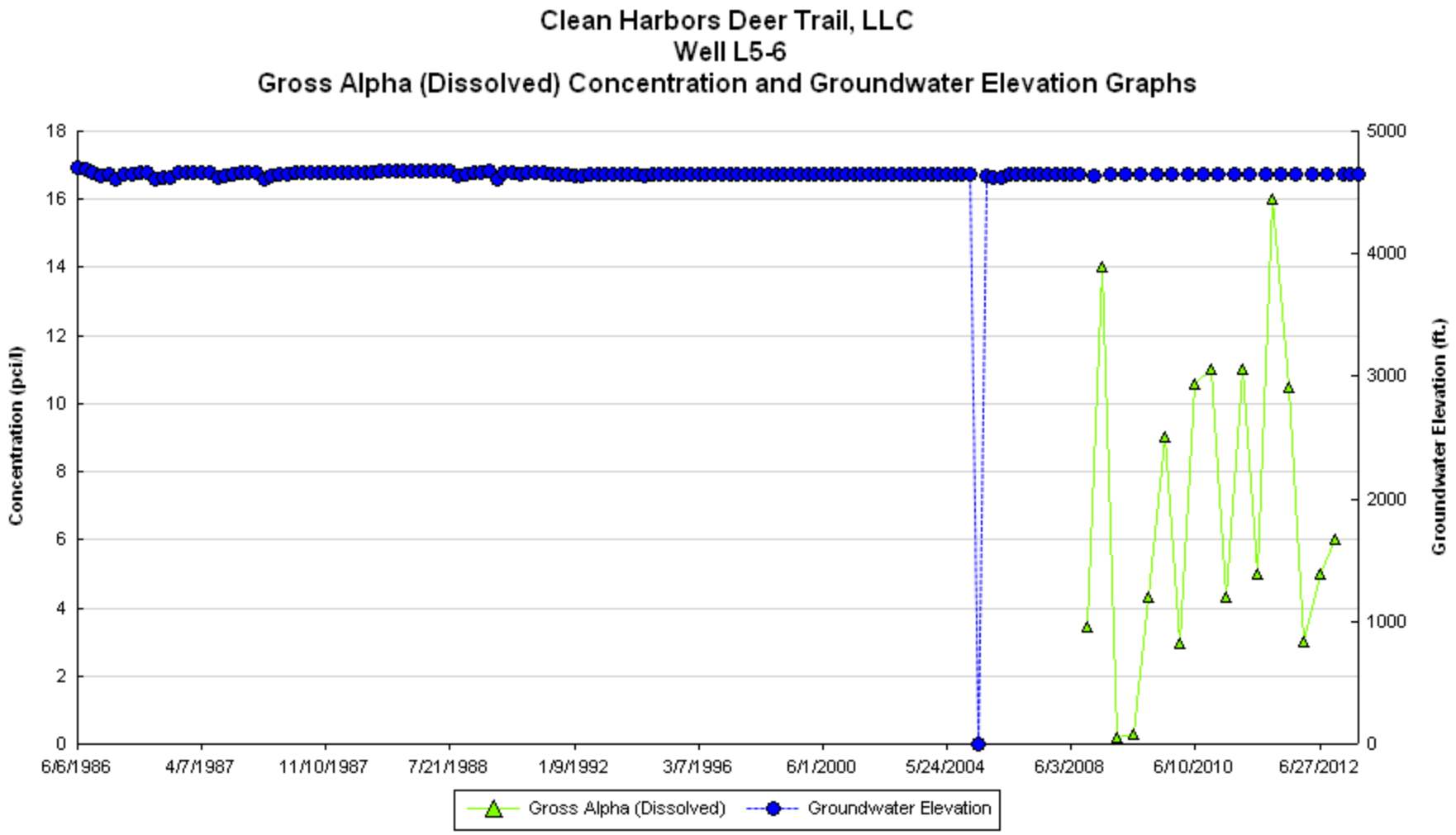

Clean Harbors Deer Trail, LLC
Well L5-5
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
5000
4000
3000
2000
1000
0
1/8/1986
1/20/1987
9/15/1987
5/12/1988
10/1/1991
3/7/1996
3/18/2000
3/8/2004
1/18/2006
3/19/2009
3/15/2011
3/20/2013
Radium 226
Groundwater Elevation

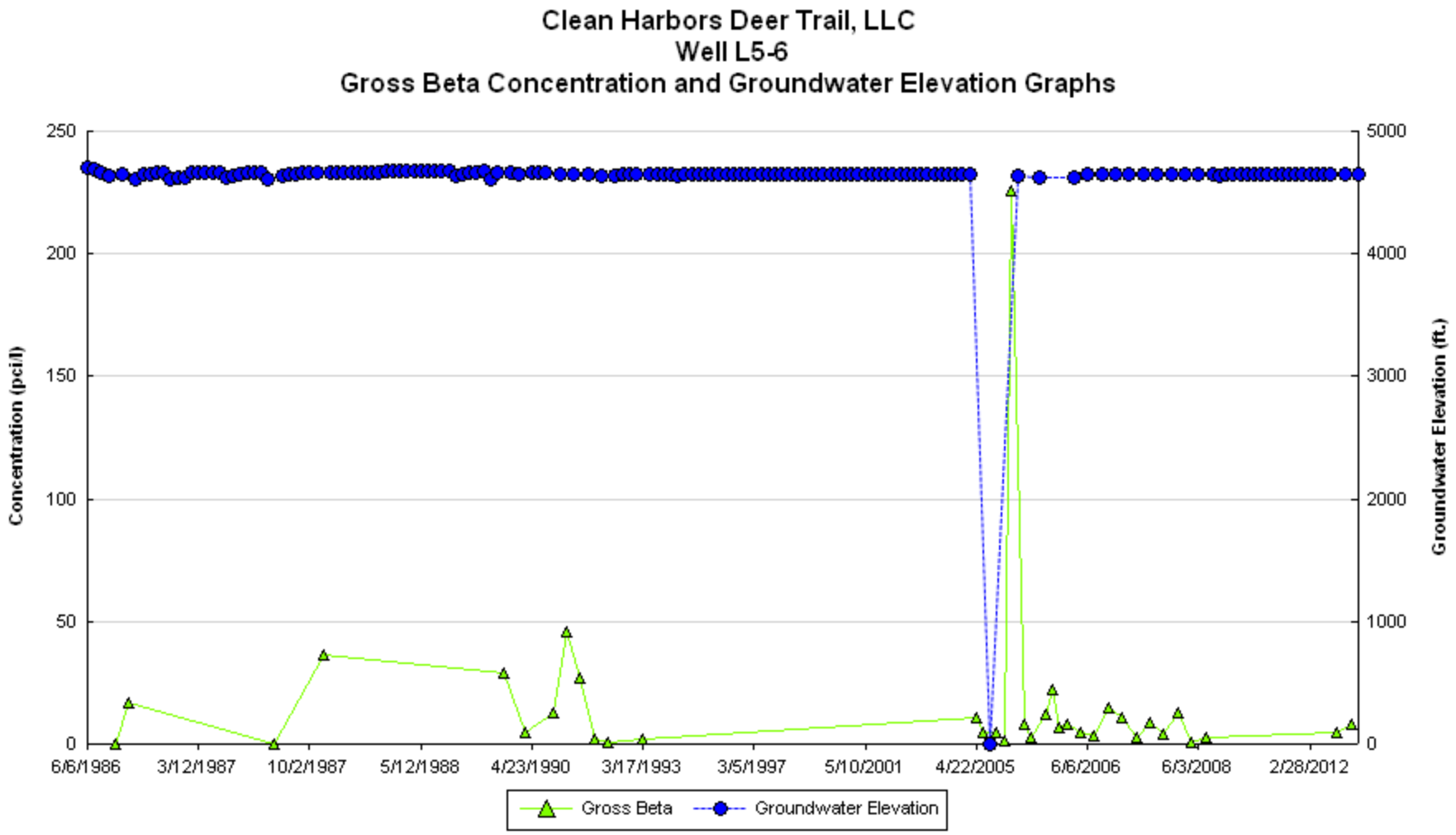

Clean Harbors Deer Trail, LLC
Well L5-5
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3
2.5
2
1.5
1
0.5
0
5000
4000
3000
2000
1000
0
1/8/1986
1/20/1987
9/15/1987
5/12/1988
10/1/1991
3/7/1996
3/18/2000
3/8/2004
1/18/2006
3/19/2009
3/15/2011
3/20/2013
Radium 228
Groundwater Elevation

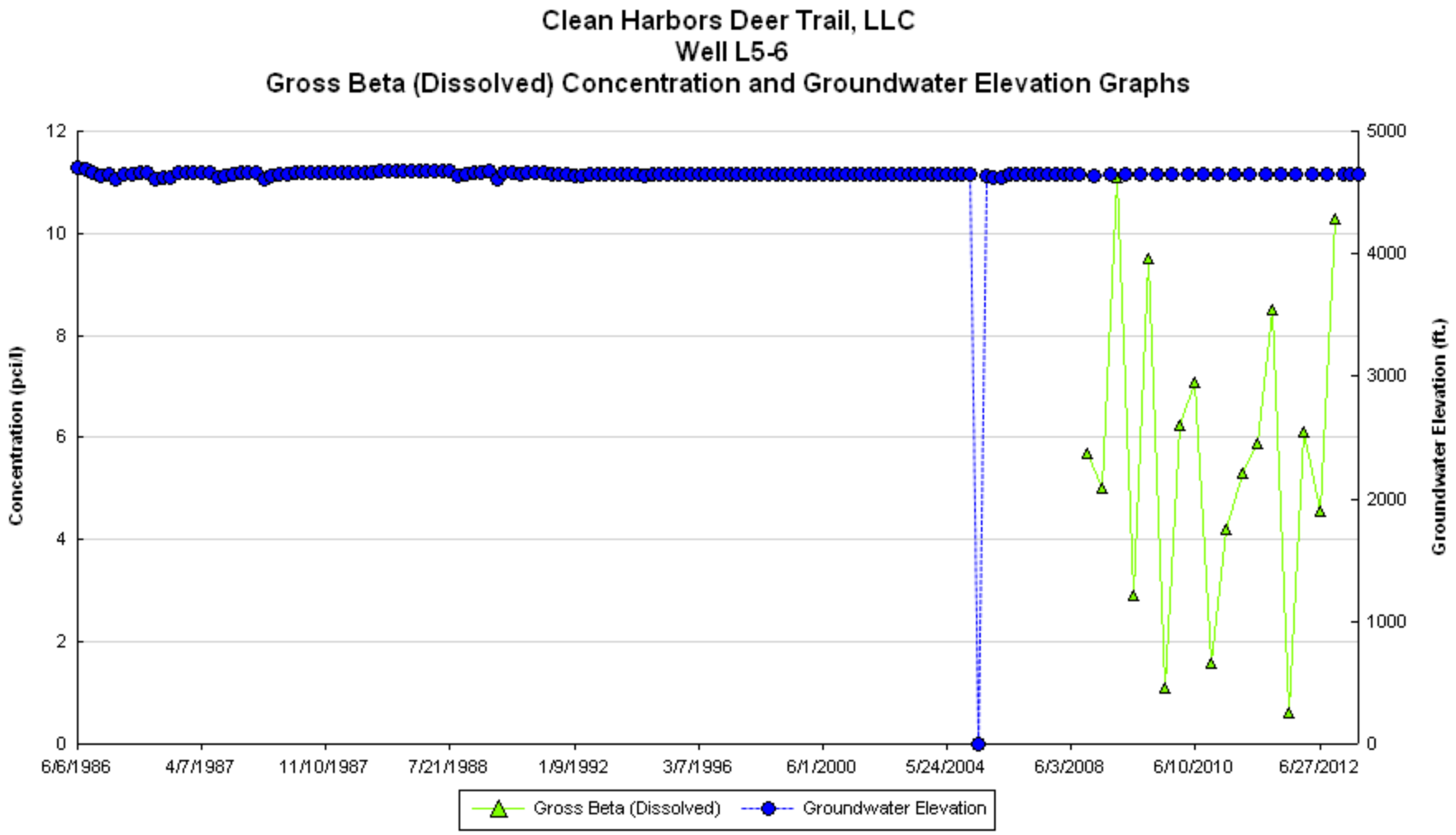

Clean Harbors Deer Trail, LLC
Well L5-5
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
12
0
1000
2000
3000
4000
5000
1/8/1986
1/20/1987
9/15/1987
5/12/1988
10/1/1991
3/7/1996
3/18/2000
3/8/2004
6/3/2008
6/8/2010
6/1/2012
Uranium (Dissolved)
Groundwater Elevation

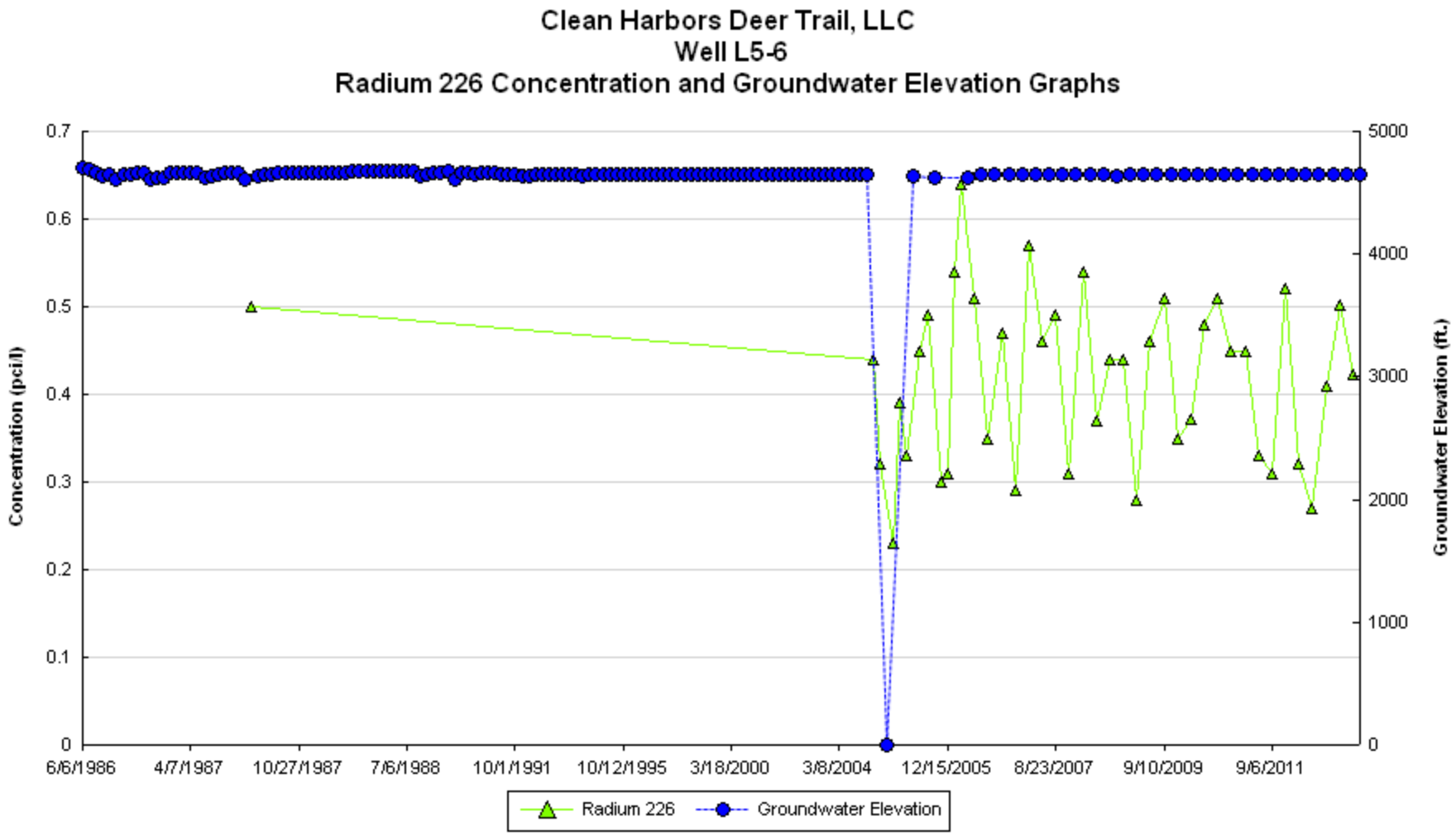

Clean Harbors Deer Trail, LLC
Well L5-5
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
5000
4000
3000
2000
1000
0
1/8/1986
1/20/1987
9/15/1987
5/12/1988
10/1/1991
3/7/1996
3/18/2000
3/8/2004
6/3/2008
2/28/2012
Uranium (Total)
Groundwater Elevation

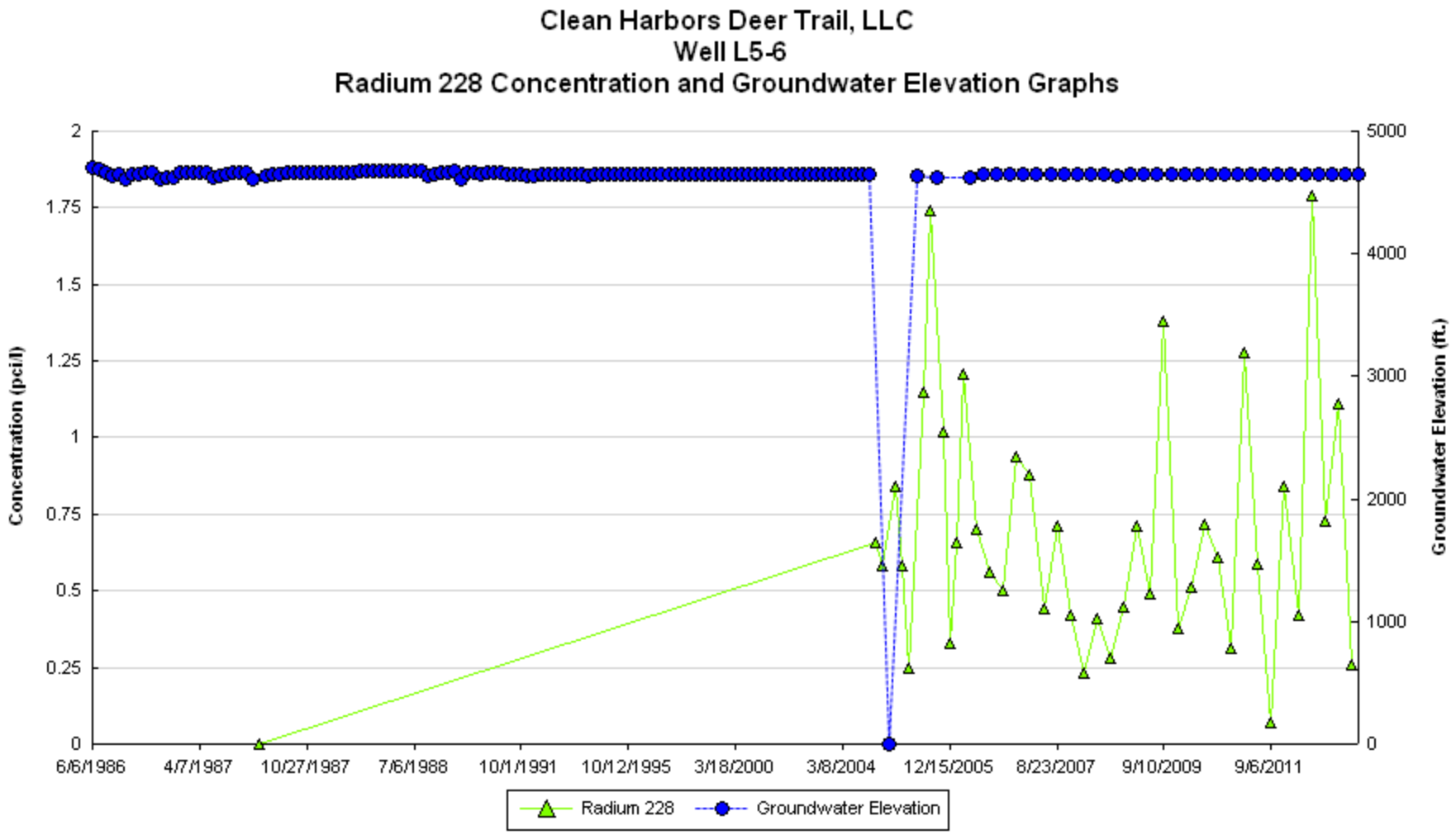

Clean Harbors Deer Trail, LLC
Well L5-6
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
120
100
80
60
40
20
0
5000
4000
3000
2000
1000
0
6/6/1986
3/12/1987
10/2/1987
5/12/1988
4/23/1990
3/17/1993
3/5/1997
5/10/2001
4/22/2005
6/6/2006
6/3/2008
2/28/2012
Gross Alpha
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-6
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
18
16
14
12
10
8
6
4
2
0
5000
4000
3000
2000
1000
0
6/6/1986
4/7/1987
11/10/1987
7/21/1988
1/9/1992
3/7/1996
6/1/2000
5/24/2004
6/3/2008
6/10/2010
6/27/2012
Gross Alpha (Dissolved)
Groundwater Elevation

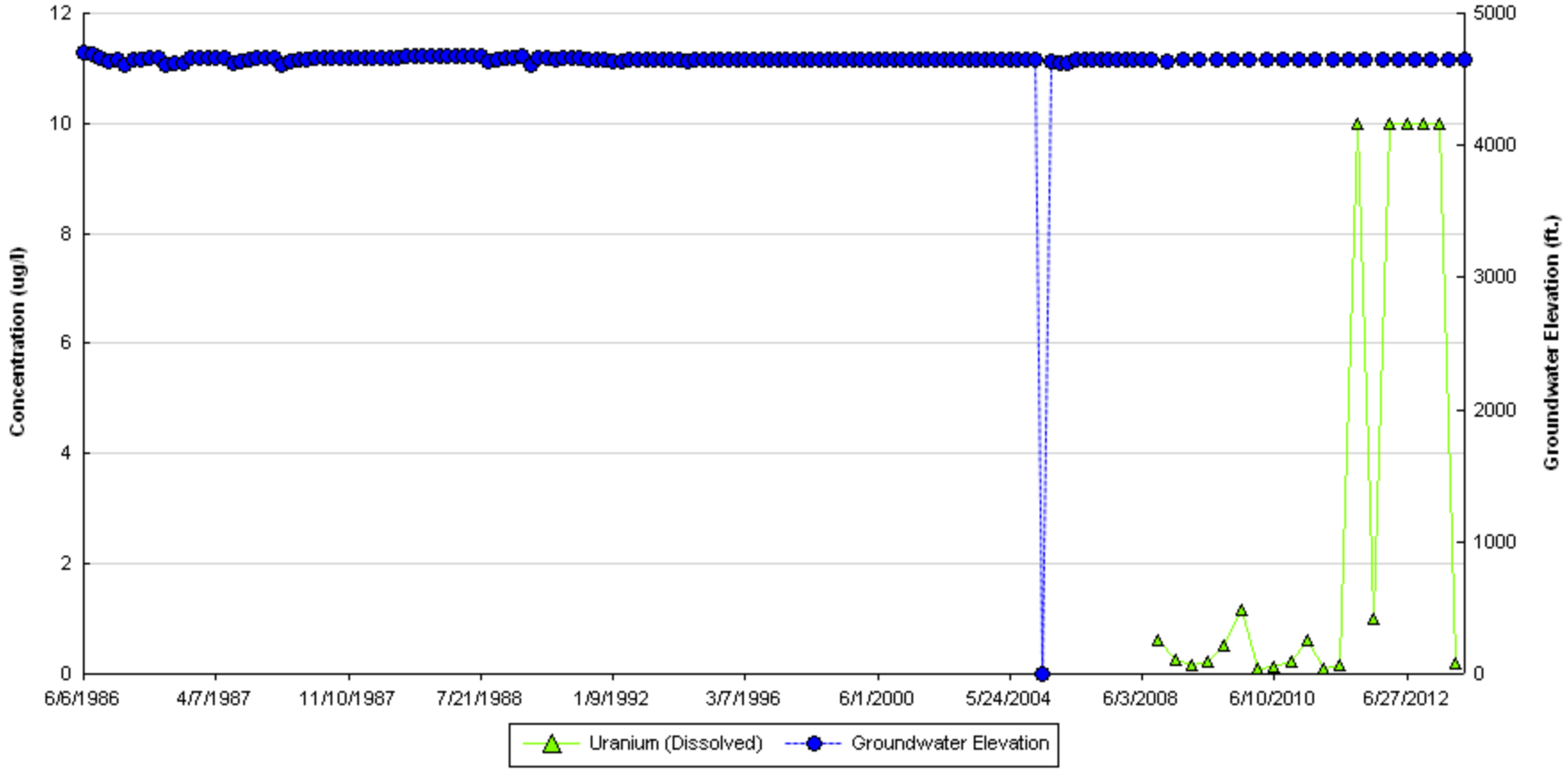

Clean Harbors Deer Trail, LLC
Well L5-6
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
250
200
150
100
50
0
5000
4000
3000
2000
1000
0
6/6/1986
3/12/1987
10/2/1987
5/12/1988
4/23/1990
3/17/1993
3/5/1997
5/10/2001
4/22/2005
6/6/2006
6/3/2008
2/28/2012
Gross Beta
Groundwater Elevation

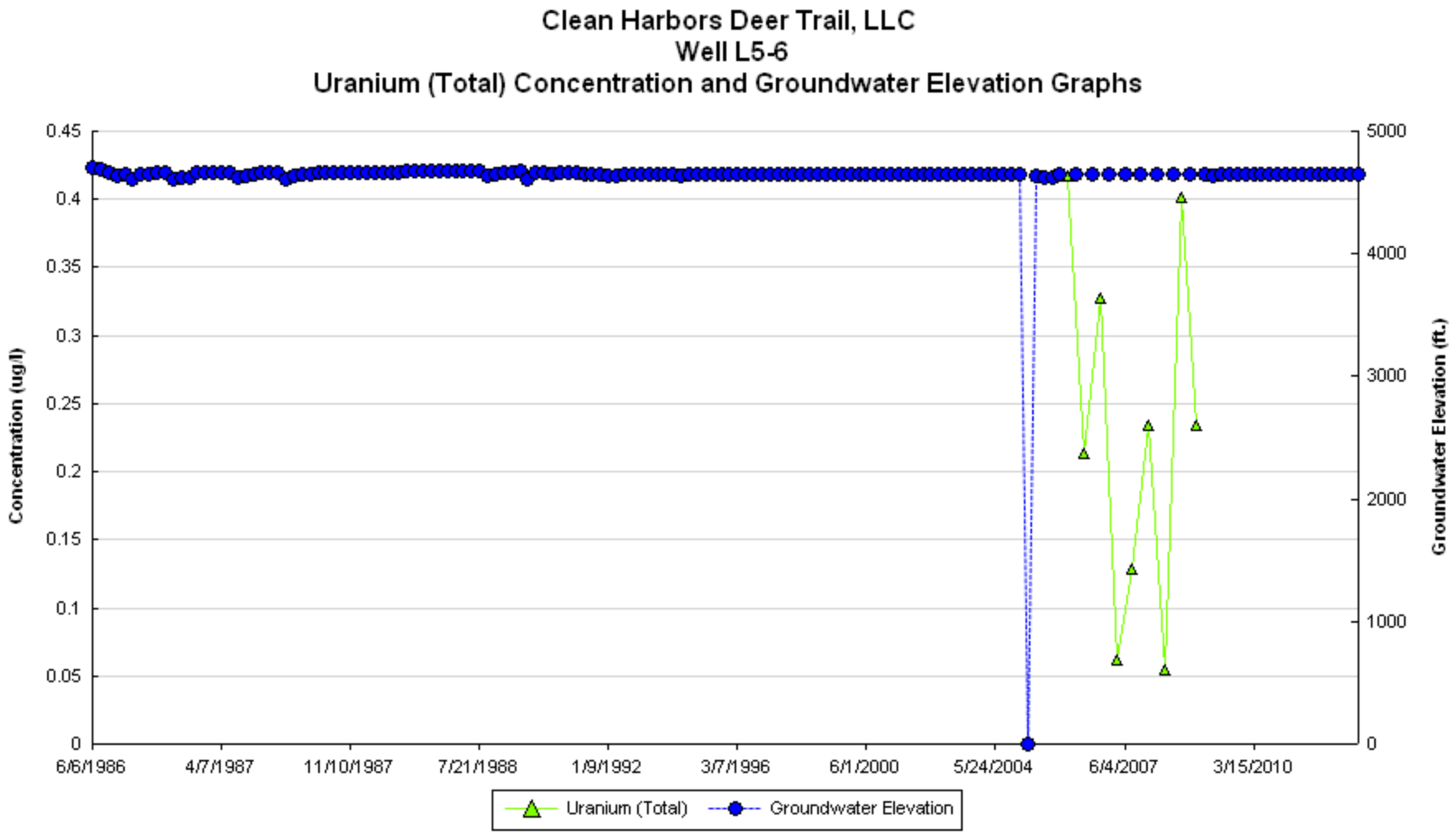

Clean Harbors Deer Trail, LLC
Well L5-6
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
12
0
1000
2000
3000
4000
5000
6/6/1986
4/7/1987
11/10/1987
7/21/1988
1/9/1992
3/7/1996
6/1/2000
5/24/2004
6/3/2008
6/10/2010
6/27/2012
Gross Beta (Dissolved)
Groundwater Elevation

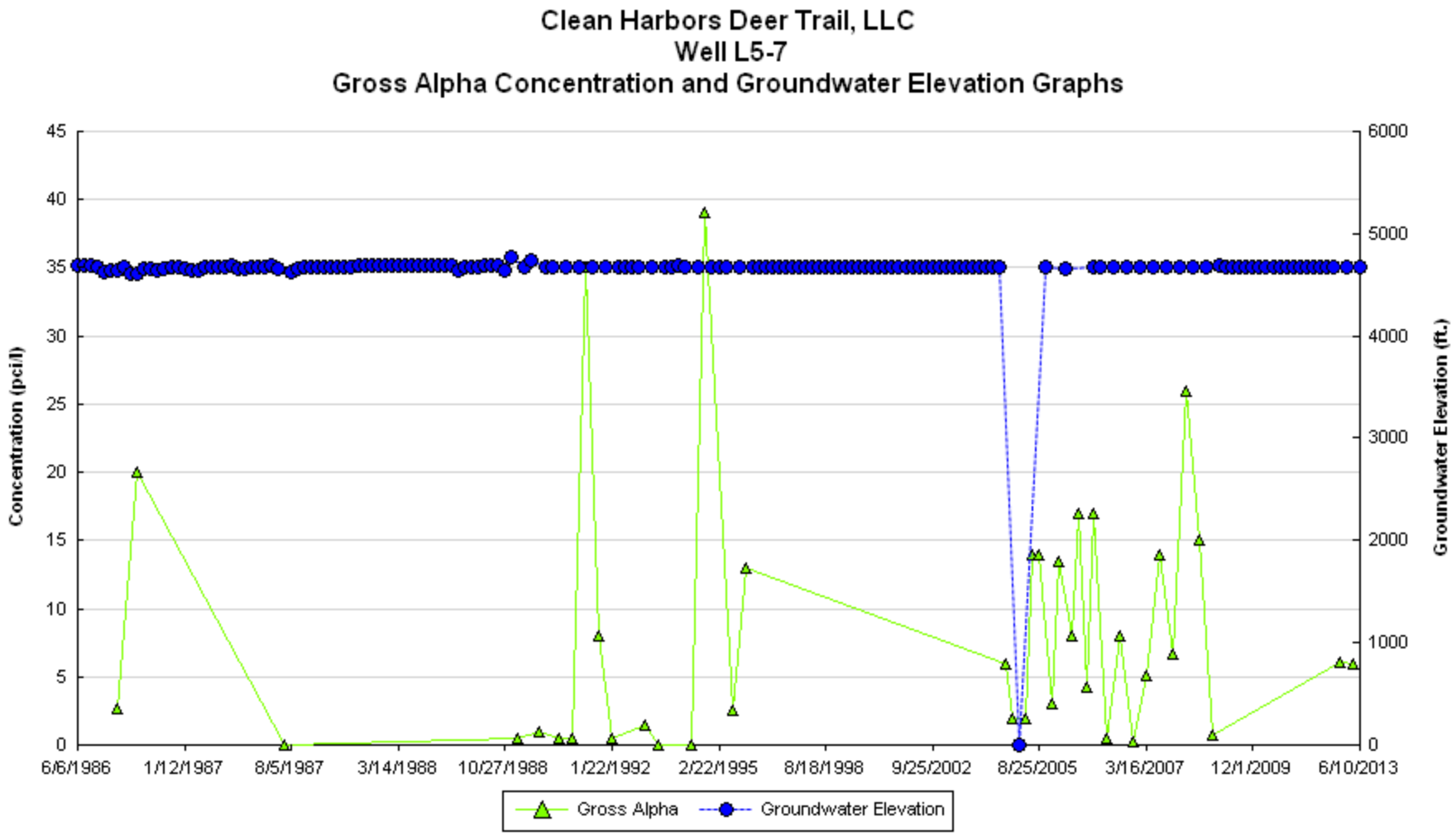

Clean Harbors Deer Trail, LLC
Well L5-6
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
5000
4000
3000
2000
1000
0
6/6/1986
4/7/1987
10/27/1987
7/6/1988
10/1/1991
10/12/1995
3/18/2000
3/8/2004
12/15/2005
8/23/2007
9/10/2009
9/6/2011
Radium 226
Groundwater Elevation

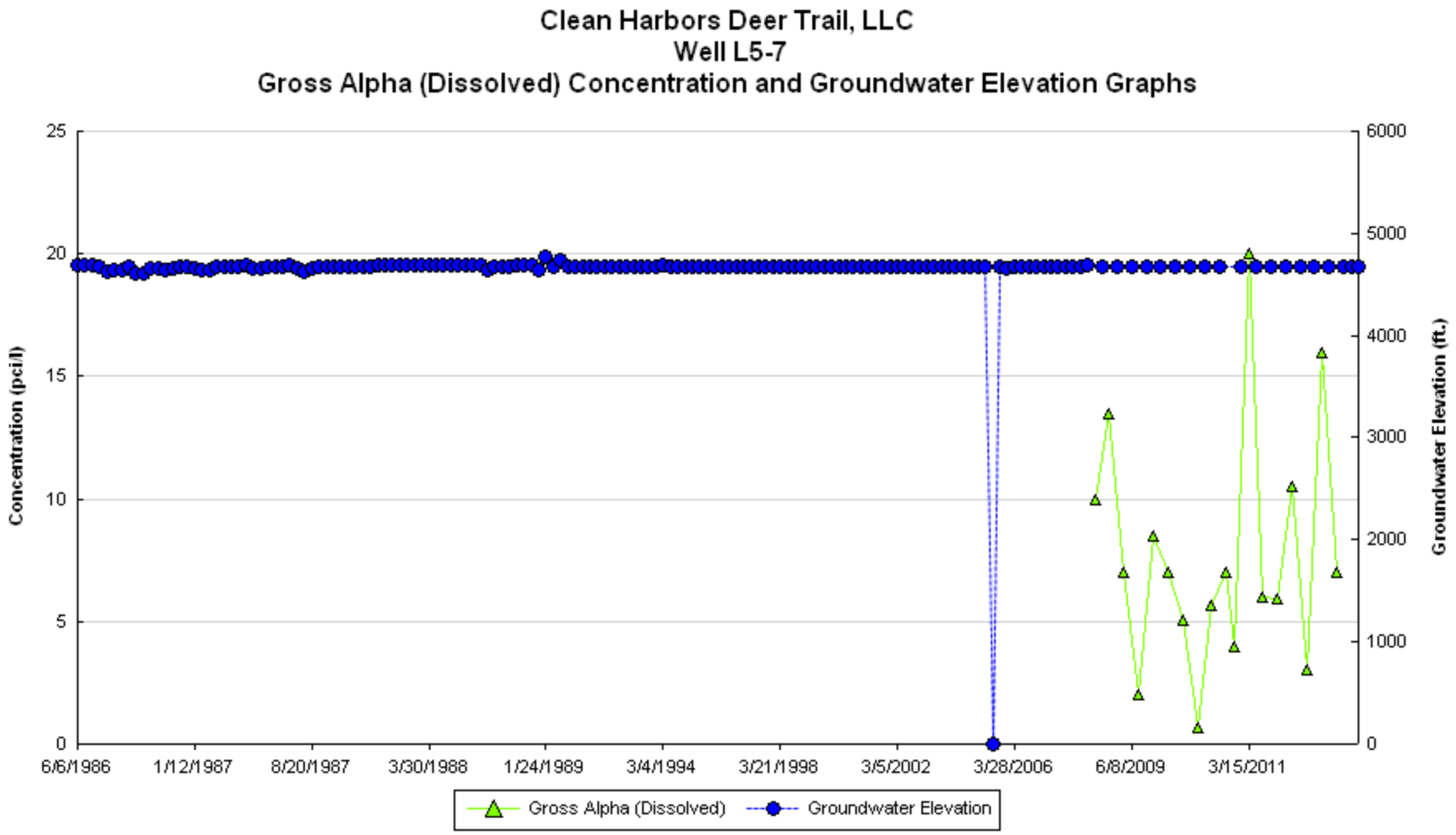

Clean Harbors Deer Trail, LLC
Well L5-6
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
5000
4000
3000
2000
1000
0
6/6/1986
4/7/1987
10/27/1987
7/6/1988
10/1/1991
10/12/1995
3/18/2000
3/8/2004
12/15/2005
8/23/2007
9/10/2009
9/6/2011
Radium 228
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L5-6
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs

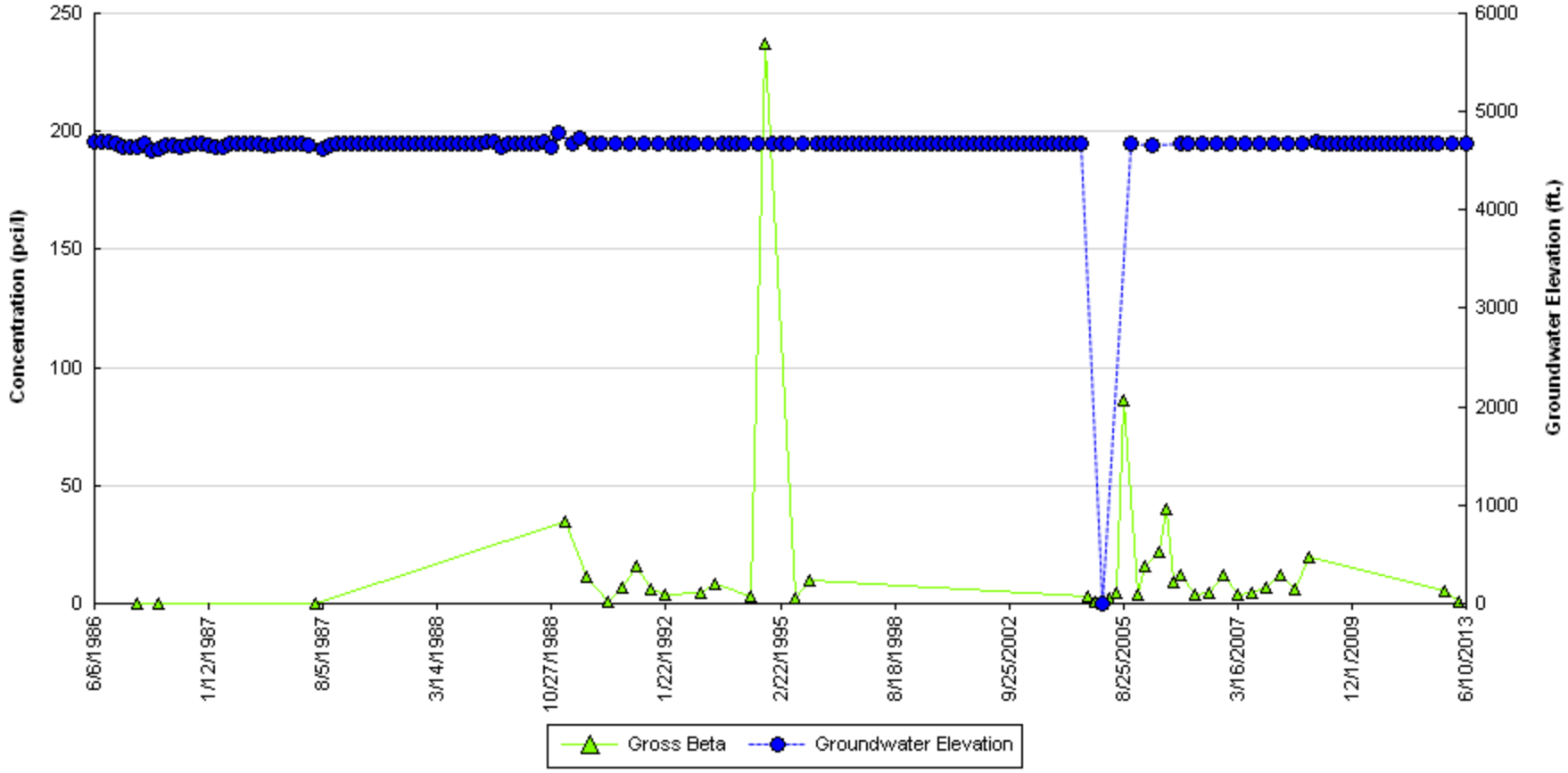


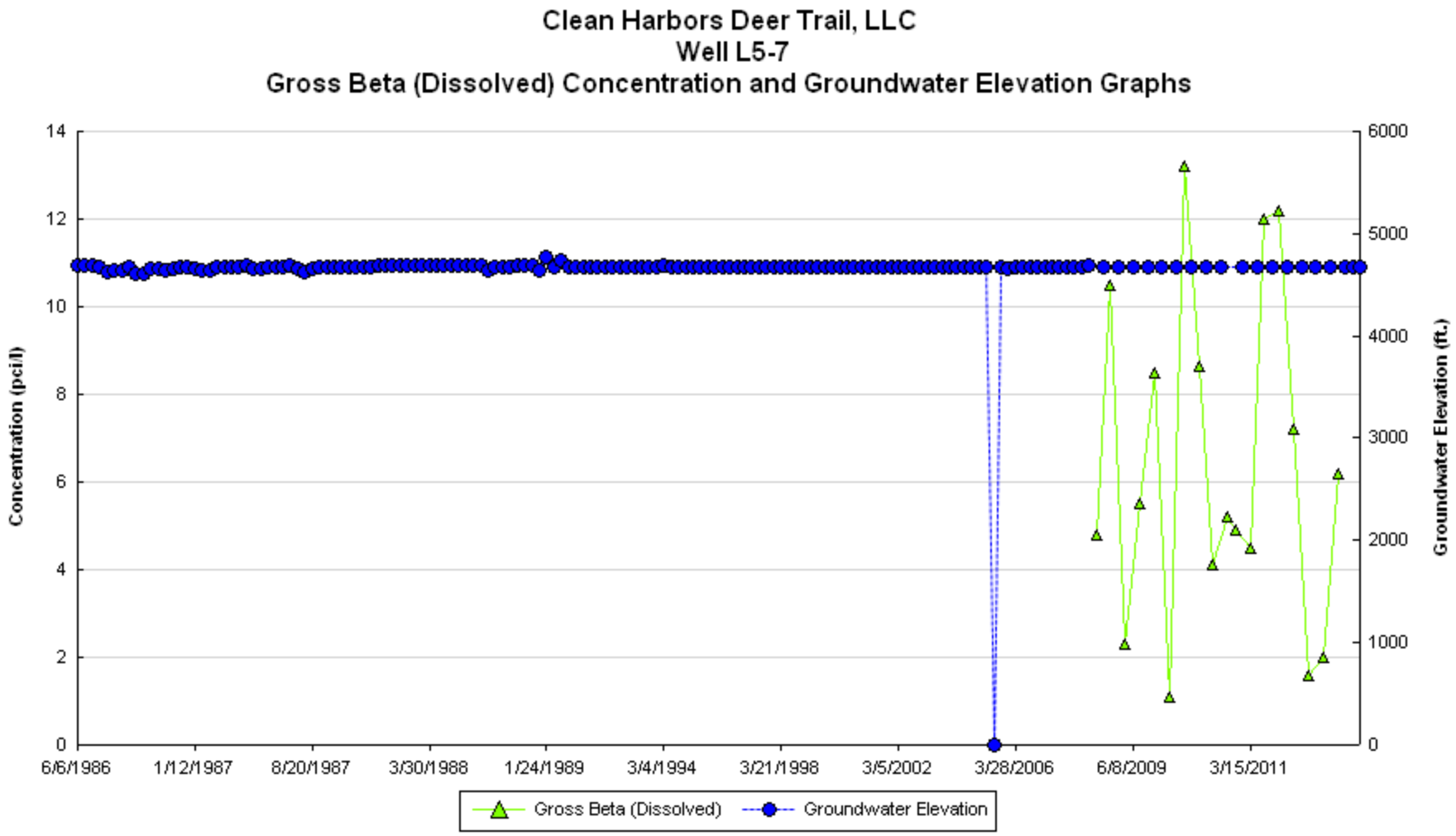

Clean Harbors Deer Trail, LLC
Well L5-6
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
5000
4000
3000
2000
1000
0
6/6/1986
4/7/1987
11/10/1987
7/21/1988
1/9/1992
3/7/1996
6/1/2000
5/24/2004
6/4/2007
3/15/2010
Uranium (Total)
Groundwater Elevation

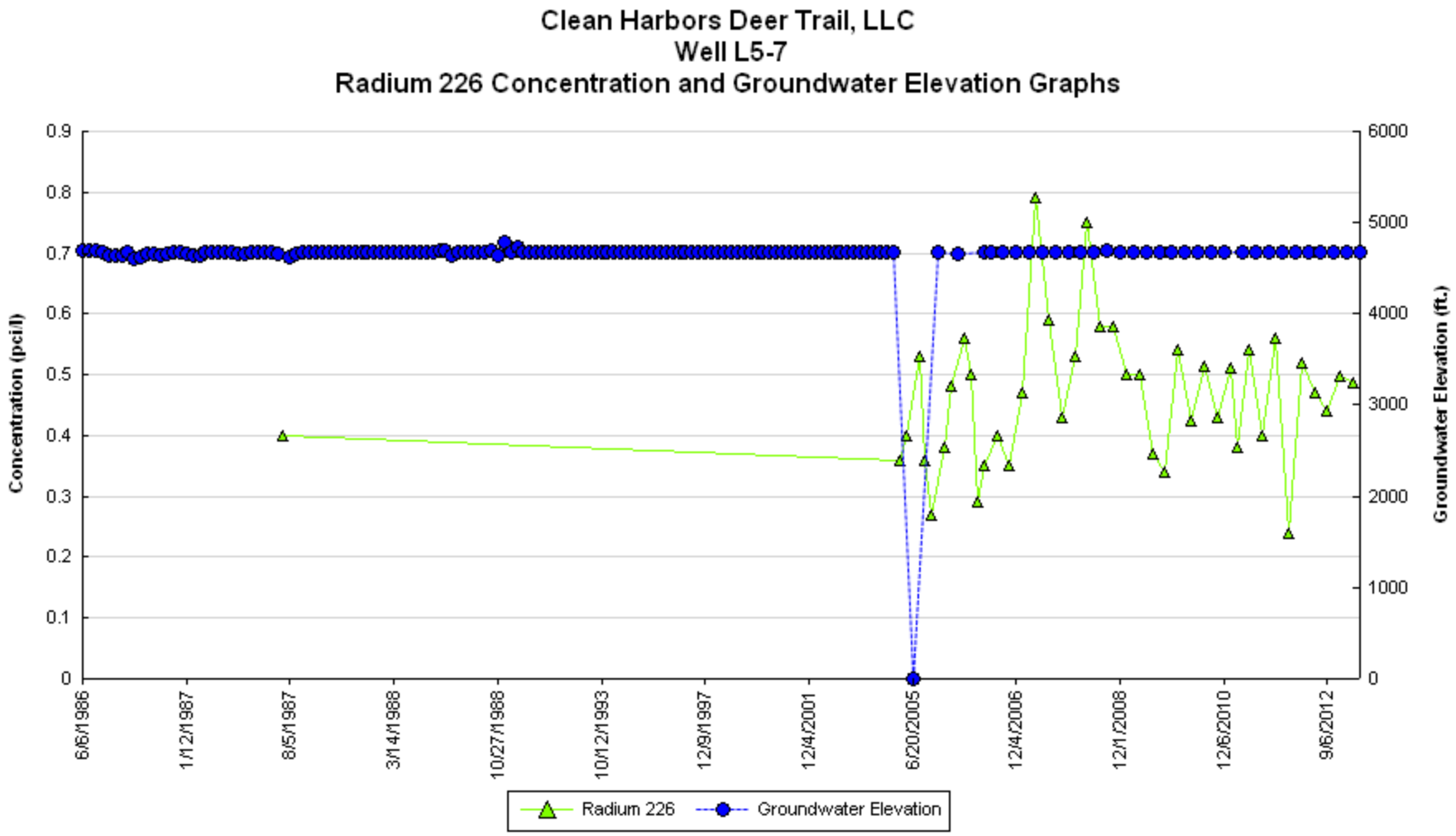

Clean Harbors Deer Trail, LLC
Well L5-7
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
45
40
35
30
25
20
15
10
5
0
6000
5000
4000
3000
2000
1000
0
6/6/1986
1/12/1987
8/5/1987
3/14/1988
10/27/1988
1/22/1992
2/22/1995
8/18/1998
9/25/2002
8/25/2005
3/16/2007
12/1/2009
6/10/2013
Gross Alpha
Groundwater Elevation

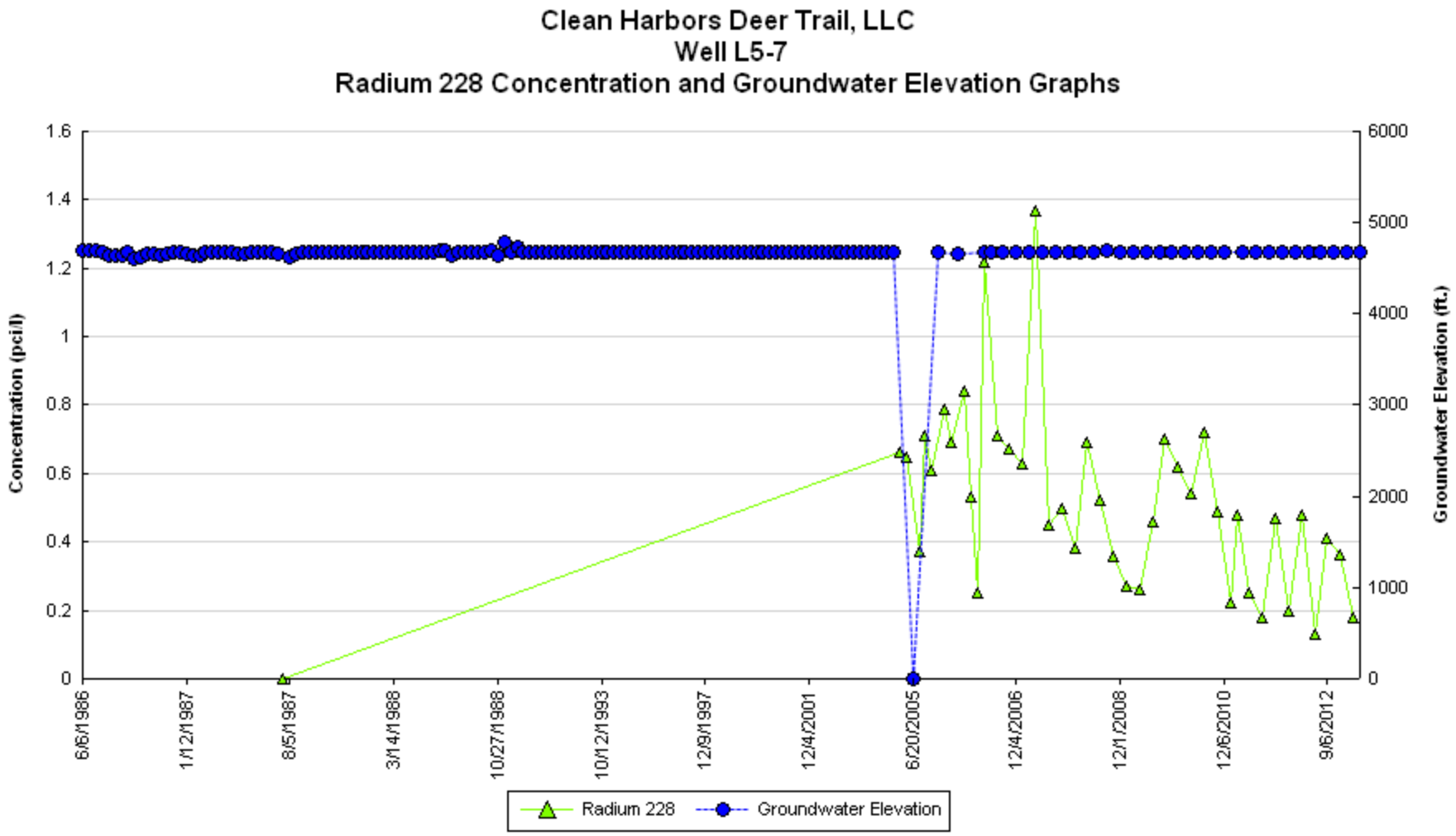

Clean Harbors Deer Trail, LLC
Well L5-7
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
25
20
15
10
5
0
6000
5000
4000
3000
2000
1000
0
6/6/1986
1/12/1987
8/20/1987
3/30/1988
1/24/1989
3/4/1994
3/21/1998
3/5/2002
3/28/2006
6/8/2009
3/15/2011
Gross Alpha (Dissolved)
Groundwater Elevation

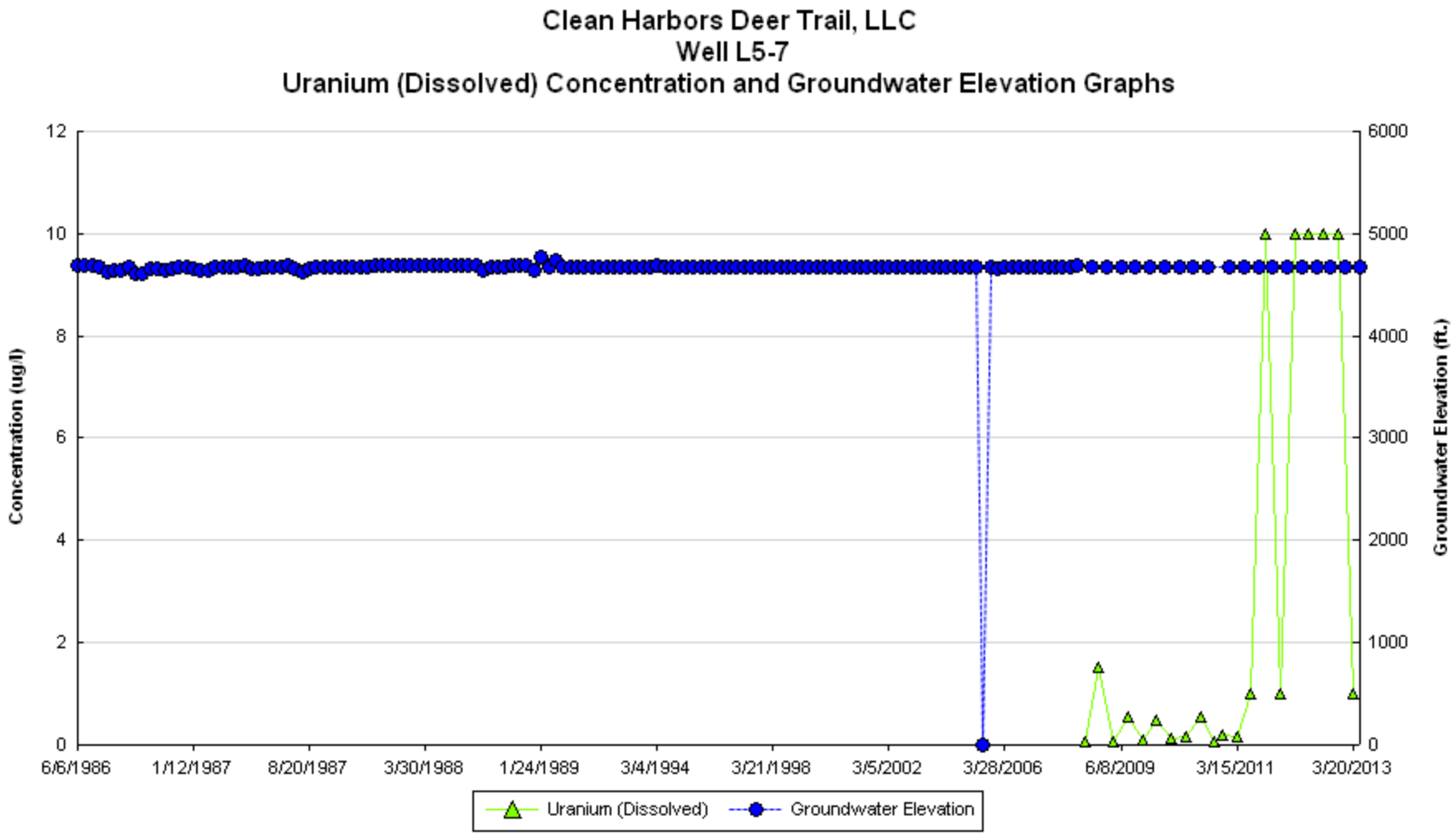
Clean Harbors Deer Trail, LLC
Well L5-7
Gross Beta Concentration and Groundwater Elevation Graphs

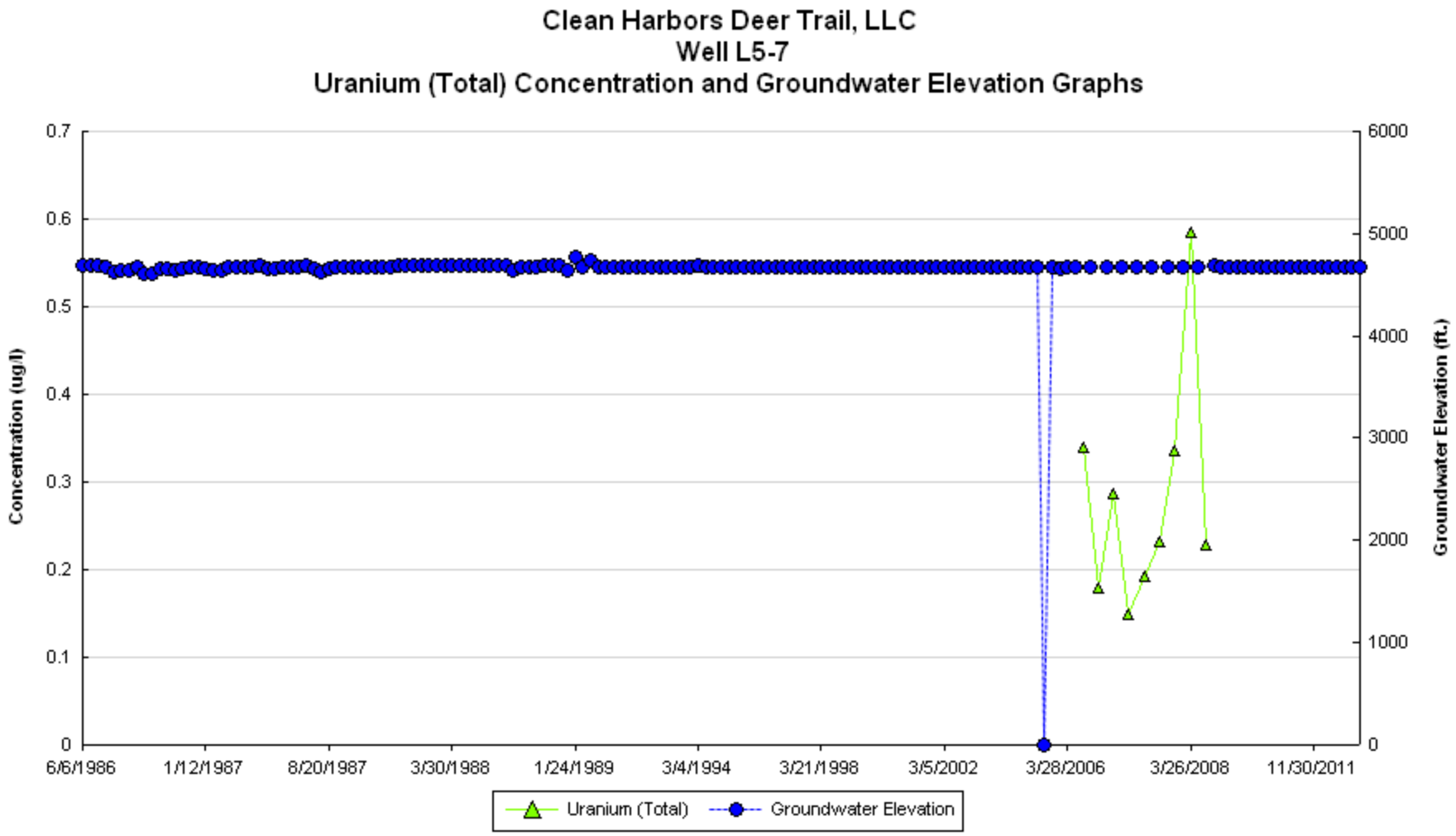


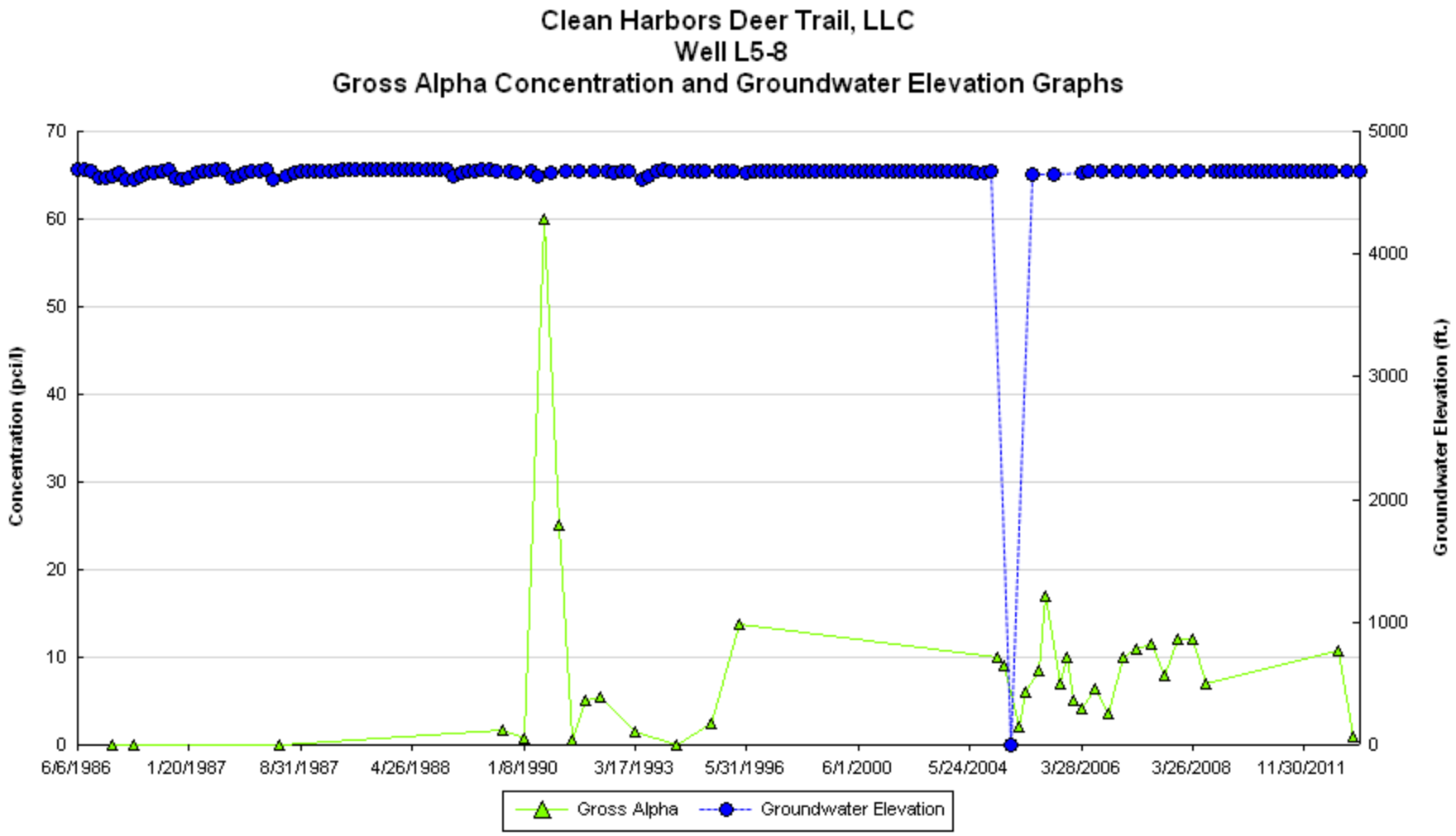

Clean Harbors Deer Trail, LLC
Well L5-7
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
12
14
0
1000
2000
3000
4000
5000
6000
6/6/1986
1/12/1987
8/20/1987
3/30/1988
1/24/1989
3/4/1994
3/21/1998
3/5/2002
3/28/2006
6/8/2009
3/15/2011
Gross Beta (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-7
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
6000
5000
4000
3000
2000
1000
0
6/6/1986
1/12/1987
8/5/1987
3/14/1988
10/27/1988
10/12/1993
12/9/1997
12/4/2001
6/20/2005
12/4/2006
12/1/2008
12/6/2010
9/6/2012
Radium 226
Groundwater Elevation

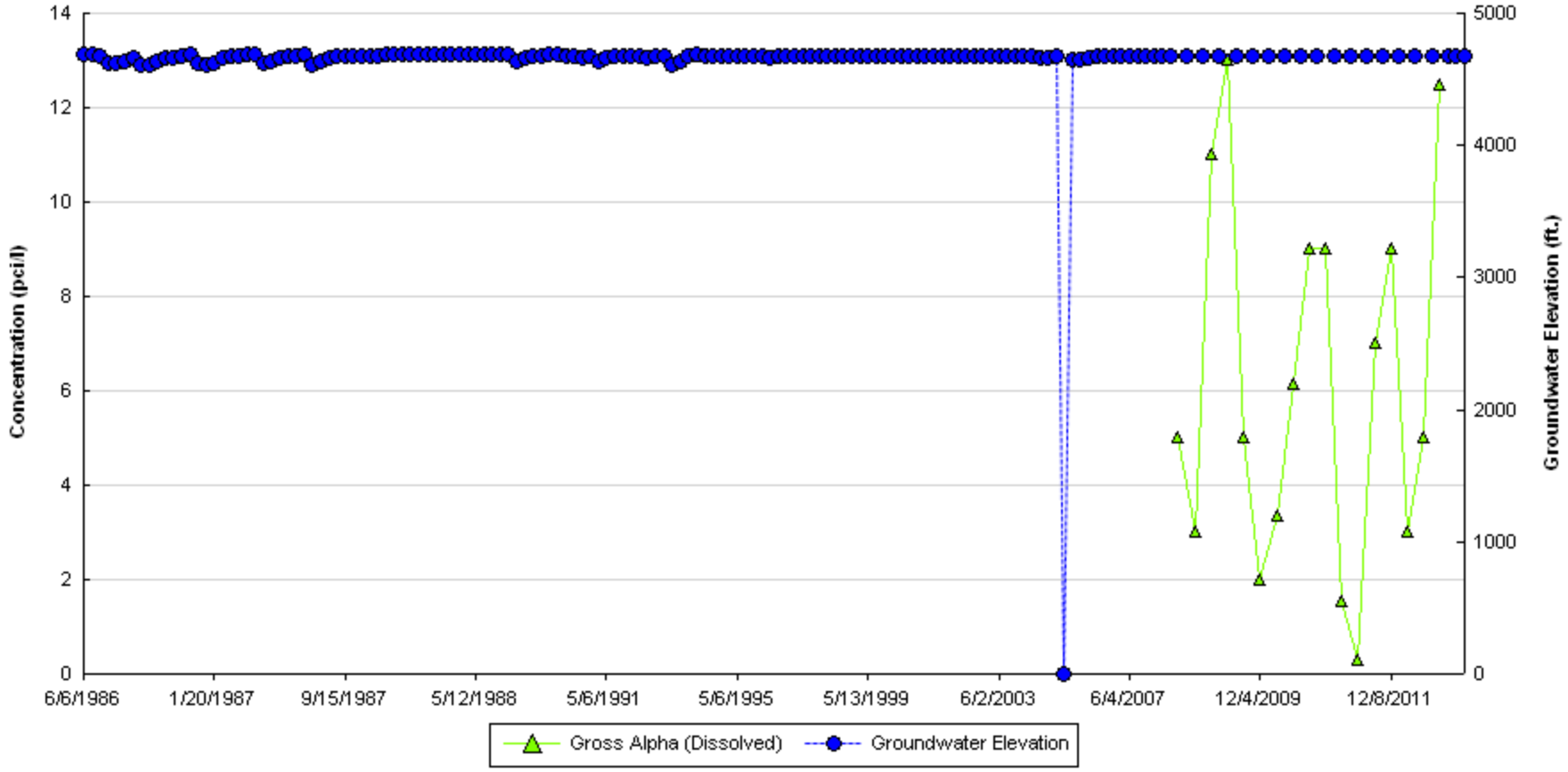

Clean Harbors Deer Trail, LLC
Well L5-7
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
6000
5000
4000
3000
2000
1000
0
6/6/1986
1/12/1987
8/5/1987
3/14/1988
10/27/1988
10/12/1993
12/9/1997
12/4/2001
6/20/2005
12/4/2006
12/1/2008
12/6/2010
9/6/2012
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-7
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
12
10
8
6
4
2
0
6000
5000
4000
3000
2000
1000
0
6/6/1986
1/12/1987
8/20/1987
3/30/1988
1/24/1989
3/4/1994
3/21/1998
3/5/2002
3/28/2006
6/8/2009
3/15/2011
3/20/2013
Uranium (Dissolved)
Groundwater Elevation

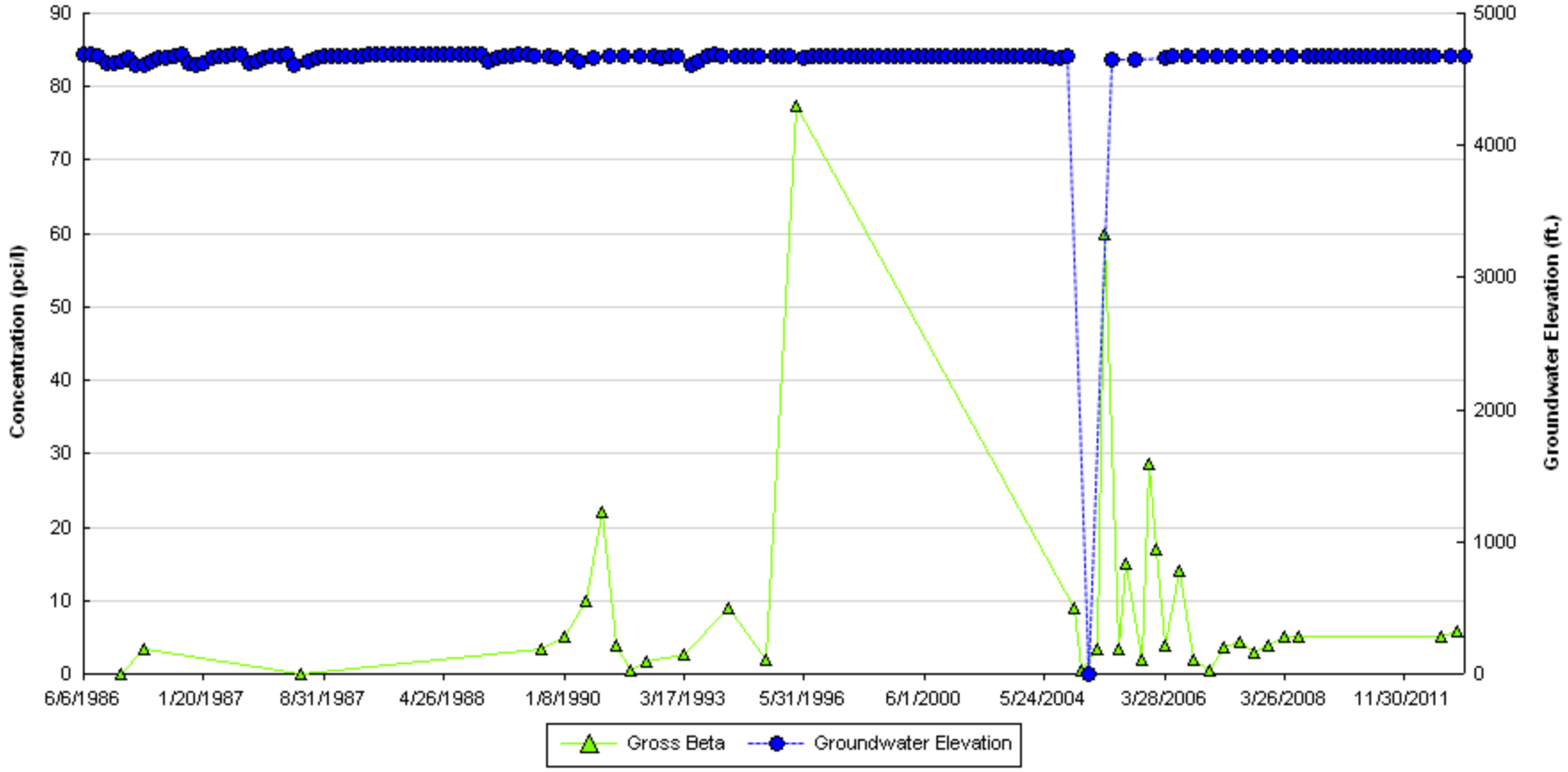

Clean Harbors Deer Trail, LLC
Well L5-7
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
6000
5000
4000
3000
2000
1000
0
6/6/1986
1/12/1987
8/20/1987
3/30/1988
1/24/1989
3/4/1994
3/21/1998
3/5/2002
3/28/2006
3/26/2008
11/30/2011
Uranium (Total)
Groundwater Elevation

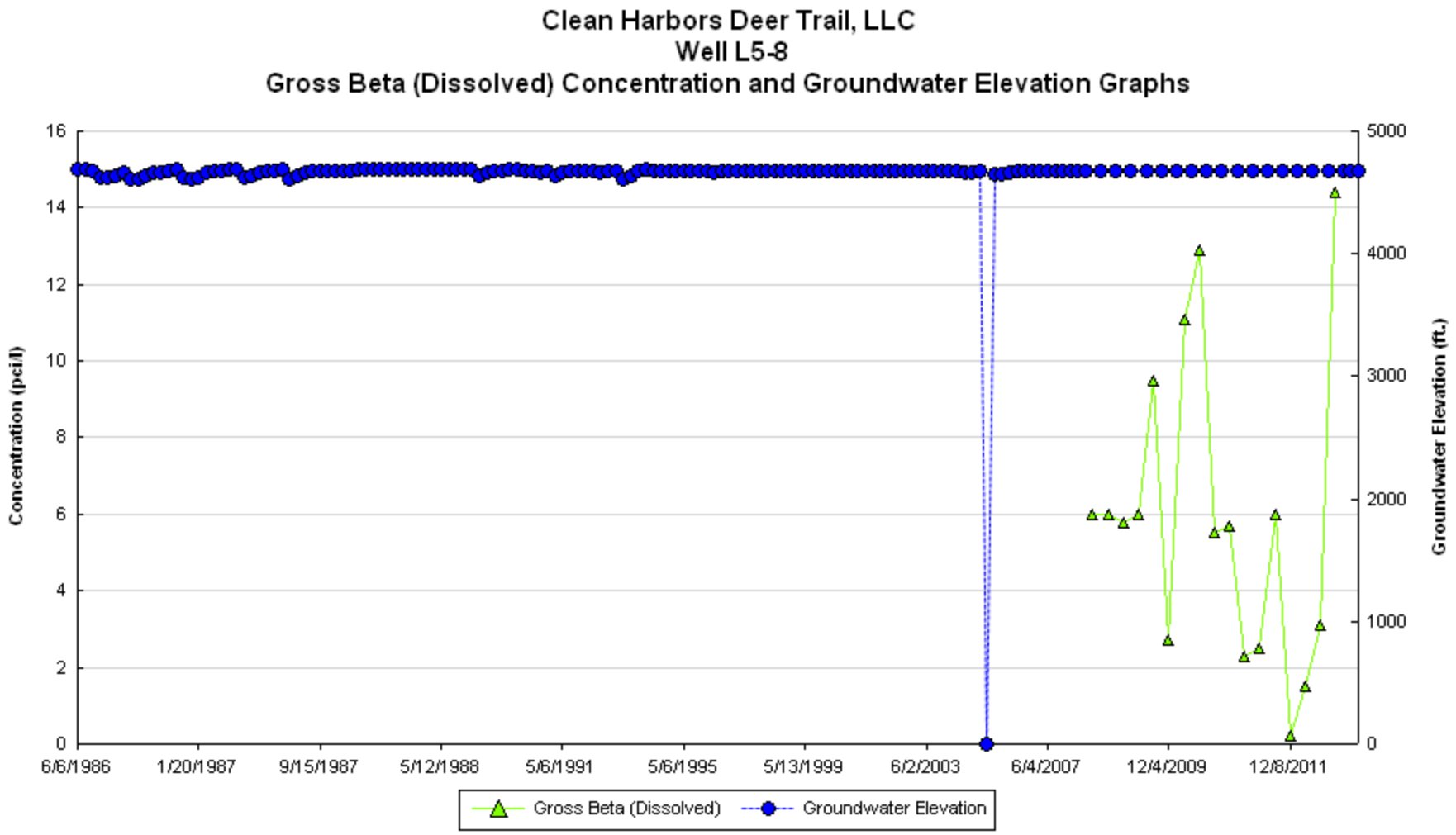

Clean Harbors Deer Trail, LLC
Well L5-8
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
70
60
50
40
30
20
10
0
5000
4000
3000
2000
1000
0
6/6/1986
1/20/1987
8/31/1987
4/26/1988
1/8/1990
3/17/1993
5/31/1996
6/1/2000
5/24/2004
3/28/2006
3/26/2008
11/30/2011
Gross Alpha
Groundwater Elevation

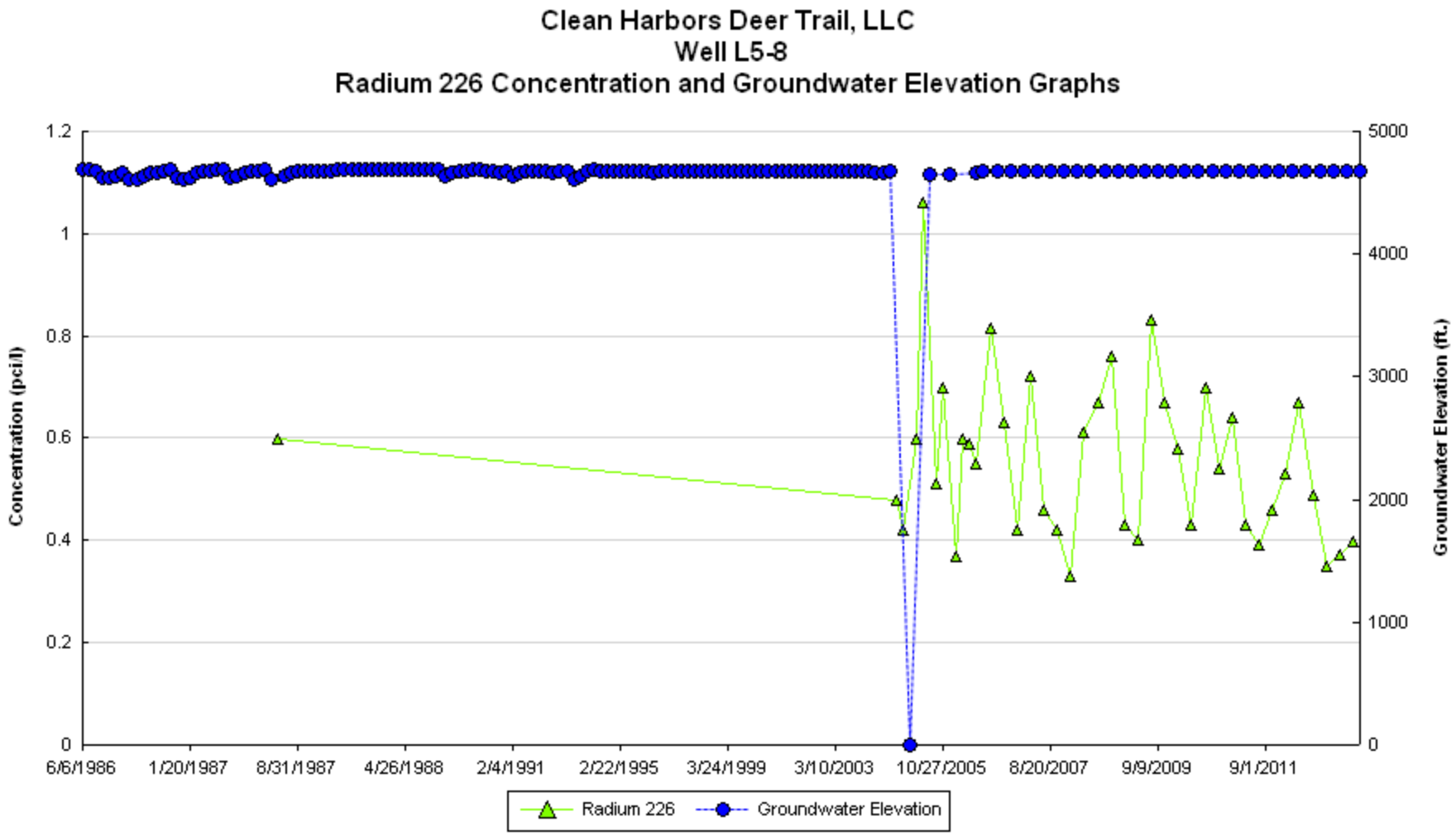
Clean Harbors Deer Trail, LLC
Well L5-8
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs

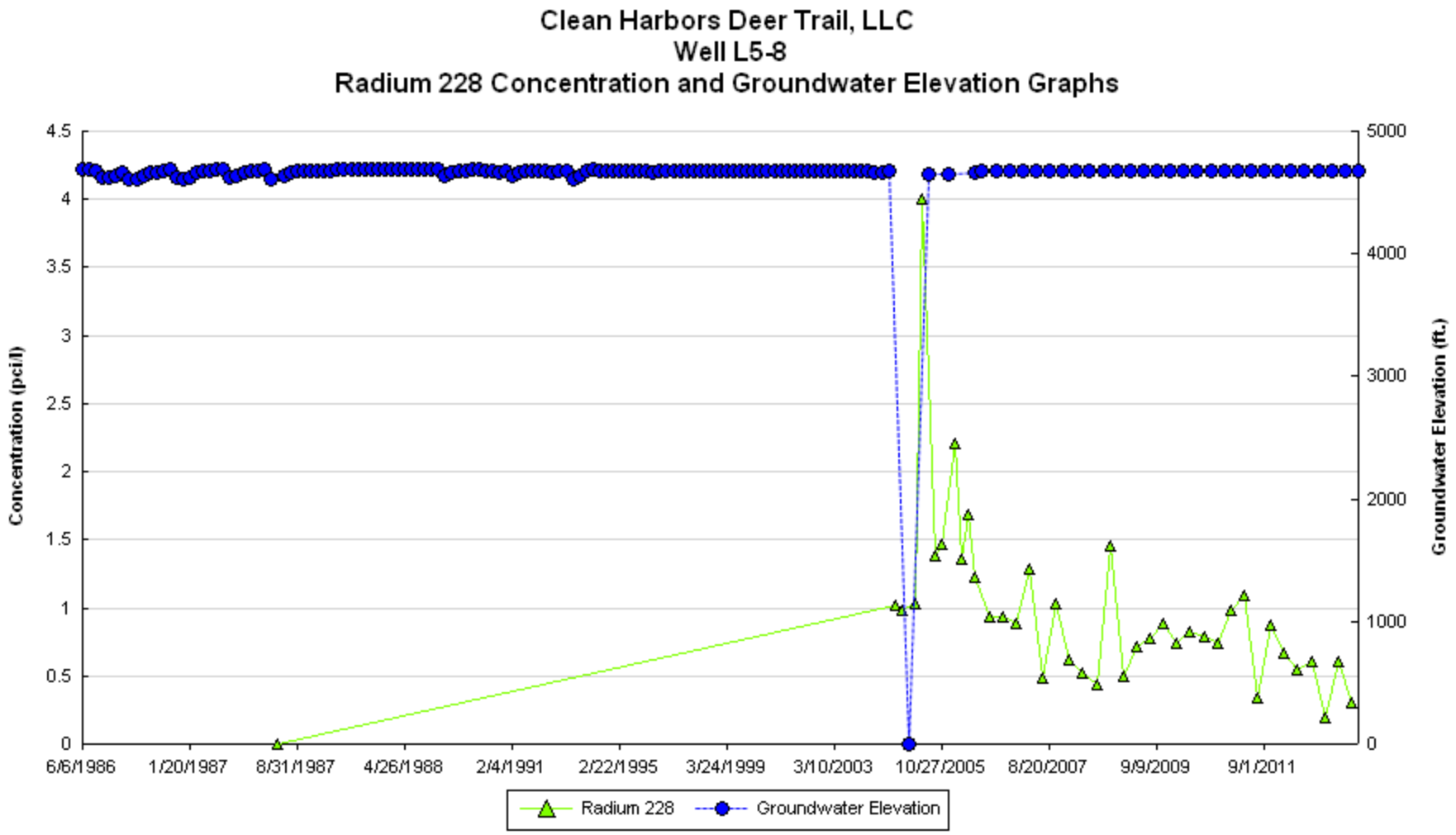


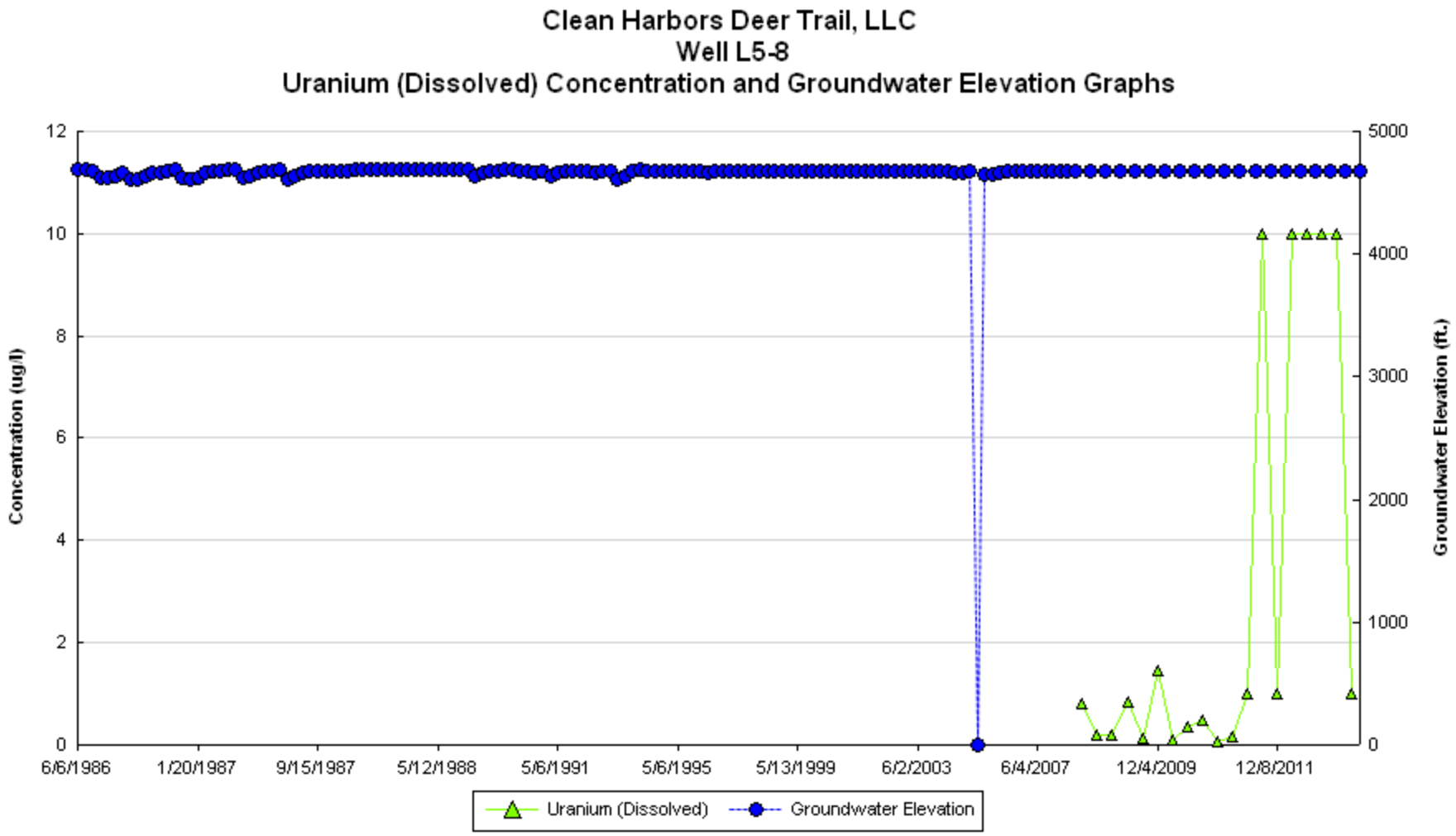
Clean Harbors Deer Trail, LLC
Well L5-8
Gross Beta Concentration and Groundwater Elevation Graphs

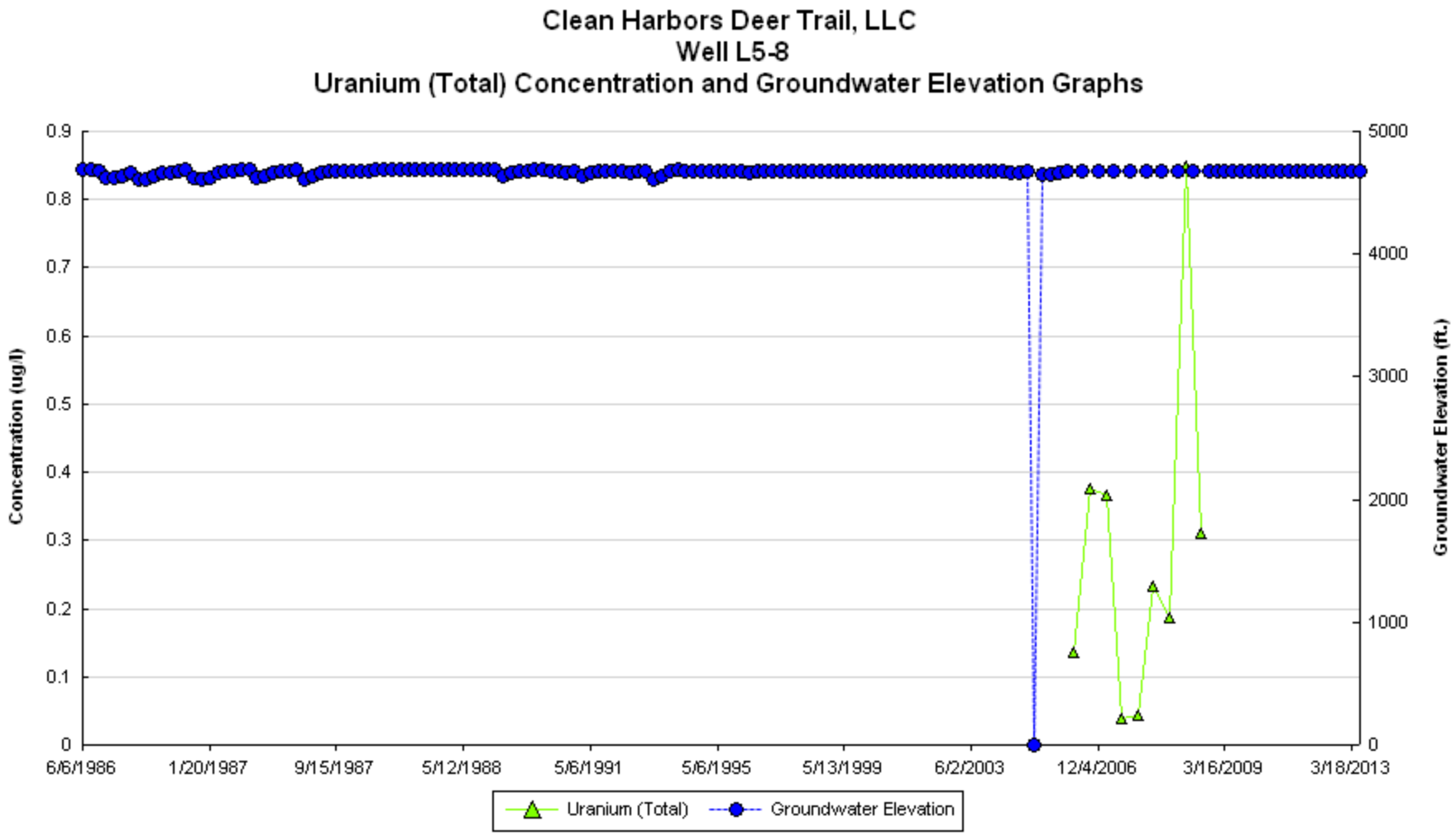


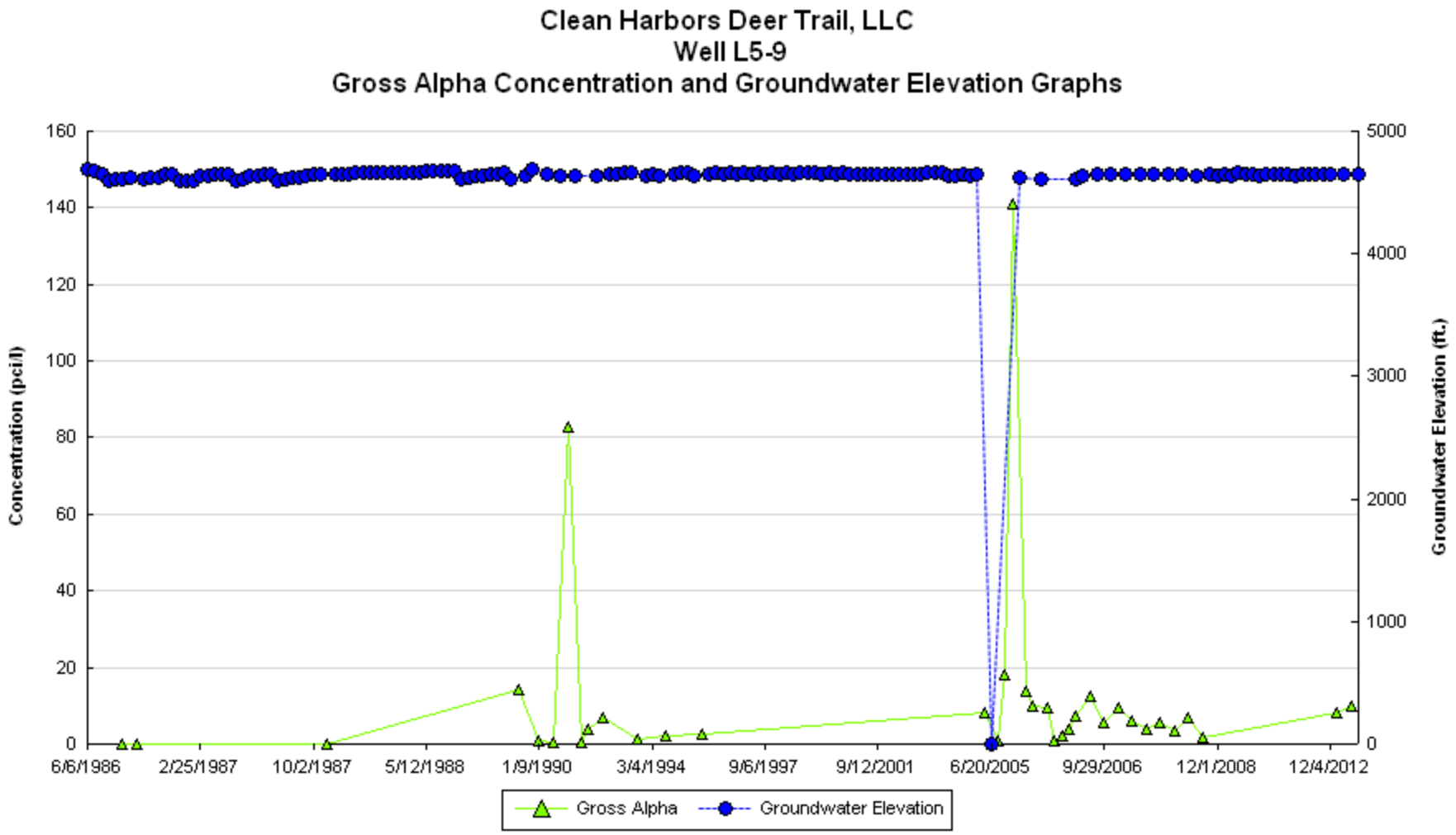

Clean Harbors Deer Trail, LLC
Well L5-8
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
16
14
12
10
8
6
4
2
0
5000
4000
3000
2000
1000
0
6/6/1986
1/20/1987
9/15/1987
5/12/1988
5/6/1991
5/6/1995
5/13/1999
6/2/2003
6/4/2007
12/4/2009
12/8/2011
Gross Beta (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-8
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1.2
1
0.8
0.6
0.4
0.2
0
5000
4000
3000
2000
1000
0
6/6/1986
1/20/1987
8/31/1987
4/26/1988
2/4/1991
2/22/1995
3/24/1999
3/10/2003
10/27/2005
8/20/2007
9/9/2009
9/1/2011
Radium 226
Groundwater Elevation

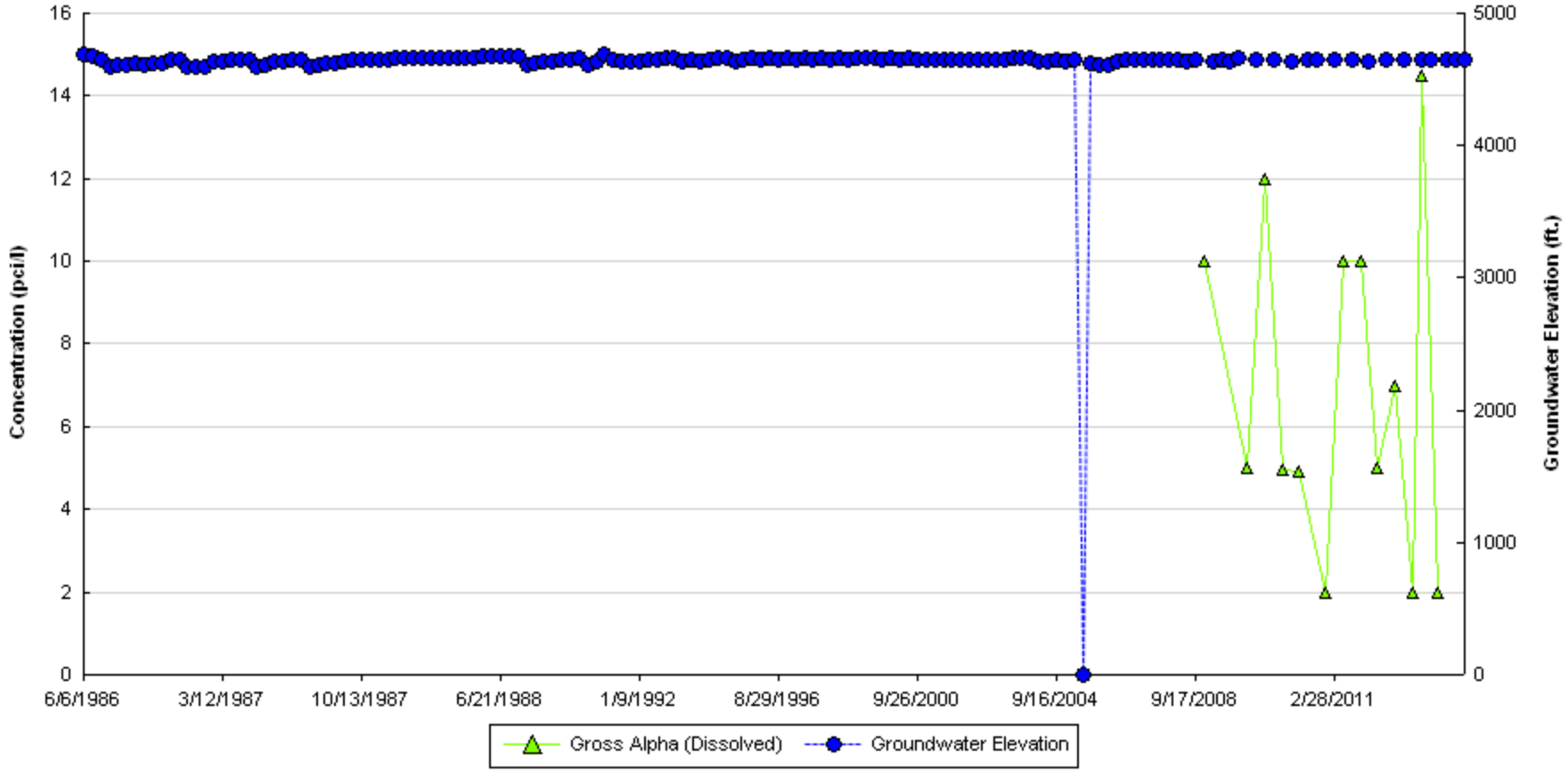

Clean Harbors Deer Trail, LLC
Well L5-8
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
5000
4000
3000
2000
1000
0
6/6/1986
1/20/1987
8/31/1987
4/26/1988
2/4/1991
2/22/1995
3/24/1999
3/10/2003
10/27/2005
8/20/2007
9/9/2009
9/1/2011
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-8
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
12
10
8
6
4
2
0
5000
4000
3000
2000
1000
0
6/6/1986
1/20/1987
9/15/1987
5/12/1988
5/6/1991
5/6/1995
5/13/1999
6/2/2003
6/4/2007
12/4/2009
12/8/2011
Uranium (Dissolved)
Groundwater Elevation

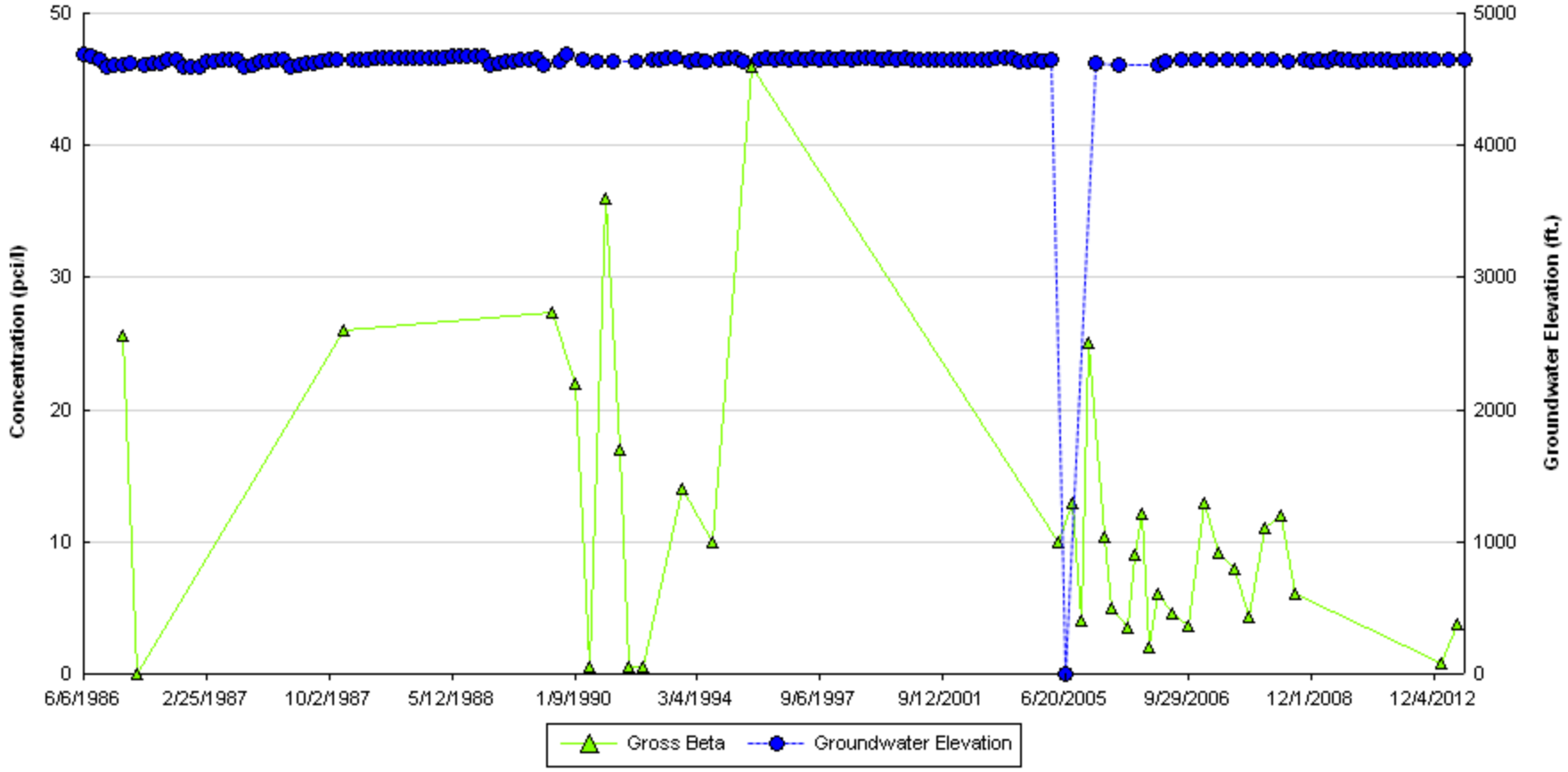

Clean Harbors Deer Trail, LLC
Well L5-8
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
5000
4000
3000
2000
1000
0
6/6/1986
1/20/1987
9/15/1987
5/12/1988
5/6/1991
5/6/1995
5/13/1999
6/2/2003
12/4/2006
3/16/2009
3/18/2013
Uranium (Total)
Groundwater Elevation

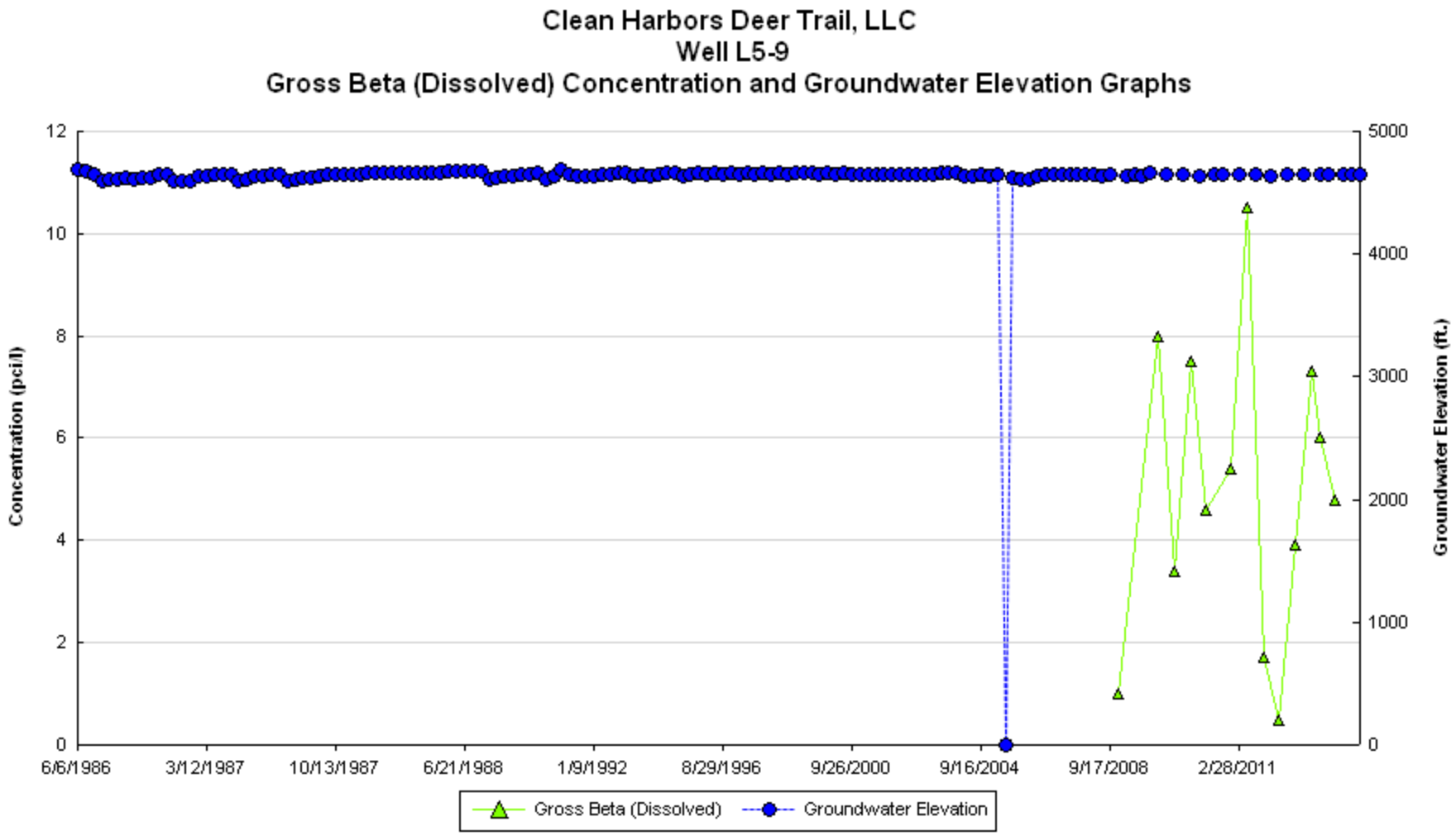

Clean Harbors Deer Trail, LLC
Well L5-9
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
160
140
120
100
80
60
40
20
0
5000
4000
3000
2000
1000
0
6/6/1986
2/25/1987
10/2/1987
5/12/1988
1/9/1990
3/4/1994
9/6/1997
9/12/2001
6/20/2005
9/29/2006
12/1/2008
12/4/2012
Gross Alpha
Groundwater Elevation

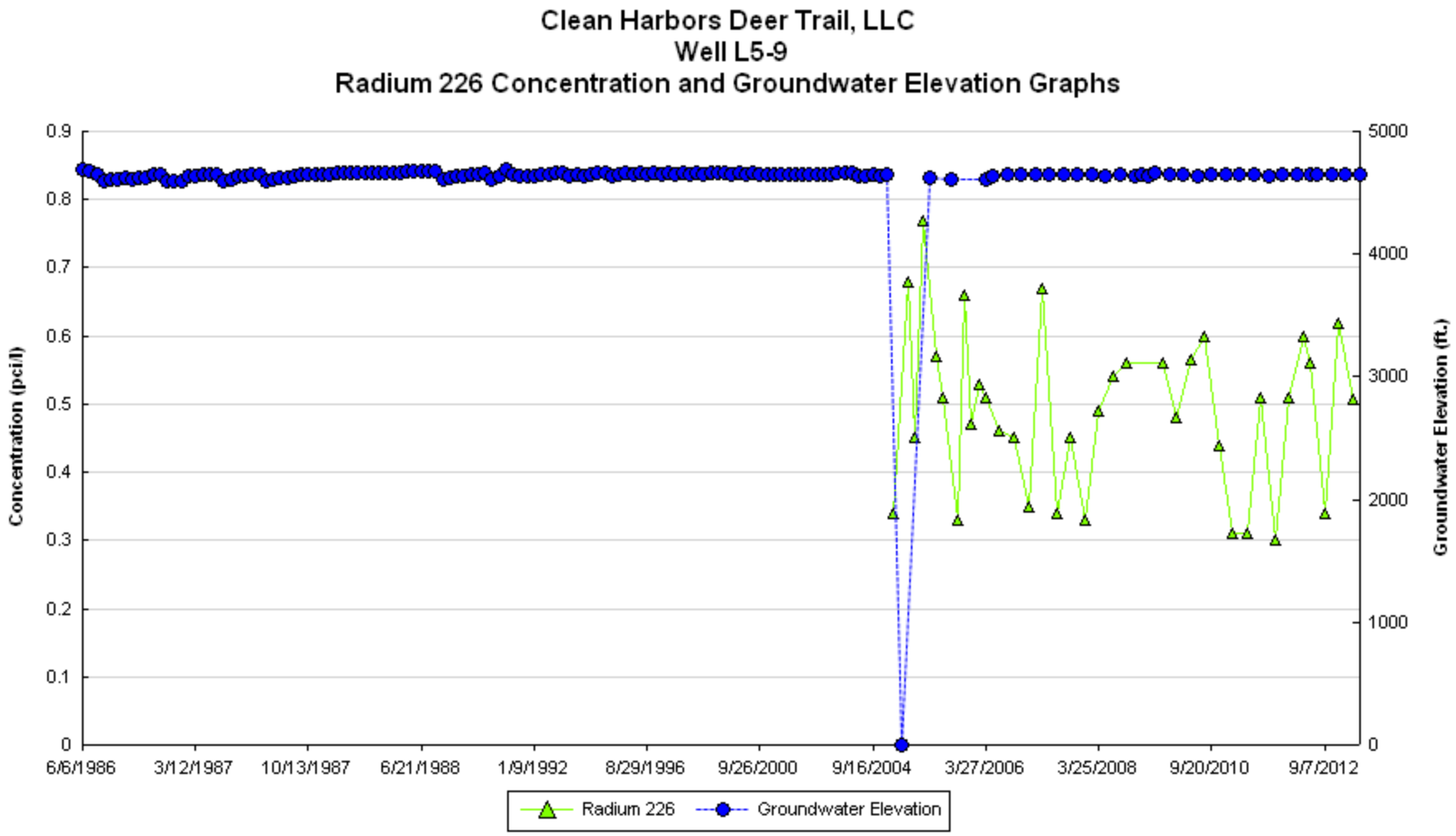
Clean Harbors Deer Trail, LLC
Well L5-9
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs

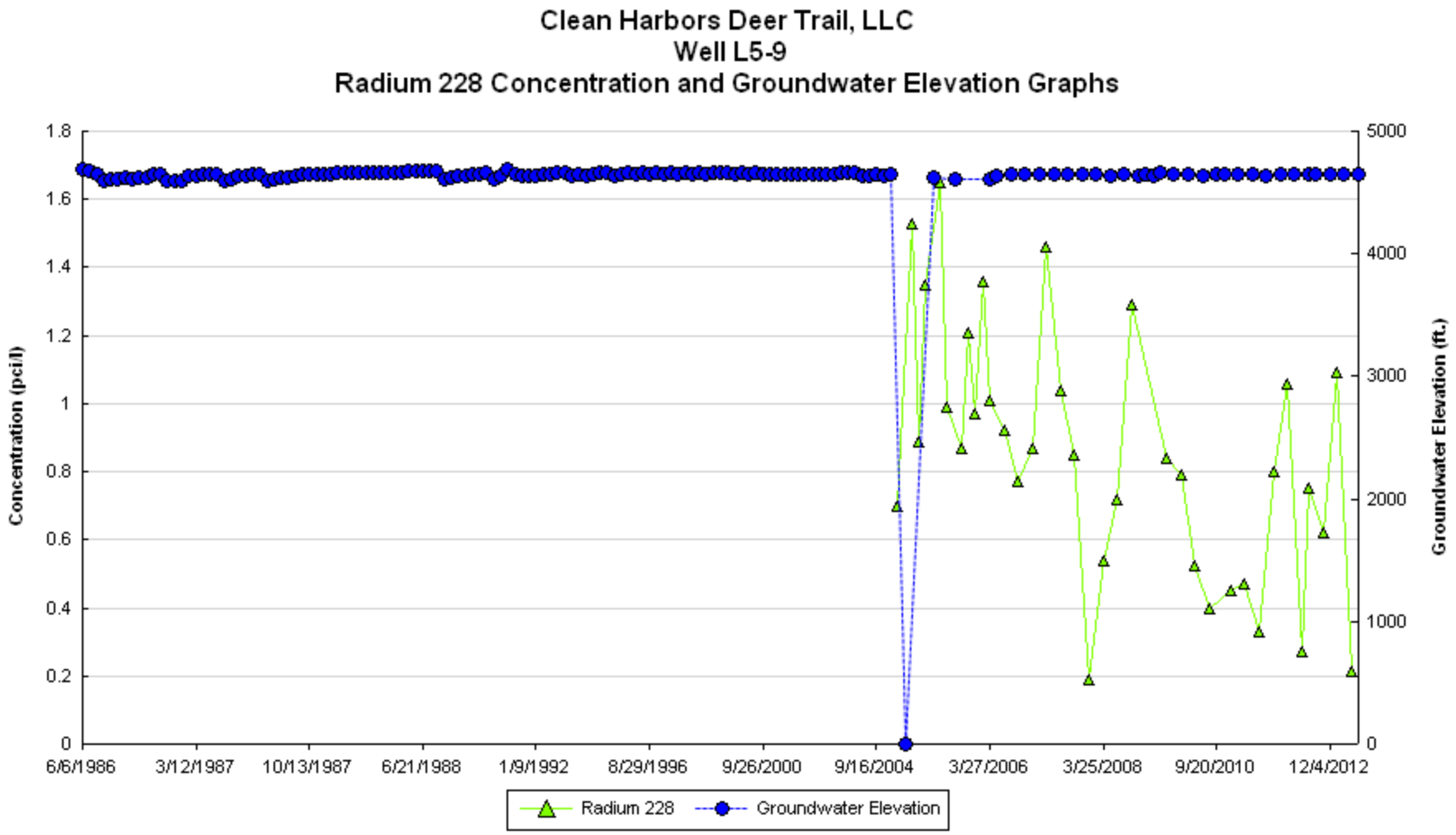


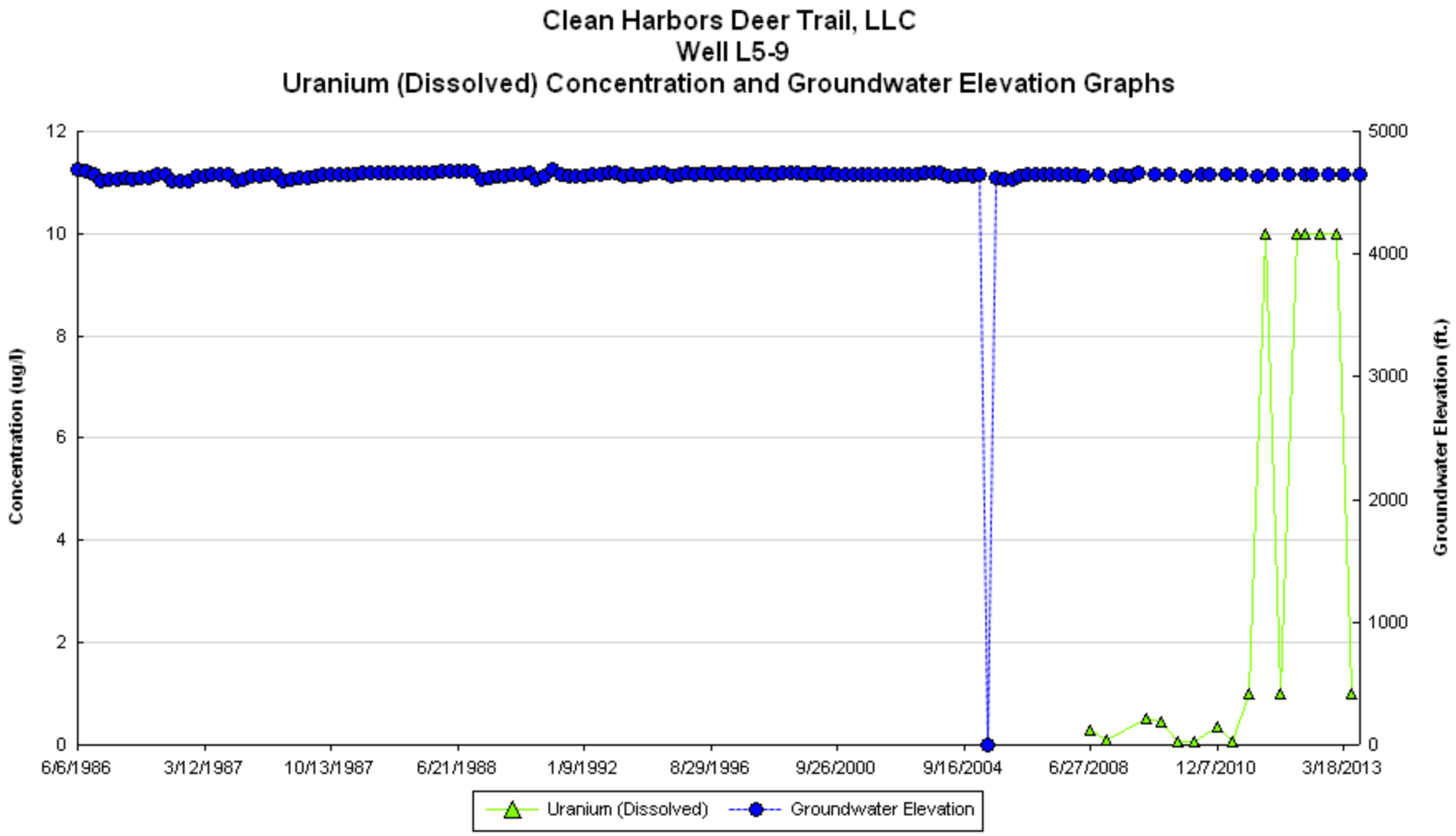
Clean Harbors Deer Trail, LLC
Well L5-9
Gross Beta Concentration and Groundwater Elevation Graphs

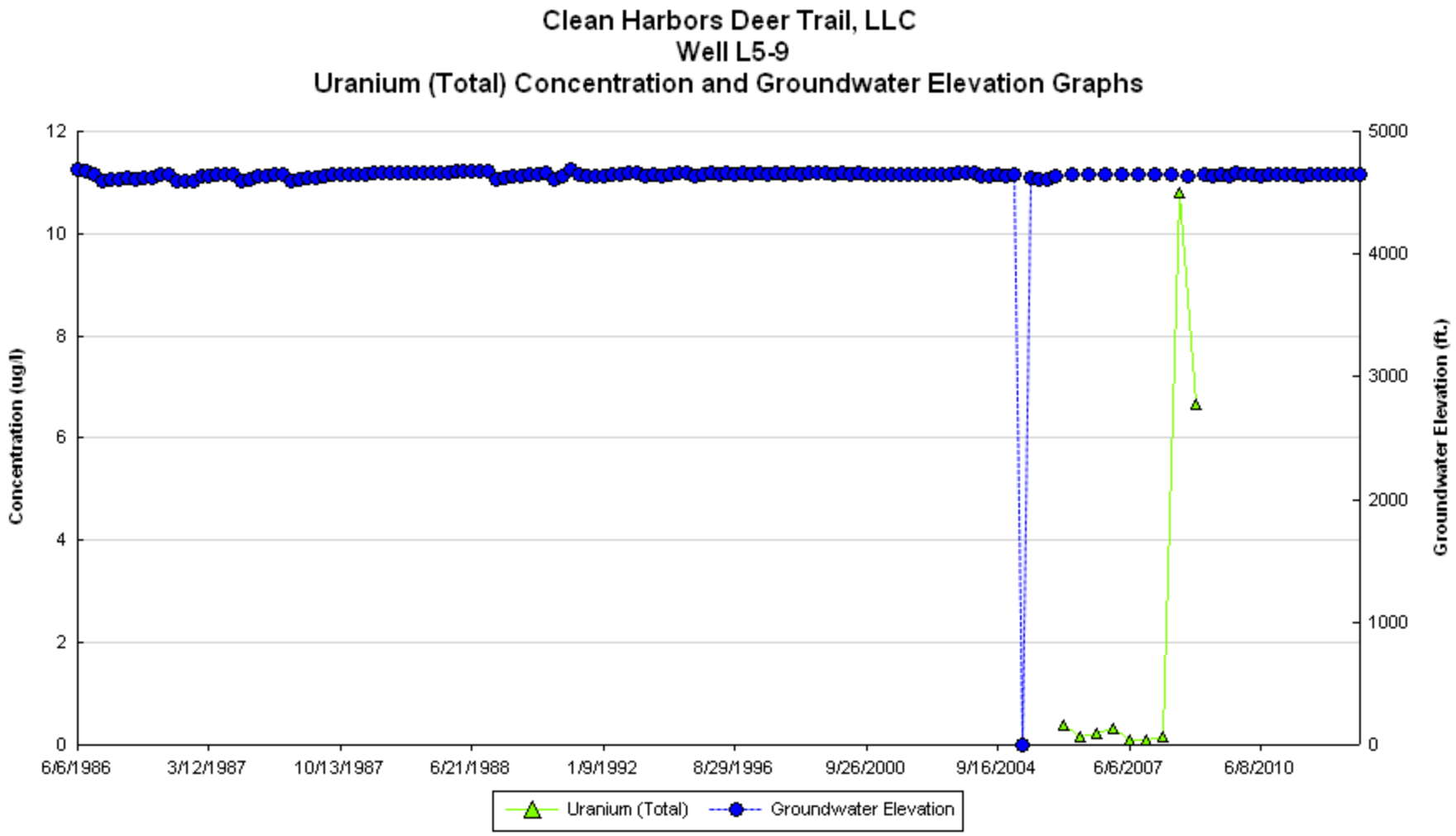


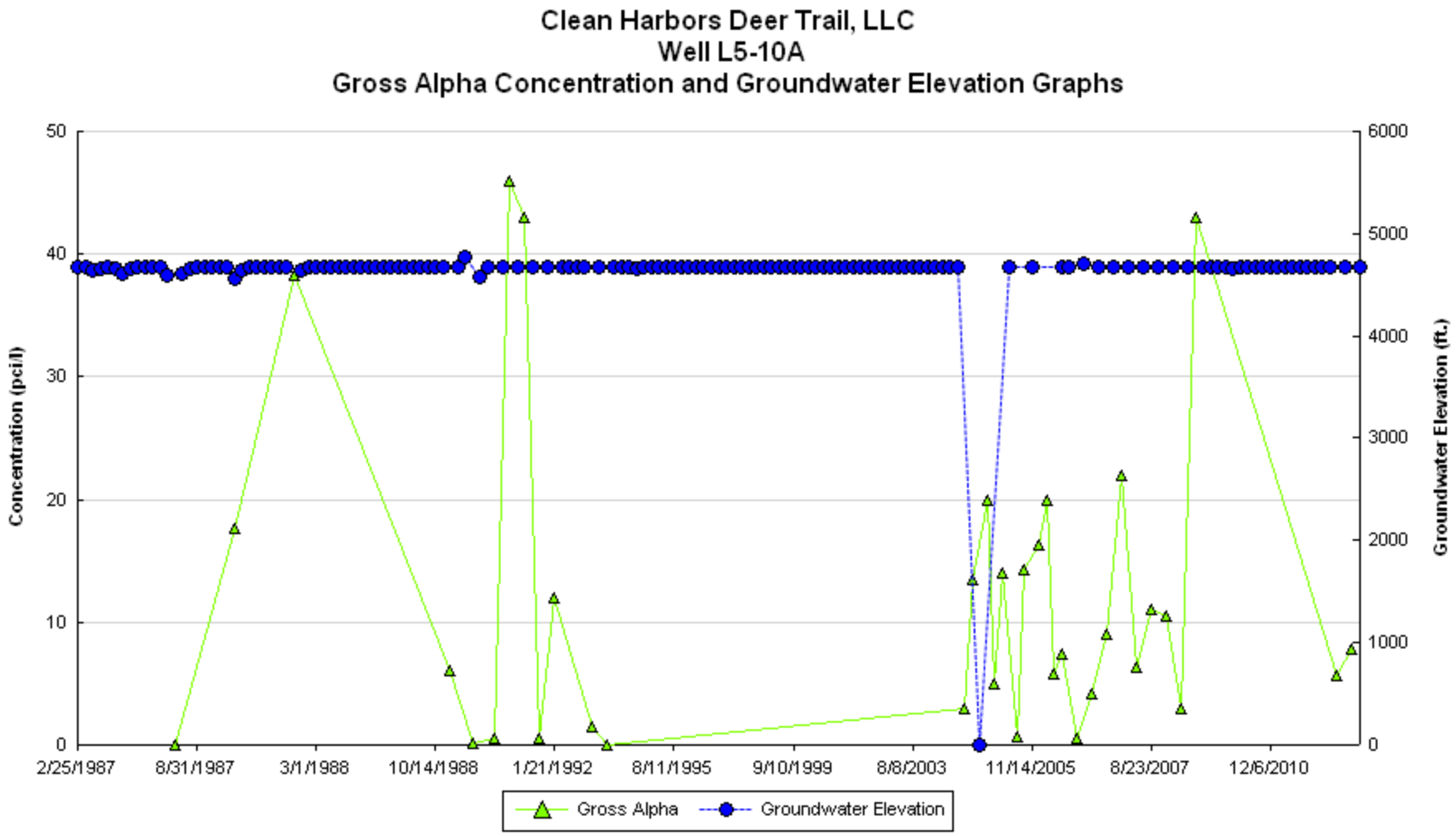

Clean Harbors Deer Trail, LLC
Well L5-9
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
12
0
1000
2000
3000
4000
5000
6/6/1986
3/12/1987
10/13/1987
6/21/1988
1/9/1992
8/29/1996
9/26/2000
9/16/2004
9/17/2008
2/28/2011
Gross Beta (Dissolved)
Groundwater Elevation

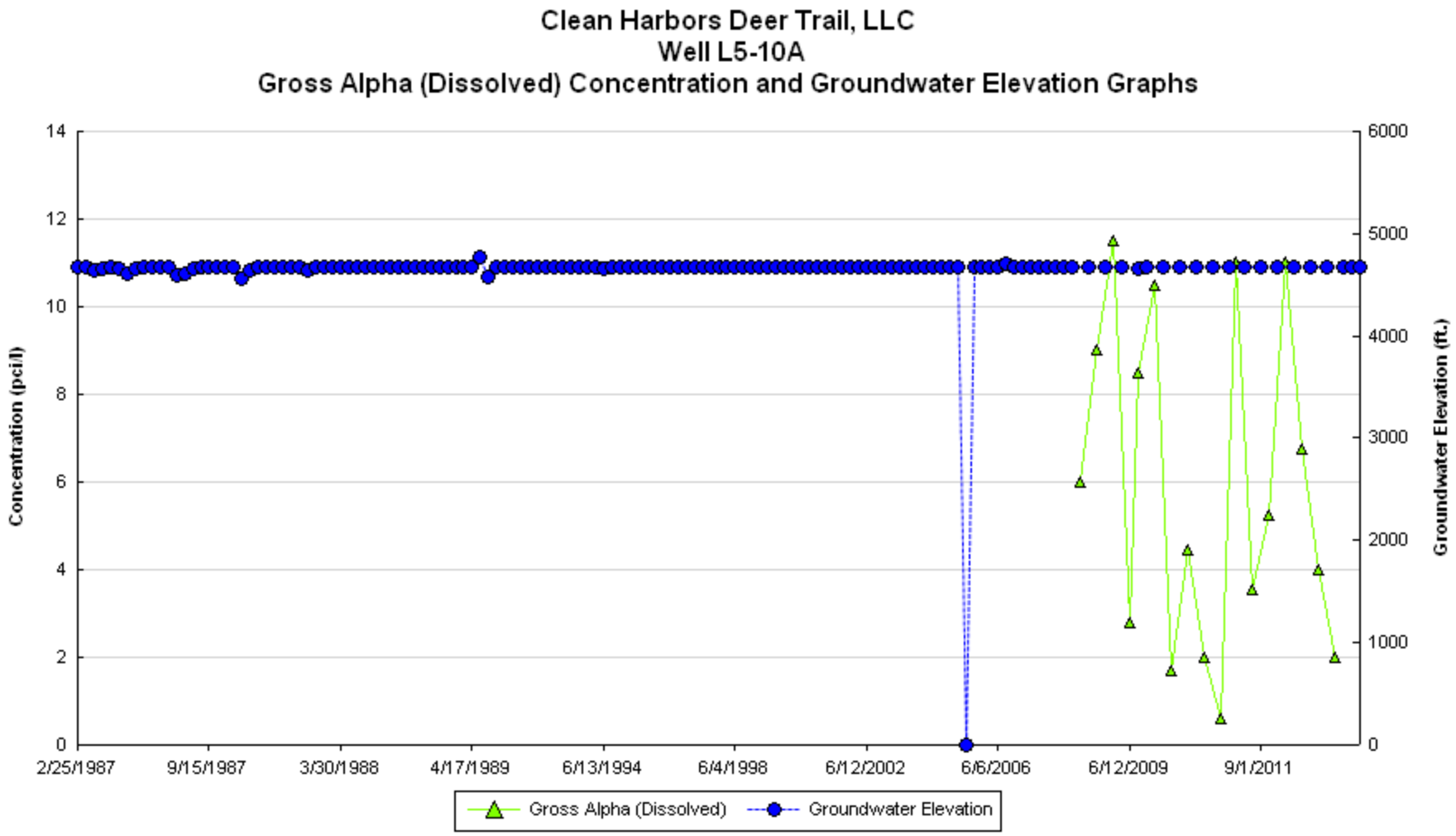

Clean Harbors Deer Trail, LLC
Well L5-9
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
5000
4000
3000
2000
1000
0
6/6/1986
3/12/1987
10/13/1987
6/21/1988
1/9/1992
8/29/1996
9/26/2000
9/16/2004
3/27/2006
3/25/2008
9/20/2010
9/7/2012
Radium 226
Groundwater Elevation

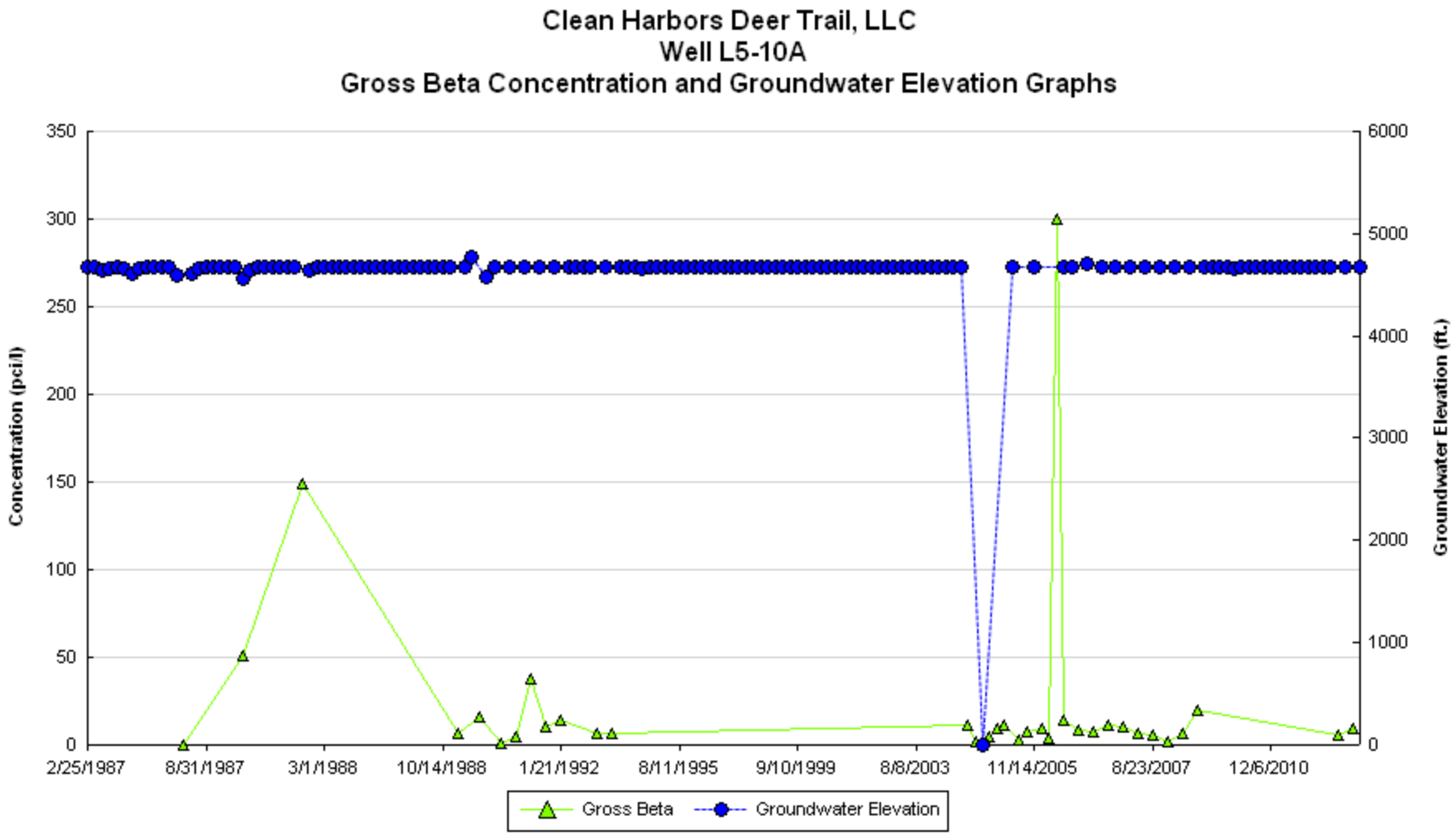

Clean Harbors Deer Trail, LLC
Well L5-9
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
5000
4000
3000
2000
1000
0
6/6/1986
3/12/1987
10/13/1987
6/21/1988
1/9/1992
8/29/1996
9/26/2000
9/16/2004
3/27/2006
3/25/2008
9/20/2010
12/4/2012
Radium 228
Groundwater Elevation

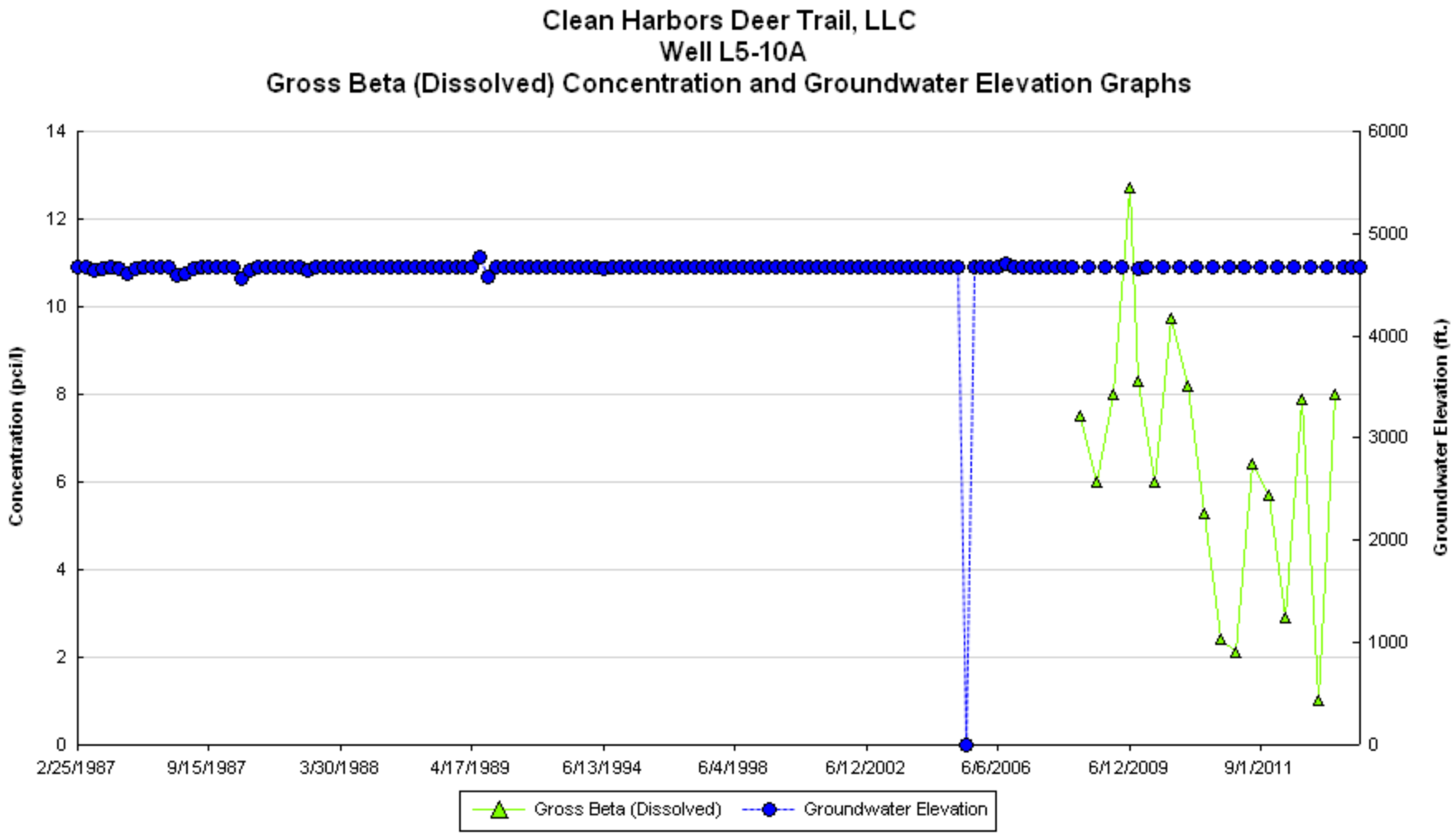

Clean Harbors Deer Trail, LLC
Well L5-9
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
12
10
8
6
4
2
0
5000
4000
3000
2000
1000
0
6/6/1986
3/12/1987
10/13/1987
6/21/1988
1/9/1992
8/29/1996
9/26/2000
9/16/2004
6/27/2008
12/7/2010
3/18/2013
Uranium (Dissolved)
Groundwater Elevation

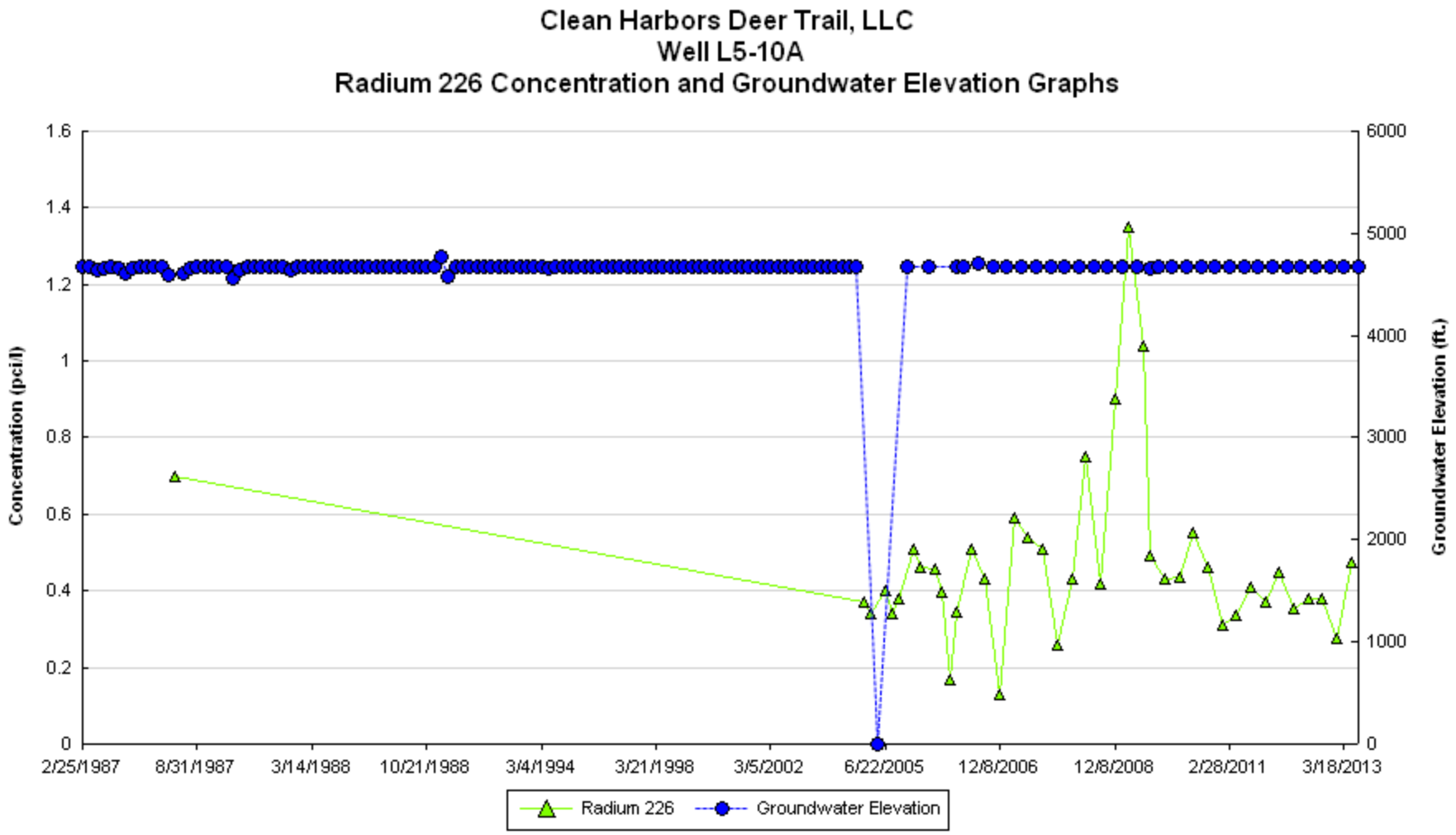

Clean Harbors Deer Trail, LLC
Well L5-9
Uranium (Total) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
12
10
8
6
4
2
0
5000
4000
3000
2000
1000
0
6/6/1986
3/12/1987
10/13/1987
6/21/1988
1/9/1992
8/29/1996
9/26/2000
9/16/2004
6/6/2007
6/8/2010
Uranium (Total)
Groundwater Elevation

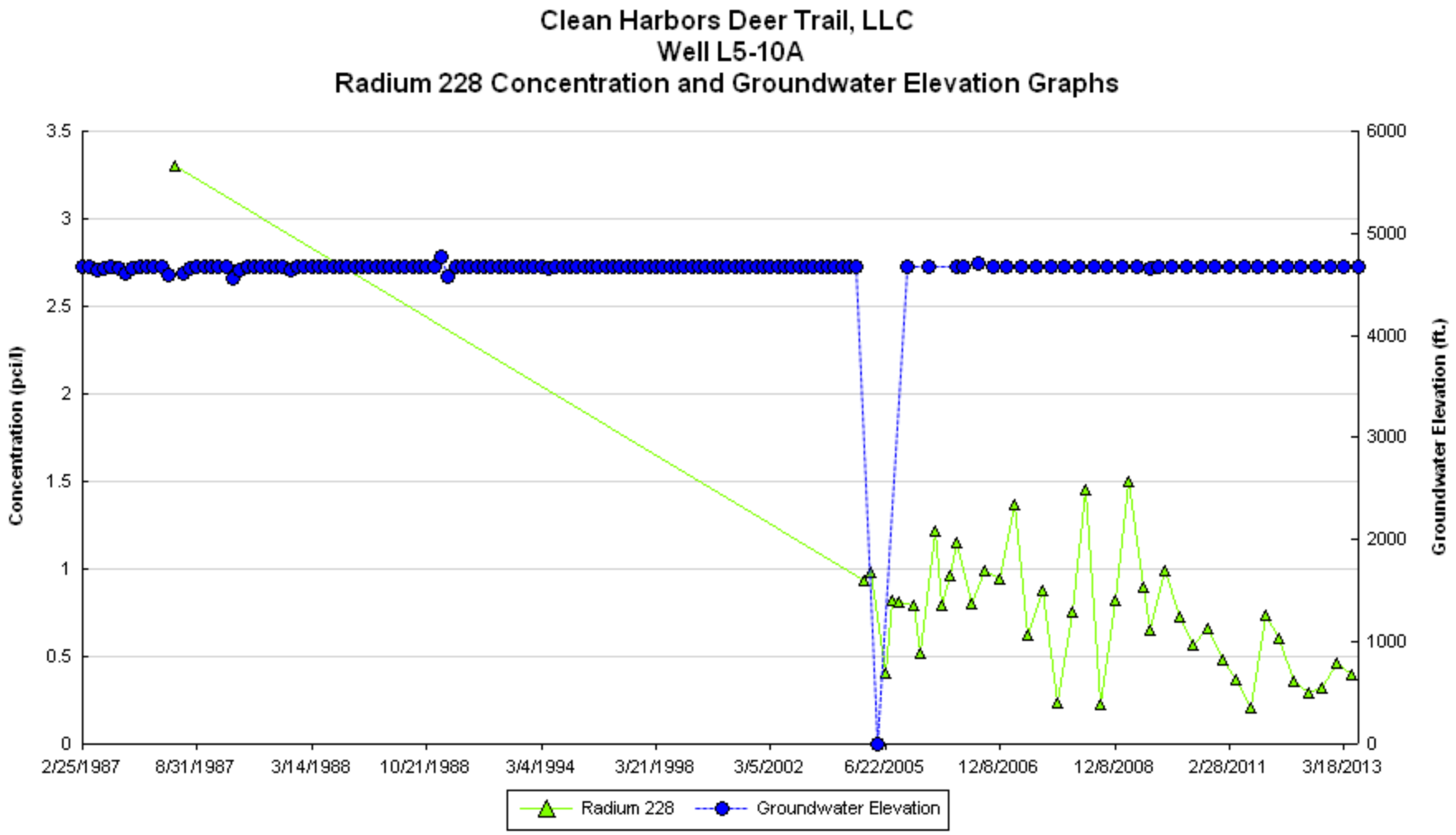

Clean Harbors Deer Trail, LLC
Well L5-10A
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
50
40
30
20
10
0
6000
5000
4000
3000
2000
1000
0
2/25/1987
8/31/1987
3/1/1988
10/14/1988
1/21/1992
8/11/1995
9/10/1999
8/8/2003
11/14/2005
8/23/2007
12/6/2010
Gross Alpha
Groundwater Elevation

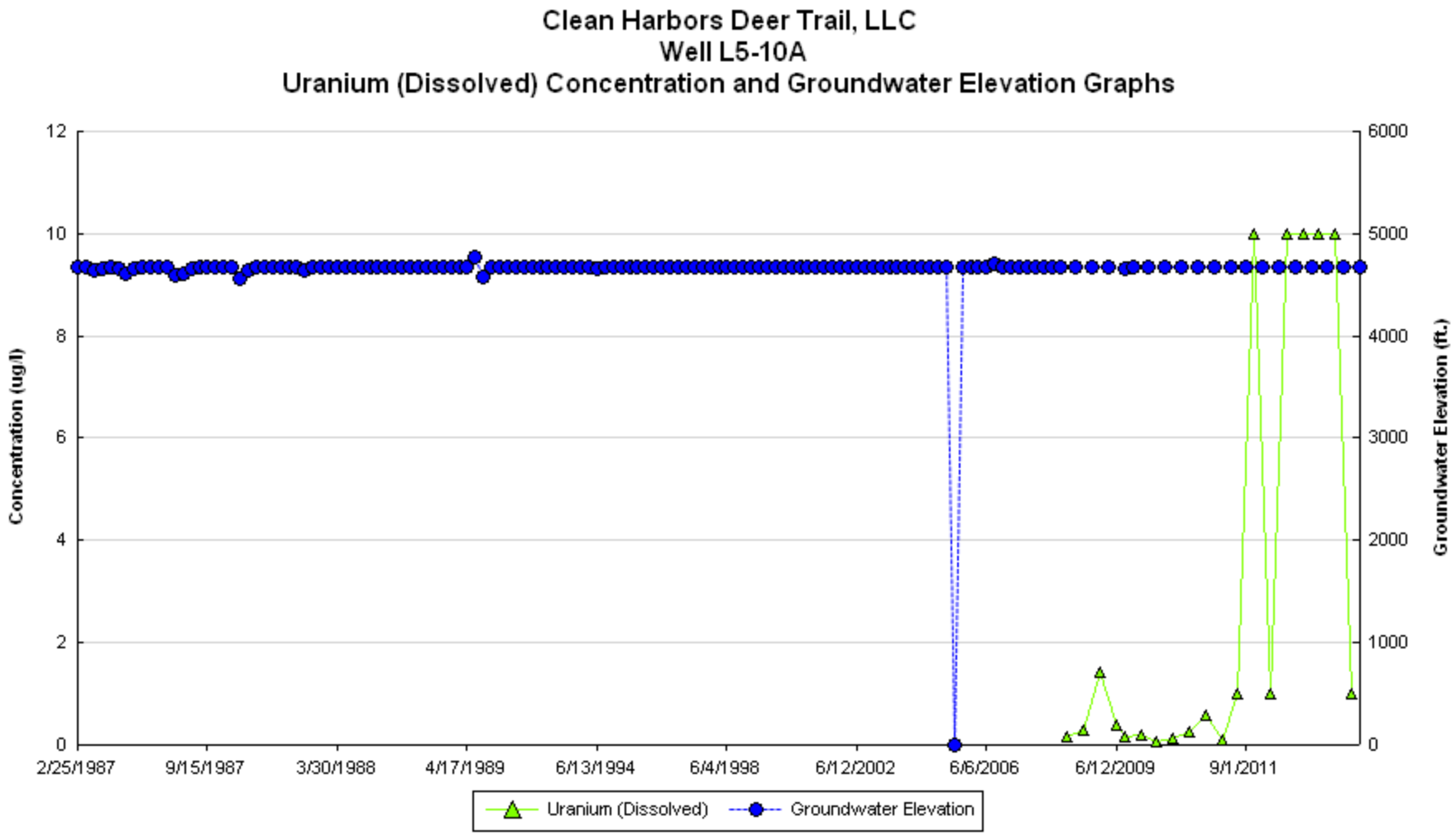

Clean Harbors Deer Trail, LLC
Well L5-10A
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
12
14
0
1000
2000
3000
4000
5000
6000
2/25/1987
9/15/1987
3/30/1988
4/17/1989
6/13/1994
6/4/1998
6/12/2002
6/6/2006
6/12/2009
9/1/2011
Gross Alpha (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-10A
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
350
300
250
200
150
100
50
0
6000
5000
4000
3000
2000
1000
0
2/25/1987
8/31/1987
3/1/1988
10/14/1988
1/21/1992
8/11/1995
9/10/1999
8/8/2003
11/14/2005
8/23/2007
12/6/2010
Gross Beta
Groundwater Elevation

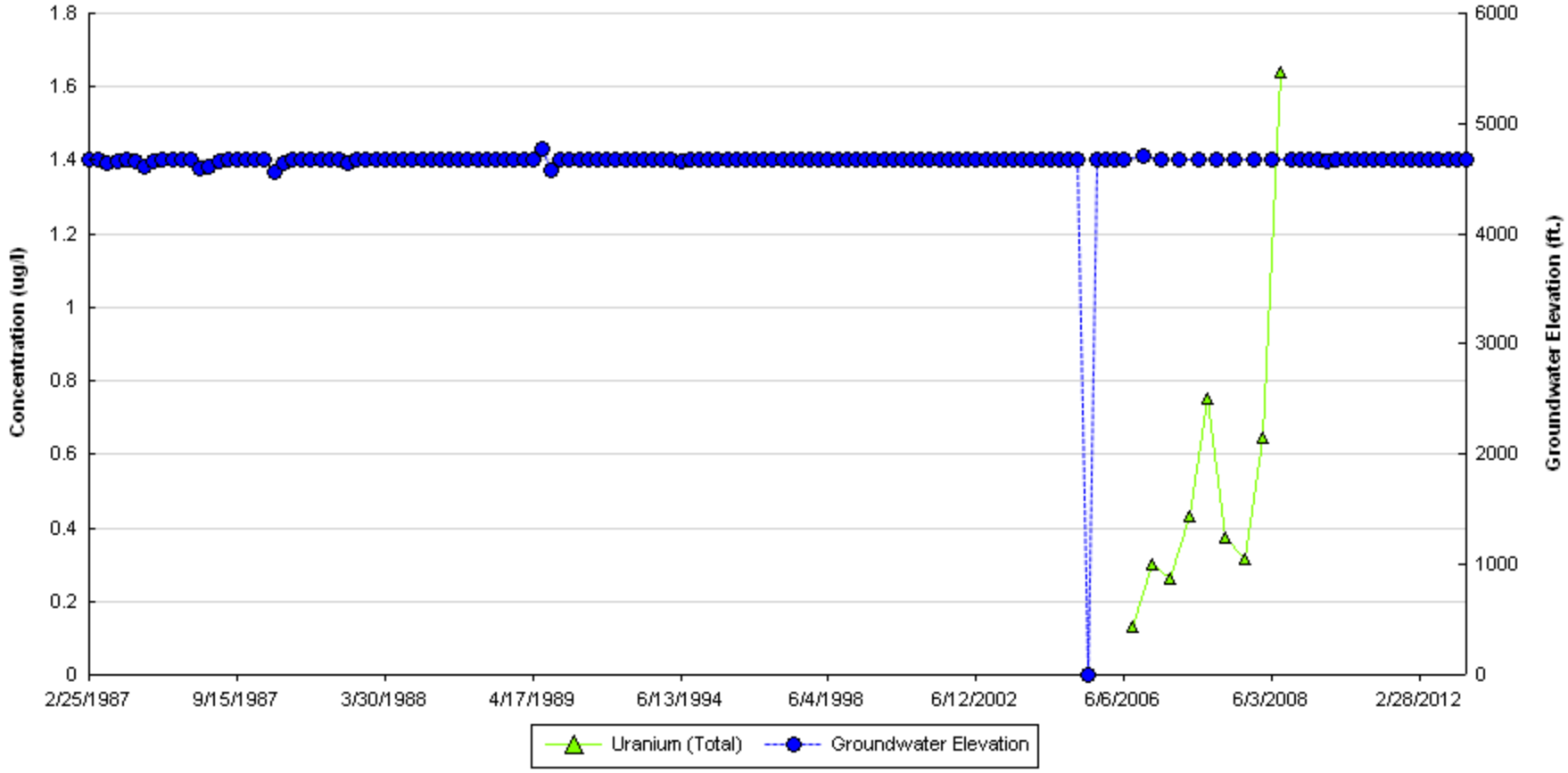

Clean Harbors Deer Trail, LLC
Well L5-10A
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
14
12
10
8
6
4
2
0
6000
5000
4000
3000
2000
1000
0
2/25/1987
9/15/1987
3/30/1988
4/17/1989
6/13/1994
6/4/1998
6/12/2002
6/6/2006
6/12/2009
9/1/2011
Gross Beta (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-10A
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
6000
5000
4000
3000
2000
1000
0
2/25/1987
8/31/1987
3/14/1988
10/21/1988
3/4/1994
3/21/1998
3/5/2002
6/22/2005
12/8/2006
12/8/2008
2/28/2011
3/18/2013
Radium 226
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-10A
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3.5
3
2.5
2
1.5
1
0.5
0
6000
5000
4000
3000
2000
1000
0
2/25/1987
8/31/1987
3/14/1988
10/21/1988
3/4/1994
3/21/1998
3/5/2002
6/22/2005
12/8/2006
12/8/2008
2/28/2011
3/18/2013
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L5-10A
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
12
10
8
6
4
2
0
6000
5000
4000
3000
2000
1000
0
2/25/1987
9/15/1987
3/30/1988
4/17/1989
6/13/1994
6/4/1998
6/12/2002
6/6/2006
6/12/2009
9/1/2011
Uranium (Dissolved)
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L5-10A
Uranium (Total) Concentration and Groundwater Elevation Graphs



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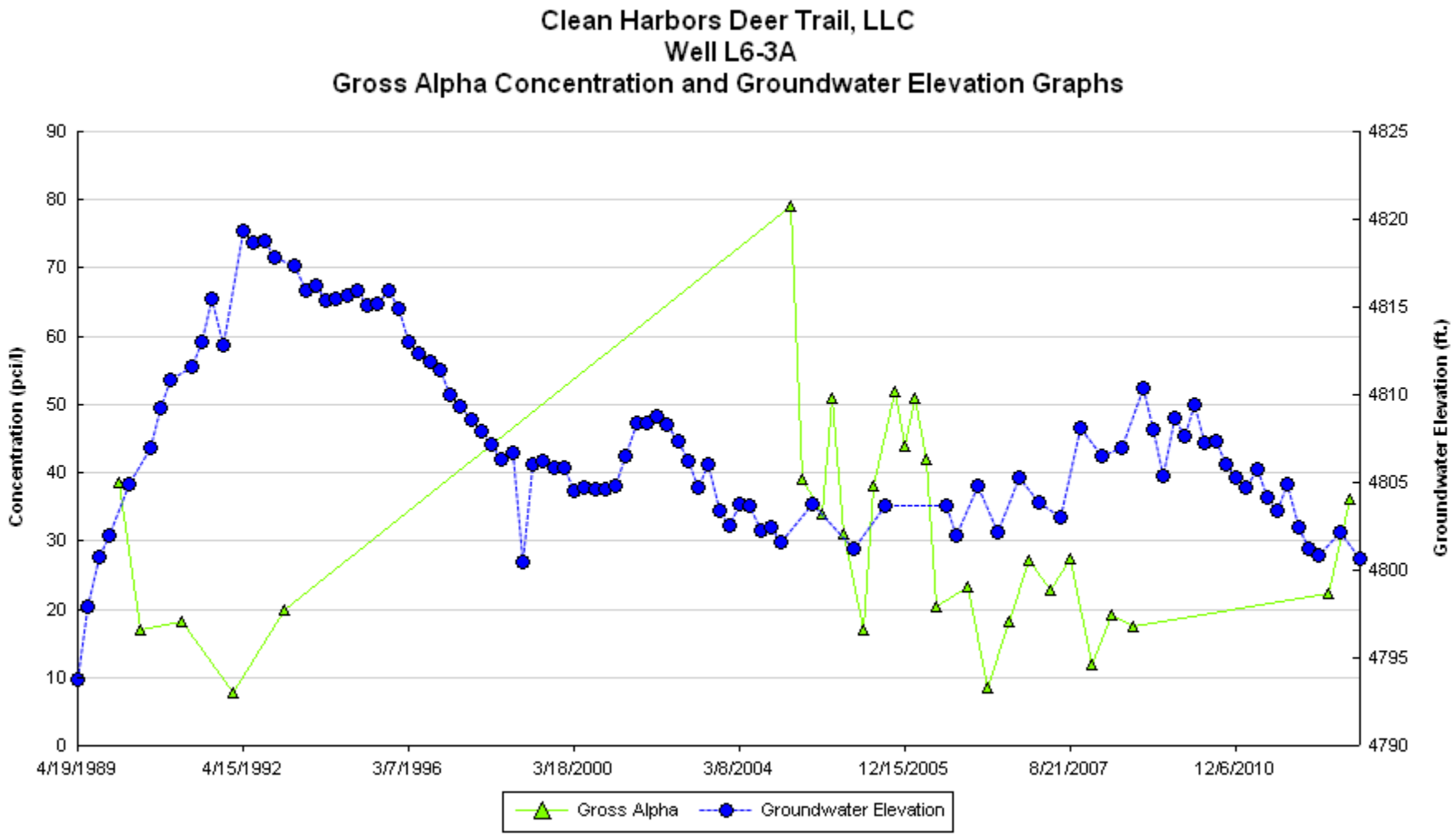
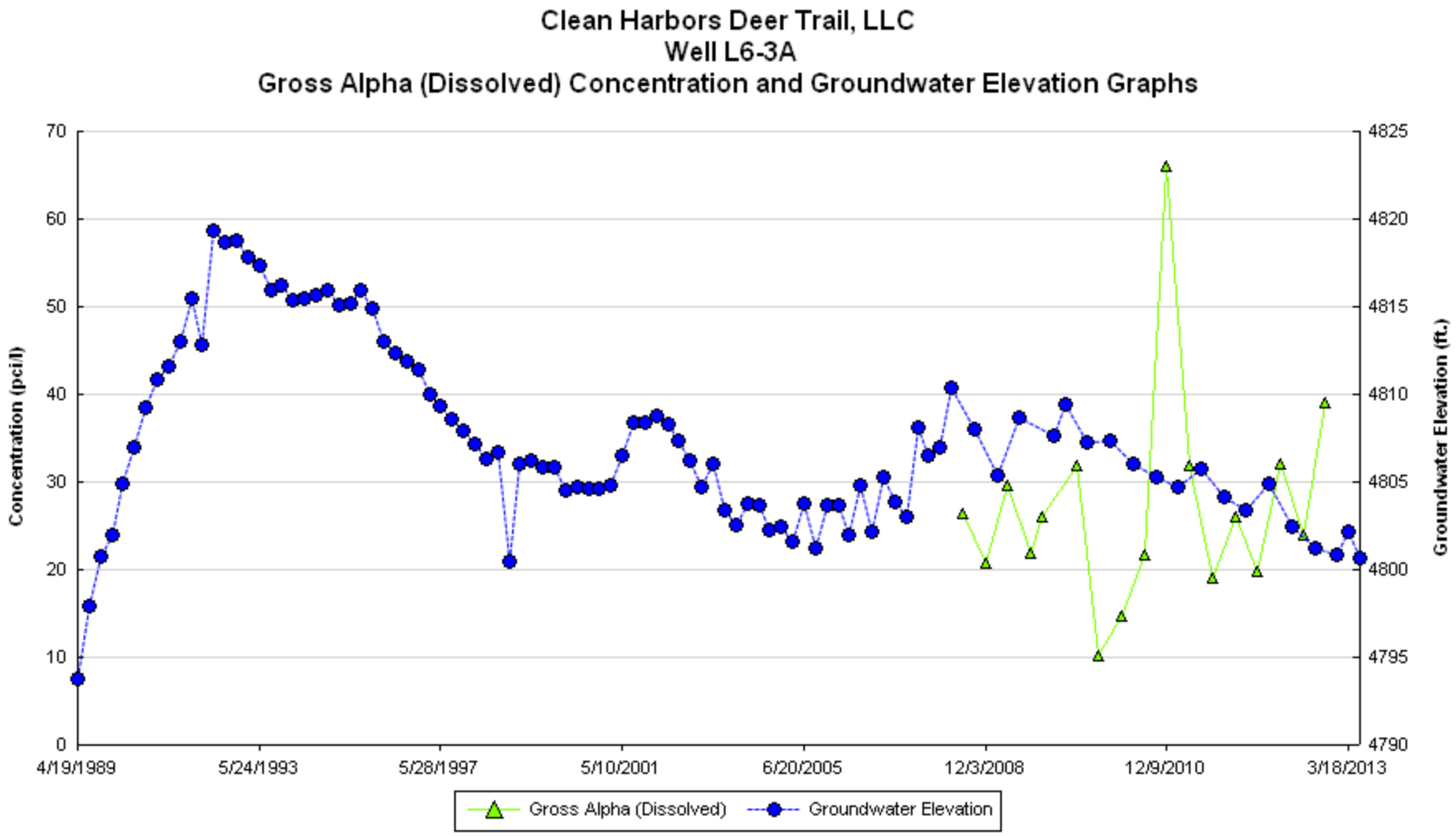
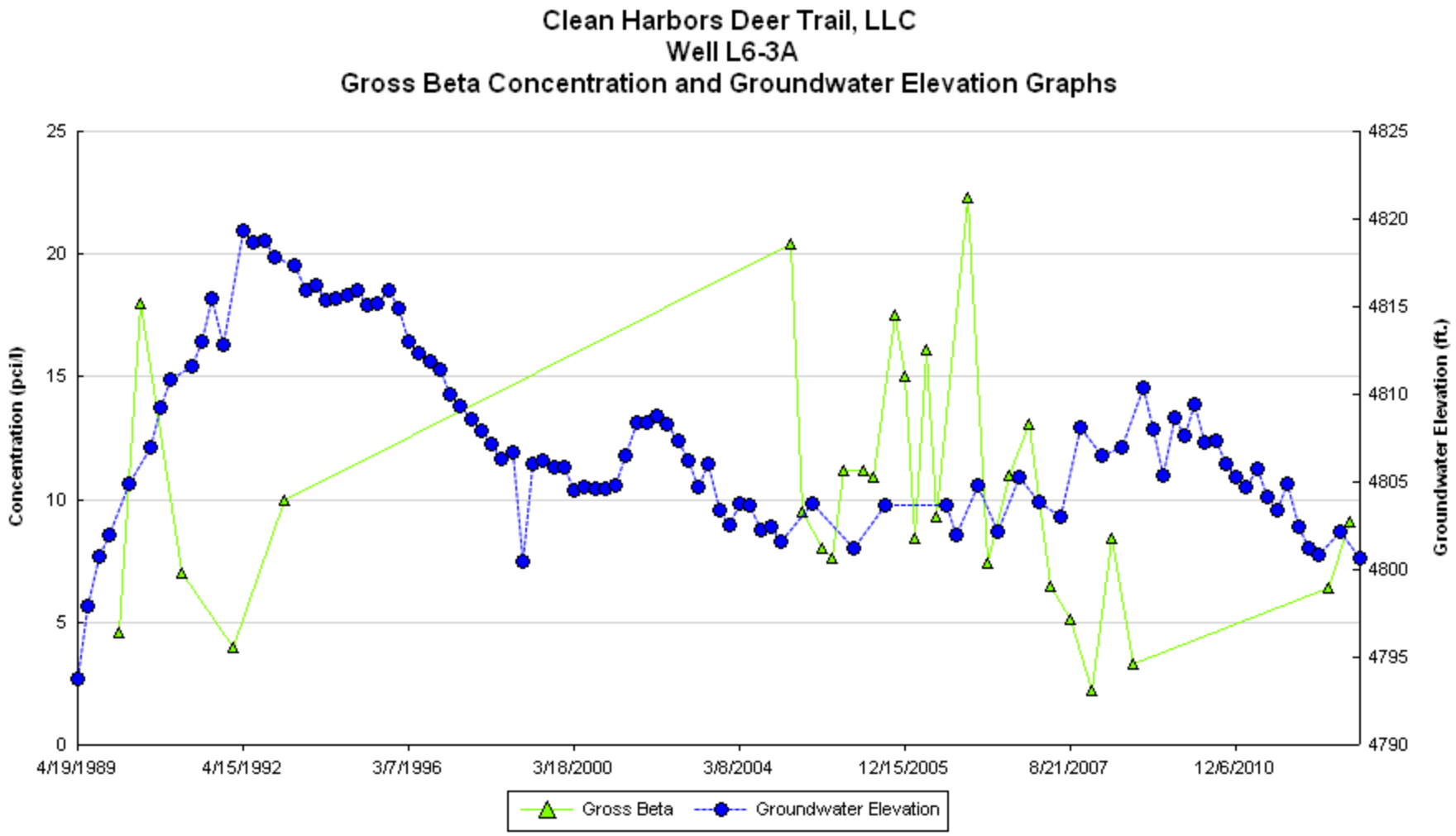
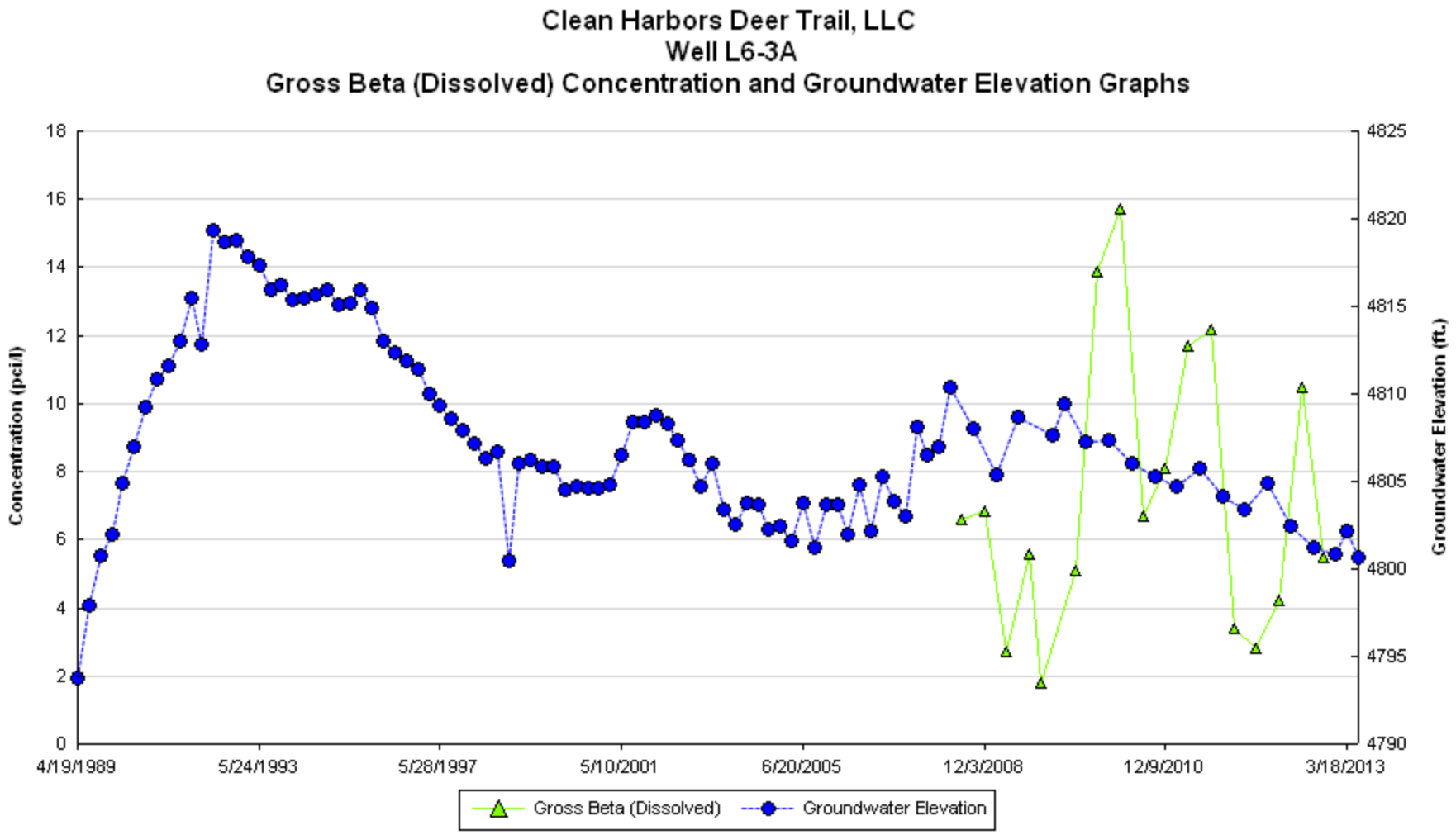
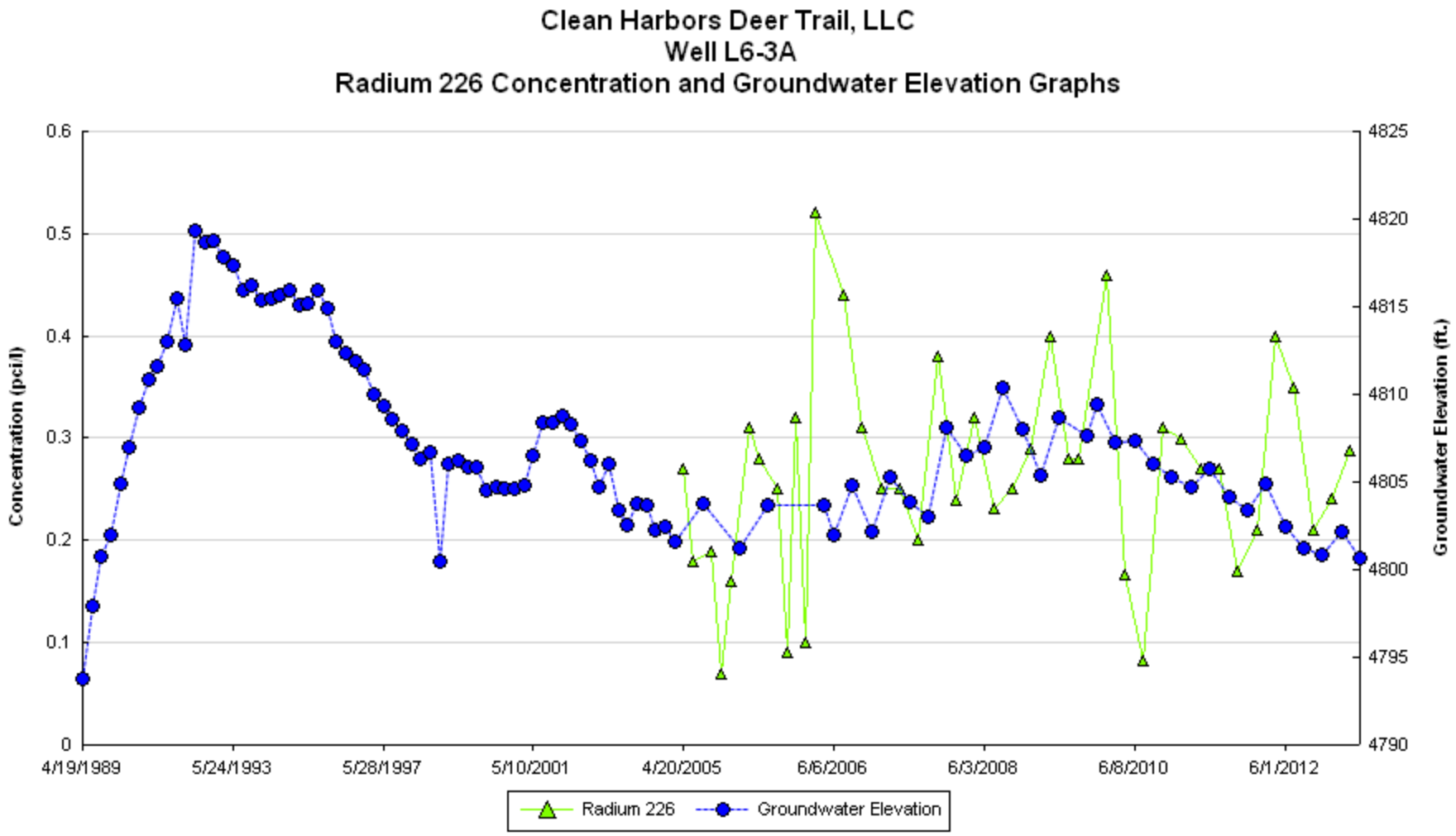
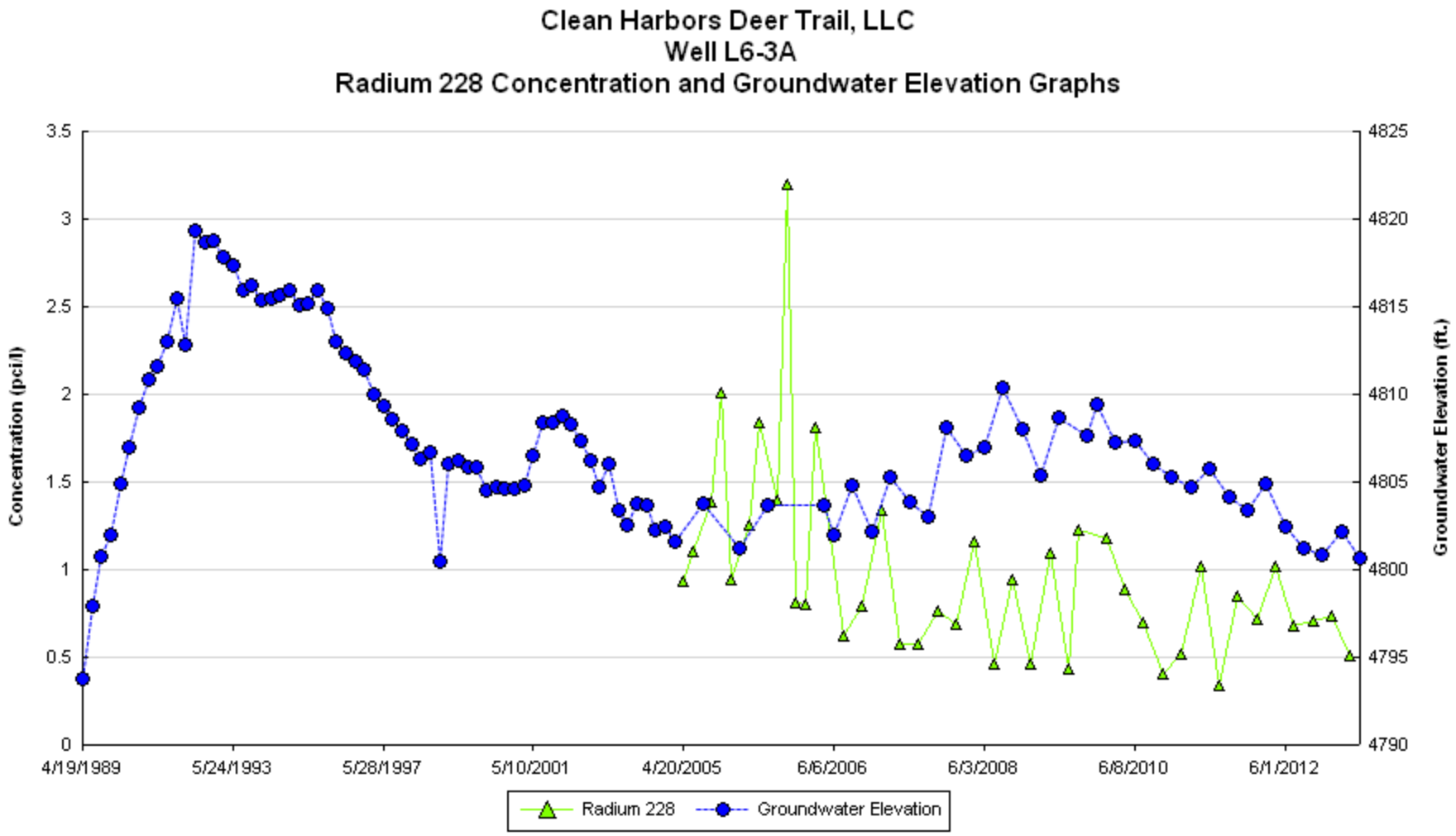

Clean Harbors Deer Trail, LLC
Well L6-3A
Gross Alpha Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
10
20
30
40
50
60
70
80
90
4790
4795
4800
4805
4810
4815
4820
4825
4/19/1989
4/15/1992
3/7/1996
3/18/2000
3/8/2004
12/15/2005
8/21/2007
12/6/2010
Gross Alpha
Groundwater Elevation

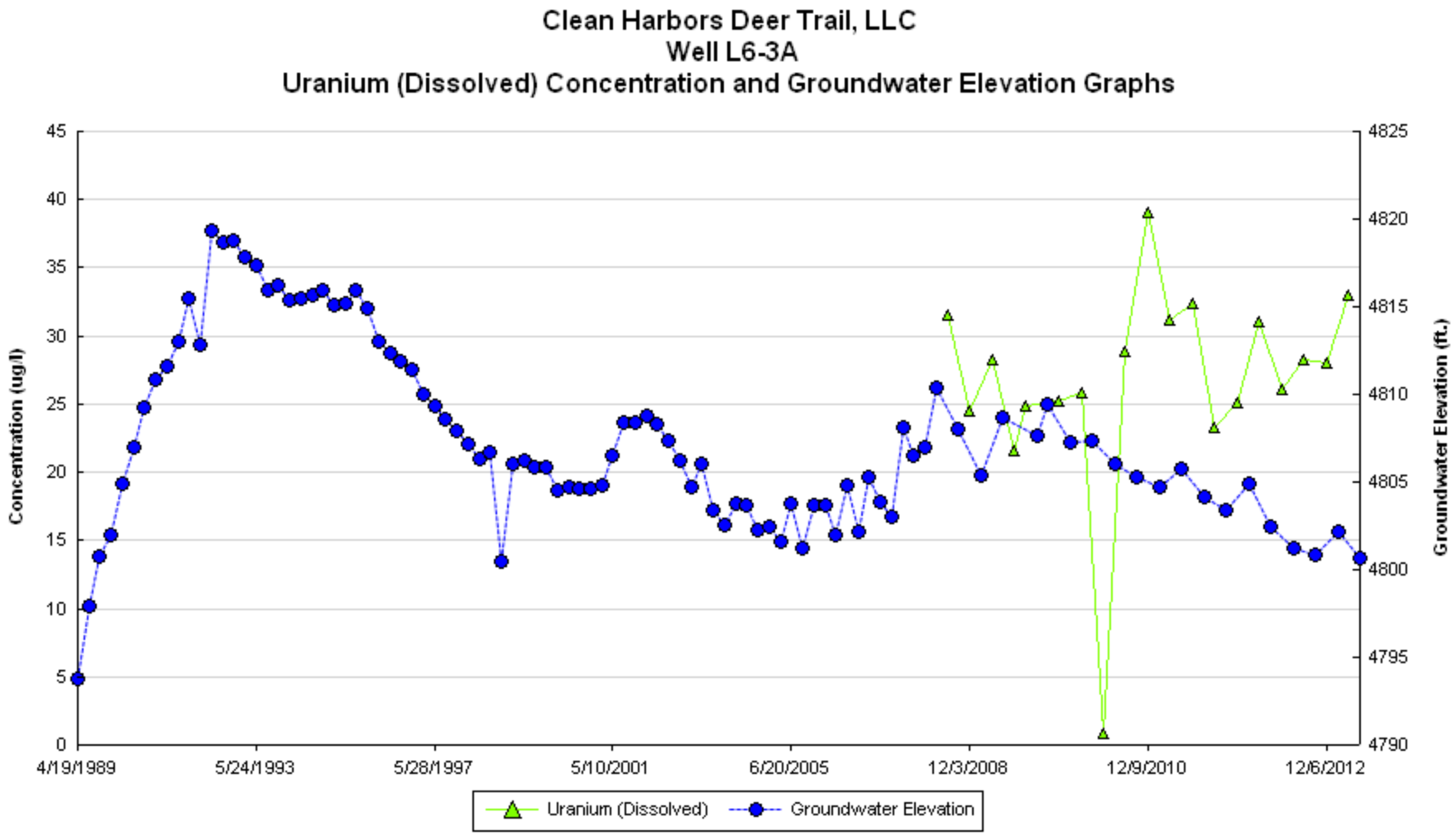

Clean Harbors Deer Trail, LLC
Well L6-3A
Gross Alpha (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
70
60
50
40
30
20
10
0
4825
4820
4815
4810
4805
4800
4795
4790
4/19/1989
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/3/2008
12/9/2010
3/18/2013
Gross Alpha (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L6-3A
Gross Beta Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
25
20
15
10
5
0
4825
4820
4815
4810
4805
4800
4795
4790
4/19/1989
4/15/1992
3/7/1996
3/18/2000
3/8/2004
12/15/2005
8/21/2007
12/6/2010
Gross Beta
Groundwater Elevation

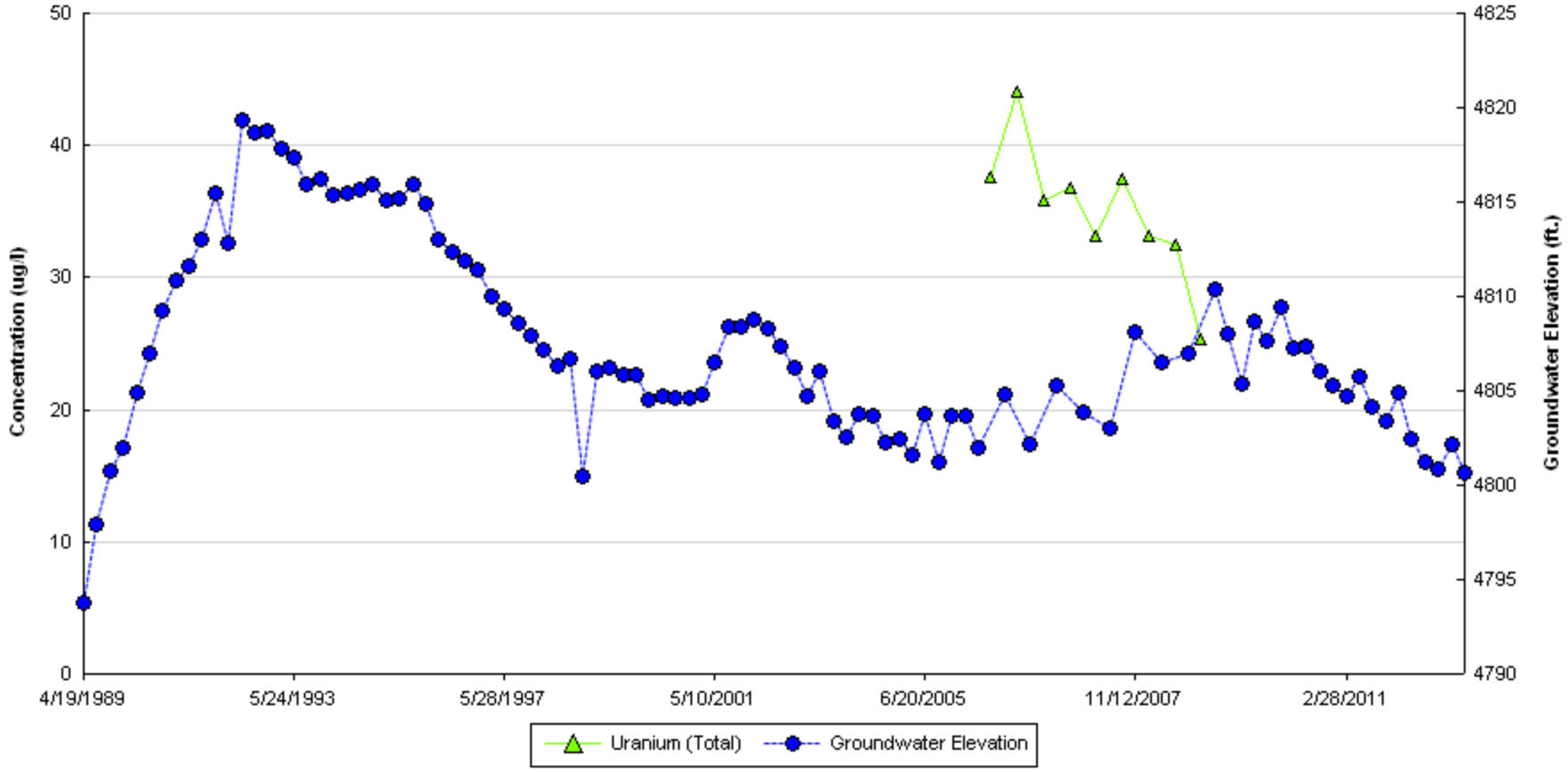

Clean Harbors Deer Trail, LLC
Well L6-3A
Gross Beta (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0
2
4
6
8
10
12
14
16
18
4790
4795
4800
4805
4810
4815
4820
4825
4/19/1989
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/3/2008
12/9/2010
3/18/2013
Gross Beta (Dissolved)
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L6-3A
Radium 226 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
0.6
0.5
0.4
0.3
0.2
0.1
0
4825
4820
4815
4810
4805
4800
4795
4790
4/19/1989
5/24/1993
5/28/1997
5/10/2001
4/20/2005
6/6/2006
6/3/2008
6/8/2010
6/1/2012
Radium 226
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L6-3A
Radium 228 Concentration and Groundwater Elevation Graphs
Concentration (pci/l)
Groundwater Elevation (ft.)
3.5
3
2.5
2
1.5
1
0.5
0
4825
4820
4815
4810
4805
4800
4795
4790
4/19/1989
5/24/1993
5/28/1997
5/10/2001
4/20/2005
6/6/2006
6/3/2008
6/8/2010
6/1/2012
Radium 228
Groundwater Elevation


Clean Harbors Deer Trail, LLC
Well L6-3A
Uranium (Dissolved) Concentration and Groundwater Elevation Graphs
Concentration (ug/l)
Groundwater Elevation (ft.)
45
40
35
30
25
20
15
10
5
0
4825
4820
4815
4810
4805
4800
4795
4790
4/19/1989
5/24/1993
5/28/1997
5/10/2001
6/20/2005
12/3/2008
12/9/2010
12/6/2012
Uranium (Dissolved)
Groundwater Elevation

Clean Harbors Deer Trail, LLC
Well L6-3A
Uranium (Total) Concentration and Groundwater Elevation Graphs



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