

ANNUAL REPORT ON RESULTS OF MAMMOTH COMMUNITY  
WATER DISTRICT GROUNDWATER MONITORING PROGRAM  
FOR OCTOBER 2005-SEPTEMBER 2006

Prepared for  
Mammoth Community Water District  
Mammoth Lakes, California

by  
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December 13, 2006

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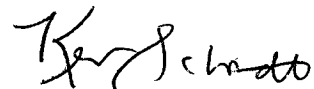
Mr. Gary Sisson, General Manager  
Mammoth Community Water District  
P.O. Box 597  
Mammoth Lakes, CA 93546

Re: Annual Report on Groundwater Monitoring

Dear Gary:

Submitted herewith is our annual report on the results of the District groundwater monitoring program for the period October 2005-September 2006. I appreciate the cooperation of District personnel in conducting this monitoring and providing data tabulations.

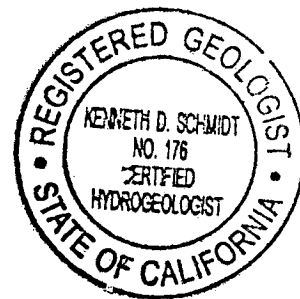
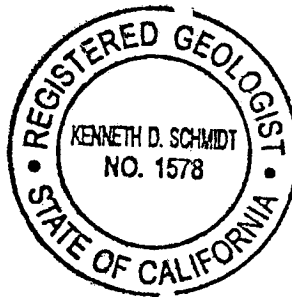
Sincerely yours,



Kenneth D. Schmidt

KDS/pe

cc: Steve Kronick



## TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	iii
LIST OF ILLUSTRATIONS	iv
INTRODUCTION	1
SUMMARY AND CONCLUSIONS	2
WELL CONSTRUCTION DATA	3
SUBSURFACE GEOLOGIC SECTION A-A'	8
PRECIPITATION	10
DISTRICT PUMPAGE	10
WATER LEVELS	12
District Supply Wells	12
New Wells	12
Earlier Wells	19
Deep Monitor Wells	22
Shallow Monitor Wells	35
Water-Level Elevation Contours	42
CHEMICAL QUALITY AND TEMPERATURE OF GROUNDWATER	44
MAMMOTH CREEK STREAMFLOW	45
VALENTINE RESERVE SPRINGFLOW	47
DATA EVALUATION AND INTERPRETATION	47
REFERENCES	49
APPENDIX A	PUMPAGE AND WATER-LEVEL DATA FOR DISTRICT SUPPLY WELLS
APPENDIX B	PUMPAGE AND WATER-LEVEL HYDROGRAPHS FOR EARLIER SUPPLY WELLS
APPENDIX C	WATER-LEVEL MEASUREMENTS FOR MONITOR WELLS
APPENDIX D	SUPPLEMENTARY WATER-LEVEL HYDROGRAPHS FOR MONITOR WELLS

TABLE OF CONTENTS  
(Continued)

APPENDIX E    CHEMICAL ANALYSES OF WATER FROM DISTRICT WELLS  
APPENDIX F    MAMMOTH CREEK STREAMFLOW

LIST OF TABLES

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Construction Data for District Supply Wells	5
2	Construction Data for District Monitor Wells	7
3	Pumpage from District Wells (Acre-Feet)	11

## LIST OF ILLUSTRATIONS

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Location of Wells and Subsurface Geologic Cross Section A-A'	4
2	Subsurface Geologic Cross Section A-A'	(pocket)
3	Water-Level and Pumpage Hydrograph for Well No. 15	13
4	Water-Level and Pumpage Hydrograph for Well No. 16	15
5	Water-Level and Pumpage Hydrograph for Well No. 17	17
6	Water-Level and Pumpage Hydrograph for Well No. 18	18
7	Water-Level and Pumpage Hydrograph for Well No. 20	20
8	Water-Level Hydrograph for Well No. 14M	25
9	Water-Level Hydrograph for Well No. 19	26
10	Water-Level Hydrograph for Well No. 21	28
11	Water-Level Hydrograph for Well No. 24	30
12	Water-Level Hydrograph for SC-1	33
13	Water-Level Hydrograph for SC-2	34
14	Water-Level Hydrograph for Well No. 22 and Pumpage for Well No. 15	36
15	Water-Level Hydrograph for Well No. 22 and Mammoth Creek Streamflow	37
16	Water-Level Hydrograph for Well No. 23 and Pumpage for Well No. 1	39
17	Water-Level Hydrograph for Well No. 23 and Mammoth Creek Streamflow	40
18	Water-Level Elevations in September 2006	43
19	Flow for Valentine Spring (1993-2001) and Mammoth Creek Streamflow (1993-2006)	48

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INTRODUCTION

In Summer 1992, the Mammoth County Water District contracted for the drilling of five new test wells in Mammoth Lakes. One of these wells (No. 15) was converted to a supply well and pumping began on an emergency basis in Summer 1992. In December 1992, the California Department of Fish and Game filed an action against the District in Superior Court. Concerns were expressed by the Department about the potential impact of pumping of these wells on wildlife, vegetation, and fishery resources of Mammoth Creek and the Hot Creek headsprings, which is located downstream of the District wells. Kenneth D. Schmidt and Associates completed a hydrogeologic evaluation (July 6, 1993) on behalf of the District, to respond to these concerns. In August 1993, a settlement agreement was made between the Department and the District. As part of this agreement, the District was to:

1. Conduct routine monitoring in all District supply and monitor wells.
2. Install a new monitor well tapping consolidated rock at a location south of the District office.
3. Conduct monitoring in the new monitor well.
4. Prepare an annual interpretive report on the results of groundwater monitoring for the water year.

Data available to the District from Wells SC-1 and SC-2 (part

of the Long Valley hydrologic monitoring program) were to be included in this evaluation. This report comprises the fourteenth annual report pursuant to the settlement agreement. The Mammoth County Water District is now the Mammoth Community Water District.

#### SUMMARY AND CONCLUSIONS

The District pumped 1,122 acre-feet of water from eight supply wells during the 2006 water year. This was about half of the pumpage for the previous water year. A comprehensive water-level monitoring program was conducted for District supply wells and monitor wells. Five new monitor wells were constructed by the District during the 2006 water year. In addition, water-level measurements were available for two other monitor wells east of the District wells. Flow measurements were not available for the springs at the University of California Valentine Reserve for the 2005 water year.

Water levels in shallow wells tapping the uppermost glacial till strata rose during 2005-06, due to recharge from increased precipitation. Groundwater is generally present in the uppermost strata only in the westerly and central part of the area, in the meadow and near Mammoth Creek. Water levels in two of the District supply wells (No. 6, and 10) were shallower in 2006 than in 2005, primarily due to the decreased pumpage. Water levels in many other deep wells tapping the consolidated rock in or near the District well field rose significantly during the 2006 water year. Water levels in deep wells farther to the east rose during the 2006 water year, due to the above average precipitation. A water-level



elevation contour map was prepared for September 2006. This map and other information indicate that the extent of the cone of depression due to pumping of District wells was limited in size, and did not extend east of the easterly District monitor well (No. 24).

The results of water quality monitoring indicate no significant changes during the 2006 water year, compared to previously.

The results of the 2005-2006 monitoring indicate that District pumping did not influence Mammoth Creek streamflow. Flow data for the springs at the Valentine Reserve for the 2002-06 water years are not available. District pumping was not indicated to have influenced flows at the Valentine Reserve springs through the 2001 water year (the last year of available records). In addition, water-level declines due to pumping did not extend beyond the vicinity of the well field. Thus, there was no influence on the Hot Creek headsprings, which are much more distant from the District water supply wells than the monitor wells utilized for the District monitoring program.

#### WELL CONSTRUCTION DATA

Figure 1 shows locations of District wells, a private supply well, a subsurface geologic cross section, two other monitor wells to the east (SC-1 and SC-2), and the spring area at the Valentine Reserve. Table 1 summarizes construction data for the District supply wells. All of these wells tap consolidated rock, primarily basalt and scoria layers, and some also tap interbedded glacial till and conglomerate. Well No. 1 has been in service since the

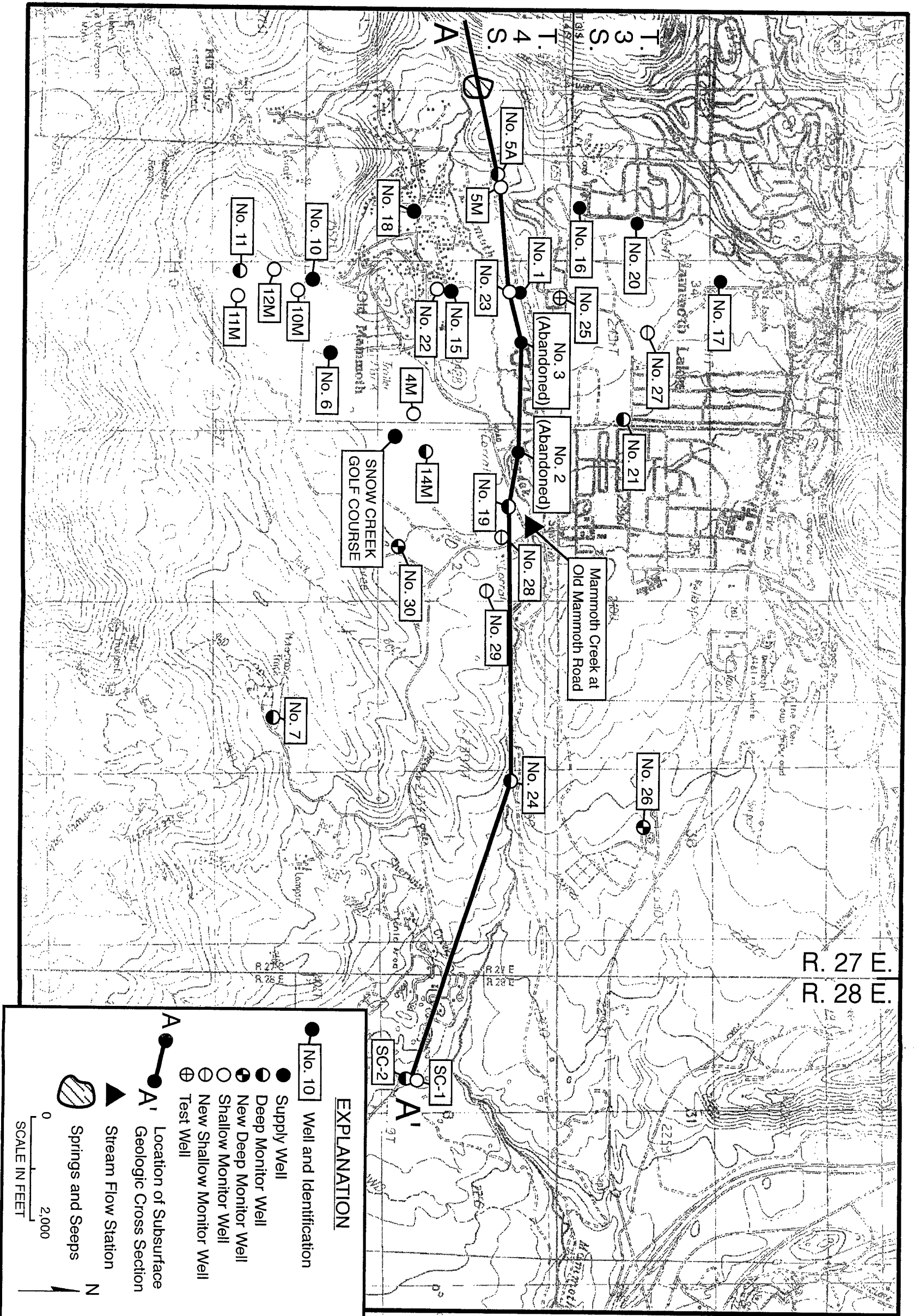


FIGURE 1 - LOCATION OF WELLS AND SUBSURFACE GEOLOGIC CROSS-SECTION A-A'

**EXPLANATION**

- No. 10 Well and Identification
- Supply Well
- Deep Monitor Well
- New Deep Monitor Well
- Shallow Monitor Well
- New Shallow Monitor Well
- ⊕ Test Well
- A — A' Location of Subsurface Geologic Cross Section
- ▲ Stream Flow Station
- ▨ Springs and Seeps

SCALE IN FEET  
0 2,000

N

TABLE 1 - CONSTRUCTION DATA FOR DISTRICT SUPPLY WELLS

<u>Well No.</u>	<u>Date Drilled</u>	<u>Drilled Depth (feet)</u>	<u>Cased Depth (feet)</u>	<u>Perforated or Open Interval (feet)</u>	<u>Annular Seal (feet)</u>
1	1976	382	370	200-370	0-90
6	11/87	670	670	146-670	0-52
10	10/87	700	700	136-700	0-52
15	8/92	720	407	407-720	0-135
16	8/92	710	715	420-470 500-680	0-60
17	7/92	710	513	400-710	0-60
18	8/92	710	480	90-150 240-470	0-60
20	9/92	710	420	420-710	0-60

Wells No. 16, 17, 18, and 20 were modified in June 1994 in preparation for being put into service. The test wells that were drilled in 1992 and subsequently converted to production wells are termed herein the "new District supply wells".

1970's and Wells No. 6 and 10 have been in service since 1988. These three wells are termed the "earlier" District supply wells in this report. Well No. 15 was first put in service in July 1992 on an emergency basis. Well No. 18 was put in service in September 1994. Wells No. 16 and 20 were put in service in March 1995; and Well No. 17 was put in service in June 1995. Wells put in service in the 1992-95 time period are termed the "newer" District supply wells in this report. Wells No. 2, 3, 4, 5, and 7 (shown in Figure 1) were not put in service by the District because of low well yields. Wells No. 2 and 3 were subsequently destroyed, whereas the other wells were converted to monitor wells. A small amount of water was pumped from Well No. 7 in Summer 2005 for use at the Boys Camp.

Test Well No. 25 was drilled in August 2002, and was not in service during the 2002-2006 water years. This well was drilled to a depth of 700 feet, at a site north of Well No. 1 and east of Well No. 16. This well has been temporarily used as a monitor well. Table 2 summarizes construction data for District monitor wells. Six of these wells (No. 5A, 14M, 19, 21, 24, and 25) are deep and primarily tap water in fractured volcanic rock. Well No. 7 is a deep well located south of the basalt flow and taps water in a glacial moraine near Sherwin Creek. Well No. 11 is a deep well located south of the basalt flow and taps water in glacial till and granitic rocks. An annular seal was placed in Well No. 21 in July 1997, to preclude surface water and shallow groundwater from entering the well. Well No. 5M taps water in the shallow fractured

TABLE 2 - CONSTRUCTION DATA FOR DISTRICT MONITOR WELLS

<u>Well No.</u>	<u>Date Drilled</u>	<u>Drilled Depth (feet)</u>	<u>Cased Depth (feet)</u>	<u>Perforated or Open Interval (feet)</u>	<u>Annular Seal (feet)</u>
4M	1984	89	89	69-89	0-50
5A	7/82 (8/93)	357	357	112-357	0-112
5M	8/93	80	80	20-75	0-20
7	8/87	480	480	290-480	0-50
10M	6/88	27	27	7-27	0-5
11	7/88	600	600	170-360	0-50
11M	6/88	43	43	5-43	0-5
12M	9/88	27	27	7-27	0-5
14M	9/88	520	501	100-310	0-100
19	8/92	700	344	200-700	0-140
21	10/92 (7/97)	640	145 (157)	145-640 (157-640)	(70-157)
22	9/92	85	85	55-85	0-25
23	9/92	65	65	30-65	0-25
24	8/93	450	430	300-450	0-20
25	8/02	700	530	340-530	0-60
26	5/06	708	686	621-686	0-80 & 595-620
27	1/06	97	87	67-87	0-64
28	12/05	90	87	47-57	0-45
29	11/05	97	97	67-87	57-65
30	12/05	640	600	77-97 516-600	0-60 0-500

Well No. 5 was modified in August 1993, so as to be sealed off opposite the glacial till and be perforated only opposite the volcanic rock, and re-designated Well No. 5A. An annular seal was placed in No. 21 in July 1997, and the values in parentheses are for the modified well.

volcanic rock, just beneath the glacial till. The remaining monitor wells drilled prior to 2005 are shallow and tap groundwater in the uppermost glacial till.

During November 2005-May 2006, five new District monitor wells were installed (Figure 1). The wells were constructed by Western Strata Exploration, Inc. of Clarksburg. Information on these is provided in Table 2. Two of these (No. 26 and 30) are deep wells (640 to 708 feet deep) tapping fractured volcanic rock. The other three new monitor wells (No. 27, 28, and 29) were drilled to depths ranging from 90 to 97 feet and tap shallow unconsolidated deposits (glacial till and/or alluvium).

#### SUBSURFACE GEOLOGIC SECTION A-A'

Cross Section A-A' was developed during a previous evaluation, and was updated (Figure 2) by adding more recent water-level data. The locations of wells used for this section are shown in Figure 1. Cross Section A-A' shows that the uppermost till layer and volcanic rocks are continuous along the section. Groundwater has been found in the uppermost glacial till layer only in the vicinity of District Wells No. 1, 4, 6, 10, 11, 12, and 15. Most of these wells are either in the meadow or near Mammoth Creek. Water production in the District supply wells is from highly fractured rock, often scoria layers, and sometimes from interbedded glacial till. The intervening less fractured rock probably acts as local confining layers. At Well No. 24, water was not found in the upper part of the basalt or in either of the till layers. Water in this well is

FIGURE 2  
SUBSURFACE GEOLOGIC CROSS SECTION A-A'  
(IN POCKET)

in a fractured scoria layer. A lost circulation zone present in this well may influence the water level. In September 2006, there was a fairly uniform water-level slope (about 250 feet per mile) from Well No. 1 to No. 19 to No. 24. The part of the section east of Well No. 24 is oriented almost perpendicular to the direction of groundwater flow (shown later).

#### PRECIPITATION

Precipitation (inches of water) is routinely measured at the Lake Mary Store, and is an indication of the potential recharge to groundwater. The average annual precipitation from 1990-2005 was 29.4 inches. During water years 1991-94, the annual precipitation ranged from about 20 to 29 inches and averaged about 22.5 inches. During water years 1995-2000, annual precipitation ranged from about 30 to 46 inches and averaged about 39 inches. During water years 2001-04, the annual precipitation ranged from about 20 to 25 inches and averaged 22.0 inches. During 2004-05, the precipitation was 37.1 inches. No precipitation records are available for this station for the 2006 water year. There was a total of 28.4 inches of precipitation at the Mammoth Ranger Station during the 2006 water year. These trends in precipitation are useful when evaluating water-level changes in wells that have been measured as part of this program.

#### DISTRICT PUMPAGE

Pumpage records for District supply wells are provided in Appendix A. Table 3 shows monthly pumpage from District wells



**TABLE 3 - PUMPAGE FROM DISTRICT WELLS (ACRE-FEET)**

Well No.	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Total
1	0.049	11.534	14.209	26.282	40.000	39.804	21.448	18.920	46.626	42.086	26.239	29.401	316.597
6	2.454	0.491	8.147	0.196	0.196	0.491	0.000	0.000	0.000	0.000	0.000	0.000	11.975
10	5.104	0.393	9.816	6.282	6.972	2.985	12.693	5.620	0.604	32.580	46.301	18.436	147.785
15	1.374	2.748	14.098	0.000	24.344	57.325	5.487	29.252	48.883	59.485	72.834	70.282	386.123
16	0.049	0.000	0.000	0.000	0.000	0.000	0.098	0.000	0.000	0.000	0.000	0.000	0.147
17	21.791	5.104	0.000	0.000	0.000	0.000	0.000	0.883	52.021	51.141	61.840	49.080	241.862
18	1.865	0.000	1.939	0.368	0.466	0.000	0.025	0.000	0.000	0.025	0.000	0.049	4.736
20	0.098	0.000	0.294	0.000	0.000	0.000	5.301	5.202	0.000	0.589	0.393	0.765	12.663
Total ac-ft	32.785	20.270	48.503	33.129	71.978	100.605	45.061	59.877	148.135	185.905	207.607	168.033	1121.888
Total MG	10.688	6.608	15.812	10.8	23.4648	32.7972	14.69	19.52	48.292	60.605	67.67988	54.77863	

during the 2006 water year. The total pumpage was 1,122 acre-feet, or about 48 percent less than that for the previous water year. Of this, 386 acre-feet were from Well No. 15, 317 acre-feet were from Well No. 1, 242 acre-feet were from Well No. 17, and 148 acre-feet were from Well No. 10. The remaining District pumpage (29 acre-feet) was from Wells No. 6, 16, 18, and 20. An estimated 17 acre-feet of water were pumped from the Snow Creek Golf Course Well (in the general vicinity of Well No. 14M) during the 2006 water year. The amount of water pumped from this well this year was much less than that for last year, because much of the golf course was covered with snow and shallow water until mid-June 2006. This well is owned by Dempsey Construction. About 90,000 gallons were pumped from Well No. 7 for use at the Boys Camp from June through September, 2006.

## WATER LEVELS

### District Supply Wells

Water-level measurements (static and pumping) for District supply wells are provided in Appendix A. Water-level hydrographs for the earlier wells (No. 1, 6, and 10) are provided in Appendix B. The years discussed for hydrographs in the following sections are for calendar years, unless specified otherwise.

### New Wells

Figure 3 is a water-level and pumpage hydrograph for Well No. 15, extending back to when it was initially put in service in July 1992. In Summer 1992, the water level fell about 80 feet after several months of pumping, and normally ranged from about 260 to

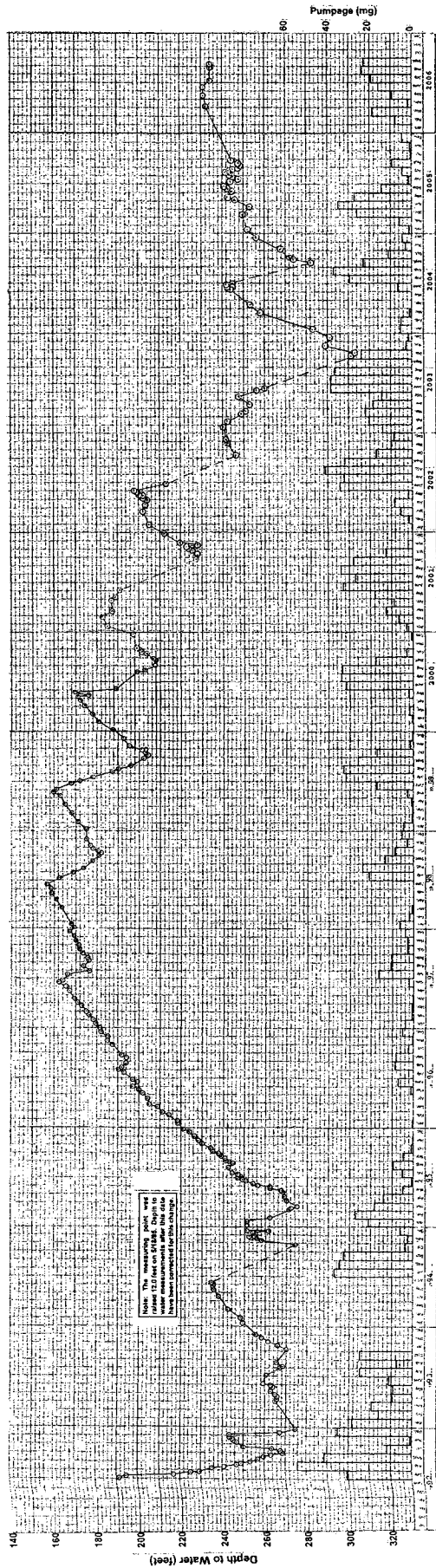


FIGURE 3-WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 15

280 feet during periods when the well was being significantly used through early 1995. During periods when the well was not used much for supply (i.e., May 1995-June 1998), the water level rose substantially. In June 1998, the depth to water in Well No. 15 was 156 feet, or the shallowest of record. In October 2003, depth to water in this well was 303 feet. The shallowest annual water level in this well fell from 156 feet in 1998 to 242 feet in 2004. The water level in this well in Summer 2005 was near that in Summer 2004. In 2006, the shallowest water level was about ten feet shallower than in 2005. Depth to water in Well No. 15 appears to be influenced primarily by the previous pumping history of the well and recharge.

Figure 4 is a water-level and pumpage hydrograph for Well No. 16. The water level in this well changed substantially after the casing was installed (July 1994) and after the pump was installed (February 1995). After the casing was installed and prior to the pump installation, an access tube was not in the well, and the measurements during that period were apparently affected by cascading water. The measurements for July 1994-early February 1995, and for April-May, 1998 appear not to be representative. During heavy pumping periods of Well No. 20, the static level in Well No. 16 has been about 12 feet lower than during periods of lower pumping of Well No. 20. There were seasonal declines of about 20 to 30 feet during pumping periods of this well in 2002. Overall, shallow static levels in Well No. 16 were relatively stable between 1992 and 2003, and fell in 2004. In Summer 2004, water levels in this

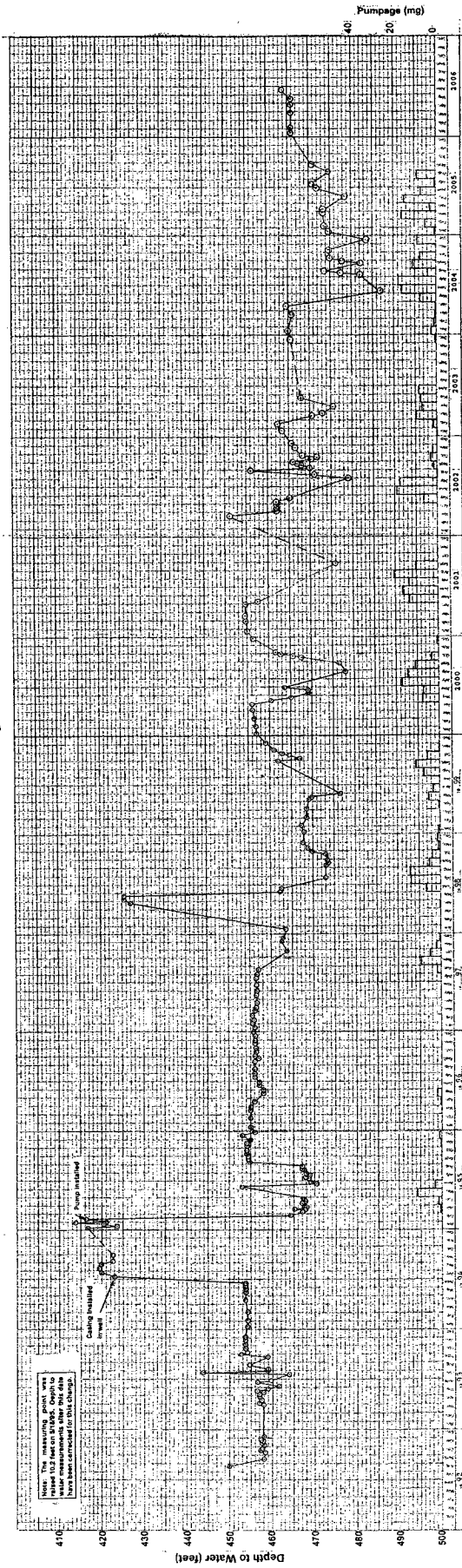


FIGURE 4-WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 16

well were the lowest of record. This was likely due to the below normal precipitation in recent years. Water levels in this well slightly rose during 2005, and then rose about ten feet during the 2006 water year. There was essentially no pumpage from this well during the 2006 water year.

Figure 5 is a water-level and pumpage hydrograph for Well No. 17. Measurements in early 1995 indicated that the water level apparently rose about eight feet, probably due to recharge. The water level in Well No. 17 appears to be influenced by pumpage of Well No. 20. During operational periods of both of these wells, the static level in Well No. 17 has been about four feet lower than during periods of little pumpage. The water level in Well No. 17 gradually rose during November 1995-August 1999, except during some pumping periods. The shallowest depth to water yet measured in this well was in January 2000. During 2000-2005, the water level in this well fell, due to heavier pumping of this well and less recharge compared to previously. During the 2006 water year, the water level rose about five feet. Considering the pumpage, this was apparently due to increased recharge during the 2006 water year.

Figure 6 shows water levels and pumpage for Well No. 18. The overall trend for this well during non-operational periods was a slight water-level rise through 1997. The water level was relatively constant during 1998-early 2002. In early June 1998, the water level in Well No. 18 was 30 feet deep, the shallowest yet measured. The water-level decline of about ten feet in this well

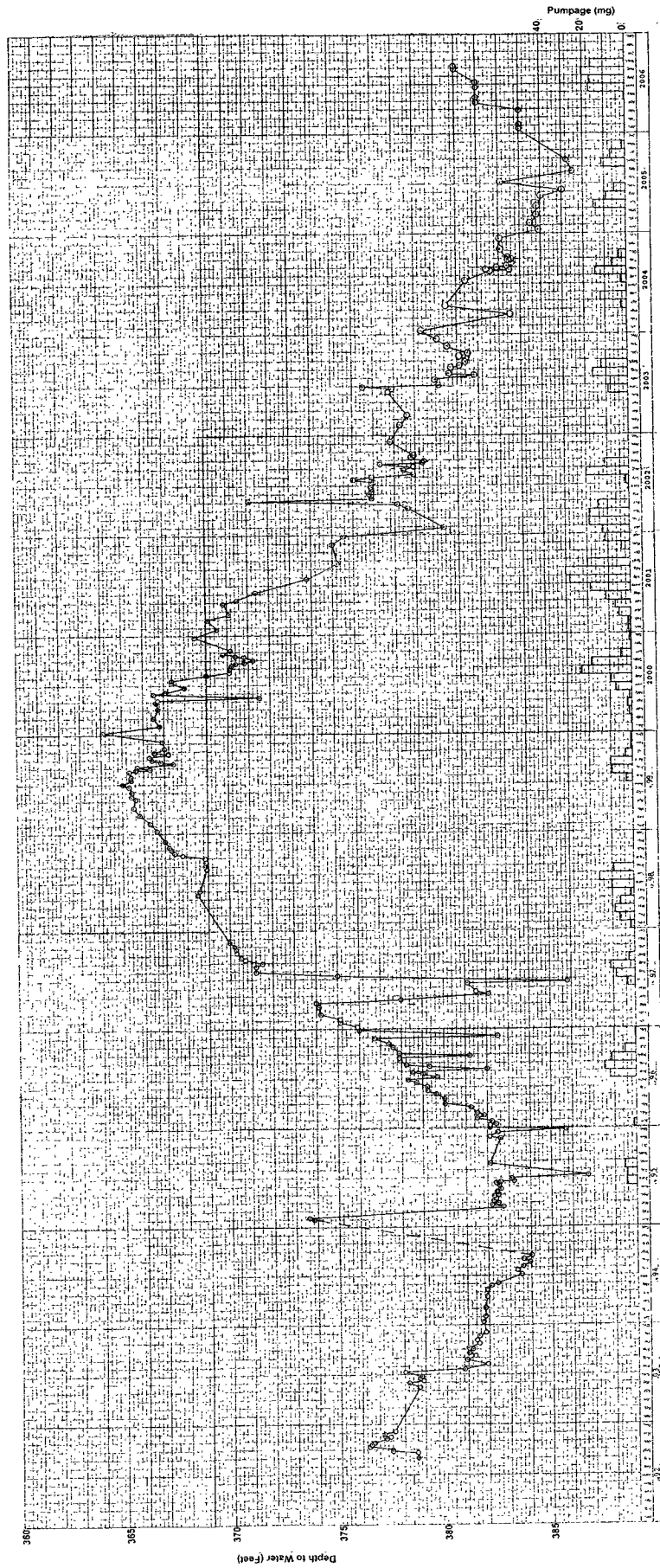


FIGURE 5-WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 17

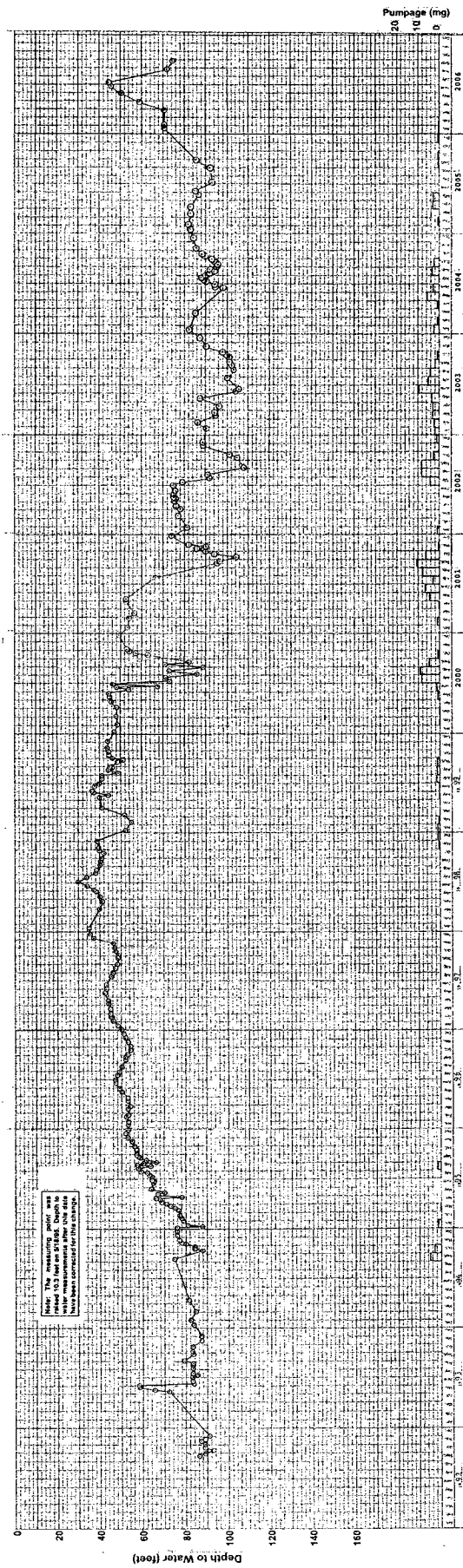


FIGURE 6-WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 18



during July 1998 appears to have been due to pumping of Wells No. 10 and 15. The water level in this well was 108 feet in September 2002, the lowest for the period of record. During 2002-05, water levels in this well stayed relatively constant. The water level rose almost 40 feet during the 2006 water year. There was only a small amount of pumpage from this well during the 2006 water year. The water-level rise is primarily attributed to increased recharge.

Figure 7 is a water-level and pumpage hydrograph for Well No. 20. From 1994-98, the overall trend was a rising water level. The shallowest levels in Well No. 20 to date were in late 1998 and early 1999. The water level in this well fell after early 2001. The water-level declines in this well during the summers of 1999-2002 were mainly due to pumping of the well itself. The water level in this well may also be affected by pumpage of Well No. 17. The water level in Well No. 20 recovered significantly in 2003, due to a lack of pumping prior to August. During 2002-05, water levels in this well stayed relatively constant. The water level rose about ten feet during the 2006 water year. There was essentially no pumpage from Well No. 20 during the 2006 water year. Thus the rise was due to increased recharge and decreased pumping.

#### Earlier Wells

Water-level and pumpage hydrographs for Wells No. 1, 6, and 10 are provided in Appendix B. The static water level in Well No. 1 has ranged from about 160 to 200 feet during low pumping periods to an average of about 270 feet during heavy pumping periods (i.e.,

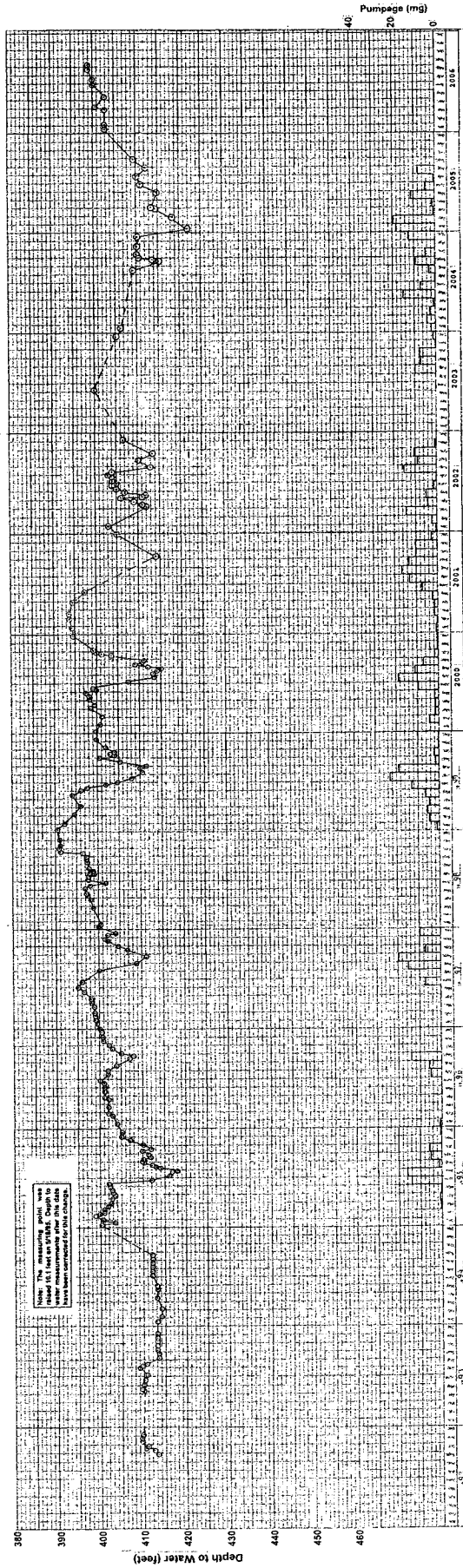


FIGURE 7-WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 20

August 1994). Overall, the water level in this well rose between 1992 and 1997, slightly declined from 1997 to Spring 2002, fell during 2002-03, and then rose in 2004-05. In June 1998, depth to water in this well was 160 feet, or the shallowest measured since 1990. During the 2006 water year, the water level in this well was relatively stable until July, when it fell about 10 feet due to increased pumping of the well. The static water level in Well No. 6 has ranged from less than 30 feet during low pumping periods (after September 1995) to more than 160 feet during heavy pumping periods (August-September, 1994). During May-September, 1996, in part of 1997, and during late 1999 through Fall 2001, the static level in this well was at or above the land surface. This well wasn't pumped during September 1997-September 2001. After pumping of the well resumed in October 2001, the water level fell to about 50 to 70 feet deep through May 2003. The water level then rose more than 49 feet by June 2004. Later in Summer 2004, the water level fell to a depth of about 117 feet, due to increased pumping from the well. In September 2005, depth to water was 44 feet. The well was pumped only a small amount during water year 2006, and the water level recovered to a depth of about seven feet by March 2006. The static water level in Well No. 10 has ranged from less than 30 feet deep during the low pumping periods (July 1995), to more than 160 feet during heavy pumping periods (Summer 1993). During the 1996-2000 water years, depth to water was usually less than 30 feet, except for short periods. In August 2001, the well began to be pumped more and the water level was usually about 70 to 90 feet

deep during the 2002 water year. During Summer 2005, the water level fell to a depth of about 137 feet, near the level in 1994. However, by late September 2005, depth to water was 63 feet, following the cessation of summer pumping. During the 2006 water year, the water level rose to a depth ranging from about 10 to 15 feet deep. This was largely associated with a large reduction in pumping from Wells No. 6 and 10 during 2006.

#### Deep Monitor Wells

Water-level measurements for monitor wells are provided in Appendix C, and supplementary water-level hydrographs are provided in Appendix D. Transducers were installed in four of the deep monitor wells (No. 14M, No. 19, No. 21, and No. 24), and continuous water-level measurements commenced in December 1995. Well No. 5A is located between Well No. 1 and the Valentine Reserve North Spring (Figure 1). Measurements for Well No. 5A indicate that depth to water has ranged from near the land surface to about seven feet. From 1995-99, the annual shallowest level was near the land surface, and overall the water level rose. Seasonal water level declines in this well ranged from about three to four feet during 2000-2002. These declines are indicated to have been due to pumping of Well No. 18 and possibly Well No. 15. The shallowest annual water level in Well No. 5A fell about six feet between 1999 and 2004. However, this level rose to about 2.5 feet in May 2005, and fell to about 3.0 feet in June 2006. This was associated with a decrease in pumpage from Well No. 18. Well No. 7 is located in

the Sherwin Creek campground, about one and a third miles east of Well No. 6. Measurements for Well No. 7 indicate that depth to water has ranged from 233 to 292 feet. The water level in this well appears to be primarily influenced by recharge from Sherwin Creek. The influence of recharge during 1995 and 2005-06 is apparent. Drawdowns of about 10 to 20 feet during 2000-2003 were apparently due to the pumping of the well itself. The shallowest annual level in this well fell about twenty feet between 1998 and 2003. The lower water levels in 2003 are attributed partly to more pumpage from the well than previously. Water levels in this well could not be measured in 2004-05 because of a malfunctioning sounding tube. The shallowest water level of record in Well No. 7 was measured in late July 2006, associated with more recharge.

Well No. 11 is located in the meadow area, about one quarter mile south of Well No. 10. The water-level measurements for Well No. 11 indicate that the deepest level (51 feet) was in May 1993, and the shallowest levels were near the land surface during most of the period after July 1995. The water level in this well is influenced by pumping of Wells No. 6 and 10, and surface flow, particularly in the Bodle Ditch, which passes through the meadow area. The water levels were deepest during drought conditions and heavy pumping of Wells No. 6 and 10. The shallowest water levels occurred during wet years and less pumping of Wells No. 6 and 10. As of 2006, the water level in this well was still near the land surface.

Well No. 14M is located about two-thirds mile east of Well No. 15. The manual water-level measurements for Well No. 14M (Figure

8) indicate that the depth to water normally ranged from about 350 to 360 feet prior to June 1995. The annual shallowest water level in this well rose between 1994 and 1998 and between 1999 and 2000. The rise was primarily associated with recharge and the reduction in pumping of Wells No. 6 and 10 at those times. In July 2002, depth to water in Well No. 14M was 235 feet, or the shallowest of record. The water level in this well fell about 95 feet between July 2000 and January 2002, primarily due to pumping of Wells No. 6 and 10. The water level in this well was relatively stable during 2003-04, then rose significantly in June 2005, apparently due to recharge. By November 2005, the water level fell back to near the previous levels. Some recharge was indicated in 2006, as the water level rose about 10 feet. The water level in this well shows the influence of recharge and pumping patterns of Wells No. 6 and 10, and the Snow Creek Golf Course well. Transducer measurements that are considered reliable are available for Well No. 14M for November 1, 1996-September 30, 2003, except for October 1997, June 1998, and March 2001. The transducer was recalibrated in May 2003, and the 2001-03 measurements agree well with the manual measurements. Reliable transducer measurements are also available from December 14, 2003 through July 31, 2004, December 10, 2004-July 6, 2005, August 12-October 30, 2005, November 30, 1995-May 26, 2006, and August 28-September 30, 2006.

Well No. 19 is located about four-fifths of a mile east of Well No. 1. Based on manual measurements (Figure 9), the water level in Well No. 19 has ranged from about 312 to 357 feet deep.

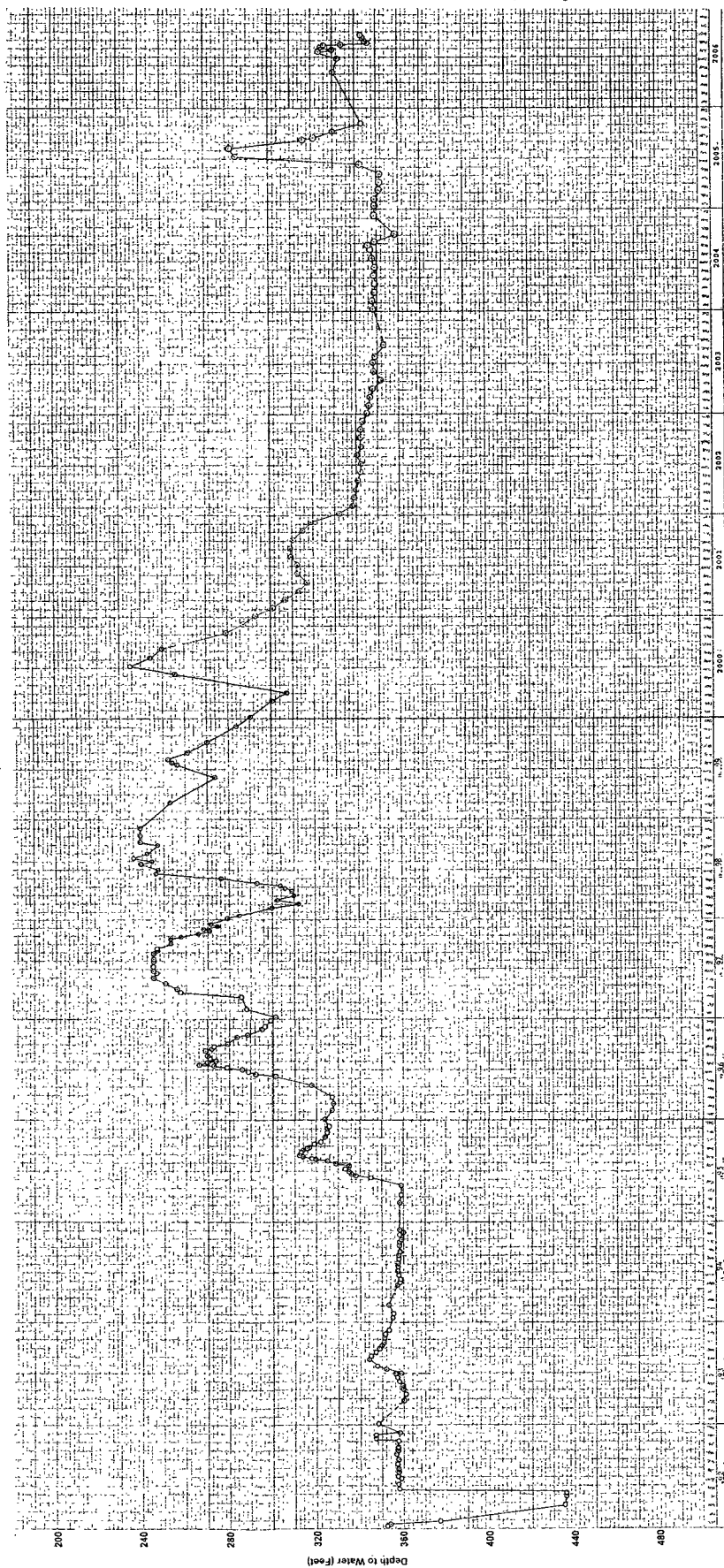
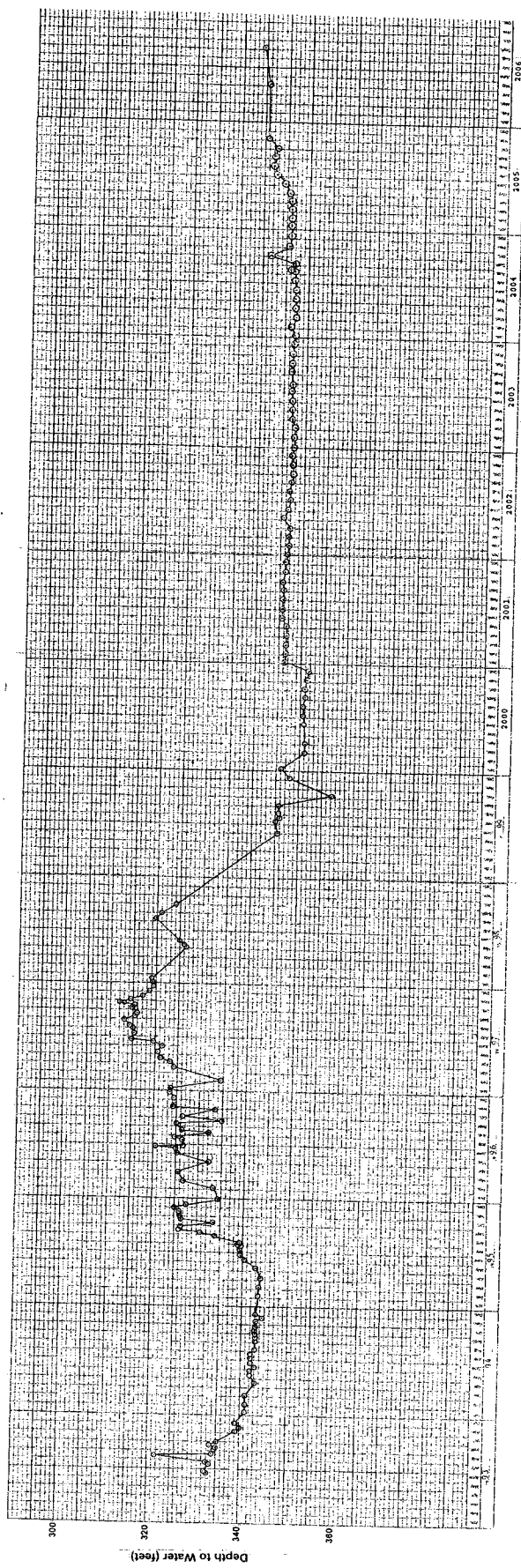


FIGURE 8-WATER-LEVEL HYDROGRAPH FOR WELL NO. 14M



**FIGURE 9-WATER-LEVEL HYDROGRAPH FOR WELL NO. 19**



The water level in this well generally rose from 1995-98. In October 1997, depth to water was 312 feet, or the shallowest yet measured. During 1999, the water level in Well No. 19 fell about 30 feet, to below the levels in 1994 and early 1995. However, there was no decline during 2000-2004. During this period, depth to water in this well was usually about 340 to 345 feet. Water levels in this well slightly rose in 2005 and 2006. Transducer readings that are considered fairly reliable are available for this well from November 1, 1996-September 10, 1997, from November 1, 1997-September 30, 1998, except for June 1998, and from May 4-September 30, 2003 (Appendix D). The transducer in Well No. 19 was recalibrated in May 2003. Reliable transducer measurements are also available from December 4, 2003 through the end of July 2004. The transducer was recalibrated on November 3, 2004 and measurements were reliable for the rest of the 2005 water year. Reliable transducer measurements are available for October 1, 2005-February 22, 2006 and May 9-September 30, 2006.

Well No. 21 is located about three-fourths of a mile east of Well No. 20. Based on manual measurements, the water level in Well No. 21 (Figure 10) has ranged from about 231 to 370 feet in depth. The water level in this well rose significantly between early 1995 and late 1996. There was a water-level decline in this well from December 1996-February 1997, and the water level then rose through June 1997. Most of the rise is attributed to recharge, which may have been enhanced due to a lack of an annular seal in the well. An annular seal was placed in this well during July 1997. Since

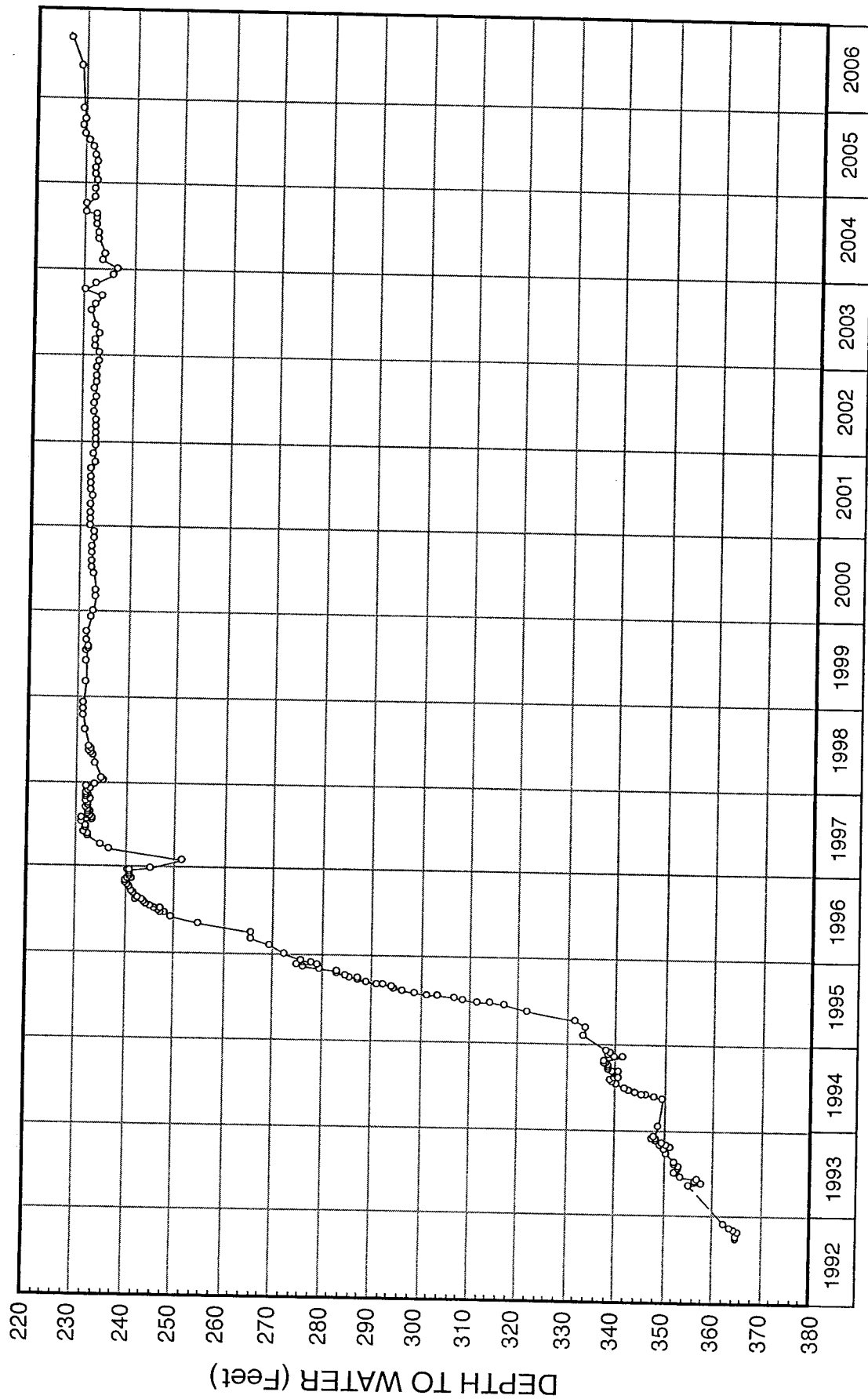


FIGURE 10 - WATER-LEVEL HYDROGRAPH FOR WELL No. 21

July 1997, the water level in this well has been relatively constant (about 230 to 235 feet deep). The water level rose about three and a half feet during the 2006 water year. Transducer measurements that are considered reliable are available for Well No. 21 from November 1, 1996-May 31, 1997, November 1, 1997-September 30, 1998 (except for June 1998), and May 4, 1999-September 21, 2005 (Appendix D). The transducer in this well was recalibrated in May 2003 and in November 2004. Reliable transducer measurements are available for October 7, 2005-September 30, 2006. The transducer was recalibrated on September 6, 2006. The manual water-level measurements in this well have indicated no significant response due to pumping of District wells.

Well No. 24 is located about one mile east of Well No. 19. Figure 11 is a water-level hydrograph for Well No. 24, based on manual measurements. Measurements for this well began in Summer 1993, and depth to water has ranged from 352 to 394 feet. The water level rose after early 1995, to the shallowest depth yet measured in December 1998. The water level fell during 2002-03, and was relatively constant in 2004. After November 2004, the water level in Well No. 24 rose about nine feet. During the 2006 water year, the water level rose about ten feet. The water level in this well responds primarily to recharge, and no influence of District pumping is apparent. Transducer measurements are not available for this well between April 3, 1997 and April 30, 1998, due to equipment failure. The transducer was recalibrated on January 1, 2001. Transducer measurements for this well after this calibration

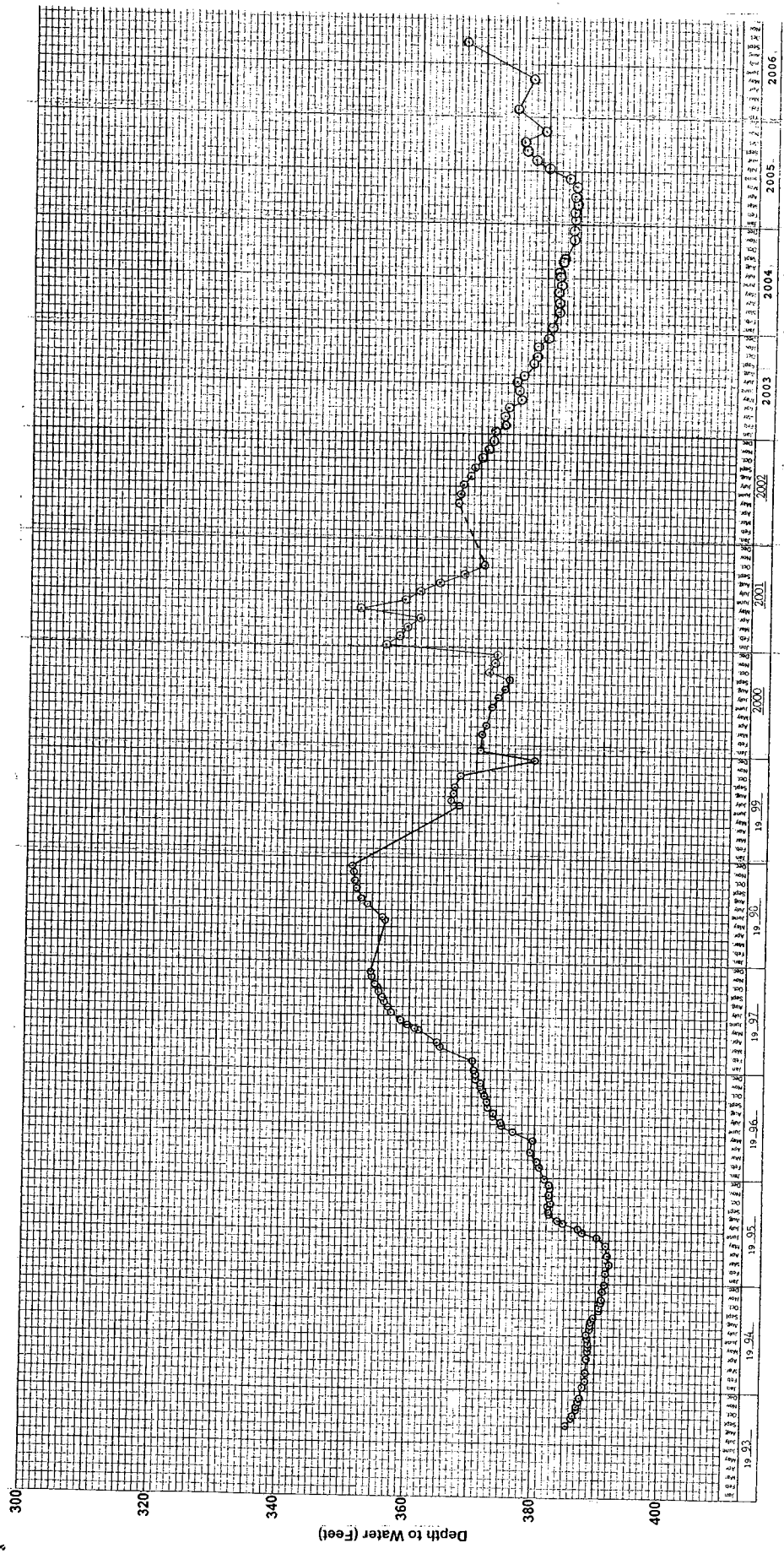


FIGURE 11-WATER-LEVEL HYDROGRAPH FOR WELL NO. 24

were generally consistent with manual measurements through early October 2001. Transducer measurements between mid October 2001 and early May 2002 were found to not be reliable. The transducer was removed from the well and recalibrated on May 9, 2002. Reliable transducer measurements are available for the rest of the 2002 water year through the end of the 2005 water year, and for the 2006 water year. The transducer was recalibrated on September 6, 2006.

Water levels in Wells No. 19 and 21 were relatively constant during the 2001-2004 water years, whereas the water level in Well No. 24 rose during early 2001, fell from May-October, 2001, rose through early 2002, fell consistently during the rest of 2002-03, and rose in 2005. The best explanation for the long-term water-level variations in Wells No. 19 and 21 is due to the amount of recharge, which is primarily related to climatic patterns. Water levels in these wells rose during and following periods of above average precipitation. In contrast, water levels in these wells temporarily fell or stayed about the same during periods of below normal precipitation (i.e. the 2001, 2002, and 2004 water years). Water levels in Wells No. 19 and 21 haven't been noticeably influenced by District pumping in recent years. The water level in Well No. 24 appears to be influenced by factors unrelated to District pumping. The most likely factor is variations in recharge due to climatic conditions.

A water-level hydrograph for Well No. 25 is provided in Appendix D. Water-level measurements for the well commenced in late 2002. To date, the water level has responded primarily to

pumpage of nearby District Well No. 1. Depth to water has ranged from 305 to 337 feet, and has been deepest during the summer. The shallowest water level to date was in June 2005, and in June 2006 the water level was almost as shallow.

Figure 12 is a water-level hydrograph for SC-1, which taps groundwater in the upper part of the basalt east of the District wells. The water level in this well generally fell from June 1983 through early 1995. However, some water-level rise occurred during this period due to recharge. Significant recharge was evident during 1995, 1996, and 1998. The shallowest water levels measured in SC-1 were in June 1983 and late July 1995. In July 1998, depth to water in SC-1 was near that in August 1983. Overall, the water level in this well was relatively stable during 1996-2000. The shallowest annual water level then fell about seven feet between 2000 and 2002, rose slightly in 2003, and fell about five feet in 2004. The shallowest water level then rose about 18 feet in 2005 and another 13 feet in 2006, due to increased recharge.

Figure 13 is a water-level hydrograph for SC-2, which taps groundwater in the deeper basalt near SC-1. Comparison of the hydrographs for SC-1 and SC-2 indicates that water levels in the two wells fluctuate similarly. However, the water-level rises are less in the deeper monitor well than in the shallower monitor well, as would be expected if the rises are mainly due to recharge, the source of which is from the land surface. The water level in SC-2 was about 156 feet deep in June 2004, or about the same as in June 1995. The water level in SC-2 generally rose during 1995-98, was

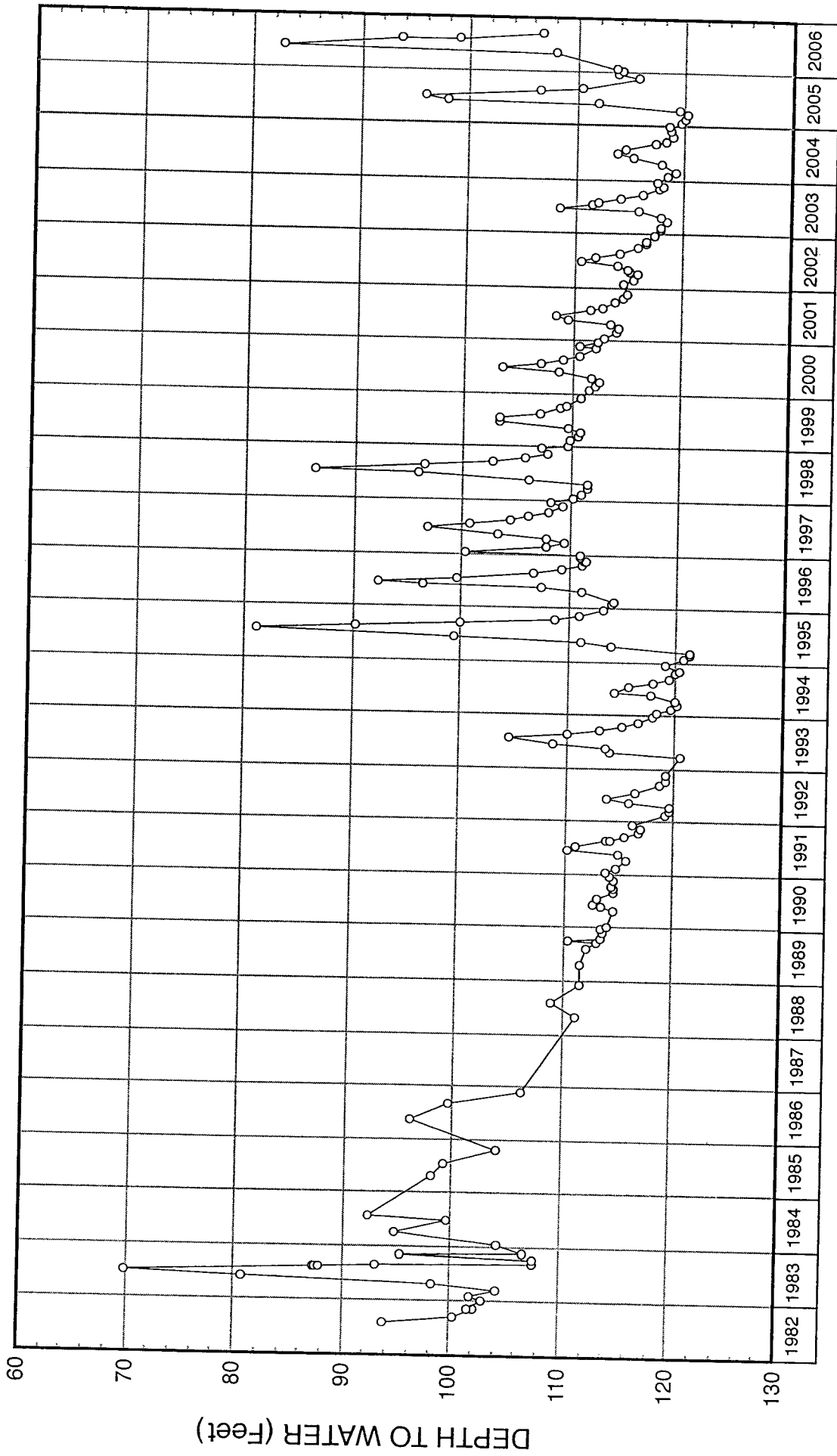


FIGURE 12 - WATER-LEVEL HYDROGRAPH FOR SC-1

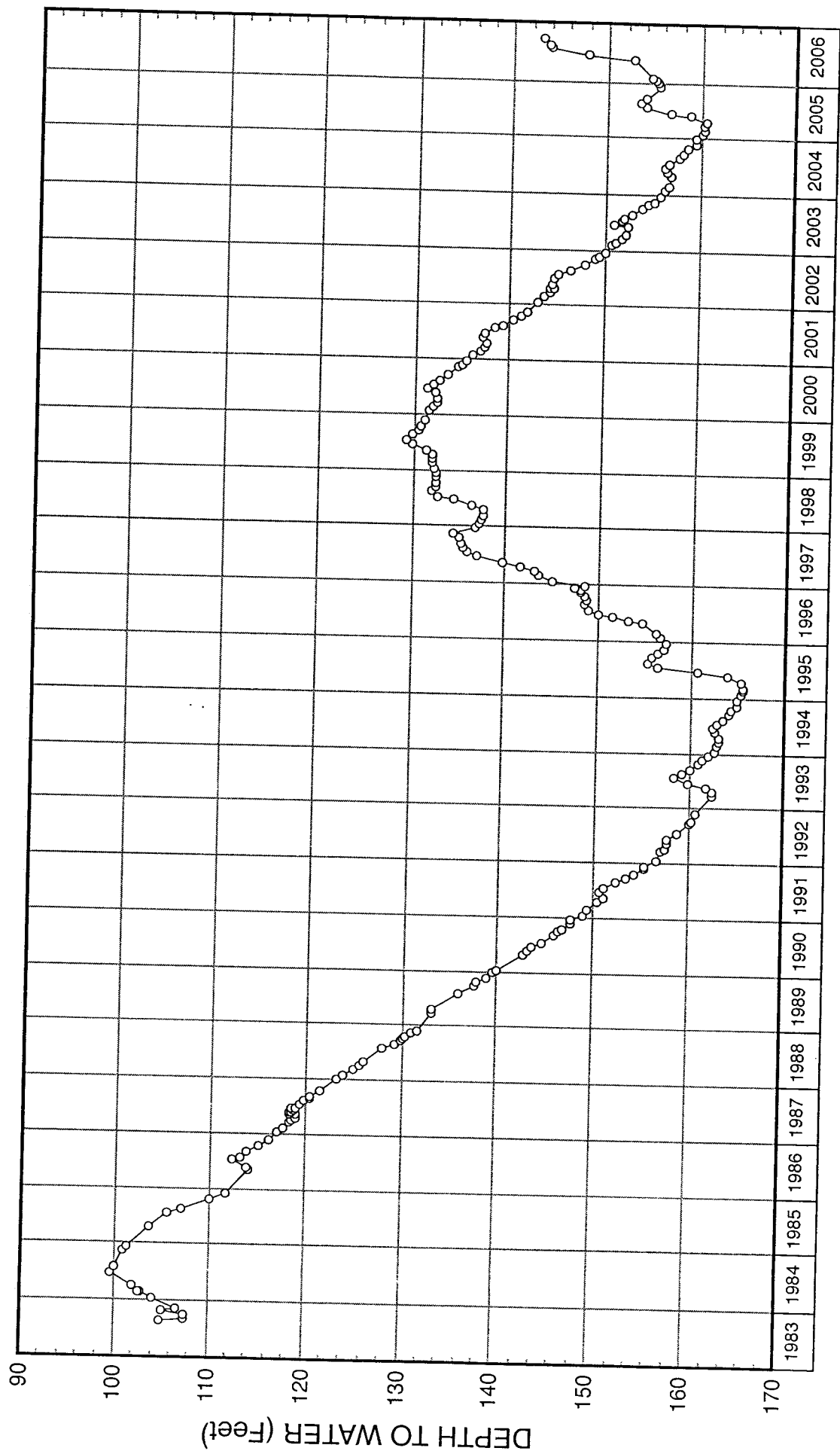


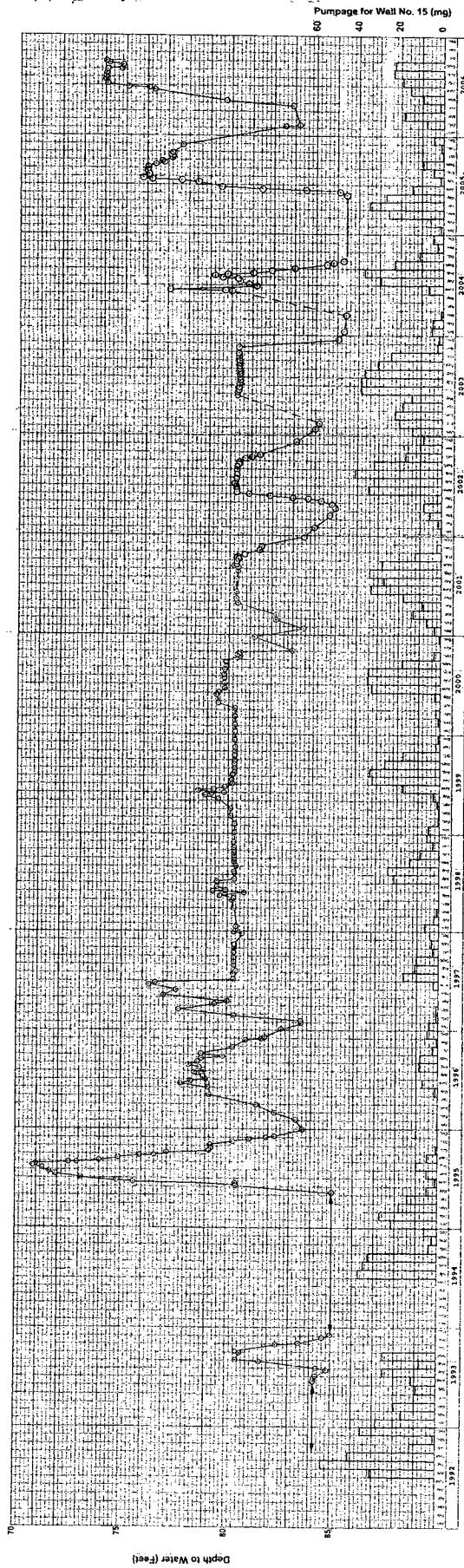
FIGURE 13 - WATER-LEVEL HYDROGRAPH FOR SC-2



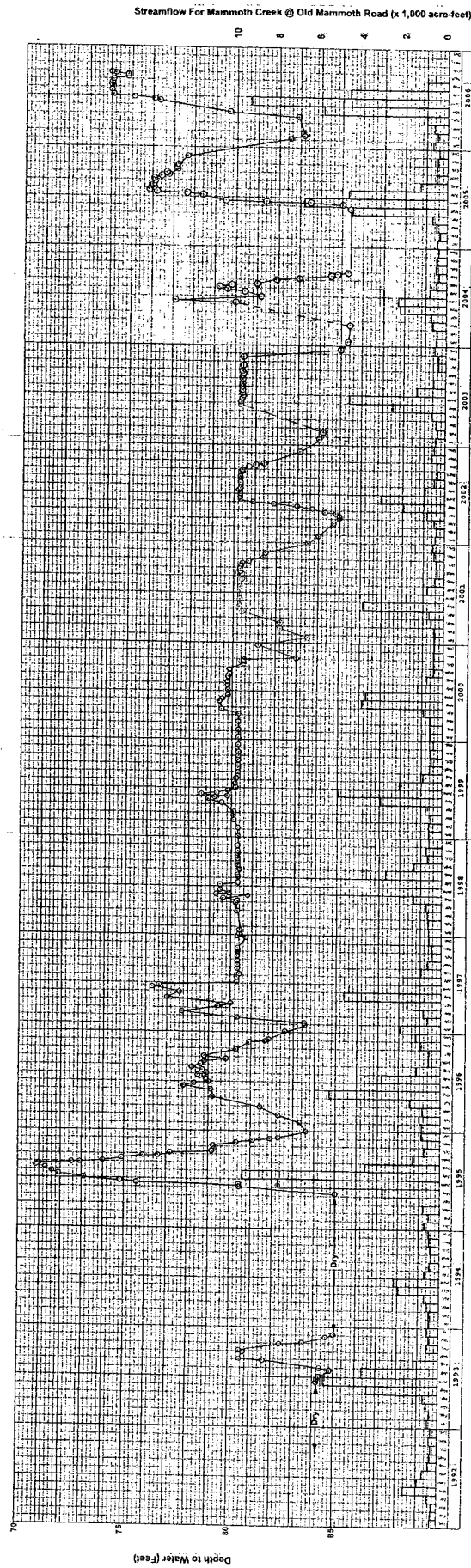
relatively stable during 1999-2000, and fell about 27 feet from June 2000-December 2004. The water level in this well rose about seven feet between March and July of 2005. The water level then rose another ten feet during the 2006 water year. Water-level variations in SC-1 and SC-2 are indicated to be due to climatic variations and not due to District well pumpage. This conclusion is primarily based on the water-level hydrographs for Wells No. 19, 21, and 24 and water-level elevation data (Figures 2 and 18).

#### Shallow Monitor Wells

A water-level hydrograph for Well No. 22 is provided in Figure 14. Pumpage of nearby Well No. 15 is also plotted on this figure. The water level in Well No. 22 is not related to pumpage of Well No. 15, which taps groundwater in the deeper consolidated rock. The water level in this well responds primarily to recharge from Mammoth Creek streamflow (Figure 15). Well No. 22 was dry until June 17, 1993 and during 1994-early 1995. There has been water in the well continuously since June 1995. The shallowest water level in Well No. 22 was in August 1995. Depth to water in this well rose about 12 feet during May-July, 1995, due to recharge corresponding to high flows (exceeding 40 cfs) in Mammoth Creek. During 1996-2006, the water-level trends in Well No. 22 also followed the pattern of streamflow in Mammoth Creek. Since early 1997, the water level in Well No. 22 was the lowest during December 2001-May 2002, associated with low streamflow during that time. During July-September, 2006, the water level in Well No. 22



**FIGURE 14-WATER-LEVEL HYDROGRAPH FOR WELL NO. 22  
AND PUMPAGE FOR WELL NO. 15**

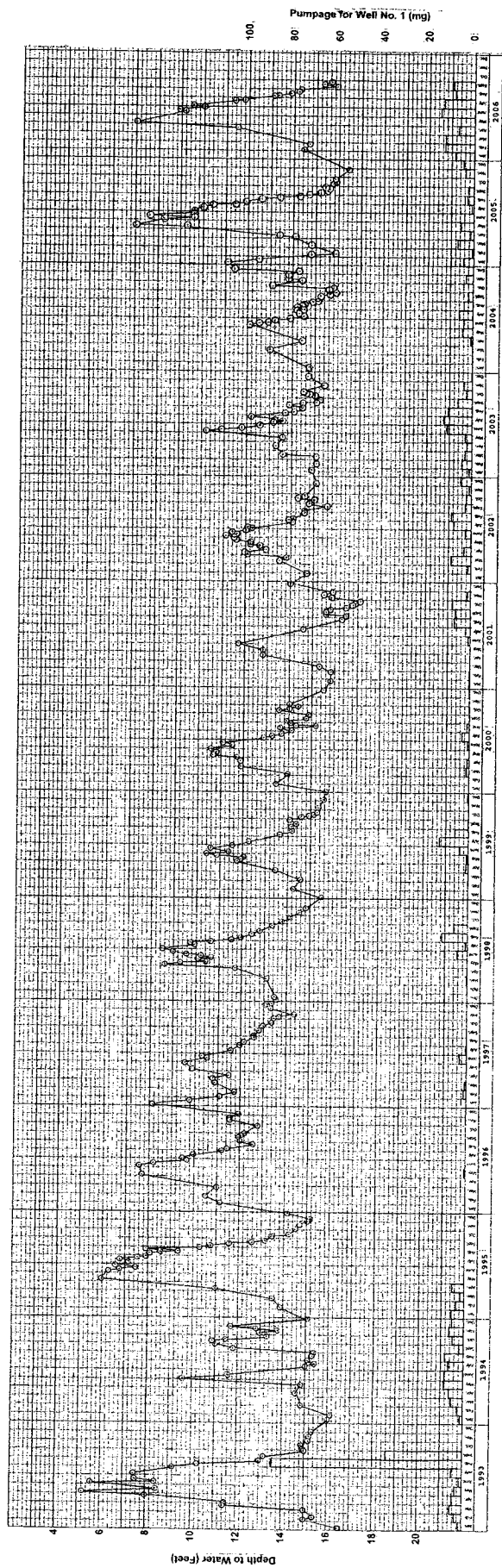


**FIGURE 15-WATER-LEVEL HYDROGRAPH FOR WELL NO. 22 AND MAMMOTH CREEK STREAMFLOW**

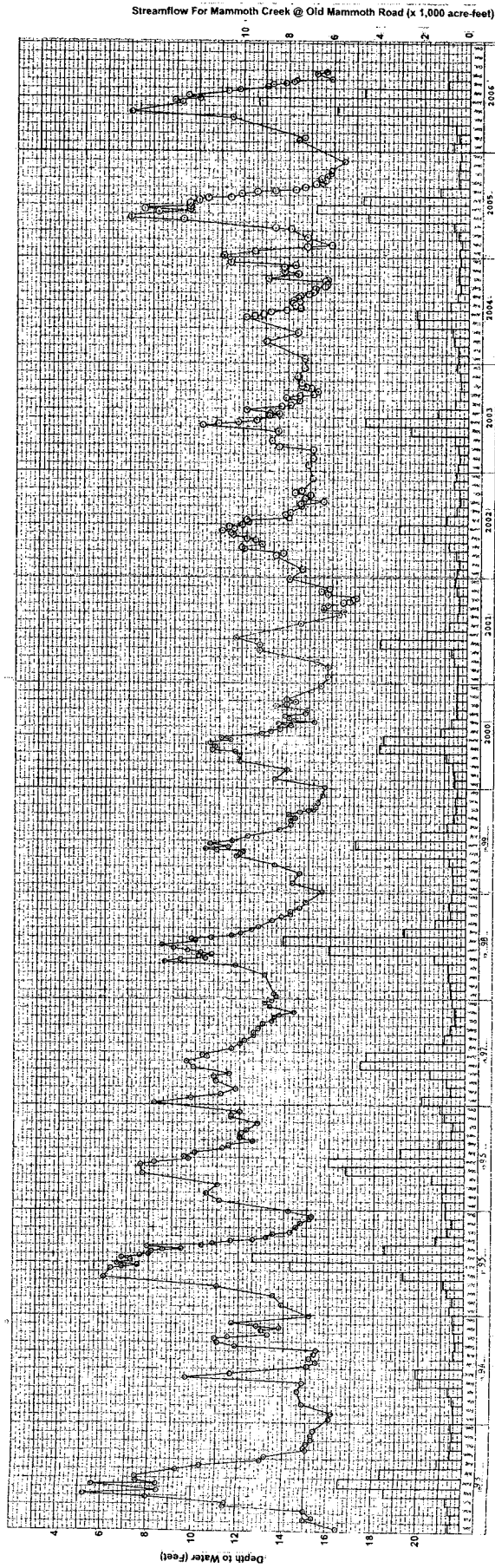
was the shallowest since 1997.

A water-level hydrograph based on manual measurements for Well No. 23 and pumpage for nearby Well No. 1 are shown in Figure 16. Depth to water in Well No. 23 has ranged from about 5 to 17 feet during the period of record. The shallowest water levels were in the spring and early summer of 1993, 1995, 2005, and 2006. Depth to water in this well is not influenced by pumpage of Well No. 1, which taps groundwater in the deeper consolidated rock. Well No. 23 is located relatively close to Mammoth Creek and is clearly influenced by recharge from streamflow (Figure 17), and possibly from other local sources of recharge. On August 1, 1996, a float-type continuous water-level recorder was installed in Well No. 23. Some problems were experienced with this recorder, but reliable measurements were obtained during most of 1997-2005. No recorded measurements are available for the 2006 water year.

Water-level hydrographs for the remaining shallow monitor wells are provided in Appendix D. Well No. 4M is located in the meadow area east of District Wells No. 6 and 10. The water level in this well rose significantly between early 1995 and early 1998, due to significant surface water flow in the meadow. Depth to water fluctuations in this well have followed patterns of Bodle Ditch flows, rising during periods when flows are present in the ditch. In May 1998, the water levels in this well were the shallowest since 1988. The annual shallowest water level in this well fell about 20 feet between 1998 and 2004. In 2004, depth to water in this well was about the same as in 1989. However, in 2005, the



**FIGURE 16-WATER-LEVEL HYDROGRAPH FOR WELL NO. 23  
AND PUMPAGE FOR WELL NO. 1**



**FIGURE 17-WATER-LEVEL HYDROGRAPH FOR WELL NO. 23  
AND MAMMOTH CREEK STREAMFLOW**

shallowest annual water level was 24 feet deep, shallower than in 2004, and near the level in 2001. During May-June 2006, the water level was about 14 feet deep, the shallowest of record.

Well No. 5M taps the shallow volcanic rock, and no water was observed in the overlying glacial till at the time of drilling of this well. Depth to water in Well No. 5M has ranged from about 2.5 to 9.5 feet. The shallowest levels have been in the spring and early summer, and the deepest in the summer. The annual shallowest water level in this well fell about four feet between 1998 and 2004, due to decreased recharge. The annual shallowest water level rose about four feet in 2005, then fell about half a foot in 2006.

Well No. 10M was dry from October 1992 through June 10, 1993. Some water appeared in this well during June 17-August 19, 1993, and during June 6-June 20, 1996. The well was otherwise dry from late 1992 through December 4, 1996. During 1998-mid 2001, there was water in Well No. 10M most of the time. This well is adjacent to District Well No. 10, and the water level in Well No. 10M is primarily influenced by pumping of this well and also by local recharge. Well No. 10M was dry from July 2001 to Spring 2006, due to increased pumping from Well No. 10 during 2001-05. The water level in Well No. 10M then rose to the shallowest level of record (about 10 feet) by May 2006.

Well No. 11M is located in the southwest part of the meadow area near the Bodle Ditch. Water levels in this well have seasonal fluctuations that correspond to flows in the ditch. The shallowest

water levels have generally been in June-July. Water levels gradually declined during 1989-92, but rose significantly after 1992. The water level began to rise significantly in April 1996, and the shallowest level yet measured (about four feet deep) was in June 1996. The shallowest annual water level for Well No. 11M fell about nine feet between 1998 and 2001, due to decreased recharge. However, the shallowest annual water level in this well in 2002 was higher than in 2001, and near the level in 2000. The shallowest annual water level in Well 11M was about two and a half feet higher in 2004 than in 2003. The shallowest annual water level in this well was relatively constant from 2002-04. In 2005 and 2006, the shallowest annual water levels were about five feet deep, near the shallowest of record.

Well No. 12M is located in the western part of the meadow area. The water level in this well has responded significantly to a number of recharge events. The water level in this well began to rise significantly in April 1996, and reached the shallowest level of record in June 1996. The shallowest annual water level in Well No. 12M fell about nine feet between 1998 and 2004. However, this level rose about seven feet in 2005, and rose another foot in 2006. In summary, the water levels in all of the shallow monitor wells generally rise during wet periods and fall during dry periods. This is due to varying amounts of recharge during these periods.

#### Water-Level Elevation Contours

Figure 18 shows water-level elevation contours for early



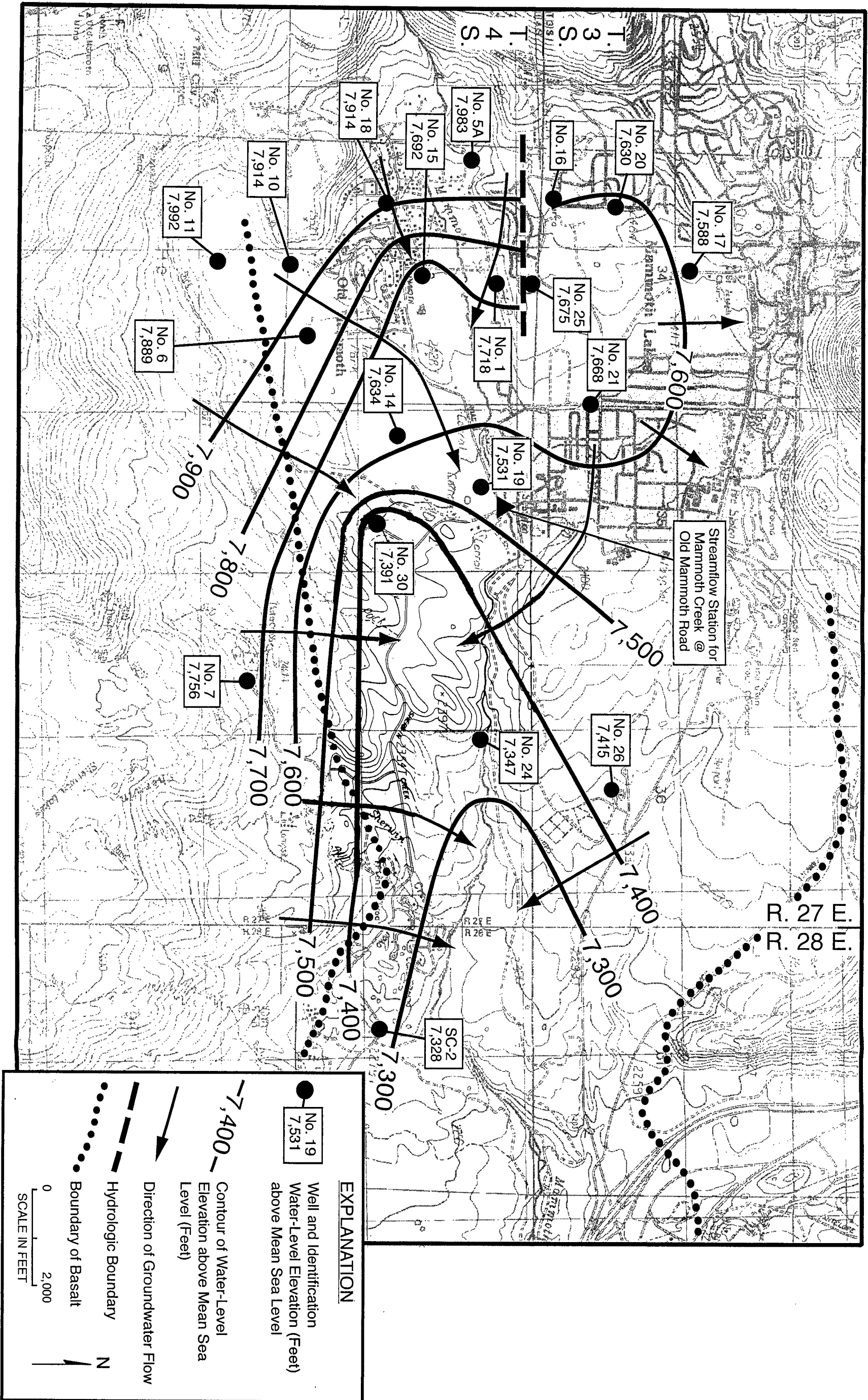


FIGURE 18 - WATER-LEVEL ELEVATIONS IN SEPTEMBER 2006

September, 2006. Two additional data points are available due to the two new deep District monitor wells. The hydrologic boundary is shown north of Wells No. 1 and 5A and south of Wells No. 16, 17, and 20. This boundary is believed to be present only west of a line connecting Wells No. 14M and 21. A cone of depression was evident due to pumping of District Wells No. 6, 10, and 15. This cone of depression did not extend east of Well No. 19. More information is not available both north and south of Mammoth Creek. The overall direction of groundwater flow in early September 2006 was similar to that shown in the previous annual reports. This map shows only the horizontal component of groundwater flow in the basalt and interbedded glacial till. Other evidence (i.e., water levels in SC-1 and SC-2) indicates that there is also significant downward flow of groundwater in most of the area.

#### CHEMICAL QUALITY AND TEMPERATURE OF GROUNDWATER

The results of chemical analyses and temperatures of water for the supply wells during the 2006 water year are provided in Appendix E. Water samples were collected from the active supply wells in November 2006. The monitor wells were not sampled during the 2006 water year. Transducers are installed in most of the deep monitor wells to continuously measure water levels. Because of these transducers, it was not feasible to collect water samples from these wells during 2006. The coldest water (55°F or less) has normally been from shallow monitor wells in the meadow area and in water from the supply wells tapping consolidated rock, south of the

hydrologic boundary. In contrast, the warmest water (60°F or greater) has been from the wells tapping consolidated rock north of the hydrologic boundary, closer to the known area of relatively shallow geothermal water in Mammoth Lakes, and from Well No. 18 (south of this boundary). The lowest electrical conductivity values (less than 200 micromhos per centimeter at 25°C) have normally been for shallow monitor wells and Wells No. 7 and 11. The highest values (greater than 430 micromhos) have been for wells tapping the consolidated rock in the western part of the area.

Records for water from Well No. 20 indicate slight increases for temperature and electrical conductivity during 1996-2002, but the temperatures and electrical conductivities subsequently decreased. Water from Wells No. 16, 17, 18, and 20 showed an overall decrease in pH prior to 2004. These are the westernmost District supply wells. Values returned to near previous levels in 2004, then decreased in 2005 to the lowest levels yet measured. In 2006, the pH values slightly increased from those in 2005. Low pH groundwater is known to be present beneath parts of Mammoth Mountain.

#### MAMMOTH CREEK STREAMFLOW

Records of streamflow at the outlet from Twin Lakes and the Old Mammoth Road crossing during the 2006 water year are provided in Appendix F. The mean monthly flow at the Old Mammoth Road crossing ranged from 6.5 cfs in December 2005 to 157 cfs in June 2006. In 2006, the flow at the Old Mammoth Road crossing began to

rise significantly in mid-May, and the highest flows were between May 9 and July 15.

Average daily flows are plotted in Appendix F for the two stations for each month during the 2006 water year. A comparison of these daily flows indicates that the streamflow at the Old Mammoth Road crossing normally equaled or exceeded that of the Twin Lakes outflow, except during about one week in October 2004, two weeks in March 2006, and two weeks in August 2006. The downstream increase in flow is attributed to inflow from ungaged tributaries below the Twin Lakes outlet and possibly some groundwater flow. Such groundwater flow could enter Mammoth Creek locally from unconsolidated deposits. During one week in October 2004, downstream flows were about 0.3 cfs less than those upstream. In October 2004, District wells were pumping about 2.3 cfs. During the two weeks in March 2006, downstream flows were often about 0.5 to 2.0 cfs less at the downstream station. District pumping was about 1.5 cfs at the time. During the two weeks in August, the downstream flow averaged about 2 cfs lower than the upstream. District pumping was about 3.5 cfs during this period. The most likely explanation for these small difference in flow are inaccuracy in streamflow measurements. The method of measurement of flow out of Twin Lakes was altered on May 23, 2002, pursuant to a request from the State Water Resources Control Board. According to the MCWD, the revised method is not as accurate as the weir plate that was previously used.

## VALENTINE RESERVE SPRINGFLOW

Commencing in 2001, flow measurements at the Valentine Reserve were extended to another spring, which has a considerably larger flow than the previously monitored spring. Longer records are available for the previously monitored spring. However, no springflow records have been provided since 2001. Figure 19 shows flow of the previously monitored spring (1993-2001) and Mammoth Creek streamflow at Old Mammoth Road (1993-2006). The springflow correlated well with Mammoth Creek streamflow during the period of record. The lowest springflows were in 1993, 1994, and 2001, following periods of low winter precipitation. Springflow often increased in the fall prior to winter precipitation. This was primarily due to lower air temperatures and decreased evapotranspiration of shallow groundwater. Monitoring results for the previous years indicate no noticeable impact of District pumping on springflow at the Valentine Reserve.

## DATA EVALUATION AND INTERPRETATION

Water-level hydrographs for most of the monitor wells tapping the uppermost glacial till strata in and near the District well field indicated rising water levels during the 2006 water year. Water-level hydrographs for many of the District supply wells indicated shallower water levels in 2006 than in 2005, primarily due to increased recharge. Water-level hydrographs for some deep wells indicated no water-level change from 2005 to 2006. Water levels rose in wells tapping consolidated rocks in the area east of the

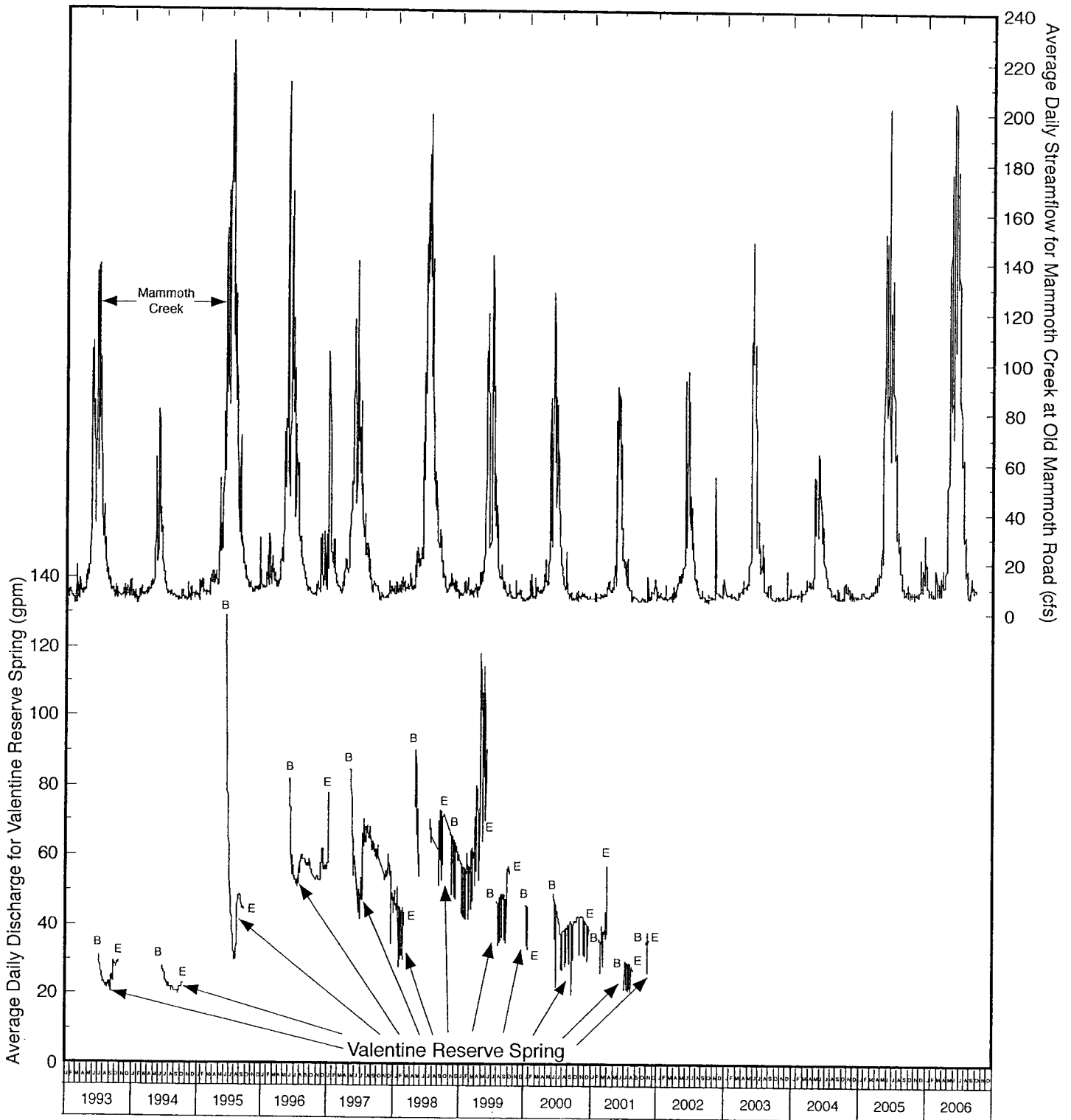


FIGURE 19 - FLOW FOR VALENTINE SPRING (1993-2001) AND MAMMOTH CREEK STREAMFLOW (1993-2006)

District well field, also due to the increased recharge. Water levels in Wells No. 6 and 10 rose significantly due to a reduction in pumpage and increased recharge. Recharge was indicated to be the primary factor influencing water-level rises in other wells during the 2006 water year.

The water-level elevation contour map for September 2006 confirms that the cone of depression due to pumping of District wells is localized, and does not extend east past Well No. 24. Because the water levels in the consolidated rock in the well field are well below the channel of Mammoth Creek, there is no apparent impact of District pumping on streamflow. There has been no impact on flow of the springs at the Valentine Reserve (for periods when records are available), on streamflow in Mammoth Creek, or on the flow of the Hot Creek headsprings due to pumping of the District supply wells.

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APPENDIX A  
PUMPAGE AND WATER-LEVEL DATA  
FOR DISTRICT SUPPLY WELLS

MAMMOTH COMMUNITY WATER DISTRICT  
ANNUAL PRODUCTION WELL PUMPAGE IN ACRE-FEET  
OCTOBER THRU SEPTEMBER

Year	Well 1	Well 6	Well 10	Well 15	Well 16	Well 17	Well 18	Well 20	Total
1989-90	365.500	267.900	422.600						1056.000
1990-91	442.900	478.200	340.700						1261.800
1991-92	333.600	546.300	794.900						1674.800
1992-93	222.300	483.300	994.400	606.100					2306.100
1993-94	164.600	256.100	542.600	320.500			14.500		1298.300
1994-95	97.000	224.000	312.000	361.000	51.000	44.000	19.000	115.000	1223.000
1995-96	0.000	19.000	610.000	78.000	8.000	121.000	0.000	91.000	927.000
1996-97	12.900	143.000	476.900	163.300	35.000	97.900	0.300	130.700	1060.000
1997-98	70.592	0.000	193.455	233.547	143.127	183.117	0.030	50.110	873.978
1998-99	70.534	0.000	126.221	408.098	101.239	67.681	20.328	242.589	1036.690
1999-00	19.742	0.000	198.482	417.773	196.123	201.546	74.337	180.957	1288.960
2000-01	51.126	0.000	432.638	536.147	242.233	393.840	107.699	179.534	1943.217
2001-02	136.712	291.681	984.687	525.840	136.883	344.245	88.037	233.521	2741.606
2002-03	189.629	327.706	845.644	826.307	121.914	153.031	121.350	87.853	2673.434
2003-04	80.390	433.472	372.810	414.822	189.252	157.546	62.945	162.798	1874.035
2004-05	83.509	357.840	707.730	438.380	222.331	138.601	20.221	215.313	2183.926
2005-06	316.597	11.975	147.785	386.123	0.147	241.862	4.736	12.663	1121.888
<b>Total</b>	<b>2657.631</b>	<b>3840.474</b>	<b>8503.552</b>	<b>5715.937</b>	<b>1447.249</b>	<b>2144.369</b>	<b>533.483</b>	<b>1702.038</b>	<b>26545</b>
<b>Mean</b>	<b>156.331</b>	<b>225.910</b>	<b>500.209</b>	<b>408.281</b>	<b>120.604</b>	<b>178.697</b>	<b>41.037</b>	<b>141.836</b>	<b>1561</b>
<b>Max</b>	<b>442.900</b>	<b>546.300</b>	<b>994.400</b>	<b>826.307</b>	<b>242.233</b>	<b>393.840</b>	<b>121.350</b>	<b>242.589</b>	<b>2742</b>
<b>Min</b>	<b>0.000</b>	<b>0.000</b>	<b>126.221</b>	<b>78.000</b>	<b>0.147</b>	<b>44.000</b>	<b>0.000</b>	<b>12.663</b>	<b>874</b>

MAMMOTH COMMUNITY WATER DISTRICT  
 PRODUCTION WELL NO. 1  
 (FLOW IN MILLION GALLONS)

DAY	2005		2006												
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.000	0.016	0.000	0.000	0.000	0.344	0.432	0.000	0.000	0.720	0.616	0.000			
2	0.000	0.000	0.000	0.000	0.000	0.360	0.440	0.000	0.000	0.744	0.224	0.358			
3	0.000	0.008	0.000	0.400	0.000	0.416	0.432	0.000	0.328	0.728	0.112	0.438			
4	0.000	0.000	0.000	0.904	0.000	0.480	0.368	0.000	0.336	0.712	0.136	0.473			
5	0.000	0.000	0.000	0.800	0.000	0.432	0.384	0.000	0.744	0.640	0.184	0.729			
6	0.000	0.000	0.000	0.824	0.552	0.408	0.280	0.000	0.680	0.520	0.176	0.428			
7	0.000	0.000	0.000	0.816	0.800	0.264	0.376	0.000	0.312	0.544	0.184	0.104			
8	0.000	0.000	0.000	0.640	0.544	0.384	0.400	0.000	0.904	0.536	0.184	0.342			
9	0.000	0.000	0.000	0.408	0.536	0.312	0.320	0.000	1.160	0.280	0.184	0.414			
10	0.000	0.000	0.000	0.000	0.560	0.528	0.208	0.000	1.136	0.216	0.264	0.330			
11	0.016	0.000	0.000	0.000	0.496	0.576	0.480	0.000	1.104	0.416	0.464	0.136			
12	0.000	0.000	0.000	0.000	0.464	0.544	0.224	0.032	1.064	0.464	0.384	0.332			
13	0.000	0.000	0.000	0.000	0.656	0.416	0.392	0.624	1.048	0.384	0.440	0.866			
14	0.000	0.000	0.000	0.000	0.824	0.280	0.288	0.816	1.024	0.368	0.392	0.307			
15	0.000	0.000	0.000	0.000	0.792	0.368	0.392	1.160	0.816	0.576	0.248	0.622			
16	0.000	0.000	0.000	0.288	0.712	0.392	0.424	1.120	0.856	0.520	0.352	0.385			
17	0.000	0.000	0.000	0.976	0.664	0.400	0.400	0.040	0.672	0.400	0.336	0.222			
18	0.000	0.000	0.000	0.992	0.792	0.560	0.472	0.000	0.568	0.592	0.256	0.087			
19	0.000	0.000	0.000	0.376	0.720	0.536	0.280	0.000	0.712	0.560	0.000	0.384			
20	0.000	0.000	0.000	0.000	0.568	0.616	0.000	0.000	0.640	0.560	0.000	0.194			
21	0.000	0.008	0.000	0.360	0.616	0.456	0.000	0.000	0.184	0.360	0.000	0.246			
22	0.000	0.000	0.000	0.232	0.392	0.520	0.000	0.000	0.112	0.496	0.000	0.242			
23	0.000	0.208	0.000	0.480	0.504	0.256	0.000	0.000	0.184	0.456	0.175	0.327			
24	0.000	0.752	0.336	0.064	0.368	0.464	0.000	0.000	0.000	0.208	0.608	0.661			
25	0.000	0.976	0.960	0.000	0.376	0.424	0.000	0.000	0.000	0.200	0.731	0.445			
26	0.000	0.632	0.696	0.000	0.320	0.416	0.000	0.000	0.008	0.208	0.755	0.270			
27	0.000	0.872	0.608	0.000	0.400	0.256	0.000	0.616	0.000	0.216	0.386	0.152			
28	0.000	0.000	0.824	0.000	0.384	0.440	0.000	0.800	0.000	0.320	0.330	0.075			
29	0.000	0.288	0.784	0.000		0.392	0.000	0.456	0.000	0.208	0.244	0.021			
30	0.000	0.000	0.424	0.008		0.304	0.000	0.008	0.608	0.272	0.009	0.000			
31	0.000		0.000	0.000		0.432		0.496		0.296	0.180				
TOTAL	0.016	3.760	4.632	8.568	13.040	12.976	6.992	6.168	15.200	13.720	8.554	9.585	0.000	0.000	0.000
MEAN	0.001	0.125	0.149	0.276	0.466	0.419	0.233	0.199	0.507	0.443	0.276	0.319	#DIV/0!	#DIV/0!	#DIV/0!
MAX	0.016	0.976	0.960	0.992	0.824	0.616	0.480	1.160	1.160	0.744	0.755	0.866	0.000	0.000	0.000
MIN	0.000	0.000	0.000	0.000	0.000	0.256	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000
AC-FT	0.049	11.534	14.209	26.282	40.000	39.804	21.448	18.920	46.626	42.086	26.239	29.401	0.000	0.000	0.000
TOTAL AC-FT OCT THRU SEP			316.597				290.805								0

MAMMOTH COMMUNITY WATER DISTRICT  
 PRODUCTION WELL NO. 6  
 (FLOW IN MILLION GALLONS)

DAY	2005			2006			MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	OCT	NOV	DEC	JAN	FEB	JAN										
1	0.556	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
2	0.052	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
3	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
8	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
9	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
11	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
13	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
15	0.000	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
16	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
20	0.000	0.000	0.320	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
21	0.000	0.000	0.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
22	0.000	0.000	0.992	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
23	0.000	0.000	0.640	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
24	0.000	0.000	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
25	0.000	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
27	0.000	0.000	0.000	0.000	0.000	0.000	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
28	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
29	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
31	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
TOTAL	0.800	0.160	2.656	0.064	0.064	0.160	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEAN	0.026	0.005	0.086	0.002	0.002	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	#DIV/0!	0.000
MAX	0.556	0.096	0.992	0.064	0.032	0.160	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AC-FT	2.454	0.491	8.147	0.196	0.196	0.491	0.491	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL AC-FT OCT THRU SEP:			11.975													
TOTAL AC-FT JAN THRU DEC:							0.893									

MAMMOTH COMMUNITY WATER DISTRICT  
 PRODUCTION WELL NO. 10  
 (FLOW IN MILLION GALLONS)

DAY	2005		2006					FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	OCT	NOV	DEC	JAN	FEB	MAR												
1	0.576	0.000	0.000	0.832	0.000	0.302	0.000	0.000	0.000	0.000	0.000	0.000	0.546	0.306				
2	0.384	0.000	0.000	0.788	0.000	0.306	0.000	0.000	0.000	0.000	0.000	0.220	0.679	0.514				
3	0.320	0.000	0.000	0.448	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.690	0.288				
4	0.256	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.052	0.000	0.000	0.000	0.687	0.426				
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.216	0.000	0.000	0.065	0.700	0.224				
6	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.146	0.689	0.192				
7	0.000	0.064	0.000	0.000	0.000	0.277	0.000	0.207	0.000	0.000	0.000	0.154	0.695	0.186				
8	0.000	0.000	0.000	0.000	0.064	0.001	0.000	0.212	0.256	0.000	0.000	0.184	0.684	0.094				
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.268	0.342	0.000	0.000	0.079	0.681	0.156				
10	0.000	0.064	0.000	0.000	0.064	0.000	0.000	0.337	0.339	0.000	0.000	0.034	0.673	0.418				
11	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.323	0.300	0.000	0.000	0.354	0.702	0.146				
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.289	0.327	0.000	0.000	0.452	0.659	0.356				
13	0.000	0.000	0.000	0.000	0.192	0.000	0.192	0.211	0.000	0.000	0.000	0.410	0.687	0.386				
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.252	0.000	0.000	0.000	0.434	0.472	0.444				
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.268	0.000	0.001	0.001	0.774	0.479	0.362				
16	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.269	0.000	0.000	0.000	0.594	0.648	0.122				
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.243	0.000	0.000	0.000	0.497	0.440	0.182				
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.258	0.000	0.000	0.000	0.401	0.283	0.092				
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.000	0.412	0.793	0.208				
20	0.000	0.000	0.384	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.441	0.293	0.076				
21	0.000	0.000	0.512	0.000	0.216	0.000	0.004	0.004	0.000	0.000	0.000	0.340	0.172	0.114				
22	0.000	0.000	0.256	0.000	0.344	0.000	0.000	0.000	0.000	0.000	0.000	0.232	0.244	0.086				
23	0.000	0.000	0.448	0.000	0.346	0.000	0.000	0.000	0.000	0.000	0.004	0.230	0.184	0.064				
24	0.000	0.000	0.448	0.000	0.314	0.000	0.000	0.000	0.000	0.000	0.000	0.161	0.256	0.038				
25	0.000	0.000	0.000	0.000	0.000	0.000	0.184	0.000	0.000	0.000	0.000	0.245	0.518	0.146				
26	0.000	0.000	0.000	0.000	0.230	0.000	0.000	0.276	0.000	0.000	0.000	0.443	0.236	0.048				
27	0.000	0.000	0.000	0.000	0.275	0.074	0.272	0.000	0.000	0.000	0.000	0.667	0.134	0.122				
28	0.064	0.000	0.000	0.000	0.228	0.013	0.246	0.000	0.000	0.000	0.000	0.719	0.178	0.042				
29	0.000	0.000	0.128	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.871	0.292	0.024				
30	0.000	0.000	0.448	0.000		0.000	0.000	0.000	0.000	0.000	0.192	0.516	0.490	0.148				
31	0.000		0.512	0.000		0.000			0.000			0.548	0.210					
TOTAL	1.664	0.128	3.200	2.048	2.273	0.973	4.138	1.832	1.832	0.197	10.621	15.094	6.010	0.000	0.000	0.000	0.000	
MEAN	0.054	0.004	0.103	0.066	0.081	0.031	0.138	0.059	0.059	0.007	0.343	0.487	0.200	#DIV/0!	#DIV/0!	#DIV/0!	0.000	
MAX	0.576	0.064	0.512	0.832	0.346	0.306	0.337	0.342	0.342	0.192	0.871	0.793	0.514	0.000	0.000	0.000	0.000	
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.134	0.024	0.000	0.000	0.000	
AC-FT	5.104	0.393	9.816	6.282	6.972	2.985	12.693	5.620	5.620	0.604	32.580	46.301	18.436	0.000	0.000	0.000	0.000	
TOTAL AC-FT OCT THRU SEP:							147.785											
TOTAL AC-FT JAN THRU DEC:							132.472											

MAMMOTH COMMUNITY WATER DISTRICT  
 PRODUCTION WELL NO. 15  
 (FLOW IN MILLION GALLONS)

DAY	2005		2006												
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.128	0.000	0.000	0.000	0.000	0.640	0.768	0.064	0.000	1.088	0.384	0.960			
2	0.064	0.000	0.000	0.000	0.000	0.576	0.640	0.000	0.000	1.088	0.640	1.344			
3	0.128	0.000	0.000	0.000	0.000	0.576	0.128	0.000	0.000	1.024	0.640	1.216			
4	0.000	0.000	0.000	0.000	0.000	0.768	0.000	0.128	0.000	0.960	0.832	1.088			
5	0.000	0.000	0.000	0.000	0.000	0.768	0.064	0.000	0.512	1.024	0.576	1.024			
6	0.000	0.000	0.500	0.000	0.000	0.640	0.000	0.000	0.128	1.024	0.640	0.832			
7	0.000	0.000	0.448	0.000	0.000	0.640	0.000	0.000	0.192	0.896	0.640	0.896			
8	0.000	0.000	0.320	0.000	0.000	0.640	0.000	0.064	0.256	1.152	0.640	0.320			
9	0.000	0.000	0.128	0.000	0.000	0.640	0.000	0.000	0.320	0.704	0.576	0.320			
10	0.000	0.000	0.000	0.000	0.000	0.704	0.000	0.000	0.000	0.384	0.768	0.704			
11	0.000	0.000	0.000	0.000	0.000	0.640	0.128	0.000	0.000	0.768	0.704	0.576			
12	0.000	0.000	0.512	0.000	0.000	0.704	0.000	0.000	0.000	0.704	0.640	1.280			
13	0.064	0.000	0.512	0.000	0.000	0.640	0.000	0.256	0.000	0.448	0.640	0.832			
14	0.000	0.000	0.448	0.000	0.000	0.640	0.000	1.088	0.000	0.512	0.320	1.216			
15	0.000	0.000	0.448	0.000	0.000	0.576	0.000	0.600	0.576	0.640	0.448	1.280			
16	0.000	0.000	0.512	0.000	0.000	0.576	0.000	1.512	0.000	0.512	1.024	1.152			
17	0.000	0.000	0.000	0.000	0.064	0.704	0.000	1.024	0.768	0.576	0.896	1.280			
18	0.000	0.000	0.000	0.000	0.000	0.704	0.000	1.152	0.960	0.192	0.960	0.704			
19	0.000	0.000	0.576	0.000	0.832	0.704	0.000	1.216	0.448	0.128	1.344	0.576			
20	0.000	0.000	0.192	0.000	0.960	0.448	0.000	1.024	0.960	0.192	1.280	0.384			
21	0.000	0.000	0.000	0.000	0.512	0.448	0.064	1.088	1.344	0.128	0.768	0.384			
22	0.000	0.000	0.000	0.000	0.896	0.448	0.000	0.192	1.408	0.128	0.768	0.448			
23	0.000	0.000	0.000	0.000	0.960	0.128	0.000	0.000	1.280	0.128	0.768	0.384			
24	0.000	0.000	0.000	0.000	0.832	0.256	0.000	0.000	1.408	0.064	0.832	0.192			
25	0.000	0.000	0.000	0.000	0.832	0.832	0.000	0.000	1.344	0.384	1.088	1.024			
26	0.000	0.000	0.000	0.000	0.768	0.640	0.000	0.000	1.344	0.640	1.216	0.640			
27	0.000	0.000	0.000	0.000	0.640	0.448	0.000	0.000	1.344	0.832	0.704	0.704			
28	0.064	0.064	0.000	0.000	0.576	0.704	0.000	0.000	0.704	0.832	0.320	0.192			
29	0.000	0.384	0.000	0.000		0.640	0.000	0.000	0.000	0.960	0.640	0.192			
30	0.000	0.448	0.000	0.000		0.576	0.000	0.064	0.640	0.640	1.024	0.768			
31	0.000		0.000	0.000		0.640		0.064		0.640	1.024				
TOTAL	0.448	0.896	4.596	0.000	7.936	18.688	1.792	9.536	15.936	19.392	23.744	22.912	0.000	0.000	0.000
MEAN	0.014	0.030	0.148	0.000	0.283	0.603	0.060	0.308	0.531	0.626	0.766	0.764	#DIV/0!	#DIV/0!	#DIV/0!
MAX	0.128	0.448	0.576	0.000	0.960	0.832	0.768	1.512	1.408	1.152	1.344	1.344	0.000	0.000	0.000
MIN	0.000	0.000	0.000	0.000	0.000	0.128	0.000	0.000	0.000	0.064	0.320	0.192	0.000	0.000	0.000
AC-FT	1.374	2.748	14.098	0.000	24.344	57.325	5.497	29.252	48.883	59.485	72.834	70.282	0.000	0.000	0.000
TOTAL AC-FT OCT THRU SEP:							367.902								
TOTAL AC-FT JAN THRU DEC:			386.123												



MAMMOTH COMMUNITY WATER DISTRICT  
 PRODUCTION WELL NO. 17  
 (FLOW IN MILLION GALLONS)

DAY	2005			2006			APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	OCT	NOV	DEC	JAN	FEB	MAR									
1	0.448	0.192	0.000	0.000	0.000	0.000	0.000	0.000	0.447	0.544	0.640	0.672			
2	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.448	0.704	0.512	0.704			
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.576	0.672	0.640	0.704			
4	0.288	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.448	0.736	0.544	0.640			
5	0.224	0.384	0.000	0.000	0.000	0.000	0.000	0.000	0.640	0.640	0.128	0.768			
6	0.256	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.512	0.736	0.704	0.608			
7	0.256	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.768	0.672	0.544	0.608			
8	0.224	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.672	0.736	0.704	0.640			
9	0.320	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.672	0.640	0.704	0.672			
10	0.352	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.544	0.128	0.704	0.608			
11	0.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.576	0.576	0.672	0.640			
12	0.320	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.608	0.576	0.736	0.608			
13	0.192	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.640	0.672	0.704	0.608			
14	0.384	0.192	0.000	0.000	0.000	0.000	0.000	0.000	0.352	0.640	0.704	0.640			
15	0.192	0.128	0.000	0.000	0.000	0.000	0.000	0.000	0.544	0.768	0.672	0.544			
16	0.352	0.128	0.000	0.000	0.000	0.000	0.000	0.000	0.608	0.768	0.672	0.288			
17	0.000	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.416	0.704	0.672	0.320			
18	0.000	0.128	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.256	0.672	0.384			
19	0.256	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.440	0.224	0.704	0.608			
20	0.352	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.736	0.544	0.704	0.416			
21	0.320	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.512	0.054	0.672	0.384			
22	0.352	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.768	0.192	0.672	0.448			
23	0.288	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.704	0.608	0.640	0.384			
24	0.288	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.800	0.224	0.736	0.416			
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.704	0.384	0.672	0.448			
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.736	0.544	0.672	0.480			
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.480	0.608	0.672	0.416			
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.288	0.608	0.672	0.448			
29	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.640	0.704	0.512			
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.192	0.320	0.448	0.672	0.384			
31	0.928		0.000	0.000	0.000	0.000	0.000	0.096		0.416	0.640				
TOTAL	7.104	1.664	0.000	0.000	0.000	0.000	0.000	0.288	16.959	16.672	20.160	16.000	0.000	0.000	0.000
MEAN	0.229	0.055	0.000	0.000	0.000	0.000	0.000	0.009	0.565	0.538	0.650	0.533	#DIV/0!	#DIV/0!	0.000
MAX	0.928	0.384	0.000	0.000	0.000	0.000	0.000	0.192	1.440	0.768	0.736	0.768	0.000	0.000	0.000
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.064	0.128	0.288	0.000	0.000	0.000
AC-FT	21.791	5.104	0.000	0.000	0.000	0.000	0.000	0.883	52.021	51.141	61.840	49.080	0.000	0.000	0.000
TOTAL AC-FT OCT THRU SEP:			241.862				214.966								
TOTAL AC-FT JAN THRU DEC:															



MAMMOTH COMMUNITY WATER DISTRICT  
 PRODUCTION WELL NO. 18  
 (FLOW IN MILLION GALLONS)

DAY	2005			2006			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	OCT	NOV	DEC															
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.192	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.304	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.608	0.000	0.000	0.632	0.120	0.152	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MEAN	0.020	0.000	0.000	0.020	0.004	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX	0.304	0.000	0.000	0.272	0.064	0.112	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AC-FT	1.865	0.000	0.000	1.939	0.368	0.466	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL AC-FT OCT THRU SEP:																		
TOTAL AC-FT JAN THRU DEC:				4.736					0.933								0	0

MAMMOTH COMMUNITY WATER DISTRICT  
 PRODUCTION WELL NO. 20  
 (FLOW IN MILLION GALLONS)

DAY	2005			2006							TOTAL AC-FT OCT THRU SEP:	TOTAL AC-FT JAN THRU DEC:	12.663	12.270	TOTAL AC-FT JAN THRU DEC:
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL					
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.224	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.352	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.224	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.256	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.320	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.320	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.032	0.000	0.096	0.000	0.000	0.000	0.000	1.728	1.696	0.000	0.192	0.128	0.256	0.000	0.000
MEAN	0.001	0.000	0.003	0.000	0.000	0.000	0.000	0.058	0.055	0.000	0.006	0.004	0.009	#DIV/0!	#DIV/0!
MAX	0.032	0.000	0.096	0.000	0.000	0.000	0.000	0.352	0.352	0.000	0.096	0.064	0.096	0.000	0.000
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
AC-FT	0.098	0.000	0.294	0.000	0.000	0.000	0.000	5.301	5.202	0.000	0.589	0.393	0.785	0.000	0.000
TOTAL AC-FT OCT THRU SEP:															
TOTAL AC-FT JAN THRU DEC:								12.270							

**MAMMOTH COMMUNITY WATER DISTRICT  
PRODUCTION WELL WATER LEVEL DATA  
OCTOBER 2005 - SEPTEMBER 2006**

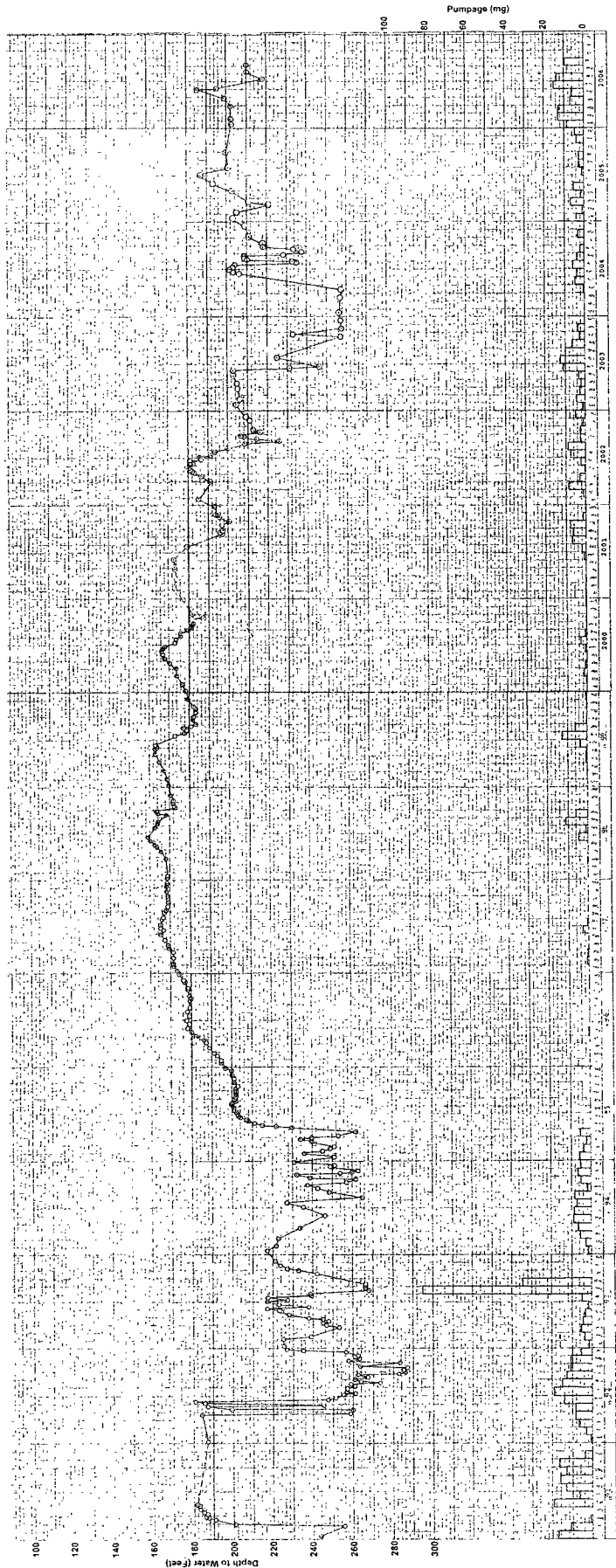
<b>WELL NO. 1</b>				<b>WELL NO. 6</b>			
Date	Static	Date	Pumping	Date	Static	Date	Pumping
Oct-05				Oct-05			
Nov-05				Nov-05			
Dec-05				Dec-05			
01/14/06	-202	01/18/06	-262	01/17/06	-12		
02/02/06	-202	02/06/06	-262	02/02/06	-12		
03/30/06	-202	03/31/06	-262	03/30/06	-7		
04/29/06	-199	04/04/06	-262	04/29/06	-7		
05/25/06	-185	05/17/06	-255	05/13/06	-7		
06/02/06	-195	06/20/06	-271	06/18/06	-7		
07/10/06	-218	07/22/06	-272	07/08/06	-7		
08/04/06	-210	08/01/06	-266	08/22/06	-7		
09/01/06	-210	09/06/06	-273	09/08/06	-7		
<b>Mean</b>	-202.56		-265.00	<b>Mean</b>	-8.11		#DIV/0!
<b>Max</b>	-218.00		-273.00	<b>Max</b>	-12.00		0.00
<b>Min</b>	-185.00		-255.00	<b>Min</b>	-7.00		0.00
<b>Historical</b>				<b>Historical</b>			
<b>Mean</b>	-197.60		-252.78	<b>Mean</b>	-47.78		-155.27
<b>Max</b>	-268.10		-295.00	<b>Max</b>	-160.00		-200.00
<b>Min</b>	-147.67		-191.33	<b>Min</b>	0.00		-77.43
<b>WELL NO. 10</b>				<b>WELL NO. 15</b>			
Date	Static	Date	Pumping	Date	Static	Date	Pumping
Oct-05				Oct-05			
Nov-05				Nov-05			
Dec-05				Dec-05			
01/25/06	-31	01/02/06	-101	Jan-06			
02/01/06	-31			Feb-06			
03/30/06	-31			Mar-06			
04/06/06	-26	04/15/06	-74	04/04/06	-244		
05/13/06	-8	05/08/06	-63	05/13/06	-243	05/21/06	-252
06/18/06	-10			06/12/06	-243	06/20/06	-250
07/08/06	-13	07/28/06	-67	07/08/06	-246		
08/22/06	-14	08/13/06	-72	08/22/06	-246		
09/08/06	-14	09/10/06	-66	09/08/06	-246		
<b>Mean</b>	-19.78		-73.83		-244.67		-251.00
<b>Max</b>	-31.00		-101.00		-246.00		-252.00
<b>Min</b>	-8.00		-63.00		-243.00		-250.00
<b>Historical</b>							
<b>Mean</b>	-56.79		-128.20		-225.07		-263.09
<b>Max</b>	-164.00		-200.00		-315.10		-327.50
<b>Min</b>	-8.13		-40.92		-168.15		-183.42

**MAMMOTH COMMUNITY WATER DISTRICT  
PRODUCTION WELL WATER LEVEL DATA  
OCTOBER 2005 - SEPTEMBER 2006**

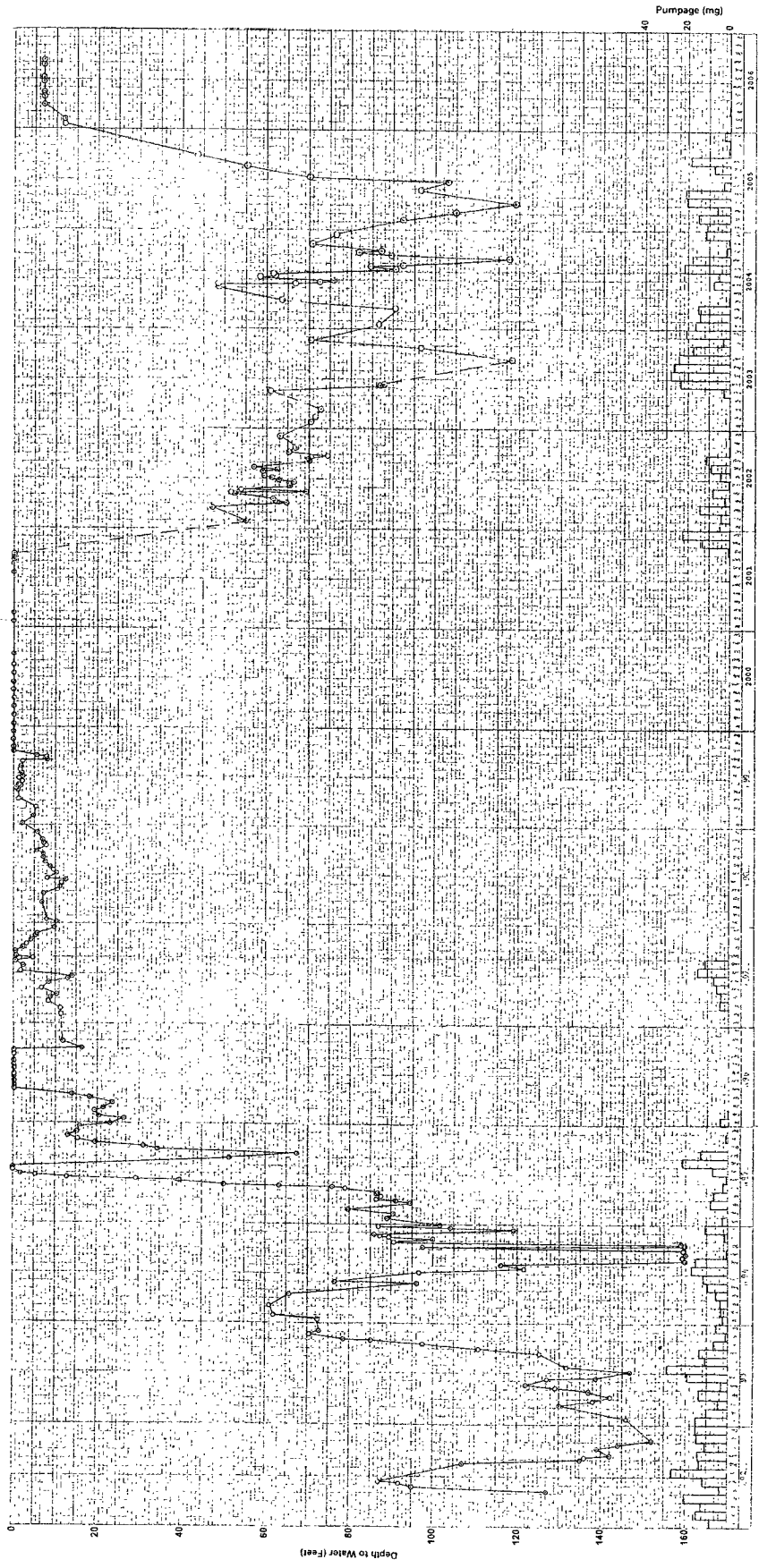
<b>WELL NO. 16</b>				<b>WELL NO. 17</b>			
Date	Static	Date	Pumping	Date	Month	Date	Pumping
Oct-05				Oct-05			
Nov-05				Nov-05			
Dec-05				Dec-05			
01/14/06	-476			01/17/06	-384		
02/02/06	-476			02/02/06	-384		
03/30/06	-476			03/30/06	-384		
04/25/06	-476			04/25/06	-382		
05/13/06	-476			05/13/06	-382		
06/18/06	-474			06/18/06	-382	06/18/06	-388
Jul-06				07/08/06	-382	07/07/06	-388
Aug-06				08/22/06	-381	08/13/06	-386
Sep-06				09/08/06	-381	09/08/06	-386
<b>Mean</b>	-475.67		#DIV/0!		-382.44		-387.00
<b>Max</b>	-476.00		0.00		-384.00		-388.00
<b>Min</b>	-476.00		0.00		-384.00		-388.00
<b>Historical</b>							
<b>Mean</b>	-469.77		-486.68		-375.30		-379.61
<b>Max</b>	-514.60		-504.50		-409.90		-389.95
<b>Min</b>	-413.65		-471.47		-364.06		-369.52
<b>WELL NO. 18</b>				<b>WELL NO. 20</b>			
Date	Static	Date	Pumping	Date	Static	Date	Pumping
Oct-05				Oct-05			
Nov-05				Nov-05			
Dec-05				Dec-05			
01/19/06	-81			01/12/06	-413		
02/01/06	-81			02/01/06	-413		
03/30/06	-81			03/30/06	-413		
04/26/06	-69			04/08/06	-411	04/27/06	-523
05/30/06	-61			05/13/06	-413	05/04/06	-524
06/24/06	-56			06/26/06	-410		
07/07/06	-55			07/14/06	-410		
08/22/06	-82			08/26/06	-409		
09/28/06	-85			09/08/06	-409		
<b>Mean</b>	-72.33		#DIV/0!		-411.22		-523.50
<b>Max</b>	-85.00		0.00		-413.00		-524.00
<b>Min</b>	-55.00		0.00		-409.00		-523.00
<b>Historical</b>							
<b>Mean</b>	-70.44		-229.64		-412.44		-471.05
<b>Max</b>	-117.88		-339.20		-470.95		-540.80
<b>Min</b>	-40.00		-81.91		-376.10		-417.80

APPENDIX B

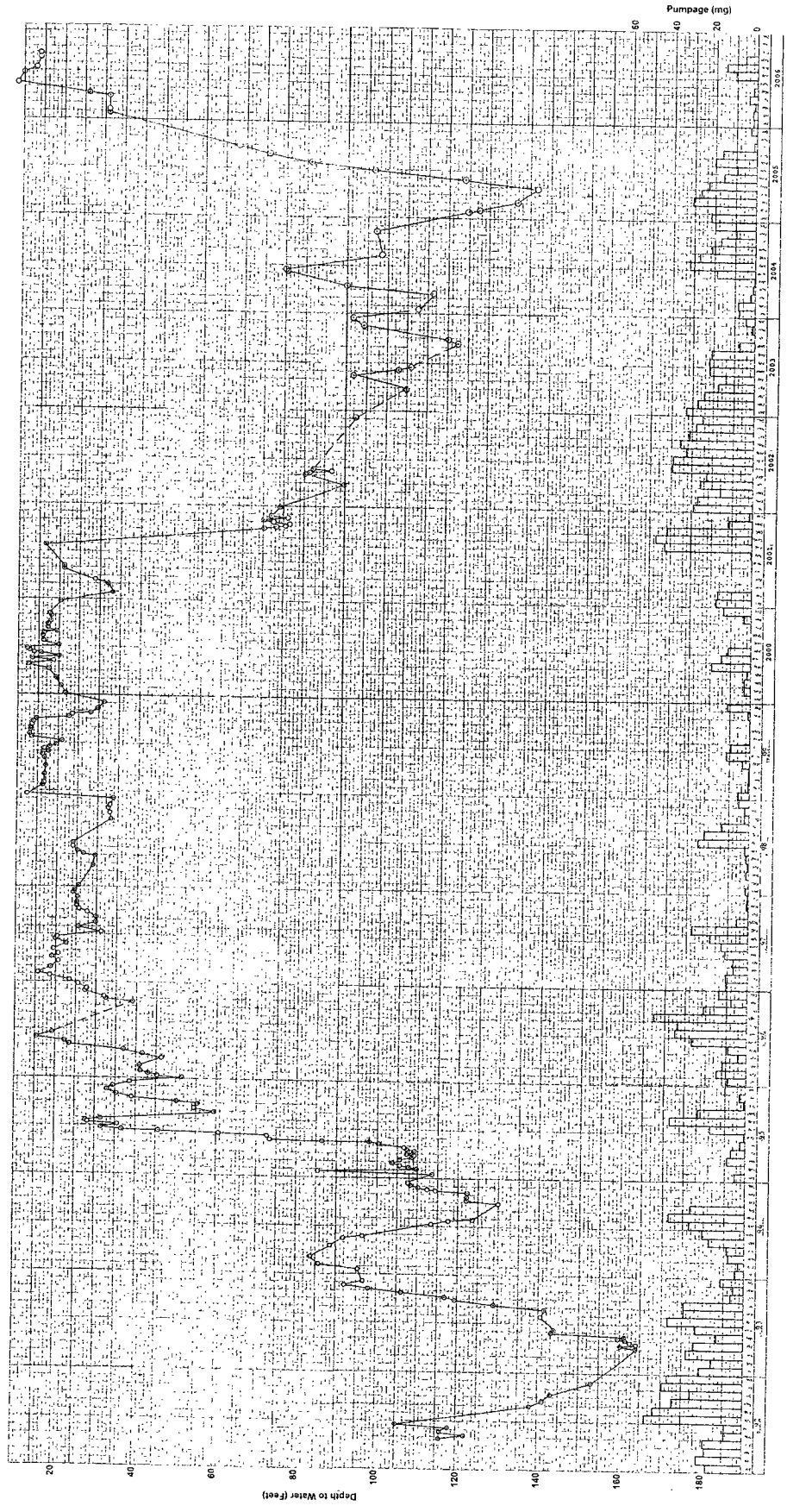
PUMPAGE AND WATER-LEVEL HYDROGRAPHS  
FOR EARLIER SUPPLY WELLS



**WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 1**



**WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 6**



**WATER-LEVEL AND PUMPAGE HYDROGRAPH FOR WELL NO. 10**



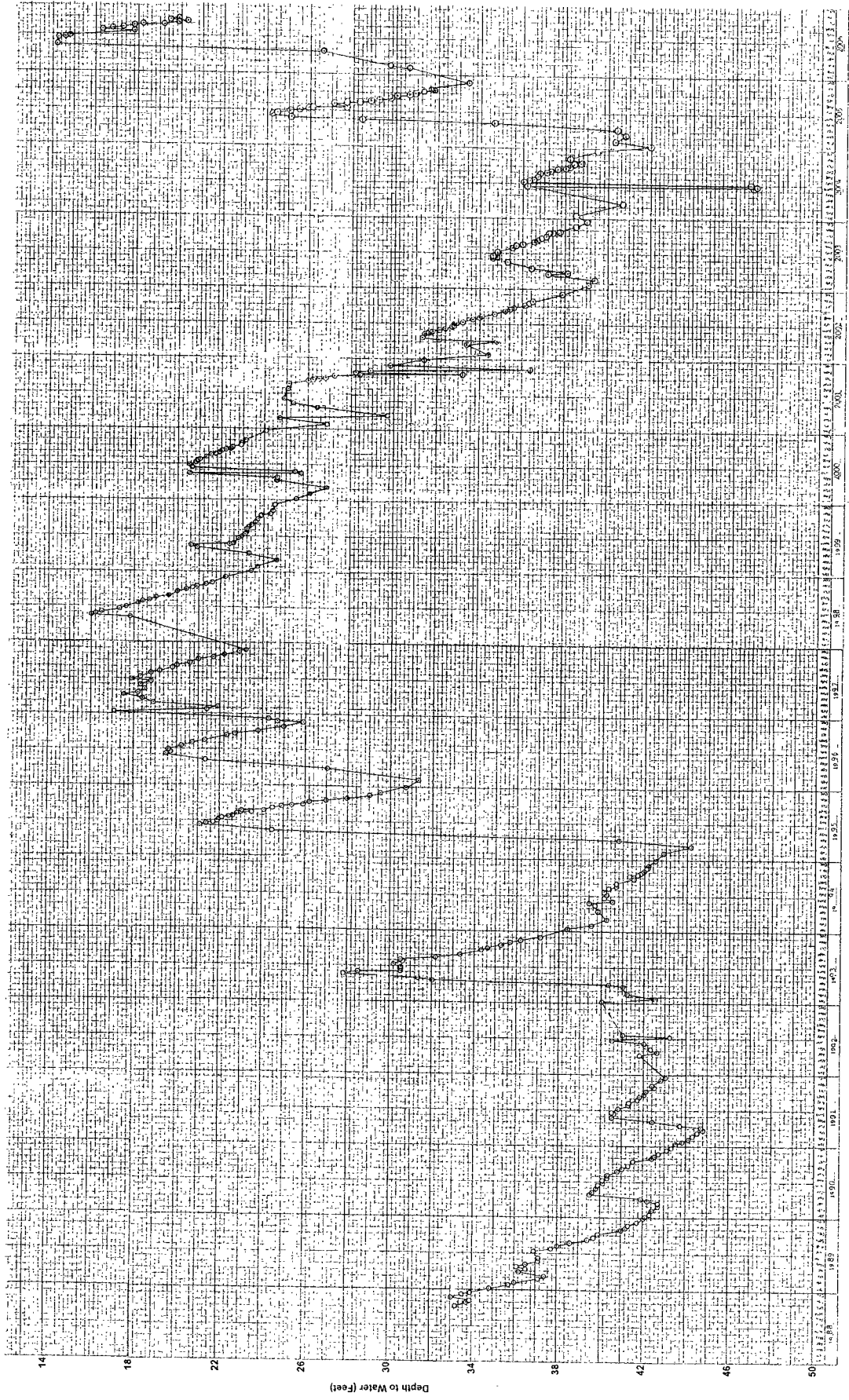
APPENDIX C  
WATER-LEVEL MEASUREMENTS  
FOR MONITOR WELLS

MAMMOTH COMMUNITY WATER DISTRICT  
MONITOR WELL LEVEL DATA

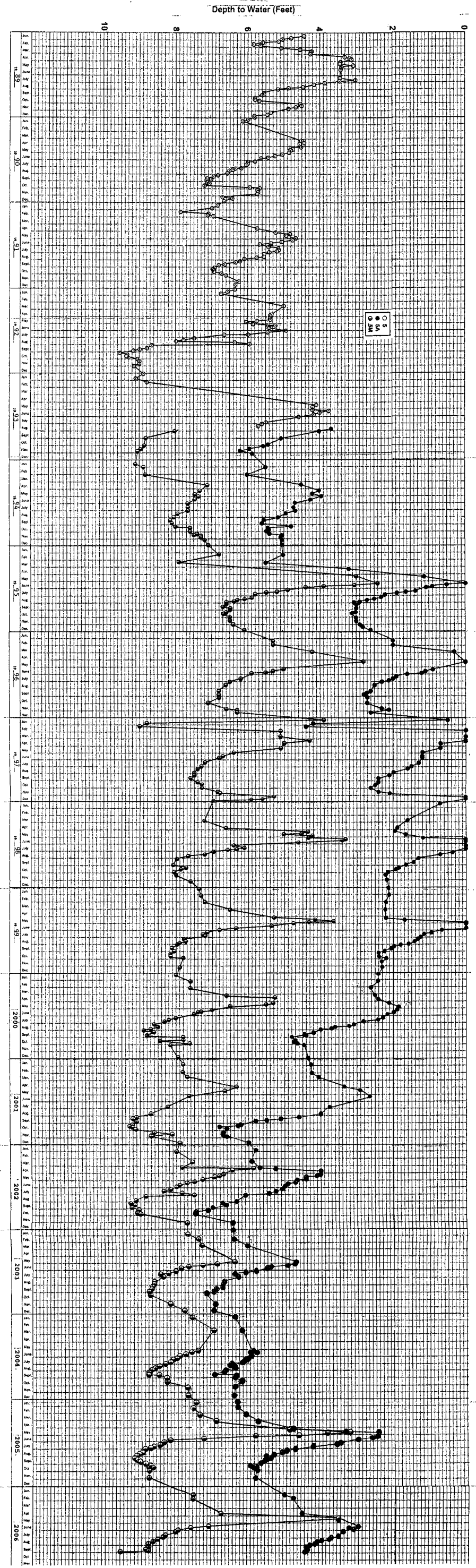
Date	Well 4M	Well 5A	Well 5M	Well 7	Well 10M	Well 11	Well 11M	Well 12M	Well 14M	Well 19	Well 21	Well 22	Well 23	Well 24	Well 25	Well 26	Well 27	Well 28	Well 29	Well 30	
10/04/05									330.19	342.77	229.9			376.18							
10/05/05	31.27	6.04	8.76	248.65	dry	Artesian 1.0'	16.3	17.32				77.2	15.67	311.35							
10/12/05	31.60	5.83	8.80	248.45	dry	Artesian 1.1"	17.3	18.25				77.2	15.85	310.35							
10/17/05	31.80	5.91	8.68		dry	Artesian 1.1"	17.75	18.67				77.08	15.93	309.70							
10/18/05				248.05																	
10/27/05	31.60	5.83	8.80	248.45	dry	Artesian 1.3"	17.3	18.25				77.21	15.85	310.38							
11/10/05									343.05	340.66	229.47			379.55							
11/29/05	33.35	5.85	8.81	247.85	dry	Artesian 1.3"	17.3	18.20				77.65	16.45	310.60							
02/10/06	30.62	5.06	7.56		dry	Artesian 2.4"		18.72				82.54	14.45	308.82							
02/24/06	29.71	4.79	7.58		dry	Artesian 2.4"		19.44				83.17	14.71								
04/18/06	26.60	4.55	6.80	251.55	dry			19.75				82.90	11.48	315.15							
05/09/06									330.34	340.76	228.85			377.66							
05/10/06	14.23	3.55	3.56		9.71	Artesian 4'		4.47				79.66	7.02								
06/15/06	14.30	3.00	7.15	244.71	11.71	Artesian 5'	5.55	4.45				76.30	9.15	307.72	248.85			26.15	73.5	464.82	
06/22/06	14.84	3.25	7.66		12.08	Artesian 5'	5.9	4.58				76.06	8.88	311.12	249.57			25.31	71.76	464.31	
06/29/06	14.81	3.12	7.95	242.45	12.27	Artesian 5.6'	6.12	4.51	232.35			75.07	9.95	306.55				24.85	70.09	463.7	
07/06/06		3.42	8.07		12.9	Artesian 5.6'	6.47	4.58				74.12	9.52	311.84							
07/20/06	17.80	3.55	8.35	249.61	16.99	Artesian 6.6'	7.12	4.85	223.5			74.00	11.27	315.95				24.51	66.45	462.6	
07/27/06	16.25	3.74	8.41	282.51	16.54	Artesian 6'	8	5.07	230.02			74.02	11.81	314.81				24.23	65.47	461.2	
08/03/06	16.77	3.80	8.55	236.21	20.15	Artesian 6'	10.29	5.52	224.30			74.05	13.05	315.55				24.96	64.78	461.00	
08/09/06	17.25	4.02	8.68	235.61	20.17	Artesian 6'	10.02	6.41	225.98			74.01	13.32	311.96	250.29			25.82	64.37	462.8	
08/17/06	17.81	4.15	8.70	234.71	20.72	Artesian 6'	12.8	6.80	234.05			74.05	13.85	313.70	250.21			27.02	64.55	459.65	
08/23/06	19.20	4.20	8.82					246.19					14.20	311.58							
08/31/06	16.18	4.35	8.82	233.68	18.1	Artesian 7'	13.82	6.20	244.8			74.10	14.31	313.69	249.37			28.8	64.3	459.8	
09/06/06									244.17	339.45	226.64			366.95							
09/07/06		4.45	8.82		19.39	Artesian 6'	16.07	8.54				74.80	15.91	316.26			45.04				
09/08/06	19.88											74.79									
09/15/06	20.28	4.41	8.87									74.20	15.25	316.68	250.51			31.65	62.98		
09/20/06	19.52	4.48	8.83	244.65	18.73	Artesian 5.5'	16.19	8.60	243.02			73.99	15.65	317.41	250.91			32.35	62.95	454.28	
09/27/06	19.88	4.47	9.58		18.91	Artesian 5.5'	16.38	8.98													
Mean	22.06	4.41	8.19	246.48	16.31	#DIV/0!	12.26	10.55	257.84	340.91	228.72	76.44	13.20	375.09	312.44	249.96		26.88	66.25	461.31	
Minimum	14.23	3.00	3.56	233.68	9.71	0.00	5.55	4.45	223.50	339.45	226.64	73.99	7.02	366.95	306.55	248.85		24.23	62.95	454.28	
Maximum	33.35	6.04	9.58	282.51	20.72	0.00	17.75	19.75	343.05	342.77	229.90	83.17	16.45	379.55	317.41	250.91		32.35	73.50	464.62	
Mean*	29.22	3.83	7.34	255.28	23.15	9.42	19.53	16.00	318.60	337.33	269.81	80.63	12.76	376.00	317.74						
Minimum*	14.23	0.00	2.41	233.68	9.69	0.00	4.14	4.25	223.50	312.33	226.64	70.79	6.00	350.87	304.60						
Maximum*	46.95	7.48	9.58	290.95	32.48	50.50	39.17	27.00	360.71	357.25	365.42	86.22	17.10	394.14	337.05						
* Long term average, maximum, and minimum																					
Reference Elevation (ft)	7883	7988	7989		7942	7986	7971	7954	7879	7870	7895		7927								

APPENDIX D

SUPPLEMENTARY WATER-LEVEL  
HYDROGRAPHS FOR MONITOR WELLS

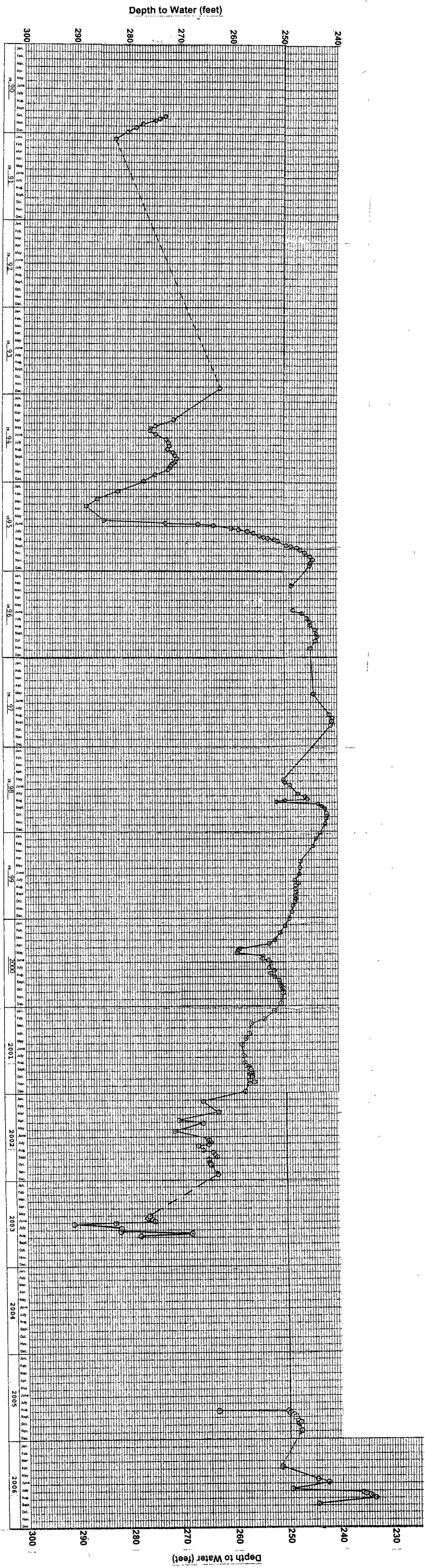


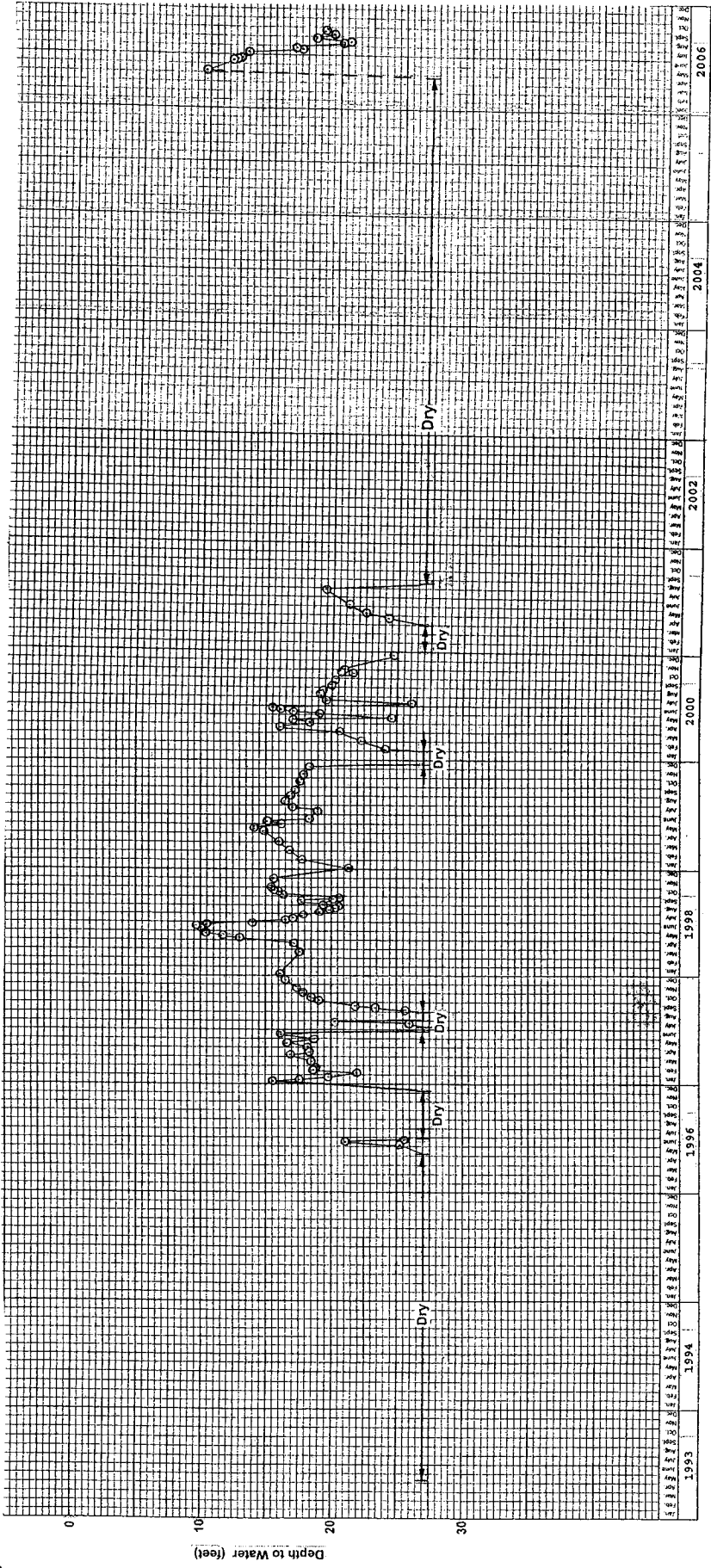
**WATER-LEVEL HYDROGRAPH FOR WELL NO. 4M**



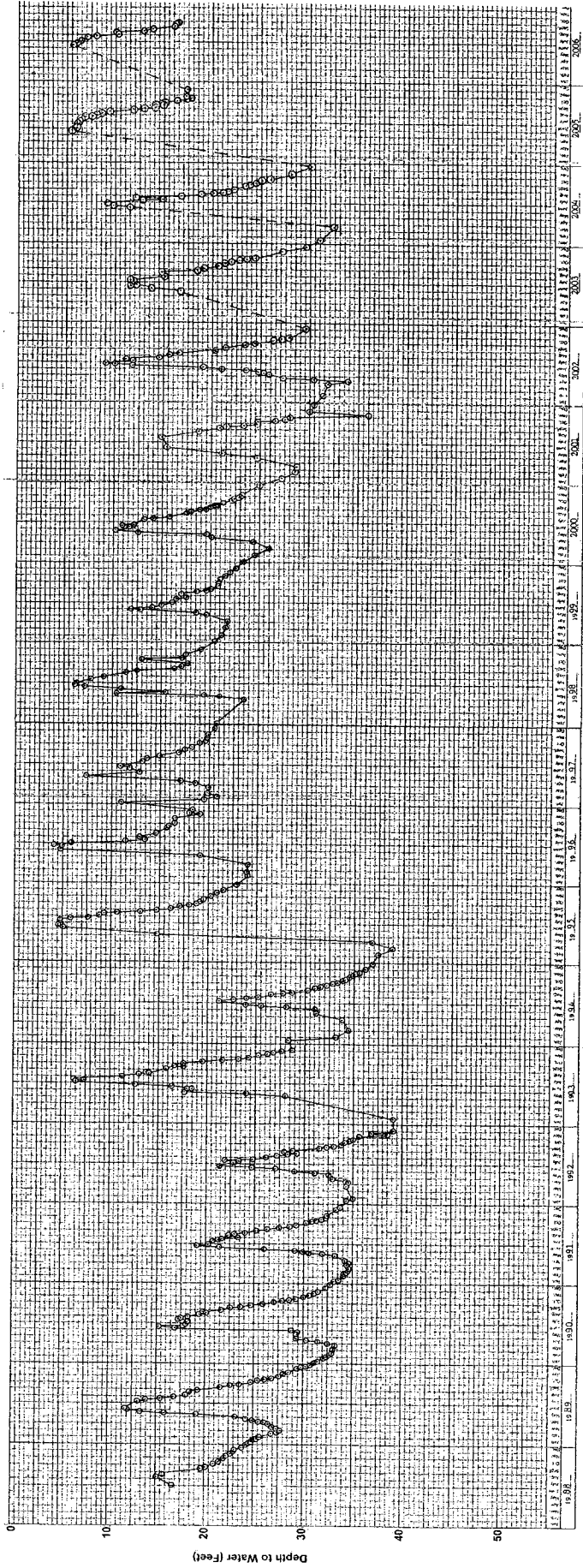
WATER-LEVEL HYDROGRAPH FOR WELL NO. 5, NO. 5A, AND NO. 5M

WATER-LEVEL HYDROGRAPH FOR WELL NO. 7



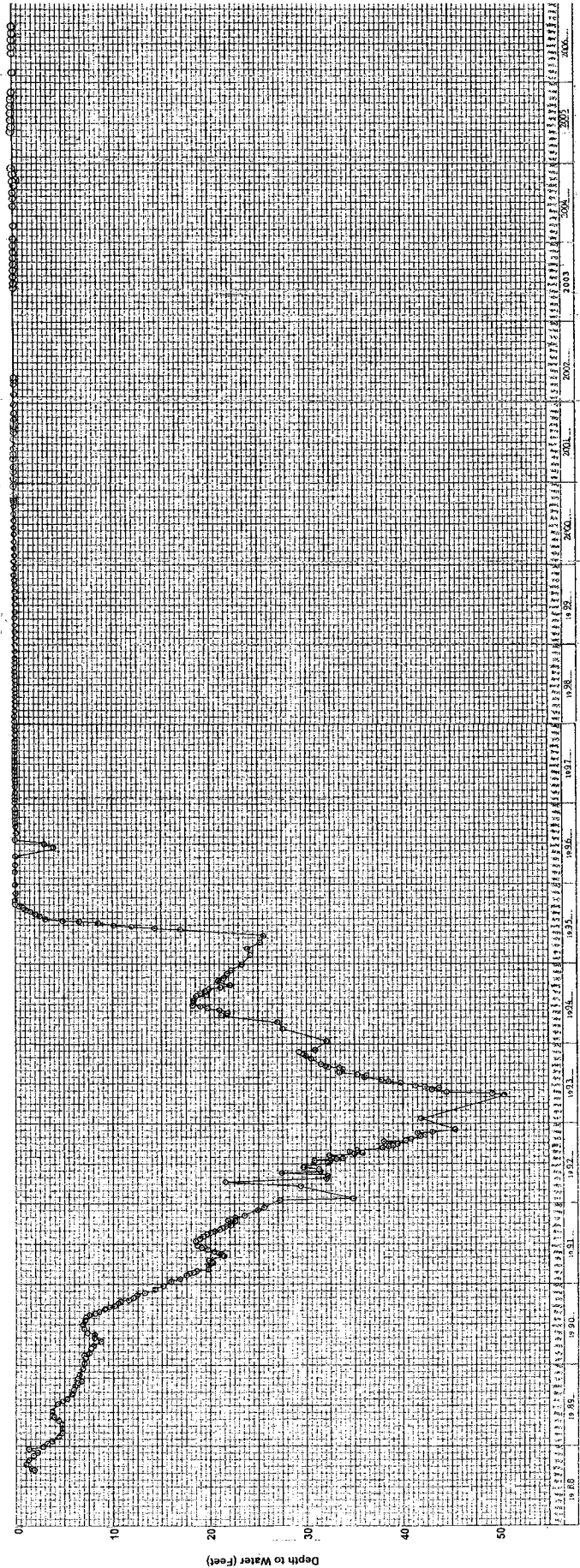


**WATER-LEVEL HYDROGRAPH FOR WELL NO. 10M**

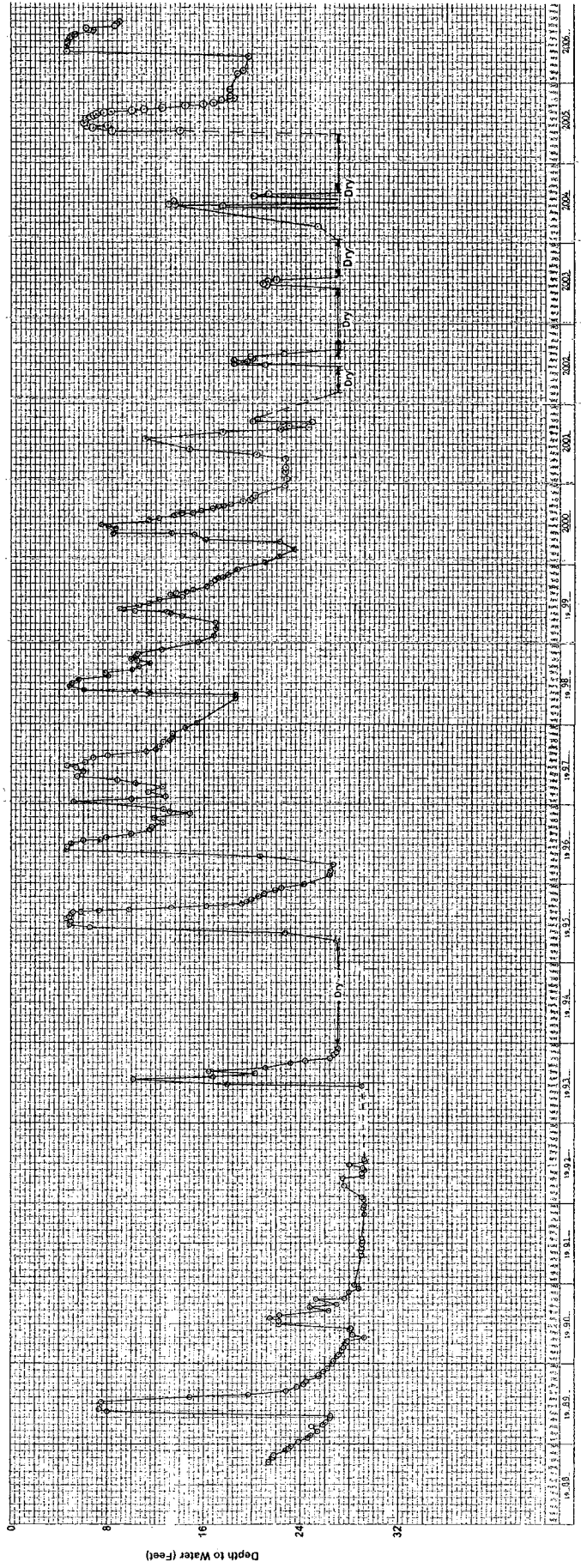


**WATER-LEVEL HYDROGRAPH FOR WELL NO. 111M**

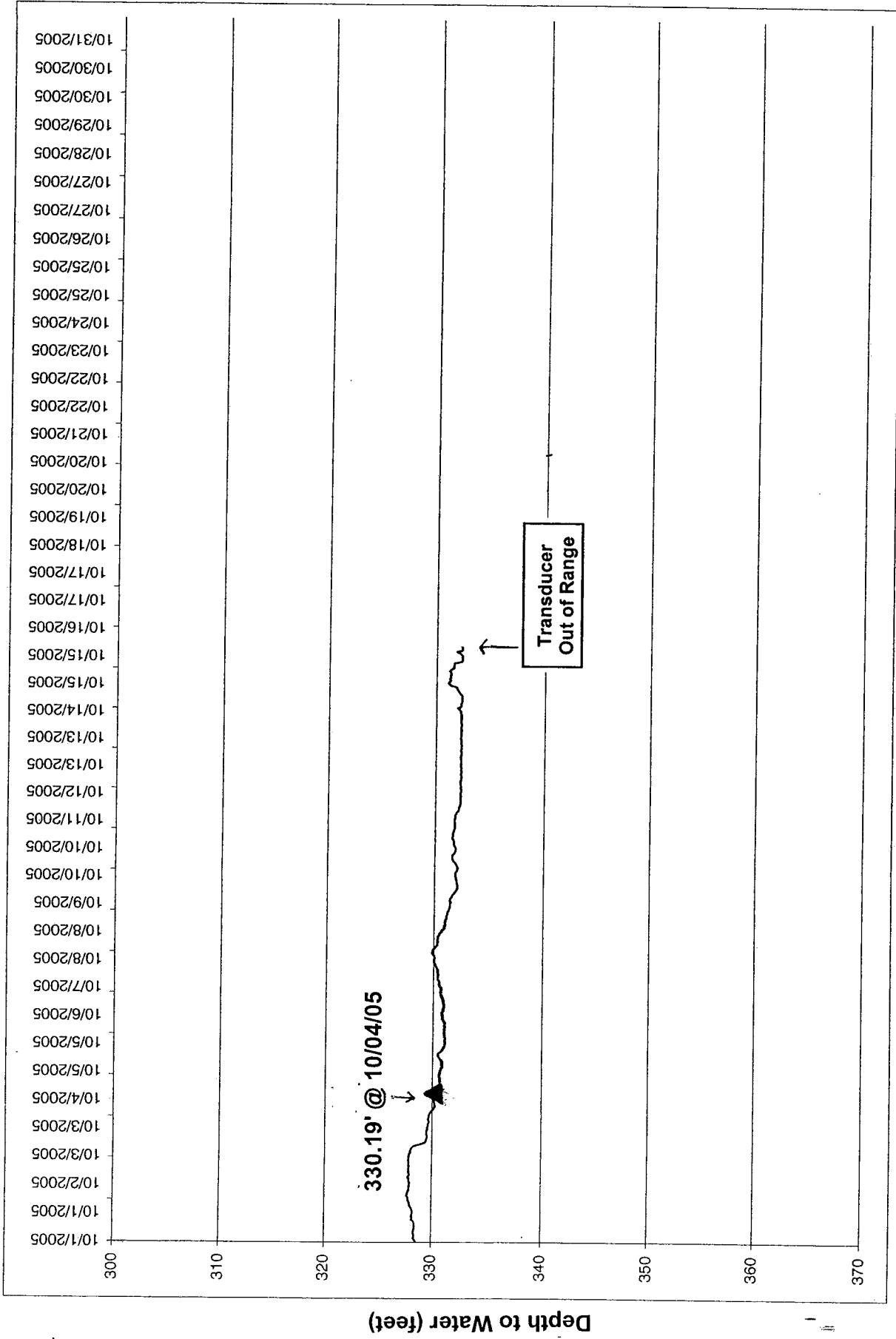




WATER-LEVEL HYDROGRAPH FOR WELL NO. 11

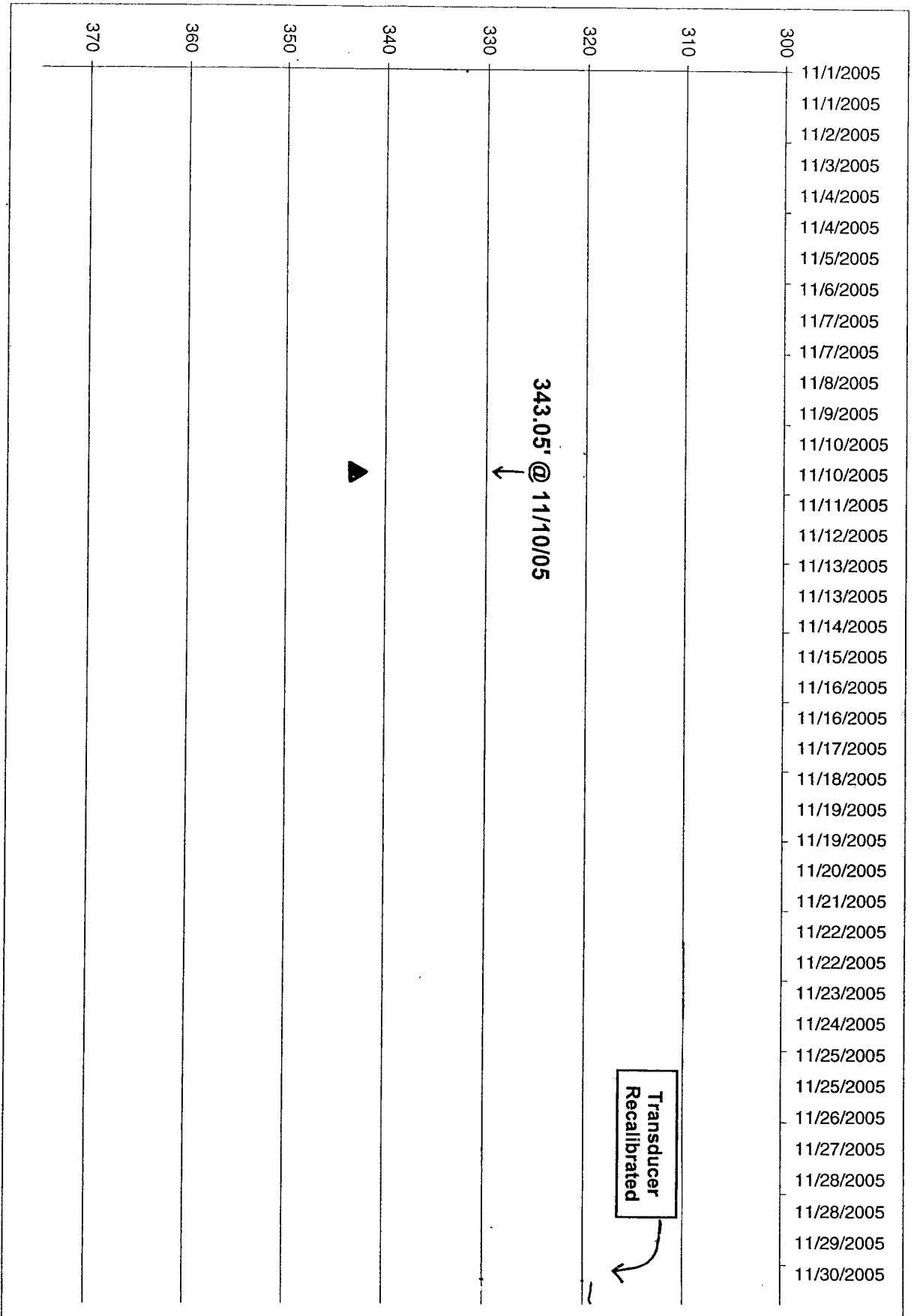


**WATER-LEVEL HYDROGRAPH FOR WELL NO. 12M**



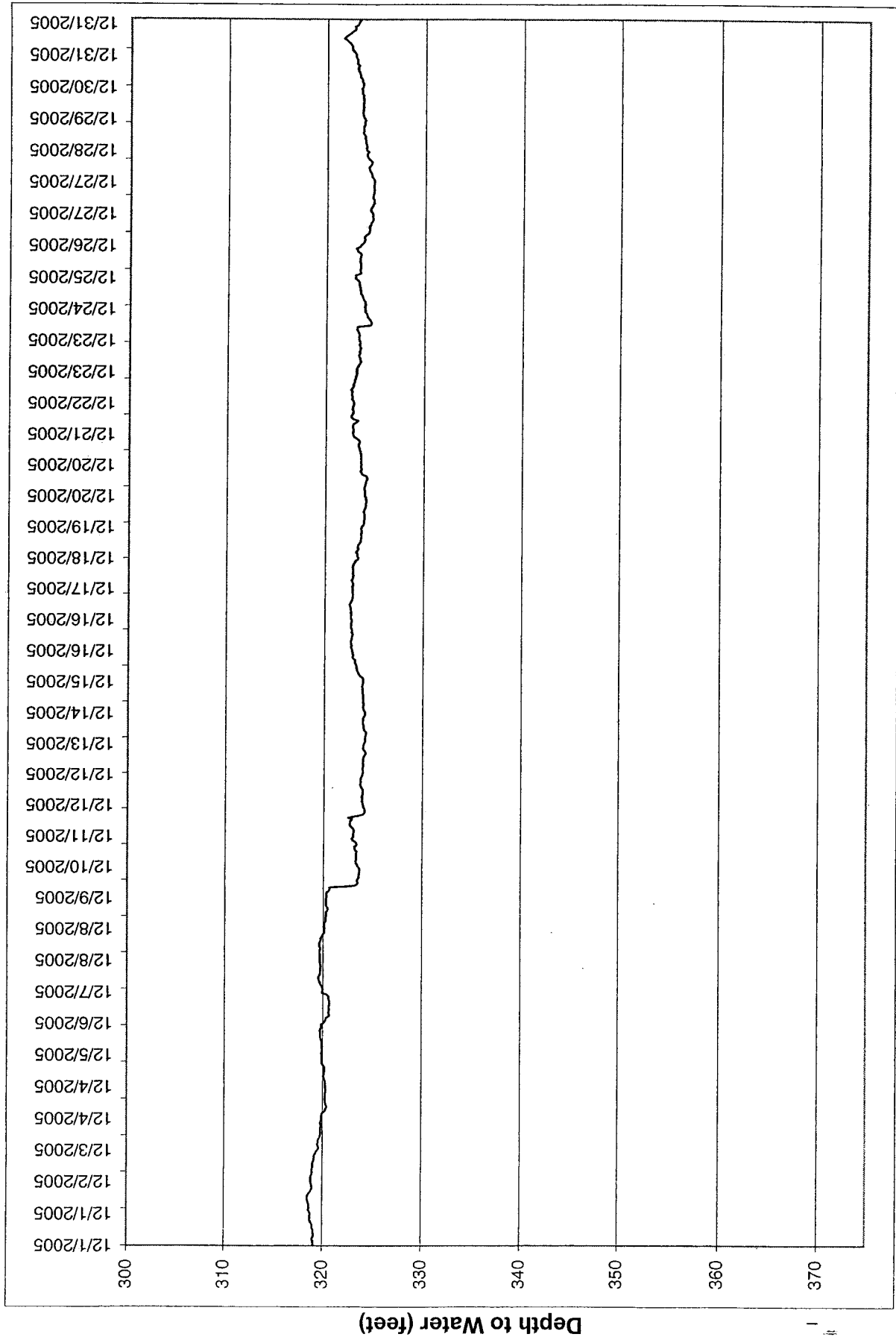
WATER-LEVEL HYDROGRAPH FOR MW-14M IN OCTOBER 2005

Depth to Water (feet)



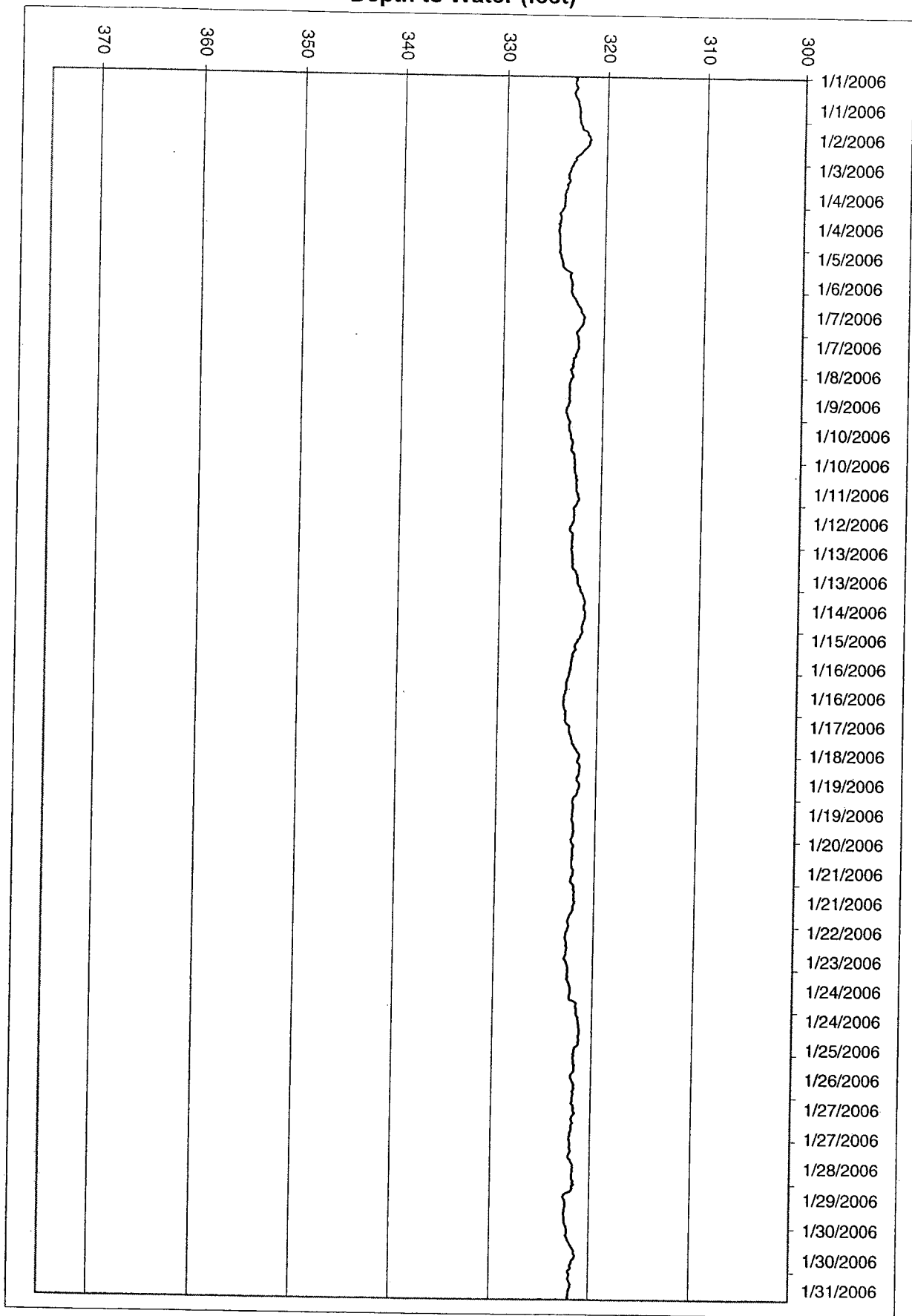
WATER-LEVEL HYDROGRAPH FOR MW-14M IN NOVEMBER 2005

Well 14



WATER-LEVEL HYDROGRAPH FOR MW-14M IN DECEMBER 2005

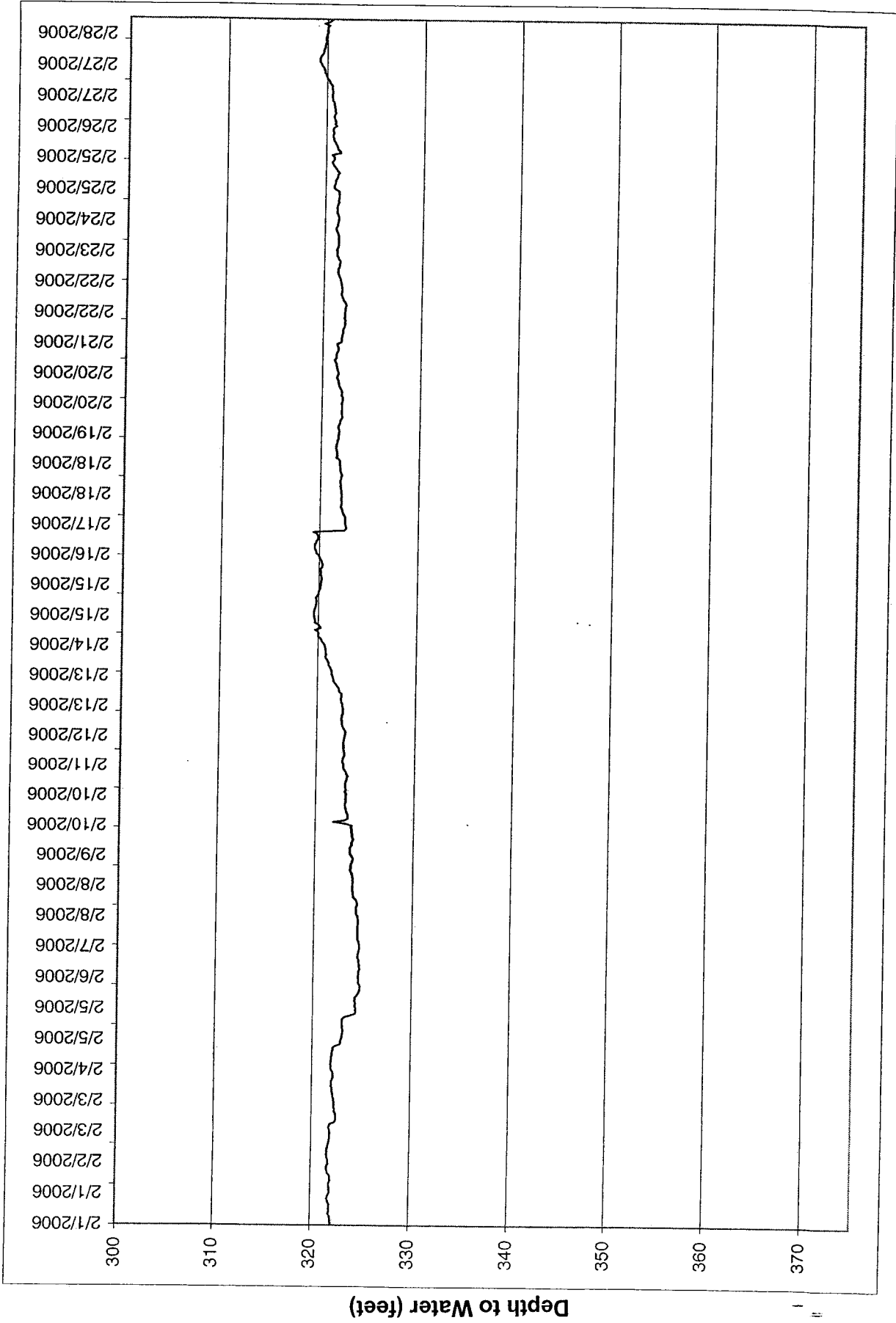
Depth to Water (feet)



WATER-LEVEL HYDROGRAPH FOR MW-14M IN JANUARY 2006

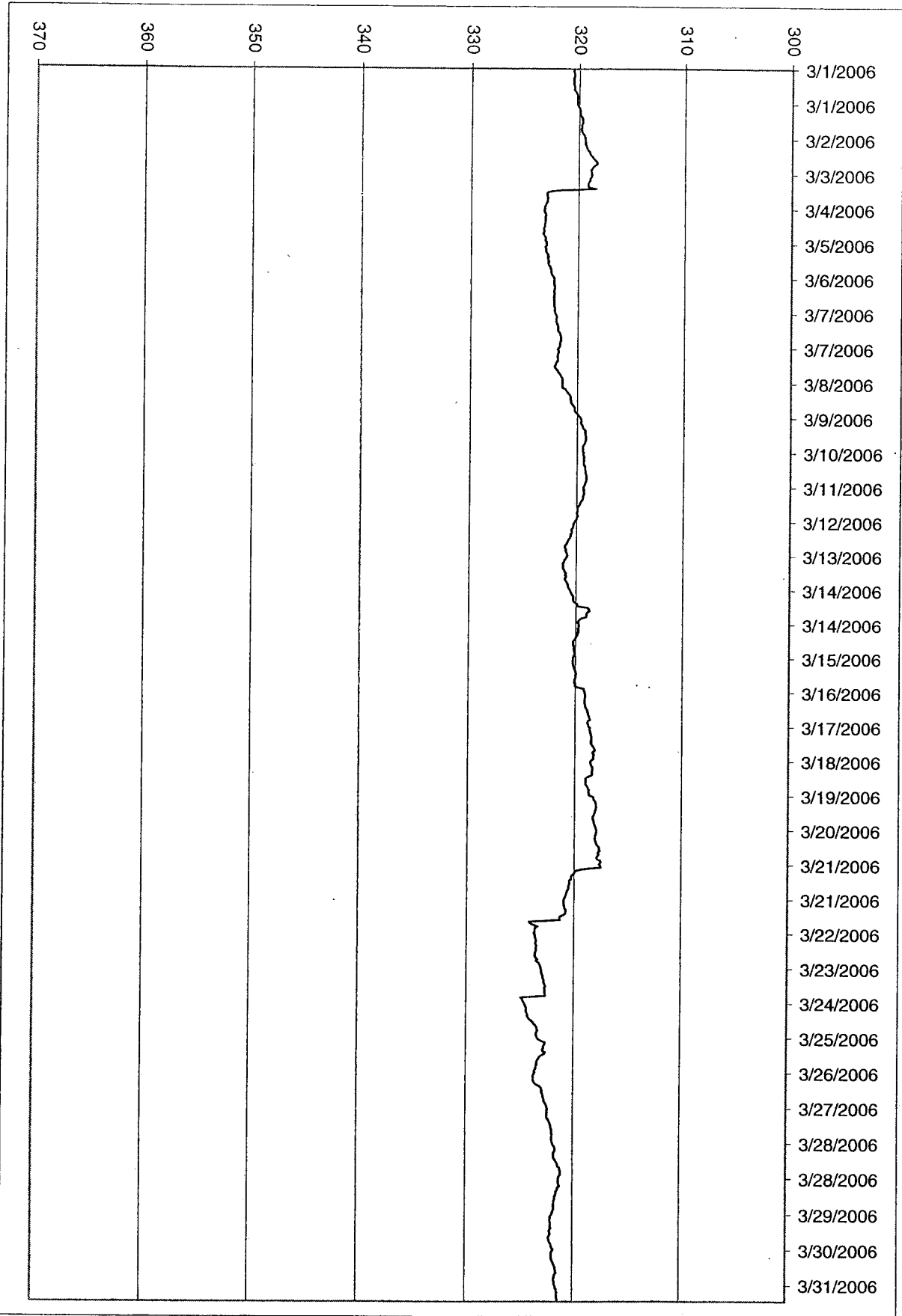
Well 14

Well 14



WATER-LEVEL HYDROGRAPH FOR MW-14M IN FEBRUARY 2006

Depth to Water (feet)

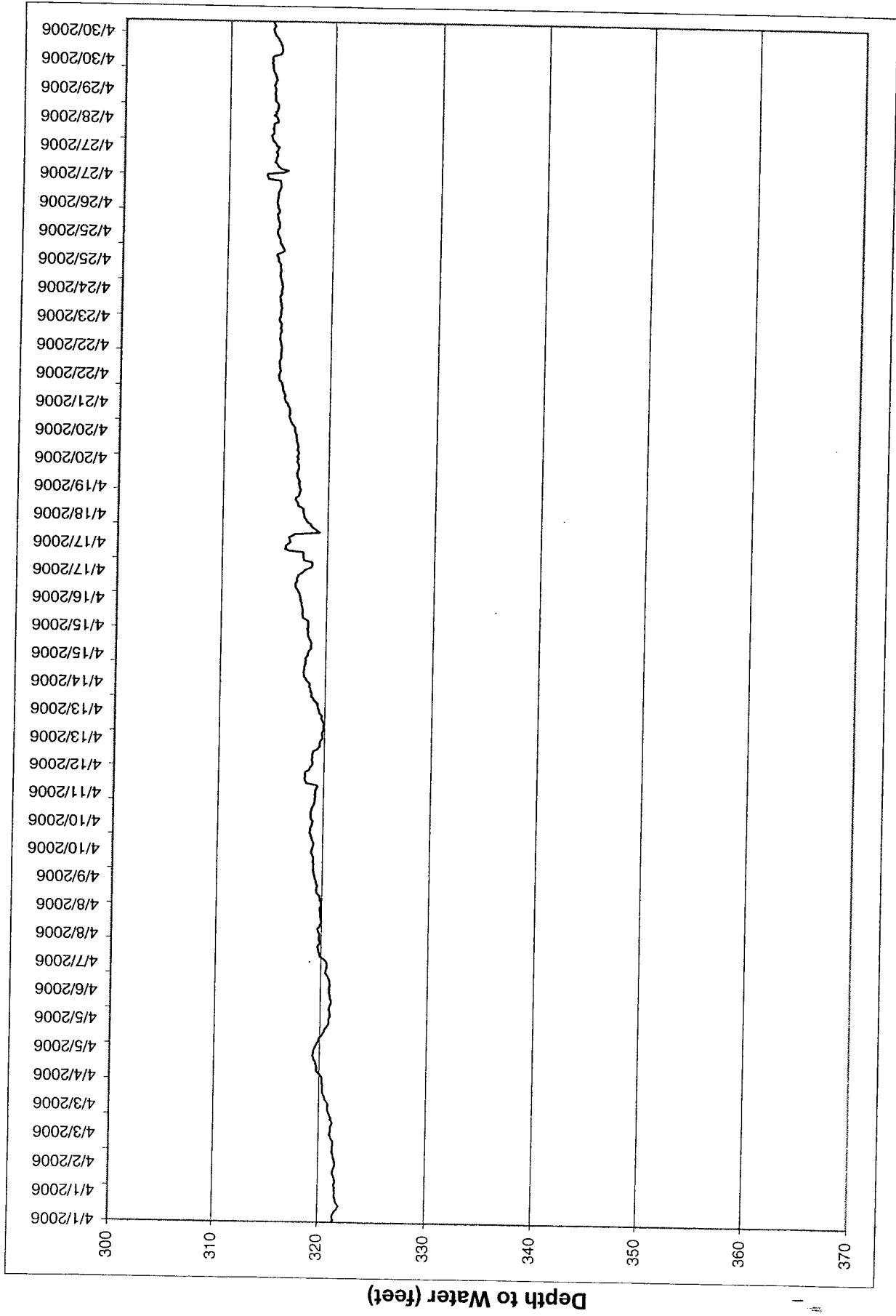


WATER-LEVEL HYDROGRAPH FOR MW-14M IN MARCH 2006

Well 14

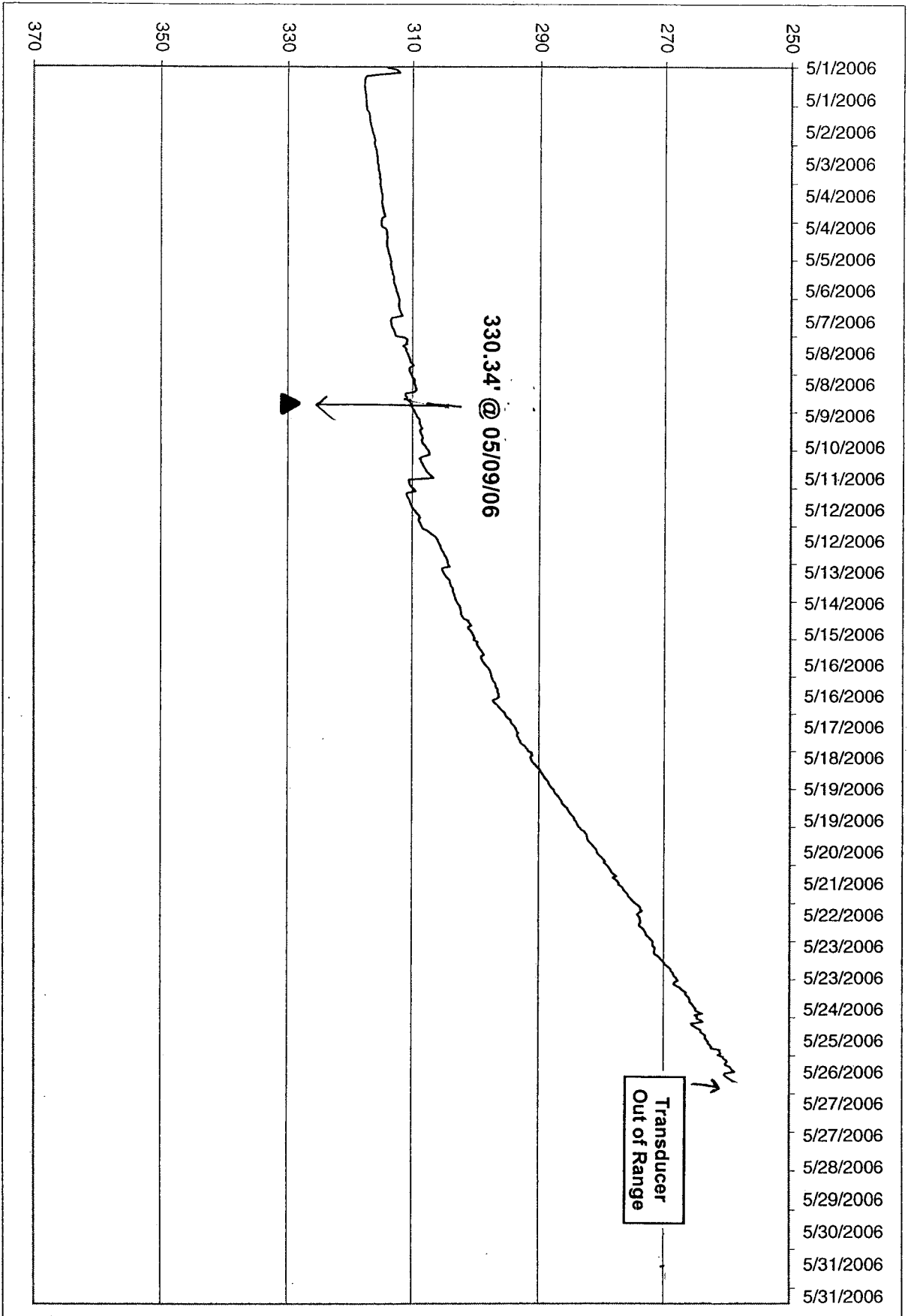


Well 14



WATER-LEVEL HYDROGRAPH FOR MW-14M IN APRIL 2006

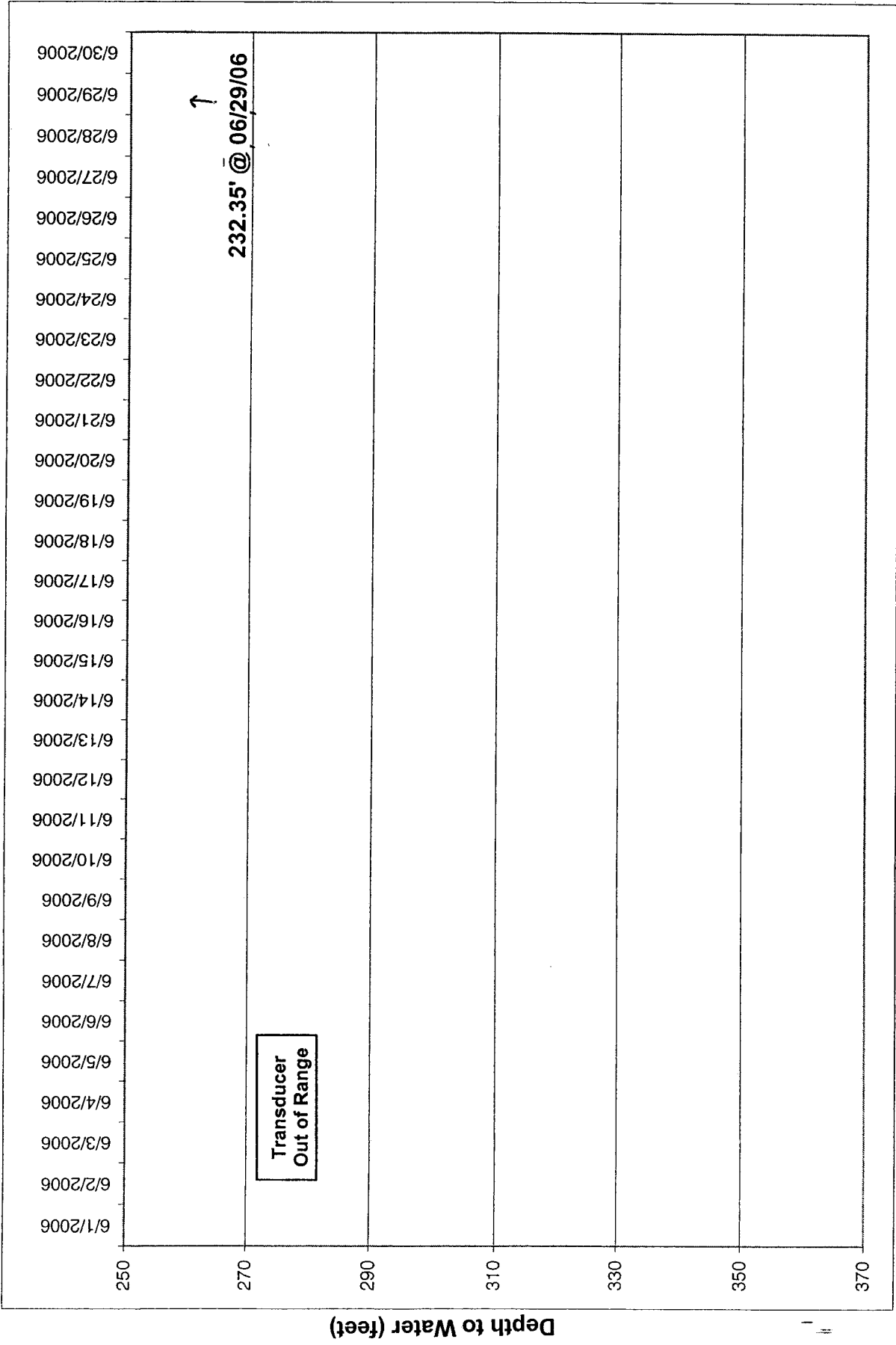
Depth to Water (feet)



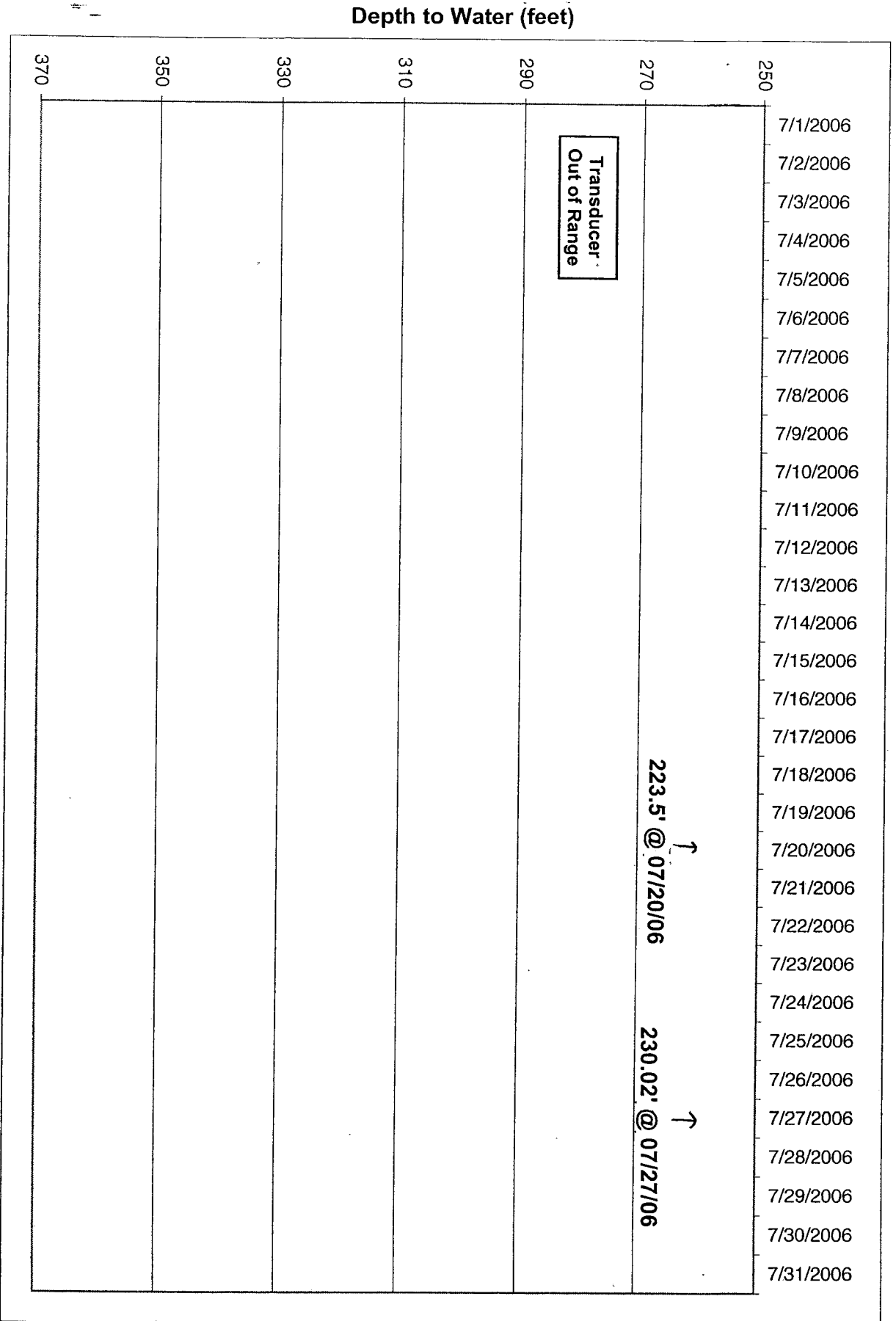
Well 14

WATER-LEVEL HYDROGRAPH FOR MW-14M IN MAY 2006

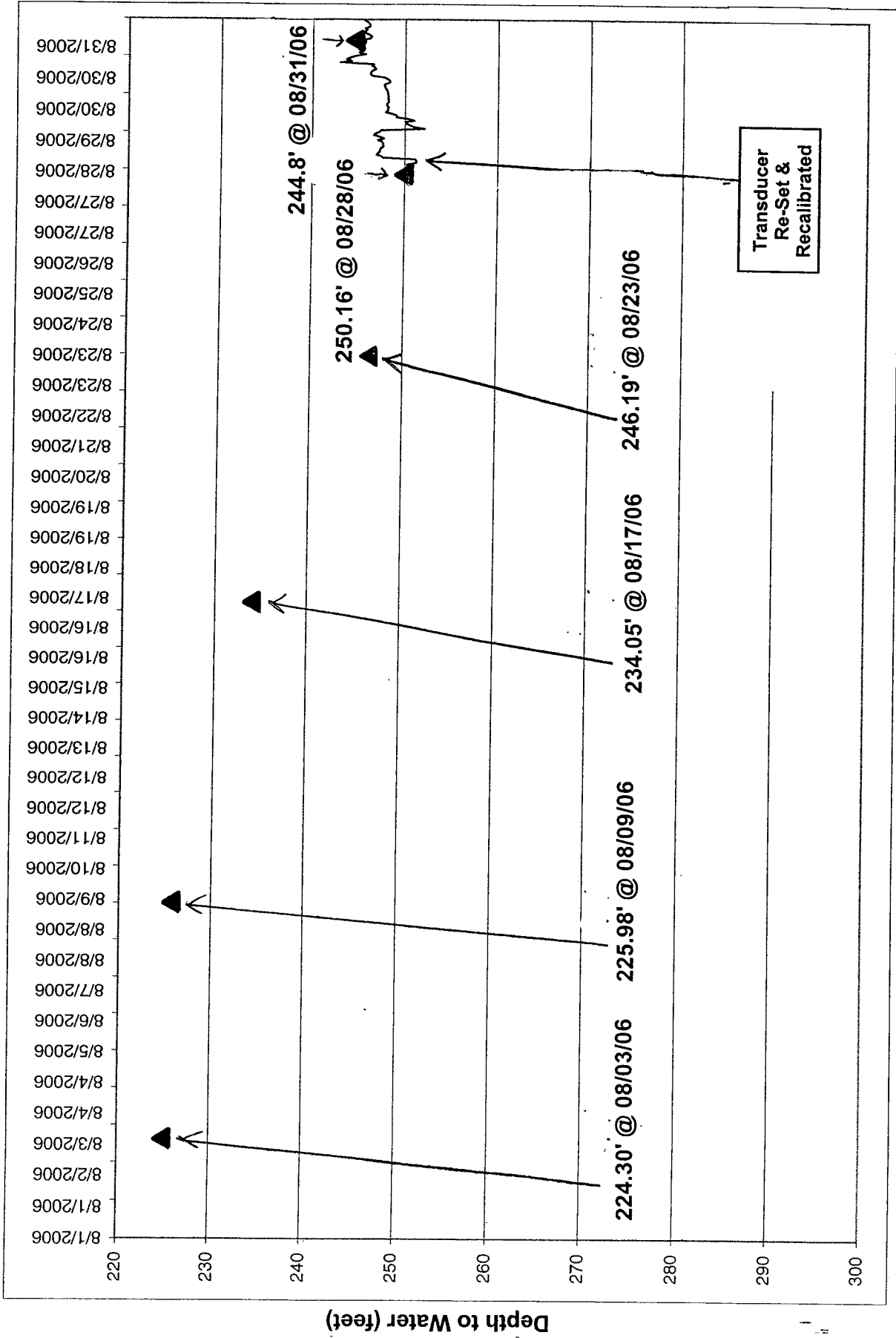
Well 14



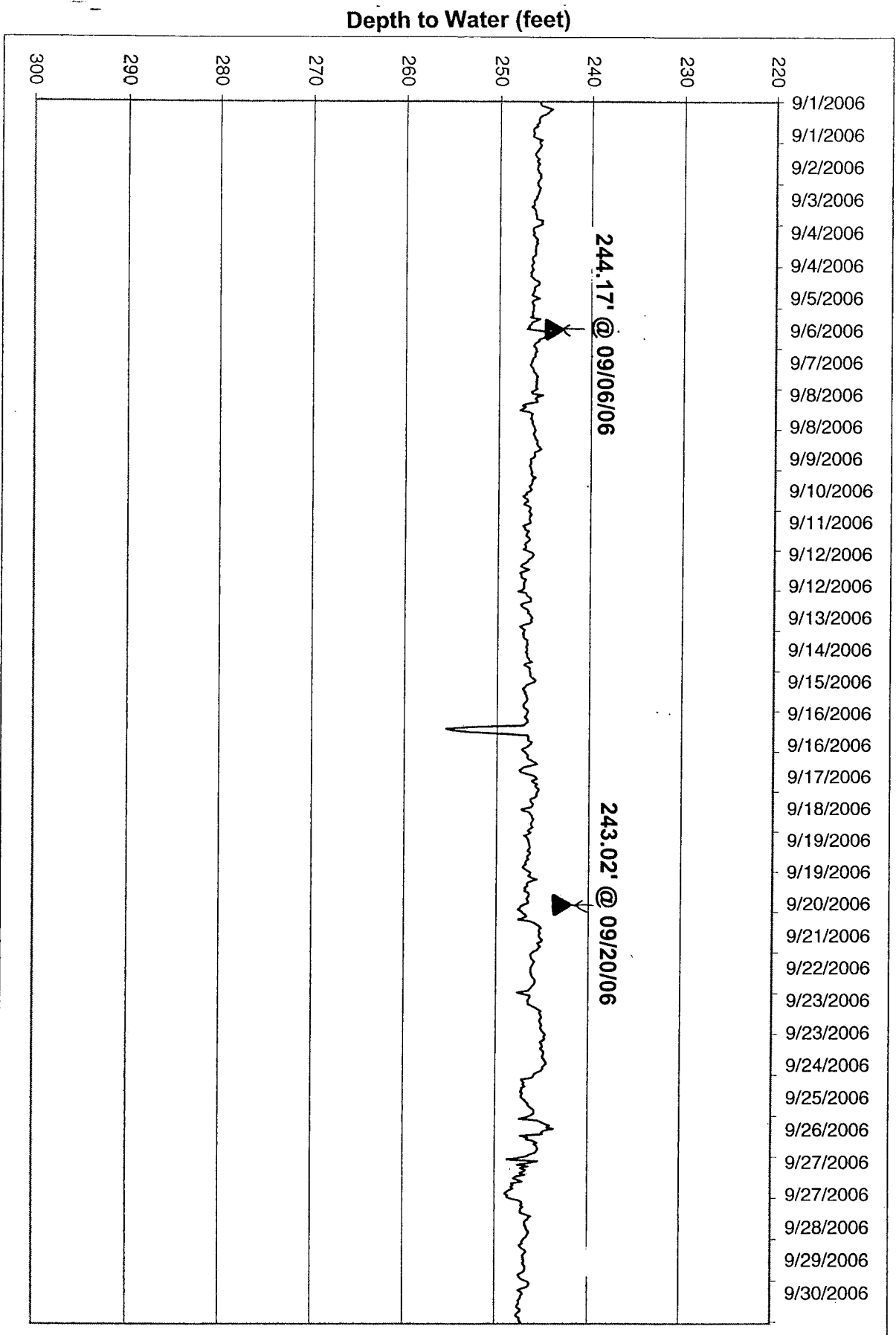
WATER-LEVEL HYDROGRAPH FOR MW-14M IN JUNE 2006



WATER-LEVEL HYDROGRAPH FOR MW-14M IN JULY 2006

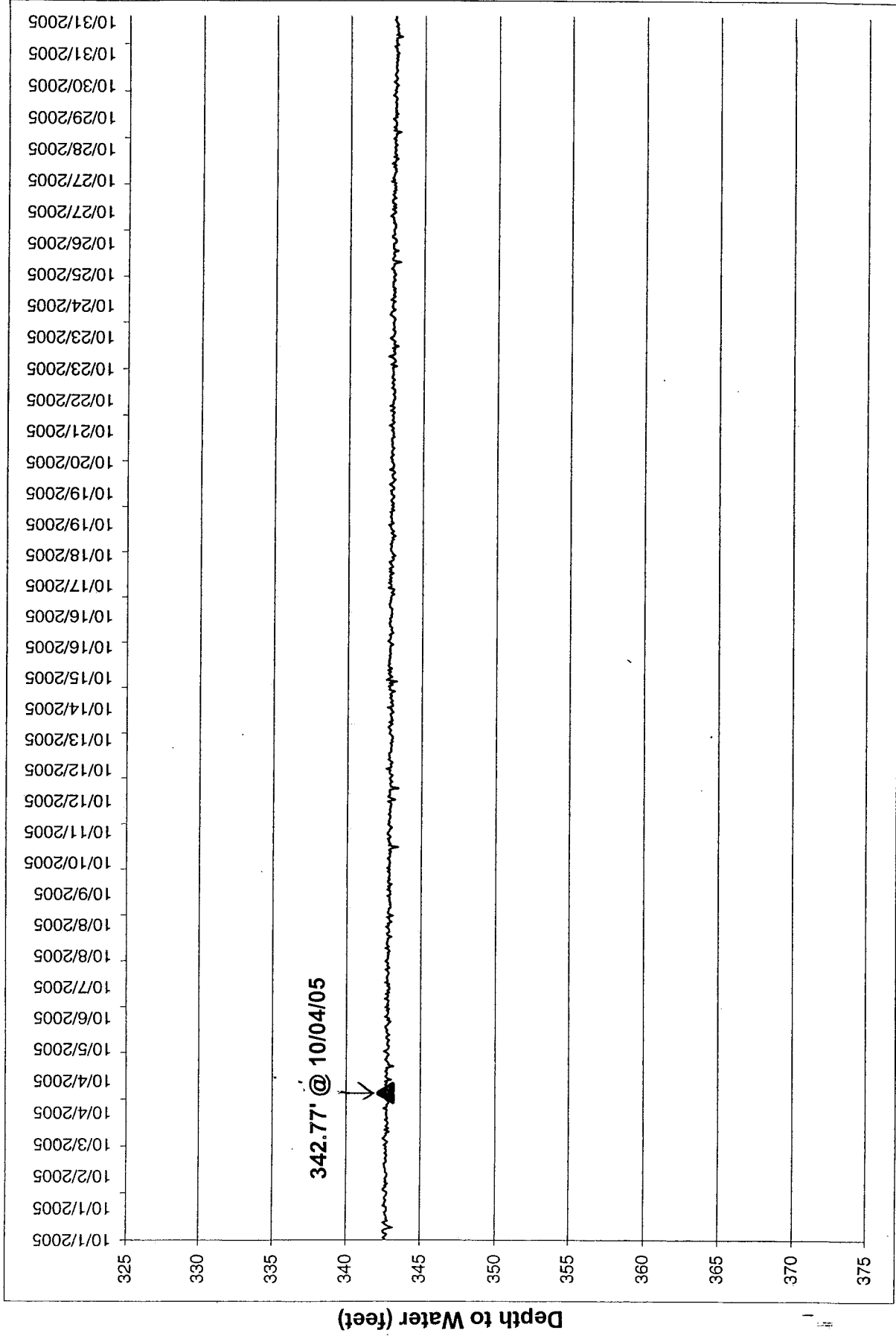


WATER-LEVEL HYDROGRAPH FOR MW-14M IN AUGUST 2006

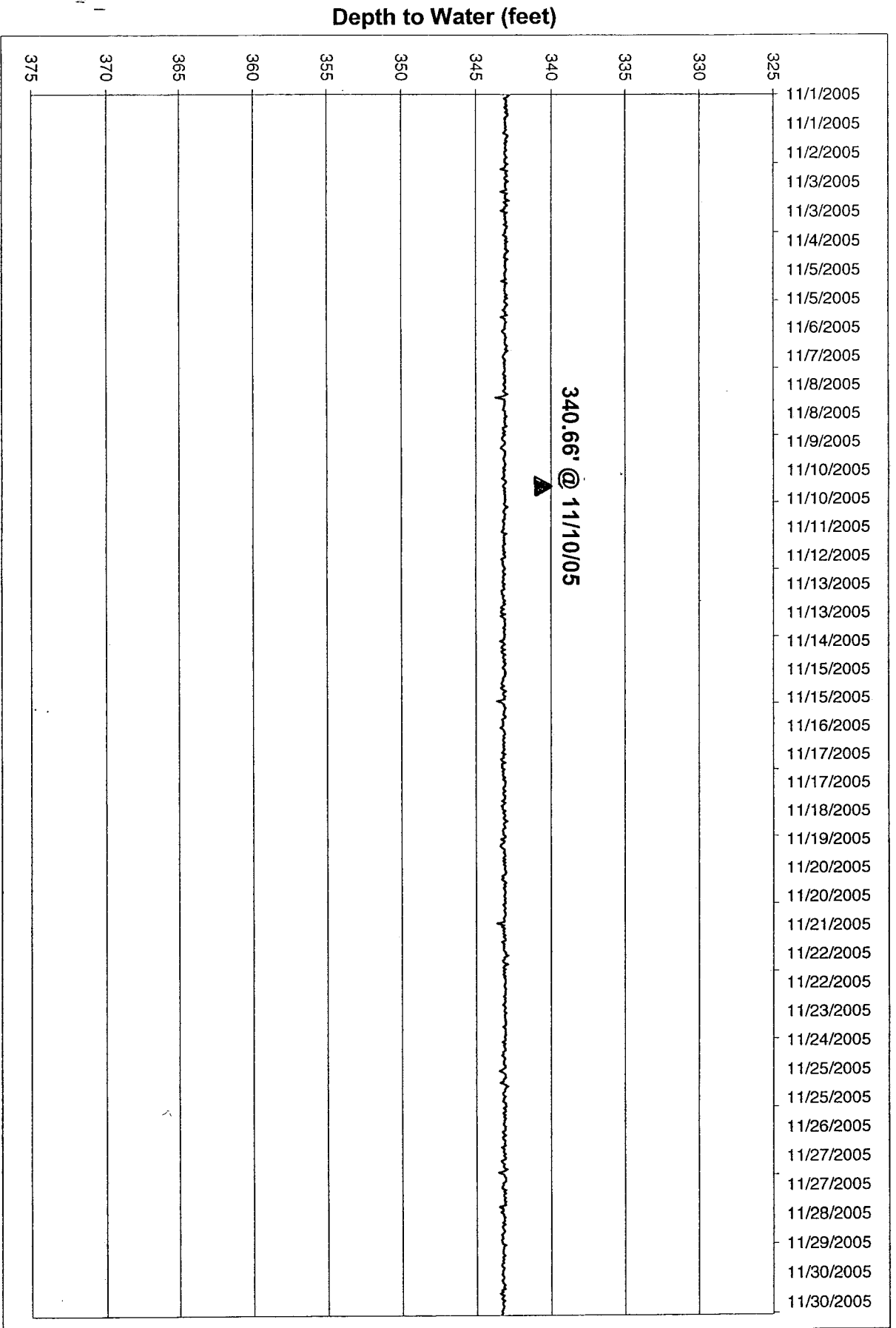


WATER-LEVEL HYDROGRAPH FOR MW-14M IN SEPTEMBER 2006

Well 19



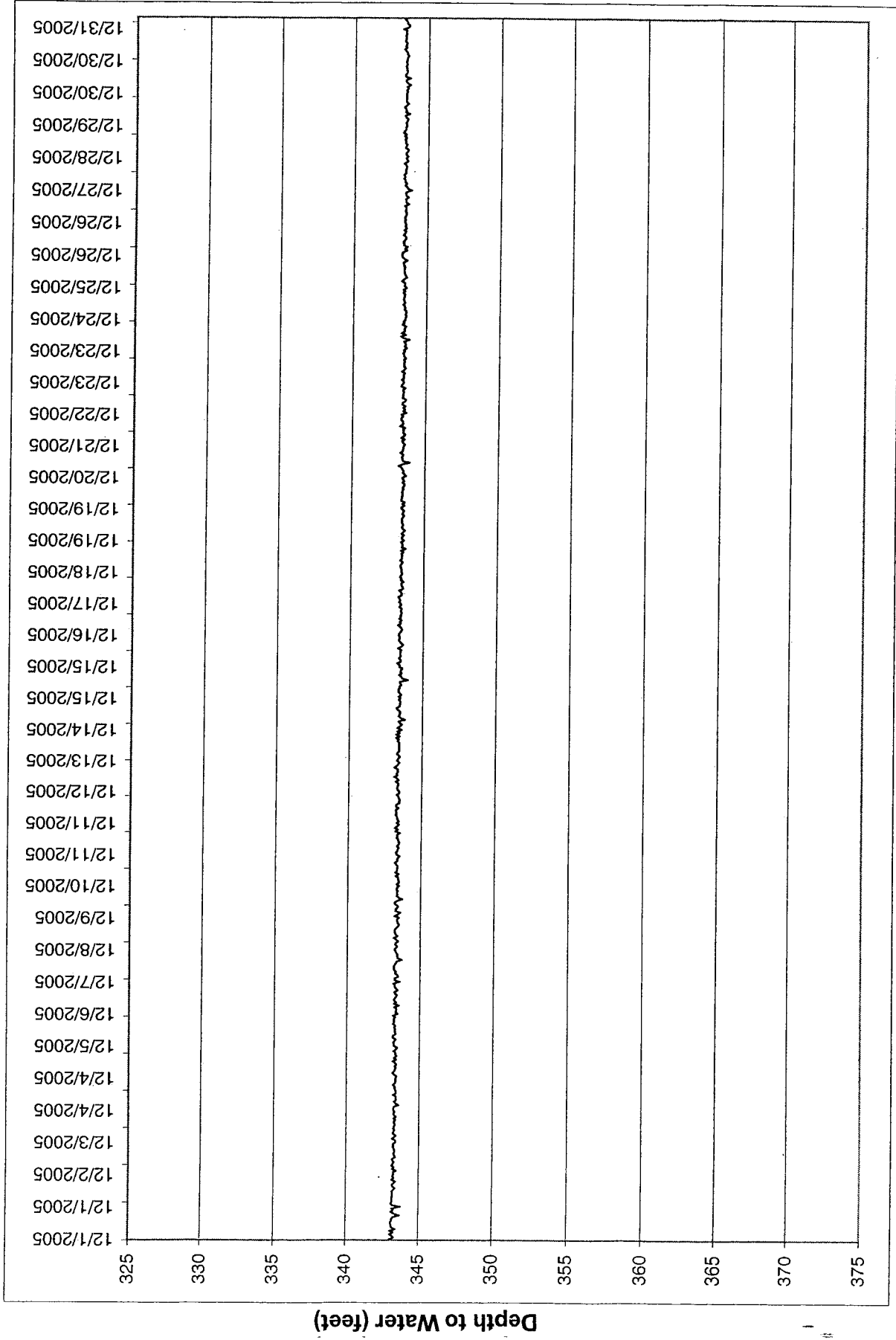
WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN OCTOBER 2005



WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN NOVEMBER 2005

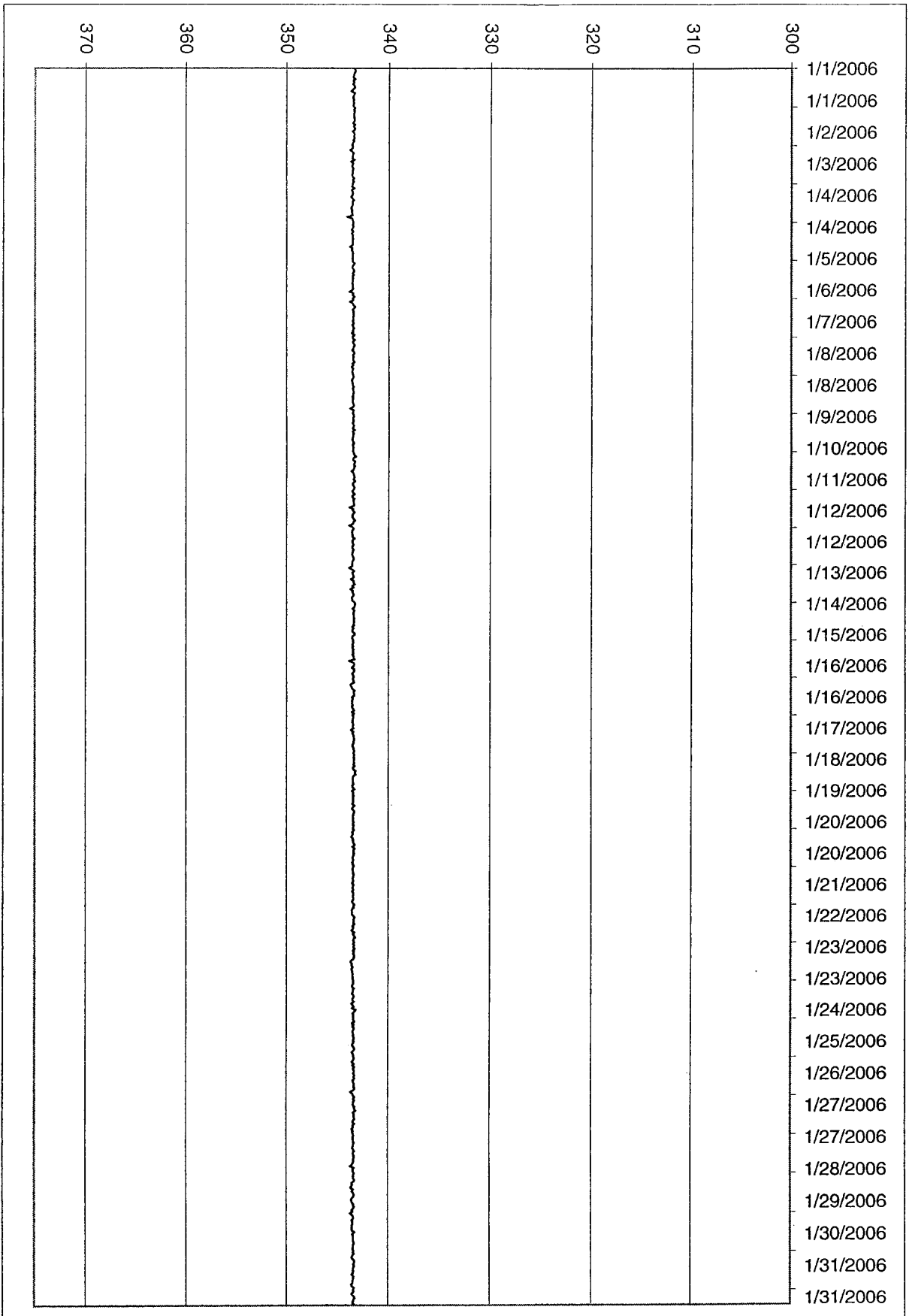


Well 19



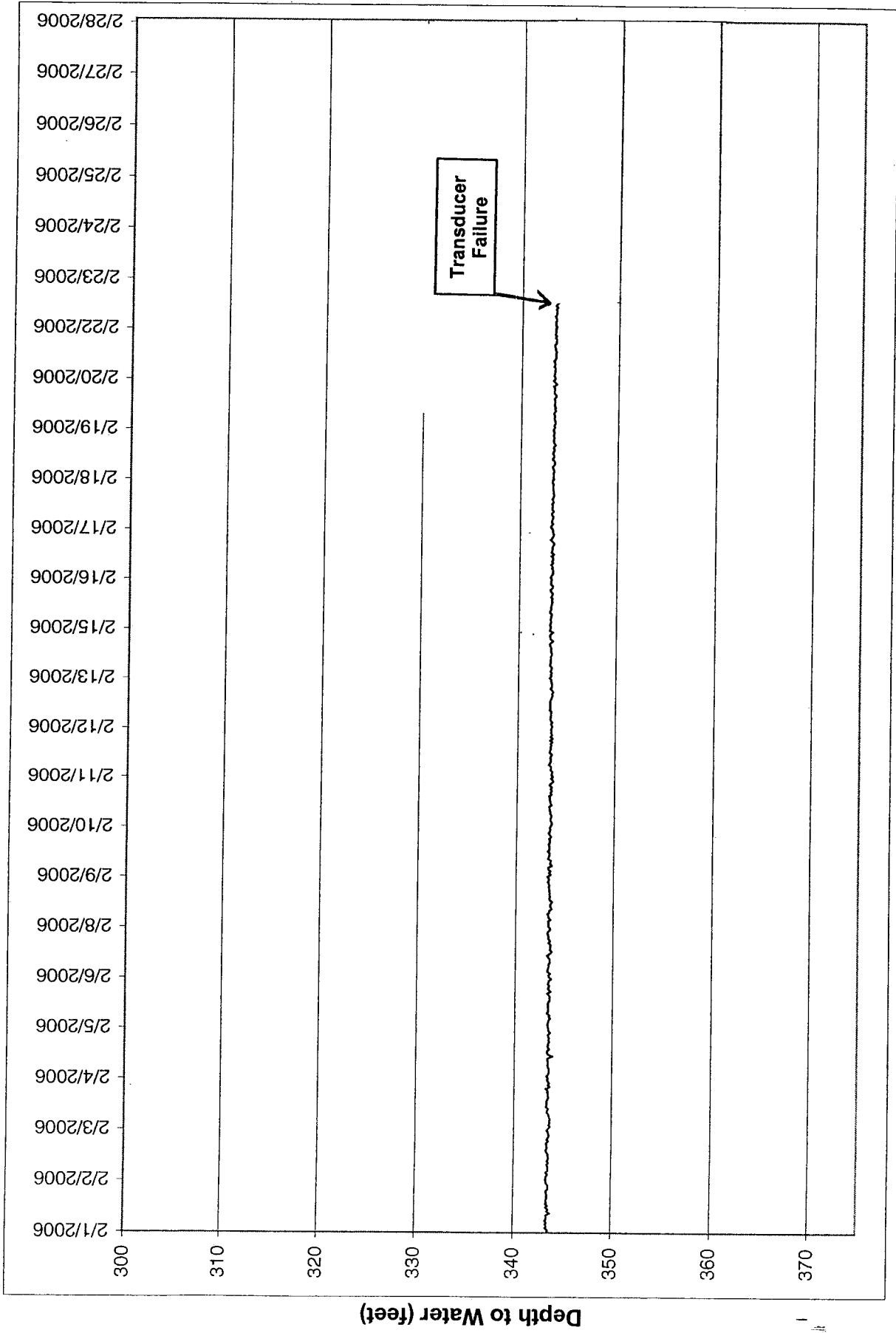
WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN DECEMBER 2005

Depth to Water (feet)



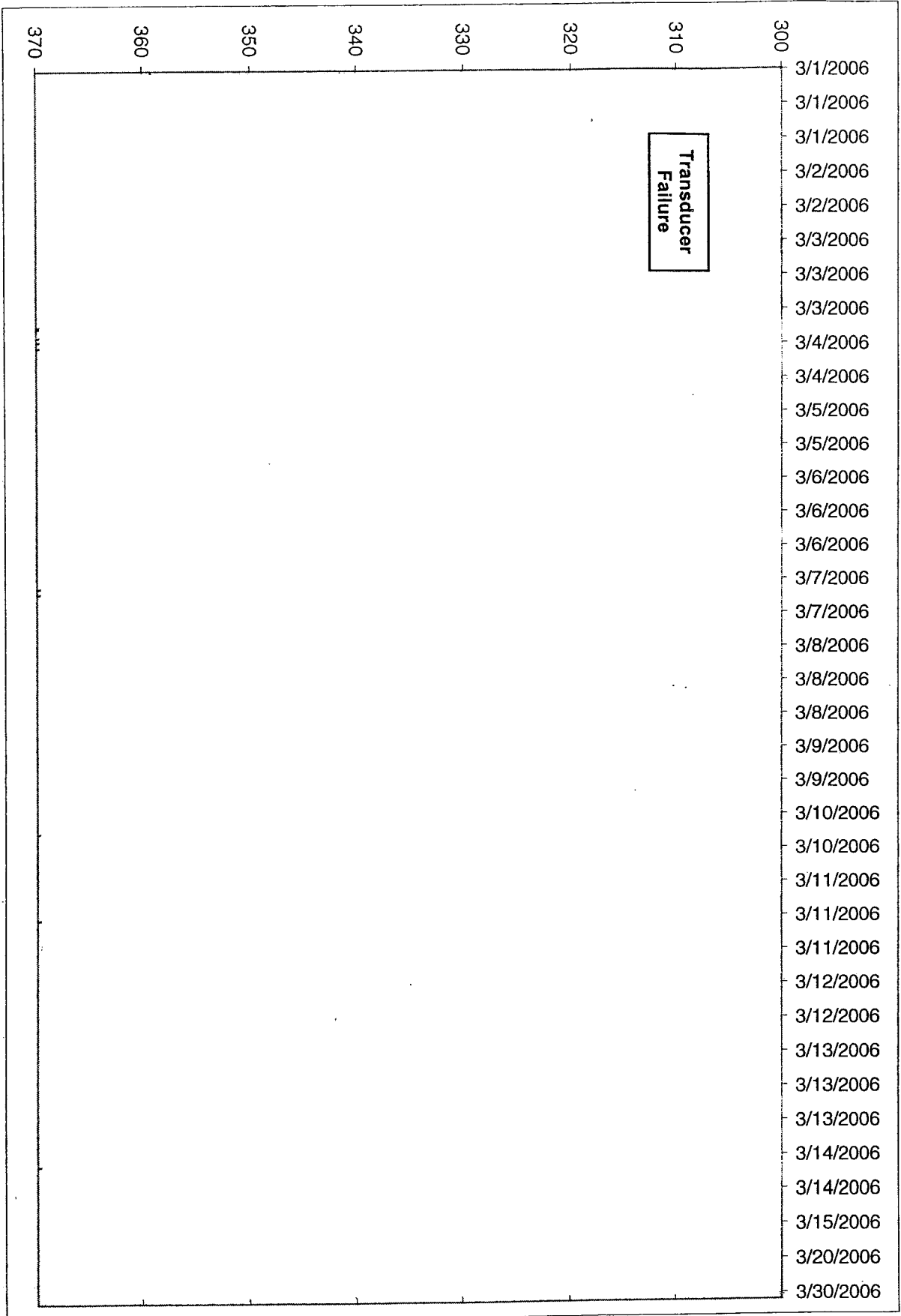
WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN JANUARY 2006

Well 19



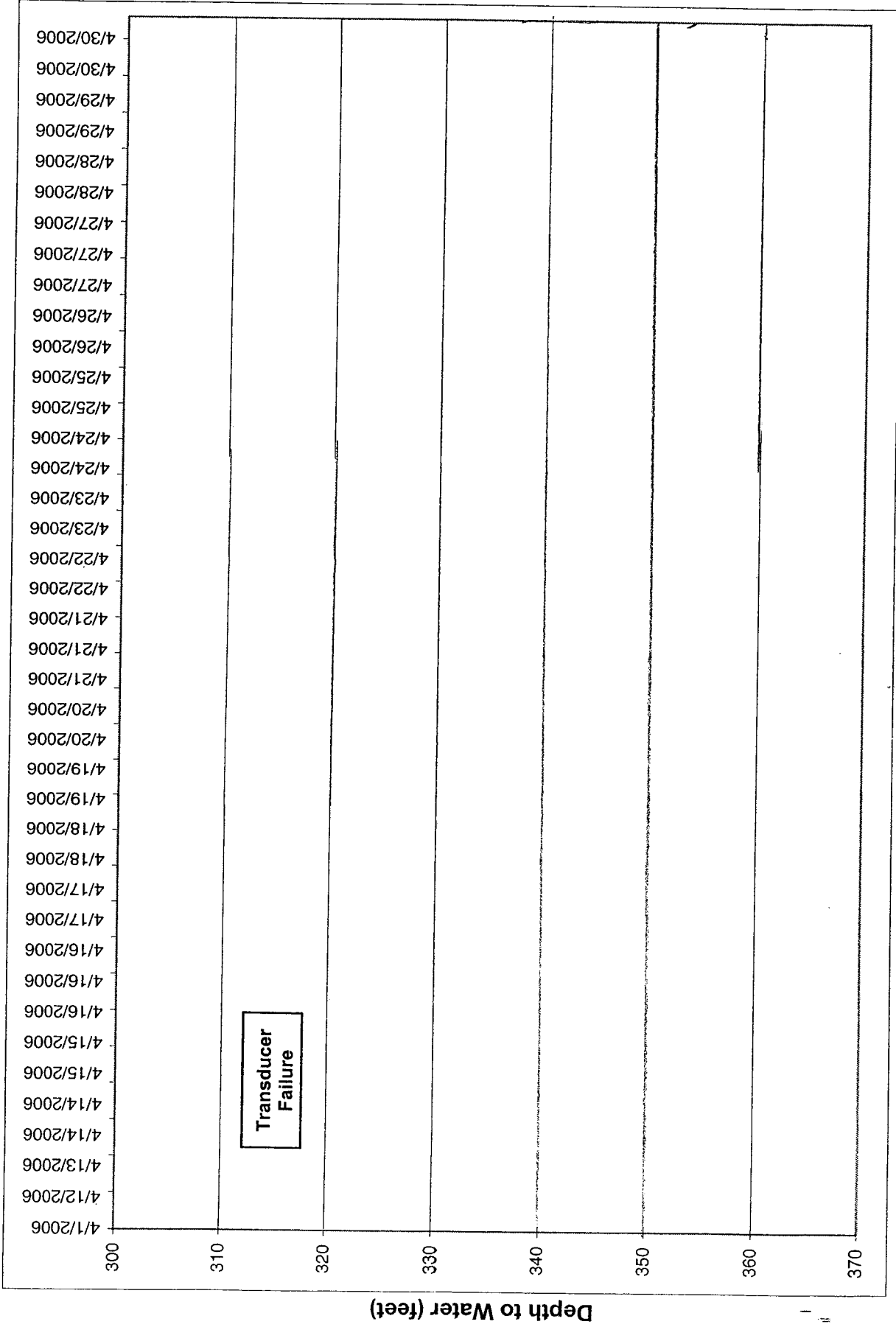
WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN FEBRUARY 2006

Depth to Water (feet)



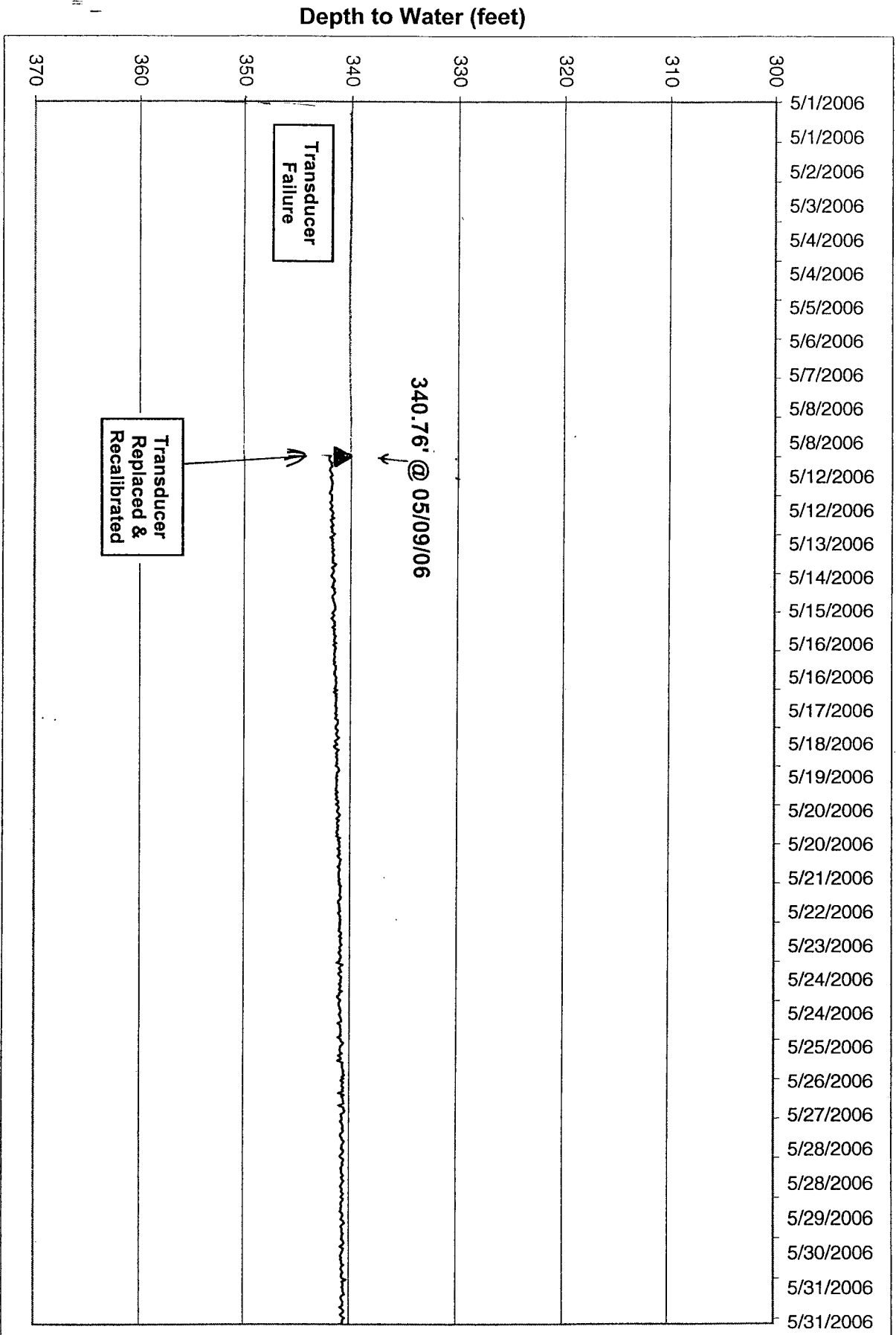
WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN MARCH 2006

Well 19

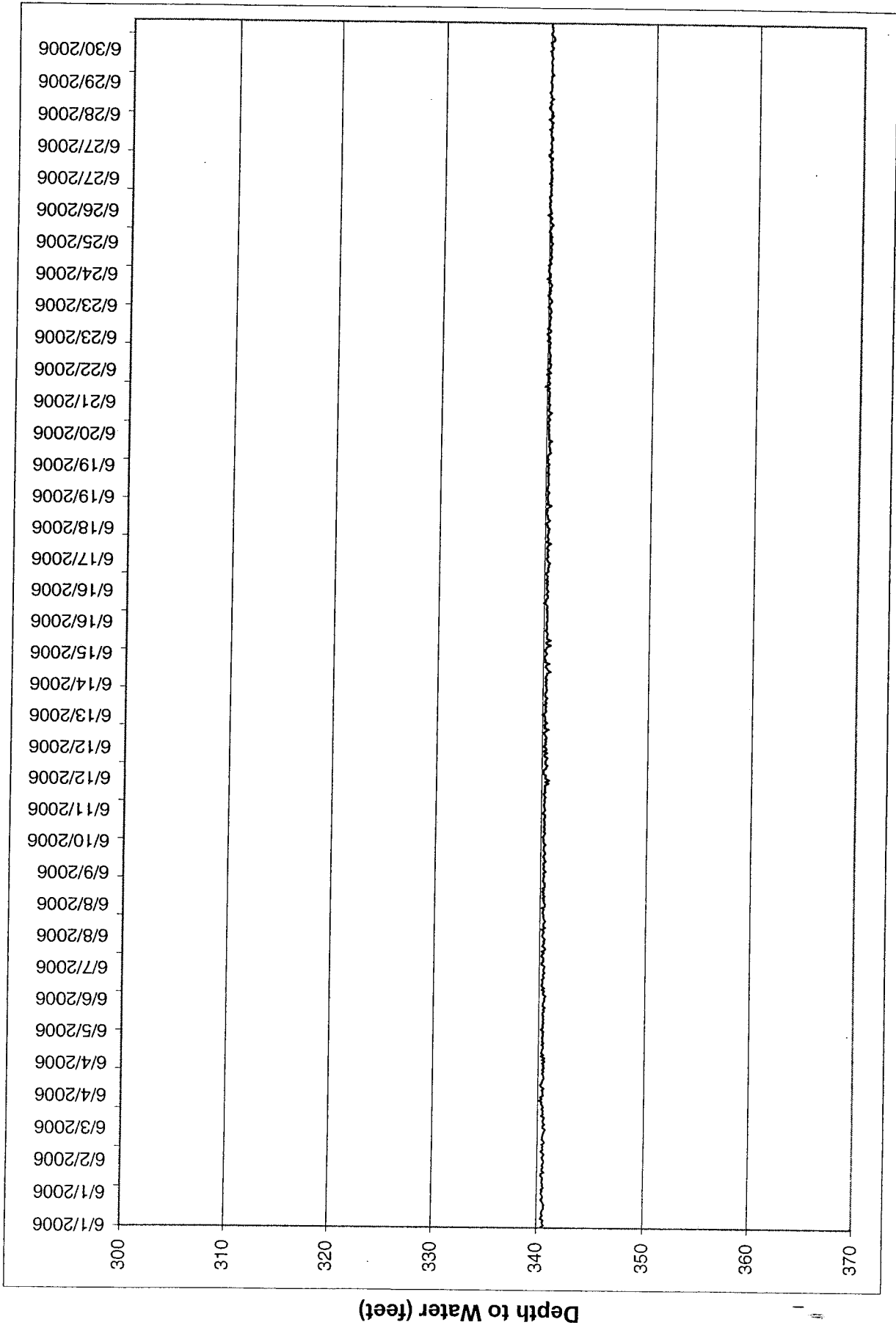


WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN APRIL 2006

# WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN MAY 2006

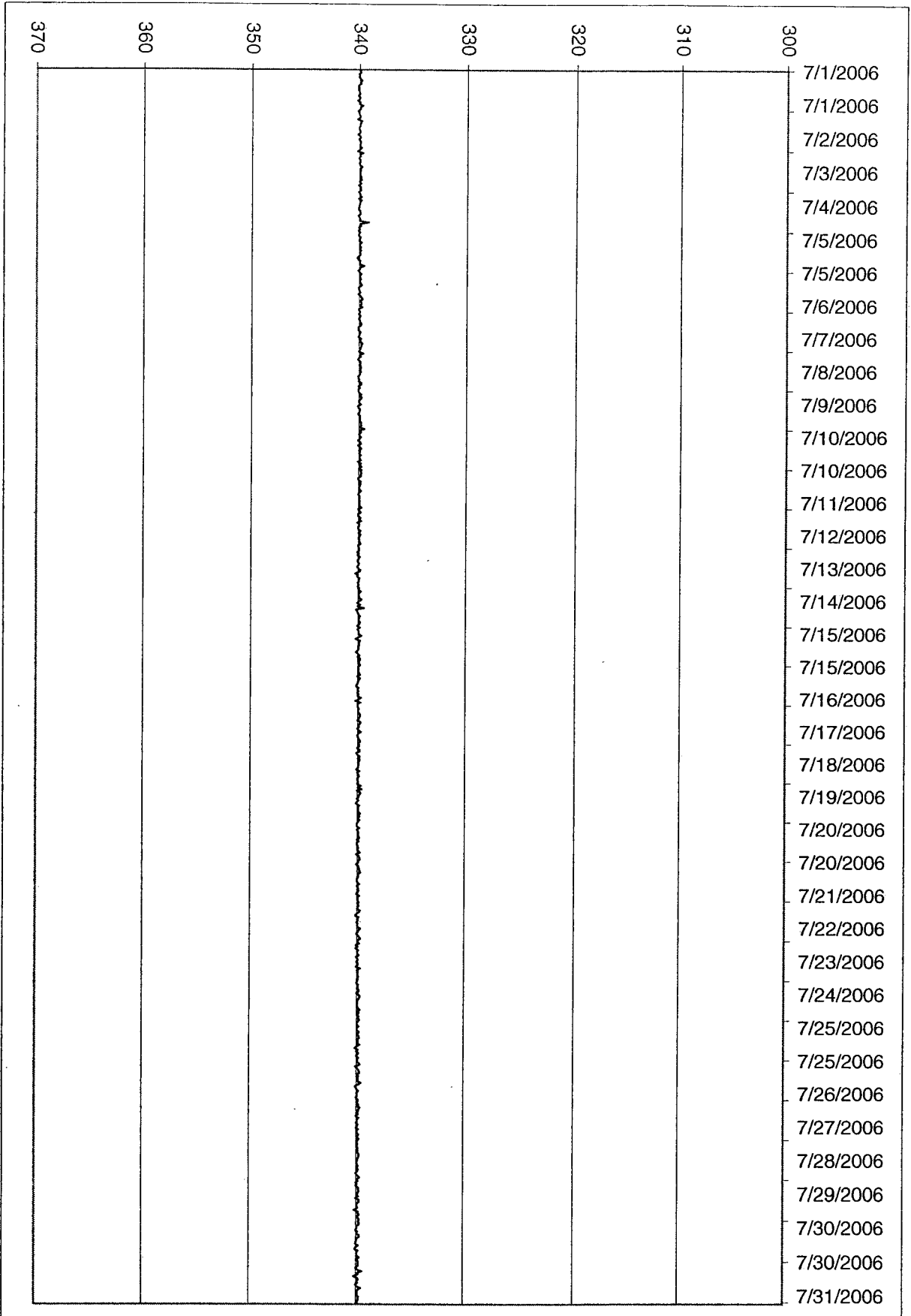


Well 19



WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN JUNE 2006

Depth to Water (feet)

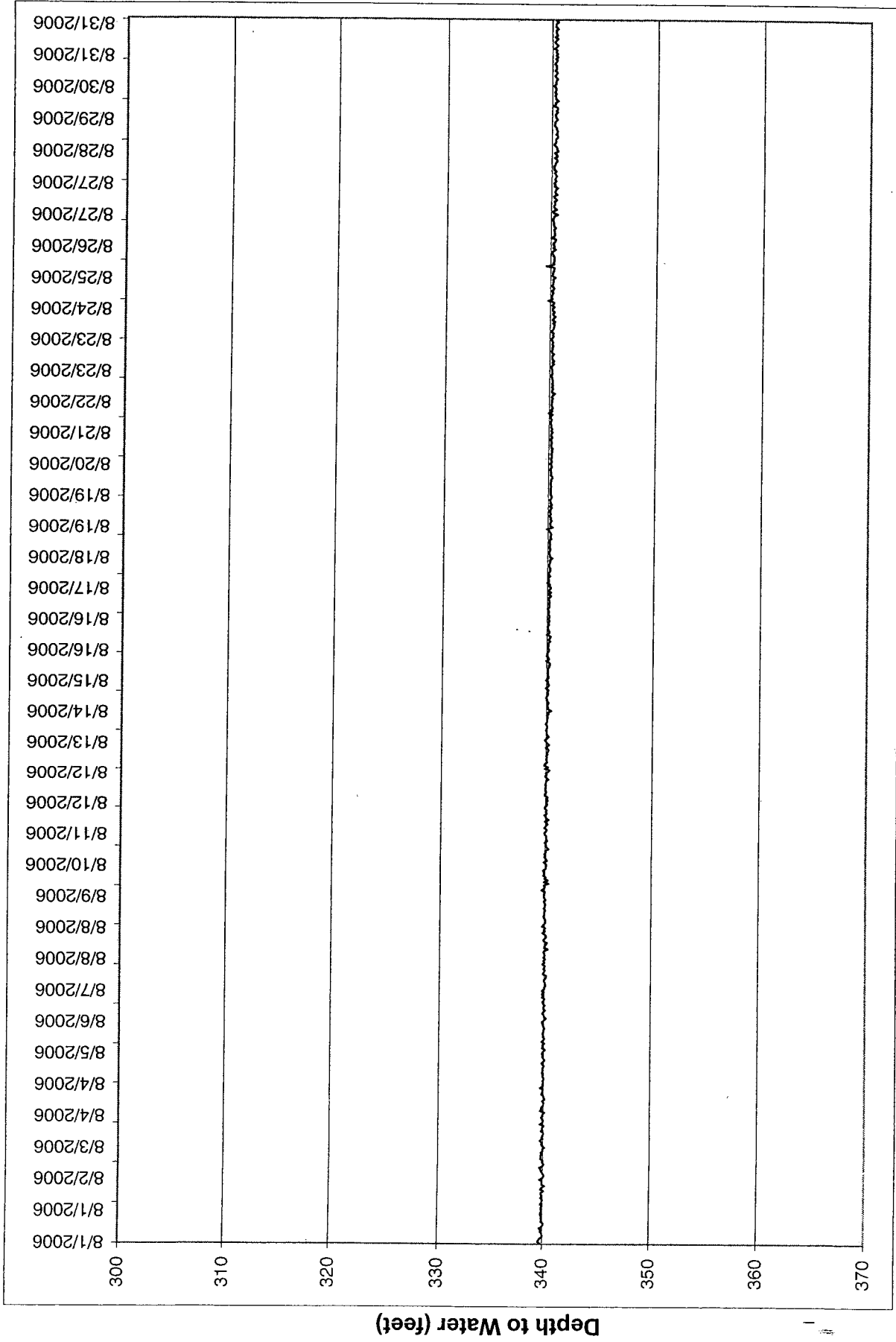


WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN JULY 2006

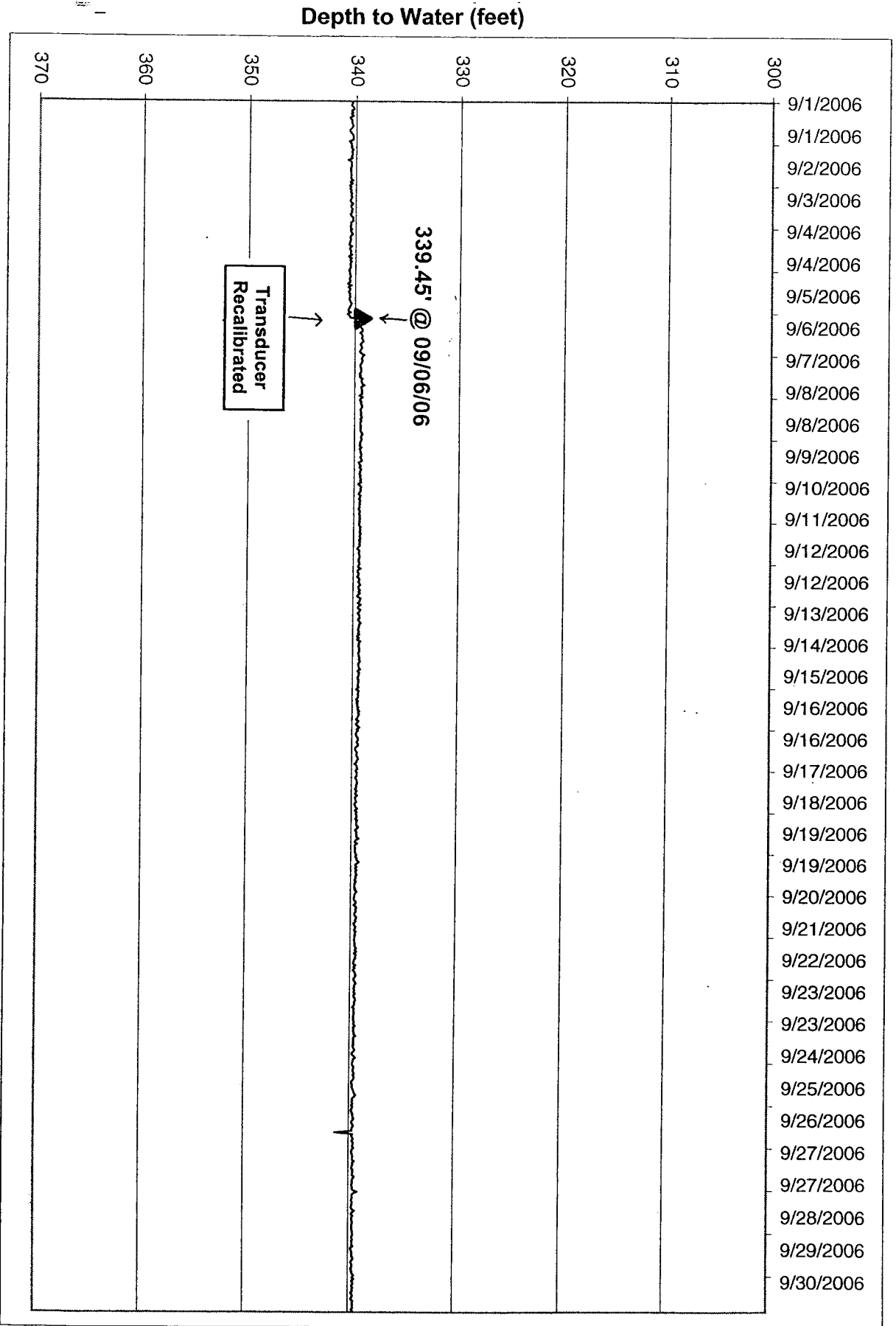
Well 19



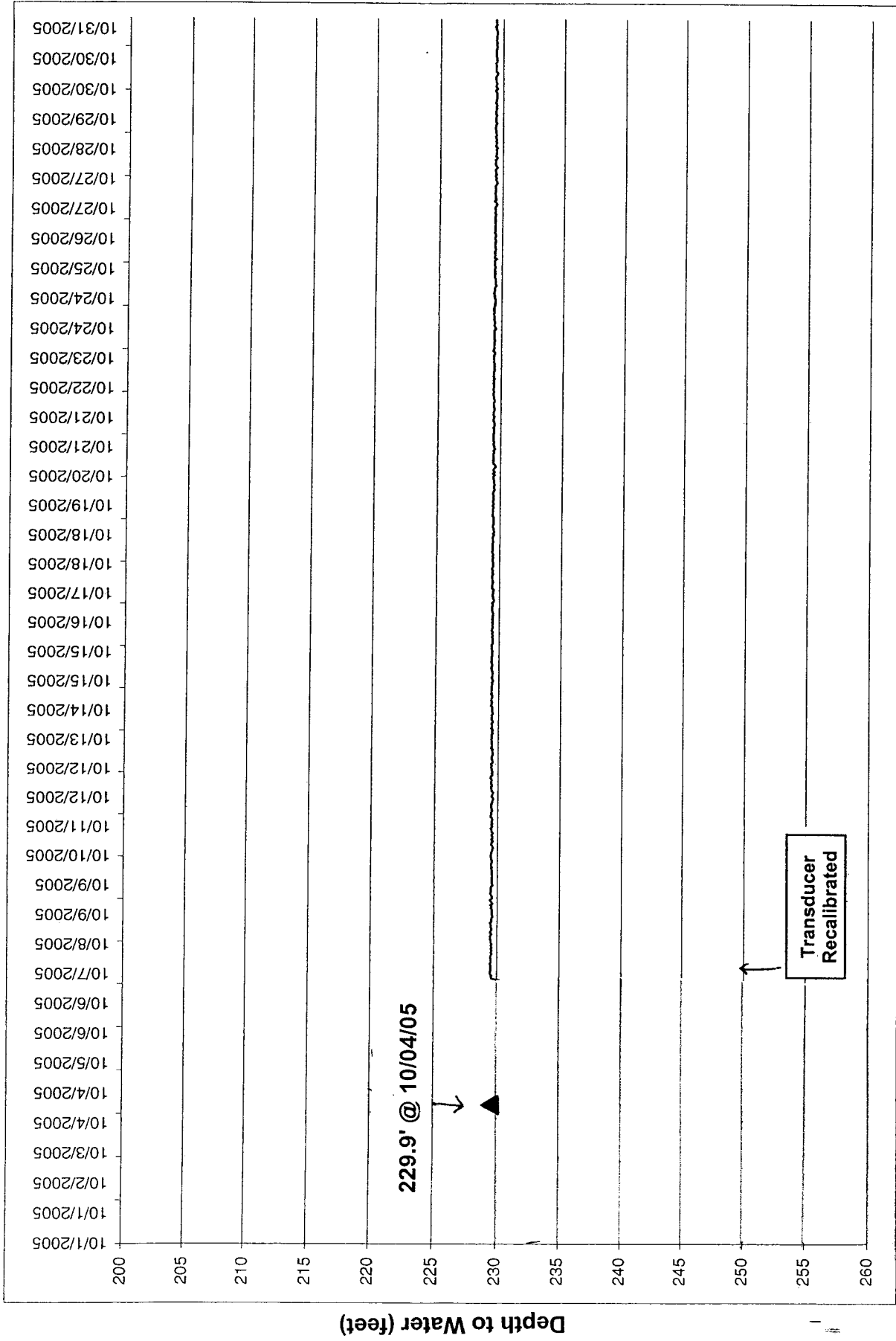
Well 19



WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN AUGUST 2006

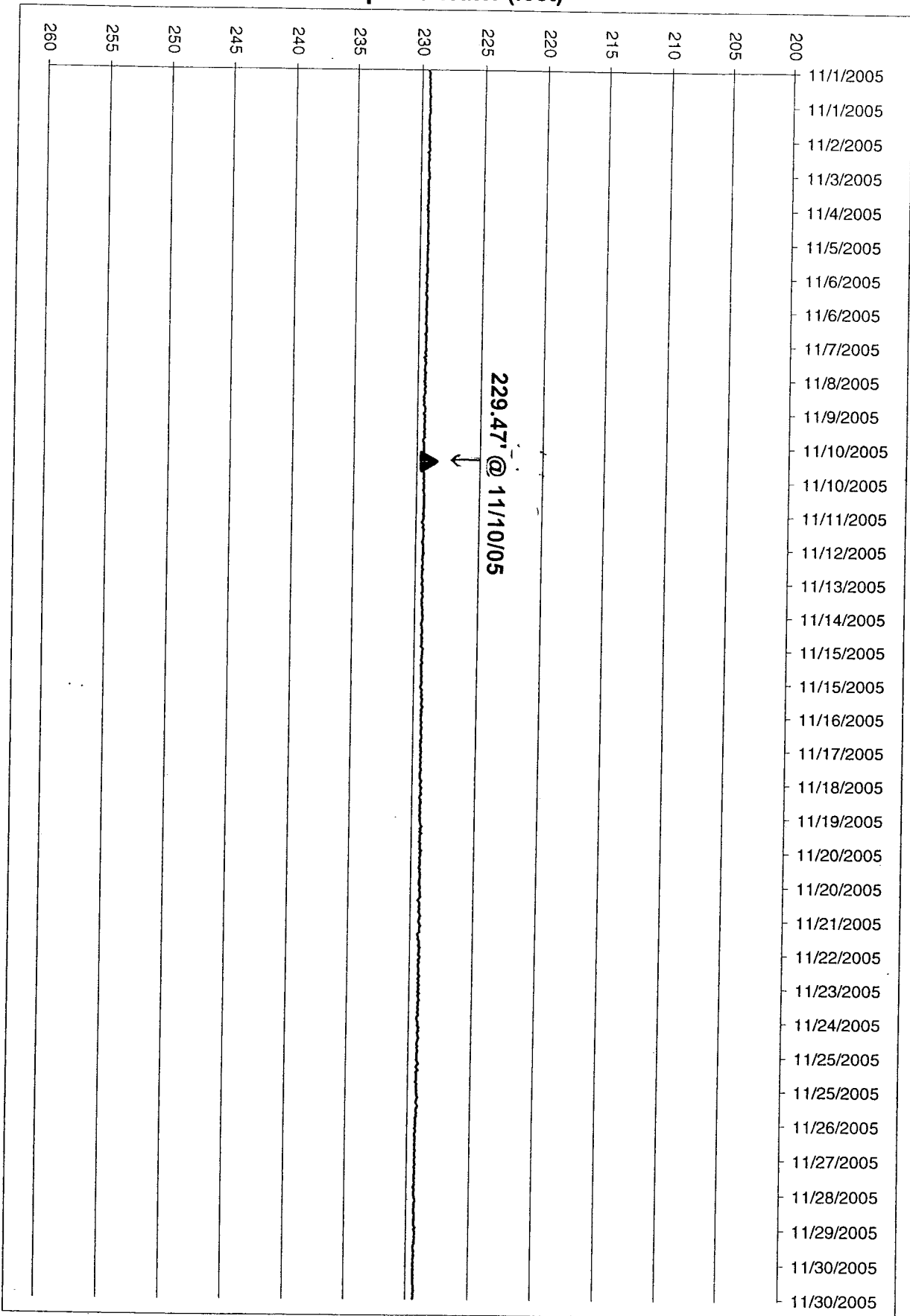


WATER-LEVEL HYDROGRAPH FOR WELL NO. 19 IN SEPTEMBER 2006



WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN OCTOBER 2005

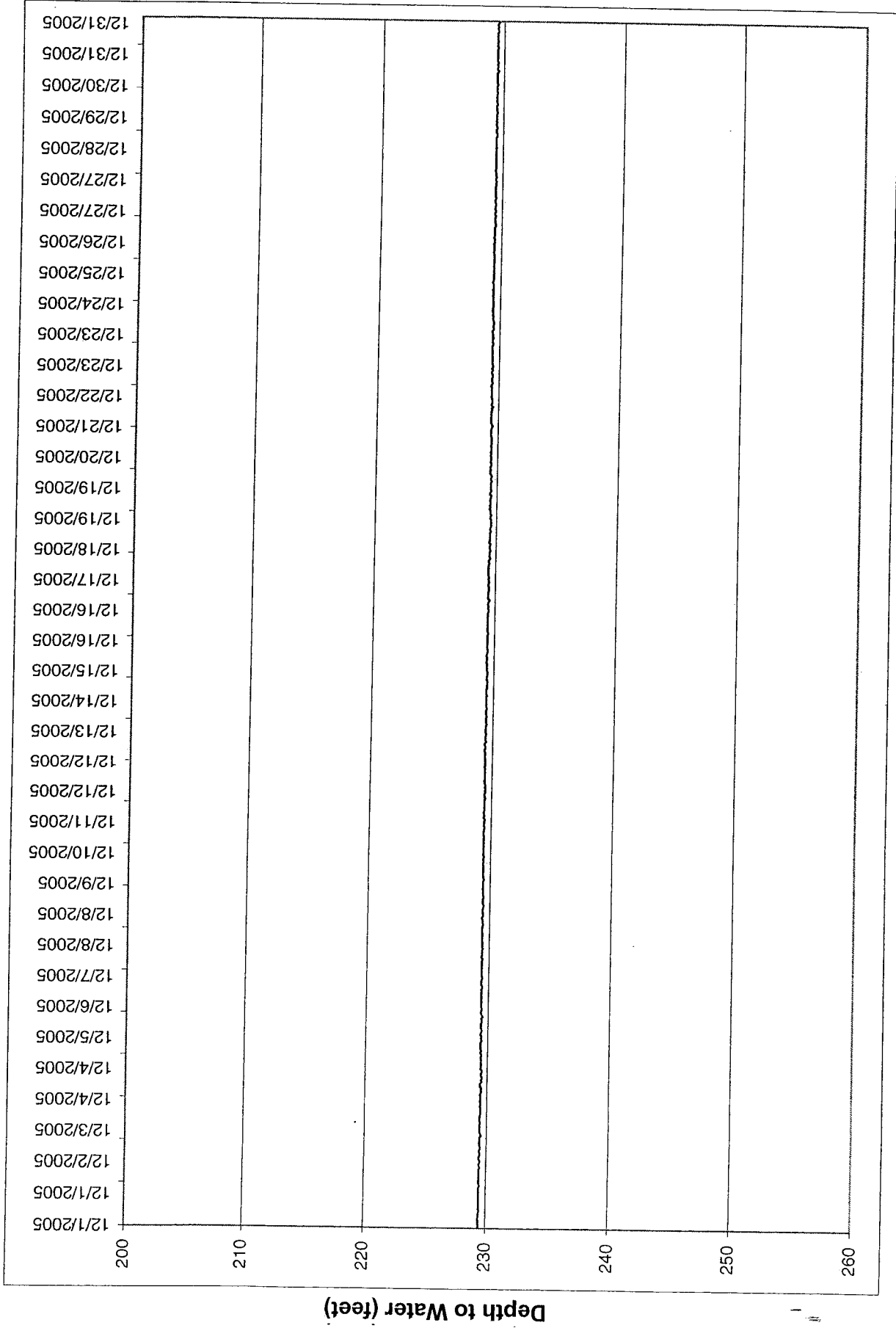
Depth to Water (feet)



WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN NOVEMBER 2005

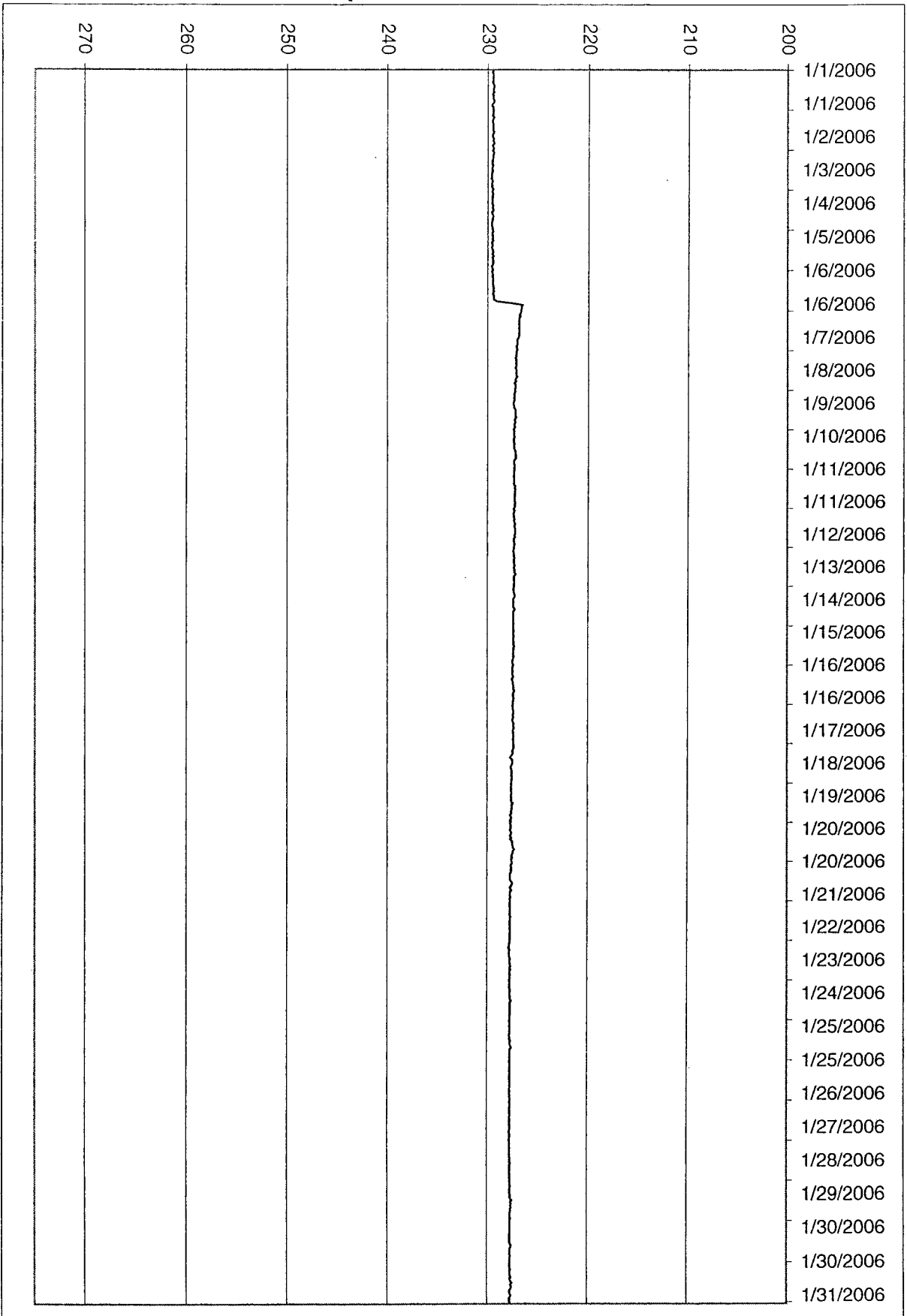
Well #21

Well 21



WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN DECEMBER 2005

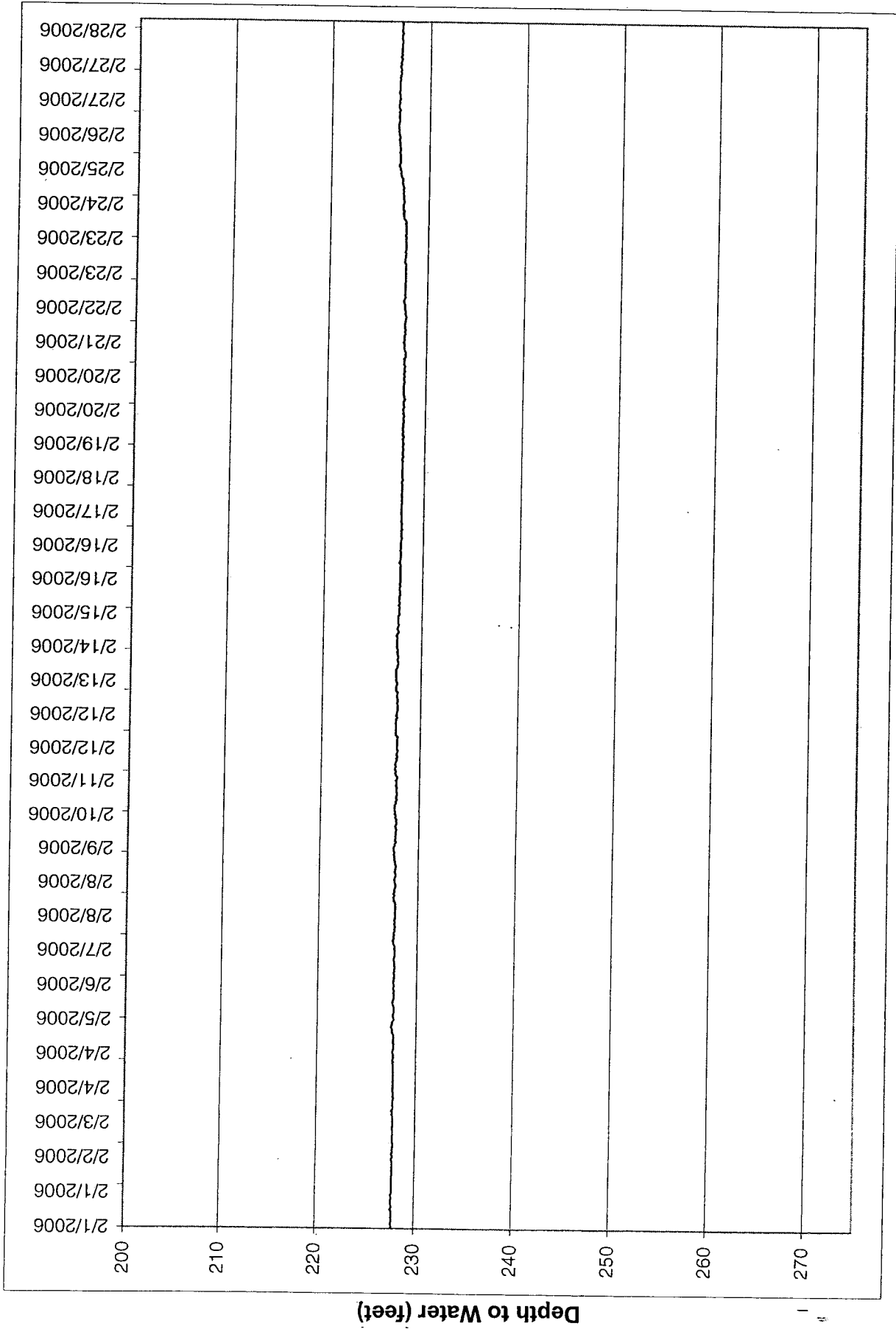
Depth to Water (feet)



WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN JANUARY 2006

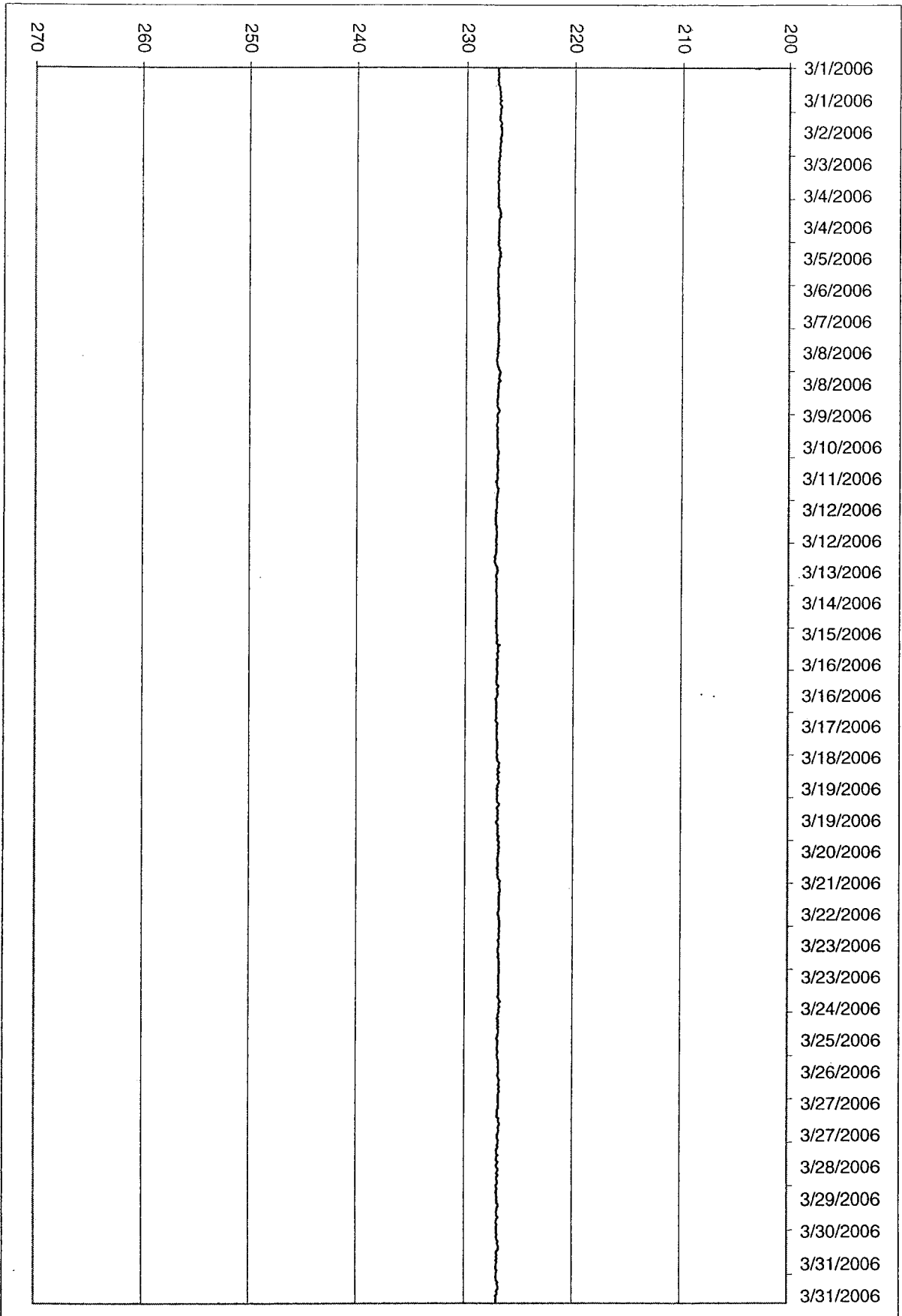
Well 21

Well 21



WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN FEBRUARY 2006

Depth to Water (feet)

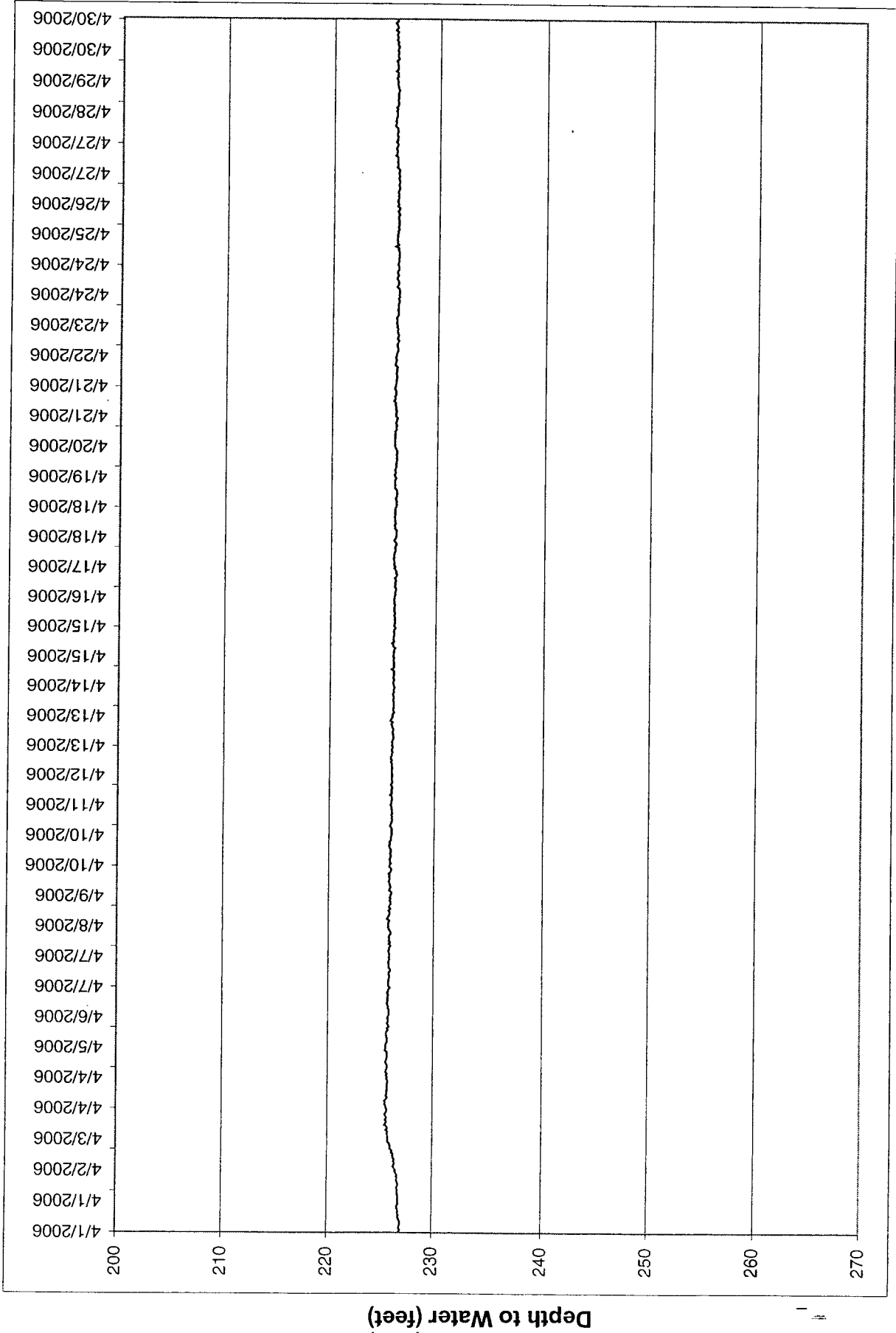


WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN MARCH 2006

Well 21

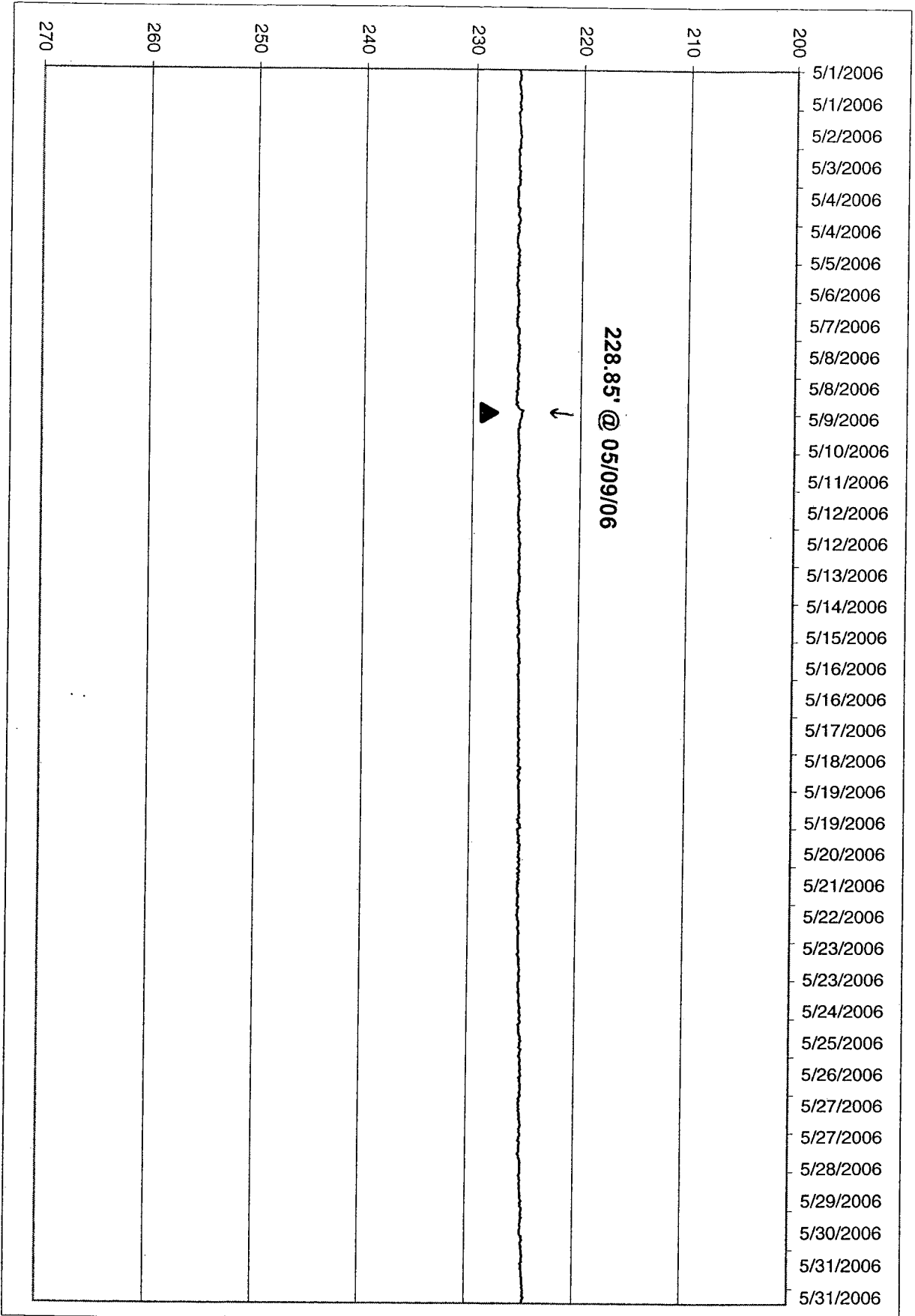


Well 21



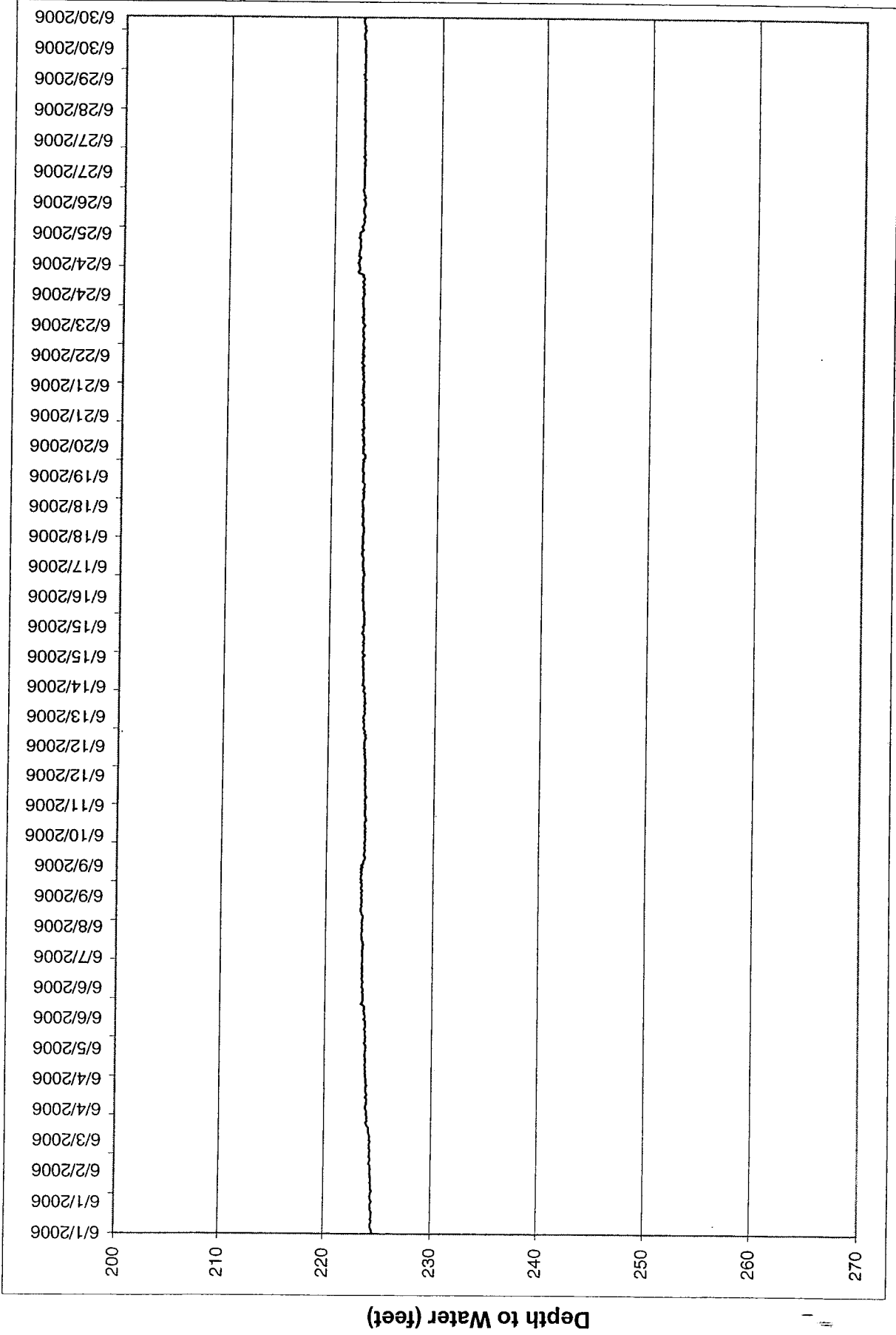
WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN APRIL 2006

Depth to Water (feet)



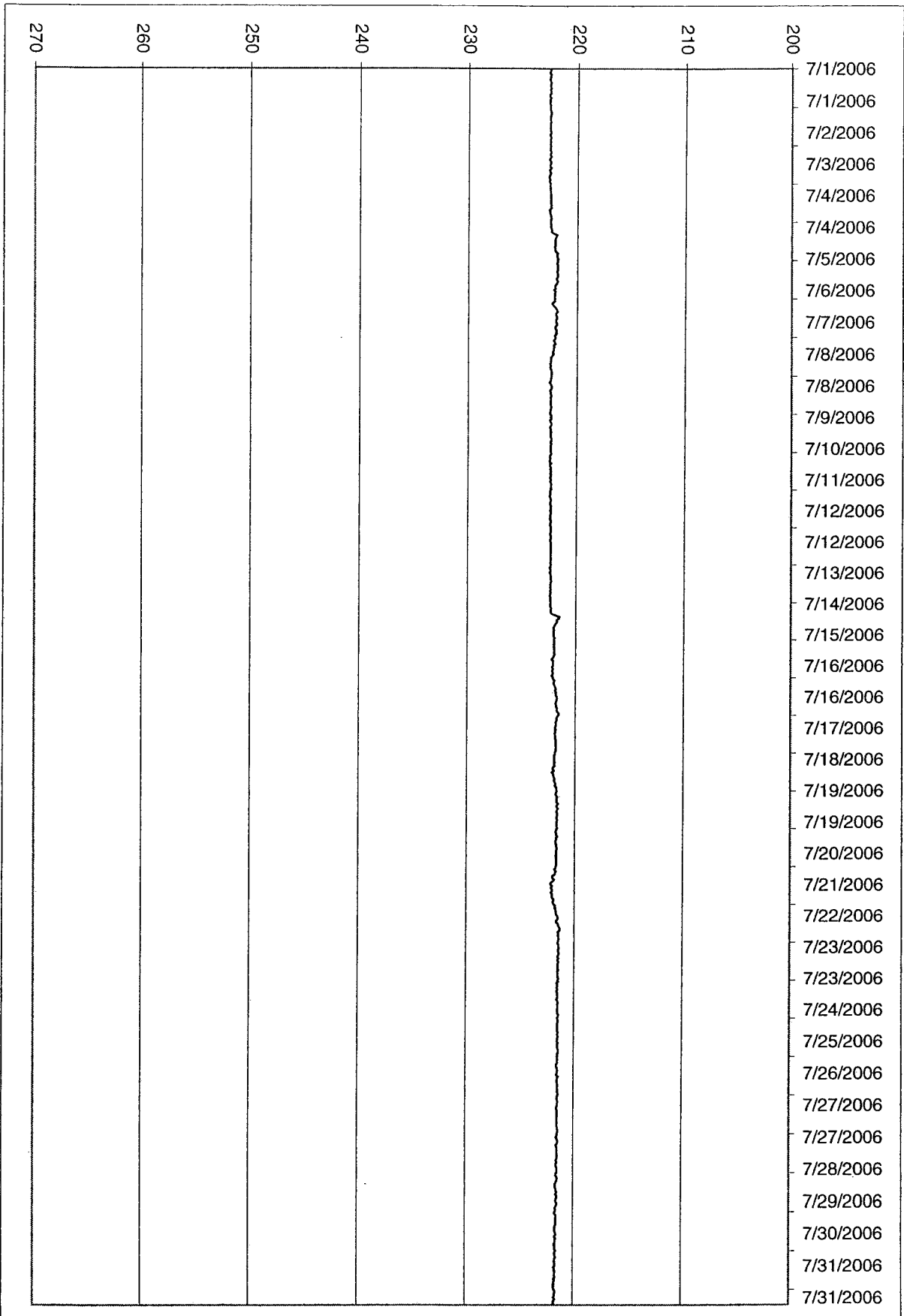
WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN MAY 2006

Well 21



WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN JUNE 2006

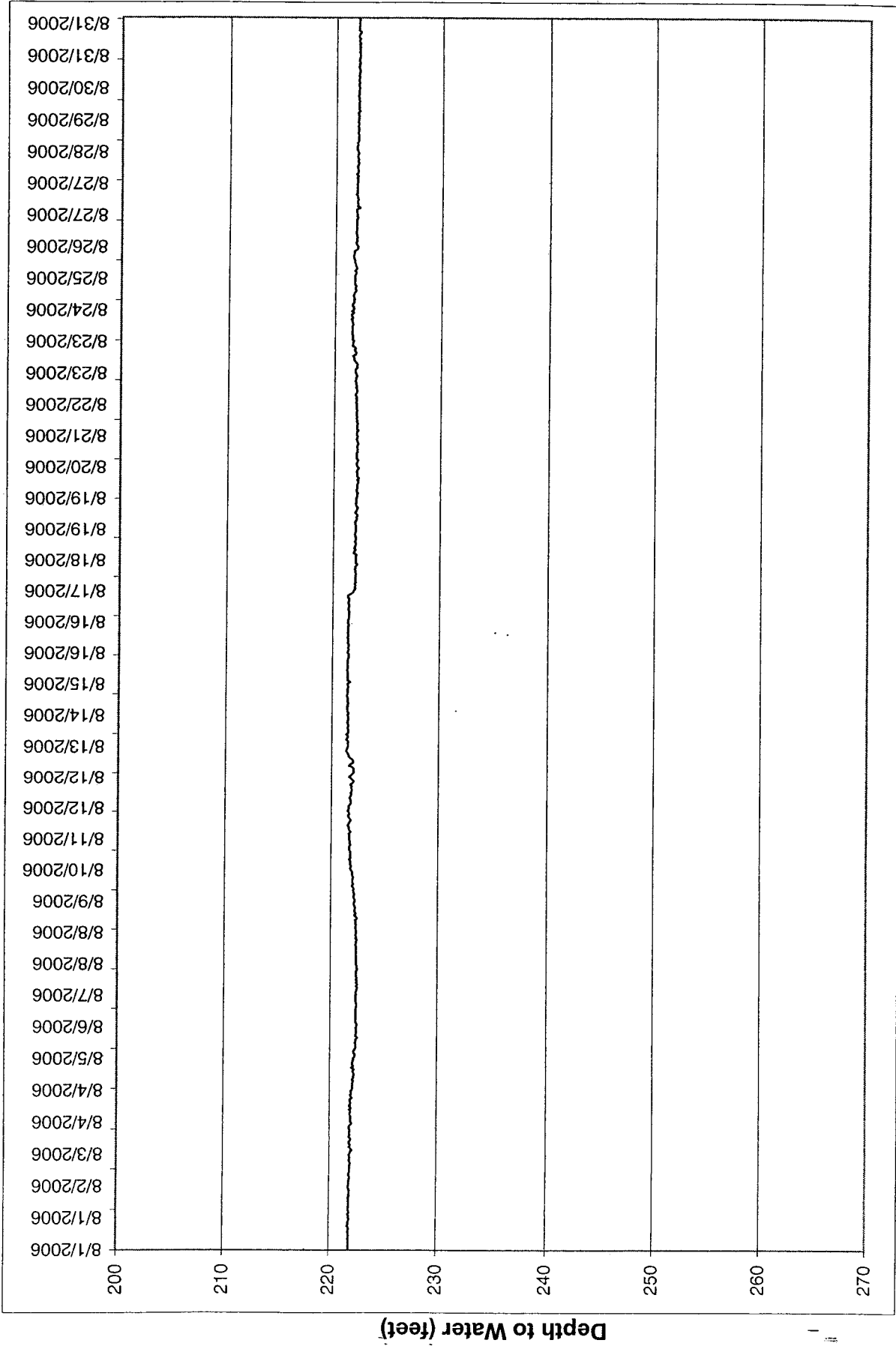
Depth to Water (feet)



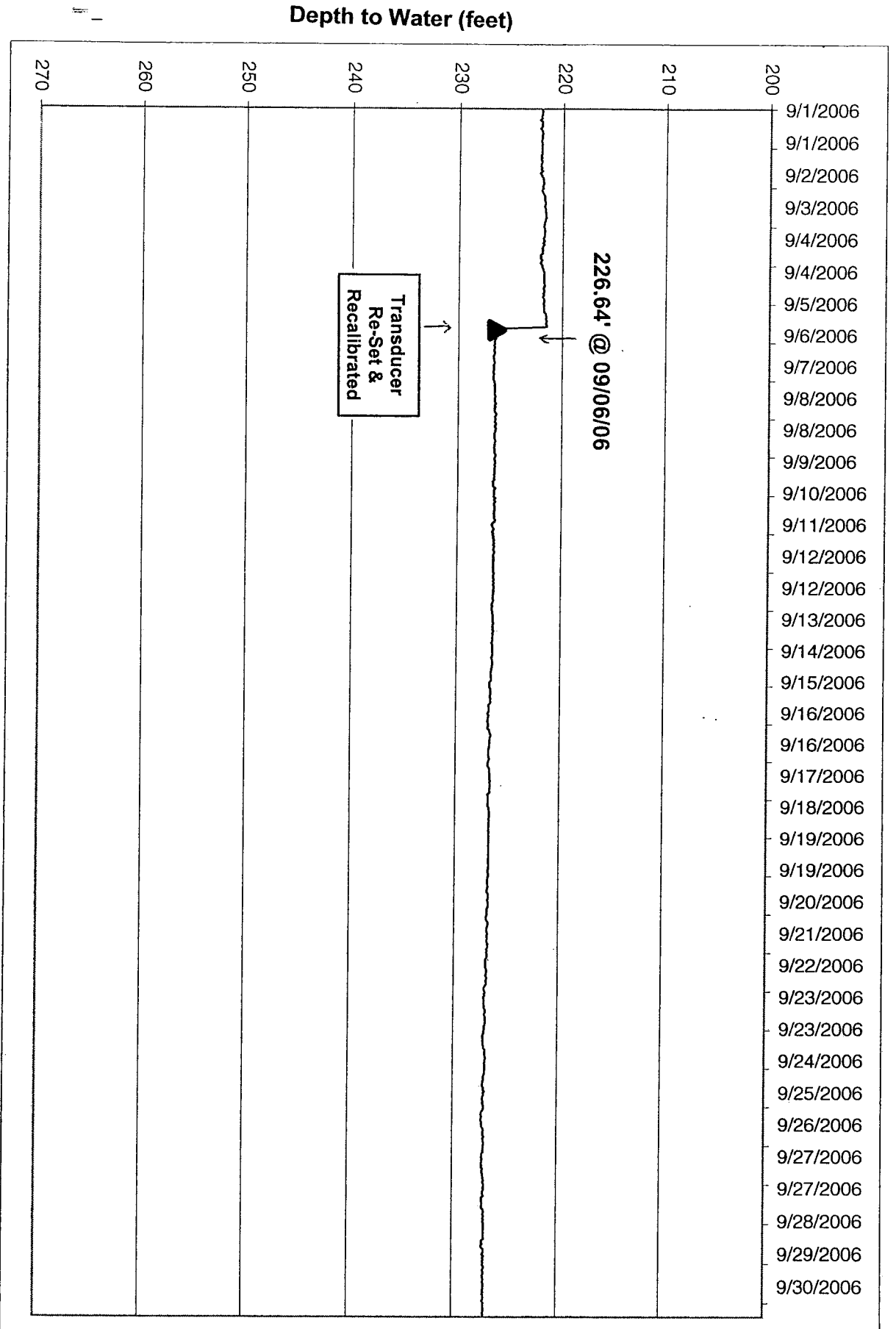
WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN JULY 2006

Well 21

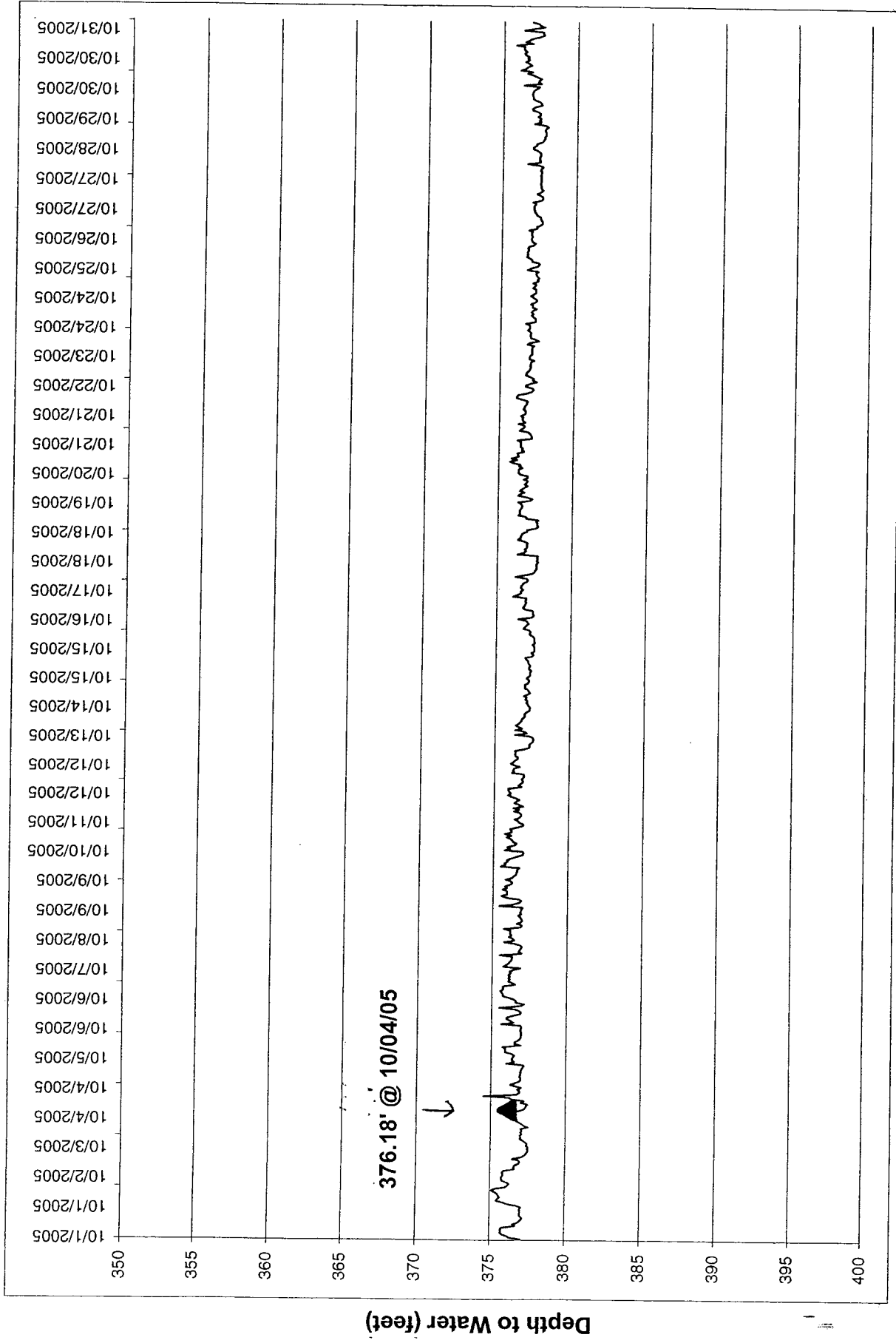
Well 21



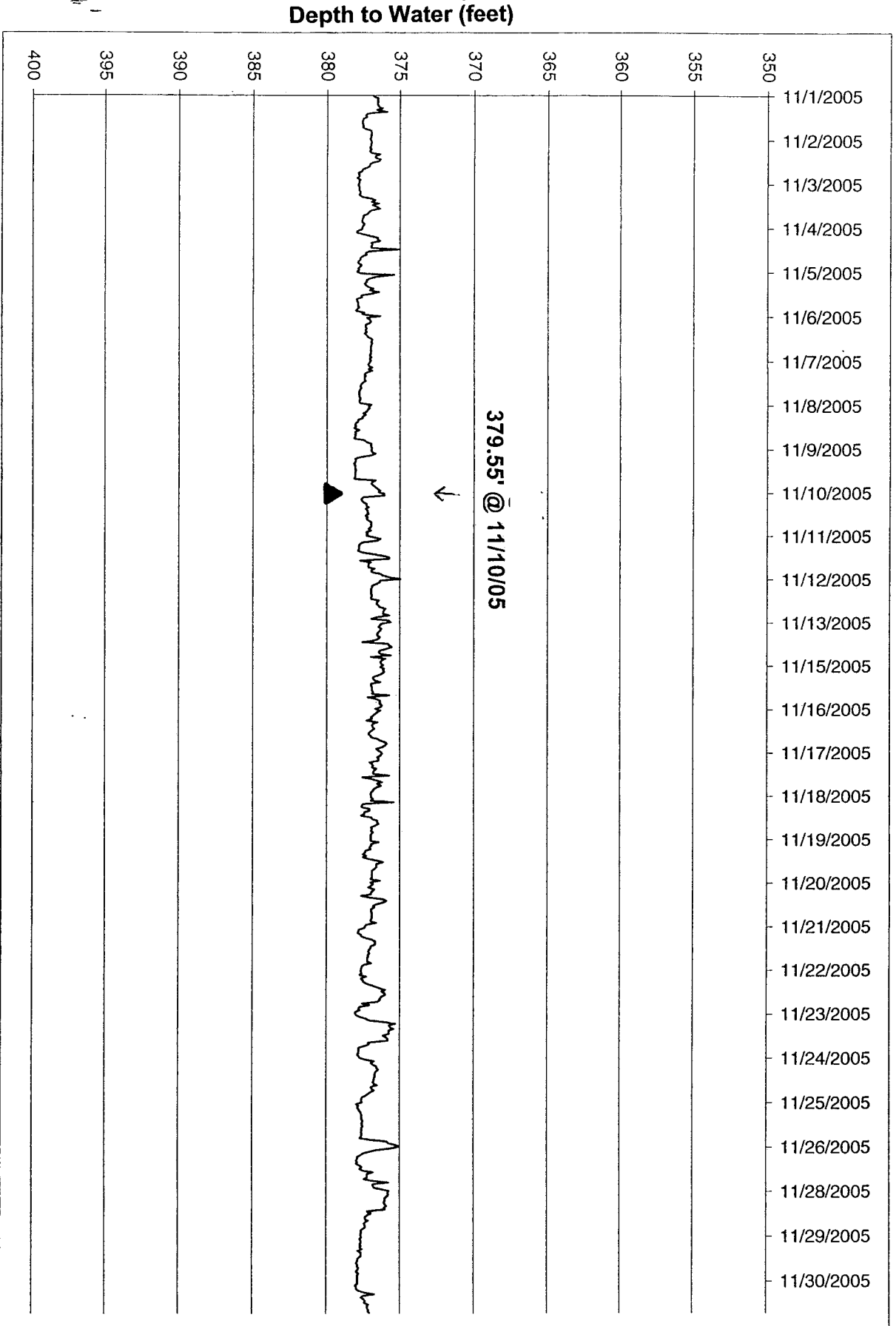
WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN AUGUST 2006



WATER-LEVEL HYDROGRAPH FOR WELL NO. 21 IN SEPTEMBER 2006



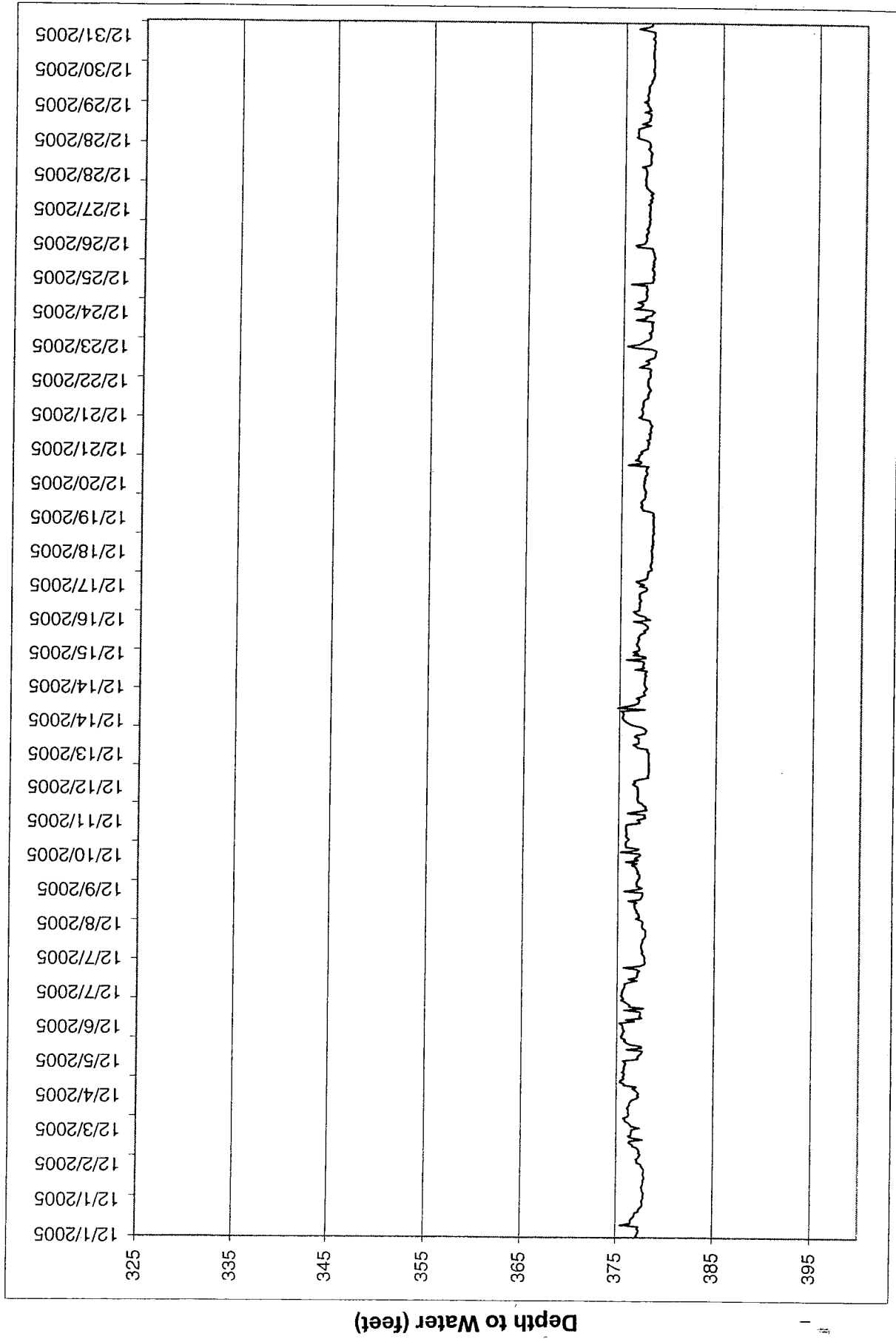
WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN OCTOBER 2005



WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN NOVEMBER 2005

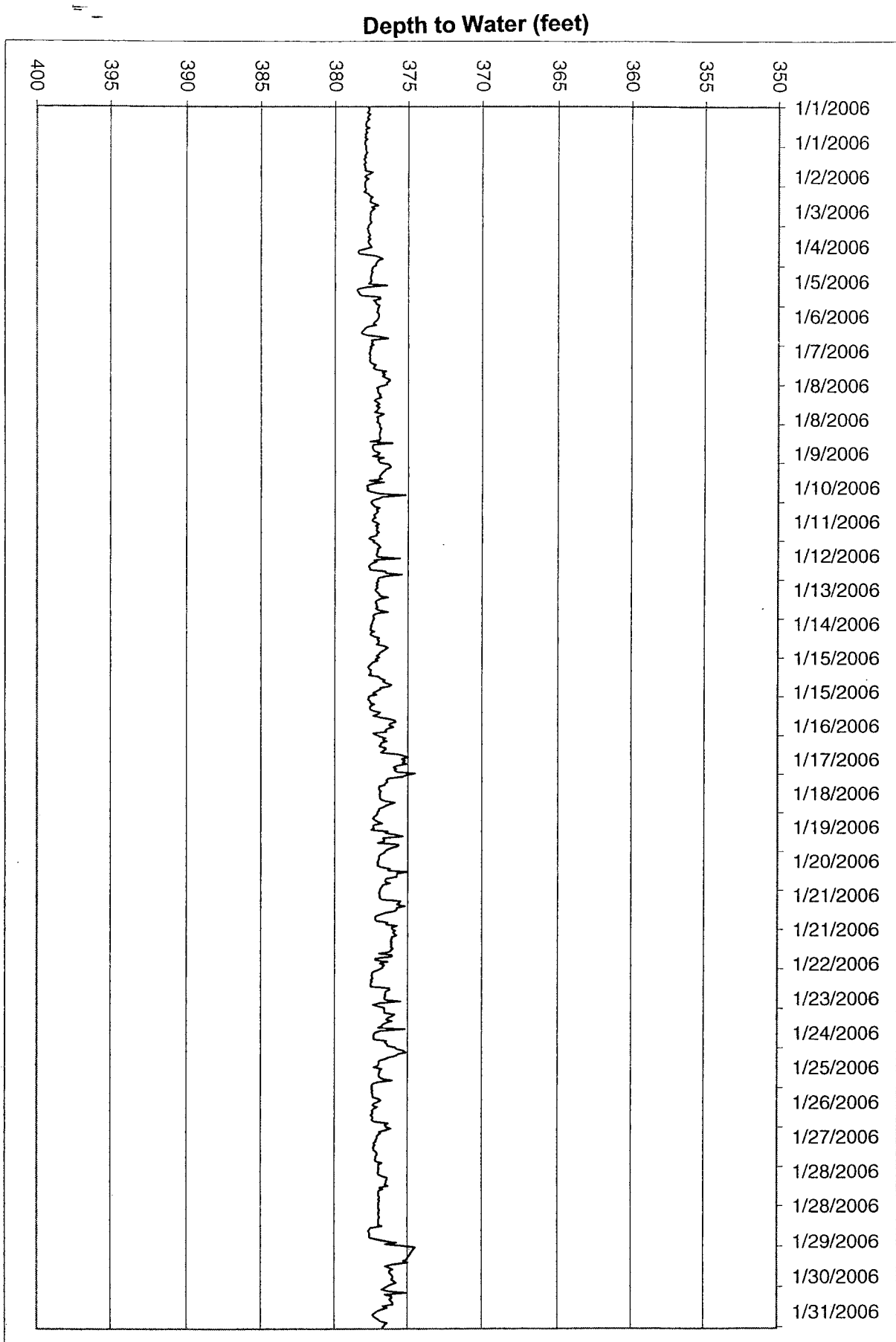


Well 24



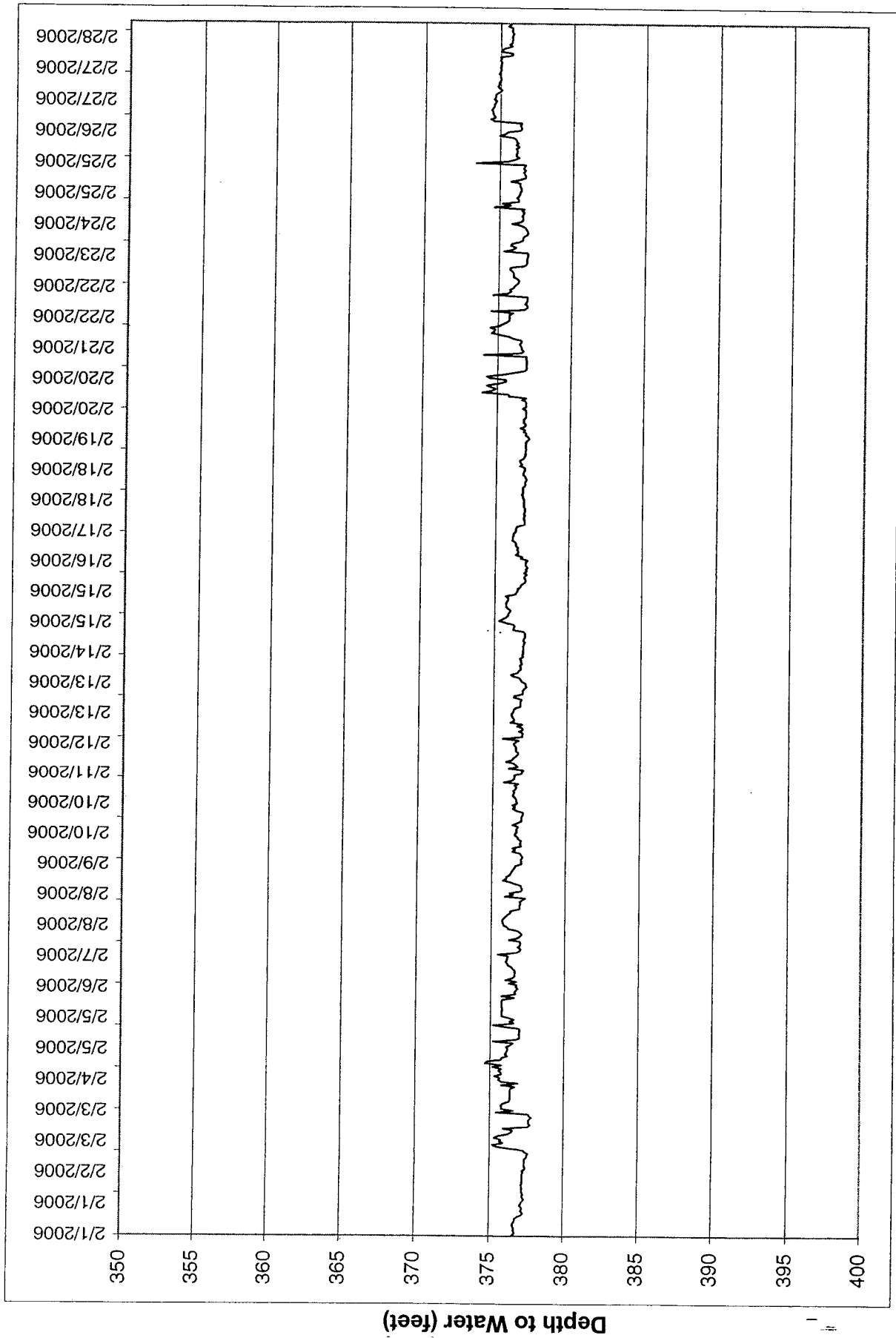
WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN DECEMBER 2005

WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN JANUARY 2006



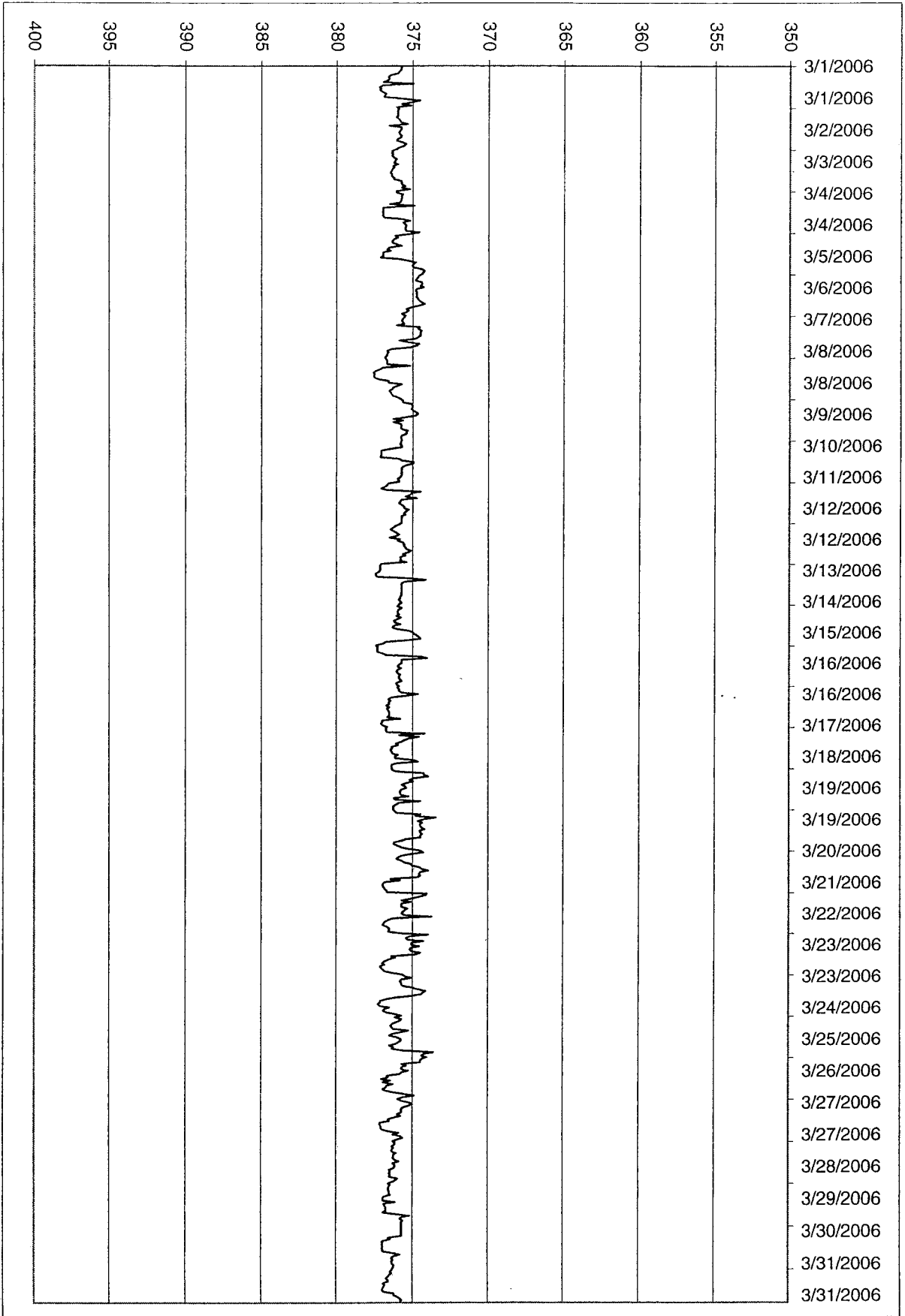
Well 24

Well 24



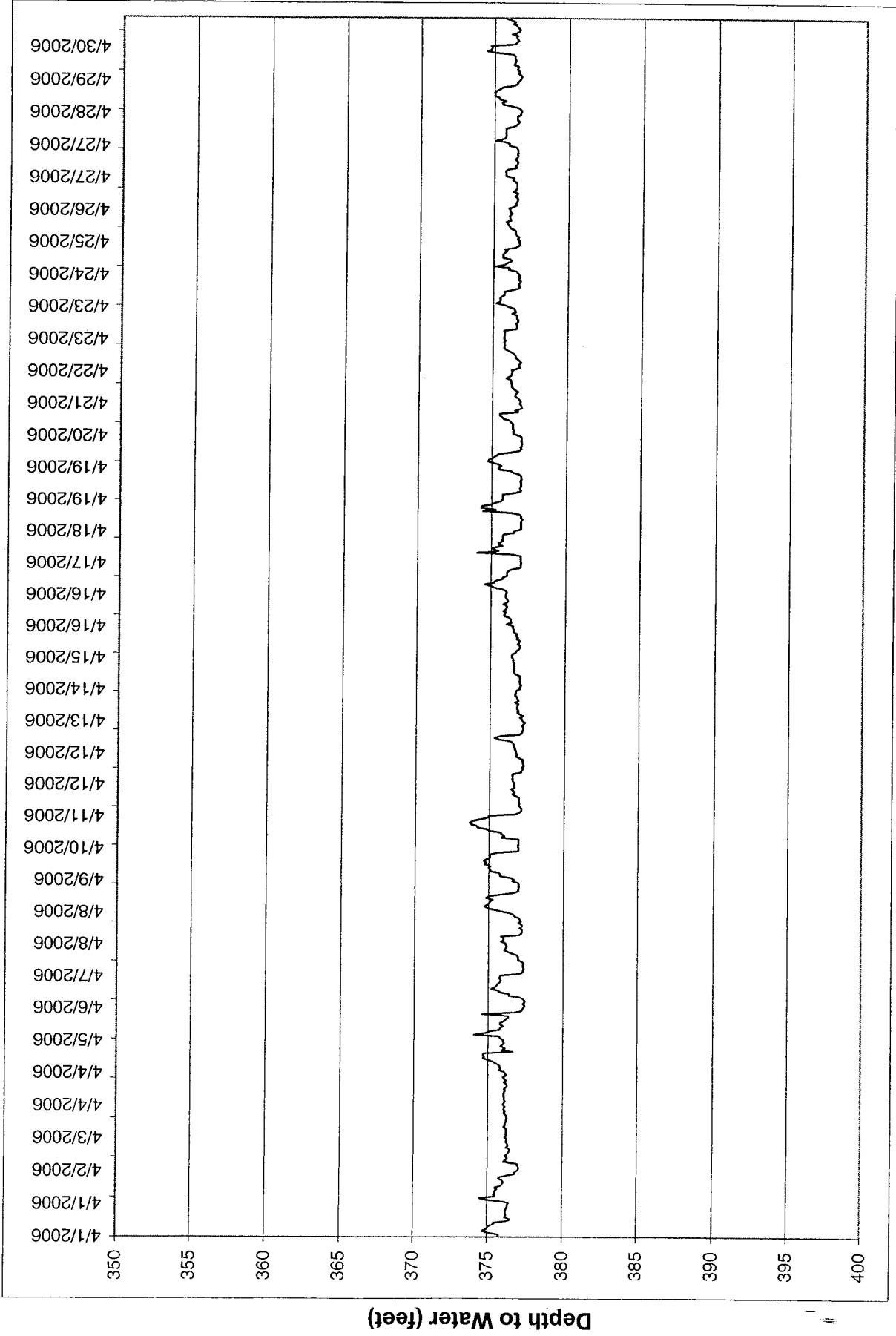
WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN FEBRUARY 2006

Depth to Water (feet)

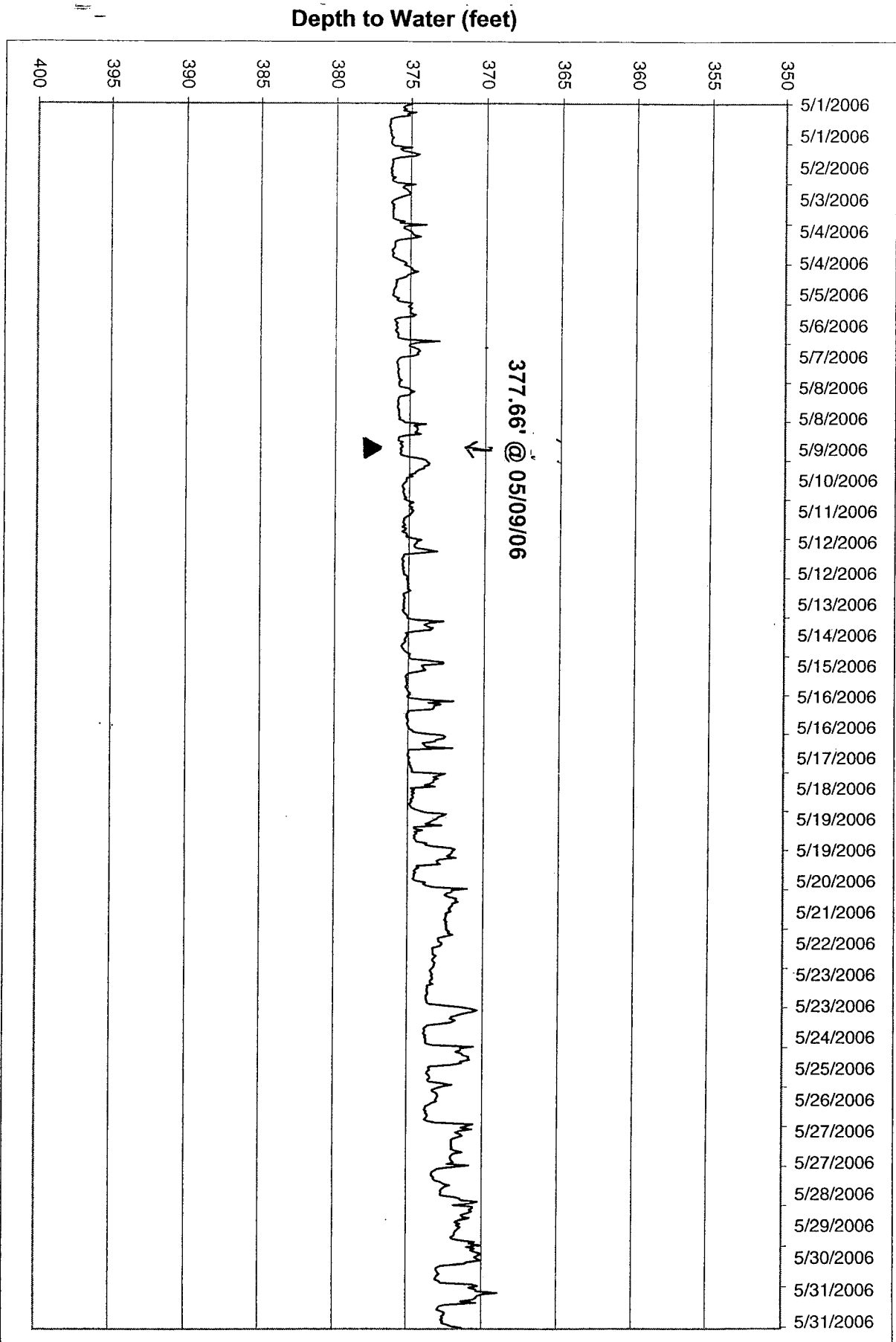


WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN MARCH 2006

Well 24



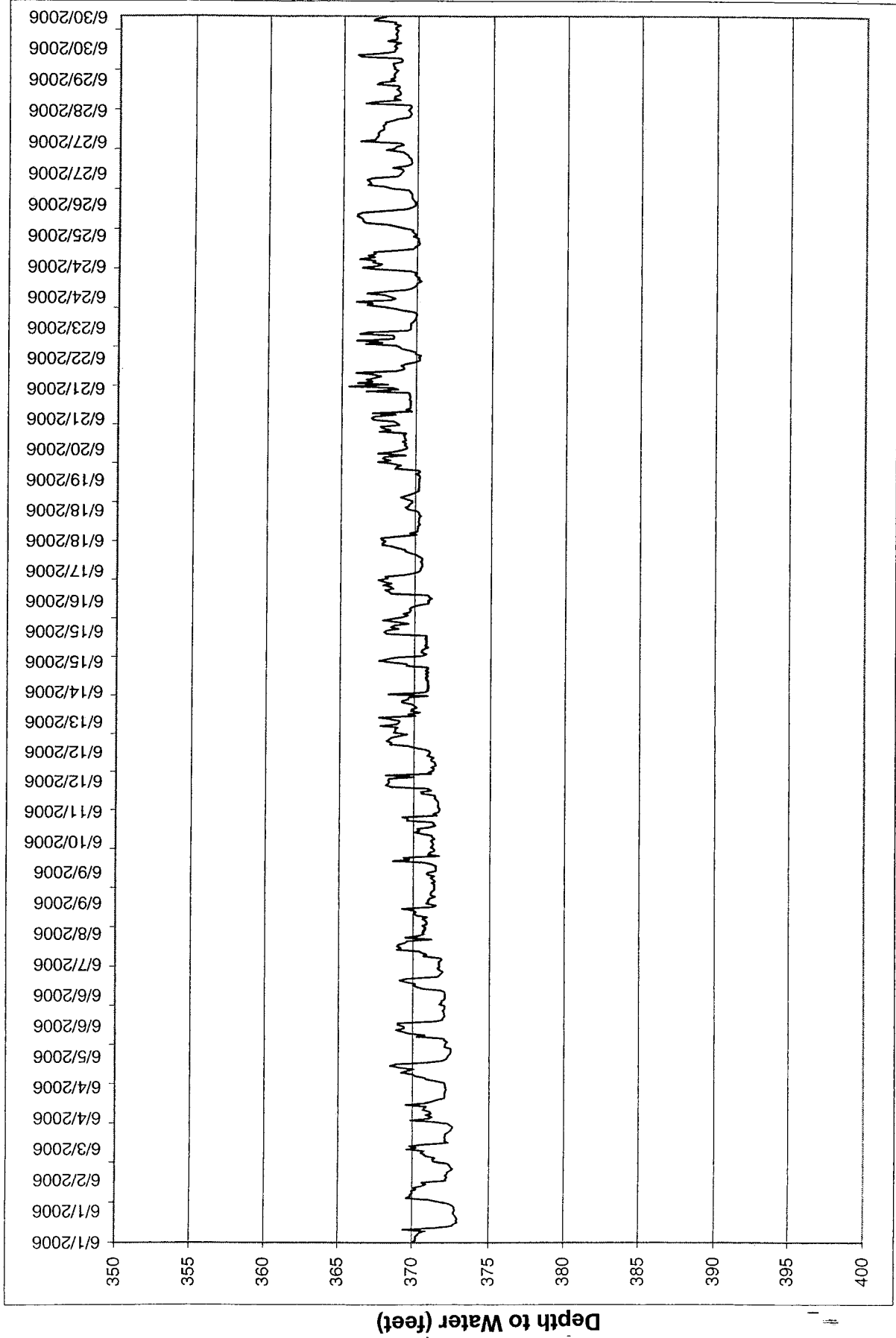
WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN APRIL 2006



WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN MAY 2006

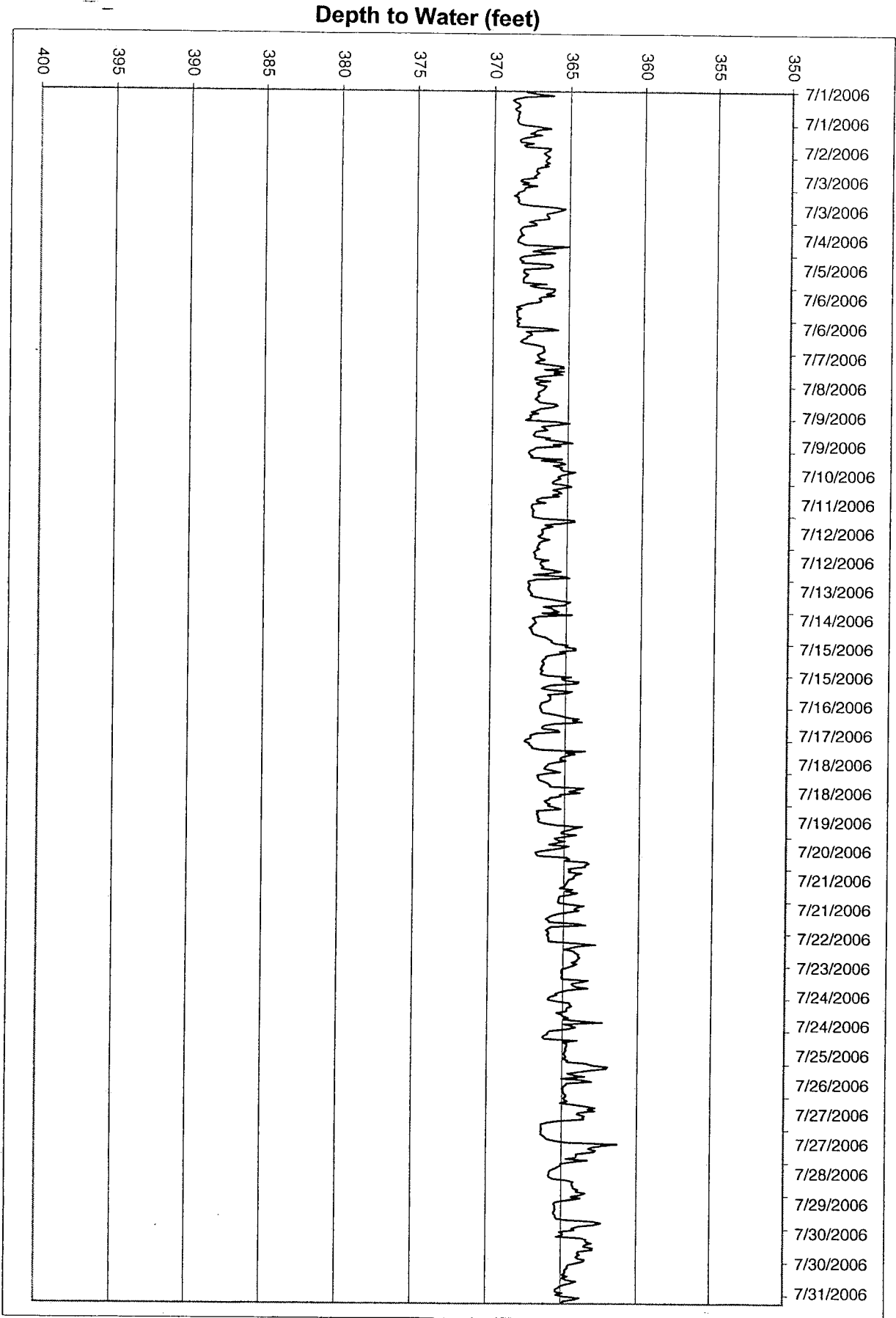
Depth to Water (feet)

Well 24



WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN JUNE 2006

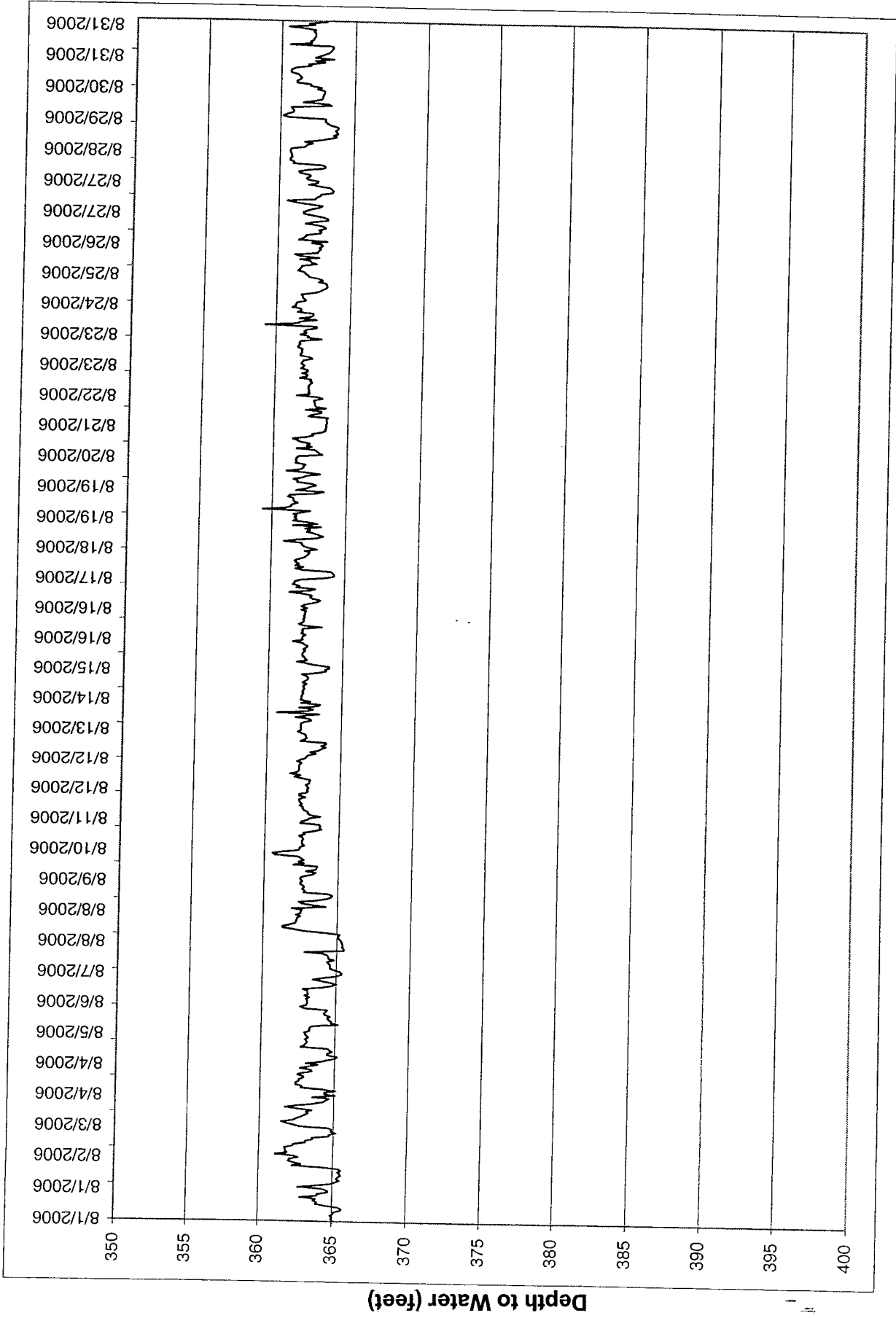
WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN JULY 2006



Well 24

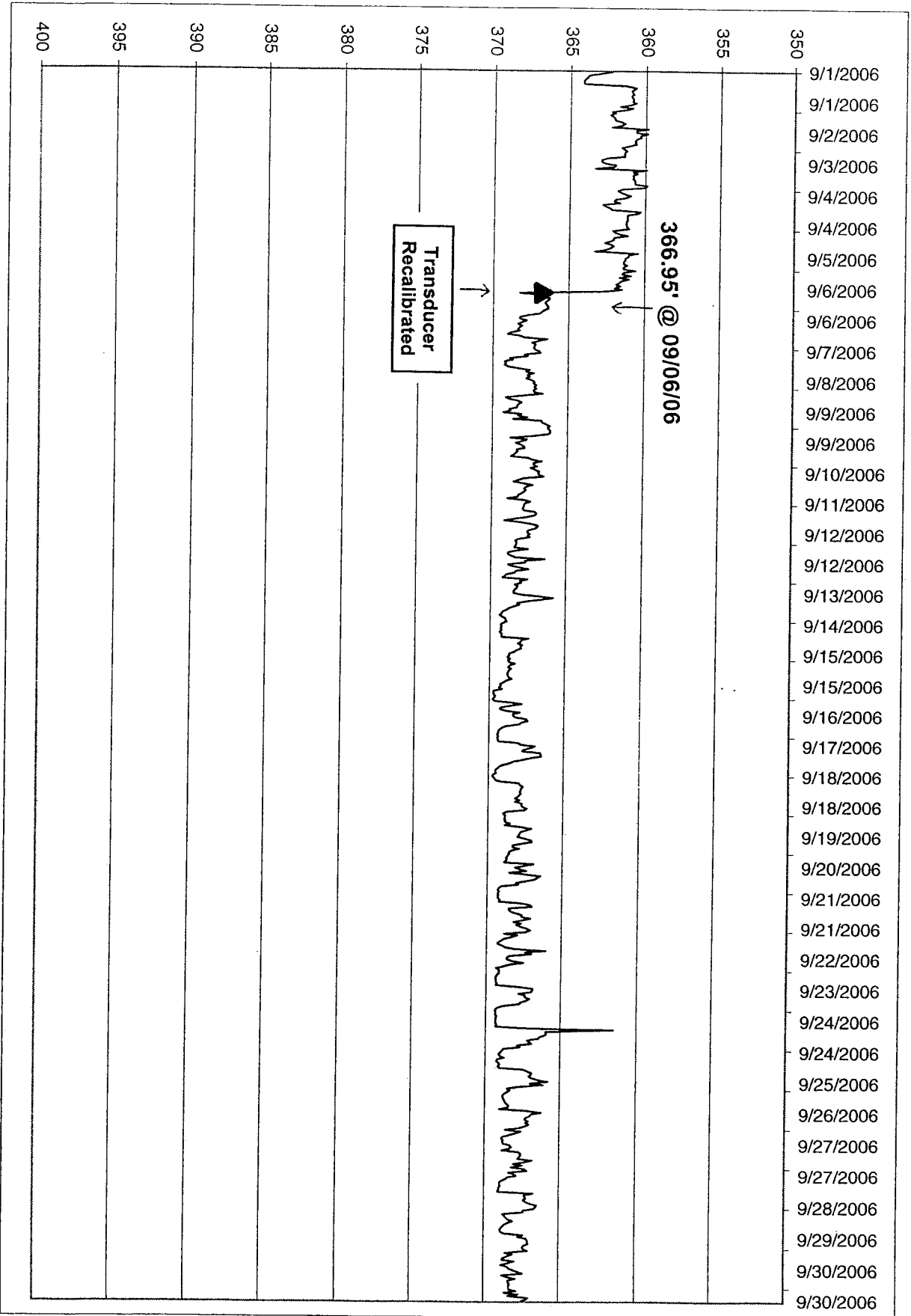


Well 24

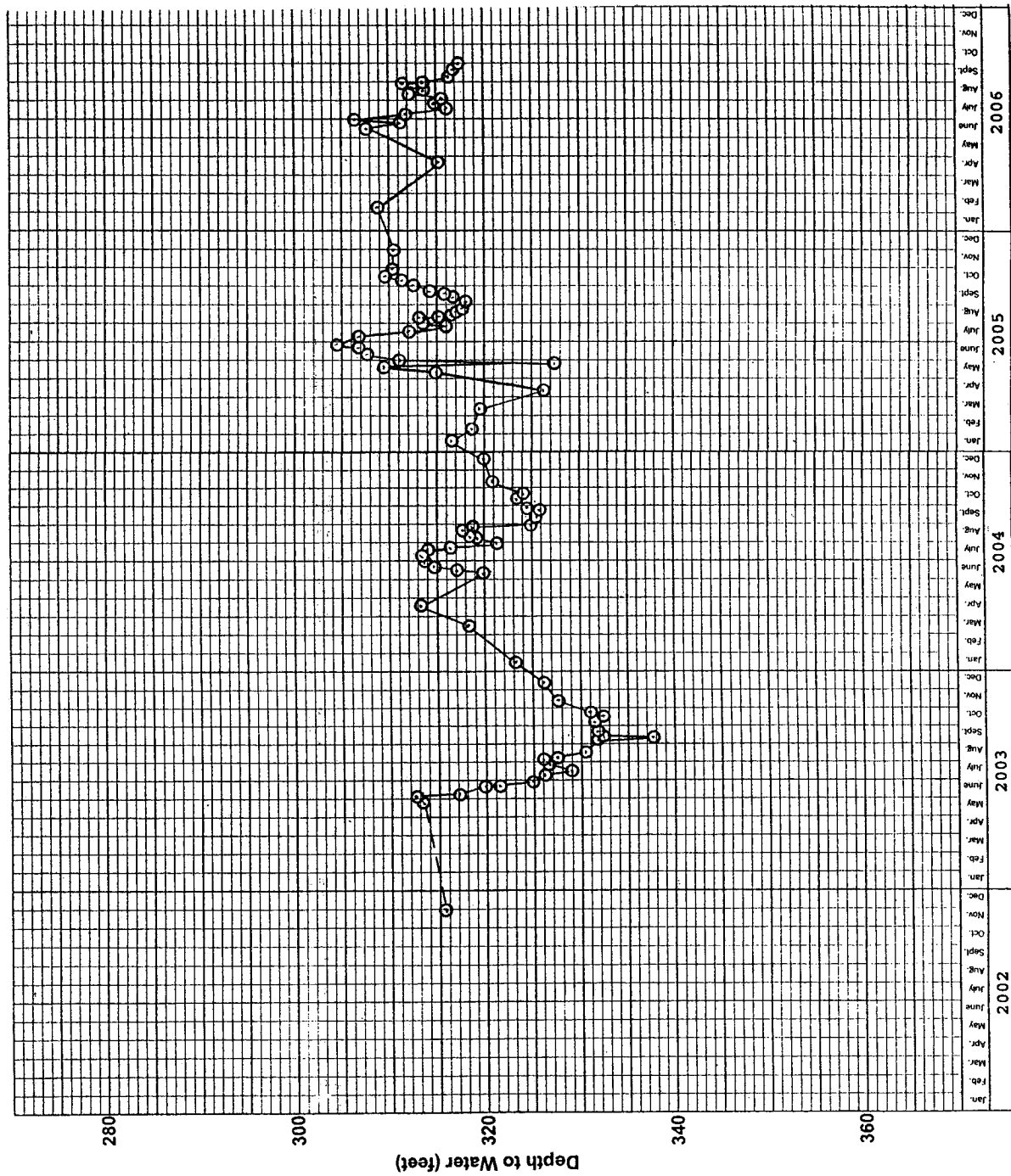


WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN AUGUST 2006

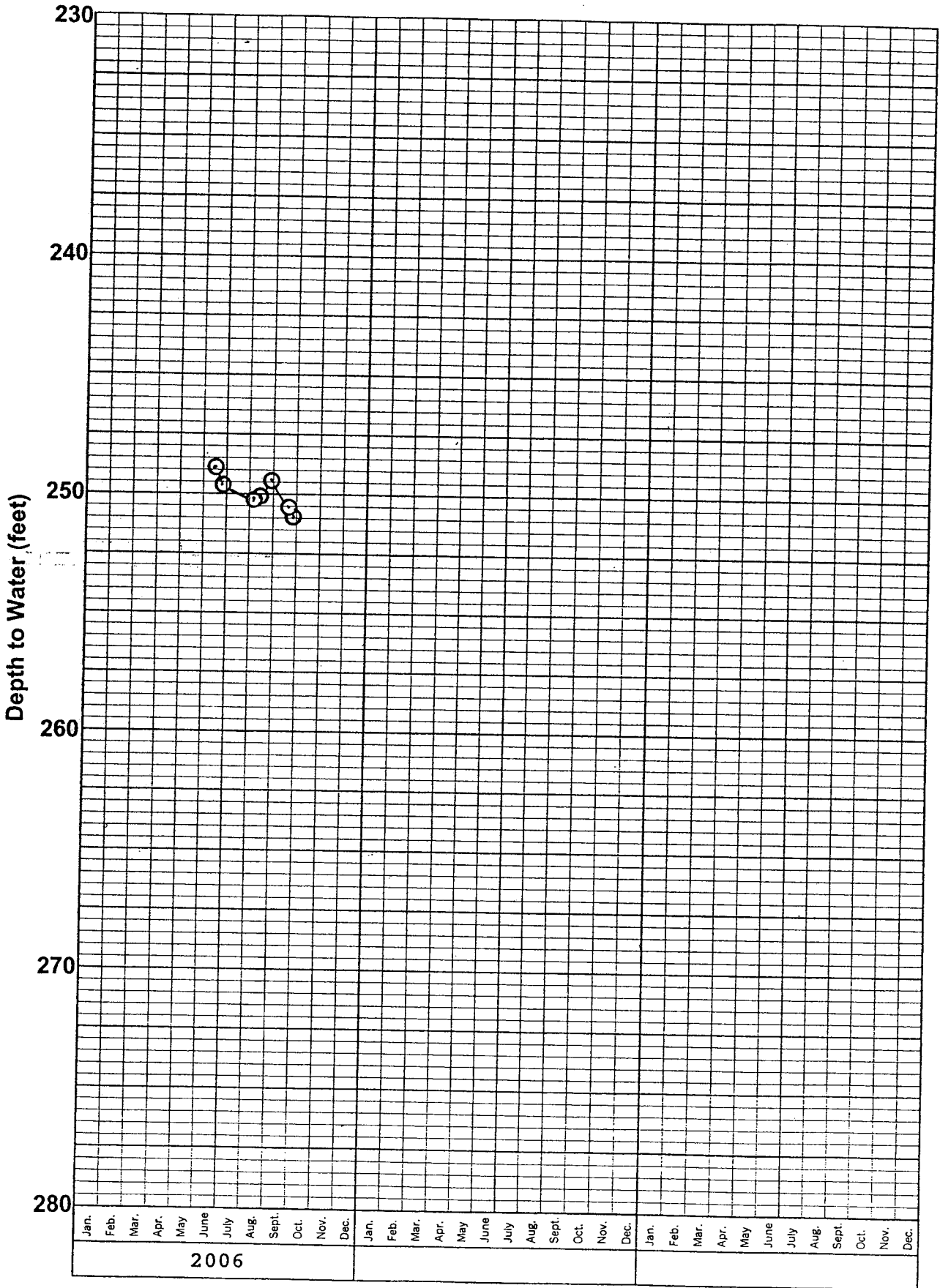
Depth to Water (feet)



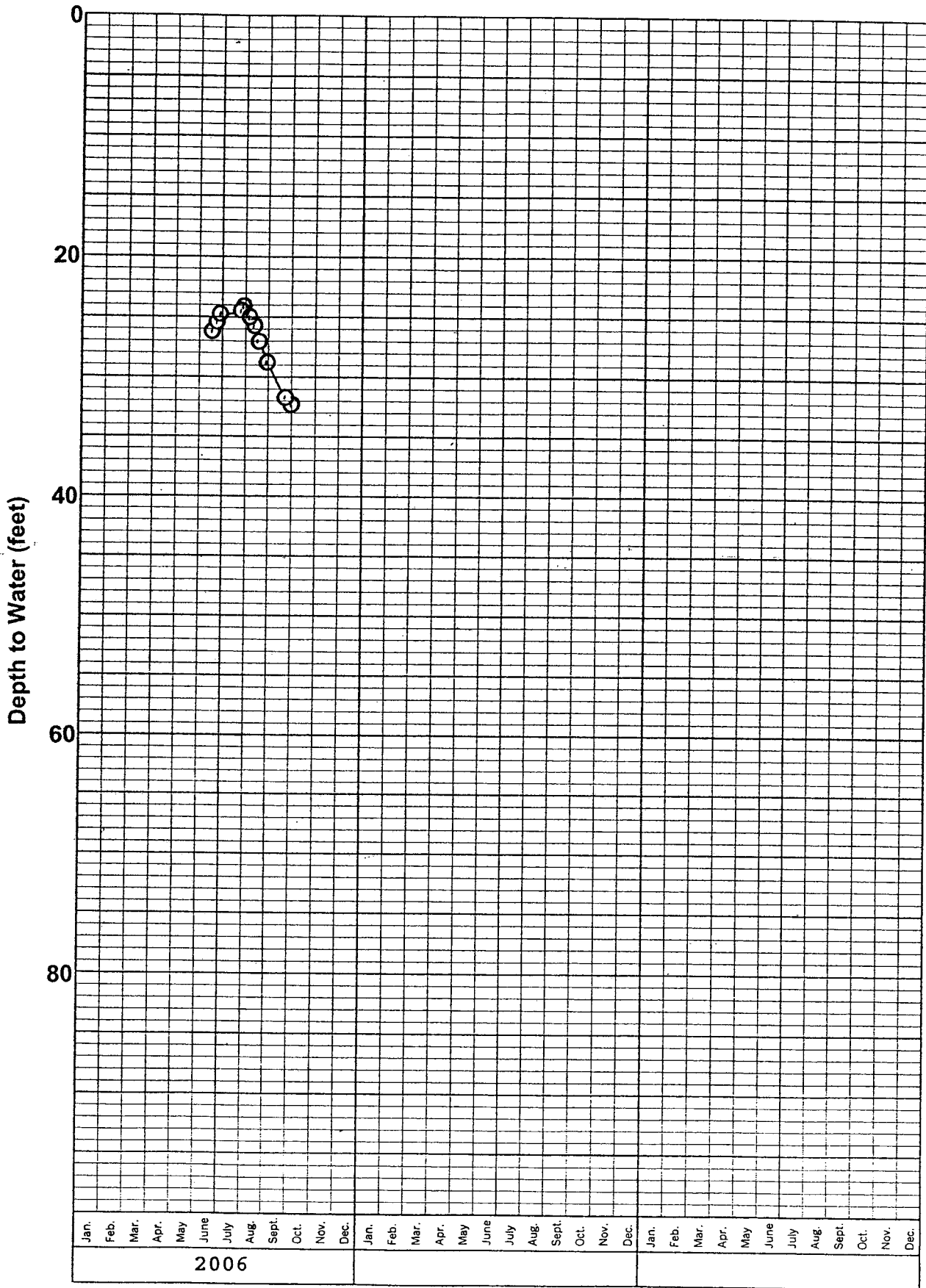
WATER-LEVEL HYDROGRAPH FOR WELL NO. 24 IN SEPTEMBER 2006



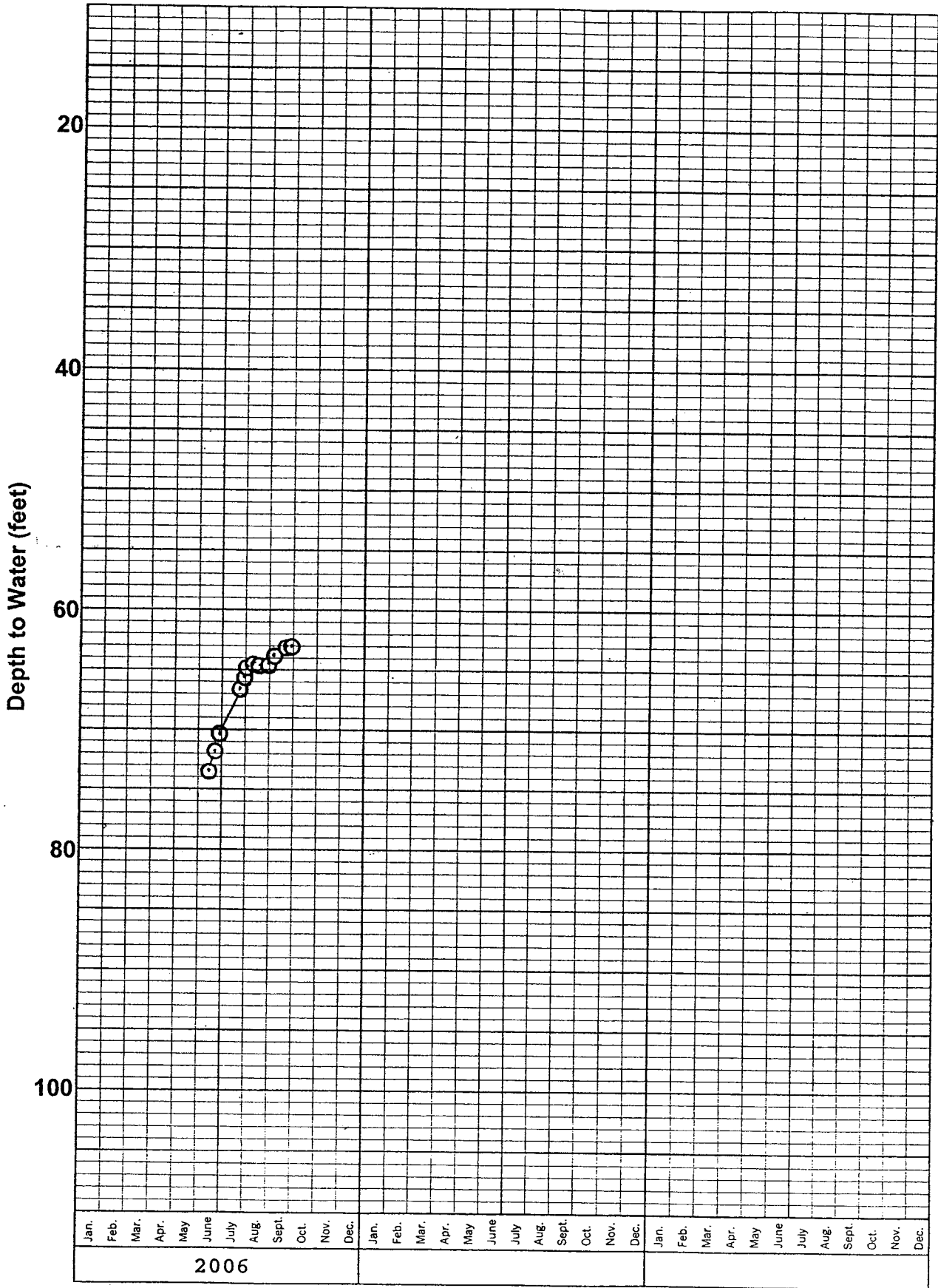
WATER-LEVEL HYDROGRAPH FOR WELL NO. 25



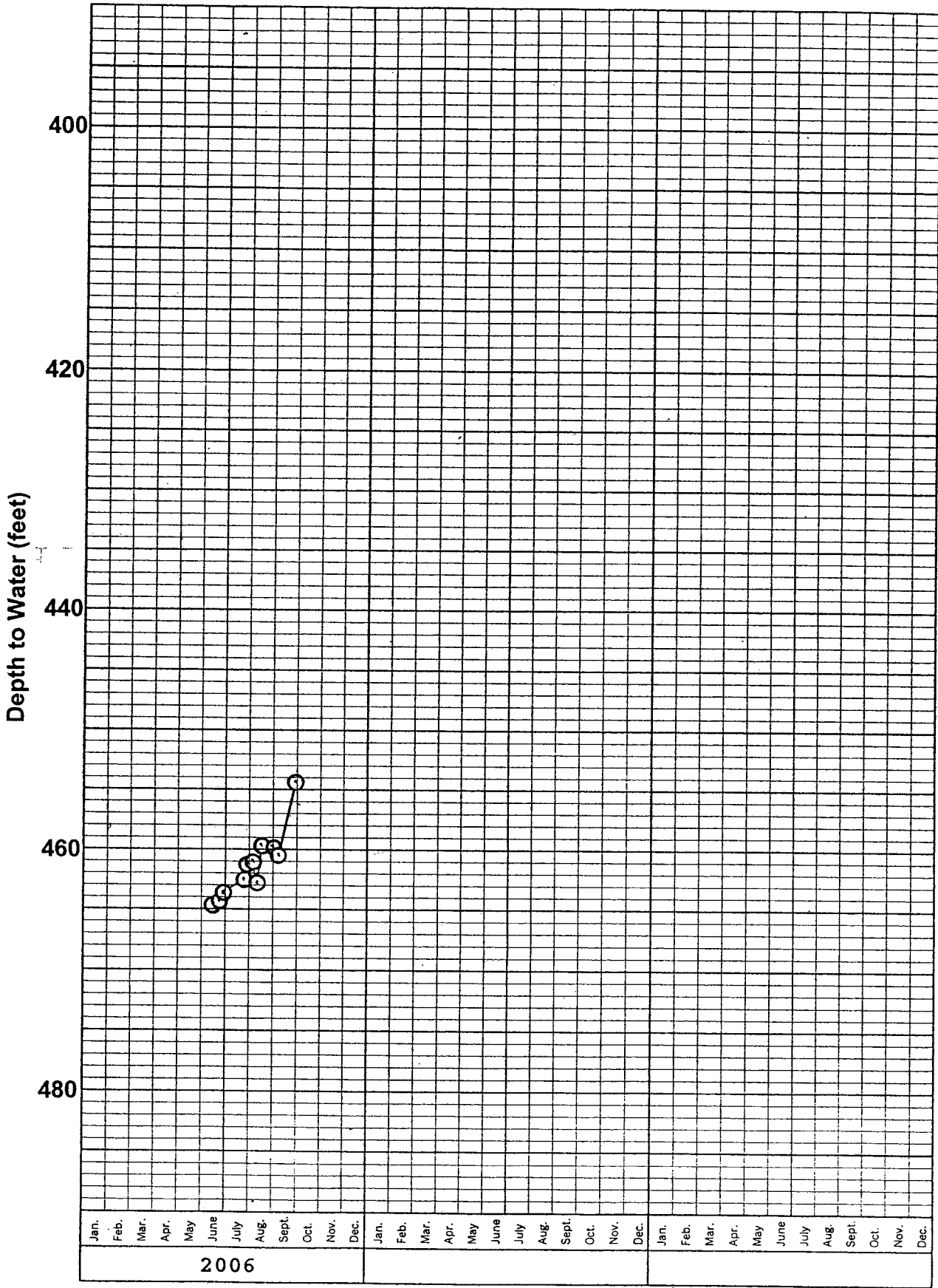
WATER-LEVEL HYDROGRAPH FOR WELL NO. 26



WATER-LEVEL HYDROGRAPH FOR WELL NO. 28



**WATER-LEVEL HYDROGRAPH FOR WELL NO. 29**



WATER-LEVEL HYDROGRAPH FOR WELL NO. 30

APPENDIX E

CHEMICAL ANALYSES OF WATER FROM DISTRICT WELLS



**MAMMOTH COMMUNITY WATER DISTRICT  
PRODUCTION WELL WATER QUALITY**

<b>Production Well Site</b>	<b>Sample Date</b>	<b>Sample Time</b>	<b>Conductivity umho/cm</b>	<b>TDS mg/L</b>	<b>Temp F</b>	<b>pH</b>	<b>Dissolved Oxygen (mg/L)</b>	
<b>1</b>	06/06/96	8:20	240	168	47	7.4		
	09/12/97	10:15	190	96	49	7.2		
	07/06/98	14:30	210	120	47	7.4		
	07/14/99	9:20	208	165	48	7.6		
	08/22/00	7:45	210	156	49	7.2		
	07/27/01	8:30	220	140	49	6.5		
	09/05/02	7:50	232	116	48	6.6		
	09/25/03	9:15	277	182	42	7.1		
	07/20/04	10:30	210	160	45	7.5		
	10/11/05	12:45	207	135	49	7.1	3.331	
	11/06/06	13:04	207		50	7.2	2.0	
<b>6</b>	06/06/96	9:05	470	283	49	7.5		
	09/12/97	9:25	397	198	53	7.1		
	07/07/98	8:20	300	160	51	8.2		
	07/14/99	8:45	305	172	50	7.6		
	07/28/00	8:15	310	166	50	7.4		
	07/26/01	10:00	380	230	51	7.4		
	09/05/02	14:30	350	190	51	7.2		
	09/25/03	11:00	427	287	44	7.4		
	07/20/04	9:45	420	290	50	7.6		
	10/11/05	14:20	437	284	51	7.4	4.2	
	11/06/06	11:07	433		50	7.4	2.1	
<b>10</b>	06/06/96	9:20	465	315	50	7.3		
	09/12/97	9:14	359	179	55	7.2		
	06/30/98	13:25	350	240	49	7.6		
	07/14/99	8:30	353	231	49	7.5		
	07/28/00	8:30	360	228	50	7.5		
	07/26/01	10:15	470	300	51	6.6		
	09/05/02	8:10	410	225	51	7.0		
	09/25/03		Well out of service					
	07/20/04	10:04	430	280	50	7.5		
	10/11/05	15:20	389	253	57	7.1	3.44	
	11/06/06	9:00	270		56	7.1		
<b>15</b>	06/06/96	9:45	240	152	55	7.4		
	09/12/97	9:19	288	144	55	7.2		
	06/30/98	13:45	360	210	53	7.5		
	07/14/99	9:05	355	190	55	7.6		
	08/22/00	8:10	350	187	54	7.3		
	07/02/01	10:40	330	220	55	7.4		
	09/05/02	8:20	290	185	53	7.2		
	09/25/03	10:00	415	279	50	7.2		
	07/20/04	9:15	300	200	50	7.6		
	10/11/05	13:20	234	152	65	7.3	3.44	
	11/06/06	10:04	270		51	7.4	1.6	

**MAMMOTH COMMUNITY WATER DISTRICT  
PRODUCTION WELL WATER QUALITY**

<b>Production Well Site</b>	<b>Sample Date</b>	<b>Sample Time</b>	<b>Conductivity umho/cm</b>	<b>TDS mg/L</b>	<b>Temp F</b>	<b>pH</b>		
<b>16</b>	07/11/96	9:00	660	432	70	7.5		
	09/11/97	10:11	632	317	73	7.1		
	07/06/98	14:35	710	500	70	7.1		
	08/20/99	10:30	690	480	70	7.2		
	08/22/00	8:25	695	485	74	7.3		
	07/02/01	9:30	710	490	70	6.9		
	09/09/02	8:00	705	480	70	6.7		
	09/25/03	Well out of service						
	08/03/04		550	360	71	7.2		
	10/11/05	11:00	518	337	66	6.6	-	
	11/06/06	Well out of service						
	<b>17</b>	07/11/96	8:45	360	265	65	7.3	
		No sample due to motor/pump failure						
07/06/98		9:15	350	280	60	7.1		
08/20/99		10:10	350	280	61	7.2		
08/22/00		8:40	355	276	63	7.2		
07/02/01		9:10	410	310	60	6.7		
09/03/02		8:30	400	290	61	6.6		
09/25/03		8:55	420	282	62	6.5		
08/03/04			410	270	60	7.5		
10/11/05		13:20	484	315	75	6.8	2.75	
11/06/06		13:30	472		74	7.1	1.3	
<b>18</b>	07/11/96	8:15	540	332	47	7.1		
	09/12/97	13:40	500	251	68	7.1		
	07/06/98	14:15	490	350	70	6.9		
	08/20/99	11:30	510	355	67	7.1		
	08/22/00	8:20	505	346	68	7.1		
	07/02/01	10:15	530	370	67	6.4		
	09/05/02	8:45	535	310	65	6.8		
	09/25/03	10:40	637	434	60	6.7		
	08/03/04		560	370	62	7.3		
	10/11/05	13:20	559	363	66	6.6	2.86	
	11/06/06	10:40	543		65	6.9	2.3	
	<b>20</b>	07/11/96	9:20	217	164	59	7.1	
09/11/97		9:57	336	168	61	6.9		
No sample due to motor/pump failure								
08/20/99		11:00	310	210	60	7.1		
08/22/00		9:00	305	190	61	7.1		
07/27/01		8:45	340	250	60	6.8		
09/05/02		9:30	400	195	63	6.6		
09/25/03		9:05	387	259	56	6.7		
08/03/04			290	200	60	7.2		
10/11/05		11:15	293	190	61	6.5	6.8	
11/6/2006		No sample						

APPENDIX F

MAMMOTH CREEK STREAMFLOW

TWIN LAKES OUTFLOW

Day	Daily discharge in cubic feet per second											
	2005						2006					
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	6.9	22.9	12.7	7.5	6.9	13.4	27.3	58.7	95.9	28.2	8.7
2	9.3	6.9	16.4	13.4	6.9	7.5	12.0	22.9	90.5	94.6	23.7	8.1
3	7.5	6.3	16.4	12.7	6.3	7.5	12.0	24.6	115.9	87.8	23.7	8.1
4	6.3	6.9	14.9	10.6	6.3	8.1	12.7	26.4	118.9	87.8	22.9	7.5
5	6.3	6.9	-	9.3	6.3	8.1	13.4	30.1	134.1	83.8	21.2	6.9
6	6.3	6.9	-	8.7	6.3	8.1	13.4	30.1	141.9	81.1	21.2	6.3
7	4.7	6.3	-	8.1	6.3	8.1	14.9	31.0	140.3	70.9	17.9	4.7
8	4.7	6.9	-	8.1	6.3	8.1	12.0	31.0	137.2	69.6	17.1	4.7
9	5.3	7.5	-	8.1	6.3	8.1	14.1	41.0	134.1	67.2	17.1	4.7
10	5.3	7.5	-	8.1	6.3	9.3	12.7	49.6	121.9	64.7	15.6	4.7
11	5.3	7.5	-	8.1	5.8	9.3	12.7	53.0	118.9	57.6	12.7	4.2
12	5.3	7.5	-	10.0	5.8	9.3	10.6	53.0	113.0	57.6	12.7	4.7
13	5.3	7.5	-	8.7	5.8	9.3	8.7	53.0	104.4	55.3	13.4	7.5
14	4.2	7.5	-	8.7	5.8	9.3	9.3	53.0	77.2	50.7	14.9	2.9
15	4.7	7.5	-	8.1	5.8	10.0	12.0	53.0	72.1	50.7	14.9	3.8
16	5.8	7.5	8.1	8.1	5.8	10.0	10.0	53.0	93.2	49.6	14.1	4.7
17	5.8	8.1	12.0	10.6	5.8	10.0	12.0	89.1	95.9	46.3	12.0	5.3
18	5.8	7.5	6.9	9.3	5.8	10.0	12.0	100.1	121.9	47.4	11.3	4.7
19	5.8	7.5	6.9	9.3	5.8	10.0	12.0	105.8	124.9	46.3	11.3	3.8
20	5.8	7.5	6.9	9.3	5.8	10.0	12.0	101.5	127.9	46.3	11.3	5.3
21	5.8	7.5	9.3	9.3	6.3	10.0	12.0	101.5	115.9	47.4	11.3	6.9
22	5.8	7.5	12.0	9.3	6.3	10.0	12.0	98.7	113.0	46.3	10.0	6.9
23	5.8	10.0	12.0	9.3	6.3	10.0	12.0	83.8	111.5	46.3	9.3	6.9
24	6.9	7.5	12.7	9.3	6.3	10.0	11.3	59.9	110.1	47.4	9.3	6.9
25	6.3	5.8	7.5	9.3	6.3	10.6	13.4	59.9	110.1	42.0	8.7	6.9
26	6.9	5.8	11.3	9.3	6.3	12.0	13.4	44.2	108.6	38.9	9.3	6.9
27	7.5	6.3	9.3	9.3	6.3	14.1	16.4	47.4	93.2	36.9	9.3	7.5
28	7.5	8.1	12.7	9.3	6.3	12.0	18.7	47.4	98.7	35.9	9.3	6.9
29	7.5	8.1	14.1	9.3		13.4	22.9	47.4	98.7	34.9	10.6	6.9
30	7.5	8.7	22.9	9.3		13.4	27.3	47.4	97.3	33.9	10.0	6.9
31	8.1		18.7	8.1		13.4		44.2		29.1	9.3	
Mean	6.2	7.3	12.7	9.4	6.2	9.9	13.4	55.2	110.0	56.5	14.3	6.0
Maximum	9.3	10.0	22.9	13.4	7.5	14.1	27.3	105.8	141.9	95.9	28.2	8.7
Minimum	4.2	5.8	6.9	8.1	5.8	6.9	8.7	22.9	58.7	29.1	8.7	2.9

MAMMOTH CREEK AT OLD MAMMOTH ROAD

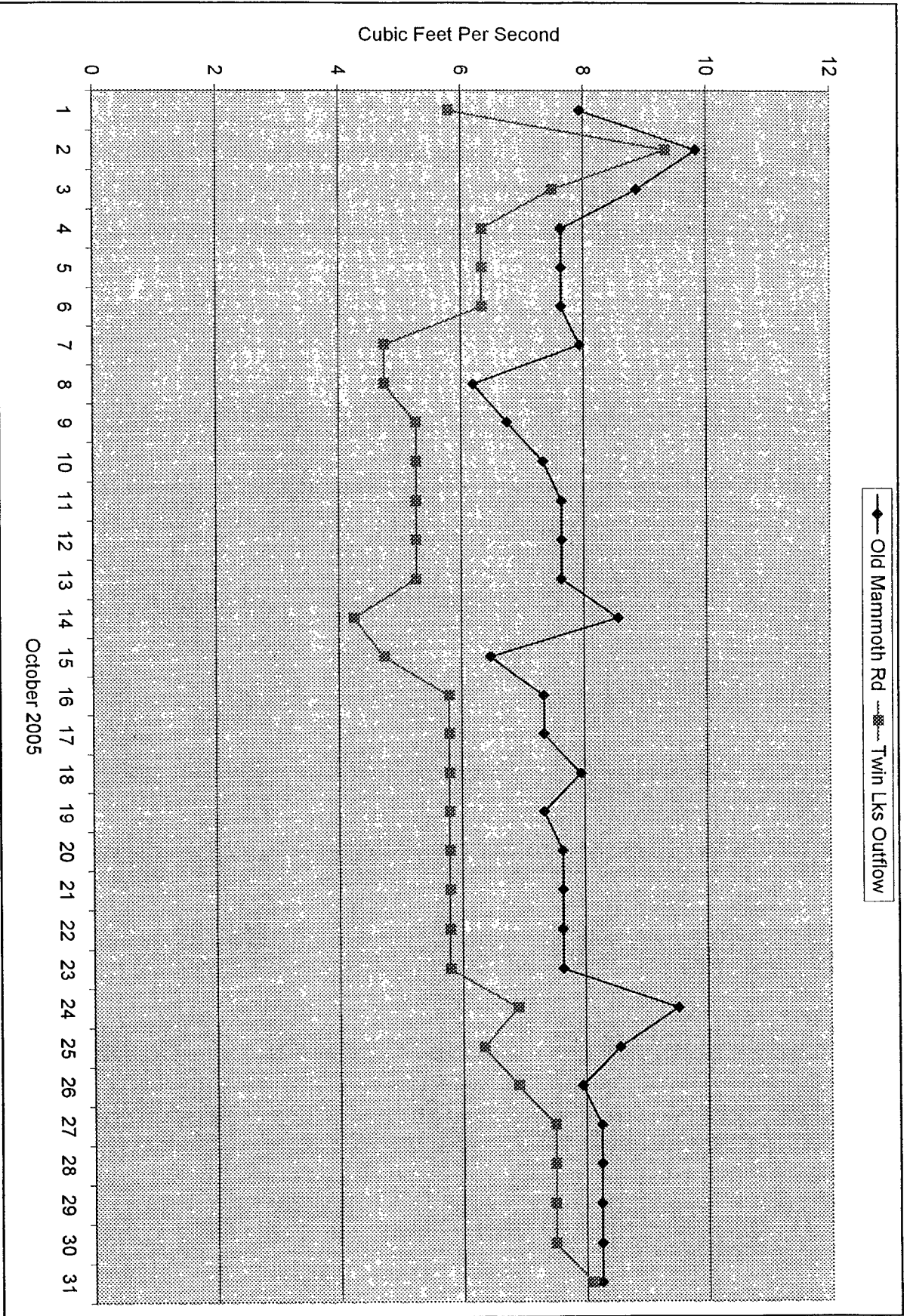
Day	2005			2006			Mammoth Creek at Old Mammoth Road											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC			
1	7.9	7.3	11.2	20.2	8.9	10.8	13.3	34.1	100.6	131.5	32.5	7.3						
2	9.8	6.8	18.0	22.4	8.9	10.5	11.9	35.1	131.5	130.7	29.5	7.0						
3	8.9	6.2	22.4	18.0	8.6	11.9	12.2	37.3	150.4	122.0	31.5	7.0						
4	7.6	7.3	16.0	20.2	7.9	8.6	17.2	48.8	172.2	119.5	29.0	6.5						
5	7.6	7.3	14.1	18.5	7.3	8.6	18.0	51.2	197.1	116.1	27.0	13.3						
6	7.6	7.3	11.5	16.0	7.9	9.5	18.0	53.1	202.3	105.4	27.0	12.6						
7	7.9	7.6	10.8	13.0	7.3	9.5	15.6	53.1	205.4	99.8	23.7	11.2						
8	6.2	8.9	10.8	11.5	7.6	9.5	13.3	66.7	202.3	97.5	26.1	10.5						
9	6.8	8.2	11.5	11.2	8.6	7.6	11.9	75.1	202.3	92.8	26.1	10.8						
10	7.3	7.9	11.2	10.8	7.6	10.8	10.8	77.9	187.0	85.3	21.5	10.8						
11	7.6	7.9	10.8	10.8	7.6	10.8	10.8	82.3	177.1	79.4	17.2	10.8						
12	7.6	7.6	10.5	10.8	7.6	13.0	10.8	85.3	169.3	76.5	15.6	10.5						
13	7.6	7.6	10.2	11.2	7.6	8.9	11.2	92.8	153.2	73.7	16.4	15.2						
14	8.6	7.9	10.5	10.5	7.9	7.9	13.3	108.7	108.7	70.2	18.0	12.6						
15	6.5	7.6	10.5	7.9	7.9	8.2	13.3	137.7	108.7	66.7	16.4	11.9						
16	7.3	7.6	11.2	9.8	7.9	8.2	12.6	139.5	105.4	66.1	15.6	10.8						
17	7.3	7.9	12.2	9.8	7.9	9.5	15.6	145.9	135.1	61.4	13.7	11.2						
18	7.9	7.6	13.3	9.8	7.6	9.5	12.2	167.4	169.3	62.1	11.2	11.5						
19	7.3	7.6	9.8	9.5	7.3	8.6	13.0	177.1	168.4	60.7	9.2	11.5						
20	7.6	7.6	9.5	10.2	7.3	8.9	16.8	177.1	177.1	61.4	8.9	8.9						
21	7.6	7.3	14.1	9.5	8.9	11.5	16.8	177.1	159.8	62.7	8.9	10.2						
22	7.6	7.3	18.0	10.2	7.9	8.6	16.8	153.2	178.1	60.1	8.2	9.8						
23	7.6	7.3	13.7	9.8	7.3	8.2	16.4	113.6	156.0	61.4	7.3	10.2						
24	9.5	7.3	12.2	9.5	7.0	9.2	18.0	100.6	152.3	62.7	7.3	10.5						
25	8.6	7.3	12.6	9.5	7.0	10.8	20.6	89.8	153.2	56.2	6.8	10.2						
26	7.9	8.6	12.2	9.8	12.2	10.8	21.9	82.3	152.3	48.8	7.3	10.2						
27	8.2	7.3	17.2	9.5	18.0	7.9	24.6	83.8	130.7	45.8	7.6	10.2						
28	8.2	9.5	18.9	9.8	13.3	12.2	28.5	86.0	133.3	41.8	7.3	10.2						
29	8.2	9.5	16.0	9.8		14.8	32.5	83.8	136.0	41.8	8.6	9.8						
30	8.2	9.5	32.0	10.2		11.9	35.1	72.3	132.4	38.4	8.9	9.5						
31	8.2		18.9	9.2		12.6		70.9		40.1	7.6							
Mean	7.9	7.8	6.5	11.9	8.6	10.0	16.8	95.5	156.9	75.4	16.2	10.4						
Maximum	9.8	9.5	6.5	22.4	18.0	14.8	35.1	177.1	205.4	131.5	32.5	15.2						
Minimum	6.2	6.2	6.5	7.9	7.0	7.6	10.8	34.1	100.6	38.4	6.8	6.5						

MAMMOTH CREEK AT HWY 395

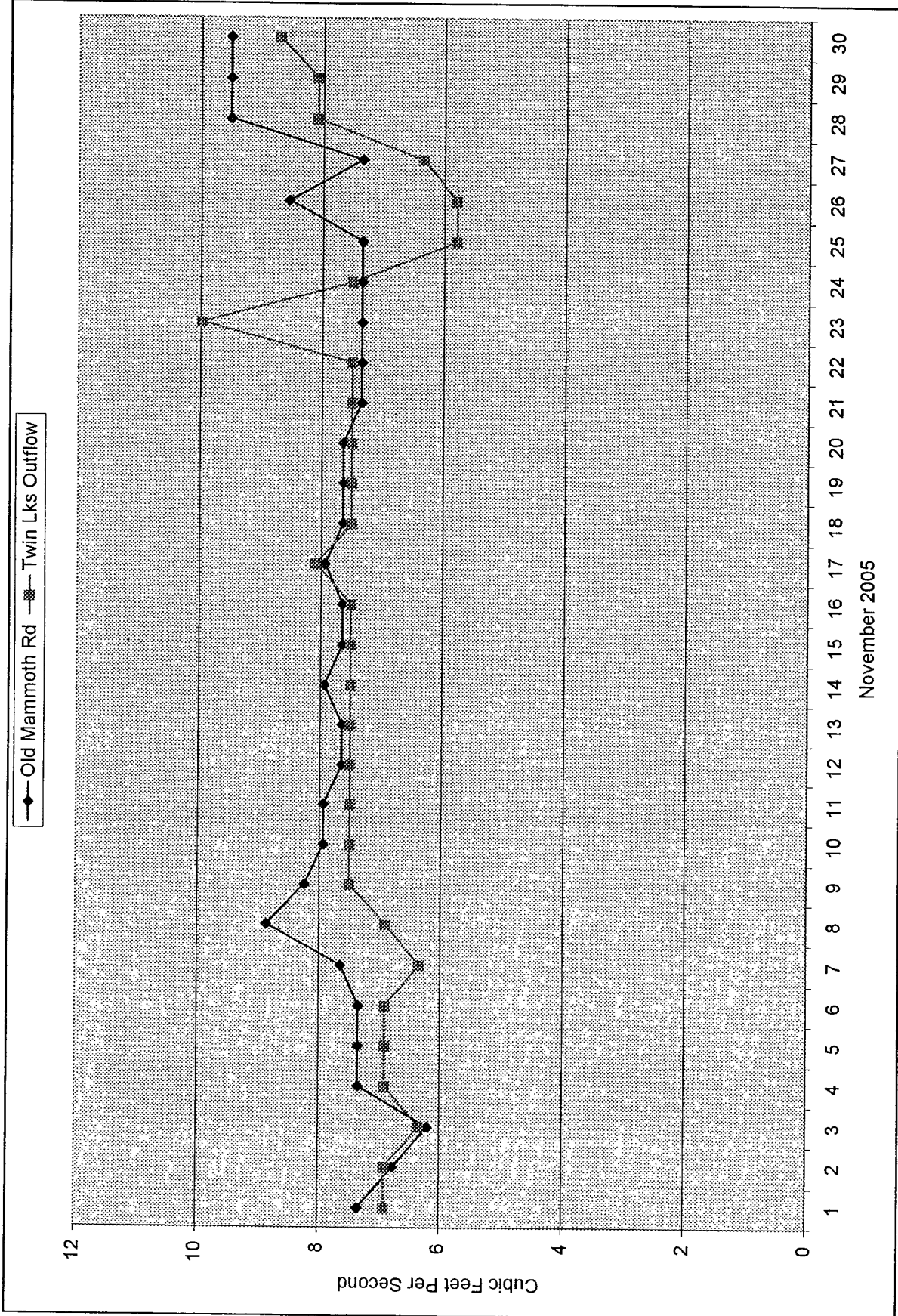
Day	Mammoth Creek at Hwy 395*											
	2005			2006			2007			2008		
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.8	11.0	11.5	26.6	9.2	11.8	9.8	39.9	-	158.0	57.0	24.9
2	11.7	10.3	21.5	4.4	9.5	9.8	10.9	42.3	113.7	159.0	49.0	-
3	13.7	9.6	15.0	5.3	8.9	8.5	13.4	43.8	-	159.0	52.5	-
4	11.7	9.3	9.2	11.7	8.3	10.0	15.1	48.1	-	147.0	51.3	-
5	11.2	8.7	8.5	8.4	7.7	9.1	15.6	52.8	-	146.0	46.0	22.8
6	11.4	9.1	7.8	5.5	7.2	8.9	18.5	54.5	237.4	142.0	43.0	20.8
7	11.3	9.8	8.7	4.2	7.6	8.7	17.6	57.3	-	130.9	46.9	20.4
8	10.6	11.3	10.8	3.2	7.2	8.8	13.4	64.4	232.0	-	41.6	21.6
9	9.9	11.2	11.4	5.0	7.5	8.3	11.8	76.9	225.0	-	-	-
10	10.2	10.1	11.1	5.3	7.5	7.9	10.2	83.0	222.0	115.3	39.5	-
11	10.8	9.8	11.5	15.6	7.6	8.3	9.9	84.0	209.0	103.3	38.0	18.0
12	11.1	9.3	11.6	25.2	7.6	7.8	10.0	88.4	208.1	106.2	-	18.8
13	11.3	9.3	11.5	11.2	7.6	7.8	11.6	95.2	191.2	106.2	-	18.4
14	11.4	9.3	10.4	10.4	7.9	7.3	14.6	110.0	165.0	-	35.5	-
15	11.3	9.2	8.7	9.4	6.9	8.7	14.9	125.0	132.0	-	35.5	-
16	10.0	9.3	6.5	8.2	5.7	7.7	14.8	143.0	121.0	94.7	34.5	16.0
17	10.8	9.5	7.6	10.4	6.4	8.8	12.7	152.3	140.0	-	32.6	16.0
18	10.7	9.5	7.8	9.4	7.0	9.1	13.3	158.2	150.0	-	29.0	18.8
19	11.0	10.5	11.3	11.5	7.2	8.6	13.4	175.0	198.6	89.1	29.0	18.0
20	10.5	9.0	11.6	6.9	7.3	7.8	15.2	195.0	-	-	27.0	17.7
21	10.7	9.0	11.6	8.0	6.2	8.6	16.9	190.0	-	90.4	29.8	15.5
22	10.8	9.7	16.5	8.7	7.8	8.5	17.9	190.3	171.0	-	29.8	15.8
23	10.7	8.9	17.3	10.2	7.1	8.2	17.5	162.6	175.0	82.0	27.1	-
24	10.7	9.0	13.8	9.9	7.0	8.3	17.6	116.8	174.0	91.8	27.1	-
25	12.6	10.0	12.5	8.4	7.0	8.6	19.3	-	173.0	88.0	26.7	15.8
26	11.2	12.6	13.1	8.6	7.3	9.5	22.0	98.9	173.0	77.0	-	15.8
27	11.3	13.9	12.3	9.3	11.5	8.9	24.4	-	181.2	72.0	-	15.8
28	11.2	8.9	19.9	10.5	16.8	7.6	28.5	-	-	70.0	26.2	15.5
29	11.1	11.4	17.1	12.1	-	10.8	32.5	-	159.0	-	27.1	15.1
30	10.9	10.0	14.6	11.2	-	11.5	37.8	97.5	159.0	-	28.0	-
31	10.8	-	42.2	9.5	-	9.9	-	83.6	-	69.2	26.7	-
Mean	11.1	9.9	13.1	9.8	7.9	8.8	16.7	104.8	177.7	109.4	36.0	18.1
Maximum	13.7	13.9	42.2	26.6	16.8	11.8	37.8	195.0	237.4	159.0	57.0	24.9
Minimum	9.9	8.7	6.5	3.2	5.7	7.3	9.8	39.9	113.7	69.2	26.2	15.1

\* Flow data from LADWP except for May thru September

# MAMMOTH CREEK STREAMFLOW COMPARISON



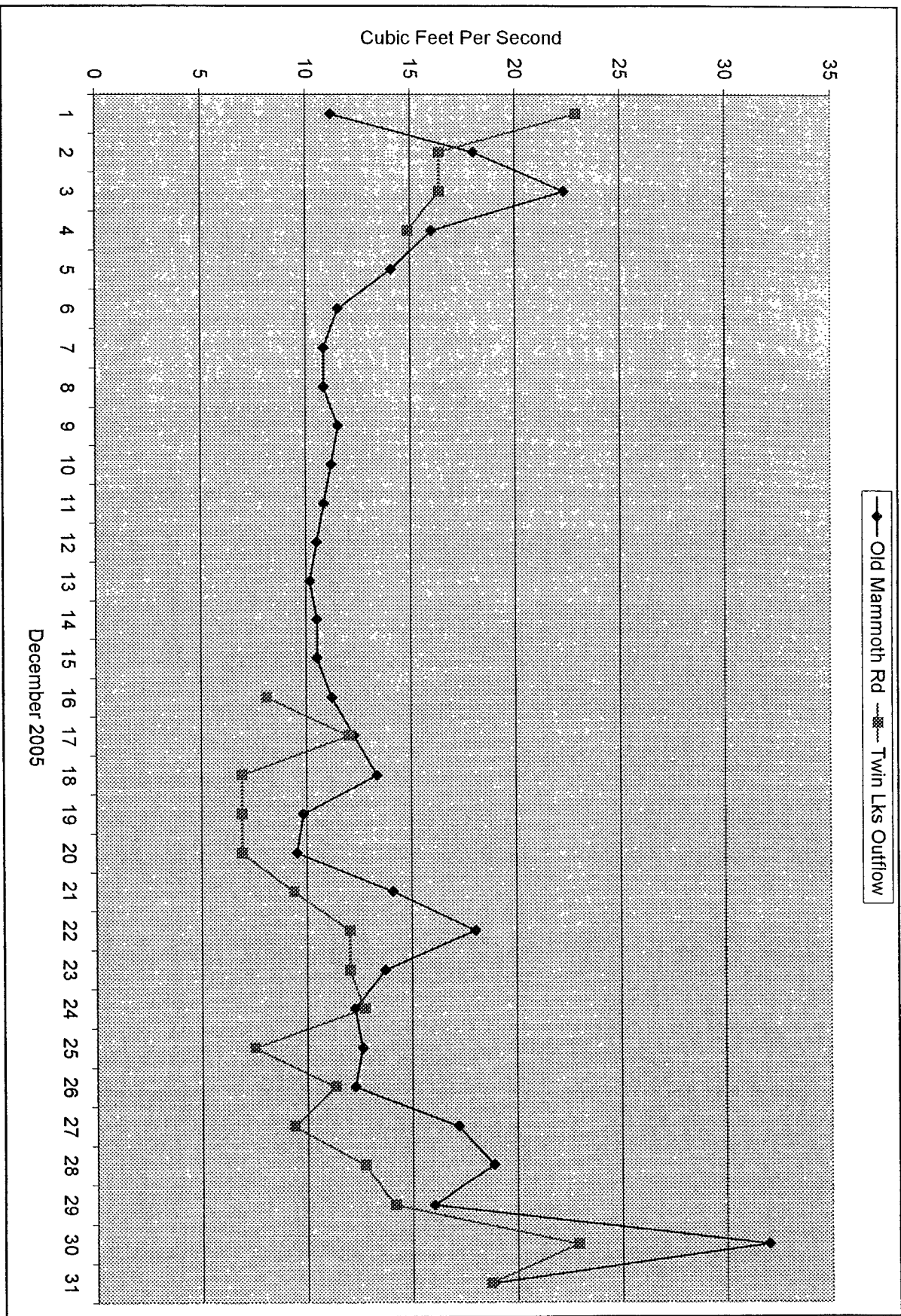
# MAMMOTH CREEK STREAMFLOW COMPARISON



November 2005



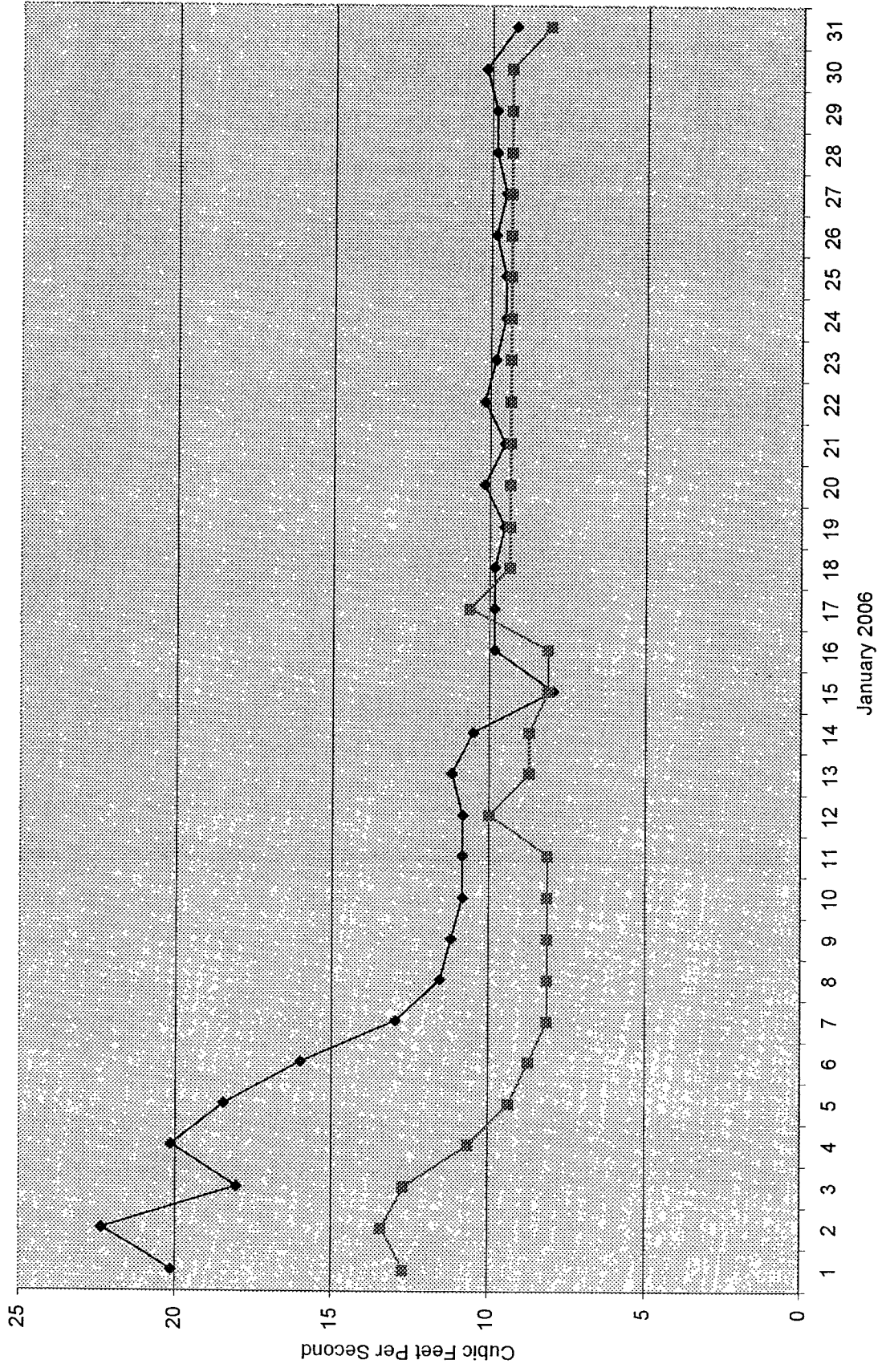
# MAMMOTH CREEK STREAMFLOW COMPARISON



December 2005

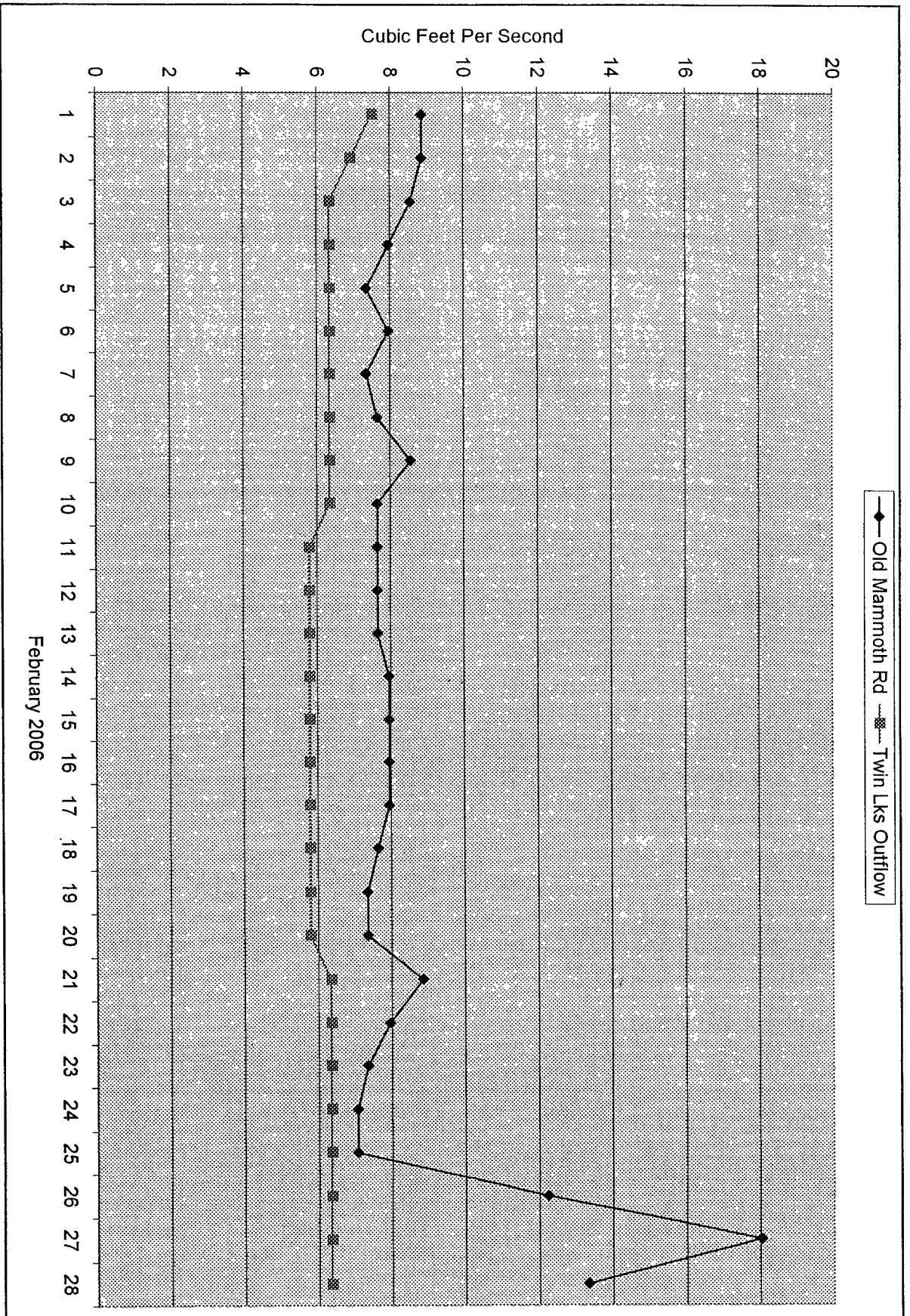
# MAMMOTH CREEK STREAMFLOW COMPARISON

◆ Old Mammoth Rd    □ Twin Lks Outflow



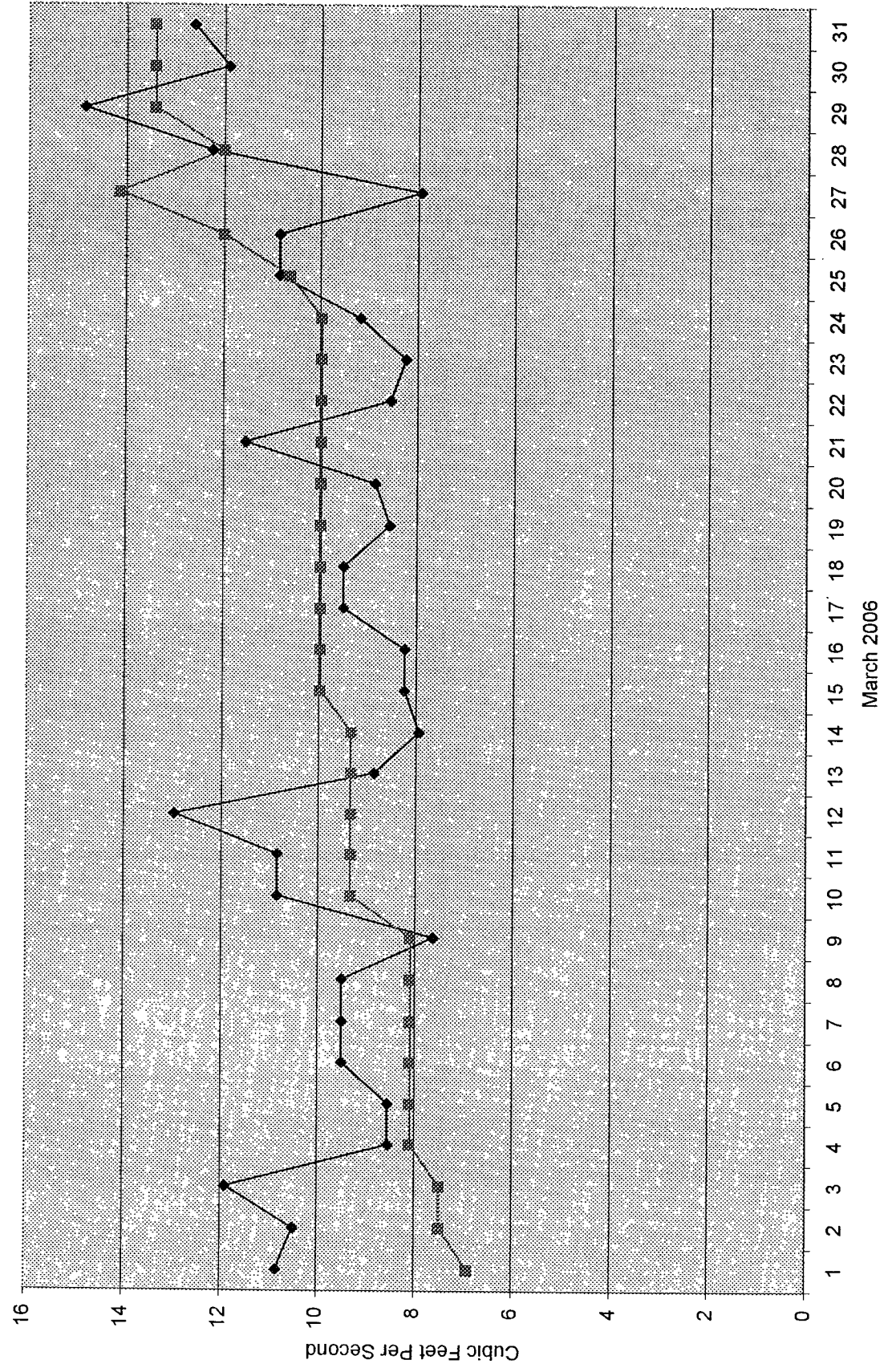
January 2006

# MAMMOTH CREEK STREAMFLOW COMPARISON



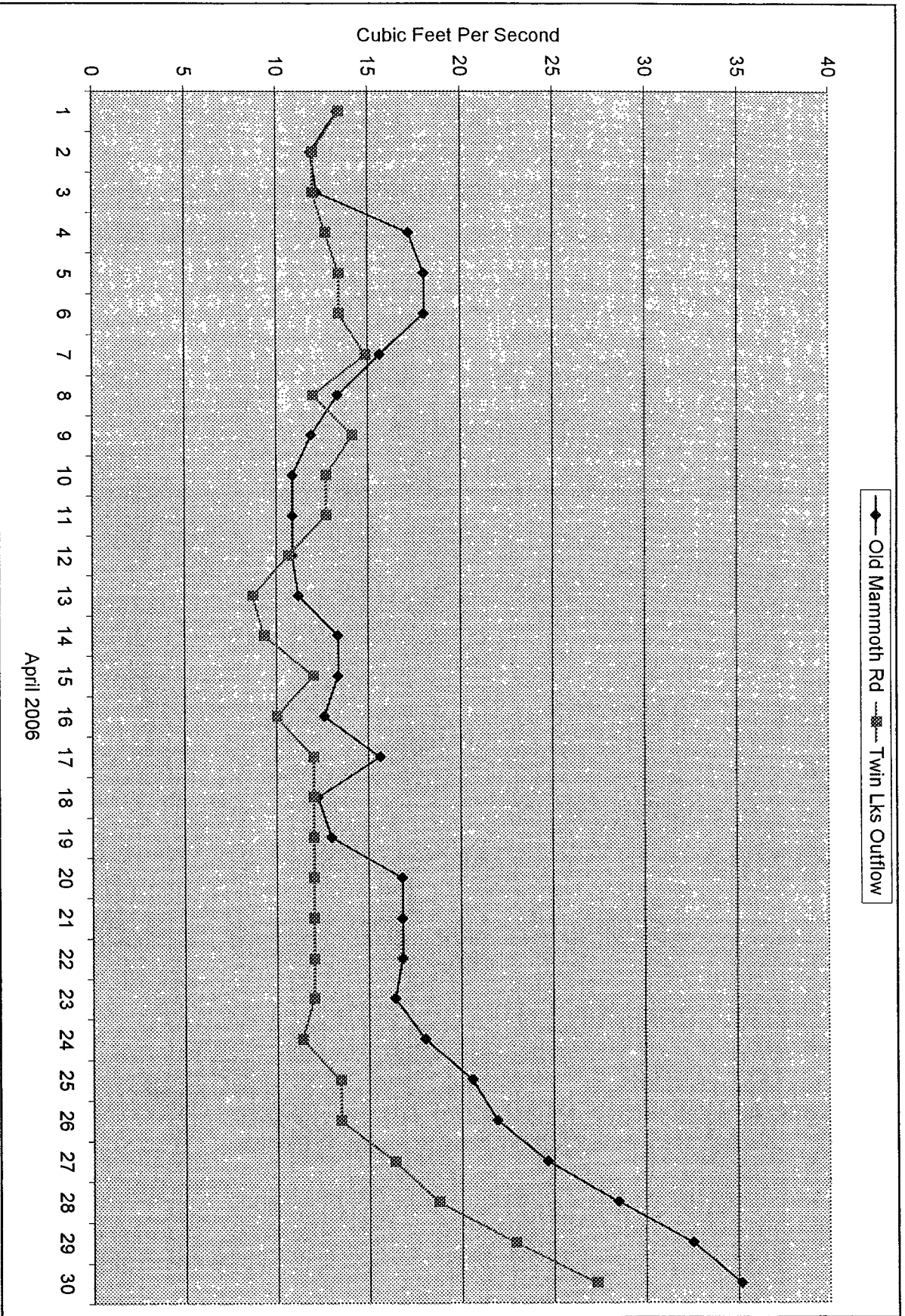
# MAMMOTH CREEK STREAMFLOW COMPARISON

—●— Old Mammoth Rd    - - - ■ - - - Twin Lks Outlet



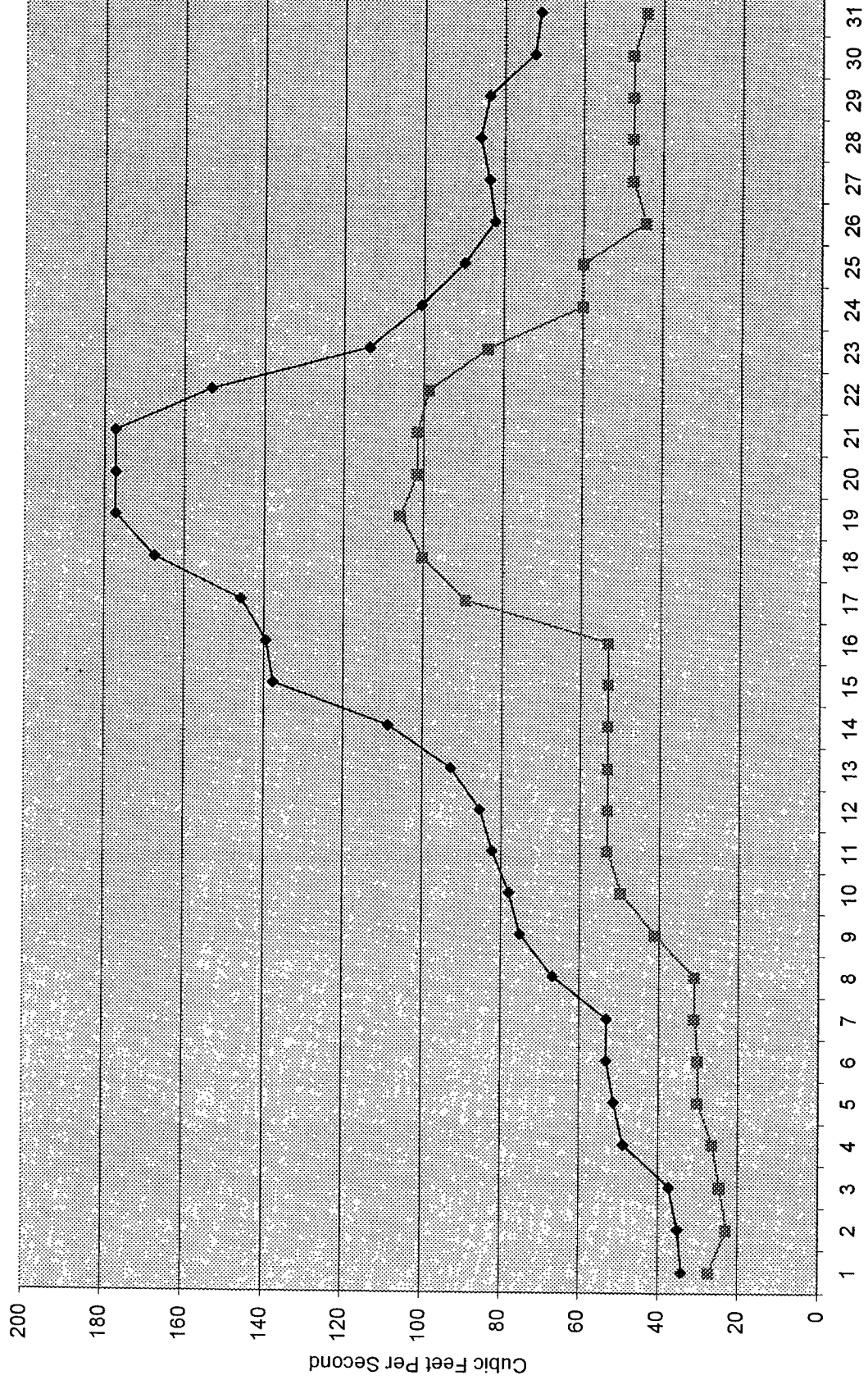
March 2006

# MAMMOTH CREEK STREAMFLOW COMPARISON



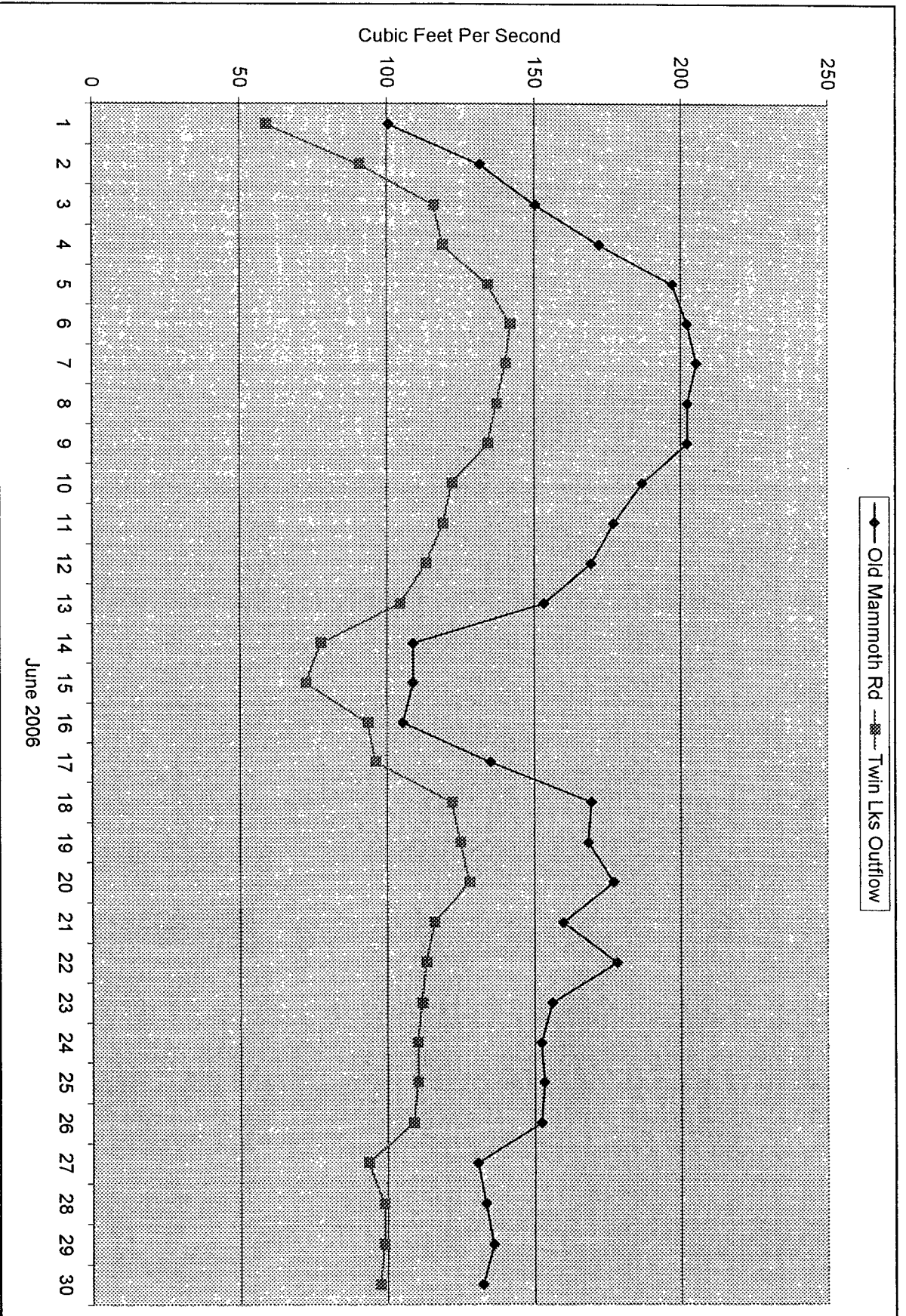
MAMMOTH CREEK STREAMFLOW COMPARISON

—●— Old Mammoth Rd    - - - □ - - - Twin Lks Outflow



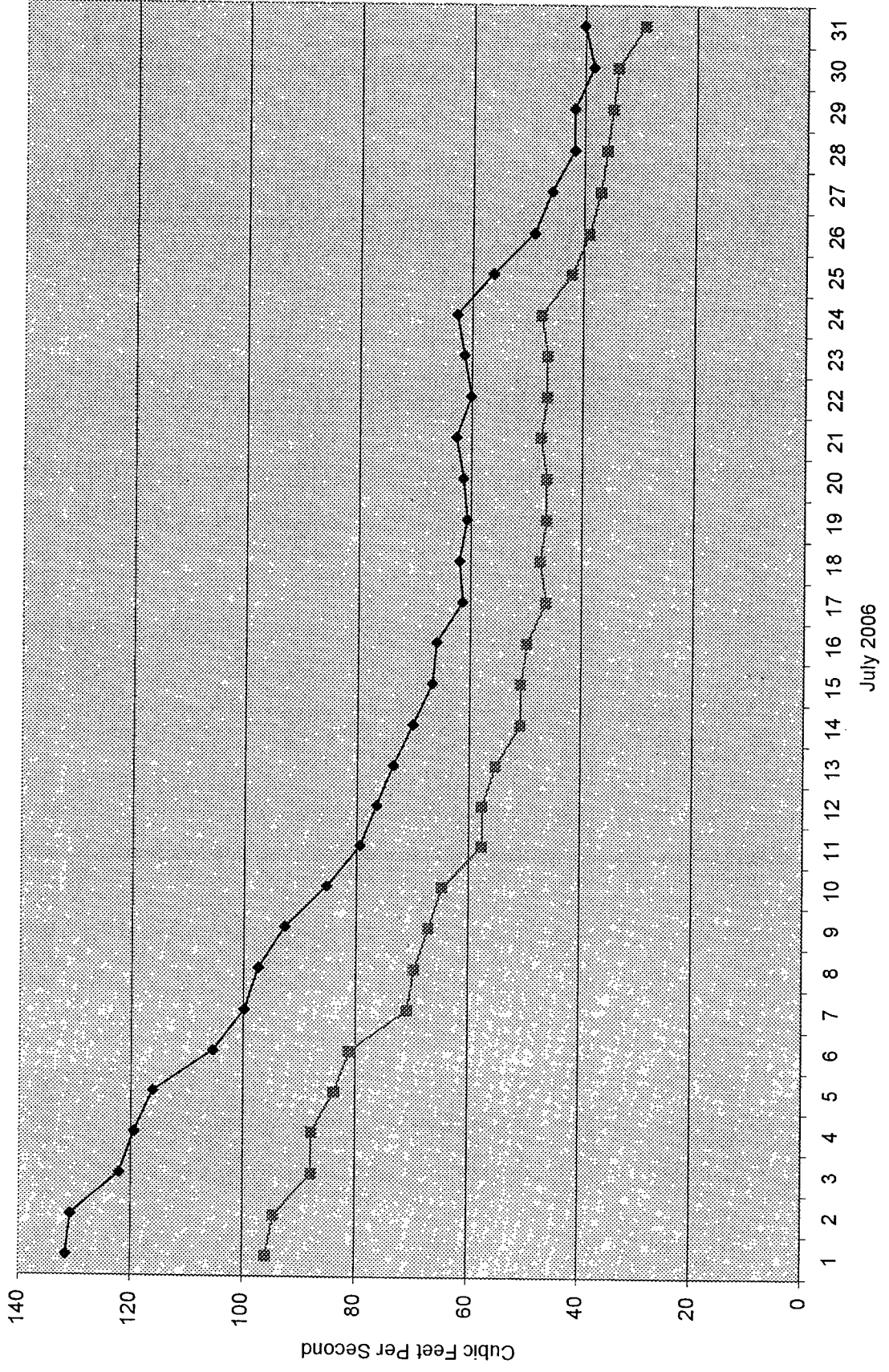
May 2006

# MAMMOTH CREEK STREAMFLOW COMPARISON



# MAMMOTH CREEK STREAMFLOW COMPARISON

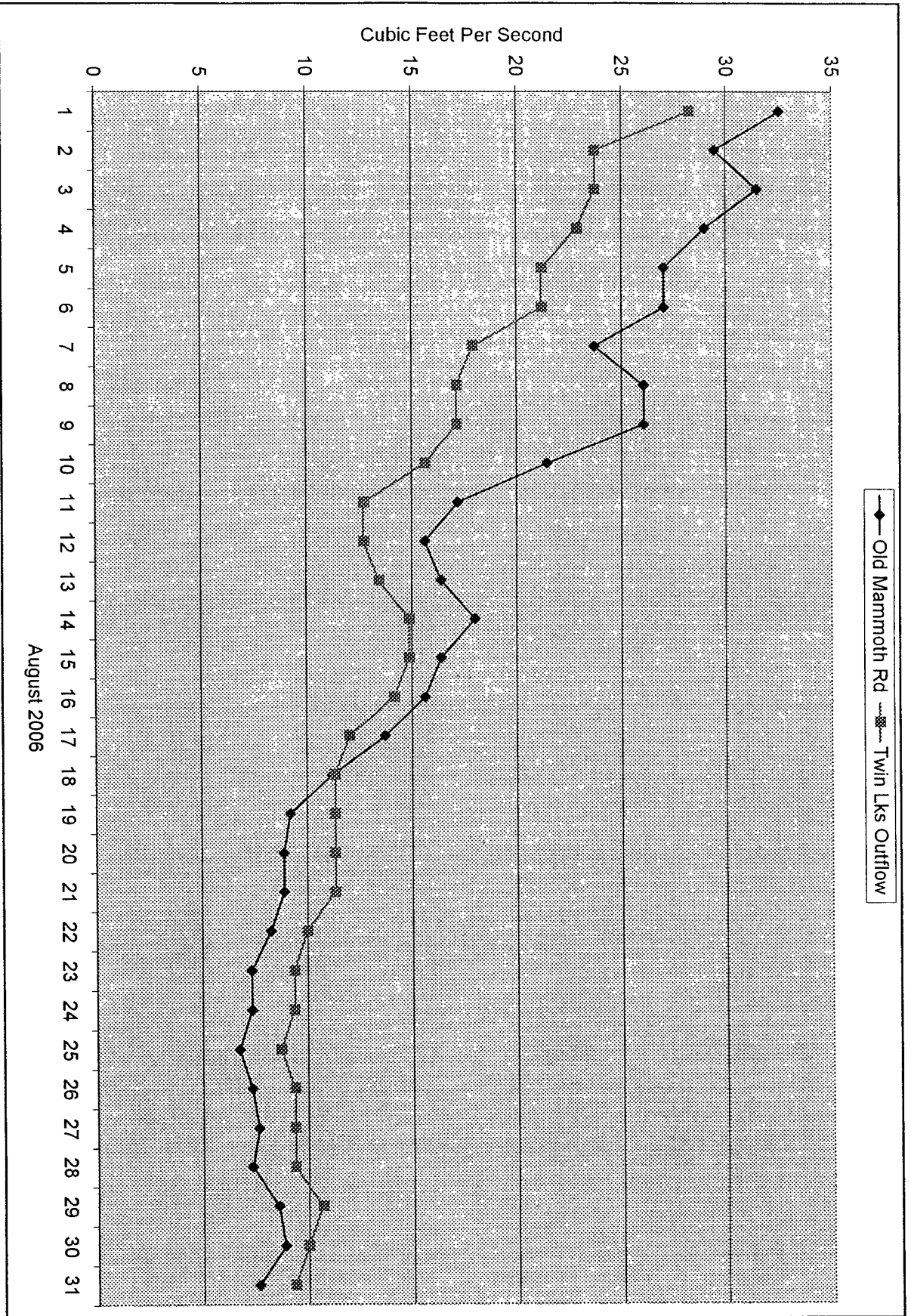
—●— Old Mammoth Rd    - - - □ - - - Twin Lks Outflow



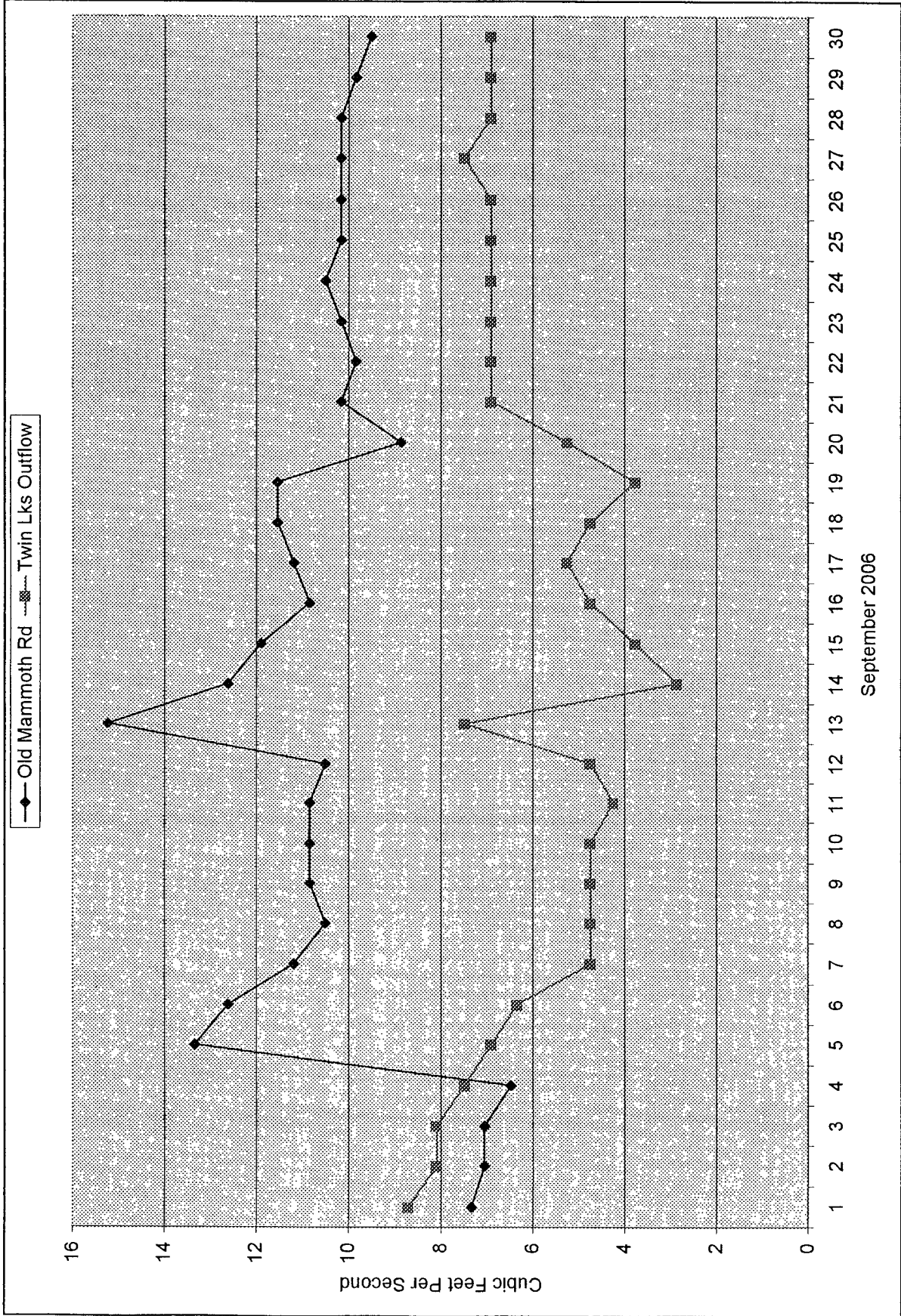
July 2006



# MAMMOTH CREEK STREAMFLOW COMPARISON



# MAMMOTH CREEK STREAMFLOW COMPARISON



September 2006

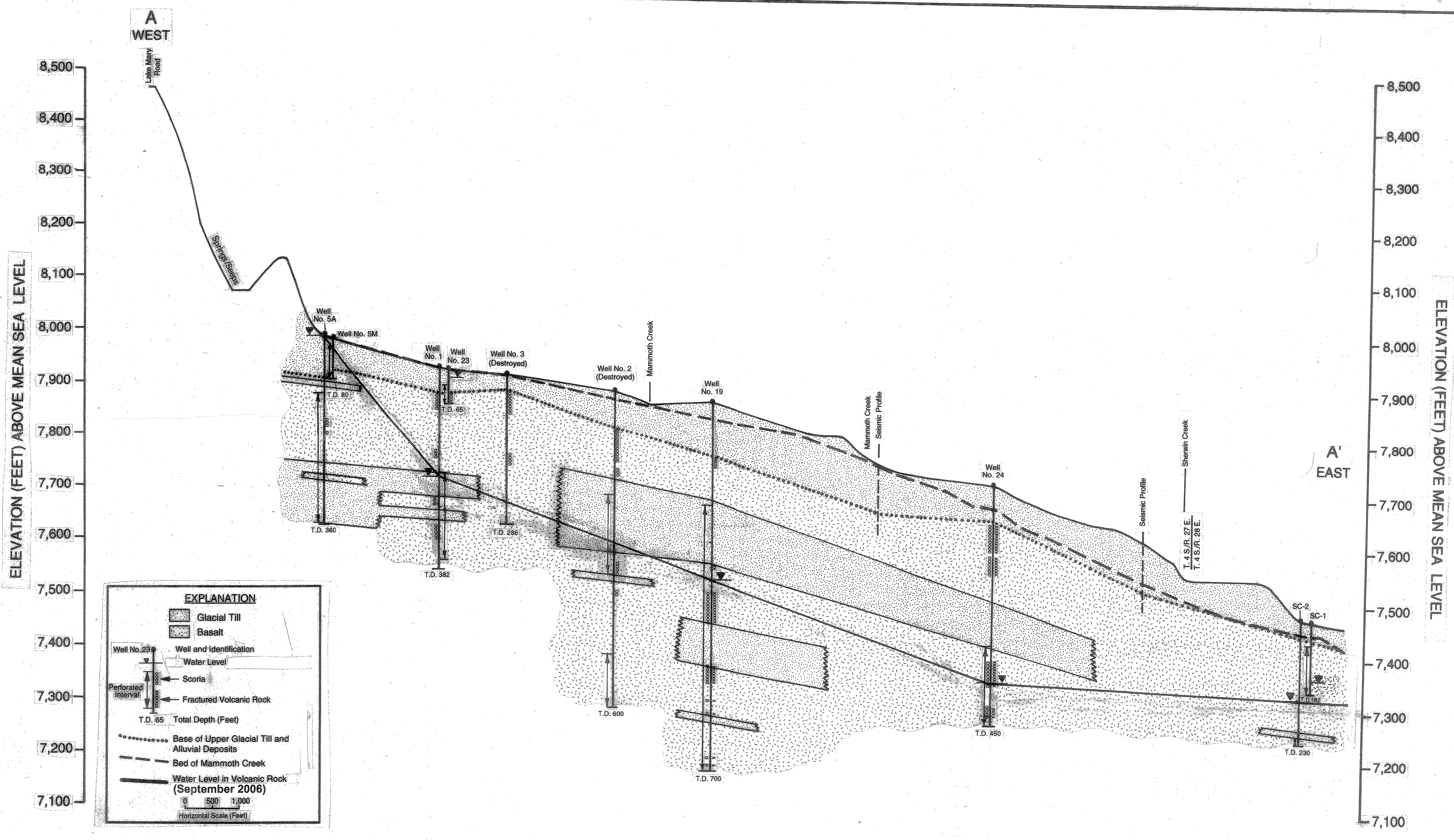


FIGURE 2 - SUBSURFACE GEOLOGIC CROSS SECTION A - A'