Appendix D – 2014 Annual Groundwater Monitoring Report

2014 ANNUAL REPORT

MENDOTA POOL GROUP PUMPING AND MONITORING PROGRAM

August 2015







Prepared for

San Joaquin River Exchange Contractors Water Authority, Wonderful Orchards, and Mendota Pool Group

Prepared by

LUHDORFF & SCALMANINI CONSULTING ENGINEERS

and

Kenneth D. Schmidt and Associates
Fresno, CA

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Mendota Pool Group
Pumping and Monitoring Program

Prepared for

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Wonderful Orchards, and
Mendota Pool Group

Prepared by

Luhdorff and Scalmanini, Consulting Engineers
Woodland, CA

Kenneth D. Schmidt and Associates
Fresno, CA

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Job No. 15-1-028

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Table of Contents

1 INTRODUCTION 1
1.1 Background 1
2 MONITORING PROGRAM 6
2.1 Pumpage 7
2.2 Groundwater Levels 8
2.3 Groundwater Quality 9
2.4 Surface-Water Flow (Water Budget) 9
2.5 Surface-Water Quality 10
2.6 Sediment Quality 10
2.7 Compaction and Land Subsidence 10
3 PUMPAGE 12
3.1 Mendota Pool Group Pumping 12
3.2 Non-MPG Pumping 14
4 GROUNDWATER LEVELS 16
4.1 Water-Level Hydrographs 16
4.1.1 Shallow Zone (above the A Clay) 16
4.1.2 Deep Zone 18
4.1.3 Lower Aquifer 20
4.2 Groundwater Elevation Contour Maps 21
4.2.1 Shallow Zone 21
4.2.2 Deep Zone 22
5 GROUNDWATER QUALITY 24
5.1 Salinity in the Shallow Zone 24
5.1.1 West of Fresno Slough 24
5.1.2 East of Fresno Slough 26
5.1.3 North of San Joaquin River 27
5.2 Salinity in the Deep Zone 28
5.2.1 Northwestern Area 28
5.2.2 West of Fresno Slough 29
5.2.3 East of Fresno Slough 29

5.2.4 North of San Joaquin River 30
5.3 Trace Elements 31
5.4 Summary 32
5.4.1 Shallow Zone Wells 32
5.4.2 Deep Zone Wells 32
6 SURFACE-WATER FLOW DIRECTION AND QUALITY 34
6.1 Water Budget Analysis 34
6.1.1 2014 Water Budget 35
6.2 Surface-Water Quality 35
6.2.1 Salinity 36
6.2.2 Trace Elements 37
6.3 Sediment Sampling Results 39
6.4 Summary 41
7 SUBSURFACE COMPACTION AND LAND SUBSIDENCE 42
7.1 Fordel Extensometer 43
7.2 Yearout Ranch Extensometer 43
7.3 Other Land Subsidence Data 45
8 PUMPING COST REIMBURSEMENTS 47
8.1 Pumping Cost Reimbursement Calculations 47
8.1.1 Example Calculation 47
8.1.2 Calculations for All Wells 48
8.2 Reimbursement for SJREC and Wonderful Orchards (formerly PFC) 49
8.3 Summary 49
9 SUMMARY 50
9.1 Pumpage 50
9.2 Groundwater Levels 50
9.3 Groundwater Quality 51
9.4 Surface-Water Flow and Quality 52
9.5 Compaction 53
9.6 Pumping Cost Reimbursements 53
10 REFERENCES 54

Appendices

Appendix A 2014 MPG Pumpage

Appendix B Short-Term Water-Level Hydrographs

Appendix C Long-Term Water-Level Hydrographs

Appendix D San Joaquin River Restoration Program Monitoring Well Hydrographs

Appendix E Groundwater Quality Tables

Appendix F Electrical Conductivity Hydrographs

Appendix G Surface-Water Quality Laboratory Results

Appendix H Electrical Conductivity at DMC and SJREC Canal Intakes

Tables

Table 2-1 Summary of 2014 Monitoring Program

Table 2-2 Groundwater Level Monitoring Network

Table 2-3 Groundwater Quality Monitoring Network

Table 2-4 Surface-Water Quality Monitoring Network

Table 3-1 Summary of MPG Well Construction

Table 3-2 Mendota Pool Group Pumpage (2014)

Table 3-3 Annual Mendota Pool Group Pumpage by Location

Table 3-4 Annual Mendota Pool Group Pumpage by Zone

Table 3-5 2014 Monthly Non-MPG Pumpage West of Chowchilla Bypass

Table 3-6 Summary of Non-MPG Pumpage West of Chowchilla Bypass 2001-2014

Table 3-7 Summary of Non-MPG Pumpage in 2014

Table 4-1 Changes in Groundwater Levels in Shallow Zone Wells, 2014

Table 4-2 Changes in Groundwater Levels, in Deep Zone, Composite, and Lower Aquifer Wells, 2014

Table 5-1 Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Table 5-2 Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Table 6-1 Monthly Summary of Water Budget for Fresno Slough Branch of Mendota Pool South of Transect A-A' (2014)

Table 6-2 Summary of 2014 Surface-Water Grab Sample Results

Table 6-3 Water Quality Criteria for Surface and Groundwater

Table 6-4 Sediment Sampling Results

Table 7-1 Water Levels and Compaction at Fordel and Yearout Ranch Extensometers

Table 7-2 Distribution of Drawdown and Compaction at Yearout Ranch Extensometer (2000-2014)

Table 8-1 2014 Example Reimbursement Calculation for WO (PFC) Well 3211-61 (W-73)

Table 8-2 Simulated Deep-Zone Drawdown at Non-MPG Production Wells Due to MPG Transfer Pumping in 2014

Table 8-3 Estimated Drawdowns for 2014 Pumping Cost Reimbursements

Table 8-4 2014 Pumping Cost Reimbursement for Well Owners Included in Settlement Agreement

Figures

Figure 1-1 Location Map – Mendota Pool Group Pumping and Monitoring Program

Figure 1-2 Mendota Pool Group Active Production Wells

Figure 1-3 Production Wells in Mendota Area

Figure 2-1 2014 Groundwater Level Monitoring Network

Figure 2-2 2014 Groundwater Quality Monitoring Network

Figure 2-3 Surface-Water Sampling Locations

Figure 2-4 Sediment Sampling Locations

Figure 4-1 Shallow Zone Groundwater Elevations: December 2013 - January 2014

Figure 4-2 Shallow Zone Groundwater Elevations: Summer 2014

Figure 4-3 Shallow Zone Groundwater Elevations: December 2014 - January 2015

Figure 4-4 Deep Zone Groundwater Elevations: December 2013 – January 2014

Figure 4-5 Deep Zone Groundwater Elevations: Summer 2014

Figure 4-6 Deep Zone Groundwater Elevations: December 2014 – January 2015

Figure 6-1 Inflow and Outflow Components for Southern Fresno Slough Water Budget

Figure 6-2 2014 Daily EC Fluctuations and Grab Sample Results at DMC Terminus

Figure 6-3 2014 Daily Average EC and Grab Sample Results at DMC, CCID Outside and Firebaugh Intake Canal

Figure 6-4 2014 Daily Average EC and Grab Sample Results at DMC, CCID Main Canal, and Columbia Canal

Figure 6-5 2014 Daily Average EC and Grab Sample Results at Mendota Wildlife Area

Figure 6-6 2014 Daily Average Total Selenium Concentration and Grab Sample Results at DMC Terminus

Figure 7-1 Compaction at Fordel Extensometer and Depth to Water at USGS Monitoring Well T13S/R15E-31J3

Figure 7-2 Compaction and Depth to Water at Yearout Extensometer

Figure 7-3 Total Compaction West of Mendota Pool and Depth to Water Below Corcoran Clay, USGS Well T13S/R15E-31J6

List of Abbreviations

af	acre-feet
Agreement	Agreement for Mendota Pool Transfer Pumping Project (2001)
Agreement No. 2	Agreement for Mendota Pool Transfer Pumping Project (2011)
Bank	Meyers Water Bank
bgs	below ground surface
Bypass	Chowchilla Bypass
CCC	Columbia Canal Company
CCID	Central California Irrigation District
cfs	cubic feet per second
CGH	Coelho/Gardner/Hansen (Vista Verde Farms)
CVP	Central Valley Project
CVRWQCB	Central Valley Regional Water Quality Control Board
^{o}C	degrees Celsius
DMC	Delta-Mendota Canal
DWR	California Department of Water Resources
EC	electrical conductivity
EIS	Environmental Impact Statement
FCWD	Firebaugh Canal Water District
feet msl	feet from mean sea level
FWD	Farmers Water District
GPS	Global Positioning System
JID	James Irrigation District
KDSA	Kenneth D. Schmidt & Associates
LSCE	Luhdorff & Scalmanini Consulting Engineers
µg/L	micrograms per liter
µmhos/cm	micromhos per centimeter at 25 ^{o}C
MDL	method detection limit
mg/L	milligrams per liter
MPG	Mendota Pool Group
MRL	Method reporting limit
MWA	Mendota Wildlife Area
NLF	Newhall Land and Farming
PBO	Plate Boundary Observatory
PFC	Paramount Farming Company
SLCC	San Luis Canal Company
SLDMWA	San Luis and Delta-Mendota Water Authority
SJR	San Joaquin River
SJREC	San Joaquin River Exchange Contractors Water Authority
TDS	total dissolved solids
TID	Tranquillity Irrigation District
USBR	United States Bureau of Reclamation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WO	Wonderful Orchards
WQO	Water Quality Objective
WWD	Westlands Water District

1 INTRODUCTION

This annual report was prepared on behalf of the Mendota Pool Group (MPG) in compliance with the *Agreement No. 2 for Mendota Pool Transfer Pumping Project* (Agreement No. 2) and the Environmental Impact Statement (EIS) entitled *Mendota Pool 10-Year Exchange Agreements* (U.S. Bureau of Reclamation [USBR], 2005a). The purpose of this report is to identify effects of transfer pumping on non-MPG wells and water resources in the area around the City of Mendota in Fresno and Madera counties, California (**Figure 1-1**). Data collected as part of the 2014 MPG monitoring program are presented in this report and discussed in the context of the historical data record.

The original study area was established in 1999 and encompassed the vicinity around the Mendota Pool south of Avenue 5 and west of the Chowchilla Bypass Canal (Chowchilla Bypass). All wells owned by the MPG are located within the original study area along (and mostly west of) the Fresno Slough branch of the Mendota Pool, between the Firebaugh Intake Canal and Whitesbridge Road, and south of the San Joaquin River (SJR) branch of the Pool in Farmers Water District (FWD). The original study area was expanded in 2001 to include a radius of at least six miles from the approximate center of the MPG wells in FWD. The locations of the active MPG wells (those MPG wells that were pumped for either adjacent and overlying use or for transfer in 2014) are shown on **Figure 1-2**. Known production well locations that currently exist in the original study area and the portion of the current study area east of the Chowchilla Bypass are shown on **Figure 1-3**. The evaluation of water-level impacts was extended to the northern and eastern portions of the current study area, and the evaluation of surface-water quality impacts was extended to the southern portion of the current study area (study area), which includes the northern portion of the Mendota Wildlife Area (MWA). Other analyses of pumping impacts, such as groundwater quality and subsidence, remained focused on the original study area.

Some of the water pumped by the MPG wells is used to irrigate "adjacent" lands (defined as overlying lands and lands near the Mendota Pool that are irrigated with groundwater using the Pool as a conveyance to transport groundwater). The MPG also pumps water for transfer (19 of the last 26 years), and the majority of this water is exchanged with USBR and used to irrigate lands owned by MPG members in Westlands Water District (WWD) and San Luis Water District.

1.1 Background

MPG transfer pumping began in 1989 to make up for some of the cutbacks in deliveries of Central Valley Project (CVP) and State Water Project surface water during the drought in the late 1980s. The period of greatest MPG transfer pumping was 1991 and 1992. There was very little MPG transfer pumping in the calendar years from 1995 to 1999, except for a four-month period in 1997.

A pilot pumping and monitoring program was undertaken in 1999 to determine the impacts of MPG transfer pumping on water users within the San Joaquin River Exchange Contractors Water Authority (SJREC) and Newhall Land and Farming Company (NLF) service areas. NLF's New Columbia Ranch (**Figure 1-3**) was purchased by Paramount Farming Company (PFC) of Bakersfield on December 1, 2005 and the PFC name changed to Wonderful Orchards (WO) on June 1, 2015. The pilot pumping and monitoring program was developed and jointly evaluated by Luhdorff & Scalmanini Consulting Engineers (LSCE) of Woodland, consultants to the MPG, and Kenneth D. Schmidt & Associates (KDSA) of Fresno, consultants to the SJREC and NLF. Extensive monitoring of pumpage, water levels, water quality, and compaction was initiated in 1999 and continues to the present. The impacts observed during the 1999 program were presented in the Phase I report entitled Results of 1999 Test Pumping Program for Mendota Pool Group Wells (KDSA and LSCE, 2000a).

A similar transfer-pumping program to 1999 was conducted in 2000, and the results were summarized in Mendota Pool Group Pumping and Monitoring Program: 2000 Annual Report (LSCE and KDSA, 2001). The data collected during the 1999 and 2000 pumping programs were used to evaluate the long-term impacts of MPG transfer pumping on the SJREC and NLF service areas and to develop mitigation measures to address potentially significant impacts. The impacts and recommended mitigation measures were documented in the Phase II report entitled Long-Term Impacts of Transfer Pumping by the Mendota Pool Group (KDSA and LSCE, 2000b). This report also included criteria for an agreement between the MPG, the SJREC, and NLF on a 10-year MPG pumping program. This agreement, entitled Agreement for Mendota Pool Transfer Pumping Project (Agreement), was signed by all parties in May 2001, with an effective date of January 1, 2001 to December 2010. Annual MPG transfer pumping of up to 31,600 acre-feet (af) in six "normal" years and up to 40,000 af in two "dry" years for a total of 269,600 af was permitted under the terms of this agreement. Two out of the 10 years must be classified as "wet" years in which no transfer pumping would occur. The Agreement included requirements for a detailed monitoring program and other provisions to ensure that MPG transfer pumping would not cause significant increases in surface-water salinity, groundwater basin overdraft, or land subsidence.

The 2001 transfer-pumping program was the first conducted under the provisions of the Agreement. The most significant change to the pumping program for 2001 was that deep-zone transfer pumping was minimized between July 1 and September 15. The 2001 MPG transfer pumpage was approximately 27,400 af and an additional 13,300 af were pumped by the MPG to irrigate adjacent lands. Annual reports were required under the terms of the Agreement and Agreement No. 2, and the 2001 annual report was entitled Mendota Pool Group Pumping and Monitoring Program: 2001 Annual Report (LSCE and KDSA, 2002).

The 2002 transfer-pumping program was the second conducted under the provisions of the Agreement. The most significant change to the pumping program for 2002 was that both

shallow and deep transfer pumping were reduced from the 2001 levels, due primarily to incomplete water-level recovery that was observed in many shallow and deep zone wells at the end of 2001. Transfer pumping in 2002 was conducted between May 1 and September 30. The total volume of MPG transfer pumpage in 2002 was about 12,500 af and MPG pumpage for adjacent use was about 15,900 af. The 2002 annual report was entitled Mendota Pool Group Pumping and Monitoring Program: 2002 Annual Report (LSCE and KDSA, 2003).

The MPG classified 2003 as a "wet" year, and no transfer pumping was conducted. MPG pumping in 2003 was limited to approximately 14,200 af for adjacent use. The results of the 2003 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2003 Annual Report (LSCE and KDSA, 2004). In addition to conducting monitoring activities in 2003, consultants to the MPG prepared an EIS to allow the MPG to obtain exchange agreements with USBR for a 10-year transfer pumping program (effective 2005 through 2014). The Draft EIS was released in May 2003, and the Final EIS was approved in March 2005 (USBR, 2005a). The Record of Decision for the project was signed on March 30, 2005 (USBR, 2005b).

The MPG also classified 2004 and 2005 as "wet" years, and no transfer pumping was conducted. MPG pumping in 2004 was limited to about 12,900 af for adjacent use. The results of the 2004 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2004 Annual Report (LSCE and KDSA, 2005). MPG pumping in 2005 was limited to about 10,000 af for adjacent use. The results of the 2005 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2005 Annual Report (LSCE and KDSA, 2006). NLF's New Columbia Ranch (**Figure 1-3**) was purchased by PFC on December 1, 2005 and the PFC name changed to WO on June 1, 2015.

The MPG classified 2006 as a "normal" year and planned to pump about 23,000 af for transfer, along with about 14,000 af for adjacent use. However, due to the extended period of San Joaquin and Kings River flood releases, which continued until mid-July, the planned transfer pumping program did not occur, and pumpage for adjacent use was limited to about 6,400 af. The results of the 2006 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2006 Annual Report (LSCE and KDSA, 2007).

The 2007 transfer pumping program was the third conducted under the provisions of the Agreement. Transfer pumping was conducted between April 1 and November 30. The total volume of MPG transfer pumpage in 2007 was about 22,560 af, and MPG pumpage for adjacent use was about 15,500 af. The results of the 2007 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2007 Annual Report (LSCE and KDSA, 2008).

The 2008 transfer pumping program was the fourth conducted under the provisions of the Agreement. As in 2007, transfer pumping was conducted between April 1 and November 30. The total volume of MPG transfer pumpage in 2008 was about 24,000 af and MPG pumpage for adjacent use was about 11,800 af. The results of the 2008 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2008 Annual Report (LSCE and KDSA, 2009).

The 2009 transfer pumping program was the fifth conducted under the provisions of the Agreement. Transfer pumping was conducted between March 9 and November 24. The total volume of MPG transfer pumpage in 2009 was 23,811 af; and an additional 2,981 af were pumped for transfer by Don Peracchi, a non-MPG member in FWD. The total pumpage for adjacent use by the MPG and Peracchi was about 11,100 af. The results of the 2009 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2009 Annual Report (LSCE and KDSA, 2010).

The 2010 transfer pumping program was the sixth and final to be conducted under the provisions of the original Agreement. Transfer pumping was conducted between March 15 and November 30. The MPG and Peracchi planned to pump a total of 26,890 af for transfer and 10,131 af for adjacent use in 2010. The actual pumping program was greatly reduced due to wet conditions and the availability of CVP and other surface water in 2010. The total volume of transfer pumpage in 2010 was 11,102 af by the MPG and 763 af by Peracchi. Pumpage for adjacent use by both parties was 8,071 af. The results of the 2010 pumping and monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2010 Annual Report (LSCE and KDSA, 2011).

The original Agreement ended on December 31, 2010. Over the ten-year period of the Agreement, the MPG and Peracchi pumped a total of 125,142 af for transfer. This represents an average of 20,857 af per year over the six years that transfer pumping was conducted. Pumpage for adjacent use by the MPG and Peracchi totaled 118,221 af and averaged 11,822 af per year during this period. A second agreement between the Exchange Contractors, WO, and the MPG was finalized in 2011 with an effective date on January 1, 2011. The term of Agreement No. 2 is four-years (2011 through 2014). The end of Agreement No. 2 was intended to coincide with the 2005 EIS end of term (2014). Annual MPG transfer pumping of up to 25,000 af is permitted under the terms of this agreement with a maximum of 12,000 af from the deep zone.

The MPG initially classified 2011 as a “normal”, and transfer pumping was planned to be about 21,400 af by the MPG and 1,300 af by Peracchi. Pumping for adjacent use was planned to be 10,600 af by both parties. However, due to the extended period of San Joaquin and Kings River flood releases, which continued until mid-June, the planned transfer pumping program did not occur, and the total pumpage for adjacent use was limited to about 8,600 af. The results of the

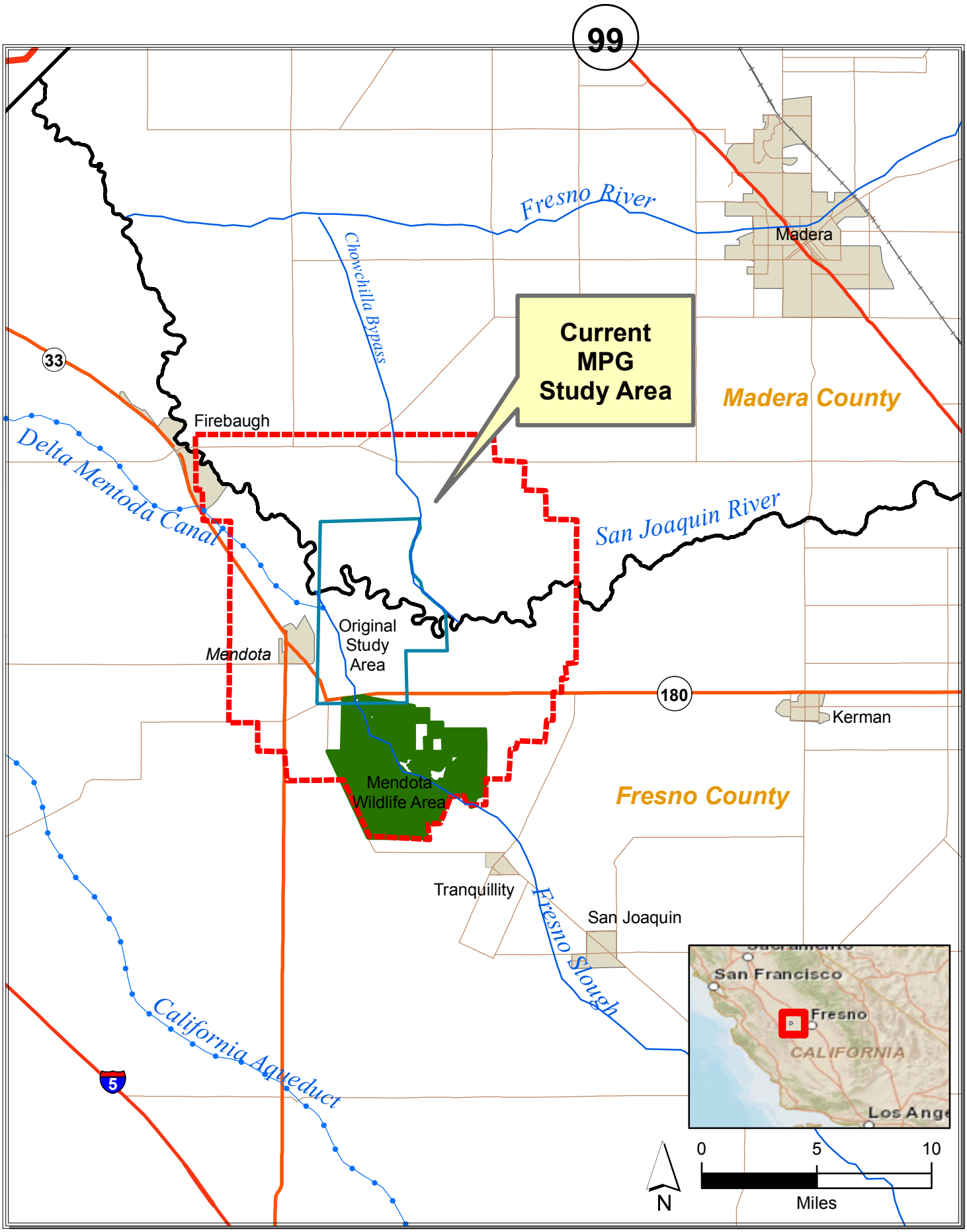
2011 monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2011 Annual Report (LSCE and KDSA, 2012).

The 2012 transfer pumping program was the first to be conducted under Agreement No. 2. The MPG classified 2012 as a "normal" year, and transfer pumping was conducted between March 1 and October 16. The planned pumping program for both the MPG and Peracchi totaled about 24,900 af of transfer pumping and 12,000 af of pumping for adjacent use. The actual transfer pumpage in 2012 was about 22,500 af by the MPG and 2,400 af by Peracchi, for a total of about 24,900 af. Pumpage for adjacent use by both parties totaled about 14,300 af. The results of the 2012 pumping and monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2012 Annual Report (LSCE and KDSA, 2013).

The 2013 transfer pumping program was the second to be conducted under Agreement No. 2. The MPG classified 2013 as a "normal" year, and transfer pumping was conducted between March 1 and November 12. The planned pumping program for both the MPG and Peracchi totaled about 22,600 af of transfer pumping and 12,150 af of pumping for adjacent use. The actual transfer pumpage in 2013 was about 19,200 af by the MPG and 3,200 af by Peracchi, for a total of about 22,400 af. Pumpage for adjacent use by both parties totaled 12,100 af. The results of the 2013 pumping and monitoring program are summarized in an annual report entitled Mendota Pool Group Pumping and Monitoring Program: 2013 Annual Report (LSCE and KDSA, 2014).

The 2014 transfer pumping program was the third and final program to be conducted under the provisions of Agreement No. 2. The MPG classified 2014 as a "normal" year, and transfer pumping was conducted between March and November. The planned pumping program for both the MPG and Peracchi totaled about 23,400 af of transfer pumping and 13,400 af of pumping for adjacent use. The actual transfer pumpage in 2014 was about 20,600 af by the MPG and 2,500 af by Peracchi, for a total of about 23,100 af. Pumpage for adjacent use by both parties totaled about 9,200 af. The results of the 2014 pumping and monitoring program are summarized in this report.

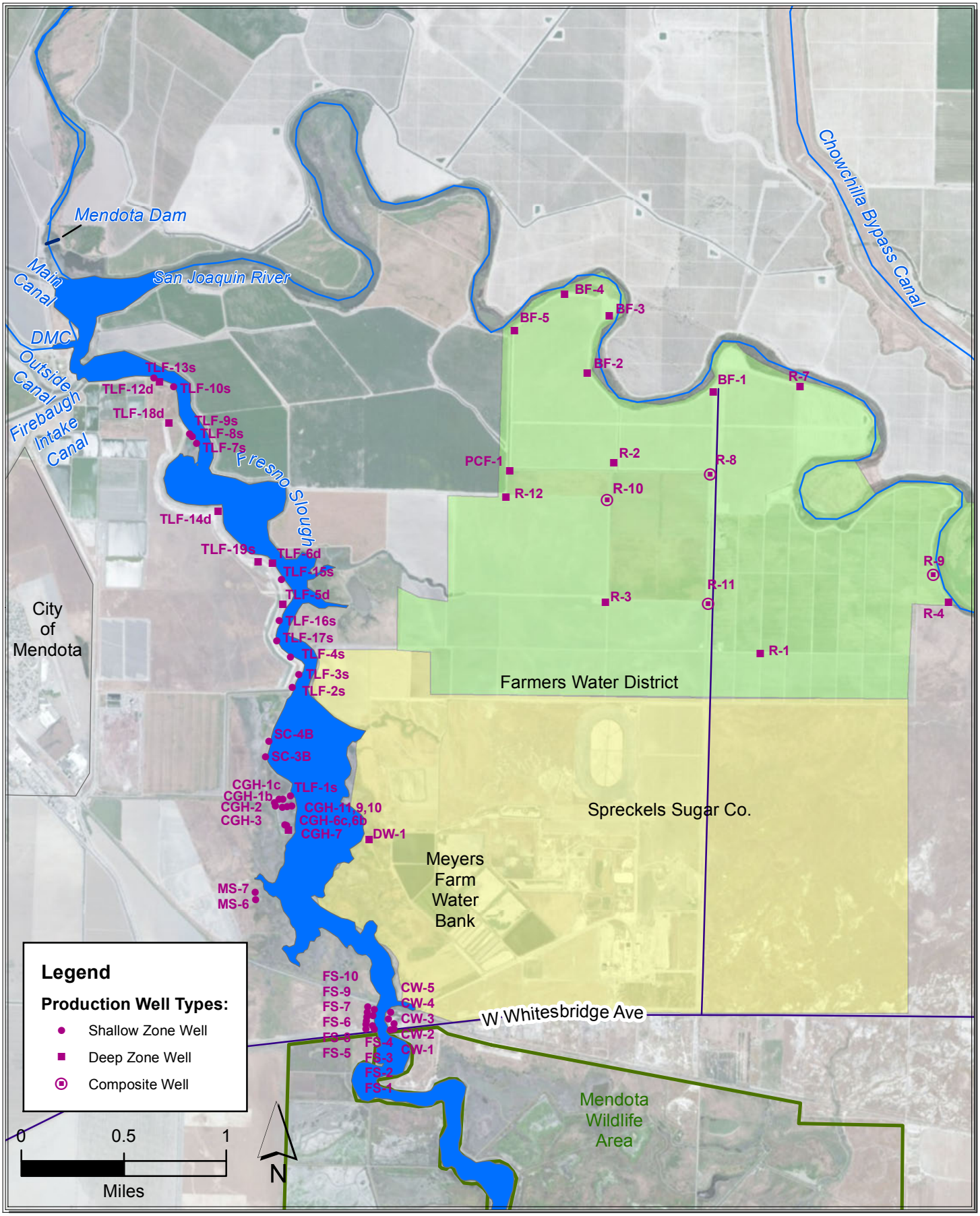
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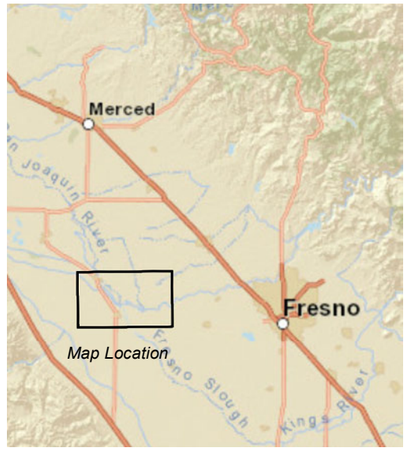
Figure 1-1
Location Map - Mendota Pool Group
Pumping and Monitoring Program



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Figure 1-2
Mendota Pool Group
Active Production Wells



Production Well Types:

- • Shallow Zone (Above A-Clay)
- ■ Deep Zone (Above Corcoran Clay)
- ◉ Composite (Above and Below Corcoran Clay)
- ▲ Deep or Composite

Production Wells

MAGENTA	MPG
BLUE	WO (Formerly PFC)
Purple	In CCC Service Area
Yellow	CCID
BROWN	Spreckels Sugar Co.
GREEN	Meyers Water Bank
BLACK	Other
	Recharge Ponds

0 1 2 Miles

N

Note:
"Shallow Zone" wells are generally completed above the A-Clay (maximum depth = 130').
"Deep Zone" wells are generally completed below the A-clay and above the Corcoran Clay.
Composite wells are completed both above and below the Corcoran Clay.

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Figure 1-3
Production Wells in Mendota Area

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2 MONITORING PROGRAM

The monitoring program conducted in 2014 (**Table 2-1**) followed the monitoring program set forth in the EIS and is comparable in its scope to the monitoring program conducted in 2013 and previous transfer pumping years. The monitoring program specifies data collection for the following seven types of data:

1) Pumpage
2) Groundwater Levels
3) Groundwater Quality
4) Surface-Water Flow
5) Surface-Water Quality
6) Sediment Quality
7) Compaction

The monitoring program includes wells owned and/or operated by many entities, including the MPG. Thus, although the MPG collects a large amount of the necessary data, it relies on the cooperation of numerous participants in order to fully accomplish the monitoring program objectives. Recognizing that there are different participants in the program, four levels of participation were defined in the EIS to characterize the roles and responsibilities of the various entities:

Level I This level is comprised of the MPG members and encompasses the monitoring activities where the MPG has control over (1) the data being collected, (2) the data quality objectives, and (3) the monitoring frequency. This includes groundwater level and quality monitoring in wells owned by the MPG and the collection of surface-water and sediment samples from the Mendota Pool. Monitoring efforts of the Level I participants are coordinated through the MPG agent and consultants to the MPG.

Level II This level originally consisted of the SJREC and NLF, which were the signatories of the Agreement along with the MPG. As the current owner of the New Columbia Ranch, WO (formerly PFC) replaced NLF as one of the participants in the Agreement and was a signatory of Agreement No. 2. The SJREC and WO participate in the monitoring program under the terms of both agreements. The SJREC consists of four entities: Central California Irrigation District (CCID), Columbia Canal Company (CCC), Firebaugh Canal Water District (FCWD), and San Luis Canal Company (SLCC). These entities and the WO are responsible for collection and analysis of groundwater-quality samples from wells in their respective service areas and surface-water quality samples from their canal intakes. The SJREC maintains continuous recorders to monitor electrical conductivity (EC) at its canal intakes, and CCID monitors compaction and water levels at the Yearout Ranch extensometer. CCID, CCC, and WO also provide monthly pumpage data for their wells. These entities grant the MPG access to specific wells, primarily for water-level monitoring purposes. CCID and WO also conduct water-level monitoring in a

number of their own wells. The data quality objectives and monitoring frequency can be coordinated between the MPG and these entities.

Level III This level of participation applies to the various public agencies, including the San Luis and Delta-Mendota Water Authority (SLDMWA), USBR, the City of Mendota, the U.S. Geological Survey (USGS), and the California Department of Water Resources (DWR), that conduct monitoring programs as part of their regular duties. These agencies generally provide data to the MPG upon request. The data collected, data quality objectives, and monitoring frequencies are set by the respective agencies relative to their requirements. The MPG has no control over monitoring conducted or overseen by these agencies.

Level IV This level includes all other entities in the area not included in the preceding three levels. This includes water districts such as WWD, James Irrigation District (JID), Tranquillity Irrigation District (TID), and Aliso Water District, and private entities such as Meyers Water Bank (Bank), Spreckels Sugar Co., Covanta Mendota (formerly Mendota Biomass), and Locke Ranch. Participation by these entities in the MPG monitoring program is voluntary. The MPG has regularly requested data from these entities with varying success, however, this year only the WWD, Spreckels Sugar Co. (downloaded from the California State Water Resources Control Board's data management system [Geotracker]), and Locke Ranch provided data. In certain cases, the MPG has been granted access to non-MPG properties to measure water levels in or collect water-quality samples from specific wells. When samples are collected by the MPG, the MPG would specify the data to be collected and the data quality objectives. The monitoring frequency at these properties depends in part on when access is granted. Otherwise, the MPG has no control over the data collected, data quality objectives, or monitoring frequencies.

2.1 Pumpage

Pumpage from the MPG wells along the Fresno Slough branch of the Mendota Pool is metered at the introduction points where water from the MPG wells enters the Pool. The majority of these wells are metered individually, but a number of shallow zone wells are manifolded together and the meter reading is a composite value (e.g., the Five Star and Coelho West wells). The SLDMWA typically reads the meters on a weekly basis during the irrigation season and less frequently during the rest of the year. The metered wells include six wells (M-1 through M-6) operated by the City of Mendota (formerly operated by Fordel, Inc.). Wells in FWD are metered individually, and pumpage is monitored on a monthly frequency by FWD. The MPG maintains records to determine whether water from its wells is being pumped for transfer or adjacent use. MPG wells pumped in 2014 are shown on **Figure 1-2**.

Level II participants (the SJREC and WO) provided monthly data for wells within their service areas. CCID and CCC provided metered pumpage data. SLCC has no wells within the study area. FCWD operated wells within the study area prior to the early 1990s and after 2008 and SLDMWA provided monthly pumpage data for the period 2008 to 2014. Monthly pumpage for

most of the WO wells is now based on flow meter readings. Pumpage for 12 WO wells without flow meters was estimated based on monthly power records.

The City of Mendota is the only Level III entity that operates water supply wells within the study area. Metered pumpage data for its municipal water supply wells (well Nos. 7, 8, and 9) were supplied on a monthly basis for 2010 and 2014. Pumpage for 2011 through 2013 was assumed to be similar to 2010 amounts.

Only one level IV participant provided pumpage for 2014. Covanta Mendota suspended operations in January 2015 and pumpage was not available for 2014 so 2014 pumpage was assumed to be similar to 2013. Spreckels Sugar Co. 2014 pumpage was assumed equal to 2012 pumpage estimates. Locke Ranch pumpage was estimated by CCID for 2014, the first time since 2000that monthly pumpage was available. Pumpage east of the Bypass was estimated based on 2009 and 2011 land use maps and is discussed in Chapter 3.

2.2 Groundwater Levels

The primary purpose of the groundwater-level monitoring program is to generate the data necessary to evaluate the effects of MPG transfer pumping on groundwater levels. Water-level measurements have been made in a large network of wells in the Mendota area since 1999 in order to determine the water-level impacts caused by MPG transfer pumping. The wells in the monitoring network include water supply wells and monitoring wells that are classified as either shallow (completed above the A-clay or its equivalent depth, i.e., generally less than 130 feet in depth, depending on location) or deep (completed below the A-clay or its equivalent depth but above the Corcoran Clay, i.e., generally to 400 feet in depth). Some wells in FWD and WO that were classified as deep zone wells in the past are actually composite wells (completed both above and below the Corcoran Clay) due to a small portion of the wells perforated interval located below the Corcoran Clay and have been reclassified. Three monitoring wells, including one USGS wells west of the Fresno Slough and two WO wells north of the SJR, are completed only in the lower aquifer below the Corcoran Clay.

Wells included in the water-level monitoring network are listed in **Table 2-2**, along with the entity responsible for monitoring each well, the participation level, and the monitoring frequency. In 2014, the MPG conducted six rounds of water-level measurements in 62 wells, and compiled groundwater-level measurements provided by entities such as WO, CCID, WWD, USGS, and USBR. Well locations are shown on **Figure 2-1**. In addition to the collection of manual water-level measurements, the MPG operates electronic equipment collecting daily water-level information in USGS monitoring well 31J3 (near the Fordel extensometer). CCID installed electronic water-level recording equipment in the Yearout Ranch extensometer. This equipment failed in 2004 and was replaced in 2012. Only manual measurements are available for the intervening years.

2.3 Groundwater Quality

The purpose of the groundwater-quality monitoring program is to generate the data necessary to evaluate changes in groundwater quality that may be caused by MPG transfer pumping and to forecast potential surface-water quality impacts in the Mendota Pool. For these purposes, the MPG collects annual samples from its operational production wells along the Fresno Slough branch of the Pool and in FWD (**Table 2-3**). In 2014, the MPG collected groundwater samples in May and in September, and wells with 2014 groundwater-quality data are shown on **Figure 2-2**. These samples were analyzed for EC and total dissolved solids (TDS) or general minerals and trace elements depending on the sampling schedule.

Water-quality data from signatories to Agreement No. 2 were supplied as available. Water-quality data were also obtained from non-MPG members: the City of Mendota (available from California Department of Public Health), Spreckels Sugar Co. (available from the California State Water Resources Control Board GeoTracker online link to data for regulated facilities), and the USGS. Meyers Farms now owns the majority of the Spreckels' property, and Spreckels has a separate groundwater monitoring program specified by the Central Valley Regional Water Quality Control Board (CVRWQCB).

2.4 Surface-Water Flow (Water Budget)

The SLDMWA assumed operation of the Mendota Pool from USBR in October 1996. Since then, the SLDMWA has responded to delivery requests and monitored inflows, diversions (outflows), and the stage height in the Pool. Some inflows are monitored on a daily basis (e.g., inflow from the Delta-Mendota Canal [DMC], the SJR just west of the Chowchilla Bypass, and the Kings River via the James Bypass). Inflow to the Pool from the SJR is estimated daily by the SLDMWA based on data from the Chowchilla Bypass gage. Pumpage to the Pool is monitored on a weekly basis during the irrigation season and less frequently during the rest of the year. Based on the inflow and outflow components, including delivery requests, the SLDMWA monitors and forecasts the direction of flow in the Fresno Slough branch of the Mendota Pool. This information is needed to prevent water-quality degradation at the SJREC's canal intakes caused by MPG transfer pumping. The SLDMWA has agreed to notify the MPG whenever a north flow event is expected to occur.

During most of the year, the flow direction in the Fresno Slough branch of the Mendota Pool is to the south. Northerly flow is typically observed as a result of major upstream flood releases to the Kings River and the Fresno Slough and when the Pool is being drained in preparation for winter maintenance work on Mendota Dam. During such times, the MPG does not conduct transfer pumping.

Data provided by the SLDMWA are used by the MPG to prepare a monthly water budget for the Fresno Slough Branch of the Pool south of the Firebaugh Intake Canal. Water delivery demands

by entities located along this portion of the Mendota Pool account for approximately 10 to 15 percent of the total DMC deliveries (most of the DMC deliveries are diverted into the SJREC's canal intakes in the northern portion of the Pool). The MPG's water budget accounts for all inflows from and diversions to these entities, evaporation and seepage losses, and the change in storage (as calculated from SLDMWA's stage height measurements). The water budget is used to calculate the monthly amount of inflow from the DMC that reaches the southern portion of the Pool. This quantity is used in combination with water quality information for the DMC and MPG wells to devise MPG pumping programs to meet strict water-quality constraints.

2.5 Surface-Water Quality

The primary purpose of the surface-water quality monitoring network (**Table 2-4**) is to allow the MPG to detect any potential exceedances of water-quality objectives at key locations in the Pool and adjust the pumping program accordingly. During transfer pumping years, the MPG monitoring program is supplemented by data obtained from the SJREC and USBR. During non-transfer pumping years (such as 2011), most of the surface water quality data are collected by these entities. The SJREC operates continuous EC recorders at its four canal intakes that divert water from the Pool, i.e., the Columbia Canal, CCID Main Canal, CCID Outside Canal, and Firebaugh Intake Canal, and retrieves grab samples from these locations (**Figure 2-3**) monthly during the irrigation season. These samples are analyzed for EC, boron, and selenium. Data obtained from USBR include daily high, low, and average EC values based on electronic transducer data from the DMC at Bass Avenue (Check 21), and daily selenium concentrations from samples retrieved via auto-sampling equipment at Check 21. Manual grab samples are also collected on a monthly basis and analyzed for selenium.

2.6 Sediment Quality

A sediment quality monitoring program was initiated in 2001 at the request of the U.S. Fish and Wildlife Service (USFWS). Most of the eight sediment sampling stations (**Figure 2-4**) are co-located with surface-water sampling locations. Its objectives are to provide baseline characterization of metal concentrations in Pool sediments and to allow identification of temporal and spatial trends in sediment quality. Sediment sampling was not conducted during years when the MPG did not pump for transfer (2003-2006), 2008, and 2011. Sediment samples were collected in 2001, 2002, 2007, 2009, and 2010 through 2014.

2.7 Compaction and Land Subsidence

Continuous compaction data are collected from two extensometers in the Mendota area to evaluate compliance with the subsidence criterion specified in the original Agreement and Agreement No. 2. The MPG installed the Fordel extensometer west of the Fresno Slough in 1999. The Yearout Ranch extensometer, located east of the Slough, was installed by DWR in 1965 and has been monitored by CCID since 1999. The 2014 data from these extensometers are

evaluated in this report in the context of the period of record. Both extensometers monitor compaction above the Corcoran Clay, the top of which was encountered at depths of 418 and 428 feet at the Fordel and Yearout Ranch sites, respectively.

Since 2004, total compaction (including compaction occurring in and below the Corcoran Clay) has been measured at a Global Positioning System (GPS) monitoring station located on land owned by Meyers Farms southeast of Mendota and west of the Fresno Slough (see **Figure 2-1**). This GPS station is part of a network of similar stations that have been installed throughout the western United States in recent years by the Plate Boundary Observatory (PBO), which is a division of UNAVCO. The Mendota PBO station (No. P304) began collecting data on April 28, 2004, and the data are uploaded daily to the UNAVCO website.

Table 2-1
Summary of 2014 Monitoring Program

Item	Description	No. of Locations	Frequency
Pumpage	MPG meter readings (Fresno Slough wells)[1]	All	Weekly
	MPG meter readings (FWD wells)	All	Monthly
	SJREC (CCID and CCC) and WO	All	Monthly
	Pumpage by others (measured or estimated)	All	Varies
Groundwater Levels	Wells measured by MPG	60	Bimonthly[2]
	Wells measured by others	Varies	Varies
Groundwater Quality	Wells monitored by MPG	82	Annual
	Wells monitored by others	Varies	Annual[3]
Surface-Water Flow	Inflow and outflow measurements[1]	All	Daily
	Stage measurements[1]	1	Daily
Surface-Water Quality	MPG grab sample locations[4]	10	Monthly and simi-annual[5]
	MPG EC recorder at MWA	1	Continuous
	SJREC grab sample locations	6	Varies
	SJREC EC recorders at canal intakes	4	Continuous
	USBR grab sample locations	3	Monthly
	USBR automated composite sampling at DMC	1	Daily
	USBR EC recorder at DMC	1	Continuous
Sediment Quality	MPG sample locations[4]	8	Annual
Compaction	Fordel extensometer monitored by MPG	1	Continuous
	Yearout Ranch extensometer monitored by CCID	1	Monthly/Continuous

1. Monitored by the San Luis & Delta-Mendota Water Authority.
2. 2014 water level measurements made in January, March, May, July, September, and December. Includes one USGS well (T13S/R15E-31J3) equipped with electronic logging equipment.
3. Some wells sampled more frequently.
4. MPG surface-water grab samples and sediment monitoring only conducted during years of transfer pumping.
5. Monthly monitoring at three locations during months when transfer pumping is occurring. Semi-annual monitoring (June and September) at an additional eight sites.

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Table 2-2
Groundwater Level Monitoring Network

Owner	Well ID	State Well Number	Depth Zone[1]	WL Monitoring			Participation Level[3]
				Frequency	Entity[2]	2014 Data	
MPG Wells							
Terra Linda Farms	TLF-7s (10C)	T13S/R15E-29C	S	Bimonthly	MPG	Y	I
	HS-3	13S/15E-29F2	D	Bimonthly	MPG	Y	I
Etchegoinberry	No. 2	T13S/R15E-29R3	S	Bimonthly	MPG	Y	I
Coelho/Coelho/Fordel	CCF-2	T13S/R15E-32	D	Bimonthly	MPG	Y	I
Meyers Farms	MS-4	T14S/R15E-5	S	Bimonthly	MPG	Y	I
	MS-5	T14S/R15E-5	D	Bimonthly	MPG	Y	I
Casaca Vineyards	FS-5	T14S/R15E-9C6	S	Bimonthly	MPG	Y	I
Farmers Water District	R-5	T13S/R15E-26B1	D	Bimonthly	MPG	Y	I
	R-7	T13S/R15E-23P1	D	Bimonthly	MPG	Y	I
	R-8	T13S/R15E-27H1	C	Bimonthly	MPG	Y	I
	WL-2	T13S/R15E-26K1	D	Bimonthly	MPG	Y	I
	EL-1	T13S/R15E-25L1	D	Bimonthly	MPG	Y	I
Baker Farming Co.	BF-2	T13S/R15E-22	D	Bimonthly	MPG	Y	I
Panoche Creek Trust	PCF-1	T13S/R15E-27	D	Bimonthly	MPG	Y	I
Non-MPG Wells (West of Chowchilla Bypass)							
Central California ID	5A	T13S/R15E-19G1	D	Bimonthly	MPG	Y	II
	15B	T13S/R14E-12E1	D	Bimonthly	MPG	Y	II
	28C	T13S/R14E-13	D	Bimonthly	CCID	Y	II
	32C	T13S/R15E-19	D	Bimonthly	MPG	Y	II
	35A	T13S/R14E-12L1	D	Bimonthly	MPG	Y	II
	38A	T13S/R14E-12B3	D	Bimonthly	MPG	Y	II
	Yearout Extensometer	T13S/R15E-35D5	D	Continuous	CCID	Y	II
Firebaugh Canal WD	25D2	T13S/R14E-25D2	D	Bimonthly	MPG	Y	II
Columbia Canal Co.	Cardella-Lopes (Lopes 1)	T13S/R15E-16D	D	Bimonthly	MPG	Y	II
	MLT-West	T13S/R15E-20G2	D	Bimonthly	MPG	Y	IV
	Lopes-Obs.	T13S/R15E-17	S	Bimonthly	MPG	Y	II
	USBR-4	T13S/R15E-22	S	Bimonthly	MPG	Y	II
USBR	19R1	T13S/R15E-19R1	D	Bimonthly	MPG	Y	III
Wonderful Orchards (formerly Paramount Farming Co.)	2480-66 (W-42)	T13S/R15E-4	C	Bimonthly	MPG	Y	II
	3211-66 (W-15)	T13S/R15E-14M1	D	Bimonthly	MPG	Y	II
	3211-68 (W-110)	T13S/R15E-15	D	Bimonthly	WO	Y	II
	3211-69 (W-77)	T13S/R15E-15	D	Bimonthly	MPG	Y	II
	3311-61 (W-89)	T13S/R15E-2	C	Bimonthly	MPG	Y	II
	3311-62 (W-8)	T13S/R15E-11B1	D	Bimonthly	MPG	Y	II
	3421-62 (W-74)	T13S/R15E-7	D	Bimonthly	MPG	Y	II
	3431-61 (W-32)	T12S/R15E-33P	D	Bimonthly	MPG	Y	II
	3431-62 (W-91)	T12S/R15E-33	C	Bimonthly	MPG	Y	II
	3591-66 (W-11)	T12S/R15E-34K1	D	Bimonthly	MPG	Y	II
	3730-61 (W-95)	T13S/R15E-25	C	Bimonthly	MPG	Y	II
	3730-62 (W-94)	T13S/R15E-22	C	Bimonthly	MPG	Y	II
	3730-63 (W-112)	T13S/R15E-23	D	Bimonthly	WO	Y	II
	3730-65 (W-53)	T13S/R15E-21	D	Bimonthly	MPG	Y	II
	3730-70 (W-108)	T13S/R15E-21	D	Bimonthly	WO	Y	II
	3730-72 (W-107)	T13S/R15E-16	D	Bimonthly	WO	Y	II
	3730-74 (CC-1)	T13S/R15E-25F1	D	Bimonthly	MPG	Y	II
	3730-94	T13S/R15E-23	S	Bimonthly	WO	Y	II
	3921-61 (W-106)	T13S/R15E-20	D	Bimonthly	WO	Y	II
	3921-62 (W-78)	T13S/R15E-16	D	Bimonthly	MPG	Y	II
	3921-91	T13S/R15E-21	S	Bimonthly	WO	Y	II
	3921-92	T13S/R15E-16	S	Bimonthly	WO	Y	II
	3921-93	T13S/R15E-16	S	Bimonthly	WO	Y	II

Table 2-2
Groundwater Level Monitoring Network

Owner	Well ID	State Well Number	Depth Zone[1]	WL Monitoring			Participation Level[3]
				Frequency	Entity[2]	2014 Data	
Wonderful Orchards (formerly Paramount Farming Co.) (continued)	MW-1 (3730-92)	T13S/R15A-22	D	Bimonthly	MPG	Y	II
	MW-2 (3730-91)	T13S/R15A-25	S	Bimonthly	MPG	Y	II
	MW-3 (3730-93)	T13S/R15E-16	S	Bimonthly	MPG	Y	II
	MW-4 (3480-93)	T13S/R15E-3	S	Bimonthly	MPG	Y	II
	MW-5 (3431-91)	T12S/R15E-33	S	Bimonthly	MPG	Y	II
	MW-6 (2480-91)	T13S/R15E-3	L	Bimonthly	WO	Y	II
	MW-7 (2480-92)	T13S/R15E-3	D	Bimonthly	WO	Y	II
	MW-8 (2480-94)	T12S/R15E-32	L	Bimonthly	WO	Y	II
	MW-9 (2480-95)	T12S/R15E-32	D	Bimonthly	WO	Y	II
	MW-10 (2480-96)	T12S/R15E-32	S	Bimonthly	WO	Y	II
	MW-11 (3561-93)	T12S/R14E-36	S	Bimonthly	WO	Y	II
	MW-12 (3561-94)	T12S/R14E-36	S	Bimonthly	WO	N	II
	MW-13 (3561-92)	T12S/R14E-36	S	Bimonthly	WO	Y	II
	MW-14 (3561-91)	T12S/R14E-36	S	Bimonthly	WO	N	II
Spreckels Sugar Co.	MW-1	T14S/R15E-4Q	S	Bimonthly	SSC	Y	IV
	MW-3	T14S/R15E-4H	S	Bimonthly	SSC	Y	IV
	MW-6	T13S/R15E-34	S	Bimonthly	SSC	Y	IV
	MW-10	T13S/R15E-34	D	Bimonthly	SSC	Y	IV
	MW-11	T13S/R15E-34N	D	Bimonthly	SSC	Y	IV
	MW-13	T13S/R15E-34	S	Bimonthly	SSC	Y	IV
	MW-14	T13S/R15E-33F	D	Bimonthly	SSC	Y	IV
	MW-18	T14S/R15E-3	S	Bimonthly	SSC	Y	IV
	MW-32	T13S/R15E-35	S	Bimonthly	SSC	Y	IV
City of Mendota	18Q North	T13S/R15E-19	D	Bimonthly	MPG	Y	IV
	Fordel M-1	T13S/R15E-20N1	D	Bimonthly	MPG	Y	IV
	Fordel M-2	T13S/R15E-20N2	S	Bimonthly	MPG	Y	IV
USGS	31J3	T13S/R15E-31J3	D	Continuous	MPG	Y	I
	31J4	T13S/R15E-31J4	S	Bimonthly	MPG	Y	I
	31J5	T13S/R15E-31J5	D	Bimonthly	MPG	Y	I
	31J6	T13S/R15E-31J6	L	Continuous	USGS	Y	I
	10A1	T14S/R14E-10A1	S	Semi-annual	WWD	Y	IV
	10A3	T14S/R14E-10A3	D	Semi-annual	WWD	Y	IV
	10A4	T14S/R14E-10A4	D	Semi-annual	WWD	Y	IV
Hansen Farms	7C1	T14S/R15E-7C1	D	Bimonthly	MPG	Y	IV
Meyers Farm Water Bank	S-2	T14S/R15E-5	S	Bimonthly	MPG	Y	I
	P-6	T14S/R15E-8Q	S	Bimonthly	MPG	Y	I
	MF-1	T13S/R15E-33Q	S	Monthly	MF	Y	IV
	MF-2	T13S/R15E-33L	S	Monthly	MF	Y	IV
	MF-3	T14S/R15E-4C	S	Monthly	MF	Y	IV
	MF-4	T14S/R15E-4A	S	Monthly	MF	Y	IV
	MF-5	T14S/R15E-4F	S	Monthly	MF	Y	IV
	MF-6	T14S/R15E-4G	S	Monthly	MF	Y	IV
	MF-7	T14S/R15E-4K	S	Monthly	MF	Y	IV
	MF-8	T14S/R15E-3L	S	Monthly	MF	Y	IV
	MF-9	T14S/R15E-4H	S	Monthly	MF	Y	IV
SJRRP	MW-09-46	T13S/R16E-30	S	Monthly	USBR	Y	IV
	MW-09-49	T13S/R16E-30	S	Monthly	USBR	Y	IV
	MW-09-53	T13S/R15E-23	S	Monthly	USBR	Y	IV
	MW-09-55	T13S/R15E-23	S	Monthly	USBR	Y	IV
	MW-09-56	T13S/R15E-27	S	Monthly	USBR	Y	IV
	MW-09-57	T13S/R15E-27	S	Monthly	USBR	Y	IV
	MW-10-118	T12S/R14E-9	S	Monthly	USBR	Y	IV
	MW-10-119	T12S/R14E-16	S	Monthly	USBR	Y	IV
	MW-10-120	T13S/R14E-3	S	Monthly	USBR	Y	IV
	MW-10-126	T13S/R14E-9	S	Monthly	USBR	Y	IV
	MW-10-128	T13S/R14E-23	S	Monthly	USBR	Y	IV

Table 2-2
Groundwater Level Monitoring Network

Owner	Well ID	State Well Number	Depth Zone[1]	WL Monitoring			Participation Level[3]
				Frequency	Entity[2]	2014 Data	
SJRRP (continued)	MW-155	T11S/R14E-31	S	Quarterly	CCID	Y	IV
	MW-156	T12S/R14E-7	S	Quarterly	CCID	Y	IV
	MW-157	T12S/R14E-9	S	Quarterly	CCID	Y	IV
	MW-161	T12S/R13E-13	S	Quarterly	CCID	Y	IV
	MW-163	T12S/R14E-7	S	Quarterly	CCID	Y	IV
	MW-11-160	T13S/R15E-18	S	Monthly	CCID	Y	IV
	MW-355	T13S/R14E-3	S	Quarterly	CCID	Y	IV
	MW-359	T13S/R14E-2	S	Quarterly	CCID	Y	IV
	MW-364	T13S/R15E-18	S	Quarterly	CCID	Y	IV
	MW-369	T13S/R14E-12	S	Quarterly	CCID	Y	IV
	MW-370	T13S/R15E-7	S	Quarterly	CCID	Y	IV
	PZ-09-R2B-2 (R2B-2)	T13S/R15E-20	S	Weekly	USBR	Y	IV
	PZ-09-R3-3	T12S/R14E-17	S	Monthly	USBR	Y	IV
	PZ-09-R3-4	T12S/R14E-20	S	Monthly	USBR	Y	IV
	PZ-09-R3-5	T12S/R14E-34	S	Weekly	USBR	Y	IV
	PZ-09-R3-6	T12S/R14E-34	S	Weekly	USBR	Y	IV
	PZ-09-R3-7	T13S/R14E-2	S	Weekly	USBR	Y	IV
Non-MPG Wells (East of Chowchilla Bypass)							
SJRRP	FA-8	T13S/R16E-30	S	Monthly	USBR	Y	IV
	FA-9	T13S/R16E-30	S	Weekly	USBR	Y	IV
	MA-4	T13S/R16E-30	S	Weekly	USBR	Y	IV
	MW-09-46	T13S/R16E-30	S	Monthly	USBR	Y	IV
	MW-09-47	T13S/R16E-30	S	Weekly	USBR	Y	IV
	MW-09-49 (MW-49)	T13S/R16E-30	S	Monthly	USBR	Y	IV
	T13-3	T13S/R16E-30	S	Monthly	USBR	Y	IV
North of study area							
El Pico Ranch	No. 54	T12S/R16E-16R1	D	Semi-annual	USBR	N	III
Aliso Water District							
Woolf Enterprises	WE-51	T13S/R16E-19K1	D	Bimonthly	MPG	Y	IV
	WE-75	T13S/R16E-18H1	D	Bimonthly	MPG	Y	IV
Denis Prosperi	DP-2	T12S/R16E-31G1	D	Bimonthly	MPG	Y	IV
	DP-4	T12S/R16E-31A	D	Bimonthly	MPG	Y	IV
Lyon Packing	LP-11	T13S/R16E-5C1	D	Semi-annual	USBR	Y	III
Giffen Ranch	GIF-23	T13S/R16E-8H1	D	Semi-annual	USBR	Y	III
Groefsema Ranches	GR-28	T13S/R16E-14H2	D	Semi-annual	USBR	N	III
Golden State Vinters	GSV-H	T13S/R16E-16D2	D	Semi-annual	USBR	Y	III
Woolf Enterprises	WE-53	T13S/R16E-30A1	D	Semi-annual	USBR	Y	III
Golden State Vinters	GSV-646	T13S/R16E-20J1	D	Semi-annual	USBR	Y	III
Gravelly Ford WD							
John Simpson	25A1	T12S/R16E-25A1	D	Bimonthly	MPG	Y	IV
	26H1	T12S/R16E-26H1	D	Bimonthly	MPG	Y	IV
Undistricted (Fresno County)							
Schaad	22J1	T13S/R16E-22J1	D	Semi-annual	USBR	Y	III
	22J2	T13S/R16E-22J2	D	Semi-annual	USBR	Y	III
	27A2	T13S/R16E-27A2	D	Semi-annual	USBR	N	III
	No. 3	T13S/R16E-27F1	D	Semi-annual	USBR	Y	III
NA	29F1	T13S/R16E-29F1	D	Semi-annual	USBR	Y	III

Table 2-2
Groundwater Level Monitoring Network

Owner	Well ID	State Well Number	Depth Zone[1]	WL Monitoring			Participation Level[3]
				Frequency	Entity[2]	2014 Data	
Larry Shehadey Farms	30L3	T13S/R16E-30L3	D	Semi-annual	USBR	Y	III
	30Q1	T13S/R16E-30Q1	D	Semi-annual	USBR	Y	III
	32F1	T13S/R16E-32F1	D	Semi-annual	USBR	Y	III
	33B2	T13S/R16E-33B2	D	Semi-annual	USBR	Y	III
	33F1	T13S/R16E-33F1	D	Semi-annual	USBR	Y	III
	33L1	T13S/R16E-33L1	D	Semi-annual	USBR	Y	III
Donald Horner	34C1	T13S/R16E-34C1	D	Bimonthly	MPG	Y	IV
Agape Farms	34C2	T13S/R16E-34C2	D	Semi-annual	USBR	Y	III
	34D1	T13S/R16E-34D1	D	Semi-annual	USBR	Y	III
	34P2	T13S/R16E-34P2	D	Semi-annual	USBR	Y	III
Connolly	3F1	T14S/R16E-3F1	D	Semi-annual	USBR	Y	III
Duran	3P1	T14S/R16E-3P1	D	Semi-annual	USBR	Y	III
Larry Shehadey Farms	4L1	T14S/R16E-4L1	D	Semi-annual	USBR	Y	III
Bar 20 Partners Ltd.	5J1	T14S/R16E-5J1	D	Semi-annual	USBR	N	III
	5L2	T14S/R16E-5L2	D	Semi-annual	USBR	Y	III
	6B1	T14S/R16E-6B1	D	Semi-annual	USBR	Y	III

1. S = Shallow zone well completed above the A-clay (maximum depth = 130 feet); D = Deep zone well completed between the A-Clay and the Corcoran Clay; L= Well completed in the lower aquifer below the Corcoran Clay. C=Composite well completed above and below the Corcoran Clay.
2. Monitoring activities conducted by MPG = Mendota Pool Group, CCID = Central California Irrigation District, WO = Wonderful Orchards (formerly ParamountFarming Co.), WWD = Westlands Water District, MF = Meyers Farm Water Bank, USBR = U.S. Bureau of Reclamation, USGS = U.S. Geological Survey. SSC=Spreckels Sugar Co. data from Geotracker website
3. Level I: Mendota Pool Group and its agents.
   Level II: SJREC and Paramount Farming Co.
   Level III: Public Agencies, e.g., USBR.
   Level IV: Other entities, e.g., WWD, Spreckels Sugar Co.
   For more detail, see explanation in *Section 2 - Monitoring Program* .

Table 2-3
Groundwater Quality Monitoring Network

Owner	Well ID (Original)	Depth Zone[1]	Sampling Schedule[2]			Responsible Entity[3]
			Annual	Biennial	2014 Data	
MPG Wells						
Terra Linda Farms[4]	TL-1	D	EC/TDS	Gen. Min./TE	N	MPG
	TL-11	S	EC/TDS	Gen. Min./TE	N	MPG
	TLF-1s	S	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-2s	S	EC/TDS	Gen. Min./TE	N	MPG
	TLF-3s	S	Gen. Min./TE	-	Y	MPG
	TLF-4s	S	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-5d	D	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-6d	D	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-7s	S	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-8s	S	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-9s	S	Gen. Min./TE	-	Y	MPG
	TLF-10s	S	EC/TDS	Gen. Min./TE	N	MPG
	TLF-11As	S	EC/TDS	Gen. Min./TE	N	MPG
	TLF-11Cs	S	Gen. Min./TE	-	N	MPG
	TLF-12d	D	EC/TDS	Gen. Min./TE	N	MPG
	TLF-13s	S	Gen. Min./TE	-	Y	MPG
	TLF-14d	D	EC/TDS	Gen. Min./TE	N	MPG
	TLF-15s	S	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-16s	S	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-17s	S	EC/TDS	Gen. Min./TE	Y	MPG
	TLF-18d	D	EC/TDS	Gen. Min./TE	N	MPG
	TLF-19s	S	EC/TDS	Gen. Min./TE	N	MPG
Silever Creek (M. Britz TIC)	SC-3B	S	EC/TDS	Gen. Min./TE	Y	MPG
	SC-4B	S	EC/TDS	Gen. Min./TE	Y	MPG
	SC-5B	S	EC/TDS	Gen. Min./TE	N	MPG
Vista Verde Farms[3]	CGH-1A (CGH-4s)	S	EC/TDS	Gen. Min./TE	N	MPG
	CGH-1B (CGH-3s)	S	EC/TDS	Gen. Min./TE	N	MPG
	CGH-1C (CGH-2s)	S	EC/TDS	Gen. Min./TE	N	MPG
	CGH-2 (CGH-1s)	S	EC/TDS	Gen. Min./TE	N	MPG
	CGH-3 (CGH-5s)	S	EC/TDS	Gen. Min./TE	Y	MPG
	CGH-6A	S	Gen. Min./TE	-	N	MPG
	CGH-6B (CGH-12s)	S	Gen. Min./TE	-	N	MPG
	CGH-6C (CGH-10s)	S	EC/TDS	Gen. Min./TE	N	MPG
	CGH-6D (CGH-11s)	S	EC/TDS	Gen. Min./TE	Y	MPG
	CGH-7 (CGH-13d)	D	EC/TDS	Gen. Min./TE	N	MPG
	CGH-9 (CGH-7s)	S	EC/TDS	Gen. Min./TE	Y	MPG
	CGH-9As	S	EC/TDS	Gen. Min./TE	N	MPG
	CGH-9Bs	S	EC/TDS	Gen. Min./TE	N	MPG
	CGH-10 (CGH-8s)	S	EC/TDS	Gen. Min./TE	Y	MPG
	CGH-11 (CGH-6s)	S	EC/TDS	Gen. Min./TE	N	MPG

Table 2-3
Groundwater Quality Monitoring Network

Owner	Well ID (Original)	Depth Zone[1]	Sampling Schedule[2]			Responsible Entity[3]
			Annual	Biennial	2014 Data	
Meyers Farms	DW-1	D	Gen. Min./TE	-	N	MPG
	MS-6	S	EC/TDS	Gen. Min./TE	Y	MPG
	MS-7	S	EC/TDS	Gen. Min./TE	Y	MPG
Casaca Vineyards, Solo Mio Farms, Daddy's Pride Farming	FS-1	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-2	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-3	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-4	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-5	S	Gen. Min./TE	-	Y	MPG
	FS-6	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-7	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-8	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-9	S	EC/TDS	Gen. Min./TE	Y	MPG
	FS-10	S	Gen. Min./TE	-	Y	MPG
Coelho West	CW-1	S	Gen. Min./TE	-	Y	MPG
	CW-2	S	Gen. Min./TE	-	Y	MPG
	CW-3	S	Gen. Min./TE	-	Y	MPG
	CW-4	S	Gen. Min./TE	-	Y	MPG
	CW-5	S	Gen. Min./TE	-	Y	MPG
Farmers Water District	R-1	D	Gen. Min./TE	-	Y	MPG
	R-2	D	EC/TDS	Gen. Min./TE	Y	MPG
	R-3	D	Gen. Min./TE	-	Y	MPG
	R-4	D	EC/TDS	Gen. Min./TE	Y	MPG
	R-6	D	EC/TDS	Gen. Min./TE	N	MPG
	R-7	D	EC/TDS	Gen. Min./TE	N	MPG
	R-8	C	EC/TDS	Gen. Min./TE	Y	MPG
	R-9	C	EC/TDS	Gen. Min./TE	Y	MPG
	R-10	C	EC/TDS	Gen. Min./TE	Y	MPG
	R-11	C	Gen. Min./TE	-	Y	MPG
	R-12	D	EC/TDS	Gen. Min./TE	Y	MPG
Baker Farming Co.	BF-1	D	EC/TDS	Gen. Min./TE	Y	MPG
	BF-2	D	EC/TDS	Gen. Min./TE	Y	MPG
	BF-3	D	EC/TDS	Gen. Min./TE	Y	MPG
	BF-4	D	EC/TDS	Gen. Min./TE	Y	MPG
	BF-5	D	EC/TDS	Gen. Min./TE	Y	MPG
Panoche Creek Trust	PCF-1	D	EC/TDS	Gen. Min./TE	Y	MPG
Non MPG Wells						
Central California ID	5A	D	Gen. Min.	-	Y	CCID
	12C	D	Gen. Min.	-	Y	CCID
	15B	D	Gen. Min.	-	Y	CCID
	16C	D	Gen. Min.	-	Y	CCID
	23B	D	Gen. Min.	-	Y	CCID
	28C	D	Gen. Min.	-	Y	CCID

Table 2-3
Groundwater Quality Monitoring Network

Owner	Well ID (Original)	Depth Zone[1]	Sampling Schedule[2]			Responsible Entity[3]
			Annual	Biennial	2014 Data	
Central California ID (cont.)	32C	D	Gen. Min.	-	Y	CCID
	35A	D	Gen. Min.	-	Y	CCID
	38A	D	Gen. Min.	-	Y	CCID
Columbia Canal Co.	MLT	D	-	Irr. Suitability	N	CCC
	Cardella-Lopes (Lopes 1)	D	-	Irr. Suitability	N	CCC
	Elrod-1	D	-	Irr. Suitability	N	CCC
	Elrod-2	D	-	Irr. Suitability	N	CCC
	Elrod-3	D	-	Irr. Suitability	N	CCC
	Burkhart-Heirs	D	-	Irr. Suitability	N	CCC
	Agriland-1 (Diepersloot-1)	D	-	Irr. Suitability	N	CCC
	Agriland-2 (Diepersloot-2)	D	-	Irr. Suitability	N	CCC
	Cardella #2 (Lopes 2)	D	-	Irr. Suitability	N	CCC
	N.F. Davis-1	D	-	Irr. Suitability	N	CCC
	Davis-2	D	-	Irr. Suitability	N	CCC
	Mowry #1 (electric)	D	-	Irr. Suitability	Y	CCC
	Mowry Diesel	D	-	Irr. Suitability	N	CCC
	Samarin-1 (Garcia-1)	D	-	Irr. Suitability	N	CCC
	Samarin-2 (Garcia-2)	D	-	Irr. Suitability	N	CCC
	Samarin-3 (Garcia-3)	D	-	Irr. Suitability	N	CCC
	Samarin-4 (Garcia-4)	D	-	Irr. Suitability	N	CCC
	Samarin-5 (Garcia-5)	D	-	Irr. Suitability	N	CCC
	Snyder	D	-	Irr. Suitability	N	CCC
Wonderful Orchards (formerly Paramount Farming Co)[5]	2480-66 (W-42)	C	Irr. Suitability/Se	-	Y	WO
	3211-66 (W-15)	D	Irr. Suitability/Se	-	Y	WO
	3211-68 (W-110)	D	Irr. Suitability/Se	-	Y	WO
	3211-69 (W-77)	D	Irr. Suitability/Se	-	Y	WO
	3311-61 (W-89)	C	Irr. Suitability/Se	-	Y	WO
	3311-62 (W-8)	D	Irr. Suitability/Se	-	Y	WO
	3421-61 (Card-1)	D	Irr. Suitability/Se	-	Y	WO
	3421-62 (W-74)	D	Irr. Suitability/Se	-	Y	WO
	3431-61 (W-32)	D	Irr. Suitability/Se	-	Y	WO
	3431-62 (W-91)	C	Irr. Suitability/Se	-	Y	WO
	3591-66 (W-11)	D	Irr. Suitability/Se	-	Y	WO
	3730-61 (W-95)	C	Irr. Suitability/Se	-	Y	WO
	3730-62 (W-94)	C	Irr. Suitability/Se	-	Y	WO
	3730-63 (W-112)	D	Irr. Suitability/Se	-	Y	WO
	3730-65 (W-53)	D	Irr. Suitability/Se	-	Y	WO
	3730-70 (W-108)	D	Irr. Suitability/Se	-	Y	WO

Table 2-3
Groundwater Quality Monitoring Network

Owner	Well ID (Original)	Depth Zone[1]	Sampling Schedule[2]			Responsible Entity[3]
			Annual	Biennial	2014 Data	
Wonderful Orchards (formerly Paramount Farming Co.)[5] (continued)	3730-72 (W-107)	D	Irr. Suitability/Se	-	Y	WO
	3730-74 (CC-1)	D	Irr. Suitability/Se	-	Y	WO
	3730-75 (CC-2)	D	Irr. Suitability/Se	-	Y	WO
	3921-61 (W-106)	D	Irr. Suitability/Se	-	Y	WO
	3921-62 (W-78)	D	Irr. Suitability/Se	-	Y	WO
	MW-1 (3730-92)	D	Irr. Suitability/Se	-	Y	WO
	MW-2 (3730-91)	S	Irr. Suitability/Se	-	Y	WO
	MW-3 (3730-93)	S	Irr. Suitability/Se	-	Y	WO
	MW-4 (3480-93)	S	Irr. Suitability/Se	-	Y	WO
	MW-5 (3431-91)	S	Irr. Suitability/Se	-	Y	WO
	3730-94	S	Irr. Suitability/Se	-	N	WO
	3921-91	S	Irr. Suitability/Se	-	N	WO
	3921-92	S	Irr. Suitability/Se	-	N	WO
	3921-93	S	Irr. Suitability/Se	-	N	WO
Covanta Mendota	Covanta Mendota 6A	D	EC/TDS	-	N	Covanta
Spreckels Sugar Co.	MW-1	S	Gen. Min./TE/Ba	-	Y	MF
	MW-2	S	Gen. Min./TE/Ba	-	Y	MF
	MW-3	S	Gen. Min./TE/Ba	-	Y	MF
	MW-4	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-5	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-6	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-7	D	Gen. Min./TE/Ba	-	Y	SSC
	MW-8	D	Gen. Min./TE/Ba	-	Y	SSC
	MW-9	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-10	D	Gen. Min./TE/Ba	-	Y	MF
	MW-11	D	Gen. Min./TE/Ba	-	Y	MF
	MW-12	D	Gen. Min./TE/Ba	-	Y	SSC
	MW-13	S	Gen. Min./TE/Ba	-	Y	MF
	MW-14	D	Gen. Min./TE/Ba	-	Y	SSC
	MW-15	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-16	D	Gen. Min./TE/Ba	-	Y	SSC
	MW-17	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-18	S	Gen. Min./TE/Ba	-	Y	MF
	MW-19	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-20	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-21	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-22	D	Gen. Min./TE/Ba	-	Y	SSC
	MW-23	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-24	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-25	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-26	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-27	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-28	S	Gen. Min./TE/Ba	-	Y	SSC

Table 2-3
Groundwater Quality Monitoring Network

Owner	Well ID (Original)	Depth Zone[1]	Sampling Schedule[2]			Responsible Entity[3]
			Annual	Biennial	2014 Data	
Spreckels Sugar Co. (continued)	MW-29	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-30	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-31	S	Gen. Min./TE/Ba	-	Y	SSC
	MW-32	S	Gen. Min./TE/Ba	-	Y	SSC
	PW-1	D	Gen. Min./TE/Ba	-	N	SSC
	PW-4	D	Gen. Min./TE/Ba	-	N	SSC
	PW-6	D	Gen. Min./TE/Ba	-	Y	SSC
	PW-7	D	Gen. Min./TE/Ba	-	Y	SSC
	PW-8	D	Gen. Min./TE/Ba	-	N	SSC
	PW-9	D	Gen. Min./TE/Ba	-	Y	SSC
	PW-10	D	Gen. Min./TE/Ba	-	Y	SSC
	PW-11	D	Gen. Min./TE/Ba	-	Y	SSC
	PW-12	D	Gen. Min./TE/Ba	-	Y	SSC
City of Mendota	No. 7	D	Gen. Min./TE	-	Y	City
	No. 8	D	Gen. Min./TE	-	Y	City
	No. 9	D	Gen. Min./TE	-	Y	City
	Fordel M-1	D	Gen. Min./TE	-	N	City
	Fordel M-2	S	Gen. Min./TE	-	N	City
	Fordel M-3	S	Gen. Min./TE	-	N	City
	Fordel M-4	S	Gen. Min./TE	-	N	City
	Fordel M-5	S	EC/TDS	Gen. Min./TE	N	City
	Fordel M-6	S	Gen. Min./TE	-	N	City
USGS	31J4	S	Gen. Min./TE	-	Y	MPG
	31J5	D	Gen. Min./TE	-	Y	MPG
Meyers Farming	S-1	S	Gen. Min./TE	-	N	MPG
	S-2	S	Gen. Min./TE	-	Y	MPG
	S-3	S	Gen. Min./TE	-	Y	MPG
	P-1	S	Gen. Min./TE	-	Y	MPG
	P-4	S	Gen. Min./TE	-	Y	MPG
Meyers Farm Water Bank	MF-1	S	Gen. Min./TE	-	Y	MF
	MF-2	S	Gen. Min./TE	-	Y	MF
	MF-3	S	Gen. Min./TE	-	Y	MF
	MF-4	S	Gen. Min./TE	-	Y	MF
	MF-5	S	Gen. Min./TE	-	N	MF
	MF-6	S	Gen. Min./TE	-	Y	MF
	MF-7	S	Gen. Min./TE	-	Y	MF
	MF-8	S	Gen. Min./TE	-	Y	MF
	MF-9	S	Gen. Min./TE	-	Y	MF
	EW-1	S	Gen. Min./TE	-	N	MF
	EW-2	S	Gen. Min./TE	-	N	MF
	EW-3	S	Gen. Min./TE	-	N	MF
	EW-4	S	Gen. Min./TE	-	N	MF
	EW-5	S	Gen. Min./TE	-	N	MF

Table 2-3
Groundwater Quality Monitoring Network

Owner	Well ID (Original)	Depth Zone[1]	Sampling Schedule[2]			Responsible Entity[3]
			Annual	Biennial	2014 Data	
Meyers Farm Water Bank continued)	EW-6	S	Gen. Min./TE	-	N	MF
	EW-7	S	Gen. Min./TE	-	N	MF
	EW-8	S	Gen. Min./TE	-	N	MF

1. Depth Zone: S=shallow, D=deep, C=composite (perforated above and below the Corcoran Clay), Unk=unknown
2. **Gen. Min**. = general minerals; typically consists of anions (sulfate, chloride, bicarbonate, nitrate, and fluoride) and cations (calcium, magnesium, sodium, potassium) trace metals (boron, copper, iron, manganese, and zinc), alkalinity, EC/TDS, and pH.
   EC/TDS = electrical conductivity, total dissolved solids; **Irr. Suitability** = Irrigation Suitability; typically includes cations, anions, EC/TDS, pH, and sodium adsorption ratio; **TE** = trace elements; typically includes arsenic, molybdenum, selenium, and barium for some samples.
3. MPG = Mendota Pool Group, CCID = Central California Irrigation District, WO = Wonderful Orchards (formerly PFC and NLF), CCC = Columbia Canal Company, SSC = Spreckels Sugar Co., City = City of Mendota, MF = Meyers Farm Water Bank
4. Most of Terra Linda Farms wells and Coelho/Gardner/Hanson wells were renumbered in spring 2007.
5. The WO wells were renamed in 2008. The old well names are still used on this table. Both names are shown on Table E-2 in Appendix E.

Table 2-4
Surface-Water Quality Monitoring Network

Sample Location	Grab Sampling[1]				Automated Logging Analysis and Entity[4]
	Semi-Annual	Entity[2]	Monthly[3]	Entity[2]	
Columbia Canal	Irr. Suit., As, Mo, Se	MPG	EC, B, Se	SJREC	EC (SJREC)
Mendota Dam	Irr. Suit., As, Mo, Se	MPG	EC, B, Se	SJREC	-
CCID Main Canal (at Bass Ave.)	Irr. Suit., As, Mo, Se	MPG	EC, B, Se	SJREC	EC (SJREC) & Se (USBR)
			EC, Se	USBR	
Delta-Mendota Canal (at Bass Avenue Check 21)	Irr. Suit., As, Mo, Se	MPG	Irr. Suit.	MPG	EC, Se (USBR)
			EC, B, Se	SJREC	
			EC, Se	USBR	
CCID Outside Canal (at Bass Ave)	Irr. Suit., As, Mo, Se	MPG	EC, B, Se	SJREC	EC (SJREC)
			EC, Se	USBR	
Firebaugh Intake Canal	Irr. Suit., As, Mo, Se	MPG	EC, B, Se	SJREC	EC (SJREC)
West of Fordel	Irr. Suit., As, Mo, Se	MPG	-	-	-
Mendota Wildlife Area[5]	Irr. Suit., As, Mo, Se	MPG	Irr. Suit.	MPG	EC (MPG)
James ID Booster Plant	Irr. Suit., As, Mo, Se	MPG	Irr. Suit.	MPG	EC (JID)
Tranquillity ID Intake	Irr. Suit., As, Mo, Se	MPG	-	-	-

Notes: Mowry Bridge, Lateral 6&7, and Etchegoinberry sample locations removed from program in 2008, 2013, and 2014, respectively.
See Figure 2-3 for sample location map, Table 6-2 for summary of results, and Appendix G for complete grab sample results.

1. Irr. Suit. = Irrigation Suitability; typically includes general minerals and sodium adsorption ratio. EC = electrical conductivity, As = arsenic, B = boron, Mo = molybdenum, Se = selenium
2. MPG = Mendota Pool Group, USBR = U.S. Bureau of Reclamation, SJREC = San Joaquin River Exchange Contractors Water Authority, JID = James Irrigation District
3. Monthly during months that transfer pumping is occurring.
4. USBR collects daily composite samples for Se with automated equipment. Samples are picked up once a week. USBR discontinued its boron monitoring program in January 2004.
5. Approximately one mile south of Whitesbridge Avenue.

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Production Wells:

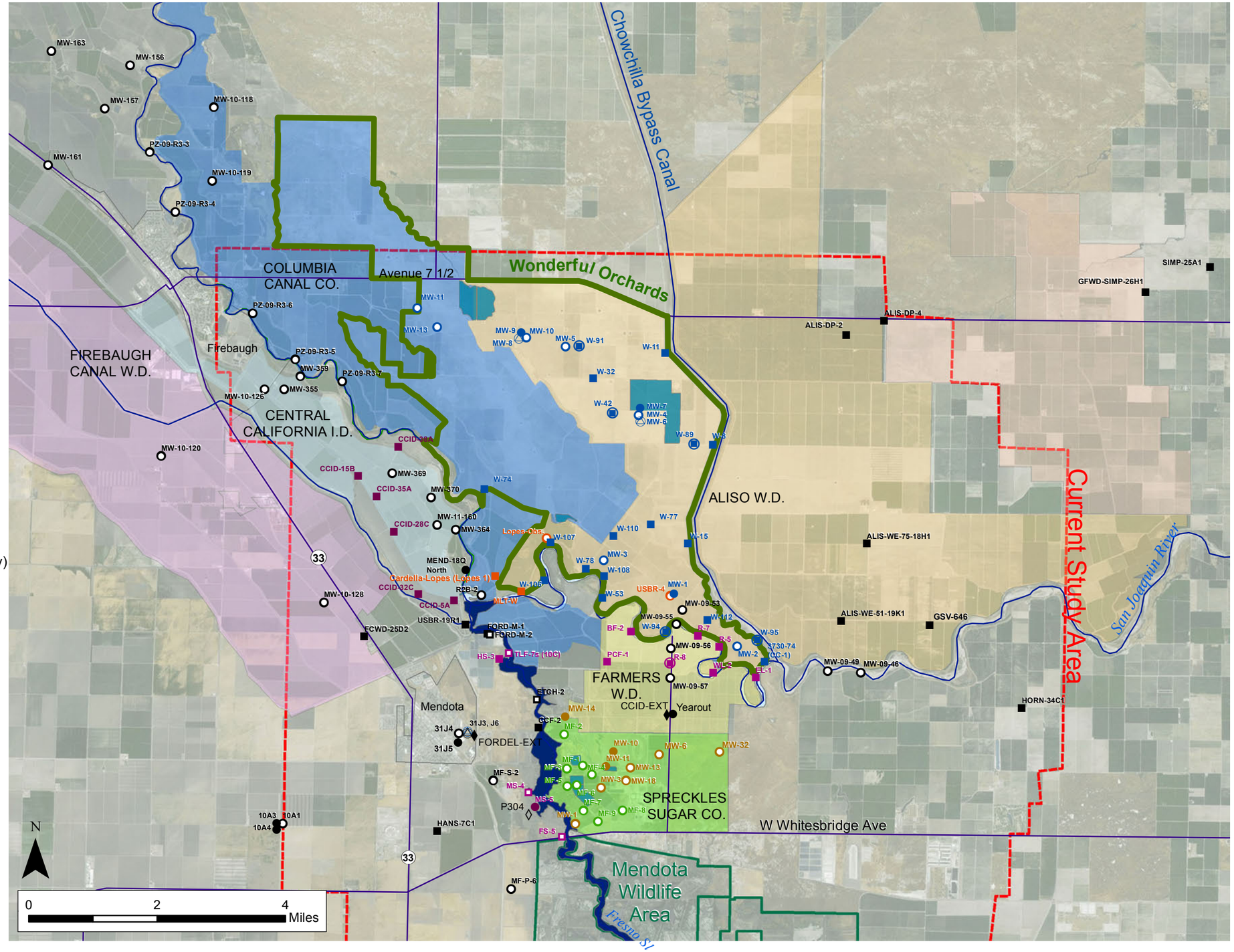
- Shallow Zone (Above A-Clay)
- Deep Zone (Above Corcoran Clay)
- Composite (Above and Below Corcoran Clay)

Monitored Wells and Other:

- Shallow Zone Well (Above A-Clay)
- Deep Zone Well (Above Corcoran Clay)
- Lower Aquifer Well (Below Corcoran Clay)
- Extensometer
- Plate Boundary Observation (PBO) Site with GPS
- Recharge Ponds

MAGENTA	MPG Wells
BLUE	WO (Formerly PFC) Wells
Red	CCC Service Area
PURPLE	CCID Wells
BROWN	Spreckels Sugar Co. Wells
GREEN	Meyers Water Bank Wells
BLACK	Other Wells

Note:
"Shallow Zone" wells are completed above the A-Clay (maximum depth = 130'). "Deep Zone" wells are completed below the A-clay and above the Corcoran Clay.

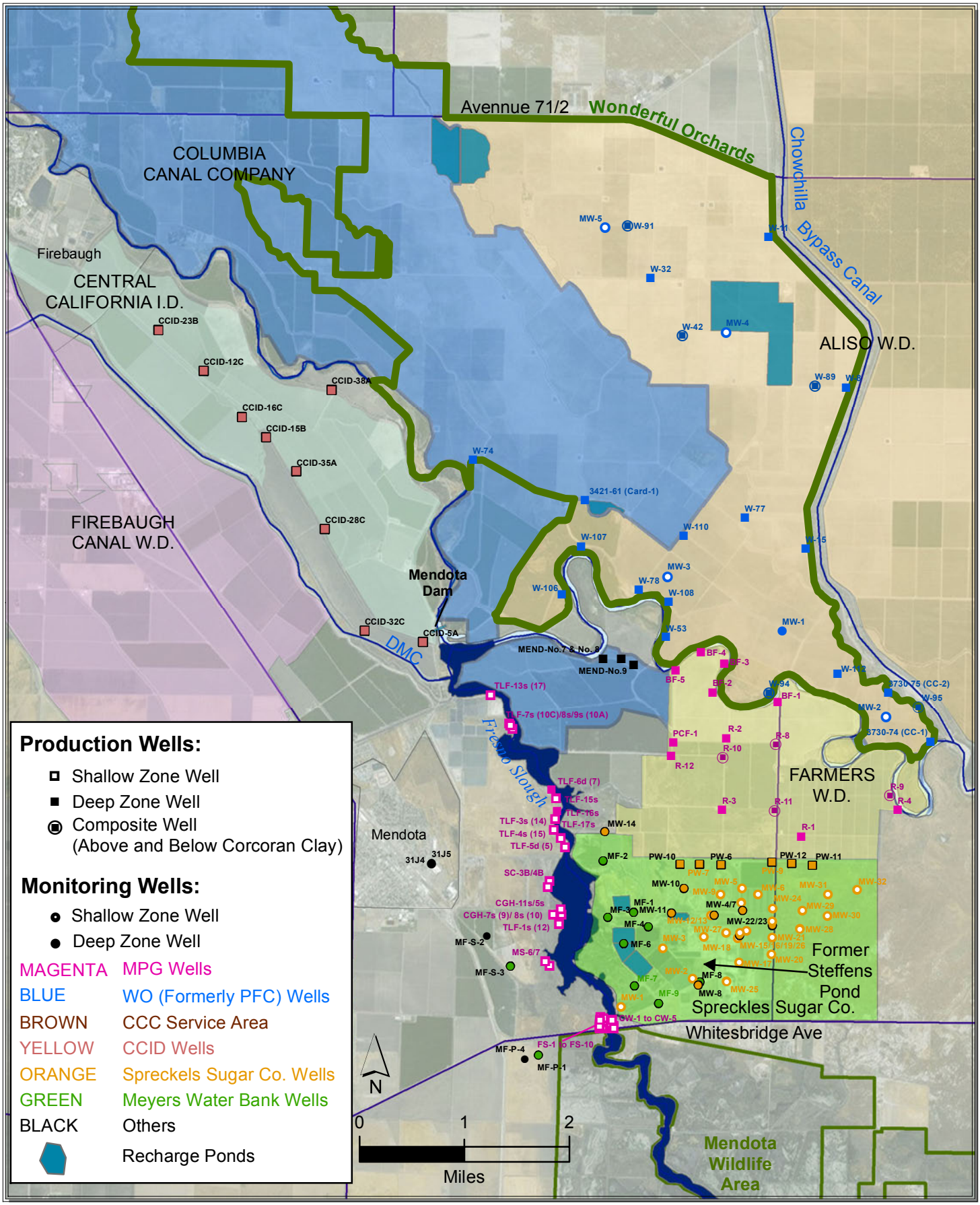


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Figure 2-1
2014 Groundwater Level Monitoring Network

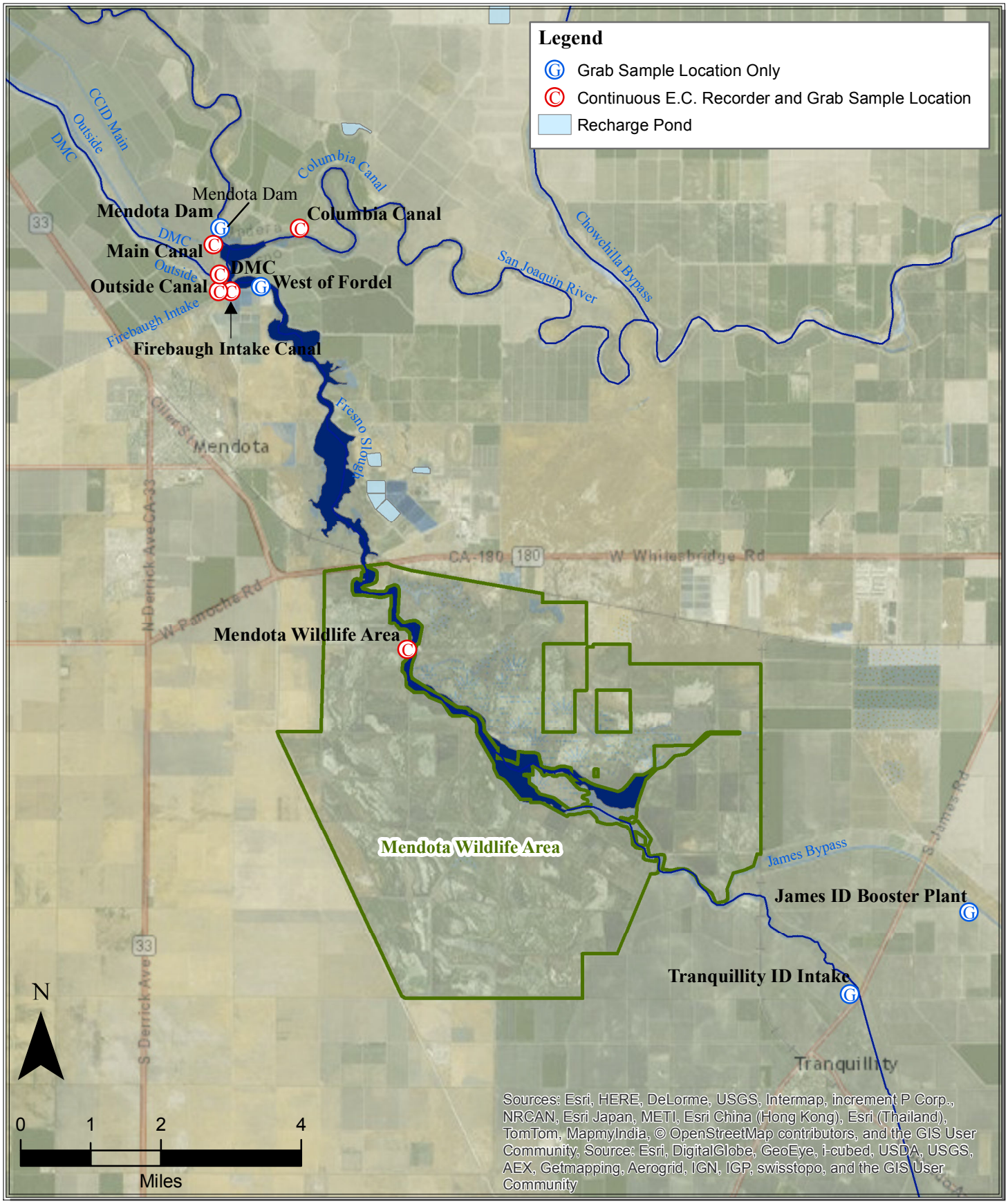
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LUHDORFF & SCALMANINI CONSULTING ENGINEERS

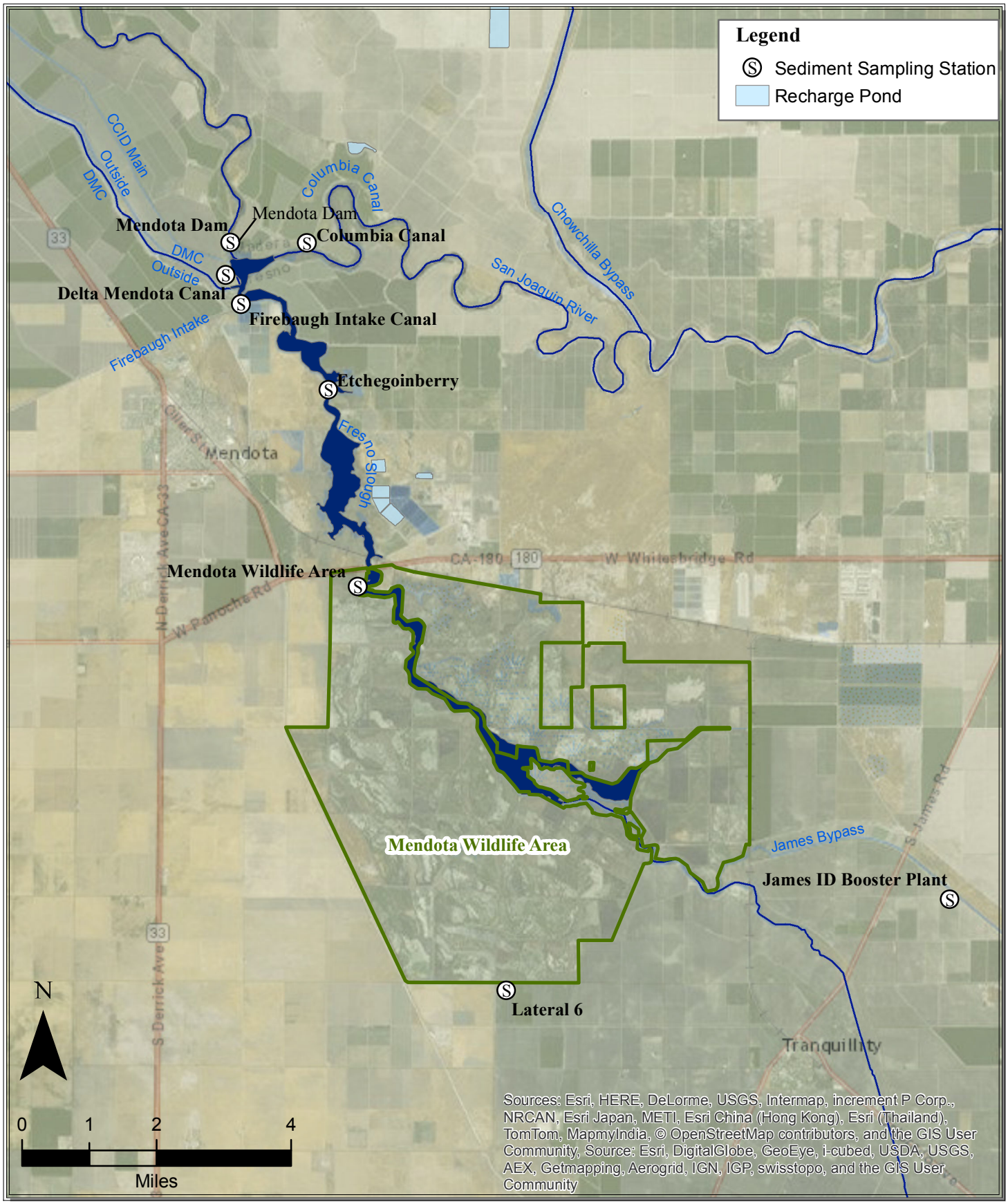
Figure 2-2
2014 Groundwater Quality Monitoring Network



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Figure 2-3
Surface Water Sampling Locations



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Figure 2-4
Sediment Sampling Locations

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3 PUMPAGE

This section includes a summary of the 2014 pumpage from agricultural, municipal, and industrial wells in the study area compiled from various sources as described in Chapter 2. In general, pumpage records based on flow meter readings are deemed most accurate, i.e., records from MPG members, CCID, CCC, WO, FCWD, and City of Mendota. Pumpage for Locke Ranch was provided by CCID for the years 2004 to 2014. Locke Ranch pumpage was estimated by CCID using 2014 PG&E meter readings and historical pump test data (personal communication, B. Pfitzer, CCID, June 22, 2015). Pumpage east of the Chowchilla Bypass was based on estimates described below. Pumpage data were not available from Spreckels Sugar Co. and Covanta Mendota and 2014 pumpage was assumed to equal 2012 and 2013 pumpage, respectively. Pumpage from private domestic wells was not included because it is considered negligible compared to agricultural and municipal pumping.

3.1 Mendota Pool Group Pumping

The MPG operated a total of 65 wells in 2014. Those wells are identified as "active" on **Table 3-1** and included 42 shallow zone wells, 19 deep zone, and 4 composite wells. **Table 3-1** includes construction information and approximate discharge capacities for each MPG well.

The MPG engaged in transfer pumping in 2014 for the third time since Agreement No. 2 went into effect in January 2011. The approved 2014 MPG transfer pumping program proposed 13,581 af of shallow-zone pumping and 9,817 af of deep-zone pumping, for a total of 23,398 af. This included 2,396 af of deep zone non-MPG transfer pumping by Don Peracchi. The approved pumping program for 2014 also included 13,432 af of pumpage to irrigate overlying and adjacent lands (including 1,487 af for Peracchi).

Transfer pumping occurred between March 1 and November 30 and totaled 23,106 af (**Table 3-2**), which was 292 af less than the planned pumpage (**Table 3-3**). This included 20,633 af for the MPG and 2,473 af for Peracchi. Pumping for irrigation of overlying and adjacent lands occurred from January through December and totaled 9,222 af for both parties (4,210 af less than planned). The sum of all transfer and adjacent pumping by the MPG and Peracchi in 2014 was 32, 328 af, which is 4,502 af less than the planned pumpage.

As shown in **Table 3-3**, MPG wells located along the Fresno Slough branch of the Mendota Pool contributed slightly more than half of the total transfer pumpage in 2014 (12,950af) and the majority of the pumpage for adjacent use (6,468 af). The total pumpage along the Fresno Slough was 19,418 af, which is 4,412 af less than the approved 2014 pumping program. The difference between proposed and actual pumping was mostly due to less than anticipated pumpage for adjacent use. Wells located in FWD (west and south of the SJR, including Baker Farming, Panoche Creek Farms, and the FWD R-wells) contributed 10,156 af of transfer pumpage (including 2,473 af of non-MPG transfer pumping by Peracchi). Wells in FWD also pumped

2,754 af for adjacent use (including 1,384 af by Peracchi). The total pumpage in FWD was 12,910 af, which is 90 af less than the approved 2014 pumping program. The Settlement Agreement No. 2 (2011) limits transfer pumping to 25,000 af per year and 90,000 af for the 4 year term. The single year limit was not exceeded in 2014 (total transfer pumpage was 23,106 af in 2014). Total transfer pumpage that has occurred during the period of the Settlement Agreement No. 2 has totaled 70,428 af for the four years of the agreements four-year term, about 19,572 af less than the 90,000 af limit. Adjacent pumping in Settlement Agreement No. 2 is set at 12,000 af per year. Any pumping for adjacent use in the exceedance of this amount needs to be met with a corresponding reduction in transfer pumping. In 2014 the total adjacent pumpage was 9,222 af.

Table 3-4 shows MPG pumpage by aquifer zone (shallow versus deep) beginning in 1997; this breakdown was not available prior to 1997. Deep zone wells are generally completed below the A-clay and above the Corcoran Clay, i.e., primarily in the 200 to 400 foot depth range. However, four FWD wells (R-8 through R-11) are composite wells completed in the deep zone and partially below the Corcoran Clay. FWD is planning on sealing off the portion of perforations that are located in the lower aquifer in these four composite wells. The amount of perforated interval in the lower aquifer ranges from 8 to 17 percent of the four well's total perforated interval. Estimates of the amount of transfer pumpage coming from the lower aquifer (below the Corcoran Clay) in these composite wells were made for 2014. It was calculated by multiplying the length of the composite well's perforated interval in the sand portion of the deep zone and lower aquifer by the estimated hydraulic conductivity of each zone. The resultant transmissivity values (hydraulic conductivity multiplied by the perforated interval length in sand) in the deep zone and lower aquifer were used to estimate the proportion of pumping from each composite well that came from the deep zone and the lower aquifer. From this approach, transfer pumpage below the Corcoran Clay was estimated at about 670 af which is about 3% of the total amount of groundwater pumped for transfer (23,106 af).

Deep zone MPG wells pumped 11,006 af for transfer in 2014, which was 1,189 af more than the approved program (**Table 3-4**). Even though the 2014 deep zone pumping amount for transfer was greater than the planned amount, the four-year total under Agreement No. 2 ended up being 32,099 af which is almost 8,000 af less than the 40,000 af cumulative total allowed under that agreement. The total deep zone pumpage (transfer and adjacent) in 2014 was 18,372 af. This includes the estimated amount of pumpage from the lower aquifer by the FWD composite wells.

Shallow zone wells in the Mendota area are defined as those completed above the A-clay or its equivalent depth, i.e., less than 130 feet deep. Shallow-zone transfer pumpage in 2014 totaled 12,100 af. The total MPG shallow-zone pumpage in 2014 was 13,956 af. Well-by-well MPG pumpage in 2014 is presented in **Appendix A**. Agreement No. 2 (2011) sets shallow zone transfer pumping limits not to exceed 50,000 af for the 4 year term of the agreement through 2014. It also sets deep zone transfer pumping limits not to exceed 12,000 af in any one year (the

MPG pumped 11,006 af in 2014) or exceed 40,000 af for the term of the agreement. As described above, total shallow zone transfer pumping under Agreement No. 2 has totaled 36,974 af through 2014 and for deep zone transfer pumping has totaled 33,337 af. The MPG has met all annual and 4-year pumpage limits outlined in Agreement No. 2 (2011) for the shallow and deep zone transfer pumping but did not meet the approved 2014 pumping program deep zone pumping allowance for transfer pumping.

3.2 Non-MPG Pumping

Non-MPG pumpage in the MPG study area west of the Chowchilla Bypass was estimated to be about 57,000 af in 2014 (**Table 3-5**). As usual, pumping was greatest in the WO service area (about 30,000 af), which was about 6,000 af more than WO pumpage in 2013 (**Table 3-6**). Non-MPG pumpage in the study area west of the Chowchilla Bypass has been highly variable, ranging from almost 52,000 to 58,500 af during 2001-2003, increasing to about 67,000 af in 2004, ranging from about 23,000 to 38,000 af during 2005-2010, decreasing to a low of 19,000 af in 2011 (**Table 3-6**), ranging from about 48,000 to 57,000 from 2012 through 2014. WO's pumpage has been increasing in recent years as new orchards with higher water requirements have matured. Otherwise, year-to-year variability has largely been due to the availability of surface-water supplies to the WO and CCC service areas.

In the past, all of WO's pumpage was classified as occurring above the Corcoran Clay because estimates were not available of the contribution from the lower aquifer in WO's composite wells. Logs are not available for all WO wells, but 11 wells have been identified as composite wells as shown on **Figure 1-3**. An estimate of WO's pumpage from the lower aquifer was calculated for 2014 using the same methodology used in estimating lower aquifer pumping in the FWD composite wells. Pumpage below the Corcoran Clay was estimated at about 1,200 af, which is about 4% of total WO pumpage and can be compared to the estimated FWD transfer pumpage from the lower aquifer of about 670 af.

Pumpage by other entities included about 7,800 af from CCID wells and over 6,800 af from private wells within the CCC service area which is an increase of about 5,000 af over 2013 pumpage for CCC. Other non-MPG pumpage included about 4,000 af by the City of Mendota, 3,700 af by Locke Ranch, 1,400 af by Spreckels Sugar Co., 2,400 af by FCWD, and 500 af by Covanta Mendota.

Some water is still pumped for irrigation purposes at Spreckels Sugar Co., however the volume pumped in 2014 was not provided. Since the volume was not provided, we are assuming the amount is similar to volumes pumped in 2012 and less than prior to the termination of sugar processing at the end of 2008.

The Meyers Water Bank extracted about 7,200 af from the shallow zone in 2014 and did not recharge any water to the Bank. As of the end of 2014, the Bank had recharged about 52,600 af

of water to the shallow zone and extracted about 20,800 af from the shallow zone using wells EW- 1 to EW-8 (**Figure 1-3**). The Bank stores and extracts banked water from the shallow zone. The Bank is required to leave five percent of the total recharge (2,600 af) in the shallow zone. This means that the available water stored in the Bank was about 29,100 af at the end of 2014.

Pumpage data are not available for wells east of the Chowchilla Bypass, and an estimate for 2012 is used for 2014 (**Table 3-7**). These pumpage estimates were based on crop demand calculated as a function of irrigated acreage, land use (2011 Madera County and 2009 Fresno County land use maps), irrigation efficiency, surface water deliveries, and precipitation. The total pumpage above and below the Corcoran Clay in the portion of the study area east of the Bypass was estimated to be 105,000 af, which includes about 66,700 af in Aliso Water District and undistricted portions of Madera County and 38,300 af in the undistricted portion of Fresno County east of FWD and Spreckels Sugar Co. The total non-MPG pumpage above and below the Corcoran Clay in the study area was estimated to be about 162,000 af in 2014 (**Table 3-7**).

Table 3-1

Summary of MPG Well Construction[1]

Well Owner & ID	Original/ Temp ID	Depth Zone	Capacity (gpm)	Total Depth (ft bgs)	Top Perfs. (ft bgs)	Bottom Perfs. (ft bgs)	Seal Depth[2] (ft bgs)	Casing Dia. (in)	Power Source	Status[3]	Last Pumped	Well Log	Note
Terra Linda Farms													
TLF-1s	TL-12	S	700	130	40	130	25	16	Electric	Active	2014	x	
TLF-2s	TL-13	S	1,000	130	40	130	30	16	Electric	Active	2014	x	
TLF-3s	TL-14	S	800	130	40	130	30	16	Electric	Active	2014	x	
TLF-4s	TL-15	S	600	130	40	130	25	16	Electric	Active	2014	x	
TLF-5d	TL-5	D	2,800	400	200	400	170	18	Diesel	Active	2014	x	
TLF-6d	TL-7	D	1,600	unk	unk	unk	unk	unk	Diesel	Active	2014	NA	
TLF-7s	TL-10C	S	300	80	50	80	20	15	Diesel	Active	2014	x	
TLF-8s	TL-10B	S	450	80	50	80	20	15	Diesel	Active	2014	x	
TLF-9s	TL-10A	S	550	90	50	90	20	15	Diesel	Active	2014	x	
TLF-10s	TL-16	S	600	120	50	120	50	16	Electric	Active	2014	x	
TLF-11As	TL-4A	S	700	120	50	120	50	16	Electric	Unused	2013	x	
TLF-12d	TL-3	D	1,270	275	150	275	140	16	Electric	Active	2014	x	
TLF-13s	TL-17	S	900	120	60	120	50	16	Electric	Active	2014	x	
TLF-14d	TL-8	D	1,620	unk	unk	unk	unk	unk	Diesel	Active	2014	NA	
TLF-15s		S	1,250	130	40	130	30	16	Diesel	Active	2014	x	
TLF-16s		S	1,250	130	40	130	30	16	Diesel	Active	2014	x	
TLF-17s		S	1,250	130	40	130	30	16	Diesel	Active	2014	x	
TLF-18d	TL-2	D	800	285	125	275	140	16	Diesel	Active	2014	x	
TLF-19s		S	unk	unk	unk	unk	unk	unk	unk	Active	2014	NA	
Silver Creek (M. Britz, T.I.C.)													
SC-3B		S	1,300	130	40	130	30	16	Electric	Active	2014	x	
SC-4B		S	1,000	130	40	130	30	16	Electric	Active	2014	x	
SC-5B		S	unk	75	unk	unk	unk	unk	unk	Active	2014	NA	
Vista Verde Farms/Coelho-Gardner-Hansen													
CGH-1B	CGH-3s	S	480	unk	unk	unk	unk	unk	Electric	Active	2014	NA	
CGH-1C	CGH-2s	S	400	unk	unk	unk	unk	unk	Electric	Active	2014	NA	
CGH-2	CGH-1s	S	1,000	146	75	115	20	12	Electric	Unused	2014	x	(4)
CGH-3	CGH-5s	S	490	146	75	130	20	12	Electric	Active	2014	x	(4)
CGH-5A	CGH-9As	S	unk	146	70	135	20	12	Electric	Unused	2009	x	(4)
CGH-5B	CGH-9Bs	S	unk	unk	unk	unk	unk	unk	Electric	Unused	?	NA	

Table 3-1
Summary of MPG Well Construction[1]

Well Owner & ID	Original/ Temp ID	Depth Zone	Capacity (gpm)	Total Depth (ft bgs)	Top Perfs. (ft bgs)	Bottom Perfs. (ft bgs)	Seal Depth[2] (ft bgs)	Casing Dia. (in)	Power Source	Status[3]	Last Pumped	Well Log	Note
CGH-6B	CGH-12s	S	unk	unk	unk	unk	unk	unk	Electric	Active	2012	NA	
CGH-6C	CGH-10s	S	450	unk	unk	unk	unk	unk	Electric	Active	2014	NA	
CGH-6D	CGH-11s	S	450	unk	unk	unk	unk	unk	Electric	Unused	2014	NA	(4)
CGH-7	CGH-13d	D	720	unk	unk	unk	unk	unk	Electric	Active	2014	NA	
CGH-9	CGH-7s	S	550	130	40	130	25	16	Electric	Active	2014	x	(4)
CGH-10	CGH-8s	S	800	130	40	130	25	16	Electric	Active	2014	x	
CGH-11	CGH-6s	S	600	139	40	130	25	16	Electric	Active	2014	x	
Meyers Farms													
MS-6		S	1,000	135	66	126	50	16	Diesel	Active	2014	x	(4)
MS-7		S	1,000	125	65	125	50	16	Diesel	Active	2014	x	
DW-1		D	1,200	320	160	320	30	17.4	Diesel	Active	2014	x	
Casaca Vineyards													
FS-1		S	370	110	50	110	20	12	Electric	Active	2014	x	
FS-3		S	370	100	50	100	20	12	Electric	Active	2014	x	
FS-5		S	370	110	60	110	20	12	Electric	Active	2014	x	
FS-6		S	370	110	60	110	20	12	Electric	Active	2014	x	
FS-7		S	370	110	60	110	20	12	Electric	Active	2014	x	
Daddy's Pride Farming													
FS-4		S	370	100	50	100	20	12	Electric	Active	2014	x	
FS-9		S	370	110	60	110	20	12	Electric	Active	2014	x	
FS-10		S	370	100	20	100	20	12	Electric	Active	2014	x	
Solo Mio													
FS-2		S	370	110	60	110	20	12	Electric	Active	2014	x	
FS-8		S	370	105	60	105	20	12	Electric	Active	2014	x	
Coelho West													
CW-1		S	425	100	50	100	20	12	Electric	Active	2014	x	
CW-2		S	425	100	50	100	20	12	Electric	Active	2014	x	
CW-3		S	425	100	50	100	20	12	Electric	Active	2014	x	
CW-4		S	425	100	50	100	20	12	Electric	Active	2014	x	
CW-5		S	425	110	60	110	20	12	Electric	Active	2014	x	

Table 3-1
Summary of MPG Well Construction[1]

Well Owner & ID	Original/ Temp ID	Depth Zone	Capacity (gpm)	Total Depth (ft bgs)	Top Perfs. (ft bgs)	Bottom Perfs. (ft bgs)	Seal Depth[2] (ft bgs)	Casing Dia. (in)	Power Source	Status[3]	Last Pumped	Well Log	Note
Farmers Water District													
R-1		D	1,100	277	100	276	unk	16	Electric	Active	2014	x	
R-2		D	1,800	301	136	300	unk	16	Electric	Active	2014	x	
R-3		D	1,100	304	107	303	unk	16	Electric	Active	2014	x	
R-4		D	1,500	296	112	296	87	16	Electric	Active	2014	x	
R-6		D	1,400	400	100	400	70	20	Diesel	Unused	2012	x	
R-7		D	2,700	400	100	400	74	20	Electric	Active	2014	x	
R-8		C	2,100	490	120	480	100	20	Electric	Active	2014	x	
R-9		C	1,700	480	240	480	74	20	Electric	Active	2014	x	
R-10		C	1,500	480	240	480	118	16	Electric	Active	2014	x	
R-11		C	1,400	510	230	510	91	16	Electric	Active	2014	x	
R-12		D	unk	420	200	400	20	17	Electric	Active	2014	x	
EL-2		D	unk	258	102	258	unk	20	Electric	Unused	2001	x	(5)
EL-3		D	unk	268	102	268	unk	20	Electric	Unused	2001	x	(5)
WL-1		D	unk	278	101	278	unk	20	Electric	Unused	2001	x	(5)
WL-2		D	unk	242	101	242	unk	20	Electric	Unused	2001	x	(5)
WL-3		D	unk	245	101	245	unk	20	Electric	Unused	2001	x	(5)
Baker Farming Co.													
BF-1		D	1,980	400	160	400	115	16	Diesel	Active	2014	x	
BF-2		D	825	420	140	420	100	16	Diesel	Active	2014	x	
BF-3		D	1,760	420	140	410	100	16	Diesel	Active	2014	x	
BF-4		D	1,650	410	140	410	115	16	Diesel	Active	2014	x	
BF-5		D	2,070	unk	unk	unk	unk	unk	Diesel	Active	2014	NA	
Panoche Creek Trust													
PCF-1		D	1,700	unk	unk	unk	unk	unk	Diesel	Active	2014	NA	

1. Abbreviations: S = shallow; D = deep; C = composite; gpm = gallons per minute; ft bgs = feet below ground surface; in = inches; unk=unknown; NA=not available
2. Depth to base of annular seal.
3. Diesel generator used to produce electrical power for well.
4. Well will not be included in future MPG transfer pumping program because it exceeds the total dissolved solids (TDS) limit of 2,000 mg/L as defined in 2005 EIS.
5. Well has not been used for transfer pumping since 2001 due to the Madera County Groundwater Ordinance.

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Table 3-2
Mendota Pool Group Pumpage (2014)
(including non-MPG FWD portion to Don Peracchi)

Total Pumpage (acre-feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Terra Linda	403	0	1,221	833	1,428	1,398	1,502	1,639	944	779	651	0	**10,798**
Silver Creek/M. Britz TIC	0	0	118	0	143	152	203	266	305	275	299	0	**1,761**
Coelho/Gardner/Hansen	0	139	229	65	117	63	261	472	436	374	350	0	**2,506**
Meyers Farming	0	0	180	4	85	131	74	138	162	78	121	0	**973**
Casaca Vineyards	0	0	185	0	242	189	176	152	149	144	147	0	**1,384**
Daddy's Pride Farming	0	0	60	0	85	62	55	39	35	44	42	0	**422**
Solo Mio Farms	0	0	58	0	63	54	51	42	42	47	12	0	**369**
Coelho West	0	0	120	0	181	103	161	148	148	175	169	0	**1,205**
Baker Farming	18	48	1,104	927	790	317	358	119	92	29	14	0	**3,816**
Panoche Creek Farms	0	0	172	148	156	10	0	0	174	142	14	0	**815**
FWD "R" Wells[1]	0	0	894	767	779	48	0	0	841	1,012	82	0	**4,422**
Peracchi (Non-MPG)[1]	*0*	*85*	*542*	*733*	*633*	*312*	*220*	*60*	*663*	*562*	*47*	*0*	***3,857***
Total	**421**	**272**	**4,883**	**3,476**	**4,702**	**2,839**	**3,061**	**3,075**	**3,991**	**3,661**	**1,947**	**0**	**32,328**

Pumpage for Irrigation of Adjacent Lands (acre-feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Terra Linda	403	0	589	405	596	767	903	725	469	779	124	0	**5,760**
Silver Creek/M. Britz TIC	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Coelho/Gardner/Hansen	0	139	229	65	0	63	0	0	0	41	17	0	**554**
Meyers Farming	0	0	0	4	1	46	0	71	32	0	0	0	**154**
Casaca Vineyards	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Daddy's Pride Farming	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Solo Mio Farms	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Coelho West	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Baker Farming	18	48	87	80	143	300	358	119	92	29	14	0	**1,288**
Panoche Creek Farms	0	0	0	0	0	0	0	0	0	0	0	0	**0**
FWD "R" Wells[1]	0	0	0	0	0	0	0	0	57	25	0	0	**82**
Peracchi (Non-MPG)[1]	*0*	*85*	*33*	*296*	*189*	*285*	*220*	*60*	*216*	*0*	*0*	*0*	***1,384***
Total	**421**	**272**	**938**	**850**	**929**	**1,461**	**1,481**	**975**	**866**	**874**	**155**	**0**	**9,222**

Transfer Pumpage (acre-feet)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Terra Linda	0	0	632	428	832	631	599	914	475	0	527	0	**5,038**
Silver Creek/M. Britz TIC	0	0	118	0	143	152	203	266	305	275	299	0	**1,761**
Coelho/Gardner/Hansen	0	0	0	0	117	0	261	472	436	333	333	0	**1,952**
Meyers Farming	0	0	180	0	84	85	74	67	130	78	121	0	**819**
Casaca Vineyards	0	0	185	0	242	189	176	152	149	144	147	0	**1,384**
Daddy's Pride Farming	0	0	60	0	85	62	55	39	35	44	42	0	**422**
Solo Mio Farms	0	0	58	0	63	54	51	42	42	47	12	0	**369**
Coelho West	0	0	120	0	181	103	161	148	148	175	169	0	**1,205**
Baker Farming	0	0	1,017	847	647	17	0	0	0	0	0	0	**2,528**
Panoche Creek Farms	0	0	172	148	156	10	0	0	174	142	14	0	**815**
FWD "R" Wells[1]	0	0	894	767	779	48	0	0	784	987	82	0	**4,340**
Peracchi (Non-MPG)[1]	*0*	*0*	*509*	*437*	*444*	*27*	*0*	*0*	*447*	*562*	*47*	*0*	***2,473***
Total	**0**	**0**	**3,945**	**2,626**	**3,773**	**1,378**	**1,580**	**2,100**	**3,125**	**2,787**	**1,792**	**0**	**23,106**

1. Groundwater pumped by Farmers Water District (FWD) comes from the "R" wells, Baker Farming (BF) wells and Panoche Creek Farms (PCF) well. The water pumped from these wells is pooled and distributed to not only FWD, BF, and PCF (all MPG members) but also to Peracchi (non-MPG member). For purposes of this table, Peracchi's water allocation is shown as coming from the "R" wells only, yet it actually comes from the pooled contribution of all FWD wells.

Table 3-3
Annual Mendota Pool Group Pumpage by Location
(Including Non-MPG FWD portion to Don Peracchi)

Year	Pumpage by Wells Along Fresno Slough			Pumpage by Wells South of San Joaquin River[1]			Total Pumpage			Net Exchange with USBR (af)
	Transfer (af)	Adjacent (af)	Total (af)	Transfer (af)	Adjacent (af)	Total (af)	Transfer (af)	Adjacent (af)	Total (af)	
1989	11,193	N/A	N/A	0	6,418	6,418	11,193	N/A	N/A	N/A
1990	17,810	N/A	N/A	0	6,077	6,077	17,810	N/A	N/A	N/A
1991	40,691	N/A	N/A	9,334	4,409	13,743	50,025	N/A	N/A	N/A
1992	40,571	N/A	N/A	11,850	3,851	15,701	52,421	N/A	N/A	N/A
1993	15,988	N/A	N/A	2,583	6,322	8,905	18,571	N/A	N/A	N/A
1994	31,189	N/A	N/A	9,000	4,624	13,624	40,189	N/A	N/A	N/A
1995	0	N/A	N/A	0	5,973	5,973	0	N/A	N/A	N/A
1996	0	N/A	N/A	0	N/A	0	0	N/A	N/A	N/A
1997	19,977	3,323	23,300	6,604	6,301	12,905	26,581	9,624	36,205	N/A
1998	1,000	1,268	2,268	0	5,593	5,593	1,000	6,861	7,861	0
1999	14,871	5,701	20,572	4,850	7,946	12,796	19,721	13,647	33,368	5,797
2000	14,974	9,104	24,078	4,021	7,061	11,082	18,995	16,165	35,160	7,162
2001	18,510	9,530	28,039	8,906	3,816	12,722	27,415	13,346	40,761	16,416
2002	10,963	10,117	21,080	1,534	5,806	7,340	12,497	15,923	28,420	7,325
2003	0	11,185	11,185	0	3,054	3,054	0	14,239	14,239	0
2004	0	9,573	9,573	0	3,354	3,354	0	12,927	12,927	0
2005	0	6,596	6,596	0	3,413	3,413	0	10,009	10,009	0
2006	0	1,678	1,678	0	4,686	4,686	0	6,364	6,364	0
2007	14,884	9,246	24,130	7,671	6,218	13,889	22,556	15,463	38,019	21,427
2008	14,962	8,469	23,431	9,055	3,323	12,378	24,017	11,792	35,809	22,814
2009	14,527	8,263	22,790	12,265	1,824	14,089	26,792	10,087	36,879	25,453
2010	5,971	6,116	12,087	5,894	1,955	7,849	11,865	8,071	19,936	11,271
2011[2]	0	2,765	2,765	0	5,799	5,799	0	8,564	8,564	0
2012[3]	16,136	8,311	24,447	8,736	6,001	14,737	24,872	14,312	39,184	23,614
2013[4]	12,471	8,830	21,301	9,978	3,255	13,233	22,449	12,085	34,534	21,327
2014[5]	12,950	6,468	19,418	10,156	2,754	12,910	23,106	9,222	32,328	21,951
2014 Planned	13,653	10,177	23,830	9,745	3,255	13,000	23,398	13,432	36,830	22,228
2014 Difference	-703	-3,709	-4,412	411	-501	-90	-292	-4,210	-4,502	-277

1. Includes R, BF, and PCF wells. Currently limited to Fresno County wells but Included the East and West Loop wells until 2001.
2. 5,799 af of adjacent pumpage by wells south of SJR in 2011 includes 2,133 af of non-MPG Peracchi adjacent use.
3. 6,001 af of adjacent pumpage by wells south of SJR in 2012 includes 1,990 af of non-MPG Peracchi adjacent use.
4. 3,255 af of adjacent pumpage by wells south of SJR in 2013 includes 1,624 af of non-MPG Peracchi adjacent use.
5. 2,754 af of adjacent pumpage by wells south of SJR in 2014 includes 1,384 af of non-MPG Peracchi adjacent use.

Table 3-4
Annual Mendota Pool Group Pumpage by Zone
(Including Non-MPG FWD portion to Don Peracchi)

Year	Deep Zone Wells		Shallow Zone Wells		Total Pumpage		
	Transfer (af)	Adjacent (af)	Transfer (af)	Adjacent (af)	Deep (af)	Shallow (af)	Total (af)
1997	16,847	7,831	9,734	1,793	24,678	11,527	**36,205**
1998	500	5,093	500	1,768	5,593	2,268	**7,861**
1999	9,765	11,288	9,956	2,359	21,053	12,315	**33,368**
2000	8,921	10,889	10,074	5,276	19,810	15,350	**35,160**
2001	15,587	8,770	11,828	4,576	24,357	16,404	**40,761**
2002	3,668	9,807	8,836	6,109	13,475	14,945	**28,420**
2003	0	6,797	0	7,442	6,797	7,442	**14,239**
2004	0	4,941	0	7,986	4,941	7,986	**12,927**
2005	0	4,664	0	5,345	4,664	5,345	**10,009**
2006	0	4,791	0	1,573	4,791	1,573	**6,364**
2007	11,168	6,218	11,387	6,286	20,346	17,673	**38,019**
2008	13,122	7,138	10,895	4,654	20,260	15,549	**35,809**
2009	14,476	7,921	12,316	2,166	22,397	14,482	**36,879**
2010	7,134	5,871	4,731	2,200	13,005	6,931	**19,936**
2011[1]	0	6,679	0	1,885	6,679	1,885	**8,564**
2012[2]	10,624	12,102	14,132	2,211	22,725	16,459	**39,184**
2013[3]	11,708	8,533	10,742	3,551	20,241	14,293	**34,534**
2014[4,5]	11,006	7,367	12,100	1,856	18,372	13,956	**32,328**
2014 Planned	9,817	5,864	13,581	7,568	15,681	21,149	**36,830**
2014 Difference	1,189	1,503	-1,481	-5,712	2,691	-7,193	**-4,502**

1. 6,679 af deep-zone adjacent pumpage in 2011 includes 2,133 af of non-MPG Peracchi adjacent use.
2. 12,102 af deep-zone adjacent pumpage in 2012 includes 1,990 af of non-MPG Peracchi adjacent use.
3. 8,533 af of deep-zone adjacent pumpage in 2013 includes 1,624 af of non-MPG Peracchi adjacent use.
4. 7,367 af of deep-zone adjacent pumpage in 2014 includes 1,384 af of non-MPG Peracchi adjacent use.
5. 2014 deep-zone transfer pumpage includes an estimated 70 af of pumpage from the lower aquifer from four FWD composite wells.

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Table 3-5
2014 Monthly Non-MPG Pumpage West of Chowchilla Bypass

Well Owner or District	Well ID	Jan (af)	Feb (af)	Mar (af)	Apr (af)	May (af)	Jun (af)	Jul (af)	Aug (af)	Sep (af)	Oct (af)	Nov (af)	Dec (af)	Total (af)
Wonderful Orchards (formerly Paramount Farming Co.)[1]	2480-62 (W-97)	0	0	0	19	31	19	59	7	10	42	7	0	195
	2480-63 (W-100)	0	0	0	38	50	123	85	7	16	63	9	0	390
	2480-66 (W-42)	0	0	0	14.24	31.14	74	63	4	12	33	5	0	235
	2480-69 (W-30)	0	0	0	18	31	52	55	0	2	22	0	0	181
	2480-70 (W-81)	0	0	1	20	30	79	73	3	4	29	0	0	239
	2480-72 (W-35)	0	0	0	0	13	52	39	0	13	53	0	0	170
	2560-61 (W-82)	0	0	0	94	7	73	0	2	0	34			212
	2570-61 (W-51)	0	0	35	24	39	41	69	0	0	102	1	0	311
	2570-62 (W-68)	0	0	0	0	0	0	0	0	0	0	0	0	0
	3191-61 (W-85)	0	0	4	18	35	97	62	4	0	70	0	0	291
	3191-62 (W-86)	0	0	6	16	46	68	63	1	14	83	0	0	296
	3191-63 (W-44)	0	40	26	11	15	14	0	0	0	17	0	0	123
	3191-64 (W-57)	0	0	7	28	82	131	113	5	22	140	0	0	527
	3191-67 (W-17)	0	63	45	23	26	38	62	7	3	129	0	0	396
	3191-68 (W-76)	0	0	0	1	16	67	73	6	5	0	0	0	168
	3191-69 (W-52)	0	0	0	9	35	72	70	5	7	29	1	0	227
	3211-61 (W-73)	0	74	16	86	94	116	118	99	72	149	0	0	825
	3211-62 (W-69)	0	62	28	65	75	108	83	40	0	0	0	0	461
	3211-63 (W-2)	0	13	4	12	16	34	32	15	12	38	0	0	176
	3211-65 (W-62)	0	6	1	6	4	33	16	4	6	13	0	0	89
	3211-66 (W-15)	0	5	2	10	5	47	15	2	2	8	0	0	95
	3211-68 (W-110)	0	69	74	116	139	124	0	0	0	0	0	0	522
	3211-69 (W-77)	0	0	0	8	1	4	1	1	0	3	0	0	18
	3211-70 (W-98)	0	34	18	49	96	129	117	75	48	120	4	0	689
	3211-71 (W-46)	0	43	17	38	82	76	93	18	0	85	0	0	452
	3211-72 (W-101)	0	50	39	87	186	175	214	81	0	196	0	0	1,028
	3211-73 (W-14)	0	21	17	32	67	62	63	11	0	72	0	0	344
	3211-74 (W-31)	0	7	5	18	26	35	36	0	0	57	0	0	183
	3211-75 (W-63)	0	11	9	28	49	57	49	1	0	82	0	0	287
	3211-76 (W-13)	0	11	2	21	37	55	56	23	27	71	4	0	307
	3211-77	0	117	56	179	222	262	233	137	158	92	0	0	1,455
	3311-61 (W-89)	0	0	0	2	25	46	16	7	8	5	0	0	109
	3311-62 (W-8)	0	0	0	0	5	89	61	40	0	0	0	0	196
	3311-63 (W-12)	0	11	9	25	34	60	55	27	18	13	0	0	254
	3311-64 (W-90)	0	26	23	61	82	81	124	66	42	28	0	0	534
	3421-61 (Card-1)	0	55	35	28	25	32	58	0	2	107	0	0	342
	3421-62 (W-74)	0	38	19	36	0	62	42	0	0	64	0	0	262
	3421-64 (W-18)	0	65	61	24	27	30	68	0	2	140	0	0	418
	3421-66 (W-19)	0	51	41	24	10	32	55	0	2	102	0	0	317
	3421-68 (W-24)	0	0	0	0	0	0	0	2	3	82	0	0	88
	3431-61 (W-32)	0	0	0	2	18	45	55.27	4	0	0	0	0	125
	3431-62 (W-91)	0	0	0	15	18	47	12	4	28	53	0	0	177
	3431-63 (W-36)	0	0	0	13	30	63	57	3	26	81	0	0	274
	3561-61 (W-27)	0	0	22	2	0	6	0	0	0	47	0	0	77
	3561-62 (W-28)	0	0	0	0	0	0	0	0	0	79	0	0	79
	3561-63 (W-83)	0	0	0	0	0	0	0	0	0	0	0	0	0
	3561-64 (W-80)	0	0	0	0	0	0	0	2	0	134	0	0	136
	3591-61 (W-34)	0	0	0	0	32	108	72	1	0	2	0	0	214
	3591-62 (W-29)	0	0	0	0	0	0	6	0	0	0	0	0	6

Table 3-5
2014 Monthly Non-MPG Pumpage West of Chowchilla Bypass

Well Owner or District	Well ID	Jan (af)	Feb (af)	Mar (af)	Apr (af)	May (af)	Jun (af)	Jul (af)	Aug (af)	Sep (af)	Oct (af)	Nov (af)	Dec (af)	Total (af)
Wonderful Orchards (formerly Paramount Farming Co.)[1] (continued)	3591-63 (W-7)	0	26	13	51	45	46	69	47	58	78	0	0	433
	3591-64 (W-92)	0	0	9	36	58	66	79	10	43	95	0	0	395
	3591-65 (W-75)	0	46	13	92	112	0	130	90	94	119	0	0	697
	3591-66 (W-11)	0	43	7	54	65	0	83	65	66	84	0	0	467
	3591-67 (W-10)	0	0	4	4	0	47	42	4	20	77	0	0	198
	3591-68 (W-93)	0	52	15	72	99	122	113	87	80	64	0	0	704
	3591-69 (W-39)	0	1	1	20	31	77	71	11	28	82	0	0	322
	3591-70 (W-72)	0	0	0	22	11	0	0	0	0	0	0	0	33
	3591-71 (W-71)	0	0	0	0	0	0	0	0	0	0	0	0	0
	3591-72 (W-60)	0	35	8	39	47	70	69	54	45	59	0	0	426
	3730-61 (W-95)	0	82	32	78	103	151	135	69	137	144	0	0	931
	3730-62 (W-94)	0	22	41	85	91	134	147	47	0	142	0	0	708
	3730-63 (W-112)	0	169	52	133	184	207	157	216	121	0	0	0	1,238
	3730-65 (W-53)	0	31	10	33	30	56	36	2	18	65	0	0	282
	3730-66 (W-59)	0	0	0	60	70	87	97	66	92	105	1	1	578
	3730-67 (W-96)	0	22	34	61	73	91	106	43	47	116	0	0	594
	3730-68 (W-48)	0	46	15	32	46	64	54	46	18	68	0	0	390
	3730-70 (W-108)	0	136	47	114	182	233	202	160	86	174	0	0	1,335
	3730-71	0	35	11	9	14	27	3	3	5	17	0	0	124
	3730-72 (W-107)	8	137	47	84	96	160	127	40	40	188	0	0	926
	3730-73	0	117	50	134	172	216	200	130	150	222	0	0	1,392
	3730-74 (CC-1)	0	68	24	53	62	100	86	15	91	101	0	0	599
	3730-75 (CC-2)	0	95	30	66	74	141	0	0	0	0	0	0	406
	3921-61 (W-106)	2	113	33	80	96	197	204	211	203	210	11	0	1,359
	3921-62 (W-78)	0	73	21	60	73	88	98	104	131	136	0	0	785
	7101-61 (W-61)	0	0	0	21	31	61	34	2	0	141	0	0	290
	7102-61 (W-99)	0	0	0	0	0	6	0	0	0	0	0	0	6
	Total	**10**	**2,219**	**1,140**	**2,811**	**3,757**	**5,467**	**5,035**	**2,243**	**2,139**	**5,254**	**42**	**1**	**30,118**
Columbia Canal Company[1]	AgriLand #1 (Diepersloot #1)	0	41	2	0	0	2	0	0	3	26	0	0	74
	Burkhart-Heirs	0	16	65	22	26	49	28	20	0	0	0	0	226
	Cardella-Lopes (Lopes 1)	0	0	28	156	2	4	0	0	12	0	0	0	202
	Cardella #2 (Lopes 2)		0	0	0	34	73	0	0	0	0			107
	CCC #1	0	21	59	289	272	166	2	0	95	195	0	0	1099
	CCC #2	0	168	289	328	239	248	6	0	129	149	0	0	1556
	N.F. Davis #1	0	0	17	32	45	32	1	1	0	18	0	0	146
	Davis #2	0	0	39	35	13	30	3	12	0	25	0	0	157
	Elrod #1	0	35	31	0	22	0	1	0	0	0	0	0	89
	Elrod #2	0	55	39	36	143	26	19	0	4	34	0	0	356
	Elrod #3	0	27	0	0	85	0	0	0	0	26	0	0	138
	MLT	0	30	0	13	56	2	0	0	0	0	0	0	101
	Mowry Diesel	0	0	42	51	25	8	198	26	0	0	0	0	350
	Mowry #1	0	0	36	48	22	6	0	0	0	0	0	0	112
	Samarin #1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Samarin #2&2a	0	36	215	18	224	76	11	15	0	18	0	0	613
	Samarin #3&3a	0	52	69	71	32	54	20	0	0	12	0	0	310
	Samarin #4&4a	0	21	35	0	5	4	0	95	0	22	0	0	182
	Samarin #5	0	20	0	0	0	46	0	54	0	0	0	0	120
	Snyder	0	68	317	58	56	7	144	100	90	54	0	0	894
	Total	**0**	**590**	**1,283**	**1,157**	**1,301**	**833**	**433**	**323**	**333**	**579**	**0**	**0**	**6,832**

Table 3-5
2014 Monthly Non-MPG Pumpage West of Chowchilla Bypass

Well Owner or District	Well ID	Jan (af)	Feb (af)	Mar (af)	Apr (af)	May (af)	Jun (af)	Jul (af)	Aug (af)	Sep (af)	Oct (af)	Nov (af)	Dec (af)	Total (af)
CCID	5A	0	2	0	142	144	132	146	140	105	52	0	0	862
	12C	0	65	78	97	77	60	68	58	51	53	62	0	669
	15B	0	19	104	130	101	99	110	85	76	38	0	0	761
	16C	0	0	109	201	160	196	219	162	148	72	0	0	1,268
	23B	0	0	54	119	82	97	94	81	64	77	87	0	754
	28C	0	6	83	195	163	172	206	120	80	60	0	0	1,084
	32C	0	102	115	138	105	122	154	91	0	0	0	0	827
	35A	0	57	125	157	138	146	161	161	125	62	0	0	1,131
	38A	0	37	0	45	45	166	106	67	13	0	0	0	480
	Total	**0**	**288**	**668**	**1,224**	**1,015**	**1,188**	**1,263**	**966**	**661**	**415**	**148**	**0**	**7,835**
City of Mendota[2]	Well #7	*50*	*42*	*42*	*50*	*68*	*86*	*111*	*71*	*66*	*53*	*32*	*36*	*707*
	Well #8	*3*	*30*	*36*	*48*	*69*	*57*	*14*	*53*	*71*	*59*	*34*	*39*	*513*
	Well #9	*19*	*21*	*41*	*50*	*58*	*86*	*110*	*73*	*67*	*53*	*32*	*37*	*648*
	Fordel M-1													
	Fordel M-2 to 6	0	260	361	0	245	327	290	288	245	53	0	0	2,069
	Total	**72**	**354**	**480**	**148**	**440**	**555**	**525**	**485**	**449**	**219**	**98**	**112**	**3,937**
Covanta Mendota[3]	6A (Biomass)	43	39	50	52	31	52	54	48	46	45	32	40	531
	Total	**43**	**39**	**50**	**52**	**31**	**52**	**54**	**48**	**46**	**45**	**32**	**40**	**531**
Locke Ranch[4]	No.4 (CCID 25)	0	0	0	0	0	324	648	324	0	0	0	0	1,296
	No.5 (CCID 23)	0	0	0	0	0	317	633	317	0	0	0	0	1,266
	No.7 (CCID 65)	0	0	0	0	0	161	323	161	0	0	0	0	645
	No.8 (CCID 24)	0	0	0	0	0	121	242	121	0	0	0	0	484
	Total	**0**	**0**	**0**	**0**	**0**	**923**	**1,846**	**923**	**0**	**0**	**0**	**0**	**3,691**
Firebaugh Canal Water District[5]	FCWD2	0	0	0	0	152	174	150	146	157	125	0	0	904
	FC 40	0	0	0	0	209	339	324	300	301	0	0	0	1,473
	Total	**0**	**0**	**0**	**0**	**361**	**513**	**474**	**446**	**458**	**125**	**0**	**0**	**2,377**
Spreckels Sugar Company[6]	PW-6	*0*	*0*	*0*	*35*	*76*	*85*	*90*	*94*	*91*	*84*	*0*	*0*	*555*
	PW-7	*2*	*0*	*18*	*10*	*27*	*4*	*11*	*28*	*12*	*21*	*8*	*2*	*143*
	PW-9	*0*	*0*	*0*	*21*	*46*	*45*	*22*	*30*	*5*	*10*	*7*	*0*	*186*
	PW-10	*0*	*0*	*21*	*39*	*38*	*17*	*17*	*37*	*14*	*31*	*37*	*0*	*251*
	PW-11	*14*	*6*	*5*	*16*	*34*	*32*	*36*	*33*	*26*	*16*	*4*	*4*	*226*
	PW-12	*0*	*0*	*4*	*6*	*6*	*4*	*8*	*5*	*5*	*10*	*2*	*0*	*50*
	Total	***16***	***6***	***48***	***127***	***227***	***187***	***184***	***227***	***153***	***172***	***58***	***6***	***1,411***
Total Pumpage		**141**	**3,497**	**3,669**	**5,519**	**7,132**	**9,717**	**9,812**	**5,662**	**4,240**	**6,808**	**378**	**158**	**56,732**

Italics: Indicates estimated value

Notes:

1. Only includes WO (formerly PFC) and CCC wells located within the MPG study area. CCC Garcia wells are now owned by and called "Samarin".
2. Well-by-well pumpage not available for Fordel wells.
3. Covanta Mendota pumpage based on 2013 data. Facility ceased operation January 2015 and pumping records for 2014 were not available.
4. Locke Ranch pumpage estimated from power consumption records on an annual basis and was distributed over the three summer months, apportioning 50% to July and 25% toeach to June and August.
5. Firebaugh Canal Water District based on metered readings by SLDMWA.
6. Spreckels Sugar Company pumpage based on 2012 (2013 and 2014 data not provided).

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Table 3-6

Summary of Non-MPG Pumpage West of Chowchilla Bypass: 2001-2014 (acre-feet)[1]

Year	WO[2] (PFC)	CCID[2]	Locke Ranch[3]	FCWD	City of Mendota			Spreckels Sugar Co.[6]	Columbia Canal Co.[2]	Covanta Mendota[7]	Total
					W of Fresno Slough		E of Fresno Slough Wells 7,8,9 B&B Ranch[5]				
					City Wells (abandoned)	Fordel Wells					
2001	37,400	6,900	2,400	-	1,400	-	-	1,900	7,700	700	**58,500**
2002	32,700	7,200	"	-	1,500	-	-	"	6,600	700	**53,000**
2003	33,400	7,300	"	-	1,600	-	-	"	4,300	600	**51,700**
2004	45,200	9,700	1,900	-	-	1,900	1,700	"	4,500	600	**67,400**
2005	19,600	3,300	1,700	-	-	2,100	1,600	"	1,400	500	**32,100**
2006	22,700	100	900	-	-	1,300	1,600	"	1,200	600	**30,300**
2007	13,200	10,400	1,500	-	-	1,900	1,800	"	3,900	600	**35,200**
2008	4,900	6,700	1,000	2,600	-	2,600	1,800	"	800	600	**22,900**
2009	12,500	9,400	2,500	4,600	-	2,100	1,800	1,000	2,400	700	**37,900**
2010	14,900	6,700	600	2,000	-	1,000	1,800	1,100	3,500	600	**33,000**
2011	7,400	2,800	700	800	-	2,000	1,800	1,200	1,200	400	**19,000**
2012	24,400	10,900	1,400	3,000	-	1,900	1,800	1,400	1,800	500	**47,600**
2013	23,900	8,800	1,400	5,000	-	2,600	1,800	1,400	1,700	500	**47,600**
2014	30,100	7,800	3,700	2,400	-	2,100	1,900	1,400	6,800	500	**56,700**

Notes:

1. Most pumpage west of the Bypass is from the deep zone (above the Corcoran Clay), but the WO (PFC) pumpage includes a number of composite wells. The portion of WO (PFC) pumpage below the Corcoran Clay from 11 WO wells was estimated at about 350 af for 2014. Values are rounded to the nearest 100 acre-feet. Totals are based on monthly pumpage records, not on rounded annual values.
2. The WO (PFC), CCID, and Columbia Canal Company totals only include wells within the MPG study area.
3. The Locke Ranch 2001-2003 pumpage is assumed to be equal to the 2000 pumpage estimate. Annual pumpage by well for 2004 to 2014 was received from CCID in 2014 and these years were updated for the 2014 annual report.
4. FCWD (Firebaugh Canal Water District) metered pumpage from SLDMWA.
5. 2011-2013 City of Mendota pumpage from B&B Ranch wells based on 2010 value.
6. The Spreckels Sugar Co. 2001-2008 pumpage is assumed to be equal to the 2000 pumpage estimate. The Spreckels' factory closed at the end of 2008. The 2009-2012 Spreckels Sugar Co. pumpage (used primarily for irrigation) is based on meter readings. 2013 and 2014 pumpage is based on 2012 pumpage.
7. Formerly AES Mendota and Mendota Biomass. The 2001 pumpage is estimated, and the 2002-2005 pumpage is based on power records. The 2006-2013 pumpage is based on meter readings. The 2014 pumpage is based on 2013 values, the facility ceased operation January 2015.

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Table 3-7
Summary of Non-MPG Pumpage in 2014 (acre-feet)

	West of Chowchilla Bypass (Above and Below Corcoran Clay)[1]										East of Chowchilla Bypass (Above and Below Corcoran Clay)[2]				
					City of Mendota										
Month	WO[3] (PFC)	CCID[3]	Locke Ranch[4]	FCWD[5]	Wells on B&B Ranch	Fordel Wells	Spreckels Sugar Co.[6]	Columbia Canal Co.[3]	Covanta Mendota[7]	**Total**	Aliso WD	Madera County (undist-ricted)	Fresno County	**Total**	**Grand Total**
Jan	10	0	0	0	72	0	16	0	43	**100**					
Feb	2,219	288	0	0	94	260	6	590	39	**3,500**					
Mar	1,140	668	0	0	119	361	48	1,283	50	**3,700**					
Apr	2,811	1,224	0	0	148	0	127	1,157	52	**5,500**					
May	3,757	1,015	0	361	195	245	227	1,301	31	**7,100**					
Jun	5,467	1,188	923	513	228	327	187	833	52	**9,700**					
Jul	5,035	1,263	1,846	474	235	290	184	433	54	**9,800**					
Aug	2,243	966	923	446	197	288	227	323	48	**5,700**					
Sep	2,139	661	0	458	204	245	153	333	46	**4,200**					
Oct	5,254	415	0	125	166	53	172	579	45	**6,800**					
Nov	42	148	0	0	98	0	58	0	32	**400**					
Dec	1	0	0	0	112	0	6	0	40	**200**					
Total	**30,100**	**7,800**	**3,700**	**2,400**	**1,900**	**2,100**	**1,400**	**6,800**	**500**	**56,700**	**55,500**	**11,200**	**38,300**	**105,000**	**161,700**

Notes:

Totals are rounded to the nearest 100 acre-feet. Totals are based on monthly pumpage records, not on rounded annual values.

1. Includes all pumpage in the study area. Most pumpage west of the Bypass is from the deep zone (above the Corcoran Clay), but the WO (PFC) pumpage includes a number of composite wells. Estimate of pumpage below the Corcoran Clay in WO composite wells was about 350 af.
2. These pumpage estimates were based on crop demand calculated as a function of irrigated acreage, land use (2011 Madera County and 2009 Fresno
3. The WO (PFC), CCID, and Columbia Canal Company totals only include wells within the MPG study area.
4. Locke Ranch pumpage estimated from power consumption records on an annual basis and was distributed over the three summer months, apportioning 50% to July and 25% each to June and August.
5. 2014 FCWD (Firebaugh Canal Water District) pumpage based on meter readings by SLDMWA.
6. 2014 Spreckels Sugar Company pumpage based on 2012 meter readings (2014 data not provided).
7. Formerly AES Mendota and Mendota Biomass; the pumpage is based on 2013 meter readings (2014 pumpage not provided).

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4 GROUNDWATER LEVELS

4.1 Water-Level Hydrographs

Short-term water-level hydrographs (January 2000 to February 2015) for all wells in the MPG monitoring program are included in **Appendix B**; and long-term hydrographs, which contain all available data, are included in **Appendix C**. Hydrographs of the San Joaquin River Restoration Program (SJRRP) monitoring wells in the Mendota area are included in **Appendix D**. Water levels measured in shallow and deep zone wells are summarized below. Groundwater-level changes in 2014 are shown in **Table 4-1** (shallow zone) and **Table 4-2** (deep zone). These tables show the "maximum drawdown" (the difference between the static, non-pumping water level at the beginning of the year and the deepest static level during the irrigation season), "recovery" (the difference between the drawdown during the irrigation season and the recovery at the end of the year or early the following year), and "residual drawdown" (the difference between the beginning and end of the year water levels). As discussed below, water levels in most wells in the study area were lower at the end of 2014 than at the beginning of the year. The maximum drawdown and recovery are not based on pumping water levels.

4.1.1 Shallow Zone (above the A Clay)

Shallow-zone water levels declined in 2014 in all but one of the 20 shallow zone wells. These water-level declines varied by location (**Table 4-1**). Shallow zone wells west of the Fresno Slough showed residual drawdowns in 2014 that ranged from 2.0 foot to 7.3 feet (TLF-7s and Etchegoinberry No. 2, respectively). Water levels for shallow zone wells located east of the Fresno Slough (Spreckels MW-3, 13, and 18) were not provided in 2014. North of the SJR in the CCC and WO area, shallow zone wells showed residual changes in water levels ranging from about a 4 foot increase to about an 11 feet decline.

Longer term changes in shallow zone groundwater levels vary in the study area. Historical water levels at USGS monitoring well T13S/R15E-31J4, west of the Mendota Airport, have ranged from a high of 16 feet below ground surface (bgs) in 1986 to a low of 69 feet bgs in 1994. The groundwater level has declined about 5 feet per year from February 2012 to January 2015 (from 30 to 45 feet bgs).

Water levels in the shallow zone in the northern half of the MPG well field west of the Fresno Slough generally rose in both 2010 and 2011 but have declined from 2012 through 2014. The depth to water in Terra Linda TLF-7s (formerly TL-10C) was about 24 feet in January 2014 and increased to 26 feet in February 2015. In the southern portion of the MPG well field west of the Fresno Slough, the water level in Five Star well FS-5 declined by about six feet in 2014. As shown on the long-term hydrograph in **Appendix C**, water levels in this well had risen from a low of 52 feet bgs in 1993 to a high of 13 feet bgs in 2007. Some of this recovery is due to

recharge by the Bank, as discussed below. The depth to water in FS-5 was about 41 feet in February 2015.

East of the Fresno Slough, water levels at shallow monitoring wells in the western portion of Spreckels Sugar Co. declined significantly between 1986 and 1993 due primarily to MPG pumping. Water levels recovered between 1993 and 2007, with the greatest rise occurring between 2003 and 2007. Rising water levels during this period were due to a combination of reduced MPG pumping near the Fresno Slough and recharge by the Bank, which is located east of the Slough in the western portion of the Spreckels Sugar Co. property. By January 2007, water levels had recovered to mid-1980s levels. During 2007-2009, water levels declined due to MPG pumping and extraction from the Bank. Water levels rose significantly in 2010 and 2011 due to reduced pumping and additional Bank recharge. Water levels were generally stable in 2012 and declined in shallow zone wells (MW-1, MW-3, MW-13, and MW-18) in 2013 and 2014. However, data on recovery of water levels are not available for winter 2014/2015.

At Spreckels' MW-3, the deepest water level, measured in 2014, was about 49 feet bgs in October, similar to the maximum depth to water measured in the well in 1995 (nearly 50 feet bgs). Much of the water-level rise during 2002-2007 and 2010-2012 is attributed to recharge from the Bank, and much of the water level decline in 2007 to 2009 and 2013 to 2014 was due to MPG pumping, and extraction from the Bank.

Water levels in the Spreckels Sugar Co. monitoring well east of San Mateo Avenue are primarily influenced by recharge from the SJR as are SJRRP wells (09-56 and 09-57). Water levels in Spreckels' MW-32 have fluctuated within a 15 foot range since 1999. There were two measurements per year in MW-32 from 2012 to 2014, and these indicated that water levels were generally stable.

North of the SJR, the easternmost shallow WO monitoring well (MW-2) shows the most response to recharge from the River. MW-2 is located near the River and the Chowchilla Bypass and is too far east to be influenced by seepage from the Pool. Water levels in MW-2 declined by 25 feet or more during periods of little or no SJR flow (2001-2004 and 2007-2009). Water levels rose by a similar amount during high flow periods (2005-2006 and 2010-2011). The 2010-2011 water-level rise was due primarily to interim releases from Friant Dam for the SJRRP. These flows continued in 2012 through 2013, and water levels in MW-2 remained high, at about 20 feet bgs. However, in 2014, SJRRP flows in the SJR ceased and flows in the SJR diminished until May. Releases from Friant to the SJR in May to September resulted in rising water levels in MW-2, followed by groundwater level declines when flow in the SJR was discontinued downstream of Gravelly Ford.

Water levels in shallow zone monitoring wells near the SJR branch of the Pool, including WO well MW-3 and the CCC Lopes-Observation well, are influenced by year-round recharge from

the Pool. As a result, these wells show much smaller seasonal and year-to-year fluctuations. Water levels in MW-3 rose about four feet in 2011 and declined by about four feet in 2012, by about 2 feet in 2013, and by about one foot in 2014. Water levels in January 2015 were about 15 feet lower than when measurements began around January 2000. This overall decline is likely a result of many factors including MPG pumpage, increase in non-MPG pumpage, and predominantly dry climatic conditions since 2000.

In the northern portion of the study area, water levels in WO wells MW-4 and MW-5 are influenced by pumping from deeper zones and declined from 2000 to 2005 and 2007 to 2010. Water levels in MW-4 are also strongly influenced by flows in the Bypass and rose during 2005-2006 and in 2011 due to recharge from the Bypass and a water recharge project conducted by WO. Water levels in MW-4 rose by about 28 feet in 2011 but declined by about 37 feet from January 2012 to August 2014 when the well went dry and has stayed dry through January 2015. Compared to MW-4, water levels in MW-5, MW-10, MW-11, and MW-13 have shown smaller year-to-year fluctuations in response to nearby pumping and recharge from the Bypass. For MW-5 water levels rose by about nine feet in 2011 and declined by a total of about 24 feet since 2011.

4.1.2 Deep Zone

This section describes water levels in deep zone wells completed below the A Clay and above the Corcoran Clay and composite wells completed above and below the Corcoran Clay. Deep-zone and composite well water levels generally declined in 2014, with 37 out of the 43 wells showing water-level declines (**Table 4-2**). Deep zone and composite MPG wells had residual drawdowns from about one foot to two feet (five wells) and residual increases that ranged from less than one to two feet (two wells) in the FWD. Residual drawdowns in deep zone wells ranged from about one to five feet near the Fresno Slough in 2014.

Deep zone and composite non-MPG wells had residual drawdowns that ranged from less than one to 21 feet. Water-levels declined from less than one to nine feet in the CCID wells, less than one to 21 feet in all but four WO wells, and from two to 8 feet in all other non-MPG wells during 2014. Four WO wells had residual increases of up to 11 feet.

Long-term water-level trends vary by location. North of the City of Mendota, hydrographs of the CCID wells show water levels that decline during dry periods to 25 to 70 feet bgs, followed by water level recoveries during wet periods to 5 to 15 feet bgs. Water levels have been measured since 1985 at the cluster of USGS monitoring wells west of the Mendota Airport. The water levels in the USGS deep zone monitoring well (31J5) with similar perforations to the CCID wells has declined up to 130 feet bgs during dry periods followed by full recovery to 20 to 30 feet bgs during wet periods. Water levels in the deep zone well rose during 2003-2006, declined during 2007-2009, rose during 2010-2011 and declined in 2012-2014. In 2014,

monitoring well T13S/R15E-31J5 experienced about 28 feet of drawdown followed by about 24 feet of recovery, resulting in a net water-level decline of four feet.

East of the Fresno Slough, water levels in the deep Spreckels monitoring wells have declined to 50 to 95 feet bgs during dry periods since 1985, followed by water level recoveries to 20 to 30 feet bgs in wet periods. Water levels rose in the deep zone Spreckels Sugar Co. monitoring wells from 1994 through 2006, with the largest rise occurring in wells near the Bank during 2003 to 2006. Water levels at Spreckels' MW-11 rose by about 14 feet from 1994 to 2003 and by an additional 20 feet from 2003 to January 2007. Water levels at MW-11, which is screened in the upper portion of the deep zone, declined by about 20 feet during 2007-2009 due primarily to MPG pumping and Bank recovery well pumping. The seasonal drawdown was relatively large in 2009, which was the year of greatest recovery from the Bank. The seasonal drawdown was much smaller in 2010, and water levels were about 13 feet higher at the end of the year. The end-of-year water levels in MW-11 were stable from 2011 to 2012, and water levels declined from January 2013 to January 2014 by 13 feet, due to pumping by the MPG and the Bank. Only spring and fall 2014 water levels are available from the Geotracker website for Spreckels wells, Meyers Farming did not provide 2014 water levels for this well and residual drawdown (or rise) cannot be determined.

The hydrograph of Spreckels' MW-14, which is closer to the Fresno Slough than MW-11 and also screened in the upper portion of the deep zone, is similar to MW-11 but shows more drawdown due to MPG transfer pumping during the 1990s. Recharge by the Bank has less influence on water levels at MW-14, because this well is farther from the Bank. There were no water-level measurements at the end of 2014, so the amount of recovery is unknown.

North of Spreckels, the FWD wells have experienced declining water levels, ranging from 100 to over 140 feet bgs during dry periods or seasonally during irrigation periods since 1985, followed by recoveries to water levels ranging from 20 to 50 feet bgs during wet periods. These wells have experienced declining water levels during 1998-2004, rising levels during 2005-2006, declining levels during 2007-2009, generally rising levels during 2010-2012, and declining levels during 2013 and 2014. Residual changes in 2014 were small and ranged from less than one to over two feet of residual drawdown and less than one to over two feet of residual increase. These wells generally have large seasonal drawdowns, and in 2014 they ranged from 38 feet to 78 feet, with the largest in FWD R-5. These trends are primarily related to pumpage patterns for the FWD wells, the confined nature of the deep zone, and other deep zone pumping in the area.

North of the SJR, hydrographs of WO and CCC deep zone wells also showed water-level declines from the late 1990s through 2004, followed by rising water levels during 2005-2006, declining levels during 2007-2009, followed by rising water levels from 2010-2011, and a decline from 2012 through 2014. From January 2014 to January 2015 water levels declined in the majority of WO wells. In the southern WO wells, seasonal drawdowns were relatively large

(ranging from 56 to 94 feet) in 2014, and residual drawdown varied from an increase of three feet to a decline of eight feet. Seasonal drawdowns were smaller in the northeastern WO wells, ranging from 20 to 62 feet and residual drawdowns, ranged from four to 21 feet. Water levels have been measured at two wells in this area (W-8 and W-11) since at least the 1950s and have declined about 95 feet since that time, or nearly two feet per year.

Water levels are measured currently by the MPG in four wells in Aliso Water District (18H1, 19K1, 31G1 (DP2), and 31A (DP4)). These wells are located in the historically overdrafted western part of Madera County east of the Chowchilla Bypass. One well (Woolf Enterprises No. 18H1) has a period of record starting in 1950 and shows a long-term trend of water-level declines (total of about 87 feet). Since 2005, water levels in wells measured in Aliso Water District have either been fairly stable or have declined about 20 to 30 feet. In 2014 all wells showed a decline that ranged from two to seven feet of residual drawdown. Water levels in the south part of Aliso Water District (18H1 and 19K1) are influenced significantly by recharge from San Joaquin River seepage, as evidenced by relatively shallow depths to water (90 to 100 feet bgs) as compared to wells (DP2 and DP4) located in the northern portion of the district (about 140 feet bgs). Wells in the south part of the District have had lower rates of water level decline than in wells farther north.

4.1.3 Lower Aquifer

This section describes water levels in three lower aquifer wells completed below the Corcoran Clay. These wells include the deepest USGS monitoring well in the cluster located near the City of Mendota (T13S/R15E-31J6) and two WO monitoring wells (MW-6 and MW-8). In 2014, these three wells experienced residual drawdowns ranging from about 10 to 15 feet.

Historically, the 31J6 well has experienced water-level declines of nearly 100 feet since 1999. Water levels declined about 35 feet between 1999 and 2003, due primarily to pumping below the Corcoran Clay occurring both west and northeast of the Mendota area. Reduced pumping from the lower aquifer in subsequent years resulted in about 25 feet of water-level rise during 2004-2006. Water levels declined during 2007-2009, and there were residual drawdowns of approximately 20 feet at the end of each year. The depth to water reached a new historical low of about 160 feet bgs in September 2009. The USGS installed a pressure transducer in August 2010 to collect daily water-level data from 31J6 as part of a re-activation of land subsidence studies in this portion of the San Joaquin Valley. In 2010 and 2011, there was very little seasonal drawdown in this well, and water levels were higher at the end of each year. Since then, water levels declined by about 65 feet from January 2012 to January 2015, and the depth to water was about 180 feet in January 2015. The depth to water reached a new historical low of about 200 feet bgs in September 2014. The depths to water in the lower aquifer at this location is significantly lower than in the two overlying USGS deep zone wells (about 45 feet bgs), which

indicates a downward gradient between the aquifers above and below the Corcoran Clay in this part of the study area.

The two WO monitoring wells were constructed in 2010 and water-level measurements began in 2011. These wells experienced 23 to 34 feet of seasonal drawdown in 2014. Water levels in these wells (about 125 feet bgs) were significantly deeper than in deep zone wells (e.g., MW-9 is 66 feet bgs) in WO, which indicates a downward gradient from the deep zone to the lower aquifer at WO, similar in nature to the area west of the Fresno Slough at the USGS monitoring wells. Groundwater elevations in MW-6 and MW-8 at the end of 2014 were about 55 feet higher than in USGS monitoring well 31J6 (180 feet bgs) west of the Fresno Slough. This suggests that the direction of groundwater flow in the lower aquifer is to the southwest, which is the opposite of that in the deep zone above the Corcoran Clay. The southwest direction of flow is predominant for the lower aquifer along the east edge of the WWD between Mendota and Lemoore.

4.2 Groundwater Elevation Contour Maps

Three groundwater elevation contour maps were prepared for both the shallow and deep zones. Contour maps for both zones were based on water levels measured mostly in December 2013 through January 2014, July through October 2014, and December 2014 to January 2015. Groundwater elevations on the contour maps are shown as feet from mean sea level (feet msl) based on the North American Vertical Datum of 1988 (NAVD 88).

4.2.1 Shallow Zone

Groundwater elevation contours in the shallow zone above the A-Clay in December 2013-January 2014 are shown on **Figure 4-1**. Groundwater elevations ranged from about 190 feet msl in the southwestern corner of the study area to about 90 feet msl in the northeast. Southwest of the City of Mendota, the direction of groundwater flow was to the east-northeast toward the Fresno Slough. There was a cone of depression near the Fresno Slough and Jack's Resort, due to groundwater levels influenced by MPG pumping in this area in 2013. Water levels in this area were lowest in the vicinity of Meyers Farm well MS-4 west of the Pool. There was a groundwater ridge beneath the SJR and a portion of the SJR branch of the Mendota Pool north and northwest of FWD, and groundwater flowed away from the River to both the northeast and southwest. There appears to be a hydraulic connection between river water and groundwater in this reach when the SJR is flowing. Groundwater elevations shown on the contour map were lowest at WO wells MW-4 and MW-5 in the northern portion of WO's New Columbia Ranch.

Figure 4-2 shows groundwater elevations in the summer and fall of 2014. This contour map shows that groundwater flow was away from the SJR in both directions (losing conditions) in the reach upstream of Mendota Dam. North of Mendota Dam, groundwater levels were low enough that there appeared to be no direct hydraulic connection between river water and groundwater,

and the direction of groundwater flow was to the northeast beneath the SJR. The shape of the other contours shown on this map is similar to the December 2013-January 2014 contour map (**Figure 4-1**). During the summer months, there was a larger cone of depression near the Pool due to MPG pumping. On a regional basis, groundwater flow directions were northeast towards Madera County.

Shallow-zone groundwater elevations in December 2014 and January 2015 are shown on **Figure 4-3**. Groundwater elevations and flow directions were similar to those shown on the other shallow-zone contour maps with the regional flow direction to the northeast. Locally, groundwater elevations were lower (as compared to **Figure 4-1**) beneath the MPG well field west of the Fresno Slough and there was flow away from the SJR and a portion of the northern branch of the Mendota Pool upstream of the Mendota Dam. Overall, water level elevations in December 2014-January 2015 were close to those in summer 2014, indicating little recovery. The cone of depression due to MPG pumping was still evident.

4.2.2 Deep Zone

Groundwater elevations in the deep zone vary with well depth. For example, water levels in wells completed in the upper portion of the deep zone often have higher groundwater elevations compared to wells completed in the lower portion of the deep zone. Therefore, these variations need to be accounted for when interpreting groundwater elevation contours and flow directions. Groundwater elevation contours in the deep zone during December 2013 to January 2014 are shown on **Figure 4-4**. Most of the wells used to create this contour map are perforated below the A-Clay and above the Corcoran Clay. However, it was necessary to use data from composite wells in the northern and eastern portions of the study area to fill in data gaps and extrapolate groundwater level contours. Groundwater elevations ranged from nearly 170 feet msl near the southwest corner of the study area to about 50 feet msl in a cone of depression located east of the Chowchilla Bypass. Groundwater flow directions were generally in a northeasterly or northerly direction toward the cone of depressions near Avenue 7 east of the Chowchilla Bypass.

Groundwater elevation contours below the A-Clay during the summer and fall of 2014 are shown on **Figure 4-5**. Compared to the December 2013-January 2014 period, groundwater elevations were lower in most areas. There was a cone of depression beneath the northern portion of FWD and the south part of the NCR. In other areas, the direction of groundwater flow continued to be toward the cones of depression east of the Chowchilla Bypass.

Groundwater elevation contours in the deep zone during December 2014-January 2015 are shown on **Figure 4-6**. This contour map shows significant water-level recovery after the end of the 2014 irrigation season, and groundwater elevations were much higher than in the summer beneath the WO, FWD, and the MPG well field west of the Fresno Slough (60 feet, 70 feet and 40 feet, respectively). Groundwater elevations ranged from about 165 feet msl near the

southwest corner of the study area to about 45 feet msl in the cone of depression east of the Chowchilla Bypass, and the overall direction of groundwater flow continued to be toward this cone of depression.

Table 4-1
Changes in Groundwater Levels in Shallow Zone Wells, 2014 (feet)

Well Owner	Well ID	Maximum Drawdown[1]	Recovery[2]	Residual Drawdown[3]
USGS	31J4	9.3	5.4	4.0
West of Fresno Slough				
City of Mendota	Fordel M-2	14.1	11.9	2.1
Terra Linda	TLF-7S (10C)	3.9	1.9	2.0
Etchegoinberry	No. 2	11.3	4.0	7.3
Meyers Farming	MS-4	11.9	6.6	5.3
	S-2	7.8	1.6	6.3
	P-6	6.4	2.6	3.8
Five Star	FS-5	11.4	5.4	6.1
East of Fresno Slough				
Spreckels Sugar Company[4]	MW-3	NA	NA	NA
	MW-13	NA	NA	NA
	MW-18	NA	NA	NA
North of San Joaquin River				
Columbia Canal Company	Lopes-Obs	13.6	8.7	4.9
	USBR-4	3.2	1.8	1.5
Wonderful Orchards (formerly Paramount Farming Co.)	MW-2	5.2	3.7	1.5
	MW-3	2.2	0.8	1.4
	MW-4	>8.5	Dry	Dry
	MW-5	13.0	1.9	11.1
	MW-10	13.9	3.2	10.7
	MW-11	10.1	4.3	5.7
	MW-13	9.9	2.3	7.6
	3730-94	1.3	5.2	-3.9
	3921-91	0.9	0.7	0.3
	3921-92	1.4	1.0	0.4
Total Wells with data	**20**			

1. Maximum Drawdown: Difference between highest static water level in the early 2013 Water Year (Nov. 2013 to Apr. 2014) and lowest non-pumping water level measured during the irrigation season.
2. Recovery: difference of lowest non pumping water level of 2014 summer irrigation season and highest static water level for the majority of wells in Dec. 2014 to Feb. 2015.
3. Difference between highest static water level measured in early 2014 Water Year and highest static water level measured in the majority of wells in Dec. 2014 to Feb. 2015.
4. Spreckels only has spring and fall water levels available for 2014.

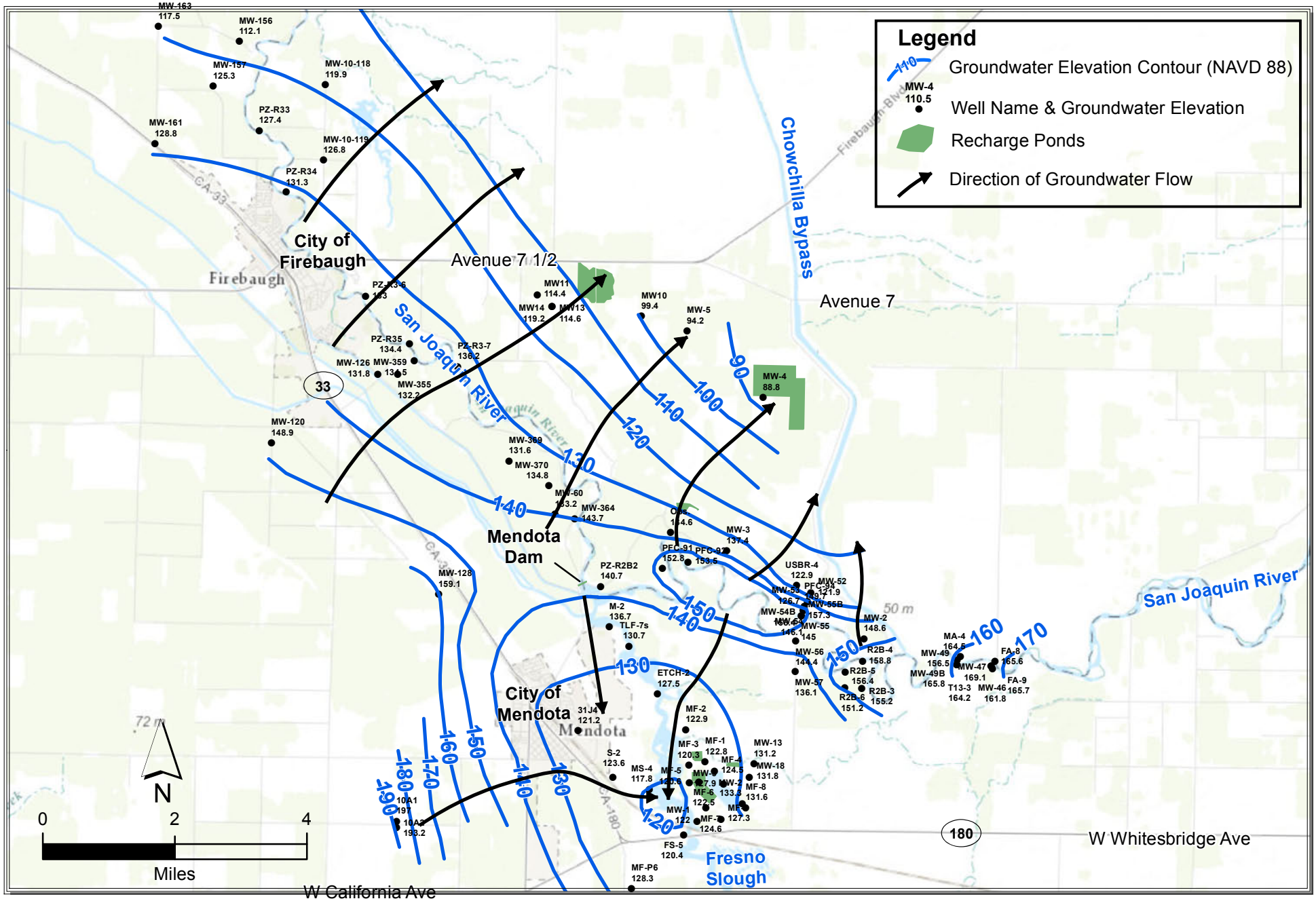
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Table 4-2
Changes in Groundwater Levels in Deep Zone, Composite, and Lower Aquifer Wells 2014 (feet)

Well Owner	Well ID	Depth Zone[1]	Maximum Drawdown[2,3]	Recovery[2,4]	Residual Drawdown[2,5]
MPG Wells					
Terra Linda Farms	HS-3	D	53.2	49.9	3.3
Coelho/Coelho/Fordel	CCF-2	D	57.4	56.2	1.2
Meyers Farming	MS-5	D	14.6	10.1	4.6
Panoche Creek Farms	PCF-1	D	65.6	63.2	2.3
Baker Farming	BF-2	D	72.5	70.1	2.5
Farmers Water District	R-5	D	78.04	78.43	-0.4
	R-7	D	38.39	36.97	1.4
	R-8	C	62.57	61.92	0.6
	WL-2	D	38.33	37.27	1.1
	EL-1	D	43.76	46.09	-2.3
Non-MPG Wells					
Central California ID	5A	D	21.7	18.6	3.1
	12C	D	9.2	5.9	3.3
	15B	D	8.4	6.3	2.2
	16C	D	5.7	3.8	2.0
	28C	D	37.6	28.6	9.0
	Yearout Ext	D	90.9	90.8	0.2
Firebaugh Canal WD	25D2	D	11.5	8.8	2.7
USBR	19R1	D	42.2	38.7	3.4
USGS	31J3	D	44.7	42.7	2.0
	31J5	D	28.0	24.3	3.7
	31J6	L	26.8	16.1	10.7
Spreckels Sugar Company [6]	MW-10	D	NA	NA	NA
	MW-11	D	NA	NA	NA
	MW-14	D	NA	NA	NA
City of Mendota	18Q North	D	34.8	31.9	3.0
Columbia Canal Company	Lopes-1	D	52.6	44.9	7.7
	MLT-W	D	72.8	67.6	5.1
Wonderful Orchards (formerly Paramount Farming Co.)	W-8	D	62.45	58.70	3.8
	W-11	D	30.79	19.30	11.5
	W-15	D	38.00	49.20	-11.2
	W-32	D	35.91	23.05	12.9
	W-42	C	22.00	10.35	11.7
	W-53	D	91.43	87.59	3.8
	W-77	D	77.40	69.95	7.5
	W-78	D	89.93	84.73	5.2
	W-89	C	35.67	18.27	17.4
	W-91	C	22.57	12.15	10.4
	W-94	C	93.93	93.52	0.4
	W-95	C	66.71	69.58	-2.9
	W-106	D	68.81	60.92	7.9
	W-107	D	70.40	64.90	5.5
	W-108	D	76.10	71.09	5.0
	W-110	D	76.45	69.42	7.0
	W-112	D	84.08	84.35	-0.3
	MW-6	L	33.79	19.32	14.5
	MW-7	D	38.07	16.83	21.2
	MW-8	L	23.33	13.27	10.1
	MW-9	D	19.56	9.64	9.9
	CC-1	D	56.1	58.7	-2.6

1. Depth Zone: D=deep, C=composite, L=Lower
2. True high and low water levels may not be captured due to infrequent measurements.
3. Difference between highest early static water level in the 2014 Water Year and lowest non-pumping water level measured during the irrigation season.
4. Recovery as of approximately December 2014/January 2015.
5. Difference between highest static water level measured in early 2014 and highest water level measured in approximately December 2014/January 2015. Negative values indicate water-level increases.
6. Only spring and fall water level measurements are available for Spreckels

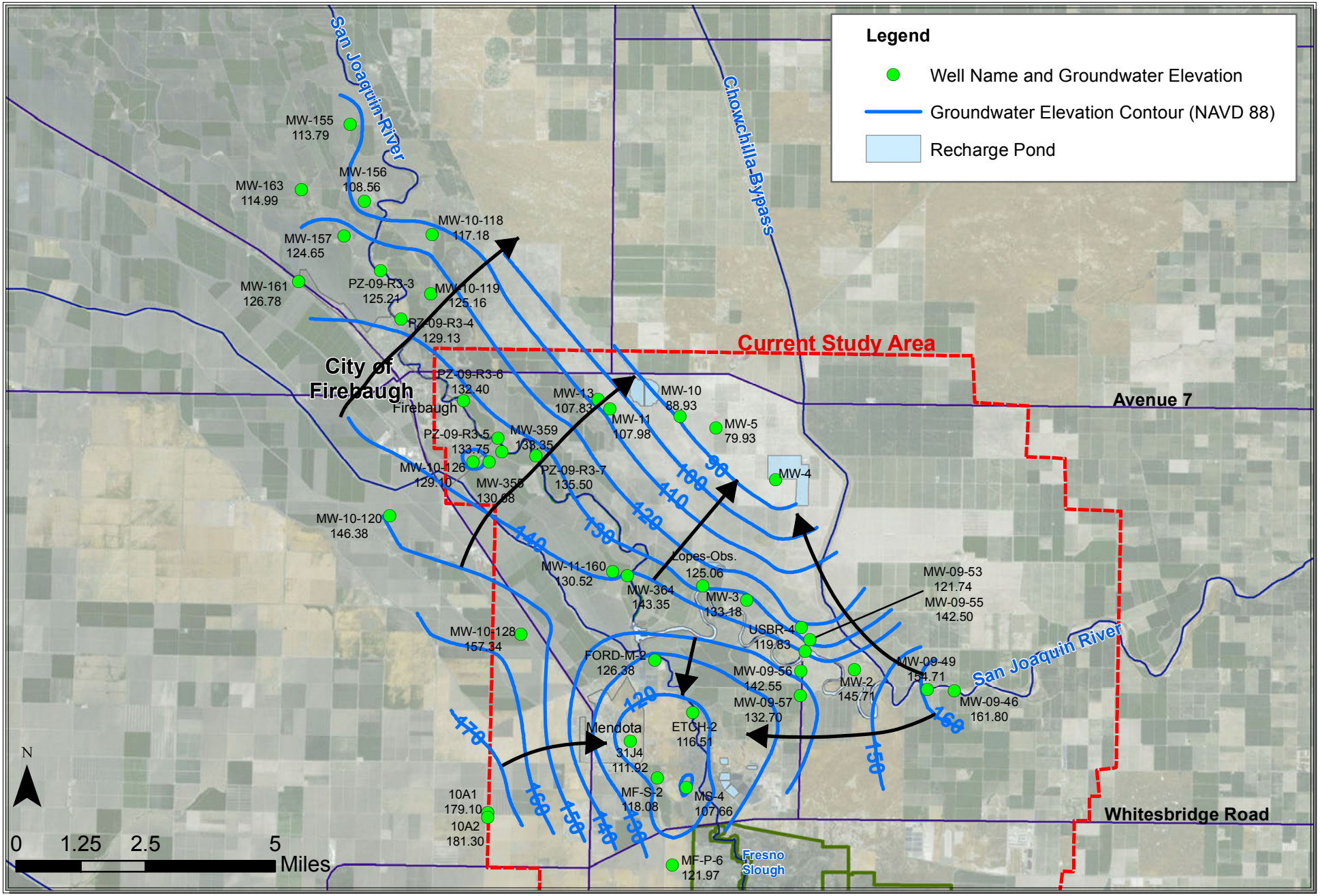
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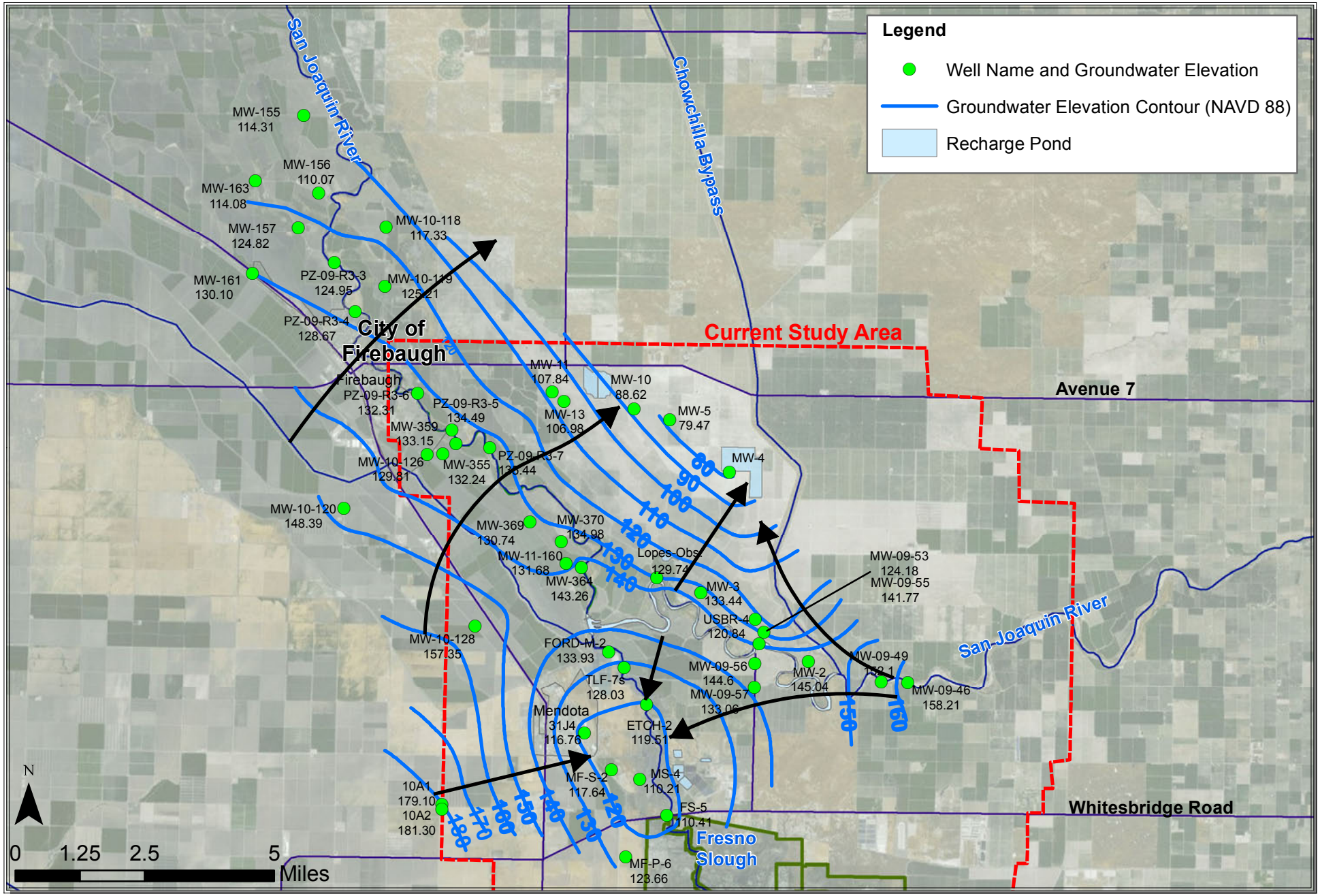
Figure 4-1
Shallow Zone Groundwater Elevations:
December 2013 - January 2014



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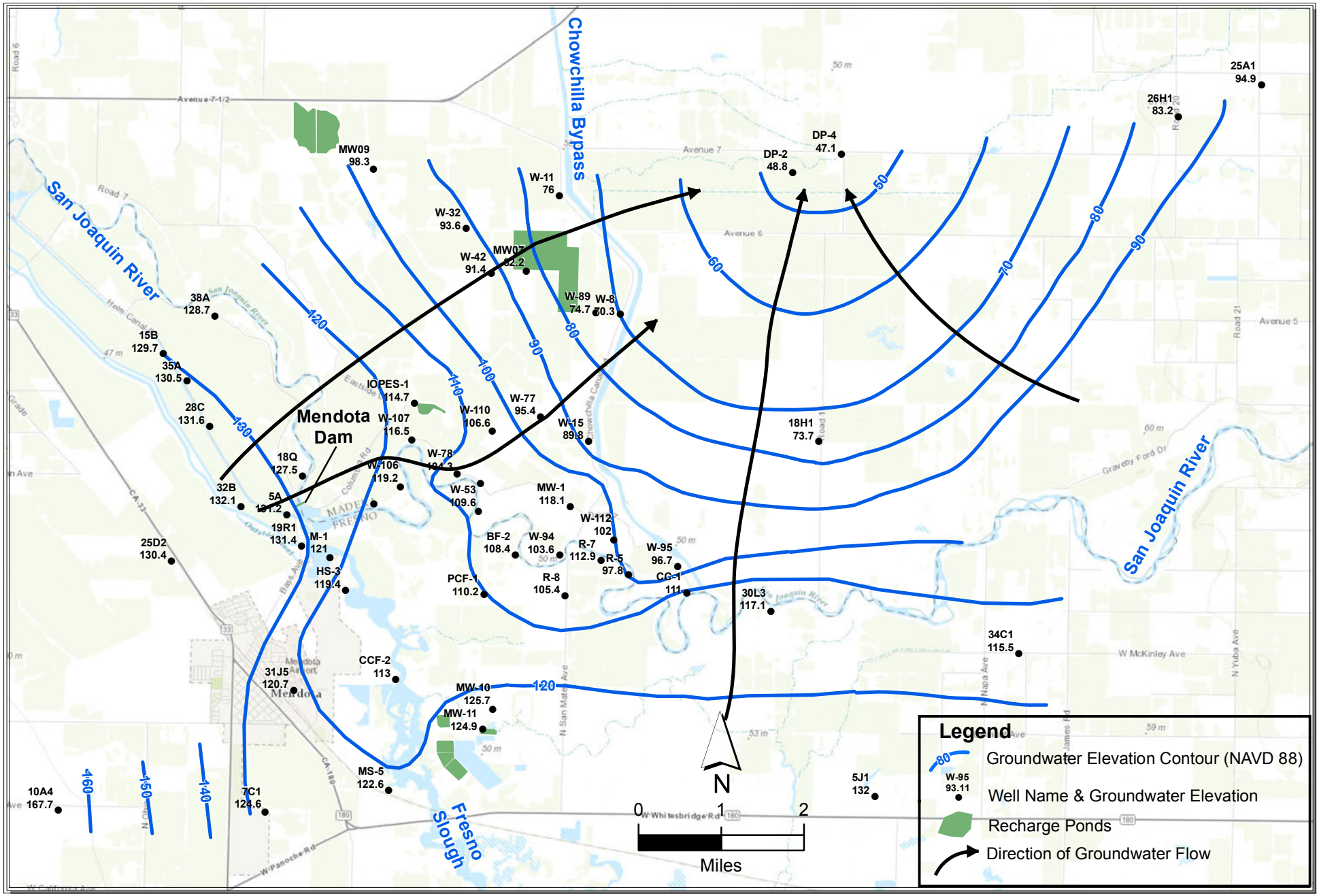
Figure 4-2
Shallow Zone Groundwater Elevations: Summer 2014



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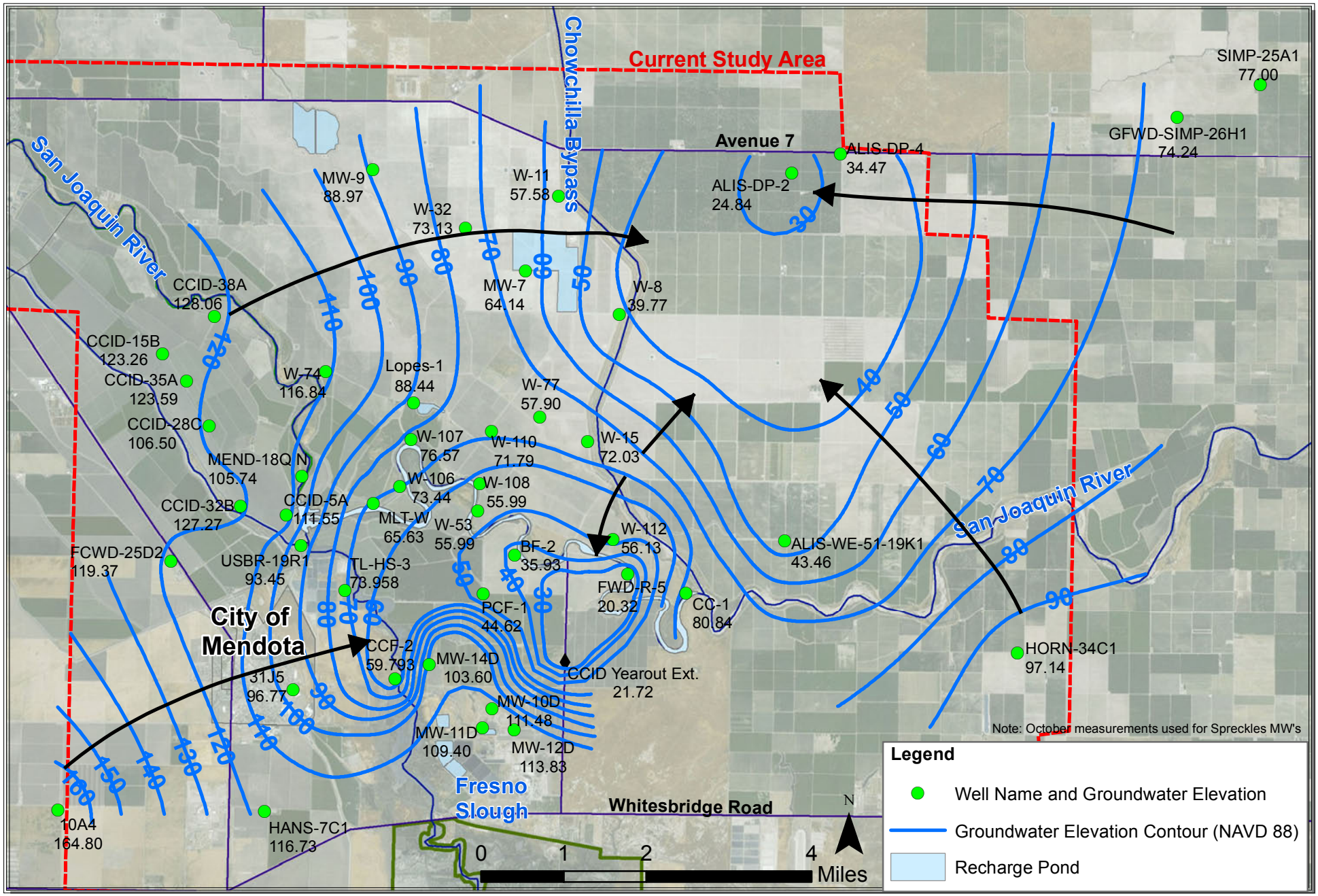
Figure 4-3
Shallow Zone Groundwater Elevations: December 2014-January 2015



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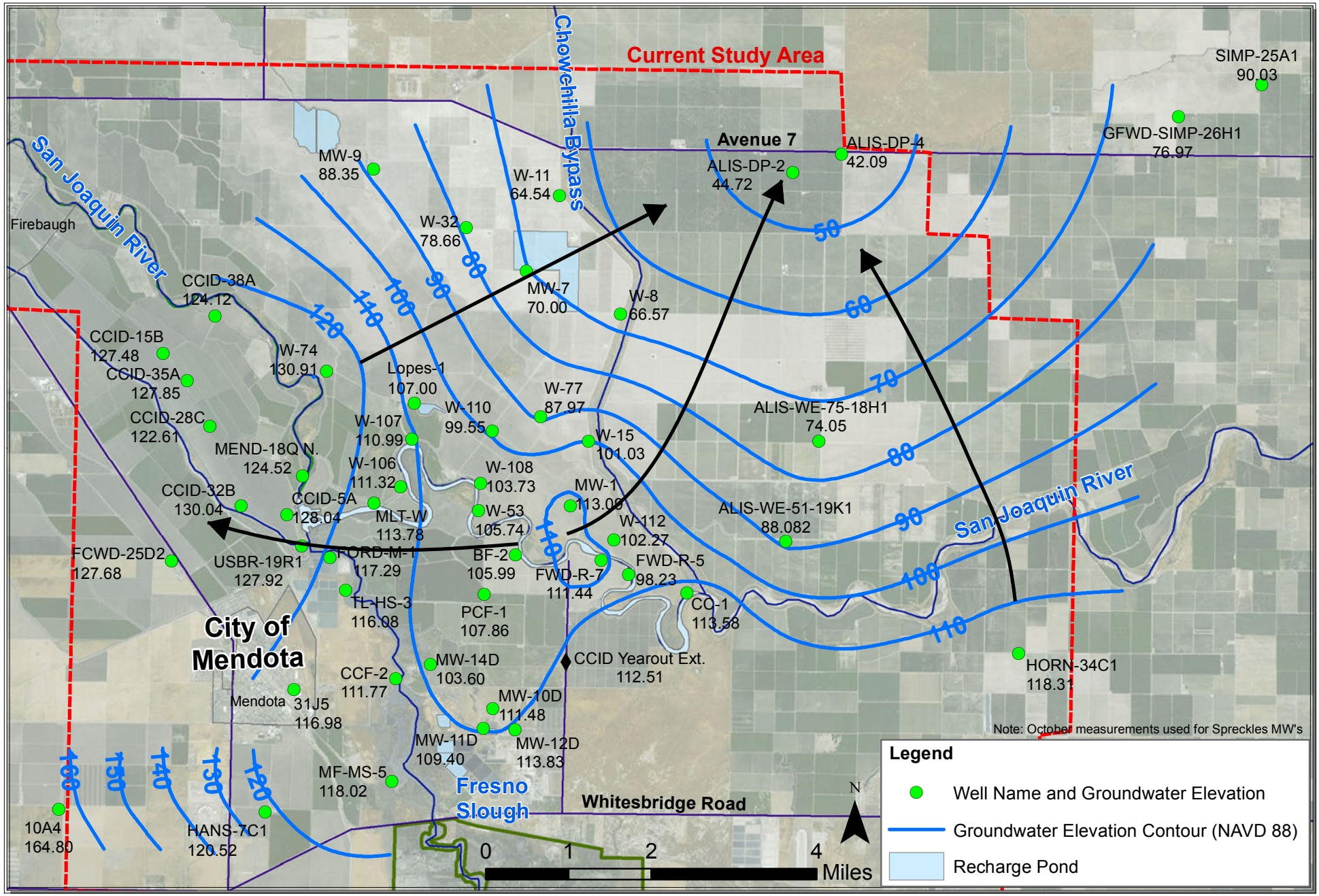
Figure 4-4
Deep Zone Groundwater Elevations:
December 2013 - January 2014



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Figure 4-5
Deep Zone Groundwater Elevations: Summer 2014



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Figure 4-6
Deep Zone Groundwater Elevations:
December 2014-January 2015

5 GROUNDWATER QUALITY

Groundwater quality in the Mendota area is highly variable, with the poorest water quality generally occurring in the western portion of the study area and the best water quality in the eastern area and near the SJR. The primary water-quality concern is high salinity, which is partly due to natural factors but has been exacerbated by deep percolation of applied irrigation water, concentration by evaporation in areas where groundwater is shallow, and altered groundwater flow directions. Localized degradation due to percolated wastewater has also occurred in certain areas. Except for areas that benefit from recharge from the River or the Pool, groundwater in the shallow zone generally has higher salinity than groundwater in the deep zone above the Corcoran Clay. The lowest TDS concentrations in groundwater in the study area typically occurs in shallow and deep zone wells located east of Mendota Dam near the Mendota Pool and the SJR, including the FWD, CCC, and WO wells, due to recharge from the Pool and the River.

Groundwater-quality degradation has occurred for decades in the western portion of the study area due to the northeasterly movement of a "front" of saline groundwater, which is present primarily west of the Fresno Slough and the SJR. Poor quality groundwater above the Corcoran Clay flows into the Mendota area due to a northeasterly regional hydraulic gradient toward a pumping depression east of the Chowchilla Bypass in western Madera County. Groundwater pumping near the saline front produces a localized increase in the steepness of the gradient and accelerates the movement of this water toward the pumping wells.

Historical and recent groundwater-quality data are shown in **Appendix E**. **Table E-1** contains data for shallow-zone wells, **Table E-2** contains data for wells below the A clay, and **Table E-3** contains data for the Spreckels Sugar Co. and the Bank shallow and deep zone wells. Hydrographs of EC data from individual wells are provided in **Appendix F**. **Figure 2-2** shows the location of the wells included in the 2014 groundwater quality monitoring network.

5.1 Salinity in the Shallow Zone

Recent EC and TDS data (2011-2014) for shallow zone wells in the monitoring program are summarized in **Table 5-1**. These parameters are highlighted in the following discussion because they represent groundwater salinity. Concentrations of major inorganic constituents shown in **Appendix E** tables were reviewed for this report and are generally consistent with the EC and TDS data. For example; a well with elevated salinity generally has higher concentrations of most of the major inorganic constituents.

5.1.1 West of Fresno Slough

The water-quality data for shallow MPG wells located west of the Fresno Slough exhibit different trends: some wells show degradation, some show stable water quality and some show

water-quality improvements. The shallow Terra Linda wells located in the northern and central portion of the MPG well field along the Fresno Slough have generally better water quality than other wells west of the Fresno Slough. Historical data are available for 15 shallow Terra Linda wells (**Appendix E-1**), and the initial samples for most of these wells were collected in 2001. Ten of these wells were able to be sampled in 2014, and the TDS concentrations ranged from 350 to 850 milligrams per liter (mg/L). When reviewing historical EC data since 2001 (which is collected more frequently than TDS data) of the ten wells sampled in 2014, two wells (TLF-1s and 3s) have experienced increasing salinity as measured by EC (greater than 200 micromhos per centimeter at 25 degrees Celsius [µmhos/cm]), six wells show relatively stable salinity, and two wells have experienced decreasing salinity (**Appendix F**).

In the central portion of the MPG's Fresno Slough well field, salinity in the shallow zone generally increases from north to south. Wells that are located farther west (closer to the saline front) also have higher salinities than more easterly wells. TDS concentrations in shallow MPG wells are highest at the Vista Verde Farms (formerly Coelho/Gardner/Hansen wells, CGH) CGH wells in the south-central portion of the well field. TDS concentrations in water from the four CGH wells that were sampled in 2014 ranged from 760 to 4,450 mg/L. EC hydrographs are included in **Appendix F** for 12 shallow CGH wells, many of which have not been sampled since 2010 or 2011 because they were not operated during the water quality sampling event. Salinity at these wells is highly variable, but of the five shallow zone wells with data within the last three years, three wells (CGH 3, 6D, and 9) have experienced historical EC increases and two wells were stable. Several of the CGH wells have been dropped from the MPG pumping program because the TDS concentrations exceeded 2,000 mg/L.

In the southern portion of the MPG well field along the Fresno Slough, Meyers Farm wells MS-6 and MS-7 had TDS concentrations of 2,740 and 1,990 mg/L, respectively, in 2014 (**Table 5-1**). The salinity at these wells has been variable, but there was an overall decrease from 2004 to 2007 followed by an increase in 2012 through 2014. These variations may be the result of the Bank operations on groundwater quality in the shallow zone.

The Five Star (also known as: Casaca Vineyards, Solo Mio Farms, and Daddy's Pride Farming) wells are the southernmost MPG wells west of the Fresno Slough. All ten of these wells were sampled in 2014, and the TDS concentrations ranged from 640 to 1,590 mg/L. The initial samples from these wells were collected in 1993 (two wells), 1999 (one well), and 2001 (seven wells). Since sampling began, three wells show an increase in salinity, two show generally stable salinity, and five show salinity decreases. However, it is difficult to identify salinity trends for some of these wells because the data are highly variable.

The shallow USGS monitoring well (31J4) west of the Mendota Airport was sampled in 2014 and it had the highest salinity (TDS concentration of 5,800 mg/L) of any shallow zone well in the study area that was sampled in 2014. Groundwater quality at this location has been

increasing since 1985 when the TDS concentration was 1,960 mg/L due to the movement of the saline front as explained above.

5.1.2 East of Fresno Slough

East of the Fresno Slough, groundwater quality in and near the western portion of Spreckels Sugar Co. is highly variable due to the combined effects of degradation caused by Spreckels' historical wastewater disposal practices and more recent water-quality improvements due to recharge of surface water at the Bank.

Like the Five Star wells, water quality at the five shallow MPG wells near Jack's Resort (the Coelho West wells) has been variable. All five wells were sampled in 2014, and the TDS concentrations ranged from 620 mg/L at CW-1 to 1,180 mg/L at CW-5. The three northern wells (CW-3, CW-4, and CW-5) have experienced degradation apparently due to Spreckels' wastewater that was used to irrigate an adjacent pasture, and altered groundwater flow directions due to MPG pumping. Groundwater salinity has improved at CW-4 and CW-5 from 2007 to 2013 due to surface water recharged by the Bank. There was an increase in salinity at CW-5 in 2014 (Appendix F), apparently due to the lack of Bank recharge.

A number of the Spreckels Sugar Co. monitoring wells have experienced long-term groundwater-quality degradation due to Spreckels' wastewater disposal practices or improvements in water quality due to recharge by the Bank. Spreckels 2014 data was downloaded from the California State Water Resources Control Board's data management system (Geotracker) and the TDS concentrations of samples collected in 2014 ranged from 280 to 3,400 mg/L. MW-3 is a good example of this variability due to its central location between the former Steffens' ponds and the Bank's recharge ponds (**Figure 2-2**). TDS concentrations at this well increased from 735 mg/L in 1988 to 1,800 mg/L in 2003. Since 2003, the TDS concentration has declined significantly and was 570 mg/L in 2014.

Spreckels' MW-1 is located between the Coelho West wells and Spreckels' pasture that had previously been irrigated with factory wastewater. Groundwater salinity beneath these pasture areas was high because salts in the irrigation water were further concentrated by evapotranspiration. MW-1 was historically downgradient from seepage from the Fresno Slough due to a northeasterly direction of groundwater flow. The TDS concentration at MW-1 was relatively stable at about 900 to 1,000 mg/L from 1982 until the MPG wells near Whites Bridge Road started pumping in 1990; this created a southwesterly direction of groundwater flow during pumping periods, which allowed high salinity groundwater to flow to MW-1. The TDS concentration at MW-1 rose sharply to about 2,600 mg/L in 1994 and more gradually to over 3,000 mg/L in 2006. Groundwater recharged by the Bank reached this area in 2007, and the TDS concentration had decreased to 370 mg/L by 2013. In 2014, the TDS concentration increased to 1,200 mg/L, possibly due to the lack of recharge to the Bank in 2014.

The nine Bank monitoring wells east of the Fresno Slough have a shorter period of record but show substantial water-quality improvement due to their proximity to the Bank. Since Bank recharge began in 2002, TDS concentrations have decreased by up to 2,000 mg/L at these monitoring wells (**Table E-3**). The largest decrease occurred at MF-7 (about 2,000 mg/L).

2014 water-quality data for monitoring wells in the central and eastern portions of the Spreckels property show that TDS concentrations continue to be highest in the central area due to the previous percolation of Steffens' wastewater, which was a byproduct of the process used to produce molasses at the Spreckels' plant until 1994. TDS concentrations near the center of the Steffens' plume have decreased in recent years as water recharged by the Bank migrated to the east. In 2014, TDS concentrations were highest at Spreckels' MW-17 (average of 2,100 mg/L), MW-19 (average of 3,400 mg/L), MW-21 (average of 2,200 mg/L), MW-23 (average of 2,400 mg/L), and MW-25 (2,100 mg/L).

TDS concentrations have decreased considerably west and north of the former Steffens' ponds due to recharge of good quality surface water at the Bank (**Figure 2-2**). For example, the TDS concentration at MW-13, which is adjacent to a new Bank recharge pond, decreased from about 1,800 mg/L in 2005 to 345 mg/L in 2014 (**Appendix E-3**). TDS concentrations have also been decreasing at MW-18, which is located near the center of the former Steffens' ponds. The TDS concentration decreased from about 4,000 mg/L in 2006 to 1,200 mg/L in 2014. The Steffens' plume appears to be migrating to the northeast in the shallow zone, as indicated by increasing TDS concentrations at most of the monitoring wells east and northeast of the former Steffens' ponds.

The groundwater salinity is lower in monitoring wells in the eastern portion of the Spreckels' property (east of San Mateo Avenue), farther away from historical waste disposal areas. Another factor is that this area receives more recharge from the SJR. The Steffens' plume has affected the western and central portion of this area, and the maximum TDS concentration east of San Mateo Avenue was 1,500 mg/L at MW-28 in 2014. At MW-30, which is located farther east, TDS concentrations increased from 160 mg/L in 1991 to an average of 640 mg/L in 2014. MW-32 is the only monitoring well located too far east to be affected by the plume, and the average TDS concentration was 305 mg/L in 2014.

5.1.3 North of San Joaquin River

There are four shallow WO monitoring wells north of the SJR included in the monitoring program with salinity results in 2014. Monitoring wells MW-2 and MW-3 are located near the River, and MW-4 and MW-5 are located two to three miles north of MW-3. Water quality at these monitoring wells has been highly variable, and some large year-to-year changes during 2004-2006 may be due to the duration of purging prior to sample collection rather than reflecting

actual changes in groundwater quality. Most of the samples collected from these wells were not analyzed for TDS; therefore, the salinity is discussed in terms of EC.

The salinity has decreased considerably at MW-2 due to recharge from the SJR. The EC at this location decreased from 1,090 µmhos/cm in 2002 to 280 µmhos/cm in 2014. At WO MW-3, the 2014 EC value (270 µmhos/cm) was lower than the high values reported in 2004 and spring 2006 (640 µmhos/cm) and slightly lower than the early measurements in 2002 and 2003 (320 to 350 µmhos/cm). Three shallow (each 12 feet deep) WO monitoring wells (MW-3921-91, 92, 93) located less than 1 mile west of MW-3 (**Figure 2-2**), have salinity results in 2011 and 2012 (2013 and 2014 results were not provided) that range from 2,710 to 5,640 µmhos/cm. The reason for these high values is unknown but may be due to historical land use practices on the overlying fields rather than the saline front.

The salinity has historically been significantly greater and more variable farther north at MW-4 and MW-5. Except during periods of flow in the Chowchilla Bypass, the predominant source of recharge to shallow groundwater in the vicinity of these monitoring wells has been deep percolation of irrigation water. In years prior to 2011, all of the EC measurements at MW-4 exceeded 1,200 µmhos/cm, with the highest values reported in spring 2005 and spring 2006 (2,650 and 2,490 µmhos/cm, respectively). The EC decreased to 400 µmhos/cm by 2013 (2014 data are not available) due to recharge from the Bypass and a water recharge project conducted by WO. Similarly, the historical EC measurements for MW-5 were highest in spring 2005 and 2006 (about 1,950 µmhos/cm). The salinity has declined considerably since that time, and the EC was about 1,340 µmhos/cm in 2014.

5.2 Salinity in the Deep Zone

Recent EC and TDS data (2011-2014) for deep zone wells are summarized in **Table 5-2**. All of the water-quality data for the deep zone wells are shown in tables in **Appendix E**, and plots of EC measurements at individual wells are provided in **Appendix F**.

5.2.1 Northwestern Area

The CCID wells northwest of the City of Mendota have some of the longest periods of record of groundwater quality in the study area, salinity records date back to the 1960s at several wells. Salinity increases were observed at wells Nos. 32, 34, 35, and 49 during or before 1970. Wells Nos. 34 and 49 located northwest of well No. 32B along the Outside Canal, experienced sharp salinity increases in the 1960s and 1970s due to easterly movement of the saline front and have been abandoned. Salinity increase in these wells has primarily been in response to horizontal migration of the saline front due to regional groundwater flow conditions (including pumping occurring in western Madera County). The largest increase in EC was about 1,000 µmhos/cm at CCID well No. 35 (and its replacement), over a period of about 50 years. (**Appendix F)**. The increases in EC over time are gradual and average about 20 µmhos/cm per year.

Seven CCID wells were sampled in 2014, and five of these wells have experienced historical salinity increases over the period of record. In 2014, TDS concentrations increased in two of those five wells (**Table 5-2**). TDS concentrations at the CCID wells sampled in 2014 ranged from 390 to 1,700 mg/L.

5.2.2 West of Fresno Slough

The City of Mendota's older municipal wells located along Bass Avenue have been replaced by wells on the B&B Ranch east of the Fresno Slough, and salinity analyses (TDS or EC) for the old wells were discontinued in 2003. The City has operated the former Fordel wells south of Bass Avenue since 2004, but has not provided sampling results for the program.

One of the two deep zone USGS monitoring wells (31J5), west of the Mendota Airport, was sampled in 2014 and it had the highest salinity (TDS concentration of about 5,900 mg/L) of any deep well in the study area in 2014. TDS concentrations at this location have been relatively stable (around 7,000 mg/L) from 1999 to 2010 and ranged between 5,000 to 7,000 mg/L from 2012 to 2014.

Two of the five deep Terra Linda wells were sampled in 2014, and the TDS concentrations ranged from 1,310 mg/L at TLF-6d to 1,720 mg/L at TLF-5d. Since the initial samples collected in 1999 or 2000 from these five deep zone Terra Linda wells, TDS concentrations have increased at all of these wells except TLF-18d. Salinity has also increased farther south at the one CGH deep zone well, but the TDS concentration at CGH-13d in 2012 (960 mg/L) was lower than in 2008 and 2009. CGH deep zone well 13d was not sampled in 2013 or 2014 because they were not operated during the spring or fall water quality sampling event.

5.2.3 East of Fresno Slough

Deep zone wells that were sampled in this area in 2014 include the three City of Mendota municipal wells on the B&B Ranch, nine FWD wells (including four composite wells), five Baker Farming (BF) wells, one Panoche Creek Trust (PCT) well, and 14 Spreckels' monitoring wells. Salinity in water from the City of Mendota wells has remained relatively low and stable since these wells were first sampled in 2001. The TDS concentrations in samples from these wells ranged from 170 to 530 mg/L in 2014.

Nine FWD wells, five BF wells, and one PCF well were sampled in 2014, and the TDS concentrations ranged from 300 mg/L at BF-3 to 760 mg/L at R-11. Salinity has been stable at most of these wells, but the three southernmost wells (R-1, R-3, and R-11) appear to be affected by the Steffens' plume moving north from Spreckels Sugar Co (**Table 5-2, Table E-2).**

Data for 14 deep Spreckels' wells were downloaded from the California State Water Resources Control Board's data management system (Geotracker) for 2014. Historically, there has been a steady increase of EC from 1985 to 2014 in some wells (MW-6, 8, 10, 11, 30, and PW-10).

Spreckels' production wells PW-6, PW-7, PW-9, PW-10, PW-11, and PW-12 were sampled three times in 2014. Although the Spreckels' factory closed at the end of 2008, these wells presumably are apparently being pumped for irrigation purposes. Water-quality degradation has occurred at most of the Spreckels' production wells, and the wells with the poorest water quality (PW-1, PW-2, PW-3, PW-5, and PW-8) have been abandoned. In the north-central portion of the Spreckels' site, the degradation is believed to be due to the downward and northerly movement of percolated Steffens' wastewater. PW-9, located just west of San Mateo Avenue, has experienced the greatest salinity increase of the production wells that are still in service. The TDS concentration at PW-9 was about 400 mg/L in 1988 and ranged from 1,500 to 1,700 mg/L in 2014. The wells located east of San Mateo Avenue have the lowest salinity, but the TDS concentration in PW-12, located east of PW-9, increased from the initial measurement of 320 mg/L in 2004 to an average of 670 mg/L in 2014, indicating that the Steffens' plume is spreading to the east in this area. PW-11 is located too far east to be affected by Steffens' wastewater and has the lowest salinity of any deep zone well at Spreckels Sugar Co. (average TDS concentration of 330 mg/L in 2014).

5.2.4 North of San Joaquin River

North of the SJR, EC concentrations in the WO and CCC wells are variable. Some of the large year-to-year changes during 2003-2006 appear to be due to sampling procedures rather than actual changes in groundwater quality. Samples from the WO and CCC wells are not analyzed for TDS concentrations, so the salinity is discussed in terms of EC.

Twenty-four of the WO wells tapping the deep zone were sampled in 2014. The salinity of water from most of these wells has generally been stable since the mid-1990s, but gradual salinity increases have occurred at some of the northern wells (e.g., No. 3431-61 [W-32] and No. 3311-61 [W-89]). The salinity is lower and has been stable in wells near the SJR in the southeastern portion of WO. In 2014, the EC ranged from a high of 1,370 µmhos/cm at well No. 3311-61 (W-89) to a low of 240 µmhos/cm at well No. 3730-74 (CC-1).

Fifteen CCC wells in the portion of the CCC service area shown on **Figure 1-3** were sampled in 2013 but only one well was sampled in 2014 (Mowry #1, 810 µmhos/cm) since CCC has reduced sampling to biennially. Nine of these wells are located near the SJR north of Mendota Dam and one experienced a slight EC increase in 2013 compared to 2012 (Cardella-Lopes (Lopes-1)). Groundwater salinity is generally acceptable for irrigation of most crops in this area, and ECs ranged from about 600 to 1,340 µmhos/cm in 2013. There is an area of elevated salinity approximately two miles east of the River in the northern portion of the CCC service area shown on **Figure 1-3**. The Agriland-1 (formerly Diepersloot-1) and Agriland-2 (formerly Diepersloot-2) wells in this area had ECs of about 1,760 to 2,130 µmhos/cm in 2013. The salinity has been highly variable at the Elrod-1 well, which is also located in this area. The EC at the Elrod-1 well

has ranged from 550 to 2,730 µmhos/cm with no clear trend and in recent years, the EC has decreased from 1,560 umhos in August 2011 to 810 umhos in July 2013.

5.3 Trace Elements

Samples from the MPG wells and a number of other wells in the study area are typically analyzed for boron and eight trace elements: arsenic, barium, copper, iron, manganese, molybdenum, selenium, and zinc. The concentrations of these constituents are generally low in both shallow and deep zone production wells in the Mendota area, except for elevated concentrations of manganese, primarily in the shallow zone (**Appendix E, Tables E-1, E-2, and E-3**). Data on manganese, arsenic, barium, copper, iron, molybdenum, and zinc are limited in some areas, because samples from many irrigation wells have not been analyzed for trace elements, except for boron and selenium. Arsenic and selenium concentrations in groundwater discharged to the Pool from MPG wells along the Fresno Slough have typically been below the reporting limits of 2 and 0.4 micrograms per liter (µg/L), respectively. As discussed in Chapter 6, water quality objectives (WQOs) established by the CVRWQCB for inland surface waters are 10 µg/L for arsenic and 2 µg/L for selenium.

In 2013, a different laboratory was used for selenium analyses and 18 out of the 47 wells sampled returned results that exceeded the 2 µg /L WQO for selenium. Most of these wells had never had values over the reporting limit of 0.4 µg/L which suggests a laboratory error. To confirm the expected laboratory error, split samples (identical groundwater samples) were collected from 17 of the 18 wells (one well was not pumping and unable to be sampled) in spring 2014. These were sent to two new laboratories (Caltest and South Dakota Agricultural Laboratories) both of which had an analytical methodology that provides lower selenium detection limits (0.06 µg/L and 0.1 µg/L, respectively) than the laboratory used in 2013. Selenium was not detected in any of the 17 samples from either lab. One exception to this was SC-4B which returned a result of 0.20 µg/L from Caltest and <0.4 µg/L from SDAL, both well below the selenium WQO of 2 µg/L. The verification sampling of the 17 wells confirmed selenium concentrations below the 2.0 µg/L WQO.

Boron concentrations in most wells in the Mendota area are also low (typically below 0.5 mg/L) with the exception of wells impacted by the saline front (shallow zone wells MS-6, MS-7 and CGH-3 and deep zone wells CCID 12C, 23B, and 28C). The CVRWQCB's WQO for boron is 0.8 mg/L. Wells (CW-3, CW-4, CW-5, R-1, R-3, and R-11) that are likely to be impacted by wastewater from the Spreckels' factory are analyzed for barium, which was a common constituent in non-carbonated Steffens wastewater from the Spreckels factory. The CVRWQCB's WQO for barium is 0.1 mg/L for surface water and this target not exceeded in any of these wells. Molybdenum concentrations in groundwater are much more variable, and concentrations in MPG wells tend to be higher in the central and southern portion of the well field along the Fresno Slough. Molybdenum concentrations measured in the most recent samples

averaged about 6 µg/L in the Terra Linda wells, 11 µg/L in the CGH and Five Star wells, and 19 µg/L in the Coelho West wells. The CVRWQCB's WQO for molybdenum is 19 µg/L.

5.4 Summary

5.4.1 Shallow Zone Wells

TDS concentrations in shallow zone wells in the Mendota area vary widely, from less than 500 mg/L near the SJR east of San Mateo Avenue (Spreckels MW-32 and WO MW-2) to over 5,000 mg/L west of the Fresno Slough at the USGS shallow zone well (31J4). Many wells show large salinity fluctuations from year to year, and salinity is sometimes higher in the summer and fall than in the spring. Groundwater quality appears generally stable in the northern (TLF) and southern (Five Star wells) portion of the MPG well field west of the Fresno Slough, but salinity increases have continued at some of the MPG wells in the central portion of the well field. A number of Terra Linda, CGH, and Meyers Farms wells in this area have experienced high or increasing salinity over time due to easterly movement of the saline front, which has increased due to MPG pumping. CGH wells 3 and 9 have increasing EC (**Appendix F**) and TDS that exceeded the limit of 2,000 µg /L in 2014.

The operation of the Bank east of the Fresno Slough, in the western portion of the Spreckels Sugar Co. property, has resulted in salinity decreases due to recharge of low salinity surface water. In the central portion of the Spreckels' property, however, shallow groundwater remains degraded due to historical wastewater disposal practices. This degraded groundwater has generally moved in a northeasterly direction.

In the WO's NCR, shallow monitoring wells in the vicinity of the SJR (MW-2 and MW-3) have had better water quality historically than shallow zone wells located farther north (MW-4 and MW-5), due to seepage of high quality surface water from the River. However, one of the northern WO monitoring wells (MW-4), which is located near one of WO's recharge ponds, experienced a large salinity decrease in 2010 as a result of recharge operations and now has similar salinity to the southern monitoring wells.

5.4.2 Deep Zone Wells

The CCID wells have some of the longest periods of record showing water-quality changes in the Mendota area, with salinity data going back to the 1960s at several wells. Nine CCID wells are still operating in the study area, and six of these have experienced long-term historical water-quality degradation, due to the migration of poor quality groundwater from the west and southwest.

Many deep MPG wells west of the Fresno Slough have experienced degradation due to easterly movement of the saline front, which has increased due to historical MPG pumping. The MPG operated five deep Terra Linda wells west of the Fresno Slough in 2014, and four of these (TLF-

5d, 6d, 12d, and 14d) have experienced salinity (TDS) increases ranging from about 400 to 800 mg/L since the initial sampling in 1999; salinity has been stable at the other well (TLF-18d).

East of the Fresno Slough, most wells in or near FWD have low salinity and stable groundwater quality due to recharge from the River and the Pool. In the central portion of the Spreckels Sugar Co. property, degraded shallow groundwater has moved downward to the deep zone and north into FWD. Three FWD wells (R-1, R-3, and R-11) appear to be affected by the northerly movement of the Steffens' plume.

North of the SJR, groundwater salinity is generally low (EC from 240 to 720 µmhos/cm) in the southern portion of the WO and the CCC service areas, but some salinity increases have occurred in the northern portion of the WO (W-32, and W-89). The salinity of other wells in WO and CCC does not show an increasing trend, but most wells have experienced large year-to-year fluctuations.

Table 5-1
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
U.S. Geological Survey					
	31J4	05/07/13	FGL	8230	5540
	31J4	05/20/14	FGL	8500	5800
Terra Linda Farms					
	TLF-1s	08/15/11	FGL	1050	630
	TLF-1s	05/08/12	FGL	1200	700
	TLF-1s	05/07/13	FGL	1220	770
	TLF-1s	09/16/14	FGL	1080	640
	TLF-2s	08/15/11	FGL	719	410
	TLF-2s	05/08/12	FGL	891	500
	TLF-2s	05/08/13	FGL	954	560
	TLF-3s	08/15/11	FGL	1150	680
	TLF-3s	05/08/12	FGL	1260	740
	TLF-3s	05/08/13	FGL	1470	910
	TLF-3s	05/21/14	FGL	1420	850
	TLF-4s	08/15/11	FGL	829	510
	TLF-4s	05/08/12	FGL	976	580
	TLF-4s	05/08/13	FGL	1220	780
	TLF-4s	05/21/14	FGL	1130	660
	TLF-7s	05/08/13	FGL	741	450
	TLF-7s	05/21/14	FGL	735	440
	TLF-8s	05/21/14	FGL	774	440
	TLF-9s	05/08/13	FGL	822	510
	TLF-9s	05/21/14	FGL	922	550
	TLF-10s	05/08/12	FGL	852	470
	TLF-13s	05/08/13	FGL	674	390
	TLF-13s	05/21/14	FGL	547	350
	TLF-15s	08/15/11	FGL	729	450
	TLF-15s	05/08/12	FGL	701	420
	TLF-15s	05/08/13	FGL	745	460
	TLF-15s	05/21/14	FGL	758	470
	TLF-16s	08/15/11	FGL	958	600
	TLF-16s	05/08/12	FGL	843	520
	TLF-16s	05/08/13	FGL	871	550
	TLF-16s	09/16/14	FGL	766	450
	TLF-17s	08/15/11	FGL	732	440
	TLF-17s	05/08/12	FGL	975	630
	TLF-17s	05/08/13	FGL	933	580
	TLF-17s	05/21/14	FGL	906	570
Silver Creek Packing Co. (M. Britz TIC)					
	SC-3B	05/08/12	FGL	1110	650
	SC-3B	05/21/14	FGL	1470	880
	SC-4B	05/08/12	FGL	1060	630
	SC-4B	05/07/13	FGL	1130	650
	SC-4B	05/21/14	FGL	1740	1080
Coelho/Gardner/Hansen (Vista Verde Farms)					
	CGH-3 (CGH-5s)	05/21/14	FGL	6140	4450

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Coelho/Gardner/Hansen (Vista Verde Farms)					
	CGH-9 (CGH-7s)	08/15/11	FGL	1440	890
	CGH-9 (CGH-7s)	05/08/12	FGL	1800	1110
	CGH-9 (CGH-7s)	05/07/13	FGL	1530	940
	CGH-9 (CGH-7s)	09/16/14	FGL	3250	2110
	CGH-10 (CGH-8s)	05/08/12	FGL	1410	870
	CGH-10 (CGH-8s)	05/07/13	FGL	1180	710
	CGH-10 (CGH-8s)	09/16/14	FGL	1250	760
	CGH-5 (CGH-9As)	08/15/11	FGL	1480	890
	CGH-6C (CGH-10s)	08/15/11	FGL	1660	1010
	CGH-6D (CGH-11s)	08/15/11	FGL	3470	2200
	CGH-6D (CGH-11s)	09/16/14	FGL	2880	1870
	CGH-6B (CGH-12s)	05/08/12	FGL	1580	970
Meyers Farming					
	MS-6	05/08/12	FGL	2290	1420
	MS-6	05/07/13	FGL	3130	1980
	MS-6	05/21/14	FGL	4050	2740
	MS-7	05/08/12	FGL	2330	1440
	MS-7	05/07/13	FGL	2480	1530
	MS-7	05/21/14	FGL	3090	1990
Five Star (Casaca Vineyards, Solo Mio Farms, & Daddy's Pride Farming)					
	FS-1	05/09/12	FGL	923	540
	FS-1	05/07/13	FGL	1040	610
	FS-1	05/20/14	FGL	1080	650
	FS-2	05/09/12	FGL	1140	660
	FS-2	05/07/13	FGL	1350	780
	FS-2	05/20/14	FGL	1400	830
	FS-3	05/09/12	FGL	1040	610
	FS-3	05/07/13	FGL	1060	640
	FS-3	05/20/14	FGL	1280	820
	FS-4	05/10/12	FGL	940	560
	FS-4	05/07/13	FGL	910	540
	FS-4	05/20/14	FGL	1020	640
	FS-5	05/10/12	FGL	1060	650
	FS-5	05/07/13	FGL	1110	660
	FS-5	05/20/14	FGL	1080	640
	FS-6	05/10/12	FGL	1960	1250
	FS-6	05/07/13	FGL	2220	1430
	FS-6	05/20/14	FGL	1900	1200
	FS-7	05/07/13	FGL	1760	1120
	FS-7	05/20/14	FGL	2220	1470
	FS-8	05/07/13	FGL	2130	1320
	FS-8	05/20/14	FGL	2000	1190
	FS-9	05/07/13	FGL	1540	990
	FS-9	05/20/14	FGL	2420	1590
	FS-10	05/07/13	FGL	1120	690
	FS-10	05/20/14	FGL	1490	940

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Coelho West					
	CW-1	05/09/12	FGL	892	530
	CW-1	05/07/13	FGL	1170	720
	CW-1	05/20/14	FGL	1020	620
	CW-2	05/09/12	FGL	1490	890
	CW-2	09/16/14	FGL	1250	750
	CW-3	05/09/12	FGL	2200	1370
	CW-3	05/07/13	FGL	2140	1340
	CW-3	05/20/14	FGL	1590	1010
	CW-4	05/09/12	FGL	1490	910
	CW-4	05/07/13	FGL	1440	870
	CW-4	05/20/14	FGL	1580	980
	CW-5	05/09/12	FGL	1420	850
	CW-5	05/07/13	FGL	1120	680
	CW-5	05/20/14	FGL	1930	1180
Meyers Farm Water Bank					
	MF-1	04/19/11	BCL	535	330
	MF-1	08/31/11	BCL	301	170
	MF-1	03/29/12	BCL	486	270
	MF-1	10/03/12	BCL	760	470
	MF-1	05/07/13	BCL	674	430
	MF-1	05/15/14	BCL	1460	880
	MF-2	04/19/11	BCL	1030	620
	MF-2	08/31/11	BCL	1270	820
	MF-2	03/29/12	BCL	1160	720
	MF-2	10/03/12	BCL	947	600
	MF-2	05/07/13	BCL	1020	660
	MF-2	05/15/14	BCL	1190	690
	MF-3	04/19/11	BCL	1850	1200
	MF-3	08/31/11	BCL	1860	1200
	MF-3	03/29/12	BCL	1640	1000
	MF-3	10/03/12	BCL	1410	920
	MF-3	05/07/13	BCL	1380	880
	MF-3	05/15/14	BCL	866	540
	MF-4	04/19/11	BCL	1640	1200
	MF-4	08/31/11	BCL	1210	700
	MF-4	03/29/12	BCL	1790	1000
	MF-4	10/03/12	BCL	1200	720
	MF-4	05/07/13	BCL	1190	720
	MF-4	05/15/14	BCL	1320	780
	MF-5	04/19/11	BCL	808	950
	MF-5	08/31/11	BCL	1020	590
	MF-5	03/29/12	BCL	458	280
	MF-5	10/03/12	BCL	653	400
	MF-5	05/07/13	BCL	713	450
	MF-6	04/19/11	BCL	580	430
	MF-6	08/31/11	BCL	1270	800
	MF-6	03/29/12	BCL	1240	720
	MF-6	10/03/12	BCL	1280	830
	MF-6	05/07/13	BCL	855	520

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Meyers Farm Water Bank					
	MF-6	05/15/14	BCL	1310	800
	MF-7	04/19/11	BCL	724	450
	MF-7	08/31/11	BCL	530	350
	MF-7	03/29/12	BCL	460	290
	MF-7	10/03/12	BCL	617	370
	MF-7	05/07/13	BCL	680	430
	MF-7	05/15/14	BCL	1020	640
	MF-8	04/19/11	BCL	2530	1600
	MF-8	08/31/11	BCL	2700	1600
	MF-8	03/29/12	BCL	2640	1600
	MF-8	10/03/12	BCL	2610	1600
	MF-8	05/07/13	BCL	2220	1400
	MF-8	05/15/14	BCL	3410	2100
	MF-9	04/19/11	BCL	1150	700
	MF-9	08/31/11	BCL	992	610
	MF-9	03/29/12	BCL	1060	660
	MF-9	10/03/12	BCL	885	570
	MF-9	05/07/13	BCL	865	520
	MF-9	05/15/14	BCL	1500	930
	EW-1	04/24/12	BCL	714	440
	EW-1	05/10/13	BCL	633	430
	EW-2	04/27/12	BCL	996	620
	EW-2	05/10/13	BCL	810	500
	EW-3	04/27/12	BCL	653	400
	EW-3	05/10/13	BCL	747	440
	EW-5	04/27/12	BCL	948	600
	EW-5	05/10/13	BCL	716	480
	EW-6	04/27/12	BCL	466	290
	EW-6	05/10/13	BCL	691	440
	EW-7	04/24/12	BCL	1630	1000
	EW-7	05/10/13	BCL	1510	940
	EW-8	04/27/12	BCL	1170	730
	EW-8	05/10/13	BCL	1170	740
Spreckels Sugar Co.					
	MW-1	04/20/11	BCL	1130	740
	MW-1	09/01/11	BCL	1380	850
	MW-1	03/29/12	BCL	1470	980
	MW-1	10/03/12	BCL	847	520
	MW-1	05/07/13	BCL	620	370
	MW-1	10/23/13	BCL	722	450
	MW-1	05/15/14	BCL	1930	1100
	MW-1	10/16/14	BCL	2010	1200
	MW-2	04/20/11	BCL	2220	1500
	MW-2	09/01/11	BCL	2140	1400
	MW-2	03/29/12	BCL	1800	1200
	MW-2	10/03/12	BCL	1720	1100
	MW-2	05/07/13	BCL	1330	800
	MW-2	10/23/13	BCL	1490	880
	MW-2	05/15/14	BCL	1650	930

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Spreckels Sugar Co.					
	MW-2	10/16/14	BCL	1850	890
	MW-3	04/20/11	BCL	996	640
	MW-3	09/01/11	BCL	999	580
	MW-3	03/29/12	BCL	852	580
	MW-3	10/04/12	BCL	1100	680
	MW-3	05/07/13	BCL	814	490
	MW-3	10/23/13	BCL	1080	630
	MW-3	05/15/14	BCL	1060	610
	MW-3	10/16/14	BCL	1060	570
	MW-4	06/02/11	SSC	2300	1300
	MW-4	10/03/11	SSC	2100	1200
	MW-4	03/29/12	BCL	2010	1300
	MW-4	10/04/12	BCL	1910	1200
	MW-4	05/06/13	BCL	1700	1100
	MW-4	10/23/13	BCL	1800	1100
	MW-4	05/15/14	BCL	1860	1100
	MW-4	10/16/14	BCL	1680	890
	MW-5	05/19/11	SSC	1900	1100
	MW-5	09/21/11	SSC	2000	1100
	MW-5	03/30/12	BCL	1990	1200
	MW-5	10/04/12	BCL	1660	1100
	MW-5	05/06/13	BCL	1560	1000
	MW-5	10/23/13	BCL	1490	960
	MW-5	05/15/14	BCL	1690	980
	MW-5	10/16/14	BCL	1530	770
	MW-6	05/19/11	SSC	2400	1400
	MW-6	09/21/11	SSC	2500	1500
	MW-6	03/30/12	BCL	2360	1400
	MW-6	10/04/12	BCL	2250	1500
	MW-6	05/06/13	BCL	2260	1500
	MW-6	10/23/13	BCL	2450	1500
	MW-6	05/15/14	BCL	2670	1600
	MW-6	10/16/14	BCL	2720	1400
	MW-9	05/19/11	SSC	880	520
	MW-9	09/21/11	SSC	790	480
	MW-9	03/30/12	BCL	677	430
	MW-9	10/04/12	BCL	830	560
	MW-9	05/06/13	BCL	727	480
	MW-9	10/23/13	BCL	963	590
	MW-9	05/15/14	BCL	1060	640
	MW-9	10/16/14	BCL	1060	660
	MW-13	04/20/11	BCL	592	400
	MW-13	09/01/11	BCL	361	220
	MW-13	03/29/12	BCL	369	250
	MW-13	10/04/12	BCL	657	390
	MW-13	05/06/13	BCL	516	330
	MW-13	10/23/13	BCL	545	310
	MW-13	05/15/14	BCL	618	350
	MW-13	10/16/14	BCL	565	340
	MW-15	05/04/11	SSC	13000	9900

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Spreckels Sugar Co.					
	MW-15	07/12/11	SSC	5600	3900
	MW-15	09/12/11	SSC	3200	2100
	MW-15	03/29/12	BCL	2200	1600
	MW-15	10/04/12	BCL	1900	1300
	MW-15	05/06/13	BCL	1950	1300
	MW-15	10/24/13	BCL	2440	1600
	MW-15	05/15/14	BCL	3240	2000
	MW-15	10/16/14	BCL	2490	1600
	MW-17	06/02/11	SSC	4200	2300
	MW-17	10/03/11	SSC	4600	2800
	MW-17	03/29/12	BCL	4020	2700
	MW-17	10/04/12	BCL	4250	3100
	MW-17	05/07/13	BCL	4630	3600
	MW-17	10/24/13	BCL	4410	3300
	MW-17	05/15/14	BCL	4120	2400
	MW-17	10/17/14	BCL	3100	1800
	MW-18	01/11/11	SSC	1100	660
	MW-18	04/20/11	BCL	1500	1000
	MW-18	09/01/11	BCL	5280	3600
	MW-18	03/29/12	BCL	1850	1400
	MW-18	10/04/12	BCL	1830	1200
	MW-18	05/06/13	BCL	1060	720
	MW-18	10/23/13	BCL	1320	720
	MW-18	05/15/14	BCL	2000	1200
	MW-18	10/15/14	BCL	1960	1200
	MW-19	06/02/11	SSC	6500	3800
	MW-19	10/03/11	SSC	6700	4000
	MW-19	03/29/12	BCL	5290	3700
	MW-19	10/04/12	BCL	4780	3300
	MW-19	05/07/13	BCL	5220	3300
	MW-19	10/24/13	BCL	4840	3000
	MW-19	05/15/14	BCL	6010	3400
	MW-19	10/16/14	BCL	6060	3400
	MW-20	06/02/11	SSC	2700	1700
	MW-20	10/03/11	SSC	2800	1700
	MW-20	03/30/12	BCL	2760	1700
	MW-20	10/04/12	BCL	2680	1800
	MW-20	05/06/13	BCL	2650	1800
	MW-20	10/24/13	BCL	2780	1800
	MW-20	05/15/14	BCL	3010	1800
	MW-20	10/16/14	BCL	2810	1600
	MW-21	06/02/11	SSC	3200	1900
	MW-21	10/03/11	SSC	3300	1900
	MW-21	03/30/12	BCL	3530	2200
	MW-21	10/04/12	BCL	3460	2100
	MW-21	05/06/13	BCL	3570	2400
	MW-21	10/24/13	BCL	3820	2500
	MW-21	05/16/14	BCL	3910	2400
	MW-21	10/17/14	BCL	3840	2000
	MW-23	06/02/11	SSC	4700	2400

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Spreckels Sugar Co.					
	MW-23	10/03/11	SSC	5200	2700
	MW-23	03/30/12	BCL	5920	3300
	MW-23	10/04/12	BCL	5680	3400
	MW-23	05/06/13	BCL	5690	3400
	MW-23	10/24/13	BCL	5290	3000
	MW-23	05/16/14	BCL	4810	2600
	MW-23	10/17/14	BCL	4420	2200
	MW-24	06/02/11	SSC	3100	1900
	MW-24	10/03/11	SSC	3200	1900
	MW-24	03/30/12	BCL	2890	1800
	MW-24	10/04/12	BCL	2800	1900
	MW-24	05/06/13	BCL	2740	1800
	MW-24	10/24/13	BCL	2890	1900
	MW-24	05/15/14	BCL	3180	1800
	MW-24	10/16/14	BCL	3020	1400
	MW-25	06/02/11	SSC	3300	2200
	MW-25	10/03/11	SSC	3400	2100
	MW-25	03/30/12	BCL	3320	2100
	MW-25	10/04/12	BCL	3020	2100
	MW-25	05/07/13	BCL	3160	2100
	MW-25	10/24/13	BCL	3160	2100
	MW-25	05/15/14	BCL	3590	2200
	MW-25	10/17/14	BCL	3350	2000
	MW-26	05/04/11	SSC	3900	2200
	MW-26	09/12/11	SSC	2900	1600
	MW-26	03/30/12	BCL	2470	1500
	MW-26	10/04/12	BCL	1540	980
	MW-26	05/06/13	BCL	1570	940
	MW-26	10/24/13	BCL	1590	920
	MW-26	05/15/14	BCL	1830	990
	MW-26	10/16/14	BCL	1820	1000
	MW-27	01/11/11	SSC	3200	1800
	MW-27	05/04/11	SSC	670	340
	MW-27	09/12/11	SSC	770	430
	MW-27	03/30/12	BCL	713	410
	MW-27	10/04/12	BCL	770	460
	MW-27	05/06/13	BCL	882	550
	MW-27	10/23/13	BCL	1300	700
	MW-27	05/16/14	BCL	1370	780
	MW-27	10/15/14	BCL	1410	760
	MW-28	05/19/11	SSC	2100	1300
	MW-28	09/21/11	SSC	2200	1400
	MW-28	03/30/12	BCL	2280	1500
	MW-28	10/04/12	BCL	2180	1500
	MW-28	05/07/13	BCL	2050	1400
	MW-28	10/24/13	BCL	2100	1500
	MW-28	05/16/14	BCL	2200	1500
	MW-28	10/17/14	BCL	2250	1300
	MW-29	05/19/11	SSC	2000	1200
	MW-29	09/21/11	SSC	1900	1100

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Spreckels Sugar Co.					
	MW-29	03/30/12	BCL	1870	1200
	MW-29	10/04/12	BCL	1790	1300
	MW-29	05/07/13	BCL	1780	1300
	MW-29	10/24/13	BCL	1750	1300
	MW-29	05/16/14	BCL	1820	1300
	MW-29	10/17/14	BCL	1820	1200
	MW-30	05/19/11	SSC	870	580
	MW-30	09/21/11	SSC	860	560
	MW-30	03/30/12	BCL	904	600
	MW-30	10/04/12	BCL	837	610
	MW-30	05/07/13	BCL	945	690
	MW-30	10/24/13	BCL	949	670
	MW-30	05/16/14	BCL	945	700
	MW-30	10/17/14	BCL	890	580
	MW-31	05/19/11	SSC	800	550
	MW-31	09/21/11	SSC	790	540
	MW-31	03/30/12	BCL	777	560
	MW-31	10/04/12	BCL	654	440
	MW-31	05/07/13	BCL	598	410
	MW-31	10/24/13	BCL	609	420
	MW-31	05/16/14	BCL	654	440
	MW-31	10/17/14	BCL	677	430
	MW-32	05/19/11	SSC	340	230
	MW-32	09/21/11	SSC	400	260
	MW-32	03/30/12	BCL	376	260
	MW-32	10/04/12	BCL	285	220
	MW-32	05/07/13	BCL	327	230
	MW-32	10/24/13	BCL	307	220
	MW-32	05/16/14	BCL	458	330
	MW-32	10/17/14	BCL	427	280
Wonderful Orchards					
	3730-91 (MW-2)	09/27/11	JML	200	
	3730-91 (MW-2)	04/17/12	FGL	255	
	3730-91 (MW-2)	08/27/12	JML	470	
	3730-91 (MW-2)	08/05/13	JML	400	
	3730-91 (MW-2)	08/05/14	JML	280	
	3730-93 (MW-3)	09/27/11	JML	460	
	3730-93 (MW-3)	04/17/12	FGL	523	
	3730-93 (MW-3)	08/27/12	JML	390	
	3730-93 (MW-3)	08/05/13	JML	300	
	3730-93 (MW-3)	08/05/14	JML	270	
	2480-93 (MW-4)	09/27/11	JML	240	
	2480-93 (MW-4)	04/17/12	FGL	300	
	2480-93 (MW-4)	08/27/12	JML	300	
	2480-93 (MW-4)	08/05/13	JML	400	
	3431-91 (MW-5)	09/27/11	JML	1240	
	3431-91 (MW-5)	04/17/12	FGL	1375	
	3431-91 (MW-5)	08/27/12	JML	1350	
	3431-91 (MW-5)	08/05/13	JML	1280	

Table 5-1 (continued)
Recent EC and TDS Results for Shallow Zone Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Wonderful Orchards					
	3431-91 (MW-5)	08/05/14	JML	1340	
	2480-96 (MW-10)	11/29/11	DL	1240	
	2480-96 (MW-10)	04/17/12	FGL	1228	
	3561-93 (MW-11)	11/29/11	DL	1320	
	3561-93 (MW-11)	04/17/12	FGL	1296	
	3561-94 (MW-12)	11/29/11	DL	1200	
	3561-94 (MW-12)	04/17/12	FGL	1186	
	3561-92 (MW-13)	11/29/11	DL	1200	
	3561-92 (MW-13)	04/17/12	FGL	1192	
	3561-91 (MW-14)	11/29/11	DL	1960	
	3561-91 (MW-14)	04/17/12	FGL	1952	
	MW-3730-94	11/29/11	DL	250	
	MW-3730-94	04/17/12	FGL	350	
	MW-3921-91	11/29/11	DL	2710	
	MW-3921-91	04/17/12	FGL	3230	
	MW-3921-92	04/17/12	FGL	2878	
	MW-3921-93	04/17/12	FGL	5640	

1. BCL - BC Laboratory; DL - Dellavalle Labs; FGL - Fruit Growers Laboratory, Santa Paula; JML - JM Lord Inc., Fresno; SSC - Spreckels Sugar Company

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Table 5-2
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Central California ID					
	5A	03/02/12	BSK	1100	660
	5A	08/09/13	BSK	1200	760
	5A	08/19/14	BSK	1300	820
	12C	03/02/12	BSK	2100	1400
	12C	08/09/13	BSK	2400	1600
	12C	08/19/14	BSK	2500	1700
	15B	03/02/12	BSK	1100	710
	15B	08/09/13	BSK	1200	700
	15B	08/19/14	BSK	1200	700
	16C	03/02/12	BSK	1000	620
	16C	08/09/13	BSK	1400	850
	16C	08/19/14	BSK	1400	840
	23B	03/02/12	BSK	2500	1700
	23B	08/09/13	BSK	2500	1700
	23B	08/19/14	BSK	2300	1500
	28C	03/02/12	BSK	1400	860
	28C	08/09/13	BSK	1500	930
	32C	03/02/12	BSK	1100	660
	32C	08/09/13	BSK	1900	1300
	32C	08/19/14	BSK	660	390
	35A	03/02/12	BSK	1500	910
	35A	08/09/13	BSK	1500	950
	38A	03/02/12	BSK	600	350
	38A	08/09/13	BSK	630	390
	38A	08/19/14	BSK	620	390
U.S. Geological Survey					
	31J5	05/09/12	FGL	7500	4950
	31J5	05/07/13	FGL	9830	6950
	31J5	05/20/14	FGL	8640	5920
Covanta Mendota					
	Well 6A	01/12/11	NA	2834	
	Well 6A	10/13/11	NA	3135	
	Well 6A	01/07/13	NA	2879	
Terra Linda Farms					
	TLF-5d	08/15/11	FGL	2970	1720
	TLF-5d	05/08/13	FGL	2680	1570
	TLF-5d	05/21/14	FGL	2870	1720
	TLF-6d	08/15/11	FGL	1540	910
	TLF-6d	05/08/12	FGL	2110	1200
	TLF-6d	05/08/13	FGL	2040	1190
	TLF-6d	05/21/14	FGL	2210	1310
	TLF-12d	05/08/12	FGL	1740	1060
	TLF-18d	08/15/11	FGL	829	500
	TLF-18d	05/08/12	FGL	1410	850

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Terra Linda Farms					
Coelho/Gardner/Hansen (Vista Verde Farms)					
	CGH-7 (CGH-13d)	05/08/12	FGL	1600	960
Spreckels Sugar Co.					
	MW-7	06/02/11	SSC	6800	4000
	MW-7	10/03/11	SSC	6500	3800
	MW-7	03/29/12	BCL	6120	4300
	MW-7	10/04/12	BCL	5860	4100
	MW-7	05/06/13	BCL	5860	4000
	MW-7	10/24/13	BCL	6120	4100
	MW-7	05/15/14	BCL	6320	3800
	MW-7	10/17/14	BCL	6390	3700
	MW-8	05/19/11	SSC	1700	1000
	MW-8	09/21/11	SSC	1600	920
	MW-8	03/30/12	BCL	1600	960
	MW-8	10/04/12	BCL	1520	980
	MW-8	05/06/13	BCL	1490	950
	MW-8	10/24/13	BCL	1520	880
	MW-8	05/16/14	BCL	1580	930
	MW-8	10/16/14	BCL	1550	820
	MW-10	04/20/11	BCL	1260	800
	MW-10	09/01/11	BCL	1340	810
	MW-10	03/29/12	BCL	1320	900
	MW-10	10/04/12	BCL	1300	800
	MW-10	05/07/13	BCL	1290	780
	MW-10	10/23/13	BCL	1340	840
	MW-10	05/15/14	BCL	1530	920
	MW-10	10/17/14	BCL	1650	940
	MW-11	04/20/11	BCL	1930	1400
	MW-11	09/01/11	BCL	2340	1400
	MW-11	03/29/12	BCL	2240	1500
	MW-11	10/04/12	BCL	2090	1300
	MW-11	05/07/13	BCL	2020	1300
	MW-11	10/23/13	BCL	1950	1200
	MW-11	05/15/14	BCL	2100	1200
	MW-11	10/17/14	BCL	2160	1100
	MW-12	05/04/11	SSC	5300	3100
	MW-12	09/12/11	SSC	5200	3100
	MW-12	03/30/12	BCL	4350	2700
	MW-12	10/04/12	BCL	3450	2200
	MW-12	05/06/13	BCL	2780	1900
	MW-12	10/24/13	BCL	3170	2000
	MW-12	05/16/14	BCL	2300	1300
	MW-12	10/16/14	BCL	1940	1100
	MW-14	05/19/11	SSC	1200	690
	MW-14	09/21/11	SSC	1100	650
	MW-14	03/30/12	BCL	1170	700
	MW-14	10/04/12	BCL	1110	750

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Spreckels Sugar Co.					
	MW-14	05/07/13	BCL	1130	740
	MW-14	10/23/13	BCL	1080	690
	MW-14	05/15/14	BCL	1180	710
	MW-14	10/17/14	BCL	1160	660
	MW-16	05/04/11	SSC	5800	3000
	MW-16	09/12/11	SSC	6400	3400
	MW-16	03/29/12	BCL	6740	4500
	MW-16	10/04/12	BCL	5950	3500
	MW-16	05/06/13	BCL	5610	3300
	MW-16	10/24/13	BCL	5590	3200
	MW-16	05/16/14	BCL	5580	3000
	MW-16	10/17/14	BCL	5620	2800
	MW-22	06/02/11	SSC	3100	1900
	MW-22	10/03/11	SSC	3200	2000
	MW-22	03/30/12	BCL	3230	2100
	MW-22	10/04/12	BCL	2990	1800
	MW-22	05/06/13	BCL	3020	2100
	MW-22	10/24/13	BCL	3160	2000
	MW-22	05/16/14	BCL	3370	2000
	MW-22	10/17/14	BCL	3490	2000
	PW-6	05/04/11	SSC	1100	630
	PW-6	09/12/11	SSC	1000	590
	PW-6	04/23/12	BCL	1040	650
	PW-6	10/04/12	BCL	1950	1600
	PW-6	10/24/13	BCL	1340	840
	PW-6	05/16/14	BCL	1390	800
	PW-6	10/16/14	BCL		600
	PW-6	10/17/14	BCL	1460	780
	PW-7	05/04/11	SSC	1500	840
	PW-7	09/12/11	SSC	1700	1000
	PW-7	04/23/12	BCL	1430	920
	PW-7	10/04/12	BCL	1120	720
	PW-7	05/07/13	BCL	1190	750
	PW-7	10/24/13	BCL	1250	800
	PW-7	05/16/14	BCL	1360	730
	PW-7	10/16/14	BCL		970
	PW-7	10/17/14	BCL	1370	780
	PW-9	05/04/11	SSC	4100	2400
	PW-9	07/19/11	SSC	3000	1700
	PW-9	09/12/11	SSC	3200	1900
	PW-9	04/23/12	BCL	3230	2000
	PW-9	10/04/12	BCL	2630	1700
	PW-9	05/07/13	BCL	2900	1800
	PW-9	10/24/13	BCL	2550	1600
	PW-9	05/16/14	BCL	2610	1500
	PW-9	10/16/14	BCL		1700
	PW-9	10/17/14	BCL	2590	1500
	PW-10	05/04/11	SSC	1200	710
	PW-10	09/12/11	SSC	1100	650
	PW-10	04/23/12	BCL	1180	720
	PW-10	10/04/12	BCL	1280	840

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Spreckels Sugar Co.					
	PW-10	05/07/13	BCL	1260	780
	PW-10	10/24/13	BCL	1320	830
	PW-10	06/05/14	BCL	1180	680
	PW-10	10/16/14	BCL		600
	PW-10	10/17/14	BCL	1530	790
	PW-11	05/04/11	SSC	790	440
	PW-11	09/12/11	SSC	530	310
	PW-11	04/23/12	BCL	525	340
	PW-11	10/04/12	BCL	534	360
	PW-11	05/07/13	BCL	707	430
	PW-11	10/24/13	BCL	652	420
	PW-11	05/16/14	BCL	592	360
	PW-11	10/16/14	BCL		270
	PW-11	10/17/14	BCL	617	360
	PW-12	05/04/11	SSC	1000	590
	PW-12	09/12/11	SSC	1000	620
	PW-12	04/23/12	BCL	1070	680
	PW-12	10/04/12	BCL	1090	720
	PW-12	05/07/13	BCL	1110	720
	PW-12	10/24/13	BCL	1210	770
	PW-12	05/16/14	BCL	1260	760
	PW-12	10/16/14	BCL		520
	PW-12	10/17/14	BCL	1250	740
City of Mendota					
	No. 7	01/11/11	NA		490
	No. 7	05/10/11	NA	810	480
	No. 7	07/12/11	NA	750	490
	No. 7	08/02/11	NA	780	480
	No. 7	09/27/11	NA	800	500
	No. 7	10/18/11	NA	800	520
	No. 7	11/01/11	NA	820	510
	No. 7	12/06/11	NA	770	520
	No. 7	01/10/12	NA	790	470
	No. 7	02/07/12	NA	830	500
	No. 7	02/15/12	NA	820	490
	No. 7	03/06/12	NA	660	450
	No. 7	04/03/12	NA	800	490
	No. 7	05/01/12	NA	790	500
	No. 7	06/12/12	NA	780	500
	No. 7	07/03/12	NA	400	270
	No. 7	08/07/12	NA	800	500
	No. 7	09/04/12	NA	780	510
	No. 7	10/02/12	NA	710	440
	No. 7	11/06/12	NA	690	460
	No. 7	12/04/12	NA	800	510
	No. 7	01/03/13	NA	820	500
	No. 7	02/12/13	NA	820	500
	No. 7	03/05/13	NA	710	460
	No. 7	04/02/13	NA	780	480

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
City of Mendota					
	No. 7	05/07/13	NA	720	500
	No. 7	06/04/13	NA	790	510
	No. 7	07/02/13	NA	720	500
	No. 7	08/06/13	NA	790	500
	No. 7	09/03/13	NA	800	510
	No. 7	10/01/13	NA	730	500
	No. 7	11/05/13	NA	790	510
	No. 7	12/03/13	NA	760	460
	No. 7	01/07/14	NA	800	490
	No. 7	02/04/14	NA	780	490
	No. 7	03/04/14	NA	820	490
	No. 7	04/01/14	NA	790	510
	No. 7	05/06/14	NA	790	530
	No. 7	06/03/14	NA	790	510
	No. 7	07/01/14	NA	790	510
	No. 7	08/05/14	NA	820	500
	No. 7	09/02/14	NA	830	500
	No. 7	10/07/14	NA	830	500
	No. 7	11/04/14	NA	500	170
	No. 7	12/02/14	NA	820	520
	No. 8	01/11/11	NA		460
	No. 8	05/10/11	NA	360	240
	No. 8	07/12/11	NA	770	500
	No. 8	08/02/11	NA	790	480
	No. 8	09/27/11	NA	800	500
	No. 8	10/18/11	NA	340	250
	No. 8	11/01/11	NA	340	250
	No. 8	12/06/11	NA	580	400
	No. 8	01/10/12	NA	330	220
	No. 8	02/07/12	NA	340	230
	No. 8	02/15/12	NA	350	240
	No. 8	03/06/12	NA	320	240
	No. 8	04/03/12	NA	380	270
	No. 8	05/01/12	NA	380	260
	No. 8	06/12/12	NA	550	370
	No. 8	07/03/12	NA	340	230
	No. 8	08/07/12	NA	620	380
	No. 8	09/04/12	NA	620	410
	No. 8	10/02/12	NA	620	390
	No. 8	11/06/12	NA	340	250
	No. 8	12/04/12	NA	620	400
	No. 8	01/03/13	NA	650	400
	No. 8	02/12/13	NA	350	240
	No. 8	03/05/13	NA	670	420
	No. 8	04/02/13	NA	680	390
	No. 8	05/07/13	NA	330	240
	No. 8	06/04/13	NA	340	240
	No. 8	07/02/13	NA	320	240
	No. 8	08/06/13	NA	620	380
	No. 8	09/03/13	NA	620	390
	No. 8	10/01/13	NA	640	410

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
City of Mendota					
	No. 8	11/05/13	NA	630	400
	No. 8	12/03/13	NA	360	240
	No. 8	01/07/14	NA	350	240
	No. 8	02/04/14	NA	340	240
	No. 8	03/04/14	NA	630	390
	No. 8	04/01/14	NA	500	330
	No. 8	05/06/14	NA	620	410
	No. 8	06/03/14	NA	620	410
	No. 8	07/01/14	NA	360	250
	No. 8	08/05/14	NA	370	240
	No. 8	09/02/14	NA	660	410
	No. 8	10/07/14	NA	650	400
	No. 8	11/04/14	NA	360	260
	No. 8	12/02/14	NA	470	300
	No. 9	01/11/11	NA		460
	No. 9	05/10/11	NA	760	430
	No. 9	07/12/11	NA	690	400
	No. 9	08/02/11	NA	720	410
	No. 9	09/27/11	NA	730	450
	No. 9	10/18/11	NA	740	480
	No. 9	11/01/11	NA	750	470
	No. 9	12/06/11	NA	710	490
	No. 9	01/10/12	NA	730	430
	No. 9	02/07/12	NA	730	450
	No. 9	02/15/12	NA	760	470
	No. 9	03/06/12	NA	670	460
	No. 9	04/03/12	NA	740	460
	No. 9	05/01/12	NA	720	450
	No. 9	06/12/12	NA	710	460
	No. 9	07/03/12	NA	560	350
	No. 9	08/07/12	NA	750	450
	No. 9	09/04/12	NA	740	450
	No. 9	10/02/12	NA	720	440
	No. 9	11/06/12	NA	400	260
	No. 9	12/04/12	NA	720	460
	No. 9	01/03/13	NA	750	450
	No. 9	02/12/13	NA	750	460
	No. 9	03/05/13	NA	680	430
	No. 9	04/02/13	NA	730	470
	No. 9	05/07/13	NA	650	440
	No. 9	06/04/13	NA	390	270
	No. 9	07/02/13	NA	360	260
	No. 9	08/06/13	NA	730	450
	No. 9	09/03/13	NA	710	460
	No. 9	10/01/13	NA	740	470
	No. 9	11/05/13	NA	730	470
	No. 9	12/03/13	NA	740	440
	No. 9	01/07/14	NA	730	460
	No. 9	02/04/14	NA	710	440
	No. 9	03/04/14	NA	610	360
	No. 9	04/01/14	NA	730	460

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
City of Mendota					
	No. 9	05/06/14	NA	690	450
	No. 9	06/03/14	NA	740	470
	No. 9	07/01/14	NA	740	470
	No. 9	08/05/14	NA	750	470
	No. 9	09/02/14	NA	760	460
	No. 9	10/07/14	NA	750	460
	No. 9	11/04/14	NA	380	280
	No. 9	12/02/14	NA	740	450
Panoche Creek Farms					
	PCF-1	05/09/12	FGL	712	430
	PCF-1	05/07/13	FGL	701	450
	PCF-1	05/20/14	FGL	674	430
Baker Farming Co.					
	BF-1	05/09/12	FGL	548	350
	BF-1	05/07/13	FGL	588	390
	BF-1	05/20/14	FGL	457	310
	BF-2	05/09/12	FGL	636	390
	BF-2	05/07/13	FGL	665	410
	BF-2	05/20/14	FGL	703	460
	BF-3	05/07/13	FGL	473	300
	BF-3	05/20/14	FGL	505	300
	BF-4	05/07/13	FGL	589	380
	BF-4	05/20/14	FGL	608	360
	BF-5	05/20/14	FGL	653	420
Farmers Water District					
	R-1	05/07/13	FGL	927	540
	R-1	05/20/14	FGL	947	560
	R-2	05/09/12	FGL	611	380
	R-2	05/20/14	FGL	609	390
	R-3	08/15/11	FGL	949	580
	R-3	05/08/12	FGL	939	560
	R-3	05/07/13	FGL	982	620
	R-3	05/20/14	FGL	999	630
	R-4	05/09/12	FGL	621	370
	R-4	05/07/13	FGL	659	420
	R-4	05/21/14	FGL	608	370
	R-6	05/09/12	FGL	503	310
	R-7	05/09/12	FGL	419	260
	R-7	05/07/13	FGL	423	290
	R-8	08/15/11	FGL	597	370
	R-8	05/09/12	FGL	590	370
	R-8	05/07/13	FGL	588	380
	R-8	05/20/14	FGL	599	390
	R-9	05/09/12	FGL	764	440

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Farmers Water District					
	R-9	05/07/13	FGL	780	470
	R-9	05/21/14	FGL	761	480
	R-10	08/15/11	FGL	870	530
	R-10	05/09/12	FGL	877	540
	R-10	05/07/13	FGL	893	570
	R-10	05/20/14	FGL	896	550
	R-11	08/15/11	FGL	1120	650
	R-11	05/08/12	FGL	1160	670
	R-11	05/07/13	FGL	1220	750
	R-11	05/20/14	FGL	1260	760
	R-12	05/20/14	FGL	802	510
Columbia Canal Co.					
	MLT-W	08/09/11	JML	550	
	MLT-W	06/14/12	JML	690	
	MLT-W	07/02/13	JML	580	
	Elrod-1	08/09/11	JML	1560	
	Elrod-1	06/19/12	JML	610	
	Elrod-1	07/01/13	JML	810	
	Elrod-2	06/19/12	JML	1370	
	Elrod-2	07/03/13	JML	1340	
	Elrod-3	06/19/12	JML	520	
	Elrod-3	07/01/13	JML	610	
	Burkhart-Heirs	08/09/11	JML	680	
	Burkhart-Heirs	06/15/12	JML	800	
	Burkhart-Heirs	07/01/13	JML	710	
	Agriland-1	08/09/11	JML	1680	
	Agriland-1	06/19/12	JML	1700	
	Agriland-1	07/03/13	JML	1760	
	Agriland-2	08/09/11	JML	2090	
	Agriland-2	06/19/12	JML	1930	
	Agriland-2	07/03/13	JML	2130	
	Davis-1	08/11/11	JML	770	
	Davis-1	06/19/12	JML	690	
	Davis-1	07/02/13	JML	760	
	Davis-2	08/11/11	JML	860	
	Davis-2	06/14/12	JML	820	
	Davis-2	07/03/13	JML	890	
	Samarin-1	06/14/12	JML	700	
	Samarin-1	07/02/13	JML	650	
	Samarin-2	06/14/12	JML	920	
	Samarin-2	07/02/13	JML	940	
	Samarin-3	06/14/12	JML	880	
	Samarin-3	07/03/13	JML	690	
	Samarin-4	06/14/12	JML	920	
	Samarin-4	07/02/13	JML	990	
	Snyder	08/11/11	JML	760	
	Snyder	06/14/12	JML	560	
	Snyder	07/02/13	JML	750	

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Columbia Canal Co.					
	Cardella-Lopes	08/09/11	JML	890	
	Cardella-Lopes	06/14/12	JML	1250	
	Cardella-Lopes	07/02/13	JML	1450	
	Mowry #1 (Electric)	07/18/14	JML	810	
Wonderful Orchards					
	3591-63 (W-7)	06/23/14	FGL	888	
	3311-62 (W-8)	09/22/11	JML	770	
	3311-62 (W-8)	08/27/12	JML	860	
	3311-62 (W-8)	08/05/13	JML	880	
	3311-62 (W-8)	06/20/14	FGL	929	
	3311-62 (W-8)	08/05/14	JML	910	
	3591-66 (W-11)	09/22/11	JML	760	
	3591-66 (W-11)	08/24/12	JML	850	
	3591-66 (W-11)	08/05/13	JML	870	
	3591-66 (W-11)	06/26/14	FGL	938	
	3591-66 (W-11)	08/05/14	JML	960	
	3311-63 (W-12)	06/20/14	FGL	906	
	3211-66 (W-15)	09/22/11	JML	740	
	3211-66 (W-15)	08/27/12	JML	770	
	3211-66 (W-15)	08/07/13	JML	750	
	3211-66 (W-15)	06/24/14	FGL	751	
	3211-66 (W-15)	08/05/14	JML	780	
	3431-61 (W-32)	09/22/11	JML	1260	
	3431-61 (W-32)	08/24/12	JML	1360	
	3431-61 (W-32)	08/07/13	JML	1350	
	3431-61 (W-32)	06/20/14	FGL	1339	
	3431-61 (W-32)	08/05/14	JML	1270	
	2480-66 (W-42)	09/22/11	JML	1300	
	2480-66 (W-42)	08/27/12	JML	1330	
	2480-66 (W-42)	08/07/13	JML	1310	
	2480-66 (W-42)	06/24/14	FGL	1209	
	2480-66 (W-42)	08/05/14	JML	1230	
	3730-65 (W-53)	09/22/11	JML	470	
	3730-65 (W-53)	08/24/12	JML	430	
	3730-65 (W-53)	08/05/13	JML	510	
	3730-65 (W-53)	06/16/14	FGL	451	
	3730-65 (W-53)	08/05/14	JML	550	
	3421-62 (W-74)	07/22/11	FGL	952	604
	3421-62 (W-74)	09/22/11	JML	960	
	3421-62 (W-74)	08/27/12	JML	990	
	3421-62 (W-74)	08/05/13	JML	1000	
	3421-62 (W-74)	06/17/14	FGL	991	
	3211-69 (W-77)	09/22/11	JML	840	
	3211-69 (W-77)	08/27/12	JML	930	
	3211-69 (W-77)	08/05/13	JML	920	
	3211-69 (W-77)	06/26/14	FGL	978	
	3211-69 (W-77)	08/05/14	JML	1050	
	2630-61 (W-78)	09/22/11	JML	450	

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Wonderful Orchards					
	2630-61 (W-78)	08/24/12	JML	500	
	2630-61 (W-78)	08/05/13	JML	480	
	2630-61 (W-78)	08/05/14	JML	510	
	3311-61 (W-89)	09/22/11	JML	1350	
	3311-61 (W-89)	09/05/12	JML	1280	
	3311-61 (W-89)	08/07/13	JML	1360	
	3311-61 (W-89)	06/24/14	FGL	1338	
	3311-61 (W-89)	08/05/14	JML	1370	
	3431-62 (W-91)	09/22/11	JML	1020	
	3431-62 (W-91)	08/27/12	JML	1060	
	3431-62 (W-91)	08/05/13	JML	1060	
	3431-62 (W-91)	06/23/14	FGL	1088	
	3431-62 (W-91)	08/05/14	JML	1090	
	3730-62 (W-94)	09/22/11	JML	500	
	3730-62 (W-94)	08/24/12	JML	540	
	3730-62 (W-94)	08/05/13	JML	540	
	3730-62 (W-94)	06/16/14	FGL	533	
	3730-62 (W-94)	08/05/14	JML	540	
	3730-61 (W-95)	09/22/11	JML	310	
	3730-61 (W-95)	08/24/12	JML	360	
	3730-61 (W-95)	08/05/13	JML	380	
	3730-61 (W-95)	06/19/14	FGL	366	
	3730-61 (W-95)	08/05/14	JML	370	
	3921-61 (W-106)	09/22/11	JML	510	
	3921-61 (W-106)	08/24/12	JML	560	
	3921-61 (W-106)	08/05/13	JML	560	
	3921-61 (W-106)	08/05/14	JML	580	
	3730-72 (W-107)	09/22/11	JML	510	
	3730-72 (W-107)	08/24/12	JML	540	
	3730-72 (W-107)	08/05/13	JML	580	
	3730-72 (W-107)	06/16/14	FGL	597	
	3730-72 (W-107)	08/05/14	JML	570	
	3730-70 (W-108)	09/22/11	JML	560	
	3730-70 (W-108)	08/24/12	JML	600	
	3730-70 (W-108)	08/05/13	JML	610	
	3730-70 (W-108)	06/16/14	FGL	607	
	3730-70 (W-108)	08/05/14	JML	620	
	3211-68 (W-110)	09/22/11	JML	670	
	3211-68 (W-110)	08/24/12	JML	700	
	3211-68 (W-110)	08/05/13	JML	700	
	3211-68 (W-110)	06/19/14	FGL	720	
	3730-63 (W-112)	09/22/11	JML	560	
	3730-63 (W-112)	08/24/12	JML	510	
	3730-63 (W-112)	08/05/13	JML	510	
	3730-63 (W-112)	06/17/14	FGL	512	
	3730-63 (W-112)	08/05/14	JML	510	
	3730-92 (MW-1)	09/27/11	JML	660	
	3730-92 (MW-1)	04/17/12	FGL	705	
	3730-92 (MW-1)	08/27/12	JML	690	
	3730-92 (MW-1)	08/05/13	JML	690	

Table 5-2 (continued)
Recent EC and TDS Results for Deep Zone and Composite Wells (2011-2014)

Well Owner	Well ID	Date	Laboratory [1]	EC at 25°C (µmhos/cm)	TDS (mg/L)
Wonderful Orchards					
	3730-92 (MW-1)	08/05/14	JML	700	
	2480-92 (MW-7)	11/29/11	DL	1400	
	2480-92 (MW-7)	04/17/12	FGL	1390	
	2480-95 (MW-9)	11/29/11	DL	1110	
	2480-95 (MW-9)	04/17/12	FGL	1089	
	3730-74 (CC-1)	07/02/13	JML	640	
	3730-74 (CC-1)	06/19/14	FGL	240	
	3730-75 (CC-2)	06/17/13	FGL	464	349
	3730-75 (CC-2)	06/19/14	FGL	435	
	3421-61 (Card-1)	07/28/11	FGL	696	473
	3421-61 (Card-1)	06/17/13	FGL	696	504
	3421-61 (Card-1)	06/17/14	FGL	718	

1. BCL - BC Laboratory; BSK - BSK Analytical Laboratories, Fresno; DL - Dellavalle Labs; FGL - Fruit Growers Laboratory, Santa Paula; JML - JM Lord Inc., Fresno; NA - Not Available; SSC - Spreckels Sugar Company

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6 SURFACE-WATER FLOW DIRECTION AND QUALITY

Prior to the completion of Friant Dam in 1942, the flow direction in the SJR branch of the Mendota Pool was to the west. Since the construction of Friant Dam, however, flow in the River between Gravelly Ford and the Pool during the irrigation season has been minimal during most years. The flow direction in the SJR branch of the Pool has generally been to the east between the DMC and the Columbia Canal intake. Westerly flow occurred in some years as a result of upstream flood releases from Friant Dam and has become more common in recent years due to the SJRRP. In 2014, there were no flood releases or SJRRP restoration flows to the SJR, however, there were releases to the SJR from mid-May through September 2014 for surface water deliveries.

The Fresno Slough is a tributary of the SJR, and the natural direction of flow in the Slough is to the north. Since the construction of the DMC, the Mendota Pool has become a regulated water conveyance facility, and the flow direction is normally to the south during most of the year. The amount of flow depends primarily on the inflow from the DMC and diversions to the SJREC in the northern portion of the Pool and to JID, TID, the MWA, and WWD in the southern portion of the Pool (**Figure 6-1**). Northerly flow still occurs in some years as a result of upstream flood releases to the Kings River. Northerly flow also occurs during late November or early December if the Pool is being drained in preparation for maintenance work on Mendota Dam. The MPG does not pump for transfer during these periods. It is also possible for a northerly flow to occur as a result of MPG pumping if diversions in the southern portion of the Pool are insufficient to offset the inflow from the MPG wells along the Slough.

6.1 Water Budget Analysis

The calculation of a water budget is an accounting process which evaluates the inflows, outflows, and change in storage during a given time period. Data provided by the SLDMWA (including inflows, diversions, and stage height measurements) have been used by the MPG since 1999 to prepare a monthly water budget for the southern portion of the Fresno Slough Branch of the Pool, i.e., south of transect A-A', which is located between the southernmost SJREC canal intake (the Firebaugh Intake Canal) and the Fordel wells (now operated by the City of Mendota) (see **Figure 6-1**). The water budget also accounts for additional outflow components, such as evaporation and seepage losses.

The net evaporation is calculated as the difference between evaporation and precipitation as obtained from a CIMIS weather station in Firebaugh, applied to the surface area of the southern portion of the Pool. This area is estimated at 1,087 acres based on aerial photographs taken for the Army Corps of Engineers in August 1998. The seepage loss from the Mendota Pool was estimated based on the decline in stage measured at Mendota Dam over a 44-hour period from November 25 to 27, 1999 after DMC inflows were suspended in preparation for draining the Pool. The total seepage loss for the southern portion of the Pool during this period was estimated

to be 40 cubic feet per second (cfs) (KDSA and LSCE, 2000a). The seepage rate is assumed to be constant throughout the year except when the Pool is drained. The water budget is used to calculate the monthly amount of inflow from the DMC and the SJR that reaches the southern portion of the Pool, i.e., south of transect A-A'. The basic equation for a water budget is as follows:

$$\text{Inflow} - \text{Outflow} = \text{Change in Storage } (\Delta S) \quad (1)$$

To calculate the unknown inflow or outflow across the transect line, the equation is rewritten as

$$(\text{Inflow}_{meas} + \text{Inflow}_{calc}) - (\text{Outflow}_{meas} + \text{Outflow}_{calc}) = \Delta S \quad (2)$$

Rearranging terms yields

$$\text{Inflow}_{meas} - \text{Outflow}_{meas} - \Delta S = \text{Outflow}_{calc} - \text{Inflow}_{calc} \quad (3)$$

or

$$\text{Inflow}_{meas} - \text{Outflow}_{meas} - \Delta S = \text{Net Flow}_{calc} \quad (4)$$

Rearranging terms to accommodate the conceptual design of the water budget for the southern area yields

$$\text{Outflow}_{meas} - \text{Inflow}_{meas} + \Delta S = -(\text{Net Flow}_{calc}) \quad (5)$$

Finally, to be consistent with previous reports, the minus sign on the right side of the equation was dropped so that flow to the south would be indicated by positive values.

6.1.1 2014 Water Budget

The results of the 2014 water budget indicate a southerly flow direction on average for each month of the year except for March (-25 cfs, northerly flow). The calculated DMC inflow across transect A-A' ranged from a high of 233 cfs in June to a low of 50 cfs in November (**Table 6-1**). For the entire year, the mean flow to the south was 80 cfs.

6.2 Surface-Water Quality

Surface-water quality data are available from seven continuous recorders and 10 grab sample locations in the Pool (**Figure 2-3** and **Table 2-4**). USBR operates continuous EC and selenium recorders at the DMC terminus (Check 21), and the SJREC operates continuous EC recorders at four canal intakes in the northern portion of the Pool (Columbia Canal, CCID Main Canal, CCID Outside Canal, and Firebaugh Intake Canal). The MPG operates a continuous EC recorder at the MWA. Grab samples are collected monthly during the irrigation season and analyzed for EC, boron, and selenium. Grab samples are collected by USBR at the DMC terminus and by the

SJREC at Mendota Dam and its canal intakes in the Pool. During transfer pumping years such as 2014, the MPG collects grab samples from 10 locations in the Pool. The grab sample results obtained from all sources from 1999 through 2014 are compiled in their entirety in **Appendix G**. **Appendix H** lists the daily average EC values for the DMC and the SJREC's canal intakes in 2014.

6.2.1 Salinity

The salinity of the water delivered to the Pool via the DMC is subject to large daily and seasonal fluctuations. Daily fluctuations are due to tidal effects in the Sacramento-San Joaquin Delta, and seasonal fluctuations are due to factors such as discharge of higher salinity drain water to the DMC in the spring and volume of water discharged into the Pool and flowing to the south to the MWA. EC values based on continuous recorder and grab sample results are shown on **Figures 6-2** to **6-5**. Historically, the highest EC values in the DMC have occurred in the spring, due in part to inflow of agricultural drainage water from sumps along the DMC upstream of the Pool. The EC is usually lowest during the summer months. These patterns were observed in 2014 (**Figure 6-2**), with the peak ECs (a daily average of nearly 1,000 µmhos/cm) occurring in February and April and the lowest ECs (daily averages ranging from about 500 to 800 µmhos/cm) occurring in late April through August and October.

As shown on **Figure 6-3**, the daily average EC values at two of the SJREC's canal intakes (the CCID Outside Canal and the Firebaugh Intake Canal), were well correlated with the DMC data in 2014 except for March and September. The high EC values in the Outside Canal and the Firebaugh Intake Canal in March were likely due to northerly flow conditions in the Pool which resulted in poorer quality water at those canal intakes. The EC at the CCID Main Canal and Columbia Canal intakes were both lower than that of the DMC from June through September due to inflow of low salinity water from the SJR (**Figure 6-4**).

Agreement No. 2 states that the EC measured at the SJREC canal intakes should not exceed that of the DMC by 90 µmhos/cm or more for longer than three consecutive days. If such exceedances occur, the MPG is required to temporarily suspend transfer pumping upon notification by the SJREC. Highlighted cells in **Table H-1** in **Appendix H** are values exceeding the DMC by 90 µmhos/cm or more. The EC at the CCID Main, Outside Canals and the Firebaugh Intake Canal exceeded the EC measured at the DMC by more than 90 µmhos/cm by more than three days for most of the period from mid-February (prior to the initiation of transfer pumping) to mid-April 2014. In the early part of the year, there were two exceedances at the CCID Main Canal lasting from nine to 21 days, three exceedances at the CCID Outside Canal lasting eight to 21 days and three exceedances at the Firebaugh Intake Canal lasting eight to 26 days. These exceedances occurred primarily during non-transfer and transfer pumping periods and are likely due to pumping to the Fresno Slough by wells with high EC levels. The only exceedances of the 90 µmhos/cm limit that lasted more than three days at the Columbia Canal

occurred for 6 days in late April and early May 2014. The MPG suspended transfer pumping on March 21, 2014 and the suspension continued for nearly all of April and pumps were turned back on in early May 2014 (personal communication, Bill Pipes, June 11, 2015) when notified to do so by SJREC when EC criteria were exceeded.

The average EC measured at the MWA in the southern portion of the Pool was about 1,175 µmhos/cm in 2014, the highest of the past eight years of records. As shown on **Figure 6-5**, EC values exceeded 1,000 µmhos/cm for most of the year and were highest in May and August. EC values at the MWA were generally higher overall than 2013 (LSCE and KDSM, 2014) and previous years due to lower southerly flows through the Pool. In 2014, flow to WWD Lateral's 6 and 7 (**Table 6-1**) was about half as much as 2013 levels. Total pump-in amounts ("Inflow" in **Table 6-1**) from both MPG and non-MPG entities were similar in 2014 compared to 2013 levels, however, the proportion of the total pump-in water from MPG members was less in 2014 compared to 2013 while non-MPG members had a greater proportion of the total pump-in amounts to the Pool. The MPG collected six grab samples from the MWA in 2014, and the results are shown on **Figure 6-5**. The laboratory results indicate that the calibration of the continuous recorder was relatively accurate. The 2014 median EC measurements for the James ID and Tranquility surface water sampling locations were 1,550 µmhos/cm and 1,235 µmhos/cm, respectively (**Table 6-2**). These EC levels are likely due to a combination of factors that includes the pumping of groundwater by TID that historically has had relatively high levels of salinity.

6.2.2 Trace Elements

The surface-water grab samples from the Mendota Pool were analyzed for eight trace elements as shown in **Table G-1** in **Appendix G**. The grab samples were collected from 10 locations in the Pool. The data for four key trace elements (arsenic, boron, molybdenum, and selenium) are summarized in **Table 6-2** and discussed below. As in 2010 through 2013, data from the Lateral 6 and 7 intake are not shown in **Table 6-2** due to the apparent effect of stagnant water during some sampling periods and this sample location has been dropped from the sampling program along with Etchegoinberry (due to poor access issues) in 2014. All grab sample results represent total (suspended and dissolved) concentrations, as the samples were unfiltered prior to analysis.

As discussed in Chapter 5, arsenic and selenium concentrations in groundwater discharged to the Pool from MPG wells along the Fresno Slough have typically been below the reporting limits. Likewise, boron concentrations in the MPG wells are low (typically below 0.5 mg/L). As discussed above, molybdenum concentrations in groundwater are more variable and tend to be higher in the southern portion of the MPG well field. Molybdenum concentrations at most MPG wells are higher than in DMC water, but the molybdenum concentrations in the Pool remain low at the MWA.

As in previous years, arsenic concentrations were low in all surface water samples collected in 2014. The arsenic concentrations ranged from non-detect (<2 µg/L) to 9 µg/L. The median arsenic concentration at the DMC terminus was 3 µg/L, and the median concentrations ranged from <2.5 to 3.5 µg/L at all other locations in the northern and central portions of the Pool. Median arsenic concentrations in the southern portion of the Pool ranged from 3 µg/L at the MWA to 6.5 µg/L at the TID Intake.

Boron concentrations at the DMC terminus ranged from 0.24 to 0.60 mg/L with a median of 0.35 mg/L in 2014. Boron concentrations were lowest at the Columbia Canal intake, with a median of only 0.05 mg/L. The median concentration at the other sampling locations in the central and northern area of the Mendota Pool (including the Mendota Wildlife Area) ranged from 0.20 to 0.5 mg/L. The median boron concentrations were highest in the southern portion of the Pool at Tranquillity and James ID (0.85 and 0.6 mg/L, respectively).

Molybdenum concentrations at the DMC terminus and the six other locations in the northern portion of the Pool in 2014 ranged from 2 to 3.5 µg/L, with a median value of 2.5 µg/L. In the southern portion of the Pool, molybdenum concentrations were 5 and 6 µg/L in two samples from the MWA. Molybdenum concentrations at James and Tranquillity ID ranged from 7 to 21 µg/L.

An automated sampler retrieves samples from the DMC terminus on an hourly basis, and daily composites of these samples are analyzed for selenium at USBR's laboratory. A total of 231 daily samples were analyzed for selenium in 2014, and 17 of these were non-detect. Concentrations in the other daily composite samples ranged from 0.4 to 2.5 µg/L, with a median of 0.79 µg/L. Selenium concentrations in grab samples retrieved from the DMC terminus by USBR in 2014 are plotted on **Figure 6-6** and ranged from 0.4 to 1.8 µg/L. Selenium concentrations were highest the first of February due to inflow of agricultural drainage water from sumps along the DMC upstream of the Pool.

A total of eight to 10 grab samples were collected from each of the SJREC canal intakes (by the MPG and others), and most of the selenium results were non-detect (<1 µg/L). There were one to two detections in the January and March samples from the CCID Main, Outside, and the Firebaugh Intake Canals at concentrations ranging from 1.2 to 1.6 µg/L. Note that questionable selenium results from the August 27, 2014 sampling event are not being considered in these analyses.

Selenium concentrations were also low in the southern portion of the Pool. Two samples were collected from the MWA; one was non-detect (<0.4 µg/L), and the other had a reported concentration of 0.5 µg/L. Two samples each from JID and TID were analyzed for selenium, and the results ranged from non-detect to 0.5 µg/L.

As noted in Chapter 5, the WQOs established by the CVRWQCB for inland surface waters are 10 µg/L for arsenic, 0.8 mg/L for boron, 19 µg/L for molybdenum, and 2 µg/L for selenium (**Table 6-3**). The WQOs were slightly exceeded in four surface-water samples in 2014: boron (1.2 mg/L) and molybdenum (21 µg /L) at the Tranquillity ID and boron (1.1 and 1.5mg/L) at the James ID booster plant. Similar to 2013, surface water concentrations were higher in the southern portion of the Fresno Slough than in the northern portion. In the MWA, all eight samples exceeded the MWA WQO for boron (0.3 mg/L) with concentrations ranging from 0.4 to 0.6 mg/L.

CDFW has developed specific target WQOs for the MWA. The WQO for selenium was unchanged at 2 µg/L, but the WQOs for the other constituents were lower than the CVRWQCB criteria: 5 µg/L for arsenic, 0.3 mg/L for boron, and 10 µg/L for molybdenum. With the exception of boron which exceeded the WQO in all eight samples as described above, arsenic, molybdenum, and selenium concentrations were below the WQO's in 2014 at the MWA.

6.3 Sediment Sampling Results

As described in Chapter 2, a sediment-monitoring program in the Pool was initiated in 2001 at the request of USFWS. Most of the eight sediment sampling stations (**Figure 2-4**) are co-located with surface-water sampling locations. These locations allow for the estimation of metals introduced by inflow from the SJR, the DMC, the James Bypass, and the MPG wells and allow assessment of spatial distribution of the selected parameters. The sample locations include areas that are not likely influenced by MPG pumping (Columbia Canal) as well as areas that could receive inputs of metals from MPG water. The sample locations were selected to provide baseline characterization of metal concentrations in Mendota Pool sediments and allow for future identification of temporal and spatial trends in sediment quality (US Bureau of Reclamation, 2005a). Triplicate sediment samples are collected at the eight stations using an Ekman grab sampler that collects a sample from the upper two centimeters of sediment. Sediment sampling in 2014 was conducted November 12th and 13th. As in previous transfer-pumping years, samples were collected in triplicate from four general geographic areas in the Mendota Pool (**Figure 2-4**):

1. San Joaquin River Branch – Columbia Canal intake
2. Northern Fresno Slough – Mendota Dam, DMC terminus, and Firebaugh Intake Canal
3. Central Fresno Slough – Former Etchegoinberry introduction point
4. Southern Fresno Slough – MWA approximately one-quarter mile south of Whitesbridge Road, JID Booster Plant, and Lateral 6

The sediment samples were analyzed for total arsenic, boron, molybdenum, and selenium on a dry weight basis. Samples were also analyzed for EC, total organic carbon, pH, cation exchange capacity (CEC), moisture content, and grain size (percent gravel, sand, silt, and clay). Several of these parameters are included to allow evaluation of the ability of the sediment to bind metals. The results of the November 2014 sediment-sampling event are summarized in **Table 6-4**.

Concentrations estimated above the sample-specific method detection limit (MDL) and below the method reporting limit (MRL) are flagged as "J" in this table. Non-quantifiable concentrations below the MDL are indicated with a "smaller than" symbol, e.g., <0.1.

In 2014, arsenic concentrations in the northern portion of the Pool were lowest at Firebaugh Intake Canal (median of 4.9 mg/kg) and highest at the DMC terminus (median of 8.1 mg/kg). In the southern portion of the Pool, arsenic concentrations were lowest at James ID Booster Plant, with a median of about 2 mg/kg. Arsenic concentrations were highest at Lateral 6 (median of about 8 mg/kg).

The 2014 boron concentrations in the northern portion of the Pool were lowest at the Columbia Canal (median of about 6 mg/kg) and highest at the Delta-Mendota Canal (median of nearly 11 mg/kg). In the southern portion of the Pool, boron concentrations were lowest at the JID Booster Plant (median of about 9 mg/kg) and highest at Lateral 6 (median of nearly 21 mg/kg).

As in previous years, molybdenum concentrations were relatively low in the 2014 sediment samples. In the northern portion of the Pool, the 2014 molybdenum concentrations were lowest at Mendota Dam, the Firebaugh Intake Canal, and the DMC terminus, with a median of about 0.4 mg/kg. Molybdenum concentrations were highest at the Columbia Canal (median of 0.7 mg/kg). Concentrations were also low in the southern portion of the Pool, and the median concentration was 0.2 mg/kg at the JID Booster Plant and MWA. The highest median concentration was 1.1 mg/kg at Lateral 6.

Selenium concentrations were also low at all sediment sampling locations in 2014, and the values at all locations were below the MRLs (ranged from less than 0.07 to 0.90 mg/kg). In the northern portion of the Pool, the median selenium concentrations were lowest at the Mendota Dam (about 0.46 mg/kg). Selenium concentrations were slightly higher at the Firebaugh Intake Canal and Columbia Canal (median of about 0.6 mg/kg). In the southern portion of the Pool, selenium concentrations were lowest at the JID Booster Plant and Lateral 6 (both with a median of 0.1 mg/kg). Selenium concentrations were highest at the MWA Whitesbridge Road location (median of 0.7 mg/kg).

Unlike surface-water and groundwater quality sampling results, few guidelines are available for evaluation of sediment quality in general and the effects of MPG pumping in particular (USBR, 2005a). For the parameters of concern in this analysis, guidelines are only available for arsenic and selenium. The "effects range-low" value for arsenic identified by the U.S. Environmental Protection Agency is 12.1 mg/kg dry weight. None of the arsenic concentrations in the samples collected in 2014 exceeded the sediment quality objective. Screening criteria have been developed by USFWS for the Grasslands Watershed (URS, 2001), which is located north of the Pool. The USFWS screening criteria for selenium include a target level of 2 mg/kg and a

toxicity threshold of 4 mg/kg dry weight. None of the selenium concentration in the 2014 samples exceeded the target level or the toxicity threshold.

6.4 Summary

There were no San Joaquin or Kings River flood releases to the Mendota Pool in 2014, and the SJR flows upstream of the Mendota Pool were for surface water deliveries with no SJRRP flows. The average flow direction in the Fresno Slough was to the south during each month of the year with the exception of March 2014 when the flow averaged -25 cfs (flowing to the north). During the other months, the average flow to the south ranged from 50 to 232 cfs. For the entire year, the average flow to the south was 80cfs, which was lower than in 2013 by about 30 percent.

The salinity at the Columbia Canal and CCID Main Canal intakes in the northern portion of the Pool was generally lower than that of the DMC (**Figure 6-4**) due to SJR inflows. The salinity at the CCID Outside Canal and Firebaugh Intake Canal tracked that of the DMC very closely for most of the year (**Figure 6-3**). However, there were several six to 26-day periods in February to early May 2014 when the EC at canal intakes exceeded that of the DMC by 90 µmhos/cm or more (**Table H-1** in **Appendix H**). These exceedances may be due to a lack of southerly flow and pumping to the Fresno Slough by wells with high EC levels. The salinity was higher in the southern portion of the Pool due to a number of factors; reduced southerly flow, increase in non-MPG pump-in amounts, higher DMC EC levels, and MPG pumping. The flow to WWD in Lateral 6 and 7 was too low to obtain meaningful surface water sampling results during certain periods, and data from this surface water sample location were not discussed above. This location and Etchegoinberry were dropped from the surface water quality network in 2014.

Surface-water grab samples from the Mendota Pool were analyzed for eight trace elements, and concentrations of four key elements (arsenic, boron, molybdenum, and selenium) are summarized above and in **Table 6-2**. In 2014, almost all trace element concentrations were near or below the WQO set by the CDFW and CVRWQCB (**Table 6-3**). The WQOs were slightly exceeded in four surface-water samples in 2014: boron (1.2 mg/L) and molybdenum (21 µg /L) at the Tranquillity ID and two boron samples (1.1 and 1.5mg/L) at the James ID booster plant. Mendota Wildlife Area had exceedances of the MWA boron WQO (0.3 mg/L) in all eight samples with concentrations ranging from 0.4 to 0.6 mg/L. In addition, elevated selenium concentrations (from 2.0 to about 2.5 µg/L) were measured in daily composite samples from the DMC in January and April (**Figure 6-6**).

Sediment sampling was conducted in 2014 at eight locations in the Pool. The samples were analyzed for a variety of constituents, including the same four trace elements discussed above for surface water. Concentrations of all four trace elements were low at all sampling locations. Analysis of surface water and sediment sample results do not indicate any influence of MPG operations on sediment quality.

Table 6-1
Monthly Summary of Water Budget for Fresno Slough Branch of Mendota Pool South of Transect A-A' (2014)

	Inflow[1]					Outflow									
Month	MPG Wells Along Fresno Slough (cfs)	City of Mendota Wells Along Fresno Slough[2] (cfs)	Meyers Farm Water Bank (cfs)	James Bypass (cfs)	Tranquillity ID, RD 1606, Fresno Slough WD, James ID (cfs)	James & Tranquillity ID (cfs)	Mendota Wildlife Area[3] (cfs)	WWD Lateral 6 & 7 (cfs)	Meyers Farm Water Bank (cfs)	MPG Adjacent Use[4] (cfs)	Hughes, Wilson, Mid Valley, F. Slough, RD 1606 (cfs)	Net Evap. (cfs)	Est. Seepage[5] (cfs)	Change in Storage (cfs)	Net Flow[6] (cfs)
January	6	0	2	0	12	3	19	30	0	4	3	2	40	0	**82**
February	2	4	17	0	31	45	20	0	0	8	3	1	40	-3	**59**
March	34	6	17	0	39	12	0	3	0	8	1	5	40	3	**-25**
April	15	0	15	0	41	64	1	0	0	12	2	8	40	-5	**51**
May	36	4	14	0	39	116	1	4	0	17	5	11	40	0	**101**
June	35	5	15	0	37	227	3	12	0	24	8	12	40	7	**242**
July	38	4	15	0	37	96	3	8	0	25	5	11	40	-4	**90**
August	45	4	13	0	33	44	27	29	0	11	2	10	40	-2	**65**
September	35	4	11	0	37	14	67	21	0	10	0	8	40	1	**73**
October	28	1	0	0	34	3	74	31	0	31	0	4	40	7	**129**
November	29	0	0	0	31	2	40	3	0	25	0	2	40	-2	**50**
December	0	0	0	0	0	0	39	0	0	3	0	-3	40	1	**79**
Mean (cfs)	**25**	**3**	**10**	**0**	**31**	**52**	**24**	**12**	**0**	**15**	**3**	**6**	**40**	**0**	**83**
Total[7] (af)	**18,400**	**2,000**	**7,200**	**0**	**22,400**	**37,600**	**17,700**	**8,600**	**0**	**10,800**	**1,800**	**4,300**	**28,500**	**200**	**59,500**

1. Inflow from the north (primarily from the DMC) is calculated and shown in the last column.
2. Also Includes Fordel wells operated by the City of Mendota.
3. Includes Traction Ranch and unmetered.
4. Includes Terra Linda Farms (Coelho Family Trust), Coelho-Gardner-Hansen (M.L. Dudley & Indart), and Meyers Farming.
5. Seepage losses estimated based on drop in stage measured at Mendota Dam over a 44-hour period from Nov. 25-27, 1999 after DMC inflows stopped but before the Pool was drained (KDSA and LSCE, 2000a).
6. Calculated as outflow minus inflow plus change in storage. Positive values indicate flow to south; negative values indicate flow to north. Positive values generally represent inflow from the DMC to the southern portion of the Pool.
7. Values greater than 100 af are rounded to the nearest 100 af.

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Table 6-2
Summary of 2014 Surface-Water Grab Sample Results[1]

Constituent	EC (µmhos/cm) @ 25°C				Arsenic (µg/L)				Boron (mg/L)				Molybdenum (µg/L)				Selenium (µg/L)			
Limits					WQO=10, MWA=5				WQO=0.8, MWA=0.3				WQO=19, MWA=10				WQO=2, MWA=2			
Location	Min	Max	Median	n[2]	Min	Max	Median	n[2]	Min	Max	Median	n[2]	Min	Max	Median	n[2]	Min	Max	Median	n[2]
Northern and Central Portion of Mendota Pool																				
Columbia Canal	39	810	79	8	2	4	3	2	<0.1	0.29	0.05	8	1	3	2	2	<0.1	<0.1	<1	8
Mendota Dam	40	1110	471	10	<2	3	<2.5	2	<0.025	0.54	0.20	10	1	3	2	2	<0.1	1.5	<1	10
CCID Main Canal	38	1110	456	10	3	4	3.5	2	<0.025	0.56	0.20	9	1	3	2	2	<0.4	1.5	<1	10
DMC Check 21	619	1130	752	14	2	3	3	3	0.24	0.60	0.35	14	3	4	3.5	2	<0.4	2.1	<1	10
CCID Outside Canal	288	1140	691	11	2	3	2.5	2	0.10	0.59	0.30	11	2	3	2.5	2	<0.4	1.6	<1	10
Firebaugh Intake Canal	493	1390	742	10	2	3	2.5	2	0.23	0.59	0.33	10	2	4	3	2	<0.4	1.5	<1	10
West of Fordel	364	695	530	2	3	3	3	2	0.2	0.3	0.25	2	2	4	3	2	<0.4	<0.4	<0.4	2
Southern Portion of Mendota Pool																				
Mendota Wildlife Area	888	1470	1420	8	2	3	3	3	**0.4**	**0.6**	**0.5**	8	5	6	5.5	2	<0.4	0.5	0.45	2
James ID (Booster Plant)	1080	1560	1550	8	3	8	5	3	0.4	**1.5**	0.5	5	7	12	9.5	2	<0.4	0.5	0.45	2
Tranquillity ID	1090	1380	1235	2	4	9	6.5	2	0.5	**1.2**	**0.85**	2	12	**21**	16.5	2	<0.1	0.4	0.23	2

See Figure 2-3 for sample location.
See Appendix G for complete grab sample water quality results.
WQO=Water Quality Objective for Inland Surface Waters (CVRWQCB, 1988). MWA=Target water quality objective for Mendota Widlife Area (CDFW, 2001).
Bold=value that equals or exceeds the WQO.

1. Total concentrations.
2. n = number of samples

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Table 6-3. Water Quality Criteria for Surface and Groundwater

Constituent[2]	Units	Water Quality Criteria							
		Applicable Surface Water Quality Criteria[1]					Requirements from Settlement Agreements and EIS		
		USEPA: Freshwater Aquatic Life Protection Criteria[3]	CVRWQCB (1998): Water Quality Objectives (WQO) for Inland Surface Waters	CDFW (2001): Target WQO for Mendota Wildlife Area	Criteria Type	Total or Dissolved Concen-tration	Ground-water	Surface Water: Northern Fresno Slough	Surface Water: Mendota Wildlife Area
CATIONS									
Calcium	mg/L	-	-	-	-	-	-	-	-
Magnesium	mg/L	-	-	-	-	-	-	-	-
Potassium	mg/L	-	-	-	-	-	-	-	-
Sodium	mg/L	-	-	-	-	-	-	-	-
Total Hardness	mg/L	-	-	-	-	-	-	-	-
ANIONS									
Bicarbonate (HCO_3)	mg/L	-	-	-	-	-	-	-	-
Carbonate (CO_3)	mg/L	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-
Fluoride	mg/L	-	-	-	-	-	-	-	-
Hydroxide (OH)	mg/L	-	-	-	-	-	-	-	-
Nitrate (NO_3)	mg/L	-	-	-	-	-	-	-	-
Nitrite as N	mg/L	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	-	-	-	-	-
Total Alkalinity (as CaCO3)	mg/L	-	-	-	-	-	-	-	-
PHYSICAL PARAMETERS									
pH	pH units	-	-	-	-	-	-	-	-
Electrical Conductivity (Specific Conductance)	µmhos/ cm	-	-	-	-	-	-	Exceed DMC EC by >90 umhos/cm for 3 consecutive days	-
SAR (Sodium Adsorption Ratio)	-	-	-	-	-	-	-	-	-
Total Dissolved Solids	mg/L	-	-	-	-	-	>1,200: well not pumped for fall exchange >2,000: well not pumped to Mendota Pool	-	<450 annual mean <450 monthly mean fall pumping <600 monthly during exchange pumping
INORGANICS									
Arsenic	ug/L	-	10	5	Max conc.	Dissolved	-	-	-
Barium	ug/L	-	100	-	Max conc.	Dissolved	-	-	-
Boron	ug/L	-	800[4]	300	Monthly mean (3/15-9/15)	Total	-	-	-
Copper	ug/L	7.8	-	-	4-day mean	Dissolved	-	-	-
Iron	ug/L	-	300	-	Maximum conc.	Dissolved	-	-	-
Manganese	ug/L	-	50	-	Maximum conc.	Dissolved	-	-	-
Molybdenum	ug/L	-	19	10	Monthly mean	Total	-	-	-
Selenium	ug/L	-	2[5]	2[5]	Monthly mean	Total	if ≥2: well not used for exchange pumping	-	-
Zinc	ug/L	100	-	-	4-day mean	Dissolved	-	-	-

[1] The most stringent criterion for each constituent is listed. USEPA criteria are based on California Toxics Rule Criterion Continuous Concentration values.

[2] Constituents as outlined in EIS 2005, Appendix B.

[3] USEPA criteria vary with hardness. During 1999-2003, the total hardness at the DMC (as $CaCO_3$) during the months when the Bank would extract water (May through August) ranged from 64 to 120 mg/L, with a mean of 85 mg/L. These criteria are for 85 mg/L hardness.

[4] CVRWQCB boron criterion from 9/16 to 3/14 is monthly mean of 1,000 µg/L.

[5] Based on USFWS criterion established for Grasslands watershed.

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Table 6-4
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte										Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
San Joaquin River Branch																	
Columbia Canal	8/22/01	1	FGL	485	4	<12	<1.2	<1.2	3,123	0.3	6.6	7.1	58.7	0.0	58.0	34.0	8.0
	8/22/01	1	FGS	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-
	8/22/01	2	FGL	534	7	<15	<1.5	<7.5	4,136	0.4	6.6	14.9	66.8	0.0	30.0	56.0	14.0
	8/22/01	3	FGL	565	6	<12	<1.2	<6.2	4,454	0.4	6.8	10.6	59.5	0.0	44.0	46.4	9.6
	10/30/01	1	CAS	201	3.5	5.1 (J)	<0.8	<1.1	-	0.7	8.2	27.7	34.9	0.0	64.0	26.8	9.2
	10/30/01	2	CAS	160	2.8	6.5 (J)	0.8 (J)	<0.9	-	0.8	8.1	25.9	40.7	0.0	54.7	34.6	10.7
	10/30/01	3	CAS	132	3.9	8.0 (J)	<0.7	<1.1	-	1.1	7.8	30.6	47.5	0.0	43.1	46.3	10.6
	10/15/02	1	CAS	44	3.3	6.4 (B)	<0.6	<1	-	1.4	7.6	33.7	51.8	0.0	27.4	58.3	15.1
	10/15/02	2	CAS	79	2.7	2.9 (B)	<0.6	<1	-	0.8	7.4	21.1	38.5	0.0	54.1	36.7	8.1
	10/15/02	3	CAS	63	1.9 (B)	<2.3	0.7 (B)	<1.1	-	0.5	7.3	14.0	30.7	0.0	67.4	23.5	6.2
	10/25/07	1	CAS	264	1.0 (B)	3.5 (B)	<0.6	<0.6	-	0.5	7.3	7.2	29.6	0.0	85.2	6.4	8.4
	10/25/07	2	CAS	242	1.6	5.1 (B)	<0.5	<0.5	-	0.9	7.2	13.0	40.8	0.0	87.3	5.5	7.2
	10/25/07	3	CAS	142	0.6 (B)	4.5 (B)	<0.5	<0.5	-	0.3	7.1	7.6	20.5	0.0	93.6	3.7	2.7
	11/13/09	1	CAS	179	4.6	5.4	0.3 (J)	2.0	-	2.2	7.8	41.0	39.7	0.0	36.8	63.2	0.0
	11/13/09	2	CAS	153	3.1	4.5	<0.1	1.7 (J)	-	1.0	7.8	23.0	51.6	0.0	46.2	52.2	1.6
	11/13/09	3	CAS	94	2.6	3.2	<0.1	0.3 (J)	-	0.7	7.6	18.0	58.7	0.0	65.6	34.4	0.0
	11/18/10	1	CAS	80	4.8	8.9	0.4 (J)	1.4	-	1.4	6.7	30.3	57.2	5.5	24.0	53.0	17.5
	11/18/10	2	CAS	88	4.9	8.4	0.4	1.2	-	1.4	6.8	28.4	54.4	0.0	32.8	51.9	15.3
	11/18/10	3	CAS	87	5.8	8.4	0.3 (J)	0.7 (J)	-	1.1	7.0	34.1	53.3	0.0	31.1	51.0	17.9
	11/19/12	1	CAS	47	3.8	1.0 (J)	0.33 (J)	0.6 (J)	-	1.1	6.5	23.6	50.1	3.9	47.4	32.1	16.6
	11/19/12	2	CAS	73	5.1	2.3	0.77	0.8 (J)	-	2.0	6.6	35.6	60.6	0.0	16.5	57.8	25.7
	11/19/12	3	CAS	65	6.5	3.0	0.78	0.5 (J)	-	2.5	6.8	38.8	65.0	0.0	26.9	52.4	20.7
	11/12/13	1	ALS	83	4.9	8.2	0.6	0.5 (J)	-	2.4	6.6	40.0	66.1	0.1	15.4	43.5	41.1
	11/12/13	2	ALS	95	4.3	7.7	0.47	0.4 (J)	-	1.7	6.6	34.9	59.7	0.4	20.9	41.8	36.9
	11/12/13	3	ALS	77	3.9	5.9	0.53	0.4 (J)	-	1.3	6.9	23.9	53.7	0.6	38.9	38.2	22.3
	11/12/14	1	ALS	517	5.8	4.9	0.5	0.5 (J)	-	1.0	7.0	21.9	46.2	0.0	48.6	36.7	14.7
	11/12/14	2	ALS	655	6.0	6.1	0.65	0.6 (J)	-	1.4	6.9	30.6	58.3	0.0	29.3	49.1	21.6
	11/12/14	3	ALS	721	6.1	6.2	0.66	0.6 (J)	-	1.6	6.8	32.6	56.9	0.0	28.7	53.6	17.7

Table 6-4 (continued)
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte										Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
Northern Fresno Slough																	
Mendota Dam	8/22/01	1	FGL	1,140	10	20	<1.5	<7.4	4,024	0.4	7.0	20.5	66.2	0.0	10.0	72.4	17.6
	8/22/01	2	FGL	1,070	9	20	<1.2	<5.9	4,596	0.5	7.4	17.4	57.6	0.0	28.0	54.4	17.6
	8/22/01	2	FGS	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-
	8/22/01	3	FGL	951	8	20	<1.2	<5.8	5,126	0.5	7.0	15.6	57.2	0.0	38.0	46.4	15.6
	10/30/01	1	CAS	236	6	18	1.0 (J)	<0.9	-	1.2	7.6	28.8	51.5	0.0	24.3	68.7	7.0
	10/30/01	2	CAS	211	6.1	15.2	1.0 (J)	<1.0	-	0.9	7.5	35.5	47.9	0.0	26.7	64.3	9.0
	10/30/01	3	CAS	246	5.6	12.1	<0.7	<1.0	-	0.9	7.5	37.6	47.7	0.0	24.3	66.2	9.5
	10/15/02	1	CAS	130	4.6	11.8	<0.6	<1.1	-	0.9	7.4	35.6	40.9	0.0	29.4	60.5	10.5
	10/15/02	2	CAS	156	4.6	11.2	0.8 (B)	<1.1	-	1.1	7.3	38.9	44.6	0.0	21.2	66.3	11.4
	10/15/02	3	CAS	106	4.1	9.2 (B)	0.6 (B)	<0.9	-	1.0	7.6	40.0	45.5	0.0	35.8	53.3	12.1
	10/25/07	1	CAS	210	9.1	60.4	<0.5	<0.5	-	0.8	7.7	36.0	41.7	0.0	11.2	38.2	50.6
	10/25/07	2	CAS	290	8.3	49.1	<0.6	<0.6	-	0.8	7.7	31.0	37.2	0.0	10.0	15.6	74.4
	10/25/07	3	CAS	433	7.4	48.7	<0.6	<0.6	-	0.9	7.5	18.0	38.9	0.0	11.2	18.0	70.8
	11/13/09	1	CAS	81	3.6	6.5	0.2 (J)	0.7 (J)	-	1.1	7.2	28.0	51.8	0.0	32.8	64.1	3.1
	11/13/09	2	CAS	97	5.2	8.6	0.2 (J)	0.9 (J)	-	1.4	7.2	52.0	43.0	0.0	13.9	77.2	8.9
	11/13/09	3	CAS	180	4.4	7.8	0.2 (J)	1.3 (J)	-	1.4	7.2	28.0	44.2	0.0	7.5	84.0	8.5
	11/18/10	1	CAS	240	4.7	13.8	0.4	1.5	-	1.9	6.8	40.2	61.3	0.0	6.5	68.8	24.7
	11/18/10	2	CAS	273	5.4	11.9	0.3 (J)	1.1	-	1.5	7.0	33.9	58.1	0.0	18.7	57.8	23.5
	11/18/10	3	CAS	209	3.6	10.8	0.3 (J)	1.1	-	1.8	6.9	24.1	57.8	0.0	25.3	61.9	12.8
	11/19/12	1	CAS	78	3.7	5.6	0.38	0.76 (J)	-	1.5	7.0	32.5	49.5	0.1	18.8	57.5	23.7
	11/19/12	2	CAS	53	3.7	4.9	0.33 (J)	0.9 (J)	-	1.2	7.0	30.3	45.7	0.0	31.4	45.2	23.4
	11/19/12	3	CAS	56	3.1	4.5	0.28 (J)	0.5 (J)	-	0.1	6.5	26.1	45.3	0.0	38.4	47.0	14.6
	11/12/13	1	ALS	143	3.0	9.9	0.2	0.3 (J)	-	1.0	6.8	25.0	44.0	0.0	22.5	52.7	24.9
	11/12/13	2	ALS	163	3.1	11.0	0.22	0.3 (J)	-	0.9	6.8	24.8	43.4	0.0	23.3	57.7	19.0
	11/12/13	3	ALS	165	4.7	11.9	0.25	0.3 (J)	-	0.9	6.9	32.7	46.1	0.0	18.4	52.2	29.4
	11/12/14	1	ALS	387	9.2	8.6	0.4	0.5 (J)	-	1.0	6.8	32.3	51.4	0.0	19.3	61.8	19.0
	11/12/14	2	ALS	458	8.1	9.3	0.41	0.5 (J)	-	0.9	6.9	43.3	48.9	0.0	17.1	67.5	15.5
	11/12/14	3	ALS	447	7.2	9.6	0.37	0.5 (J)	-	0.9	6.8	32.2	56.0	0.0	20.4	62.0	17.7

Table 6-4 (continued)
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte										Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
Delta-Mendota Canal	8/22/01	1	FGL	1,280	13	70	2	<6.1	5,032	0.5	7.8	42.0	59.3	0.0	10.4	34.0	55.6
	8/22/01	1	FGS	-	-	-	-	2.9	-	-	-	-	-	-	-	-	-
	8/22/01	2	FGL	782	4.8	11	<0.86	<4.3	1,127	0.1	7.7	8.0	41.7	0.0	78.4	12.0	9.6
	8/22/01	3	FGL	506	4.8	11	<0.86	<0.86	810	0.1	7.8	7.6	41.6	0.0	78.0	14.0	8.0
	10/30/01	1	CAS	265	8.8	40.0	1.5 (J)	<1.1	-	1.1	7.7	27.5	48.8	0.0	16.2	49.9	33.9
	10/30/01	2	CAS	314	10.9	41.3	1.5 (J)	<1.0	-	0.7	7.7	20.3	55.4	0.0	7.5	44.0	48.5
	10/30/01	3	CAS	329	10.8	52.8	1.8 (J)	<1.0	-	0.9	8.0	21.5	53.0	0.0	9.8	41.0	49.1
	10/15/02	1	CAS	212	6.7	23.7	2.4	1.1 (B)	-	0.9	7.4	26.4	46.5	0.0	13.4	50.1	37.6
	10/15/02	2	CAS	178	7.1	35.2	1.8 (B)	<1	-	0.6	7.5	35.0	44.6	0.0	18.7	14.0	30.3
	10/15/02	3	CAS	223	6.8	35.5	1.7 (B)	1.1 (B)	-	0.8	7.5	24.6	51.0	0.0	10.3	35.0	42.0
	10/24/07	1	CAS	343	5.7	23.7	<0.5	0.5 (B)	-	1.5	7.5	74.0	57.4	0.0	6.5	63.3	30.2
	10/24/07	2	CAS	277	4.9	26.3	<0.5	<0.5	-	1.3	7.3	71.0	51.5	0.0	8.0	68.5	23.5
	10/24/07	3	CAS	371	5.0	23.6	<0.5	<0.5	-	1.4	7.2	64.0	56.1	0.0	9.0	64.0	27.0
	11/12/09	1	CAS	450	9.2	26.0	0.7	1.8 (J)	-	0.7	7.2	49.0	45.2	0.0	5.8	24.0	70.2
	11/12/09	2	CAS	250	8.1	13.6	0.4 (J)	0.9 (J)	-	0.4	7.8	32.0	63.7	0.0	53.0	22.3	24.7
	11/12/09	3	CAS	133	5.0	9.6	<0.1	0.6 (J)	-	0.4	7.7	19.0	68.2	0.0	66.8	19.7	13.5
	11/18/10	1	CAS	423	7.8	32.5	1.4	2.4	-	0.7	7.5	49.0	52.4	1.7	13.8	4.8	79.7
	11/18/10	2	CAS	274	6.1	23.0	0.7	1.1	-	0.6	7.6	38.8	45.1	0.0	54.0	24.4	21.6
	11/18/10	3	CAS	268	5.6	12.7	0.3 (J)	1.0	-	0.8	7.4	37.5	52.5	0.0	31.6	39.4	29.0
	11/19/12	1	CAS	148	5.5	10.3	0.43	0.48 (J)	-	0.3	7.5	24.0	33.6	0.0	54.5	20.8	24.6
	11/19/12	2	CAS	119	8.9	10.0	0.35	<0.1	-	0.3	7.6	20.3	29.9	0.5	71.5	14.8	13.2
	11/19/12	3	CAS	130	7.0	9.0	0.38	0.64 (J)	-	0.3	7.9	20.5	33.7	0.3	58.2	10.7	30.8
	11/12/13	1	ALS	321	6.7	38.0	0.9	0.2 (J)	-	0.3	7.9	34.9	49.4	0.0	20.9	10.4	68.7
	11/12/13	2	ALS	178	5.7	11.6	0.23	0.2 (J)	-	0.3	7.1	16.4	28.4	0.0	82.7	-0.3	17.6
	11/12/13	3	ALS	209	6.1	11.0	0.24	0.2 (J)	-	0.3	7.4	19.7	31.7	0.0	87.5	-2.4	14.8
	11/12/14	1	ALS	510	5.6	12.5	0.4	0.5 (J)	-	0.5	7.4	41.9	41.3	0.0	59.3	24.1	16.6
	11/12/14	2	ALS	537	5.7	10.7	0.42	0.5 (J)	-	0.4	7.4	26.6	35.6	0.0	70.0	13.4	16.6
	11/12/14	3	ALS	393	5.4	9.0	0.90	0.4 (J)	-	0.2	7.4	22.1	34.1	0.0	78.2	13.0	8.8

Table 6-4 (continued)
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte											Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
Firebaugh Intake Canal	8/22/01	1	FGL	701	10	20	<1.3	<6.4	4,410	0.4	7.2	18.8	60.7	0.0	20.4	40.0	39.6
	8/22/01	2	FGL	763	9	20	<1.2	<5.9	4,008	0.4	7.4	13.9	57.4	0.0	32.4	52.0	15.6
	8/22/01	3	FGL	688	10	20	1.0	<6.3	5,536	0.6	7.3	16.3	60.6	0.0	28.4	53.0	18.6
	8/22/01	3	FGS	-	-	-	-	0.86	-	-	-	-	-	0.0	-	-	-
	10/30/01	1	CAS	168	5.8	16.3	<0.7	<1.0	-	1.1	8.4	43.3	48.4	0.0	24.1	67.8	8.1
	10/30/01	2	CAS	197	5.1	17.2	<0.8	<1.1	-	1.0	7.4	17.6	49.0	0.0	28.6	64.4	7.0
	10/30/01	3	CAS	225	6.1	15.8	<0.7	<1.0	-	1.2	7.1	26.2	47.1	0.0	24.5	69.3	6.2
	10/15/02	1	CAS	66	4.5	12.3	0.6 (B)	<0.9	-	1.4	7.2	35.4	48.1	0.0	17.0	70.0	12.1
	10/15/02	2	CAS	57	4.7	12.2	0.9 (B)	<1	-	1.2	7.3	35.7	41.4	0.0	14.8	70.8	12.7
	10/15/02	3	CAS	89	4.4	8.8 (B)	1.2 (B)	<0.9	-	1.2	7.3	41.1	46.4	0.0	21.1	66.9	12.1
	10/24/07	1	CAS	362	0.4 (B)	5.3 (B)	<0.5	<0.5	-	0.4	7.2	7.6	33.0	0.0	92.1	3.4	4.5
	10/24/07	2	CAS	187	0.5 (B)	8.6 (B)	<0.5	<0.5	-	0.2	7.6	5.3	22.0	0.0	90.7	1.8	7.5
	10/24/07	3	CAS	182	<0.2	7.4 (B)	<0.5	<0.5	-	0.2	7.6	4.8	20.2	0.0	92.6	3.1	4.3
	11/12/09	1	CAS	166	5.0	8.0	0.2 (J)	0.7 (J)	-	1.2	7.2	33.0	49.2	0.0	22.1	64.7	13.2
	11/12/09	2	CAS	174	5.7	6.9	<0.1	0.8 (J)	-	1.0	7.2	28.0	54.2	0.0	25.8	65.5	8.7
	11/12/09	3	CAS	165	5.6	8.6	0.1 (J)	0.8 (J)	-	1.4	7.2	28.0	51.6	0.0	20.1	65.6	14.3
	11/18/10	1	CAS	245	4.4	14.2	0.4	1.1	-	1.3	7.2	38.6	52.3	0.2	16.0	58.7	25.1
	11/18/10	2	CAS	236	4.7	13.7	0.4	1.2	-	1.6	6.9	41.5	60.2	0.0	10.0	59.1	30.9
	11/18/10	3	CAS	222	3.9	12.2	0.3 (J)	1.2	-	1.1	7.1	28.4	49.3	0.0	26.5	59.4	14.1
	11/19/12	1	CAS	135	5.0	6.8	0.41	0.4 (J)	-	2.0	6.8	37.0	53.1	3.2	37.8	42.0	17.1
	11/19/12	2	CAS	104	5.2	10.0	0.78	1.0 (J)	-	1.2	6.8	41.1	56.0	0.7	15.6	53.4	30.3
	11/19/12	3	CAS	110	5.9	11.0	0.59	0.8 (J)	-	1.8	6.9	48.1	61.7	0.0	3.9	60.0	36.1
	11/12/13	1	ALS	176	3.1	9.4	0.2	0.3 (J)	-	1.3	6.8	29.9	46.2	0.1	41.9	37.8	20.2
	11/12/13	2	ALS	221	4.1	11.9	0.39	0.4 (J)	-	1.3	6.9	35.4	49.2	0.2	15.9	48.1	35.8
	11/12/13	3	ALS	203	3.6	12.2	0.29	0.4 (J)	-	1.4	6.9	35.2	52.3	0.0	9.7	54.5	35.8
	11/12/14	1	ALS	848	4.9	10.4	0.4	0.6 (J)	-	1.3	6.9	37.7	55.1	0.0	14.3	66.5	19.3
	11/12/14	2	ALS	790	5.6	11.6	0.45	0.7 (J)	-	1.4	6.8	38.9	54.4	0.0	14.5	63.2	22.4
	11/12/14	3	ALS	772	4.0	9.2	0.31	0.5 (J)	-	0.9	6.8	28.2	45.5	0.0	27.9	57.8	14.3

Table 6-4 (continued)
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte										Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
Central Fresno Slough																	
Etchegoinberry	8/22/01	1	FGL	665	9	30	<2.1	<2.1	7,978	0.8	7.3	30.4	75.8	0.0	18.4	40.0	41.6
	8/22/01	1	FGS	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-
	8/22/01	2	FGL	660	8	20	<1.8	<8.8	8,464	0.8	7.3	27.7	71.6	0.0	16.4	46.0	37.6
	8/22/01	3	FGL	641	7	<18	<1.8	<8.8	7,837	0.8	7.3	26.4	71.7	0.0	14.4	48.0	37.6
	10/30/01	1	CAS	144	6.9	27.4	<0.7	<1.0	-	1.8	7.7	35.9	73.6	0.0	0.5	58.2	41.3
	10/30/01	2	CAS	187	5.8	27.2	1.0 (J)	<1.0	-	1.7	7.4	45.0	70.6	0.0	0.7	55.0	44.4
	10/30/01	3	CAS	182	2.8	10.0 (J)	0.8 (J)	<1.0	-	0.7	7.8	19.2	36.0	0.0	66.8	27.1	6.1
	10/15/02	1	CAS	133	5.0	20.6	0.9 B	<1.1	-	1.7	7.4	52.5	67.2	0.0	0.9	51.0	49.1
	10/15/02	2	CAS	129	5.0	14.1	<0.6	<1.1	-	1.6	7.5	54.7	66.0	0.0	0.8	52.2	47.9
	10/15/02	3	CAS	112	4.8	16.8	1 (B)	<1.1	-	1.7	7.6	57.1	69.8	0.0	1.1	54.3	48.5
	10/24/07	1	CAS	242	4.6	34.5	<0.6	<0.6	-	1.1	7.9	34.0	40.4	0.0	28.5	15.4	56.1
	10/24/07	2	CAS	157	4.1	43.8	<0.6	<0.6	-	0.7	7.9	17.0	36.0	0.0	29.0	13.1	57.9
	10/24/07	3	CAS	100	3.6	42.9	<0.6	<0.6	-	0.8	8.3	28.0	37.6	0.0	13.2	14.2	72.6
	11/12/09	1	CAS	371	6.7	18.3	<0.1	0.9 (J)	-	1.9	7.4	51.0	23.0	0.0	0.4	21.9	77.7
	11/12/09	2	CAS	249	4.1	9.2	<0.1	2.7	-	1.3	7.6	58.0	44.7	0.0	11.7	64.9	23.4
	11/12/09	3	CAS	308	5.7	14.8	<0.1	2.7	-	1.6	7.5	63.0	28.1	0.0	1.5	38.3	60.2
	11/22/10	1	CAS	370	5.8	20.9	0.4 (J)	1.0 (J)	-	2.1	7.2	68.7	74.8	0.0	0.5	24.6	74.9
	11/22/10	2	CAS	404	5.8	17.2	0.4 (J)	0.8 (J)	-	2.1	7.4	38.8	75.1	0.0	0.9	19.3	79.8
	11/22/10	3	CAS	398	6.5	16.6	0.5 (J)	1.1 (J)	-	2.0	7.4	38.7	73.9	0.0	1.7	23.4	74.9
	11/20/12	1	CAS	167	7.2	13.5	0.61	1.0 (J)	-	1.8	7.1	60.4	70.4	0.0	0.5	2.0	97.5
	11/20/12	2	CAS	156	7.5	11.7	0.50	1.2	-	1.8	7.1	52.5	69.5	0.0	0.4	*1.1*	*98.6*
	11/20/12	3	CAS	264	7.6	12.9	0.51	1.2	-	1.7	7.1	61.3	68.7	0.0	0.5	*4.2*	*95.3*
	11/13/13	1	ALS	299	5.2	22.6	0.4	0.4 (J)	-	1.8	7.4	71.6	71.6	0.0	0.7	10.5	88.8
	11/13/13	2	ALS	298	5.8	25.5	0.35	0.6 (J)	-	2.0	7.5	71.9	74.3	0.0	0.4	16.2	83.4
	11/13/13	3	ALS	347	6.1	25.5	0.33	0.5 (J)	-	1.9	7.3	68.9	72.6	0.0	0.3	-4.4	104.1
	11/13/14	1	ALS	1490	7.7	21.6	0.5	0.8 (J)	-	1.8	7.5	91.7	73.6	0.0	0.8	20.4	78.8
	11/13/14	2	ALS	1600	7.6	19.9	0.57	0.9 (J)	-	1.8	7.5	83.9	73.5	0.0	0.4	18.4	81.2
	11/13/14	3	ALS	1790	7.9	21.3	0.53	0.8 (J)	-	1.9	7.5	90.8	74.8	0.0	0.3	17.7	82.0

Table 6-4 (continued)
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte										Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
Southern Fresno Slough																	
Mendota Wildlife Area	8/22/01	1	FGL	909	5	<22	<2.2	<2.2	5,045	0.5	7.5	33.5	77.1	0.0	18.0	36.0	46.0
	8/22/01	2	FGL	951	4	<20	<2	<2	7,134	0.7	7.4	33.6	75.2	-	22.0	30.0	48.0
	8/22/01	3	FGL	443	2.5	<9.5	<0.95	<0.95	1,941	0.2	7.4	11.3	47.1	0.0	58.0	26.0	16.0
	8/22/01	3	FGS	-	-	-	-	0.3	-	-	-	-	-	0.0	-	-	-
	10/30/01	1	CAS	205	4.5	31	<0.7	<1.0	-	1.5	7.4	46.5	71.4	0.0	2.4	49.5	48.1
	10/30/01	2	CAS	168	4.5	29.7	1.3 (J)	<1.2	-	1.4	7.8	49.2	68.5	0.0	2.0	50.3	47.7
	10/30/01	3	CAS	190	5.1	30.8	<0.7	<1.0	-	1.4	7.7	33.8	70.7	0.0	1.5	55.2	43.3
	10/15/02	1	CAS	168	2.6 (B)	4.6 (B)	0.6 (B)	<1.1	-	0.2	7.6	13.4	25.7	0.0	74.6	19.1	3.8
	10/15/02	2	CAS	202	3.2	4.2 (B)	0.7 (B)	<1	-	0.2	8.2	9.3	25.7	0.0	85.6	12.5	2.3
	10/15/02	3	CAS	162	8.6	25.1	1.7 (B)	<1	-	0.3	8.3	34.8	38.0	0.0	53.7	24.3	16.2
	10/24/07	1	CAS	363	2.2	12.8	<0.6	<0.6	-	0.5	7.8	13.0	26.4	0.0	70.6	19.9	9.5
	10/24/07	2	CAS	349	0.6 (B)	5.6 (B)	<0.5	<0.5	-	0.3	7.4	7.2	32.5	0.0	77.2	17.9	4.9
	10/24/07	3	CAS	325	0.3 (B)	6.5 (B)	<0.6	<0.6	-	0.4	7.6	8.9	26.8	0.0	68.2	24.7	7.1
	11/12/09	1	CAS	222	4.7	14.6	<0.1	2.8	-	1.2	7.3	78.0	29.9	0.0	4.1	37.7	58.2
	11/12/09	2	CAS	336	4.9	18.0	0.1 (J)	0.5 (J)	-	1.4	7.5	79.0	28.0	0.0	1.4	15.7	75.9
	11/12/09	3	CAS	216	5.4	6.2	0.3 (J)	0.5 (J)	-	0.2	8.1	14.0	71.8	0.0	75.9	18.4	5.7
	11/22/10	1	CAS	405	4.3	18.4	0.4 (J)	1.2	-	1.5	7.6	53.0	70.6	0.0	1.9	32.8	65.3
	11/22/10	2	CAS	420	7.3	10.4	0.7	0.3 (J)	-	0.3	8.2	22.8	37.6	4.9	68.3	23.5	3.3
	11/22/10	3	CAS	384	4.1	16.2	0.3 (J)	0.5 (J)	-	1.5	7.6	46.8	68.4	0.0	2.7	28.6	68.7
	11/20/12	1	CAS	163	5.5	12.7	0.75	1.6	-	1.3	7.6	64.5	64.9	0.0	3.1	22.5	74.4
	11/20/12	2	CAS	155	4.2	10.3	0.40	1.2	-	1.0	7.7	42.2	55.7	0.0	9.8	37.0	53.2
	11/20/12	3	CAS	72	1.7	2.7	0.29 (J)	0.4 (J)	-	0.2	7.5	9.2	28.3	0.0	71.7	20.7	7.6
	11/13/13	1	ALS	272	3.6	23.5	0.3	0.6 (J)	-	1.5	7.7	65.0	68.7	0.0	1.8	28.9	69.3
	11/13/13	2	ALS	305	3.5	24.4	0.32	0.6 (J)	-	1.5	7.8	67.3	69.8	0.0	1.9	20.7	77.4
	11/13/13	3	ALS	300	3.6	21.2	0.41	0.5 (J)	-	1.4	7.8	63.7	65.6	0.0	3.7	27.6	68.7
	11/13/14	1	ALS	1280	5.8	18.8	0.6	0.7 (J)	-	1.5	7.7	77.3	70.5	0.0	1.5	25.0	73.5
	11/13/14	2	ALS	1550	5.8	19.1	0.56	0.7 (J)	-	1.4	7.4	108.4	70.4	0.0	1.8	36.0	62.2
	11/13/14	3	ALS	1530	5.1	18.3	0.47	0.6 (J)	-	1.4	7.4	92.2	70.0	0.0	1.5	25.5	73.0

Table 6-4 (continued)
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte											Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
James ID Booster Plant	8/22/01	1	FGL	570	1.8	<8.4	<0.84	<4.2	1,649	0.2	7.5	5.2	40.4	0.0	88.0	6.0	6.0
	8/22/01	2	FGL	526	2.2	<8.1	<0.81	<4.1	874	0.1	7.5	3.9	38.4	0.0	90.0	5.0	5.0
	8/22/01	3	FGL	664	1.7	<8.3	<0.83	<0.83	799	0.1	7.6	5.8	40.1	0.0	88.0	7.0	5.0
	8/22/01	3	FGS	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-
	10/30/01	1	CAS	255	2.7	10.2	<0.7	<1.0	-	0.8	7.8	39.7	47.3	0.0	30.1	58.7	11.2
	10/30/01	2	CAS	265	2.3	6.6 (J)	<0.7	<1.0	-	0.5	7.5	24.4	42.1	0.0	53.0	37.4	9.5
	10/30/01	3	CAS	298	2.9	9.7 (J)	<0.7	<1.0	-	1.0	7.6	16.9	47.9	0.0	35.1	53.6	11.3
	10/15/02	1	CAS	112	2.5 (B)	6.3 (B)	<0.6	<1	-	0.7	7.8	22.2	40.9	0.0	37.6	58.4	9.7
	10/15/02	2	CAS	140	2.6	10.8	1.1 (B)	<0.9	-	0.9	7.5	27.8	45.0	0.0	23.1	61.4	13.4
	10/15/02	3	CAS	170	1.4 (B)	4.1 (B)	1.5 (B)	<1	-	0.4	8.1	11.9	28.8	0.0	73.3	20.0	6.1
	10/25/07	1	CAS	167	0.8 (B)	5.8 (B)	<0.5	<0.5	-	0.2	8.1	3.7	20.4	0.0	91.9	6.3	1.8
	10/25/07	2	CAS	226	0.9 (B)	4.6 (B)	<0.5	<0.5	-	0.1	7.9	2.9	21.8	0.0	93.6	4.3	2.1
	10/25/07	3	CAS	170	0.7 (B)	6.4 (B)	<0.6	<0.6	-	0.1	7.8	2.3	17.7	0.0	95.2	3.8	1.0
	11/12/09	---------- No Sample ----------															
	11/19/10	1	CAS	222	1.2	3.9	0.1 (J)	0.5 (J)	-	0.2	7.2	4.3	22.7	0.0	90.0	7.2	2.9
	11/19/10	2	CAS	284	1.8	7.0	0.2 (J)	0.2 (J)	-	0.5	7.3	17.6	43.2	0.0	47.9	38.2	13.9
	11/19/10	3	CAS	273	2.1	8.6	0.3 (J)	0.2 (J)	-	0.7	7.4	15.4	42.7	0.0	51.7	44.0	4.3
	11/20/12	1	CAS	111	0.9 (J)	2.6	<0.2	0.2 (J)	-	0.1	8.0	6.8	19.6	1.2	79.1	13.2	6.5
	11/20/12	2	CAS	138	1.4	3.1	<0.2	0.1 (J)	-	0.2	7.9	9.0	24.7	0.2	80.4	11.8	7.6
	11/20/12	3	CAS	114	0.9 (J)	1.3 (J)	0.24 (J)	0.1 (J)	-	0.1	8.2	5.2	21.7	3.8	87.5	5.8	3.0
	11/13/13	1	ALS	3210	4.5	7.9	0.2	0.1 (J)	-	0.2	8.8	7.8	19.0	0.6	75.5	13.9	10.0
	11/13/13	2	ALS	2600	10.2	16.7	0.43	0.2 (J)	-	0.3	8.4	6.9	18.3	2.9	74.6	9.8	12.8
	11/13/13	3	ALS	3070	16.0	11.2	0.29	0.1 (J)	-	0.4	8.3	9.5	20.0	1.4	65.8	17.6	15.1
	11/13/14	1	ALS	576	2.3	9.4	0.2	<0.07	-	0.3	8.0	14.5	24.9	0.0	78.9	15.1	6.0
	11/13/14	2	ALS	1190	2.8	7.9	0.16	<0.07	-	0.2	8.8	12.2	19.0	0.0	79.0	14.0	7.1
	11/13/14	3	ALS	604	2.1	10.6	0.22	<0.07	-	0.2	8.9	13.7	22.3	0.0	76.6	14.0	9.4

Table 6-4 (continued)
Sediment Sampling Results

Sampling Station	Date	Replicate	Lab	Analyte										Sieve Analysis			
				EC[b] (umhos/cm)	Arsenic (mg/kg)[a]	Boron (mg/kg)[a]	Molybdenum (mg/kg)[a]	Selenium (mg/kg)[a]	TOC[a] (mg/kg)	TOC[a] (%)	pH[b]	CEC (meq/100g)	% Moisture	% Gravel	% Sand	% Silt[c]	% Clay
Lateral 6	8/22/01	1	FGL	1,280	10	60	<1	<10	3,402	0.3	8.0	43.8	51.1	0.0	14.4	34.0	51.6
	8/22/01	1	FGS	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-
	8/22/01	2	FGL	1,260	5	40	<1.1	<5.4	5,826	0.6	8.0	39.9	53.5	0.0	24.4	27.6	48.0
	8/22/01	3	FGL	1,160	5.4	37	<0.97	<4.8	6,158	0.6	8.0	39.4	48.3	0.0	26.0	28.0	46.0
	10/30/01	1	CAS	305	3.3	33	1.0 (J)	<1.1	-	1.0	8.1	19.6	59.2	0.0	2.4	74.5	23.1
	10/30/01	2	CAS	277	3.4	28.9	<0.8	<1.1	-	1.0	8.0	33.7	59.4	0.0	9.5	67.8	22.7
	10/30/01	3	CAS	247	3.7	28.0	<0.8	<1.1	-	1.0	8.1	25.0	58.1	0.0	11.6	64.8	23.6
	10/15/02	1	CAS	147	3.2	17.2	1 B	<1.1	-	0.9	8.0	35.1	44.0	0.0	25.5	55.7	16.2
	10/15/02	2	CAS	147	2.8	25.7	0.8 (B)	<1	-	1.0	8.2	42.6	49.7	0.0	18.3	61.9	21.1
	10/15/02	3	CAS	271	2.6 (B)	28.1	<0.6	<1	-	1.1	7.8	40.8	51.7	0.0	5.3	72.9	21.9
	10/25/07	1	CAS	282	4.1	27.7	<0.5	<0.5	-	1.2	8.2	49.0	55.9	0.0	20.4	40.7	38.9
	10/25/07	2	CAS	320	4.4	27.2	<0.5	<0.5	-	1.6	8.2	67.0	55.8	0.0	26.6	34.9	38.5
	10/25/07	3	CAS	451	3.9	19.6	<0.5	<0.5	-	1.2	8.2	36.0	47.4	0.0	37.7	31.2	31.1
	11/13/09	1	CAS	479	4.1	18.2	0.4	1.2 (J)	-	0.9	8.0	49.0	52.1	0.0	10.1	47.6	42.3
	11/13/09	2	CAS	356	4.8	16.0	0.3 (J)	0.7 (J)	-	0.6	8.0	36.0	59.0	0.0	30.0	41.5	28.5
	11/13/09	3	CAS	303	5.0	14.3	0.7	1.1 (J)	-	0.6	8.1	27.0	63.2	0.0	43.4	33.3	23.3
	11/19/10	1	CAS	386	2.7	27.8	0.5	<0.1	-	1.1	8.2	47.0	44.6	0.0	18.2	81.8	0.0
	11/19/10	2	CAS	448	3.7	36.3	1.2	0.7 (J)	-	1.0	8.3	70.9	60.8	0.0	1.1	23.3	75.6
	11/19/10	3	CAS	380	2.8	27.6	0.9	0.7 (J)	-	0.9	8.6	35.3	48.3	0.3	13.7	30.3	55.7
	11/20/12	1	CAS	208	7.5	28.7	0.25 (J)	1.2 (J)	-	0.4	8.4	57.8	30.1	0.0	5.6	21.3	73.2
	11/20/12	2	CAS	234	6.5	28.0	0.19 (J)	0.7 (J)	-	0.3	8.4	45.2	34.0	0.2	6.1	10.9	82.9
	11/20/12	3	CAS	228	8.7	26.6	0.35 (J)	0.5 (J)	-	0.3	8.5	47.7	32.5	0.2	6.4	10.2	83.3
	11/13/13	1	ALS	373	5.6	40.5	0.6	0.3 (J)	-	0.3	8.5	54.2	36.9	0.0	7.2	10.6	82.1
	11/13/13	2	ALS	260	6.6	30.3	0.40	0.2 (J)	-	0.3	8.7	55.8	36.2	0.0	8.5	20.1	71.4
	11/13/13	3	ALS	342	4.8	35.7	0.49	0.2 (J)	-	0.3	8.6	54.4	35.9	0.0	9.8	16.5	73.7
	11/13/14	1	ALS	575	7.9	22.4	0.5	0.1 (J)	-	0.3	8.4	63.3	35.6	6.4	9.0	22.9	61.7
	11/13/14	2	ALS	589	10.5	20.7	1.55	0.1 (J)	-	0.3	8.3	63.6	35.6	8.3	12.6	12.0	67.1
	11/13/14	3	ALS	567	7.7	19.0	1.05	0.1 (J)	-	0.2	7.8	52.8	38.7	1.0	15.4	22.4	61.3

Constituent abbreviations: EC = electrical conductivity @ 25 degrees C; TOC = total organic carbon; CEC = cation exchange capacity

Laboratory abbreviations: FGL - Fruit Growers Laboratory, Santa Paula, California; FGS - Frontier Geosciences, Seattle, Washington; CAS - Columbia Analytical Services, Kelso, Washington; ALS Group USA, Kelso, Washington

a. Data are expressed on a dry weight basis

b. Analysis performed on saturation extract

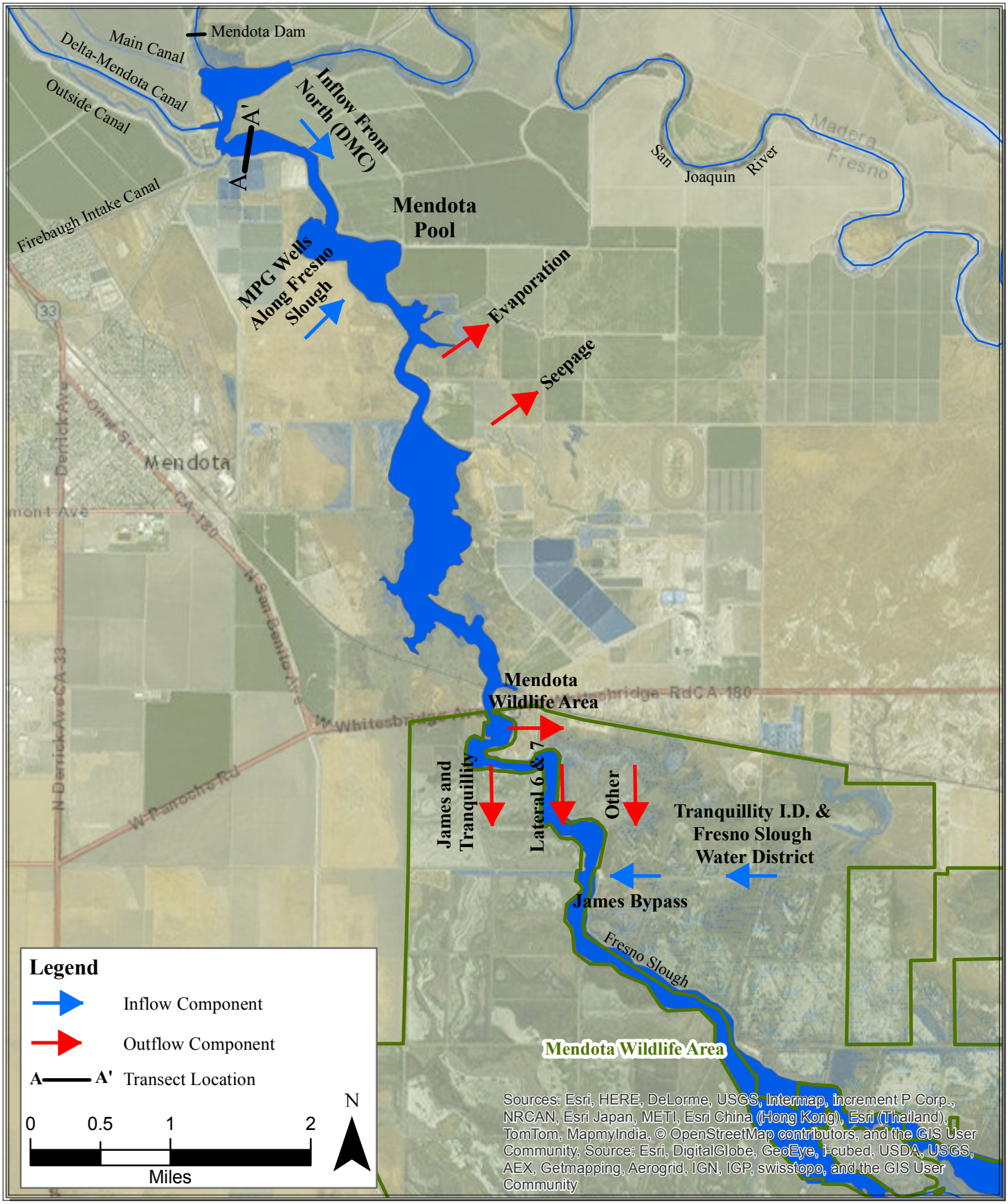
c. A negative value is due to using Method ASTMD422 that combines screen data and hydrometer data to create the total. The laboratory considers +/- 5% acceptable.

See Figure 2-4 for sample location map.

Data Qualifiers:

B - Analyte found in method blank at significant level relative to sample results

J - Result is an estimated concentration that is greater than the Method Detection Limit but less than the Method Reporting Limit.

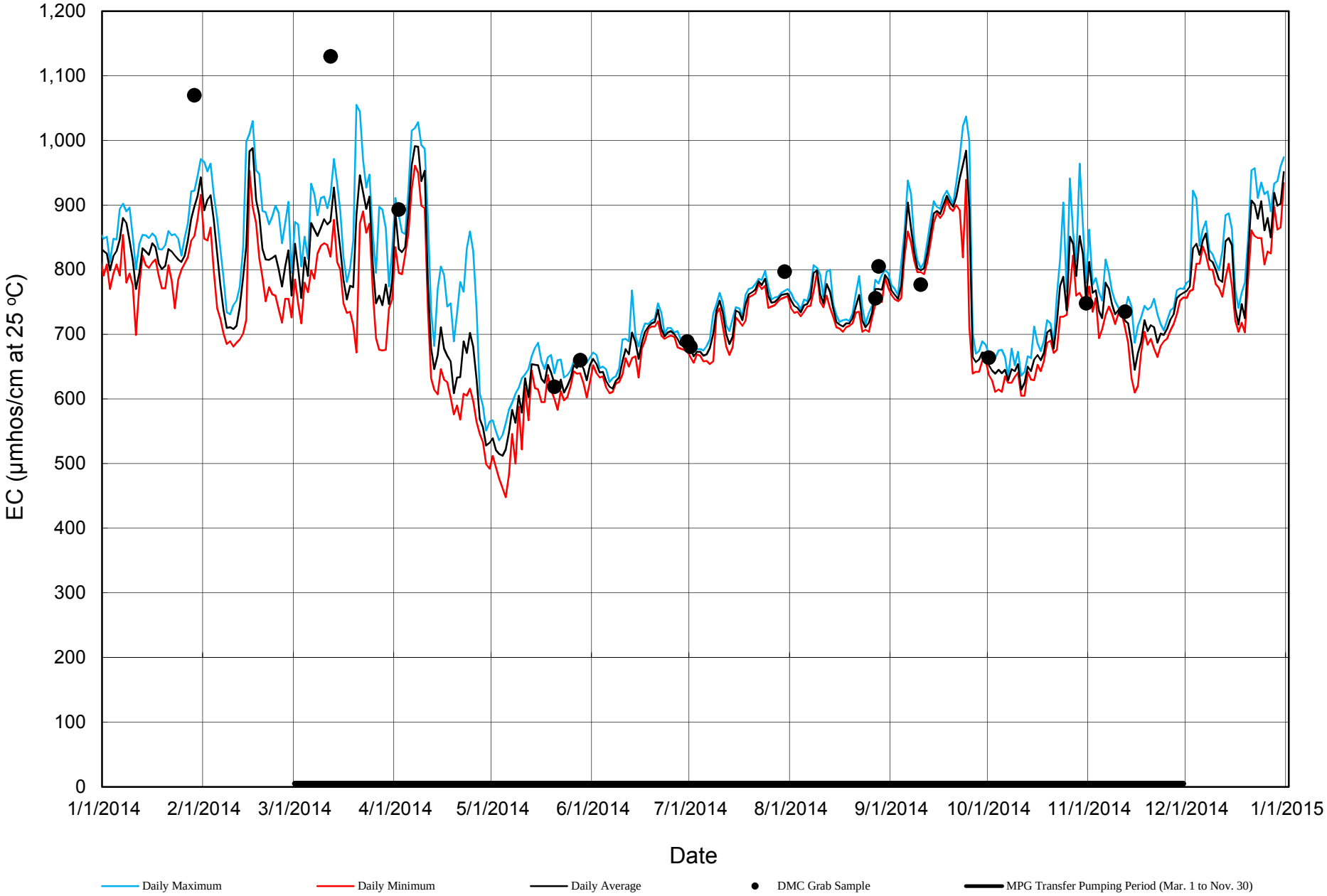


C:\Users\Dell\Desktop\GIS for Desktop\Mendota\Figure 6-1 inflow and outflow.mxd

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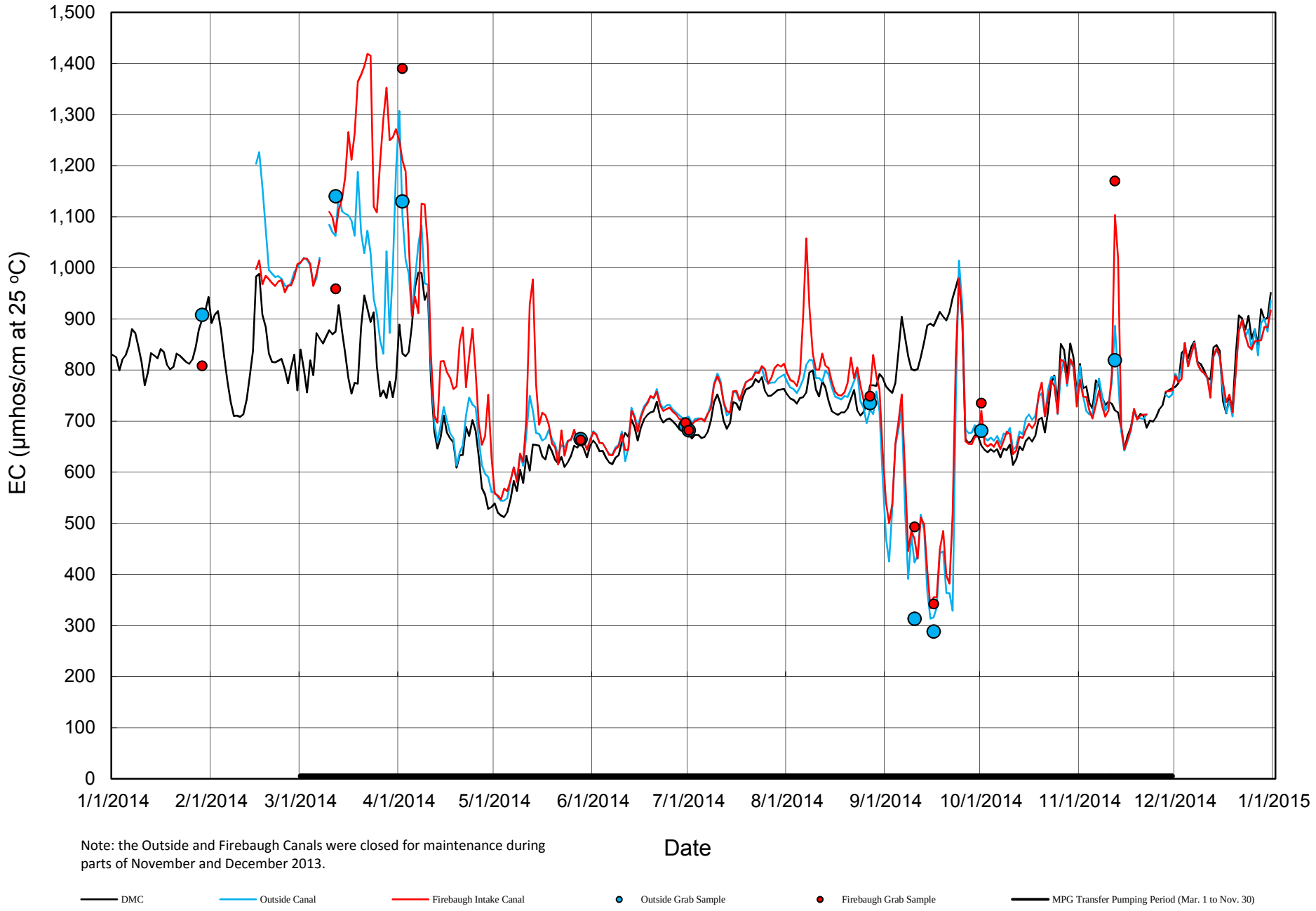
Figure 6-1
Inflow and Outflow Components for Southern Fresno Slough Water Budget

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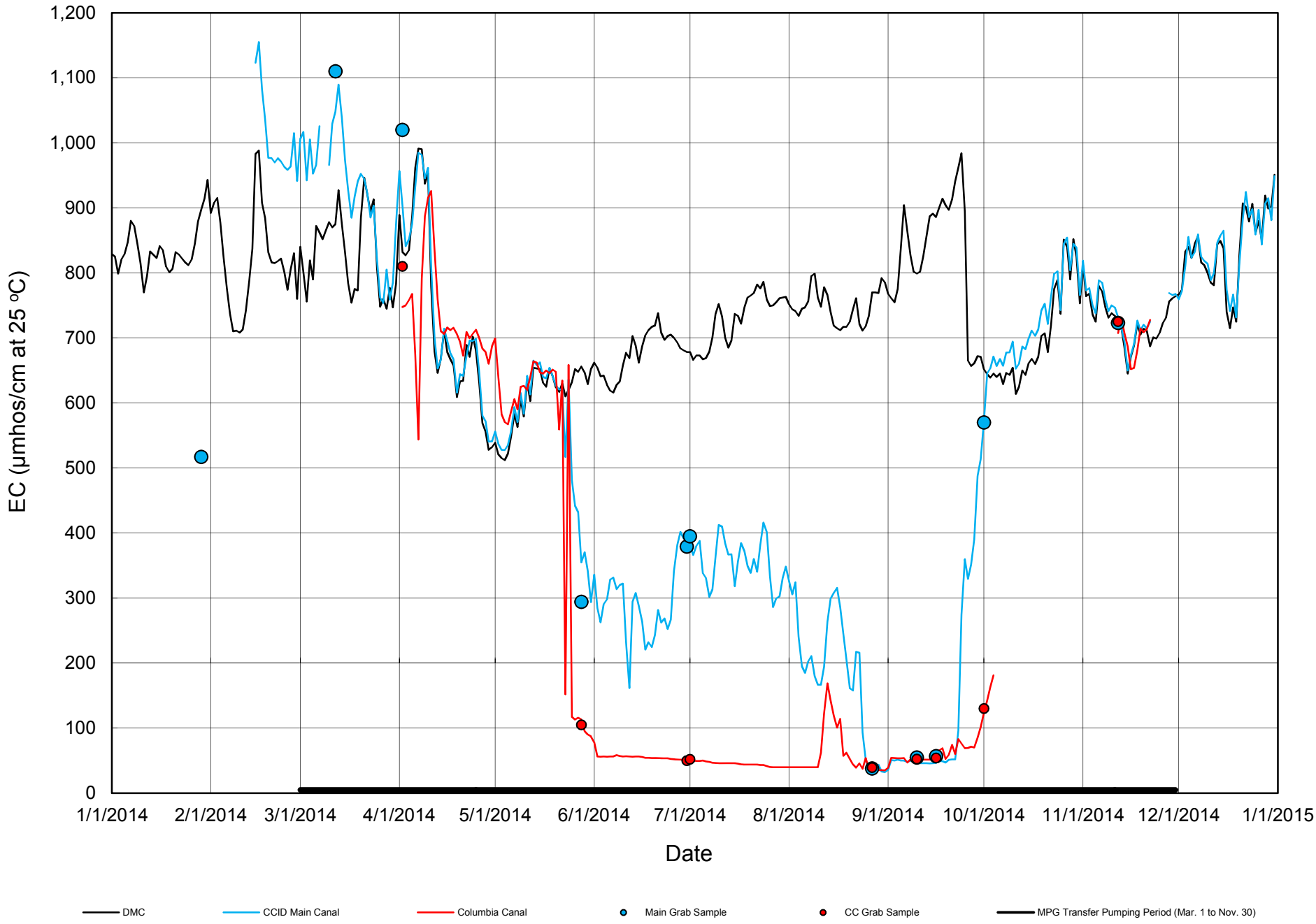
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Figure 6-2
2014 Daily EC Fluctuations and Grab Sample Results at DMC Terminus



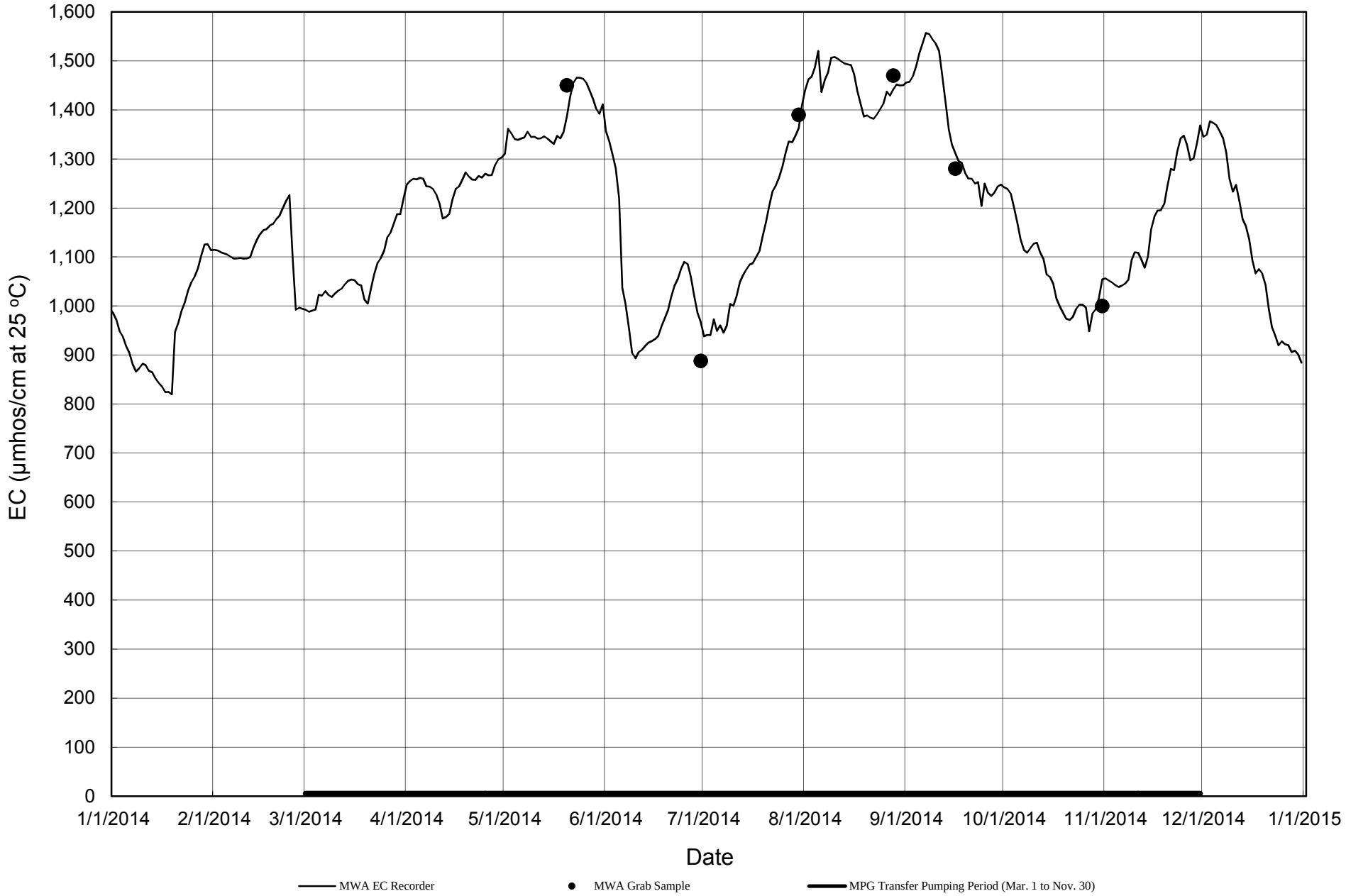
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Figure 6-3
2014 Daily Average EC and Grab Sample Results at DMC, CCID Outside Canal, and Firebaugh Intake Canal



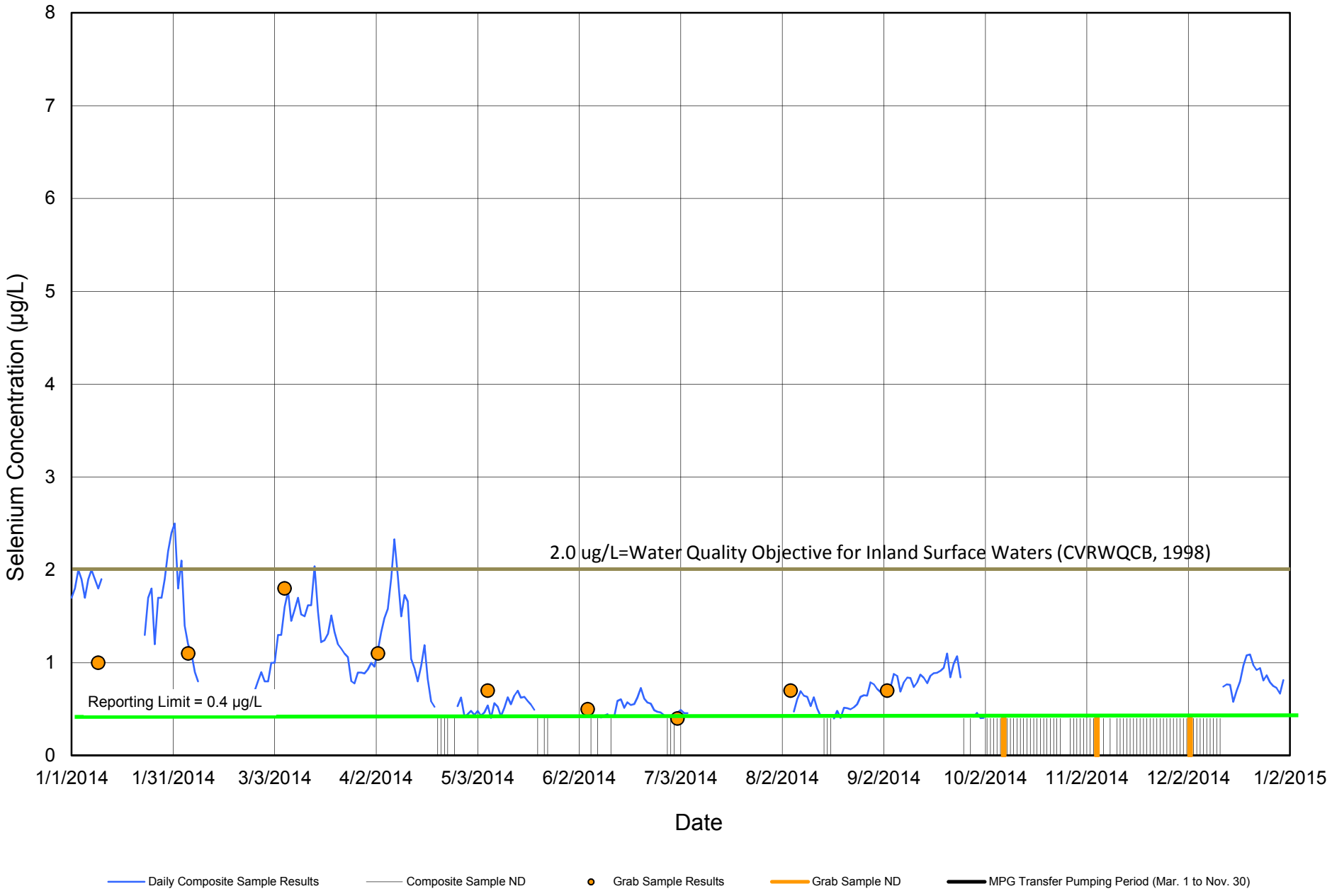
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Figure 6-4
2014 Daily Average EC and Grab Sample Results at DMC, CCID Main Canal, and Columbia Canal



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Figure 6-5
2014 Daily Average EC and Grab Sample Results at Mendota Wildlife Area



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Figure 6-6
2014 Daily Average Total Selenium Concentration and Grab Sample Results at DMC Terminus

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7 SUBSURFACE COMPACTION AND LAND SUBSIDENCE

Subsurface compaction data are collected from two extensometers in the Mendota area (**Figure 2-1**) to evaluate compliance with the subsidence criteria specified in the original agreement, Agreement No. 2, and the 2005 EIS. The original settlement agreement and Agreement No. 2 state that MPG transfer pumping cannot cause more than an average of 0.005 foot of subsidence per year at the Yearout Ranch extensometer. The 2005 EIS also applies this criterion to the Fordel extensometer.

The Fordel extensometer was installed by the MPG in 1999 at a site approximately one mile west of the Fresno Slough. This extensometer is located near the cluster of USGS and USBR monitoring wells west of the Mendota Airport. The Yearout Ranch extensometer was installed by DWR in 1965 and is located about two miles east of the Fresno Slough near San Mateo Avenue, northeast of the former Spreckels Sugar Co. Mendota factory. DWR collected historical compaction and water-level data at this site from 1966 to 1982. Data collection was reinitiated by CCID in 1999, and CCID has continued to monitor the extensometer since that time. The historical data record was analyzed to calculate the relationship between drawdown and inelastic compaction at the Yearout Ranch location (KDSA and LSCE, 2000b), and reexamined based on more recent data (LSCE and KDSA, 2003).

The two extensometers monitor the compaction of sediments between the ground surface and the top of the Corcoran Clay, which was identified prior to construction of the extensometers at depths of 418 and 428 feet at the Fordel and Yearout Ranch sites, respectively. All measurements are reported in reference to an arbitrarily chosen reference datum. The reference datum was chosen to be the measurement of maximum recovery after the 1999 irrigation season, which occurred in March 2000. These measurements were assigned a zero value, and all subsequent measurements are reported relative to that period.

For each year, the total compaction is calculated as the difference between the measurement of greatest compaction, which typically occurs in the summer coinciding with the lowest groundwater levels and the preceding measurement of least compaction (typically a winter or spring measurement coinciding with high groundwater levels). The total compaction is comprised of elastic and inelastic components. Elastic compaction occurs relatively instantaneously in response to water-level declines in the aquifer and is followed by expansion (i.e., elastic rebound) as water levels recover. If the compaction during the irrigation season is greater than the expansion during the subsequent winter/spring when water levels recover, this difference is considered to represent the inelastic compaction. At the end of each year, the amount of permanent land subsidence occurring at each site due to compaction above the Corcoran Clay is indicated by the inelastic compaction.

The annual inelastic compaction was initially considered to be non-reversible. However, as discussed below, data collected from the extensometers during years of rising groundwater levels show that some or all of the compaction originally considered to be inelastic can be reversible. This means that truly inelastic compaction can only be determined over a multi-year period, rather than the current annual criteria as required by the agreements.

7.1 Fordel Extensometer

Table 7-1 and **Figure 7-1** show compaction at the Fordel extensometer and water levels at nearby USGS monitoring well T13S/R15E-31J3 (31J3) for 1999-2014. Monitoring well 31J3 is perforated just above the Corcoran Clay from 400 to 410 feet in depth, and water levels are monitored daily by a pressure transducer installed in the well and checked with manual field measurements using an electric sounder about 10 times a year. Water levels are missing from May 22 through June 25, 2014 due to a malfunctioning data logger. The shallowest and deepest depths to water during 2014 (**Table 7-1**) were recorded on January 8, 2014 (42.11 feet bgs) and July 24, 2014 (92.20 feet bgs), respectively, indicating a drawdown of 50.09 feet. The shallowest water level following the 2014 irrigation season was recorded on January 23, 2015 (43.42 feet), indicating 48.78 feet of recovery. As a result, the January 2015 water level was a little over one foot lower than in January 2014.

Compaction at the Fordel extensometer is monitored hourly with electronic equipment and monthly with manual dial indicator readings. The total seasonal compaction in 2014 was 0.032 feet. As of December 13, 2014, the elastic rebound was 0.027 feet. This results in 0.005 feet of inelastic compaction in 2014. However, the Stevens Shaft Recorder in the Fordel extensometer failed on December 31, 2014 through spring 2015 when the maximum elastic rebound is expected to have occurred, resulting in conservative estimates of elastic rebound and inelastic subsidence. The cumulative inelastic compaction at the Fordel site during the 15-year period beginning in March 2000 increased to 0.039 feet by the end of 2014. This amounts to an average inelastic compaction of about 0.0026 feet per year, which is less than the "do not exceed" amount (average 0.005 feet per year) specified in the 2005 EIS.

7.2 Yearout Ranch Extensometer

Table 7-1 and **Figure 7-2** show water levels and compaction measured at the Yearout Ranch extensometer, which is also completed as a monitoring well with a perforated interval of 373 to 433 feet bgs. Daily automated water-level measurements were made in this well until the transducer failed in 2004, and a new transducer was installed with readings beginning November 2012. During the interim period, water-level data were limited to manual measurements made every one to two months. Due to the much lower frequency of manual measurements, the full seasonal water-level fluctuations were not recorded during that time. Based on the transducer data, there was approximately 91.53 feet of water level drawdown and 90.79 feet of recovery

(**Table 7-1**) between February 2014 and January 2015. As a result, water levels were less than one foot lower at the end of the year.

The compaction at this location was monitored with an automated sensor and data logger on a daily basis until December 2007. The automated equipment experienced intermittent problems, and periodic manual dial indicator readings were used along with occasional direct rod surveys to correct the daily data. The automated equipment was removed at the end of 2007, and daily readings were only available for a few months in early 2009. A new sensor and data logger was installed in August 2012, but the daily data did not match the dial indicator readings. The data logger was sent back to the manufacturer for calibration adjustments in September and October 2012. In 2012, dial indicator readings were made at least once a month, and direct rod surveys were conducted in August 2012 and February 2013. However, the dial indicator readings and direct rod survey data were inconsistent and could not be reconciled. As a result, compaction could not be calculated for the Yearout Ranch extensometer in 2012. On April 25th 2013 a direct rod survey was conducted that was used to set the dial indicator and extensometer. The dial indicator and data logger tracked well from April 25th to December 2013. However, the datalogger failed to record from January to May 6th 2014 when the maximum elastic rebound usually occurs making the estimates of elastic, inelastic, and cumulative inelastic compaction incomplete. Also, data logger readings were uncertain after May 2014 and only direct rod survey readings were used for 2014 and early 2015.

As shown in **Table 7-1**, the total seasonal compaction measured in 2014 was 0.79 feet, and the elastic (rebound) and inelastic compaction were 0.061 and 0.019 feet, respectively, as of February 20th, 2015. The elastic and inelastic compaction values may not represent the total amount of rebound as data was not recoverable for the entire months of January and February 2015 when the maximum amount of rebound normally occurs. However, this measurement is used to give a conservative estimate of compaction at the site. Between 2000 and 2014 total seasonal compaction at the Yearout Ranch extensometer ranged from 0.056 to 0.112 feet, and the elastic rebound ranged from 0.058 to 0.098 feet at the end of each year. The annual inelastic compaction ranged from -0.009 to 0.034 feet. The cumulative inelastic compaction at the Yearout Ranch site during the 15-year period from March 2000 to the end of 2014 was estimated at 0.182 feet. This results in an average inelastic compaction of about 0.012 feet (about 0.1 inch) per year.

In order to evaluate the influence of the MPG transfer pumping on compaction, other pumping in the area is considered. **Table 7-2** shows the estimated distribution of drawdown and compaction at the Yearout Ranch extensometer. The distribution of drawdown is calculated using the groundwater flow model discussed in Chapter 8. The amount of MPG transfer pumping from the portion of the four FWD composite wells below the Corcoran Clay (about 670 af or about 3 percent of total transfer pumping) was included in the compaction calculation. The model results indicated that 39 percent of the total drawdown in 2014 at the extensometer was caused by MPG

transfer pumping, and the remaining 61 percent was caused by other pumping. At the end of 2014, the cumulative inelastic compaction caused by MPG transfer pumping was estimated to be 0.059 feet, and the remaining inelastic compaction (0.122 foot) was caused by other pumping. This corresponds to an average annual inelastic compaction of 0.004 feet, which is less than the "do not exceed" annual average of 0.005 feet of subsidence at the Yearout Extensometer due to MPG transfer pumping specified in Agreement No. 2.

7.3 Other Land Subsidence Data

In addition to the two extensometers in the Mendota area, a GPS monitoring station (P304) was installed in 2004 on land owned by Meyers Farms southeast of Mendota and west of the Fresno Slough (see **Figure 2-1**). A large network of these stations has been installed throughout the western United States in recent years by PBO, which is a division of UNAVCO. PBO's primary focus is monitoring plate tectonics, but data from the high-definition GPS recorders are also useful for monitoring subsidence. The GPS stations monitor the total displacement of the ground surface, which shows how much cumulative compaction is occurring in all depth zones and aquifers, including the Corcoran Clay and underlying clays in the lower aquifer. Unlike the extensometers, which monitor compaction within a specific depth interval (i.e. between the ground surface and the bottom of the extensometer), the GPS data provide a measure of the total land subsidence. Data from each of the GPS stations are uploaded daily to the UNAVCO website. UNAVCO has updated their processing of PBO site data and provided the updated data for inclusion in **Figure 7-3** (NMT) (personal communication, David Phillips, Project Manager, Geodetic Data Services, UNAVCO, March 6, 2014).

Measurements at the Mendota PBO station began on April 28, 2004, and these data are plotted on **Figure 7-3** along with compaction data from the Fordel extensometer for comparison. Since the start of the monitoring period at P304, there has been about 0.53 feet of total inelastic compaction at this site, which is about 15 times more than was measured at the Fordel extensometer over the same period. Most of the inelastic compaction is indicated to be occurring in and below the Corcoran Clay. A hydrograph of water levels below the Corcoran Clay at USGS monitoring well T13S/R15E-31J6 is shown on the bottom of **Figure 7-3**. This well is located west of the Mendota Airport near the Fordel extensometer and has a perforated interval of 480-490 feet. During 2007-2009, when the hydraulic head in the upper part of the lower aquifer declined by about 70 feet, there was about 0.22 foot of inelastic compaction. Also, from 2012 through 2014, there was over 65 feet of head decline in monitoring well 31J6, and the inelastic compaction at the Mendota PBO station was 0.3 feet.

There is little pumpage from the lower aquifer (below the Corcoran Clay) near the City of Mendota. There are four composite wells in FWD and 11 composite wells in NCR, but most of the perforated interval of these wells is above the Corcoran Clay. Inelastic compaction occurring in and below the Corcoran Clay in the Mendota area is believed to be caused primarily by

pumping from the lower aquifer west of Mendota in Westlands Water District and north and east of the WO service area in Madera County.

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Table 7-1
Water Levels and Compaction at Fordel and Yearout Ranch Extensometers

Year	Measured Depth to Water[1]						Water Level		Compaction			
	Minimum (Start)		Maximum		Minimum (End)		Drawdown	Recovery	Annual[2]			Cumulative
	(date)	(ft)	(date)	(ft)	(date)	(ft)	(ft)	(ft)	Total (ft)	Elastic (ft)	Inelastic (ft)	Inelastic (ft)
Fordel, Inc.												
1999	01/08/99	27.70	09/06/99	88.91	03/22/00	30.81	61.21	58.10	NA[3]	0.035	NA[3]	NA
2000	03/22/00	30.81	08/17/00	99.96	02/25/01	33.90	69.15	66.06	0.043[4]	0.041[4]	0.002	0.002
2001	02/25/01	33.90	06/28/01	89.19	01/07/02	35.70	55.29	53.49	0.035	0.032[5]	0.003[5]	0.005
2002	01/07/02	35.70	07/01/02	70.50	01/25/03	35.21	34.80	35.29	NA	0.024	0.001[6]	0.006[6]
2003	01/25/03	35.21	08/02/03	67.40	01/06/04	34.65	32.19	32.75	0.020	0.019	0.000	0.006
2004	01/06/04	34.65	08/02/04	71.10	03/30/05	32.57	36.45	38.53	0.018	0.020	-0.002	0.005
2005	03/30/05	32.57	08/16/05	64.01	02/03/06	28.18	31.44	35.83	0.015	0.021	-0.007	-0.002
2006	02/03/06	28.18	07/20/06	51.08	01/17/07	24.41	22.90	26.67	0.009	0.017	-0.007	-0.010
2007	01/17/07	24.41	06/12/07	76.09	02/16/08	34.26	51.68	41.83	0.044	0.022	0.023	0.013
2008	02/16/08	34.26	08/19/08	79.32	12/25/08	37.03	45.06	42.29	0.030	0.022	0.008	0.021
2009	12/25/08	37.03	05/06/09	85.98	02/03/10	39.60	48.95	46.38	0.031	0.018	0.013	0.034
2010	02/03/10	39.60	08/05/10	74.71	04/15/11	34.43	35.11	40.28	0.011	0.024	-0.013	0.021
2011	04/15/11	34.43	08/05/11	50.90	01/10/12	31.30	16.47	19.60	0.008	0.013	-0.005	0.016
2012	01/10/12	31.30	07/12/12	82.24	01/06/13	36.44	50.94	45.80	0.034	0.025	0.009	0.025
2013	12/29/12	36.40	07/29/13	88.10	01/08/14	42.11	51.70	45.99	0.034	0.025	0.009	0.034
2014	01/08/14	42.11	07/24/14	92.20	01/23/15	43.42	50.09	48.78	0.032	0.027	0.005	0.039
Yearout Ranch												
1999	NA	NA	NA	NA	NA	NA	NA	NA	NA[3]	0.098	NA[3]	NA
2000	03/06/00	36.66	08/18/00	121.43	03/12/01	37.84	84.77	83.59	0.112	0.097	0.015	0.015
2001	03/12/01	37.84	06/19/01	132.12	02/05/02	44.07	94.28	88.05	0.109	0.088	0.021	0.035
2002	02/05/02	44.07	07/30/02	114.02	01/22/03	46.27	69.95	67.75	0.095[7]	0.084[7]	0.011[7]	0.046[7]
2003	01/22/03	46.27	09/19/03	106.31	01/20/04	48.38	60.04	57.93	0.073[8]	0.058[8]	0.015[8]	0.061[8]
2004	01/20/04	48.38	08/19/04	110.67	03/08/05	49.57	62.29	61.10	0.075	0.074	0.001	0.062
2005	03/08/05	49.57	06/30/05	115.69	02/08/06	43.10	66.12	72.59	0.082	0.083	-0.001	0.061
2006	02/08/06	43.10	08/04/06	92.00	01/08/07	38.50	48.90	53.50	0.074	0.073	0.001	0.062
2007	01/08/07	38.50	NA[9]	NA[9]	02/08/08	44.75	NA[9]	NA[9]	0.106	0.088	0.018	0.081
2008	02/08/08	44.75	05/16/08	125.40	01/01/09	45.50	80.65	79.90	0.088	0.068	0.020	0.100
2009	01/01/09	45.50	05/27/09	130.00	03/05/10	51.70	84.50	78.30	0.098	0.085	0.013	0.113
2010	03/05/10	51.70	08/12/10	119.82	01/10/11	49.30	68.12	70.52	0.056	0.065	-0.009	0.104
2011	01/10/11	49.30	08/04/11	117.17	12/09/11	51.44	67.87	65.73	0.073	0.066	0.007	0.111
2012	12/09/11	51.44	07/05/12	132.08	01/28/13	45.78	80.64	86.30	NA[10]	NA[10]	0.018[10]	0.129[10]
2013	01/23/13	46.06	05/25/13	143.03	02/11/14	55.75	96.97	87.28	0.101	0.067[11]	0.034[11]	0.163[11]
2014	02/11/14	55.75	05/29/14	147.28	01/28/15	56.49	91.53	90.79	0.079	0.061	0.019	0.182

NA = not available

1. Water levels at Fordel are measured at USGS well T13S/R15E-31J3 (located approximately 150 feet north of the extensometer).
2. Total compaction is calculated as the difference between the measurement of greatest compaction in a given year and the preceding measurement of least compaction. Elastic compaction is calculated as the difference between the measurement of greatest compaction in a given year and the subsequent measurement of least compaction. Inelastic compaction is calculated as the difference between total compaction and its elastic component. This is equal to the difference between the recovered compaction levels at the end of one compaction cycle and the preceding recovered compaction levels at the beginning of a compaction cycle. Rounded to 1/1000 of a foot.
3. Total and inelastic compaction could not be calculated in 1999 because data collection did not begin until July.
4. Values were increased by 0.003 foot, based on the difference in drawdown between July 11 and August 17, 2000, to correct for unmeasured periods.
5. Estimated value. See discussion in 2001 Annual Report regarding foundation washout.
6. Estimated value. See discussion in 2002 Annual Report regarding foundation washout and new reference datum.
7. Estimated value. See discussion in 2002 Annual Report regarding malfunction of logging equipment.
8. Estimated value. See discussion in 2003 Annual Report regarding malfunction of logging equipment.
9. No 2007 water level measurements at Yearout Ranch after March 30.
10. 2012 Yearout Ranch compaction data questionable due to data logger failure. Inelastic annual and cumulative compaction back calculated using 2013 data.
11. Estimated value. 2013 Yearout Ranch compaction data incomplete due to lack of data recording full recovery Jan/Feb 2014.

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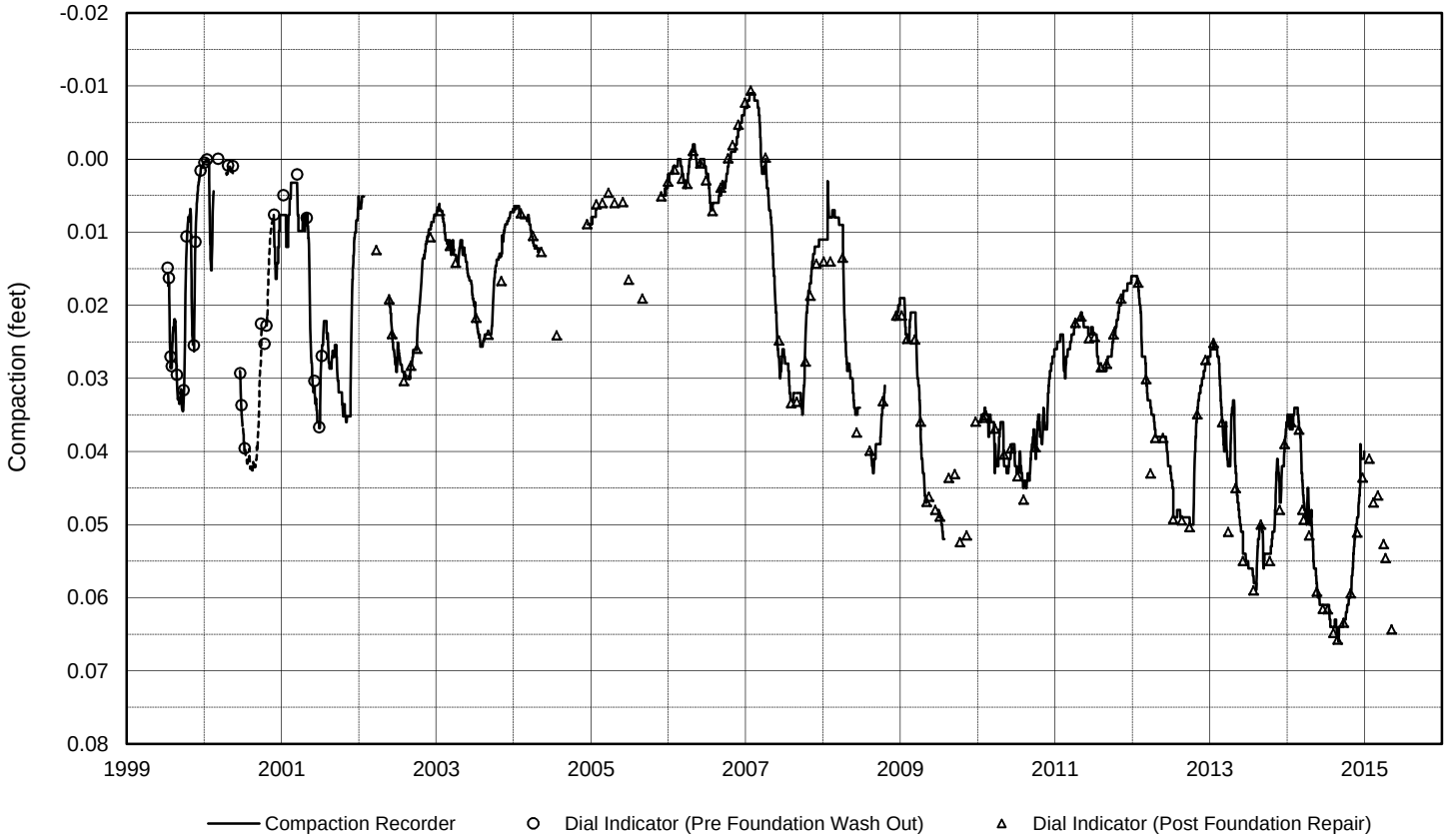
Table 7-2
Distribution of Drawdown and Compaction
at Yearout Ranch Extensometer (2000-2014)

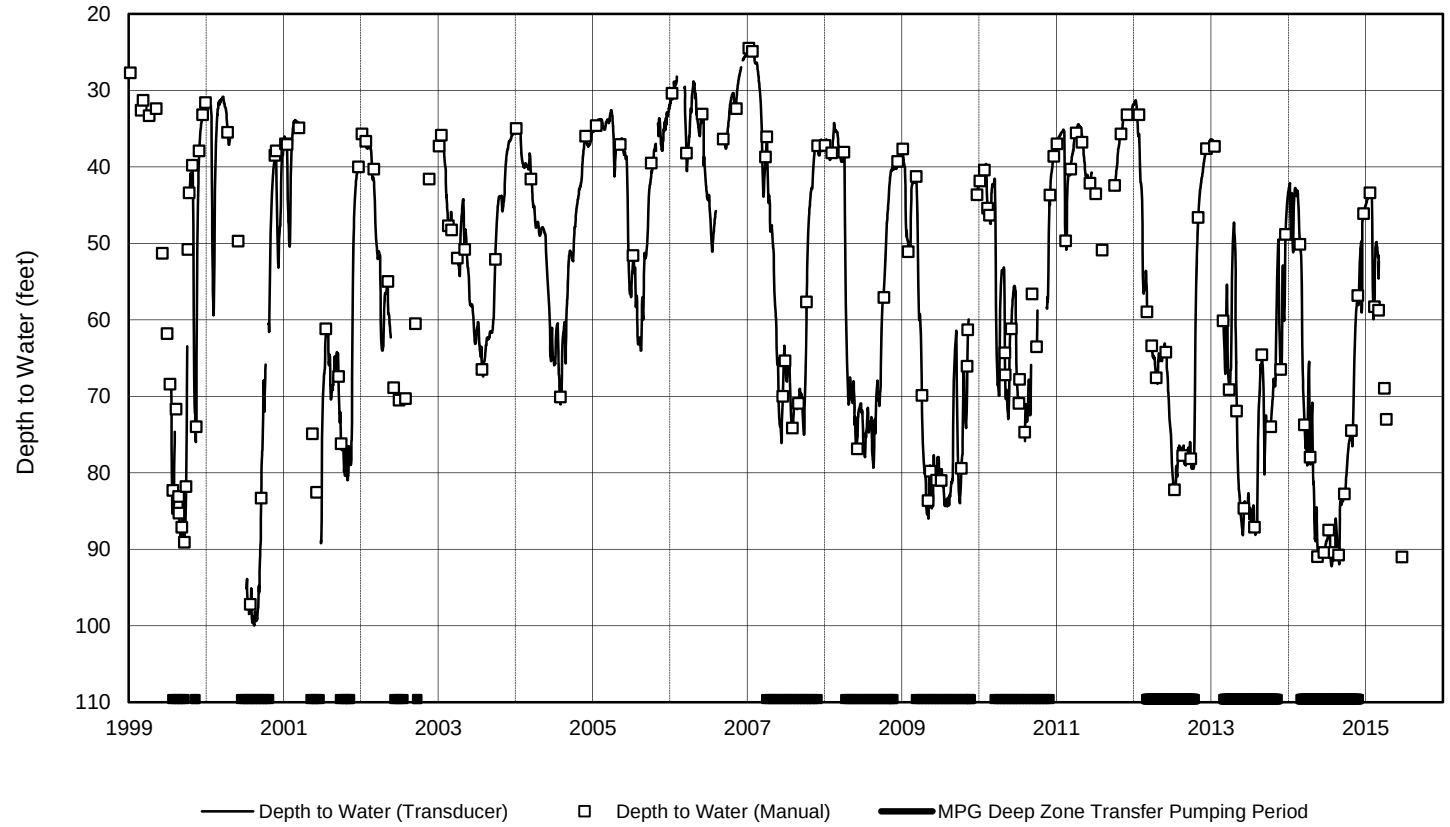
Year	Simulation	Drawdown				Compaction		
		Simulated Drawdown		Measured Drawdown	Distribution of Measured Drawdown	Measured Inelastic Compaction	Distribution of Measured Inelastic Compaction	
		(ft)	(%)	(ft)	(ft)	(ft)	Annual[1] (ft)	Cumulative (ft)
2000	Transfer Pumping	13.0	16		13.1		0.0023	**0.0023**
	Other Pumping	70.6	84		71.6		0.0122	0.0122
	All Pumping	83.6	100	84.77		0.0145		0.0145
2001	Transfer Pumping	35.7	39		36.9		0.0081	**0.0104**
	Other Pumping	55.5	61		57.4		0.0127	0.0249
	All Pumping	91.2	100	94.28		0.0208		0.0353
2002	Transfer Pumping	23.8	33		23.1		0.0036	**0.014**
	Other Pumping	48.3	67		46.9		0.0074	0.0323
	All Pumping	72.1	100	69.95		0.011[2]		0.046[2]
2003	Transfer Pumping	NA	NA		0.00		0.000	**0.014**
	Other Pumping	NA	NA		60.04		0.015	0.047
	All Pumping	NA	NA	60.04		0.015[3]		0.061[2]
2004	Transfer Pumping	NA	NA		0.00		0.000	**0.014**
	Other Pumping	NA	NA		62.29		0.001	0.048
	All Pumping	NA	NA	62.29		0.001		0.062
2005	Transfer Pumping	NA	NA		0.00		0.000	**0.014**
	Other Pumping	NA	NA		66.12		-0.001	0.048
	All Pumping	NA	NA	66.12		-0.001		0.061
2006	Transfer Pumping	NA	NA		0.00		0.000	**0.014**
	Other Pumping	NA	NA		48.90		0.001	0.048
	All Pumping	NA	NA	48.90		0.001		0.062
2007	Transfer Pumping	15.6	23		15.9		0.004	**0.018**
	Other Pumping	53.2	77		54.1		0.014	0.062
	All Pumping	68.8	100	NA[3]		0.018		0.081
2008	Transfer Pumping	32.4	49		39.5		0.010	**0.028**
	Other Pumping	33.8	51		41.2		0.010	0.072
	All Pumping	66.2	100	80.65		0.020		0.100
2009	Transfer Pumping	36.1	56		47.5		0.007	**0.035**
	Other Pumping	28.1	44		37.0		0.006	0.078
	All Pumping	64.2	100	84.50		0.013		0.113
2010	Transfer Pumping	29.6	51		34.4		-0.005	**0.031**
	Other Pumping	29.0	49		33.7		-0.004	0.074
	All Pumping	58.6	100	68.12		-0.009		0.104
2011	Transfer Pumping	NA	NA		0.0		0.000	**0.031**
	Other Pumping	NA	NA		67.87		0.007	0.081
	All Pumping	NA	NA	67.87		0.007		0.111
2012	Transfer Pumping	25.4	36		29.01		0.006	**0.037**
	Other Pumping	45.2	64		51.63		0.011	0.092
	All Pumping	70.6	100	80.64		0.018		0.129
2013	Transfer Pumping	30.2	44		42.63		0.015[5]	**0.052**[5]
	Other Pumping	38.5	56		54.34		0.019[5]	0.111[5]
	All Pumping	68.7	100	96.97		0.034[5]		0.163[5]
2014	Transfer Pumping	26.6	39		35.44		0.007	**0.059**
	Other Pumping	42.1	61		56.09		0.011	0.122
	All Pumping	68.7	100	91.53		0.019		0.182

NA = not available

1. Calculated as measured value multiplied by the percentage based on simulation.
2. Estimated values. See discussion in 2002 and 2003 annual reports regarding malfunction of logging equipment.
3. 2007 Yearout Ranch water level measurements not available after March 30.
4. 2012 Yearout Ranch compaction data questionable due to data logger failure. Values back calculated using 2013 total and annual compaction data.
5. 2013 Yearout Ranch compaction data incomplete due to lack of data recording full recovery Jan/Feb 2014.

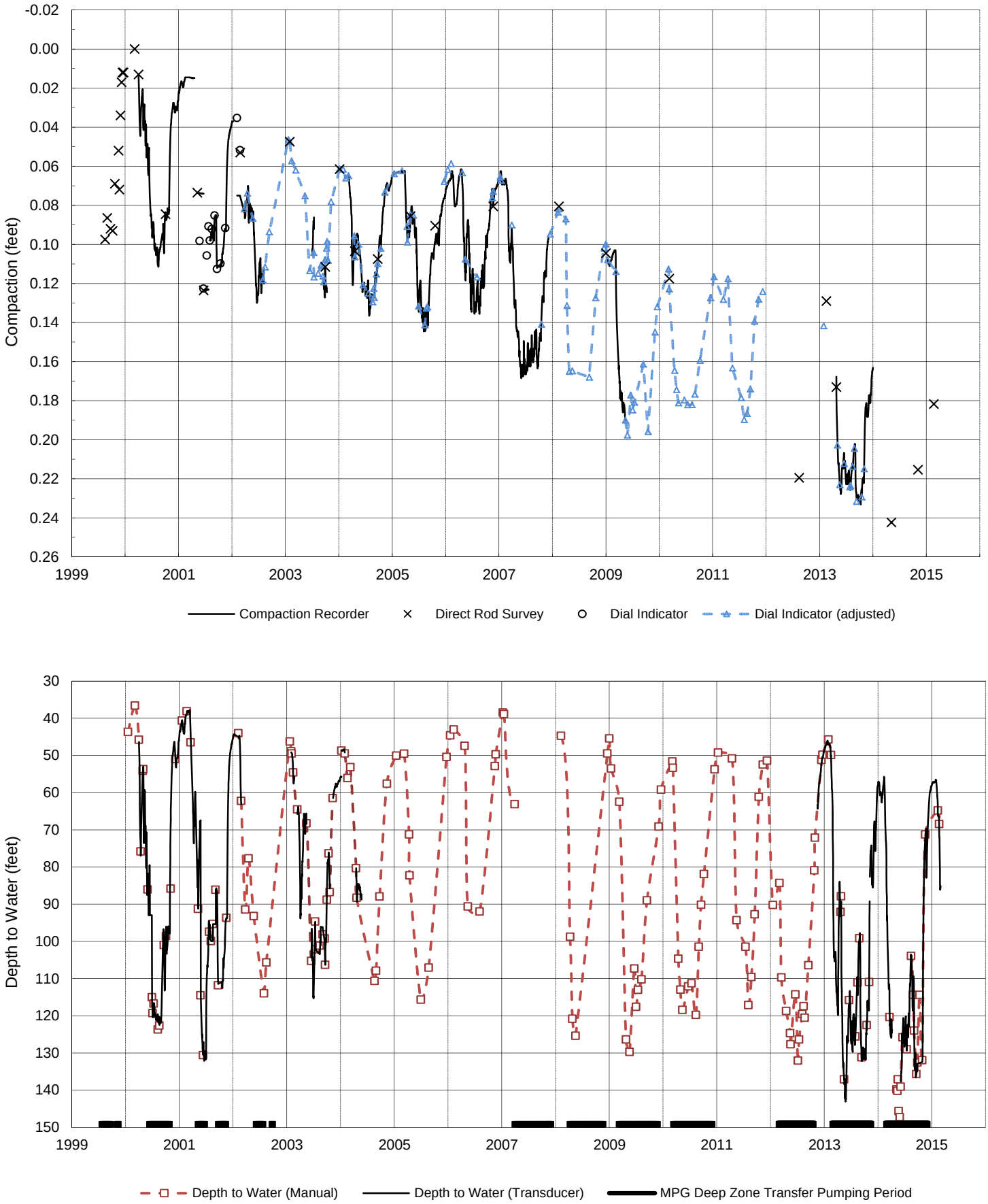
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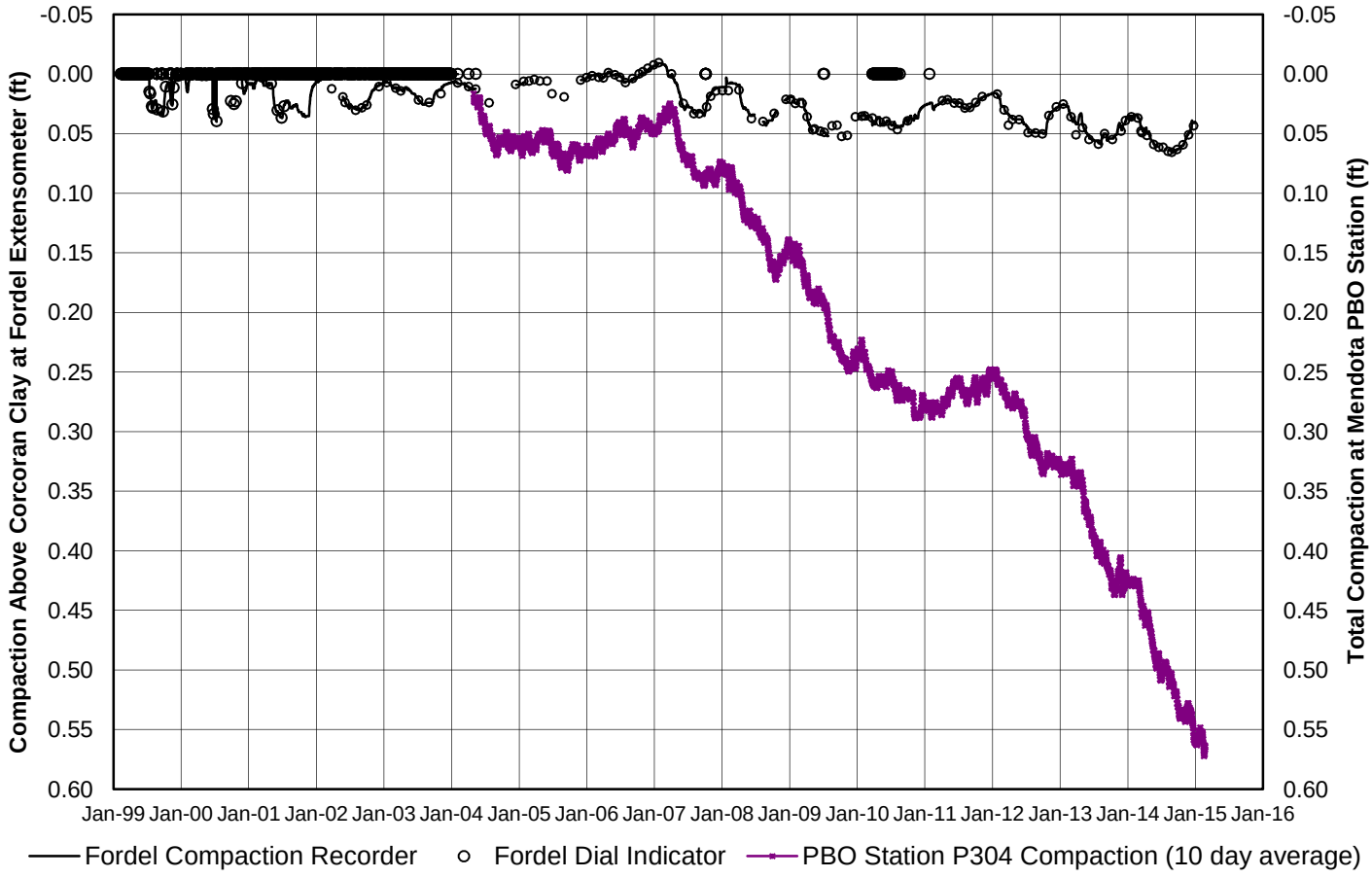
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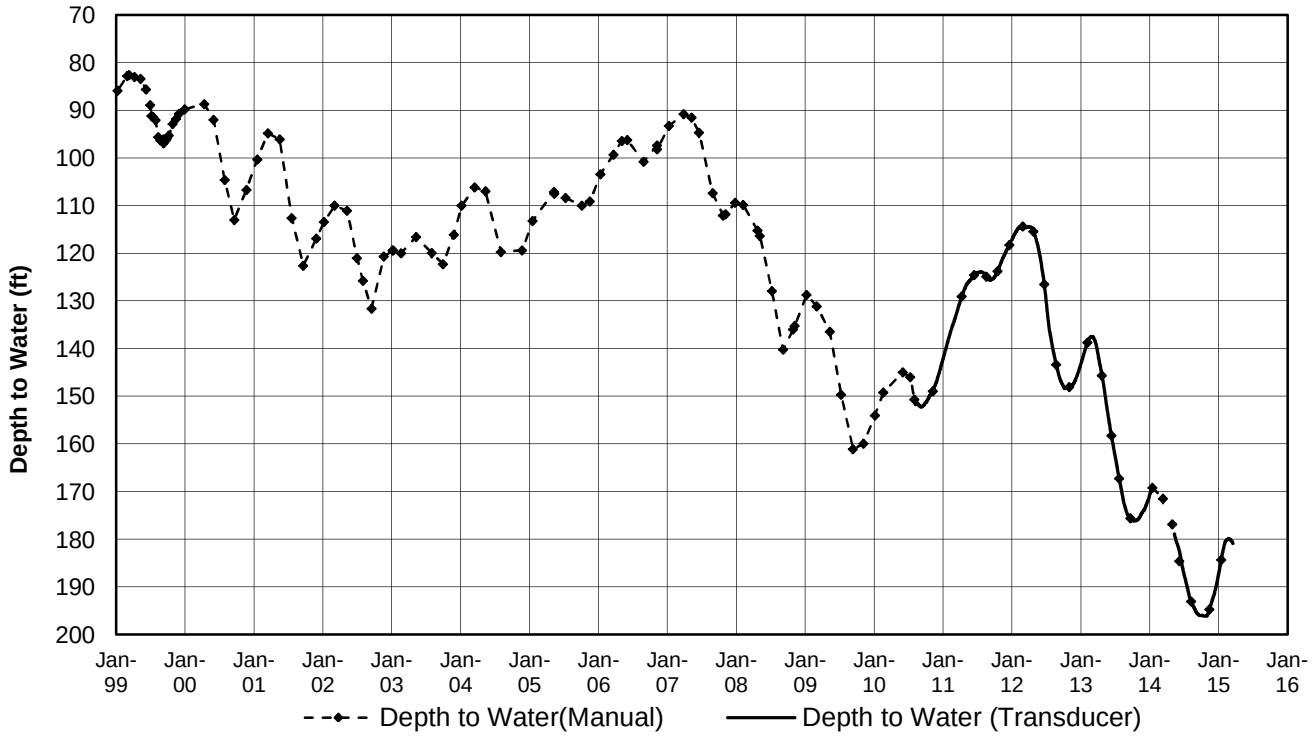
Figure 7-1
Compaction at Fordel Extensometer and Depth to Water at USGS Monitoring Well T13S/R15E-31J3



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Figure 7-2
Compaction and Depth to Water at Yearout Extensometer





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Figure 7-3
Total Compaction West of Mendota Pool and Depth to Water Below Corcoran Clay USGS Well T13S/R15E-31J6

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8 PUMPING COST REIMBURSEMENTS

Analytical groundwater flow models have been used to predict drawdowns caused by MPG pumping for previous reports. Beginning in 2000, an analytical model based on the Hantush-Jacob (1955) equation, which calculates the drawdown in a semi-confined (leaky) aquifer, was used for drawdown simulations. Detailed discussions of the Hantush-Jacob model are included in the 2000, 2001, and 2002 annual reports. The model was initially calibrated against 1999-2000 water-level data for wells in the original study area, and was recalibrated against 2000-2001 water-level data after the study area was expanded in 2001. The model calibration was checked by comparing 2007 measured and simulated water levels for deep-zone wells in different parts of the study area. The results showed that the simulated drawdown and recovery were sufficiently accurate for the reimbursement calculations (LSCE and KDSA, 2008). Additional calibration checks for wells in the CCID and WO service areas were performed using 2010 model results and water-level data.

The simulation period discussed in this report is the 2014 calendar year. The model results were used to estimate the percentage of total drawdown at non-MPG wells caused by MPG transfer pumping. The drawdown percentage was used to calculate the amount of inelastic compaction at the Yearout Ranch extensometer caused by MPG transfer pumping and the reimbursement to be paid by the MPG to other well owners for increased pumping costs.

8.1 Pumping Cost Reimbursement Calculations

Under the terms of the original settlement agreement and Agreement No. 2, the MPG is required to reimburse well owners in the SJREC and WO service areas for increased pumping costs due to drawdowns estimated to be caused by MPG transfer pumping. The reimbursement calculation requires the use of the groundwater model to estimate the monthly percentage of the total drawdown at each well caused by MPG transfer pumping. In addition to these estimated percentages, the reimbursement calculation requires the following inputs:

1) estimated monthly drawdown at each well,
2) monthly pumpage (discussed in Chapter III)
3) average annual power cost, and
4) pump efficiency determined from pump tests.

The pumping cost reimbursement calculation is explained below using one of the southern WO wells (No. 3211-61 [W-73]) as an example.

8.1.1 Example Calculation

Table 8-1 shows an example pumping cost reimbursement calculation for WO well No. 3211-61 (W-73). Note that this and other tables at the end of this chapter only show the March to November period, which includes the months when deep-zone transfer pumpage and associated drawdowns occurred in 2014. The rows in **Table 8-1** are numbered and the calculation for each row is described below:

1) Well No. W-73 was not included in the MPG water-level monitoring program; therefore, the monthly drawdown in this well due to all pumping was estimated based on contours of equal groundwater level drawdown. These were prepared by first extrapolating between the bimonthly measured values to estimate the monthly

drawdown for each well in the monitoring program. Drawdown contours were prepared for each month. A separate drawdown contour map was prepared for each month using these estimated drawdowns.

2) The percentage of the total drawdown caused by MPG transfer pumping was estimated using the Hantush-Jacob groundwater model discussed above. To estimate the percentage, the model was used to simulate drawdown due to all deep-zone pumping in the study area (A), followed by a separate simulation of drawdown due only to MPG deep-zone transfer pumping (B). Dividing B by A yields the proportion of the total drawdown estimated to be caused by MPG transfer pumping. For well No. W-73, this proportion ranged from zero percent in August to a high of about 54 percent in March.
3) Multiplying the estimated total monthly drawdown by these percentages yielded the portion of drawdown in well No. W-73 assumed to be caused by MPG transfer pumping. These drawdowns ranged from zero in July and August to 5 feet in March.
4) The 2014 monthly pumpage for all WO production wells, including well No. W-73, is based on flow meter readings.
5) The average power cost for all WO production wells was calculated by dividing WO's total PG&E charges for groundwater pumping by the total kilowatt-hours (kwh). For 2014, the average power cost was $0.16 per kwh. These power costs include PG&E's fixed charges known as standby or demand charges. The average WO power cost was used for CCID and CCC.
6) The pump efficiency for well No. W-73 (62 percent) was based on a pump test conducted by Mid Valley Pump Testing on June 17, 2014.
7) The effective pumping cost ($/af/foot of drawdown) was calculated as the power cost ($/kwh) divided by the pump efficiency times a conversion factor for kilowatt-hours and acre-feet (1.0237 kwh/af/ft). For well No. W-73, the effective pumping cost was calculated to be $0.2642/af/foot of drawdown.
8) The estimated monthly pumping cost attributed to MPG transfer pumping was calculated as the drawdown due to transfer pumping times the monthly pumpage times the effective pumping cost. The calculated pumping cost reimbursement for each month is shown on the last row of **Table 8-1**. The pumping cost reimbursement for well W-73 ranged from zero in August to $96 in May. The 2014 total was $331.

8.1.2 Calculations for All Wells

The reimbursement calculations for all wells in the compensation program are summarized in **Tables 8-2, 8-3, and 8-4**. **Table 8-2** shows the simulated monthly drawdowns due to: 1) all pumping in the area and 2) MPG transfer pumping only. The percentage of the total drawdown estimated to be caused by MPG transfer pumping was derived from these results. The average percentage of drawdown due to MPG transfer pumping during March-November shown on **Table 8-2** ranged from zero at the CCID wells to about 26 percent at WO well No. 3730-73 (W-111).

The total estimated drawdown for each well is shown in **Table 8-3**. For wells included in the MPG water-level monitoring program, the monthly drawdown was calculated using measured values as available. For wells or months without water-level data, the monthly drawdown was

estimated based on drawdown contour maps described above; estimated values are shown in italics. The estimated drawdowns were multiplied by the MPG percentages from **Table 8-2** to calculate the monthly drawdown attributed to MPG transfer pumping, and the results are shown on **Table 8-3**.

8.2 Reimbursement for SJREC and Wonderful Orchards (formerly PFC)

Table 8-4 shows the calculated reimbursement for the wells included in the Agreement No. 2. The power cost used for all wells in 2014 ($0.16 per kwh) was based on the power cost reported by WO, which is the principal recipient of pumping cost reimbursements from the MPG. This table also shows the pump efficiency based on recent pump test results. WO supplied 2014 pump efficiency tests for 68 of its wells, and the pump efficiencies ranged from 35 to 80 percent. The average pump efficiency for all WO wells with 2014 pump efficiency test data was 61 percent. CCID supplied 2014 pump efficiencies for 8 of its wells. The pump efficiencies ranged from 20 to 74 percent with an average of 49 percent. CCC supplied 2014 pump efficiencies for 15 of its wells. The pump efficiencies ranged from 24 to 70 percent with an average of 46 percent. As in previous years, a pump efficiency of 60 percent was assumed for wells which pump test data were not available. **Table 8-4** shows the calculated reimbursement for each well on a monthly basis. The total reimbursement for all wells in 2014 was $18,820. This includes no reimbursement to CCID, $2,804 for private and district wells in the CCC service area outside of the New Columbia Ranch, and $16,016 for WO. The bulk of the reimbursement is for wells owned by WO, primarily wells in the southern portion of the New Columbia Ranch. The majority of the 2014 reimbursement is due to pumpage occurring in April and September, which were the only months with significant pumping by both MPG and WO wells.

8.3 Summary

Analytical models based on the Hantush-Jacob equation, which incorporates vertical leakage, have been used for simulations of drawdown due to MPG transfer pumping and total pumping beginning with the 2000 Annual Report. The current version of the model includes pumpage for about 300 irrigation and other large-capacity wells in the primary study area. The primary use of the model is to determine the percentage of total drawdown caused by MPG transfer pumping. This percentage is one of the components needed to calculate the pumping cost reimbursement to be paid by the MPG to other major pumpers in the area. The calculated reimbursements are still considered approximations in that they are based on a combination of estimated drawdowns and analytical model results.

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Table 8-1
2014 Example Reimbursement Calculation for WO (PFC) Well 3211-61 (W-73)

	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
1. Calculated drawdown (ft)	9	12	17	17	15	9	13	12	2	
2. MPG percentage (calculated with model)	53.9	30.0	22.4	1.0	0.0	0.0	20.0	17.3	36.4	
3. Drawdown due to MPG transfer pumping (ft)[a]	4.7	3.6	3.9	0.2	0.0	0.0	2.5	2.0	0.8	
4. 3211-61 (W-73) pumpage (af)	16	86	94	116	118	99	72	149	0	
5. 2013 power cost ($/kwh)	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	
6. Pump efficiency (e_o) from pump test (%)	62	62	62	62	62	62	62	62	62	
7. Effective pumping cost ($/af/ft of drawdown)[b]	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	
8. Increased pumping cost due to MPG transfer pumping[c]	$20	$82	$96	$5	$0	$0	$48	$80	$0	**$331**

a. Row 1 **x** (Row 2/100)

b. Effective pumping cost = 1.0237 **x** ($/kwh)/$e_o$ = 1.0237 **x** Row 5/(Row 6/100)

c. Row 3 **x** Row 4 **x** Row 7

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Table 8-2

Simulated Deep-Zone Drawdown at Non-MPG Production Wells Due to MPG Transfer Pumping in 2014

Well Owner/ Service Area	Well Name	March			April			May			June			July			August			September			October			November			Mean (Mar-Nov)		
		Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD		
		All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %
Western Area																															
Central California Irrigation District	5A	0.1	0.0	0.0	12.1	0.0	0.0	11.9	0.0	0.0	11.6	0.0	0.0	12.8	0.0	0.0	11.9	0.0	0.0	8.9	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0
	12C	6.5	0.0	0.0	8.4	0.0	0.0	6.5	0.0	0.0	5.3	0.0	0.0	5.7	0.0	0.0	4.9	0.0	0.0	4.5	0.0	0.0	4.4	0.0	0.0	5.3	0.0	0.0	5.7	0.0	0.0
	15B	9.1	0.0	0.0	11.9	0.0	0.0	9.0	0.0	0.0	9.3	0.0	0.0	10.0	0.0	0.0	7.7	0.0	0.0	7.1	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
	16B	9.4	0.0	0.0	17.6	0.0	0.0	13.6	0.0	0.0	17.0	0.0	0.0	18.4	0.0	0.0	13.7	0.0	0.0	12.9	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	12.1	0.0	0.0
	23B	4.5	0.0	0.0	10.1	0.0	0.0	6.7	0.0	0.0	8.2	0.0	0.0	7.7	0.0	0.0	6.7	0.0	0.0	5.4	0.0	0.0	6.3	0.0	0.0	7.3	0.0	0.0	7.0	0.0	0.0
	28C	6.9	0.0	0.0	16.6	0.0	0.0	13.4	0.0	0.0	14.8	0.0	0.0	17.4	0.0	0.0	10.1	0.0	0.0	6.8	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
	32B	9.4	0.0	0.0	11.8	0.0	0.0	8.7	0.0	0.0	13.1	0.0	0.0	17.9	0.0	0.0	10.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0
	35A	10.3	0.0	0.0	13.5	0.0	0.0	11.4	0.0	0.0	12.5	0.0	0.0	13.4	0.0	0.0	13.3	0.0	0.0	10.7	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
	38A	0.1	0.0	0.0	3.9	0.0	0.0	3.8	0.0	0.0	14.1	0.0	0.0	8.8	0.0	0.0	5.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0
Eastern Area																															
Columbia Canal Company	Snyder	49.3	2.0	4.1	27.8	1.8	6.5	27.0	2.0	7.4	31.1	0.1	0.3	42.4	0.0	0.0	25.1	0.0	0.0	20.8	0.9	4.3	26.3	1.0	3.8	1.1	0.2	18.2	27.9	0.9	3.2
	B-Heirs	9.7	0.0	0.0	5.4	0.0	0.0	9.2	0.0	0.0	8.7	0.0	0.0	5.4	0.0	0.0	4.0	0.0	0.0	0.9	0.0	0.0	3.1	0.0	0.0	0.4	0.0	0.0	5.2	0.0	0.0
	Cardella-2	20.5	1.6	7.8	20.2	1.4	6.9	23.2	1.5	6.5	34.1	0.1	0.3	27.4	0.0	0.0	15.3	0.0	0.0	11.6	0.8	6.9	19.1	0.8	4.2	1.0	0.1	10.0	19.2	0.7	3.7
	Cardella-Lopes	28.5	5.4	18.9	53.5	4.7	8.8	39.9	4.7	11.8	46.1	0.2	0.4	36.7	0.0	0.0	19.3	0.0	0.0	21.8	2.3	10.6	37.6	2.5	6.6	1.4	0.2	14.3	31.6	2.2	7.0
	CCC Deep #1	31.4	6.9	22.0	67.8	6.1	9.0	67.9	5.9	8.7	64.8	0.3	0.5	40.3	0.0	0.0	21.3	0.0	0.0	31.1	2.9	9.3	57.0	3.2	5.6	1.6	0.3	18.8	42.6	2.8	6.7
	CCC Deep #2	50.0	3.4	6.8	62.5	3.0	4.8	53.5	3.0	5.6	62.1	0.2	0.3	33.0	0.0	0.0	15.3	0.0	0.0	28.3	1.5	5.3	46.7	1.6	3.4	1.2	0.2	16.7	39.2	1.4	3.7
	MLT-West	25.9	7.7	29.7	32.4	6.8	21.0	41.2	7.8	18.9	41.1	0.4	1.0	40.7	0.0	0.0	27.9	0.0	0.0	23.5	4.0	17.0	30.1	4.2	14.0	2.8	0.4	14.3	29.5	3.5	11.8
	Elrod #1	9.9	0.2	2.0	7.8	0.2	2.6	11.5	0.3	2.6	12.0	0.0	0.0	10.7	0.0	0.0	5.4	0.0	0.0	3.5	0.1	2.9	12.8	0.1	0.8	0.6	0.0	0.0	8.2	0.1	1.2
	Elrod #2	7.7	0.1	1.3	6.9	0.0	0.0	21.7	0.0	0.0	7.0	0.0	0.0	4.9	0.0	0.0	2.4	0.0	0.0	1.4	0.1	7.1	7.1	0.0	0.0	0.4	0.0	0.0	6.6	0.0	0.3
	Elrod #3	4.7	0.0	0.0	4.3	0.1	2.3	17.6	0.1	0.6	5.1	0.0	0.0	3.6	0.0	0.0	2.4	0.0	0.0	1.1	0.0	0.0	6.7	0.0	0.0	0.4	0.0	0.0	5.1	0.0	0.4
	N.F. Davis	10.9	0.1	0.9	12.3	0.1	0.8	12.9	0.1	0.8	13.5	0.1	0.7	5.7	0.0	0.0	6.3	0.0	0.0	2.2	0.1	4.5	9.4	0.0	0.0	1.0	0.0	0.0	8.2	0.1	0.7
	Samarin #1	15.0	0.9	6.0	17.4	0.9	5.2	17.3	0.9	5.2	24.3	0.0	0.0	21.8	0.0	0.0	12.6	0.0	0.0	8.8	0.4	4.5	15.4	0.5	3.2	1.0	0.1	10.0	14.8	0.4	2.8
	Samarin #2	34.0	0.4	1.2	16.9	0.4	2.4	36.9	0.4	1.1	27.1	0.0	0.0	18.0	0.0	0.0	12.9	0.0	0.0	7.3	0.2	2.7	12.5	0.3	2.4	1.5	0.0	0.0	18.6	0.2	1.0
	Samarin #3	18.8	0.3	1.6	18.8	0.3	1.6	16.9	0.3	1.8	20.8	0.0	0.0	14.6	0.0	0.0	9.6	0.0	0.0	5.4	0.1	1.9	10.7	0.2	1.9	1.5	0.0	0.0	13.0	0.1	1.0
	Samarin #4	11.9	0.1	0.8	9.0	0.2	2.2	10.3	0.2	1.9	12.3	0.0	0.0	8.9	0.0	0.0	17.2	0.0	0.0	3.8	0.0	0.0	9.7	0.1	1.0	1.5	0.0	0.0	9.4	0.1	0.7
	Samarin #5	8.3	0.1	1.2	8.4	0.2	2.4	9.3	0.2	2.2	15.0	0.0	0.0	8.0	0.0	0.0	13.5	0.0	0.0	3.5	0.0	0.0	7.3	0.1	1.4	1.5	0.0	0.0	8.3	0.1	0.8
	Mowry Electric	47.9	22.8	47.6	57.7	19.9	34.5	60.8	19.8	32.6	55.3	0.9	1.6	67.9	0.0	0.0	35.9	0.0	0.0	34.6	9.4	27.2	42.6	10.1	23.7	3.4	1.0	29.4	45.1	9.3	20.7
	Mowry Diesel	46.8	22.2	47.4	57.9	19.3	33.3	60.8	19.0	31.3	56.4	0.8	1.4	55.2	0.0	0.0	33.9	0.0	0.0	34.2	8.8	25.7	43.7	9.5	21.7	3.2	0.9	28.1	43.6	8.9	20.5
Wonderful Orchards (formerly Paramount Farming Company)	2480-61 (W-43)	14.2	2.8	19.7	24.2	2.5	10.3	29.6	2.3	7.8	37.6	0.2	0.5	34.4	0.0	0.0	14.7	0.0	0.0	13.9	1.1	7.9	28.6	1.3	4.5	1.2	0.2	16.7	22.0	1.2	5.2
	2480-62 (W-97)	13.7	2.9	21.2	26.3	2.6	9.9	33.5	2.3	6.9	41.0	0.2	0.5	41.2	0.0	0.0	16.4	0.0	0.0	15.3	1.3	8.5	32.3	1.4	4.3	1.9	0.1	5.3	24.6	1.2	4.9
	2480-63 (W-100)	13.5	3.0	22.2	28.2	2.6	9.2	36.1	2.3	6.4	50.7	0.1	0.2	44.6	0.0	0.0	17.5	0.0	0.0	16.1	1.3	8.1	33.7	1.4	4.2	2.0	0.1	5.0	26.9	1.2	4.5
	2480-64 (W-88)	13.3	3.0	22.6	25.1	2.7	10.8	32.8	2.3	7.0	40.9	0.1	0.2	38.2	0.0	0.0	18.3	0.0	0.0	15.0	1.3	8.7	27.5	1.4	5.1	1.2	0.2	16.7	23.6	1.2	5.2
	2480-65 (W-33)	11.4	1.8	15.8	19.1	1.6	8.4	23.8	1.5	6.3	32.8	0.1	0.3	30.7	0.0	0.0	12.0	0.0	0.0	11.8	0.7	5.9	24.7	0.8	3.2	0.9	0.1	11.1	18.6	0.7	3.9
	2480-66 (W-42)	4.0	0.4	10.0	9.4	0.4	4.3	13.4	0.4	3.0	22.0	0.0	0.0	19.9	0.0	0.0	4.9	0.0	0.0	6.1	0.2	3.3	14.4	0.2	1.4	0.8	0.0	0.0	10.5	0.2	1.7
	2480-67 (W-84)	10.7	2.0	18.7	20.3	1.8	8.9	26.3	1.6	6.1	34.4	0.1	0.3	33.0	0.0	0.0	14.3	0.0	0.0	13.1	0.8	6.1	24.5	1.0	4.1	1.0	0.1	10.0	19.7	0.8	4.2
	2480-69 (W-30)	7.7	0.6	7.8	12.0	0.4	3.3	15.2	0.5	3.3	23.2	0.0	0.0	21.5	0.0	0.0	6.2	0.0	0.0	5.6	0.3	5.4	21.7	0.3	1.4	0.6	0.1	16.7	12.6	0.2	1.9
	2480-70 (W-81)	7.6	0.7	9.2	13.0	0.6	4.6	16.3	0.5	3.1	28.2	0.1	0.4	25.6	0.0	0.0	7.0	0.0	0.0	6.9	0.2	2.9	23.0	0.3	1.3	0.6	0.1	16.7	14.2	0.3	2.0
	2480-71 (W-5)	6.0	0.4	6.7	9.5	0.4	4.2	12.1	0.5	4.1	18.7	0.1	0.5	17.2	0.0	0.0	5.8	0.0	0.0	5.8	0.2	3.4	18.5	0.2	1.1	0.5	0.1	20.0	10.5	0.2	2.0
	2480-72 (W-35)	5.8	0.6	10.3	10.5	0.5	4.8	14.8	0.5	3.4	26.0	0.0	0.0	23.3	0.0	0.0	6.9	0.0	0.0	8.8	0.2	2.3	24.5	0.3	1.2	0.5	0.0	0.0	13.5	0.2	1.7
	2480-73 (W-56)	4.1	0.3	7.3	6.1	0.3	4.9	7.9	0.2	2.5	11.4	0.0	0.0	10.7	0.0	0.0	4.0	0.0	0.0	3.5	0.1	2.9	12.8	0.1	0.8	0.4	0.1	25.0	6.8	0.1	1.8
	2480-74 (W-55)	3.9	0.3	7.7	6.4	0.3	4.7	8.3	0.3	3.6	12.3	0.1	0.8	11.6	0.0	0.0	4.3	0.0	0.0	4.1	0.2	4.9	12.7	0.1	0.8	0.4	0.1	25.0	7.1	0.2	2.2

Table 8-2

Simulated Deep-Zone Drawdown at Non-MPG Production Wells Due to MPG Transfer Pumping in 2014

Well Owner/ Service Area	Well Name	March			April			May			June			July			August			September			October			November			Mean (Mar-Nov)		
		Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD		
		All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %
Wonderful Orchards (formerly Paramount Farming Company)	2480-75 (W-50)	3.8	0.3	7.9	6.7	0.3	4.5	8.8	0.3	3.4	13.1	0.0	0.0	12.4	0.0	0.0	4.6	0.0	0.0	4.6	0.1	2.2	12.9	0.1	0.8	0.3	0.0	0.0	7.5	0.1	1.6
	2560-61 (W-82)	12.7	0.7	5.5	23.7	0.7	3.0	16.0	0.7	4.4	27.8	0.0	0.0	18.1	0.0	0.0	10.2	0.0	0.0	7.1	0.3	4.2	17.9	0.3	1.7	0.9	0.0	0.0	14.9	0.3	2.0
	2560-62 (W-25)	10.9	0.6	5.5	13.3	0.5	3.8	13.7	0.6	4.4	19.0	0.0	0.0	16.0	0.0	0.0	8.3	0.0	0.0	6.0	0.2	3.3	15.3	0.3	2.0	0.8	0.0	0.0	11.5	0.2	2.1
	2570-61 (W-51)	8.9	0.3	3.4	9.6	0.3	3.1	12.9	0.2	1.6	16.8	0.0	0.0	18.2	0.0	0.0	4.6	0.0	0.0	3.5	0.1	2.9	25.3	0.2	0.8	0.7	0.1	14.3	11.2	0.1	1.2
	2570-62 (W-68)	5.6	0.2	3.6	6.6	0.2	3.0	8.5	0.2	2.4	11.0	0.0	0.0	10.5	0.0	0.0	4.3	0.0	0.0	3.0	0.1	3.3	15.5	0.2	1.3	0.5	0.0	0.0	7.3	0.1	1.4
	3191-61 (W-85)	24.9	7.2	28.9	41.5	6.3	15.2	48.4	5.9	12.2	60.1	0.3	0.5	47.4	0.0	0.0	21.6	0.0	0.0	21.4	2.9	13.6	45.8	3.2	7.0	1.5	0.3	20.0	34.7	2.9	8.3
	3191-62 (W-86)	23.5	7.0	29.8	38.8	6.2	16.0	48.0	5.5	11.5	56.9	0.3	0.5	48.3	0.1	0.2	21.5	0.0	0.0	21.6	2.8	13.0	45.5	3.1	6.8	1.4	0.3	21.4	33.9	2.8	8.3
	3191-63 (W-44)	29.6	4.0	13.5	39.2	3.5	8.9	38.4	3.5	9.1	45.5	0.2	0.4	33.9	0.0	0.0	16.2	0.0	0.0	19.0	1.7	8.9	38.1	1.9	5.0	1.2	0.2	16.7	29.0	1.7	5.7
	3191-64 (W-57)	23.7	4.7	19.8	38.4	4.2	10.9	45.3	4.0	8.8	56.8	0.2	0.4	46.2	0.0	0.0	17.6	0.0	0.0	20.5	2.0	9.8	49.0	2.2	4.5	1.3	0.2	15.4	33.2	1.9	5.9
	3191-65 (W-87)	19.2	5.4	28.1	32.7	4.8	14.7	40.7	4.2	10.3	47.8	0.2	0.4	42.7	0.0	0.0	20.4	0.0	0.0	17.9	2.2	12.3	36.1	2.5	6.9	1.3	0.3	23.1	28.8	2.2	7.6
	3191-67 (W-17)	26.6	3.0	11.3	32.3	2.6	8.0	33.2	2.5	7.5	41.9	0.2	0.5	37.1	0.0	0.0	14.5	0.0	0.0	15.6	1.3	8.3	44.6	1.4	3.1	1.1	0.2	18.2	27.4	1.2	4.5
	3191-68 (W-76)	12.7	1.8	14.2	19.4	1.7	8.8	24.4	1.6	6.6	37.5	0.1	0.3	35.3	0.0	0.0	11.9	0.0	0.0	11.8	0.8	6.8	25.4	0.9	3.5	0.8	0.1	12.5	19.9	0.8	3.9
	3191-69 (W-52)	9.5	1.0	10.5	14.9	0.9	6.0	20.1	0.9	4.5	31.7	0.0	0.0	29.5	0.0	0.0	9.0	0.0	0.0	9.2	0.4	4.3	25.1	0.5	2.0	0.7	0.1	14.3	16.6	0.4	2.5
	3211-61 (W-73)	39.3	21.2	53.9	61.7	18.5	30.0	68.0	15.2	22.4	71.6	0.7	1.0	66.1	0.0	0.0	43.7	0.0	0.0	43.0	8.6	20.0	57.3	9.9	17.3	2.2	0.8	36.4	50.3	8.3	16.5
	3211-62 (W-69)	39.5	19.6	49.6	57.6	17.1	29.7	64.3	14.9	23.2	68.6	0.7	1.0	60.5	0.0	0.0	35.7	0.0	0.0	32.1	7.3	22.7	43.5	8.2	18.9	2.1	0.7	33.3	44.9	7.6	17.0
	3211-63 (W-2)	30.1	14.2	47.2	47.7	12.4	26.0	55.6	9.9	17.8	62.7	0.5	0.8	57.3	0.0	0.0	35.5	0.0	0.0	33.8	6.0	17.8	42.4	7.0	16.5	1.8	0.7	38.9	40.8	5.6	13.8
	3211-65 (W-62)	27.1	11.6	42.8	42.7	10.1	23.7	50.3	8.6	17.1	58.6	0.4	0.7	51.2	0.0	0.0	29.3	0.0	0.0	26.9	4.6	17.1	39.6	5.3	13.4	1.6	0.4	25.0	36.4	4.6	12.5
	3211-66 (W-15)	25.3	10.4	41.1	41.4	9.1	22.0	49.5	7.4	14.9	59.9	0.4	0.7	52.0	0.0	0.0	30.5	0.0	0.0	26.9	4.3	16.0	37.2	5.1	13.7	1.5	0.4	26.7	36.0	4.1	11.4
	3211-68 (W-110)	34.4	10.0	29.1	53.5	8.7	16.3	61.0	8.1	13.3	65.1	0.4	0.6	45.1	0.0	0.0	24.9	0.0	0.0	24.5	4.0	16.3	40.7	4.3	10.6	1.7	0.4	23.5	39.0	4.0	10.2
	3211-69 (W-77)	24.2	8.9	36.8	39.7	7.8	19.6	47.2	6.8	14.4	53.6	0.4	0.7	47.1	0.0	0.0	25.5	0.0	0.0	22.6	3.6	15.9	38.7	4.1	10.6	1.5	0.4	26.7	33.3	3.6	10.7
	3211-70 (W-98)	23.9	7.9	33.1	41.6	6.9	16.6	55.3	5.8	10.5	65.3	0.3	0.5	59.5	0.0	0.0	34.3	0.0	0.0	27.2	3.2	11.8	46.3	3.8	8.2	1.8	0.3	16.7	39.5	3.1	7.9
	3211-71 (W-46)	21.6	6.0	27.8	38.0	5.3	13.9	51.7	4.6	8.9	58.3	0.2	0.3	55.3	0.1	0.2	25.1	0.0	0.0	19.0	2.4	12.6	45.5	2.8	6.2	1.3	0.2	15.4	35.1	2.4	6.8
	3211-72 (W-101)	23.2	5.9	25.4	42.2	5.2	12.3	61.2	4.4	7.2	67.7	0.2	0.3	66.8	0.0	0.0	31.8	0.0	0.0	19.5	2.4	12.3	54.0	2.8	5.2	1.4	0.3	21.4	40.9	2.4	5.8
	3211-73 (W-14)	20.8	5.6	26.9	36.6	4.9	13.4	50.4	4.1	8.1	56.8	0.2	0.4	53.6	0.0	0.0	27.2	0.0	0.0	19.9	2.4	12.1	40.3	2.8	6.9	1.3	0.3	23.1	34.1	2.3	6.6
	3211-74 (W-31)	18.3	4.8	26.2	33.5	4.2	12.5	44.7	3.6	8.1	52.7	0.2	0.4	49.5	0.0	0.0	23.2	0.0	0.0	17.7	2.0	11.3	40.2	2.3	5.7	1.2	0.2	16.7	31.2	1.9	6.2
	3211-75 (W-63)	18.3	4.7	25.7	33.5	4.1	12.2	44.5	3.5	7.9	52.8	0.2	0.4	48.2	0.0	0.0	21.3	0.0	0.0	17.1	2.0	11.7	42.0	2.3	5.5	1.3	0.2	15.4	31.0	1.9	6.1
	3211-76 (W-13)	16.4	3.8	23.2	31.0	3.4	11.0	42.1	2.8	6.7	50.8	0.2	0.4	48.1	0.0	0.0	25.8	0.0	0.0	19.8	1.6	8.1	33.5	1.9	5.7	1.4	0.2	14.3	29.9	1.5	5.2
	3211-77 (W-3)	27.0	11.1	41.1	41.9	9.7	23.2	49.3	8.5	17.2	54.7	0.5	0.9	48.1	0.0	0.0	27.2	0.0	0.0	25.0	4.3	17.2	39.0	5.0	12.8	1.6	0.4	25.0	34.9	4.4	12.6
	3311-61 (W-89)	5.2	0.8	15.4	11.1	0.7	6.3	17.3	0.6	3.5	23.7	0.0	0.0	19.5	0.0	0.0	9.5	0.0	0.0	6.9	0.3	4.3	11.8	0.3	2.5	0.3	0.0	0.0	11.7	0.3	2.6
	3311-62 (W-8)	13.6	2.7	19.9	25.4	2.5	9.8	34.6	2.0	5.8	49.5	0.2	0.4	45.0	0.0	0.0	25.9	0.0	0.0	15.8	1.1	7.0	21.8	1.4	6.4	0.9	0.1	11.1	25.8	1.1	4.3
	3311-63 (W-12)	11.9	1.8	15.1	24.3	1.6	6.6	33.0	1.4	4.2	42.0	0.1	0.2	41.6	0.0	0.0	23.6	0.0	0.0	16.2	0.7	4.3	18.9	0.9	4.8	0.7	0.1	14.3	23.6	0.7	3.1
	3311-64 (W-90)	11.9	1.5	12.6	26.3	1.4	5.3	35.2	1.1	3.1	41.3	0.1	0.2	45.9	0.0	0.0	25.7	0.0	0.0	18.3	0.6	3.3	20.9	0.8	3.8	0.7	0.1	14.3	25.1	0.6	2.5
	3421-61 (Card-1)	25.0	5.1	20.4	29.1	4.5	15.5	32.2	5.3	16.5	39.4	0.3	0.8	43.8	0.0	0.0	24.8	0.0	0.0	18.5	2.6	14.1	34.2	2.8	8.2	2.2	0.3	13.6	27.7	2.3	8.4
	3421-62 (W-74)	27.0	2.3	8.5	27.2	2.0	7.4	23.7	2.1	8.9	36.4	0.1	0.3	35.1	0.0	0.0	17.3	0.0	0.0	14.2	1.0	7.0	28.9	1.2	4.2	1.1	0.1	9.1	23.4	1.0	4.2
	3421-64 (W-18)	25.3	2.3	9.1	27.1	2.0	7.4	27.9	2.0	7.2	35.7	0.1	0.3	34.8	0.0	0.0	12.3	0.0	0.0	13.0	1.0	7.7	42.2	1.1	2.6	1.0	0.1	10.0	24.4	1.0	3.9
	3421-66 (W-19)	19.0	1.6	8.4	21.2	1.4	6.6	21.3	1.4	6.6	30.7	0.1	0.3	30.2	0.0	0.0	10.4	0.0	0.0	10.3	0.7	6.8	34.8	0.7	2.0	0.8	0.0	0.0	19.9	0.7	3.3
	3421-68 (W-24)	11.0	0.9	8.2	14.1	0.9	6.4	15.8	0.8	5.1	23.0	0.1	0.4	20.9	0.0	0.0	8.5	0.0	0.0	7.9	0.4	5.1	29.9	0.5	1.7	0.7	0.0	0.0	14.6	0.4	2.7
	3431-61 (W-32)	3.0	0.3	10.0	6.6	0.2	3.0	10.4	0.1	1.0	18.0	0.0	0.0	18.1	0.0	0.0	4.2	0.0	0.0	4.8	0.1	2.1	11.1	0.1	0.9	0.2	0.0	0.0	8.5	0.1	1.0
	3431-62 (W-91)	2.2	0.2	9.1	6.7	0.1	1.5	9.1	0.1	1.1	16.9	0.0	0.0	13.0	0.0	0.0	3.6	0.0	0.0	7.4	0.0	0.0	16.8	0.0	0.0	0.1	0.0	0.0	8.4	0.0	0.5
	3431-63 (W-36)	5.8	0.7	12.1	13.2	0.6	4.5	18.5	0.6	3.2	29.6	0.0	0.0	27.9	0.0	0.0	8.8	0.0	0.0	12.1	0.3	2.5	28.8	0.3	1.0	0.5	0.0	0.0	16.1	0.3	1.7

Table 8-2

Simulated Deep-Zone Drawdown at Non-MPG Production Wells Due to MPG Transfer Pumping in 2014

Well Owner/ Service Area	Well Name	March			April			May			June			July			August			September			October			November			Mean (Mar-Nov)		
		Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD			Simulated DD		
		All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %	All Pumping (ft)	MPG Transfer Pumping (ft)	MPG Transfer Pumping %
Wonderful Orchards (formerly Paramount Farming Company)	3561-61 (W-27)	11.6	0.8	6.9	12.8	0.7	5.5	14.4	0.7	4.9	21.8	0.1	0.5	19.2	0.0	0.0	7.5	0.0	0.0	6.7	0.3	4.5	26.3	0.3	1.1	0.7	0.1	14.3	13.4	0.3	2.5
	3561-62 (W-28)	9.1	0.6	6.6	11.8	0.6	5.1	13.6	0.6	4.4	20.1	0.1	0.5	18.1	0.0	0.0	7.0	0.0	0.0	6.1	0.3	4.9	27.5	0.3	1.1	0.7	0.1	14.3	12.7	0.3	2.3
	3561-63 (W-83)	7.2	0.5	6.9	9.4	0.4	4.3	11.4	0.3	2.6	16.3	0.0	0.0	14.7	0.0	0.0	5.5	0.0	0.0	4.4	0.1	2.3	18.2	0.2	1.1	0.6	0.1	16.7	9.7	0.2	1.8
	3561-64 (W-80)	5.0	0.2	4.0	5.8	0.2	3.4	7.6	0.2	2.6	9.5	0.0	0.0	9.1	0.0	0.0	4.3	0.0	0.0	2.6	0.1	3.8	24.6	0.1	0.4	0.5	0.0	0.0	7.7	0.1	1.2
	3591-61 (W-34)	8.5	1.3	15.3	17.2	1.2	7.0	25.5	1.0	3.9	40.0	0.1	0.3	36.6	0.0	0.0	12.9	0.0	0.0	12.4	0.5	4.0	22.9	0.6	2.6	0.7	0.1	14.3	19.6	0.5	2.7
	3591-62 (W-29)	3.4	0.0	0.0	8.9	0.2	2.2	14.5	0.5	3.4	19.3	0.6	3.1	25.0	0.5	2.0	18.9	0.4	2.1	16.4	0.2	1.2	18.1	0.2	1.1	10.8	0.3	2.8	15.0	0.3	2.1
	3591-63 (W-7)	9.9	1.2	12.1	24.1	1.1	4.6	30.1	1.0	3.3	35.2	0.1	0.3	39.3	0.0	0.0	22.7	0.0	0.0	19.7	0.5	2.5	25.9	0.6	2.3	0.7	0.1	14.3	23.1	0.5	2.2
	3591-64 (W-92)	7.5	0.8	10.7	18.3	0.8	4.4	25.0	0.7	2.8	32.7	0.1	0.3	34.3	0.0	0.0	12.6	0.0	0.0	15.8	0.3	1.9	30.6	0.4	1.3	0.6	0.1	16.7	19.7	0.4	1.8
	3591-65 (W-75)	8.2	0.9	11.0	25.6	0.8	3.1	32.8	0.7	2.1	27.0	0.0	0.0	41.5	0.0	0.0	23.4	0.0	0.0	22.8	0.4	1.8	32.0	0.5	1.6	0.6	0.1	16.7	23.8	0.4	1.6
	3591-66 (W-11)	8.0	0.9	11.3	23.3	0.9	3.9	30.2	0.7	2.3	28.0	0.0	0.0	38.9	0.0	0.0	23.2	0.0	0.0	21.0	0.4	1.9	28.1	0.5	1.8	0.6	0.1	16.7	22.4	0.4	1.7
	3591-67 (W-10)	6.2	0.7	11.3	13.4	0.6	4.5	17.3	0.6	3.5	28.8	0.0	0.0	27.9	0.0	0.0	10.0	0.0	0.0	12.4	0.3	2.4	28.4	0.3	1.1	0.5	0.0	0.0	16.1	0.3	1.7
	3591-68 (W-93)	7.7	0.7	9.1	23.2	0.6	2.6	31.2	0.6	1.9	37.0	0.1	0.3	39.3	0.0	0.0	24.4	0.0	0.0	21.5	0.3	1.4	24.7	0.3	1.2	0.5	0.0	0.0	23.3	0.3	1.2
	3591-69 (W-39)	5.1	0.5	9.8	11.9	0.5	4.2	16.0	0.4	2.5	27.5	0.0	0.0	25.8	0.0	0.0	8.0	0.0	0.0	10.4	0.2	1.9	26.2	0.2	0.8	0.5	0.1	20.0	14.6	0.2	1.4
	3591-70 (W-72)	5.1	0.6	11.8	13.6	0.5	3.7	16.3	0.4	2.5	21.5	0.0	0.0	21.7	0.0	0.0	9.1	0.0	0.0	9.6	0.2	2.1	18.9	0.3	1.6	0.4	0.0	0.0	12.9	0.2	1.7
	3591-71 (W-71)	5.2	0.6	11.5	12.6	0.5	4.0	16.6	0.5	3.0	21.5	0.1	0.5	22.6	0.0	0.0	10.6	0.0	0.0	10.3	0.2	1.9	18.0	0.3	1.7	0.4	0.0	0.0	13.1	0.2	1.9
	3591-72 (W-60)	6.4	0.6	9.4	18.5	0.6	3.2	24.5	0.4	1.6	30.6	0.1	0.3	32.9	0.0	0.0	20.1	0.0	0.0	16.9	0.3	1.8	22.0	0.3	1.4	0.5	0.1	20.0	19.2	0.3	1.4
	3730-61 (W-95)	29.0	14.0	48.3	47.8	12.4	25.9	55.9	8.9	15.9	67.3	0.6	0.9	61.9	0.0	0.0	40.3	0.0	0.0	47.3	7.0	14.8	43.4	9.4	21.7	2.0	0.9	45.0	43.9	5.9	13.5
	3730-62 (W-94)	74.8	45.6	61.0	96.5	39.8	41.2	103.9	33.6	32.3	100.4	2.1	2.1	96.8	0.2	0.2	59.4	0.0	0.0	63.1	21.0	33.3	81.3	23.8	29.3	6.4	2.4	37.5	75.8	18.7	24.7
	3730-63 (W-112)	42.9	23.4	54.5	66.2	20.4	30.8	73.3	13.9	19.0	78.2	0.8	1.0	67.8	0.0	0.0	55.4	0.0	0.0	52.7	11.2	21.3	42.8	13.7	32.0	2.3	1.1	47.8	53.5	9.4	17.5
	3730-65 (W-53)	45.3	23.2	51.2	58.0	20.2	34.8	62.8	19.5	31.1	61.6	0.9	1.5	57.3	0.0	0.0	33.9	0.0	0.0	35.5	8.7	24.5	49.5	9.3	18.8	3.0	0.9	30.0	45.2	9.2	20.3
	3730-66 (W-59)	34.1	18.2	53.4	57.8	15.9	27.5	64.9	11.6	17.9	71.3	0.6	0.8	66.4	0.0	0.0	44.7	0.0	0.0	48.4	8.4	17.4	50.0	10.2	20.4	2.1	0.9	42.9	48.9	7.3	15.0
	3730-67 (W-96)	46.8	25.2	53.8	62.1	21.9	35.3	68.6	19.8	28.9	67.4	0.8	1.2	63.5	0.0	0.0	36.8	0.0	0.0	37.8	8.6	22.8	54.7	9.5	17.4	2.5	0.8	32.0	48.9	9.6	19.7
	3730-68 (W-48)	42.0	20.9	49.8	56.9	18.1	31.8	64.2	16.8	26.2	65.5	0.8	1.2	59.1	0.0	0.0	37.3	0.0	0.0	34.6	7.5	21.7	51.7	8.1	15.7	2.5	0.8	32.0	46.0	8.1	17.6
	3730-70 (W-108)	41.4	17.3	41.8	60.7	15.1	24.9	72.0	14.3	19.9	78.2	0.7	0.9	69.3	0.0	0.0	46.1	0.0	0.0	39.5	6.5	16.5	59.8	7.1	11.9	2.5	0.7	28.0	52.2	6.9	13.1
	3730-71 (W-113)	37.9	17.3	45.6	67.0	15.1	22.5	76.9	11.4	14.8	85.8	0.6	0.7	77.4	0.0	0.0	49.4	0.0	0.0	52.1	7.6	14.6	49.7	9.0	18.1	2.0	0.8	40.0	55.4	6.9	12.4
	3730-72 (W-107)	30.6	7.0	22.9	46.0	6.1	13.3	48.5	6.2	12.8	60.5	0.3	0.5	50.9	0.0	0.0	27.1	0.0	0.0	26.7	3.1	11.6	53.5	3.3	6.2	1.9	0.3	15.8	38.4	2.9	7.6
	3730-73 (W-111)	46.4	29.5	63.6	59.8	25.8	43.1	63.8	21.4	33.5	59.4	1.1	1.9	55.0	0.0	0.0	34.3	0.0	0.0	39.3	12.3	31.3	47.3	13.9	29.4	2.7	1.2	44.4	45.3	11.7	25.8
	3730-74 (CC-1)	27.2	14.3	52.6	43.3	12.5	28.9	48.8	9.0	18.4	58.0	0.6	1.0	54.7	0.0	0.0	33.6	0.0	0.0	41.9	7.0	16.7	38.3	10.2	26.6	2.0	0.9	45.0	38.6	6.1	15.7
	3730-75 (CC-2)	32.6	16.9	51.8	50.9	14.8	29.1	56.7	10.4	18.3	68.1	0.5	0.7	50.8	0.0	0.0	34.8	0.0	0.0	37.1	8.4	22.6	34.3	10.8	31.5	2.0	0.9	45.0	40.8	7.0	17.1
	3831-61 (W-304)	3.5	0.1	2.9	5.8	0.1	1.7	9.1	0.1	1.1	9.0	0.0	0.0	13.9	0.0	0.0	6.6	0.0	0.0	1.8	0.1	5.6	14.6	0.1	0.7	0.4	0.0	0.0	7.2	0.1	0.8
	3921-61 (W-106)	18.0	2.8	15.6	30.5	5.0	16.4	37.5	6.3	16.8	52.1	4.1	7.9	52.9	2.0	3.8	49.6	1.0	2.0	45.7	1.6	3.5	47.9	2.6	5.4	16.8	2.3	13.7	39.0	3.1	7.9
	3921-62 (W-78)	35.0	13.2	37.7	51.5	11.5	22.3	57.6	11.2	19.4	62.4	0.6	1.0	56.8	0.0	0.0	39.6	0.0	0.0	41.6	5.4	13.0	54.6	5.7	10.4	2.4	0.6	25.0	44.6	5.4	12.0
	7101-61 (W-61)	6.3	0.4	6.3	10.4	0.3	2.9	13.4	0.3	2.2	21.0	0.1	0.5	17.2	0.0	0.0	5.3	0.0	0.0	4.2	0.1	2.4	30.0	0.2	0.7	0.6	0.1	16.7	12.0	0.2	1.4
	7102-61 (W-99)	13.3	3.0	22.6	25.0	2.6	10.4	33.3	2.2	6.6	41.7	0.2	0.5	38.7	0.0	0.0	19.7	0.0	0.0	15.2	1.2	7.9	25.8	1.4	5.4	1.0	0.1	10.0	23.7	1.2	5.0
	7102-62 (W-66)	10.6	2.0	18.9	20.7	1.8	8.7	26.9	1.5	5.6	34.2	0.1	0.3	33.4	0.0	0.0	15.5	0.0	0.0	13.5	0.8	5.9	23.7	0.9	3.8	0.9	0.1	11.1	19.9	0.8	4.0
	7102-63 (W-65)	10.5	1.9	18.1	21.0	1.7	8.1	27.7	1.6	5.8	34.5	0.1	0.3	34.1	0.0	0.0	16.9	0.0	0.0	14.0	0.9	6.4	22.8	1.0	4.4	0.9	0.1	11.1	20.3	0.8	4.0
	7102-64 (W-64)	10.6	1.9	17.9	21.5	1.8	8.4	28.5	1.5	5.3	35.1	0.1	0.3	35.0	0.0	0.0	18.3	0.0	0.0	14.4	0.8	5.6	21.7	0.9	4.1	0.8	0.1	12.5	20.7	0.8	3.8
	7102-65 (W-70)	9.4	1.6	17.0	19.6	1.4	7.1	25.8	1.3	5.0	31.8	0.0	0.0	32.7	0.0	0.0	16.1	0.0	0.0	13.8	0.6	4.3	22.1	0.8	3.6	0.8	0.1	12.5	19.1	0.6	3.4
	7102-66 (W-67)	9.6	1.6	16.7	20.5	1.4	6.8	27.1	1.2	4.4	32.8	0.1	0.3	34.2	0.0	0.0	18.3	0.0	0.0	14.7	0.7	4.8	21.0	0.8	3.8	0.7	0.1	14.3	19.9	0.7	3.3

Note: DD represents groundwater level drawdown.

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Table 8-3
Estimated Drawdowns for 2014 Pumping Cost Reimbursements

Well Owner/ Service Area	Well Name	Drawdown Due to All Pumping (ft)[1]									Drawdown Due to MPG Transfer Pumping (ft)[2]								
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Central California Irrigation District	5A	7	12	18	18	18	17	15	9	3	0	0	0	0	0	0	0	0	0
	12C	1	2	5	5	5	5	5	5	3	0	0	0	0	0	0	0	0	0
	15B	1	3	5	5	5	5	5	4	3	0	0	0	0	0	0	0	0	0
	16B	1	2	5	5	5	5	5	4	3	0	0	0	0	0	0	0	0	0
	23B	1	1	5	5	5	5	5	7	3	0	0	0	0	0	0	0	0	0
	28C	10	17	23	22	21	16	11	7	3	0	0	0	0	0	0	0	0	0
	32B	1	3	5	6	7	6	6	4	3	0	0	0	0	0	0	0	0	0
	35A	2	3	6	7	8	7	6	5	3	0	0	0	0	0	0	0	0	0
	38A	3	5	7	3	2	2	5	4	4	0	0	0	0	0	0	0	0	0
Columbia Canal Company	Snyder	7	14	20	24	22	13	11	8	4	0	1	2	0	0	0	0	0	1
	B-Heirs	2	4	6	4	2	4	5	8	5	0	0	0	0	0	0	0	0	0
	Cardella-2	6	11	17	19	17	11	10	8	5	0	1	1	0	0	0	1	0	0
	Cardella-Lopes	8	22	33	46	43	19	18	12	5	2	2	4	0	0	0	2	1	1
	CCC Deep #1	13	31	36	51	41	19	18	9	0	3	3	3	0	0	0	2	0	0
	CCC Deep #2	5	16	26	38	37	18	16	12	7	0	1	1	0	0	0	1	0	1
	MLT-West	18	33	41	51	42	34	33	15	0	5	7	8	0	0	0	6	2	0
	Elrod #1	1	1	2	4	1	5	6	12	8	0	0	0	0	0	0	0	0	0
	Elrod #2	2	4	6	4	2	4	5	8	5	0	0	0	0	0	0	0	0	0
	Elrod #3	2	4	6	4	2	4	5	8	5	0	0	0	0	0	0	0	0	0
	N.F. Davis (1 & 2)	2	4	6	4	2	4	5	8	5	0	0	0	0	0	0	0	0	0
	Samarin #1	4	7	11	10	8	6	7	7	5	0	0	1	0	0	0	0	0	0
	Samarin #2	1	2	4	2	2	2	5	6	5	0	0	0	0	0	0	0	0	0
	Samarin #3	0	1	2	1	1	2	5	7	6	0	0	0	0	0	0	0	0	0
	Samarin #4	2	0	6	4	2	4	5	7	5	0	0	0	0	0	0	0	0	0
	Samarin #5	2	4	6	4	2	4	5	6	5	0	0	0	0	0	0	0	0	0
	Mowry #1 (Electric)	26	53	59	52	47	26	35	12	0	12	18	19	1	0	0	9	3	0
	Mowry Diesel	25	50	57	51	47	26	37	15	0	12	17	18	1	0	0	10	3	0
Wonderful Orchards (formerly Paramount Farming Company)	2480-61 (W-43)	2	16	23	34	34	21	17	16	12	0	2	2	0	0	0	1	1	2
	2480-62 (W-97)	1	16	25	35	34	22	18	18	13	0	2	2	0	0	0	2	1	1
	2480-63 (W-100)	1	17	28	36	34	24	19	19	14	0	2	2	0	0	0	2	1	1
	2480-64 (W-88)	0	17	33	37	33	23	18	18	14	0	2	2	0	0	0	2	1	2
	2480-65 (W-33)	2	11	19	28	31	21	16	15	13	0	1	1	0	0	0	1	0	1
	2480-66 (W-42)	1	10	16	26	27	20	16	16	14	0	0	0	0	0	0	1	0	0
	2480-67 (W-84)	1	6	12	21	22	17	16	14	14	0	1	1	0	0	0	1	1	1
	2480-69 (W-30)	1	3	5	10	8	8	8	15	10	0	0	0	0	0	0	0	0	2
	2480-70 (W-81)	1	4	7	13	12	11	10	17	11	0	0	0	0	0	0	0	0	2
	2480-71 (W-5)	1	2	4	10	8	10	9	18	11	0	0	0	0	0	0	0	0	2
	2480-72 (W-35)	1	5	9	15	15	14	12	18	13	0	0	0	0	0	0	0	0	0
	2480-73 (W-56)	0	2	3	8	5	8	9	17	11	0	0	0	0	0	0	0	0	3
	2480-74 (W-55)	0	2	4	9	7	10	10	17	12	0	0	0	0	0	0	1	0	3
	2480-75 (W-50)	0	3	6	11	9	11	11	18	12	0	0	0	0	0	0	0	0	0
	2560-61 (W-82)	2	5	8	8	5	6	7	8	6	0	0	0	0	0	0	0	0	0
	2560-62 (W-25)	2	4	6	8	5	6	7	10	7	0	0	0	0	0	0	0	0	0
	2570-61 (W-51)	1	1	2	6	3	6	8	14	10	0	0	0	0	0	0	0	0	1
	2570-62 (W-68)	0	1	2	5	2	6	7	14	9	0	0	0	0	0	0	0	0	0

Table 8-3
Estimated Drawdowns for 2014 Pumping Cost Reimbursements

Well Owner/ Service Area	Well Name	Drawdown Due to All Pumping (ft)[1]									Drawdown Due to MPG Transfer Pumping (ft)[2]								
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Wonderful Orchards (formerly Paramount Farming Company)	3191-61 (W-85)	*10*	*33*	*35*	*54*	*41*	*17*	*16*	*7*	*0*	3	5	4	0	0	0	2	0	0
	3191-62 (W-86)	*6*	*33*	*37*	*54*	*42*	*17*	*16*	*7*	*0*	2	5	4	0	0	0	2	1	0
	3191-63 (W-44)	*6*	*18*	*28*	*41*	*40*	*18*	*16*	*12*	*7*	1	2	3	0	0	0	1	1	1
	3191-64 (W-57)	*6*	*22*	*30*	*45*	*41*	*18*	*17*	*11*	*5*	1	2	3	0	0	0	2	1	1
	3191-65 (W-87)	*1*	*28*	*38*	*49*	*41*	*19*	*17*	*10*	*3*	0	4	4	0	0	0	2	1	1
	3191-67 (W-17)	*4*	*15*	*24*	*36*	*36*	*18*	*15*	*13*	*9*	0	1	2	0	0	0	1	0	2
	3191-68 (W-76)	*2*	*12*	*20*	*29*	*32*	*21*	*15*	*15*	*12*	0	1	1	0	0	0	1	1	2
	3191-69 (W-52)	*2*	*8*	*14*	*21*	*22*	*17*	*13*	*16*	*12*	0	0	1	0	0	0	1	0	2
	3211-61 (W-73)	*9*	*12*	*17*	*17*	*15*	*9*	*13*	*12*	*2*	5	4	4	0	0	0	3	2	1
	3211-62 (W-69)	*12*	*29*	*31*	*32*	*29*	*15*	*20*	*11*	*0*	6	9	7	0	0	0	4	2	0
	3211-63 (W-2)	*9*	*20*	*28*	*25*	*20*	*11*	*11*	*5*	*0*	4	5	5	0	0	0	2	1	0
	3211-65 (W-62)	*4*	*27*	*34*	*36*	*29*	*14*	*13*	*4*	*0*	2	6	6	0	0	0	2	1	0
	3211-66 (W-15)	*7*	*20*	*31*	*25*	*19*	*14*	*10*	*2*	*0*	3	4	5	0	0	0	2	0	0
	3211-68 (W-110)	*17*	*38*	*36*	*56*	*38*	*16*	*16*	*5*	*0*	5	6	5	0	0	0	3	0	0
	3211-69 (W-77)	*0*	*41*	*48*	*58*	*50*	*20*	*20*	*9*	*0*	0	8	7	0	0	0	3	1	0
	3211-70 (W-98)	*2*	*24*	*37*	*35*	*28*	*16*	*13*	*4*	*0*	1	4	4	0	0	0	1	0	0
	3211-71 (W-46)	*0*	*31*	*43*	*49*	*42*	*20*	*18*	*10*	*2*	0	4	4	0	0	0	2	1	0
	3211-72 (W-101)	*0*	*28*	*42*	*44*	*37*	*20*	*16*	*10*	*2*	0	3	3	0	0	0	2	0	0
	3211-73 (W-14)	*0*	*23*	*41*	*38*	*31*	*18*	*14*	*8*	*1*	0	3	3	0	0	0	2	1	0
	3211-74 (W-31)	*0*	*25*	*42*	*43*	*36*	*21*	*17*	*12*	*6*	0	3	3	0	0	0	2	1	1
	3211-75 (W-63)	*0*	*25*	*39*	*45*	*38*	*21*	*17*	*13*	*6*	0	3	3	0	0	0	2	1	1
	3211-76 (W-13)	*0*	*20*	*44*	*39*	*30*	*21*	*16*	*12*	*7*	0	2	3	0	0	0	1	1	1
	3211-77 (W-3)	*3*	*35*	*40*	*48*	*39*	*15*	*16*	*5*	*0*	1	8	7	0	0	0	3	1	0
	3311-61 (W-89)	*0*	*17*	*42*	*37*	*30*	*23*	*17*	*16*	*13*	0	1	1	0	0	0	1	0	0
	3311-62 (W-8)	*0*	*17*	*47*	*38*	*28*	*22*	*17*	*15*	*12*	0	2	3	0	0	0	1	1	1
	3311-63 (W-12)	*0*	*14*	*39*	*34*	*26*	*22*	*19*	*17*	*14*	0	1	2	0	0	0	1	1	2
	3311-64 (W-90)	*0*	*13*	*34*	*32*	*25*	*22*	*20*	*18*	*15*	0	1	1	0	0	0	1	1	2
	3421-61 (Card-1)	*14*	*25*	*33*	*39*	*32*	*26*	*23*	*11*	*0*	3	4	5	0	0	0	3	1	0
	3421-62 (W-74)	*7*	*14*	*22*	*26*	*24*	*14*	*12*	*9*	*4*	1	1	2	0	0	0	1	0	0
	3421-64 (W-18)	*4*	*13*	*21*	*30*	*31*	*17*	*14*	*13*	*9*	0	1	2	0	0	0	1	0	1
	3421-66 (W-19)	*3*	*10*	*17*	*24*	*25*	*16*	*12*	*13*	*10*	0	1	1	0	0	0	1	0	0
	3421-68 (W-24)	*2*	*7*	*11*	*17*	*17*	*12*	*10*	*14*	*10*	0	0	1	0	0	0	1	0	0
	3431-61 (W-32)	*1*	*11*	*22*	*28*	*34*	*25*	*17*	*16*	*14*	0	0	0	0	0	0	0	0	0
	3431-62 (W-91)	*1*	*9*	*16*	*23*	*24*	*20*	*16*	*17*	*14*	0	0	0	0	0	0	0	0	0
	3431-63 (W-36)	*1*	*8*	*14*	*20*	*21*	*18*	*15*	*18*	*14*	0	0	0	0	0	0	0	0	0
	3561-61 (W-27)	*2*	*5*	*9*	*14*	*13*	*11*	*10*	*14*	*10*	0	0	0	0	0	0	0	0	1
	3561-62 (W-28)	*2*	*4*	*7*	*12*	*10*	*9*	*9*	*14*	*9*	0	0	0	0	0	0	0	0	1
	3561-63 (W-83)	*1*	*2*	*4*	*7*	*5*	*7*	*8*	*14*	*9*	0	0	0	0	0	0	0	0	2
	3561-64 (W-80)	*0*	*0*	*1*	*4*	*1*	*5*	*7*	*13*	*9*	0	0	0	0	0	0	0	0	0
	3591-61 (W-34)	*1*	*10*	*18*	*25*	*26*	*21*	*17*	*16*	*14*	0	1	1	0	0	0	1	0	2
	3591-62 (W-29)	*1*	*10*	*18*	*24*	*21*	*18*	*18*	*17*	*15*	0	0	1	1	0	0	0	0	0
	3591-63 (W-7)	*0*	*13*	*29*	*30*	*23*	*20*	*21*	*19*	*15*	0	1	1	0	0	0	1	0	2
	3591-64 (W-92)	*1*	*10*	*19*	*25*	*25*	*20*	*18*	*17*	*14*	0	0	1	0	0	0	0	0	2
	3591-65 (W-75)	*0*	*12*	*22*	*27*	*22*	*19*	*20*	*18*	*15*	0	0	0	0	0	0	0	0	2
	3591-66 (W-11)	*0*	*13*	*26*	*30*	*22*	*18*	*22*	*19*	*15*	0	1	1	0	0	0	0	0	2
	3591-67 (W-10)	*0*	*9*	*16*	*22*	*22*	*19*	*17*	*18*	*14*	0	0	1	0	0	0	0	0	0

Table 8-3
Estimated Drawdowns for 2014 Pumping Cost Reimbursements

Well Owner/ Service Area	Well Name	Drawdown Due to All Pumping (ft)[1]									Drawdown Due to MPG Transfer Pumping (ft)[2]								
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Wonderful Orchards (formerly Paramount Farming Company)	3591-68 (W-93)	*0*	*12*	*24*	*28*	*21*	*18*	*21*	*19*	*15*	0	0	0	0	0	0	0	0	0
	3591-69 (W-39)	*1*	*6*	*11*	*17*	*16*	*15*	*14*	*18*	*13*	0	0	0	0	0	0	0	0	3
	3591-70 (W-72)	*0*	*8*	*16*	*21*	*20*	*18*	*17*	*18*	*14*	0	0	0	0	0	0	0	0	0
	3591-71 (W-71)	*0*	*9*	*18*	*23*	*20*	*18*	*18*	*18*	*14*	0	0	1	0	0	0	0	0	0
	3591-72 (W-60)	*0*	*11*	*22*	*26*	*20*	*18*	*21*	*19*	*15*	0	0	0	0	0	0	0	0	3
	3730-61 (W-95)	*15*	*39*	*58*	*57*	*55*	*33*	*43*	*24*	*4*	7	10	9	1	0	0	6	5	2
	3730-62 (W-94)	*11*	*20*	*24*	*24*	*26*	*29*	*46*	*31*	*13*	7	8	8	0	0	0	15	9	5
	3730-63 (W-112)	*21*	*45*	*51*	*55*	*44*	*26*	*37*	*15*	*0*	11	14	10	1	0	0	8	5	0
	3730-65 (W-53)	*26*	*52*	*60*	*52*	*46*	*25*	*34*	*12*	*0*	13	18	18	1	0	0	8	2	0
	3730-66 (W-59)	*17*	*35*	*42*	*44*	*35*	*16*	*24*	*10*	*0*	9	10	8	0	0	0	4	2	0
	3730-67 (W-96)	*17*	*36*	*38*	*37*	*35*	*19*	*29*	*15*	*0*	9	13	11	0	0	0	7	3	0
	3730-68 (W-48)	*21*	*45*	*45*	*45*	*43*	*23*	*29*	*12*	*0*	11	14	12	1	0	0	6	2	0
	3730-70 (W-108)	*23*	*49*	*47*	*49*	*47*	*25*	*30*	*10*	*0*	10	12	9	0	0	0	5	1	0
	3730-71 (W-113)	*12*	*25*	*32*	*32*	*25*	*12*	*17*	*9*	*0*	6	6	5	0	0	0	2	2	0
	3730-72 (W-107)	*17*	*36*	*40*	*50*	*36*	*21*	*21*	*8*	*0*	4	5	5	0	0	0	2	0	0
	3730-73 (W-111)	*11*	*19*	*23*	*22*	*23*	*20*	*34*	*24*	*8*	7	8	8	0	0	0	11	7	4
	3730-74 (CC-1)	*8*	*31*	*48*	*48*	*47*	*23*	*34*	*18*	*0*	4	9	9	0	0	0	6	5	0
	3730-75 (CC-2)	*24*	*48*	*66*	*66*	*62*	*44*	*52*	*30*	*8*	12	14	12	0	0	0	12	9	4
	3831-61 (W-304)	0	0	1	4	1	5	7	13	9	0	0	0	0	0	0	0	0	0
	3921-61 (W-106)	*19*	*39*	*47*	*44*	*39*	*26*	*28*	*10*	*0*	3	6	8	3	1	1	1	1	0
	3921-62 (W-78)	*23*	*47*	*48*	*51*	*45*	*24*	*27*	*8*	*0*	9	11	9	0	0	0	4	1	0
	7101-61 (W-61)	*1*	*2*	*3*	*7*	*5*	*7*	*8*	*15*	*10*	0	0	0	0	0	0	0	0	2
	7102-61 (W-99)	*0*	*17*	*38*	*37*	*31*	*23*	*18*	*17*	*13*	0	2	2	0	0	0	1	1	1
	7102-62 (W-66)	*1*	*10*	*17*	*25*	*25*	*22*	*19*	*22*	*19*	0	1	1	0	0	0	1	1	2
	7102-63 (W-65)	*1*	*12*	*25*	*29*	*26*	*23*	*20*	*21*	*17*	0	1	1	0	0	0	1	1	2
	7102-64 (W-64)	*0*	*13*	*30*	*31*	*26*	*22*	*19*	*19*	*16*	0	1	2	0	0	0	1	1	2
	7102-65 (W-70)	*1*	*10*	*20*	*25*	*22*	*19*	*19*	*18*	*16*	0	1	1	0	0	0	1	1	2
	7102-66 (W-67)	*0*	*12*	*28*	*30*	*24*	*21*	*20*	*19*	*16*	0	1	1	0	0	0	1	1	2

1. Drawdowns were estimated based on measured water levels shown on hydrographs where available. Contour maps were used to estimate drawdowns in wells lacking water level data (italicized values).
2. Values obtained by multiplying the estimated drawdowns by the monthly MPG percentages (see Table 8-2).

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Table 8-4
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Included in Settlement Agreement

Well Owner/ Service Area	Well ID	Power Cost ($/kwh)	Pump* Efficiency	Pumpage (af)									Reimbursement ($)									
				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Total
Central California Irrigation District	5A	0.16	0.49	0	142	144	132	146	140	105	52	0	0	0	0	0	0	0	0	0	0	$0
	12C	0.16	0.20	78	97	77	60	68	58	51	53	62	0	0	0	0	0	0	0	0	0	$0
	15B	0.16	0.34	104	130	101	99	110	85	76	38	0	0	0	0	0	0	0	0	0	0	$0
	16C	0.16	0.48	109	201	160	196	219	162	148	72	0	0	0	0	0	0	0	0	0	0	$0
	23B	0.16	0.52	54	119	82	97	94	81	64	77	87	0	0	0	0	0	0	0	0	0	$0
	28D	0.16	*0.60*	83	195	163	172	206	120	80	60	0	0	0	0	0	0	0	0	0	0	$0
	32C	0.16	0.74	115	138	105	122	154	91	0	0	0	0	0	0	0	0	0	0	0	0	$0
	35A	0.16	0.52	125	157	138	146	161	161	125	62	0	0	0	0	0	0	0	0	0	0	$0
	38A	0.16	0.65	0	45	45	166	106	67	13	0	0	0	0	0	0	0	0	0	0	0	$0
	Total			**668**	**1,224**	**1,015**	**1,188**	**1,263**	**966**	**661**	**415**	**148**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Columbia Canal Company	Snyder	0.16	0.24	75	307	60	54	7	144	97	93	52	14	183	62	3	0	0	32	20	26	$339
	B-Heirs	0.16	0.38	18	63	23	25	51	28	19	0	0	0	0	0	0	0	0	0	0	0	$0
	Cardella-2	0.16	0.70	0	0	0	33	75	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	Cardella-Lopes	0.16	0.70	0	27	161	2	4	0	0	12	0	0	12	145	0	0	0	0	2	0	$159
	CCC Deep #1	0.16	0.48	23	57	299	263	172	2	0	98	189	23	54	315	21	0	0	0	16	0	$429
	CCC Deep #2	0.16	0.55	186	280	339	231	256	6	0	133	144	20	65	150	8	0	0	0	16	52	$313
	MLT-West	0.16	0.32	33	0	13	54	2	0	0	0	0	90	0	53	14	0	0	0	0	0	$157
	Elrod #1	0.16	*0.60*	31	0	22	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	Elrod #2	0.16	0.50	61	38	37	138	27	19	0	4	33	0	0	0	0	0	0	0	0	0	$0
	Elrod #3	0.16	0.59	30	0	0	82	0	0	0	0	25	0	0	0	0	0	0	0	0	0	$0
	N.F. Davis	0.16	0.41	56	67	58	62	4	13	0	43	0	0	1	1	1	0	0	0	0	0	$3
	Samarin #1	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	Samarin #2	0.16	0.33	40	198	19	217	73	11	15	0	0	0	5	0	0	0	0	1	0	0	$7
	Samarin #3	0.16	0.49	58	67	19	31	56	20	0	0	12	0	0	0	0	0	0	0	0	0	$1
	Samarin #4	0.16	0.53	23	34	0	5	4	0	92	0	0	0	0	0	0	0	0	0	0	0	$0
	Samarin #5	0.16	0.37	22	0	0	0	48	0	52	0	0	0	0	0	0	0	0	0	0	0	$0
	Mowry Electric	0.16	*0.60*	0	35	50	21	6	0	0	0	0	0	174	261	5	0	0	0	0	0	$440
	Mowry Diesel	0.16	0.32	0	41	53	24	8	198	25	0	0	0	345	478	9	0	0	121	0	0	$954
	Total			**553**	**1,037**	**1,031**	**1,162**	**673**	**223**	**131**	**384**	**443**	**$149**	**$841**	**$1,466**	**$61**	**$0**	**$0**	**$154**	**$54**	**$78**	**$2,804**
Wonderful Orchards (PFC)	2480-61 (W-43)	0.16	*0.56*	0	19	31	19	59	7	10	42	7	0	0	0	0	0	0	0	0	0	$0
	2480-62 (W-97)	0.16	0.66	0	38	50	123	85	7	16	63	9	0	7	13	1	0	0	4	8	1	$35
	2480-63 (W-100)	0.16	0.64	0	0	0	0	0	0	0	0	0	0	15	23	2	0	0	6	13	2	$61

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				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Total
Wonderful Orchards (formerly Paramount Farming Company)	2480-64 (W-88)	0.16	*0.64*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	2480-65 (W-33)	0.16	*0.48*	0	14	31	74	63	4	12	33	5	0	0	0	0	0	0	0	0	0	$0
	2480-66 (W-42)	0.16	0.68	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	2	2	0	$8
	2480-67 (W-84)	0.16	*0.35*	0	18	31	52	55	0	2	22	0	0	0	0	0	0	0	0	0	0	$0
	2480-69 (W-30)	0.16	*0.63*	0	18	31	52	55	0	2	22	0	0	0	1	0	0	0	0	1	0	$3
	2480-70 (W-81)	0.16	0.61	1	20	30	79	73	3	4	29	0	0	1	2	1	0	0	0	2	0	$6
	2480-71 (W-5)	0.16	*0.62*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	2480-72 (W-35)	0.16	0.55	0	0	13	52	39	0	13	53	0	0	0	1	0	0	0	1	3	0	$6
	2480-73 (W-56)	0.16	*0.51*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	2480-74 (W-55)	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	2480-75 (W-50)	0.16	*0.61*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	2560-61 (W-82)	0.16	0.73	0	94	7	73	0	2	0	34	0	0	3	1	0	0	0	0	1	0	$5
	2560-62 (W-25)	0.16	*0.72*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	2570-61 (W-51)	0.16	0.73	35	24	39	41	69	0	0	102	1	0	0	0	0	0	0	0	3	0	$4
	2570-62 (W-68)	0.16	*0.80*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	3191-61 (W-85)	0.16	0.66	4	18	35	97	62	4	0	70	0	3	22	38	6	0	0	0	9	0	$77
	3191-62 (W-86)	0.16	0.67	6	16	46	68	63	1	14	83	0	2	20	49	5	1	0	7	10	0	$95
	3191-63 (W-44)	0.16	0.48	26	11	15	14	0	0	0	17	0	7	6	13	1	0	0	0	4	0	$30
	3191-64 (W-57)	0.16	0.67	7	28	82	131	113	5	22	140	0	2	17	54	5	0	0	9	17	0	$104
	3191-65 (W-87)	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	3191-67 (W-17)	0.16	0.66	45	23	26	38	62	7	3	129	0	5	7	12	2	0	0	1	13	0	$40
	3191-68 (W-76)	0.16	*0.59*	0	1	16	67	73	6	5	0	0	0	0	6	1	0	0	1	0	0	$9
	3191-69 (W-52)	0.16	*0.67*	0	9	35	72	70	5	7	29	1	0	1	5	0	0	0	1	2	0	$10
	3211-61 (W-73)	0.16	0.62	16	86	94	116	118	99	72	149	0	20	82	96	5	0	0	48	80	0	$331
	3211-62 (W-69)	0.16	0.54	28	65	75	108	83	40	0	0	0	52	171	162	11	0	0	0	0	0	$396
	3211-63 (W-2)	0.16	0.64	4	12	16	34	32	15	12	38	0	5	16	21	2	0	0	6	9	0	$58
	3211-65 (W-62)	0.16	0.51	1	6	4	33	16	4	6	13	0	1	13	7	3	0	0	4	2	0	$29
	3211-66 (W-15)	0.16	0.62	2	10	5	47	15	2	2	8	0	1	12	6	2	0	0	1	1	0	$22
	3211-68 (W-110)	0.16	0.59	74	116	139	124	0	0	0	0	0	101	197	182	12	0	0	0	0	0	$491
	3211-69 (W-77)	0.16	0.59	0	8	1	4	1	1	0	3	0	0	18	1	1	0	0	0	1	0	$21
	3211-70 (W-98)	0.16	0.65	18	49	96	129	117	75	48	120	4	3	50	95	5	0	0	18	11	0	$181
	3211-71 (W-46)	0.16	0.55	17	38	82	76	93	18	0	85	0	0	48	93	4	2	0	0	16	0	$164

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				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Total
Wonderful Orchards (formerly Paramount Farming Company)	3211-72 (W-101)	0.16	0.63	39	87	186	175	214	81	0	196	0	0	77	147	6	0	0	0	25	0	$255
	3211-73 (W-14)	0.16	0.68	17	32	67	62	63	11	0	72	0	0	23	54	2	0	0	0	10	0	$89
	3211-74 (W-31)	0.16	0.48	5	18	26	35	36	0	0	57	0	0	19	29	2	0	0	0	13	0	$63
	3211-75 (W-63)	0.16	0.63	9	28	49	57	49	1	0	82	0	0	23	39	3	0	0	0	15	0	$79
	3211-76 (W-13)	0.16	0.70	2	21	37	55	56	23	27	71	4	0	10	25	2	0	0	8	11	1	$58
	3211-77 (W-3)	0.16	0.53	56	179	222	262	233	137	158	92	0	20	449	468	35	0	0	132	19	0	$1,125
	3311-61 (W-89)	0.16	0.65	0	2	25	46	16	7	8	5	0	0	1	9	0	0	0	2	0	0	$12
	3311-62 (W-8)	0.16	0.72	0	0	5	89	61	40	0	0	0	0	0	3	3	0	0	0	0	0	$6
	3311-63 (W-12)	0.16	0.50	9	25	34	60	55	27	18	13	0	0	8	19	2	0	0	5	4	0	$37
	3311-64 (W-90)	0.16	0.74	23	61	82	81	124	66	42	28	0	0	10	19	1	0	0	6	4	0	$41
	3421-61 (Card-1)	0.16	*0.46*	35	28	25	32	58	0	2	107	0	35	38	49	3	0	0	2	33	0	$161
	3421-62 (W-74)	0.16	0.71	19	36	0	62	42	0	0	64	0	3	9	0	1	0	0	0	5	0	$18
	3421-64 (W-18)	0.16	0.59	61	24	27	30	68	0	2	140	0	6	6	11	1	0	0	1	13	0	$38
	3421-66 (W-19)	0.16	0.62	41	24	10	32	55	0	2	102	0	3	4	3	1	0	0	0	7	0	$18
	3421-68 (W-24)	0.16	*0.67*	0	0	0	0	0	2	3	82	0	0	0	0	0	0	0	0	5	0	$5
	3431-61 (W-32)	0.16	*0.65*	0	2	18	45	55	4	0	0	0	0	0	1	0	0	0	0	0	0	$1
	3431-62 (W-91)	0.16	0.57	0	15	18	47	12	4	28	53	0	0	1	1	0	0	0	0	0	0	$1
	3431-63 (W-36)	0.16	0.68	0	13	30	63	57	3	26	81	0	0	1	3	0	0	0	2	4	0	$10
	3561-61 (W-27)	0.16	*0.57*	22	2	0	6	0	0	0	47	0	1	0	0	0	0	0	0	2	0	$3
	3561-62 (W-28)	0.16	*0.58*	0	0	0	0	0	0	0	79	0	0	0	0	0	0	0	0	3	0	$3
	3561-63 (W-83)	0.16	*0.44*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	3561-64 (W-80)	0.16	*0.66*	0	0	0	0	0	2	0	134	0	0	0	0	0	0	0	0	2	0	$2
	3591-61 (W-34)	0.16	0.51	0	0	32	108	72	1	0	2	0	0	0	7	2	0	0	0	0	0	$10
	3591-62 (W-29)	0.16	0.69	0	0	0	0	6	0	0	0	0	0	0	0	0	1	0	0	0	0	$1
	3591-63 (W-7)	0.16	0.73	13	51	45	46	69	47	58	78	0	0	7	10	1	0	0	7	8	0	$32
	3591-64 (W-92)	0.16	0.40	9	36	58	66	79	10	43	95	0	0	6	13	2	0	0	6	9	0	$36
	3591-65 (W-75)	0.16	0.58	13	92	112	0	130	90	94	119	0	0	9	15	0	0	0	9	9	0	$43
	3591-66 (W-11)	0.16	0.59	7	54	65	0	83	65	66	84	0	0	8	11	0	0	0	8	8	0	$34
	3591-67 (W-10)	0.16	0.59	4	4	0	47	42	4	20	77	0	0	0	0	0	0	0	2	4	0	$7
	3591-68 (W-93)	0.16	0.64	15	72	99	122	113	87	80	64	0	0	6	12	2	0	0	6	4	0	$30
	3591-69 (W-39)	0.16	0.63	1	20	31	77	71	11	28	82	0	0	1	2	0	0	0	2	3	0	$8
	3591-70 (W-72)	0.16	*0.69*	0	22	11	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	$3

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				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Total
Wonderful Orchards (formerly Paramount Farming Company)	3591-71 (W-71)	0.16	*0.50*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	3591-72 (W-60)	0.16	0.66	8	39	47	70	69	54	45	59	0	0	3	4	1	0	0	4	4	0	$17
	3730-61 (W-95)	0.16	0.73	32	78	103	151	135	69	137	144	0	52	178	212	17	0	0	196	167	0	$823
	3730-62 (W-94)	0.16	0.65	41	85	91	134	147	47	0	142	0	70	174	175	17	2	0	0	327	0	$764
	3730-63 (W-112)	0.16	0.55	52	133	184	207	157	216	121	0	0	179	553	524	34	0	0	286	0	0	$1,578
	3730-65 (W-53)	0.16	0.46	10	33	30	56	36	2	18	65	0	48	213	195	15	0	0	51	51	0	$573
	3730-66 (W-59)	0.16	0.57	34	61	73	91	106	43	47	116	0	1	165	152	9	0	0	111	58	0	$496
	3730-67 (W-96)	0.16	0.54	15	32	46	64	54	46	18	68	0	96	238	246	12	0	0	94	94	0	$781
	3730-68 (W-48)	0.16	0.37	47	114	182	233	202	160	86	174	0	72	205	241	16	0	0	52	55	0	$640
	3730-70 (W-108)	0.16	0.53	11	9	14	27	3	3	5	17	0	143	433	529	31	0	0	131	64	0	$1,331
	3730-71 (W-113)	0.16	0.45	47	84	96	160	127	40	40	188	0	22	19	25	2	0	0	4	9	0	$82
	3730-72 (W-107)	0.16	0.63	50	134	172	216	200	130	150	222	0	47	105	129	10	0	0	25	23	0	$339
	3730-73 (W-111)	0.16	0.63	24	53	62	100	86	15	91	101	0	95	286	339	23	0	0	410	407	0	$1,561
	3730-74 (CC-1)	0.16	0.54	30	66	74	141	0	0	0	0	0	31	141	166	15	0	0	159	146	0	$658
	3730-75 (CC-2)	0.16	0.64	33	80	96	197	204	211	203	210	11	94	236	229	18	0	0	0	0	0	$577
	3831-61 (W-304)	0.16	0.57	21	60	73	88	98	104	131	136	0	0	0	0	0	0	0	0	2	0	$2
	3921-61 (W-106)	0.16	0.63	21	60	73	88	98	104	131	136	0	25	134	199	177	78	29	51	28	0	$721
	3921-62 (W-78)	0.16	0.53	0	21	31	61	34	2	0	141	0	57	197	208	13	0	0	144	36	0	$656
	7101-61 (W-61)	0.16	*0.67*	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	4	0	$5
	7102-61 (W-99)	0.16	0.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	7102-62 (W-66)	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	7102-63 (W-65)	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	7102-64 (W-64)	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	7102-65 (W-70)	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	7102-66 (W-67)	0.16	*0.60*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	Total			**1,161**	**2,829**	**3,791**	**5,514**	**5,090**	**2,282**	**2,181**	**5,308**	**42**	**$1,302**	**$4,707**	**$5,408**	**$550**	**$84**	**$29**	**$2,029**	**$1,904**	**$4**	**$16,016**
	Total (All Wells)			**2,383**	**5,089**	**5,836**	**7,864**	**7,026**	**3,471**	**2,973**	**6,106**	**633**	**$1,451**	**$5,547**	**$6,874**	**$612**	**$84**	**$29**	**$2,183**	**$1,959**	**$83**	**$18,820**

* Italicized values indicate estimates or values from 2002, 2007, 2008, 2010 or 2013

9 SUMMARY

Data collected in accordance with the 2014 MPG monitoring program are summarized in this annual report. The MPG classified 2014 as a normal year and engaged in transfer pumping for the third time since Agreement No. 2 went into effect in 2011.

9.1 Pumpage

MPG transfer pumping (occurred between March 1 and November 30 and totaled 20,633 af. There were an additional 2,473 af of non-MPG transfer pumping by Don Peracchi. The total transfer pumpage was 23,106 af, which is 292 af less than the planned pumpage. However, deep zone MPG wells pumped 11,006 af for transfer in 2014, which was 1,189 af more than the approved program (**Table 3-4**). Although the deep zone pumping amount for transfer exceeded the approved amount, the annual amount under Agreement No. 2 was not exceeded (12,000 af) and the total deep zone pumping for transfer for the entire period of Agreement No. 2 was also not exceeded. Pumpage by the MPG and Peracchi for irrigation of overlying and adjacent lands occurred from January through December and totaled 9,222 af (4,210 af less than planned). The MPG and Peracchi pumped a total of 12,910 af in FWD, which is 90 af less than the planned pumpage. As mentioned above, although deep zone pumping for transfer exceeded the approved 2014 pumping program amount, the sum of the transfer and adjacent pumping in 2014 was 32,328 af, which is 4,502 af less than the approved pumping program.

Non-MPG pumpage west of the Chowchilla Bypass was estimated to be about 57,000 af in 2014. This included about 30,100 af pumped in the WO service area, 7,800 af pumped in CCID, 6,800 af pumped in the CCC service area, 3,700 af pumped by Locke Ranch wells, and about 2,400 af pumped by FCWD. Non-MPG pumpage east of the Chowchilla Bypass was estimated for 2012 and this estimate is used for 2014. The total pumpage east of the Bypass was estimated to be 105,000 af within the study area, which includes about 67,000af in Aliso Water District and undistricted portions of Madera County and 38,000 af in the undistricted portion of Fresno County east of FWD and Spreckels Sugar Co. The total non-MPG pumpage occurs mostly above the Corcoran Clay in the study area and was estimated to be about 162,000 af in 2014.

9.2 Groundwater Levels

Water levels in some wells tapping strata above the Corcoran Clay west of the Chowchilla Bypass have been relatively stable over the period of record, but there are notable short-term fluctuations, including water level declines during the drought years. The principal exceptions are wells with very long periods of records such as the CCID wells and wells in the northern and eastern portions of WO which have shown long-term water-level declines.

Groundwater levels in the study area have experienced significant fluctuations during the past decade. Water levels rose considerably in almost all shallow and deep zone wells in 2005 and

2006, due to recharge from flood releases to the SJR and the Bypass and reduced pumping by the MPG and other entities in the study area. After two years of rising water levels, most wells experienced water-level declines during the 2007-2009 period, but water levels were more stable during 2010-2012. In 2013 and 2014, seasonal drawdowns were larger than previous years, and water levels in most wells did not recover after the irrigation season.

Water levels in both shallow and deep zone wells in the MPG well field west of the Fresno Slough declined one to seven feet in 2014 following decreasing water levels in 2013. East of the Fresno Slough, water level information for Meyers Farms and Spreckels Sugar Co. monitoring wells was not available in 2014. North of Spreckels Sugar Co., water levels in FWD wells range from an increase of two feet to a decline of about one foot in 2014.

North of the SJR, water levels in most shallow monitoring wells near the SJR showed a slight decline in 2014. In the deep zone, water levels generally declined in both the southern and northern WO wells.

9.3 Groundwater Quality

TDS concentrations in shallow and deep zone wells in the Mendota area vary widely, from about 200 mg/L near the SJR east of the Pool (City of Mendota No. 7 and 8) to nearly 6,000 mg/L west of the Fresno Slough (USGS 31J5). The CCID wells have the longest period of record showing water quality changes in the Mendota area, with salinity data (measured as EC) going back to the 1960s at several wells. Degradation was observed at several CCID wells due to easterly movement of the saline front. In recent years, degradation has continued at several wells in the CCID area (12C and 23B) with the highest EC values in 2014 for the period of record (**Appendix F**).

MPG shallow and deep zone wells west of the Fresno Slough continue to experience degradation due to easterly movement of the saline front, which has increased due to MPG transfer pumping. This is especially true for the CGH wells in the central portion of the well field west of the Slough. In contrast, groundwater salinity appears to be stable or decreasing at many wells in the northern and southern portions of the MPG well field along the Fresno Slough. For the southern wells, this is attributed in part to the Bank, which has stored relatively low salinity surface water in the shallow zone.

The operation of the Bank has resulted in substantial water quality improvements in the western portion of the Spreckels Sugar Co. property. In the central portion of the Spreckels' property, however, shallow groundwater remains degraded due to historical wastewater disposal practices. This degraded groundwater has moved downward to the deep zone and is moving north toward the southernmost FWD wells. FWD wells R-1, R-3, and R-11 have shown salinity increases as a result, but most other FWD wells exhibit low salinity and stable groundwater quality due to recharge from the SJR and the Mendota Pool.

North of the SJR, the water quality at most wells in the WO and CCC service areas have generally been stable and acceptable for irrigation. Although many of the WO and CCC wells have experienced year-to-year salinity fluctuations, the salinity of samples collected in 2014, with a few exceptions, was similar to that of the mid-1990s.

9.4 Surface-Water Flow and Quality

There were no San Joaquin or Kings River flood releases or SJRRP restoration flows to the SJR in 2014, however, there were releases to the SJR from mid-May through September 2014 for surface water deliveries., The average flow direction in the Fresno Slough was to the south during each month of the year except for March (-25 cfs, northerly flow). During the other months, the average flow to the south ranged from 50 to 233 cfs. For the entire year, the average flow to the south was 80 cfs.

The salinity at the Columbia Canal and CCID Main Canal intakes in the northern portion of the Pool was generally lower than that of the DMC due to SJR inflows from mid-May through September 2014. The salinity at the CCID Outside Canal and Firebaugh Intake Canal tracked that of the DMC very closely for most of the year. However, there were several one to 26-day periods from mid-February through April when the EC at the canal intakes exceeded that of the DMC by 90 µmhos/cm or more. These exceedances are indicated to be due to pumping to the Fresno Slough by wells with high EC levels. The SJREC did request a temporary suspension of MPG transfer pumping to the Fresno Slough in March and April 2014 and the MPG suspended groundwater pumping when requested.

The salinity was higher in the southern portion of the Pool due to a number of factors; reduced southerly flow, increase in non-MPG pump-in amounts, higher DMC EC levels, and MPG pumping. This pumping has had a greater effect on water quality in recent years because flow of DMC water to the south has decreased due to reduced diversions from the southern portion of the Pool.

Surface-water grab samples from the Mendota Pool were analyzed for eight trace elements, and concentrations of four key elements (arsenic, boron, molybdenum, and selenium) were generally low in 2014. The WQOs were slightly exceeded in four surface-water samples in 2014: boron (1.2 mg/L) and molybdenum (21 µg /L) at the Tranquillity ID and two boron samples (1.1 and 1.5mg/L) at the James ID booster plant. Mendota Wildlife Area had exceedances of the MWA boron WQO (0.3 mg/L) in all eight samples with concentrations ranging from 0.4 to 0.6 mg/L. Sediment sampling was conducted in 2014 at eight locations in the Pool. The samples were analyzed for a variety of constituents, including the same four trace elements discussed above for surface water. Concentrations of all four trace elements were low at all sampling locations. Analysis of surface water and sediment sample results do not indicate any influence of MPG operations on sediment quality.

9.5 Compaction

There was 0.005 foot of inelastic compaction above the Corcoran Clay at the Fordel extensometer in 2014. The cumulative inelastic compaction during the 15-year period beginning in March 2000 increased to 0.039 feet. This amounts to an average inelastic compaction of about 0.0026 feet per year.

At the Yearout Ranch extensometer, the inelastic compaction in 2014 was 0.019 feet however, this is a conservative value since compaction data was incomplete. The cumulative inelastic compaction since March 2000 was 0.182. This amounts to an average inelastic compaction of about 0.012 feet. The cumulative inelastic compaction caused by MPG transfer pumping since 2000 is estimated to be 0.059 feet, which corresponds to an average annual inelastic compaction of 0.004 feet. This is less than the limit on average annual compaction of 0.005 feet at the Yearout Extensometer due to MPG transfer pumping specified in Agreement No. 2. Transfer pumping by the MPG from below the Corcoran Clay has been included in the total amount of MPG pumping considered in this evaluation.

Total land subsidence in the area is monitored by PBO using high-definition GPS equipment on the Meyers Farms property south of the City of Mendota. There was a total of about 0.3 feet of inelastic subsidence between 2012 and 2014 at this location. Since data collection began in April 2004, there has been about 0.83 feet of land subsidence at this site, which is about 15 times more than the compaction that was measured at the Fordel extensometer during the same period. The inelastic compaction is primarily occurring in and below the Corcoran Clay.

9.6 Pumping Cost Reimbursements

A groundwater flow model was used to estimate the percentage of total drawdown at non-MPG wells caused by MPG transfer pumping. The drawdown percentage was used to calculate the amount of inelastic compaction at the Yearout Ranch extensometer caused by MPG transfer pumping and the reimbursement to be paid by the MPG to other well owners for increased pumping costs. The total reimbursement for all wells was $18,820 in 2014. Almost all of the reimbursement is for pumpage occurring in the WO service area, and most is for wells in the southern portion of the New Columbia Ranch.

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APPENDIX A

2014 MPG PUMPAGE

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Table A-1
Summary of 2014 MPG Total Pumpage by Well (acre-feet)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Terra Linda[1]	TLF-1s (TL-12)	41	0	63	40	28	67	52	33	26	20	22	0	392
	TLF-2s (TL-13)	31	0	74	37	28	73	68	66	11	0	0	0	388
	TLF-3s (TL-14)	50	0	60	36	57	59	56	51	60	58	60	0	547
	TLF-4s (TL-15)	50	0	57	29	31	0	0	0	4	0	0	0	171
	TLF-5d (TL-5)	114	0	279	157	201	282	279	237	7	0	0	0	1,556
	TLF-6d (TL-7)	76	0	29	114	200	229	220	230	7	0	0	0	1,105
	TLF-7s (TL-10C)	0	0	36	24	44	25	27	35	36	34	11	0	272
	TLF-8s (TL-10B)	0	0	190	122	220	130	140	176	189	160	53	0	1,380
	TLF-9s (TL-10A)	0	0	0	0	91	54	68	100	111	90	29	0	543
	TLF-10s (TL-16)	0	0	39	14	1	28	0	0	0	0	0	0	82
	TLF-11As (TL-4A)	0	0	0	0	0	0	0	0	0	0	0	0	0
	TLF-12d (TL-3)	0	0	0	0	1	0	63	69	79	80	92	0	384
	TL-13s (TL-17)	0	0	0	0	56	84	75	70	70	62	71	0	488
	TLF-14d (TL-8)	0	0	187	100	203	209	218	189	7	0	0	0	1,113
	TLF-15s	14	0	13	57	104	99	69	80	69	59	53	0	617
	TLF-16s	0	0	0	0	0	0	59	99	97	49	81	0	385
	TLF-17s	0	0	72	42	63	56	62	59	46	44	61	0	505
	TLF-18d (TL-2)	27	0	122	61	100	3	0	0	0	0	0	0	313
	TLF-19s	-	-	-	-	-	-	46	145	125	123	118	0	557
	Total	**403**	**0**	**1,221**	**833**	**1,428**	**1,398**	**1,502**	**1,639**	**944**	**779**	**651**	**0**	**10,798**
	Deep Zone	**217**	**0**	**617**	**432**	**705**	**723**	**780**	**725**	**100**	**80**	**92**	**0**	**4,471**
	Shallow Zone	**186**	**0**	**604**	**401**	**723**	**675**	**722**	**914**	**844**	**699**	**559**	**0**	**6,327**
Silver Creek (M. Britz TIC)	SC-3B	0	0	52	0	65	69	54	48	49	44	46	0	427
	SC-4B	0	0	66	0	78	83	149	62	67	56	56	0	617
	SC-5B	0	0	0	0	0	0	0	156	189	175	197	0	717
	SC-6B	0	0	0	0	0	0	0	0	0	0	0	0	0
	SC-6	0	0	0	0	0	0	0	0	0	0	0	0	0
	SC-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**118**	**0**	**143**	**152**	**203**	**266**	**305**	**275**	**299**	**0**	**1,761**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**118**	**0**	**143**	**152**	**203**	**266**	**305**	**275**	**299**	**0**	**1,761**
Vista Verde Farms (Coelho/Gardner/Hansen[2])	CGH-1 (2s & 3s)	0	0	0	0	0	0	78	155	148	111	89	0	581
	CGH-2 (1s)	0	0	33	12	46	63	43	2	0	0	0	0	199
	CGH-3 (5s)	0	0	23	7	11	0	0	0	1	0	0	0	42
	CGH-4 (inoperable)	0	0	0	0	0	0	0	0	0	0	0	0	0
	CGH-5 (9As & 9Bs)	0	0	0	0	0	0	0	0	0	0	0	0	0
	CGH-6 (10s & 11s)	0	0	19	0	0	0	0	0	42	48	46	0	155
	CGH-7 (13d)	0	0	111	32	54	0	122	172	87	65	55	0	698
	CGH-8 (inoperable)	0	0	0	0	0	0	0	0	0	0	0	0	0
	CGH-9 (7s)	0	0	41	14	6	0	4	34	31	33	37	0	200
	CGH-10 (8s)	0	0	2	0	0	0	14	51	53	48	49	0	217
	CGH-11 (6s)	0	139	0	0	0	0	0	58	74	69	74	0	414
	Total	**0**	**139**	**229**	**65**	**117**	**63**	**261**	**472**	**436**	**374**	**350**	**0**	**2,506**
	Deep Zone	**0**	**0**	**111**	**32**	**54**	**0**	**122**	**172**	**87**	**65**	**55**	**0**	**698**
	Shallow Zone	**0**	**139**	**118**	**33**	**63**	**63**	**139**	**300**	**349**	**309**	**295**	**0**	**1,808**
Meyers Farms	MS-6	0	0	52	0	37	49	47	36	52	42	70	0	385
	MS-7	0	0	35	0	25	36	27	31	54	36	51	0	295
	DW-1	0	0	93	4	23	46	0	71	56	0	0	0	293
	Total	**0**	**0**	**180**	**4**	**85**	**131**	**74**	**138**	**162**	**78**	**121**	**0**	**973**
	Deep Zone	**0**	**0**	**93**	**4**	**23**	**46**	**0**	**71**	**56**	**0**	**0**	**0**	**293**
	Shallow Zone	**0**	**0**	**87**	**0**	**62**	**85**	**74**	**67**	**106**	**78**	**121**	**0**	**680**
Casaca Vineyards	Five Star 1-3-5-6-7	0	0	185	0	242	189	176	152	149	144	147	0	1,384
	Total	**0**	**0**	**185**	**0**	**242**	**189**	**176**	**152**	**149**	**144**	**147**	**0**	**1,384**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**185**	**0**	**242**	**189**	**176**	**152**	**149**	**144**	**147**	**0**	**1,384**
Daddy's Pride	Five Star 4-9-10	0	0	60	0	85	62	55	39	35	44	42	0	422
	Total	**0**	**0**	**60**	**0**	**85**	**62**	**55**	**39**	**35**	**44**	**42**	**0**	**422**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**60**	**0**	**85**	**62**	**55**	**39**	**35**	**44**	**42**	**0**	**422**
Solo Mio	Five Star 2-8	0	0	58	0	63	54	51	42	42	47	12	0	369
	Total	**0**	**0**	**58**	**0**	**63**	**54**	**51**	**42**	**42**	**47**	**12**	**0**	**369**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**58**	**0**	**63**	**54**	**51**	**42**	**42**	**47**	**12**	**0**	**369**
Coelho West	Coelho West Cluster	0	0	120	0	181	103	161	148	148	175	169	0	1,205
	Total	**0**	**0**	**120**	**0**	**181**	**103**	**161**	**148**	**148**	**175**	**169**	**0**	**1,205**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**120**	**0**	**181**	**103**	**161**	**148**	**148**	**175**	**169**	**0**	**1,205**
Baker Farming[3]	BF-1	3	9	276	224	164	63	71	24	18	5	3	0	860
	BF-2	4	10	161	121	58	63	71	24	18	6	3	0	539
	BF-3	3	10	177	176	155	63	72	24	18	6	3	0	707
	BF-4	4	10	322	251	256	64	72	24	19	6	3	0	1,031
	BF-5	4	9	168	155	157	64	72	23	19	6	2	0	679
	Total	**18**	**48**	**1,104**	**927**	**790**	**317**	**358**	**119**	**92**	**29**	**14**	**0**	**3,816**
	Deep Zone	**18**	**48**	**1,104**	**927**	**790**	**317**	**358**	**119**	**92**	**29**	**14**	**0**	**3,816**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Panoche Creek Farms[3]	PCF-1	0	0	172	148	156	10	0	0	174	142	14	0	815
	Total	**0**	**0**	**172**	**148**	**156**	**10**	**0**	**0**	**174**	**142**	**14**	**0**	**815**
	Deep Zone	**0**	**0**	**172**	**148**	**156**	**10**	**0**	**0**	**174**	**142**	**14**	**0**	**815**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Farmers Water District[3]	R-1	0	18	16	72	89	77	48	14	76	5	0	0	414
	R-2	0	0	0	0	113	7	0	0	117	147	11	0	395
	R-3	0	0	114	98	92	6	0	0	89	96	9	0	503
	R-4	0	24	183	265	154	102	72	22	140	158	18	0	1,138
	R-6	0	0	0	0	0	0	0	0	0	0	0	0	0
	R-7	0	0	249	214	0	0	0	0	179	205	7	0	856
	R-8	0	43	208	152	191	12	0	0	193	192	22	0	1,012
	R-9	0	0	191	292	203	122	100	24	179	194	18	0	1,324
	R-10	0	0	156	134	147	9	0	0	144	154	16	0	761
	R-11	0	0	318	272	118	7	0	0	119	126	0	0	960
	R-12	0	0	0	0	304	18	0	0	268	297	27	0	915
	Total	**0**	**85**	**1,436**	**1,499**	**1,412**	**360**	**220**	**60**	**1,504**	**1,574**	**128**	**0**	**8,279**
	Deep Zone	**0**	**85**	**1,436**	**1,499**	**1,412**	**360**	**220**	**60**	**1,504**	**1,574**	**128**	**0**	**8,279**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Totals	**Grand Total**	**421**	**272**	**4,883**	**3,476**	**4,702**	**2,839**	**3,061**	**3,075**	**3,991**	**3,661**	**1,947**	**0**	**32,328**
	Deep Zone	**235**	**133**	**3,533**	**3,042**	**3,140**	**1,456**	**1,480**	**1,147**	**2,013**	**1,890**	**303**	**0**	**18,372**
	Shallow Zone	**186**	**139**	**1,350**	**434**	**1,562**	**1,383**	**1,581**	**1,928**	**1,978**	**1,771**	**1,644**	**0**	**13,956**
	Fresno Slough Wells	**403**	**139**	**2,171**	**902**	**2,344**	**2,152**	**2,483**	**2,896**	**2,221**	**1,916**	**1,791**	**0**	**19,418**
	Wells South of SJR	**18**	**133**	**2,712**	**2,574**	**2,358**	**687**	**578**	**179**	**1,770**	**1,745**	**156**	**0**	**12,910**

1. **Old Terra Linda well names are shown in parentheses.**
2. **New CGH well names are shown in parentheses.**
3. **FWD pumpage (R, BF, and PCF wells) includes non-MPG pumpage by Don Peracchi.**

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Table A-2
Summary of 2014 MPG Transfer Pumpage by Well (acre-feet)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Terra Linda[1]	TLF-1s (TL-12)	0	0	63	40	28	67	43	33	15	0	21	0	310
	TLF-2s (TL-13)	0	0	74	37	28	73	56	66	6	0	0	0	341
	TLF-3s (TL-14)	0	0	60	36	57	59	46	51	34	0	57	0	400
	TLF-4s (TL-15)	0	0	57	29	31	0	0	0	2	0	0	0	119
	TLF-5d (TL-5)	0	0	0	0	0	0	0	0	0	0	0	0	0
	TLF-6d (TL-7)	0	0	29	0	0	0	0	0	0	0	0	0	29
	TLF-7s (TL-10C)	0	0	36	24	44	25	22	35	20	0	10	0	217
	TLF-8s (TL-10B)	0	0	189	122	220	87	116	176	106	0	50	0	1,066
	TLF-9s (TL-10A)	0	0	0	0	91	54	56	100	62	0	27	0	391
	TLF-10s (TL-16)	0	0	39	14	1	28	0	0	0	0	0	0	82
	TLF-11As (TL-4A)	0	0	0	0	0	0	0	0	0	0	0	0	0
	TLF-12d (TL-3)	0	0	0	0	1	0	0	0	0	0	0	0	1
	TL-13s (TL-17)	0	0	0	0	56	84	62	70	39	0	67	0	379
	TLF-14d (TL-8)	0	0	0	0	8	0	0	0	0	0	0	0	8
	TLF-15s	0	0	13	57	104	98	57	80	39	0	50	0	498
	TLF-16s	0	0	0	0	0	0	49	99	55	0	76	0	279
	TLF-17s	0	0	72	42	63	56	51	59	26	0	58	0	427
	TLF-18d (TL-2)	0	0	0	27	100	0	0	0	0	0	0	0	127
	TLF-19s	-	-	-	-	-	-	38	145	70	0	111	0	365
	Total	**0**	**0**	**632**	**428**	**832**	**631**	**599**	**914**	**475**	**0**	**527**	**0**	**5,038**
	Deep Zone	**0**	**0**	**29**	**27**	**109**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**165**
	Shallow Zone	**0**	**0**	**603**	**401**	**723**	**631**	**599**	**914**	**475**	**0**	**527**	**0**	**4,873**
Silver Creek (M. Britz TIC)	SC-3B	0	0	52	0	65	69	54	48	49	44	46	0	427
	SC-4B	0	0	66	0	78	83	149	62	67	56	56	0	617
	SC-5B	0	0	0	0	0	0	0	156	189	175	197	0	717
	SC-6B	0	0	0	0	0	0	0	0		0	0	0	0
	SC-6	0	0	0	0	0	0	0	0	0	0	0	0	0
	SC-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**118**	**0**	**143**	**152**	**203**	**266**	**305**	**275**	**299**	**0**	**1,761**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**118**	**0**	**143**	**152**	**203**	**266**	**305**	**275**	**299**	**0**	**1,761**
Vista Verde Farms (Coelho/Gardner/Hansen[2])	CGH-1 (2s & 3s)	0	0	0	0	0	0	78	155	148	98	85	0	564
	CGH-2 (1s)	0	0	0	0	46	0	43	2	0	0	0	0	91
	CGH-3 (5s)	0	0	0	0	11	0	0	0	1	0	0	0	12
	CGH-4 (inoperable)	0	0	0	0	0	0	0	0	0	0	0	0	0
	CGH-5 (9As & 9Bs)	0	0	0	0	0	0	0	0	0	0	0	0	0
	CGH-6 (10s & 11s)	0	0	0	0	0	0	0	0	42	43	44	0	129
	CGH-7 (13d)	0	0	0	0	54	0	122	172	87	58	52	0	545
	CGH-8 (inoperable)	0	0	0	0	0	0	0	0	0	0	0	0	0
	CGH-9 (7s)	0	0	0	0	6	0	4	34	31	29	35	0	140
	CGH-10 (8s)	0	0	0	0	0	0	14	51	53	43	47	0	207
	CGH-11 (6s)	0	0	0	0	0	0	0	58	74	62	70	0	264
	Total	**0**	**0**	**0**	**0**	**117**	**0**	**261**	**472**	**436**	**333**	**333**	**0**	**1,952**
	Deep Zone	**0**	**0**	**0**	**0**	**54**	**0**	**122**	**172**	**87**	**58**	**52**	**0**	**545**
	Shallow Zone	**0**	**0**	**0**	**0**	**63**	**0**	**139**	**300**	**349**	**275**	**281**	**0**	**1,406**
Meyers Farms	MS-6	0	0	52	0	37	49	47	36	52	42	70	0	385
	MS-7	0	0	35	0	25	36	27	31	54	36	51	0	295
	DW-1	0	0	93	0	22	0	0	0	24	0	0	0	139
	Total	**0**	**0**	**180**	**0**	**84**	**85**	**74**	**67**	**130**	**78**	**121**	**0**	**819**
	Deep Zone	**0**	**0**	**93**	**0**	**22**	**0**	**0**	**0**	**24**	**0**	**0**	**0**	**139**
	Shallow Zone	**0**	**0**	**87**	**0**	**62**	**85**	**74**	**67**	**106**	**78**	**121**	**0**	**680**
Casaca Vineyards	Five Star Wells 1-3-5-6-7	0	0	185	0	242	189	176	152	149	144	147	0	1,384
	Total	**0**	**0**	**185**	**0**	**242**	**189**	**176**	**152**	**149**	**144**	**147**	**0**	**1,384**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**185**	**0**	**242**	**189**	**176**	**152**	**149**	**144**	**147**	**0**	**1,384**
Daddy's Pride	Five Star Wells 4-9-10	0	0	60	0	85	62	55	39	35	44	42	0	422
	Total	**0**	**0**	**60**	**0**	**85**	**62**	**55**	**39**	**35**	**44**	**42**	**0**	**422**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**60**	**0**	**85**	**62**	**55**	**39**	**35**	**44**	**42**	**0**	**422**
Solo Mio	Five Star Wells 2-8	0	0	58	0	63	54	51	42	42	47	12	0	369
	Total	**0**	**0**	**58**	**0**	**63**	**54**	**51**	**42**	**42**	**47**	**12**	**0**	**369**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**58**	**0**	**63**	**54**	**51**	**42**	**42**	**47**	**12**	**0**	**369**
Coelho West	Coelho West Cluster	0	0	120	0	181	103	161	148	148	175	169	0	1,205
	Total	**0**	**0**	**120**	**0**	**181**	**103**	**161**	**148**	**148**	**175**	**169**	**0**	**1,205**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**120**	**0**	**181**	**103**	**161**	**148**	**148**	**175**	**169**	**0**	**1,205**
Baker Farming[3]	BF-1	0	0	259	208	135	3	0	0	0	0	0	0	605
	BF-2	0	0	143	105	30	3	0	0	0	0	0	0	281
	BF-3	0	0	160	160	126	3	0	0	0	0	0	0	449
	BF-4	0	0	304	235	228	4	0	0	0	0	0	0	771
	BF-5	0	0	151	139	128	4	0	0	0	0	0	0	422
	Total	**0**	**0**	**1,017**	**847**	**647**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**2,528**
	Deep Zone	**0**	**0**	**1,017**	**847**	**647**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**2,528**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Panoche Creek Farms[3]	PCF-1	0	0	172	148	156	10	0	0	174	142	14	0	815
	Total	**0**	**0**	**172**	**148**	**156**	**10**	**0**	**0**	**174**	**142**	**14**	**0**	**815**
	Deep Zone	**0**	**0**	**172**	**148**	**156**	**10**	**0**	**0**	**174**	**142**	**14**	**0**	**815**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Farmers Water District[3]	R-1	0	0	14	12	49	3	0	0	40	5	0	0	122
	R-2	0	0	0	0	113	7	0	0	117	147	11	0	395
	R-3	0	0	114	98	92	6	0	0	89	96	9	0	503
	R-4	0	0	183	157	89	6	0	0	73	158	18	0	684
	R-6	0	0	0	0	0	0	0	0	0	0	0	0	0
	R-7	0	0	249	214	0	0	0	0	122	180	7	0	774
	R-8	0	0	177	152	191	12	0	0	193	192	22	0	938
	R-9	0	0	191	164	119	7	0	0	66	194	18	0	760
	R-10	0	0	156	134	147	9	0	0	144	154	16	0	761
	R-11	0	0	318	272	118	7	0	0	119	126	0	0	960
	R-12					304	18	0	0	268	297	27	0	915
	Total	**0**	**0**	**1,403**	**1,203**	**1,223**	**75**	**0**	**0**	**1,231**	**1,549**	**128**	**0**	**6,813**
	Deep Zone	**0**	**0**	**1,403**	**1,203**	**1,223**	**75**	**0**	**0**	**1,231**	**1,549**	**128**	**0**	**6,813**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Totals	**Grand Total**	**0**	**0**	**3,945**	**2,626**	**3,773**	**1,378**	**1,580**	**2,100**	**3,125**	**2,787**	**1,792**	**0**	**23,106**
	Deep Zone	**0**	**0**	**2,714**	**2,225**	**2,211**	**102**	**122**	**172**	**1,516**	**1,749**	**195**	**0**	**11,006**
	Shallow Zone	**0**	**0**	**1,231**	**401**	**1,562**	**1,276**	**1,458**	**1,928**	**1,609**	**1,038**	**1,598**	**0**	**12,100**
	Fresno Slough Wells	**0**	**0**	**1,353**	**428**	**1,747**	**1,276**	**1,580**	**2,100**	**1,720**	**1,096**	**1,650**	**0**	**12,950**
	Wells South of SJR	**0**	**0**	**2,592**	**2,198**	**2,026**	**102**	**0**	**0**	**1,405**	**1,691**	**142**	**0**	**10,156**

1. **Old Terra Linda well names are shown in parentheses.**
2. **New CGH well names are shown in parentheses.**
3. **FWD pumpage (R, BF, and PCF wells) includes non-MPG pumpage by Don Peracchi.**

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Table A-3
Summary of 2014 MPG Adjacent Pumpage by Well (acre-feet)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Terra Linda[1]	TLF-1s (TL-12)	41	0	0	0	0	0	9	0	11	20	1	0	82
	TLF-2s (TL-13)	31	0	0	0	0	0	12	0	5	0	0	0	47
	TLF-3s (TL-14)	50	0	0	0	0	0	10	0	26	58	3	0	147
	TLF-4s (TL-15)	50	0	0	0	0	0	0	0	2	0	0	0	52
	TLF-5d (TL-5)	114	0	279	157	201	282	279	237	7	0	0	0	1,556
	TLF-6d (TL-7)	76	0	0	114	200	229	220	230	7	0	0	0	1,076
	TLF-7s (TL-10C)	0	0	0	0	0	0	5	0	16	34	1	0	55
	TLF-8s (TL-10B)	0	0	1	0	0	43	24	0	83	160	3	0	314
	TLF-9s (TL-10A)	0	0	0	0	0	0	12	0	49	90	2	0	152
	TLF-10s (TL-16)	0	0	0	0	0	0	0	0	0	0	0	0	0
	TLF-11As (TL-4A)	0	0	0	0	0	0	0	0	0	0	0	0	0
	TLF-12d (TL-3)	0	0	0	0	0	0	63	69	79	80	92	0	383
	TL-13s (TL-17)	0	0	0	0	0	0	13	0	31	62	4	0	109
	TLF-14d (TL-8)	0	0	187	100	195	209	218	189	7	0	0	0	1,105
	TLF-15s	14	0	0	0	0	1	12	0	30	59	3	0	119
	TLF-16s	0	0	0	0	0	0	10	0	42	49	5	0	106
	TLF-17s	0	0	0	0	0	0	11	0	20	44	3	0	78
	TLF-18d (TL-2)	27	0	122	34	0	3	0	0	0	0	0	0	186
	TLF-19s	-	-	-	-	-	-	8	0	55	123	7	0	192
	Total	**403**	**0**	**589**	**405**	**596**	**767**	**903**	**725**	**469**	**779**	**124**	**0**	**5,760**
	Deep Zone	**217**	**0**	**588**	**405**	**596**	**723**	**780**	**725**	**100**	**80**	**92**	**0**	**4,306**
	Shallow Zone	**186**	**0**	**1**	**0**	**0**	**44**	**123**	**0**	**369**	**699**	**32**	**0**	**1,454**
Silver Creek (M. Britz TIC)	SC-3B	0	0	0	0	0	0	0	0	0	0	0	0	0
	SC-4B	0	0	0	0	0	0	0	0	0	0	0	0	0
	SC-5B	0	0	0	0	0	0	0	0	0	0	0	0	0
	SC-6B	0	0	0	0	0	0	0	0		0	0	0	0
	SC-6	0	0	0	0	0	0	0	0	0	0	0	0	0
	SC-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Vista Verde Farms (Coelho/Gardner/Hansen[2])	CGH-1 (2s & 3s)	0	0	0	0	0	0	0	0	0	13	4	0	17
	CGH-2 (1s)	0	0	33	12	0	63	0	0	0	0	0	0	108
	CGH-3 (5s)	0	0	23	7	0	0	0	0	0	0	0	0	30
	CGH-5 (9As & 9Bs)	0	0	0	0	0	0	0	0	0	0	0	0	0
	CGH-6 (10s & 11s)	0	0	19	0	0	0	0	0	0	5	2	0	26
	CGH-7 (13d)	0	0	111	32	0	0	0	0	0	7	3	0	153
	CGH-9 (7s)	0	0	41	14	0	0	0	0	0	4	2	0	60
	CGH-10 (8s)	0	0	2	0	0	0	0	0	0	5	2	0	10
	CGH-11 (6s)	0	139	0	0	0	0	0	0	0	7	4	0	150
	Total	**0**	**139**	**229**	**65**	**0**	**63**	**0**	**0**	**0**	**41**	**17**	**0**	**554**
	Deep Zone	**0**	**0**	**111**	**32**	**0**	**0**	**0**	**0**	**0**	**7**	**3**	**0**	**153**
	Shallow Zone	**0**	**139**	**118**	**33**	**0**	**63**	**0**	**0**	**0**	**34**	**14**	**0**	**402**
Meyers Farms	MS-6	0	0	0	0	0	0	0	0	0	0	0	0	0
	MS-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	DW-1	0	0	0	4	1	46	0	71	32	0	0	0	154
	Total	**0**	**0**	**0**	**4**	**1**	**46**	**0**	**71**	**32**	**0**	**0**	**0**	**154**
	Deep Zone	**0**	**0**	**0**	**4**	**1**	**46**	**0**	**71**	**32**	**0**	**0**	**0**	**154**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Casaca Vineyards	Five Star Wells 1-3-5-6-7	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Daddy's Pride	Five Star Wells 4-9-10	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Solo Mio	Five Star Wells 2-8	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Coelho West	Coelho West Cluster	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Baker Farming[3]	BF-1	3	9	17	16	29	60	71	24	18	5	3	0	255
	BF-2	4	10	18	16	28	60	71	24	18	6	3	0	258
	BF-3	3	10	17	16	29	60	72	24	18	6	3	0	258
	BF-4	4	10	18	16	28	60	72	24	19	6	3	0	260
	BF-5	4	9	17	16	29	60	72	23	19	6	2	0	257
	Total	**18**	**48**	**87**	**80**	**143**	**300**	**358**	**119**	**92**	**29**	**14**	**0**	**1,288**
	Deep Zone	**18**	**48**	**87**	**80**	**143**	**300**	**358**	**119**	**92**	**29**	**14**	**0**	**1,288**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Panoche Creek Farms[3]	Panoche Creek	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Deep Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Farmers Water District[3]	R-1	0	18	2	60	40	74	48	14	36		0	0	292
	R-2	0	0	0	0	0	0	0	0	0		0	0	0
	R-3	0	0	0	0	0	0	0	0	0		0	0	0
	R-4	0	24	0	108	65	96	72	22	67		0	0	454
	R-6	0	0	0	0	0	0	0	0	0		0	0	0
	R-7	0	0	0	0	0	0	0	0	57	25	0	0	82
	R-8	0	43	31	0	0	0	0	0	0		0	0	74
	R-9	0	0	0	128	84	115	100	24	113		0	0	564
	R-10	0	0	0	0	0	0	0	0	0		0	0	0
	R-11	0	0	0	0	0	0	0	0	0		0	0	0
	R-12	0	0	0	0	0	0	0	0	0		0	0	0
	Total	**0**	**85**	**33**	**296**	**189**	**285**	**220**	**60**	**273**	**25**	**0**	**0**	**1,466**
	Deep Zone	**0**	**85**	**33**	**296**	**189**	**285**	**220**	**60**	**273**	**25**	**0**	**0**	**1,466**
	Shallow Zone	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Totals	**Grand Total**	**421**	**272**	**938**	**850**	**929**	**1,461**	**1,481**	**975**	**866**	**874**	**155**	**0**	**9,222**
	Deep Zone	**235**	**133**	**819**	**817**	**929**	**1,354**	**1,358**	**975**	**497**	**141**	**109**	**0**	**7,367**
	Shallow Zone	**186**	**139**	**119**	**33**	**0**	**107**	**123**	**0**	**369**	**733**	**46**	**0**	**1,856**
	Fresno Slough Wells	**403**	**139**	**818**	**474**	**597**	**876**	**903**	**796**	**501**	**820**	**141**	**0**	**6,468**
	Wells South of SJR	**18**	**133**	**120**	**376**	**332**	**585**	**578**	**179**	**365**	**54**	**14**	**0**	**2,754**

1. **Old Terra Linda well names are shown in parentheses.**
2. **New CGH well names are shown in parentheses.**
3. **FWD pumpage (R, BF, and PCF wells) includes non-MPG pumpage by Don Peracchi.**

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APPENDIX B

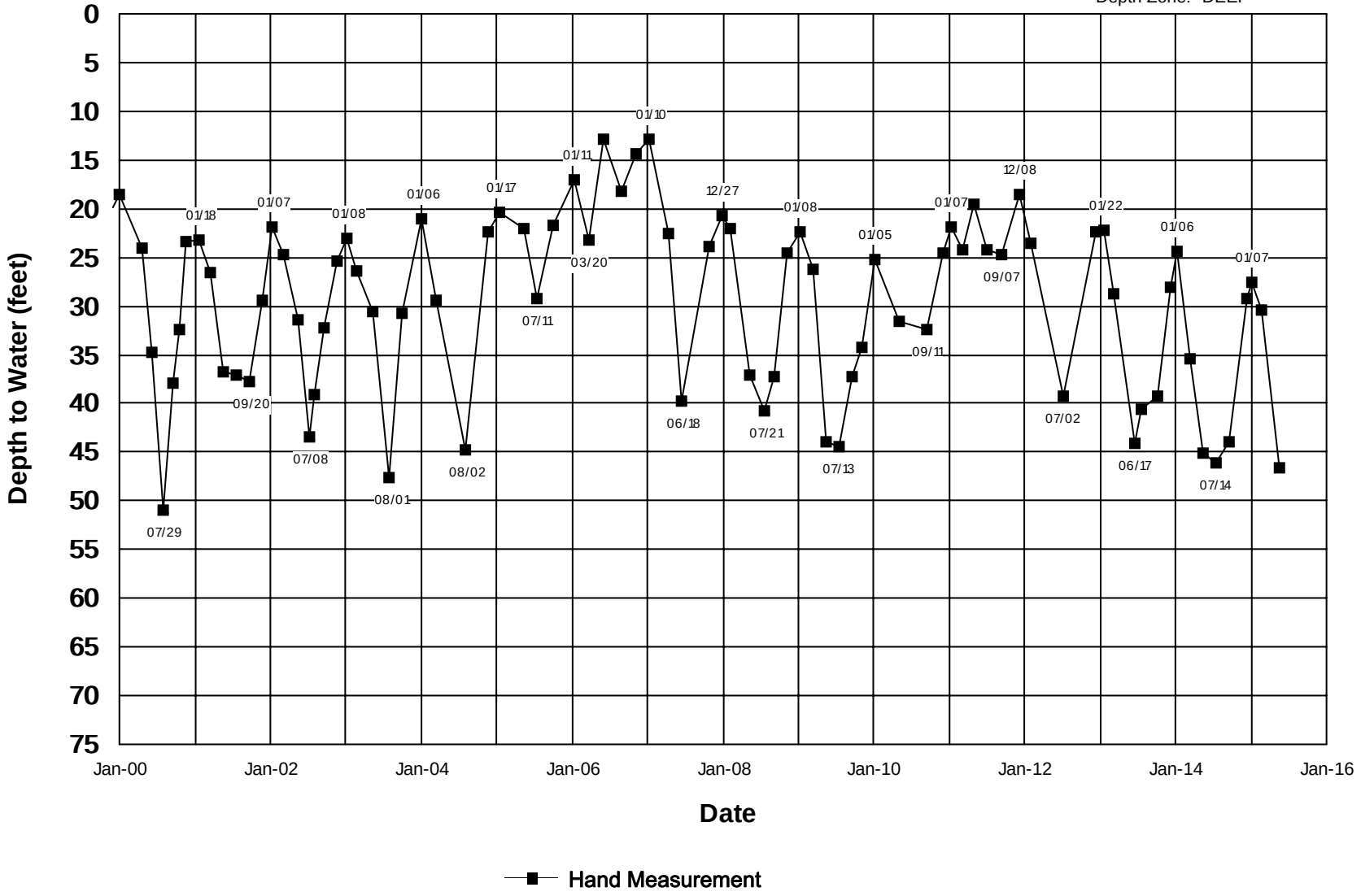
SHORT-TERM WATER-LEVEL HYDROGRAPHS

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Mendota Area Hydrograph

CCID Well No. 5A

Reference Elevation: 155.52 feet NAVD88
Perforated Interval: 100 - 260 feet
Depth Zone: DEEP

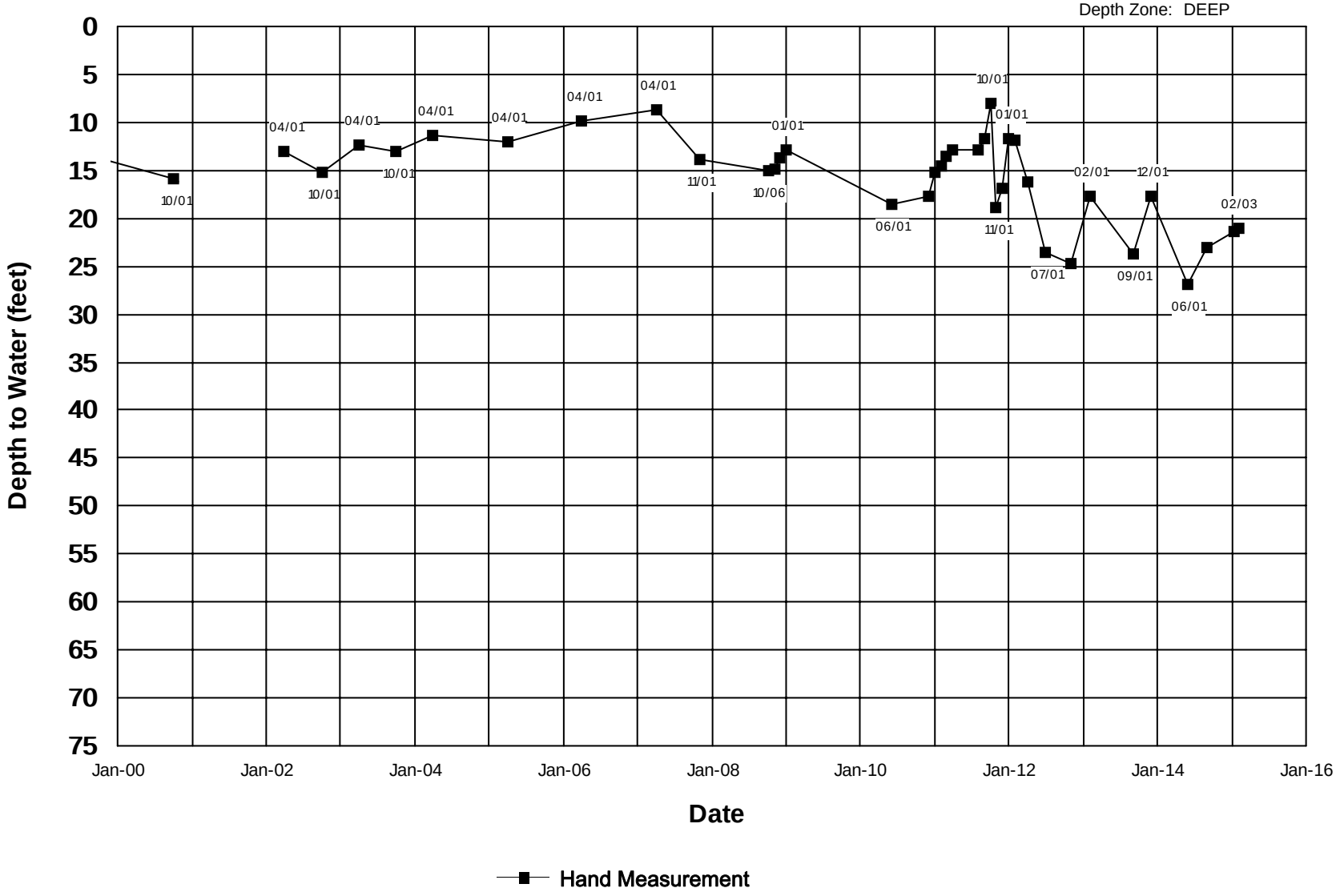


Thursday, July 16, 2015

Mendota Area Hydrograph

CCID Well No. 12 & 12A & 12B & 12C

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP

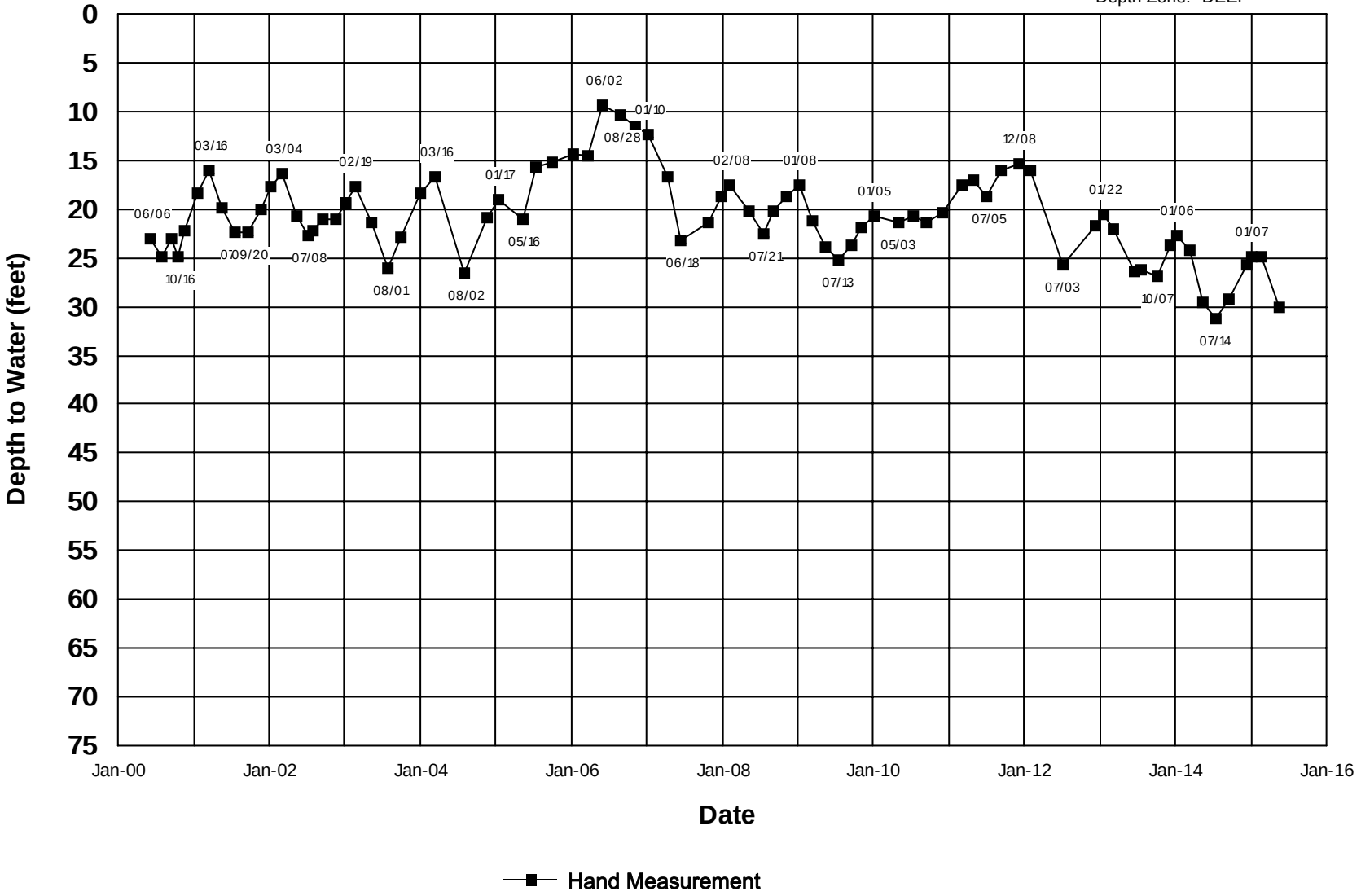


Thursday, July 16, 2015

Mendota Area Hydrograph

CCID Well No. 15 & 15A & 15B

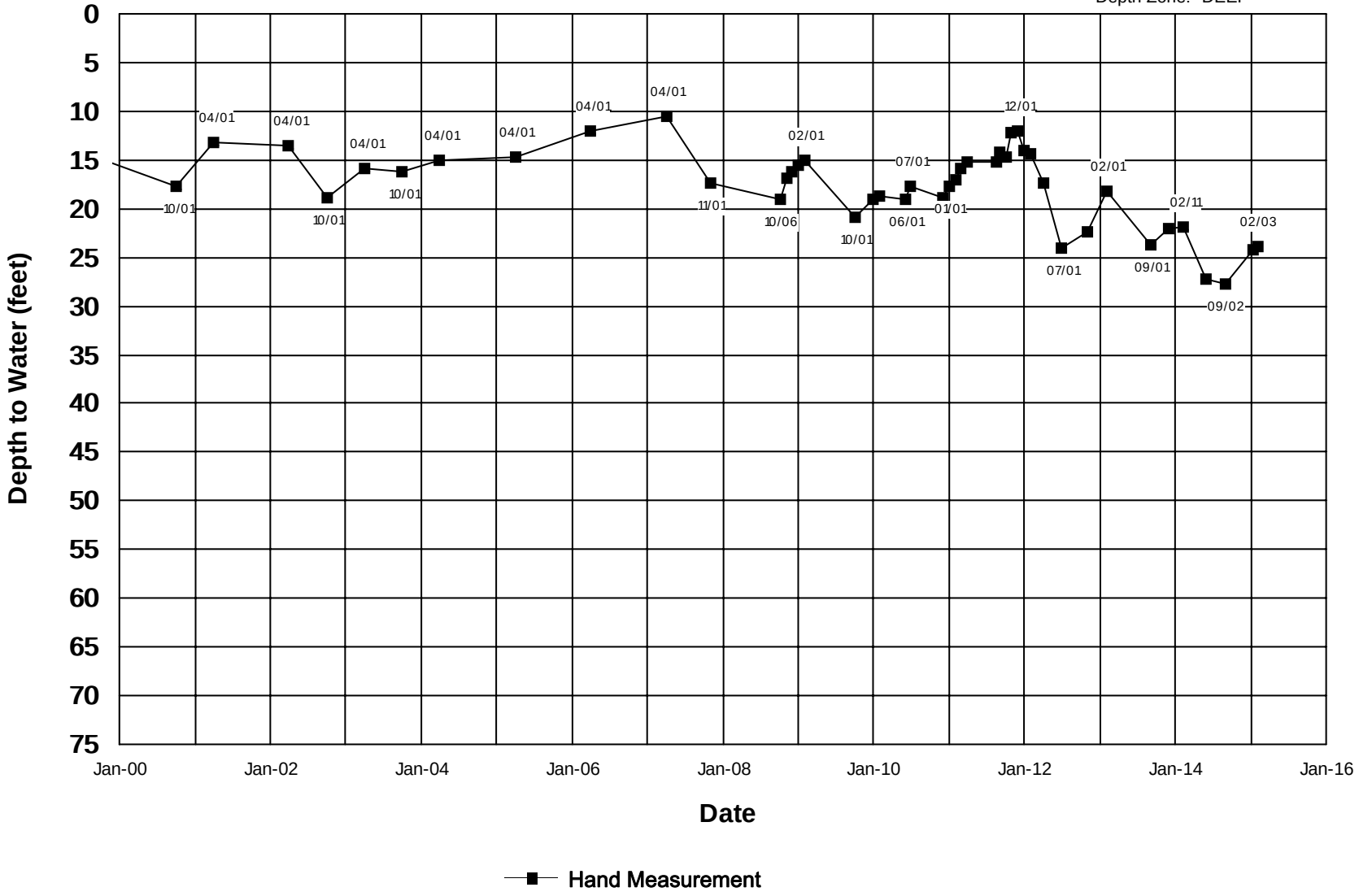
Reference Elevation: 152.41 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

CCID Well No. 16 & 16A & 16B & 16C

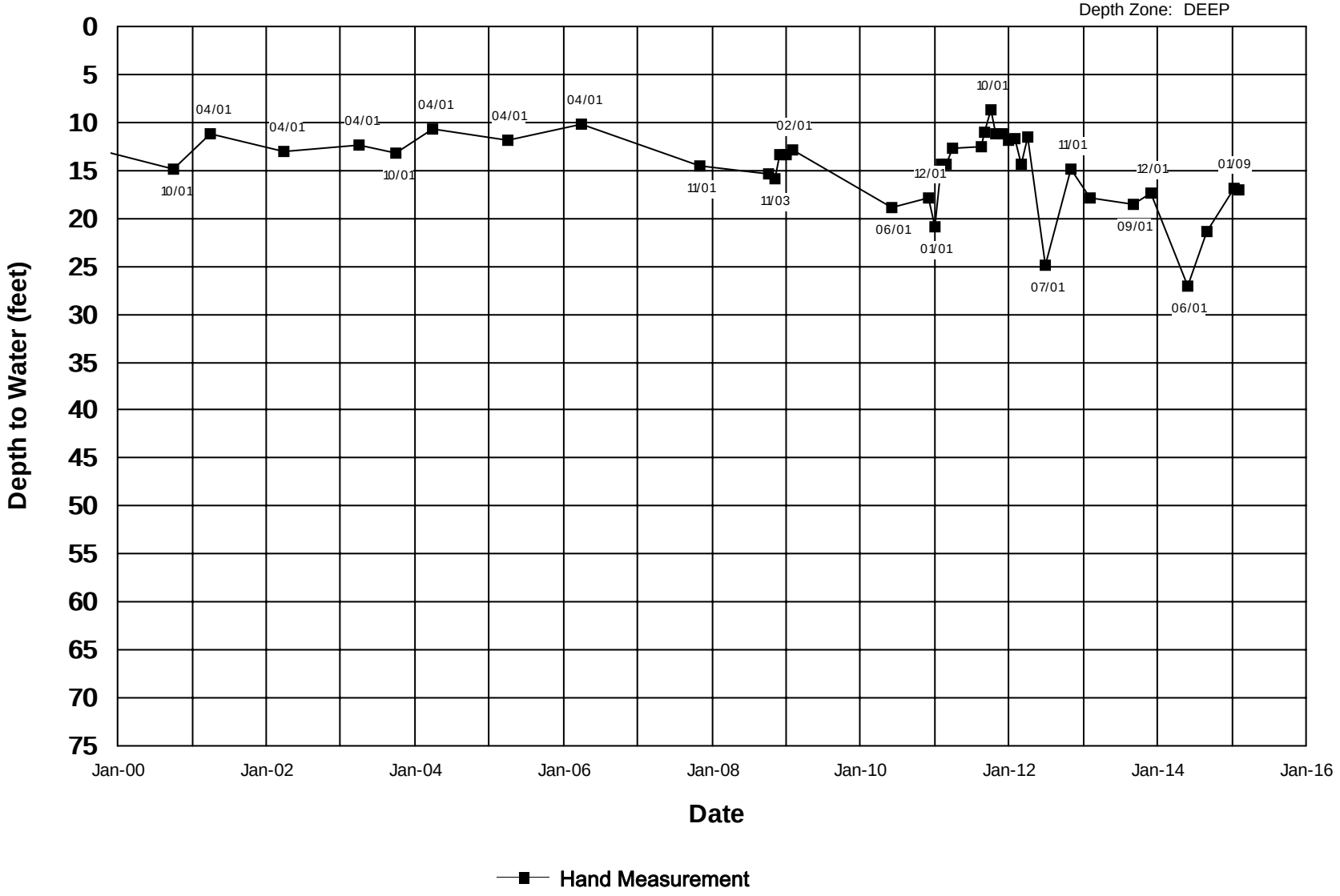
Reference Elevation: NA
Perforated Interval: 60 - 170 feet
Depth Zone: DEEP



Mendota Area Hydrograph

CCID Well No. 23 & 23A & 23B

Reference Elevation: NA
Perforated Interval: 90 - 204 feet
Depth Zone: DEEP

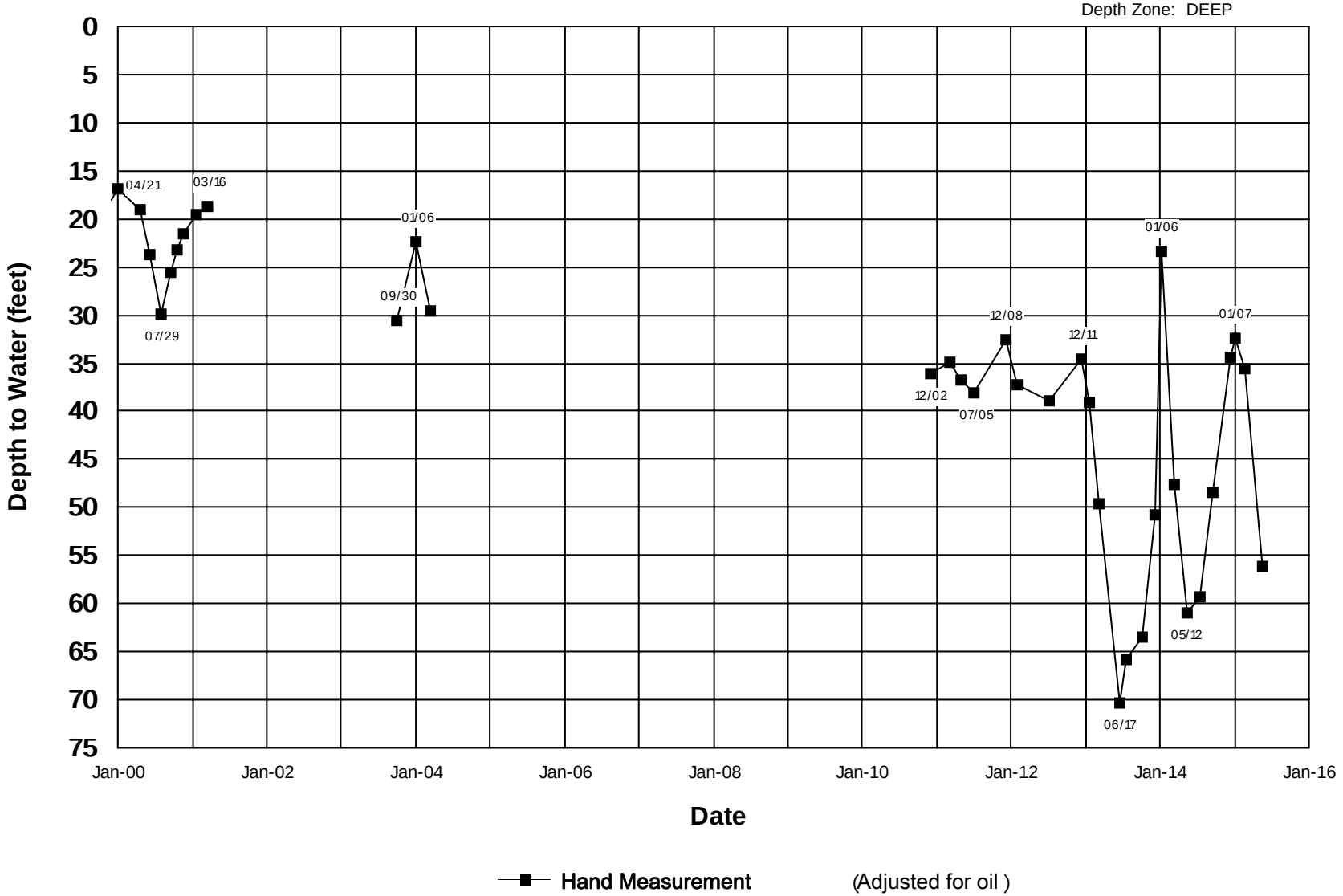


Thursday, July 16, 2015

Mendota Area Hydrograph

CCID Well No. 28 & 28A & 28B & 28C

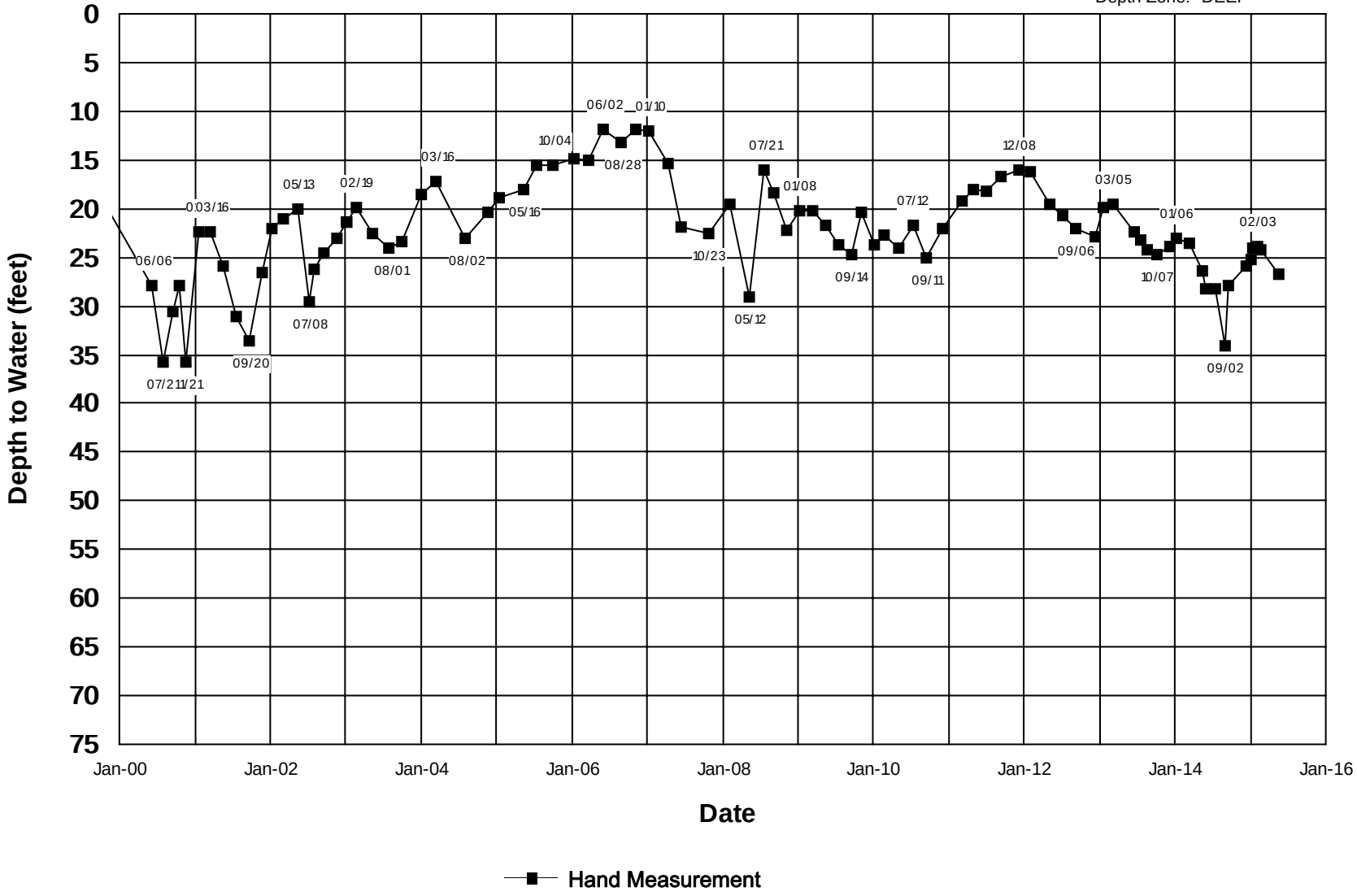
Reference Elevation: NA
Perforated Interval: 200 - 360 feet
Depth Zone: DEEP



Mendota Area Hydrograph

CCID Well No. 32 & 32A & 32B & 32C

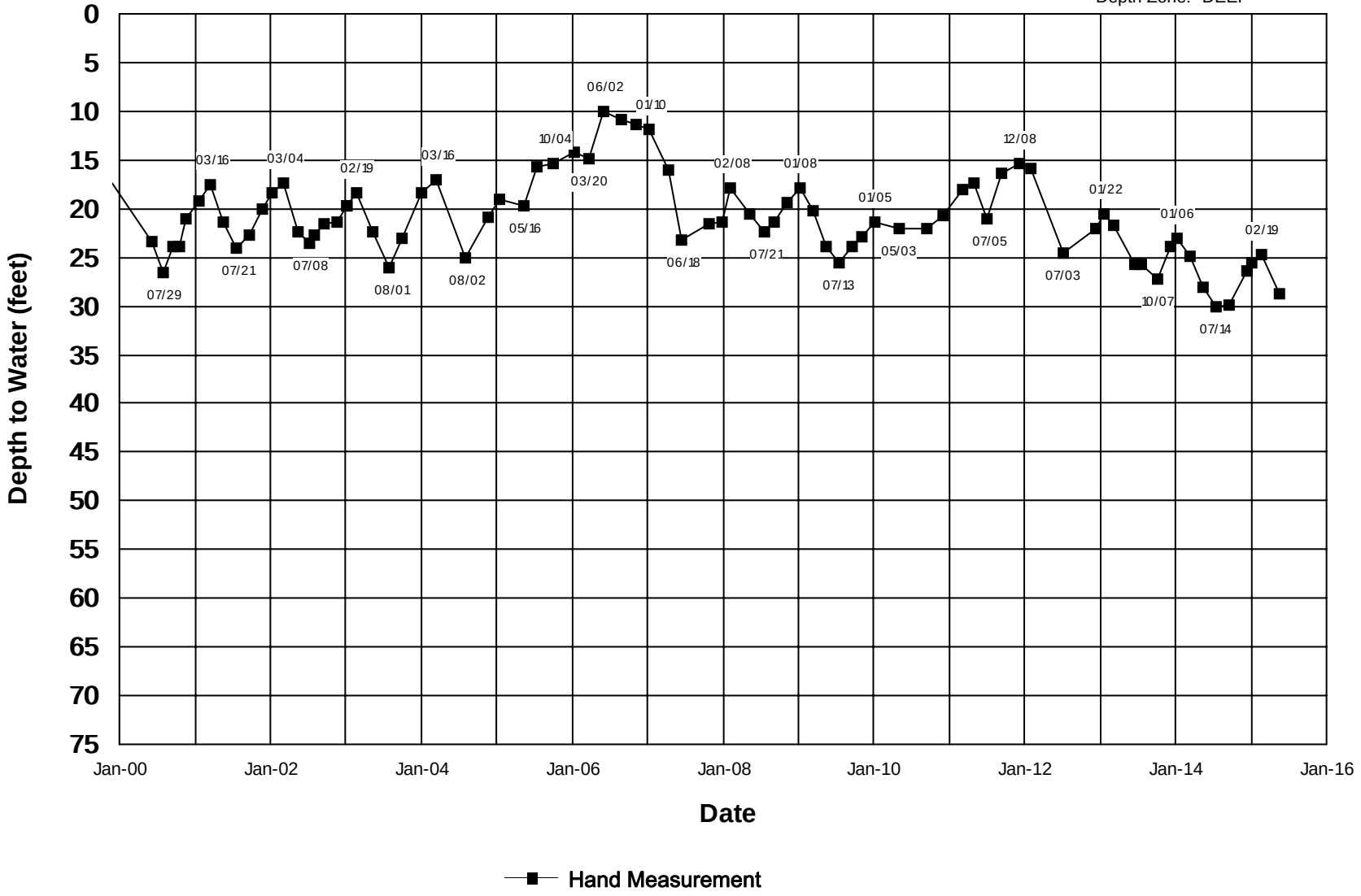
Reference Elevation: NA
Perforated Interval: 100 - 225 feet
Depth Zone: DEEP



Mendota Area Hydrograph

CCID Well No. 35 & 35A

Reference Elevation: 153.47 feet NAVD88
Perforated Interval: 80 - 190 feet
Depth Zone: DEEP

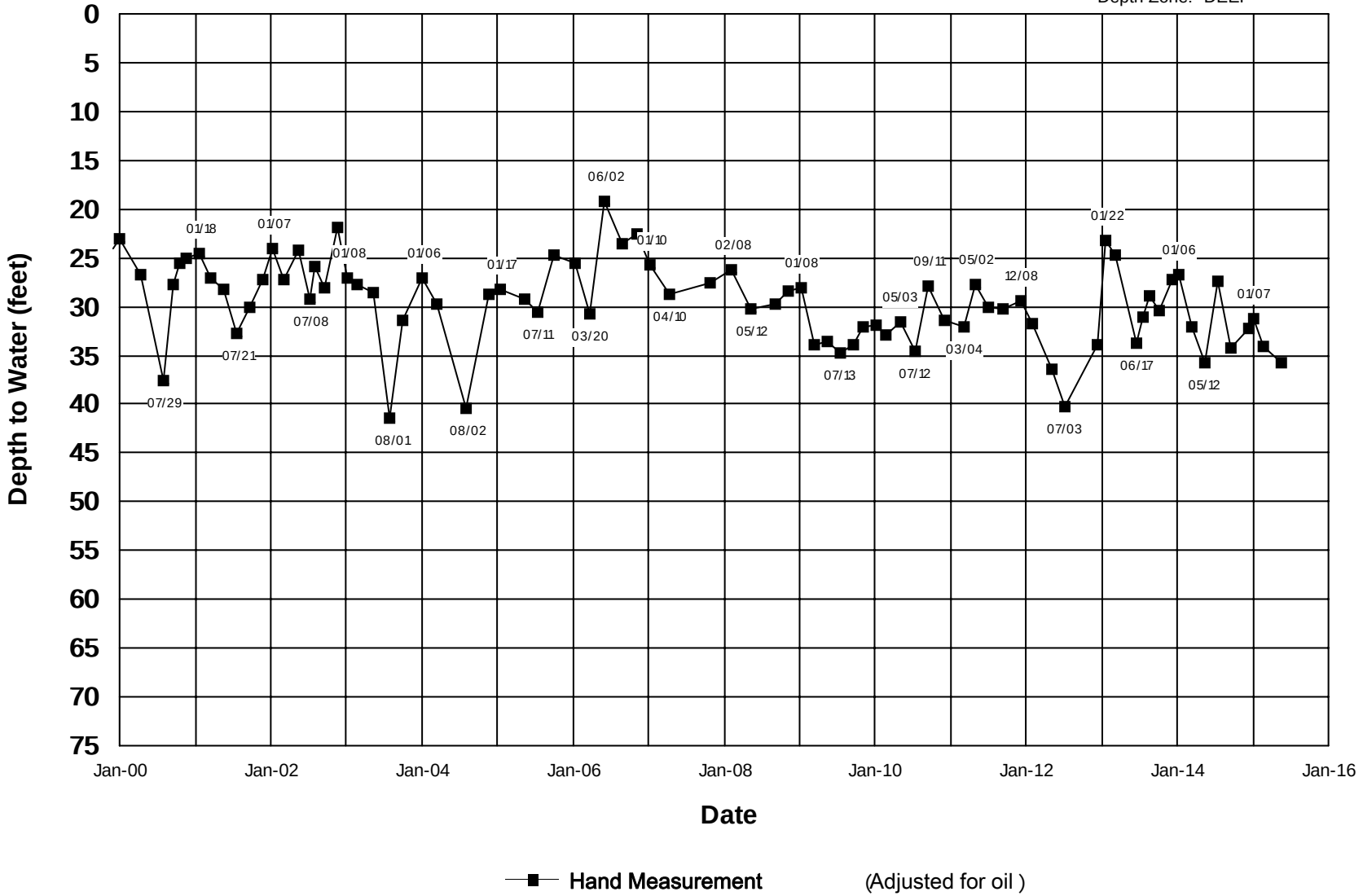


Thursday, July 16, 2015

Mendota Area Hydrograph

CCID Well No. 38A

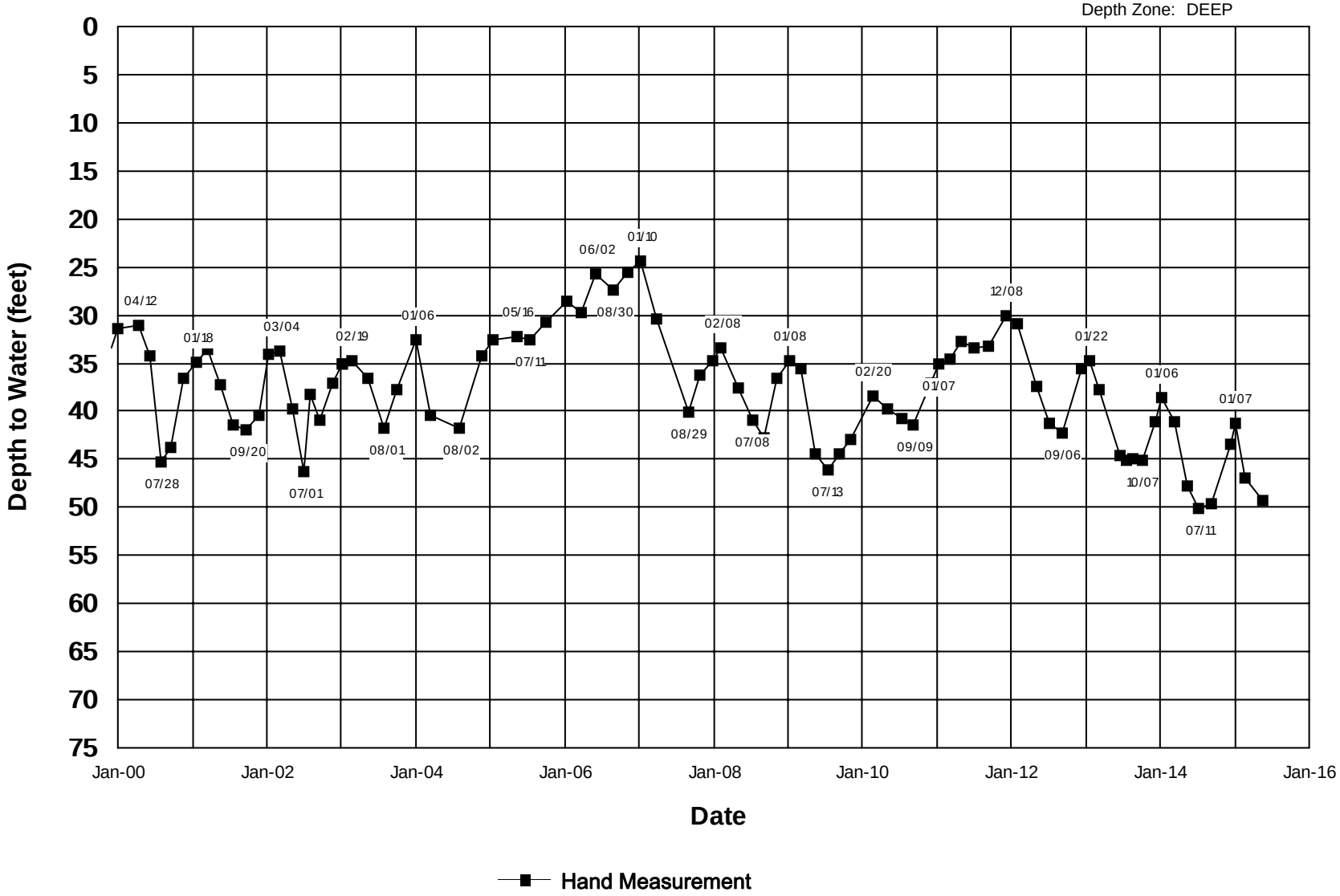
Reference Elevation: 155.43 feet NAVD88
Perforated Interval: 126 - 290 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Firebaugh Canal W.D. Well No. 25D2

Reference Elevation: 169 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP

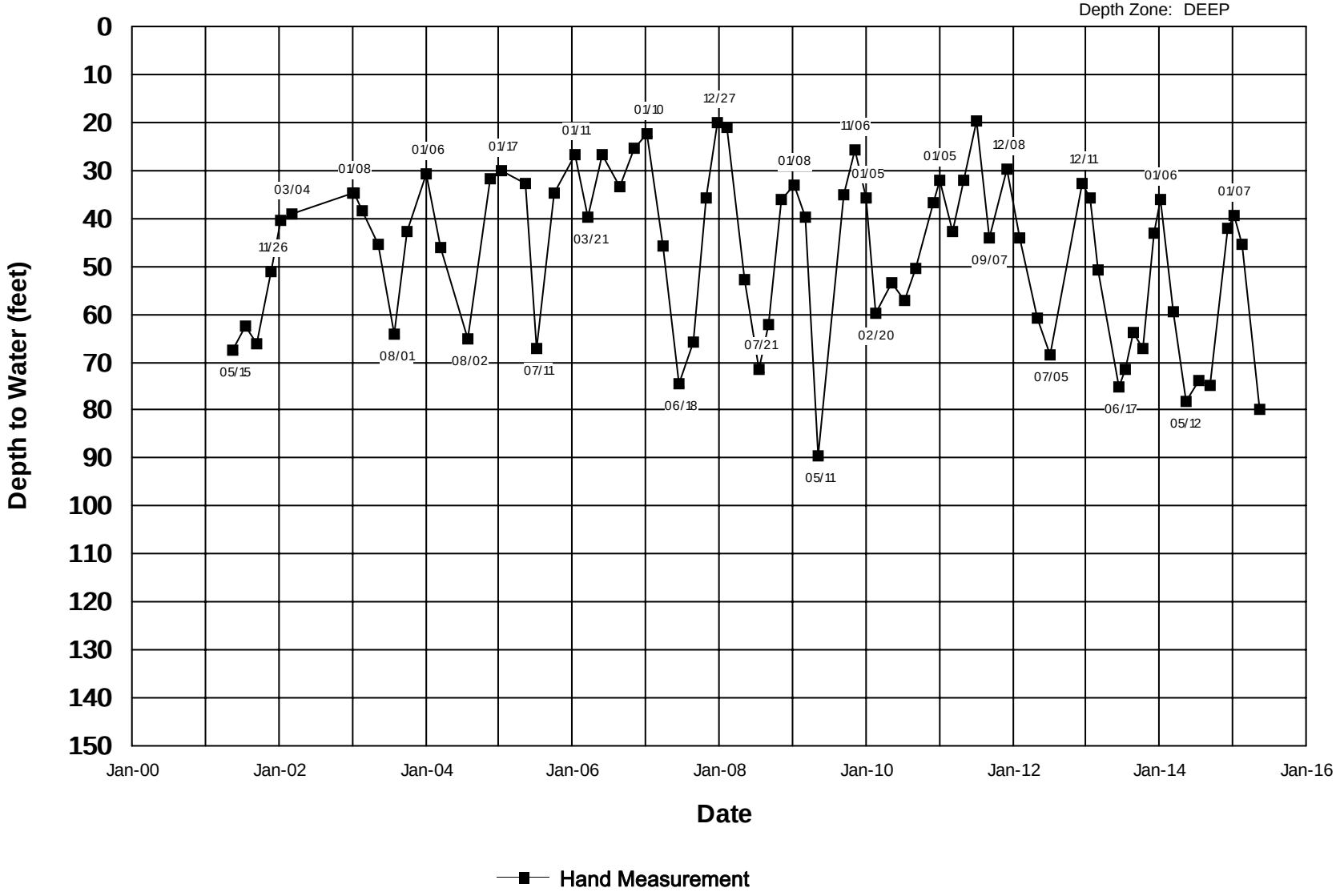


Thursday, July 16, 2015

Mendota Area Hydrograph

USBR Well No. T13S/R15E-19R1

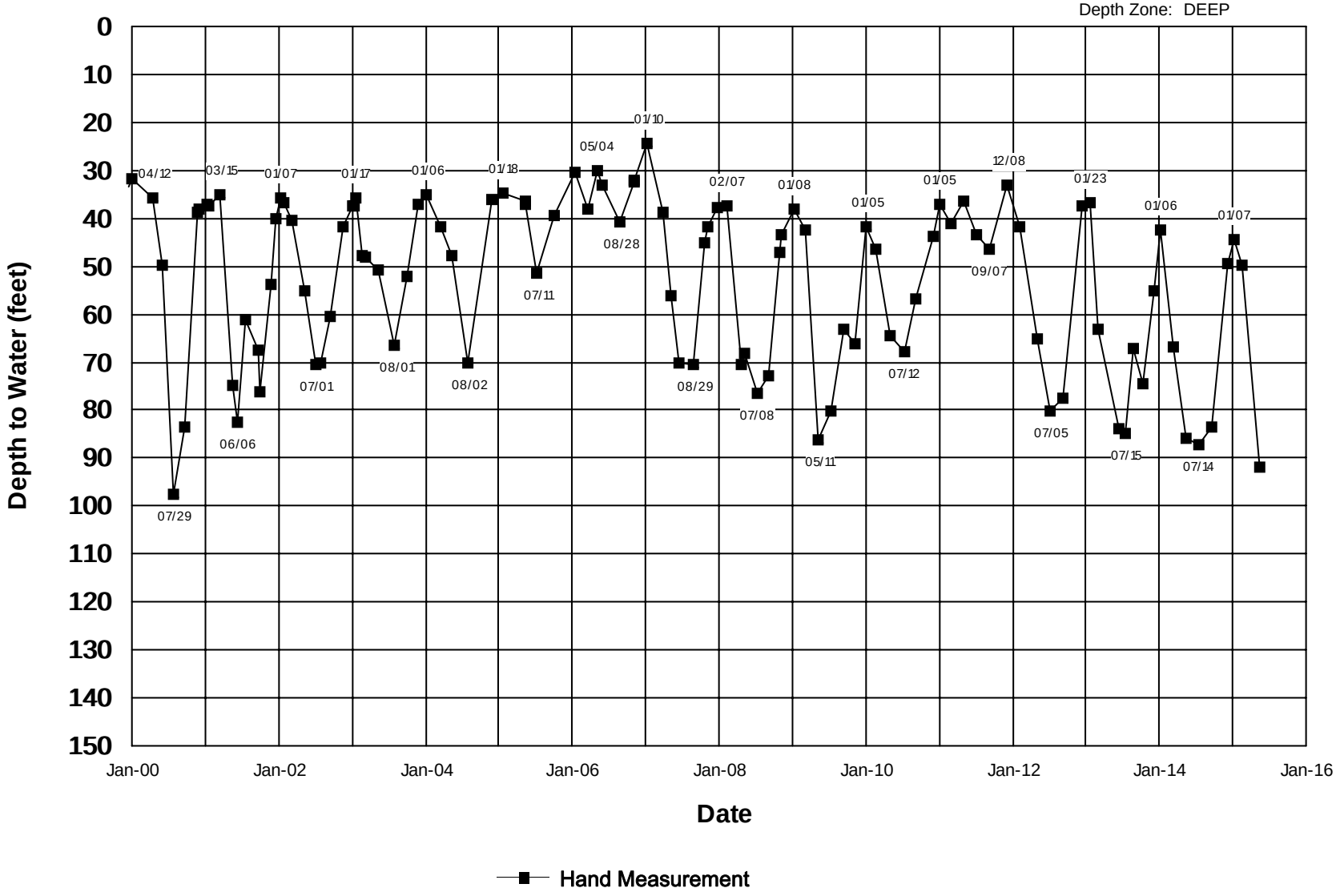
Reference Elevation: 167.39 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

USGS Monitoring Well No. T13S/R15E-31J3

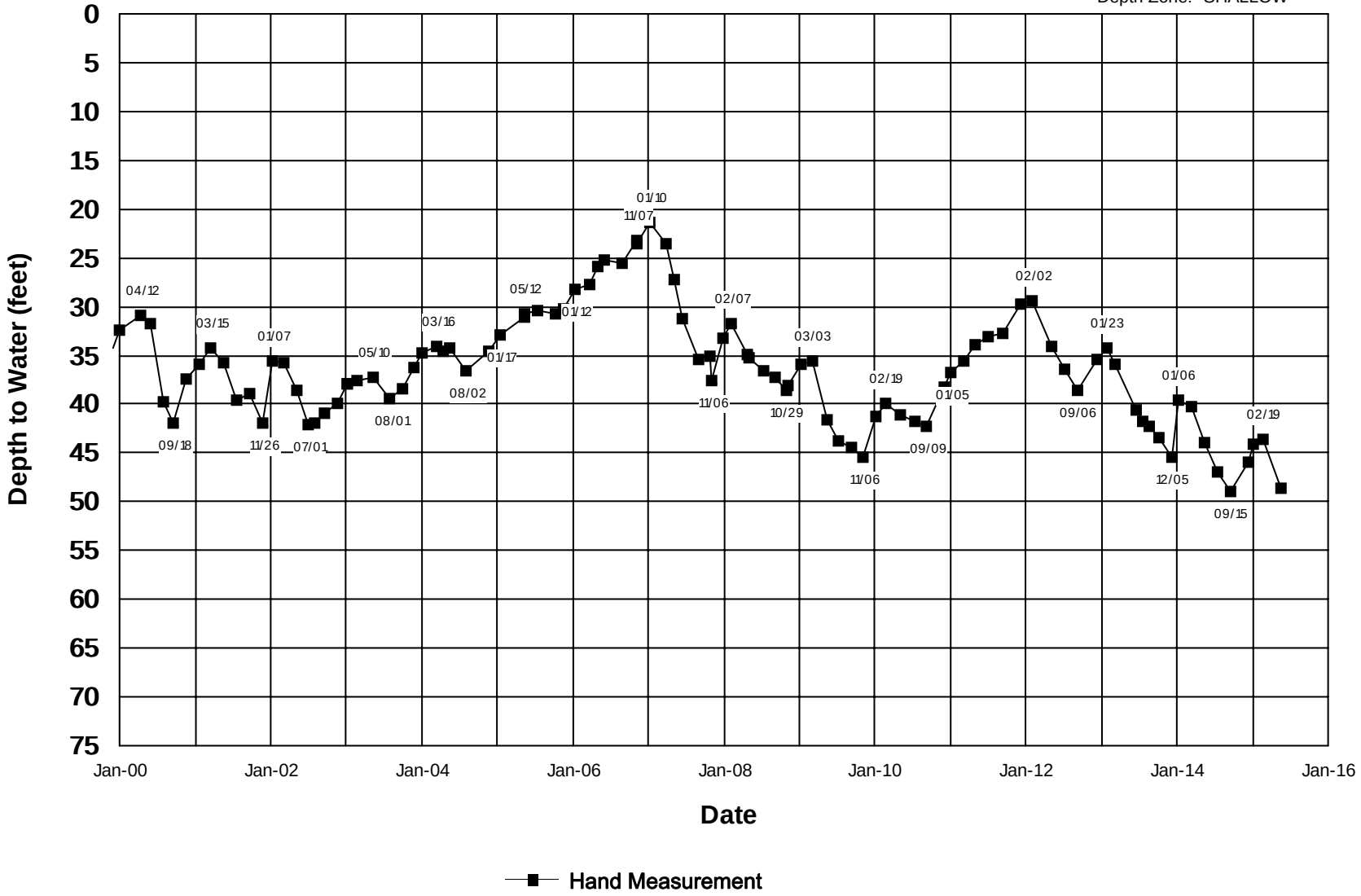
Reference Elevation: 160.2 feet NAVD88
Perforated Interval: 400 - 410 feet
Depth Zone: DEEP



Mendota Area Hydrograph

USGS Monitoring Well No. T13S/R15E-31J4

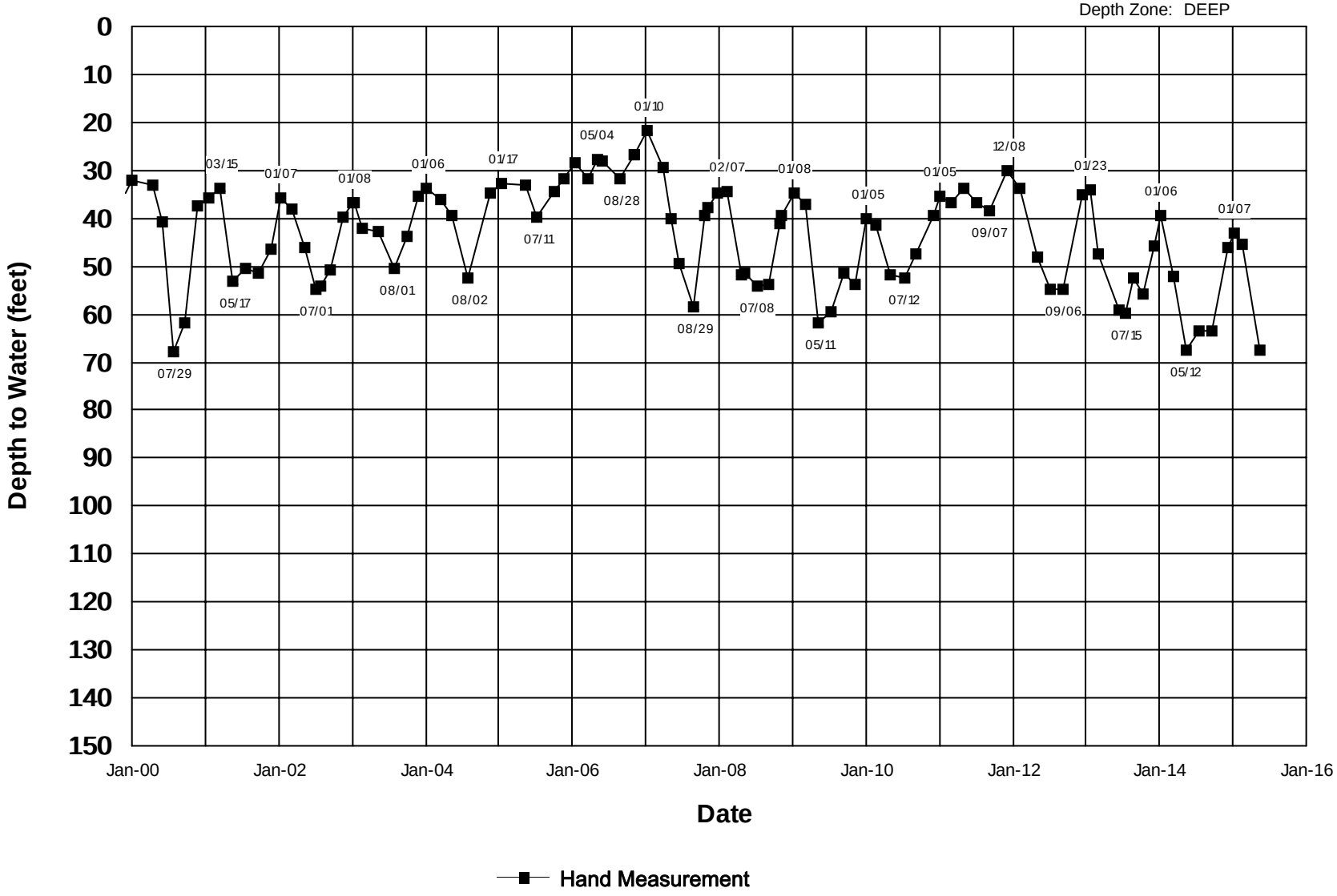
Reference Elevation: 160.8 feet NAVD88
Perforated Interval: 55 - 65 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

USGS Monitoring Well No. T13S/R15E-31J5

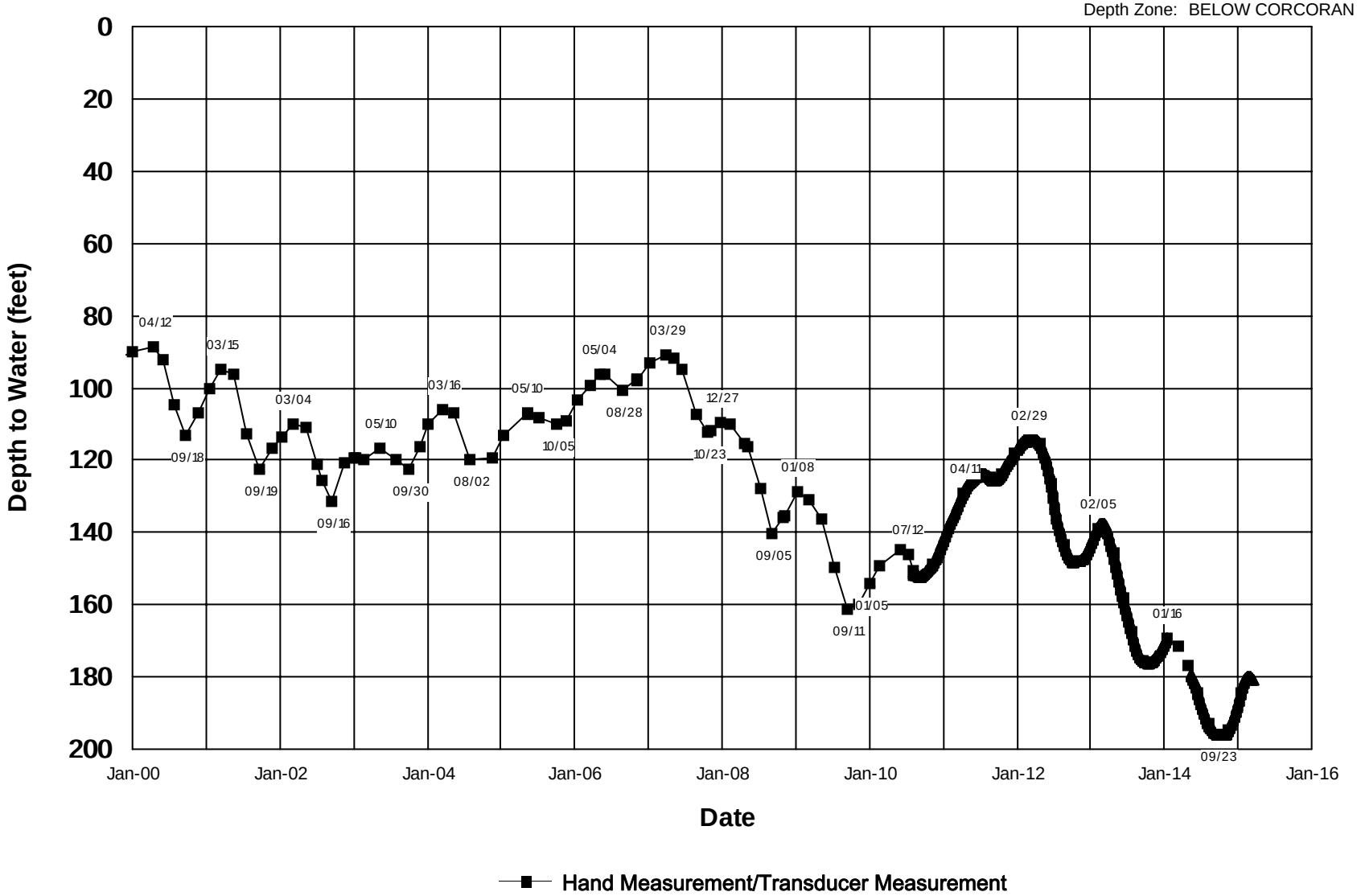
Reference Elevation: 160.1 feet NAVD88
Perforated Interval: 240 - 250 feet
Depth Zone: DEEP



Mendota Area Hydrograph

USGS Monitoring Well No. T13S/R15E-31J6

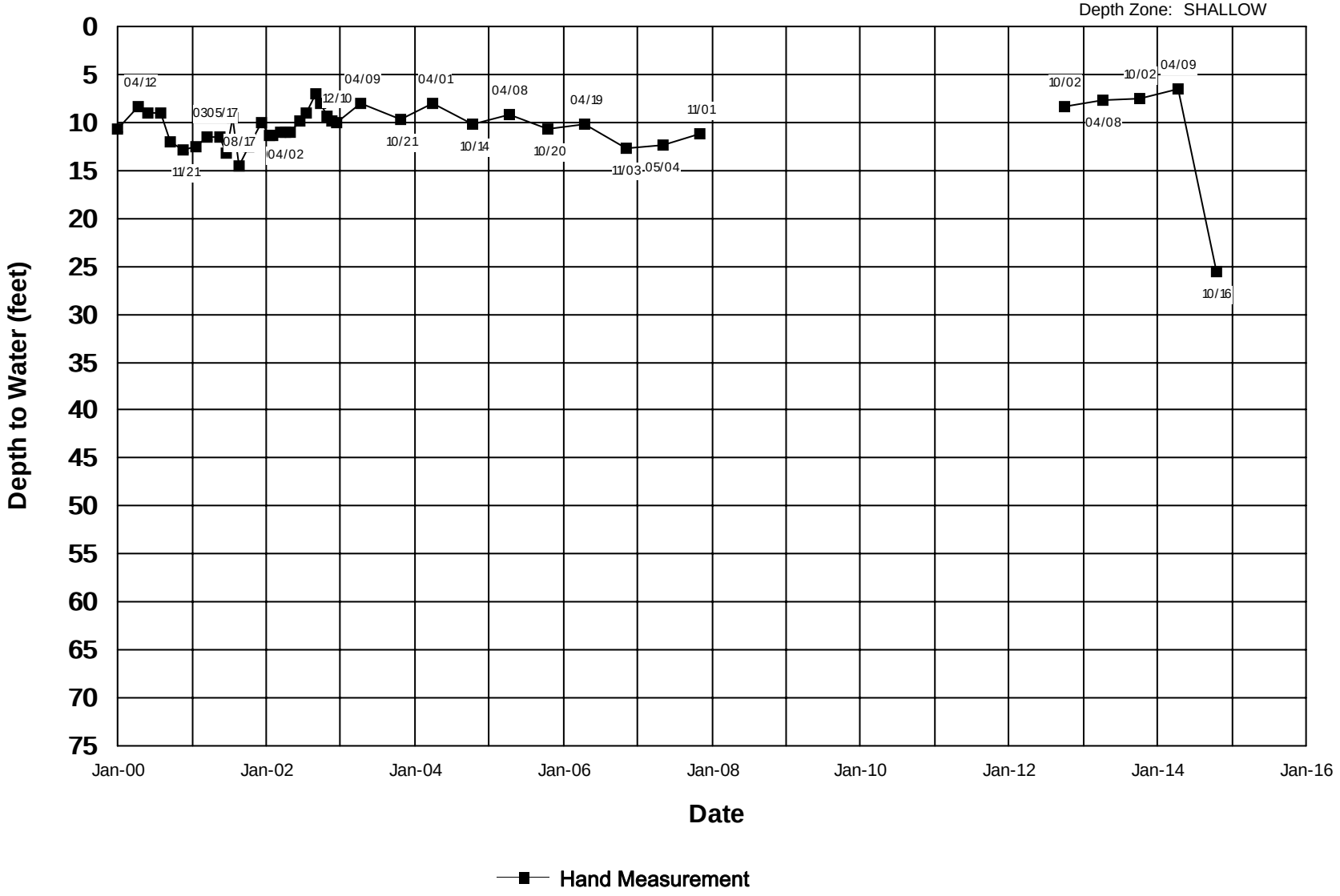
Reference Elevation: 154 feet NAVD88
Perforated Interval: 480 - 490 feet
Depth Zone: BELOW CORCORAN



Mendota Area Hydrograph

USGS Monitoring Well No. T14S/R14E-10A1

Reference Elevation: 204.6 feet NAVD88
Perforated Interval: 13 - 18 feet
Depth Zone: SHALLOW

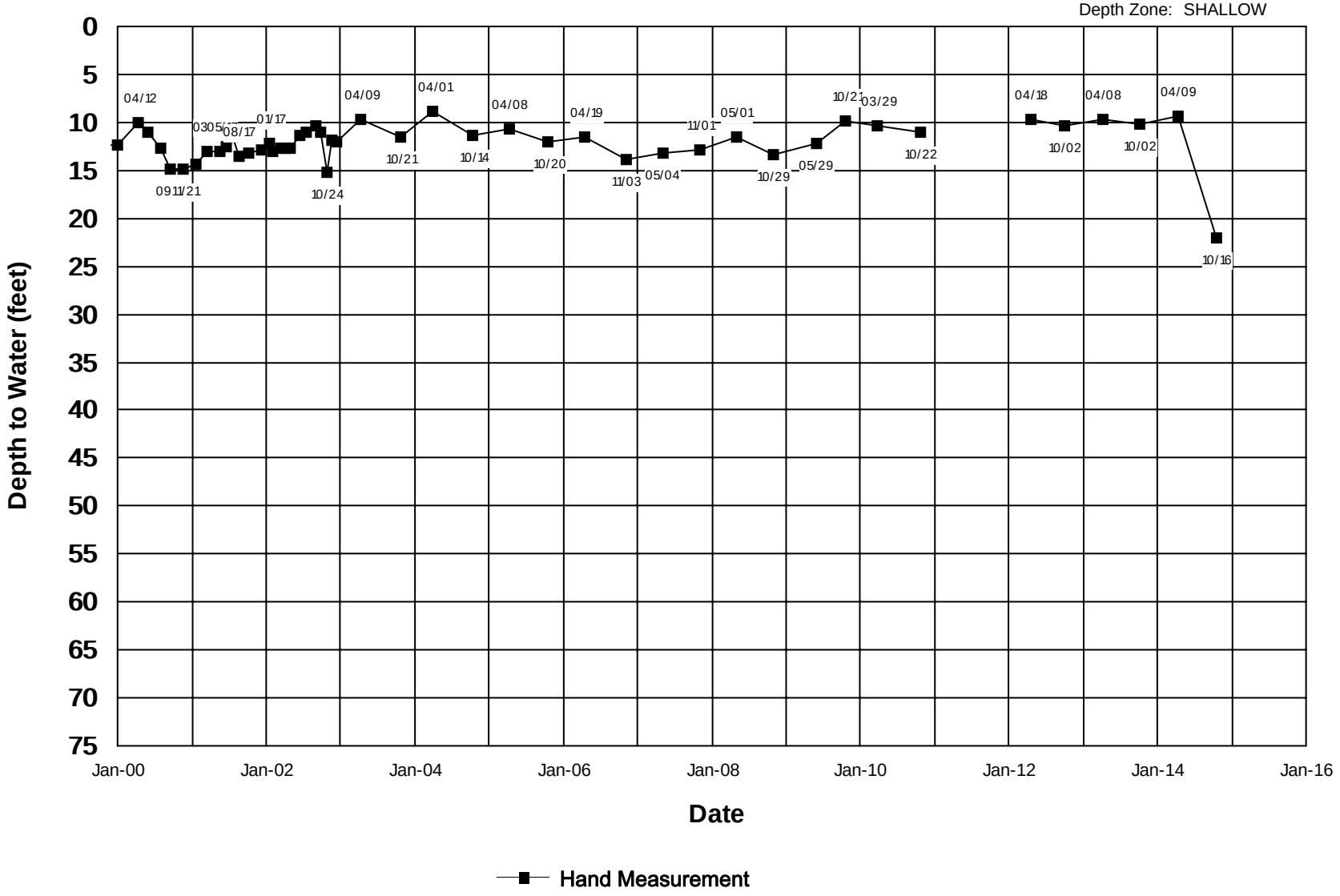


Thursday, July 16, 2015

Mendota Area Hydrograph

USGS Monitoring Well No. T14S/R14E-10A2

Reference Elevation: 203.4 feet NAVD88
Perforated Interval: 81 - 86 feet
Depth Zone: SHALLOW

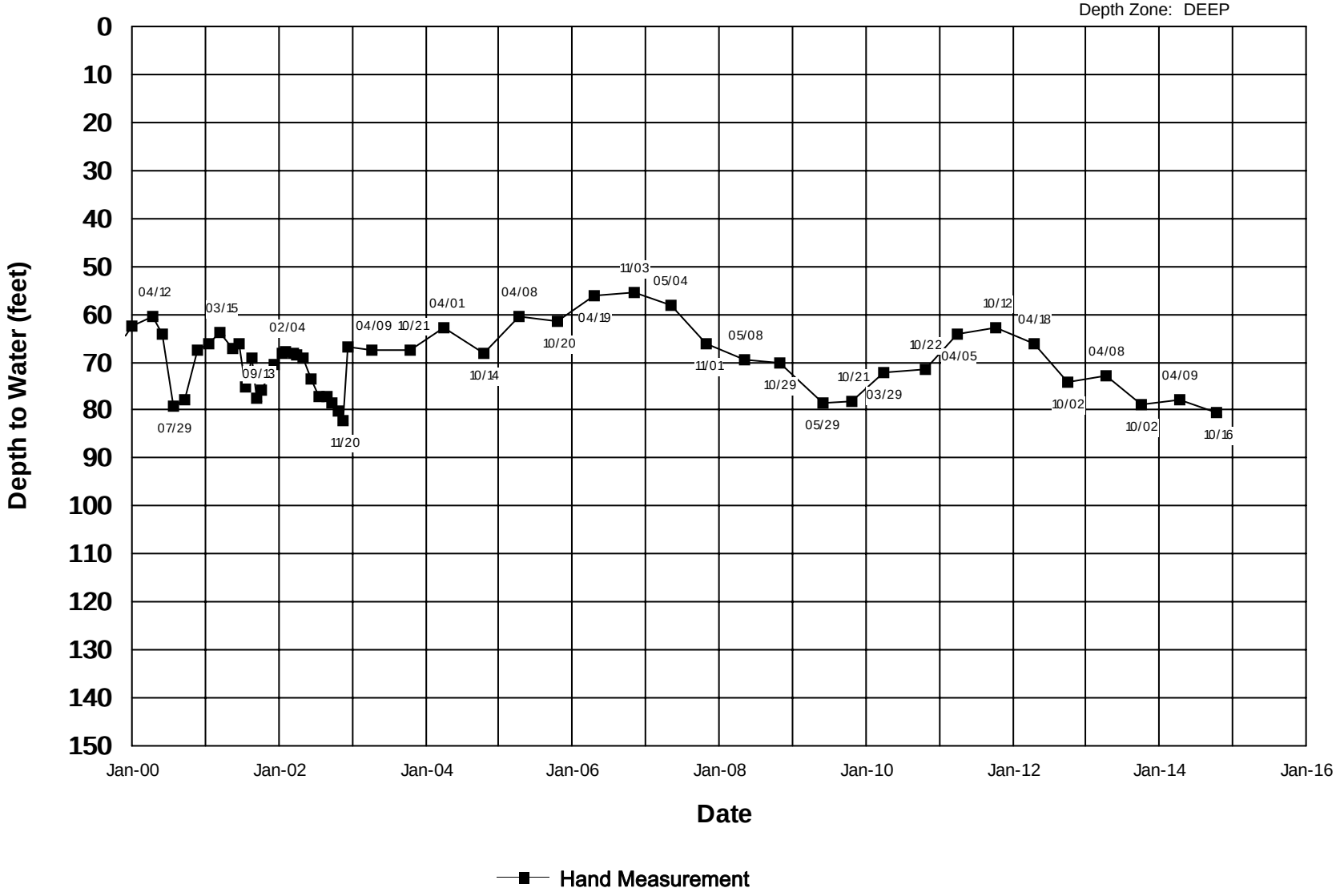


Thursday, July 16, 2015

Mendota Area Hydrograph

USGS Monitoring Well No. T14S/R14E-10A3

Reference Elevation: 204.9 feet NAVD88
Perforated Interval: 332 - 342 feet
Depth Zone: DEEP

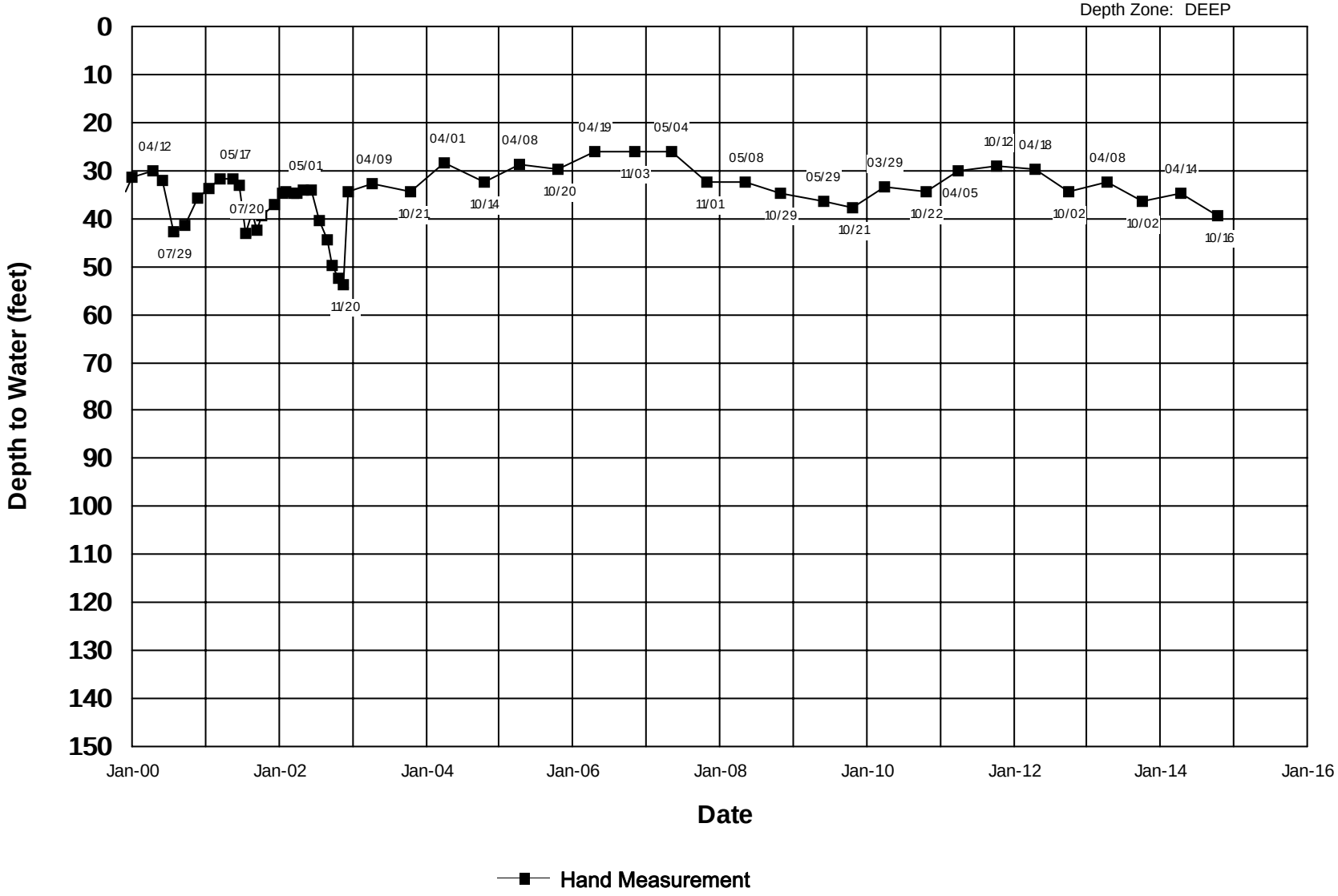


Thursday, July 16, 2015

Mendota Area Hydrograph

USGS Monitoring Well No. T14S/R14E-10A4

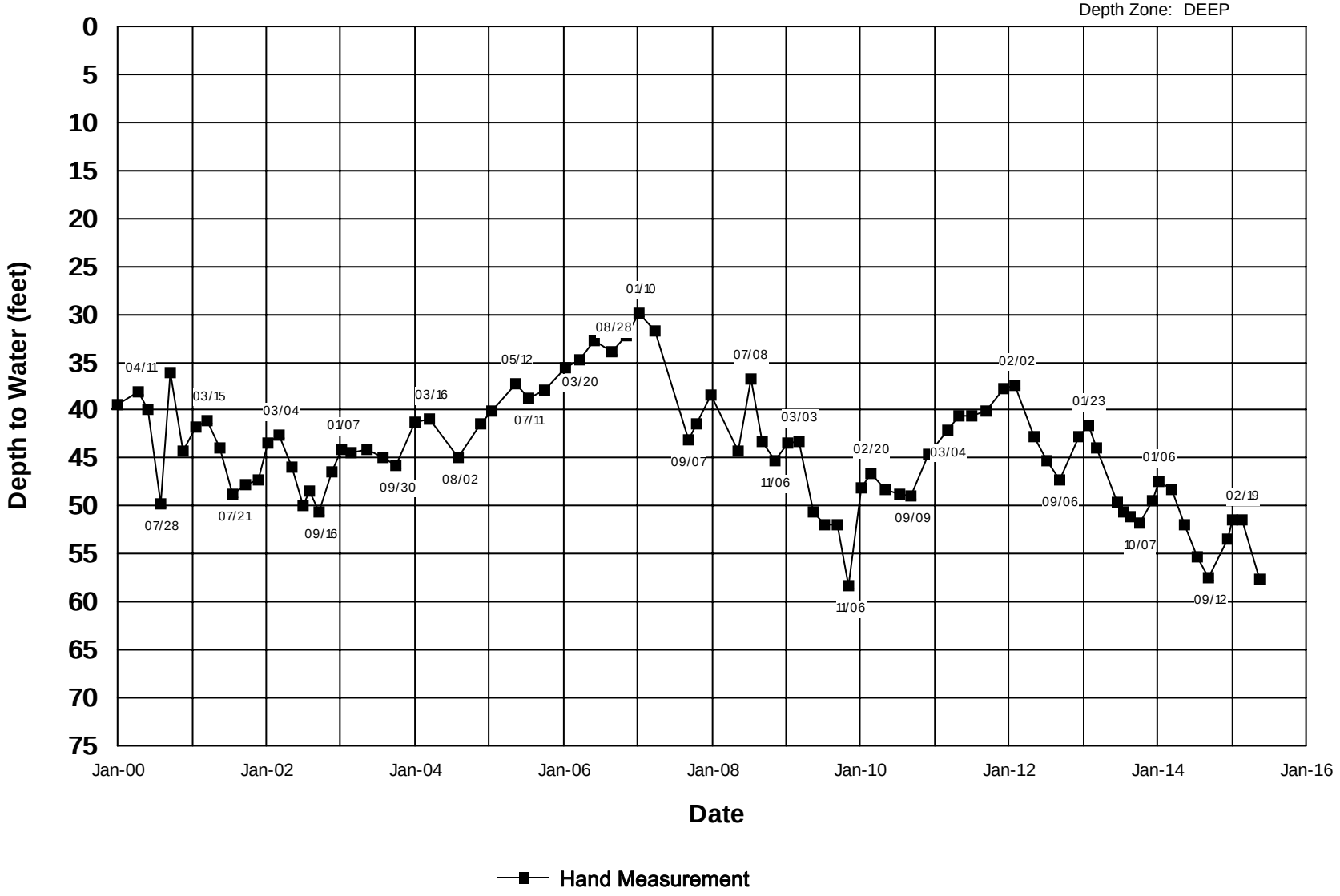
Reference Elevation: 204.2 feet NAVD88
Perforated Interval: 178 - 188 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Hansen Farms Well No. T14S/R15E-7C1

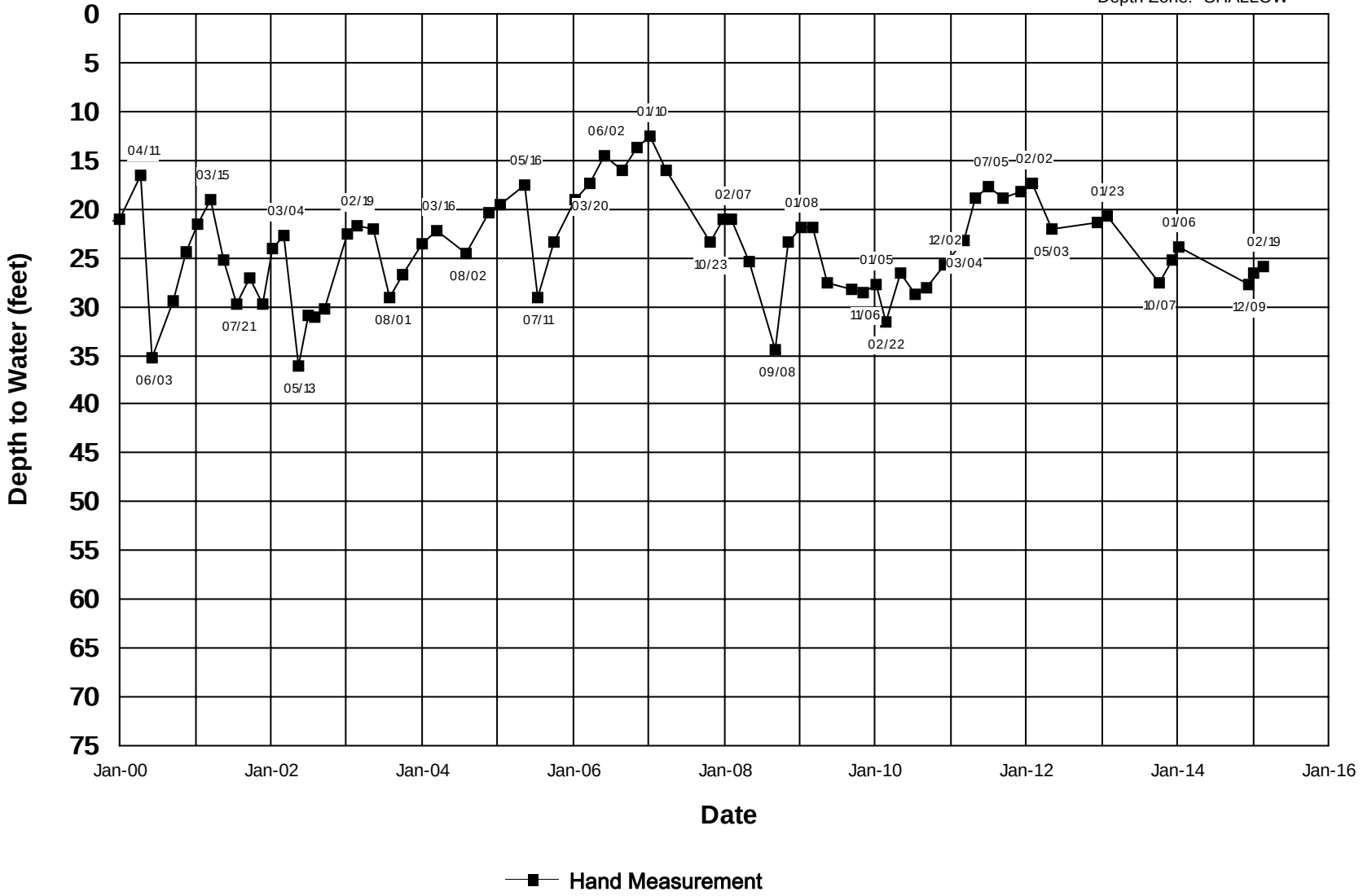
Reference Elevation: 172 feet NAVD88
Perforated Interval: 140 - 200 feet
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Terra Linda TLF-7s

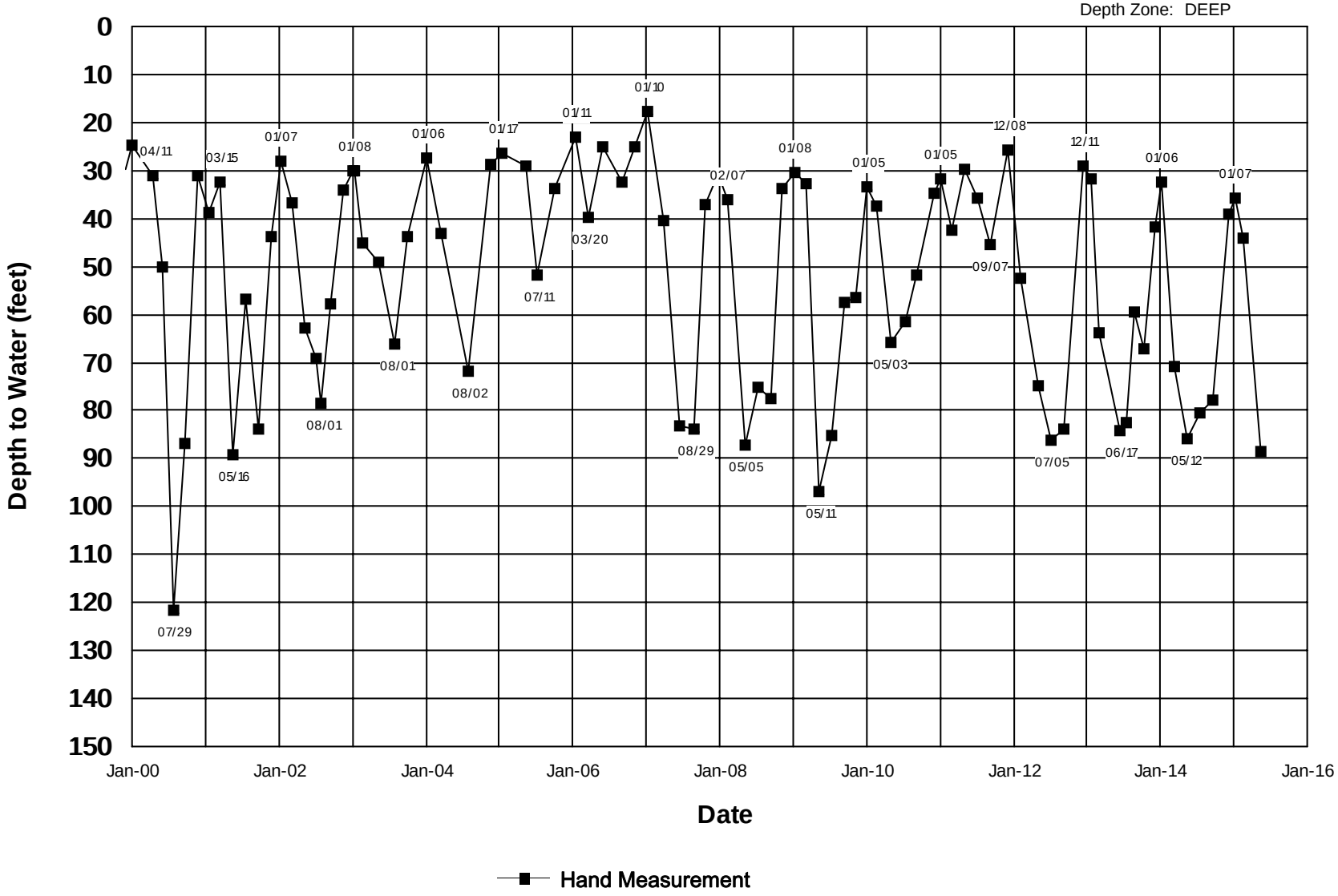
Reference Elevation: 154.63 feet NAVD88
Perforated Interval: 50 - 80 feet
Depth Zone: SHALLOW



Mendota Pool Group Hydrograph

Terra Linda HS-3

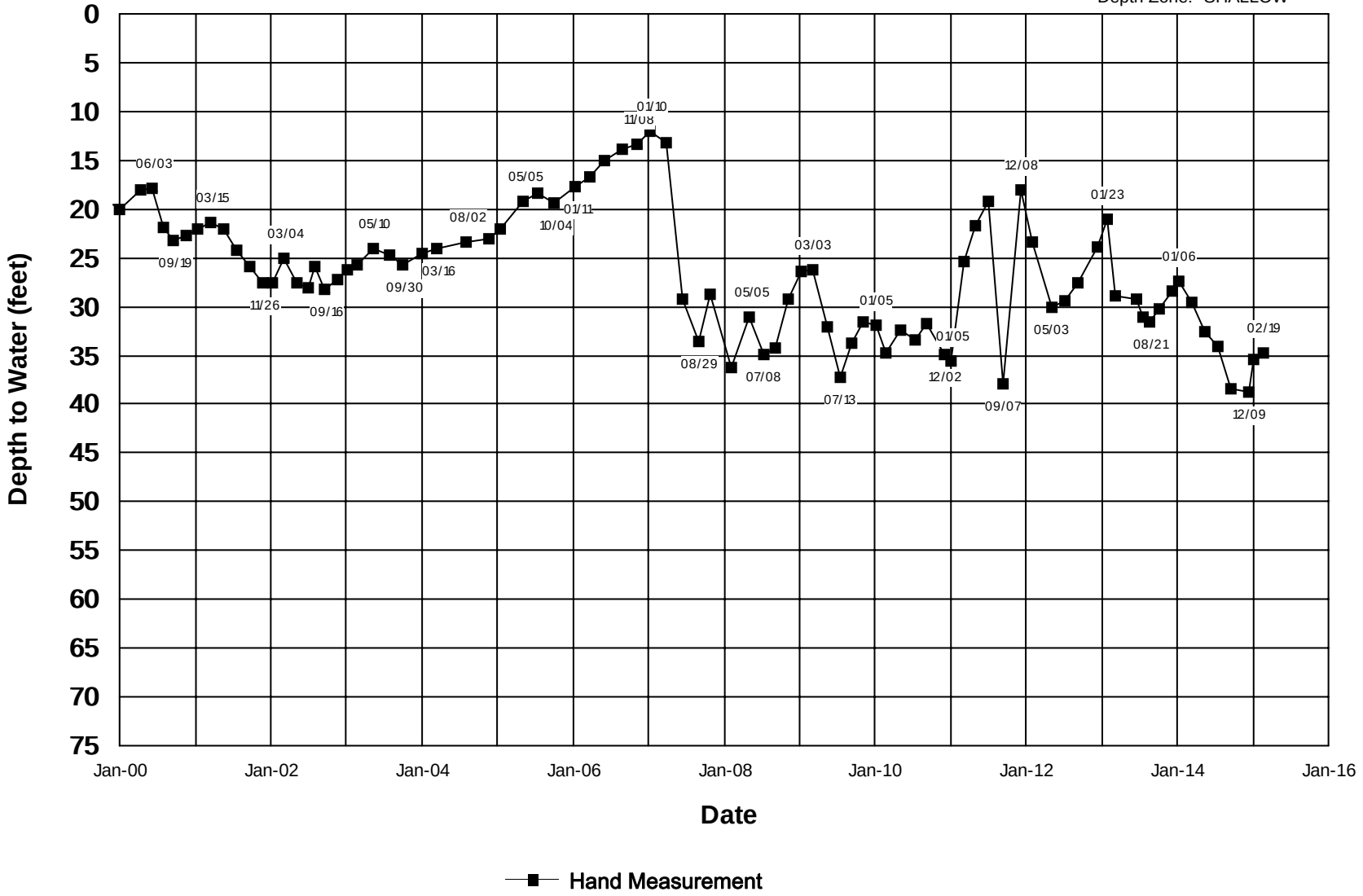
Reference Elevation: 151.9 feet NAVD88
Perforated Interval: 120 - 410 feet
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Etchegoinberry No. 2

Reference Elevation: 154.87 feet NAVD88
Perforated Interval: 50 - 100 feet
Depth Zone: SHALLOW

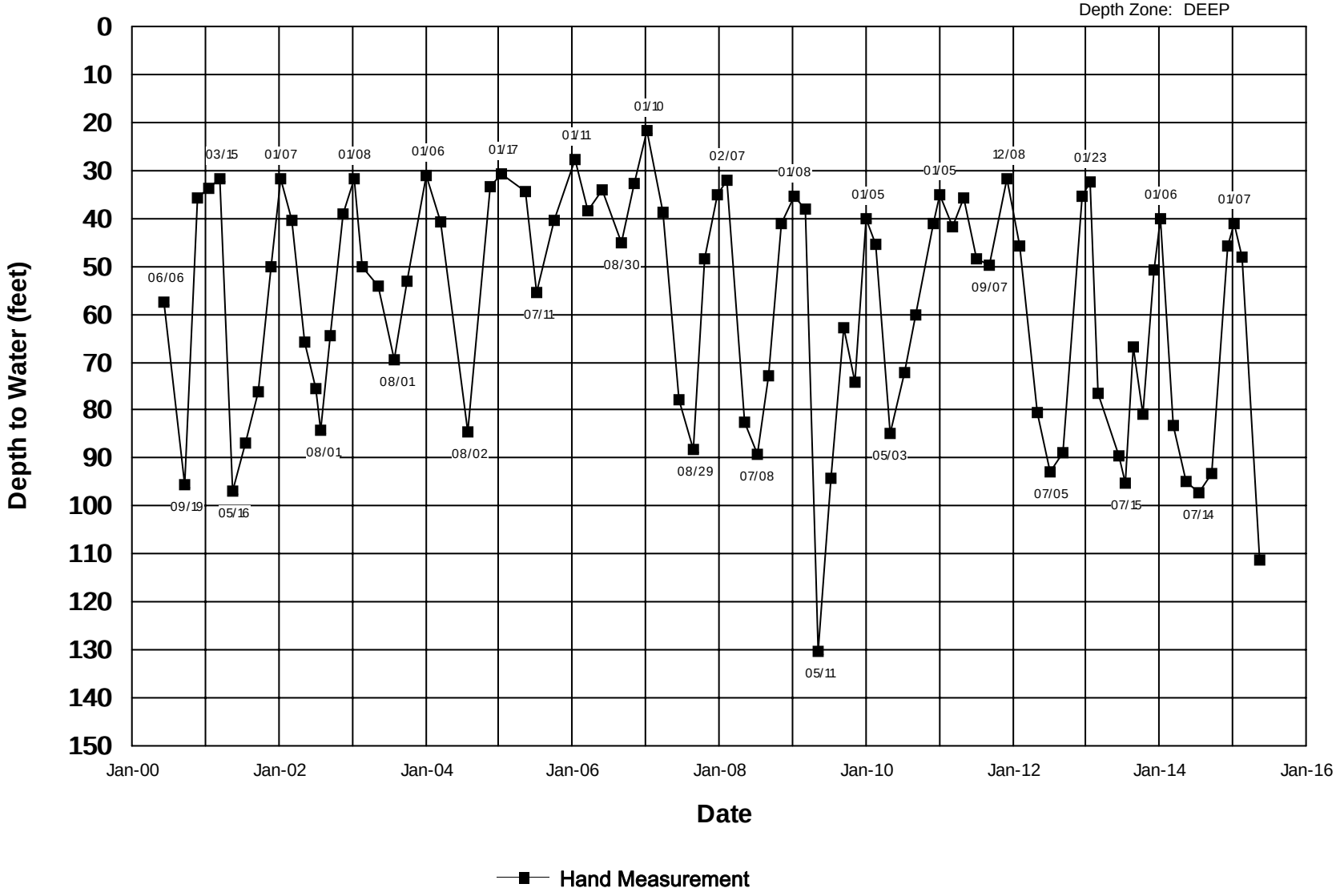


Thursday, July 16, 2015

Mendota Pool Group Hydrograph

Coelho/Coelho/Fordel CCF-2

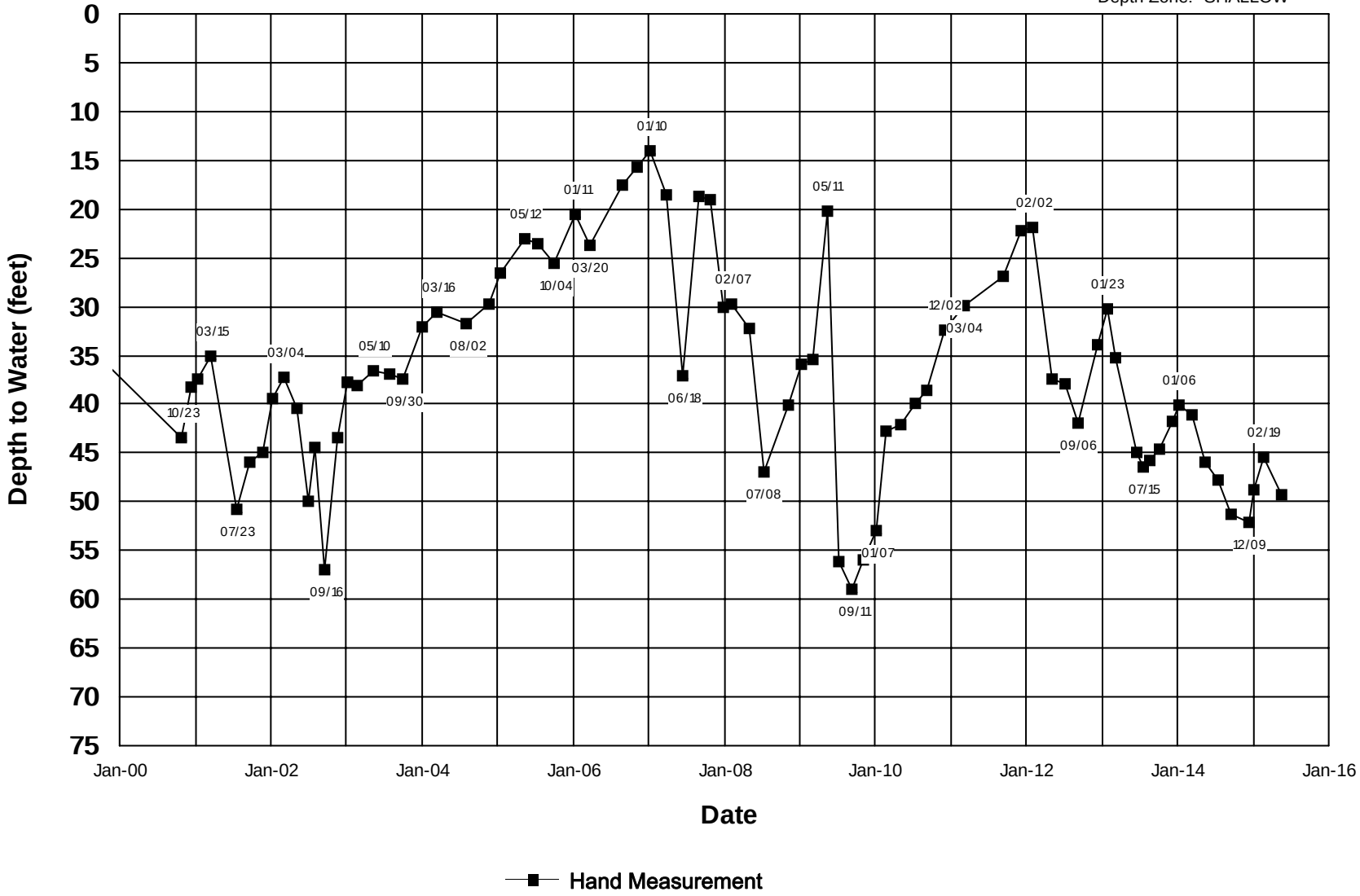
Reference Elevation: 152.91 feet NAVD88
Perforated Interval: 200 - 400 feet
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Meyers Farming MS-4

Reference Elevation: 159 feet NAVD88
Perforated Interval: 60 - 130 feet
Depth Zone: SHALLOW

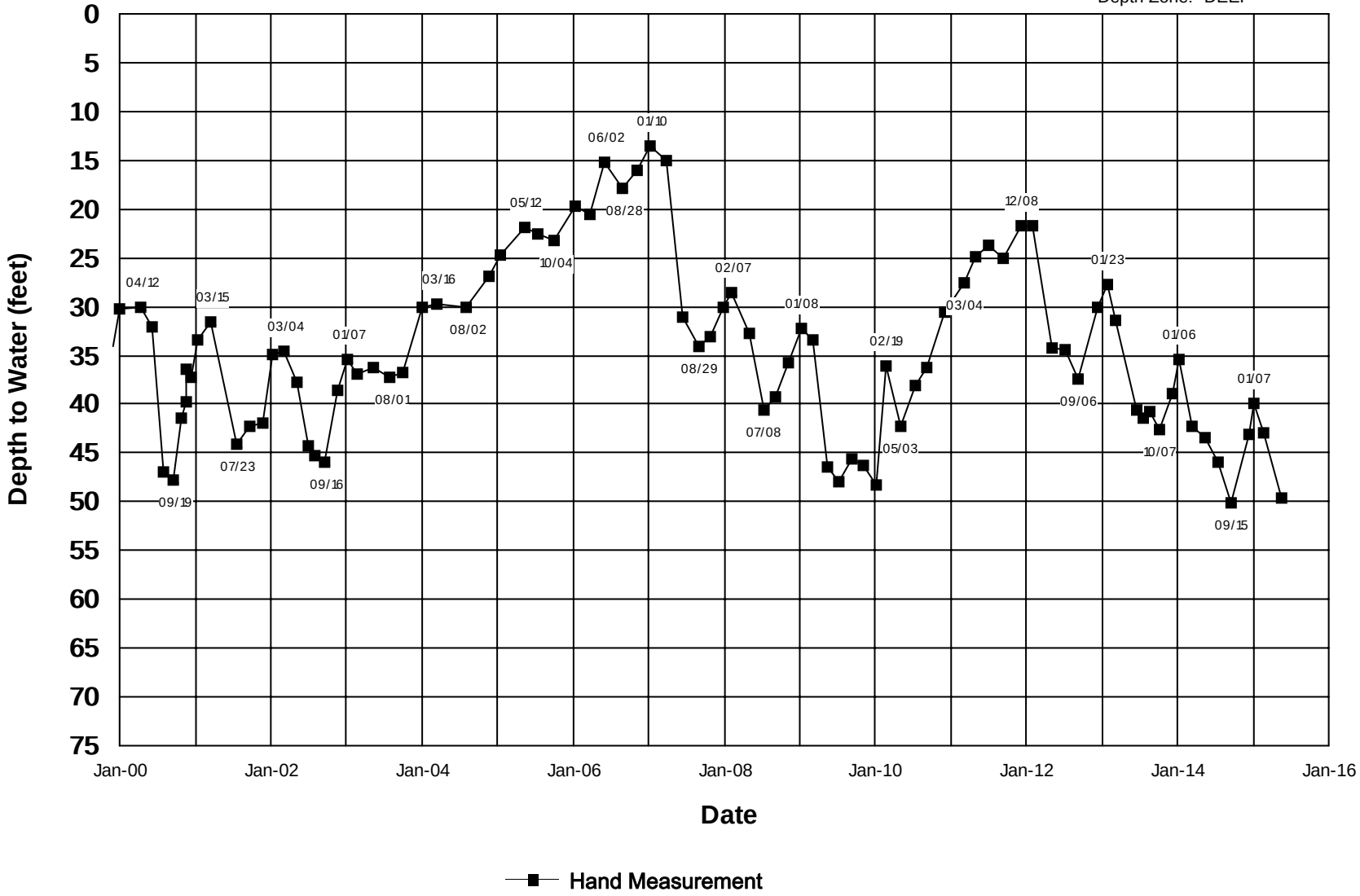


Thursday, July 16, 2015

Mendota Pool Group Hydrograph

Meyers Farming MS-5

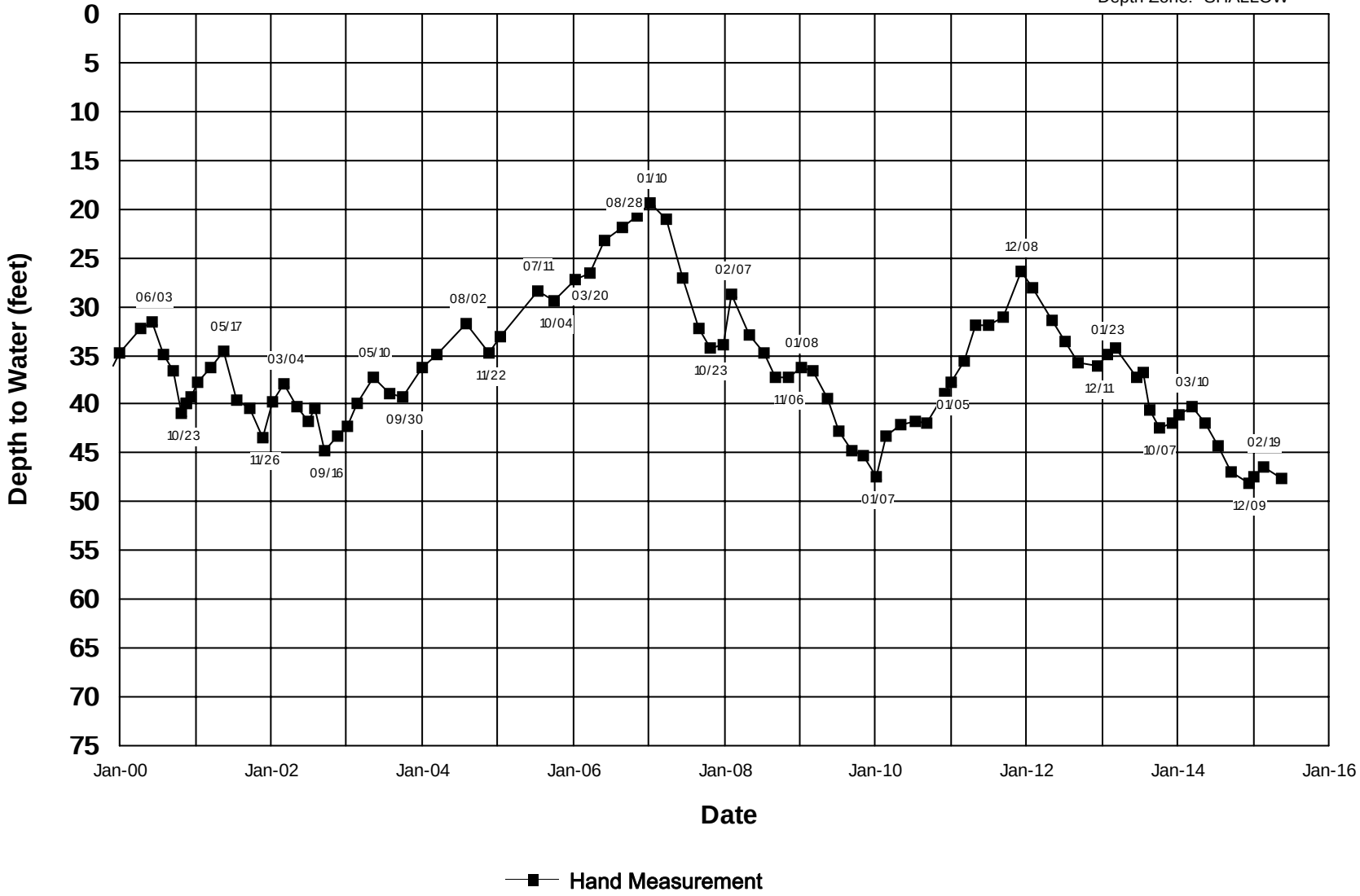
Reference Elevation: 160.5 feet NAVD88
Perforated Interval: 100 - 220 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Meyers Farm Monitoring Well S-2

Reference Elevation: 165 feet NAVD88
Perforated Interval: 23 - 78 feet
Depth Zone: SHALLOW

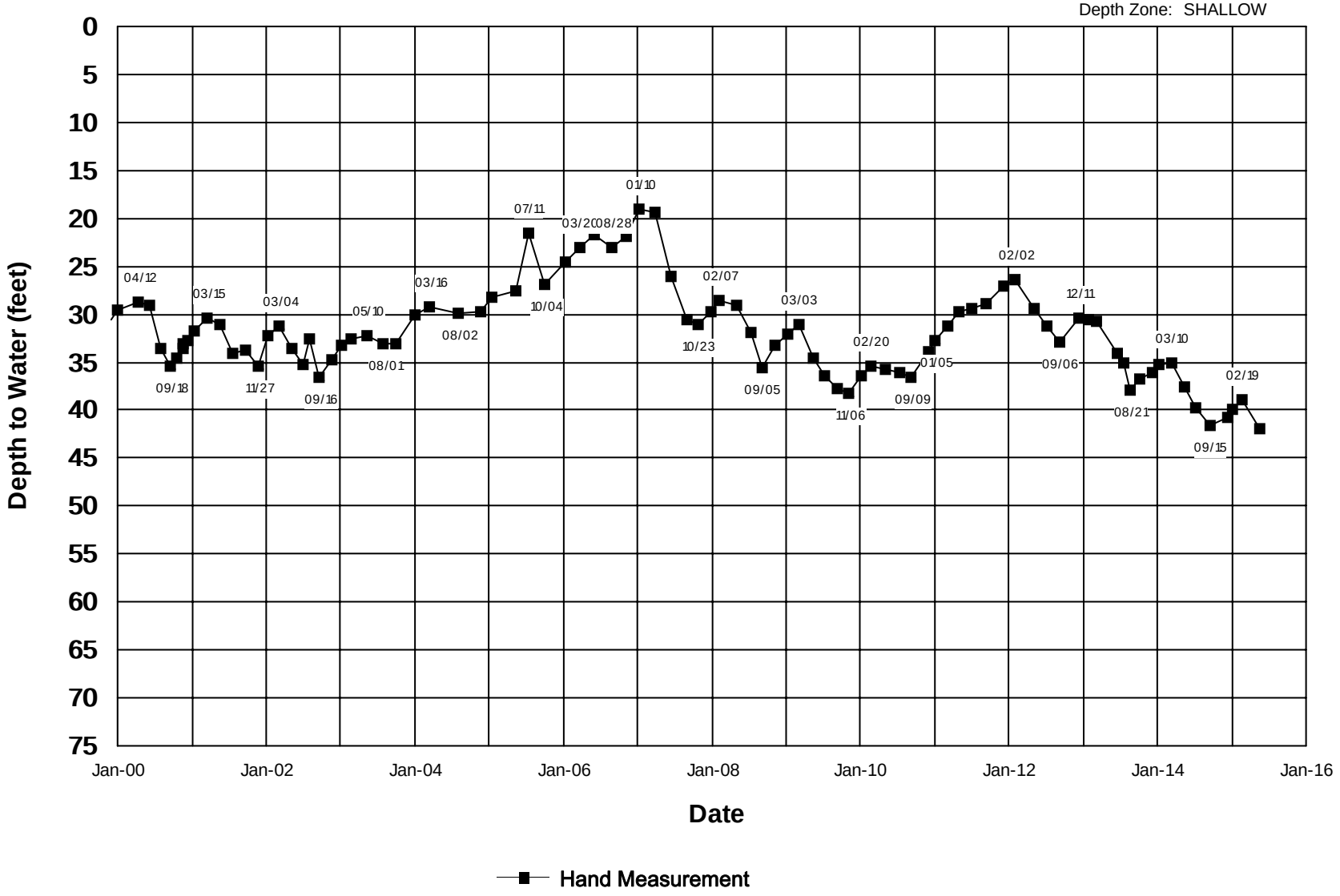


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Monitoring Well P-6

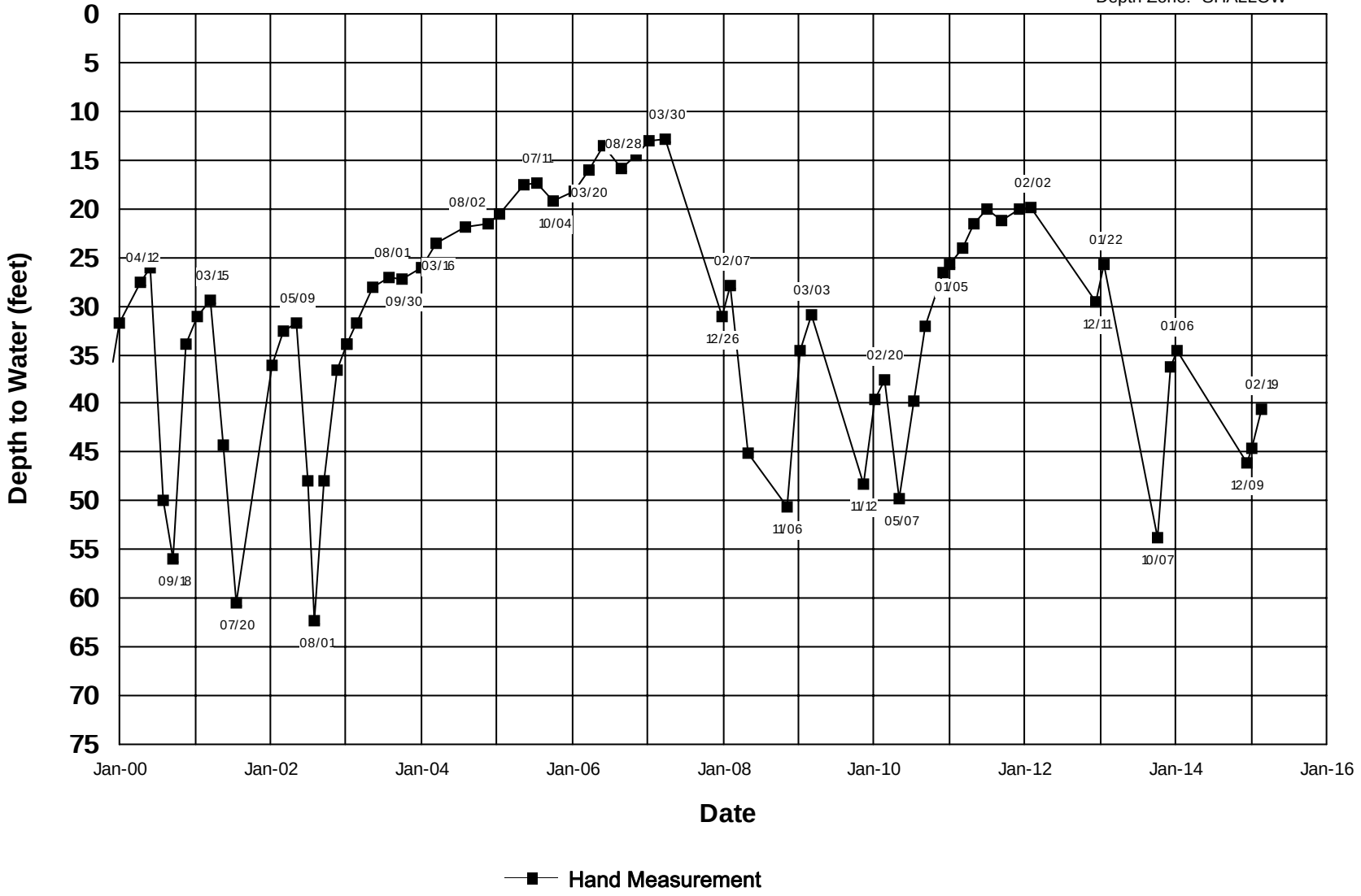
Reference Elevation: 163.53 feet NAVD88
Perforated Interval: 24 - 79 feet
Depth Zone: SHALLOW



Mendota Pool Group Hydrograph

Five Star FS-5

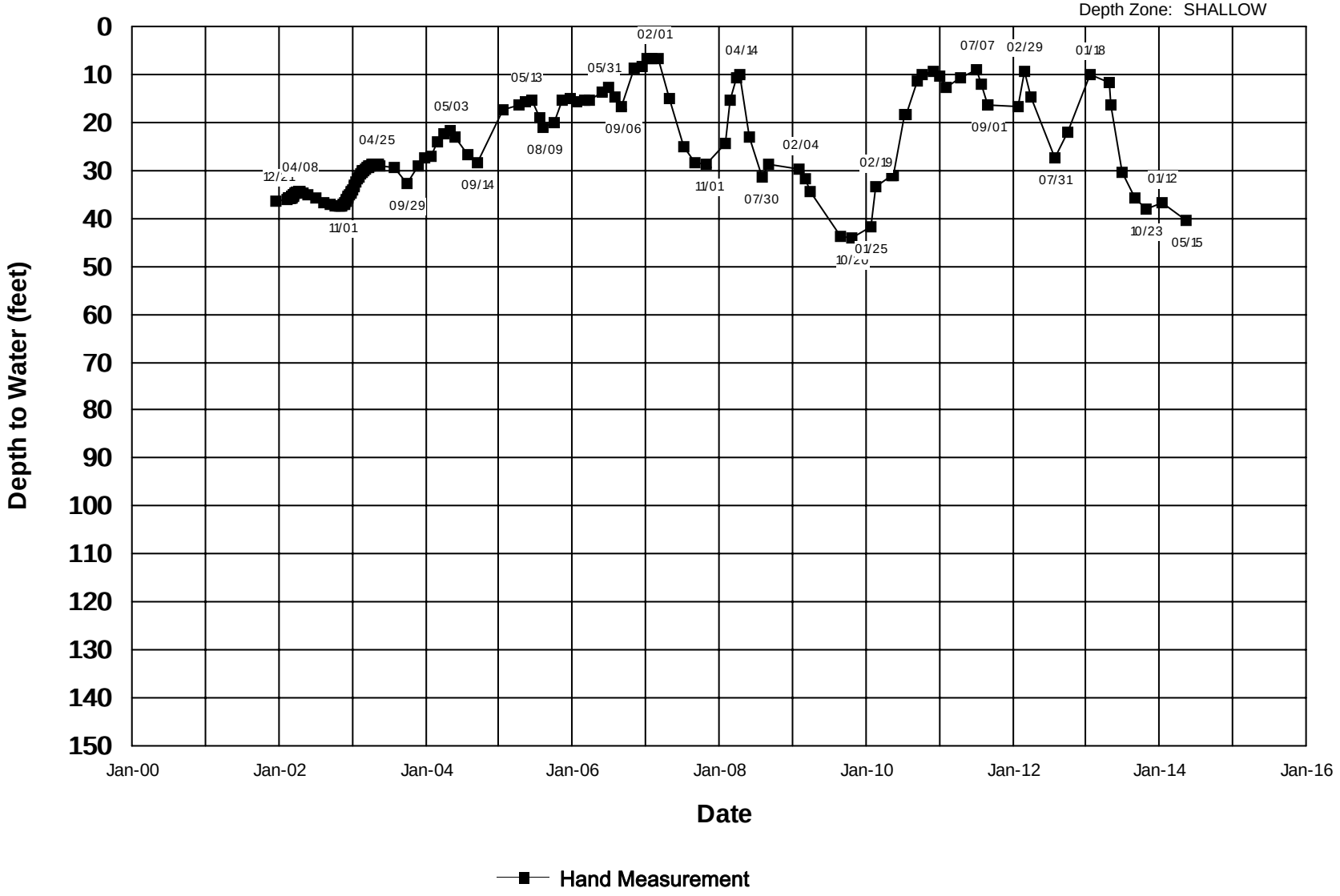
Reference Elevation: 154.98 feet NAVD88
Perforated Interval: 60 - 110 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Meyers Farm Water Bank MF-1

Reference Elevation: 159.42 feet NAVD88
Perforated Interval: 38 - 68 feet
Depth Zone: SHALLOW

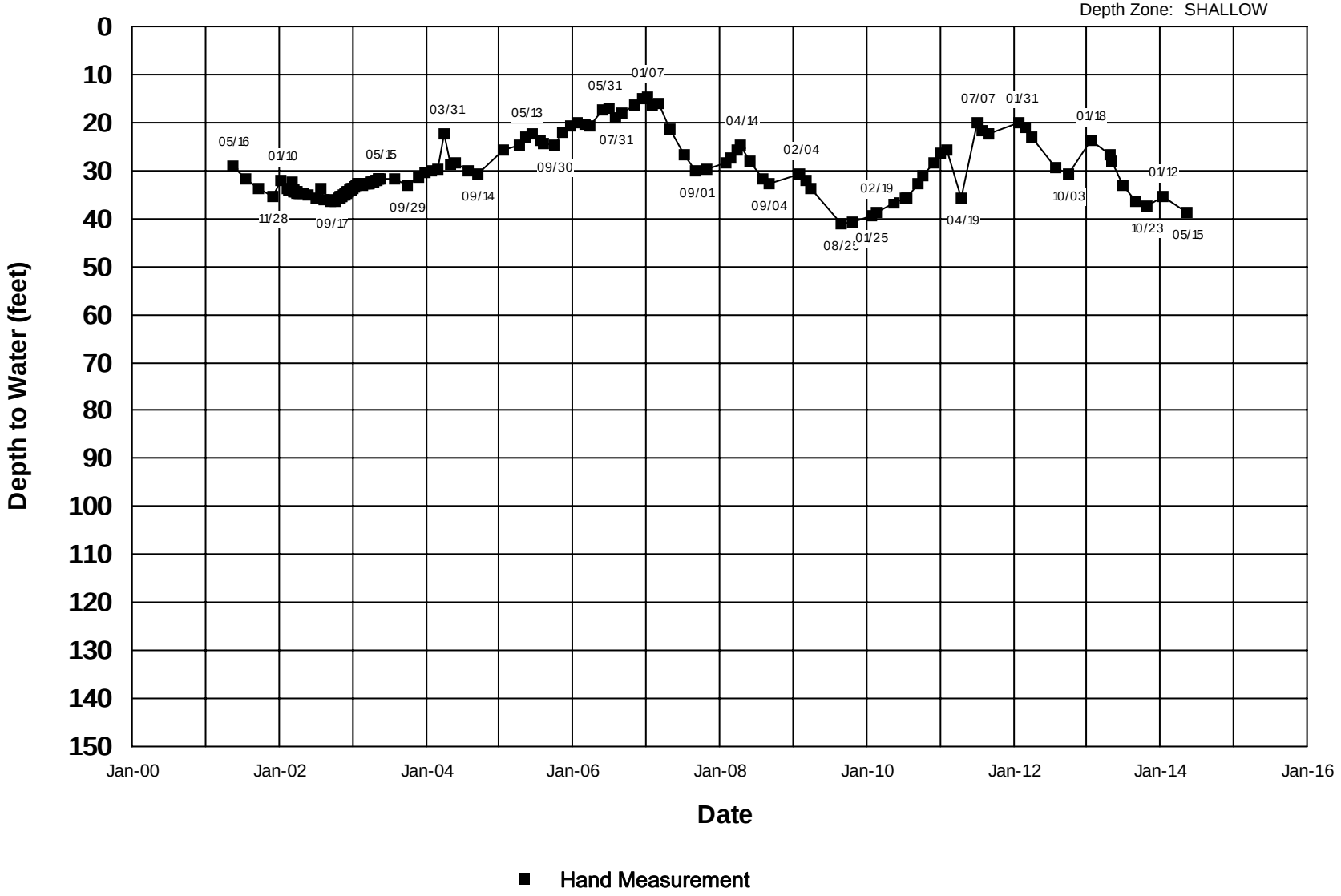


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Water Bank MF-2

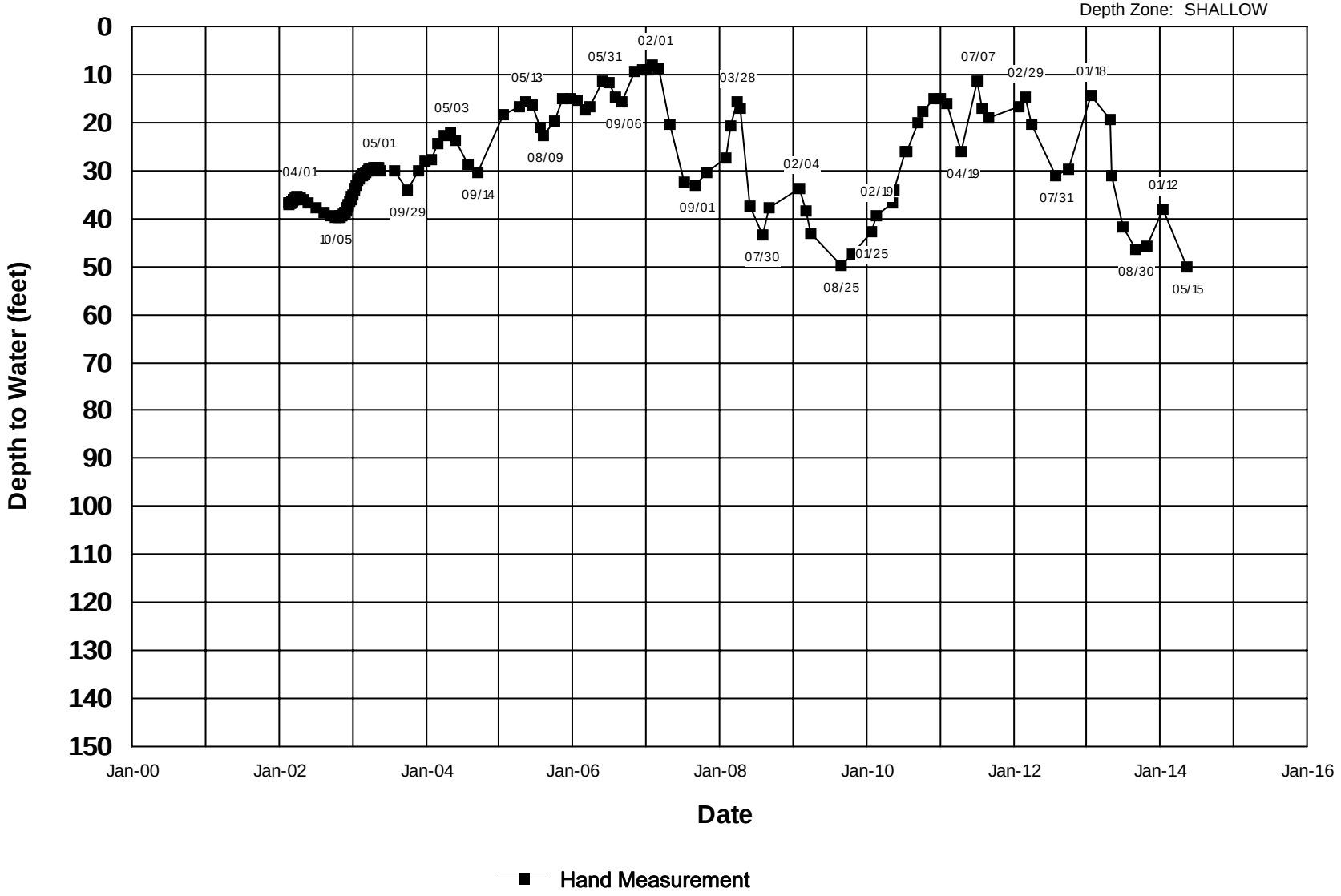
Reference Elevation: 158.35 feet NAVD88
Perforated Interval: 38 - 68 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Meyers Farm Water Bank MF-3

Reference Elevation: 158.42 feet NAVD88
Perforated Interval: 40 - 60 feet
Depth Zone: SHALLOW

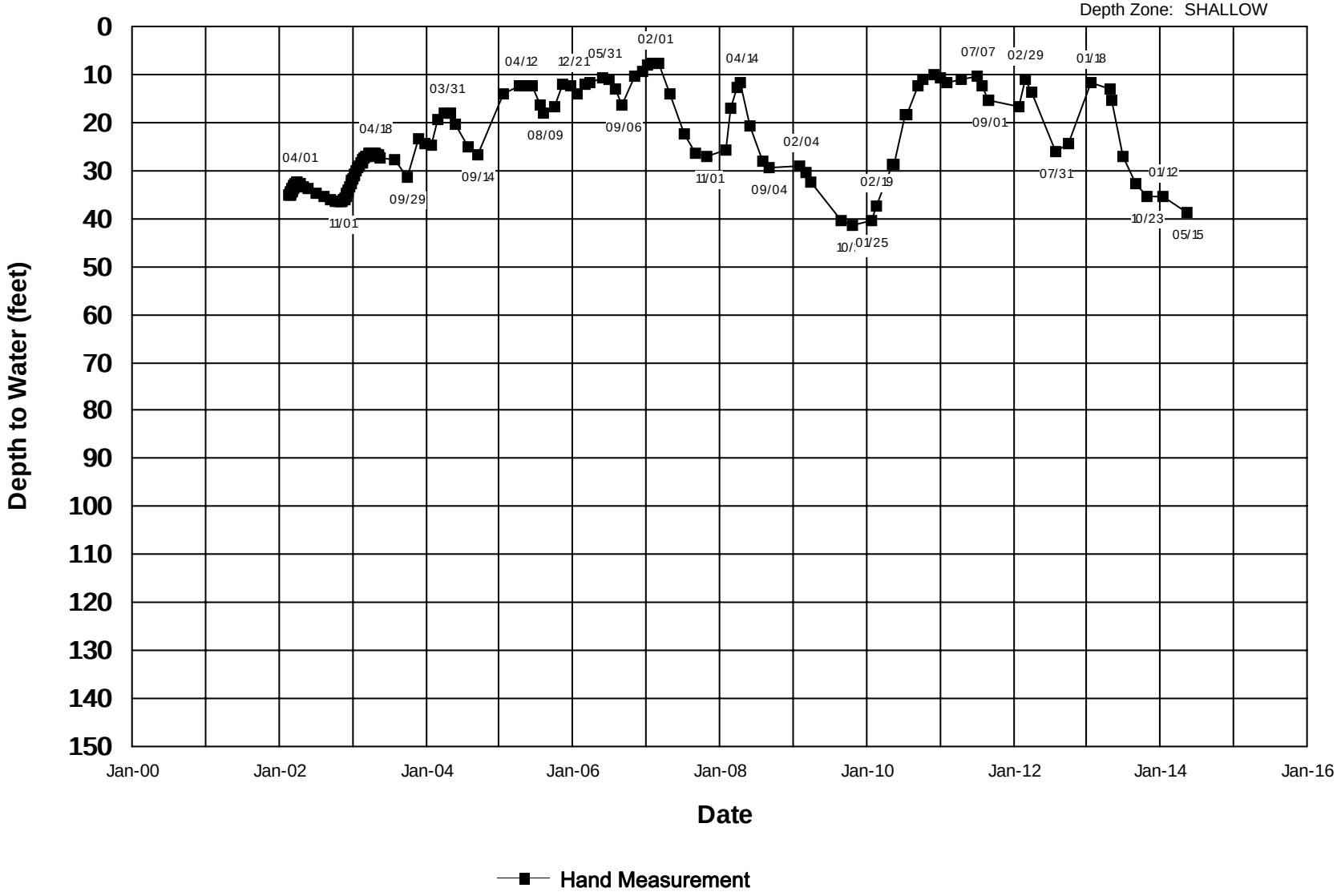


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Water Bank MF-4

Reference Elevation: 159.89 feet NAVD88
Perforated Interval: 40 - 60 feet
Depth Zone: SHALLOW

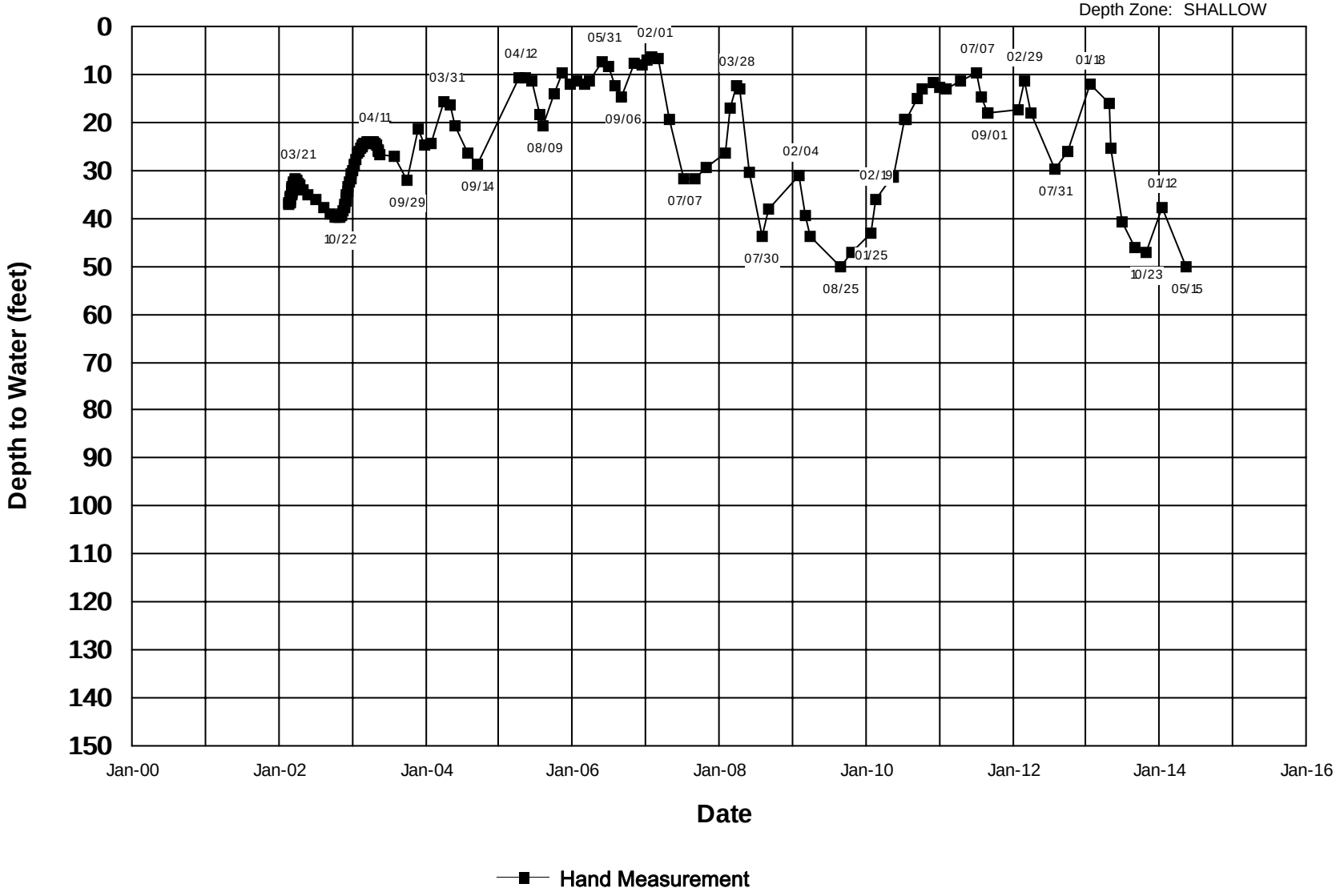


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Water Bank MF-5

Reference Elevation: 158.44 feet NAVD88
Perforated Interval: 40 - 50 feet
Depth Zone: SHALLOW

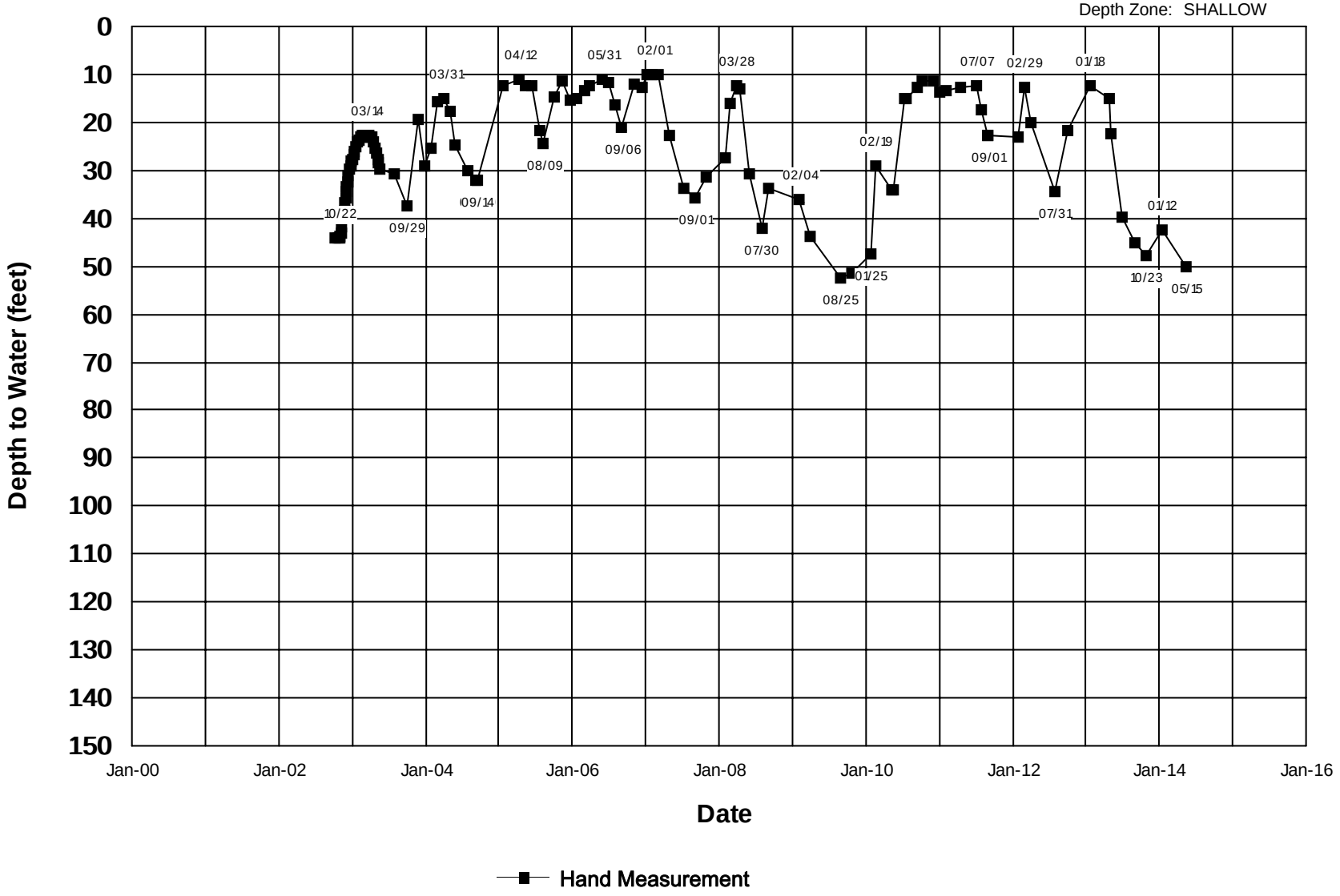


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Water Bank MF-6

Reference Elevation: 164.99 feet NAVD88
Perforated Interval: 55 - 70 feet
Depth Zone: SHALLOW

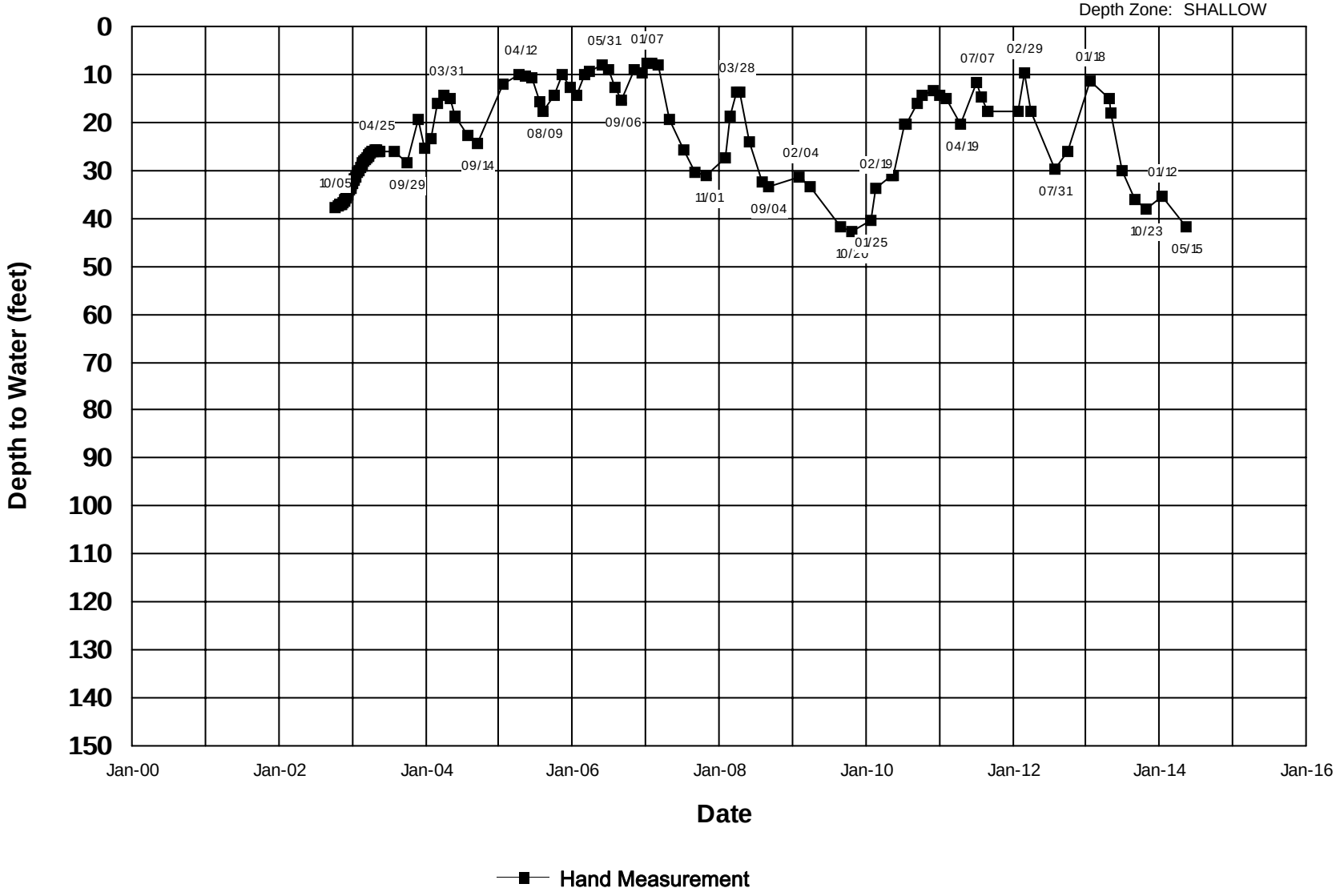


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Water Bank MF-7

Reference Elevation: 160.01 feet NAVD88
Perforated Interval: 35 - 50 feet
Depth Zone: SHALLOW

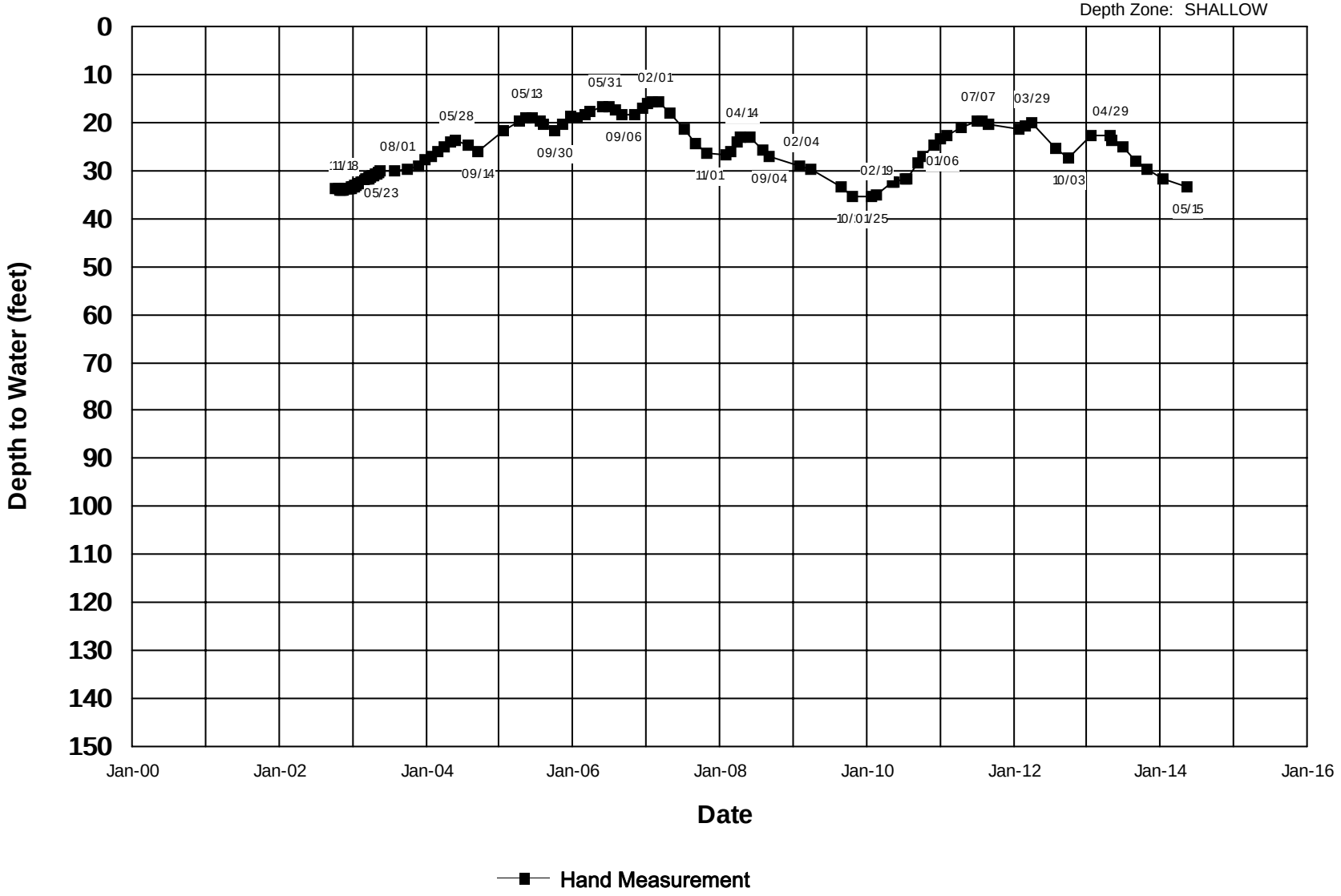


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Water Bank MF-8

Reference Elevation: 161.41 feet NAVD88
Perforated Interval: 35 - 50 feet
Depth Zone: SHALLOW

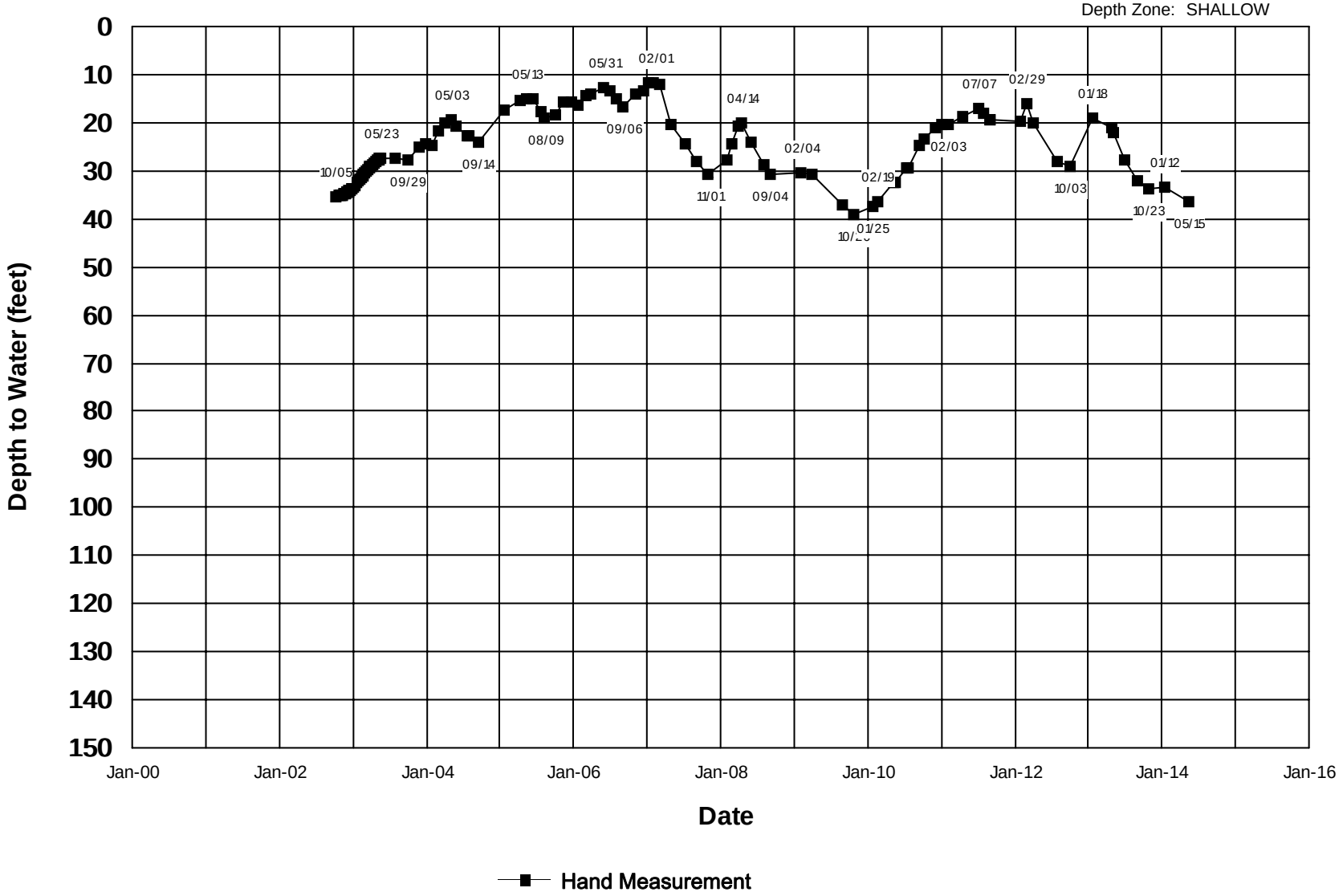


Thursday, July 16, 2015

Mendota Area Hydrograph

Meyers Farm Water Bank MF-9

Reference Elevation: 160.67 feet NAVD88
Perforated Interval: 35 - 50 feet
Depth Zone: SHALLOW

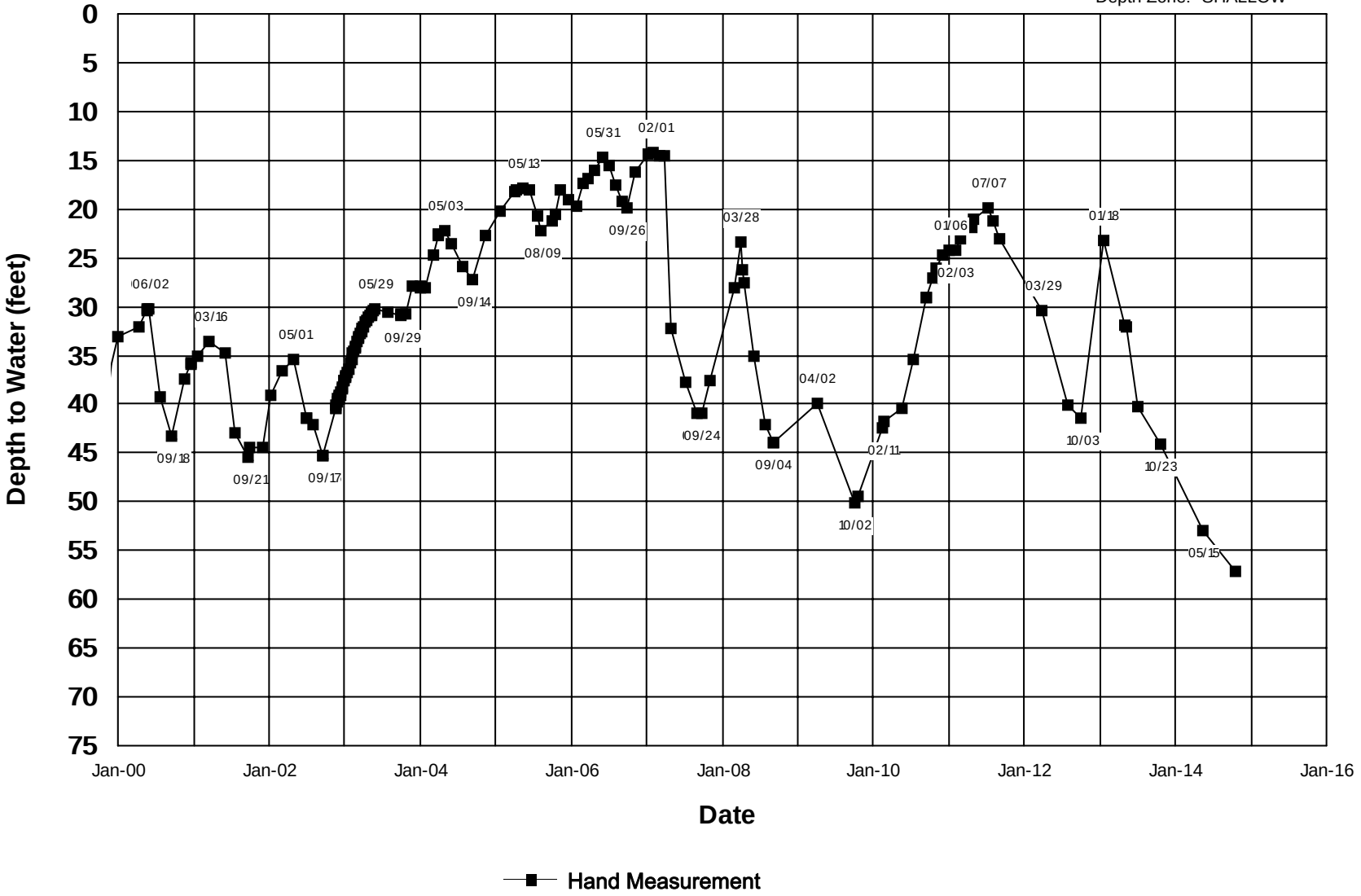


Thursday, July 16, 2015

Mendota Area Hydrograph

Spreckels Sugar Co. MW-1

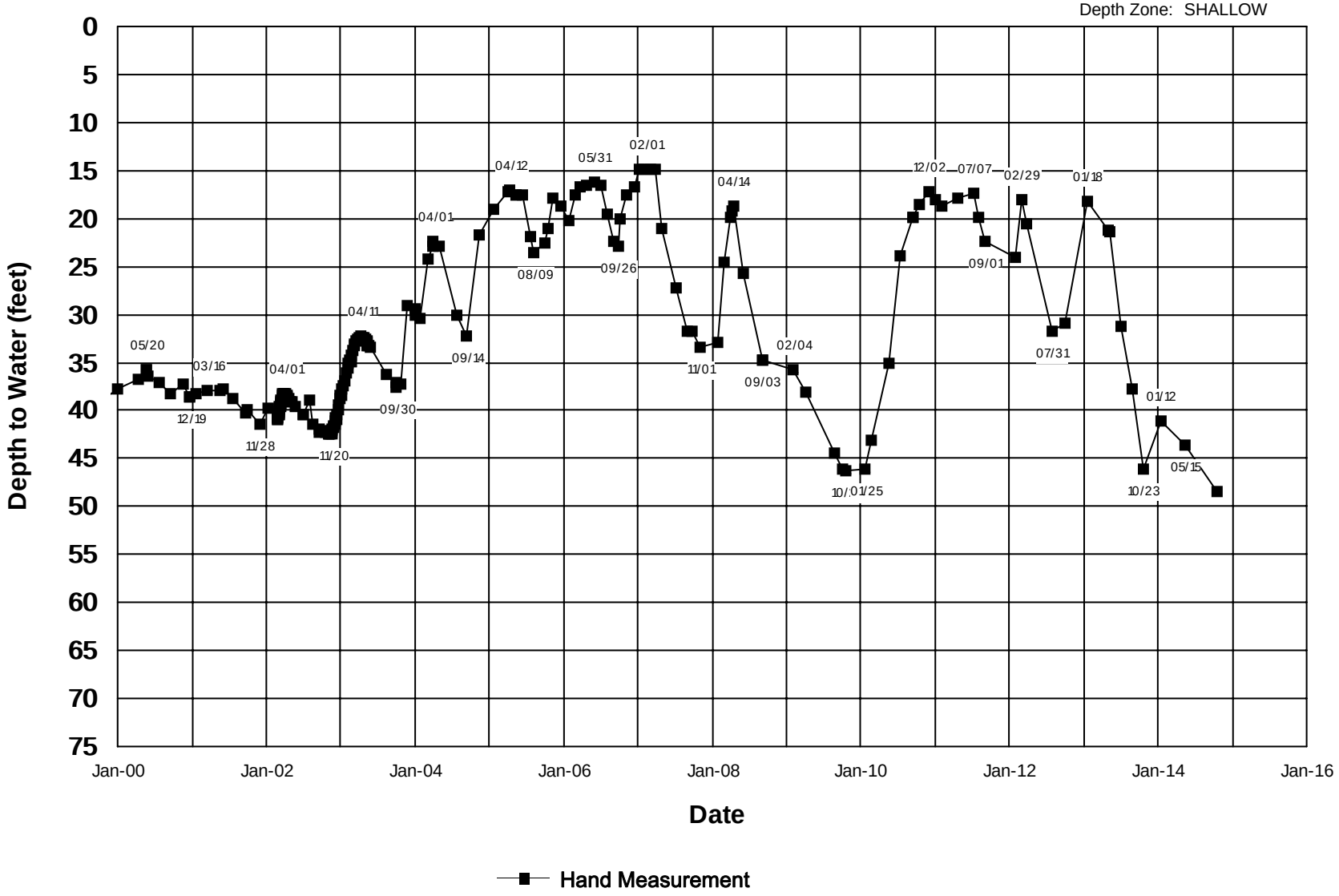
Reference Elevation: 166.08 feet NAVD88
Perforated Interval: 38 - 78 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Spreckels Sugar Co. MW-3

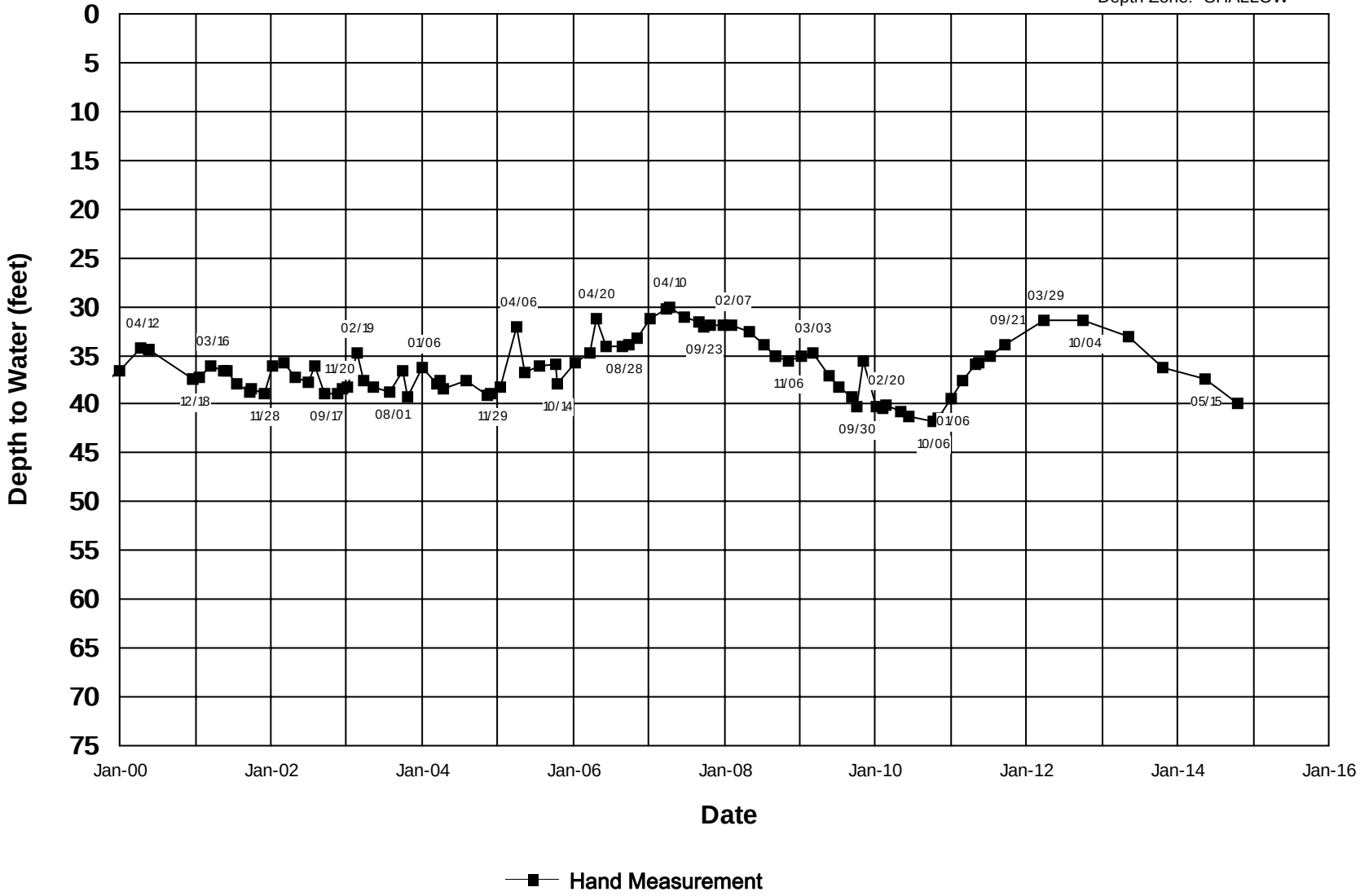
Reference Elevation: 169 feet NAVD88
Perforated Interval: 39 - 79 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Spreckels Sugar Co. MW-6

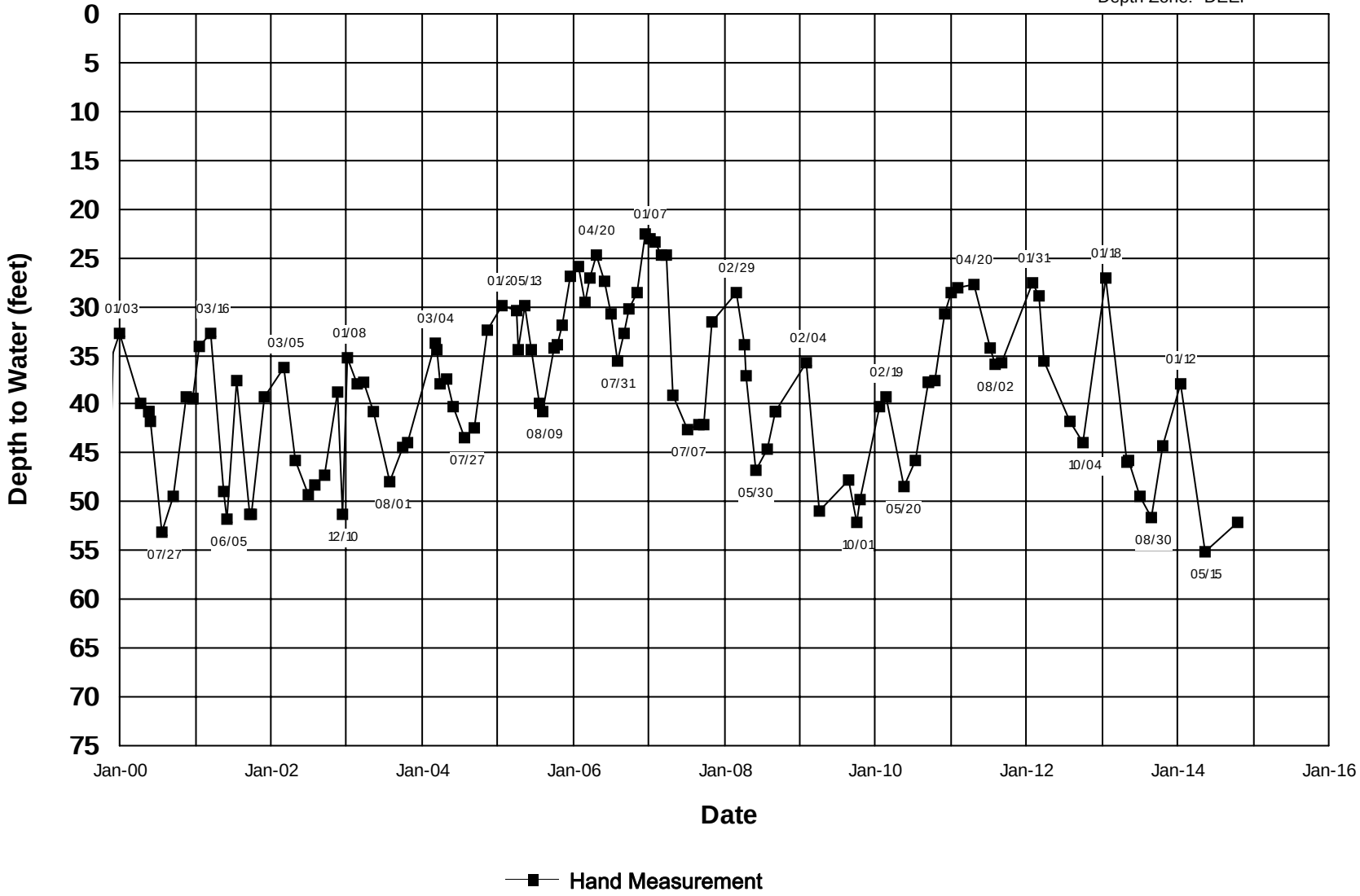
Reference Elevation: 166 feet NAVD88
Perforated Interval: 38 - 78 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Spreckels Sugar Co. MW-10

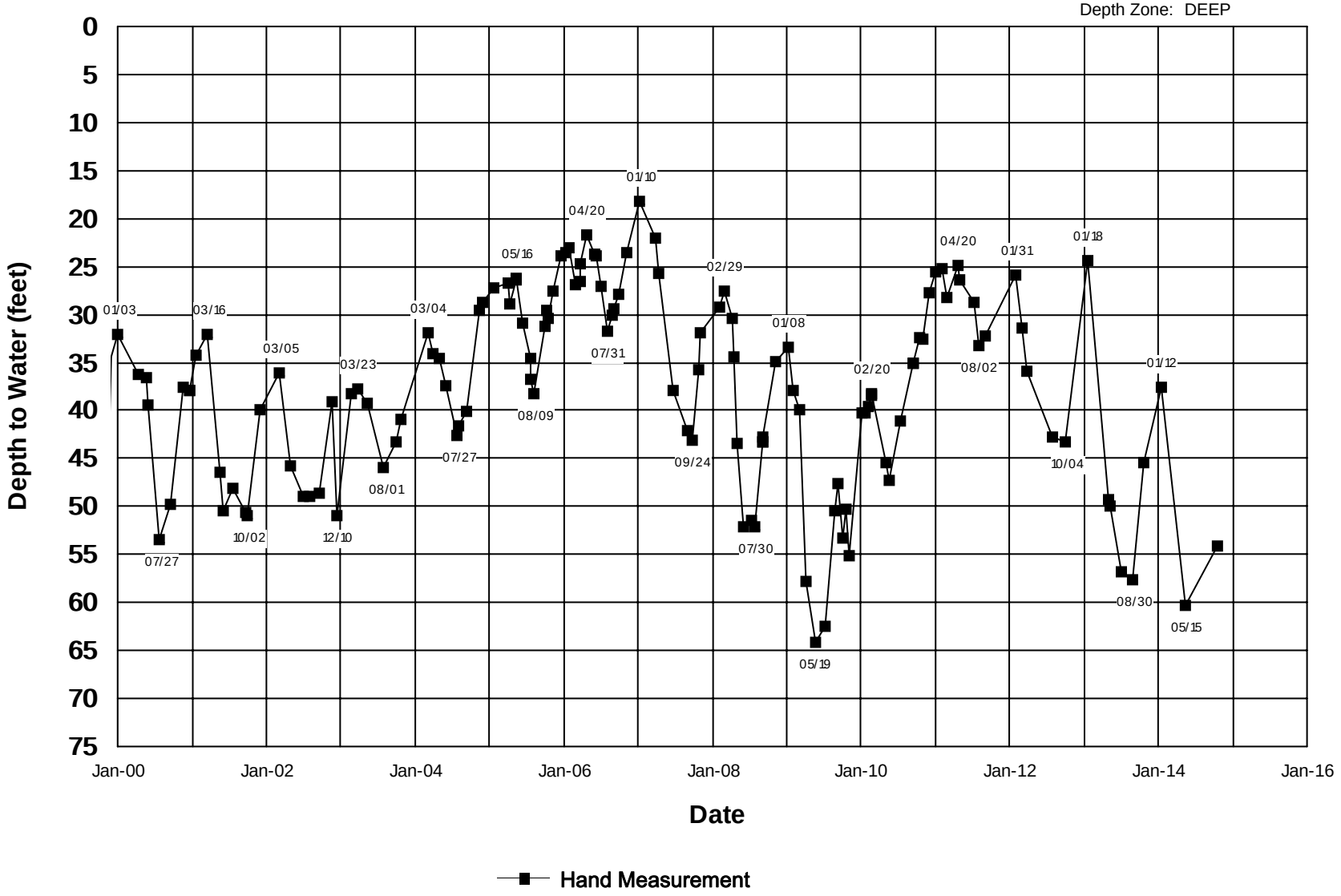
Reference Elevation: 163.6 feet NAVD88
Perforated Interval: 120 - 150 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Spreckels Sugar Co. MW-11

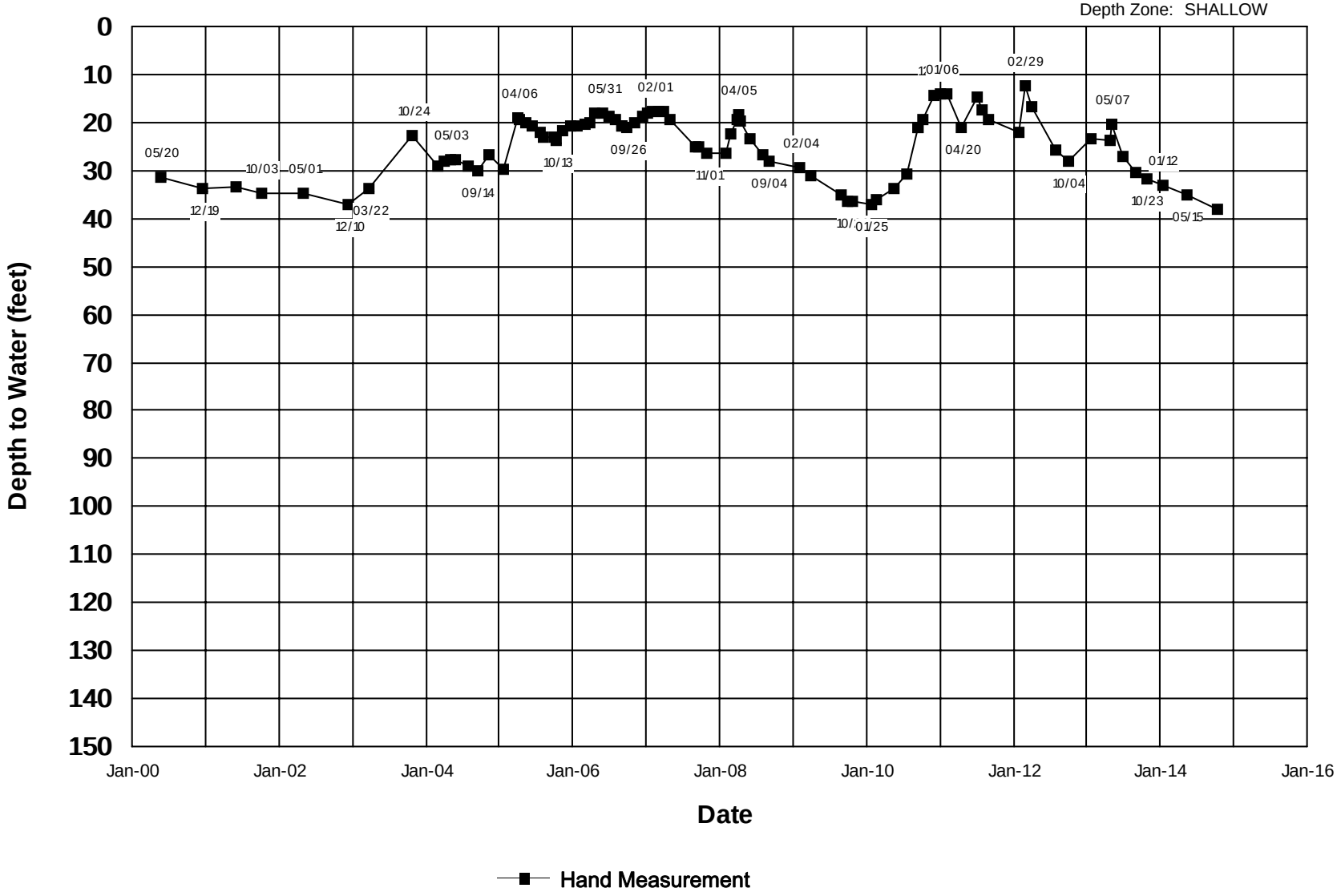
Reference Elevation: 162.47 feet NAVD88
Perforated Interval: 120 - 150 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Spreckels Sugar Co. MW-13

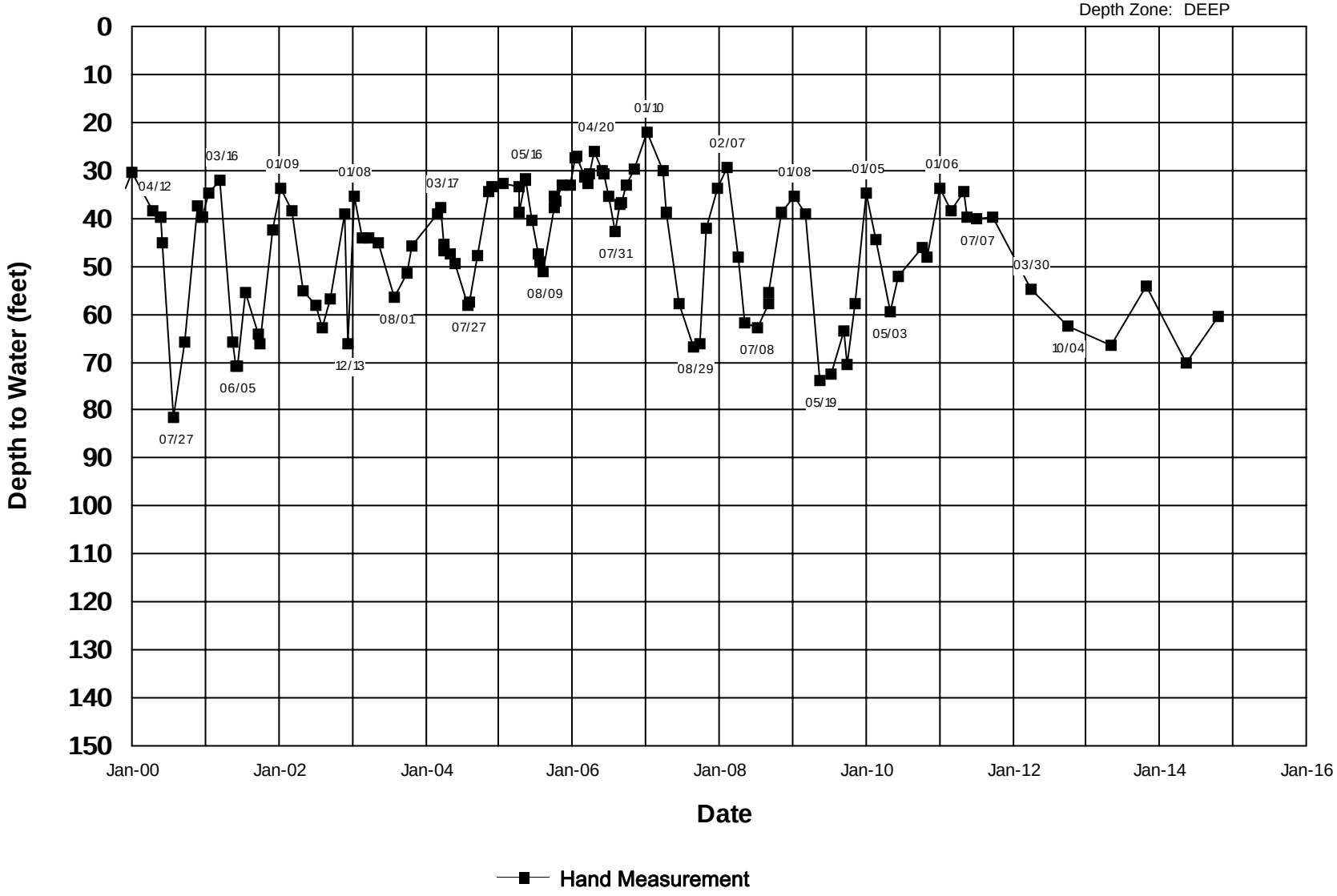
Reference Elevation: 163.05 feet NAVD88
Perforated Interval: 30 - 60 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Spreckels Sugar Co. MW-14

Reference Elevation: 158 feet NAVD88
Perforated Interval: 120 - 190 feet
Depth Zone: DEEP

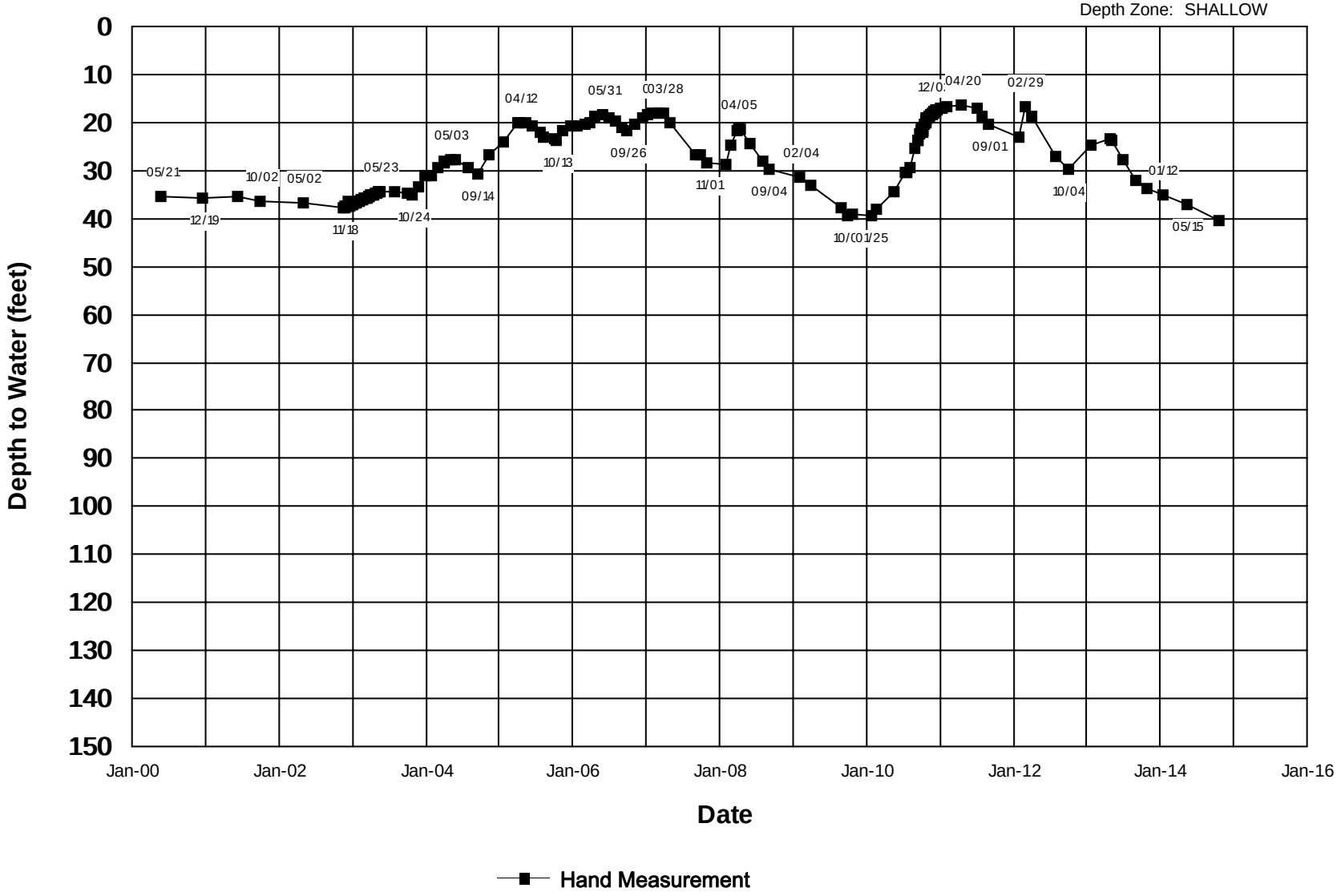


Thursday, July 16, 2015

Mendota Area Hydrograph

Spreckels Sugar Co. MW-18

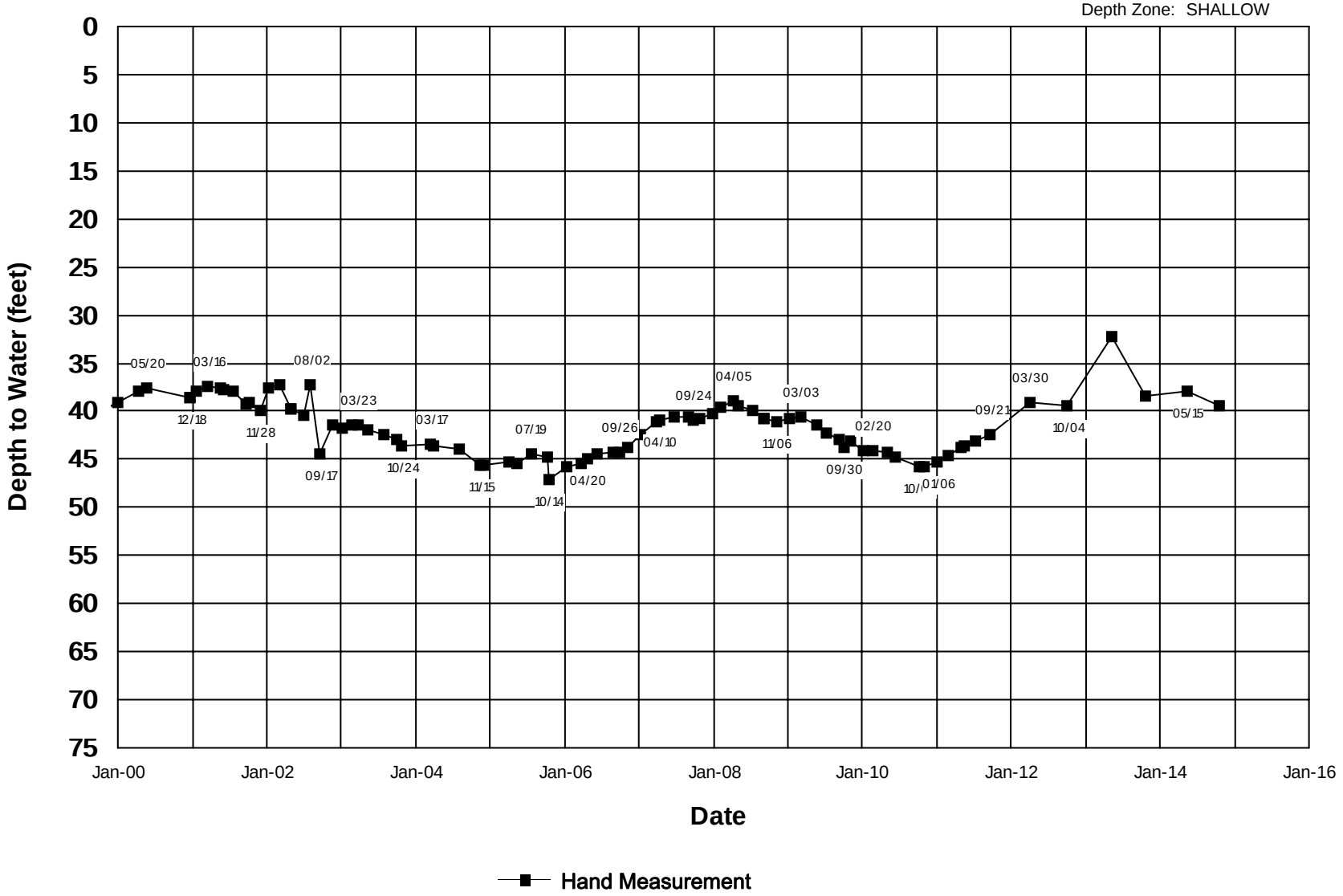
Reference Elevation: 165.52 feet NAVD88
Perforated Interval: 20 - 50 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Spreckels Sugar Co. MW-32

Reference Elevation: 169 feet NAVD88
Perforated Interval: 37 - 67 feet
Depth Zone: SHALLOW

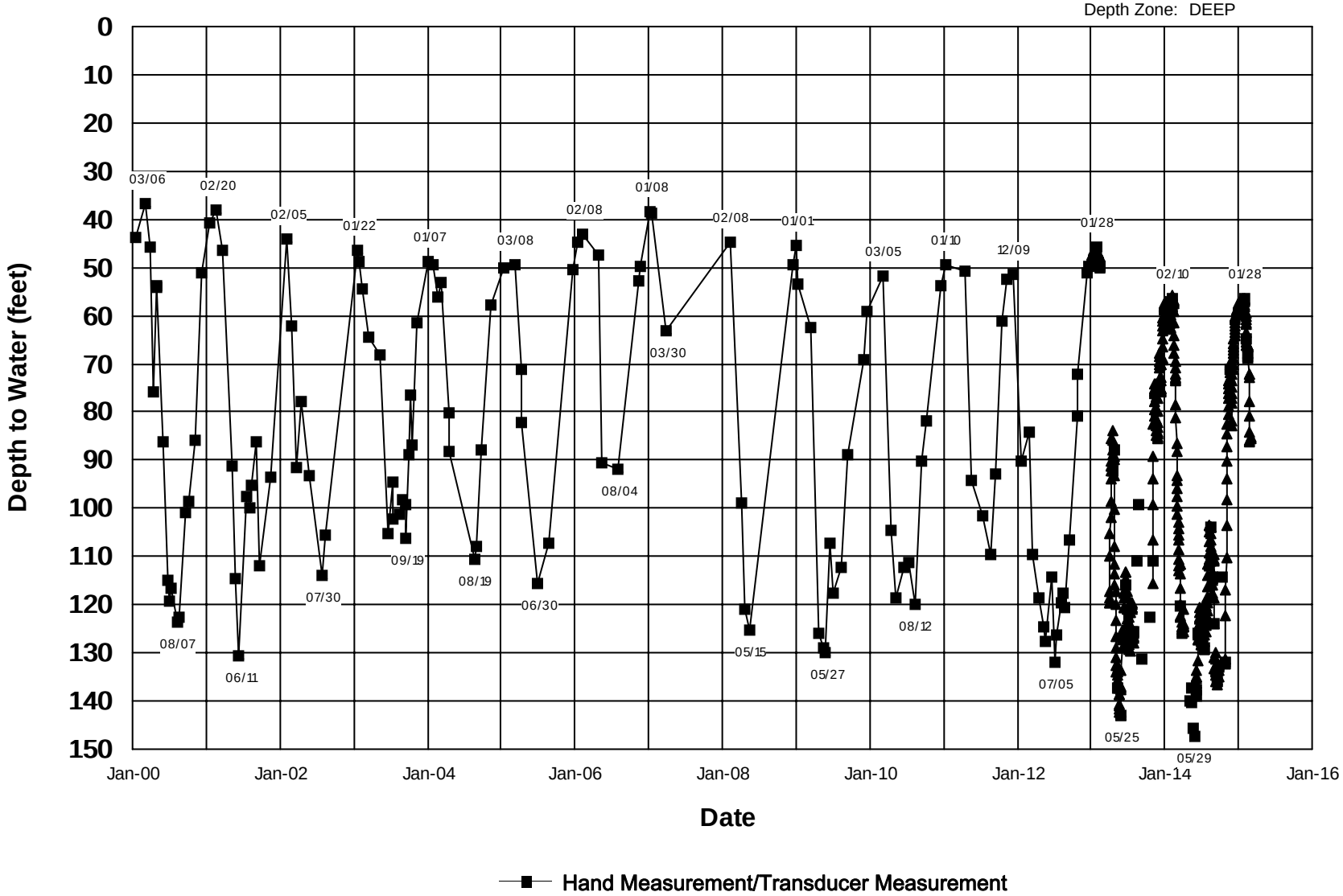


Thursday, July 16, 2015

Mendota Area Hydrograph

Yearout Ranch Extensometer: T13S/R15E-35D5

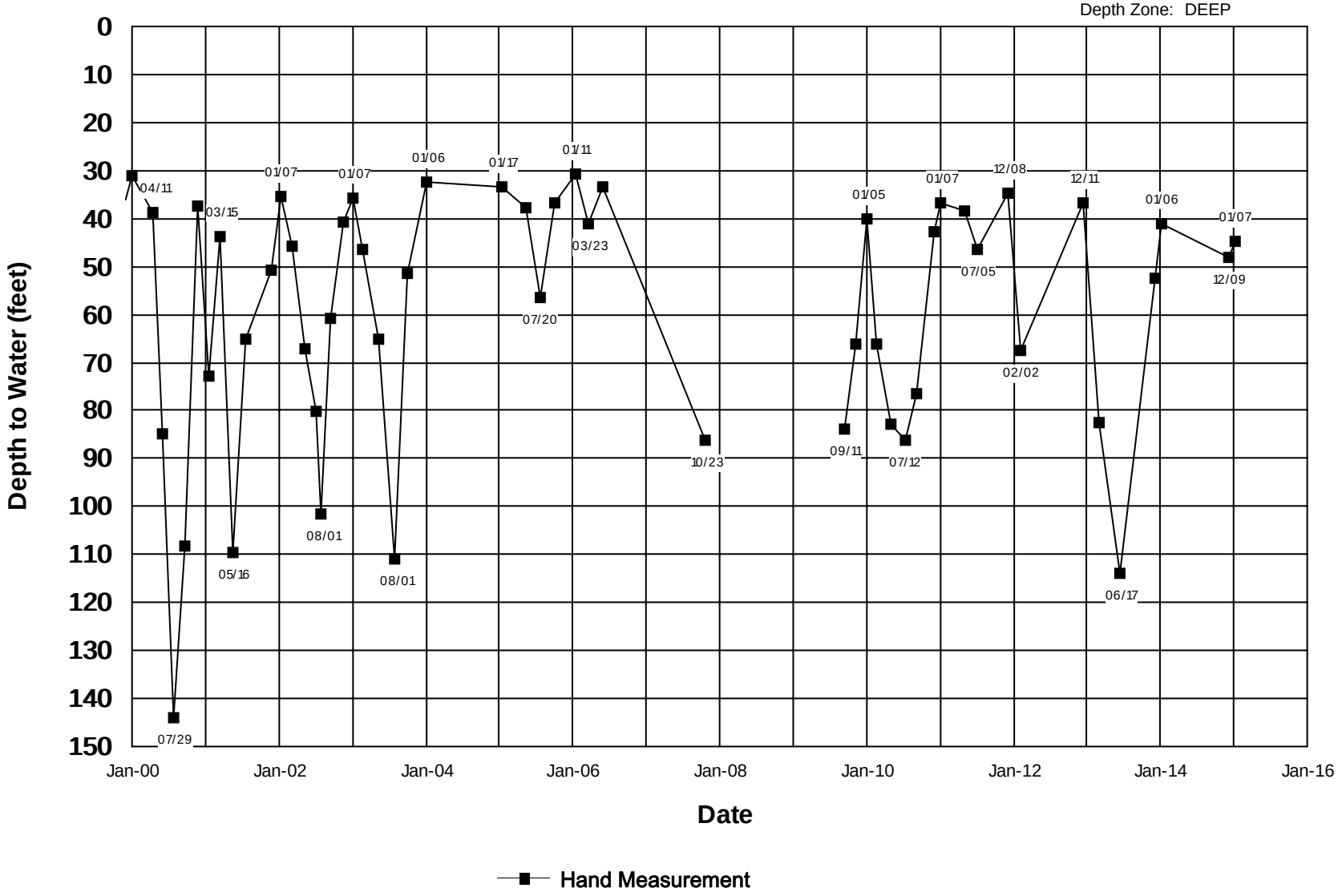
Reference Elevation: 169 feet NAVD88
Perforated Interval: 373 - 433 feet
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Fordel M-1

Reference Elevation: 162 feet NAVD88
Perforated Interval: 200 - 300 feet
Depth Zone: DEEP

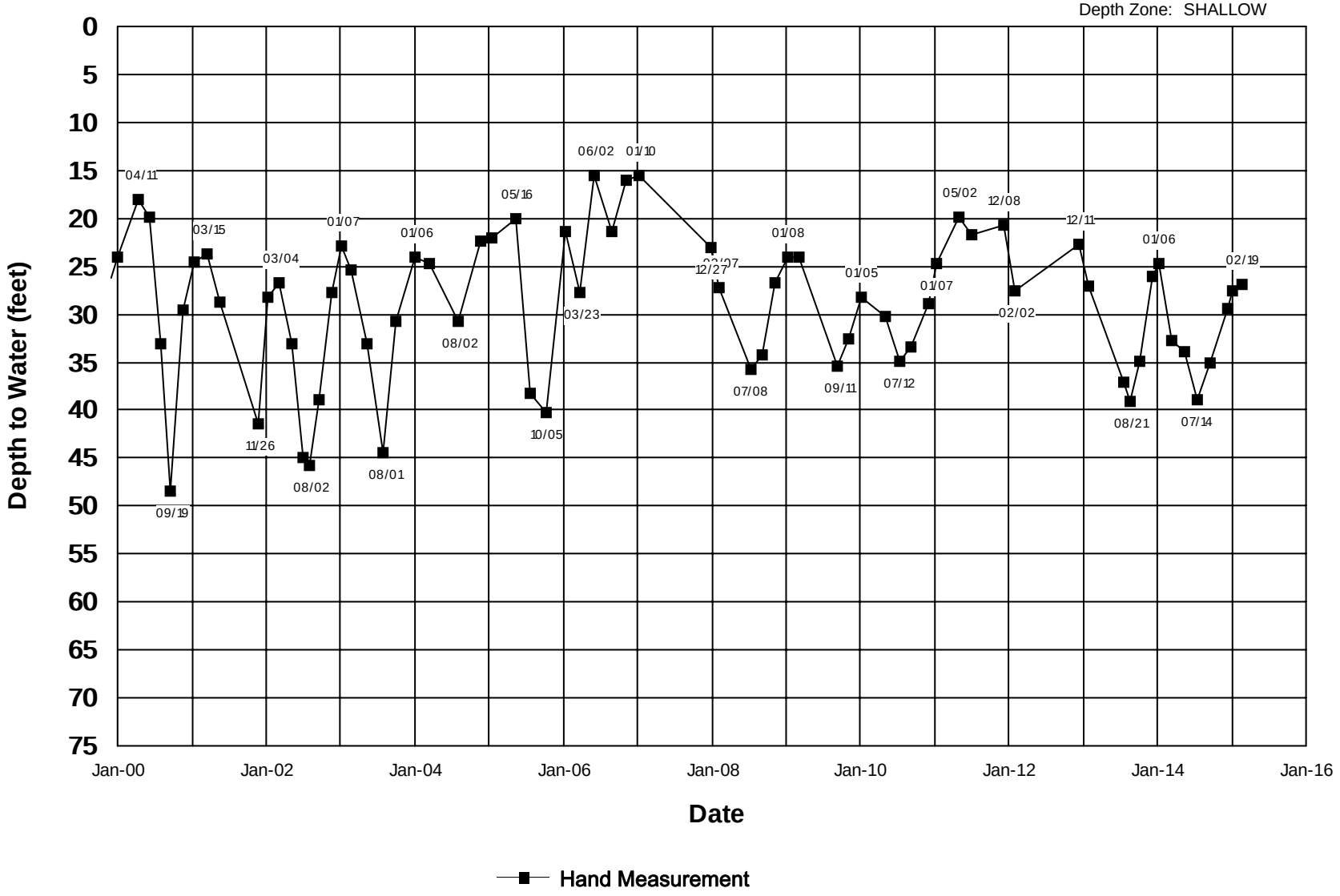


Thursday, July 16, 2015

Mendota Pool Group Hydrograph

Fordel M-2

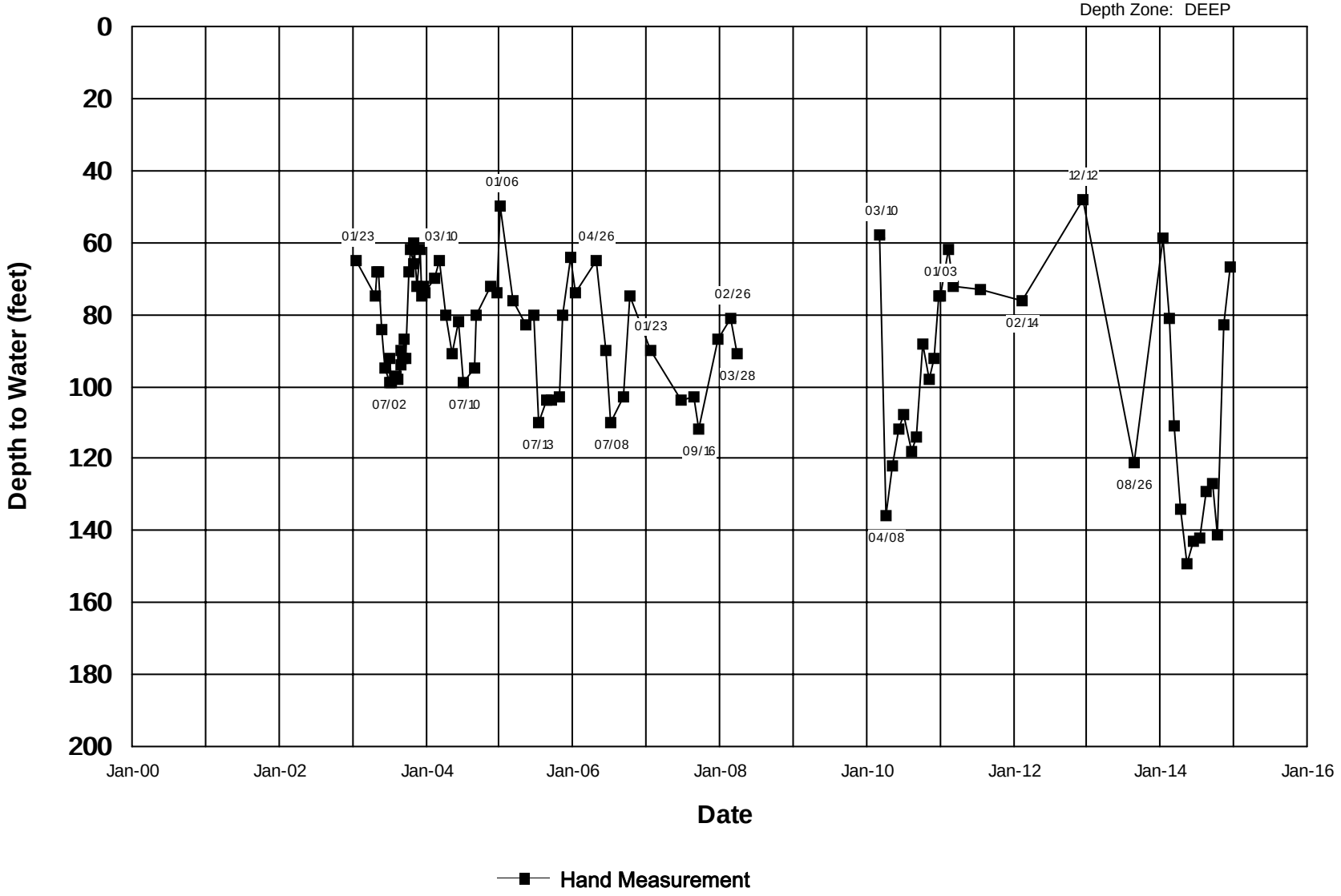
Reference Elevation: 161.45 feet NAVD88
Perforated Interval: 50 - 100 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

City of Mendota Well No. 7

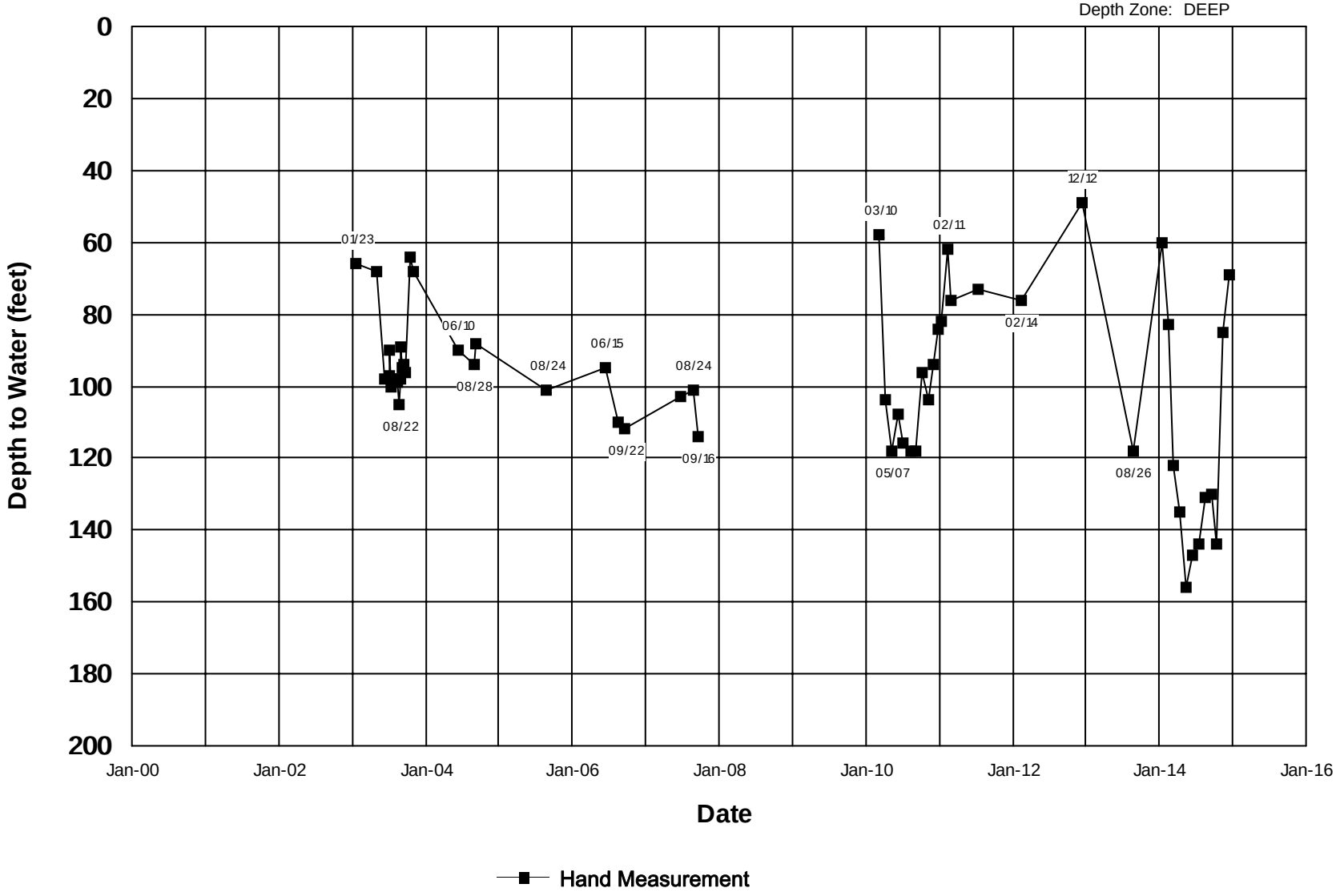
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

City of Mendota Well No. 8

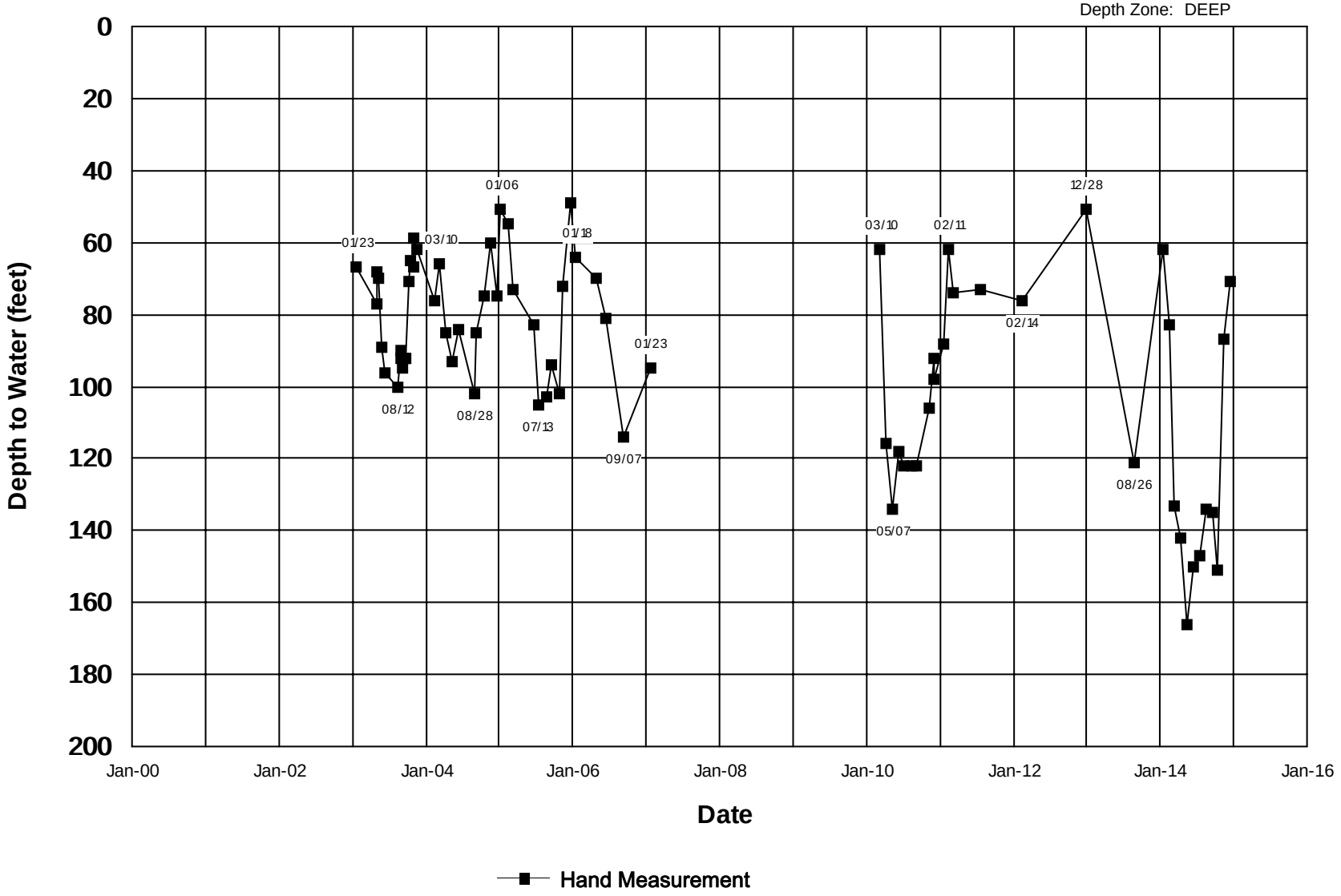
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

City of Mendota Well No. 9

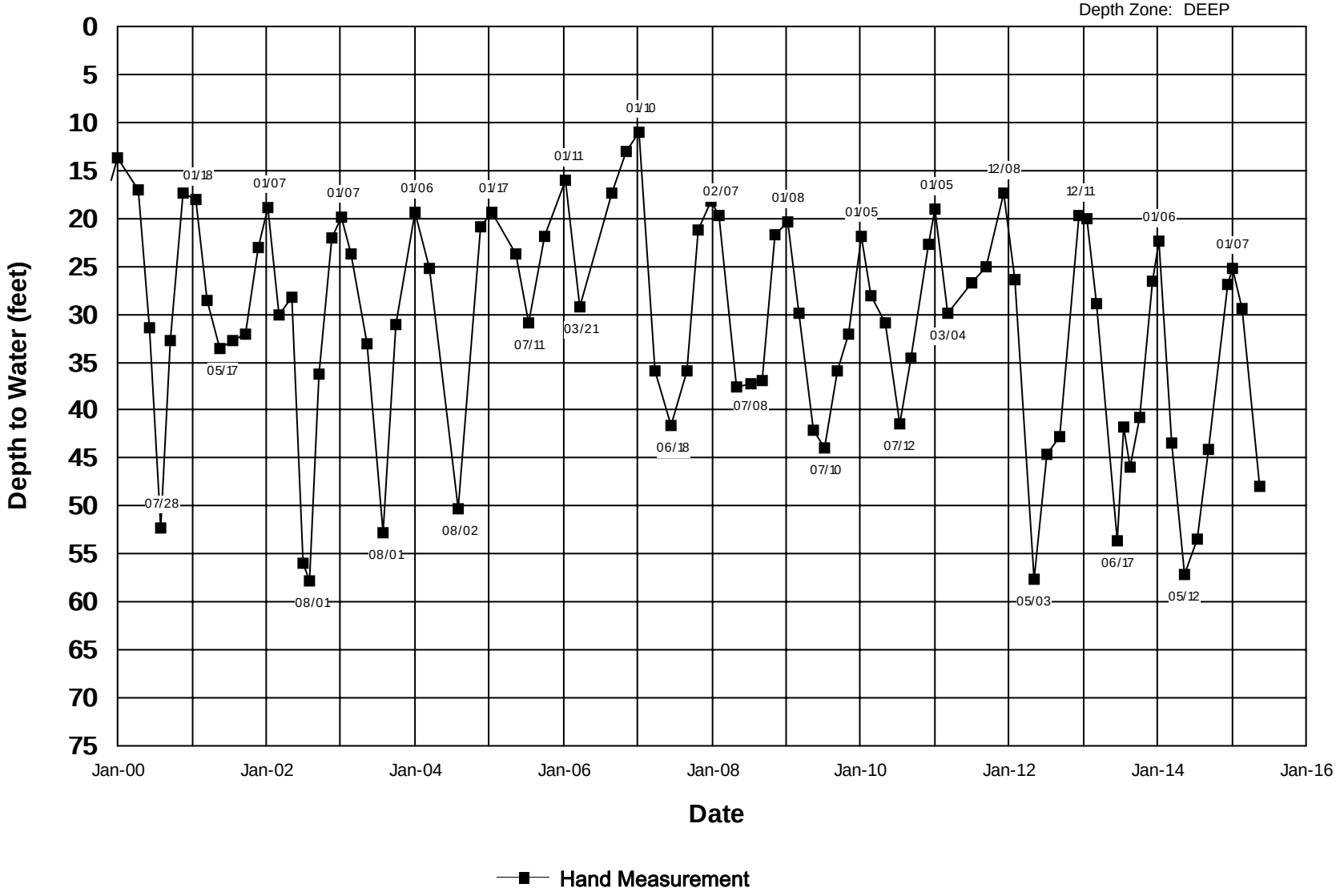
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

City of Mendota Well 18Q & 18Q North

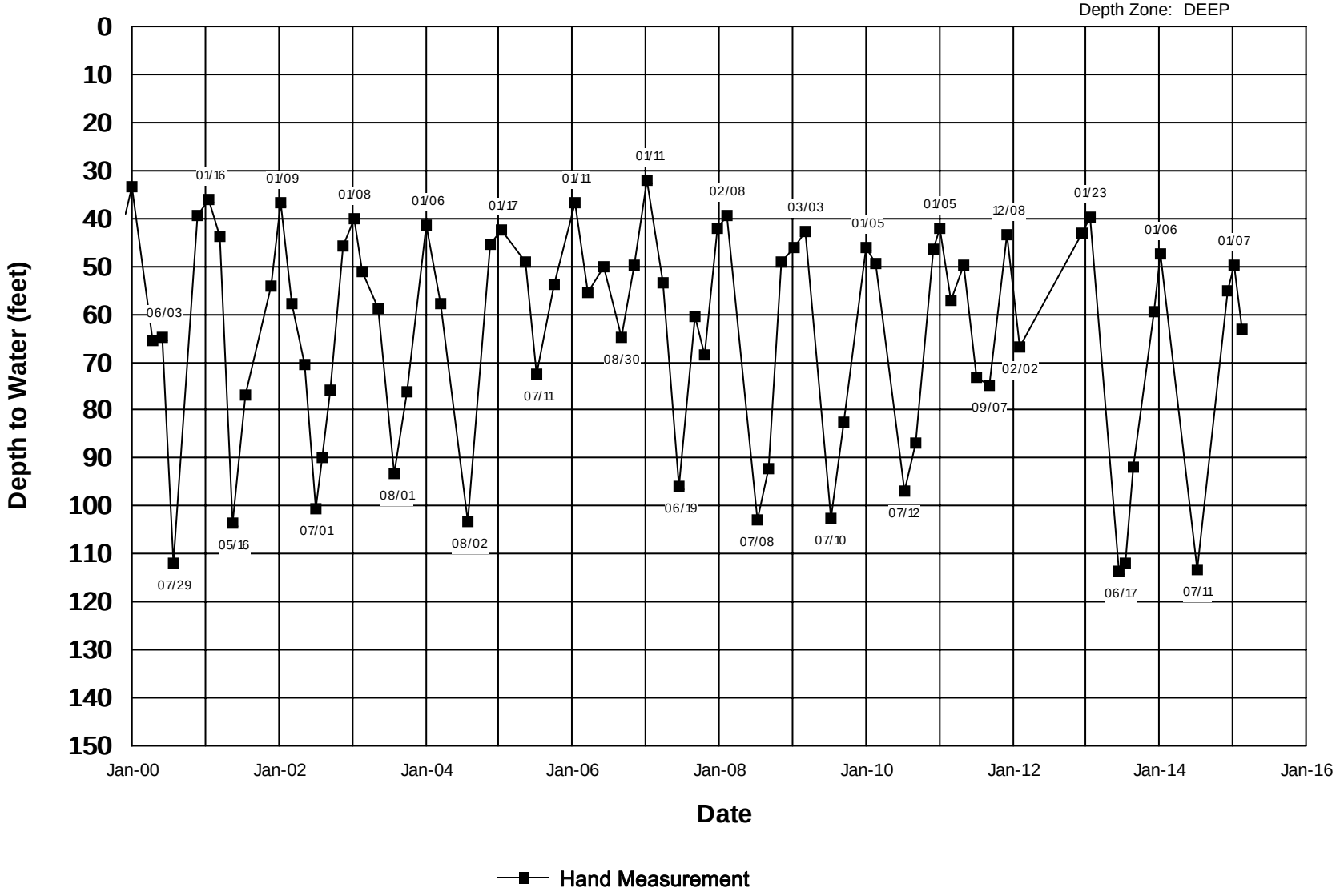
Reference Elevation: NA
Perforated Interval: 132 - 252 feet
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Panoche Creek Farms PCF-1

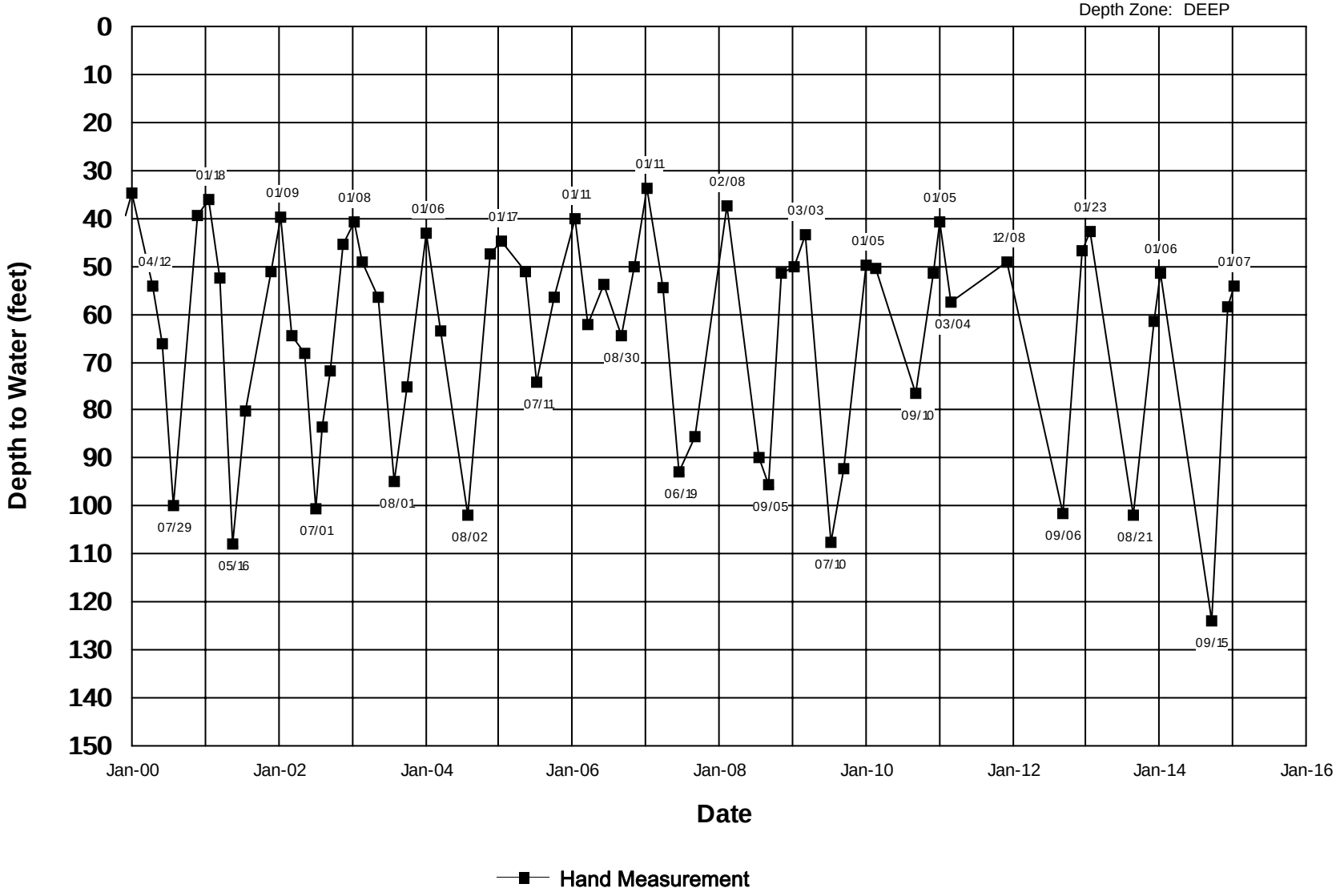
Reference Elevation: 157.734 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Baker Farming BF-2

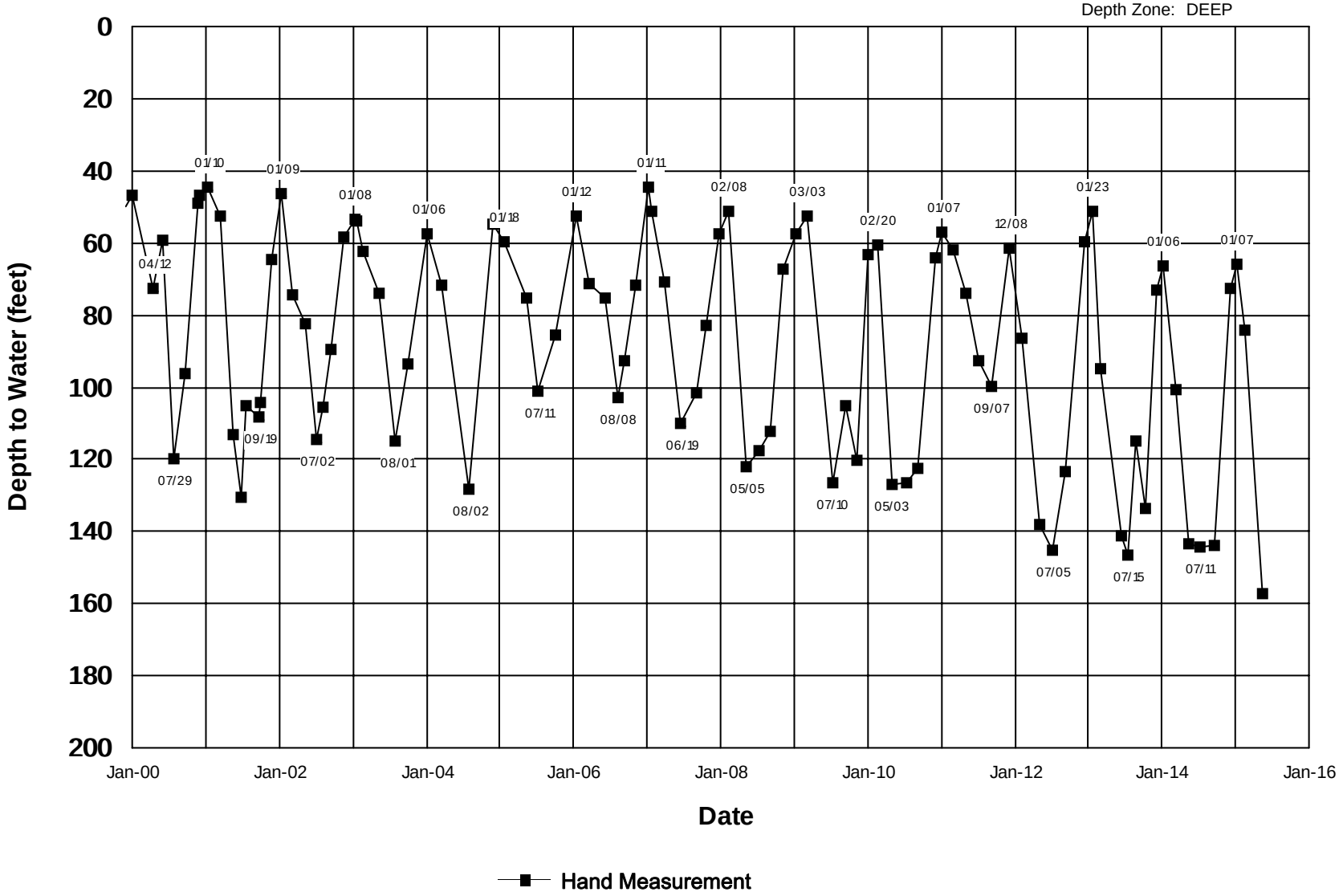
Reference Elevation: 159.97 feet NAVD88
Perforated Interval: 140 - 420 feet
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Farmers WD R-5

Reference Elevation: 164.11 feet NAVD88
Perforated Interval: 180 - 322 feet
Depth Zone: DEEP

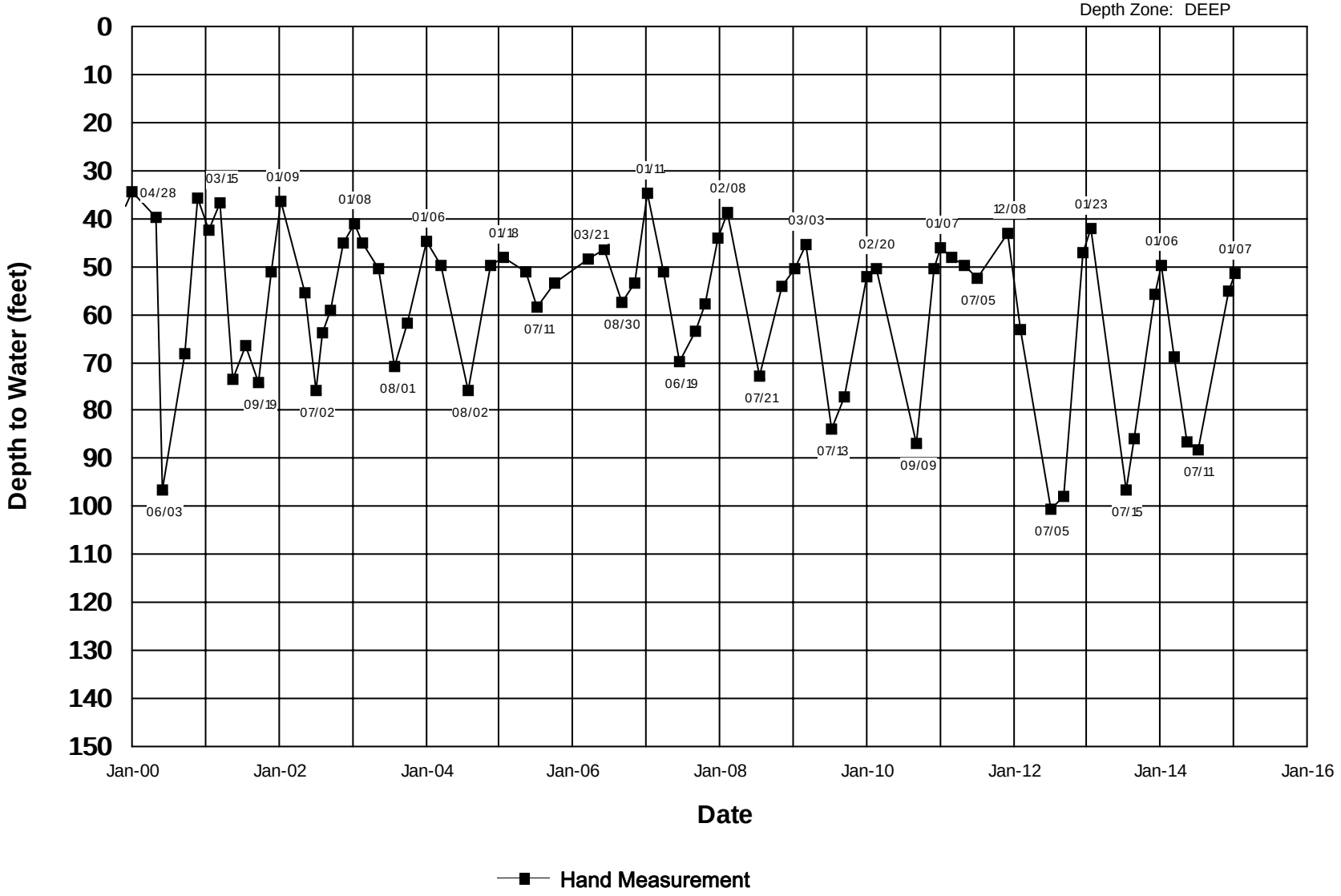


Thursday, July 16, 2015

Mendota Pool Group Hydrograph

Farmers WD R-7

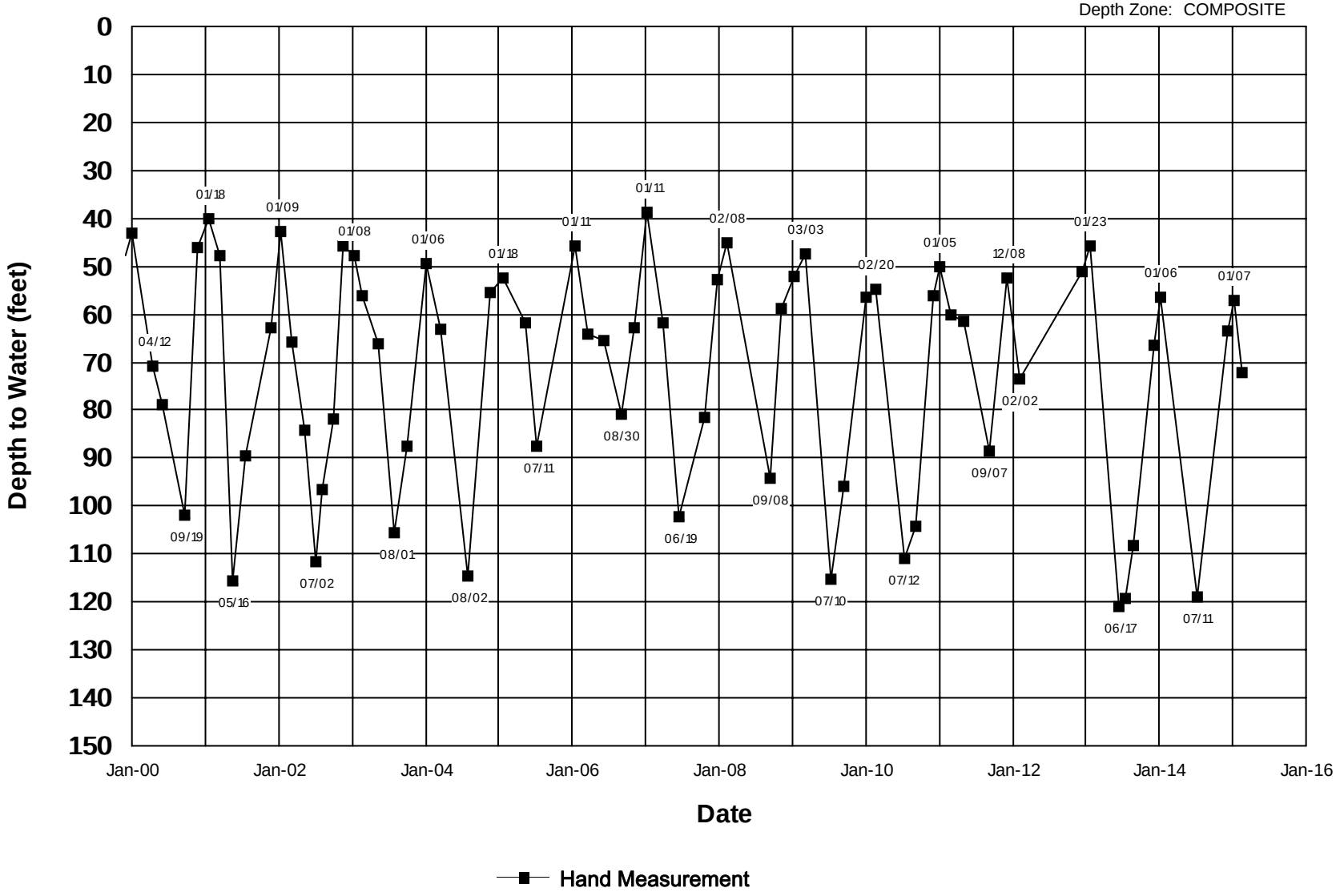
Reference Elevation: 162.73 feet NAVD88
Perforated Interval: 100 - 400 feet
Depth Zone: DEEP



Mendota Pool Group Hydrograph

Farmers WD R-8

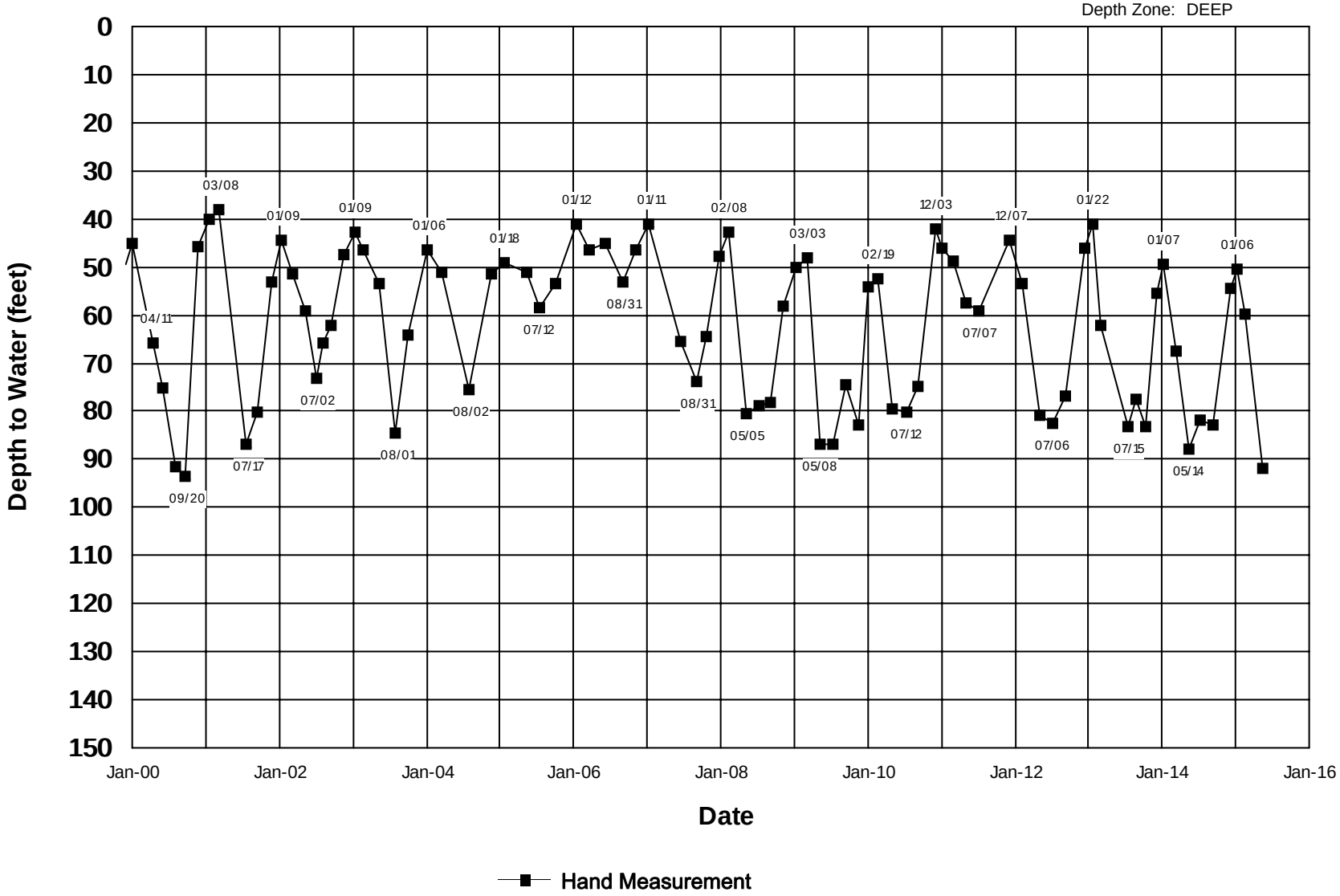
Reference Elevation: 161.84 feet NAVD88
Perforated Interval: 120 - 480 feet
Depth Zone: COMPOSITE



Mendota Pool Group Hydrograph

Farmers WD WL-2

Reference Elevation: 173 feet NAVD88
Perforated Interval: 101 - 242 feet
Depth Zone: DEEP

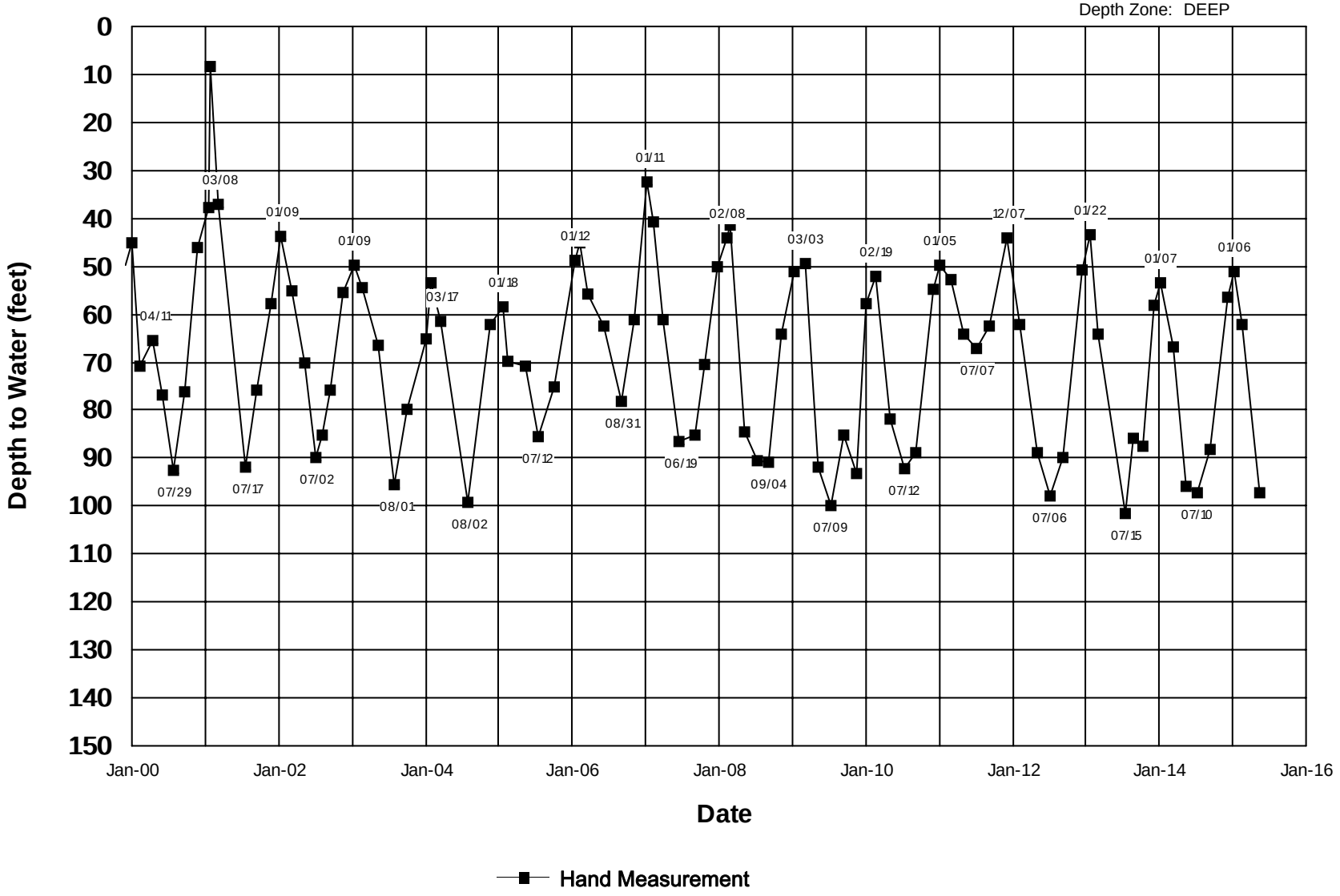


Thursday, July 16, 2015

Mendota Pool Group Hydrograph

Farmers WD EL-1

Reference Elevation: NA
Perforated Interval: 98 - 268 feet
Depth Zone: DEEP

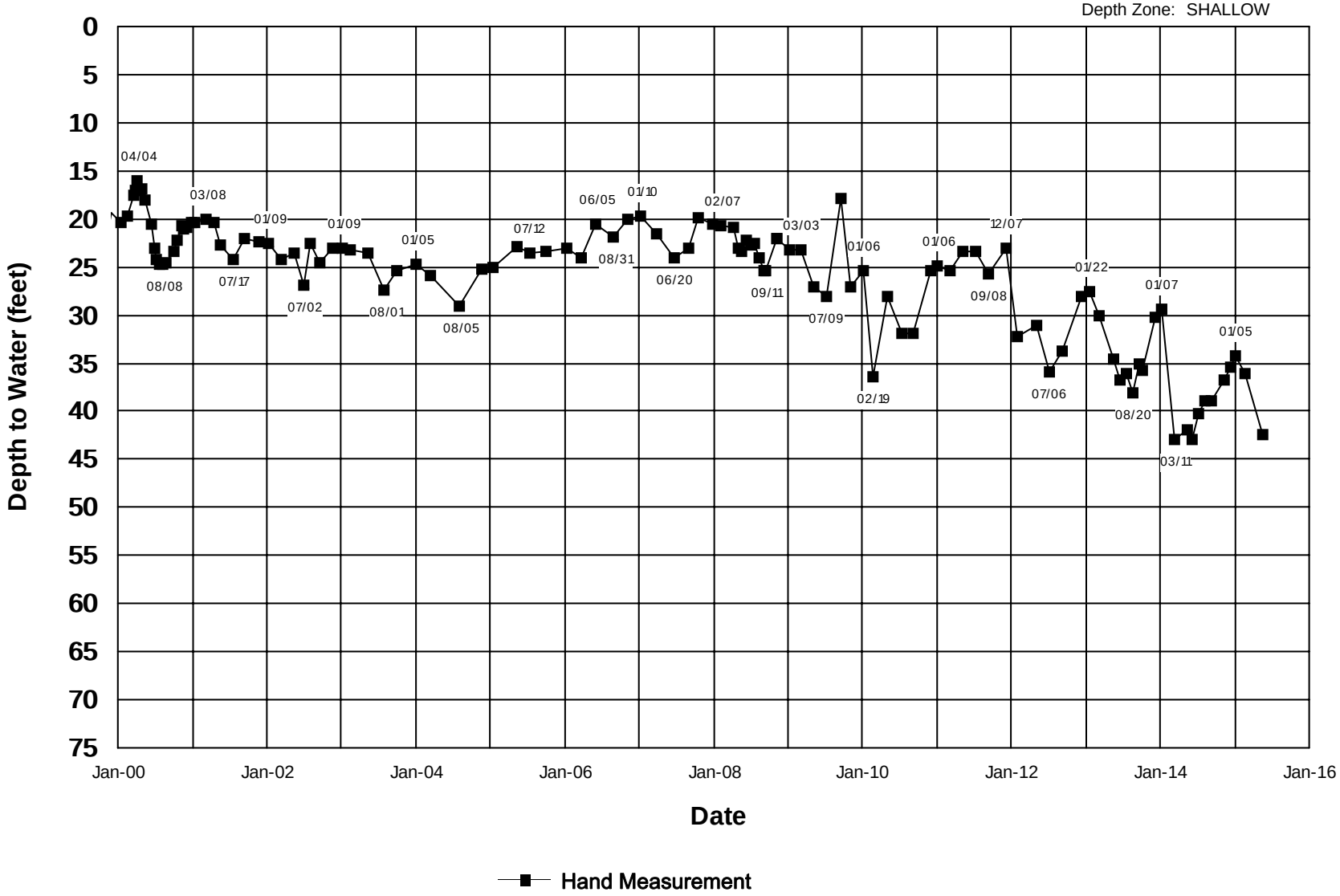


Thursday, July 16, 2015

Mendota Area Hydrograph

Columbia Canal Company Well Lopes-Obs.

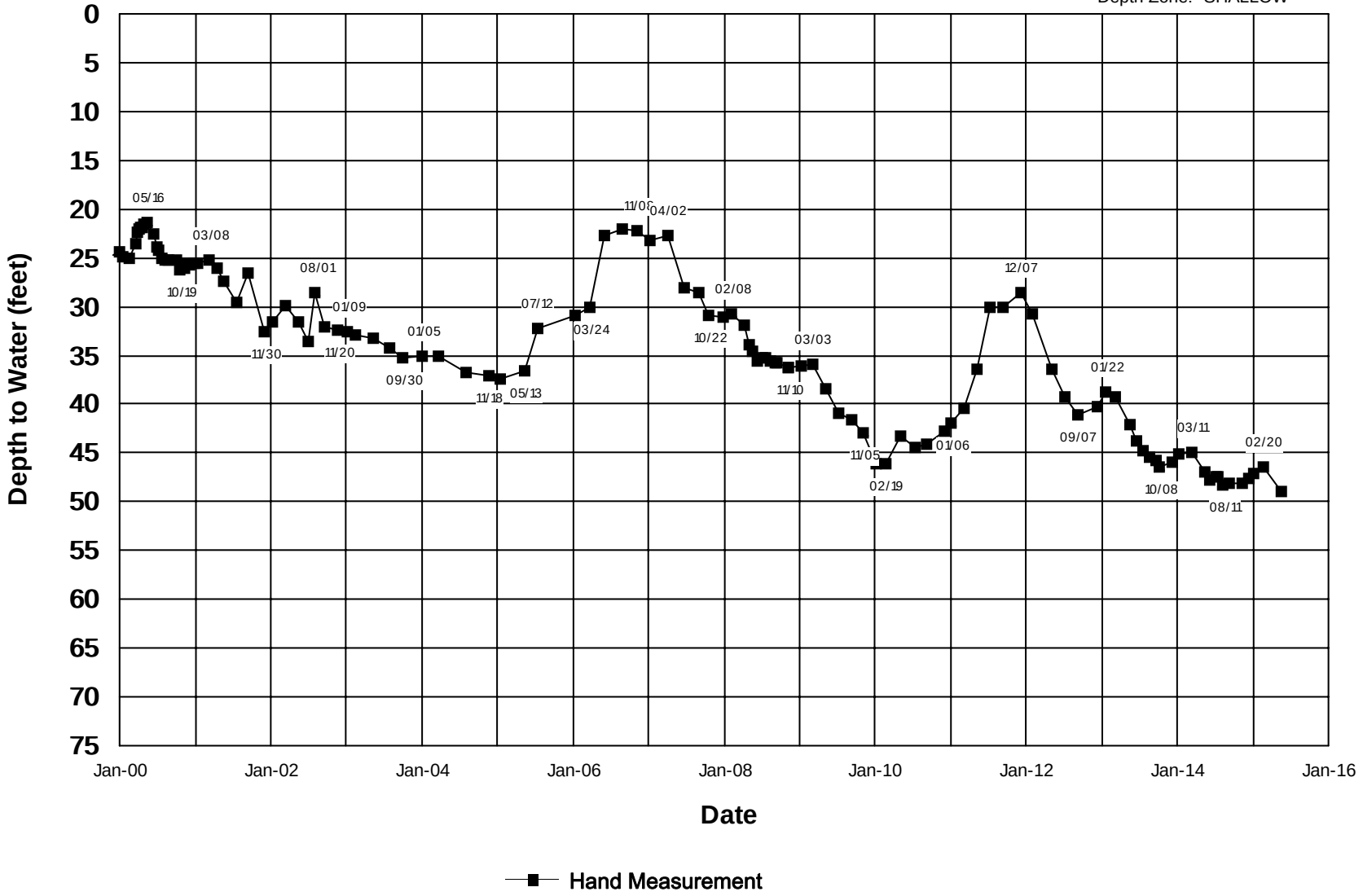
Reference Elevation: 164 feet NAVD88
Perforated Interval: 80 - 100 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Columbia Canal Company Well USBR-4

Reference Elevation: 167.95 feet NAVD88
Perforated Interval: 60 - 100 feet
Depth Zone: SHALLOW

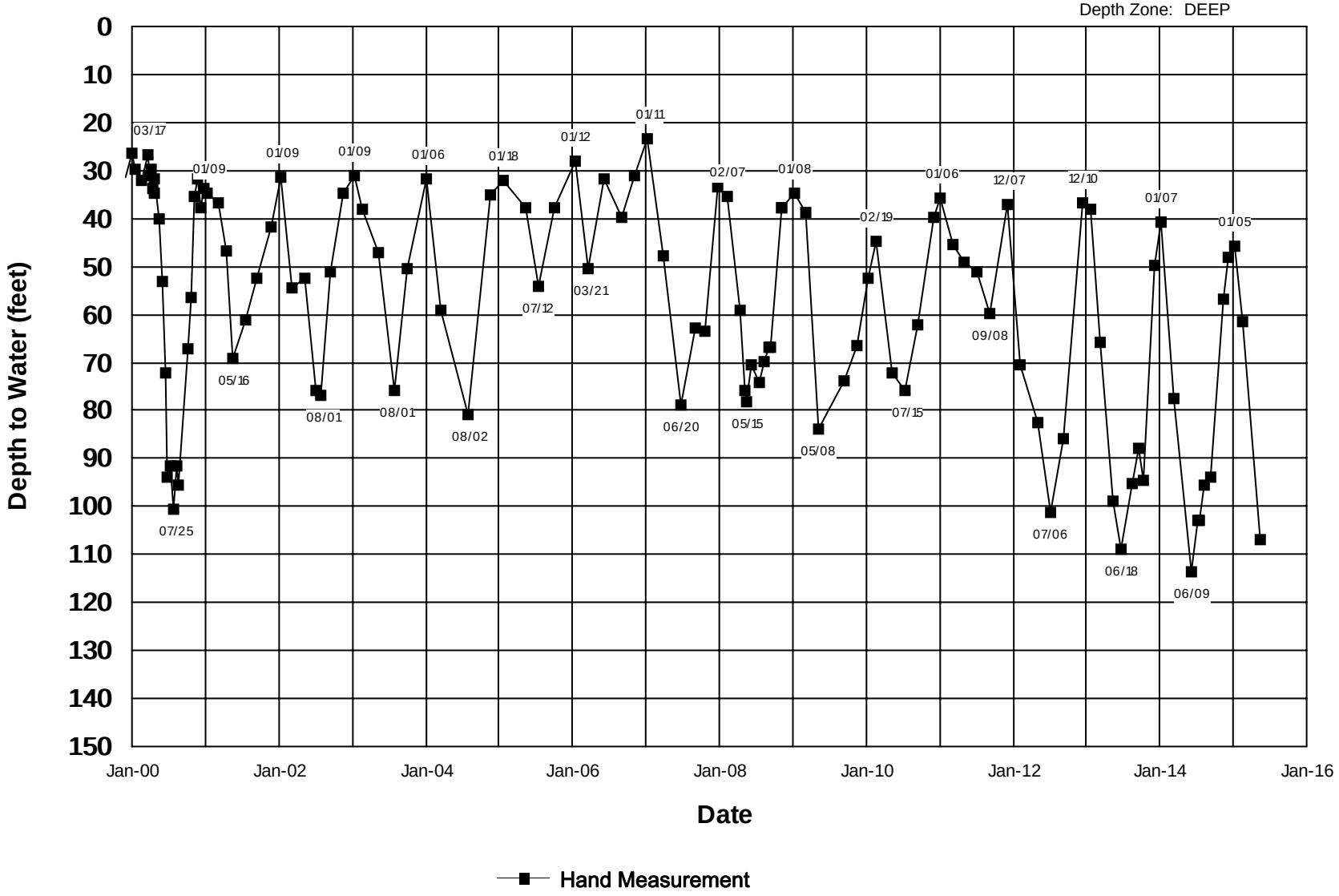


Thursday, July 16, 2015

Mendota Area Hydrograph

Columbia Canal Company MLT-West Well

Reference Elevation: 159.6 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP

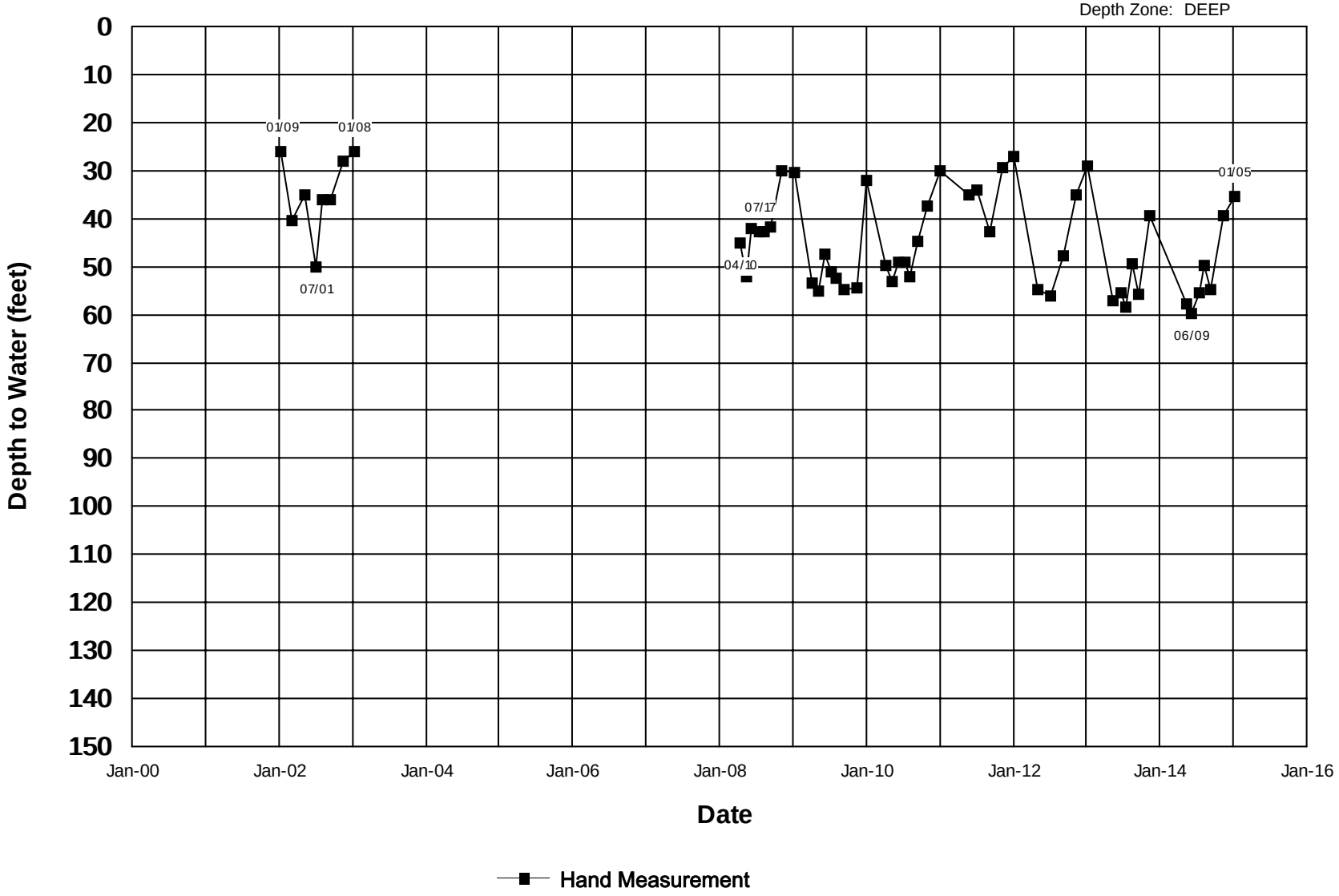


Thursday, July 16, 2015

Mendota Area Hydrograph

Mowry River Well No. T13S/R15E-21

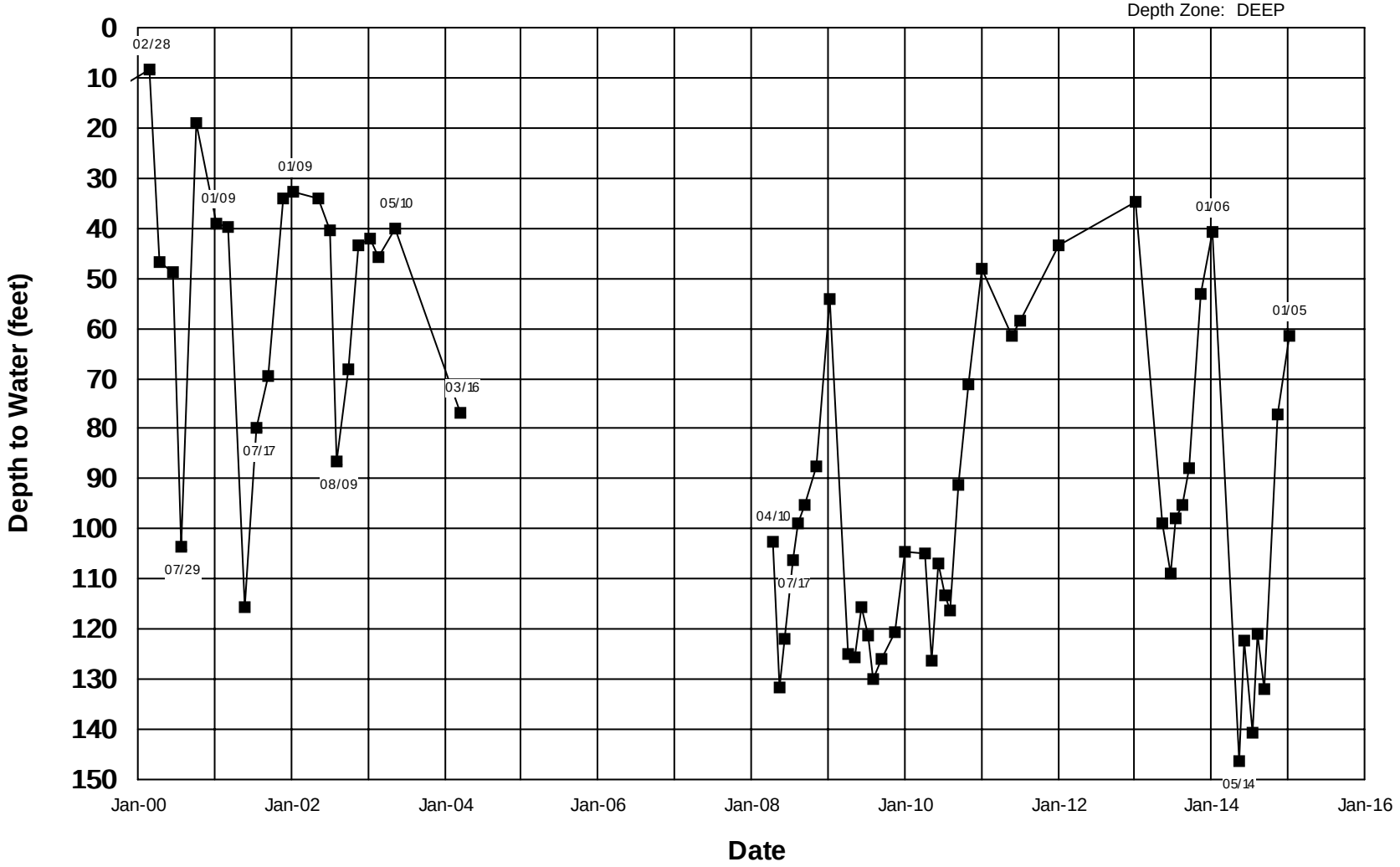
Reference Elevation: NA
Perforated Interval: 240 - 440 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Mowry Diesel Well No. T13S/R15E-21K1

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP

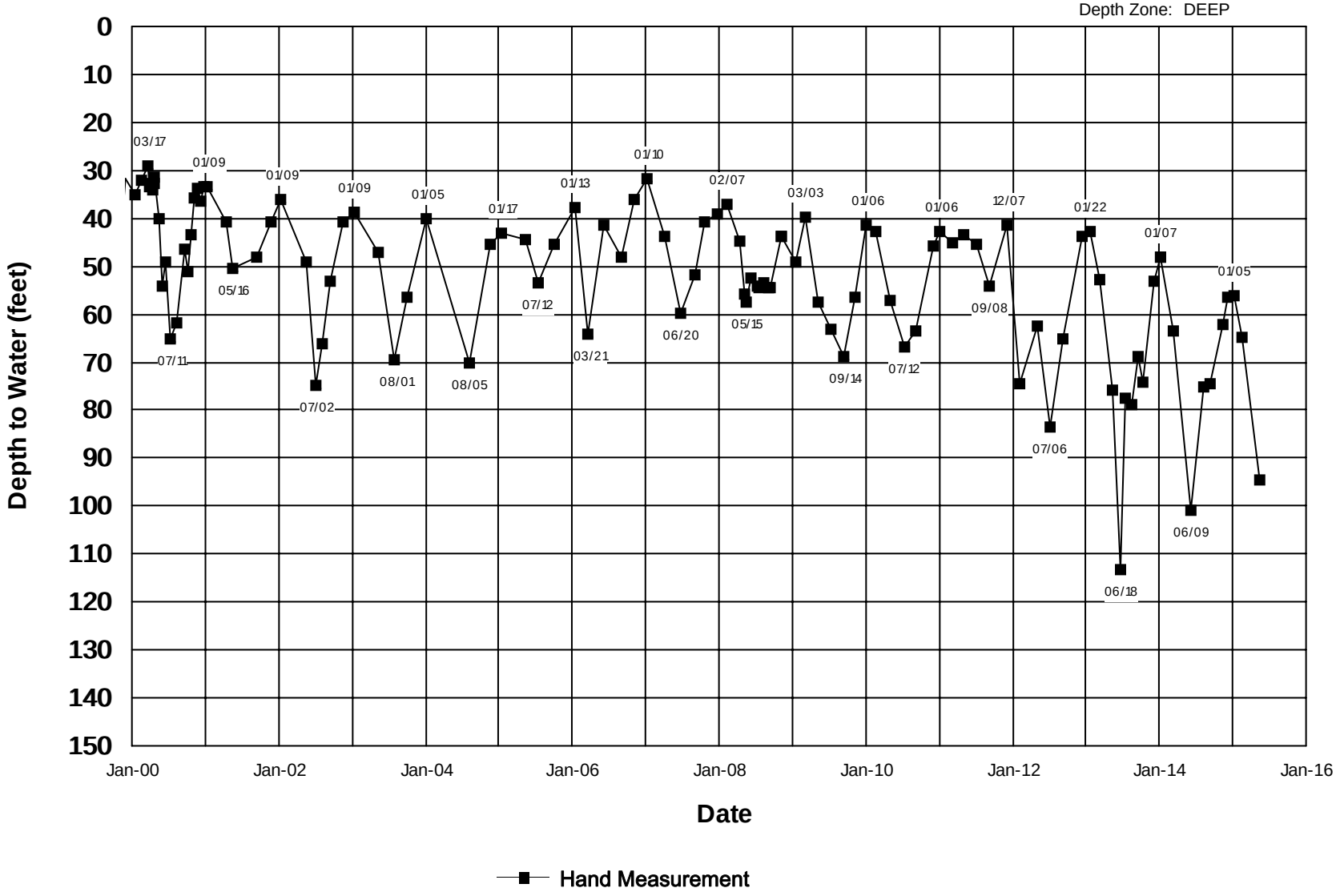


Hand Measurement (Adjusted for oil)

Mendota Area Hydrograph

Wonderful Orchards Well 3421-61 (Card-1)

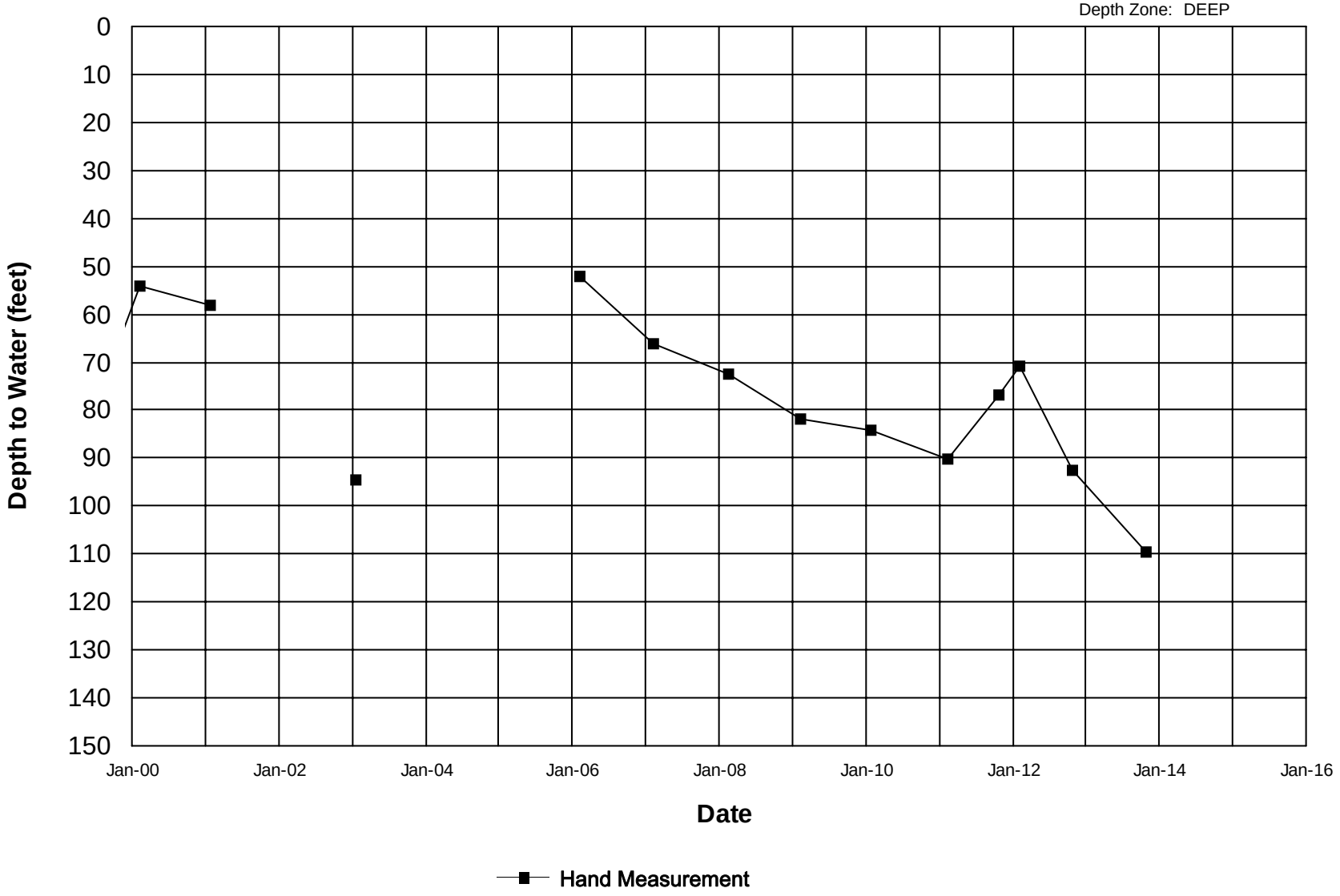
Reference Elevation: 163 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards 3591-63 (W-7)

Reference Elevation: 167.36 feet NAVD88
Perforated Interval: 170 - 276 feet
Depth Zone: DEEP

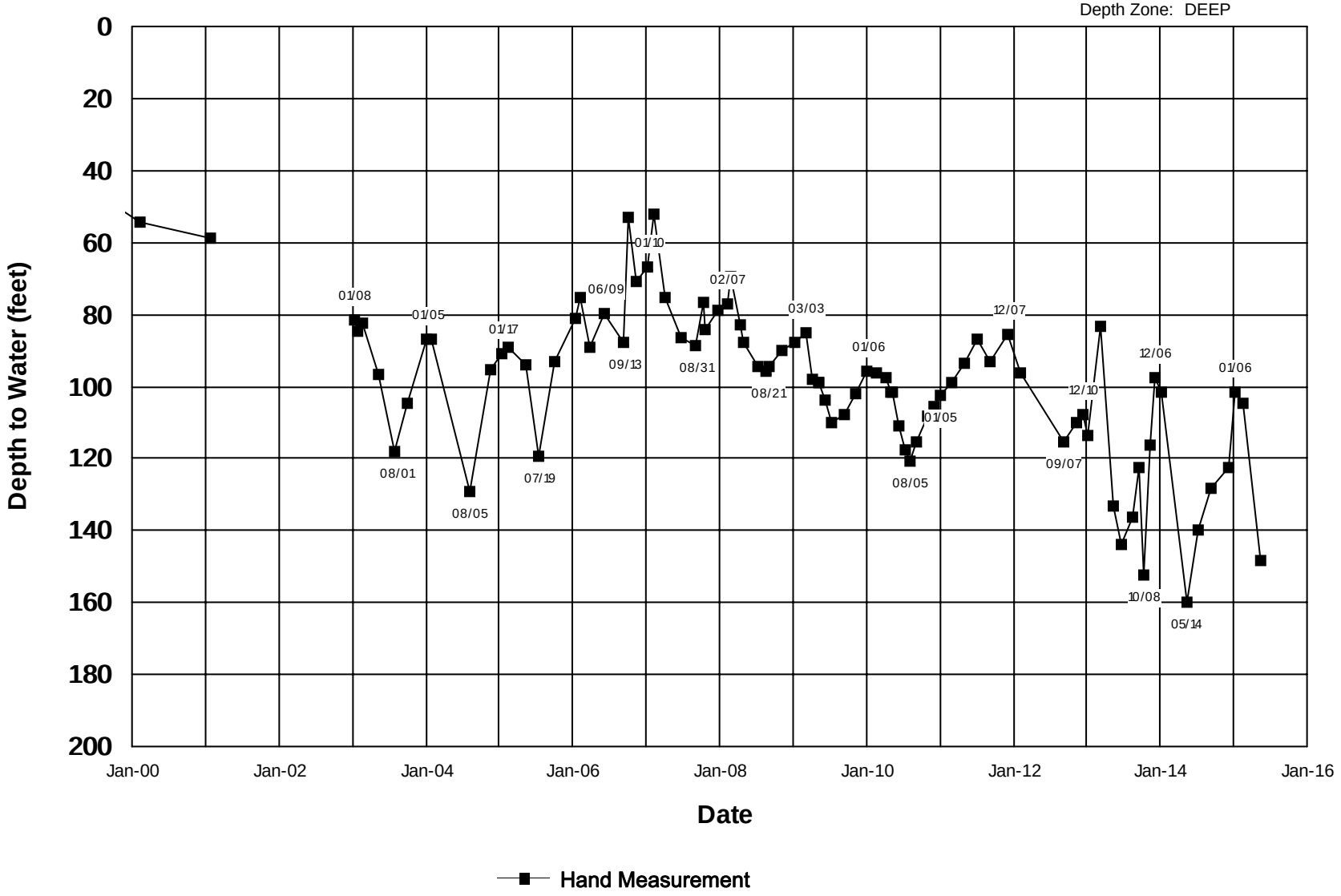


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3311-62 (W-8)

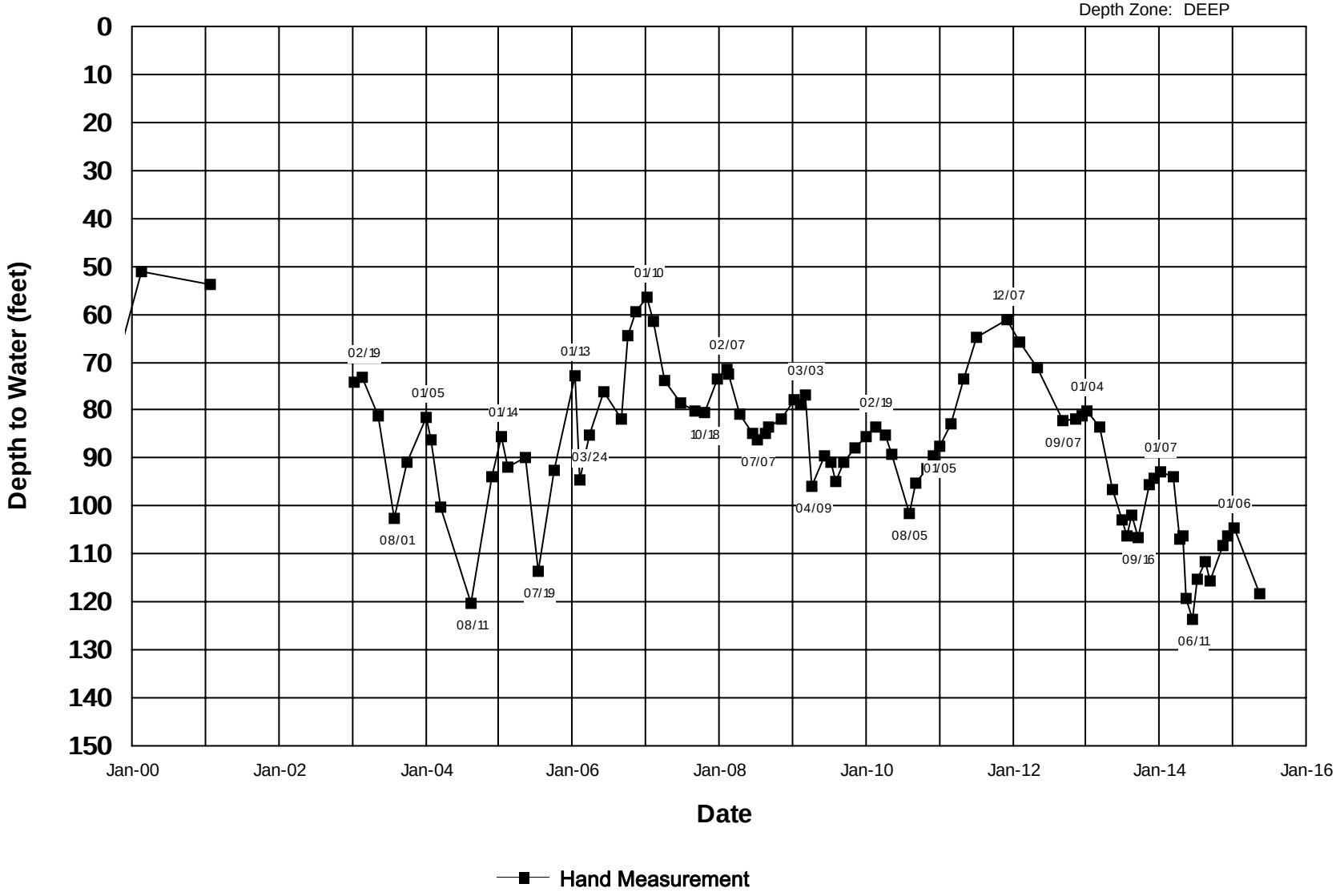
Reference Elevation: 168 feet NAVD88
Perforated Interval: 198 - 312 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards 3591-66 (W-11)

Reference Elevation: 169 feet NAVD88
Perforated Interval: 180 - 280 feet
Depth Zone: DEEP

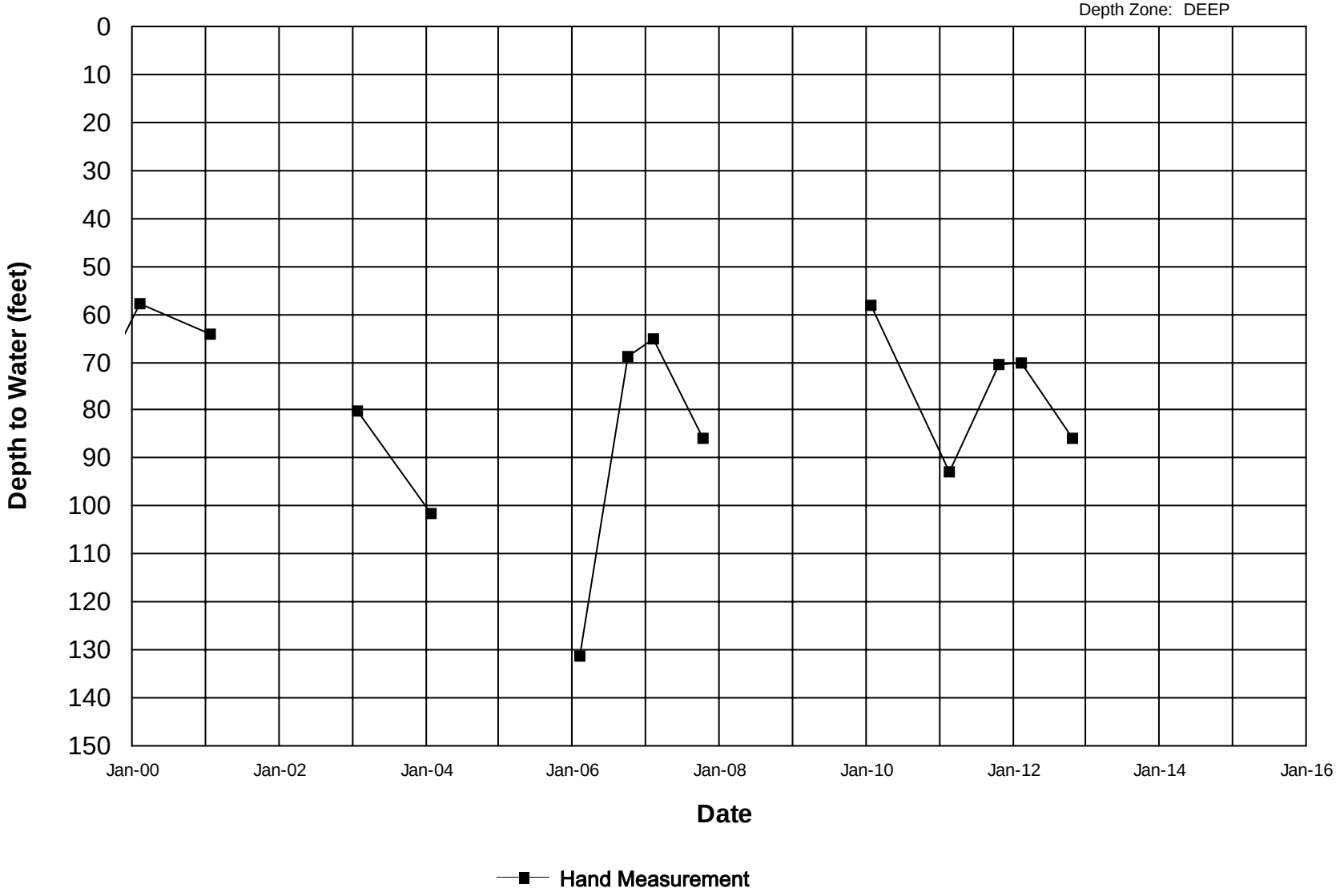


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3311-63 (W-12)

Reference Elevation: 167.86 feet NAVD88
Perforated Interval: 188 - 262 feet
Depth Zone: DEEP

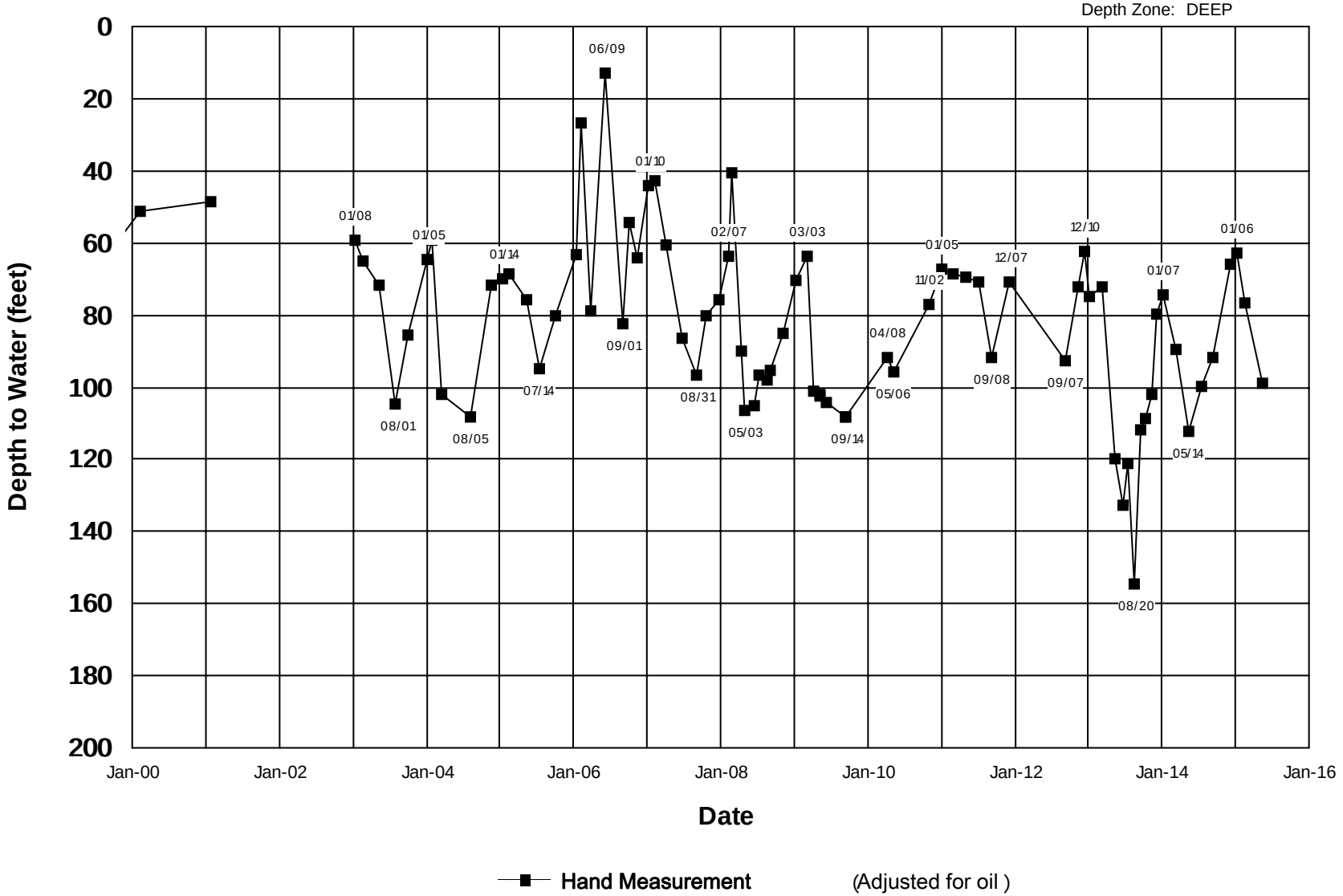


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3211-66 (W-15)

Reference Elevation: 164 feet NAVD88
Perforated Interval: 180 - 300 feet
Depth Zone: DEEP

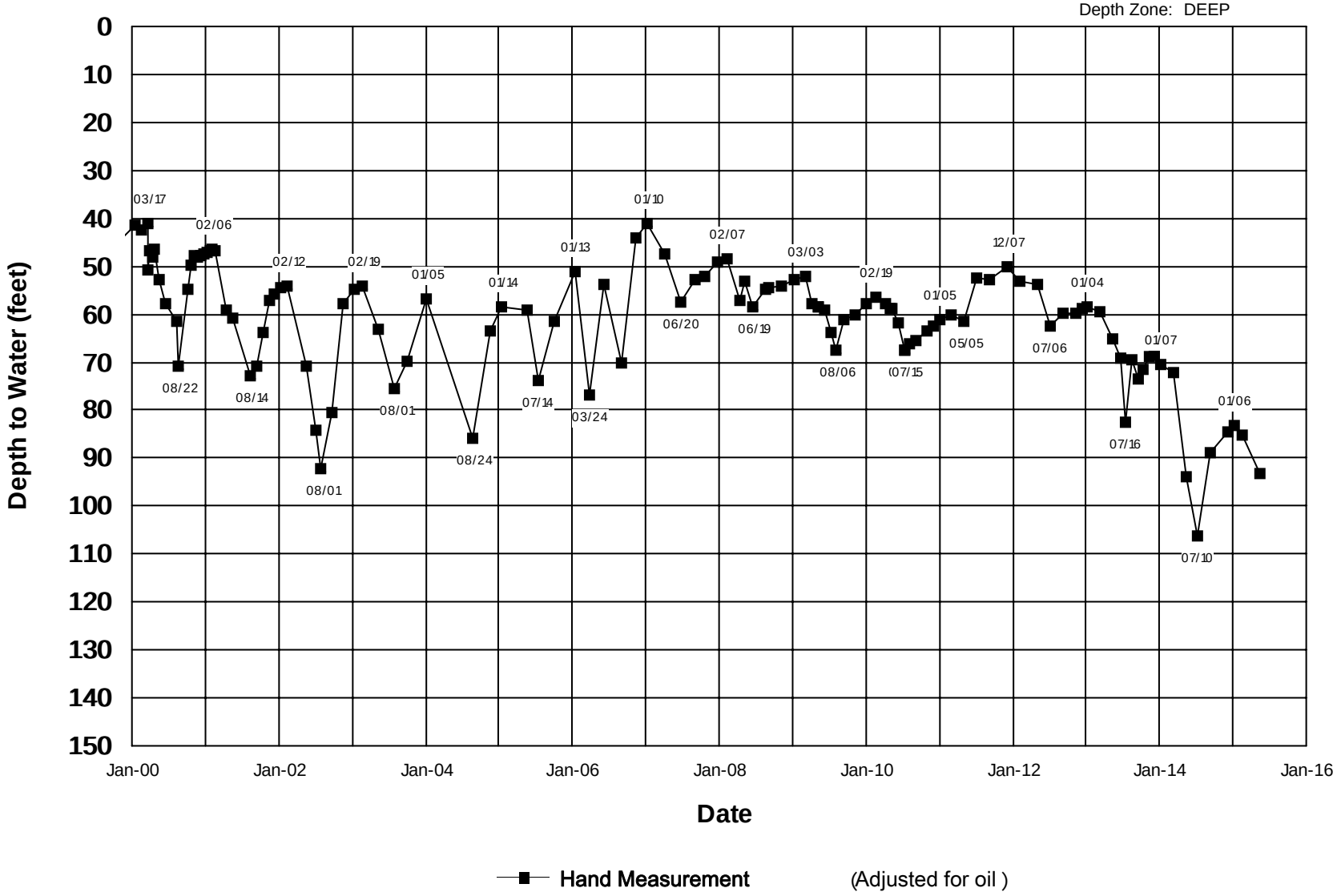


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3431-61 (W-32)

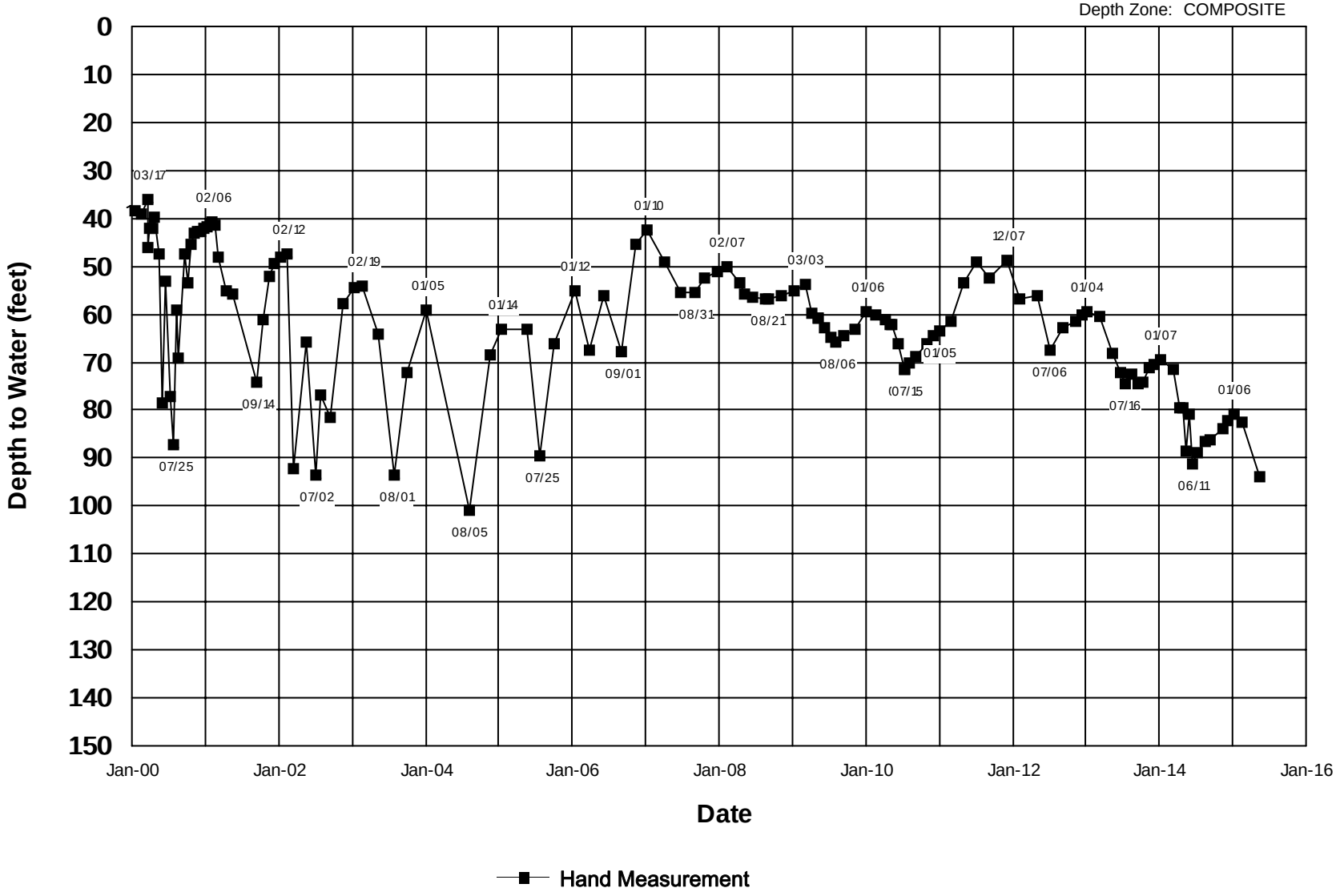
Reference Elevation: 162 feet NAVD88
Perforated Interval: 170 - 300 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards 2480-66 (W-42)

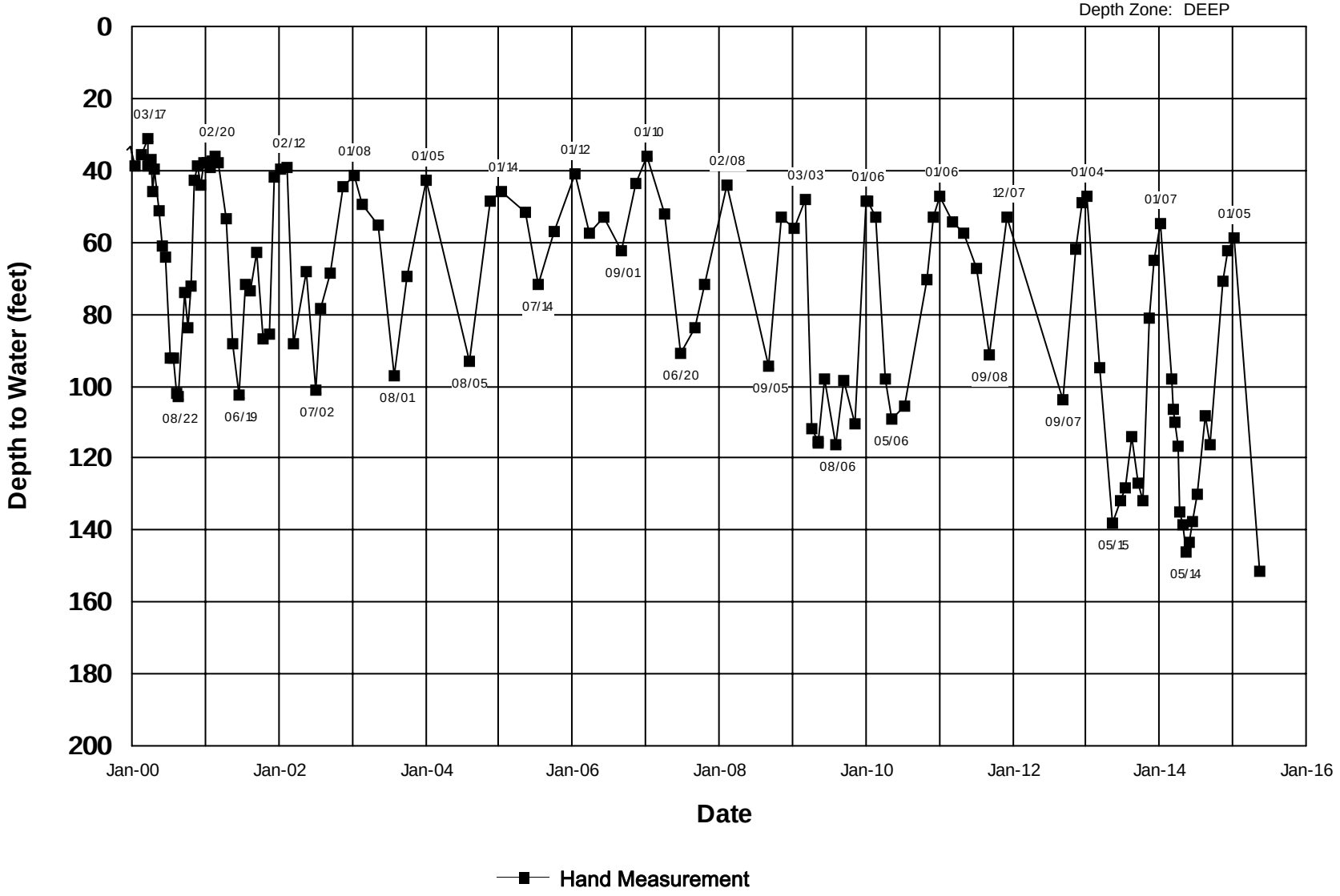
Reference Elevation: 160.75 feet NAVD88
Perforated Interval: 150 - 390 feet
Depth Zone: COMPOSITE



Mendota Area Hydrograph

Wonderful Orchards 3730-65 (W-53)

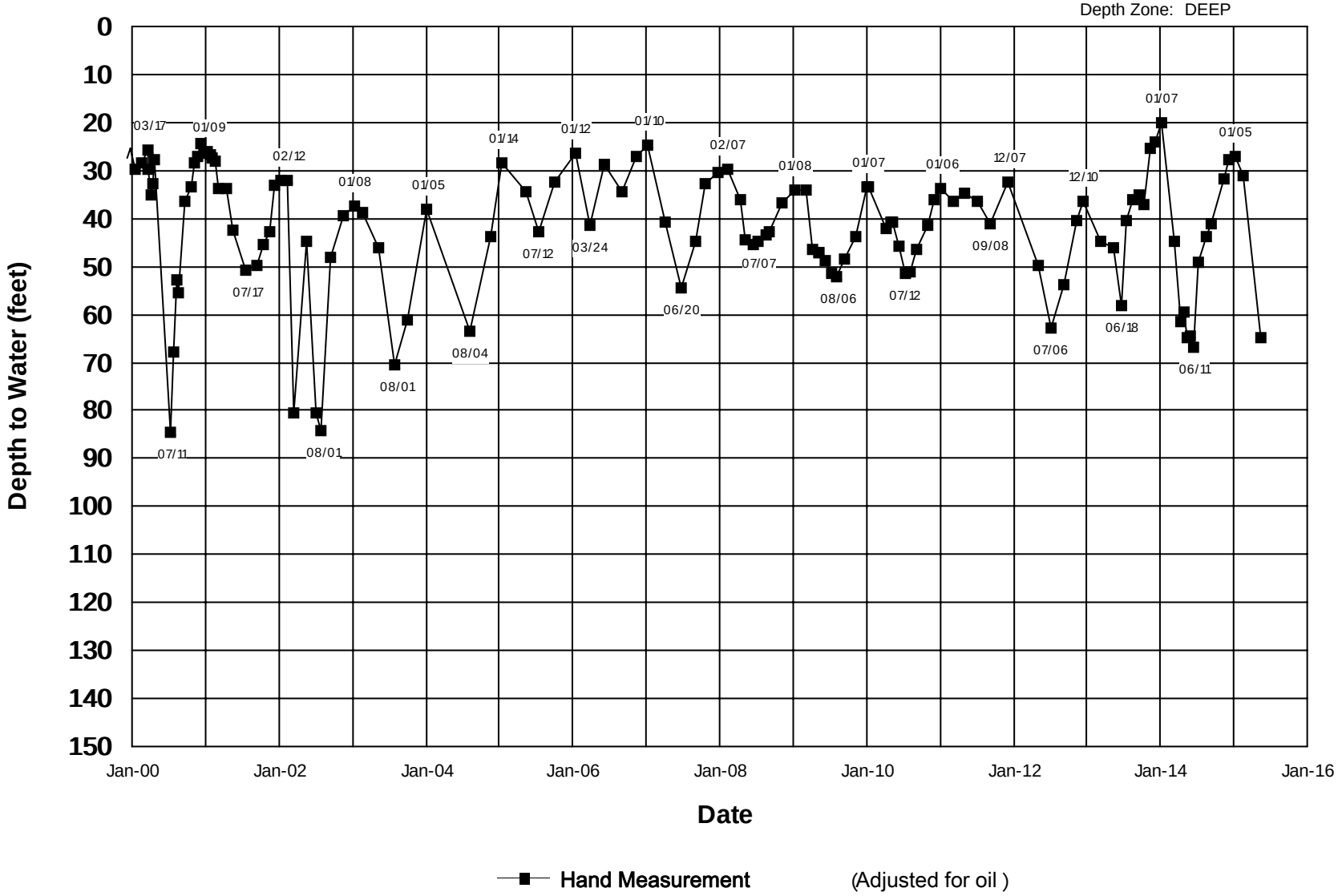
Reference Elevation: 164.36 feet NAVD88
Perforated Interval: 130 - 308 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards 3421-62 (W-74)

Reference Elevation: 158 feet NAVD88
Perforated Interval: 200 - 380 feet
Depth Zone: DEEP

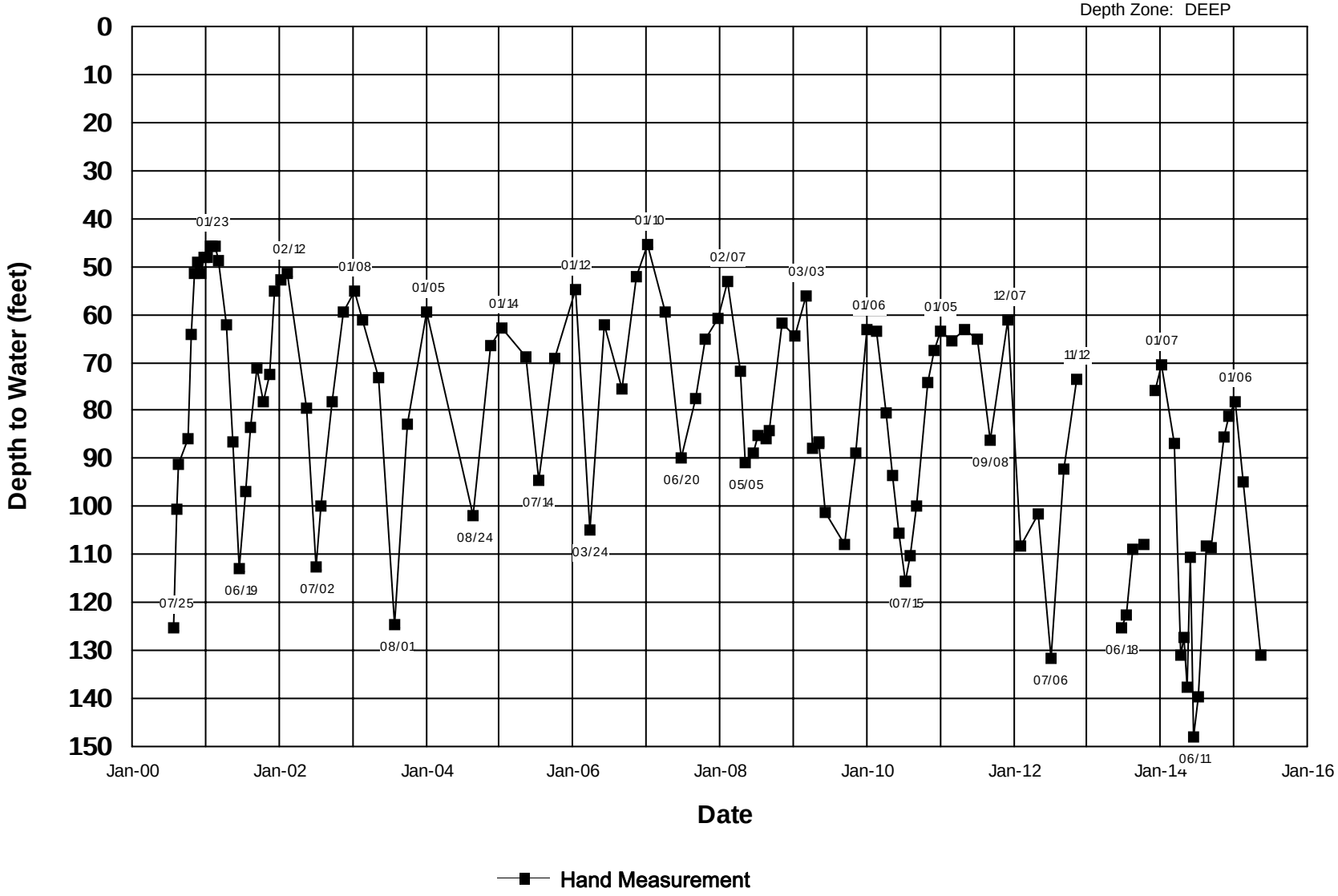


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3211-69 (W-77)

Reference Elevation: 166 feet NAVD88
Perforated Interval: 200 - 380 feet
Depth Zone: DEEP

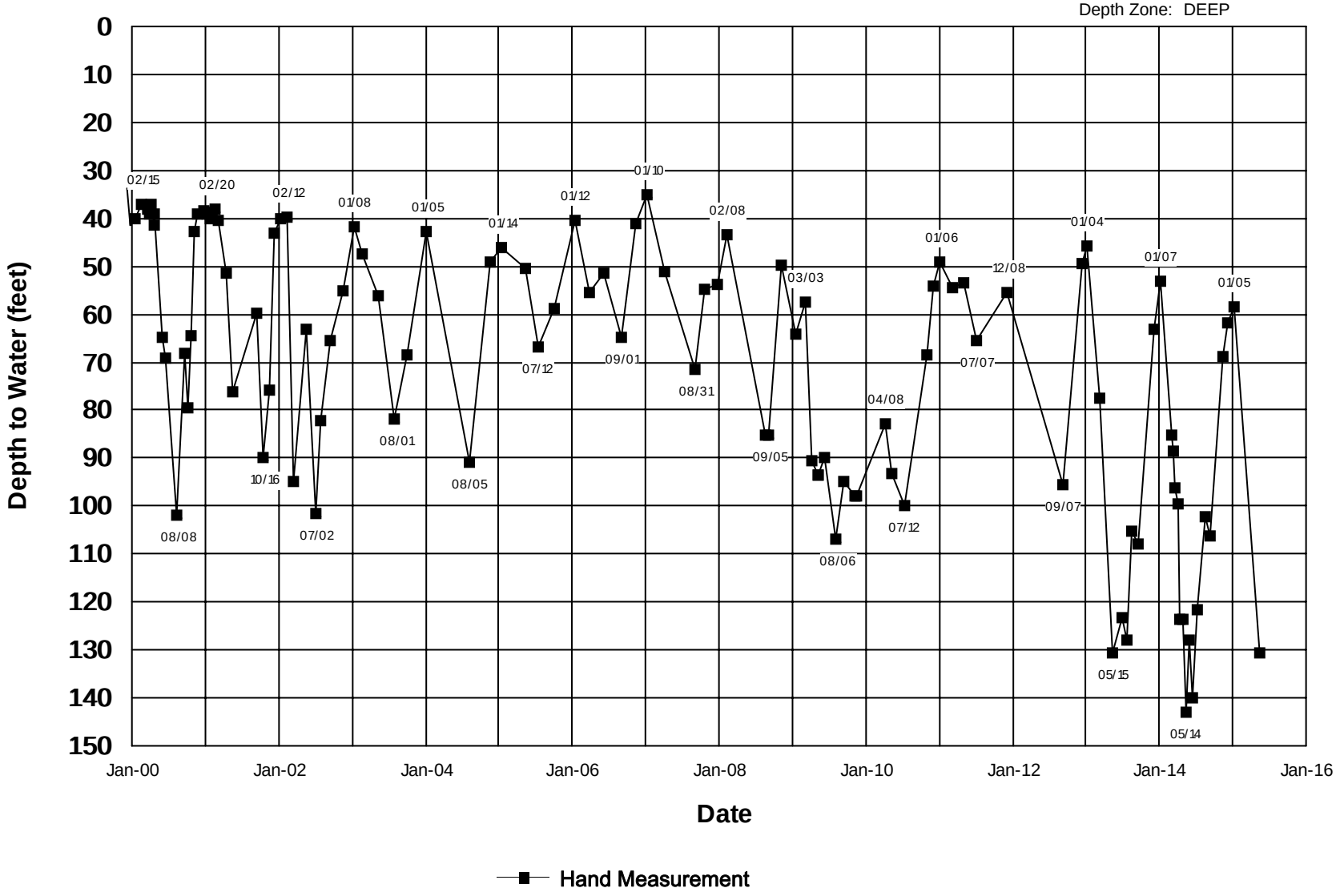


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 2630-61 (W-78)

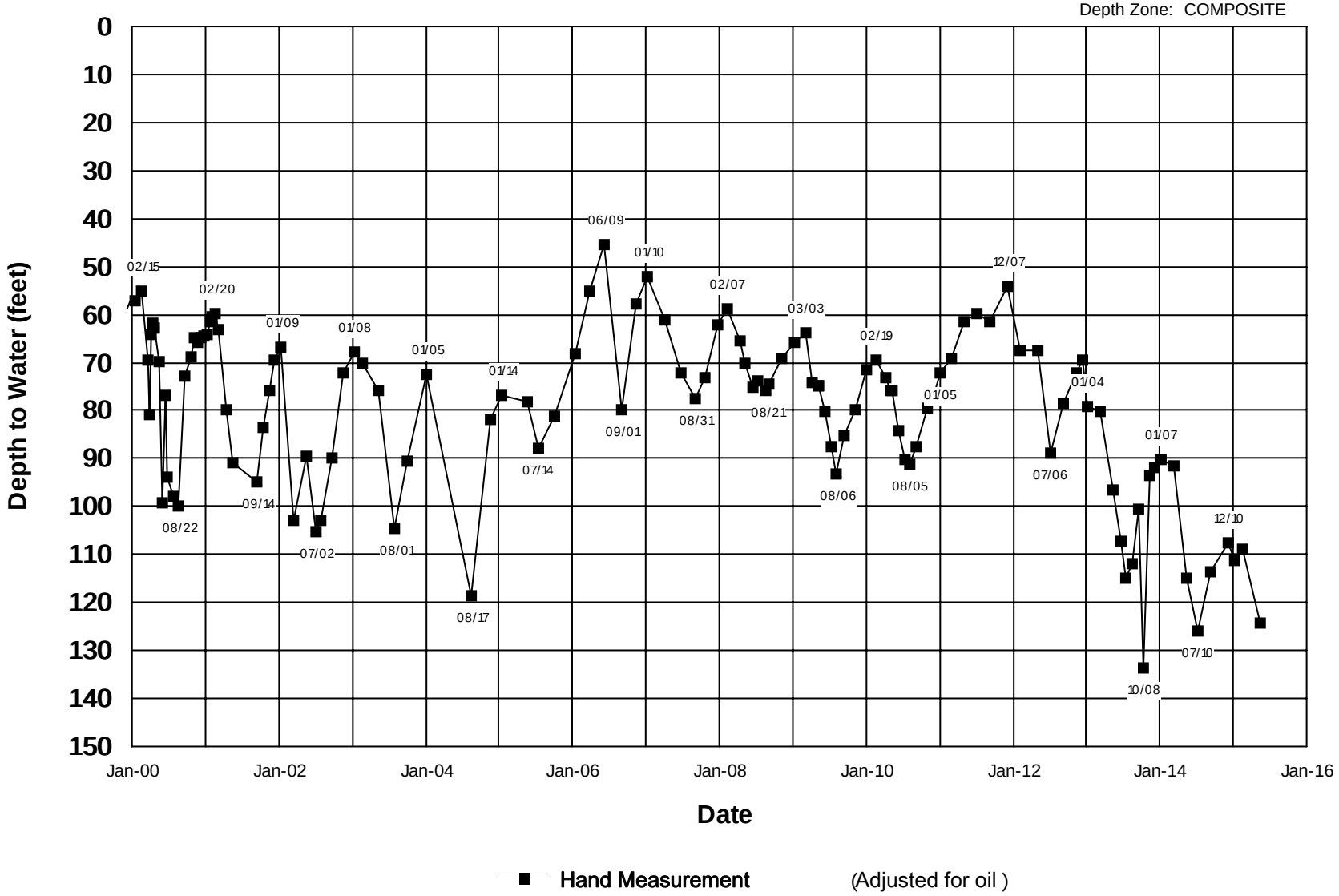
Reference Elevation: 157.5 feet NAVD88
Perforated Interval: 150 - 405 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards 3311-61 (W-89)

Reference Elevation: 165 feet NAVD88
Perforated Interval: 234 - 498 feet
Depth Zone: COMPOSITE

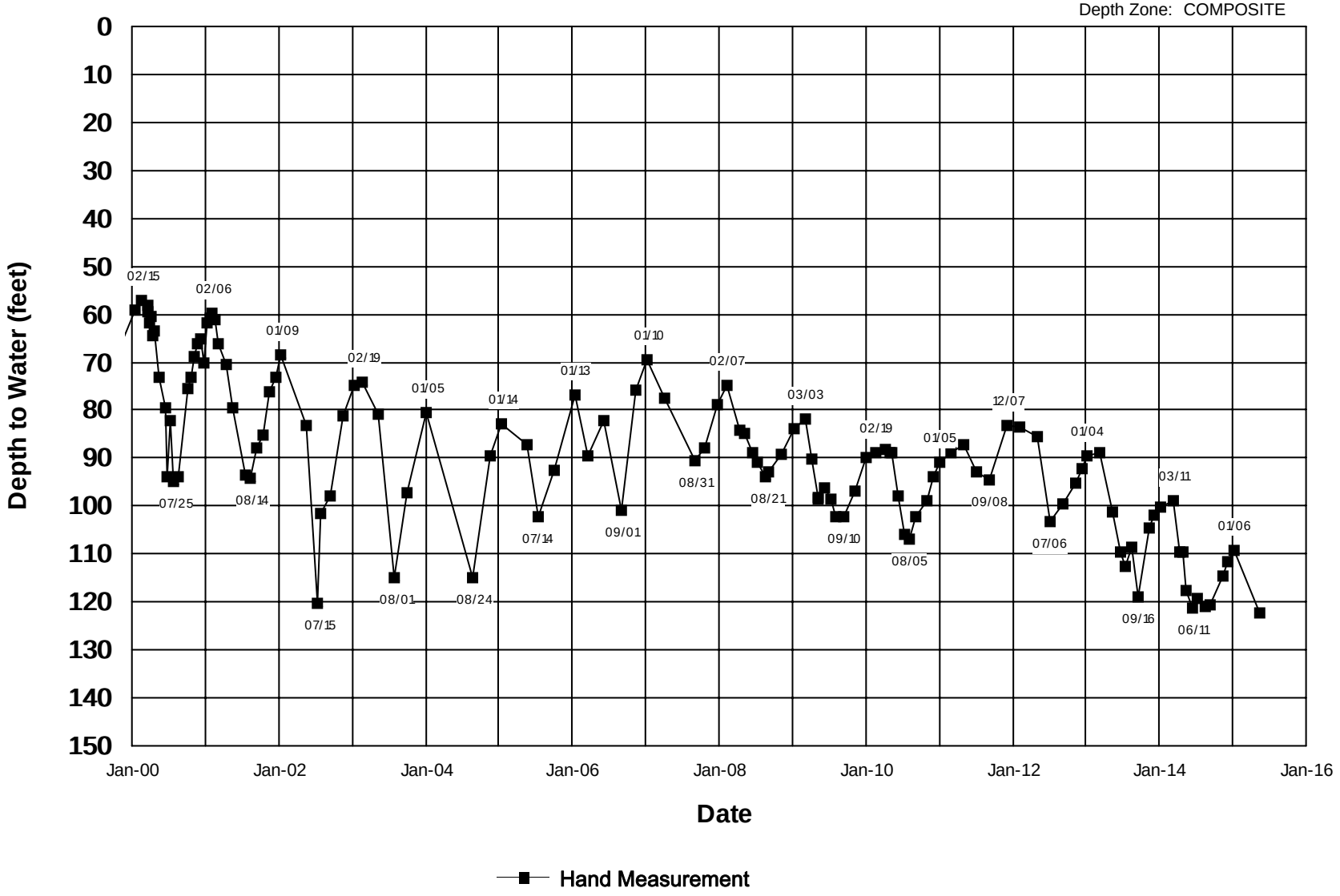


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3431-62 (W-91)

Reference Elevation: 159 feet NAVD88
Perforated Interval: 228 - 498 feet
Depth Zone: COMPOSITE

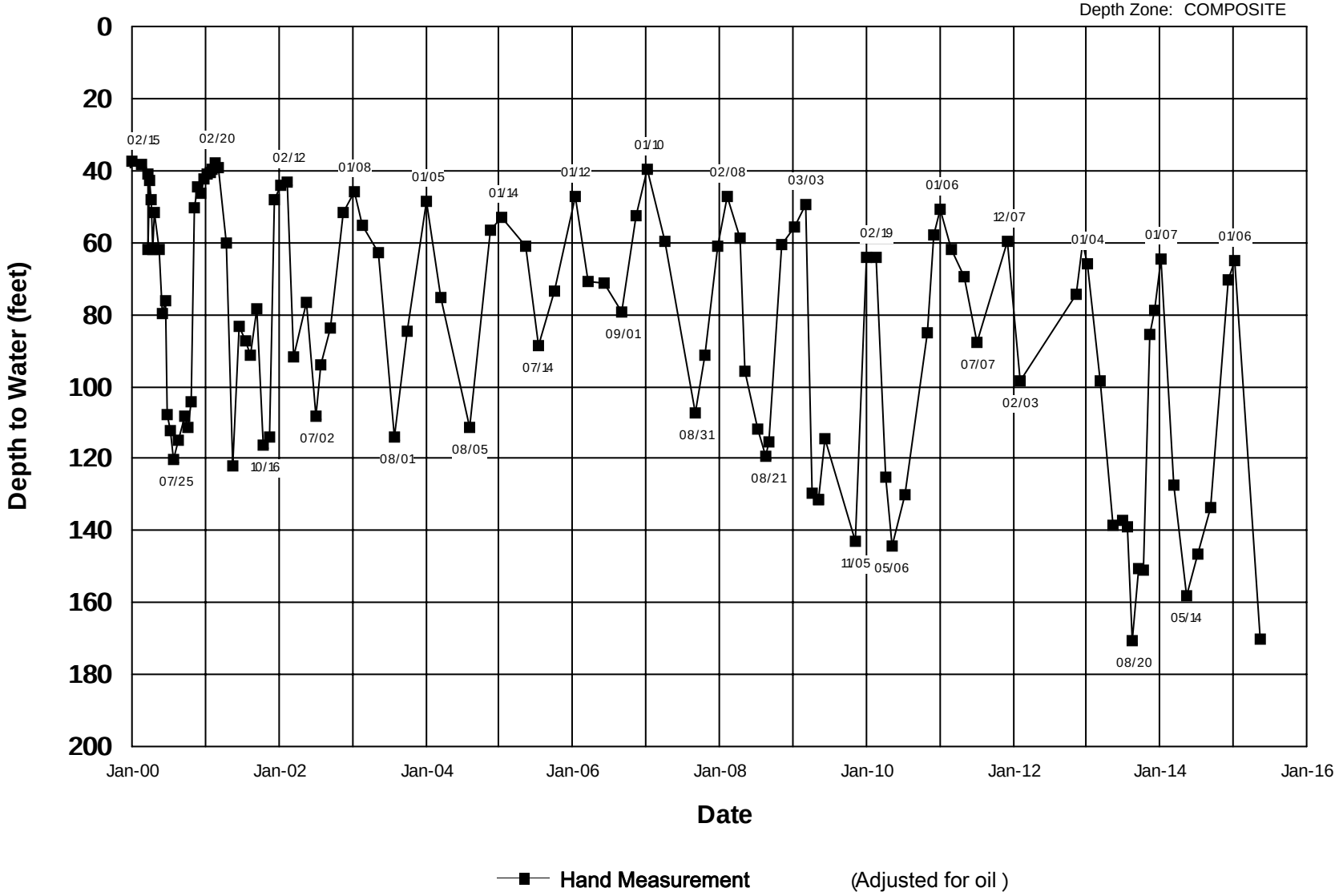


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3730-62 (W-94)

Reference Elevation: 168 feet NAVD88
Perforated Interval: 225 - 498 feet
Depth Zone: COMPOSITE

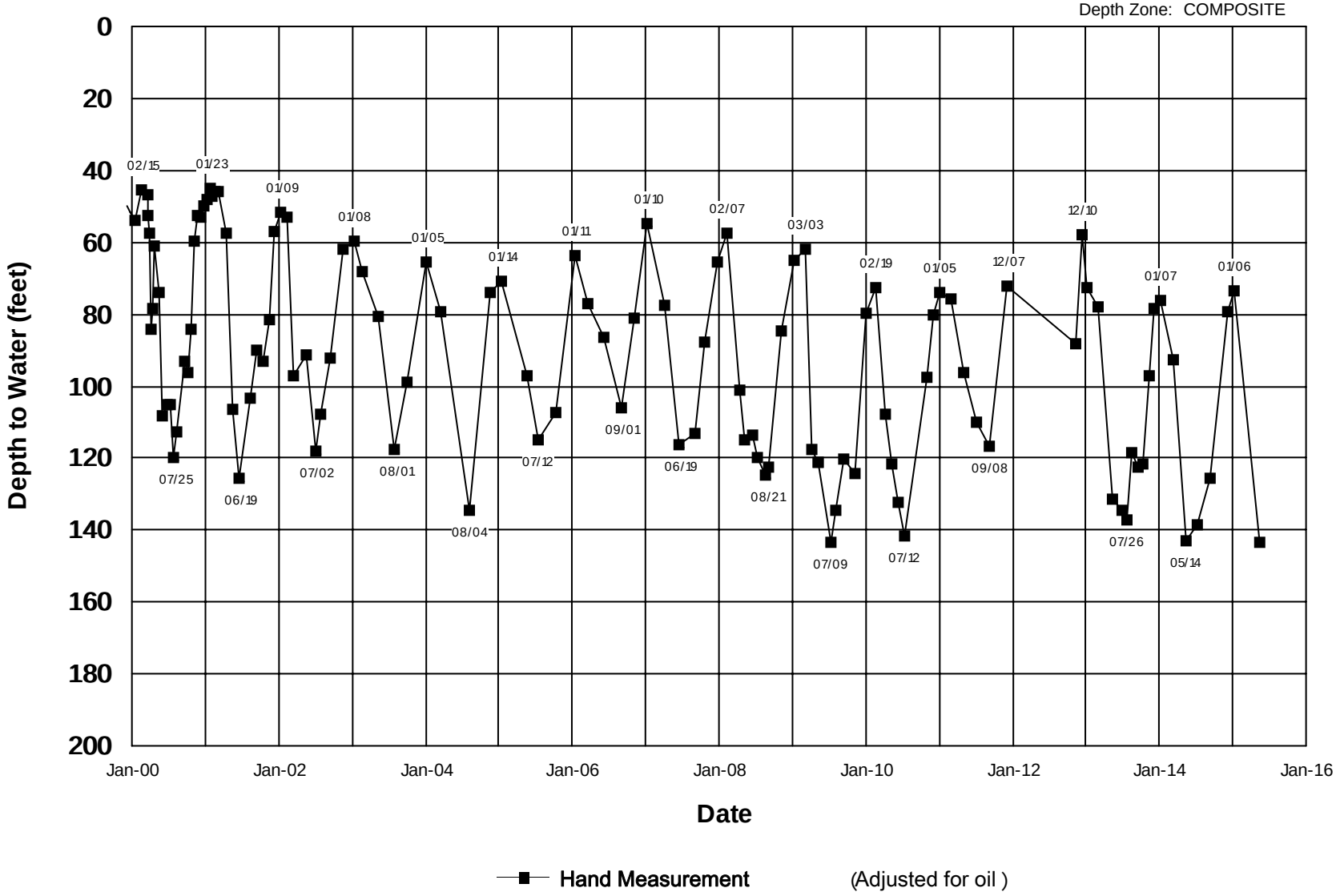


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3730-61 (W-95)

Reference Elevation: 173 feet NAVD88
Perforated Interval: 234 - 498 feet
Depth Zone: COMPOSITE

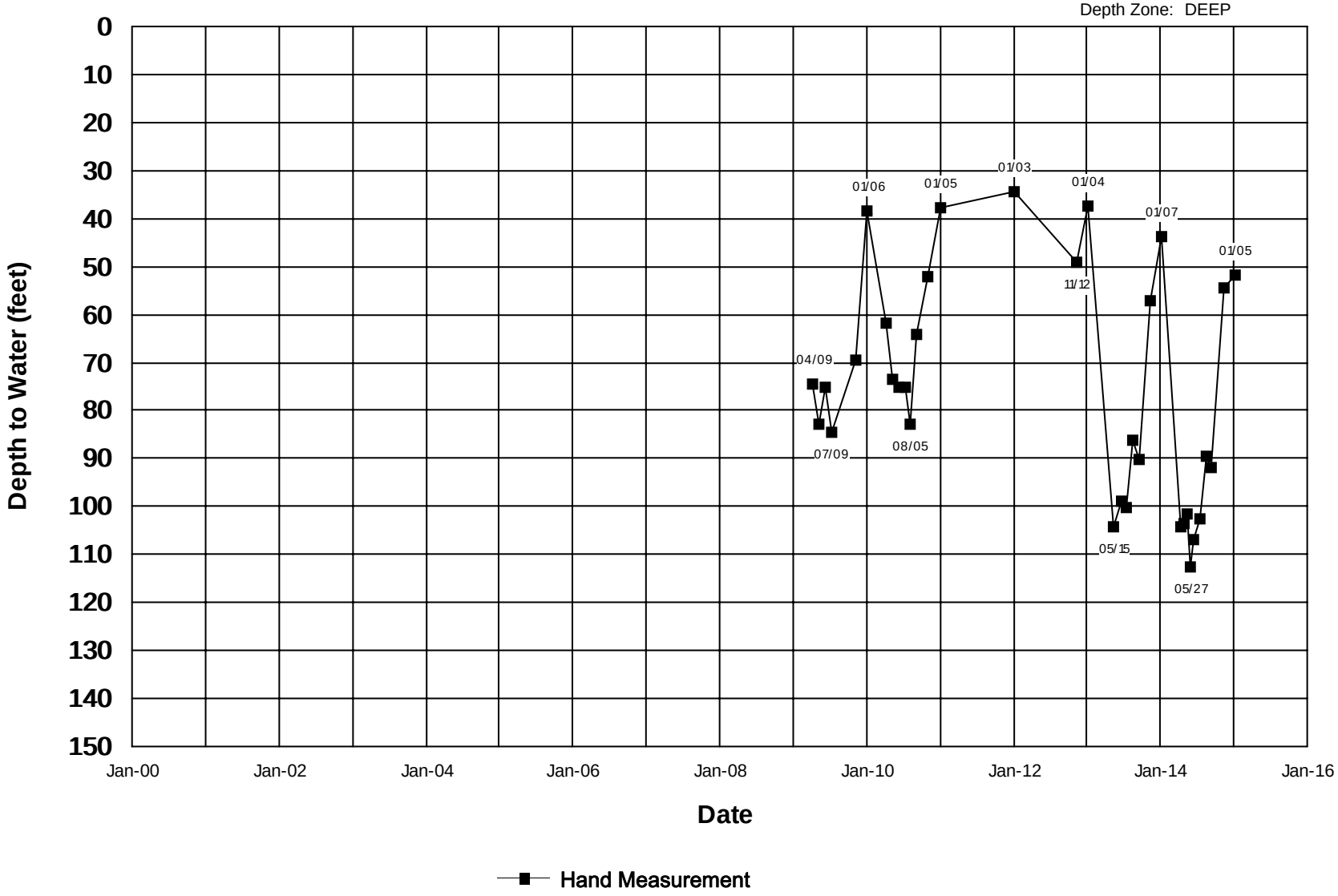


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3921-61 (W-106)

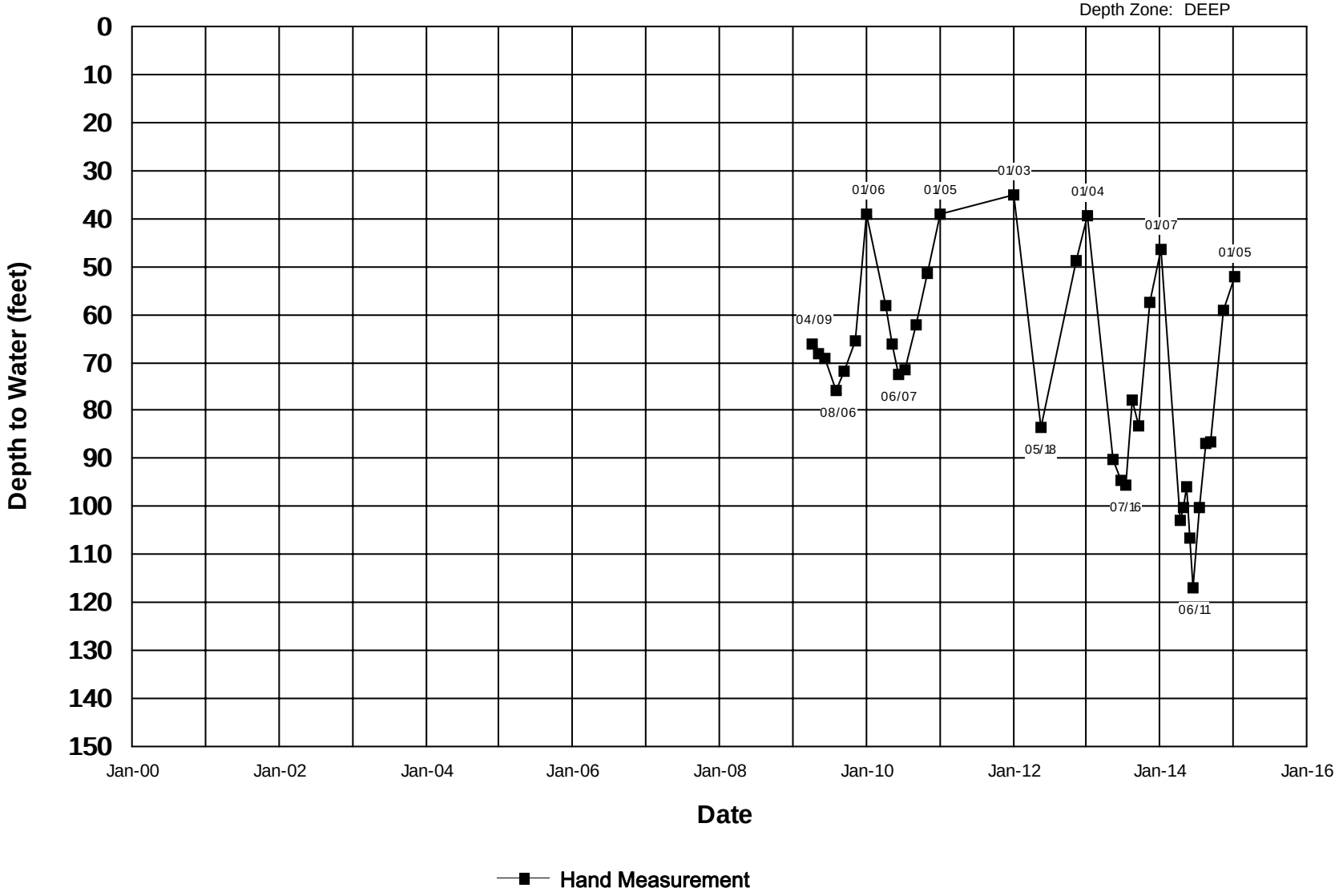
Reference Elevation: 163 feet NAVD88
Perforated Interval: 140 - 360 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards 3730-72 (W-107)

Reference Elevation: 163 feet NAVD88
Perforated Interval: 150 - 340 feet
Depth Zone: DEEP

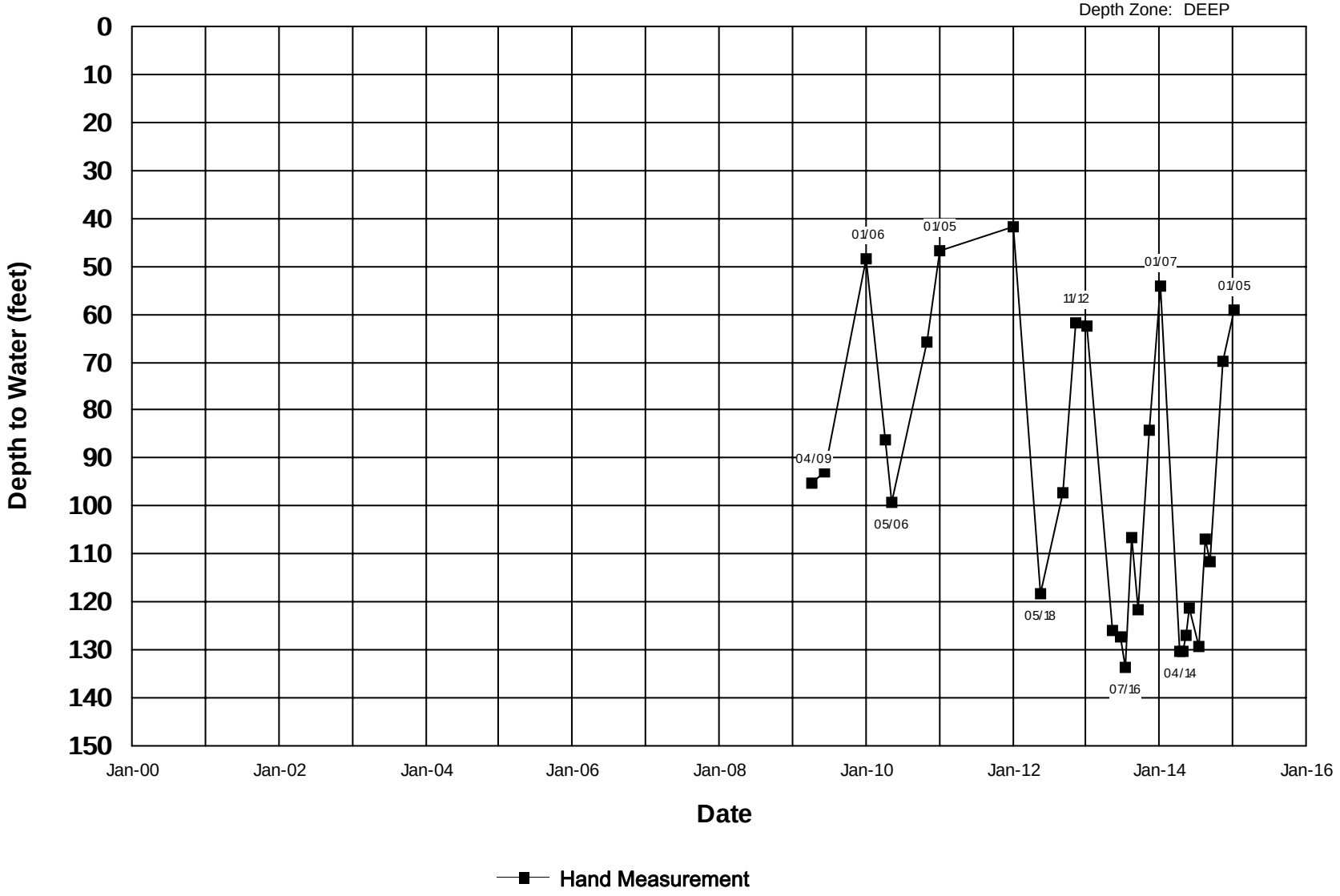


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3730-70 (W-108)

Reference Elevation: 163 feet NAVD88
Perforated Interval: 150 - 340 feet
Depth Zone: DEEP

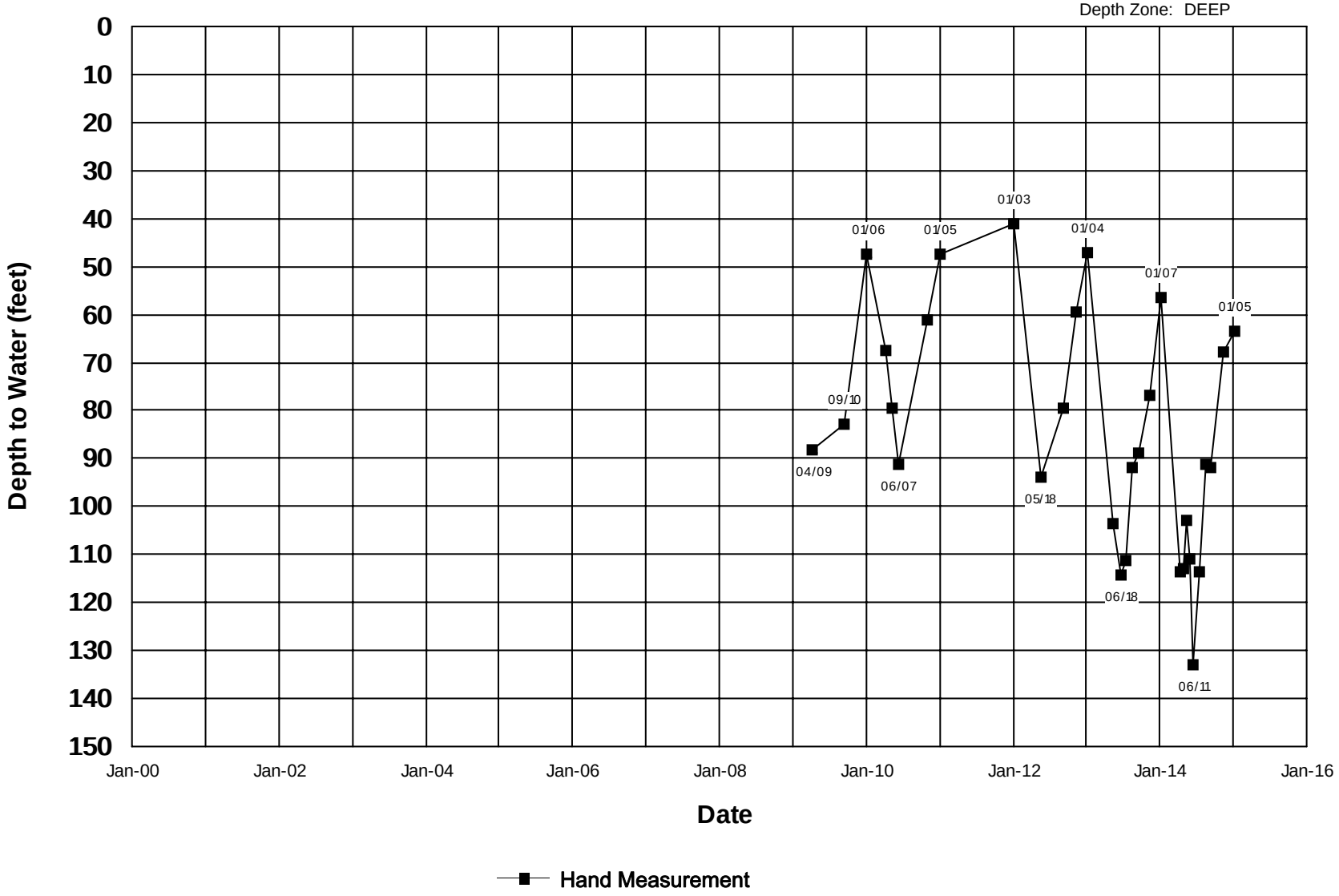


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3211-68 (W-110)

Reference Elevation: 163 feet NAVD88
Perforated Interval: 160 - 330 feet
Depth Zone: DEEP

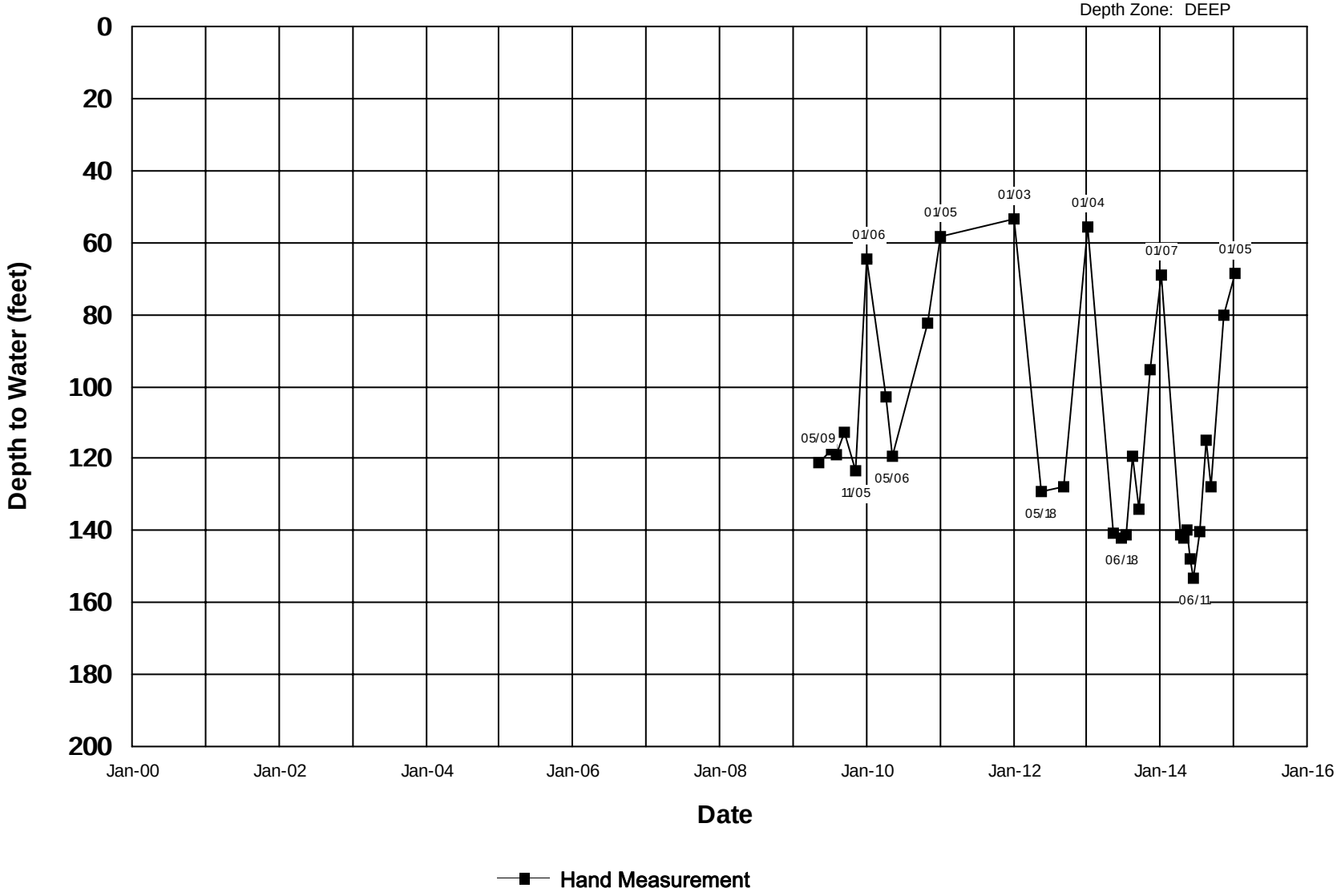


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3730-63 (W-112)

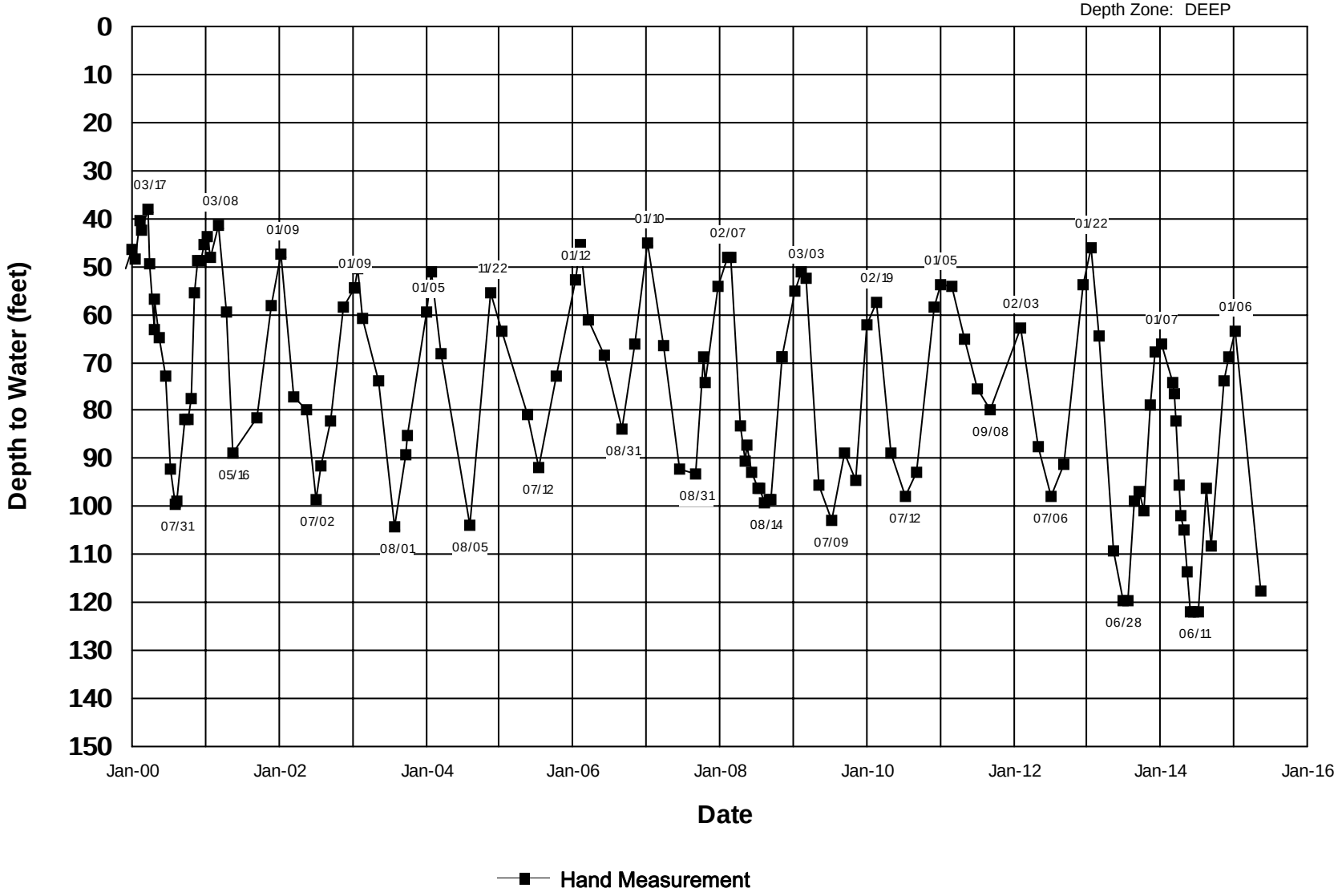
Reference Elevation: 171 feet NAVD88
Perforated Interval: 160 - 340 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards Well 3730-74 (CC-1)

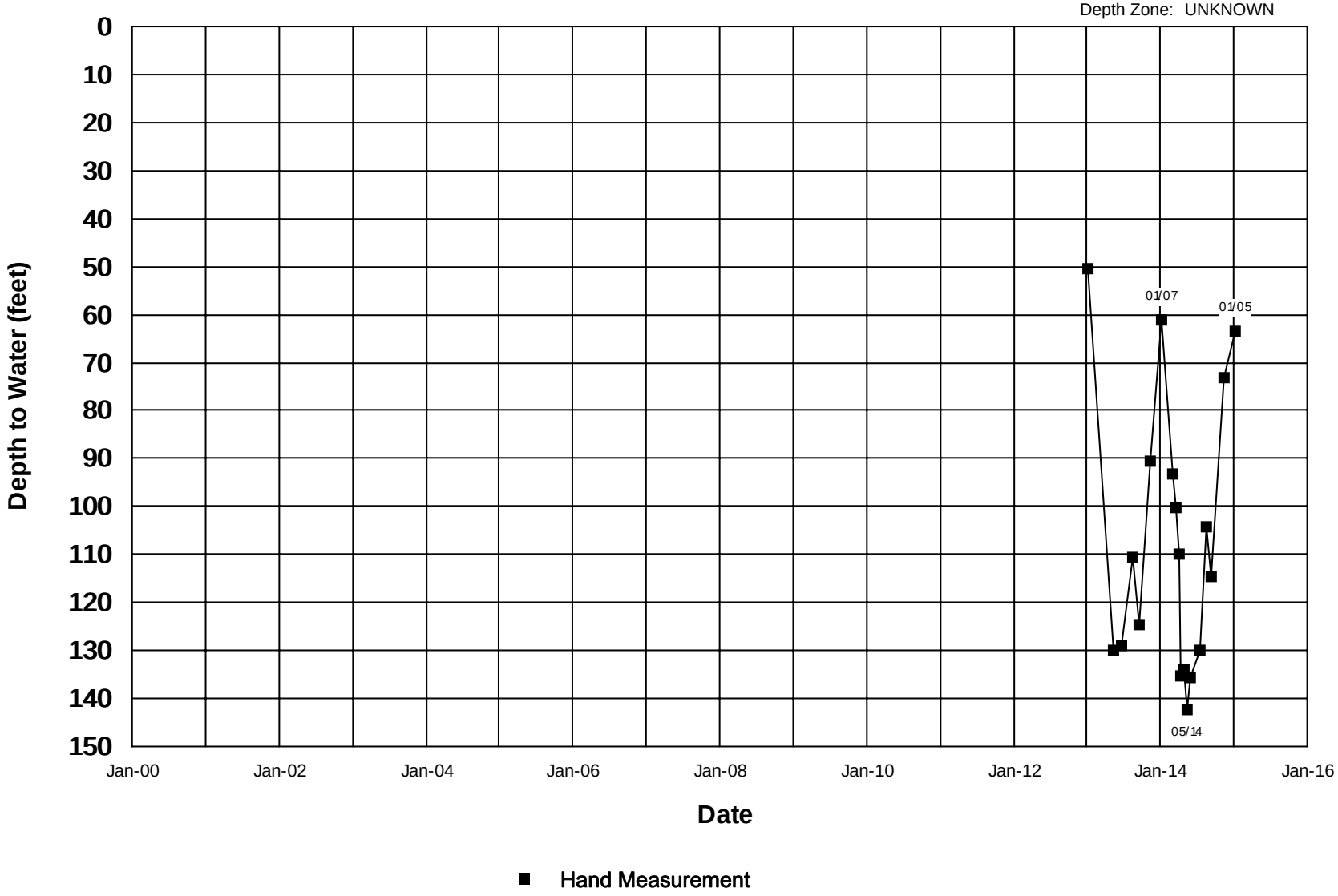
Reference Elevation: 177 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

Wonderful Orchards 3730-73

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN

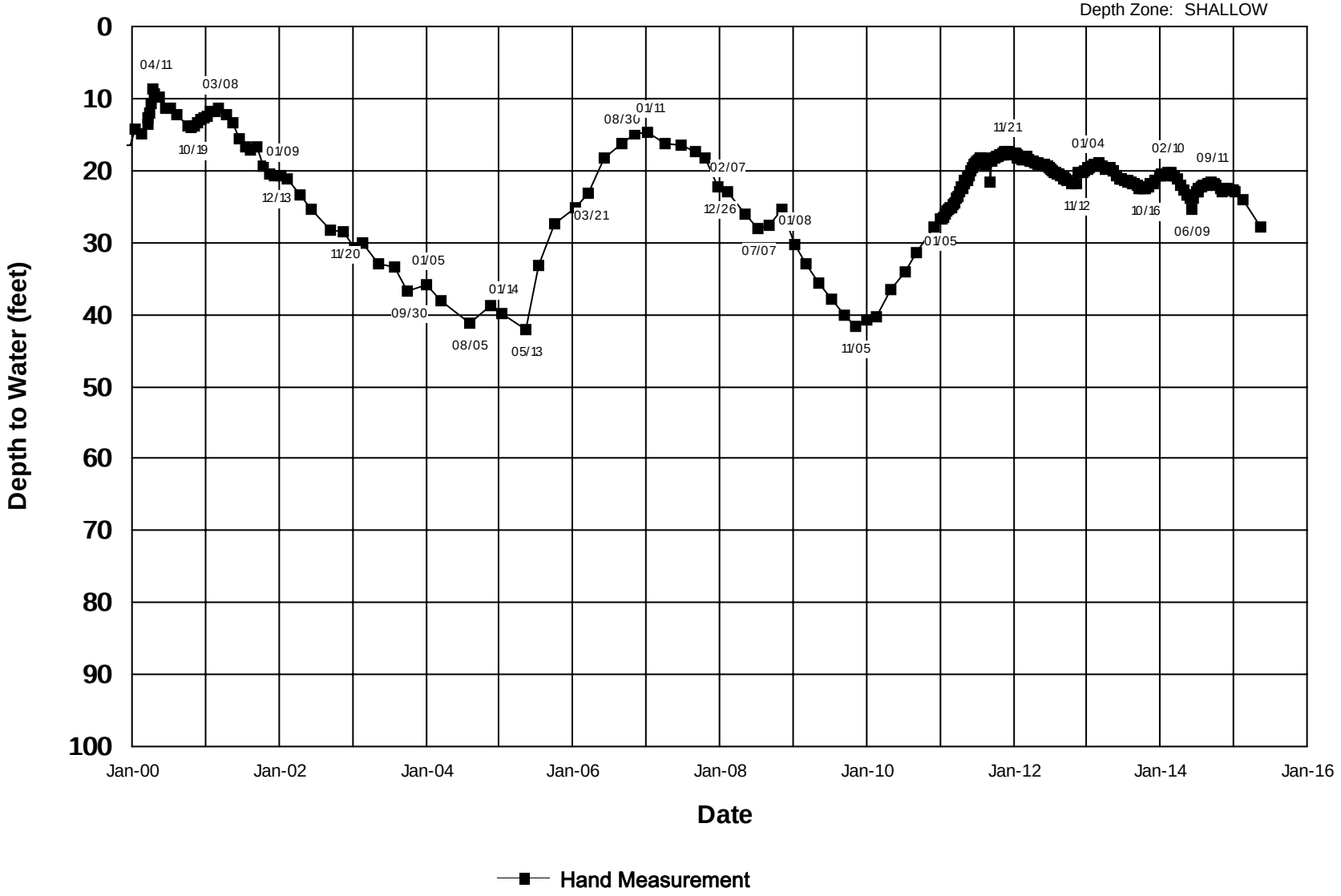


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3730-91 (MW-2)

Reference Elevation: 167.61 feet NAVD88
Perforated Interval: 40 - 80 feet
Depth Zone: SHALLOW

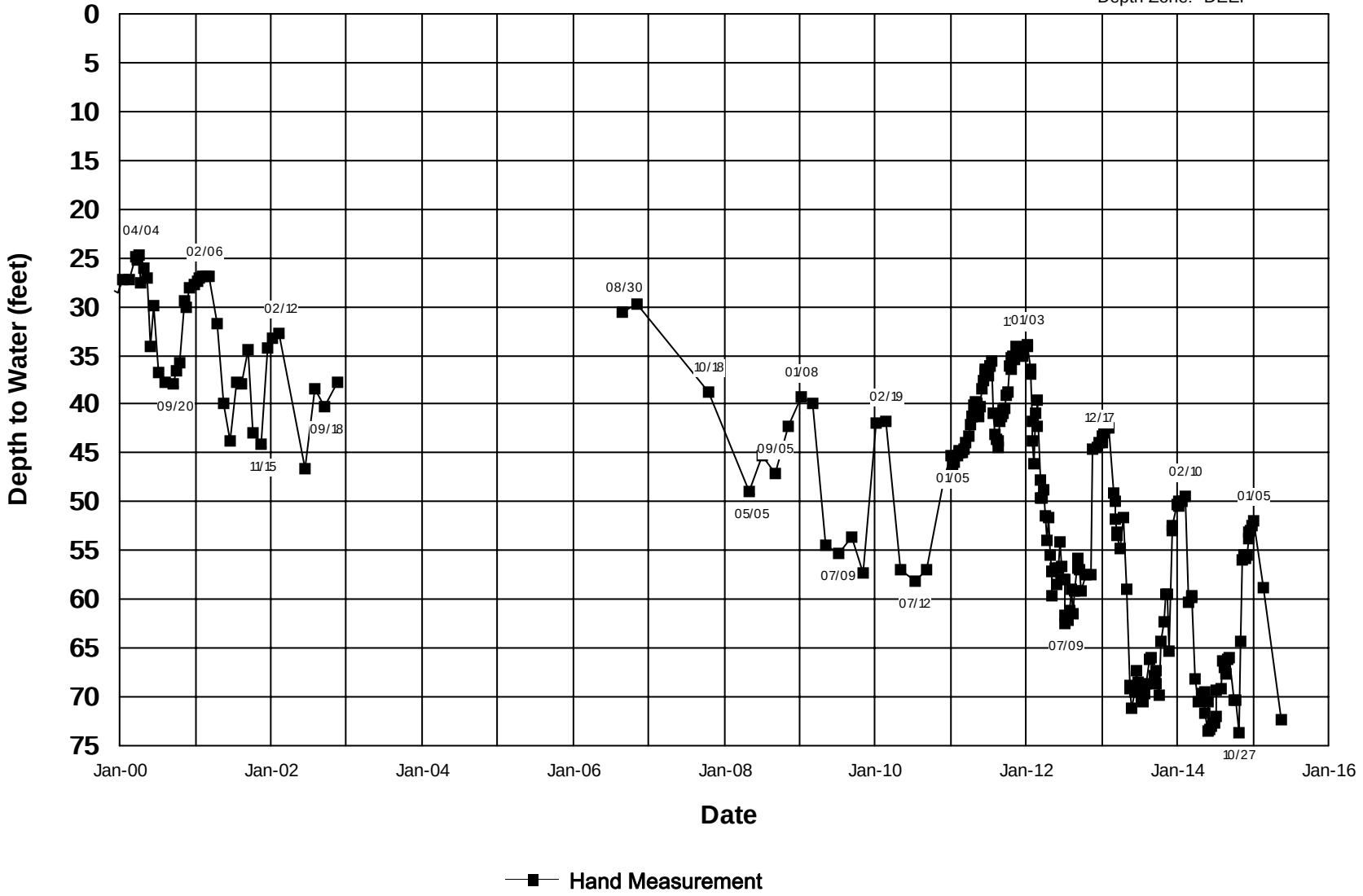


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3730-92 (MW-1)

Reference Elevation: 165.08 feet NAVD88
Perforated Interval: 110 - 150 feet
Depth Zone: DEEP

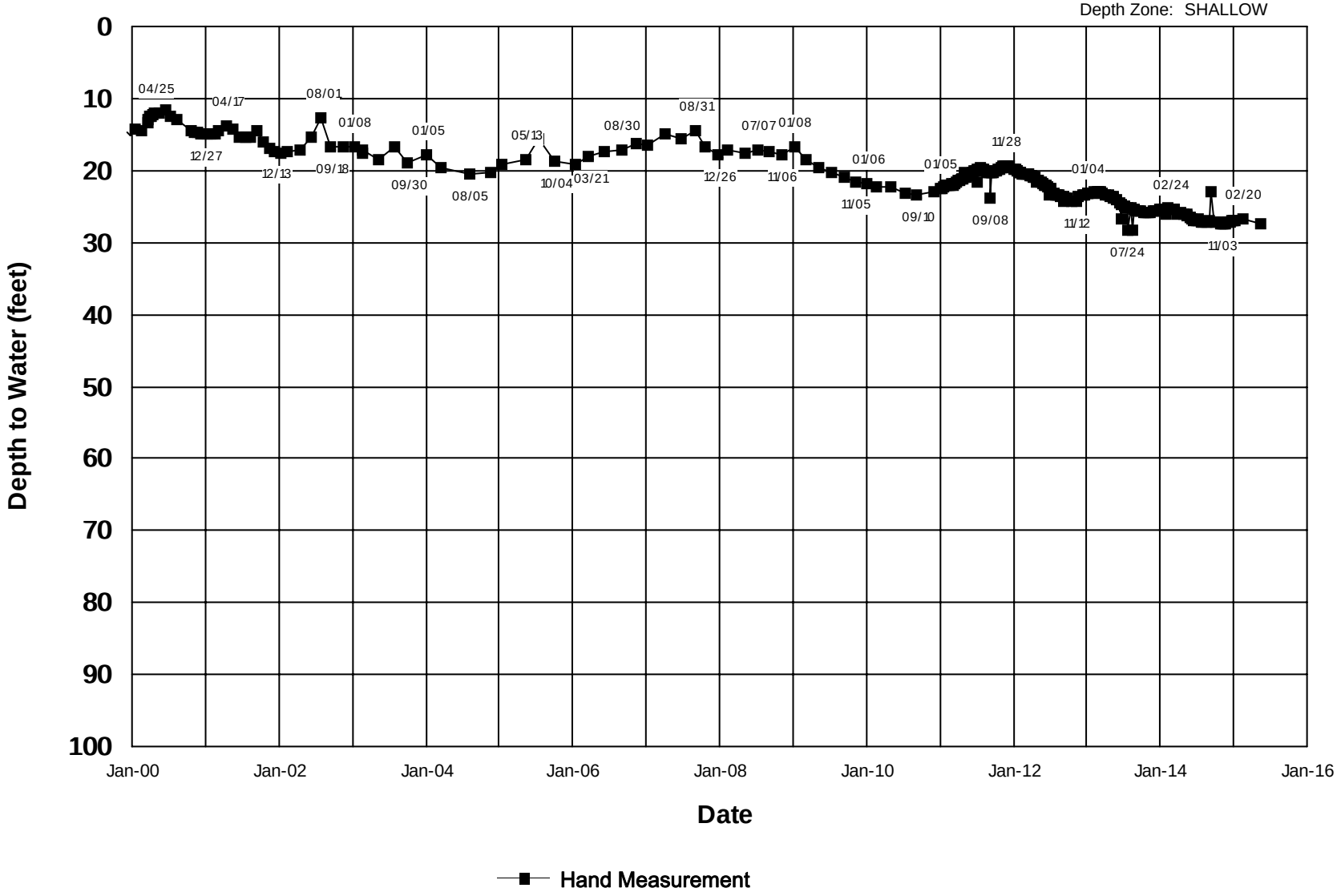


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3730-93 (MW-3)

Reference Elevation: 160.28 feet NAVD88
Perforated Interval: 40 - 80 feet
Depth Zone: SHALLOW

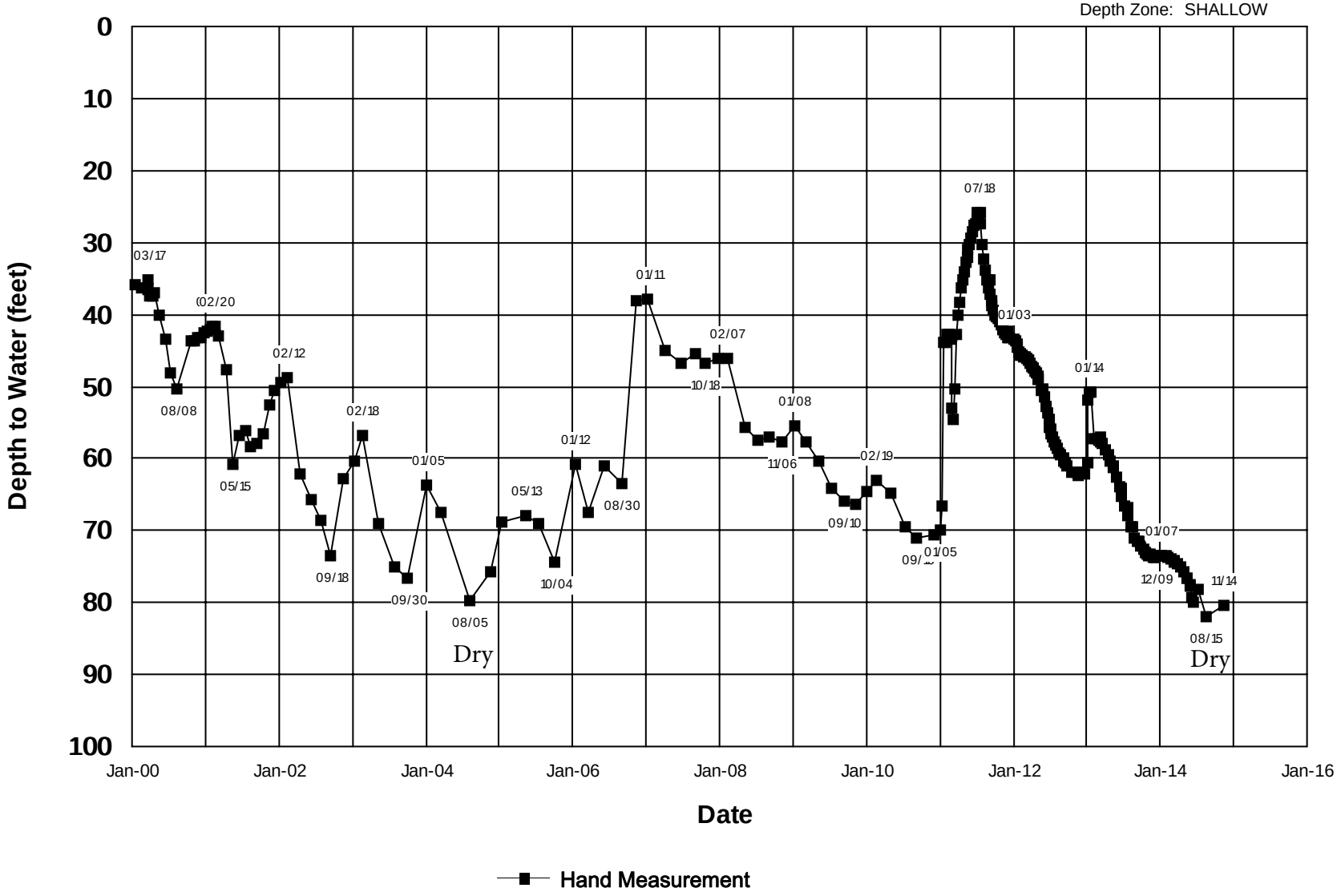


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 2480-93 (MW-4)

Reference Elevation: 158.62 feet NAVD88
Perforated Interval: 40 - 80 feet
Depth Zone: SHALLOW

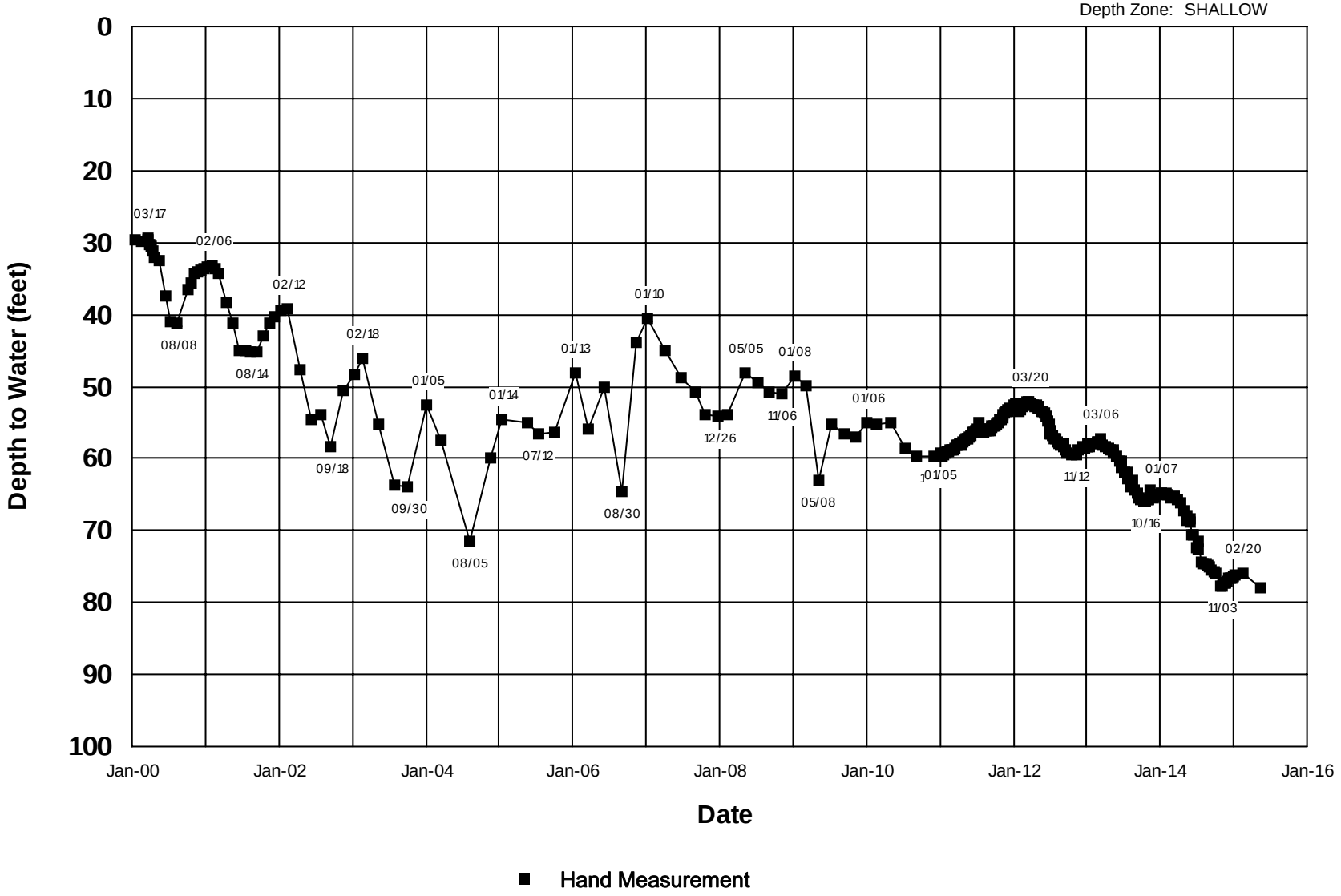


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3431-91 (MW-5)

Reference Elevation: 155.7 feet NAVD88
Perforated Interval: 35 - 95 feet
Depth Zone: SHALLOW

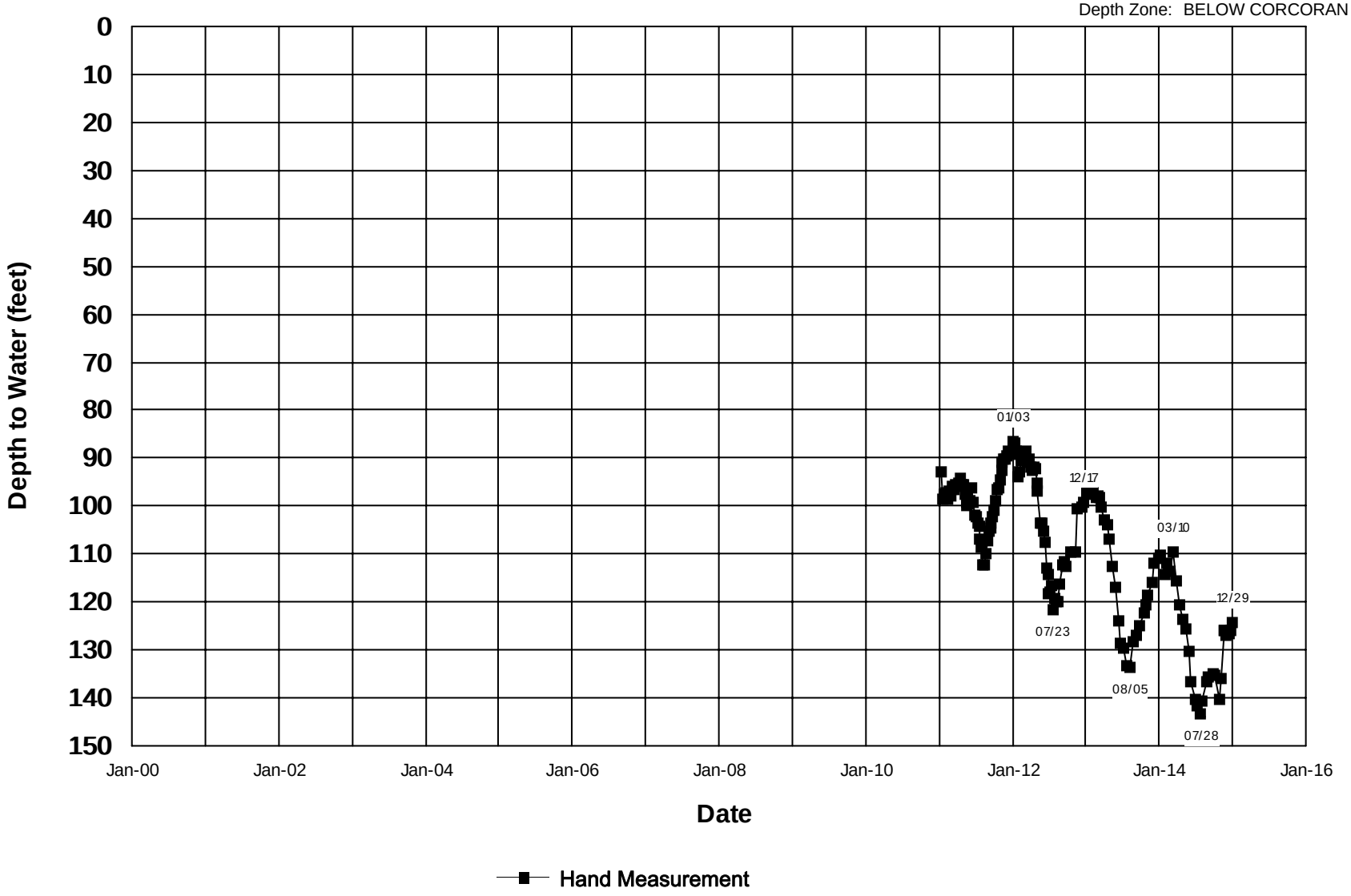


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 2480-91 (MW-6)

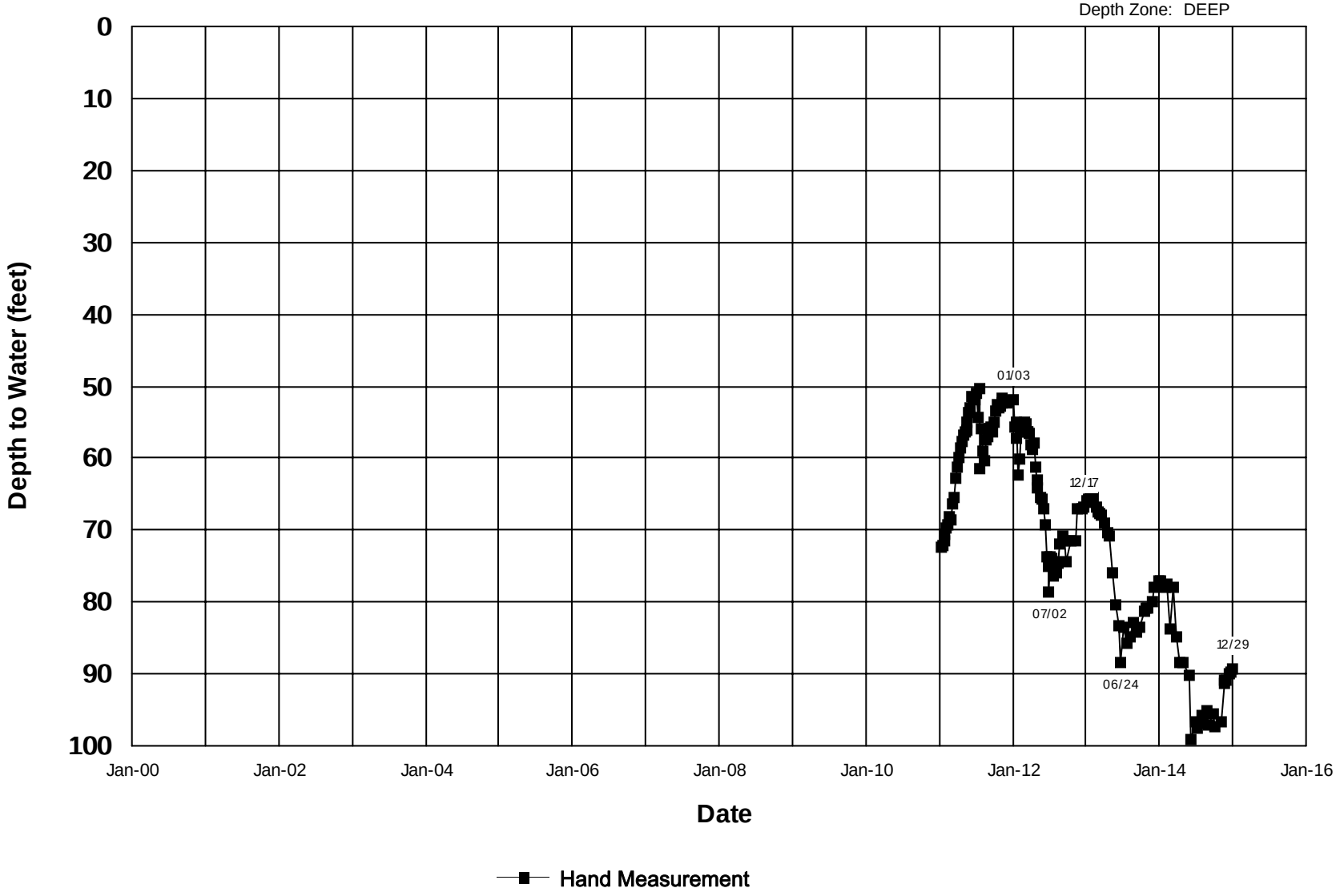
Reference Elevation: 159.14 feet NAVD88
Perforated Interval: 397.98 - 417.72 feet
Depth Zone: BELOW CORCORAN



Mendota Area Hydrograph

Wonderful Orchards 2480-92 (MW-7)

Reference Elevation: 159.22 feet NAVD88
Perforated Interval: 238.28 - 252.82 feet
Depth Zone: DEEP

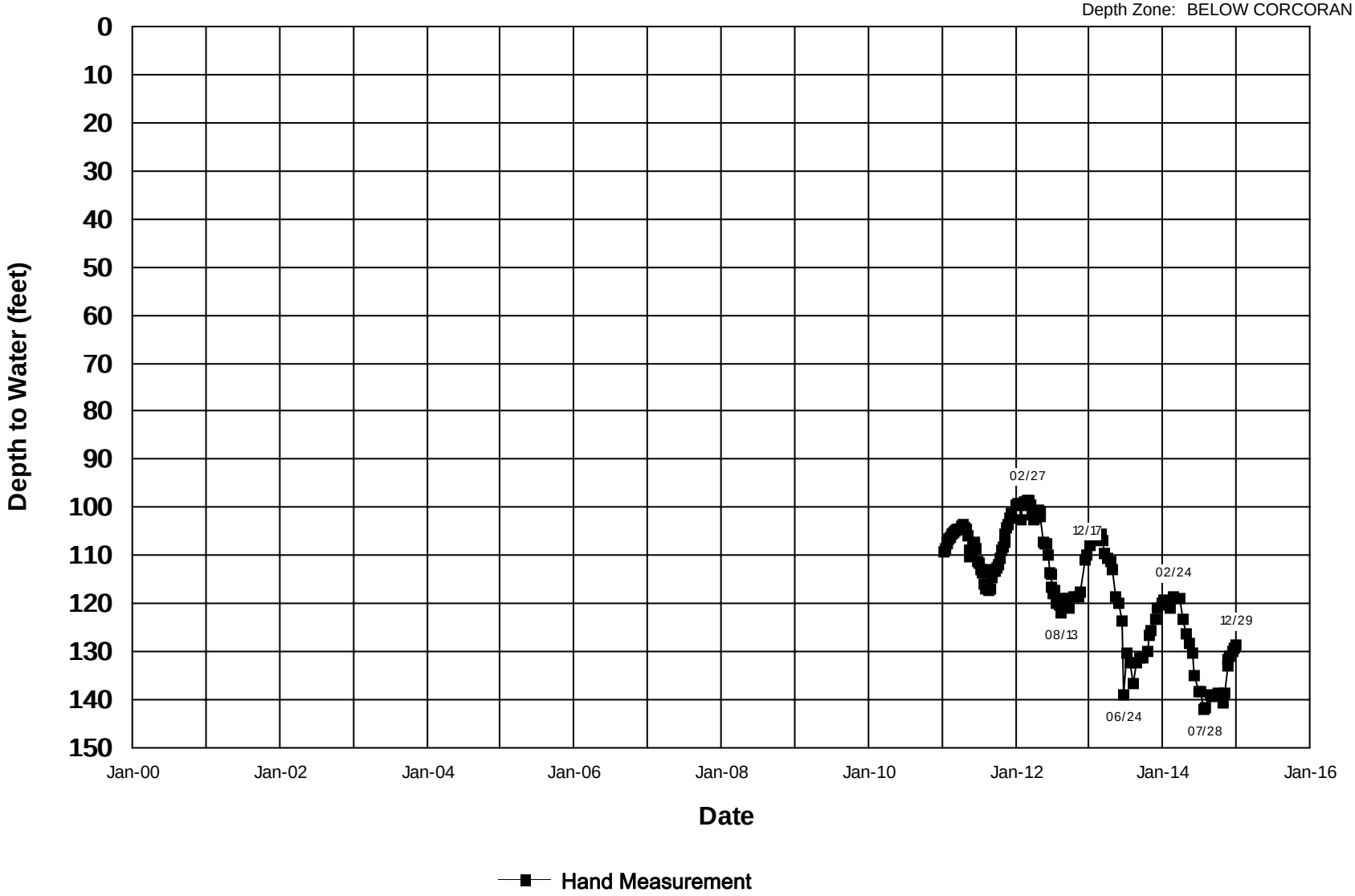


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 2480-94 (MW-8)

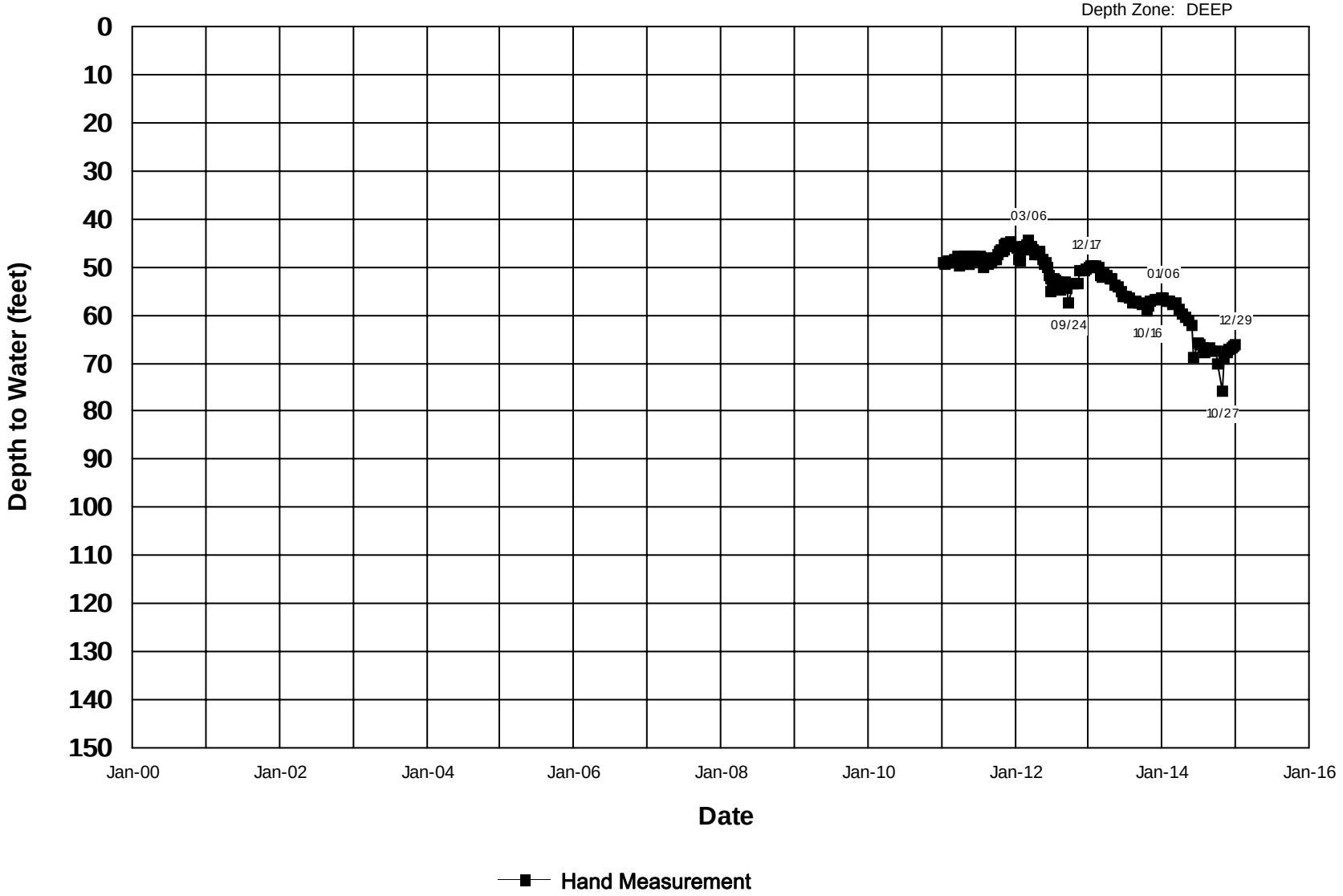
Reference Elevation: 154.61 feet NAVD88
Perforated Interval: 435 - 449.5 feet
Depth Zone: BELOW CORCORAN



Mendota Area Hydrograph

Wonderful Orchards 2480-95 (MW-9)

Reference Elevation: 154.65 feet NAVD88
Perforated Interval: 250.16 - 264.9 feet
Depth Zone: DEEP

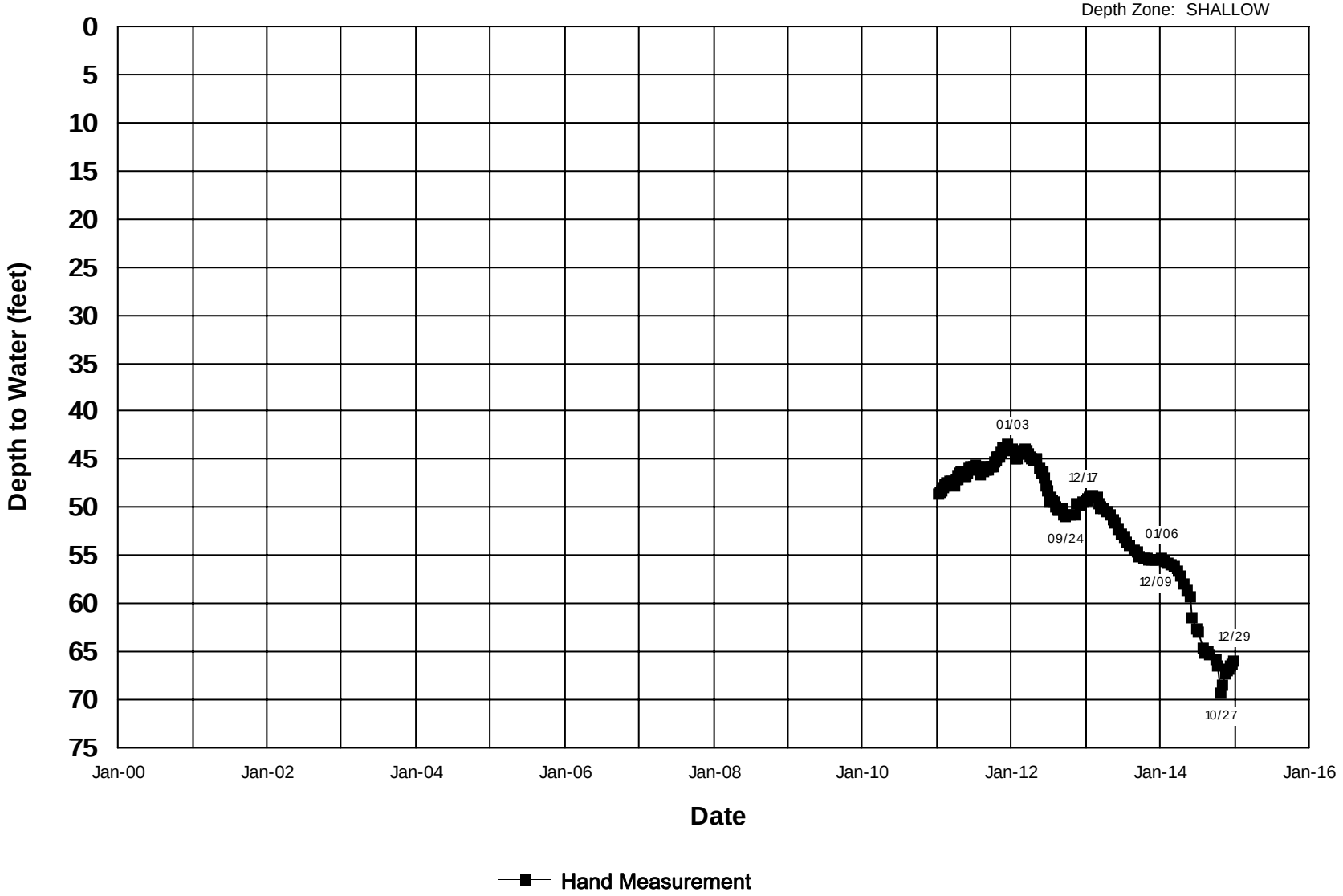


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 2480-96 (MW-10)

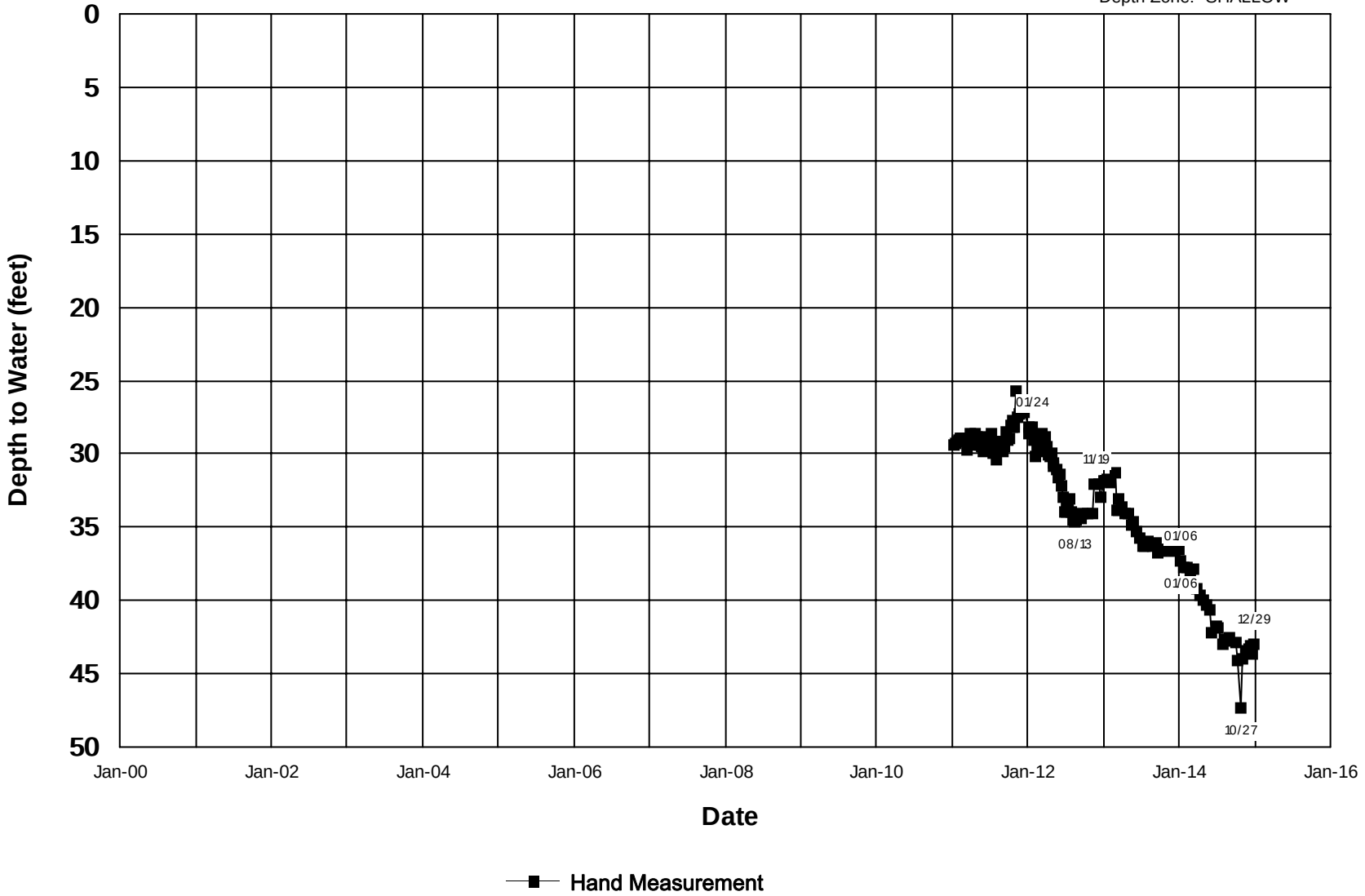
Reference Elevation: 154.67 feet NAVD88
Perforated Interval: 97.99 - 107.44 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Wonderful Orchards 3561-93 (MW-11)

Reference Elevation: 150.88 feet NAVD88
Perforated Interval: 60.25 - 90 feet
Depth Zone: SHALLOW

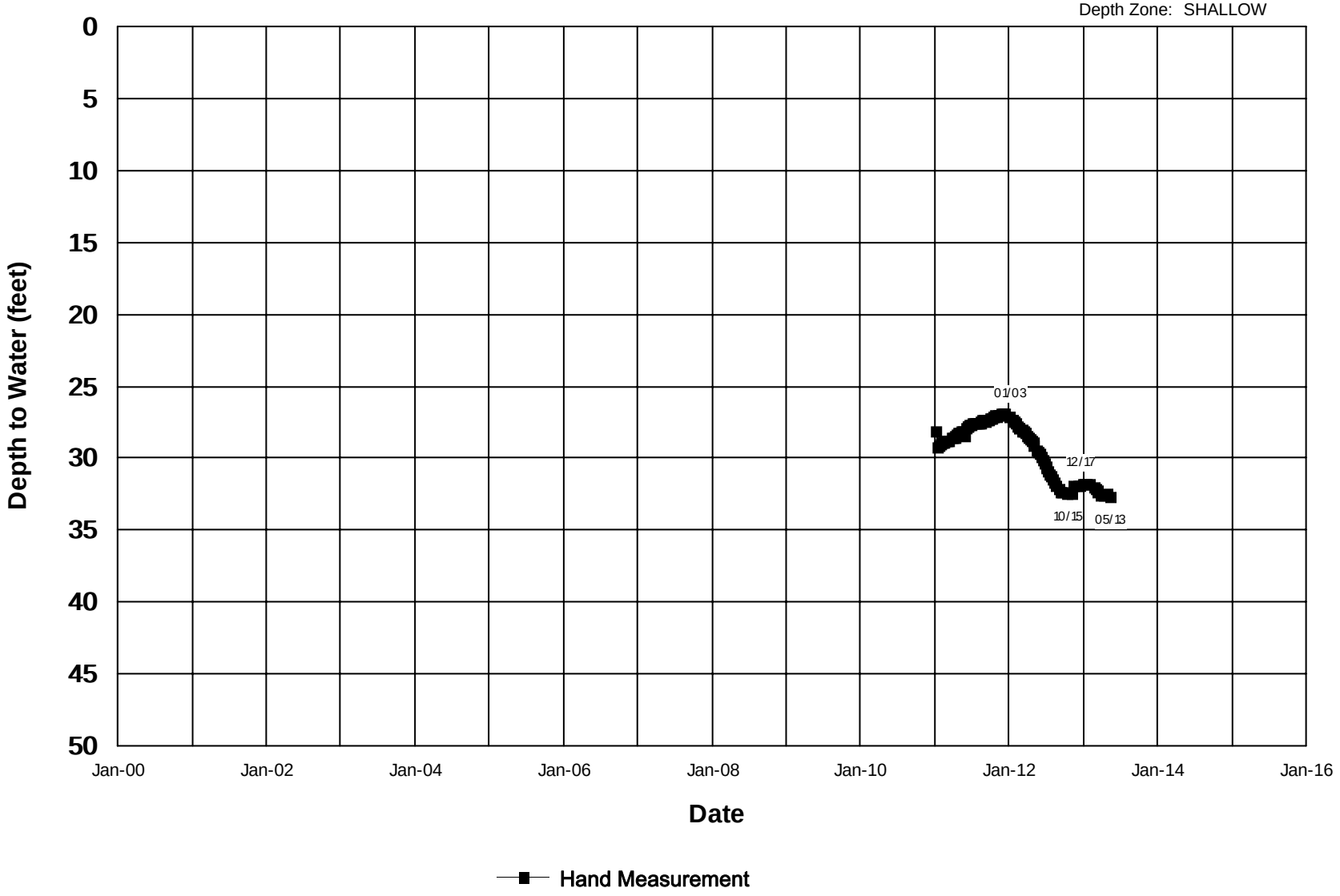


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3561-94 (MW-12)

Reference Elevation: 152.24 feet NAVD88
Perforated Interval: 14.4 - 29.07 feet
Depth Zone: SHALLOW

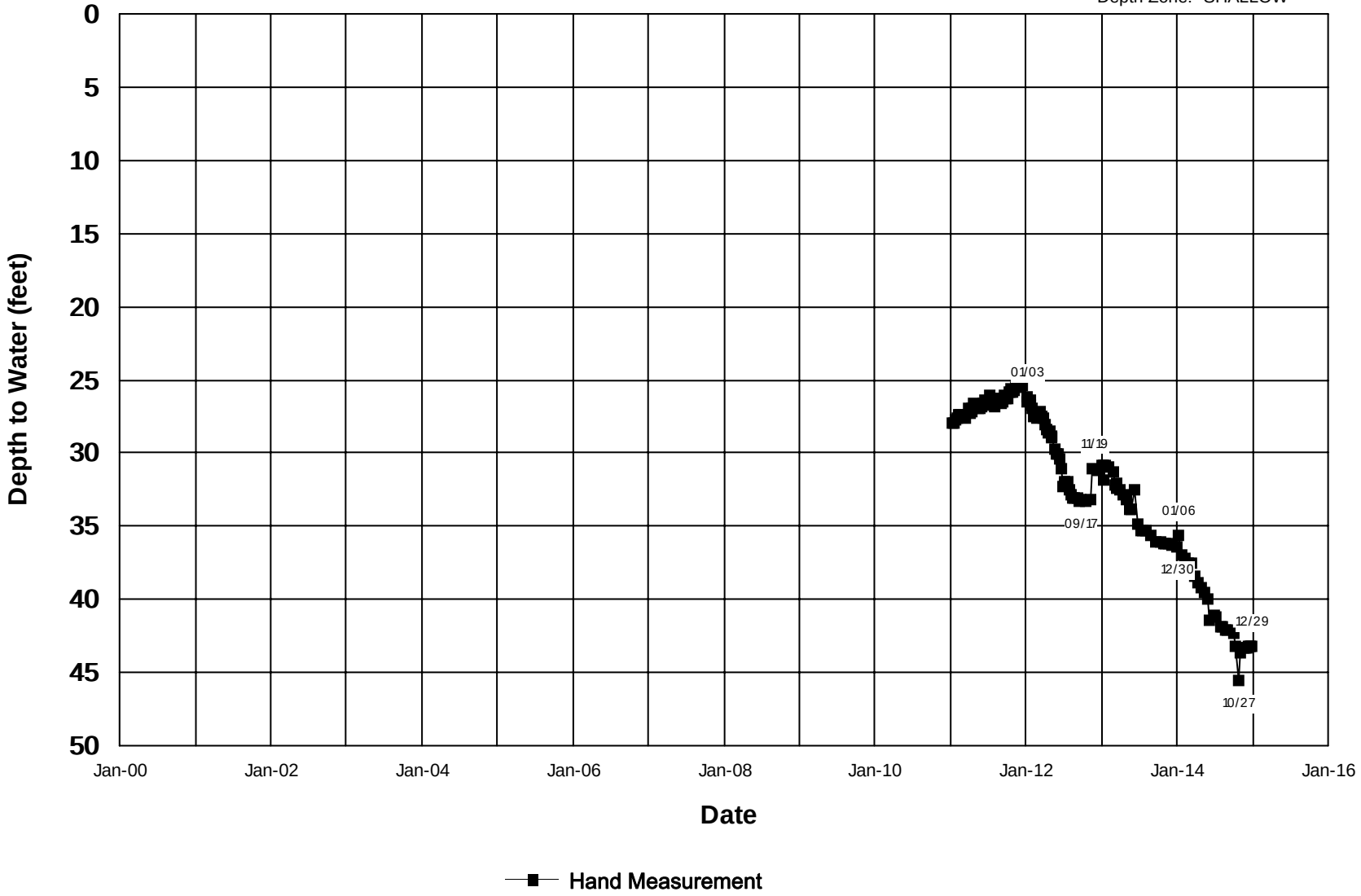


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3561-92 (MW-13)

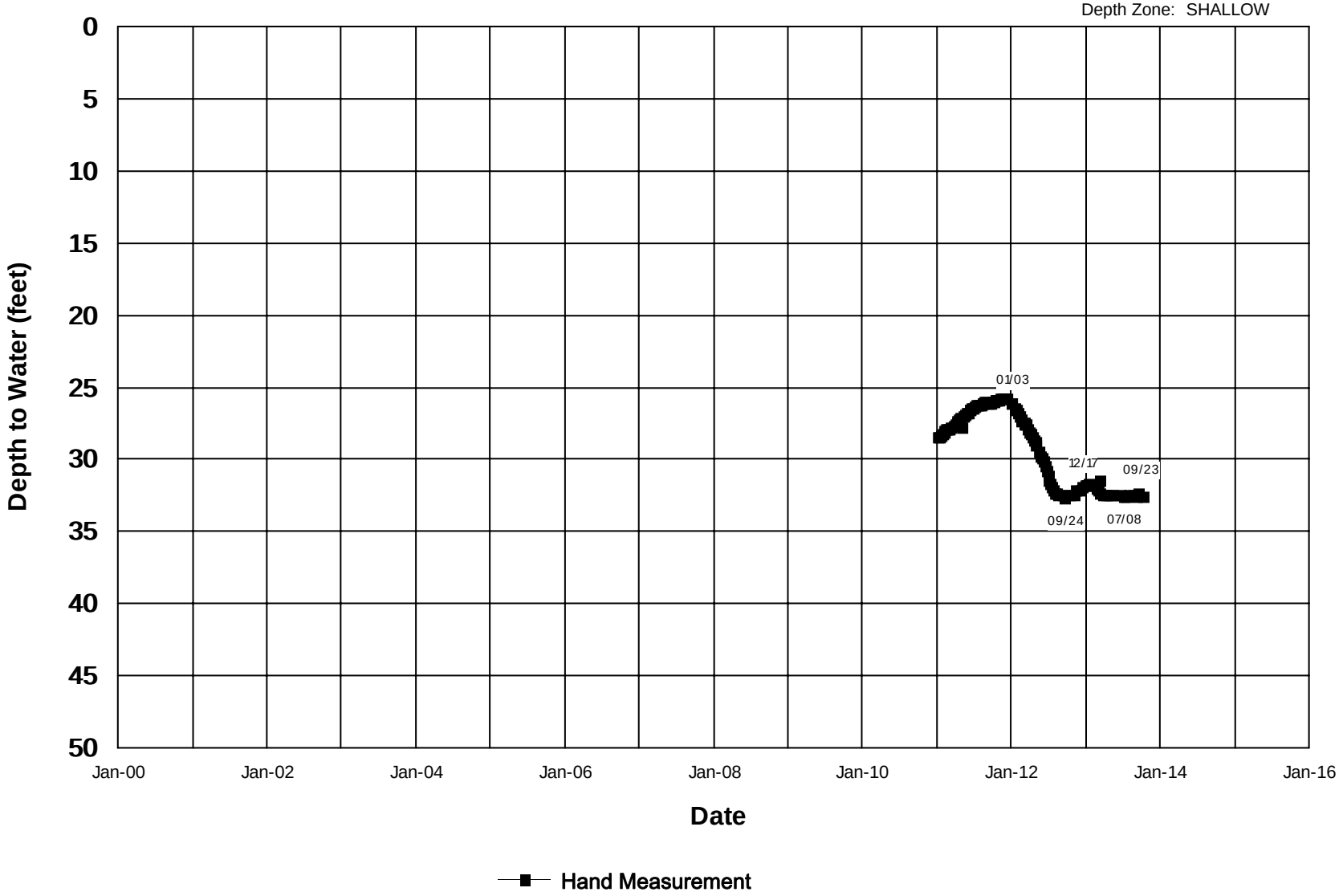
Reference Elevation: 150.2 feet NAVD88
Perforated Interval: 60 - 89.71 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Wonderful Orchards 3561-91 (MW-14)

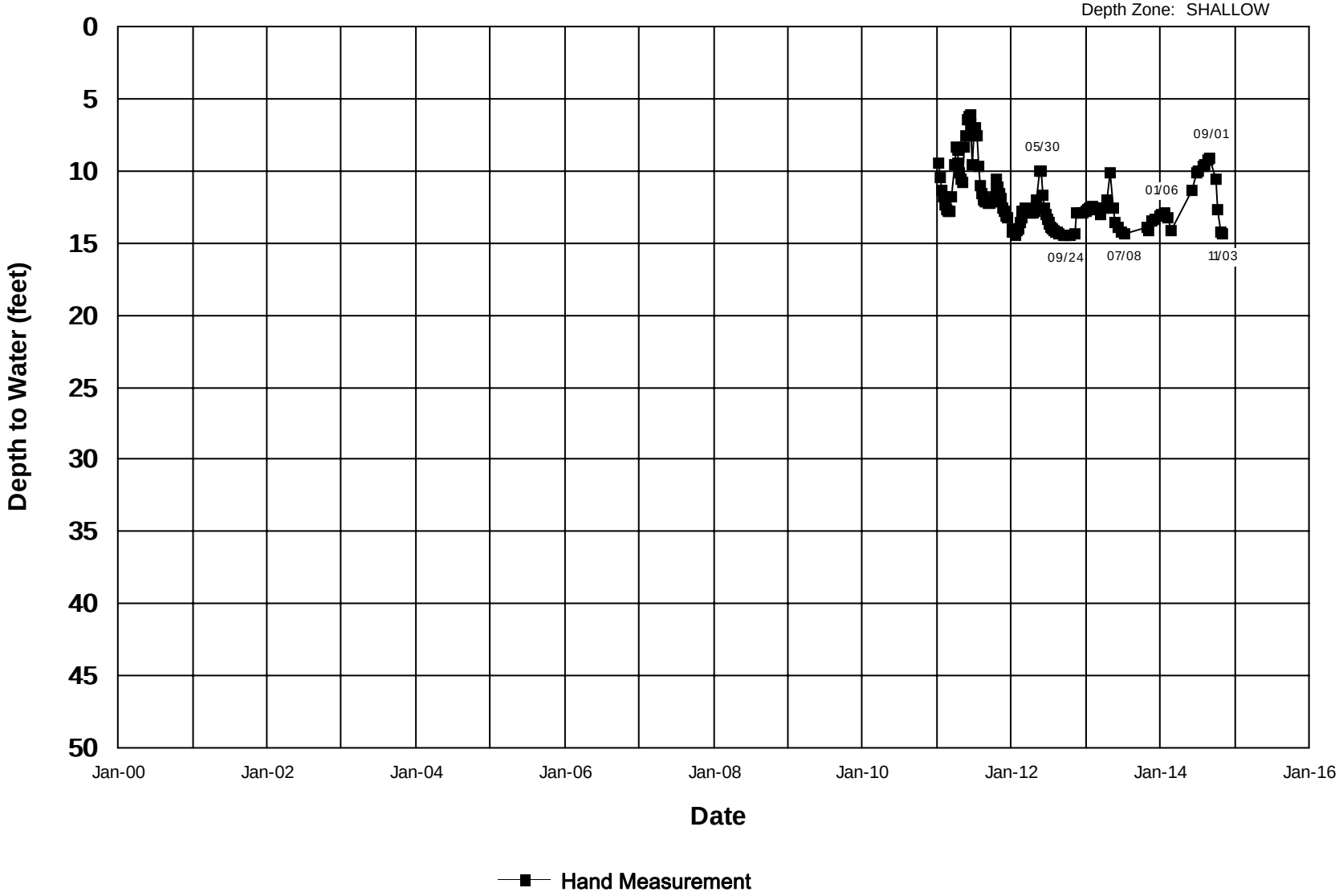
Reference Elevation: 151.8 feet NAVD88
Perforated Interval: 14.95 - 29.48 feet
Depth Zone: SHALLOW



Mendota Area Hydrograph

Wonderful Orchards 3730-94

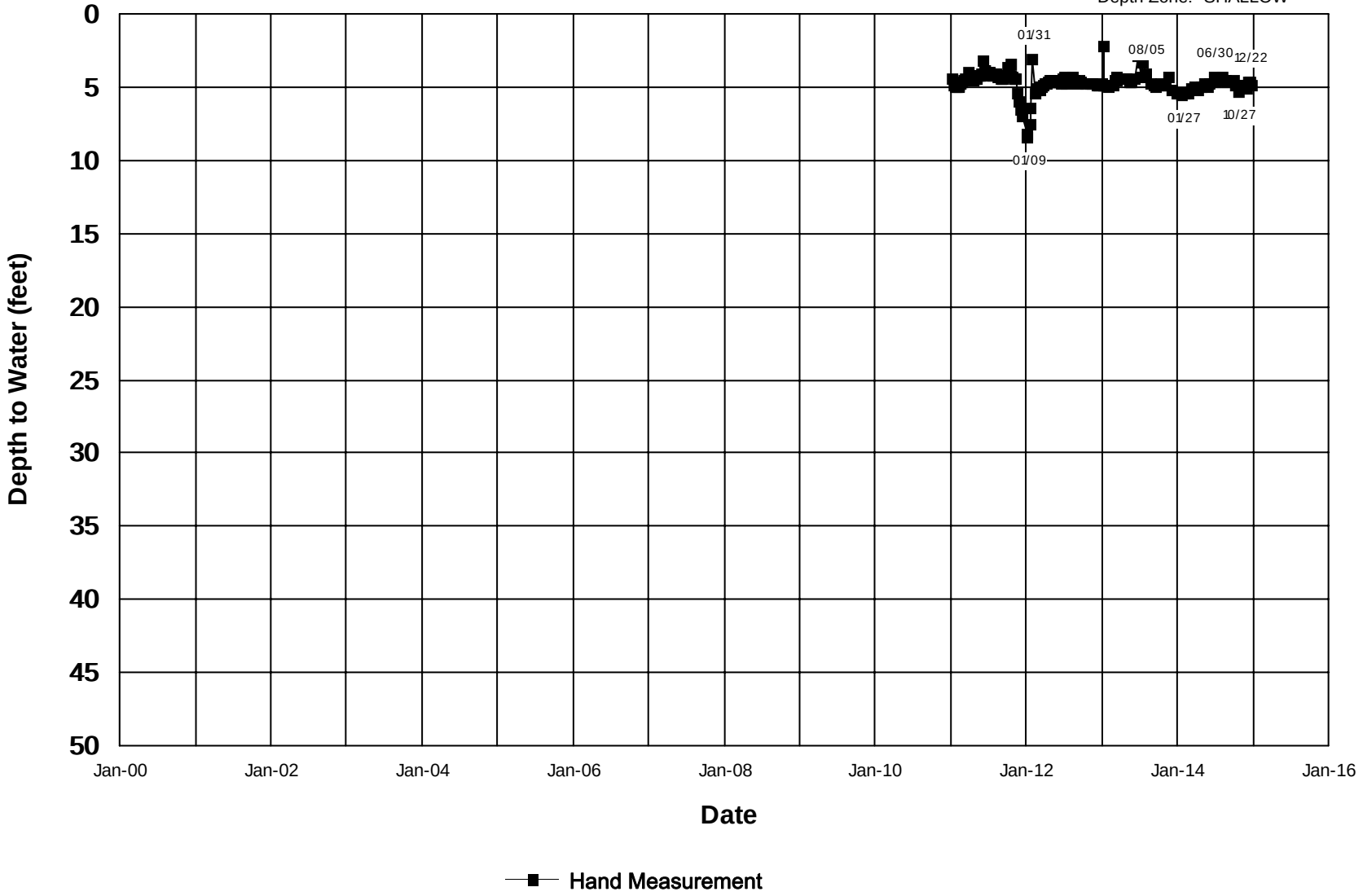
Reference Elevation: 162.79 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW



Mendota Area Hydrograph

Wonderful Orchards 3921-91

Reference Elevation: 157.14 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW

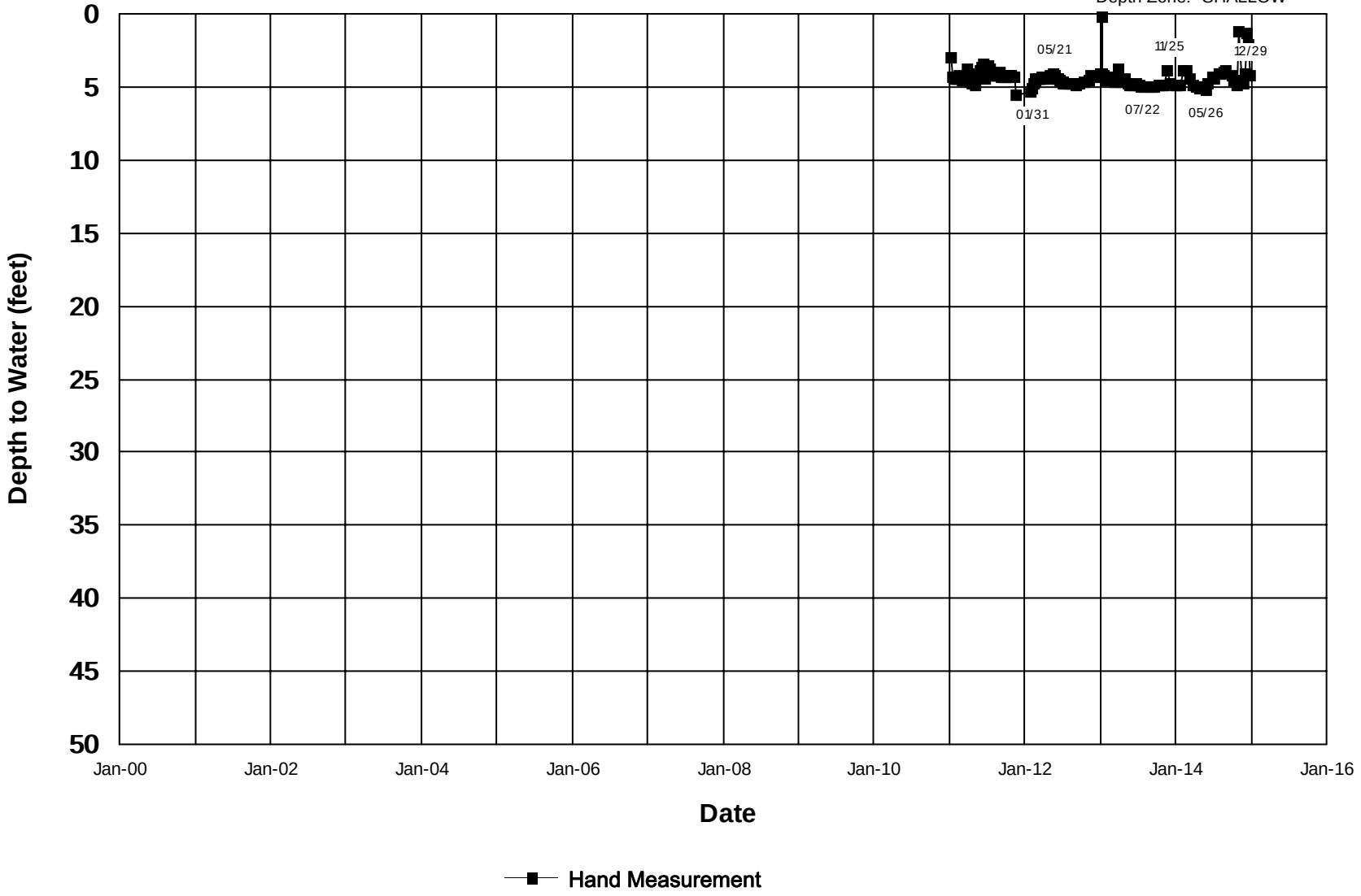


Thursday, July 16, 2015

Mendota Area Hydrograph

Wonderful Orchards 3921-92

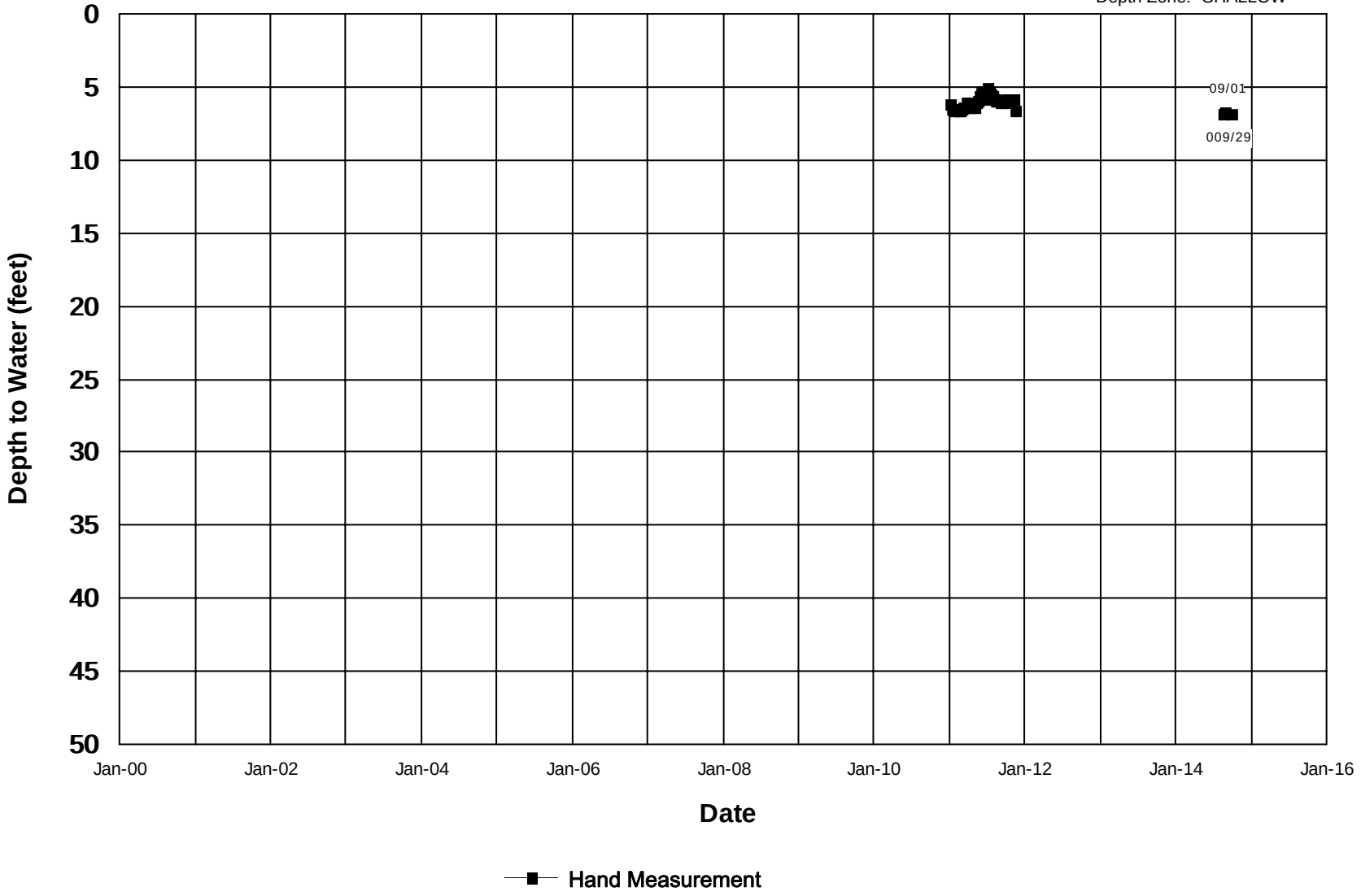
Reference Elevation: 157.41 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW



Mendota Area Hydrograph

Wonderful Orchards 3921-93

Reference Elevation: 157.61 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW

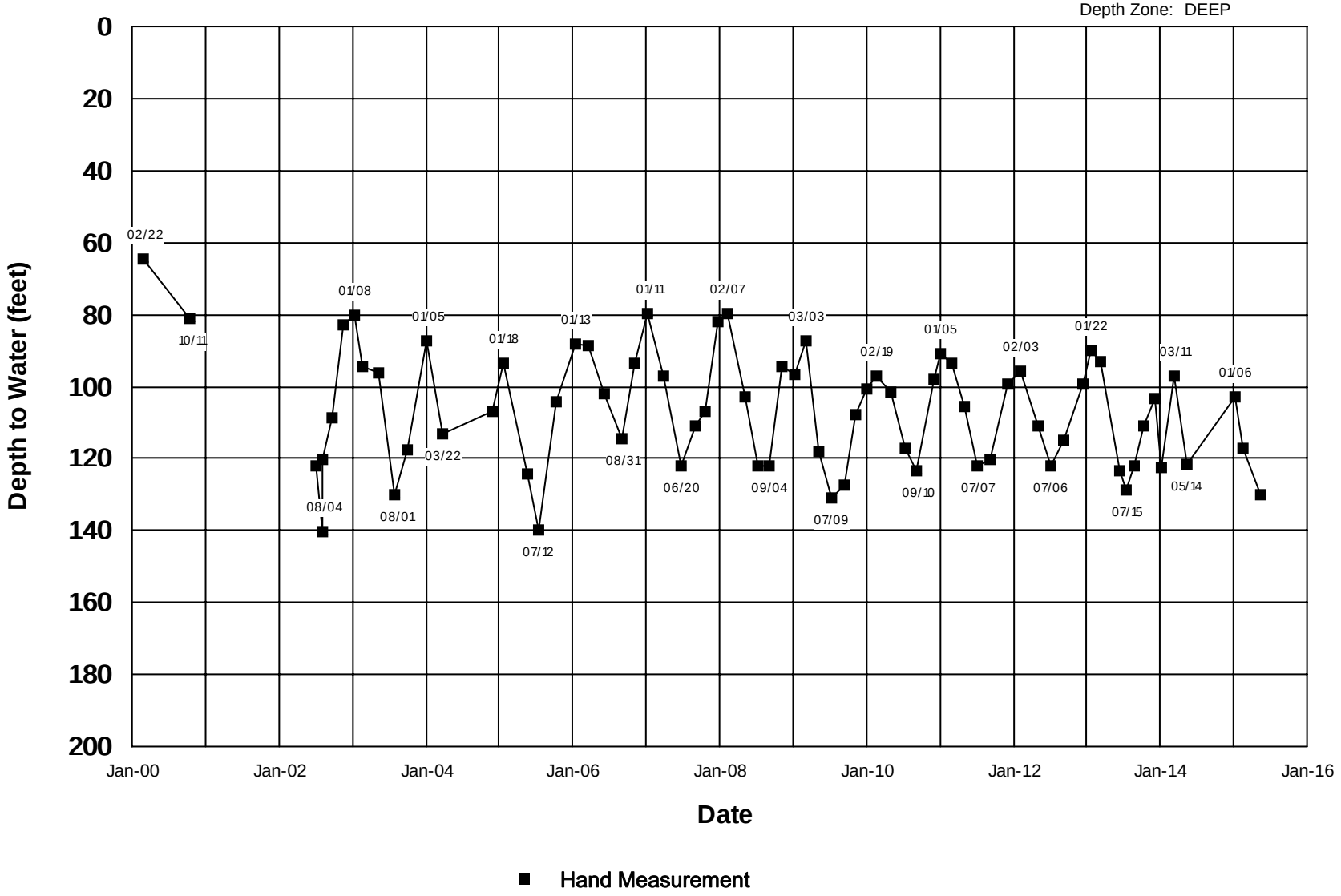


Thursday, July 16, 2015

Mendota Area Hydrograph

Aliso Water District - Woolf Enterprises T13S/R16E-18H1

Reference Elevation: 177 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP

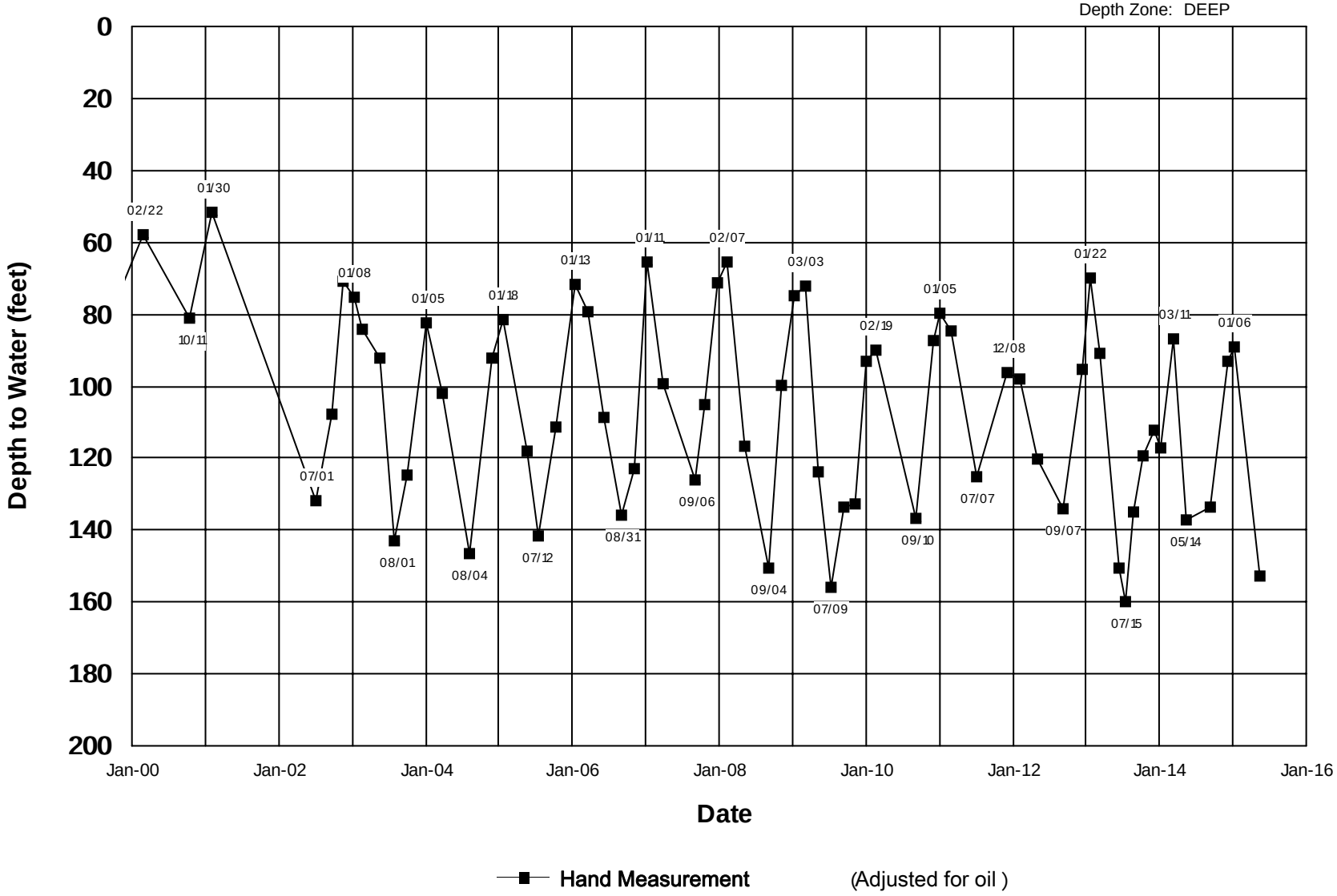


Thursday, July 16, 2015

Mendota Area Hydrograph

Aliso Water District - Woolf Enterprises T13S/R16E-19K1

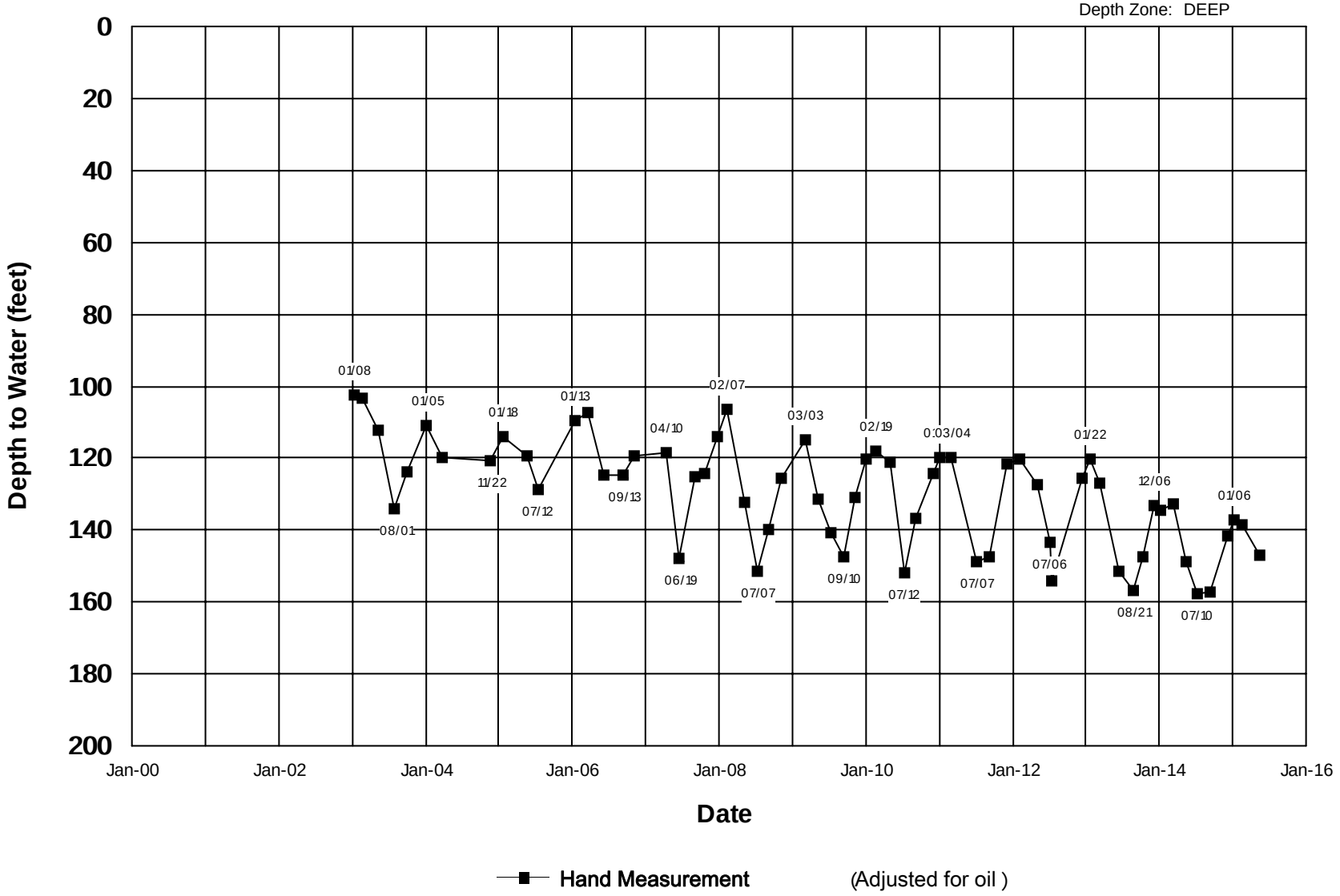
Reference Elevation: 177 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

Aliso Water District - Prosperi T12S/R16E-31G1 (DP-2)

Reference Elevation: 182 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP

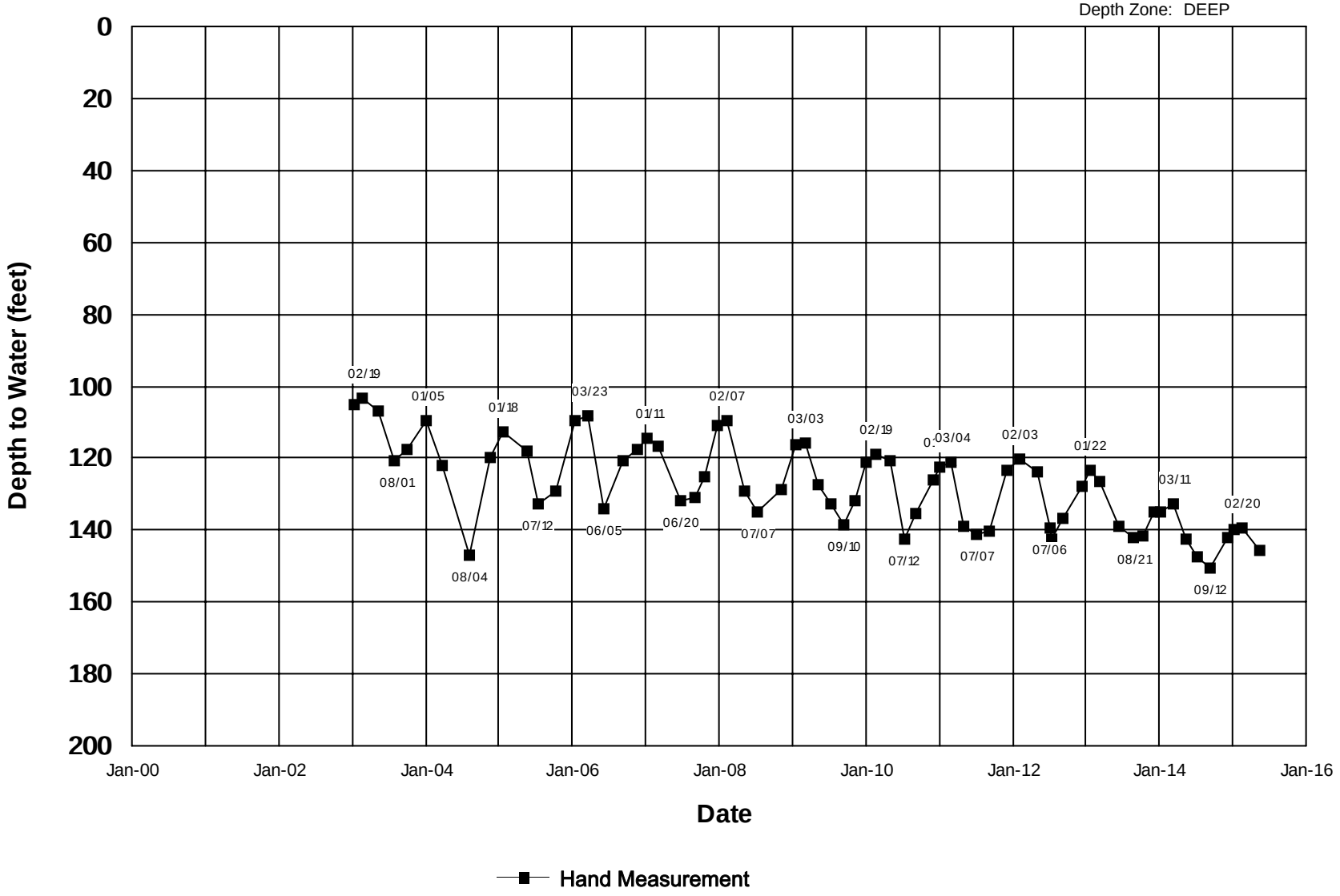


Thursday, July 16, 2015

Mendota Area Hydrograph

Aliso Water District - Prosperi T12S/R16E-31A (DP-4)

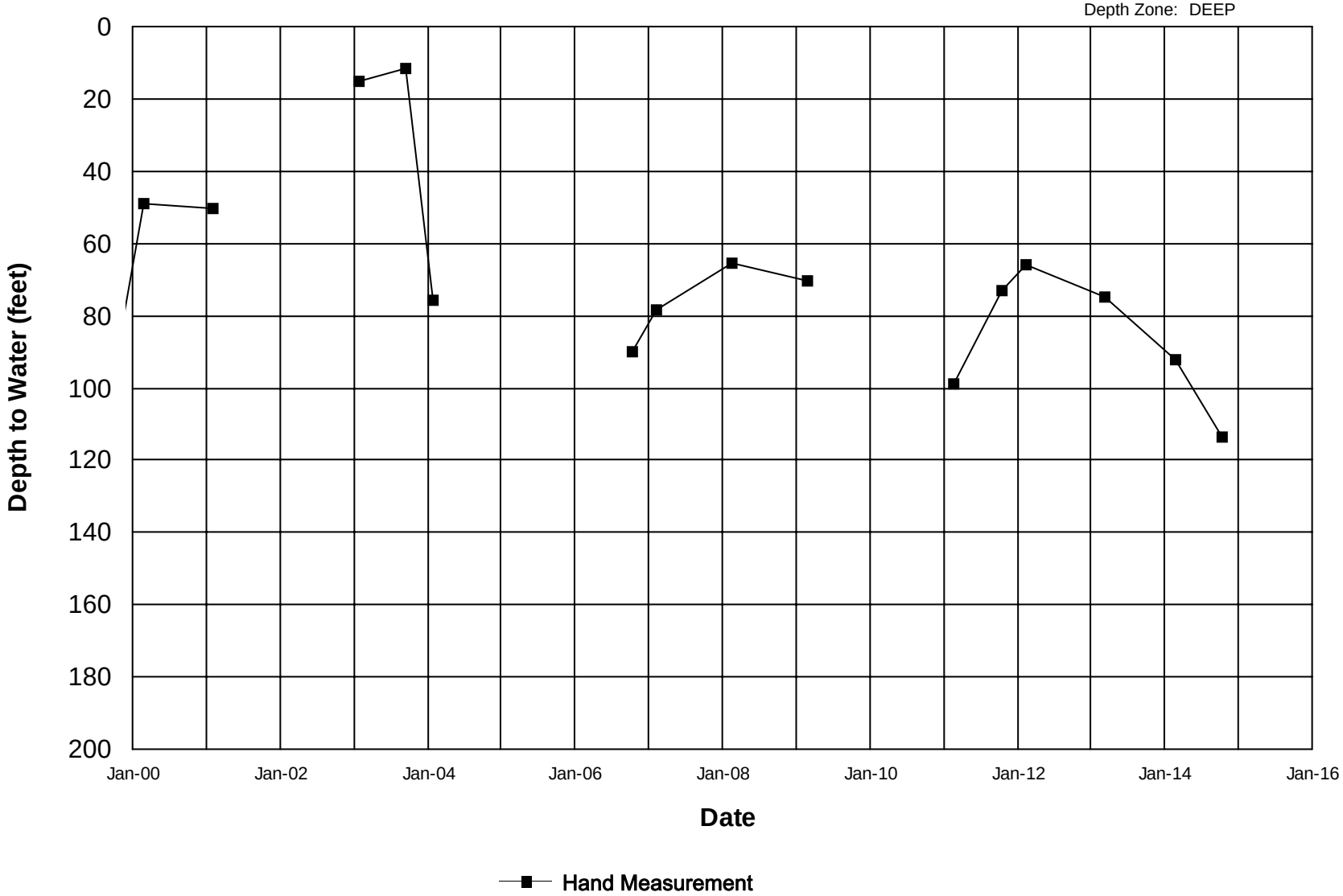
Reference Elevation: 182 feet NAVD88
Perforated Interval: 160 - 324 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Aliso Water District - Woolf Enterprises T13S/R16E-30A1

Reference Elevation: NA
Perforated Interval: 190 - 390 feet
Depth Zone: DEEP

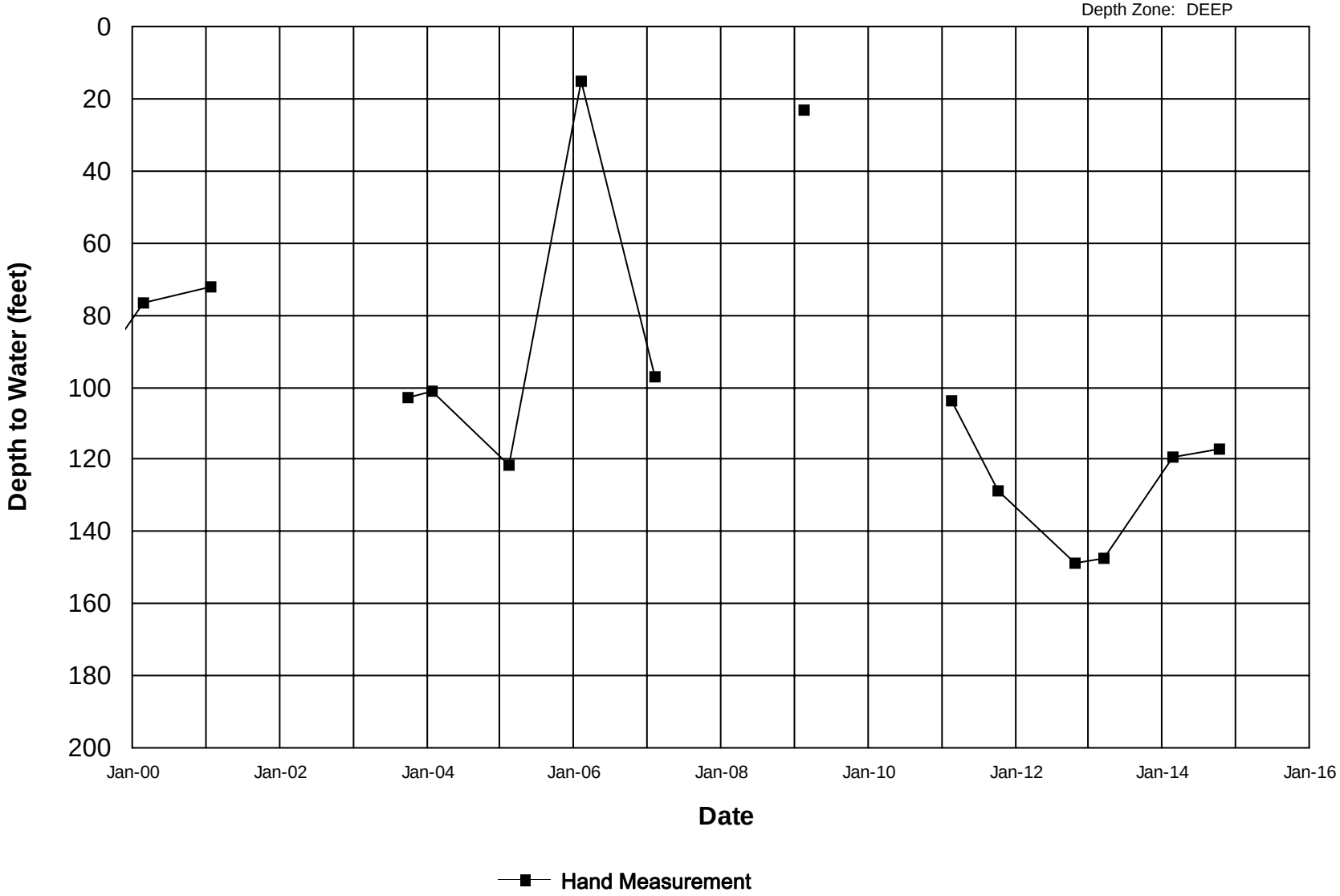


Thursday, July 16, 2015

Mendota Area Hydrograph

Aliso Water District - Golden State Vinters T13S/R16E-16D2

Reference Elevation: 179 feet msl
Perforated Interval: NA
Depth Zone: DEEP

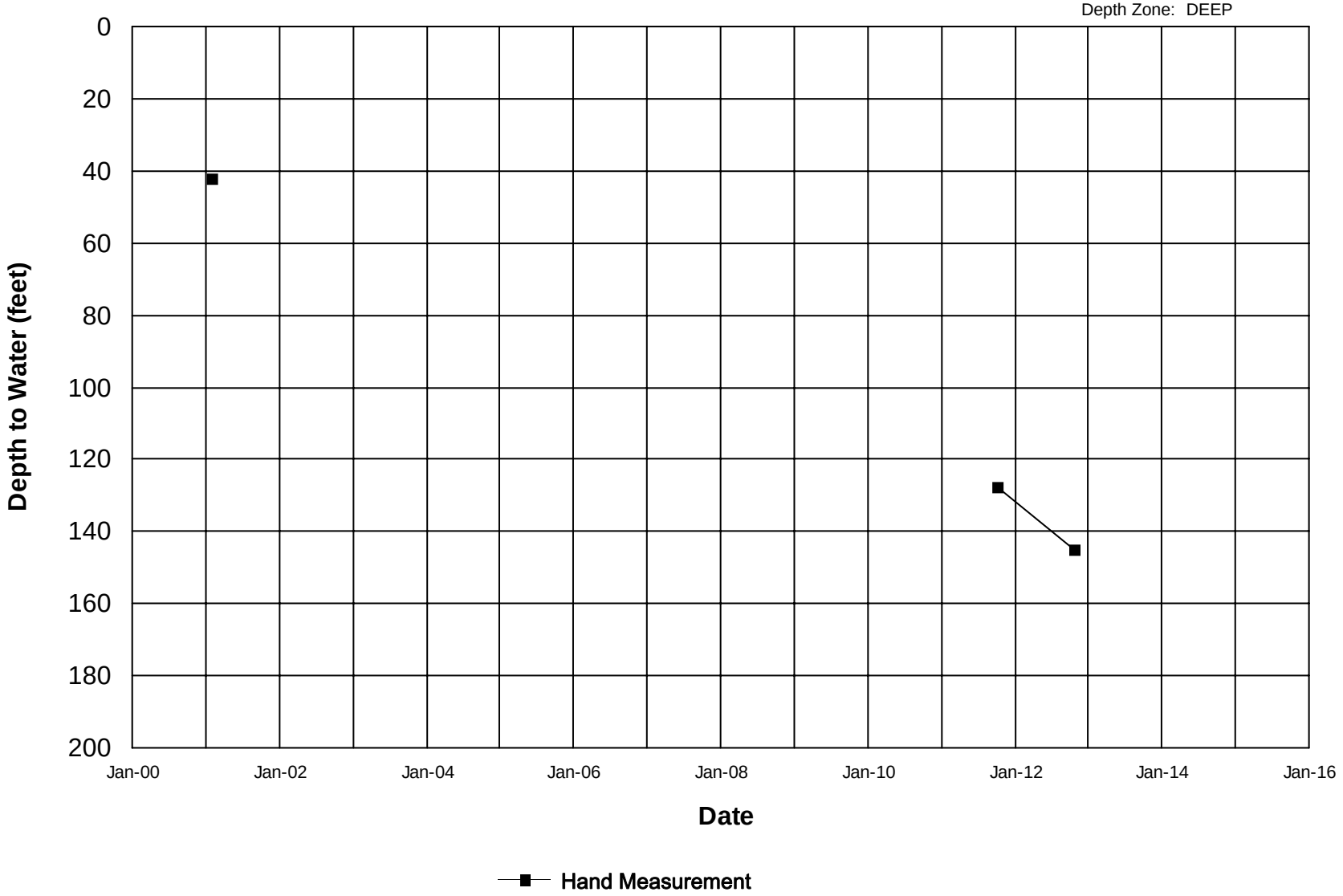


Thursday, July 16, 2015

Mendota Area Hydrograph

Aliso Water District - Groefsema Ranches T13S/R16E-14H2

Reference Elevation: 197.8 feet msl
Perforated Interval: NA
Depth Zone: DEEP

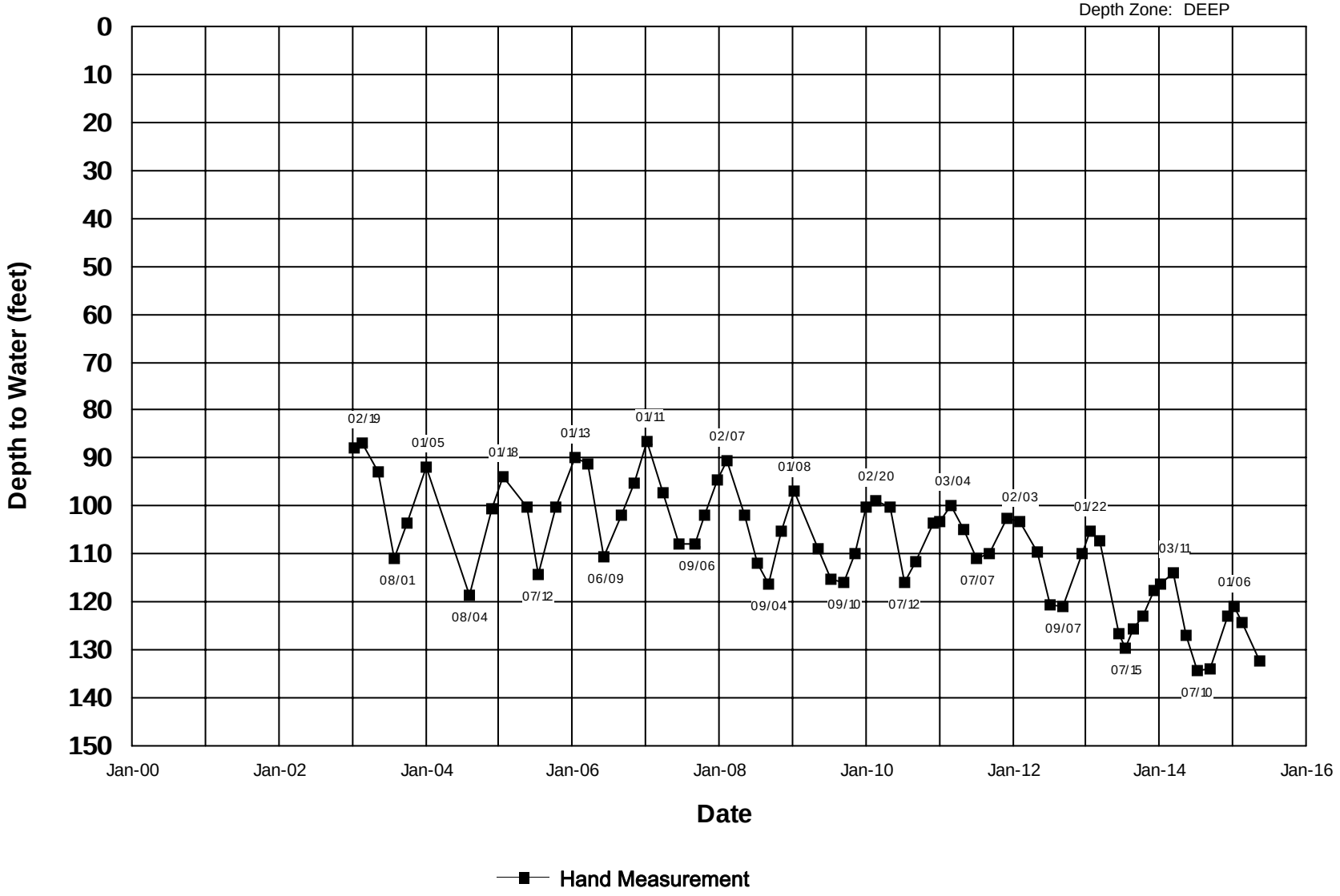


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Madera County) - Simpson T12S/R16E-25A1

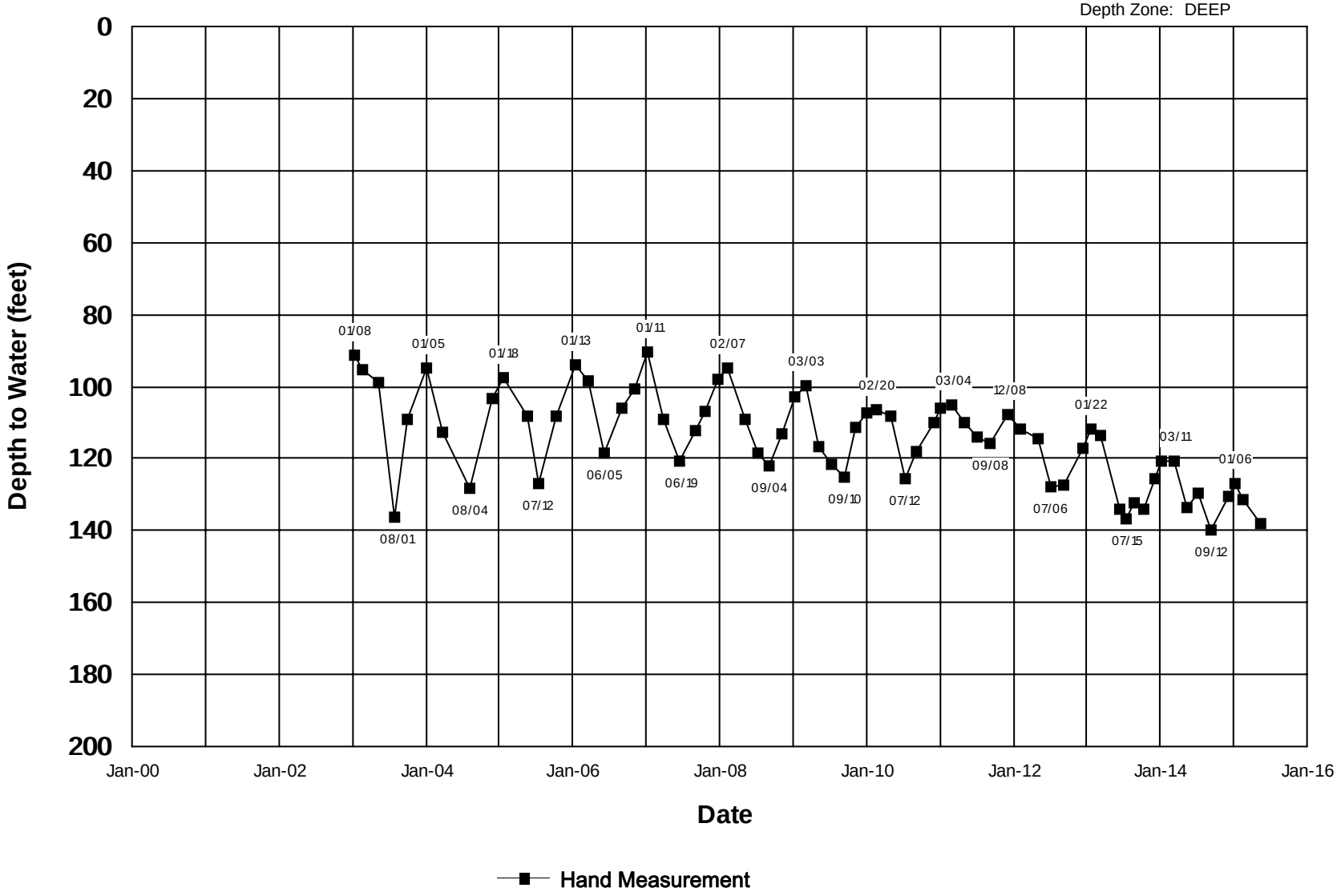
Reference Elevation: 211 feet NAVD88
Perforated Interval: 135 - 150 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Undistricted (Madera County) - Simpson T12S/R16E-26H01

Reference Elevation: 204 feet NAVD88
Perforated Interval: 130 - 298 feet
Depth Zone: DEEP

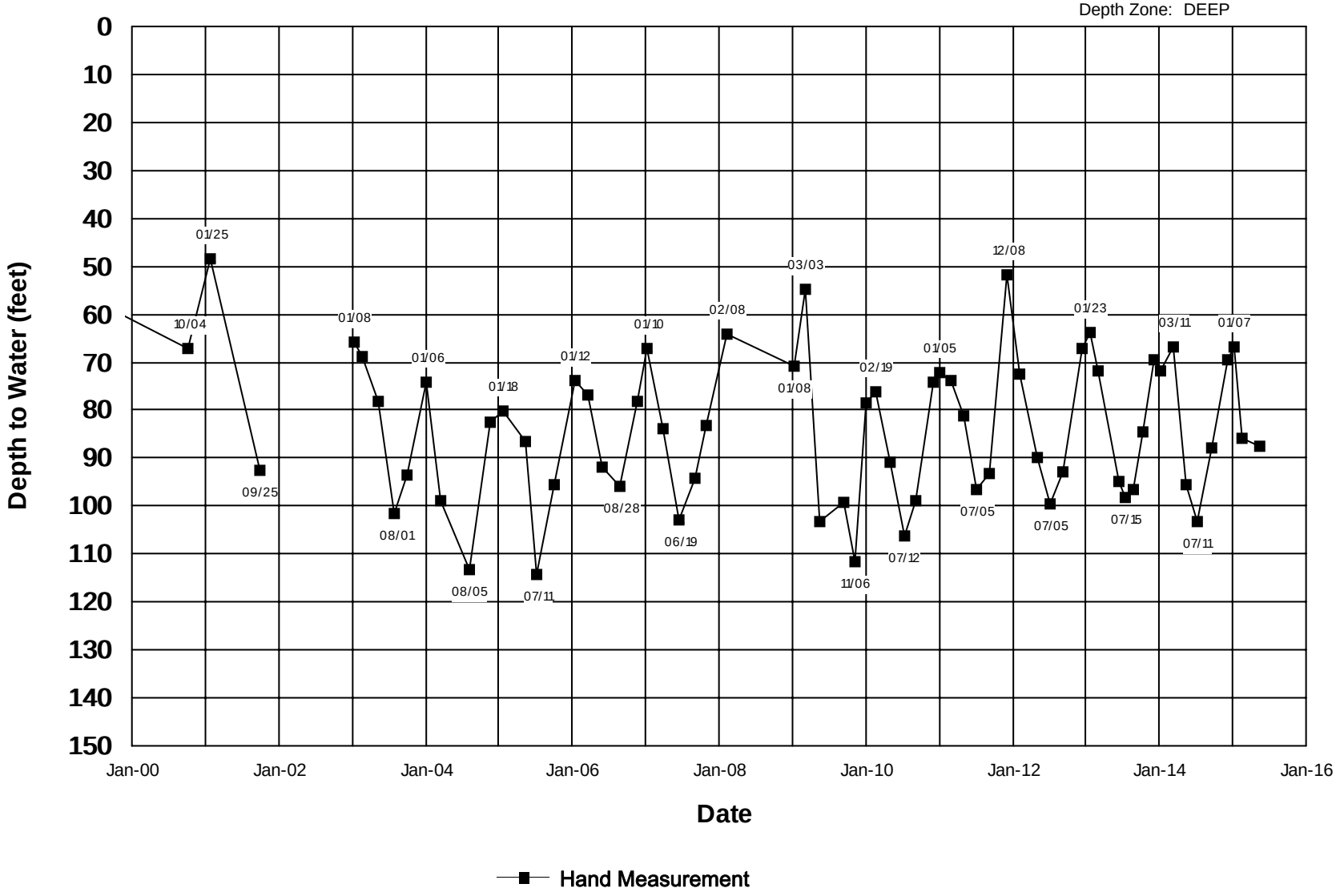


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Horner T13S/R16E-34C1

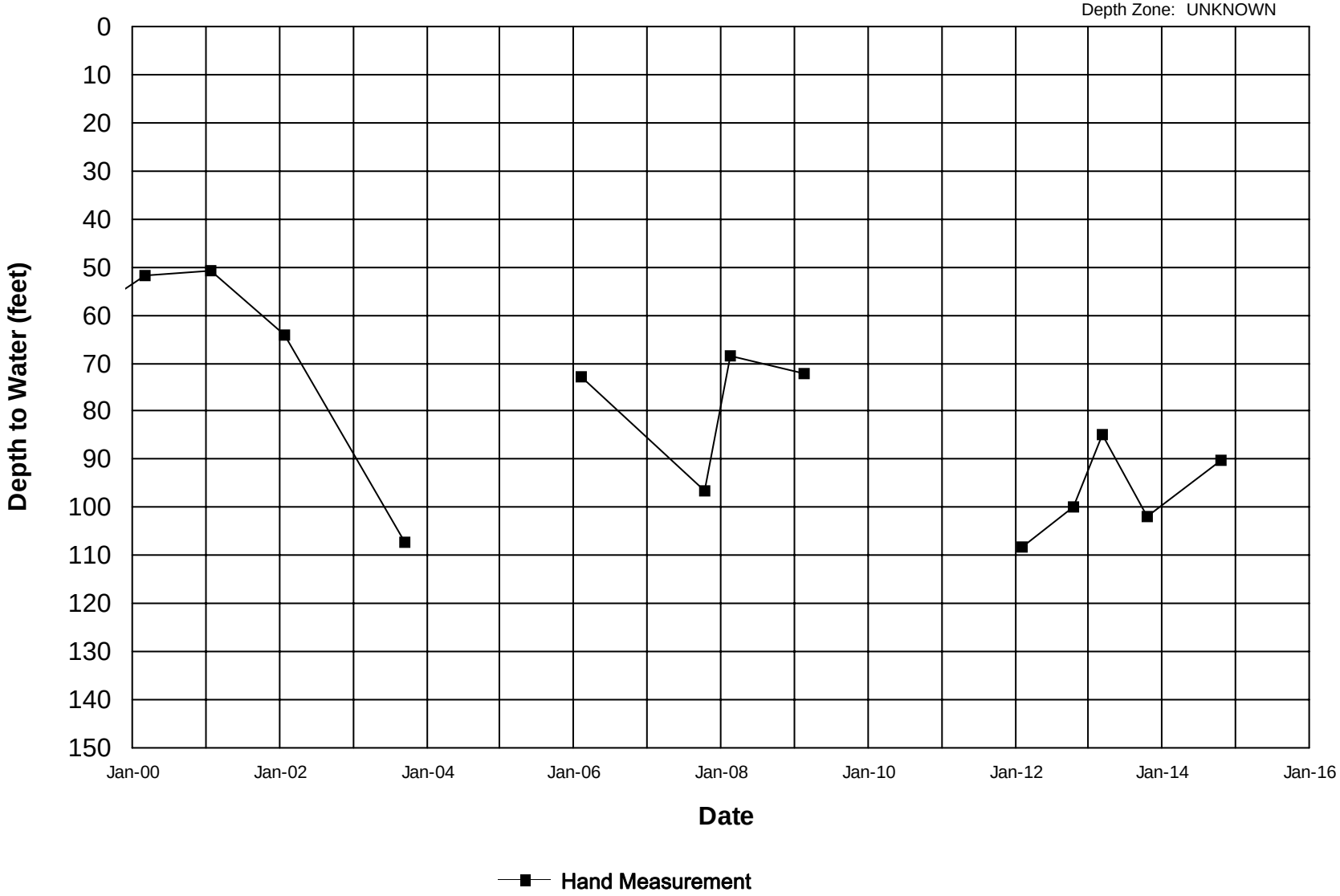
Reference Elevation: 185 feet NAVD88
Perforated Interval: 104 - 236 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Undistricted (Fresno County) - Agape Farms T13S/R16E-34C2

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN

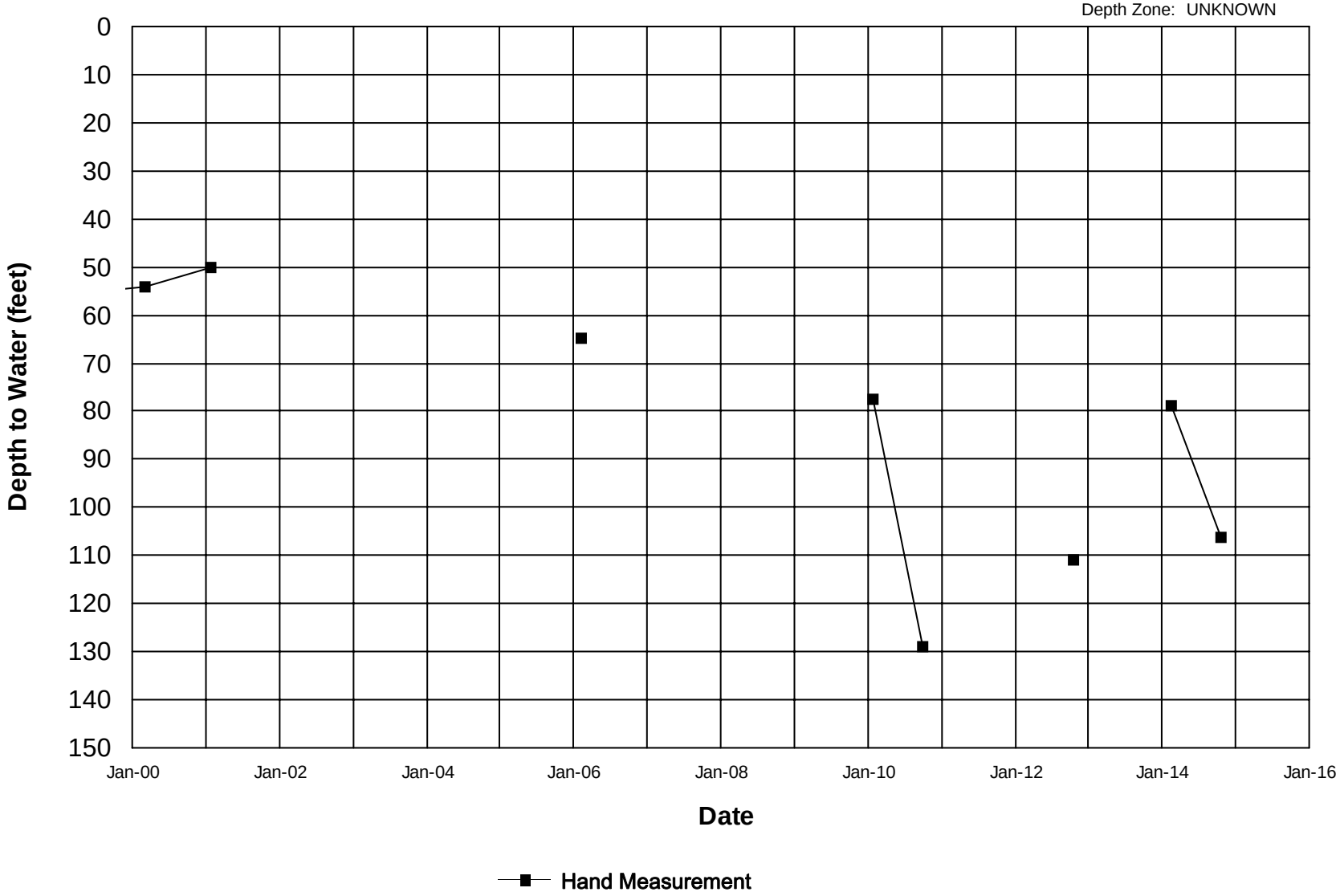


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Agape Farms T13S/R16E-34D1

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN

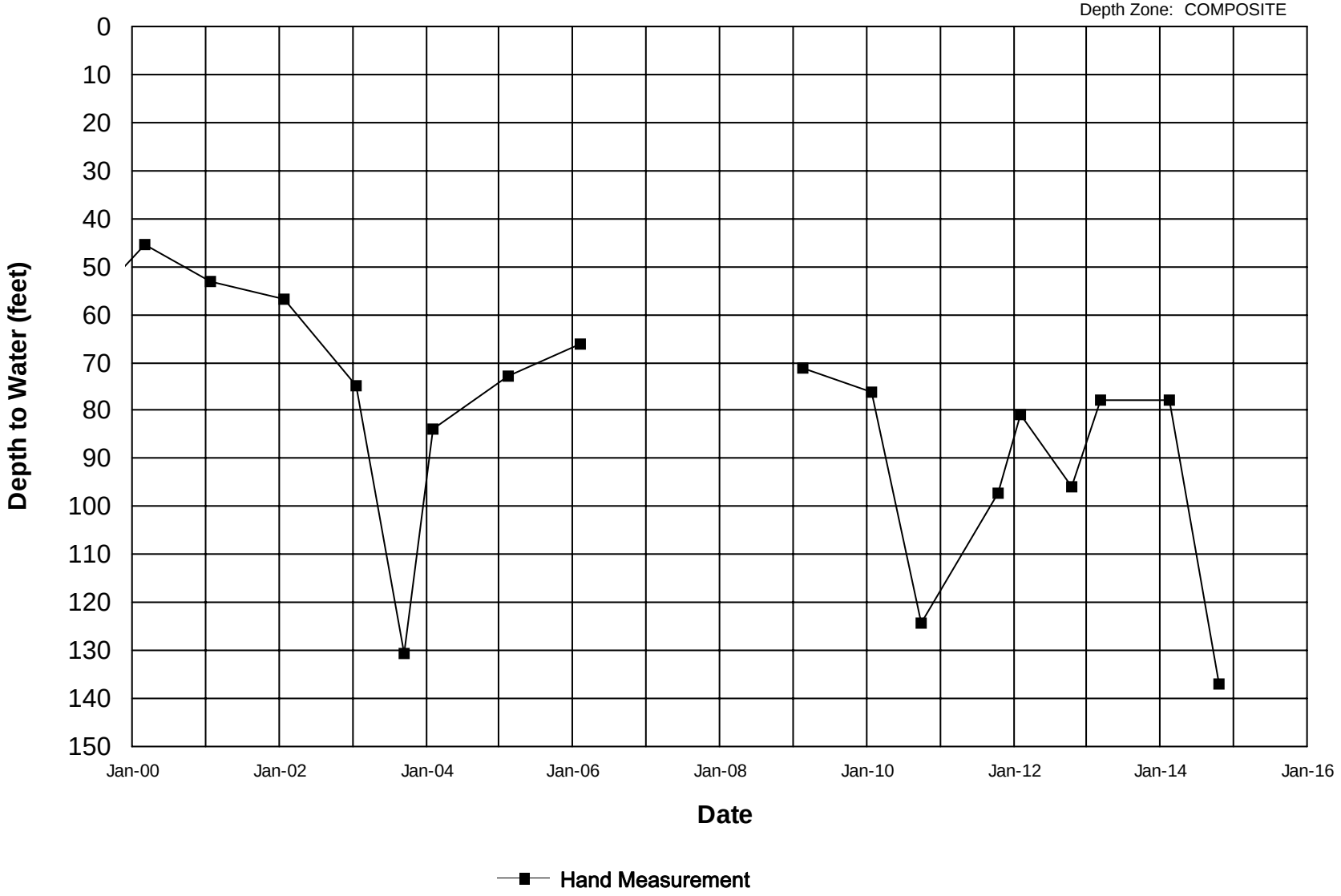


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Agape Farms T13S/R16E-34P2

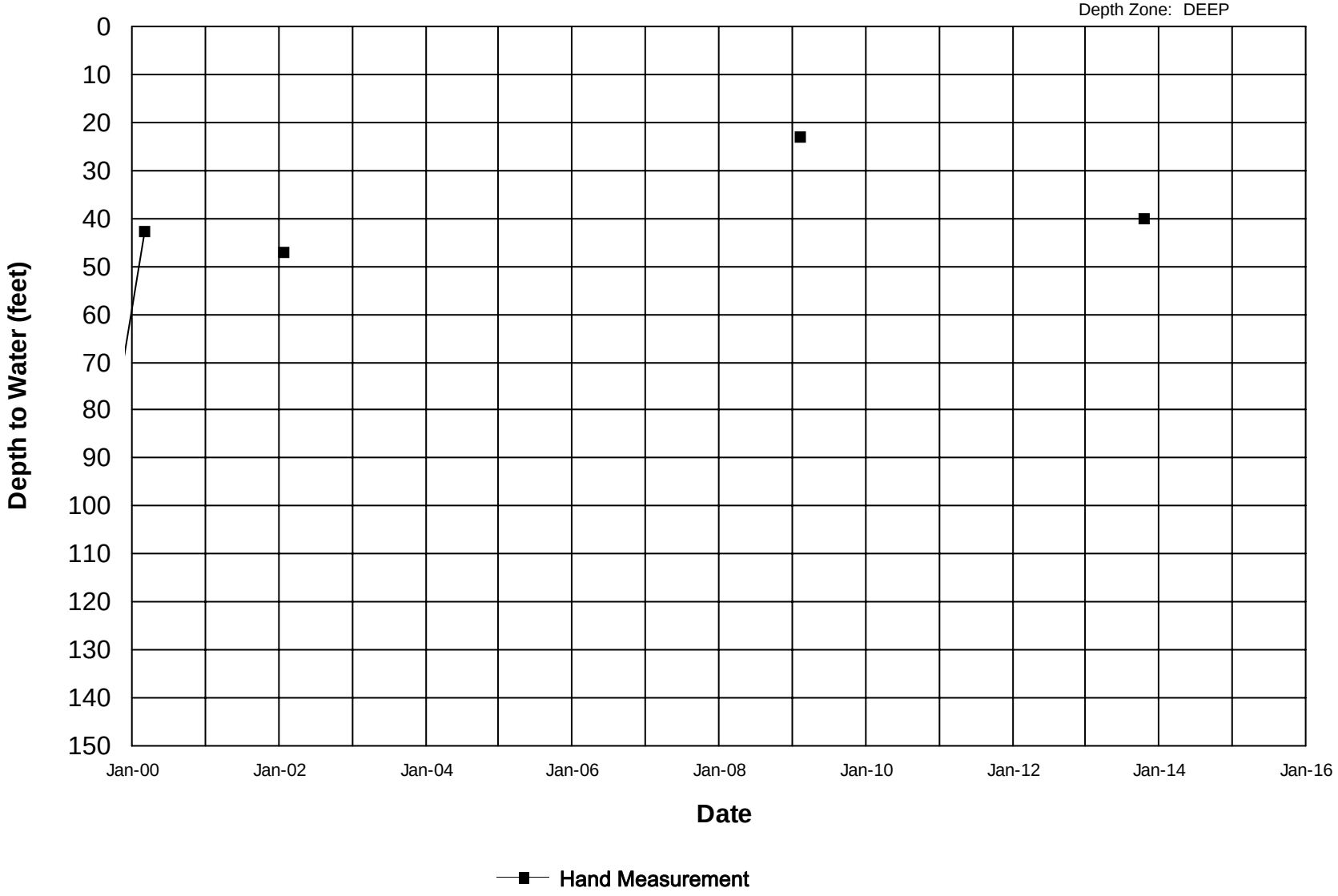
Reference Elevation: 181 feet msl
Perforated Interval: 220 - 418 feet
Depth Zone: COMPOSITE



Mendota Area Hydrograph

Undistricted (Fresno County) - Bar 20 Partners Ltd. T13S/R15E-21

Reference Elevation: NA
Perforated Interval: 175 - 320 feet
Depth Zone: DEEP

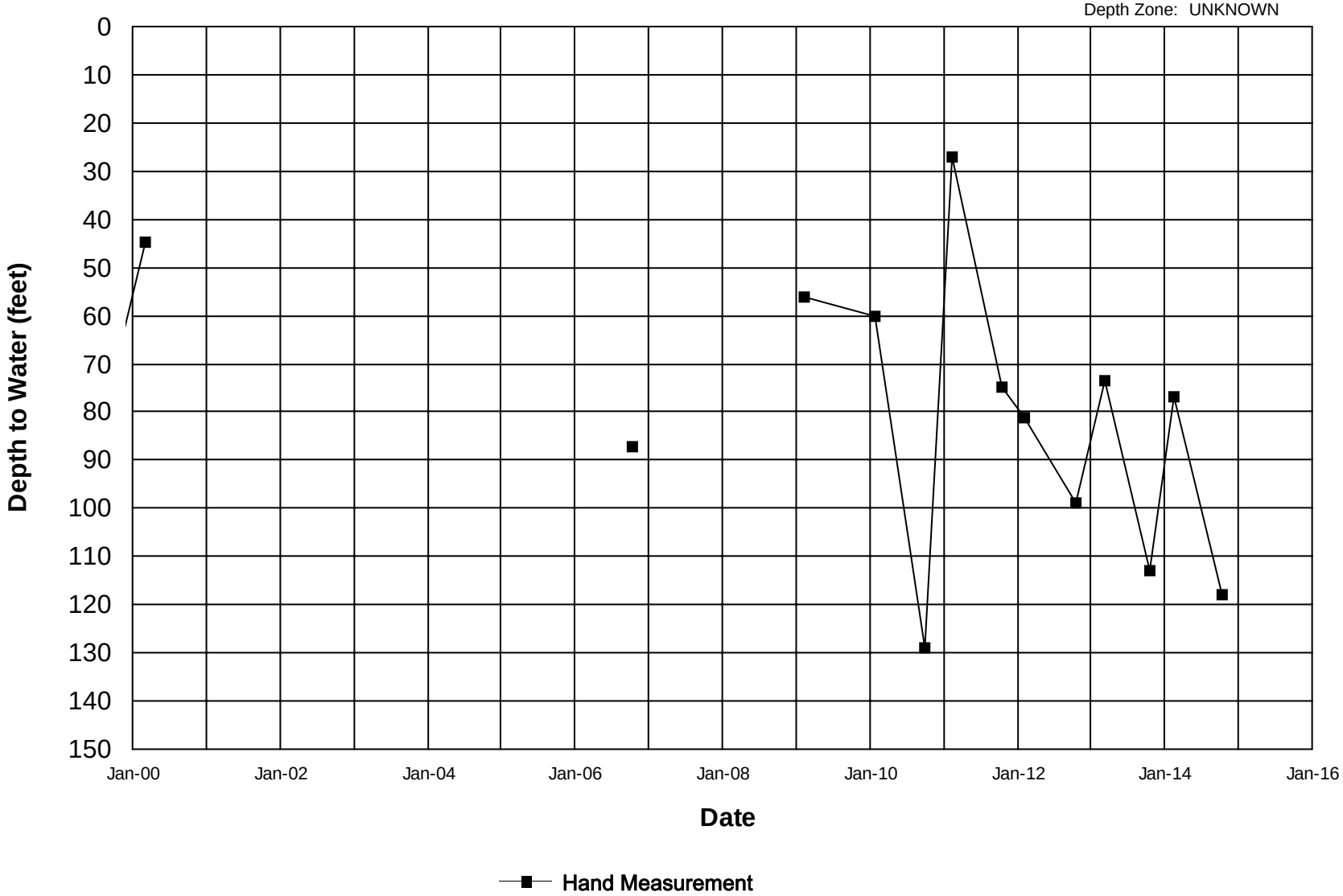


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Bar 20 Partners Ltd. T14S/R16E-5L2

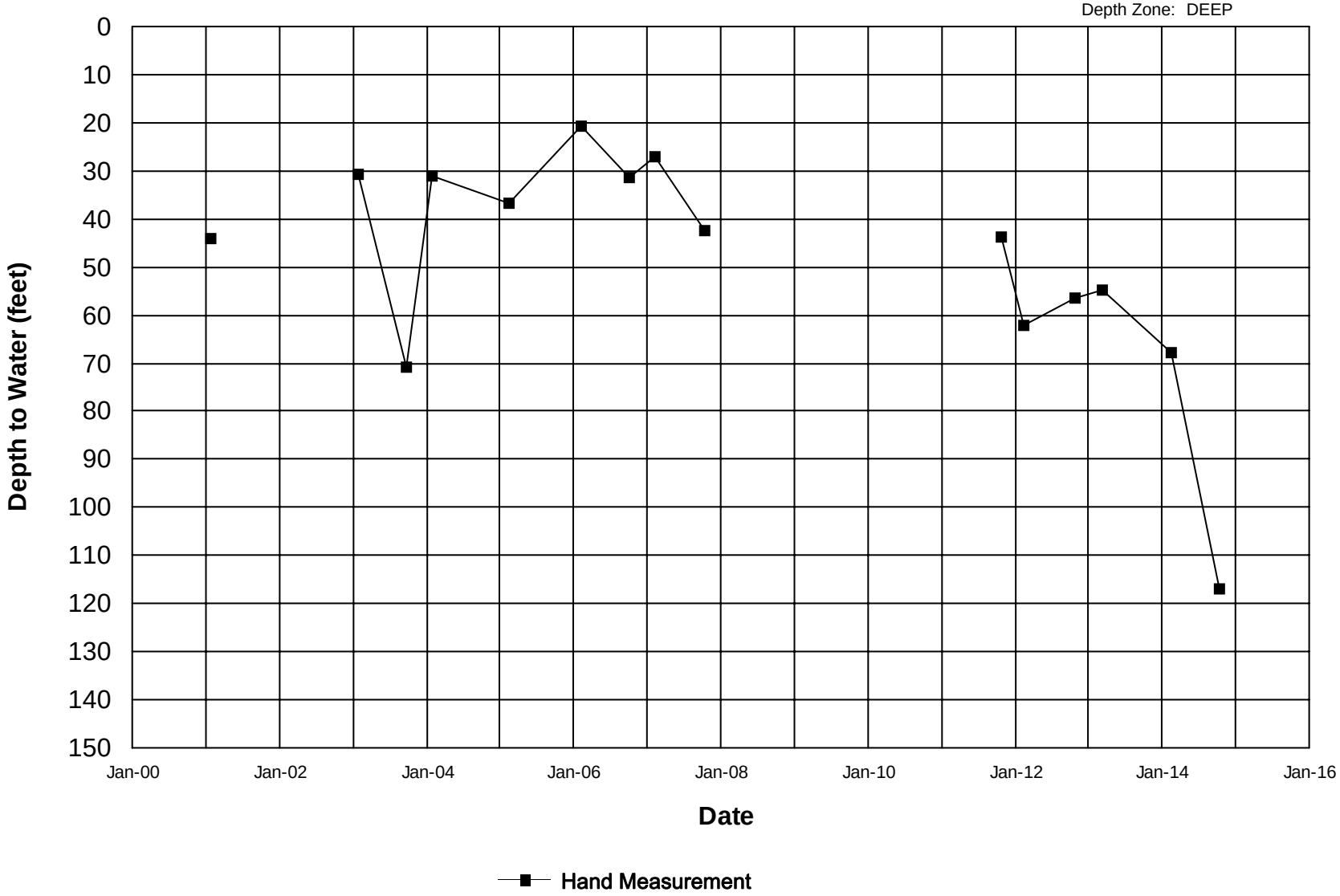
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN



Mendota Area Hydrograph

Undistricted (Fresno County) - Bar 20 Partners Ltd. T13S/R15E-20G2

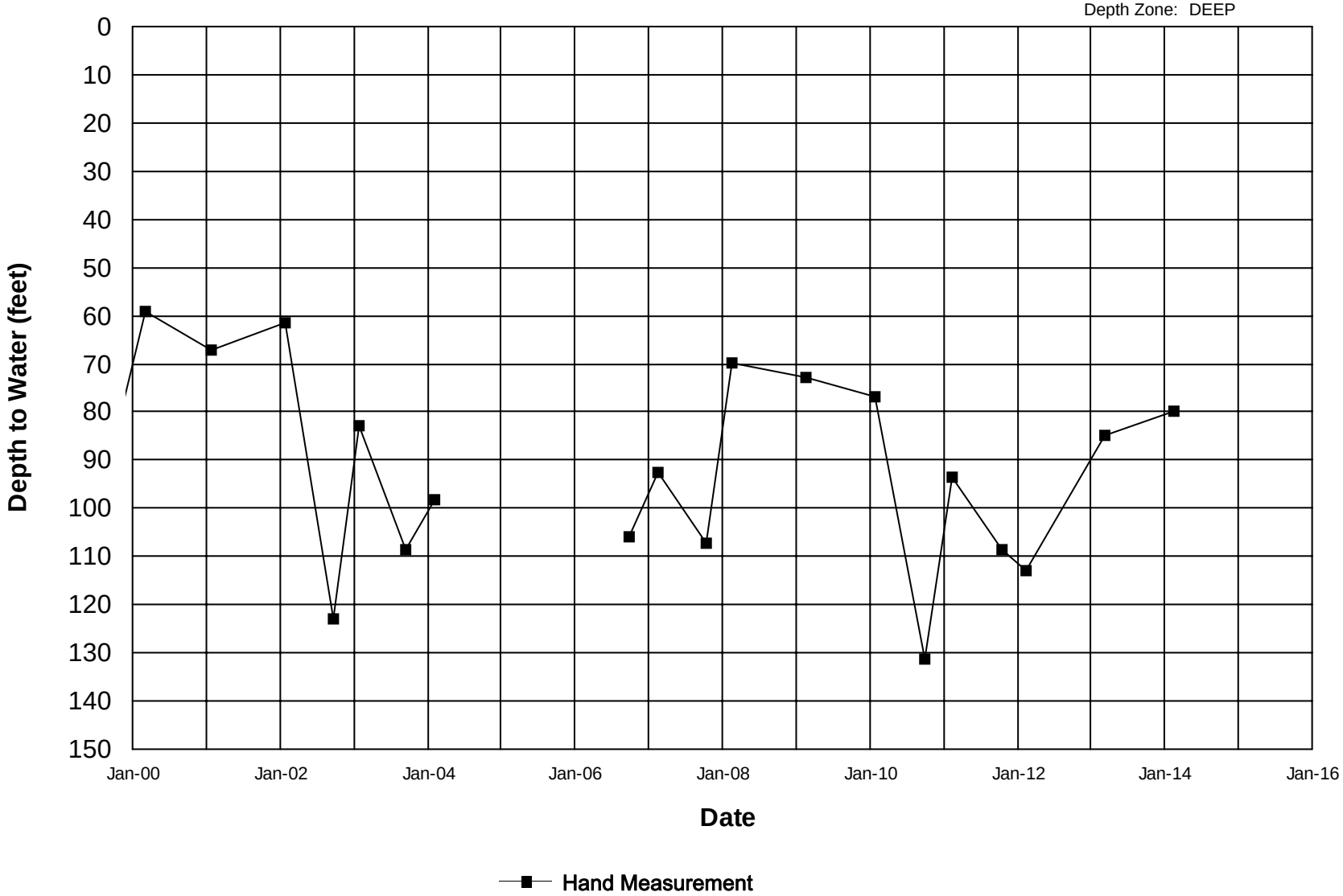
Reference Elevation: NA
Perforated Interval: 180 - 420 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Undistricted (Fresno County) - Connolly T14S/R16E-3F1

Reference Elevation: 182 feet msl
Perforated Interval: 120 - 320 feet
Depth Zone: DEEP

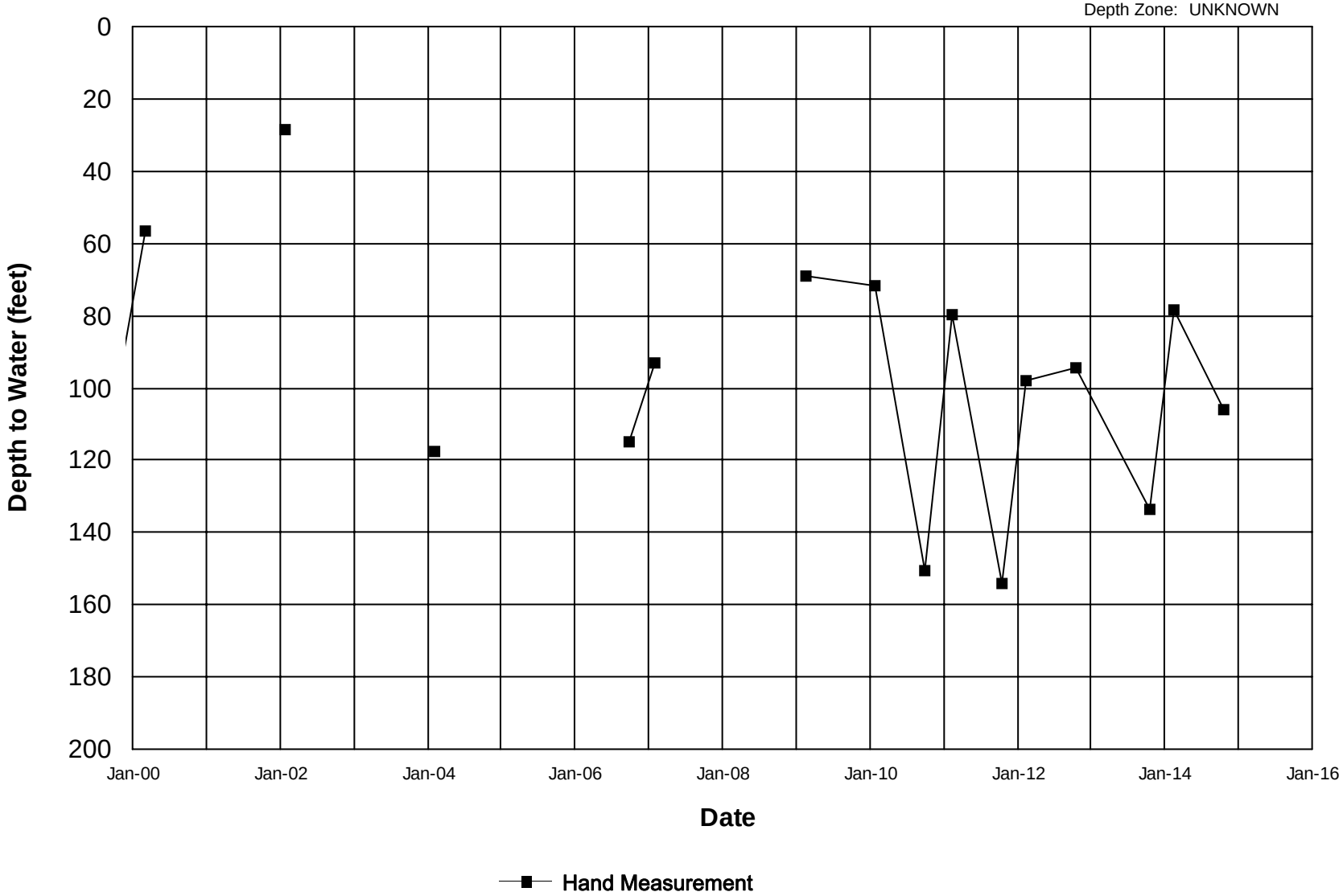


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Duran T14S/R16E-3P1

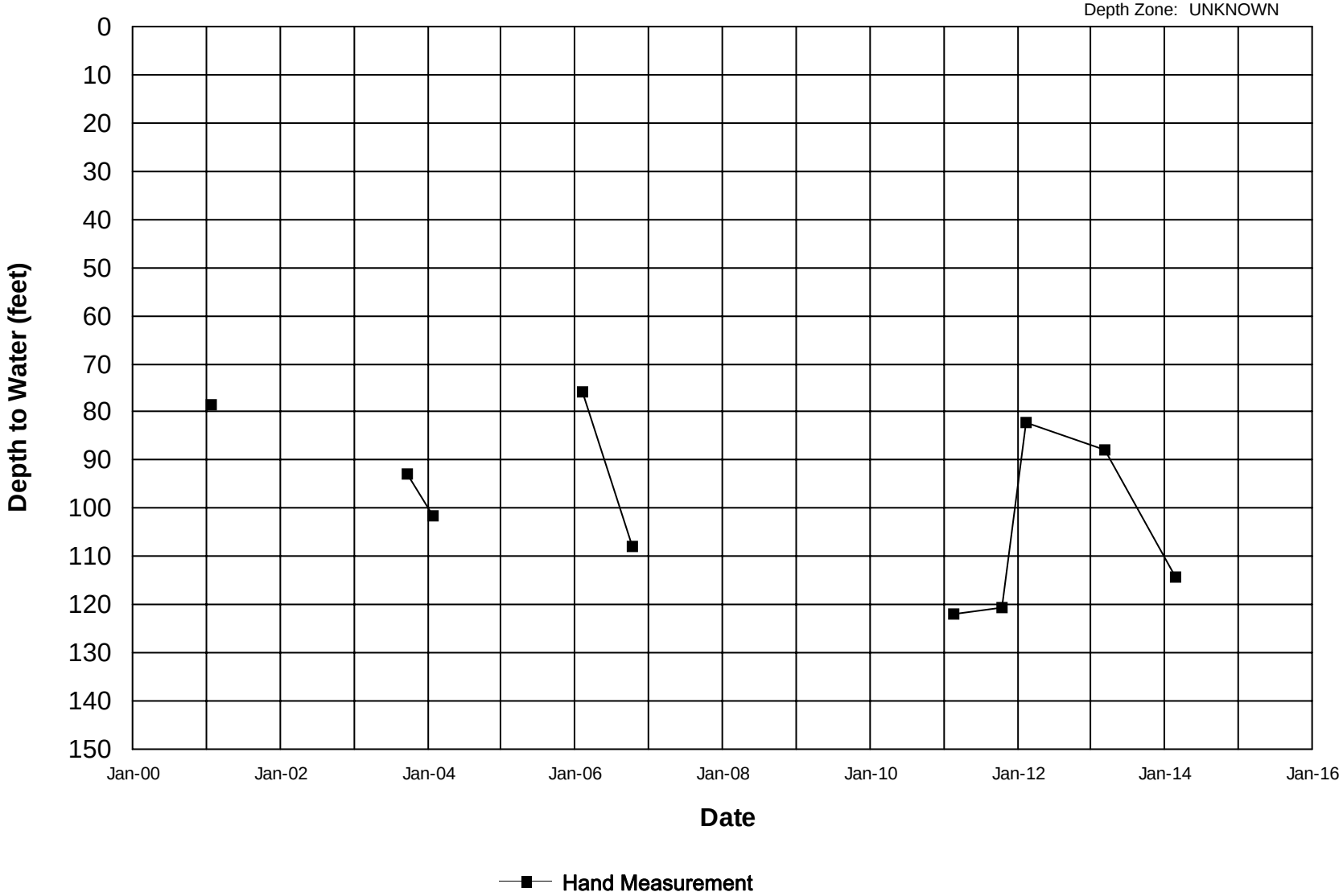
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN



Mendota Area Hydrograph

Undistricted (Fresno County) - Giffen Ranch T13S/R16E-8H1

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN

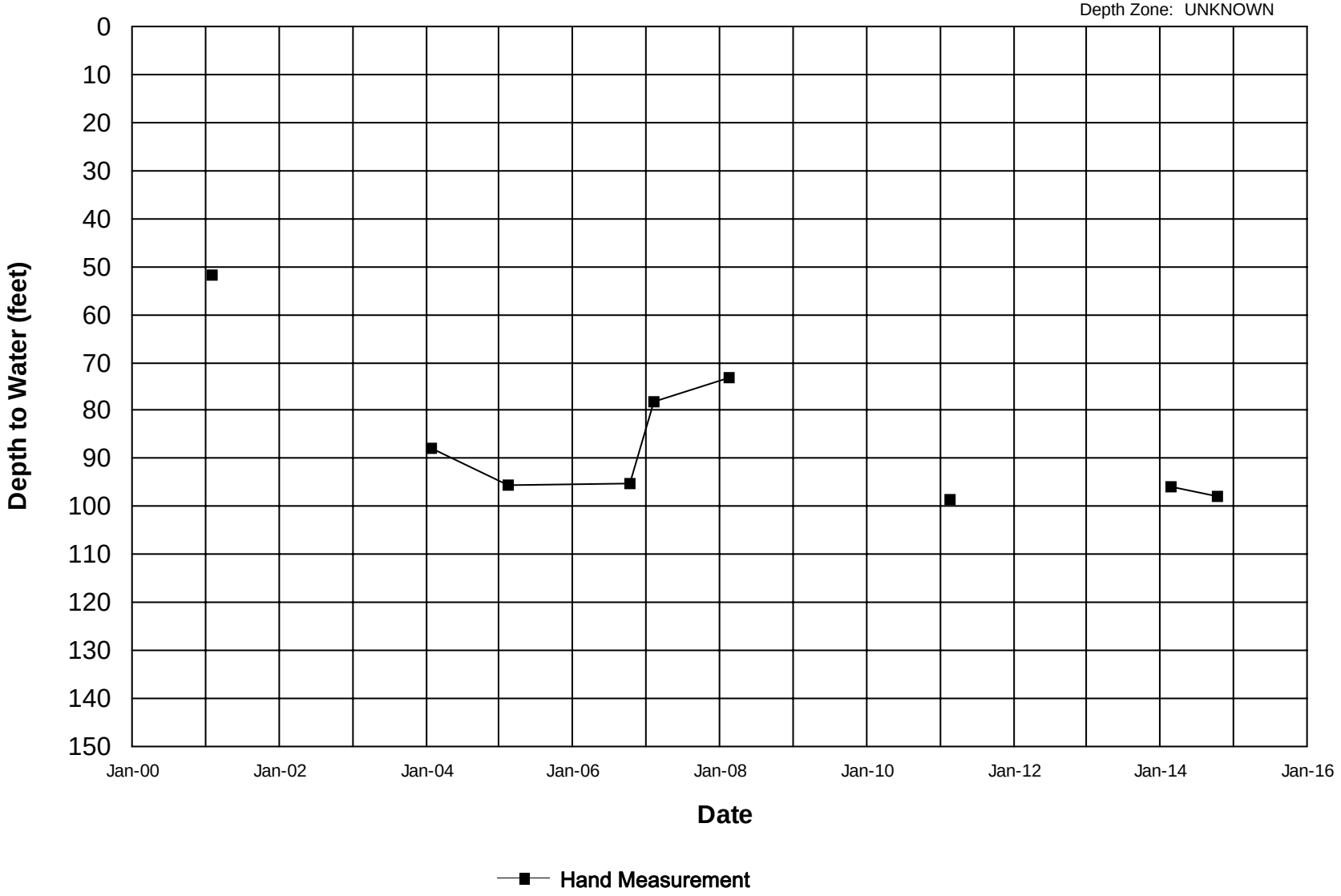


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Golden State Vintners T13S/R16E-20J1

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN

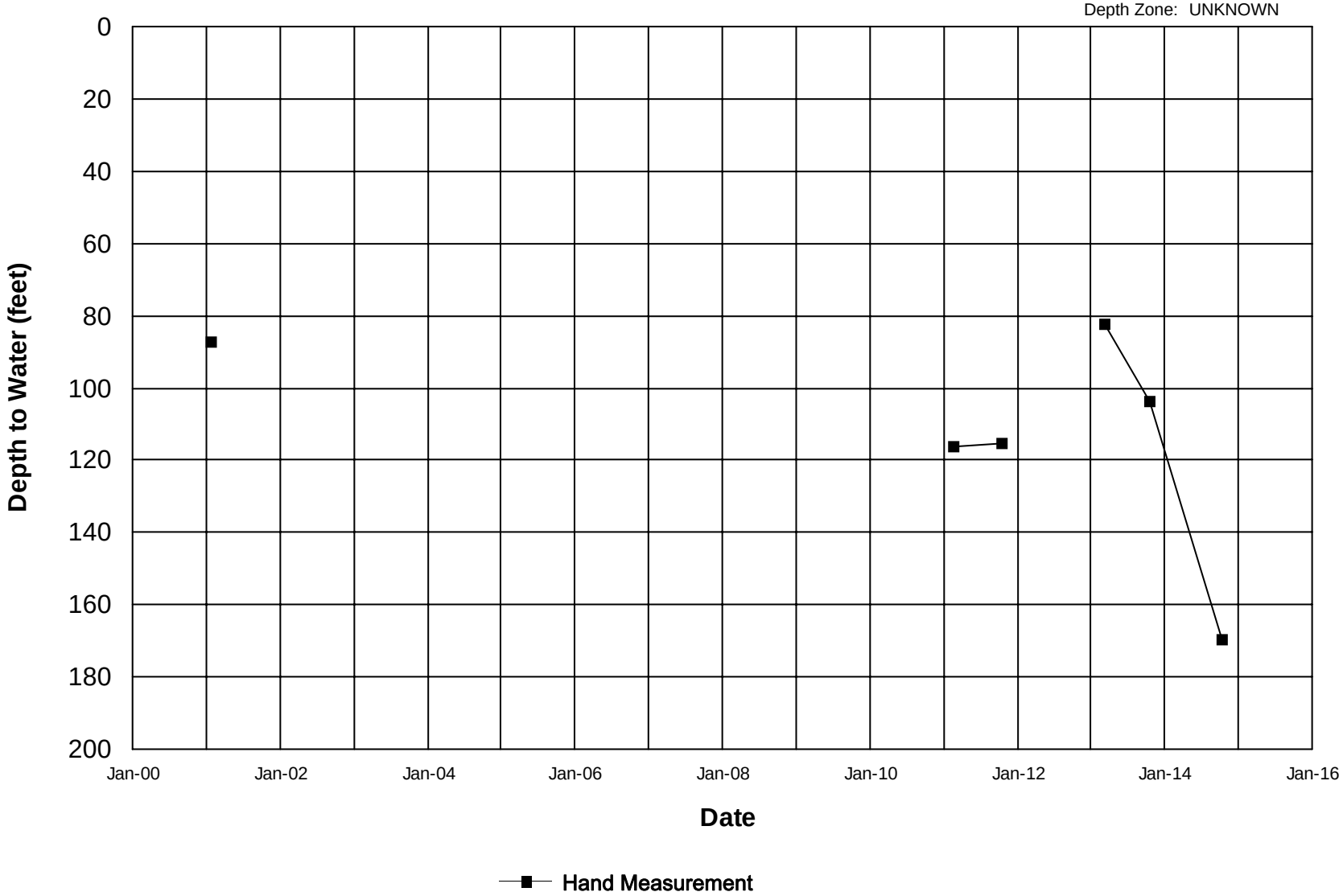


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Lyon Packing T13S/R16E-5C1

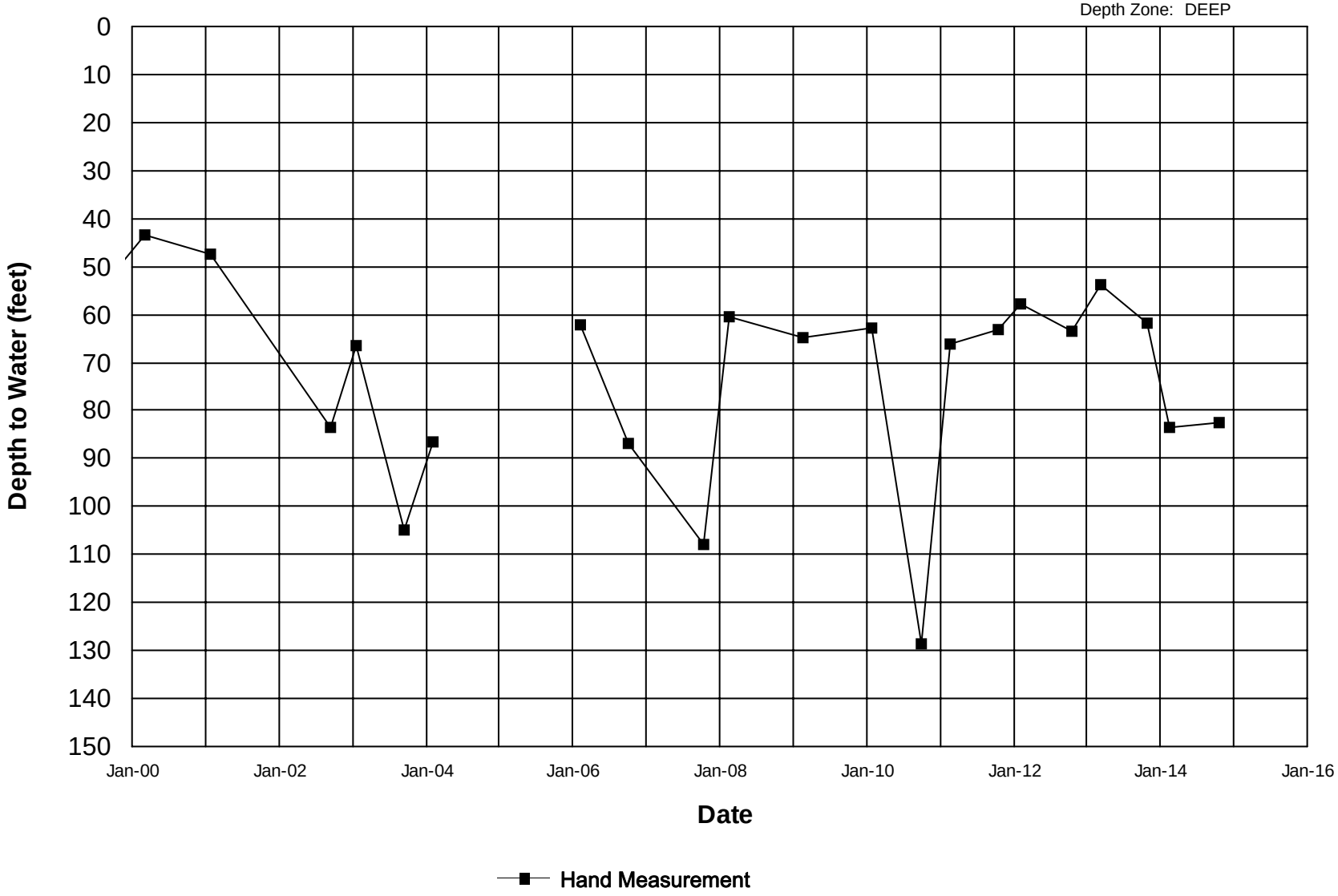
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN



Mendota Area Hydrograph

Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-30L3

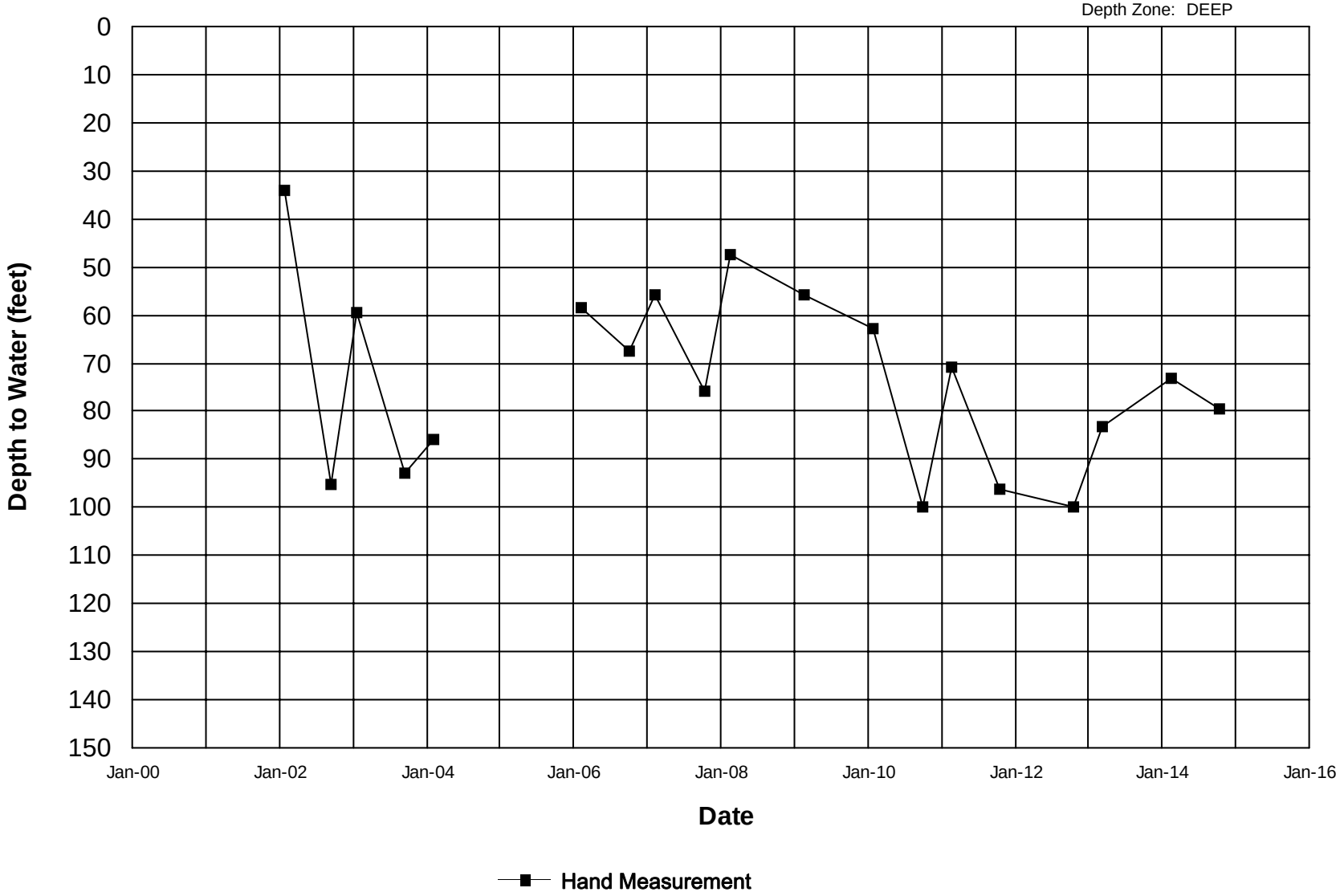
Reference Elevation: NA
Perforated Interval: 135 - 400 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-30Q1

Reference Elevation: NA
Perforated Interval: 130 - 340 feet
Depth Zone: DEEP

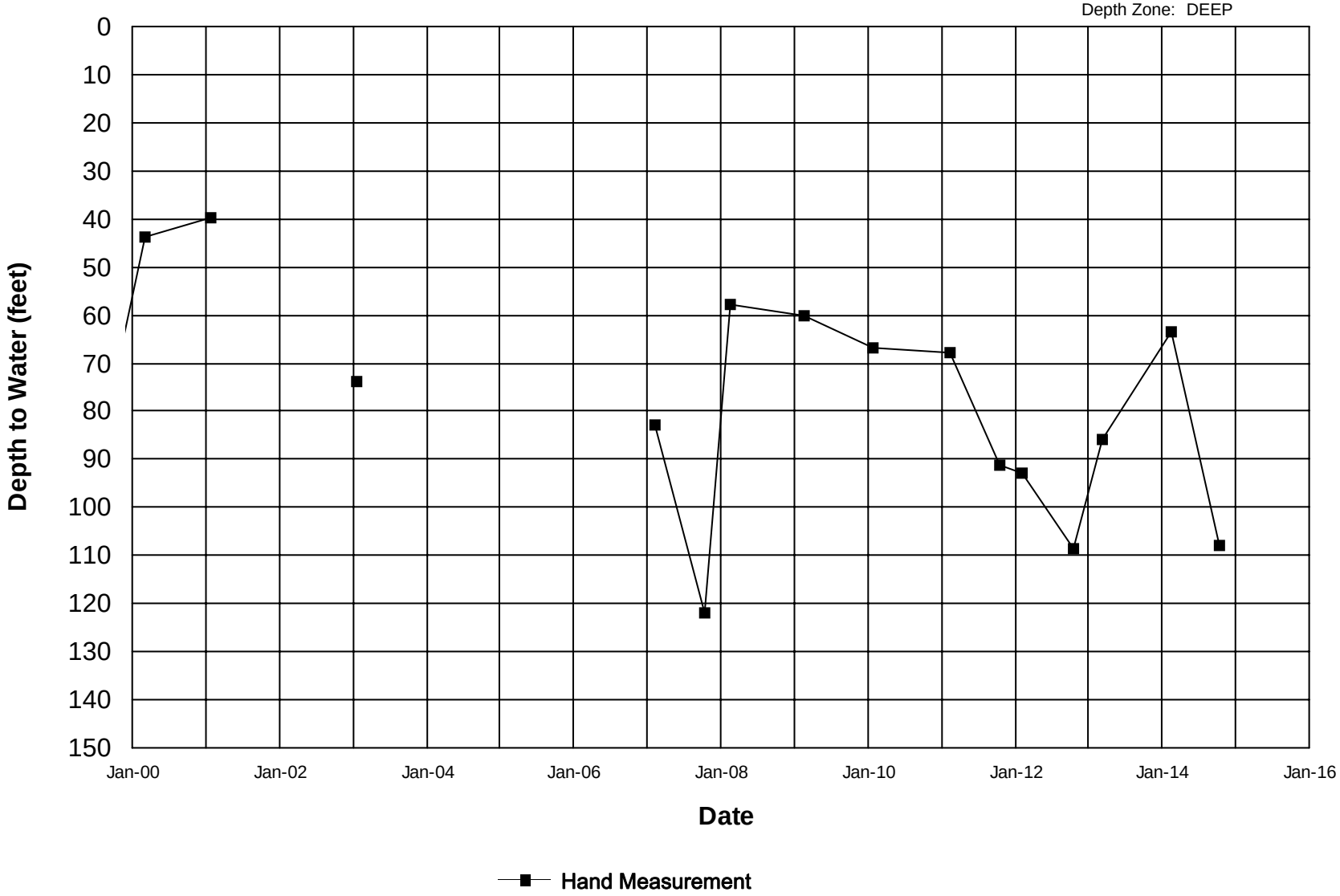


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-32F1

Reference Elevation: NA
Perforated Interval: 116 - 368 feet
Depth Zone: DEEP

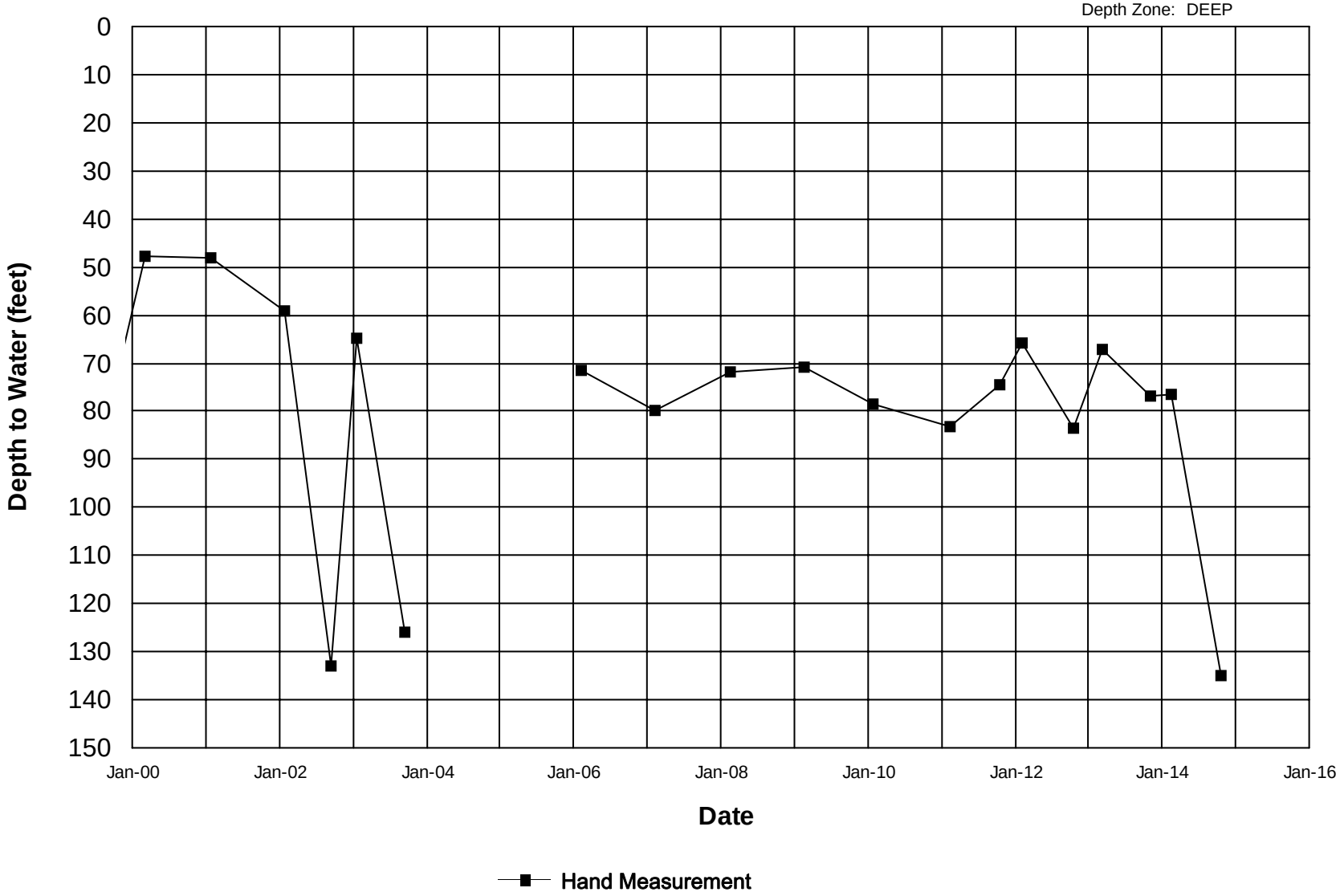


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-33B2

Reference Elevation: 177 feet msl
Perforated Interval: NA
Depth Zone: DEEP

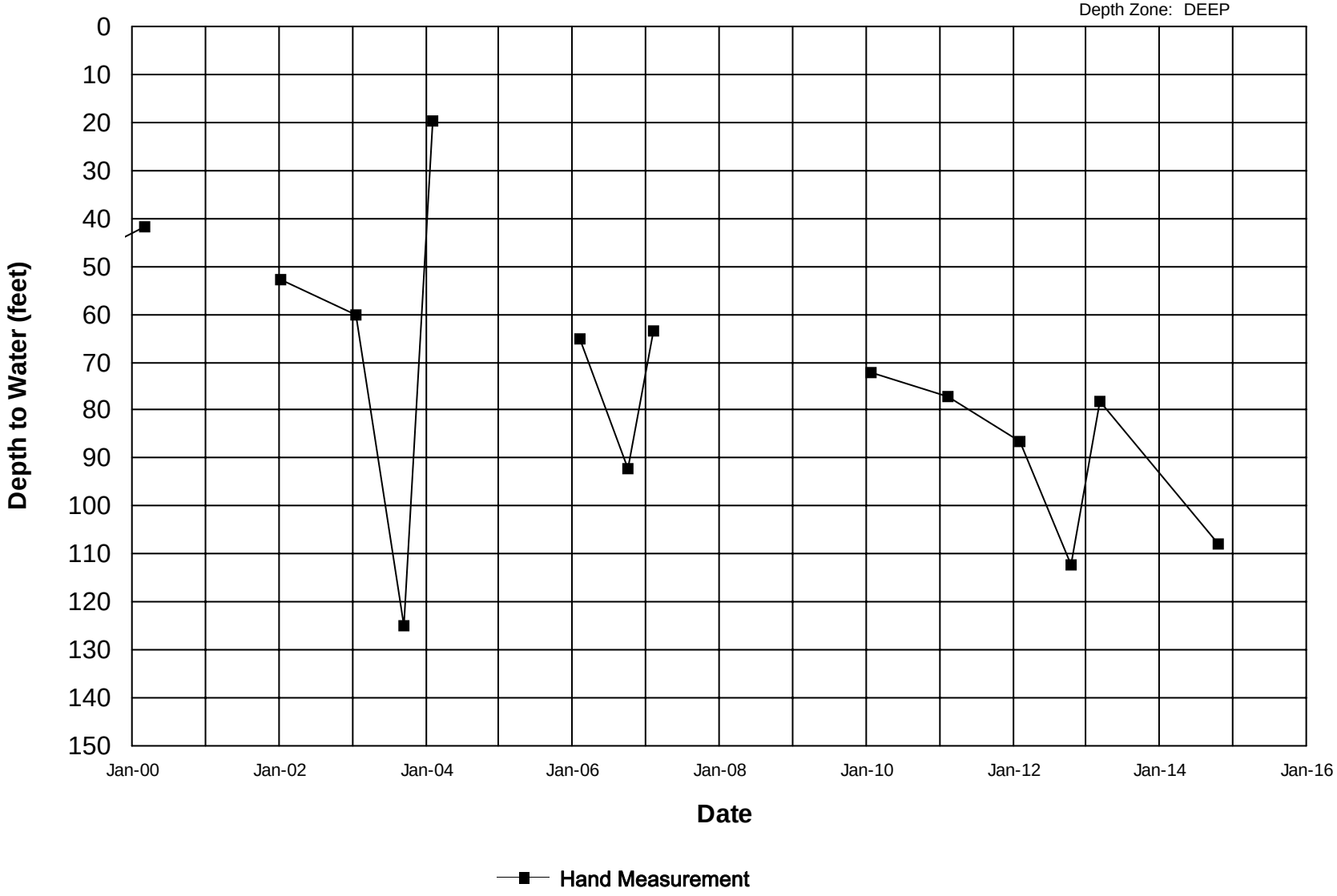


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-33F1

Reference Elevation: 175.5 feet msl
Perforated Interval: 120 - 360 feet
Depth Zone: DEEP

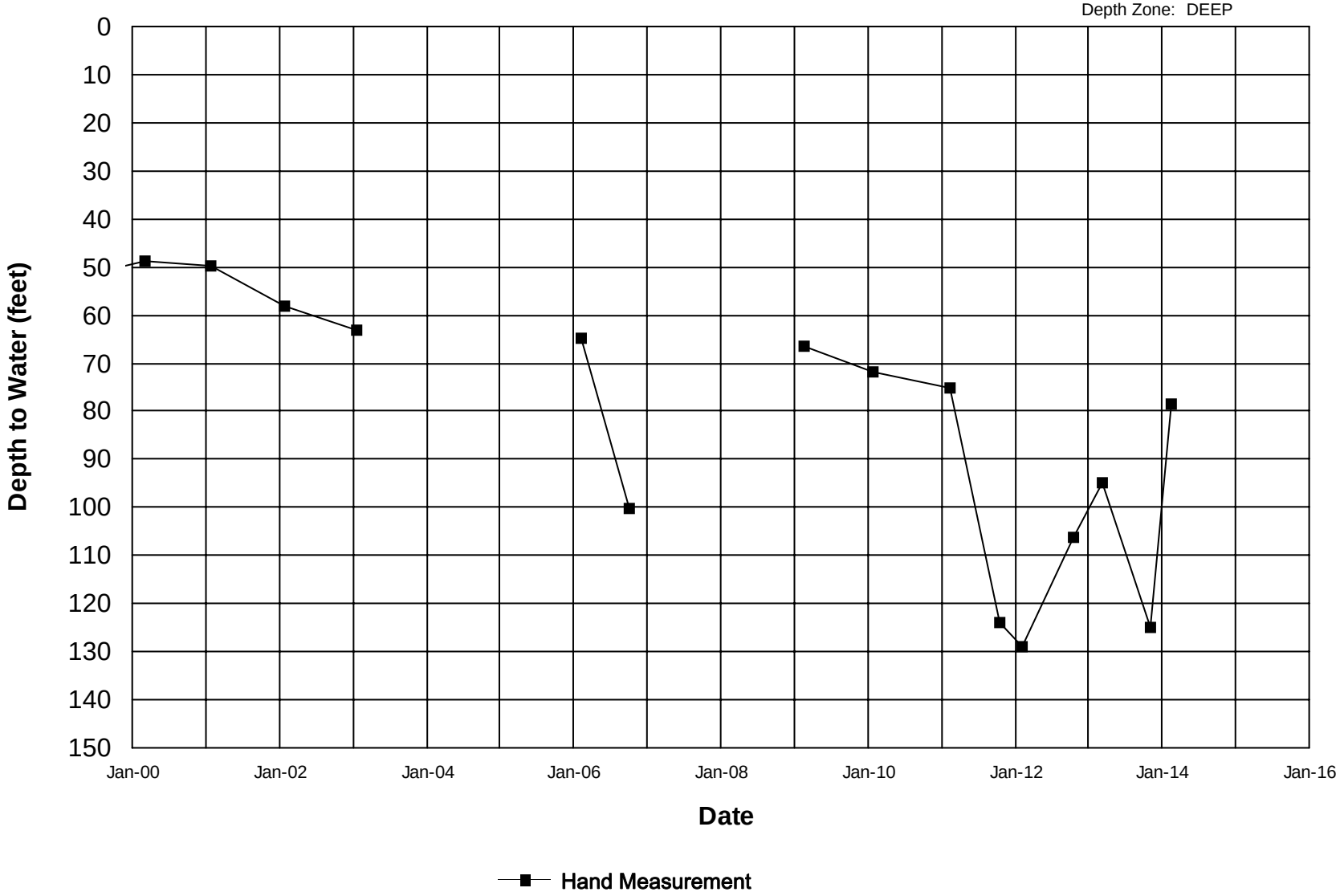


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-33L1

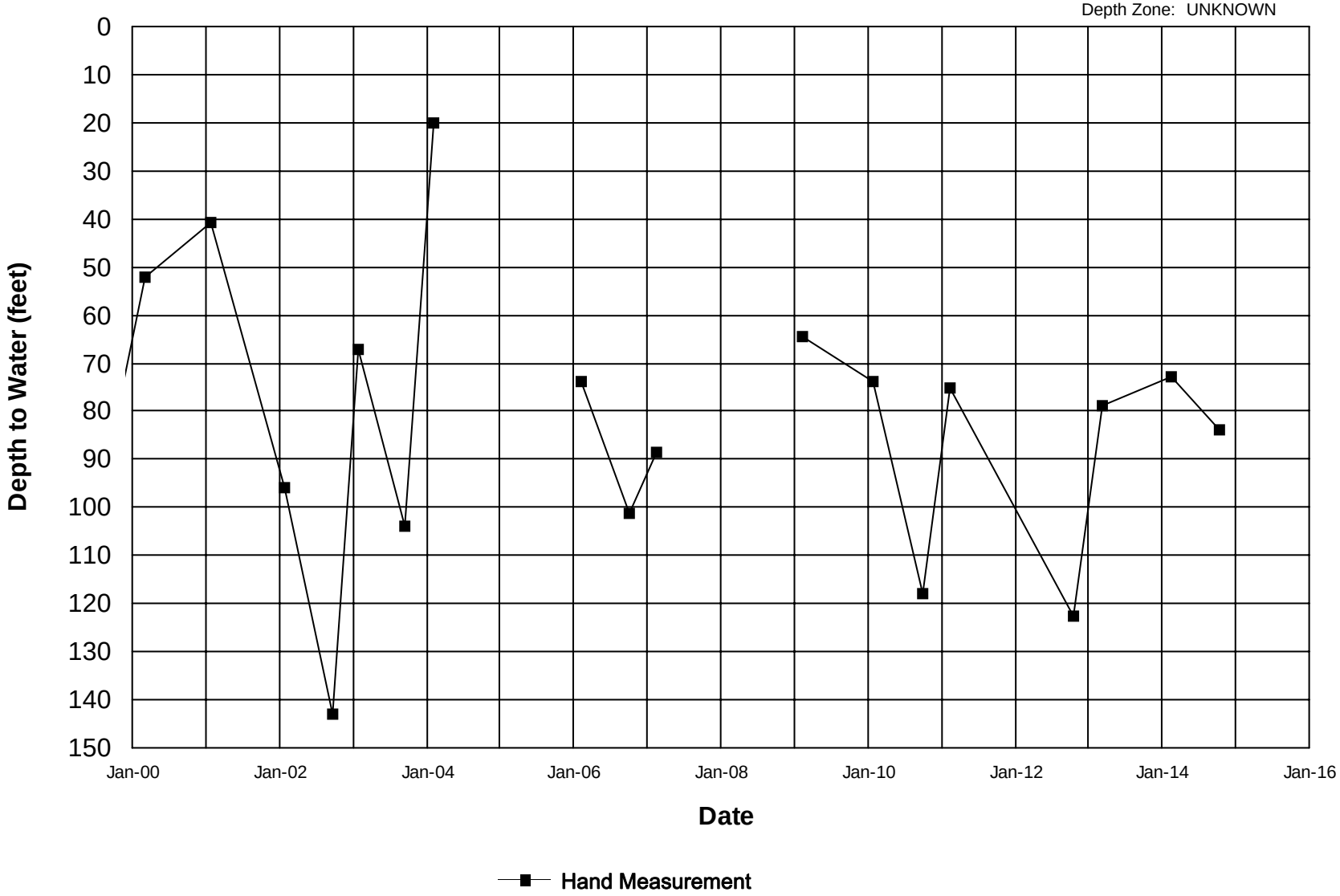
Reference Elevation: NA
Perforated Interval: 192 - 400 feet
Depth Zone: DEEP



Mendota Area Hydrograph

Undistricted (Fresno County) - Larry Shehadey Farms T14S/R16E-4L1

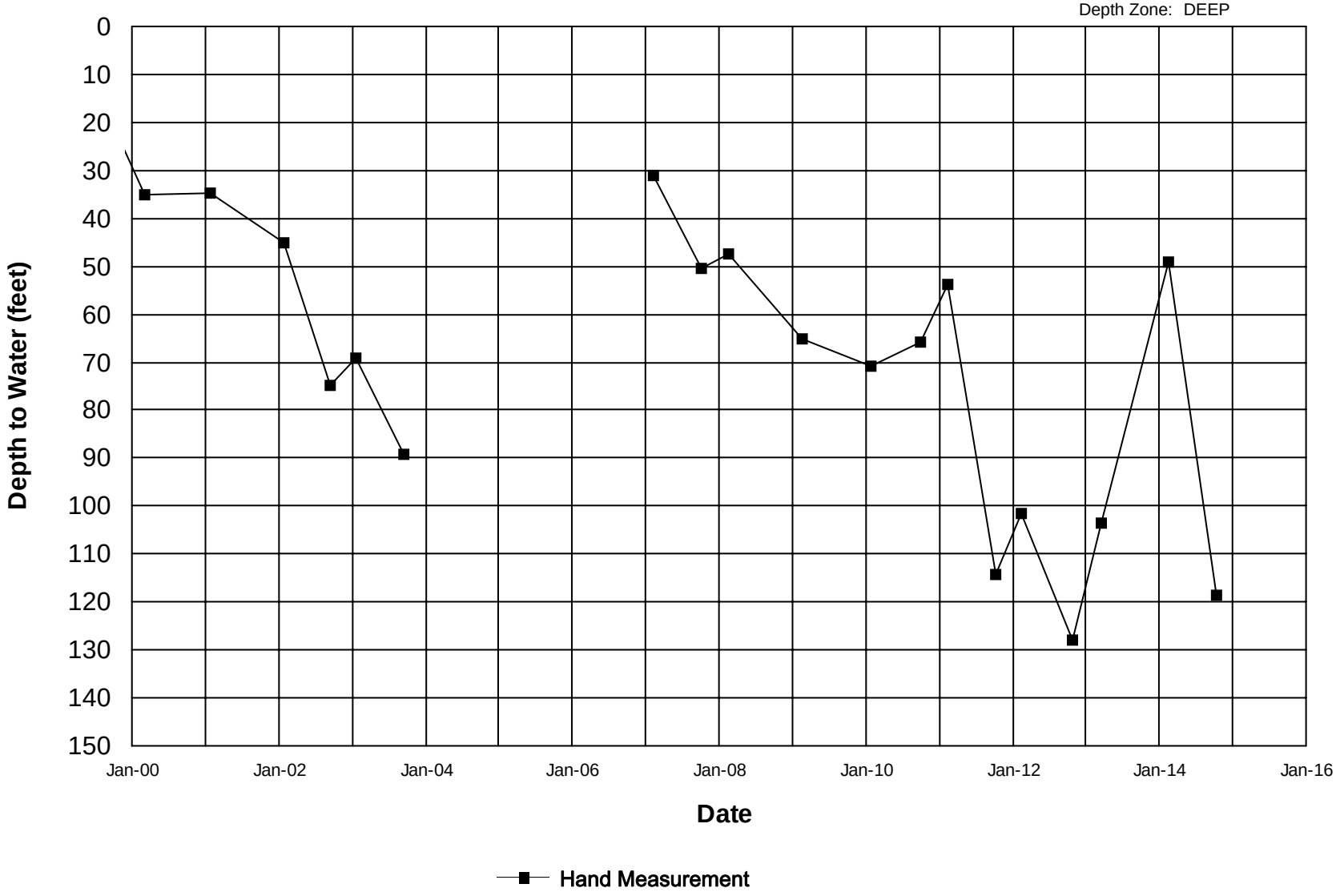
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN



Mendota Area Hydrograph

Undistricted (Fresno County) - Schaad T13S/R16E-22J1

Reference Elevation: 191 feet msl
Perforated Interval: 150 - 260 feet
Depth Zone: DEEP

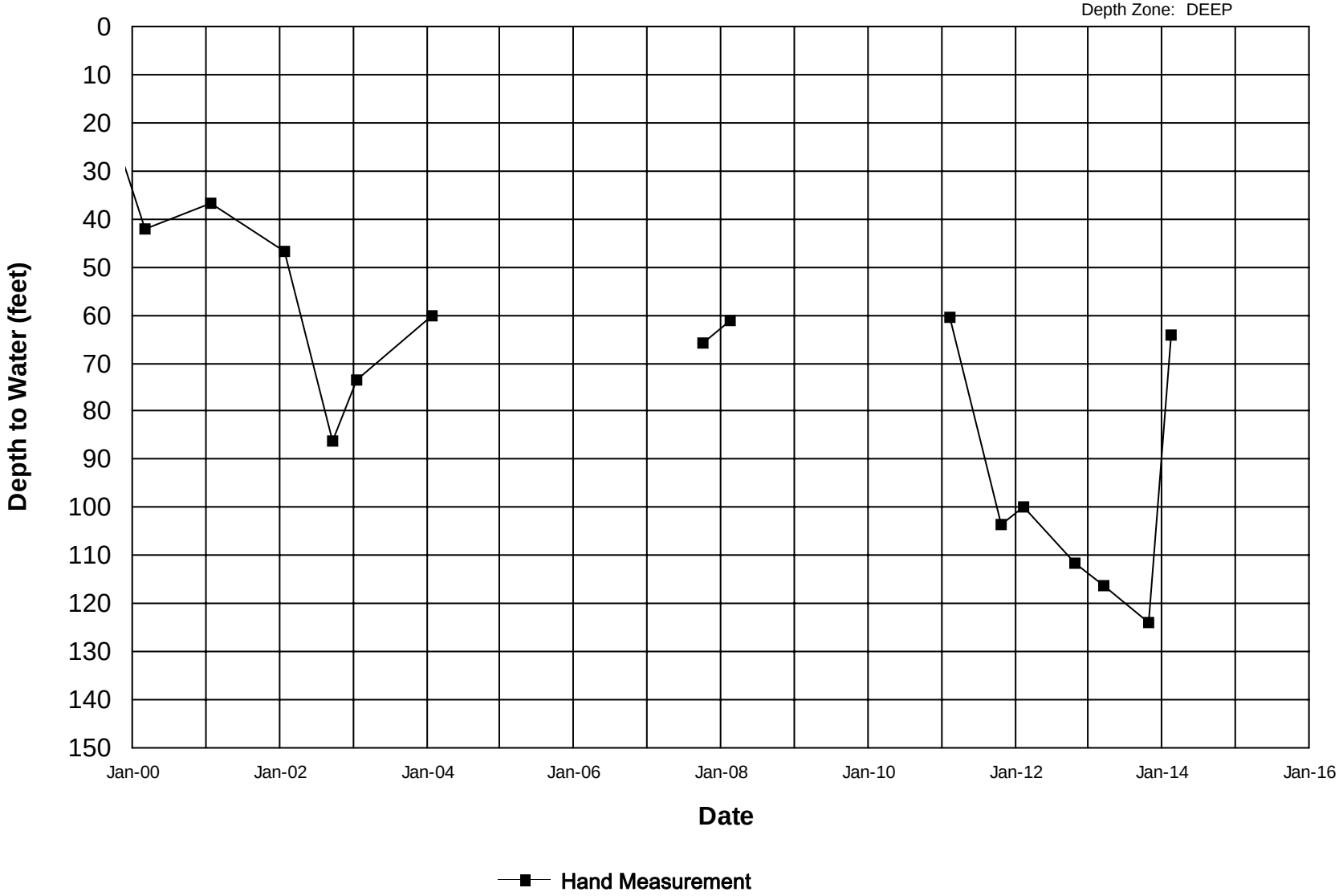


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Schaad T13S/R16E-22J2

Reference Elevation: 191 feet msl
Perforated Interval: 116 - 236 feet
Depth Zone: DEEP

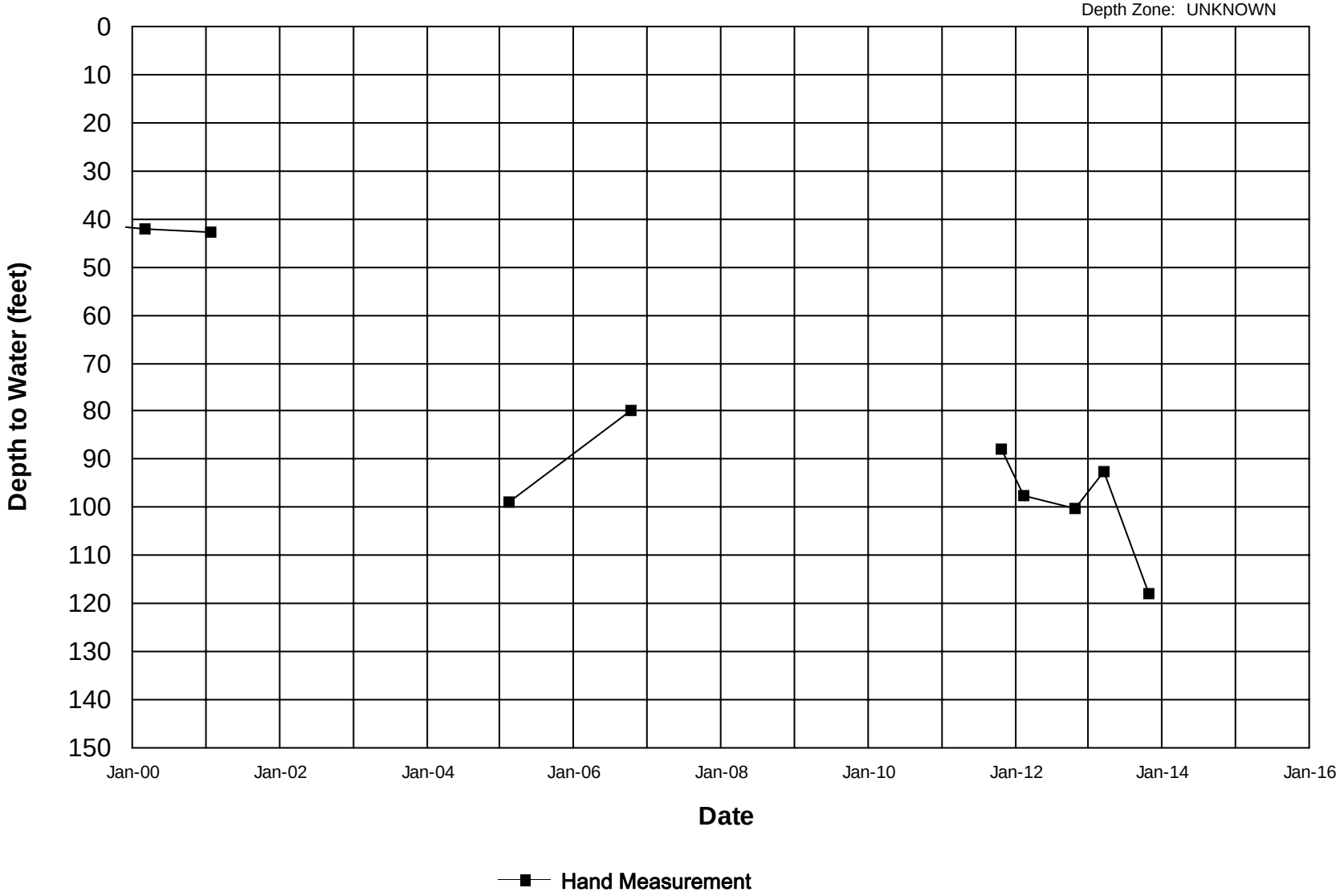


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Schaad T13S/R16E-27A2

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN

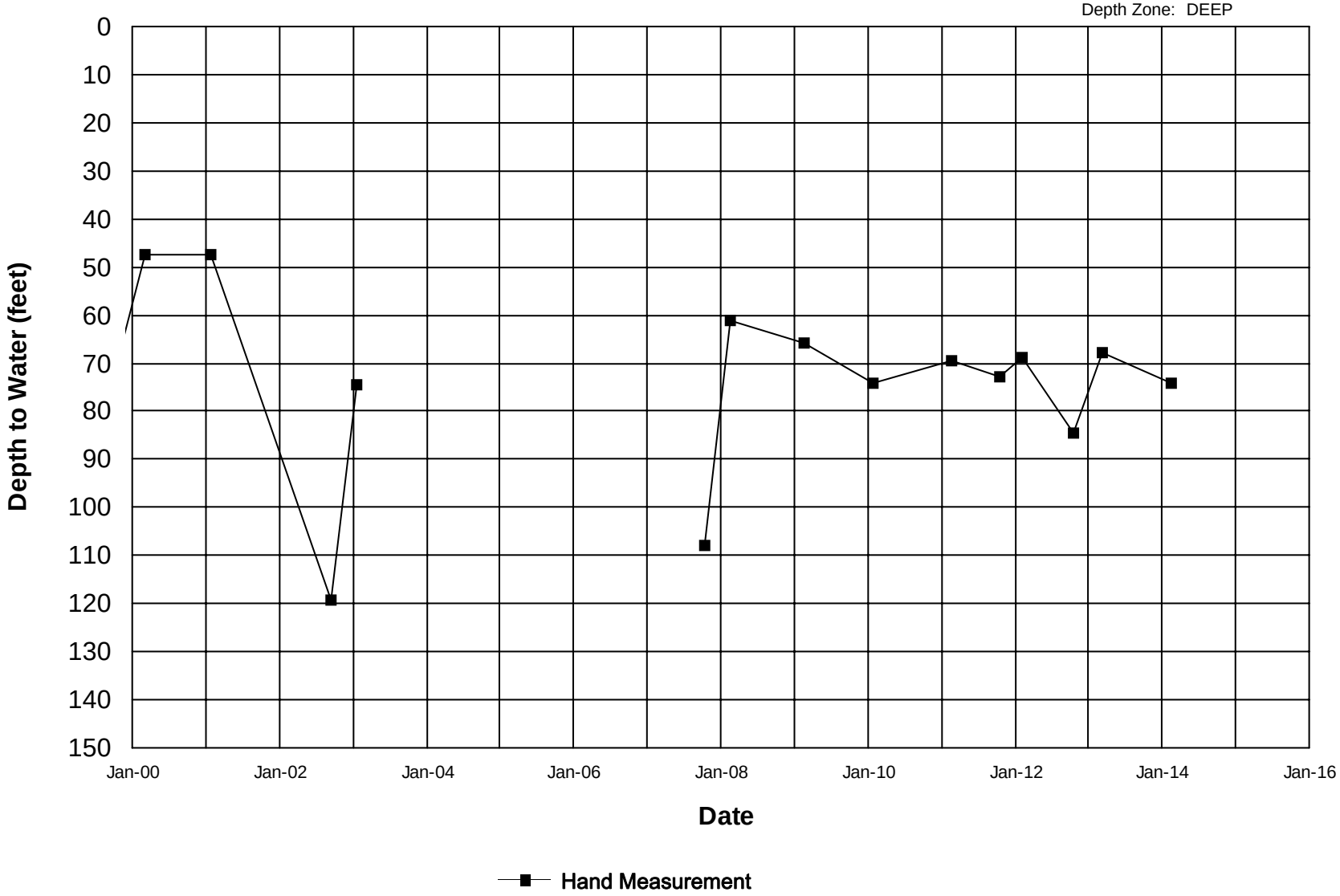


Thursday, July 16, 2015

Mendota Area Hydrograph

Undistricted (Fresno County) - Schaad T13S/R16E-29F1

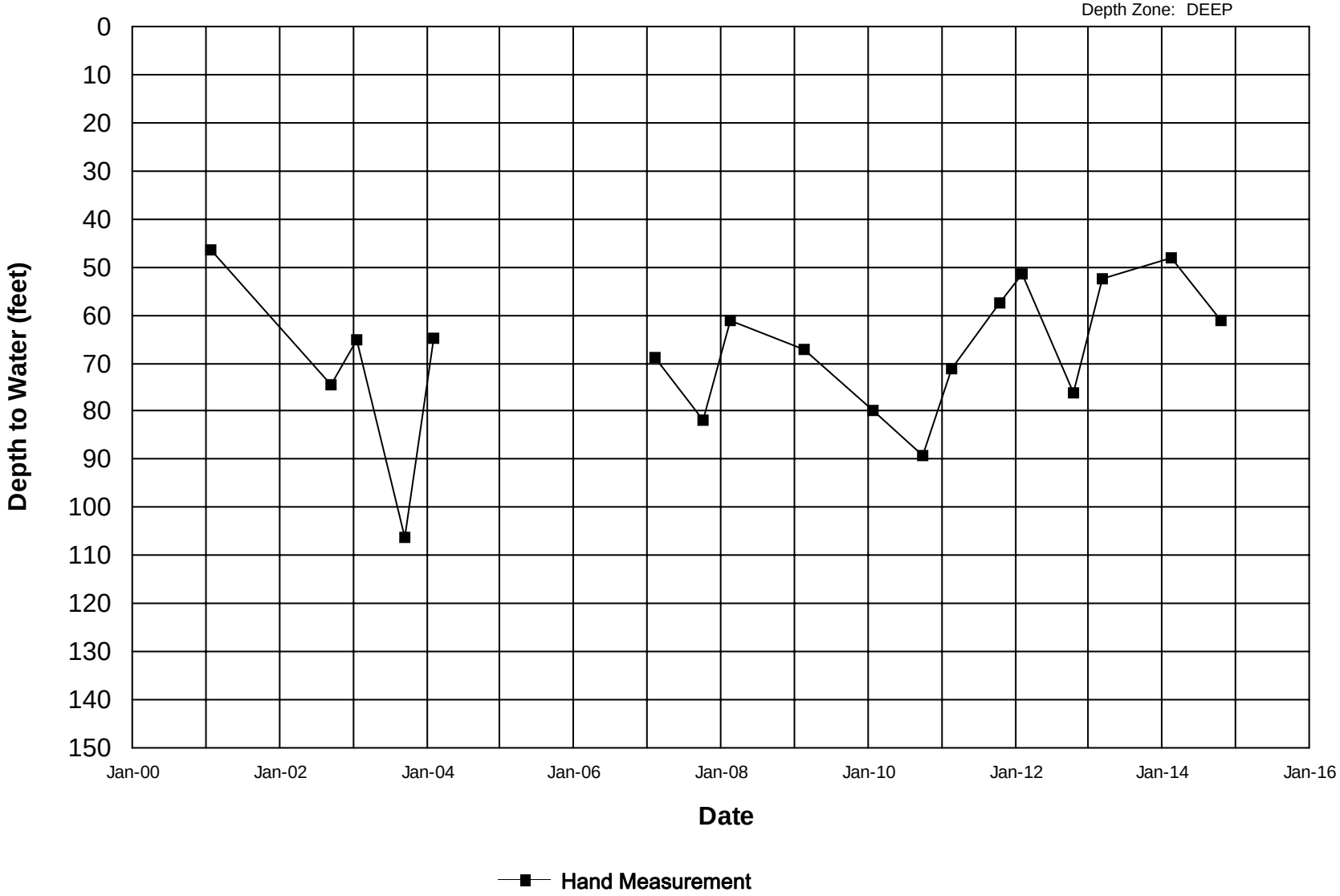
Reference Elevation: 176 feet msl
Perforated Interval: NA
Depth Zone: DEEP



Mendota Area Hydrograph

Undistricted (Fresno County) - Schaad T13S/R16E-27F1

Reference Elevation: 185.5 feet msl
Perforated Interval: 108 - 248 feet
Depth Zone: DEEP



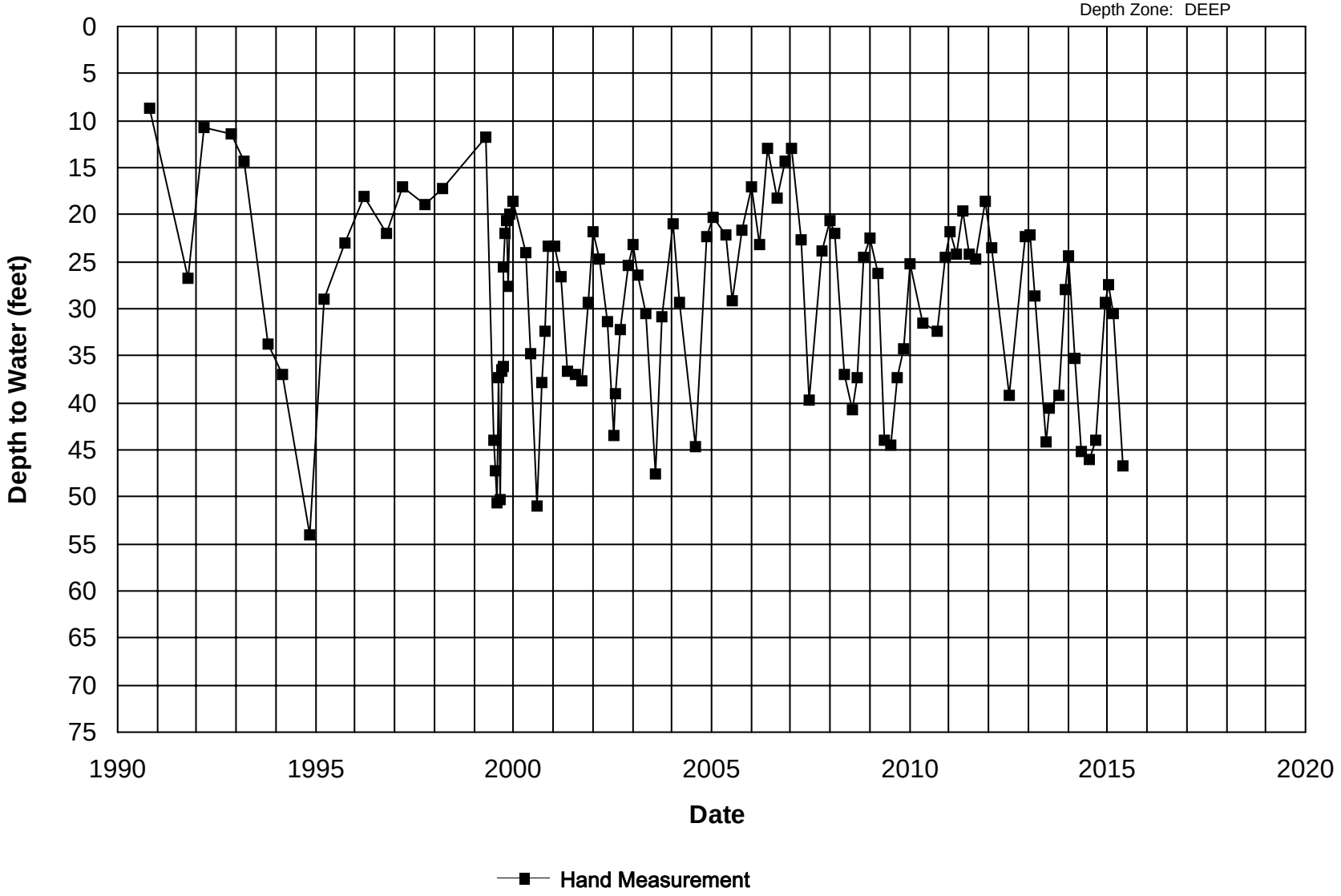
APPENDIX C

LONG-TERM WATER-LEVEL HYDROGRAPHS

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CCID Well No. 5A

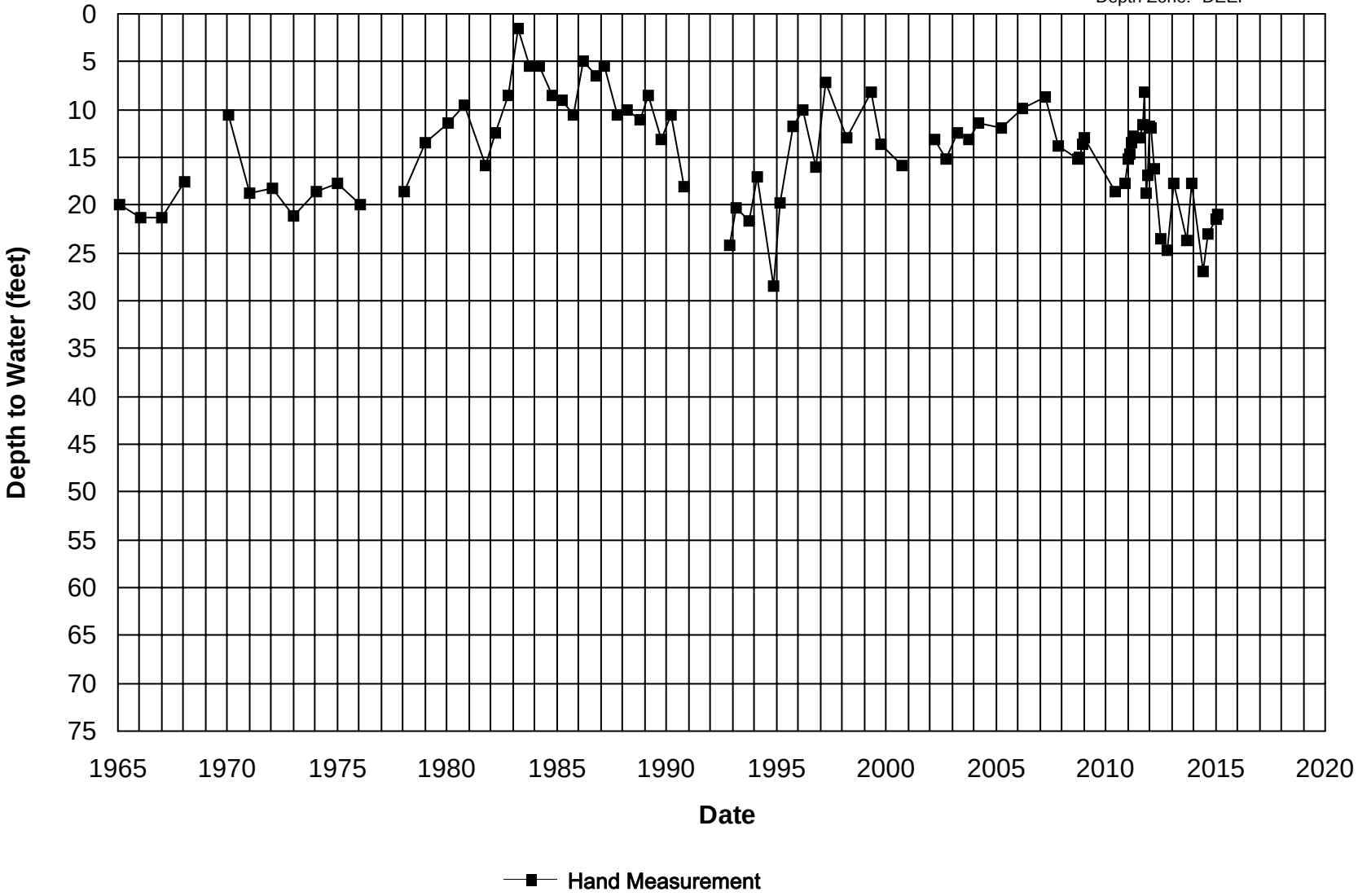
Reference Elevation: 155.52 feet NAVD88
Perforated Interval: 100 - 260 feet
Depth Zone: DEEP



Thursday, July 16, 2015

CCID Well No. 12 & 12A & 12B & 12C

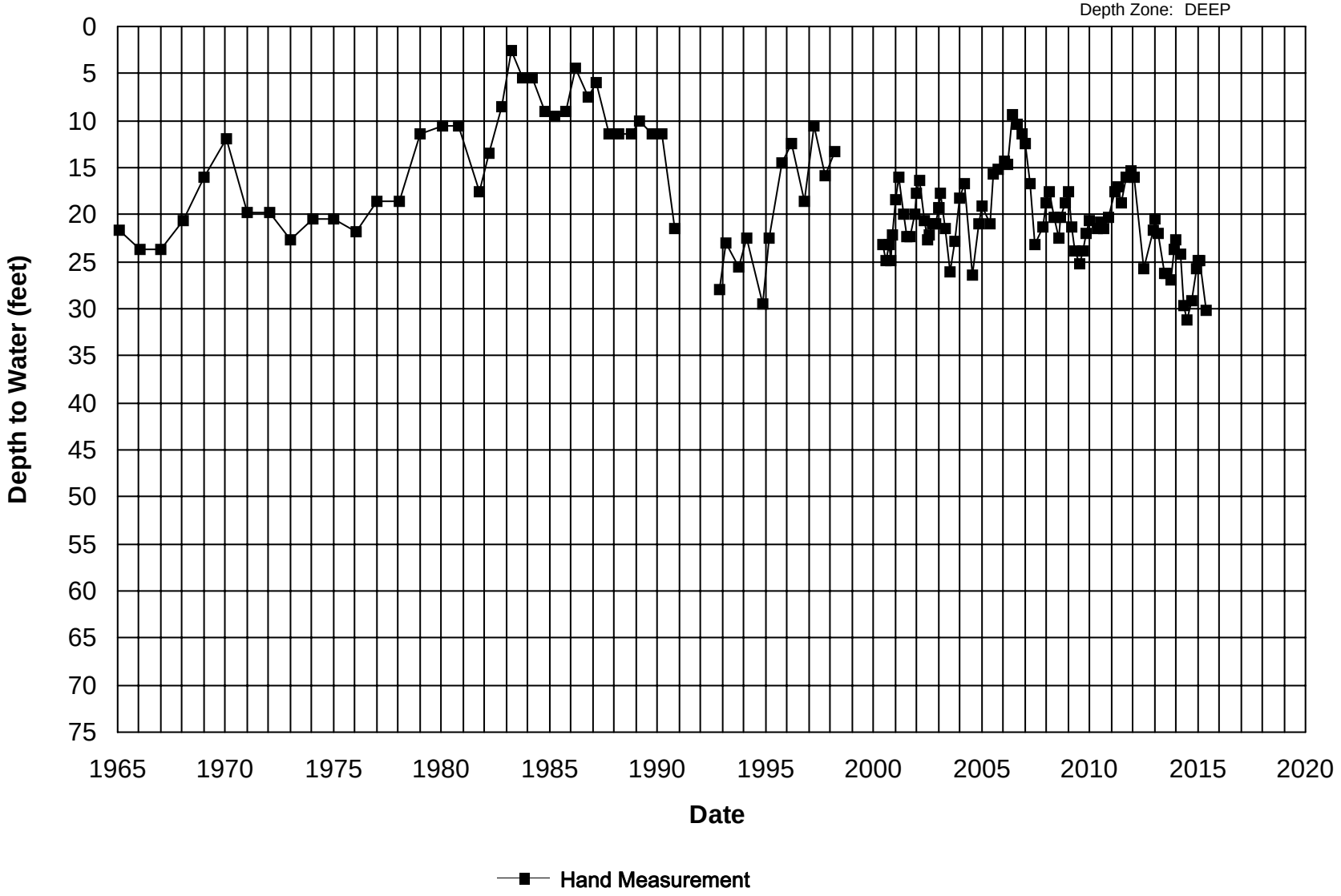
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

CCID Well No. 15 & 15A & 15B

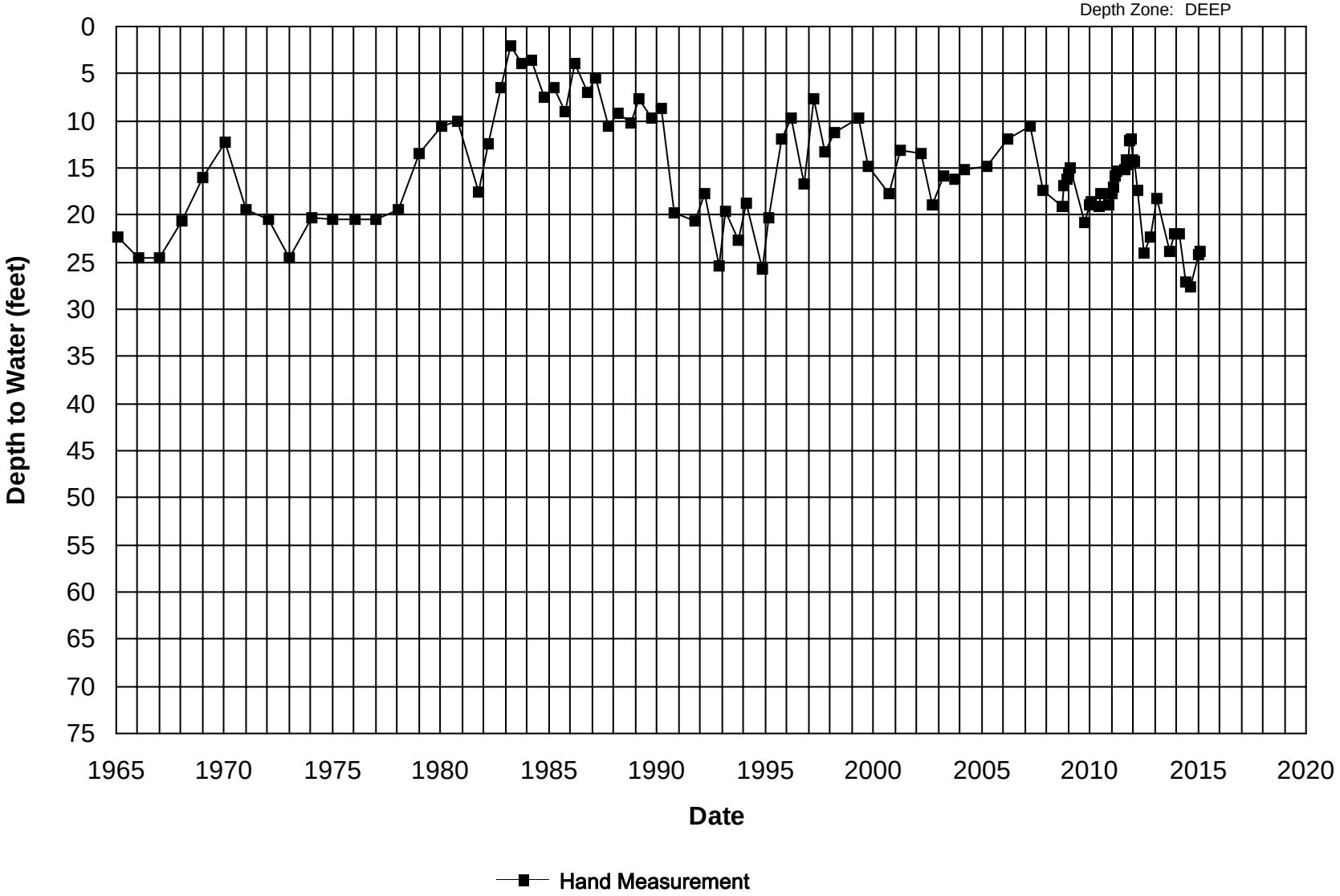
Reference Elevation: 152.41 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

CCID Well No. 16 & 16A & 16B & 16C

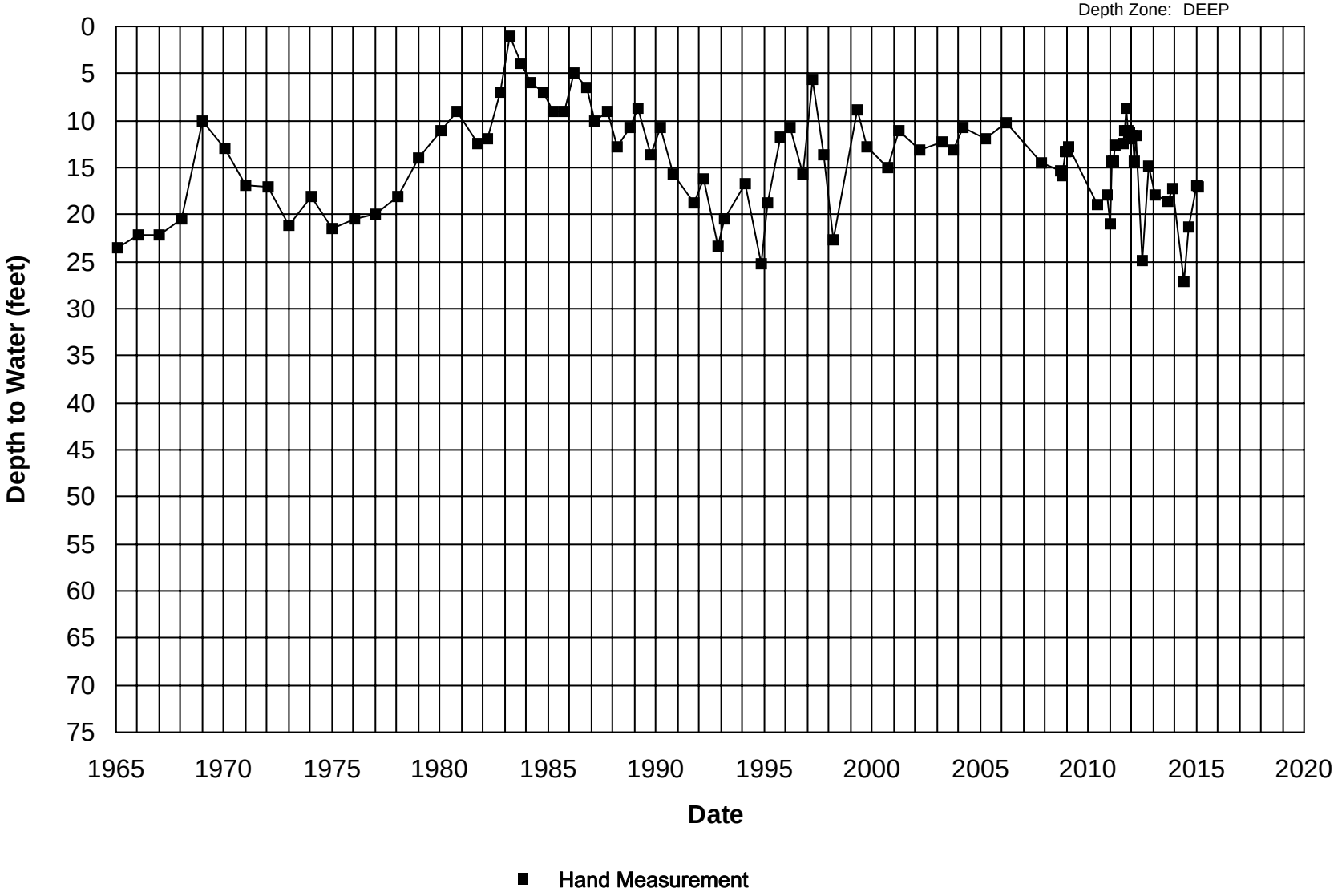
Reference Elevation: NA
Perforated Interval: 60 - 170 feet
Depth Zone: DEEP



Thursday, July 16, 2015

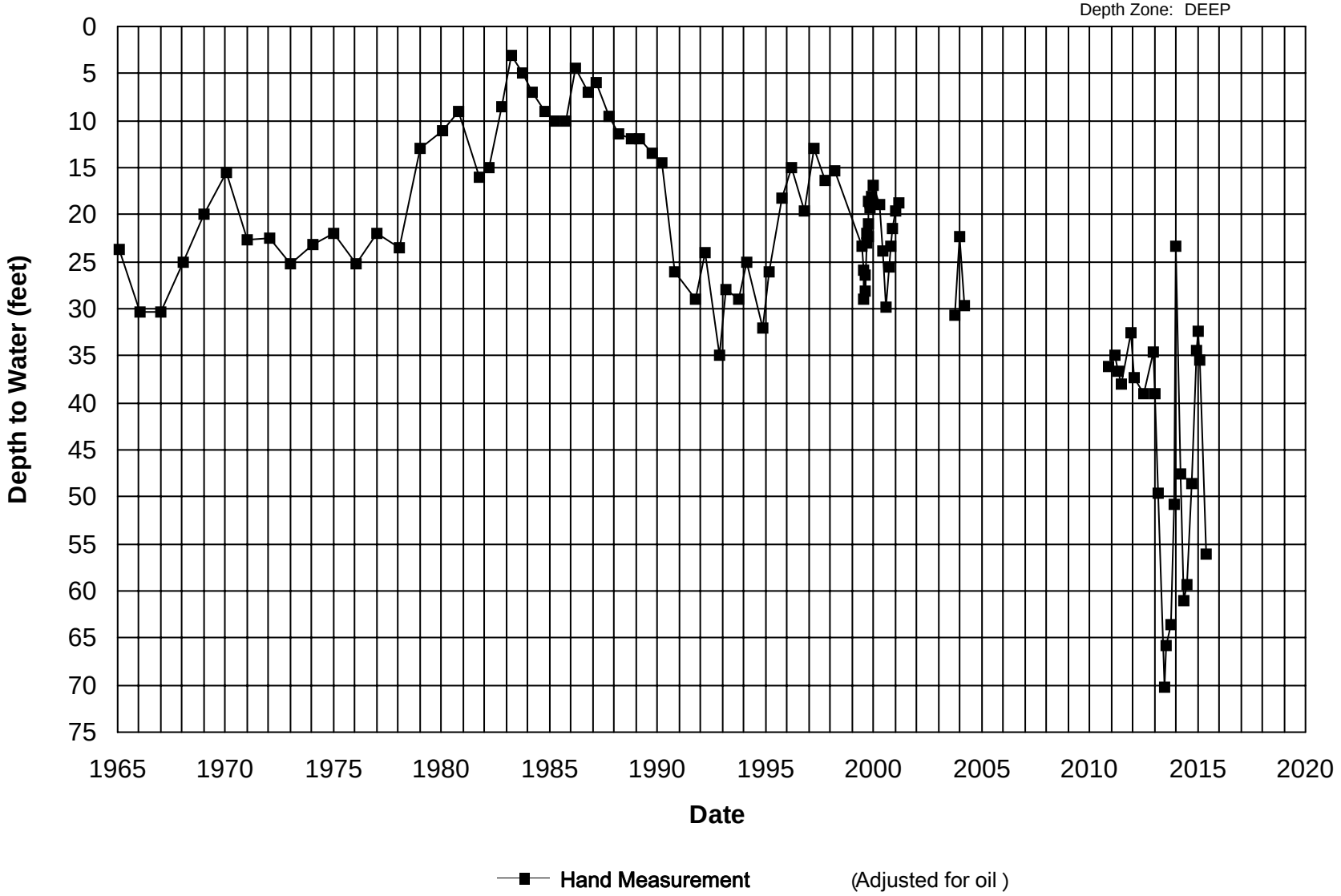
CCID Well No. 23 & 23A & 23B

Reference Elevation: NA
Perforated Interval: 90 - 204 feet
Depth Zone: DEEP



CCID Well No. 28 & 28A & 28B & 28C

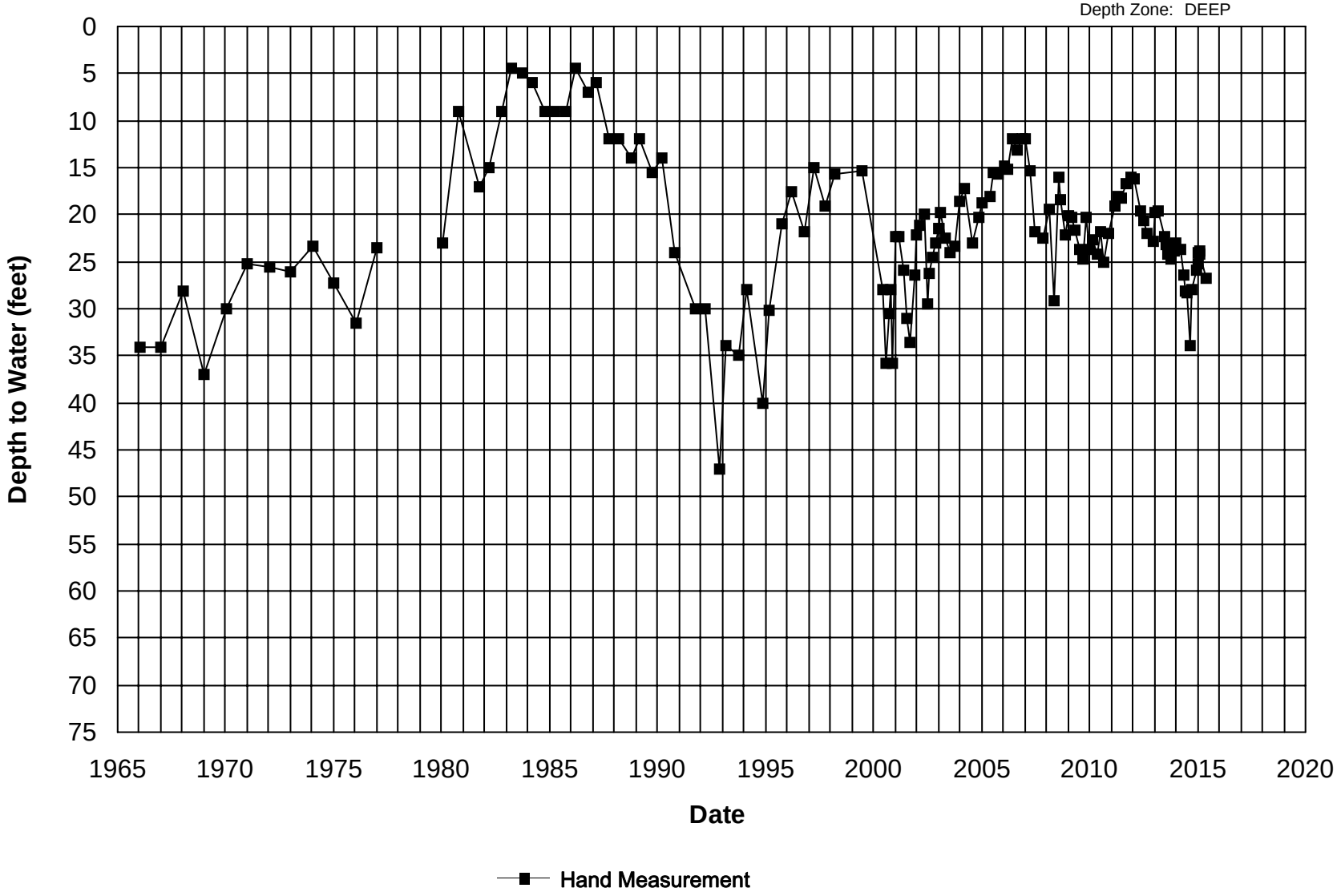
Reference Elevation: NA
Perforated Interval: 200 - 360 feet
Depth Zone: DEEP



Thursday, July 16, 2015

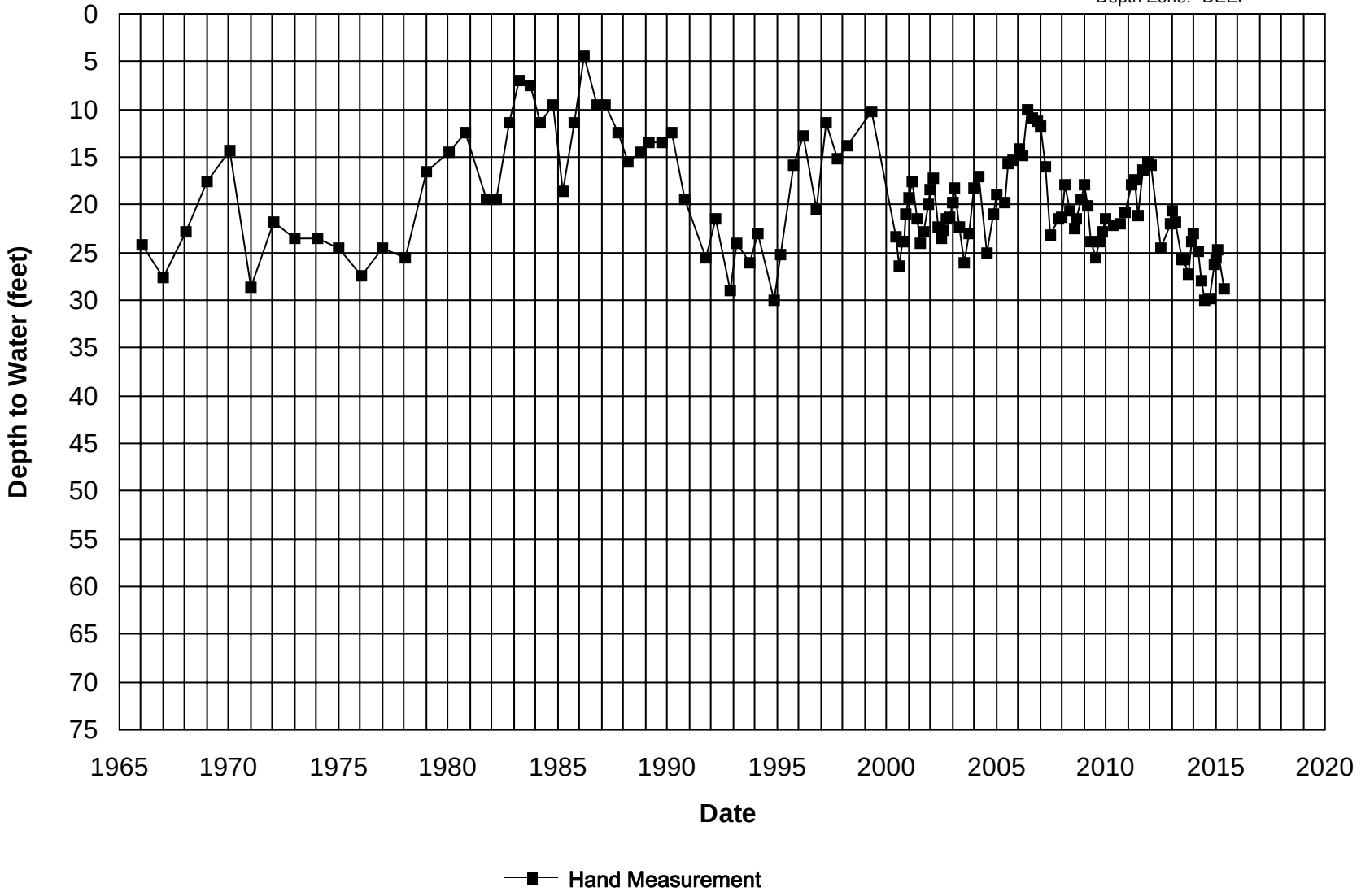
CCID Well No. 32 & 32A & 32B & 32C

Reference Elevation: NA
Perforated Interval: 100 - 225 feet
Depth Zone: DEEP



CCID Well No. 35 & 35A

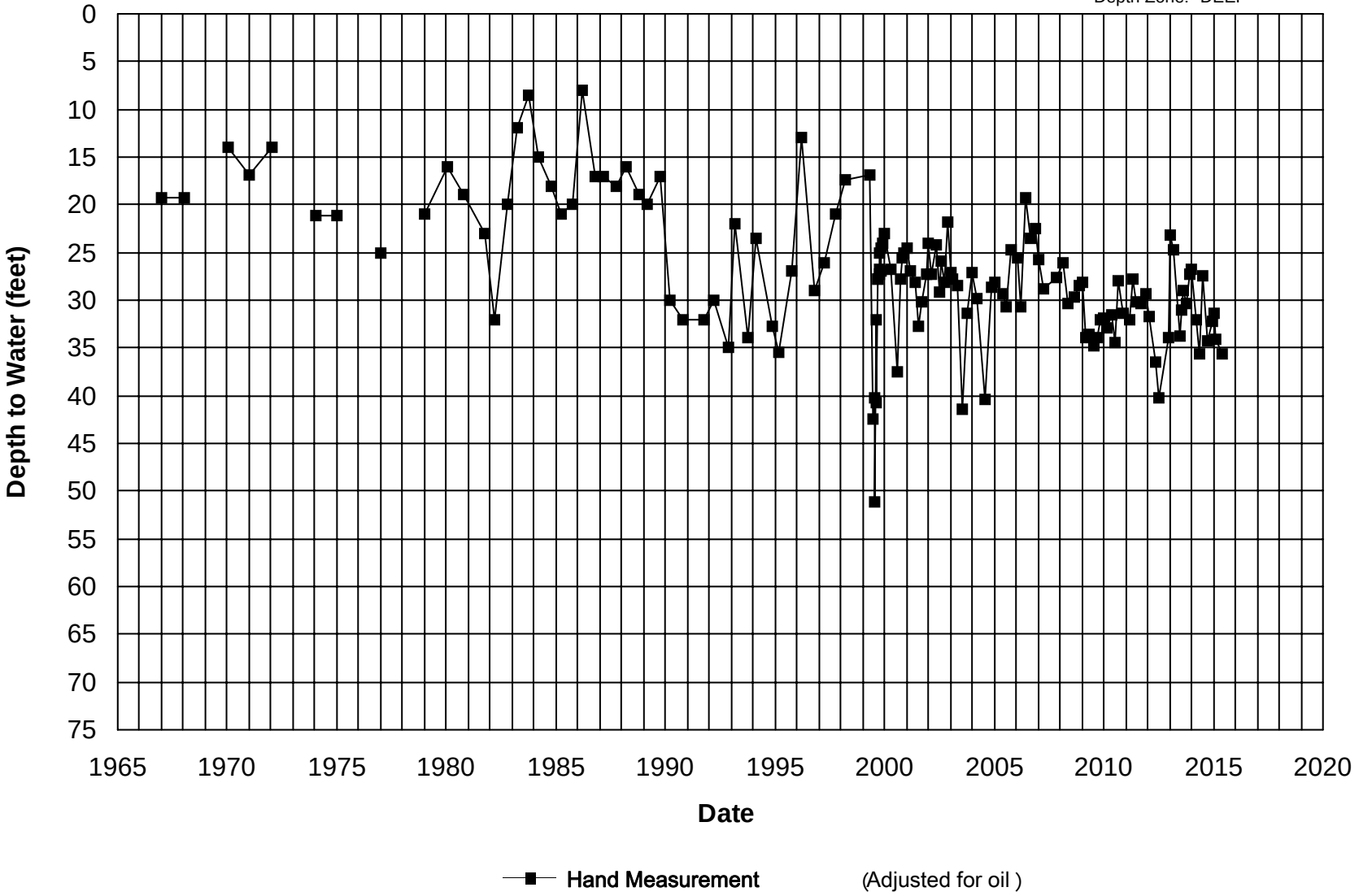
Reference Elevation: 153.47 feet NAVD88
Perforated Interval: 80 - 190 feet
Depth Zone: DEEP



Thursday, July 16, 2015

CCID Well No. 38A

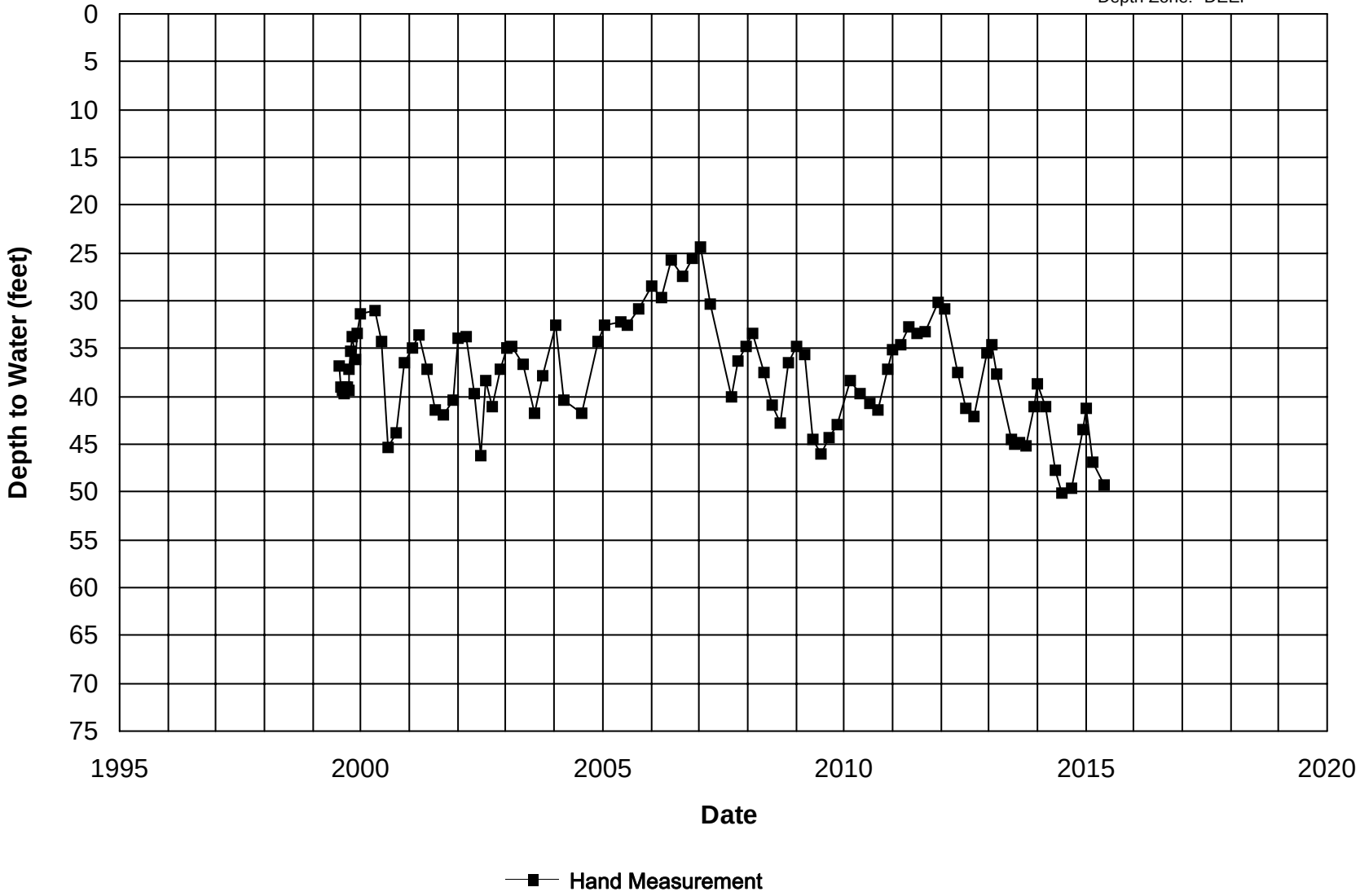
Reference Elevation: 155.43 feet NAVD88
Perforated Interval: 126 - 290 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Firebaugh Canal W.D. Well No. 25D2

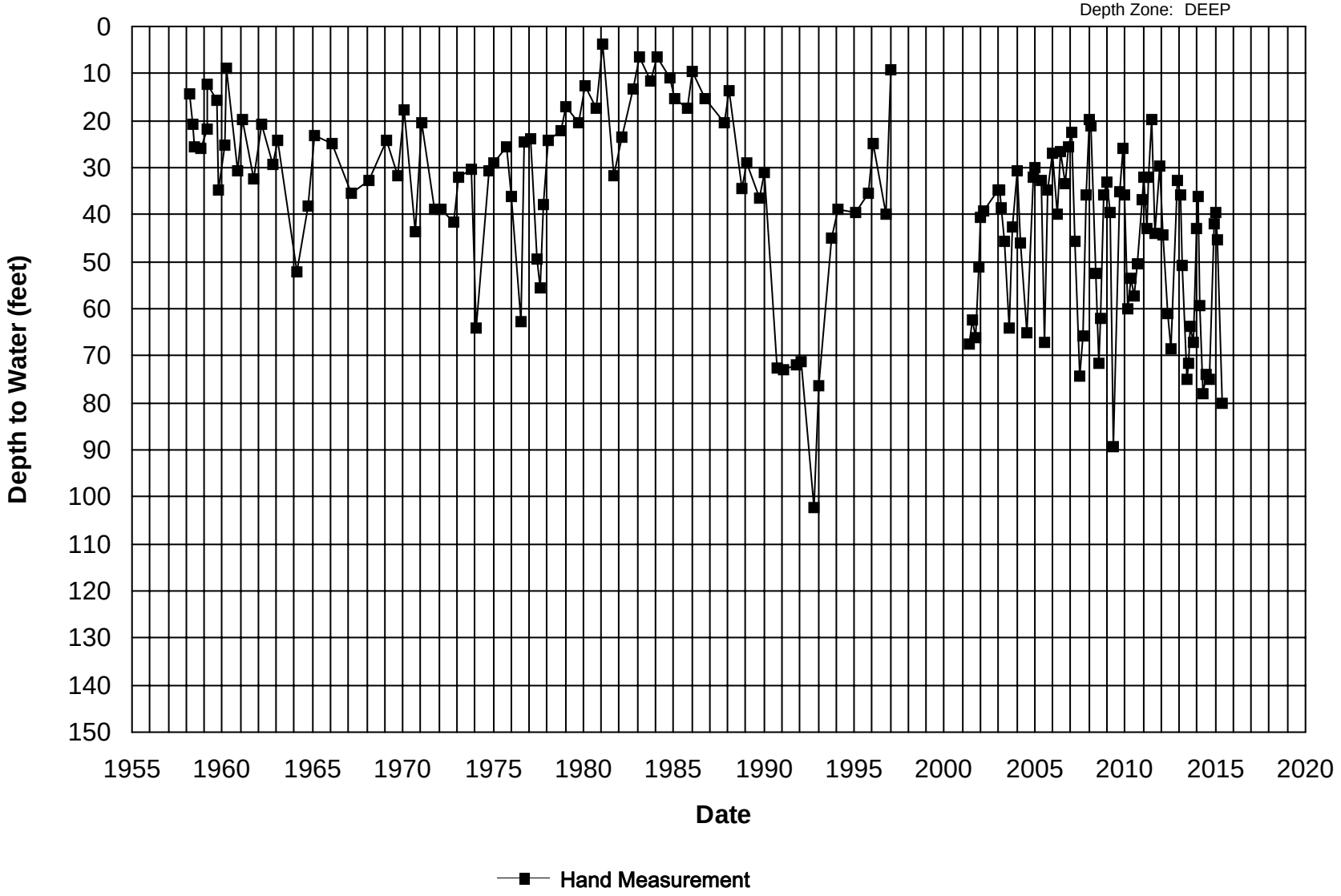
Reference Elevation: 169 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

USBR Well No. T13S/R15E-19R1

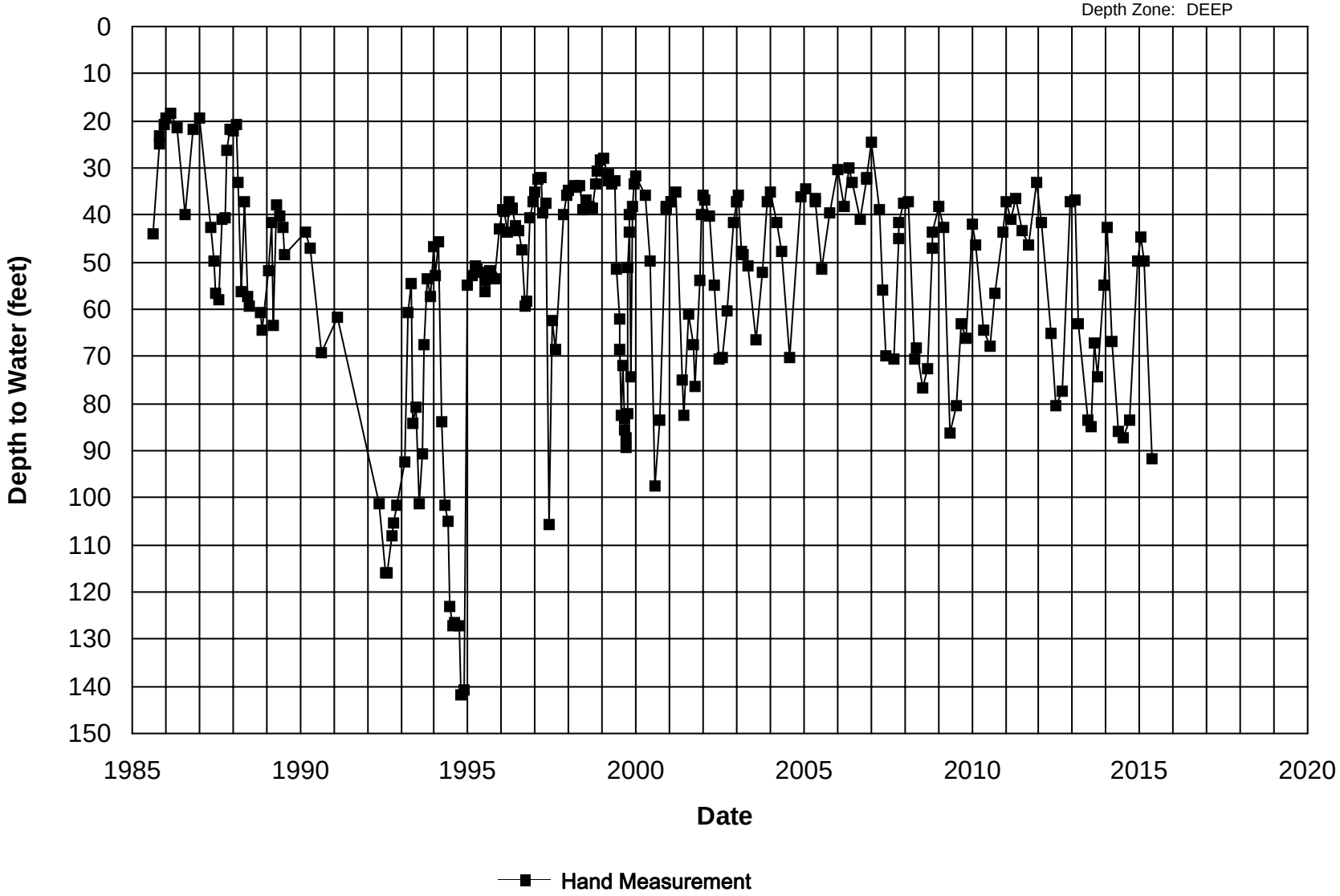
Reference Elevation: 167.39 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

USGS Monitoring Well No. T13S/R15E-31J3

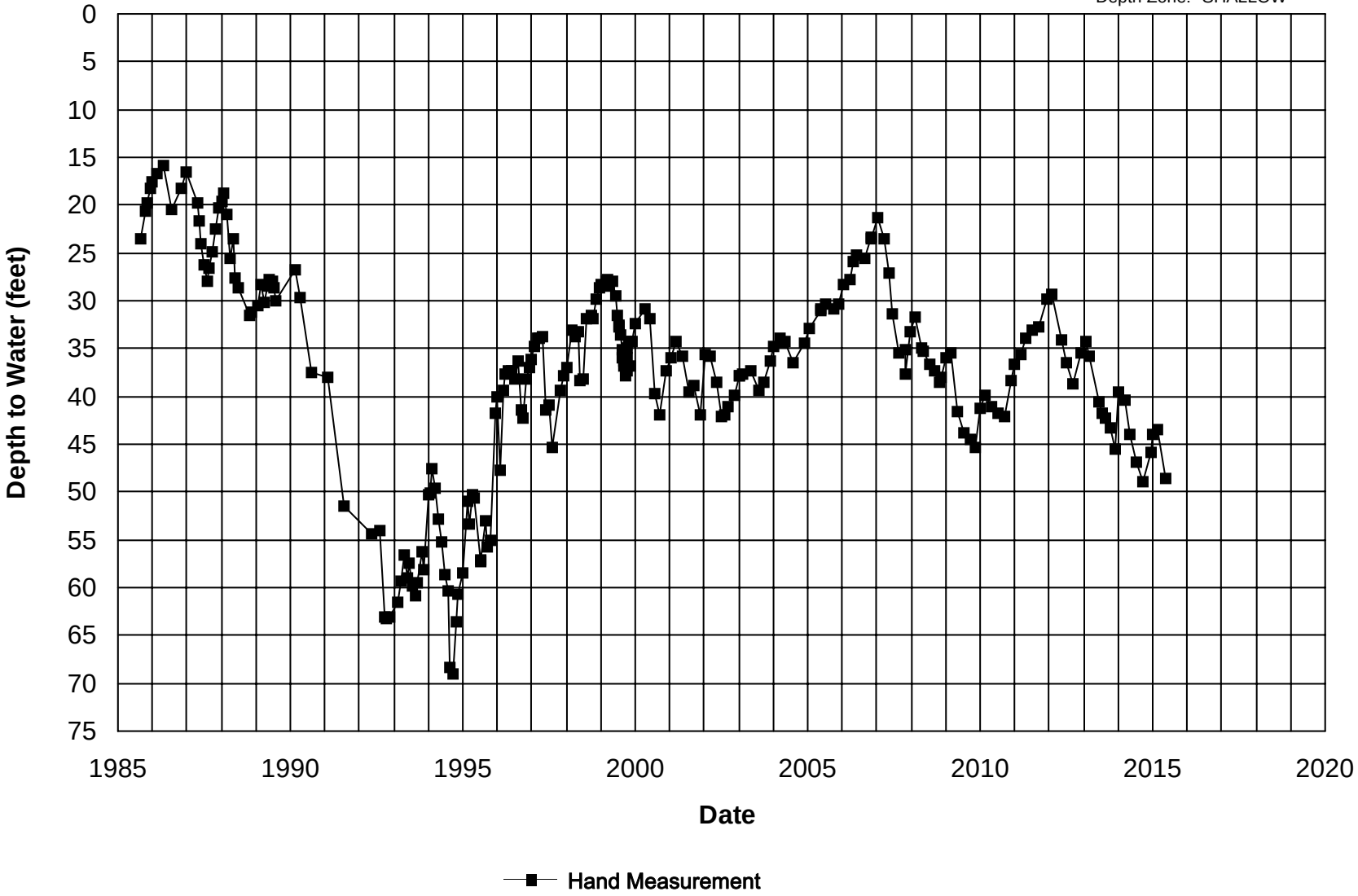
Reference Elevation: 160.2 feet NAVD88
Perforated Interval: 400 - 410 feet
Depth Zone: DEEP



Thursday, July 16, 2015

USGS Monitoring Well No. T13S/R15E-31J4

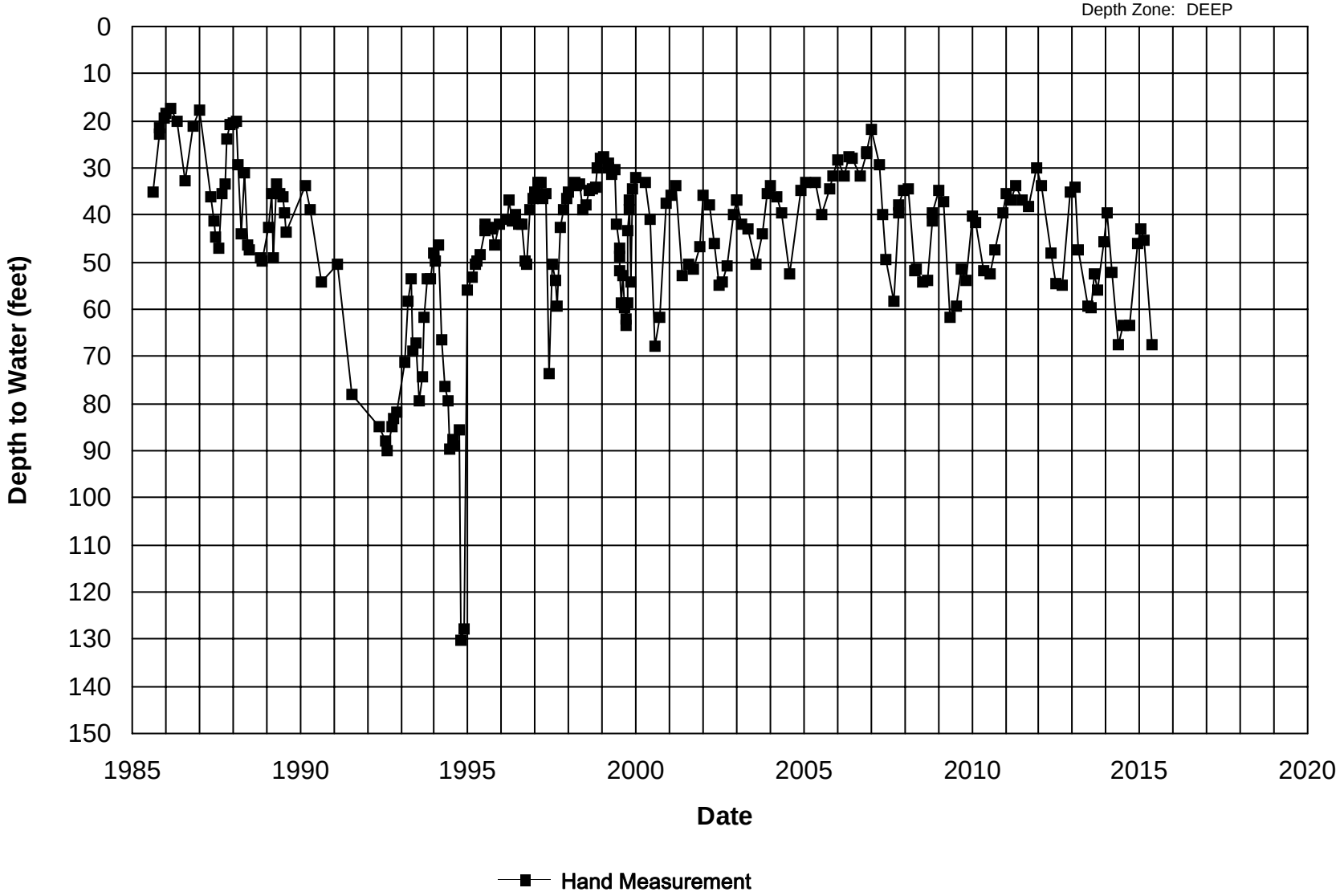
Reference Elevation: 160.8 feet NAVD88
Perforated Interval: 55 - 65 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

USGS Monitoring Well No. T13S/R15E-31J5

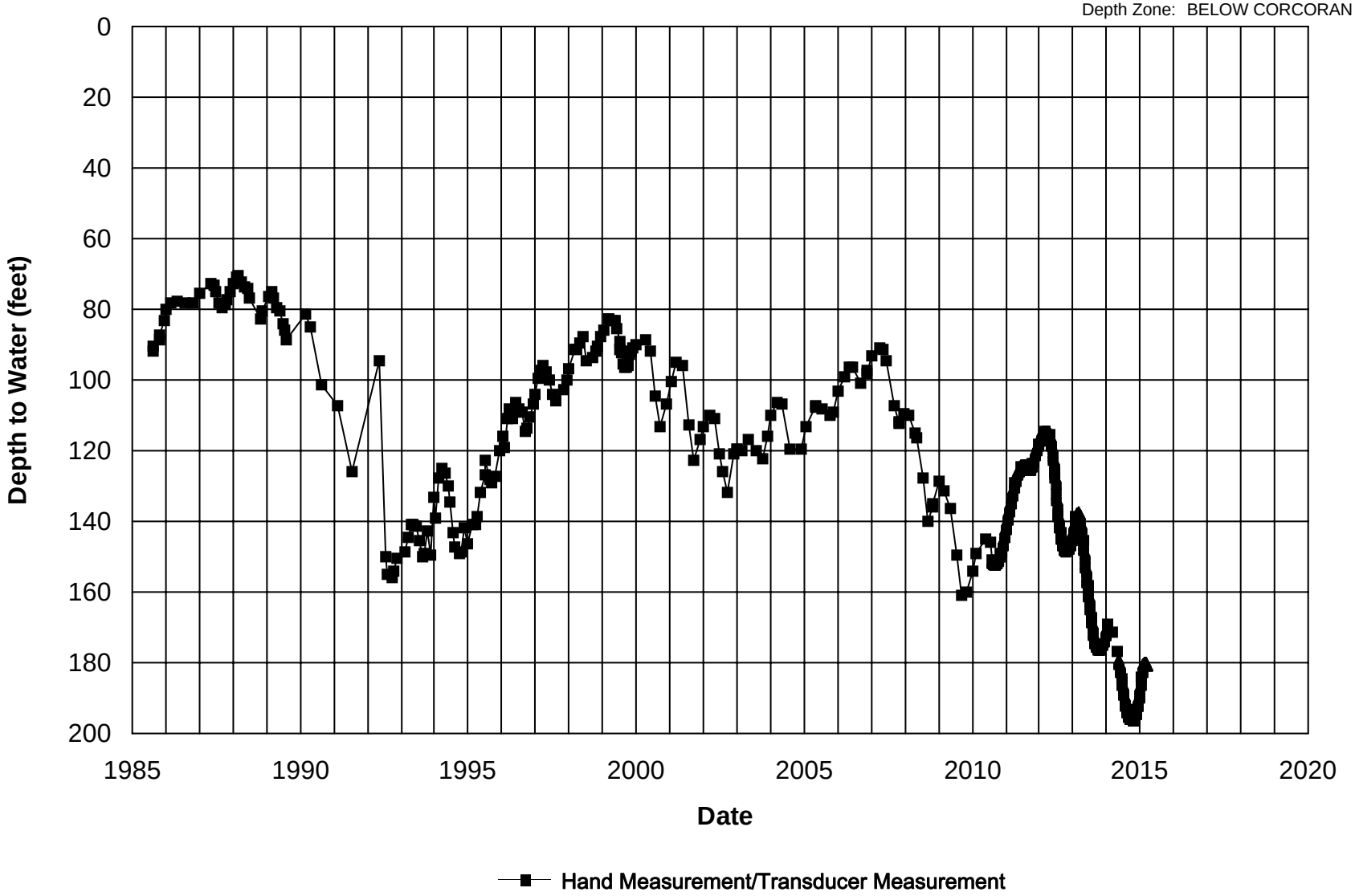
Reference Elevation: 160.1 feet NAVD88
Perforated Interval: 240 - 250 feet
Depth Zone: DEEP



Thursday, July 16, 2015

USGS Monitoring Well No. T13S/R15E-31J6

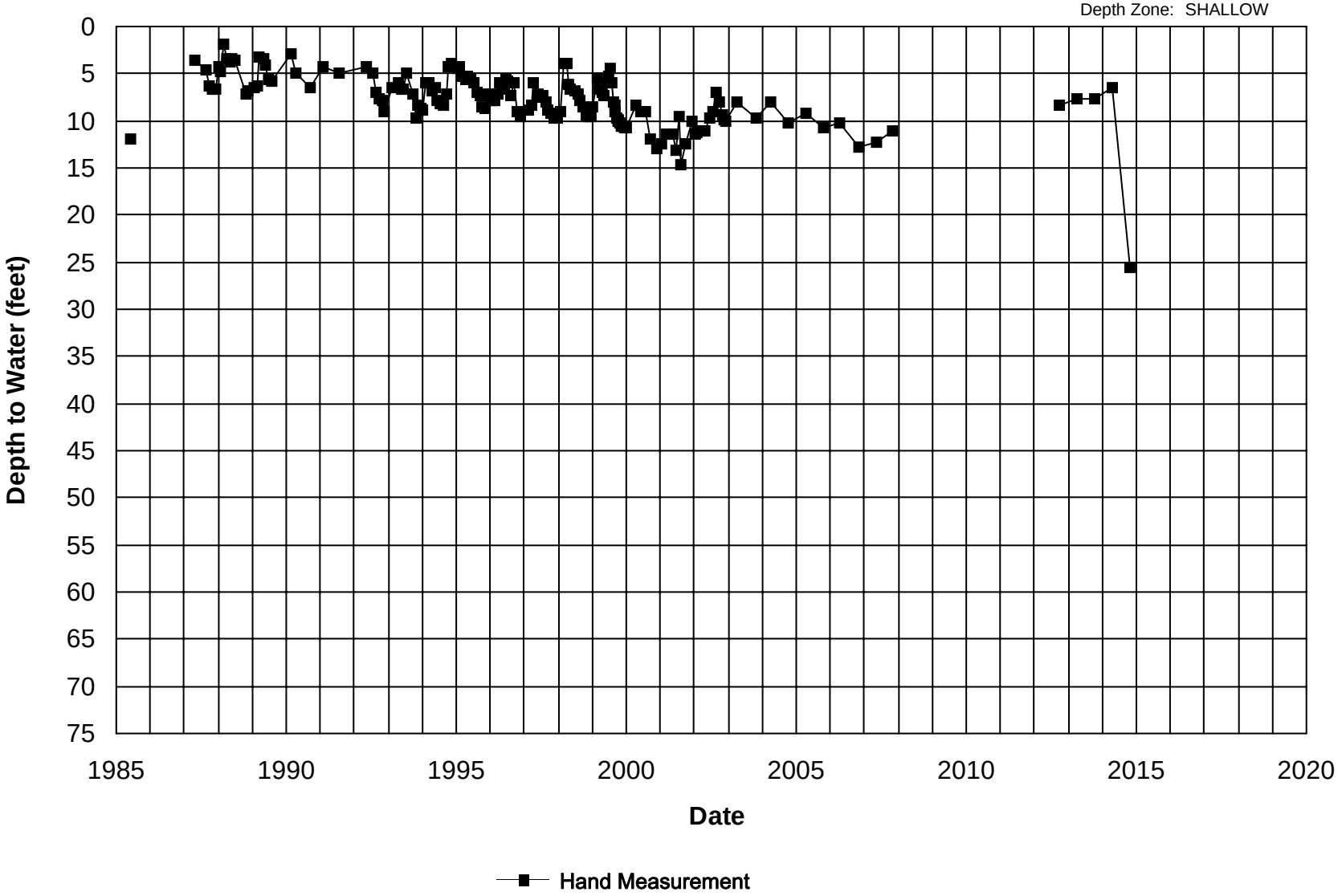
Reference Elevation: 154 feet NAVD88
Perforated Interval: 480 - 490 feet
Depth Zone: BELOW CORCORAN



Thursday, July 16, 2015

USGS Monitoring Well No. T14S/R14E-10A1

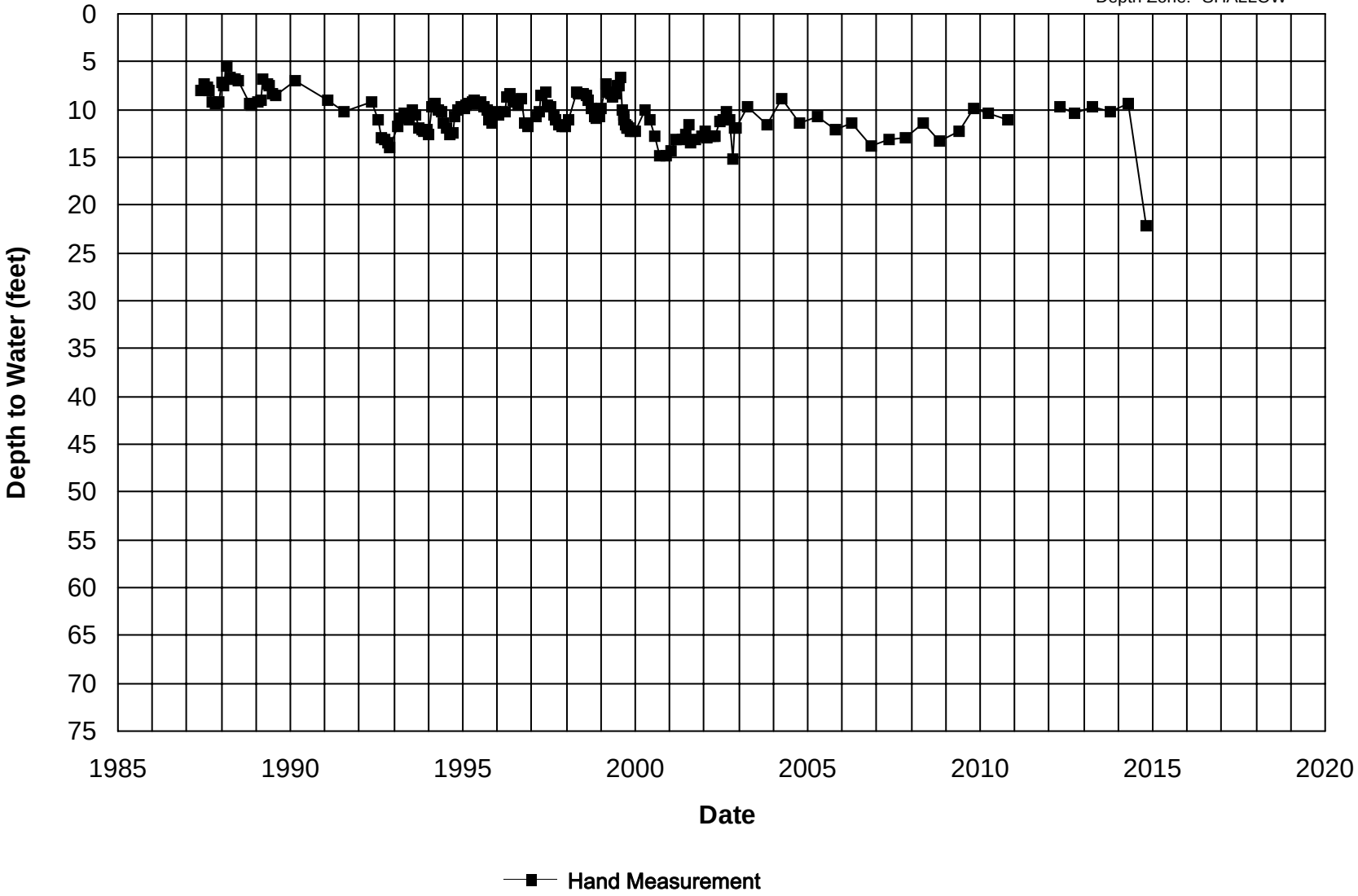
Reference Elevation: 204.6 feet NAVD88
Perforated Interval: 13 - 18 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

USGS Monitoring Well No. T14S/R14E-10A2

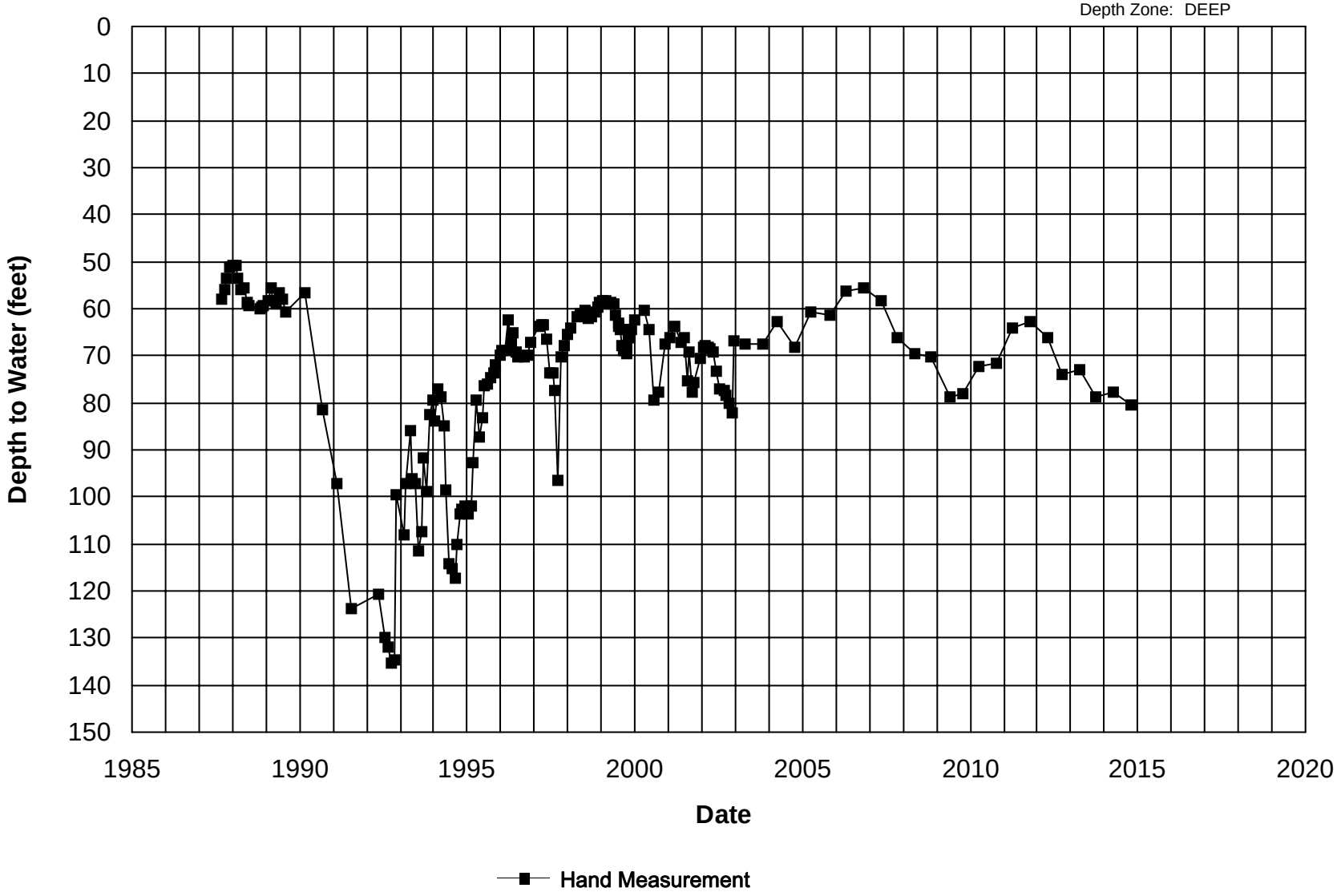
Reference Elevation: 203.4 feet NAVD88
Perforated Interval: 81 - 86 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

USGS Monitoring Well No. T14S/R14E-10A3

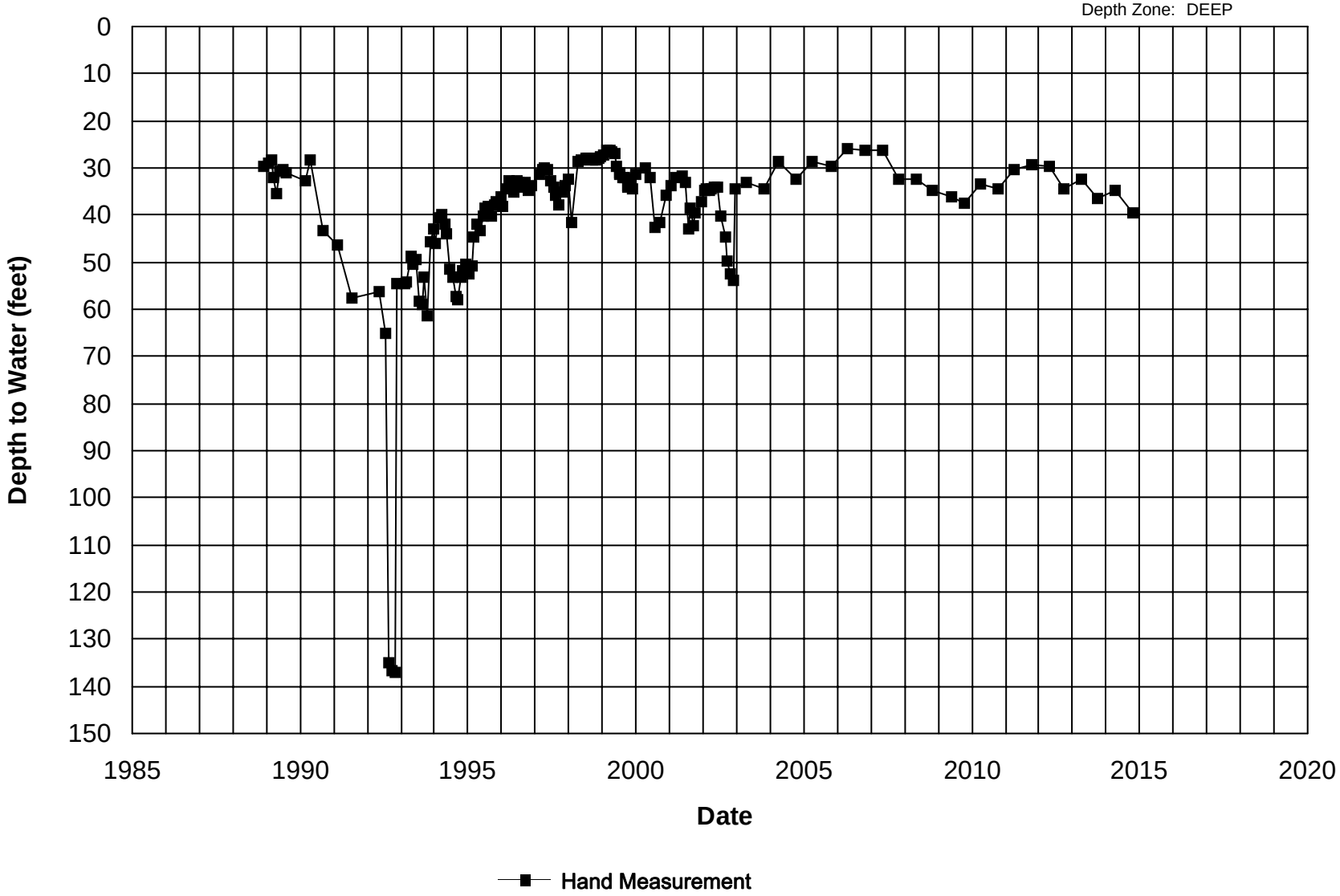
Reference Elevation: 204.9 feet NAVD88
Perforated Interval: 332 - 342 feet
Depth Zone: DEEP



Thursday, July 16, 2015

USGS Monitoring Well No. T14S/R14E-10A4

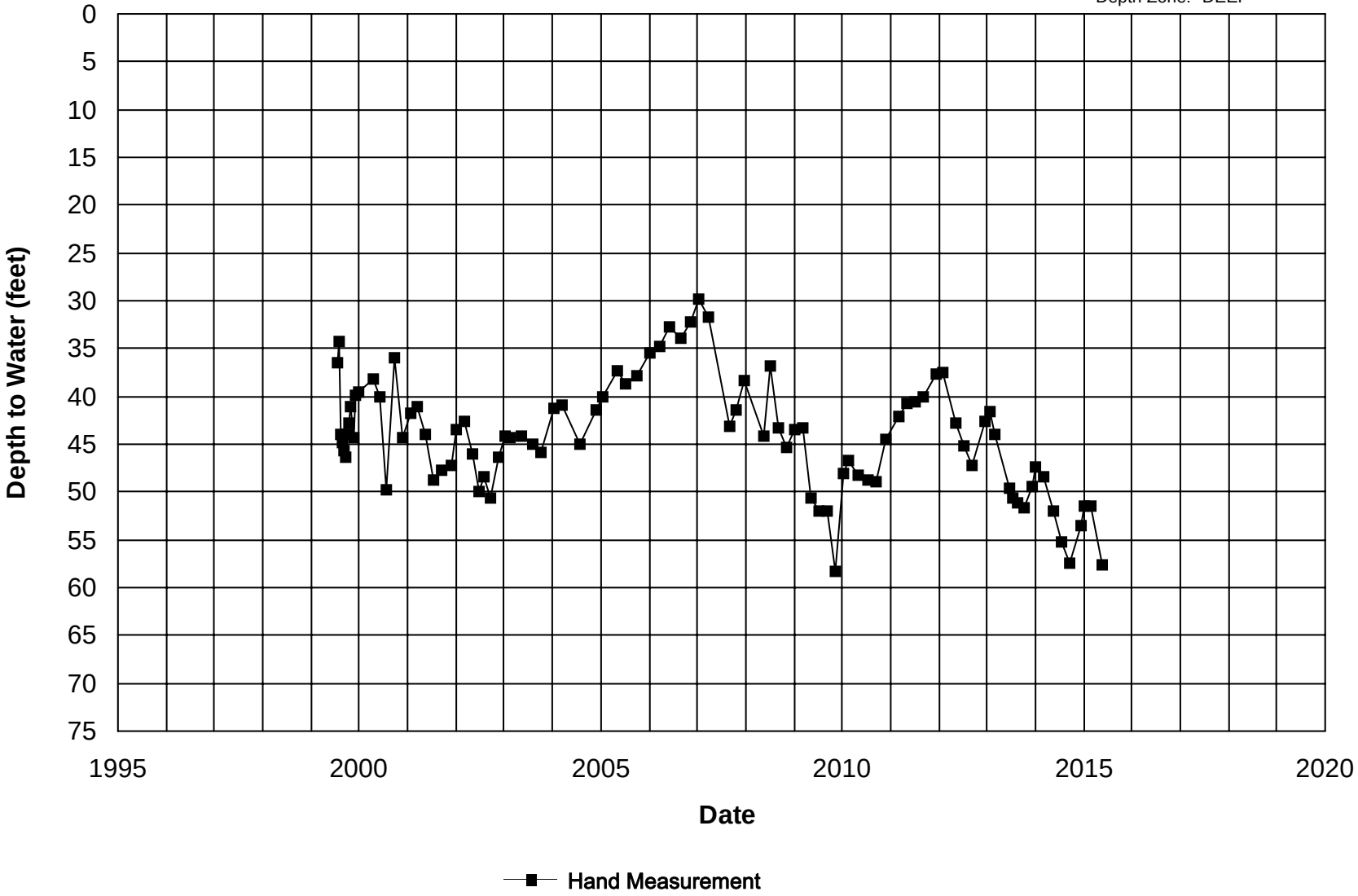
Reference Elevation: 204.2 feet NAVD88
Perforated Interval: 178 - 188 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Hansen Farms Well No. T14S/R15E-7C1

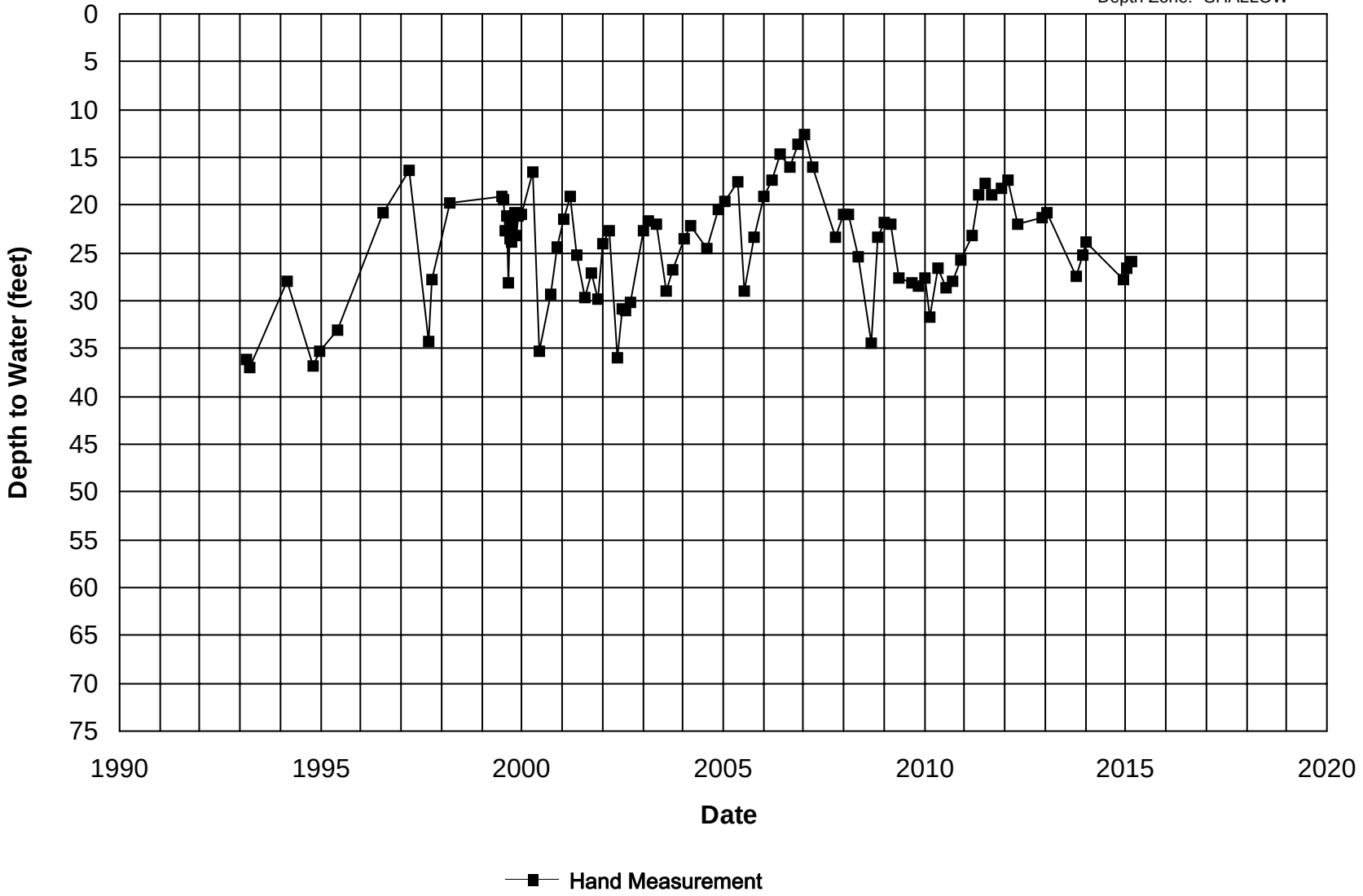
Reference Elevation: 172 feet NAVD88
Perforated Interval: 140 - 200 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Terra Linda TLF-7s

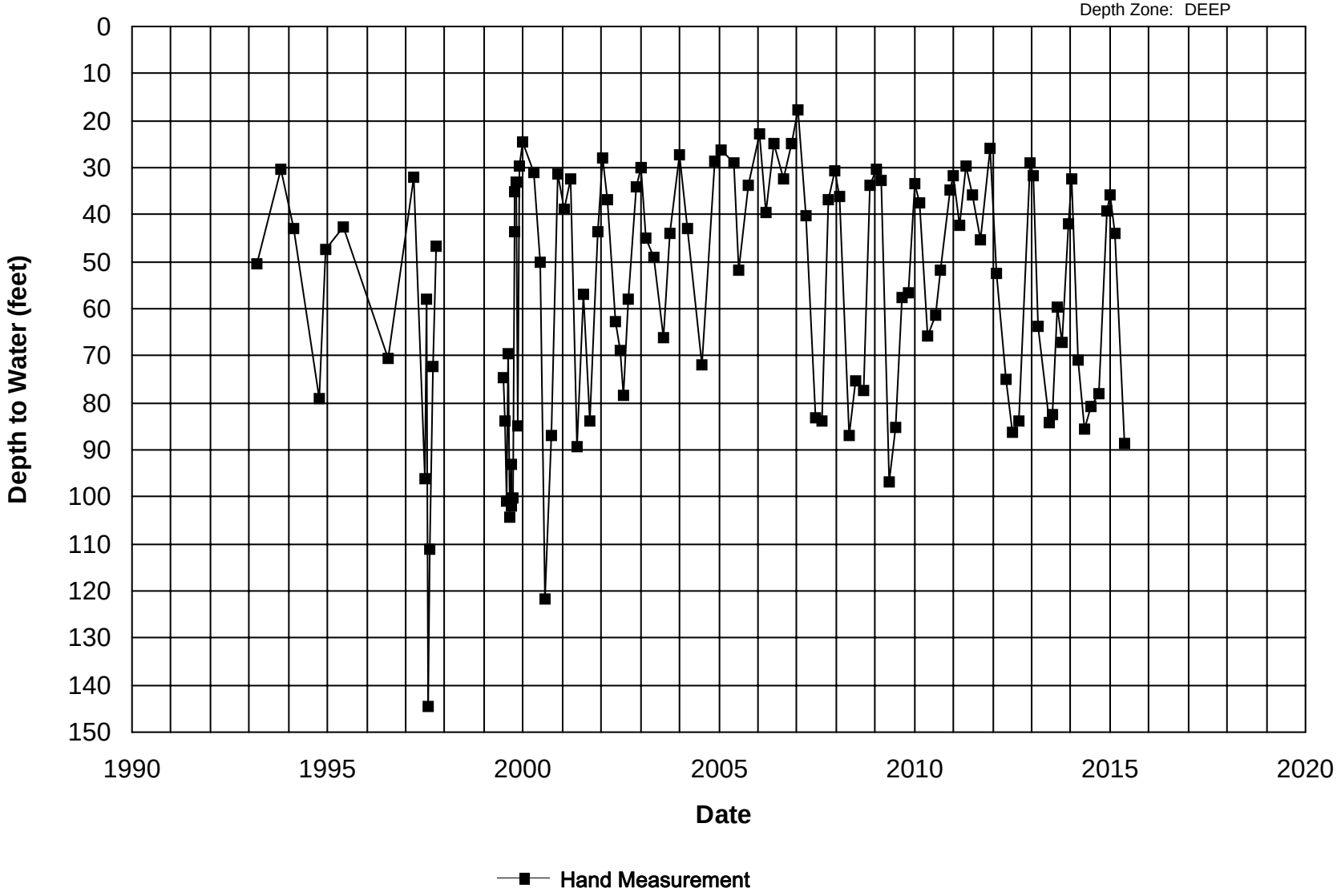
Reference Elevation: 154.63 feet NAVD88
Perforated Interval: 50 - 80 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Terra Linda HS-3

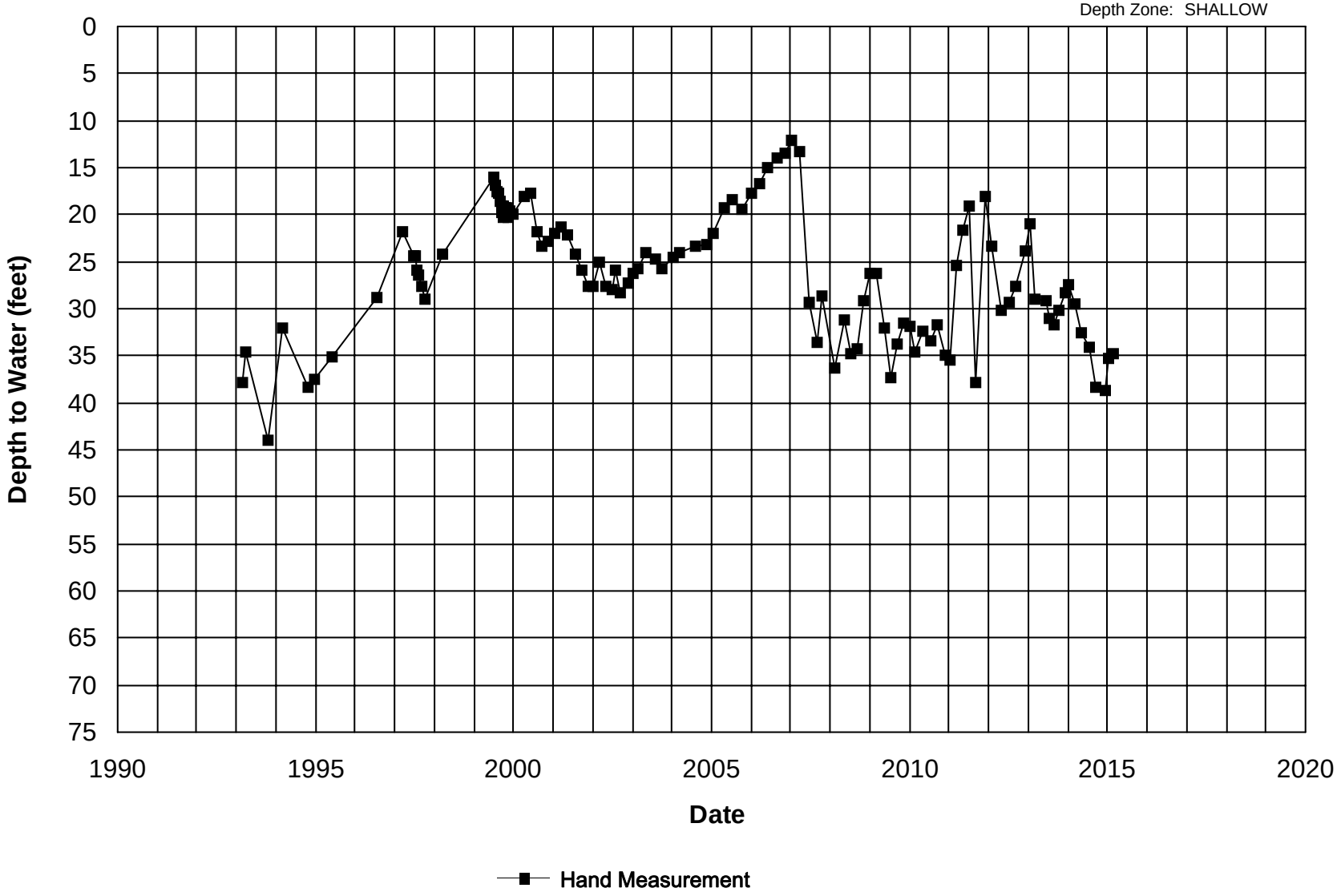
Reference Elevation: 151.9 feet NAVD88
Perforated Interval: 120 - 410 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Etchegoinberry No. 2

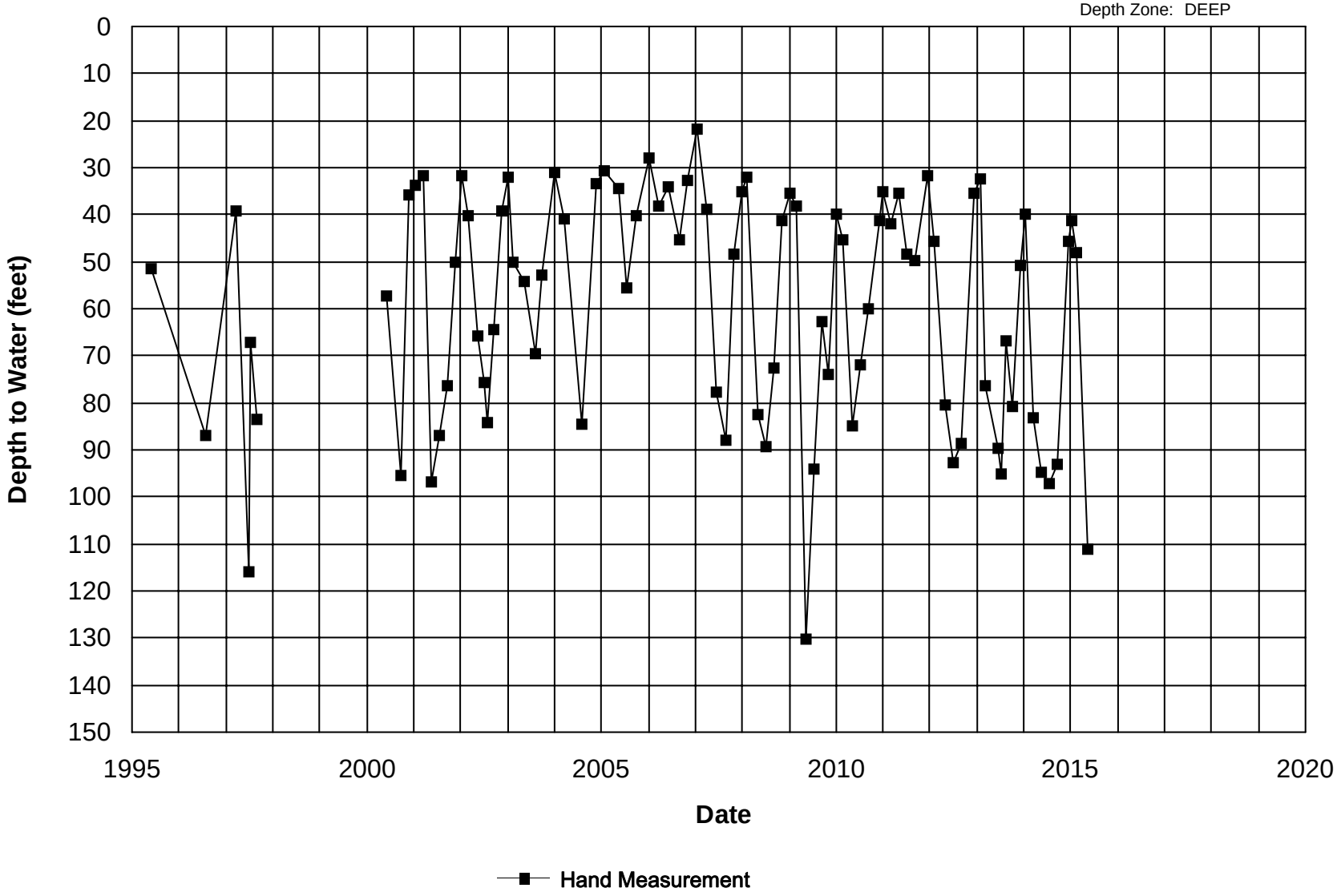
Reference Elevation: 154.87 feet NAVD88
Perforated Interval: 50 - 100 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Coelho/Coelho/Fordel CCF-2

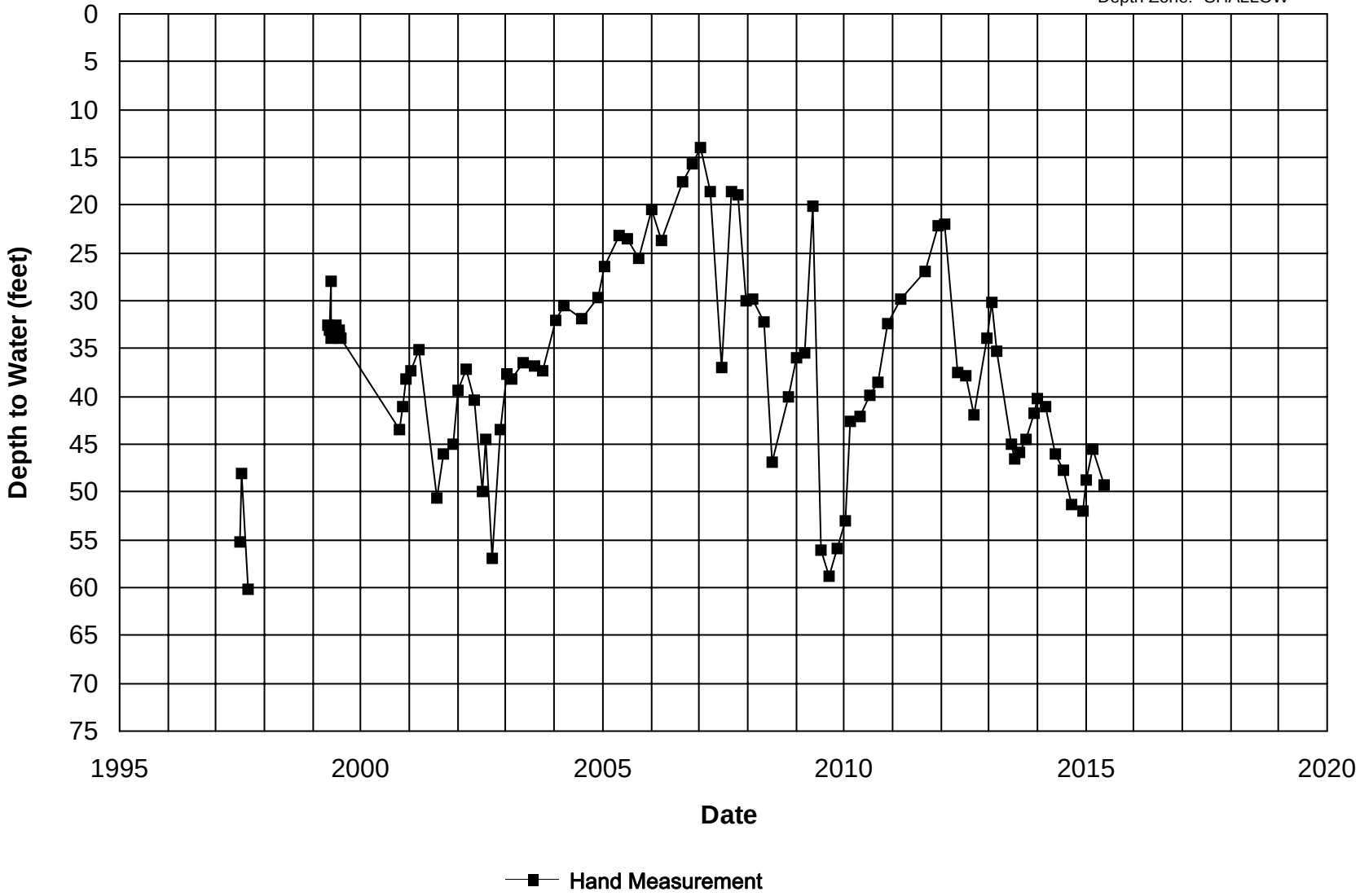
Reference Elevation: 152.91 feet NAVD88
Perforated Interval: 200 - 400 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Meyers Farming MS-4

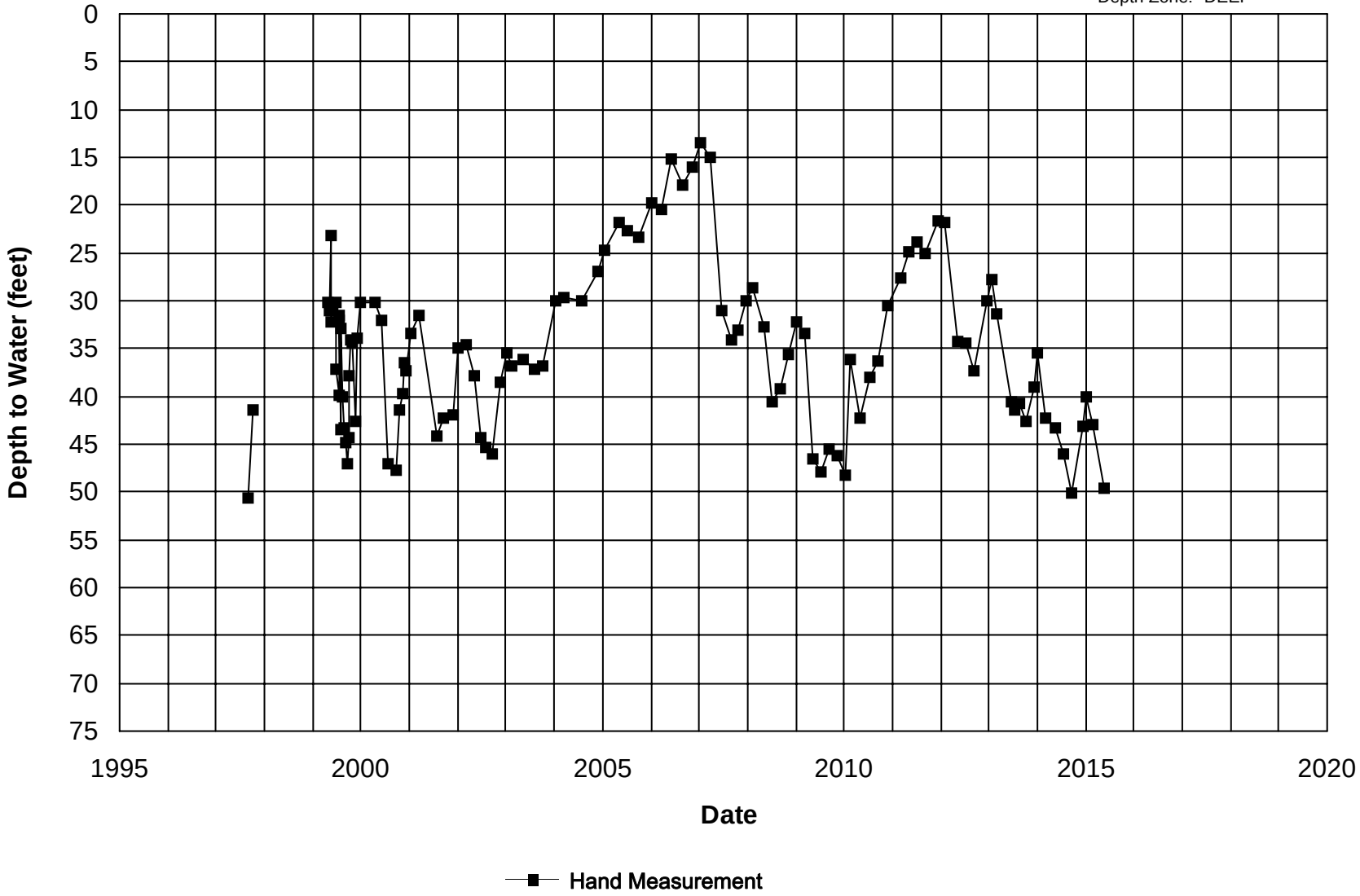
Reference Elevation: 159 feet NAVD88
Perforated Interval: 60 - 130 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farming MS-5

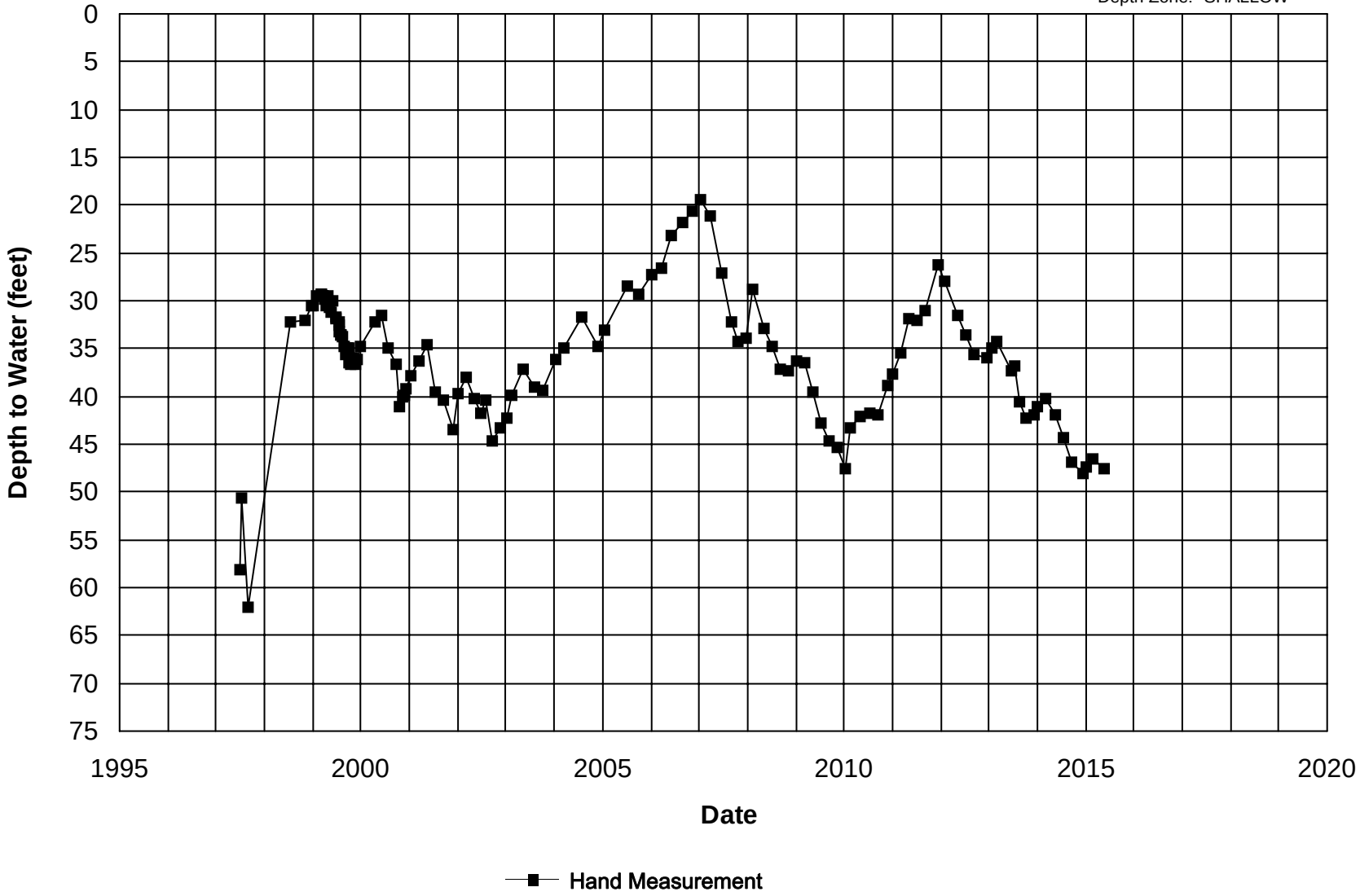
Reference Elevation: 160.5 feet NAVD88
Perforated Interval: 100 - 220 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Meyers Farm Monitoring Well S-2

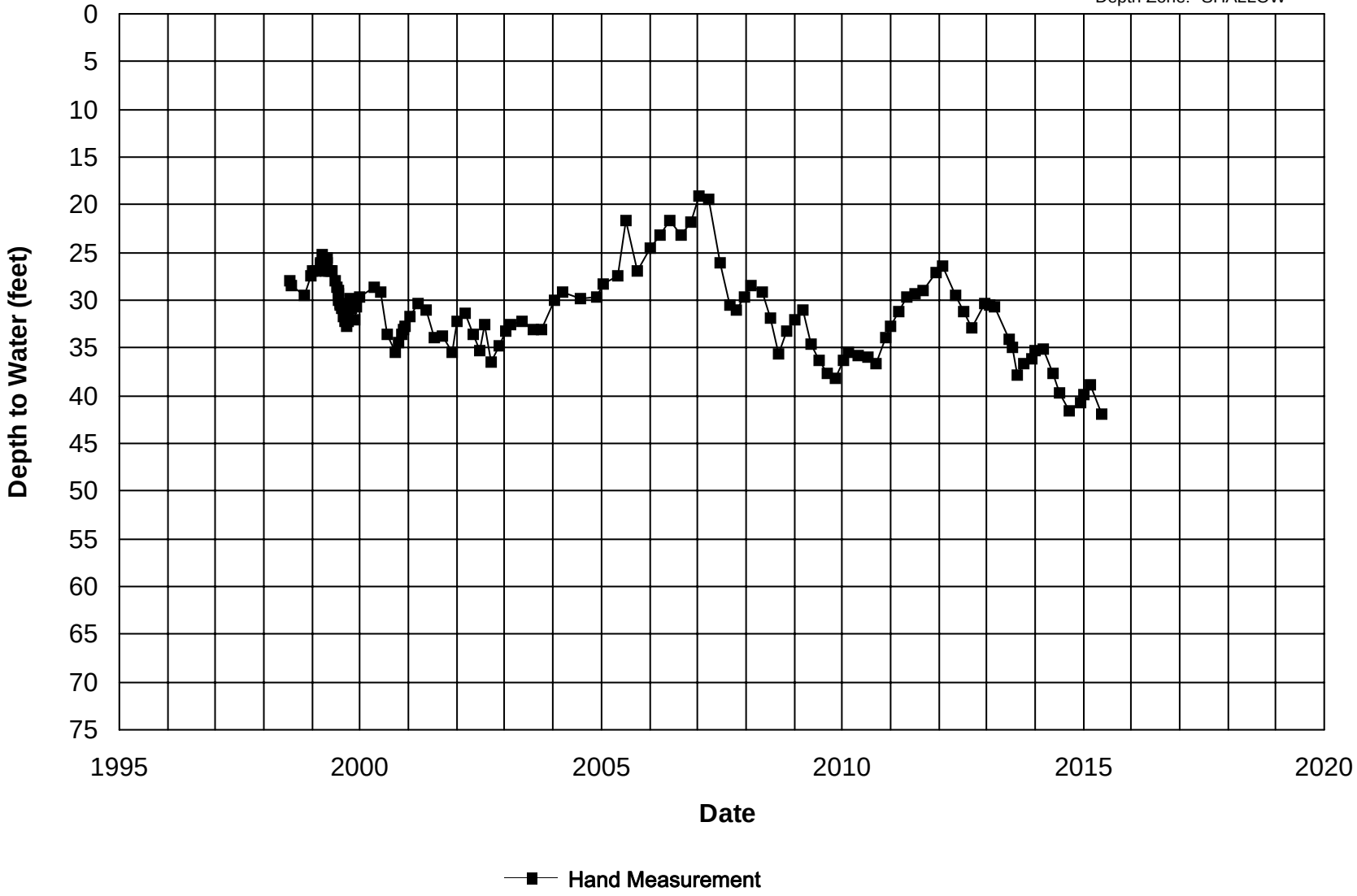
Reference Elevation: 165 feet NAVD88
Perforated Interval: 23 - 78 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Monitoring Well P-6

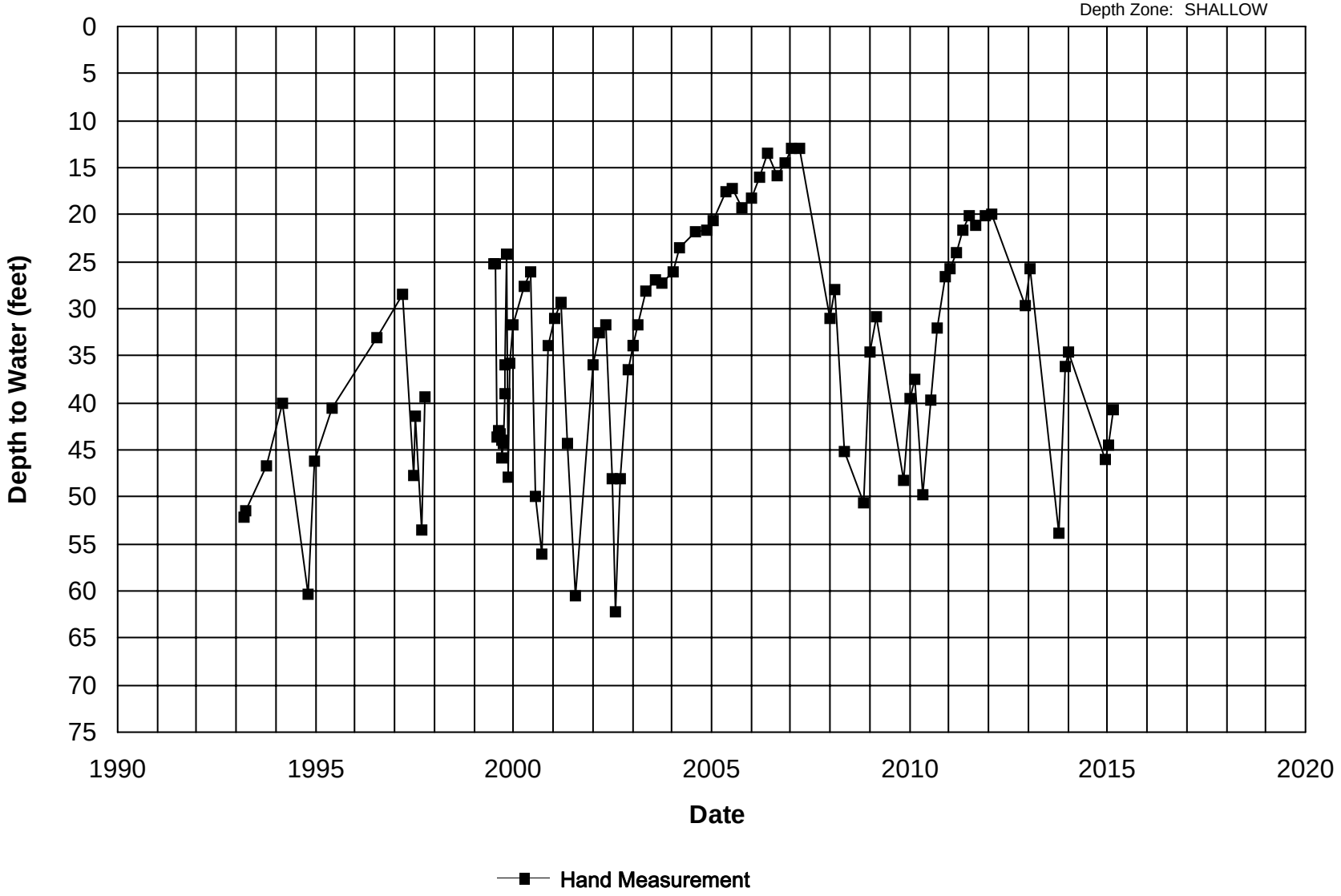
Reference Elevation: 163.53 feet NAVD88
Perforated Interval: 24 - 79 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Five Star FS-5

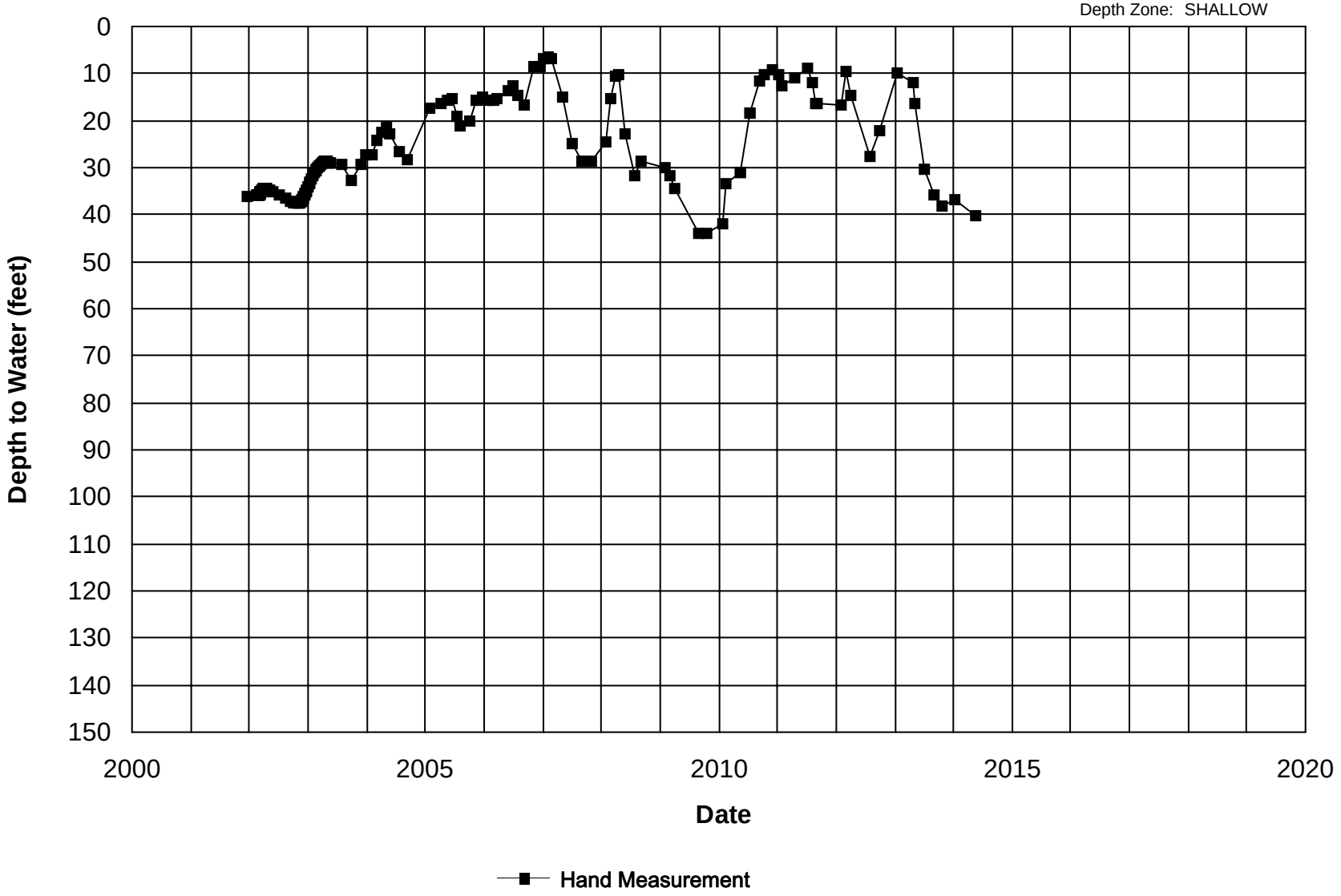
Reference Elevation: 154.98 feet NAVD88
Perforated Interval: 60 - 110 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-1

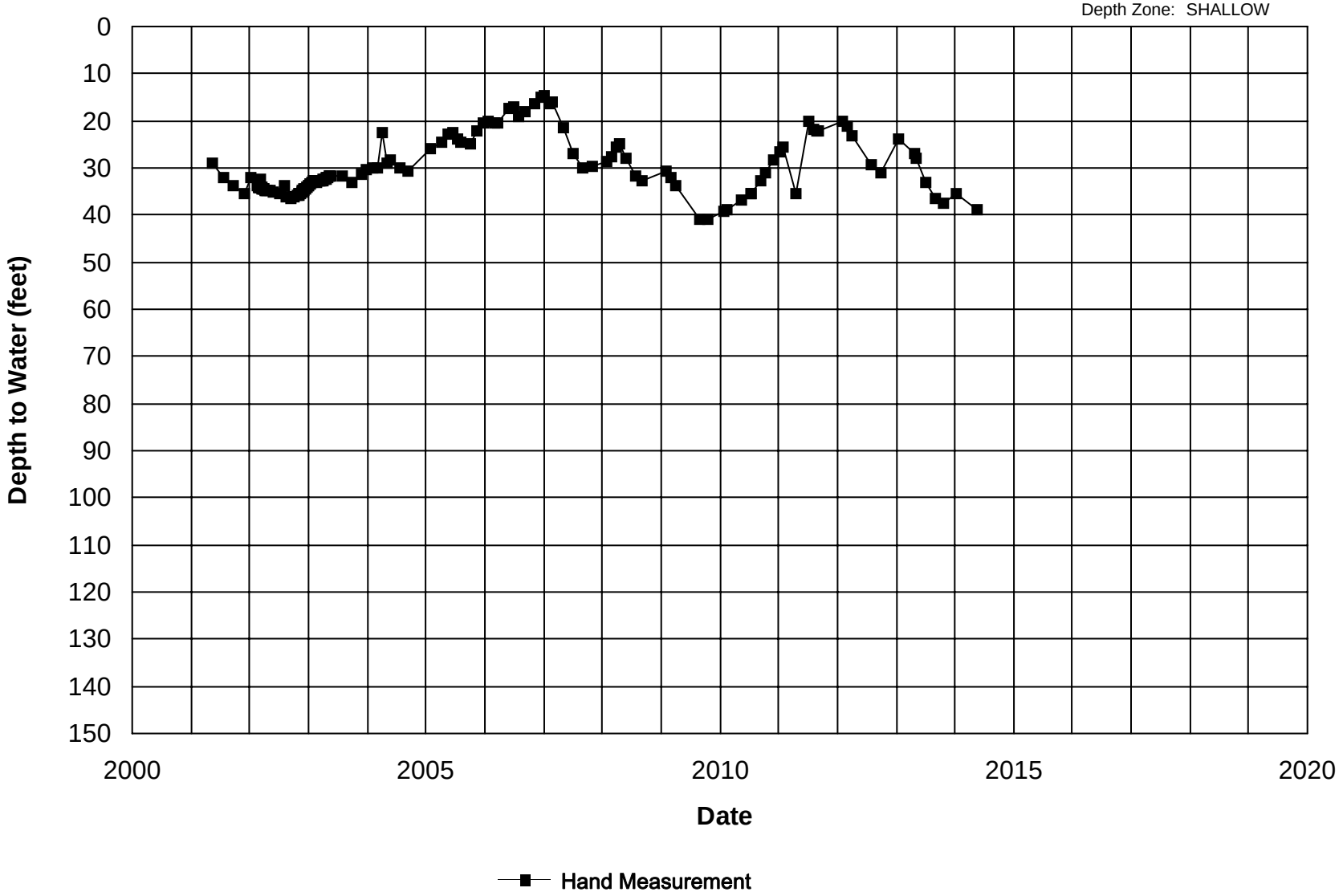
Reference Elevation: 159.42 feet NAVD88
Perforated Interval: 38 - 68 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-2

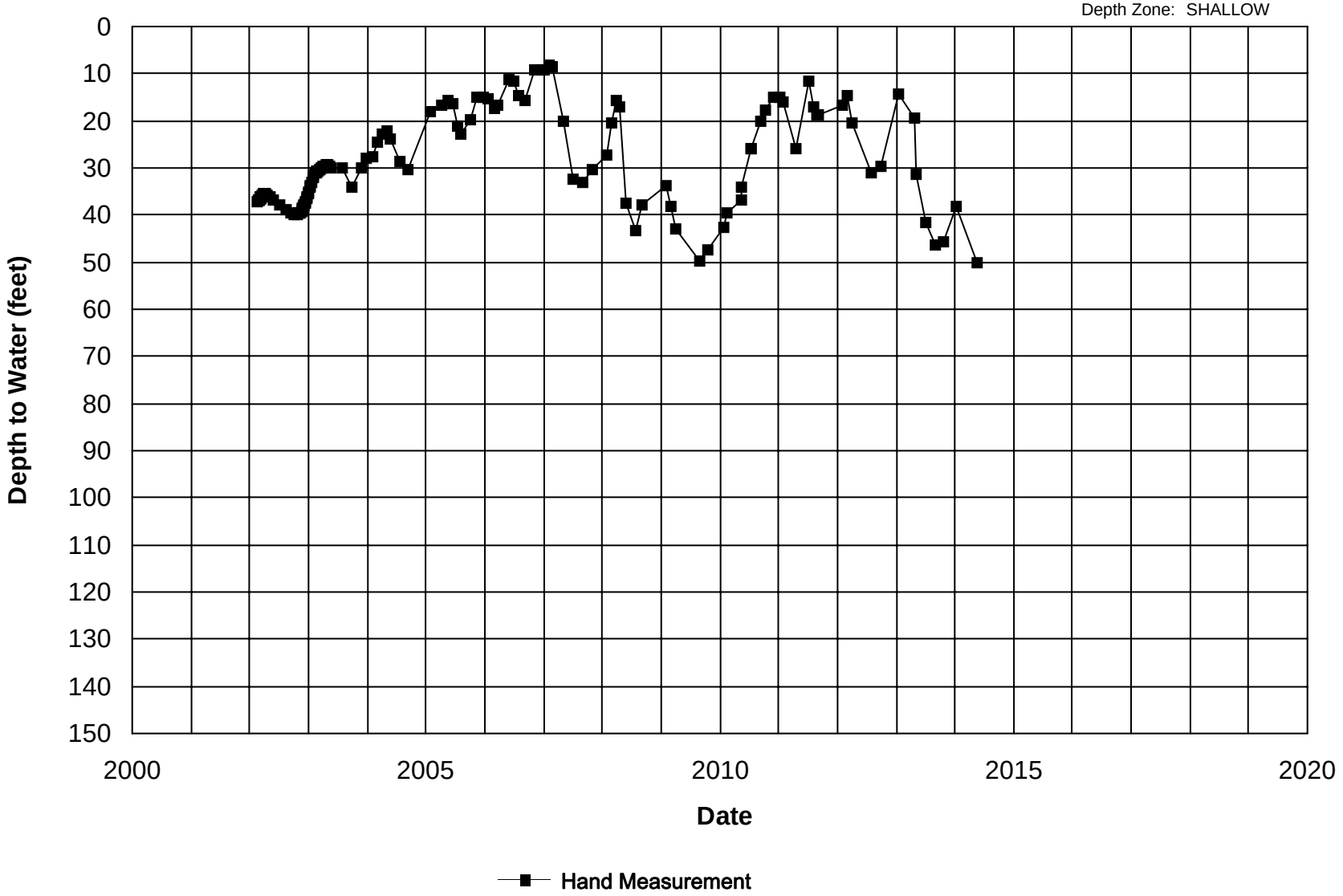
Reference Elevation: 158.35 feet NAVD88
Perforated Interval: 38 - 68 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-3

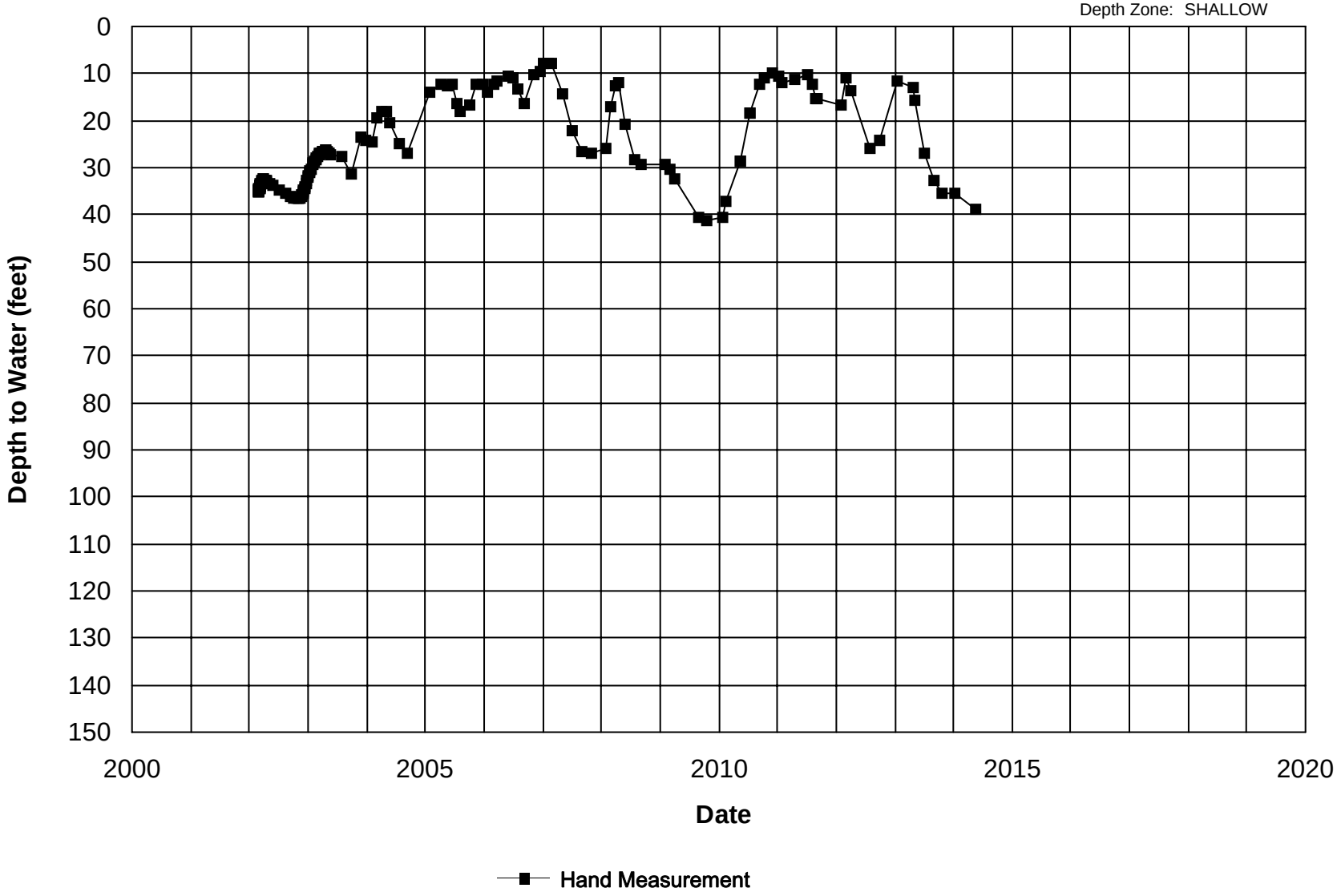
Reference Elevation: 158.42 feet NAVD88
Perforated Interval: 40 - 60 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-4

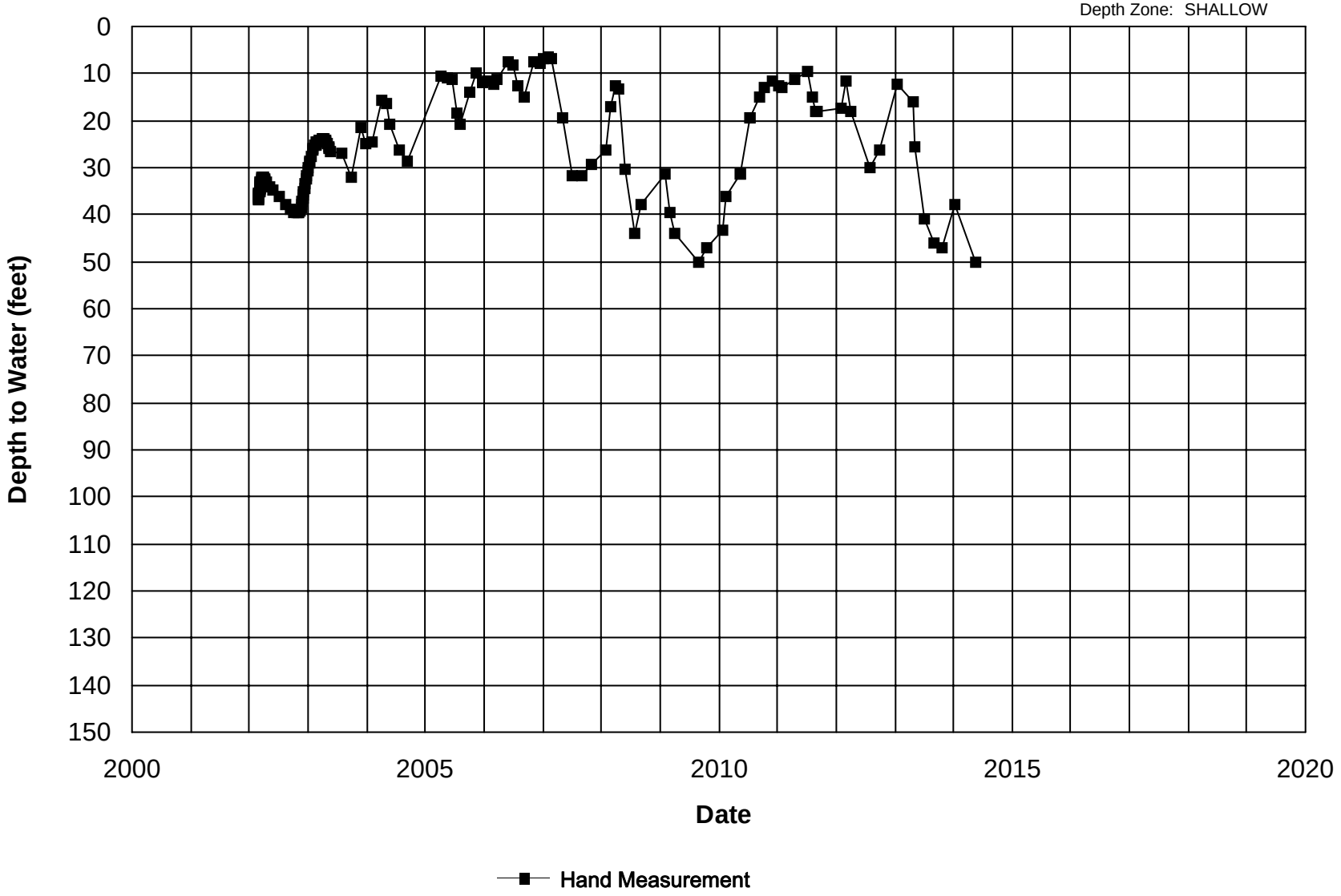
Reference Elevation: 159.89 feet NAVD88
Perforated Interval: 40 - 60 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-5

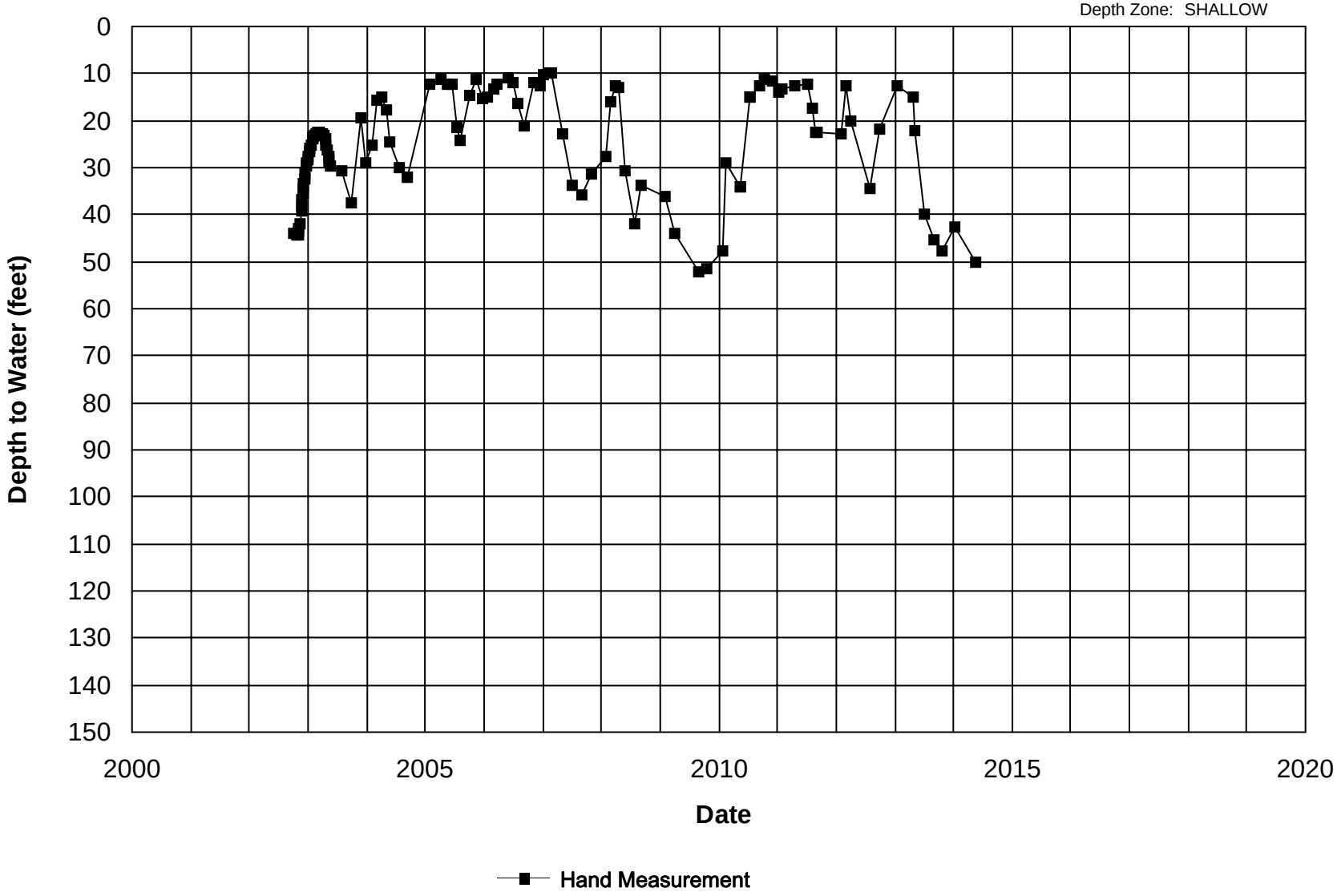
Reference Elevation: 158.44 feet NAVD88
Perforated Interval: 40 - 50 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-6

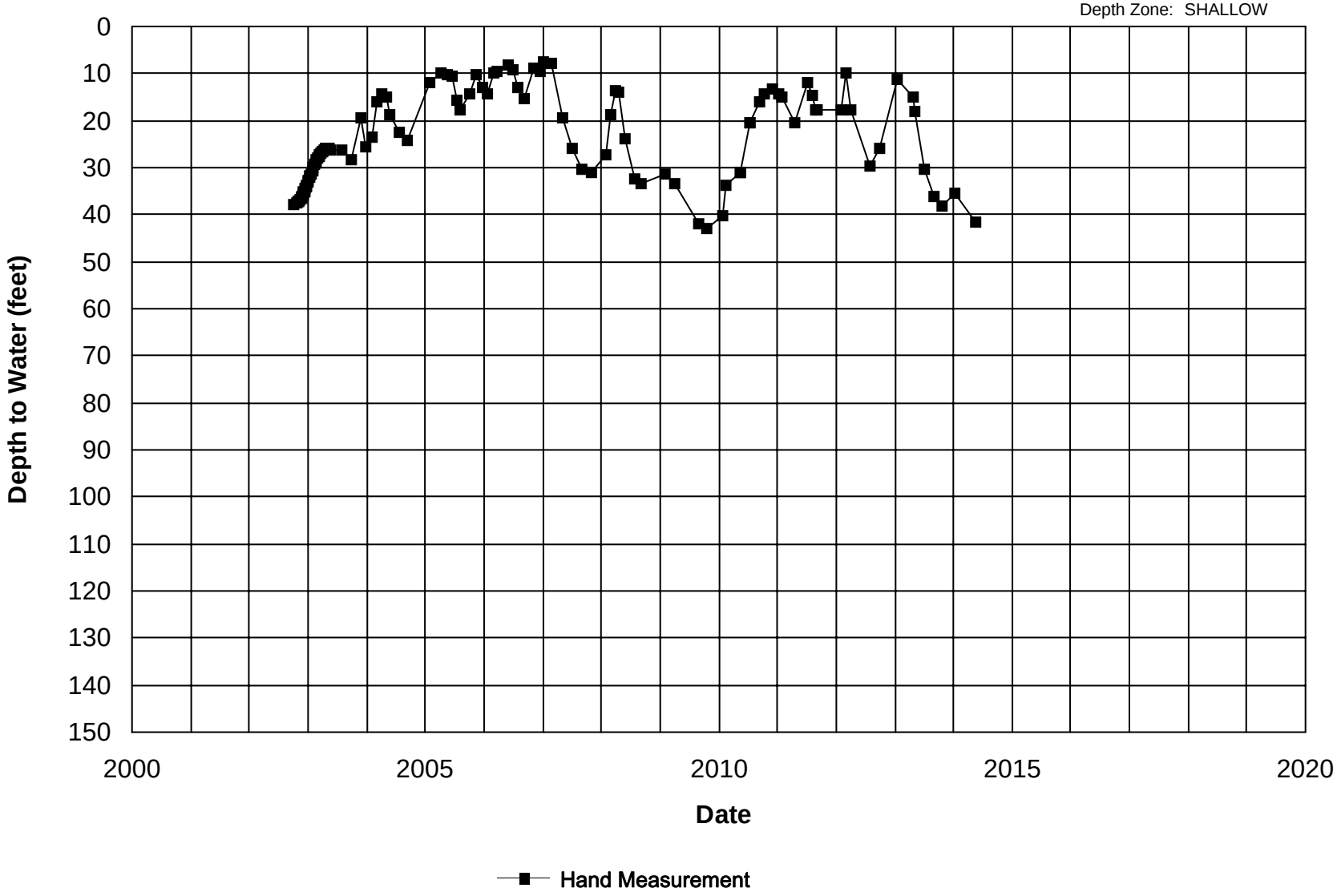
Reference Elevation: 164.99 feet NAVD88
Perforated Interval: 55 - 70 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-7

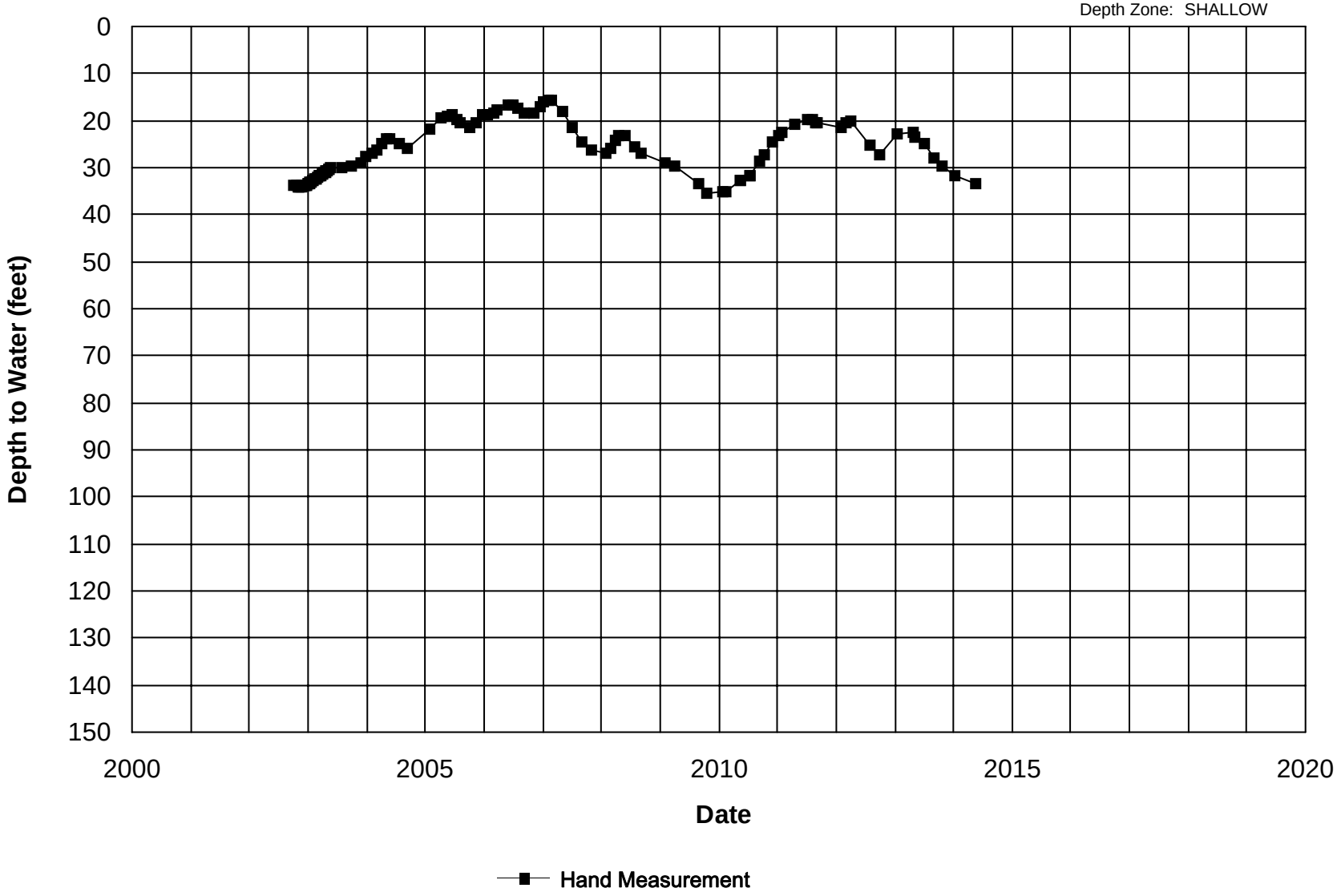
Reference Elevation: 160.01 feet NAVD88
Perforated Interval: 35 - 50 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-8

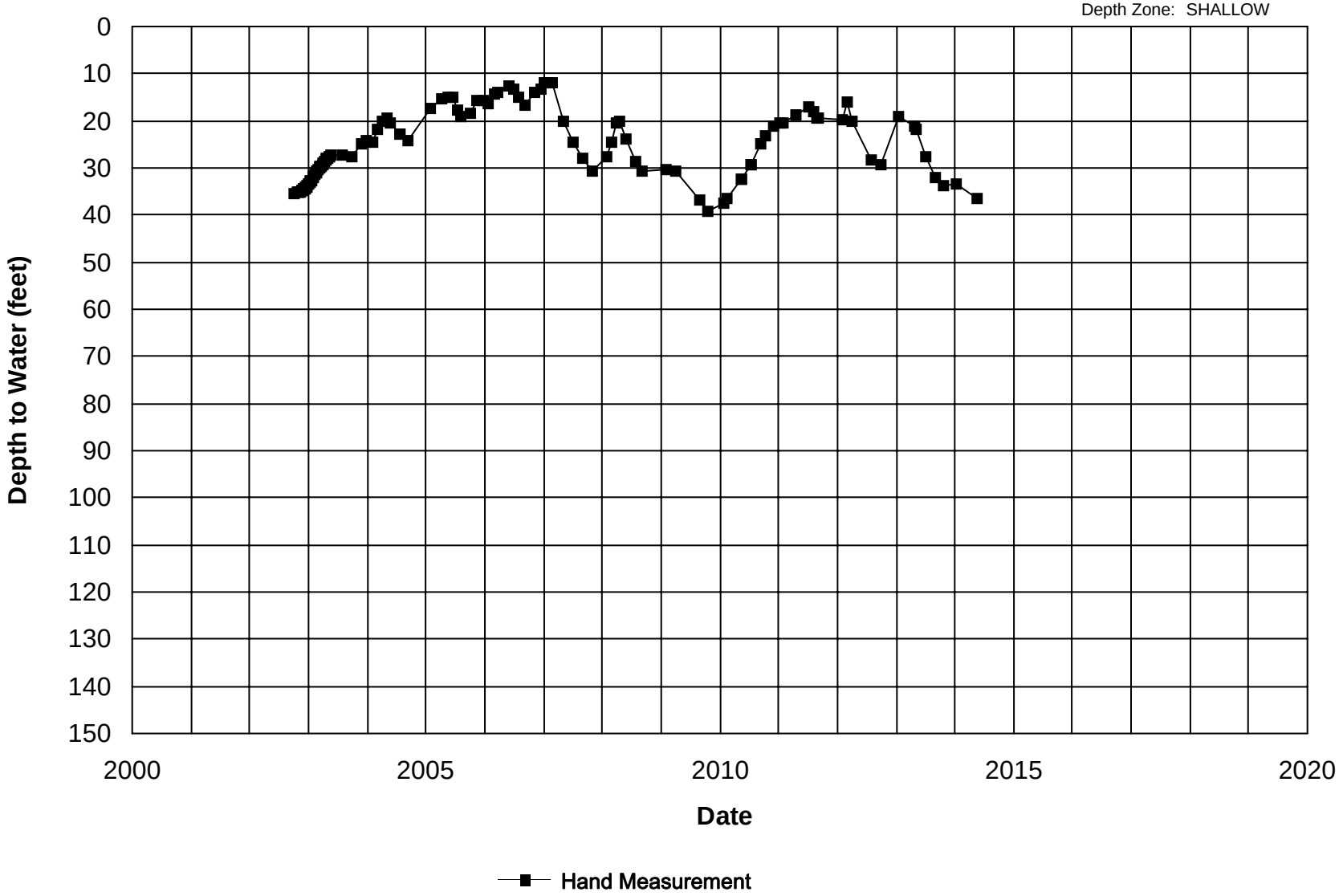
Reference Elevation: 161.41 feet NAVD88
Perforated Interval: 35 - 50 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Meyers Farm Water Bank MF-9

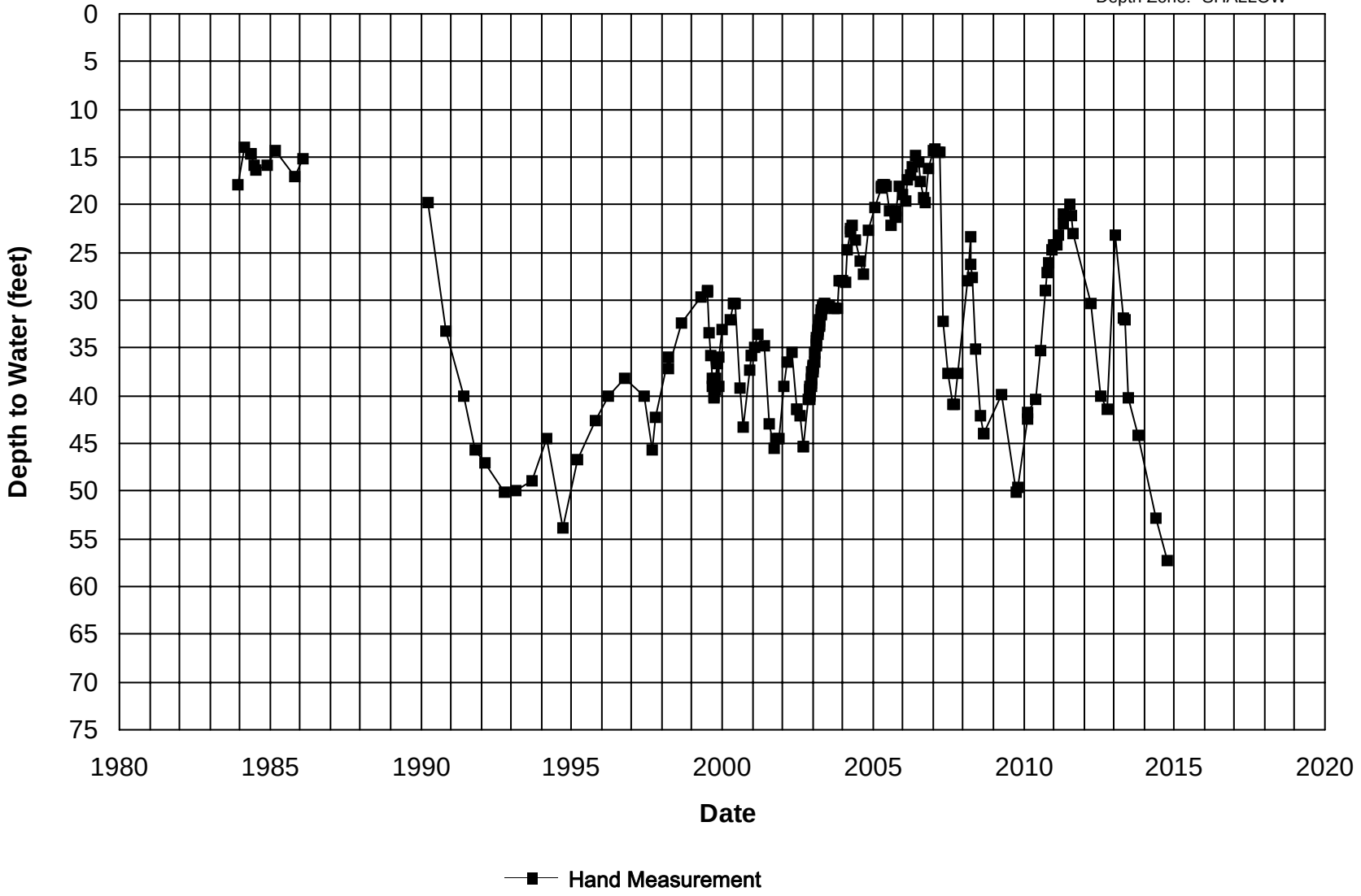
Reference Elevation: 160.67 feet NAVD88
Perforated Interval: 35 - 50 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Spreckels Sugar Co. MW-1

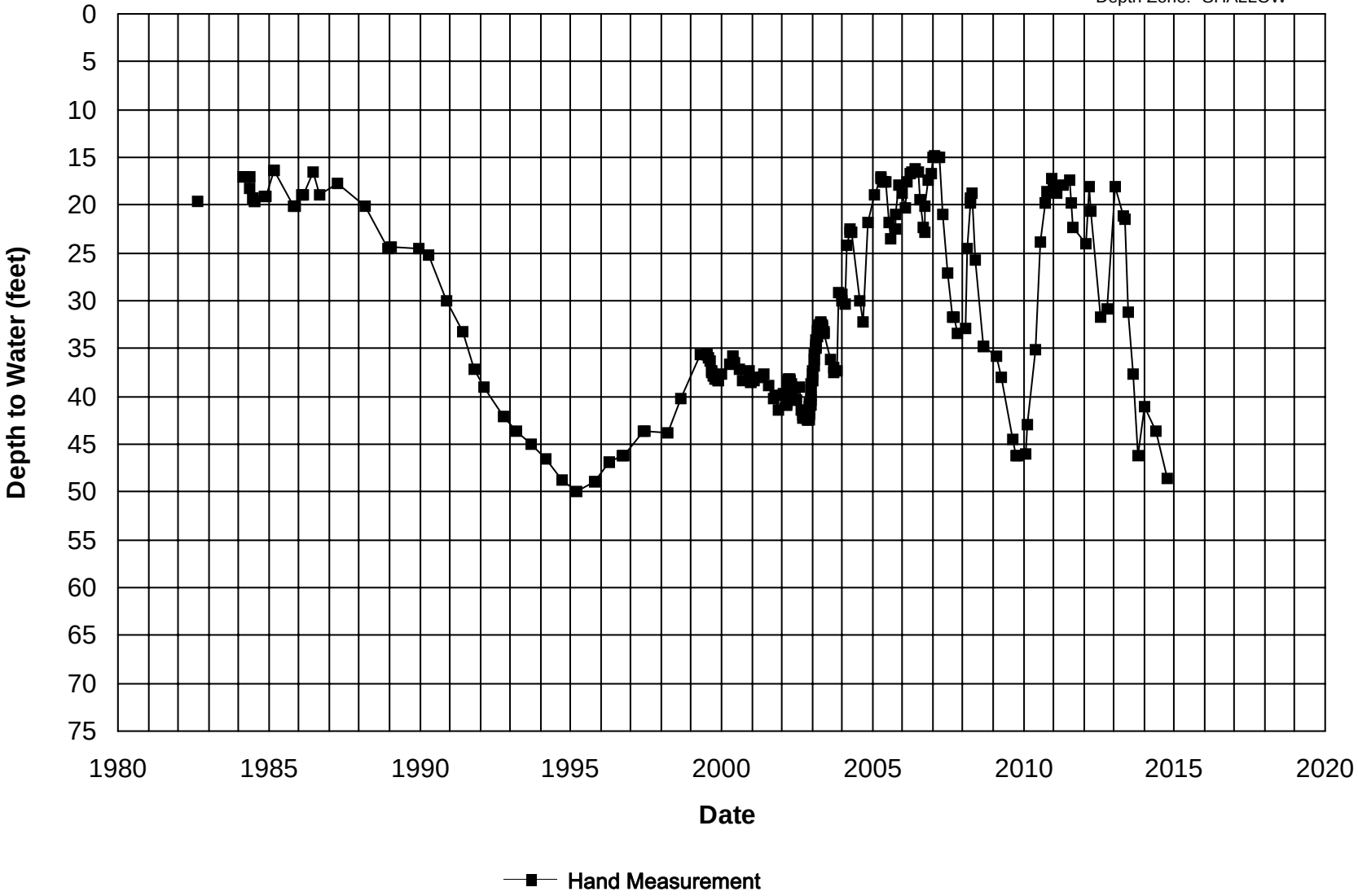
Reference Elevation: 166.08 feet NAVD88
Perforated Interval: 38 - 78 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Spreckels Sugar Co. MW-3

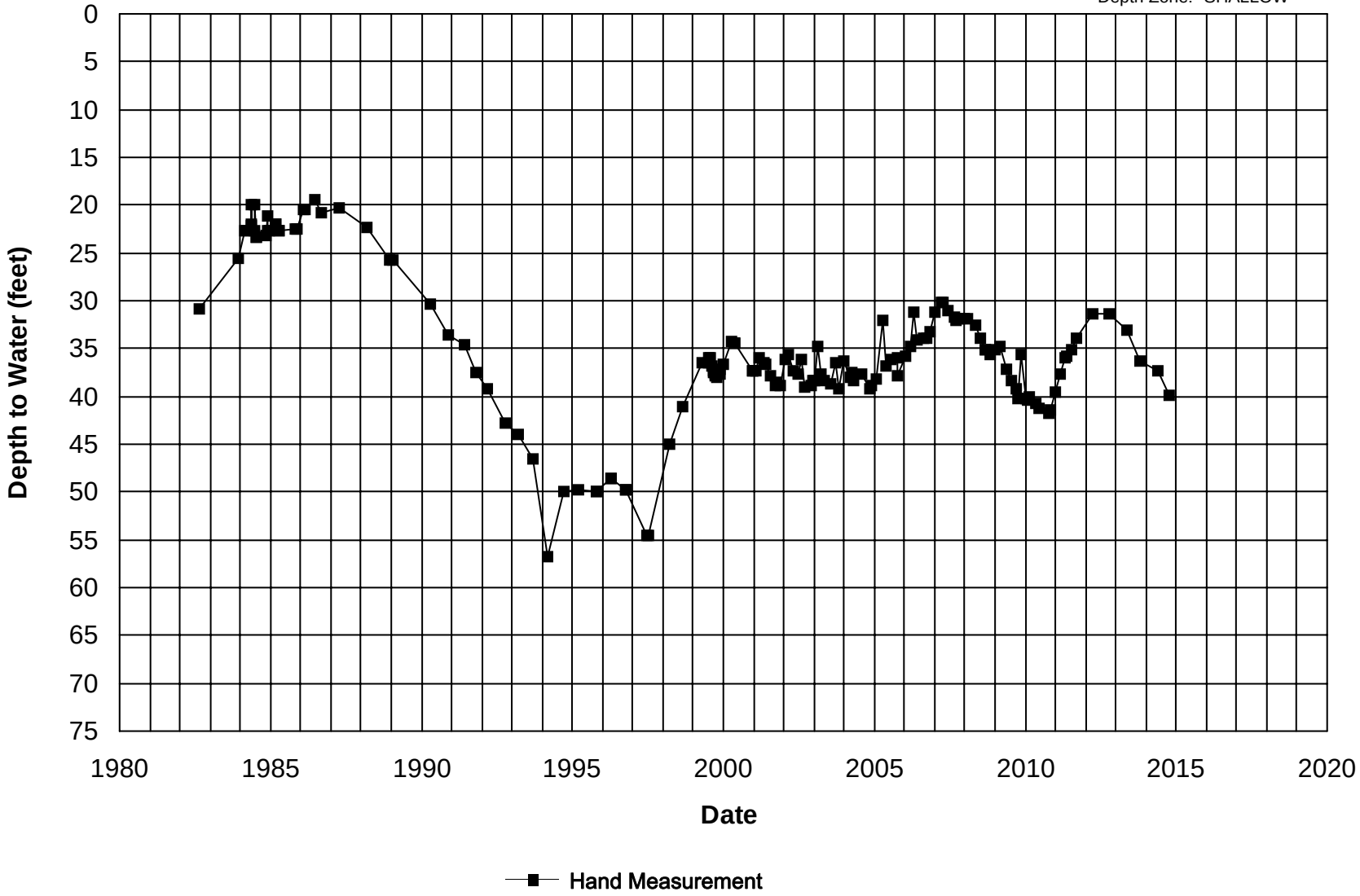
Reference Elevation: 169 feet NAVD88
Perforated Interval: 39 - 79 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Spreckels Sugar Co. MW-6

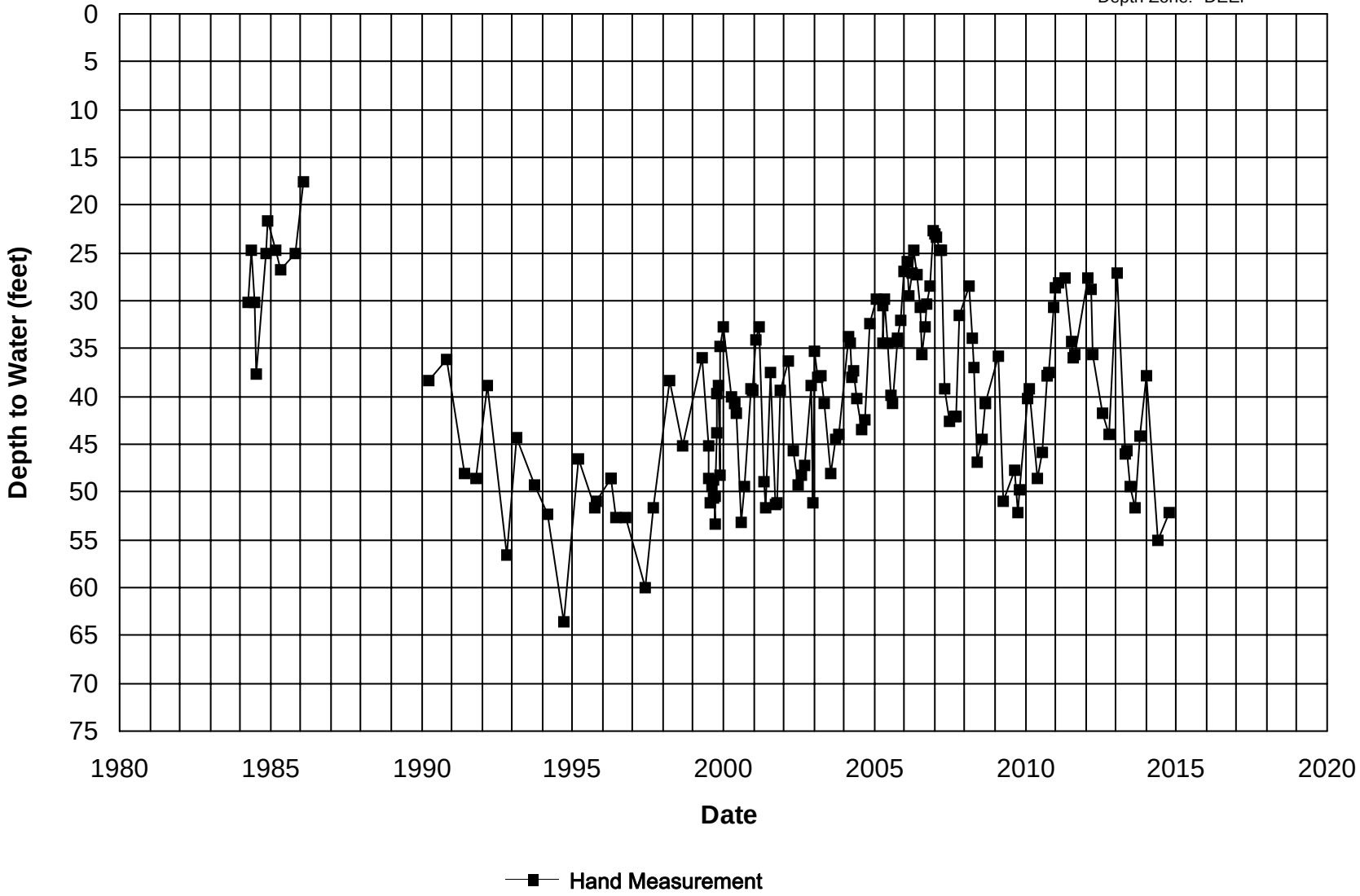
Reference Elevation: 166 feet NAVD88
Perforated Interval: 38 - 78 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Spreckels Sugar Co. MW-10

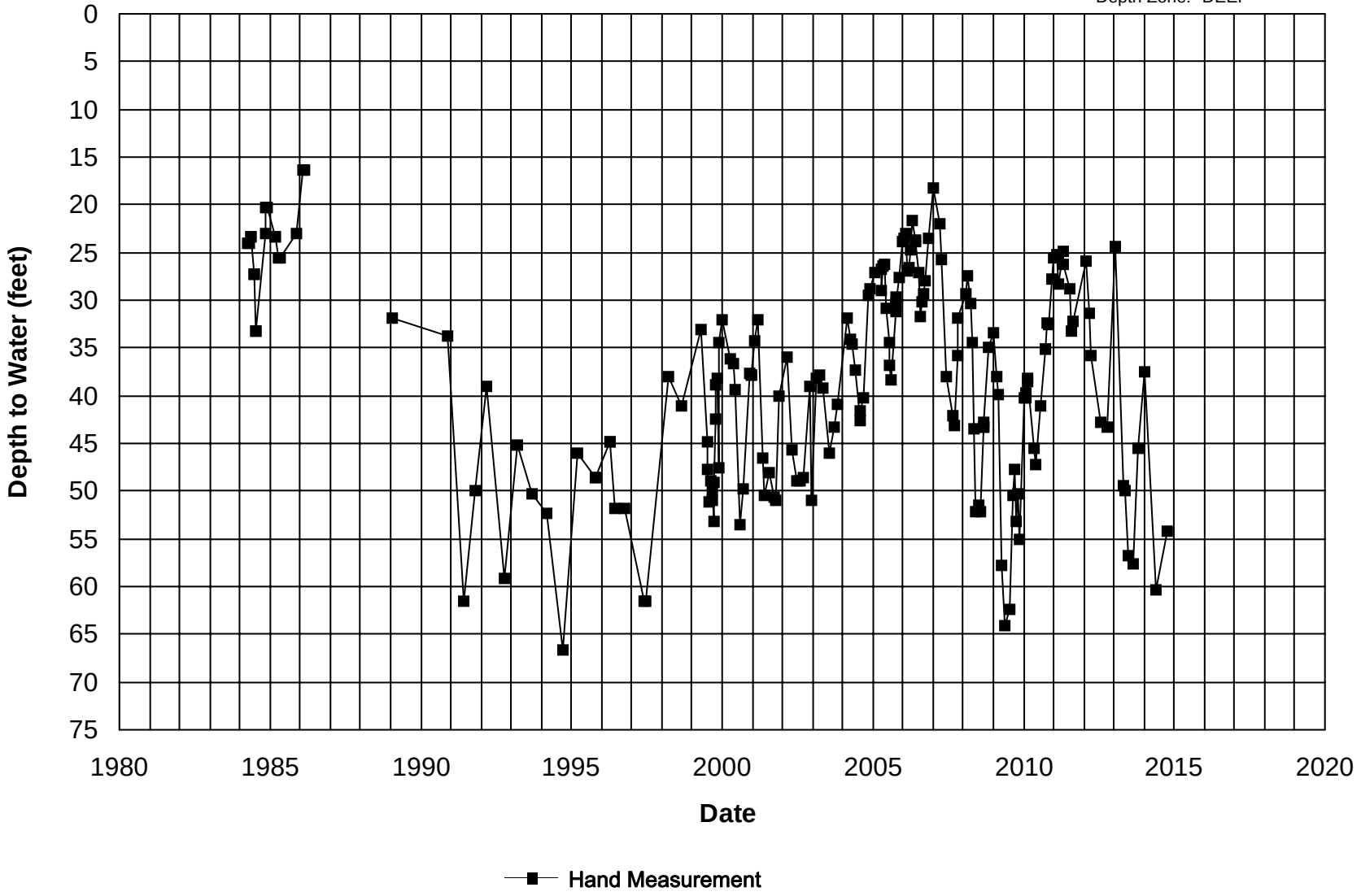
Reference Elevation: 163.6 feet NAVD88
Perforated Interval: 120 - 150 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Spreckels Sugar Co. MW-11

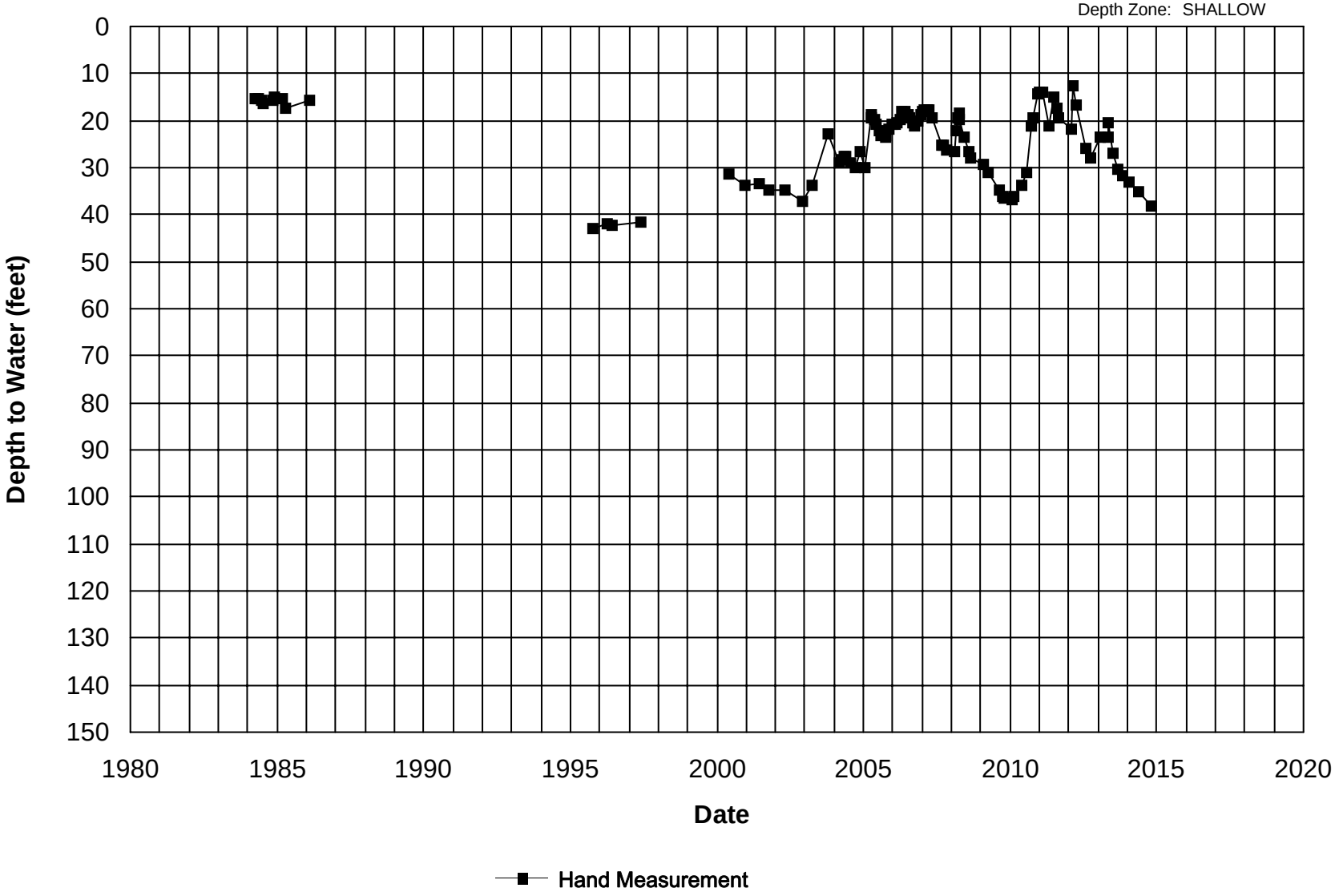
Reference Elevation: 162.47 feet NAVD88
Perforated Interval: 120 - 150 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Spreckels Sugar Co. MW-13

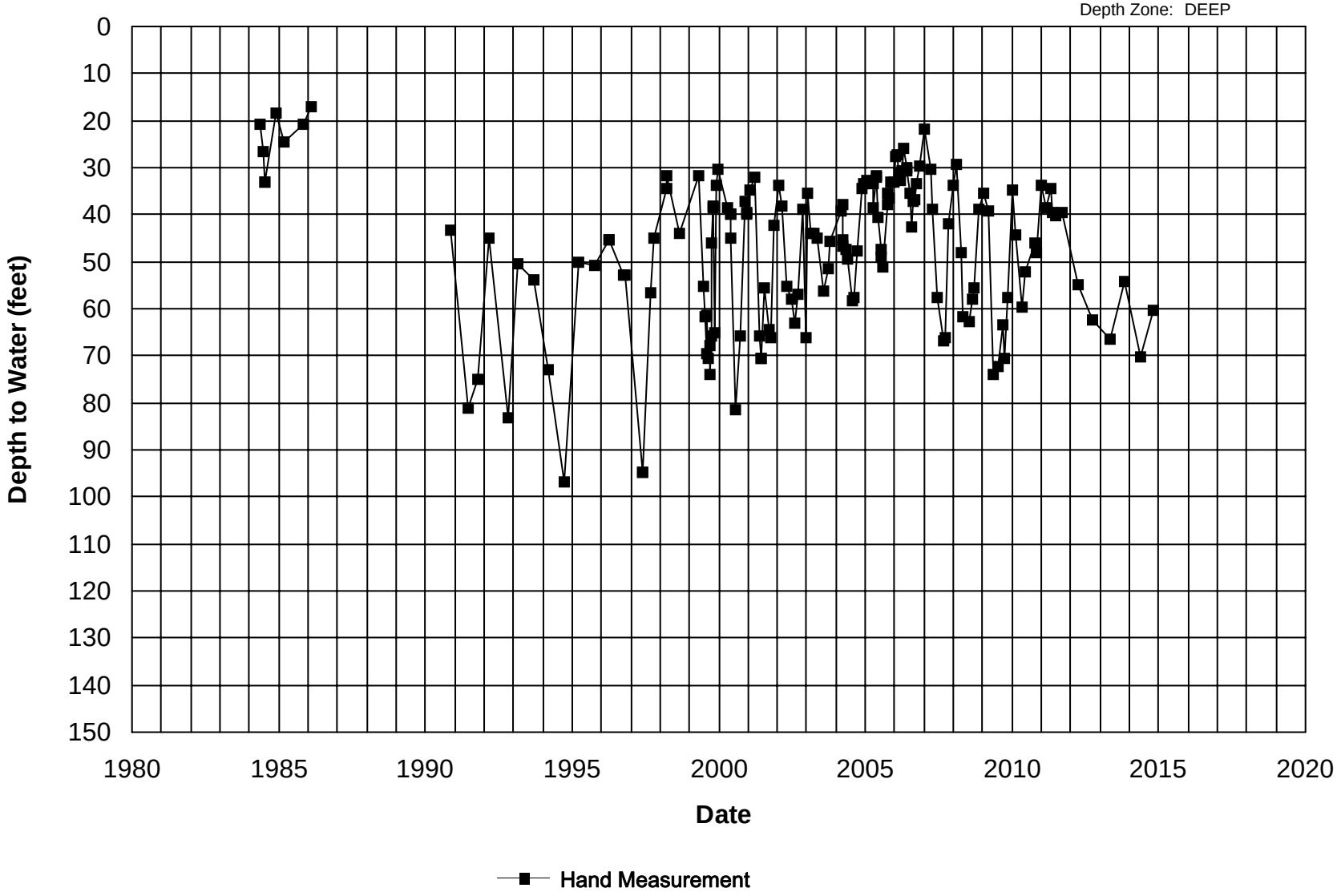
Reference Elevation: 163.05 feet NAVD88
Perforated Interval: 30 - 60 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Spreckels Sugar Co. MW-14

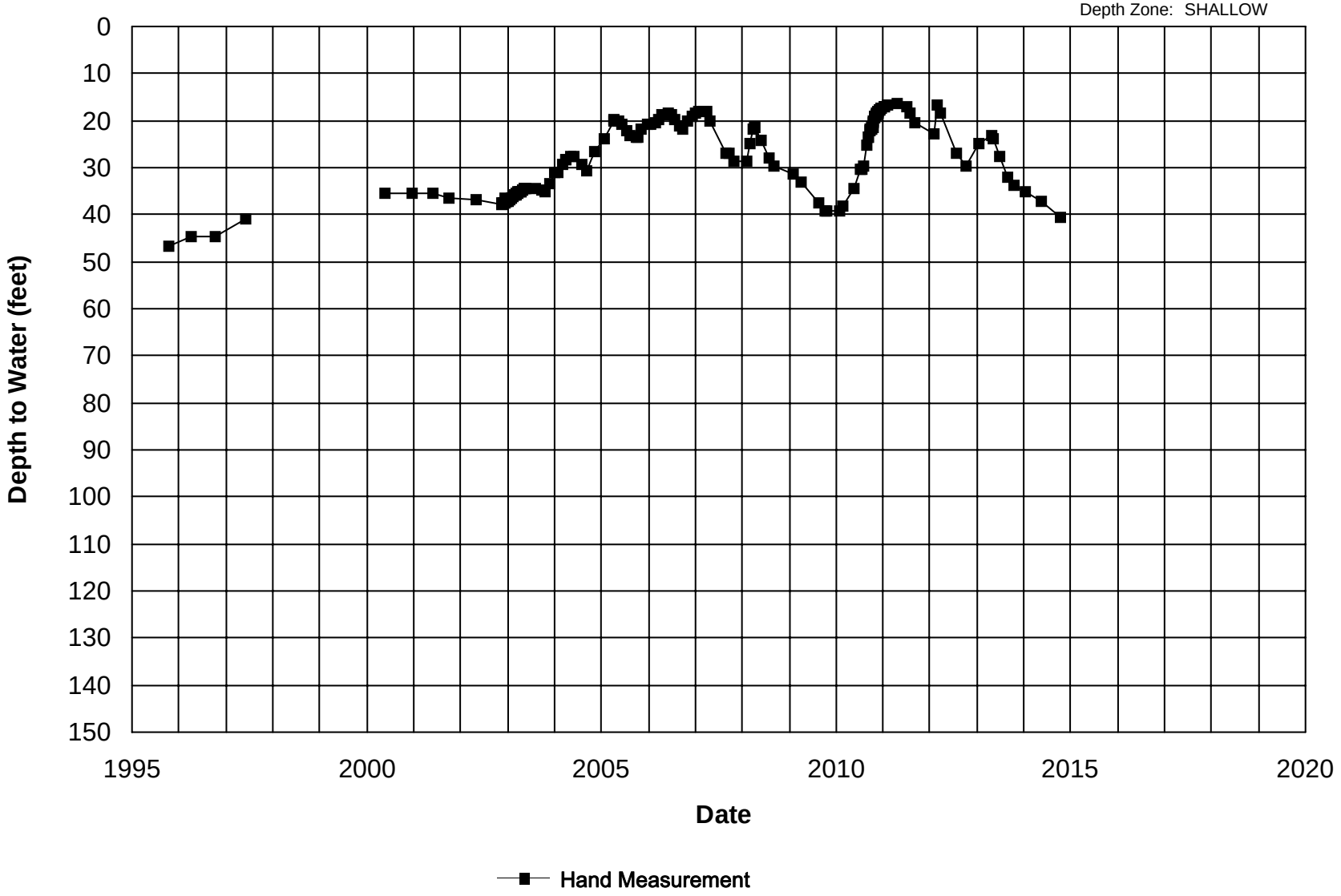
Reference Elevation: 158 feet NAVD88
Perforated Interval: 120 - 190 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Spreckels Sugar Co. MW-18

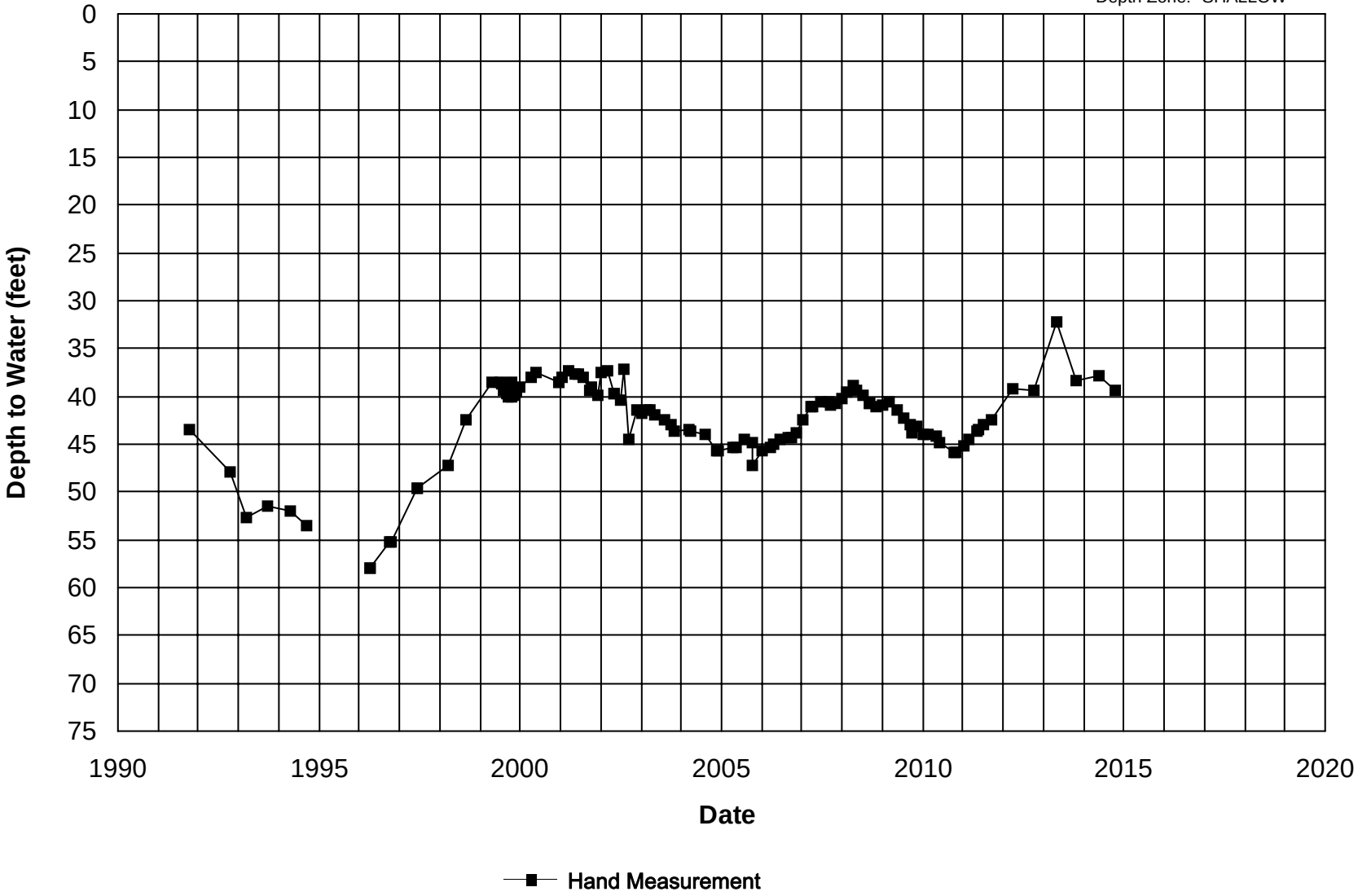
Reference Elevation: 165.52 feet NAVD88
Perforated Interval: 20 - 50 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Spreckels Sugar Co. MW-32

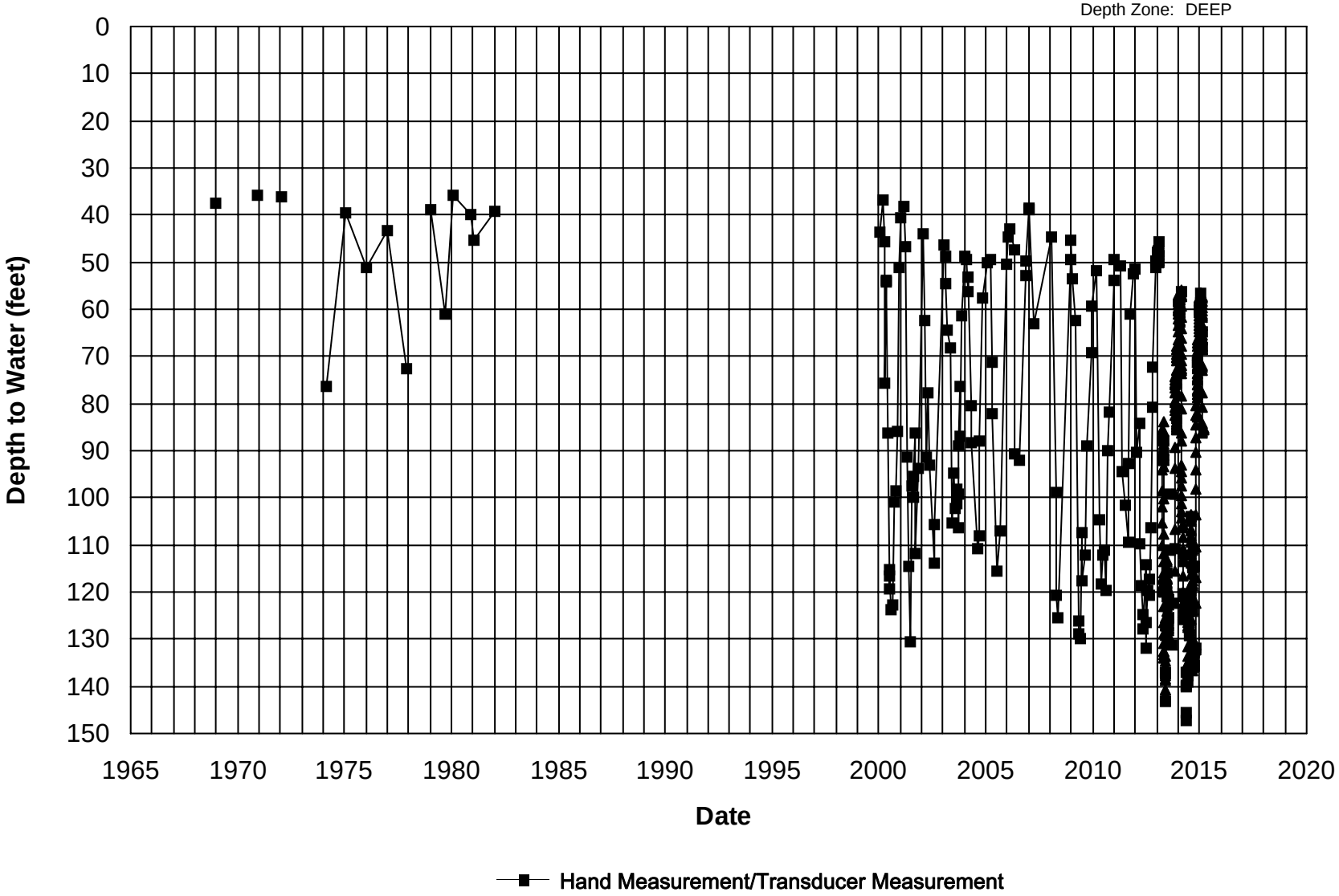
Reference Elevation: 169 feet NAVD88
Perforated Interval: 37 - 67 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

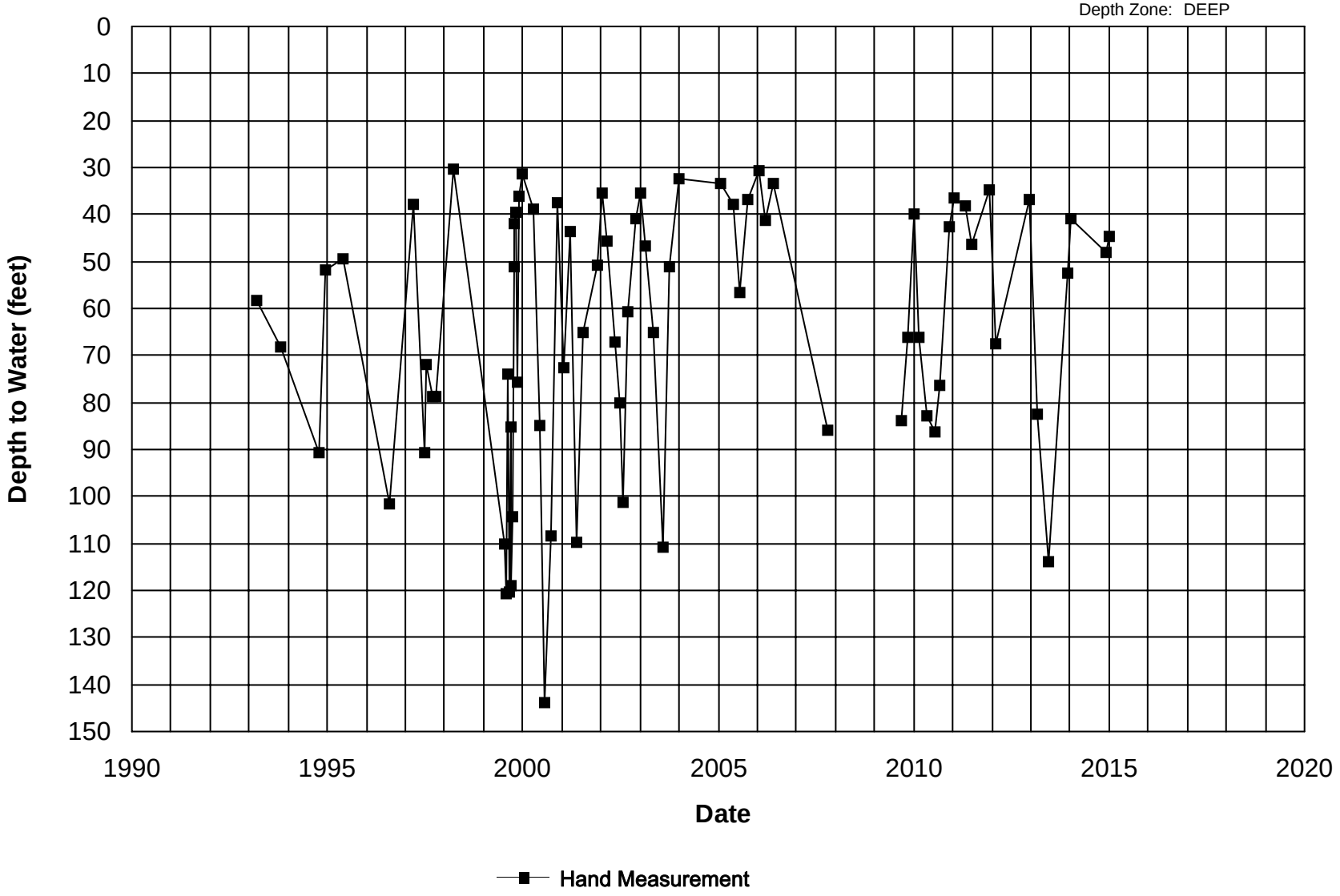
Yearout Ranch Extensometer: T13S/R15E-35D5

Reference Elevation: 169 feet NAVD88
Perforated Interval: 373 - 433 feet
Depth Zone: DEEP



Fordel M-1

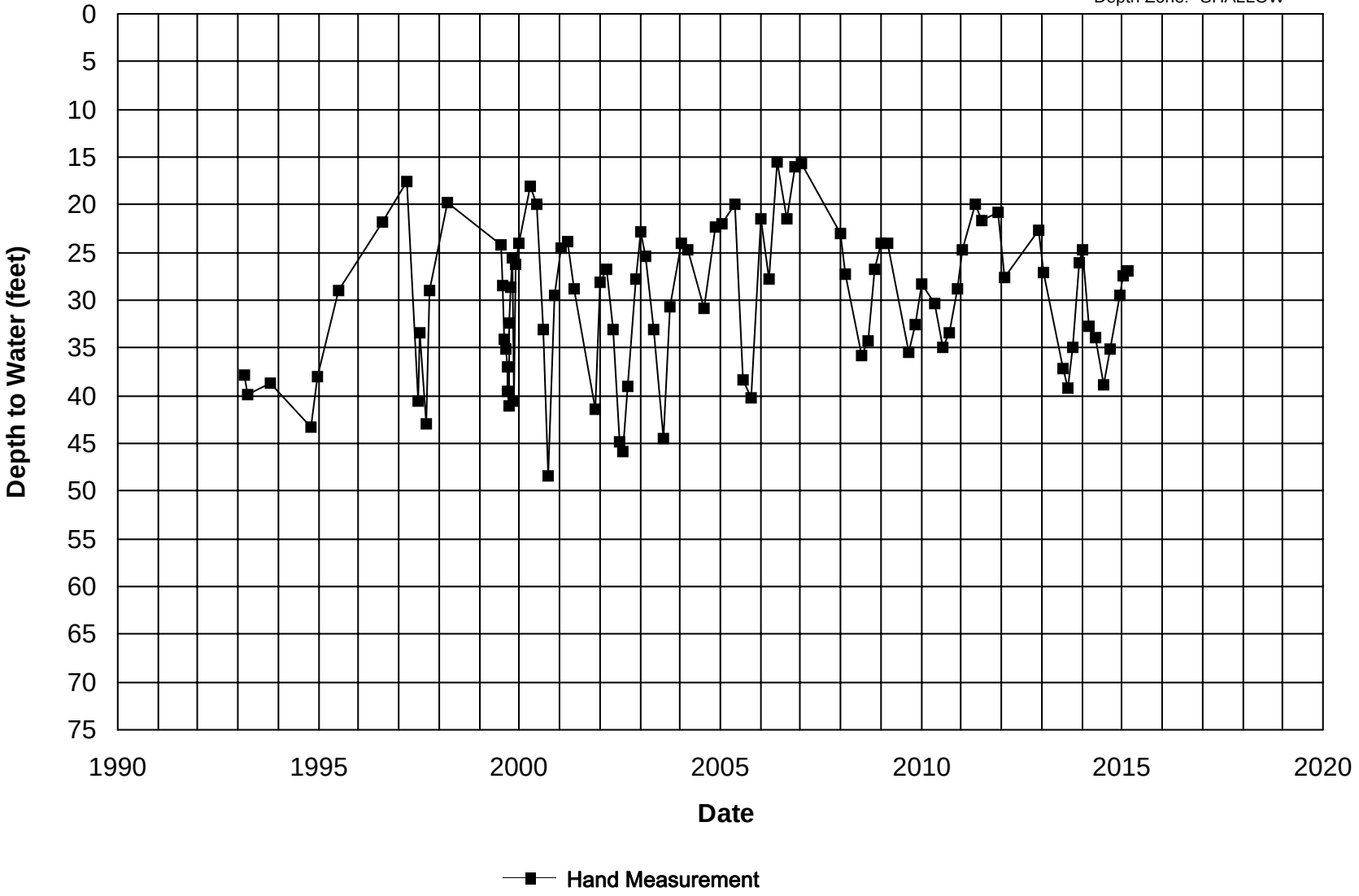
Reference Elevation: 162 feet NAVD88
Perforated Interval: 200 - 300 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Fordel M-2

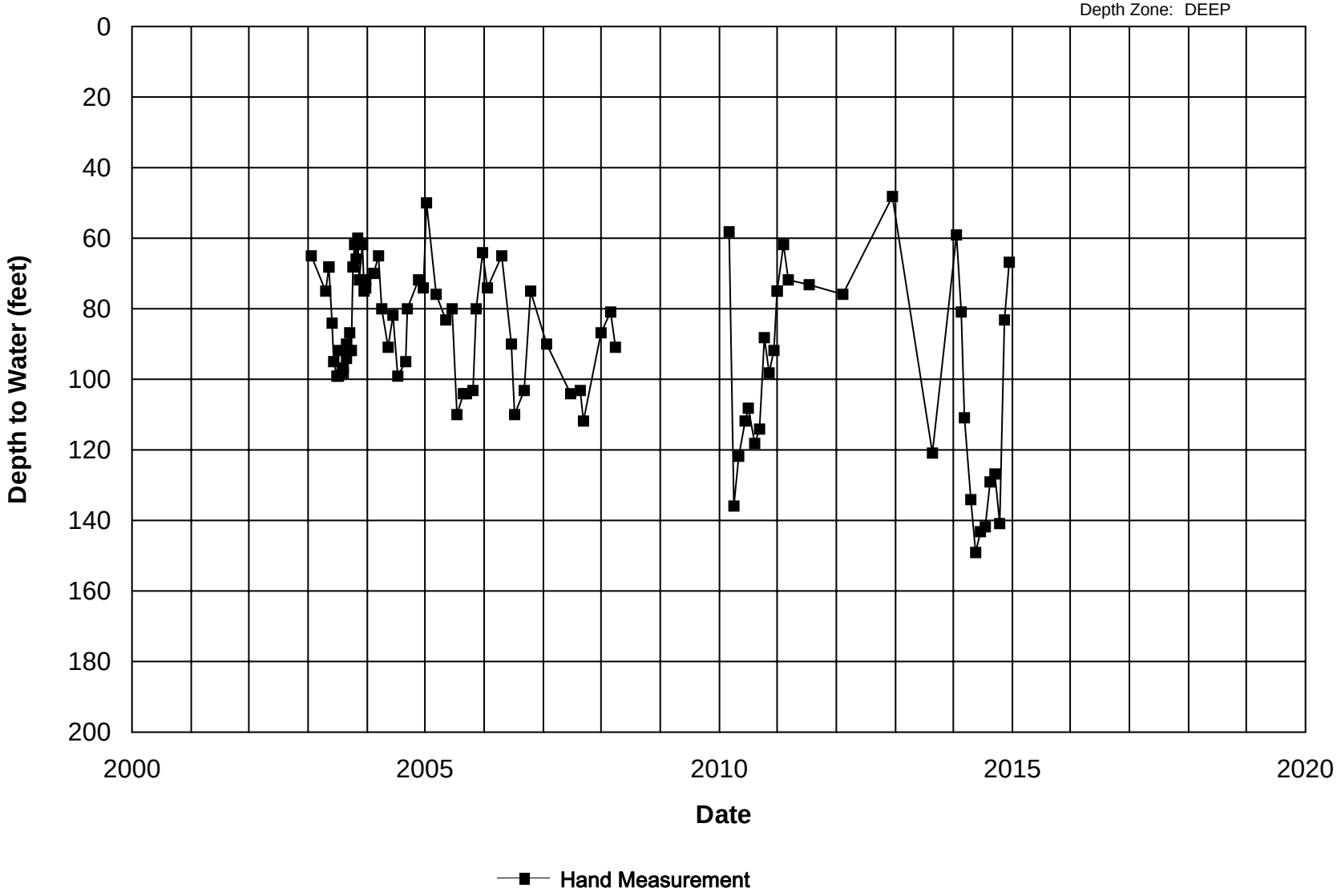
Reference Elevation: 161.45 feet NAVD88
Perforated Interval: 50 - 100 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

City of Mendota Well No. 7

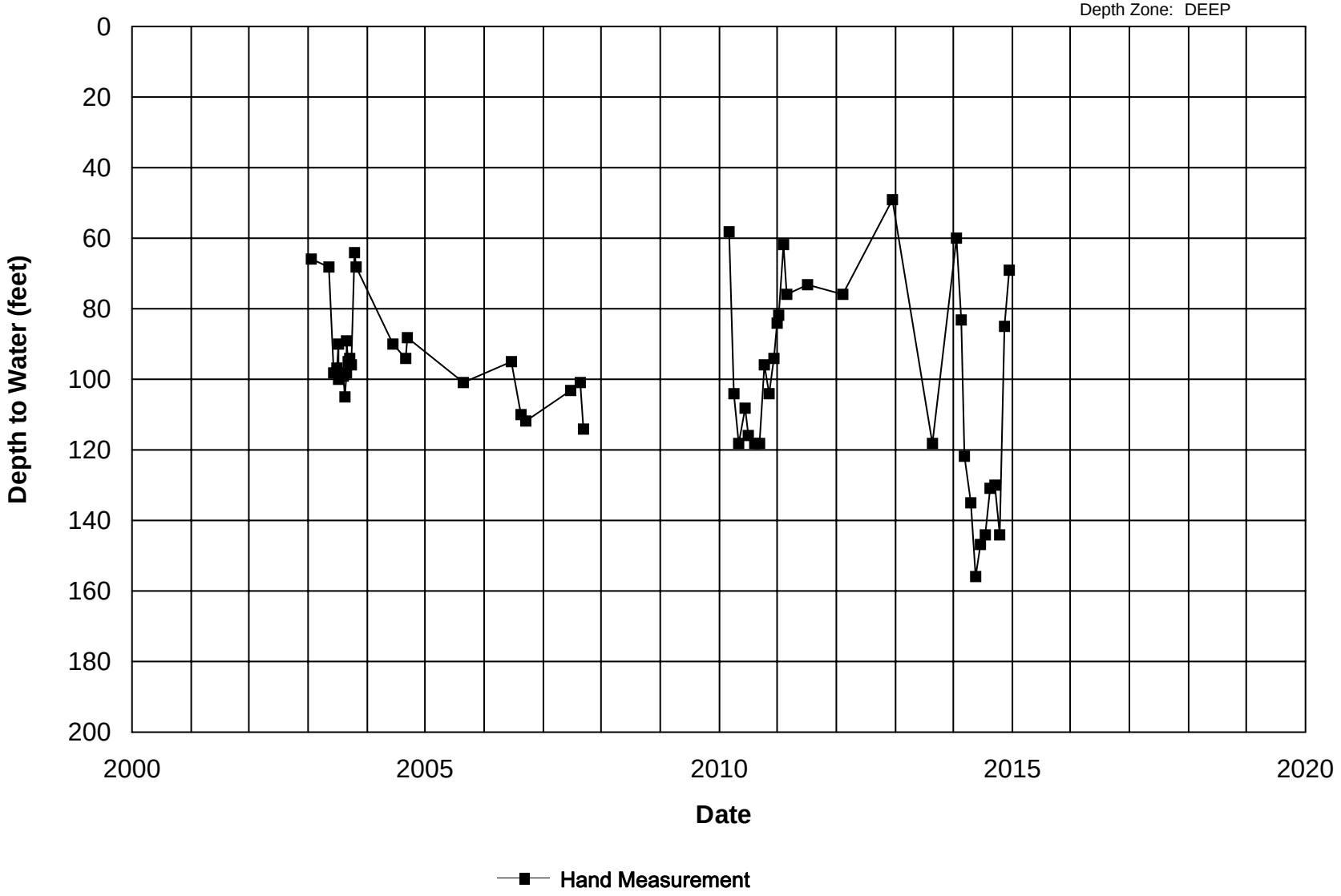
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

City of Mendota Well No. 8

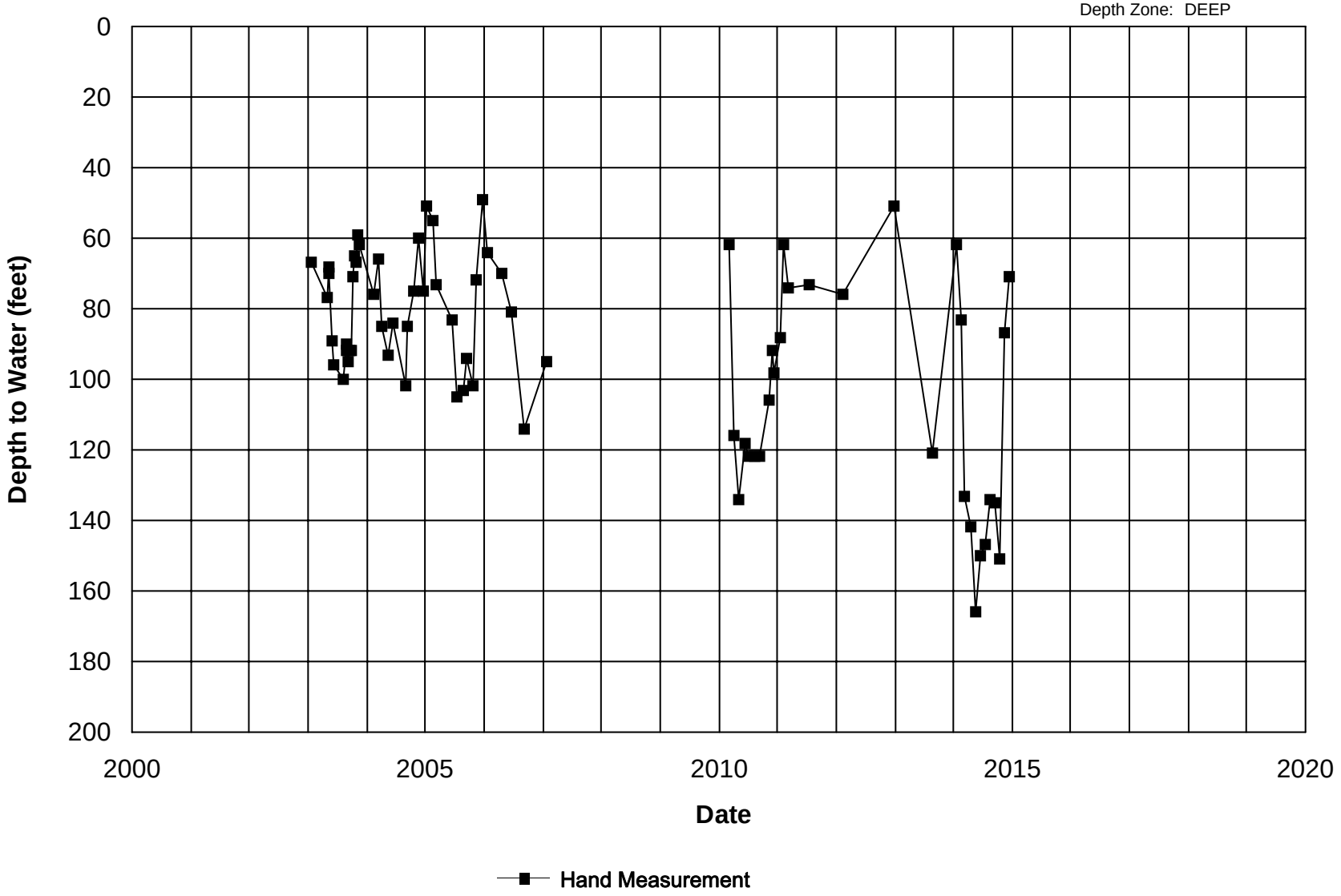
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

City of Mendota Well No. 9

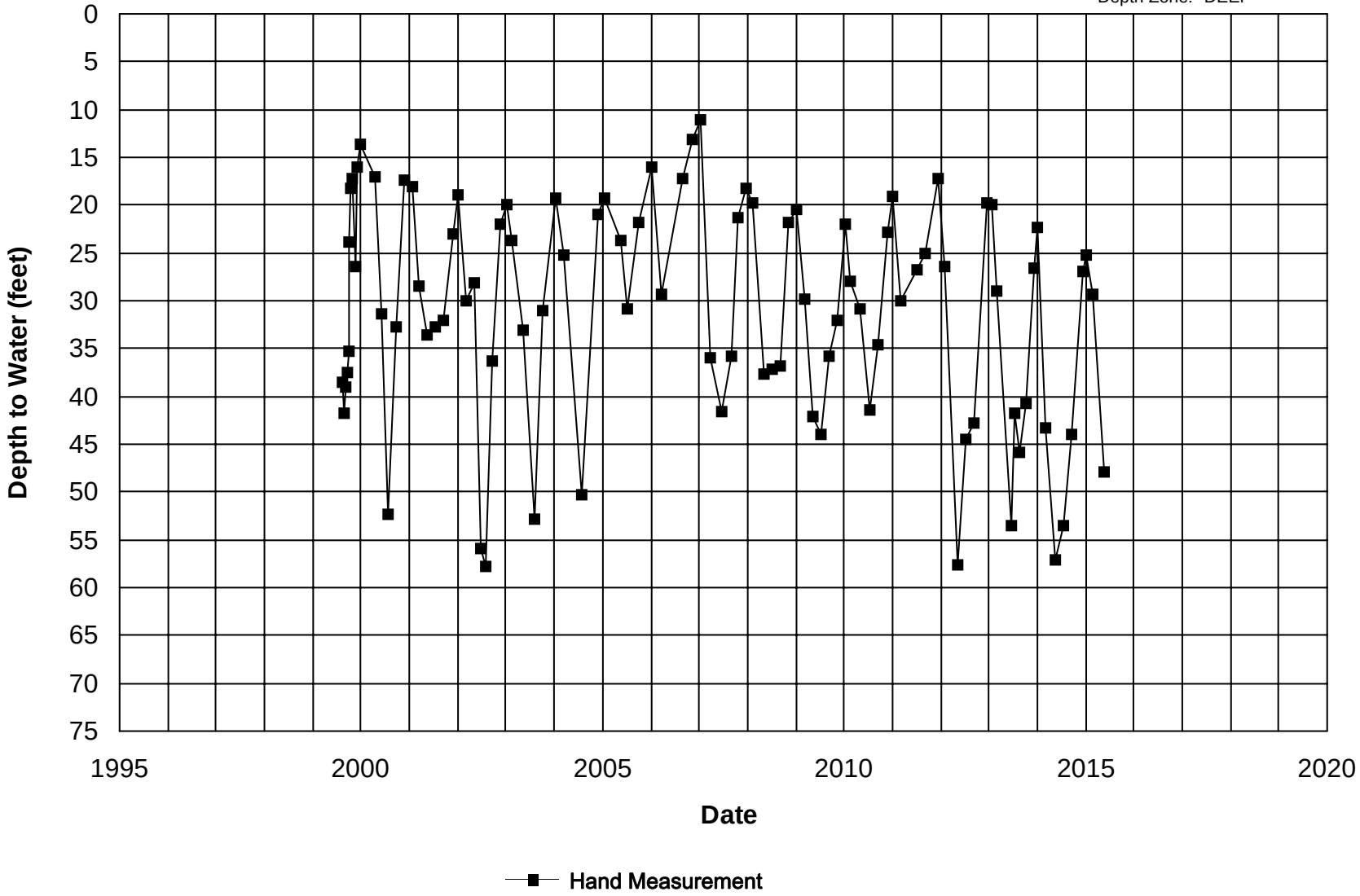
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

City of Mendota Well 18Q & 18Q North

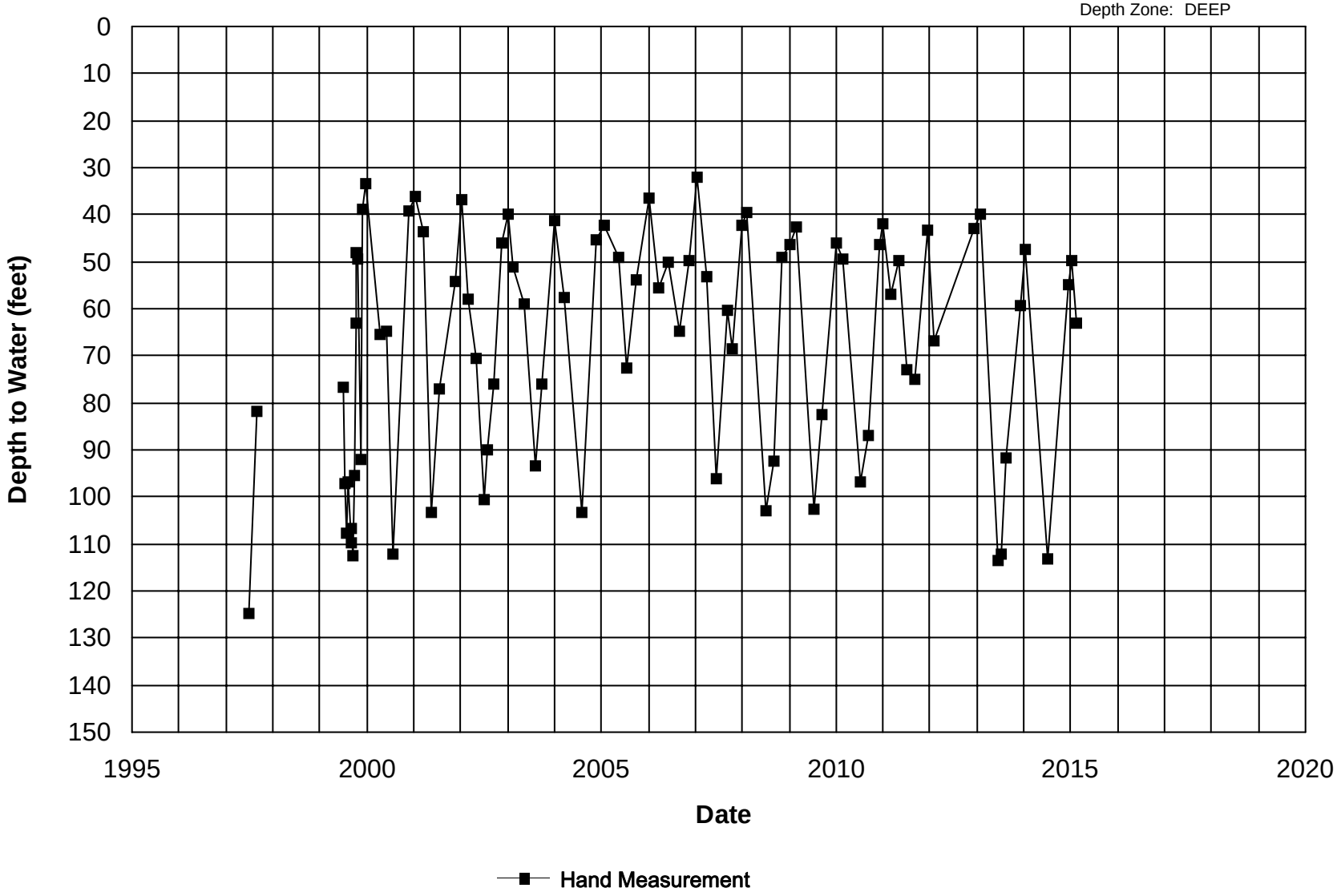
Reference Elevation: NA
Perforated Interval: 132 - 252 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Panoche Creek Farms PCF-1

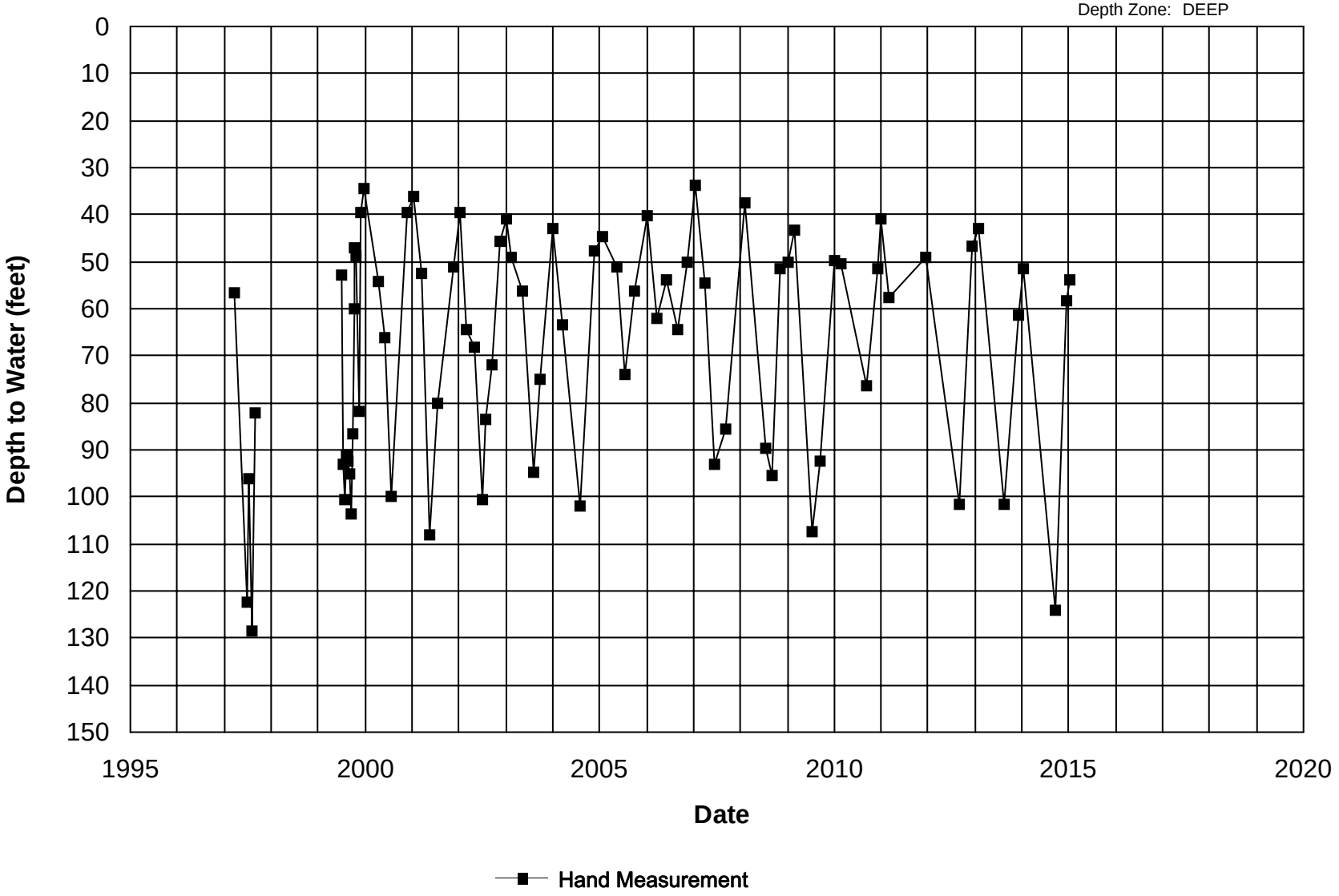
Reference Elevation: 157.734 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

Baker Farming BF-2

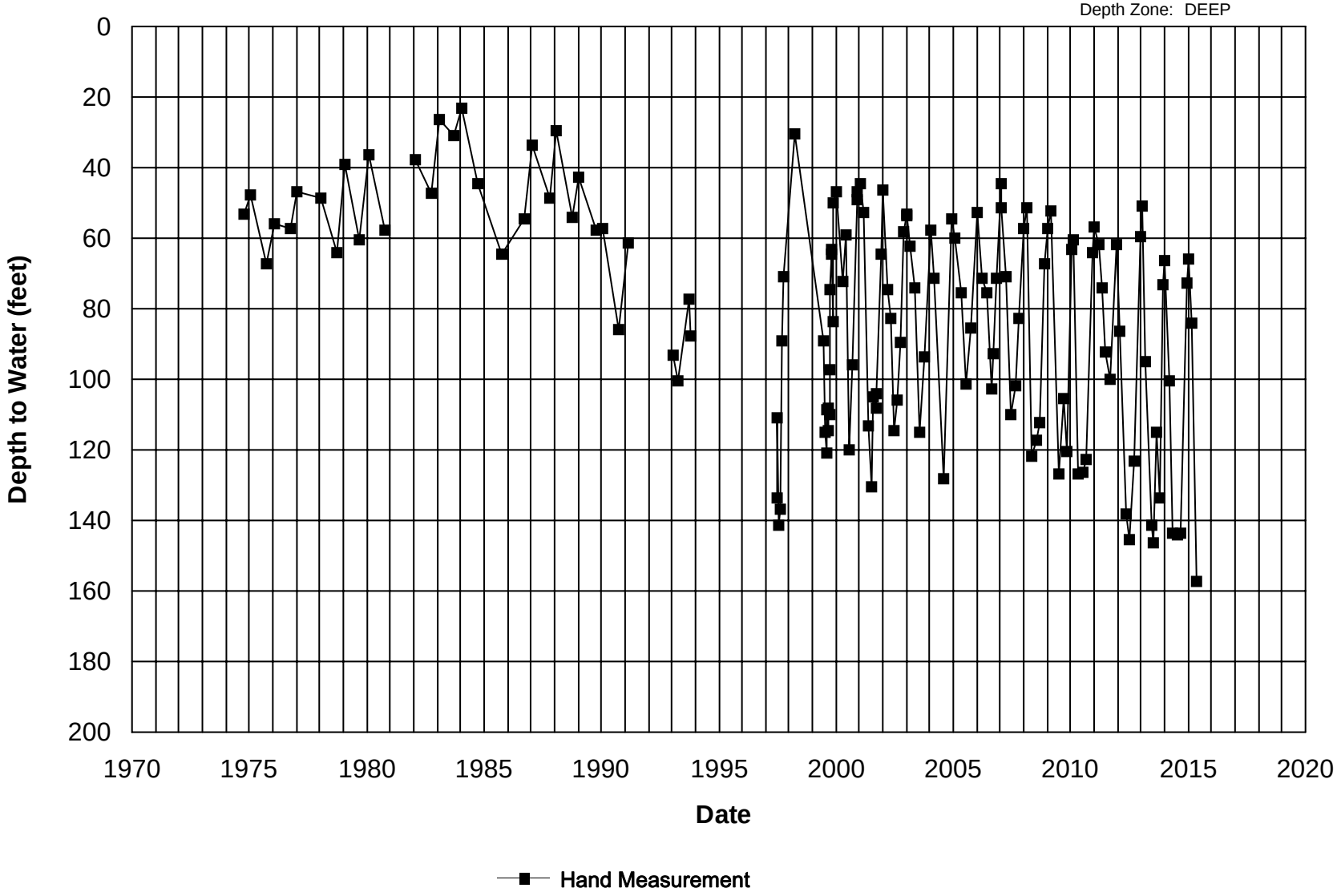
Reference Elevation: 159.97 feet NAVD88
Perforated Interval: 140 - 420 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Farmers WD R-5

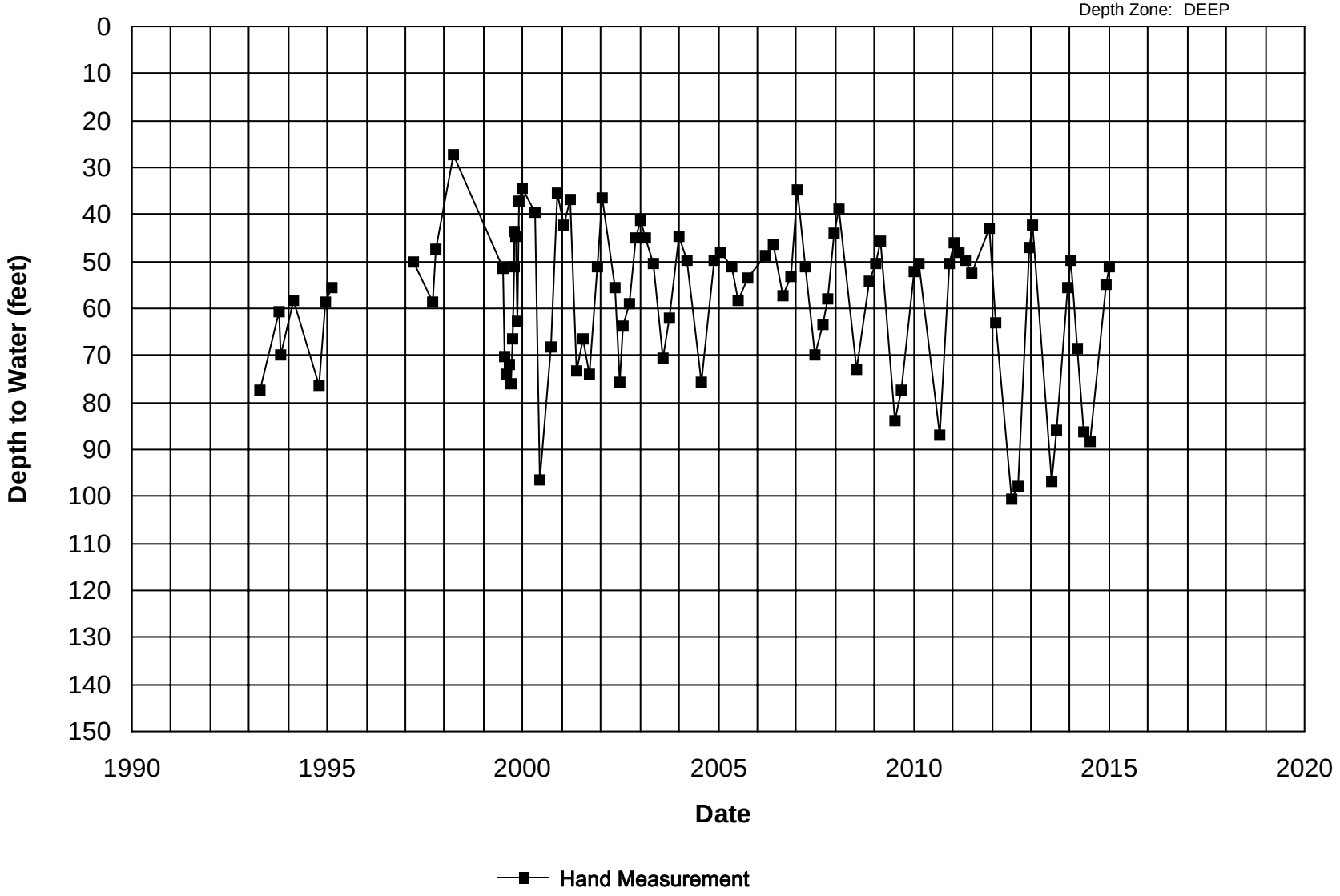
Reference Elevation: 164.11 feet NAVD88
Perforated Interval: 180 - 322 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Farmers WD R-7

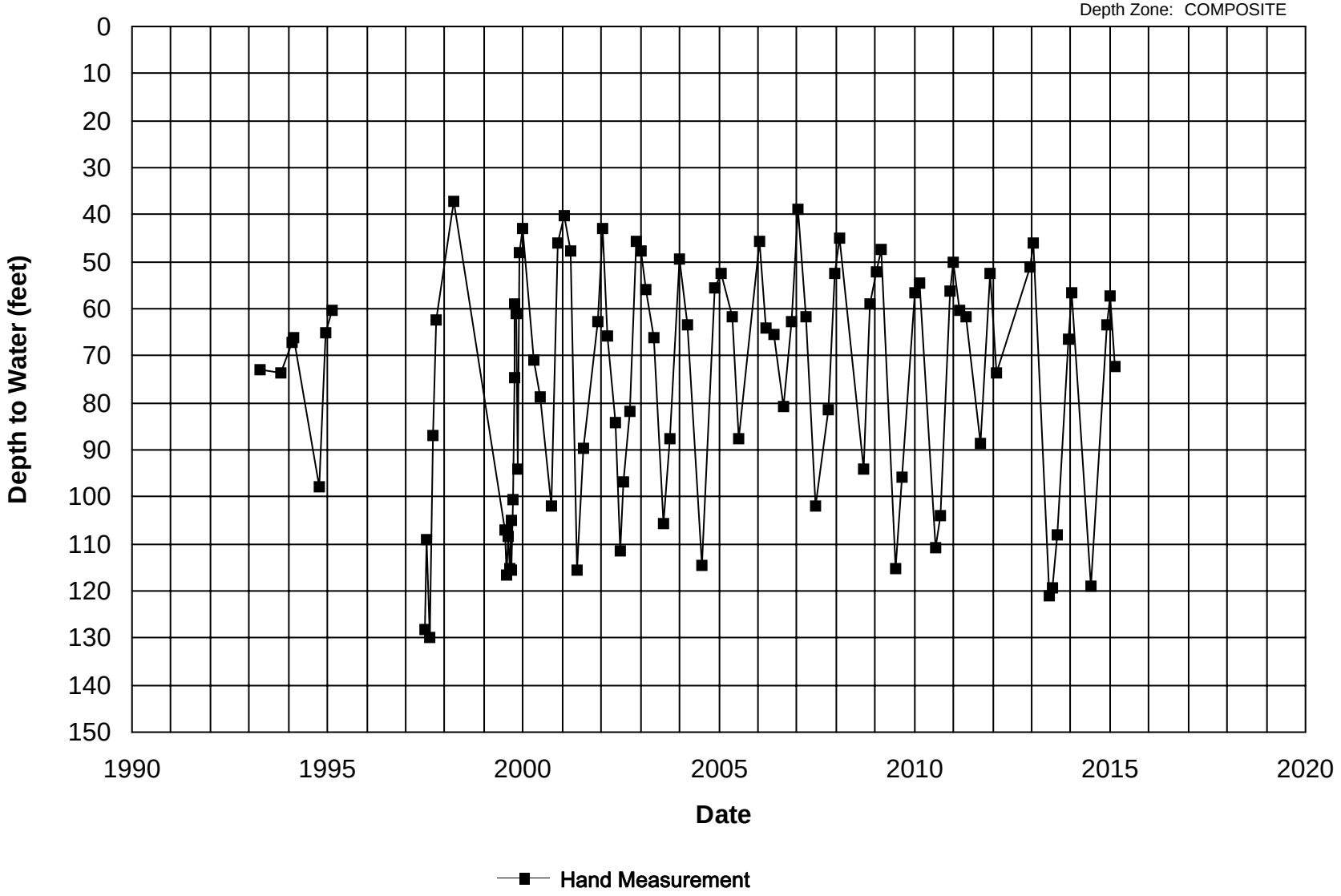
Reference Elevation: 162.73 feet NAVD88
Perforated Interval: 100 - 400 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Farmers WD R-8

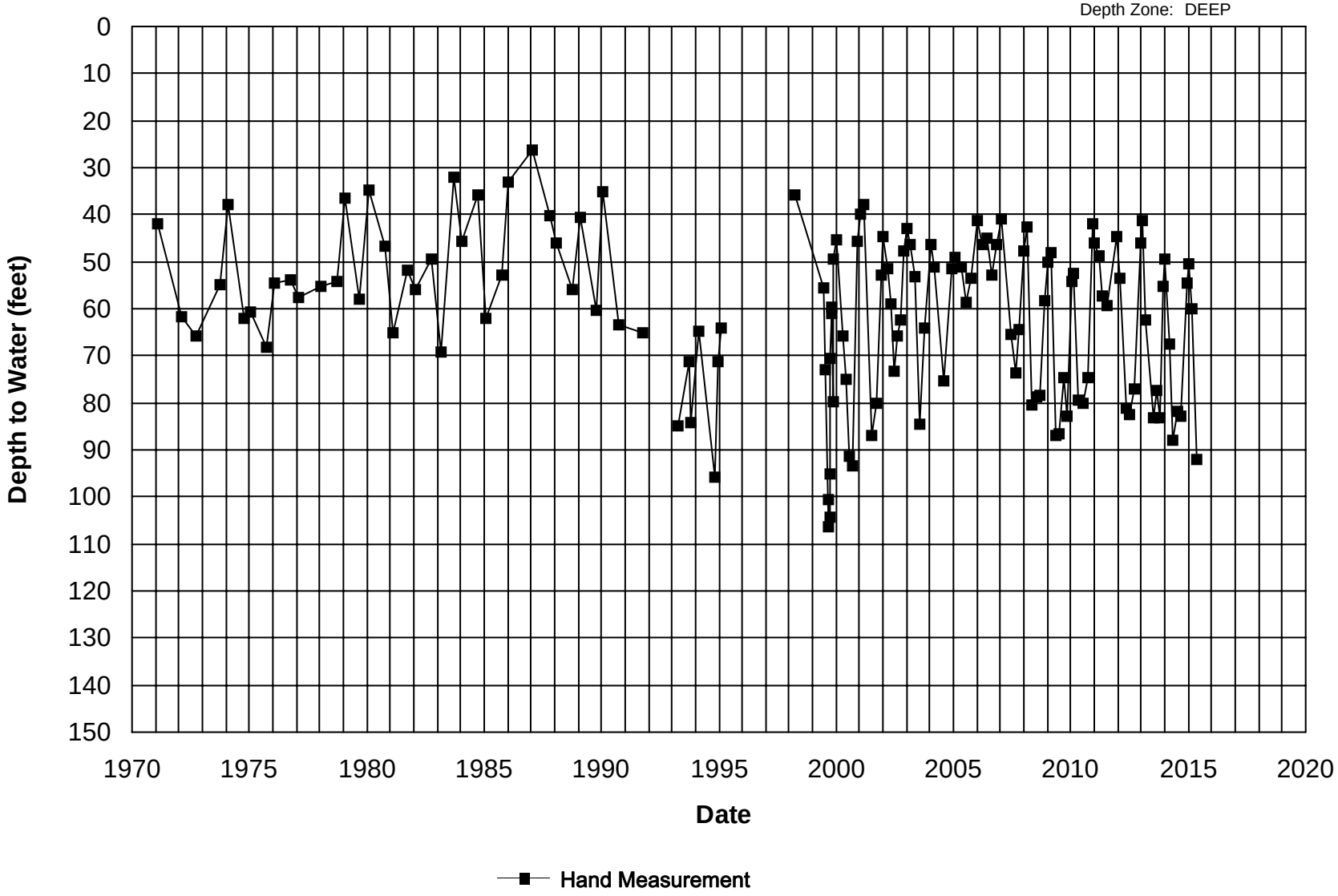
Reference Elevation: 161.84 feet NAVD88
Perforated Interval: 120 - 480 feet
Depth Zone: COMPOSITE



Thursday, July 16, 2015

Farmers WD WL-2

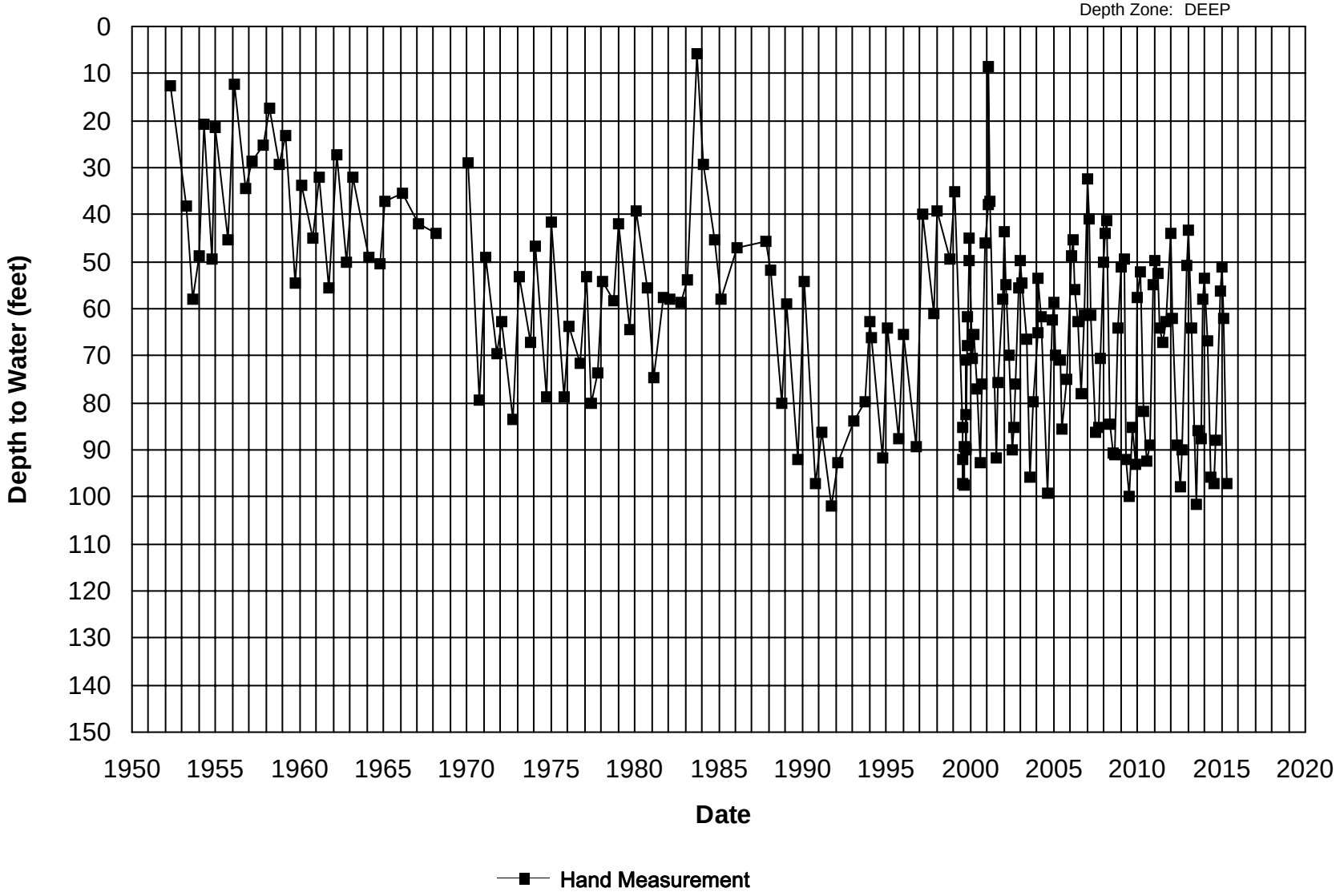
Reference Elevation: 173 feet NAVD88
Perforated Interval: 101 - 242 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Farmers WD EL-1

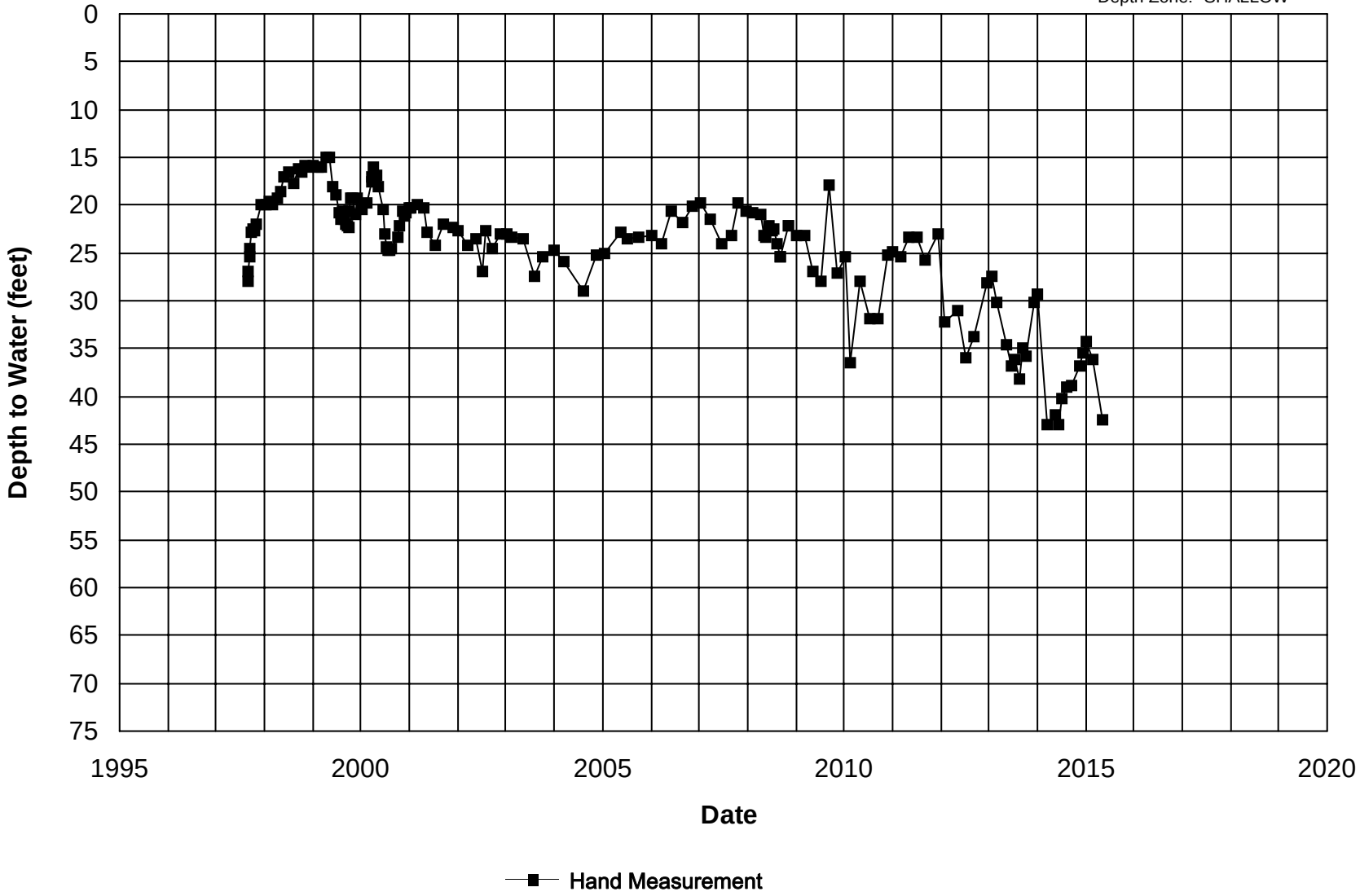
Reference Elevation: NA
Perforated Interval: 98 - 268 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Columbia Canal Company Well Lopes-Obs.

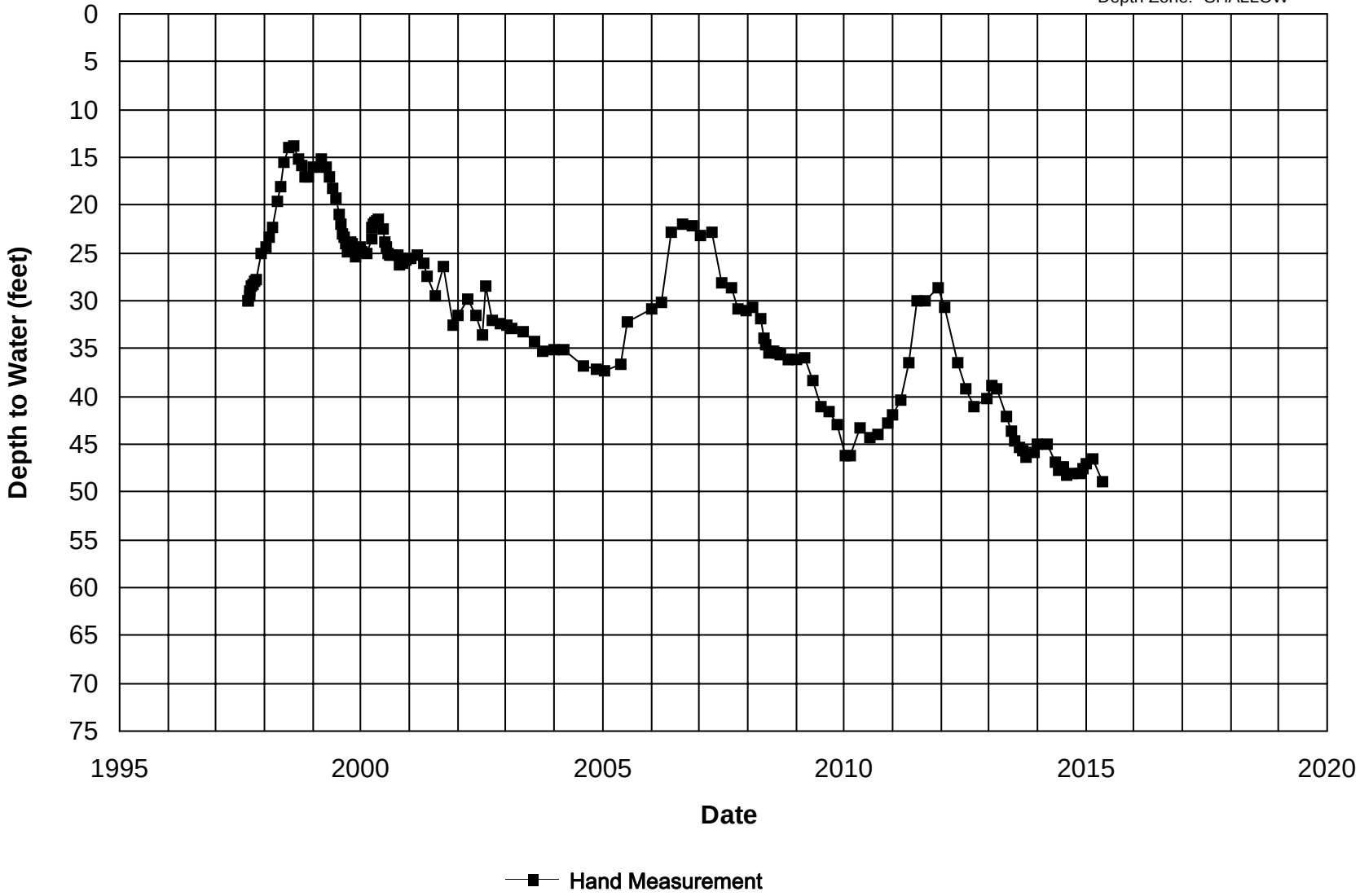
Reference Elevation: 164 feet NAVD88
Perforated Interval: 80 - 100 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Columbia Canal Company Well USBR-4

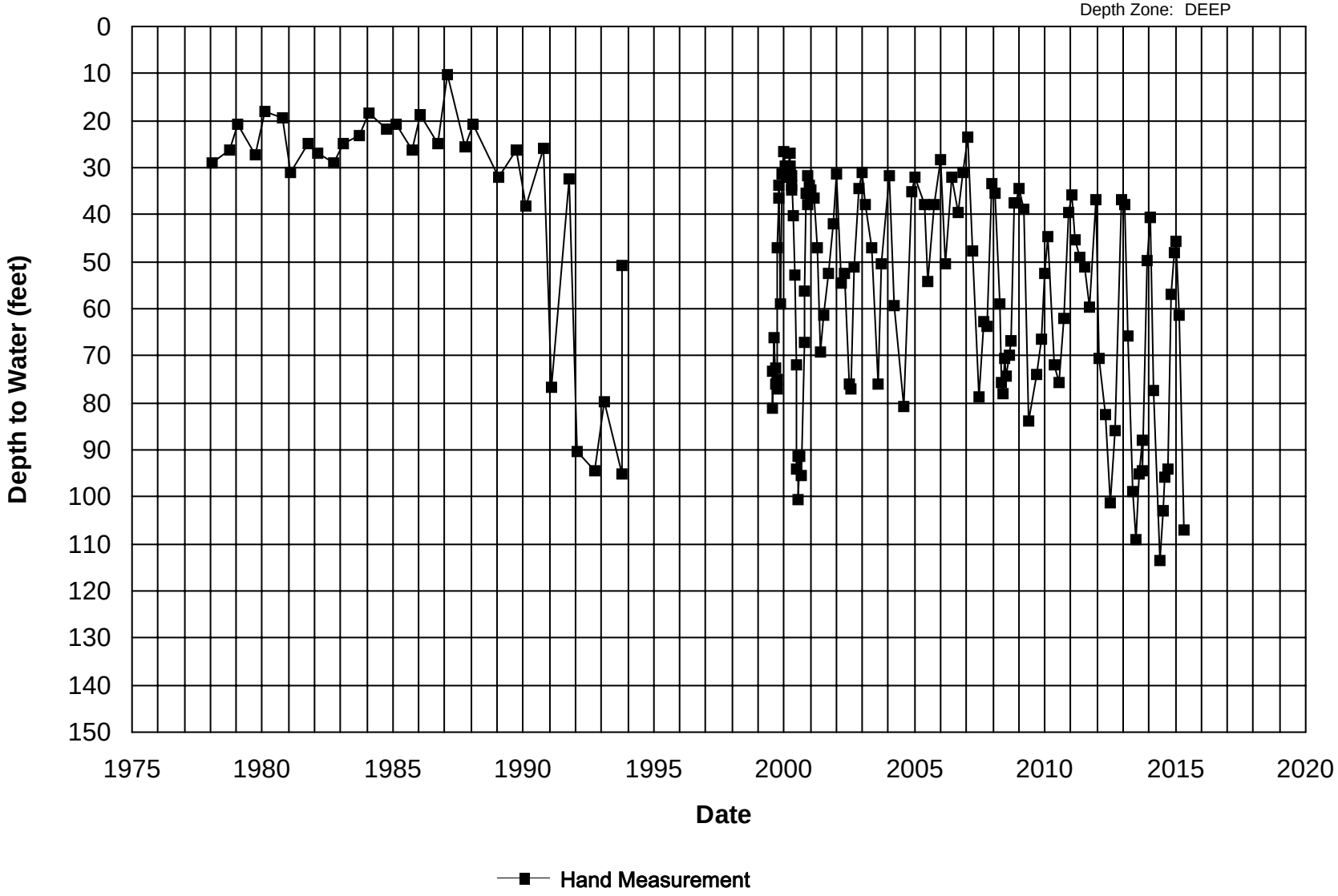
Reference Elevation: 167.95 feet NAVD88
Perforated Interval: 60 - 100 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Columbia Canal Company MLT-West Well

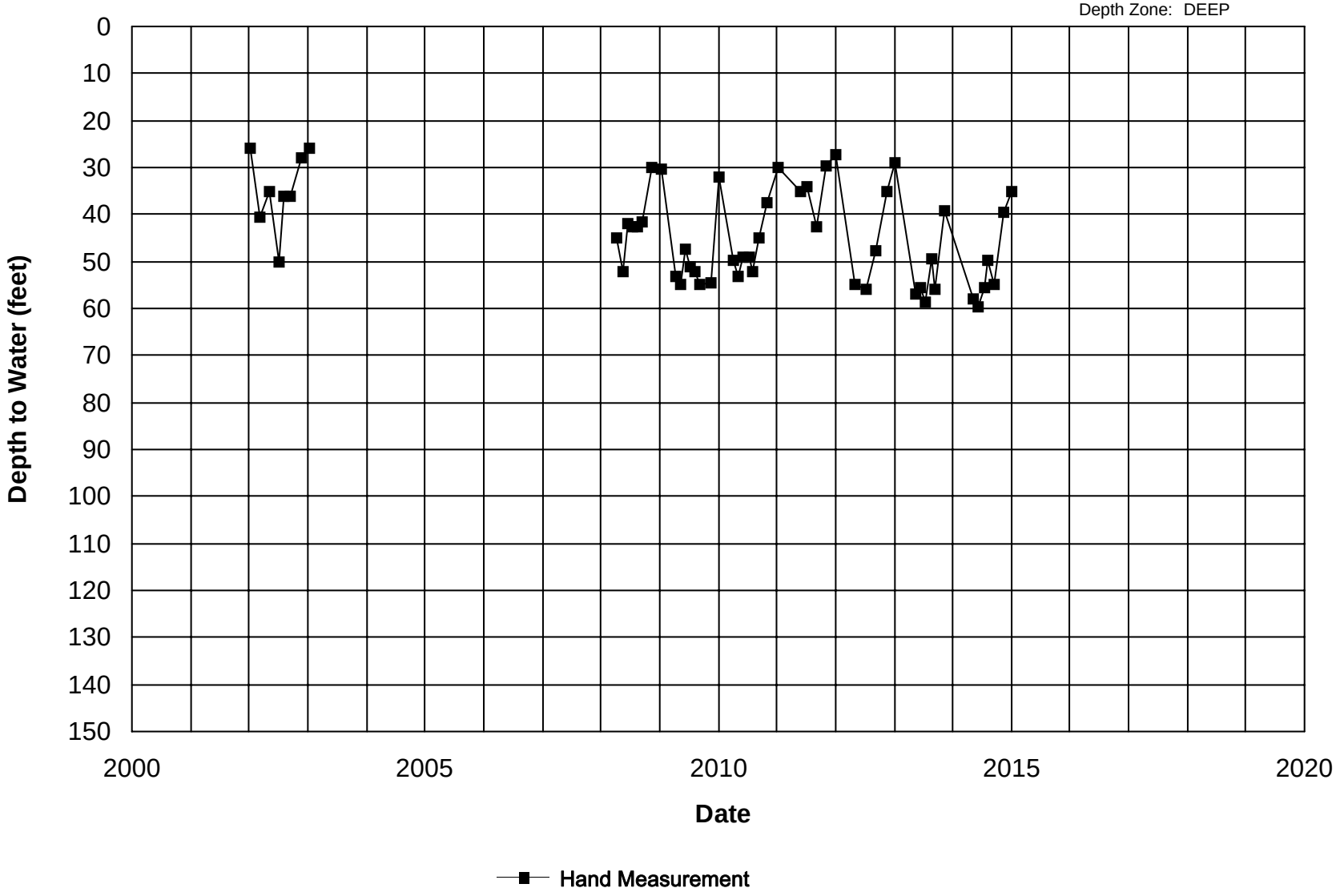
Reference Elevation: 159.6 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

Mowry River Well No. T13S/R15E-21

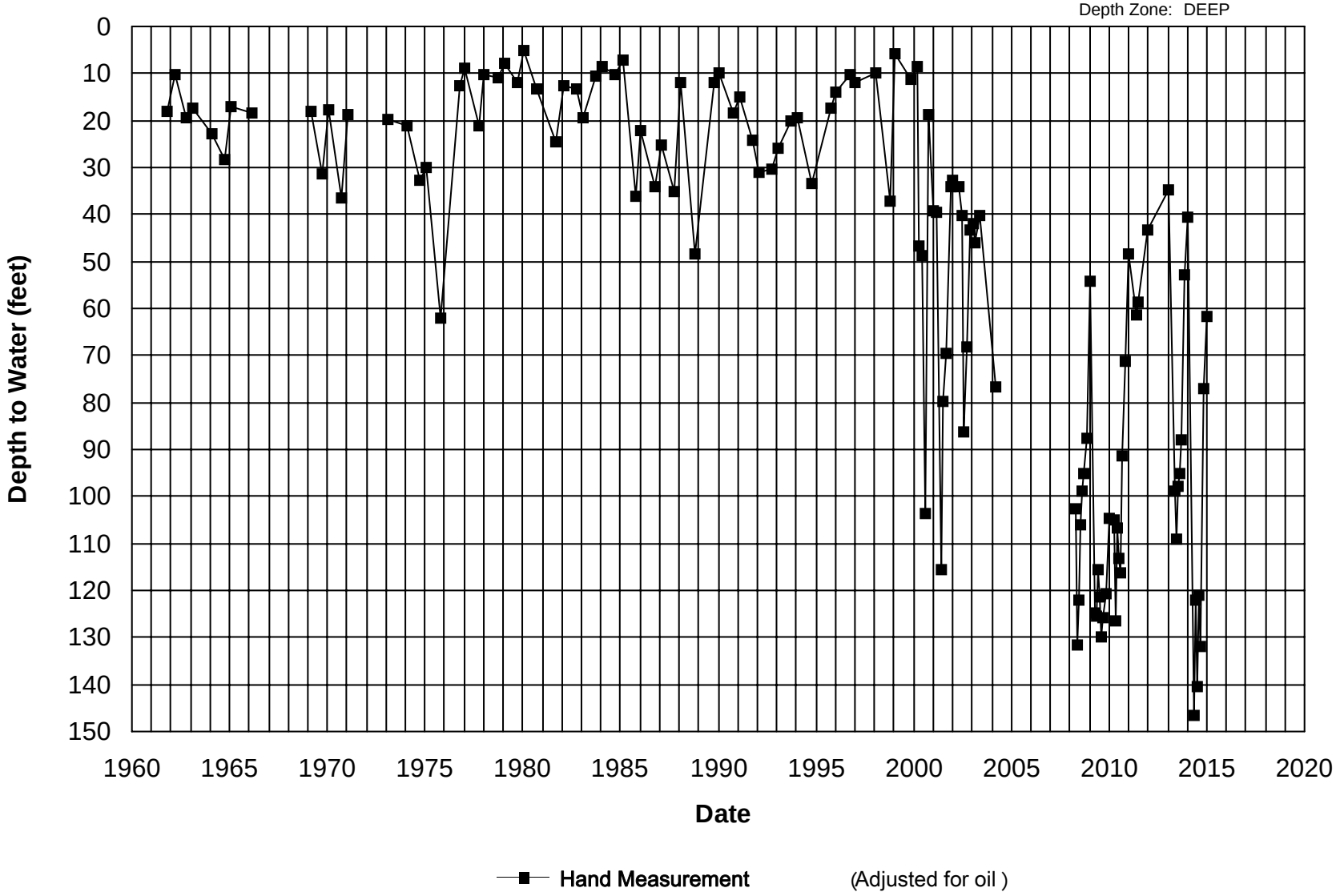
Reference Elevation: NA
Perforated Interval: 240 - 440 feet
Depth Zone: DEEP



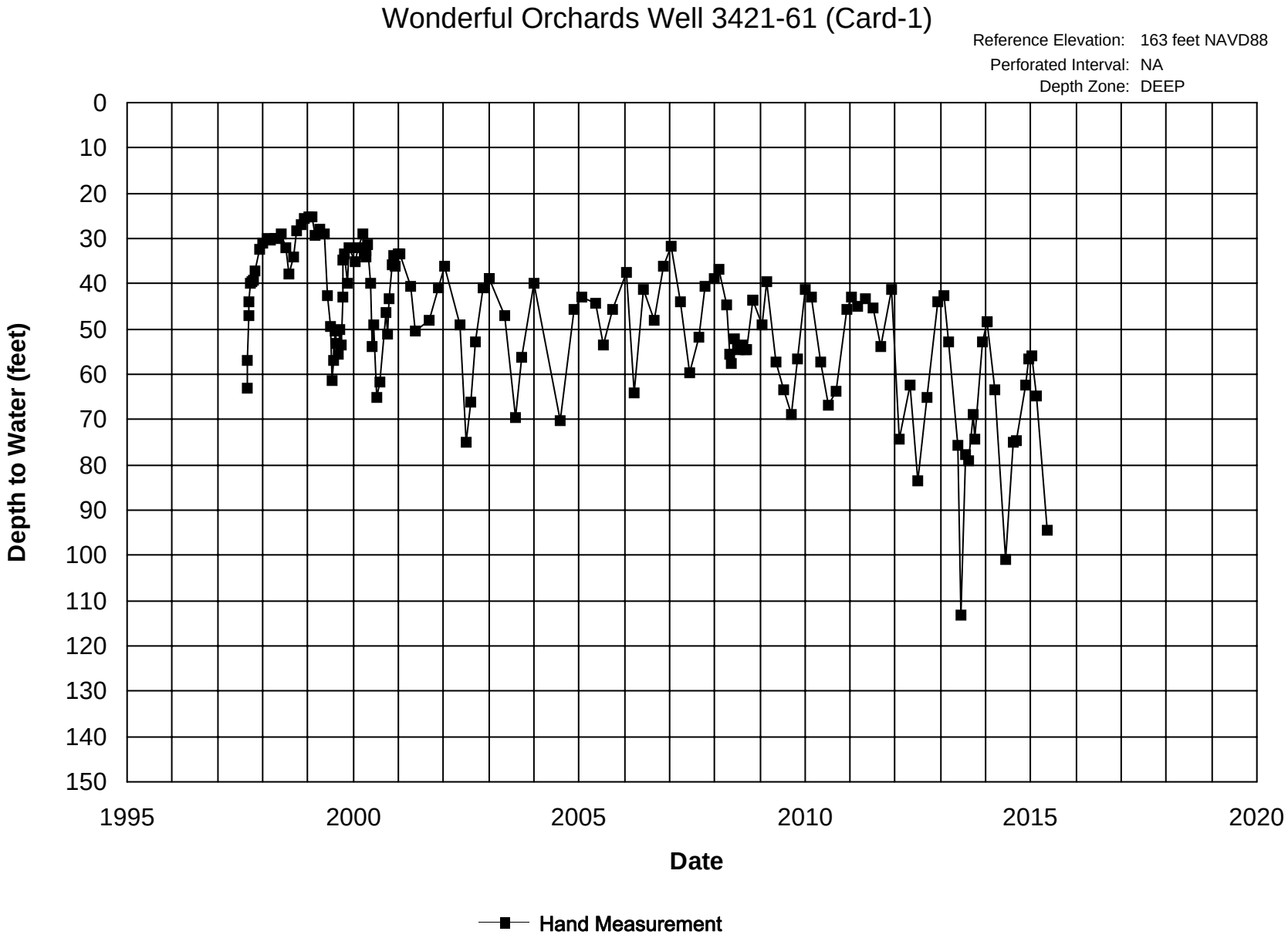
Thursday, July 16, 2015

Mowry Diesel Well No. T13S/R15E-21K1

Reference Elevation: NA
Perforated Interval: NA
Depth Zone: DEEP



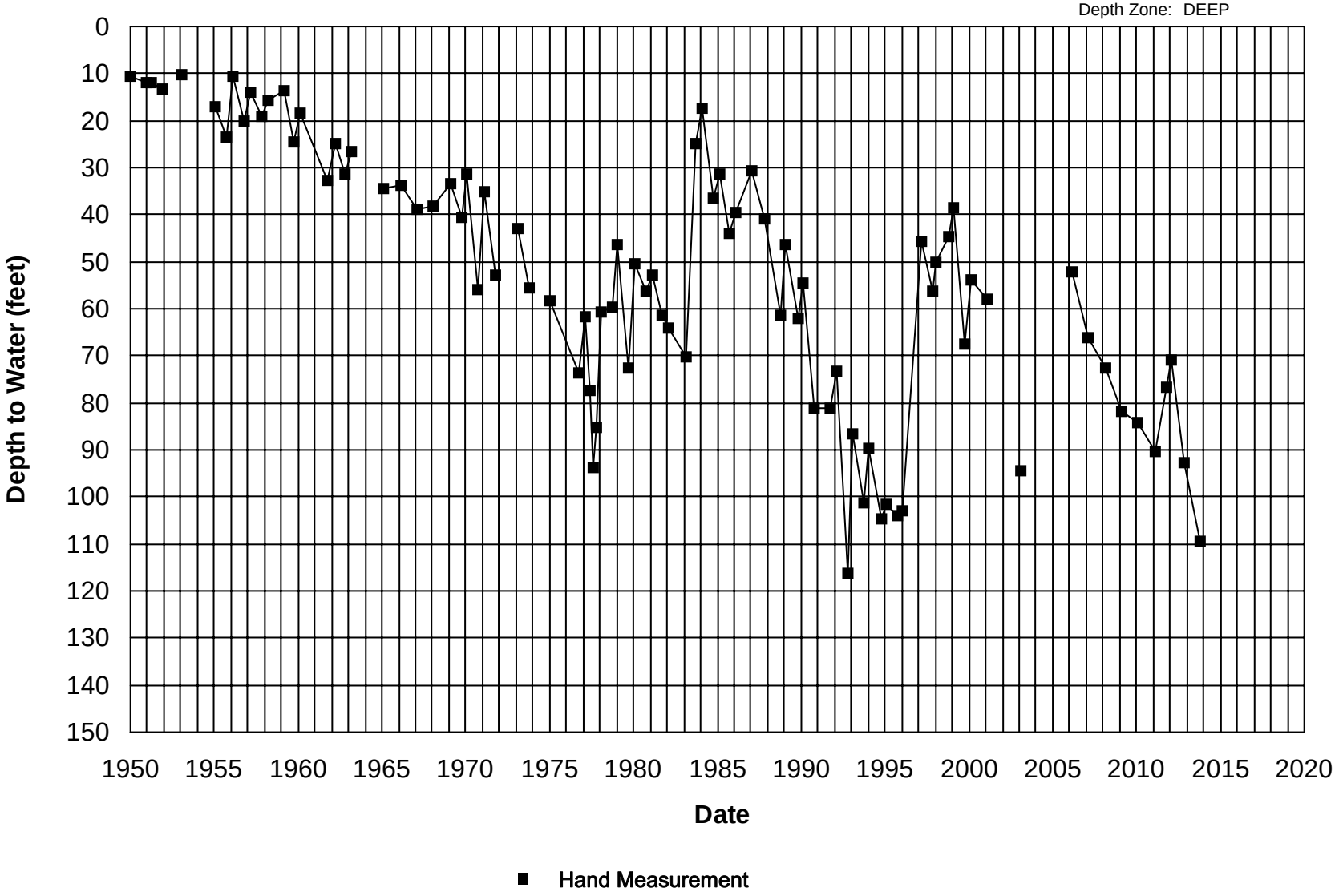
Thursday, July 16, 2015



Thursday, July 16, 2015

Wonderful Orchards 3591-63 (W-7)

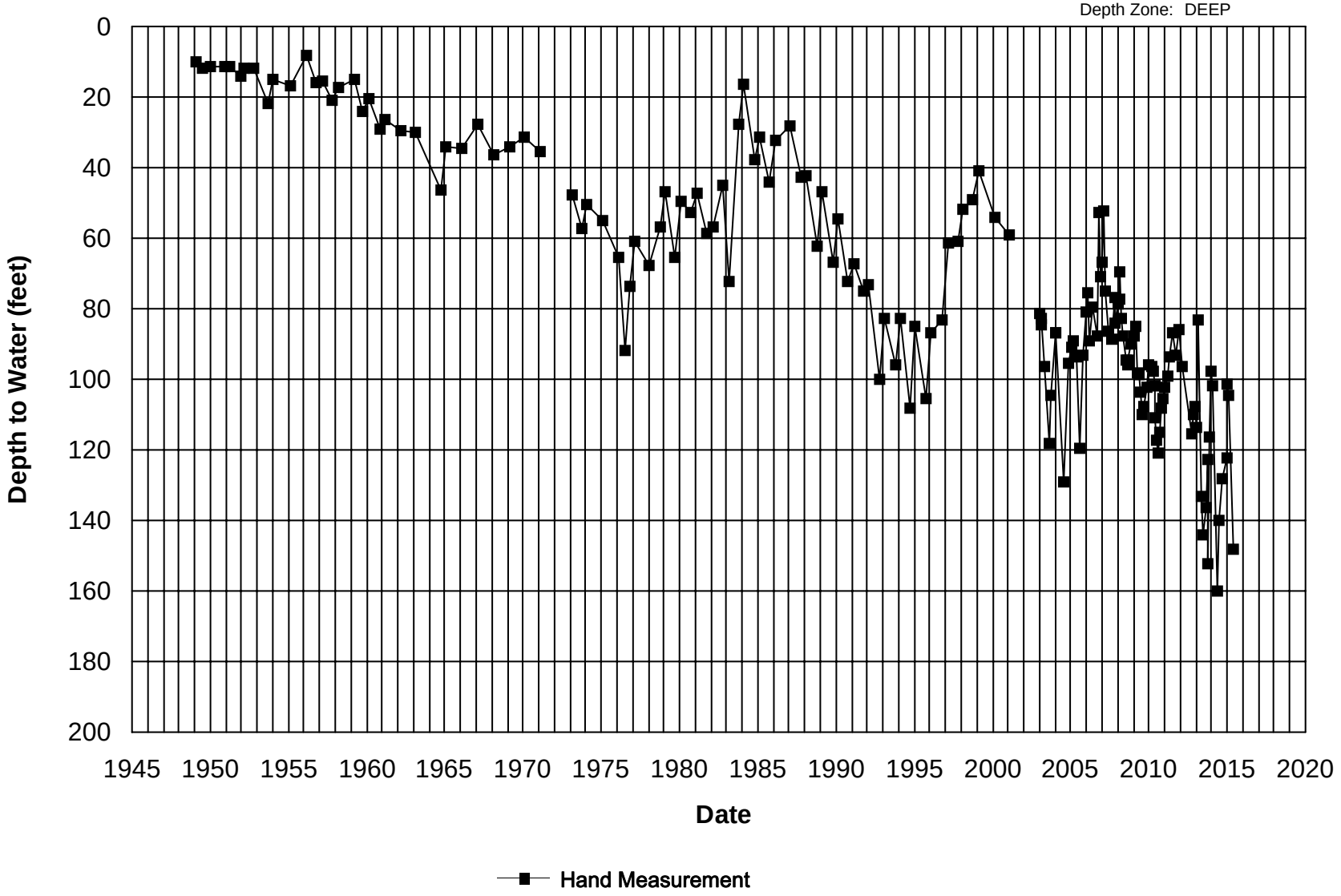
Reference Elevation: 167.36 feet NAVD88
Perforated Interval: 170 - 276 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3311-62 (W-8)

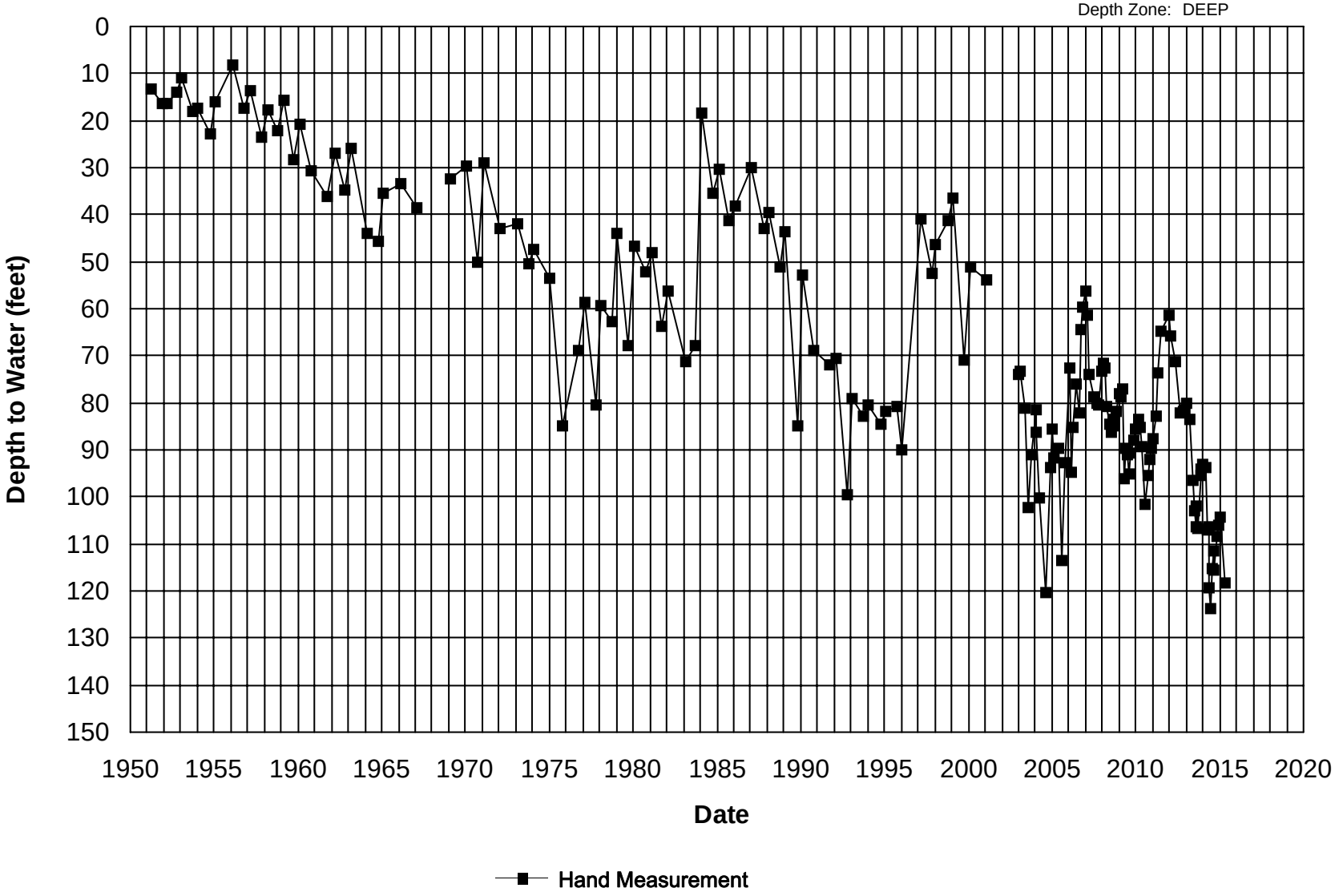
Reference Elevation: 168 feet NAVD88
Perforated Interval: 198 - 312 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3591-66 (W-11)

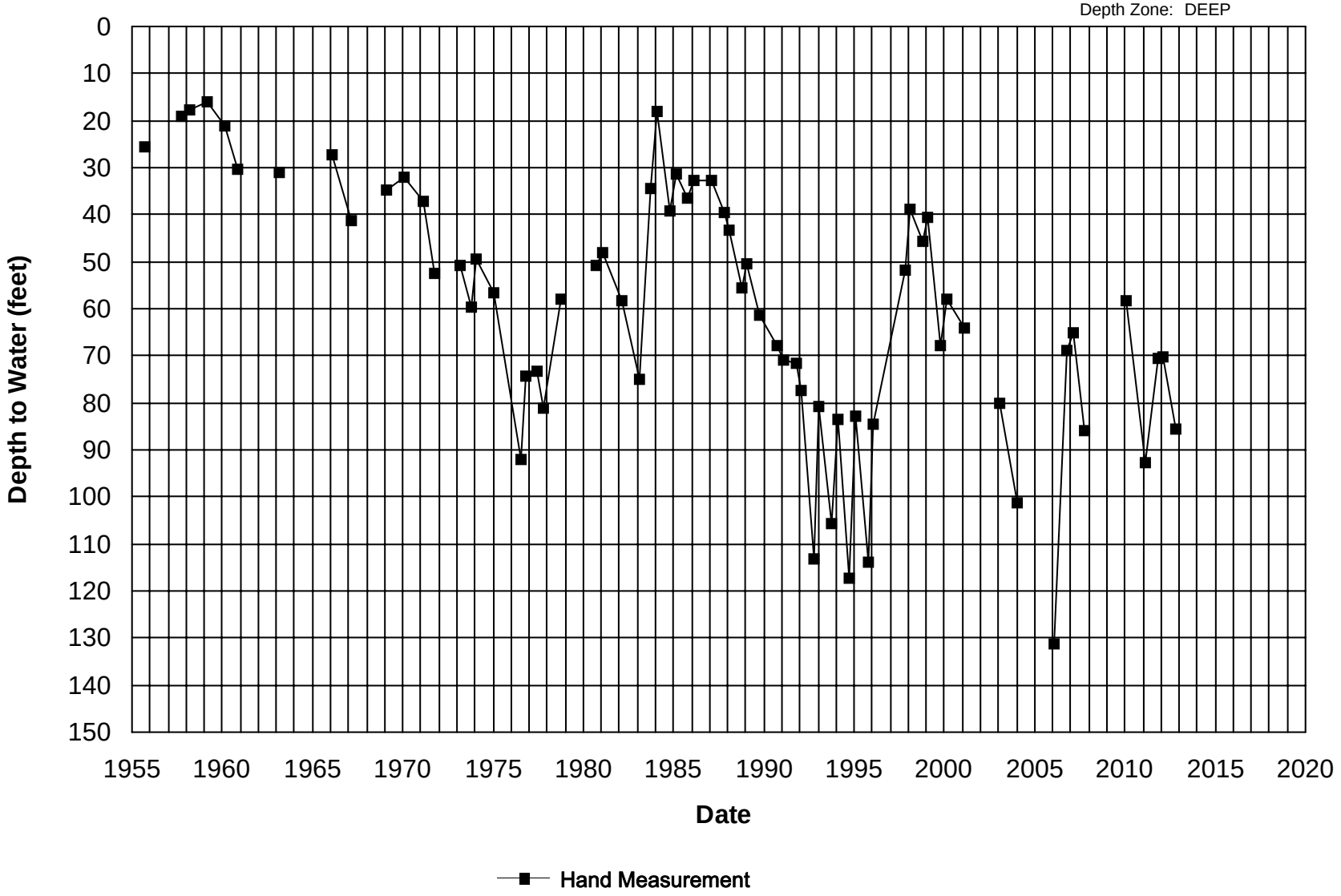
Reference Elevation: 169 feet NAVD88
Perforated Interval: 180 - 280 feet
Depth Zone: DEEP



Thursday, July 16, 2015

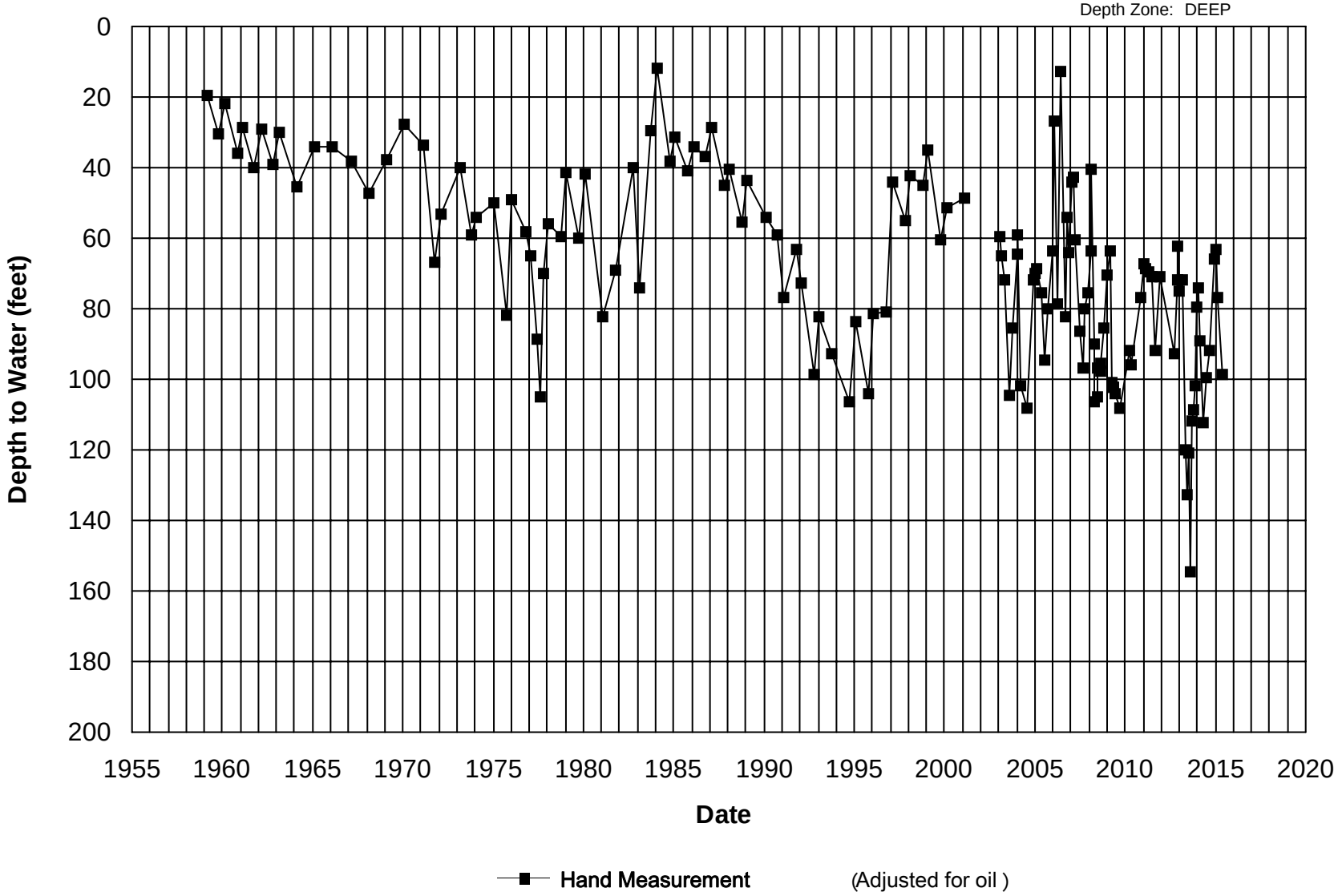
Wonderful Orchards 3311-63 (W-12)

Reference Elevation: 167.86 feet NAVD88
Perforated Interval: 188 - 262 feet
Depth Zone: DEEP



Wonderful Orchards 3211-66 (W-15)

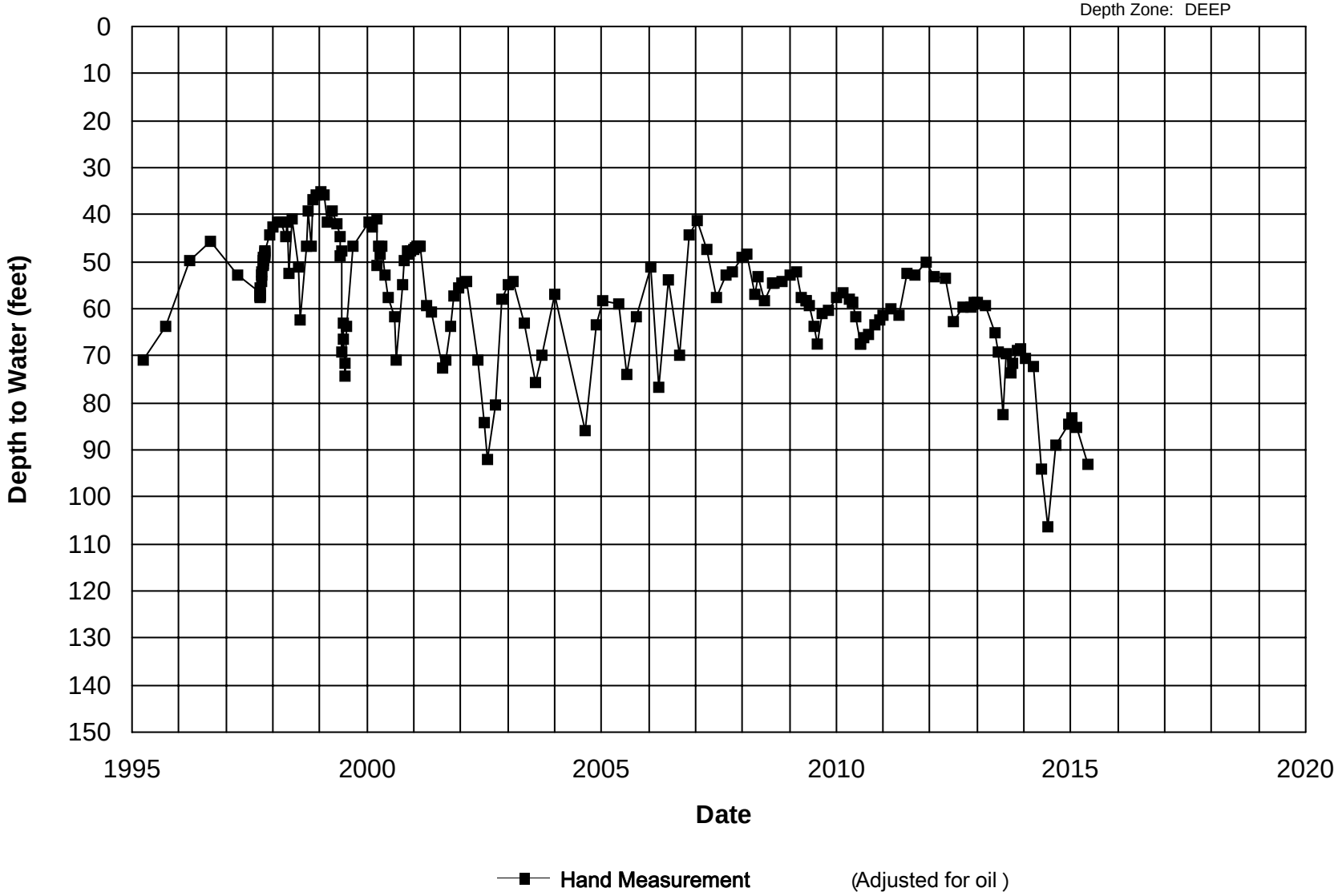
Reference Elevation: 164 feet NAVD88
Perforated Interval: 180 - 300 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3431-61 (W-32)

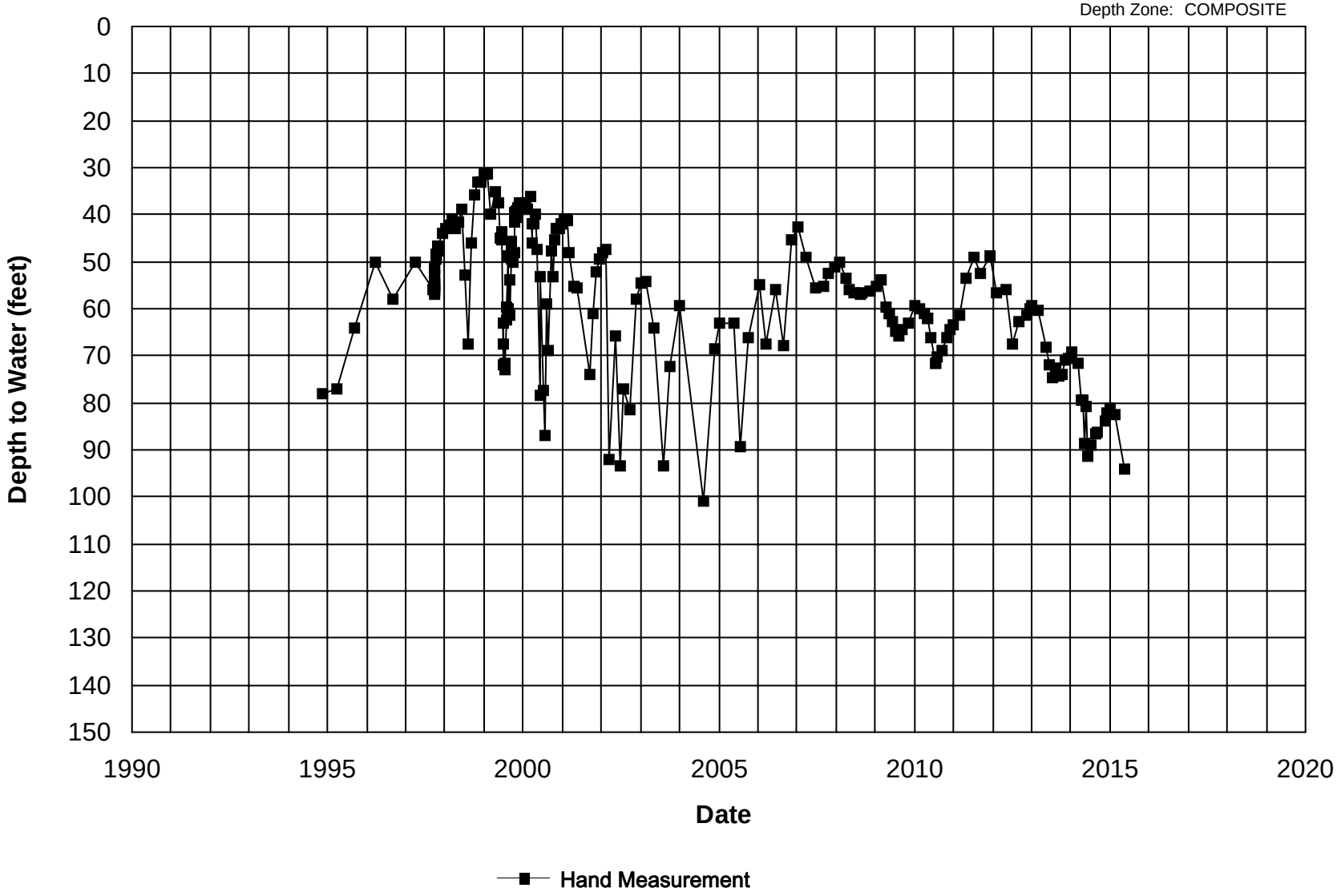
Reference Elevation: 162 feet NAVD88
Perforated Interval: 170 - 300 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 2480-66 (W-42)

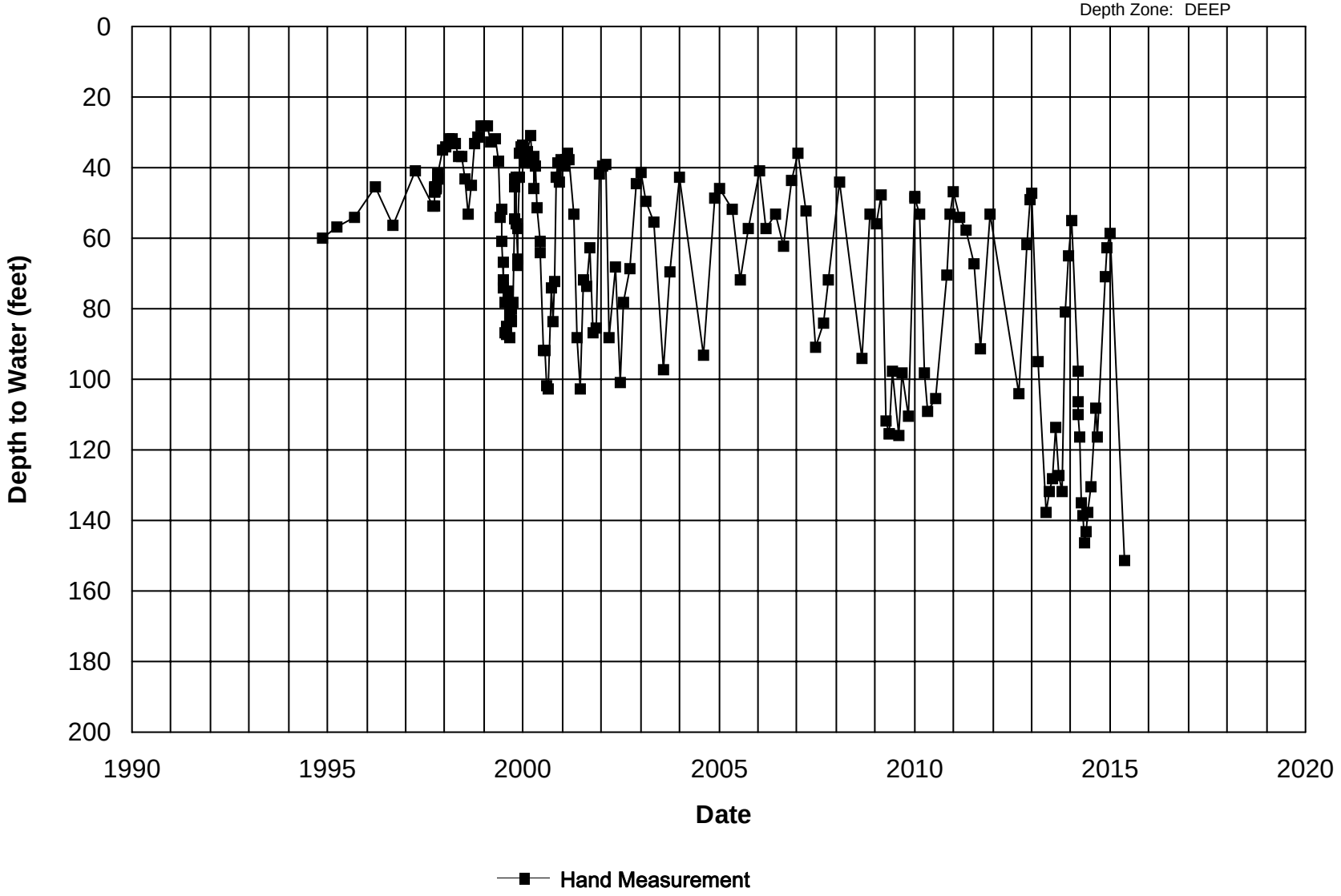
Reference Elevation: 160.75 feet NAVD88
Perforated Interval: 150 - 390 feet
Depth Zone: COMPOSITE



Thursday, July 16, 2015

Wonderful Orchards 3730-65 (W-53)

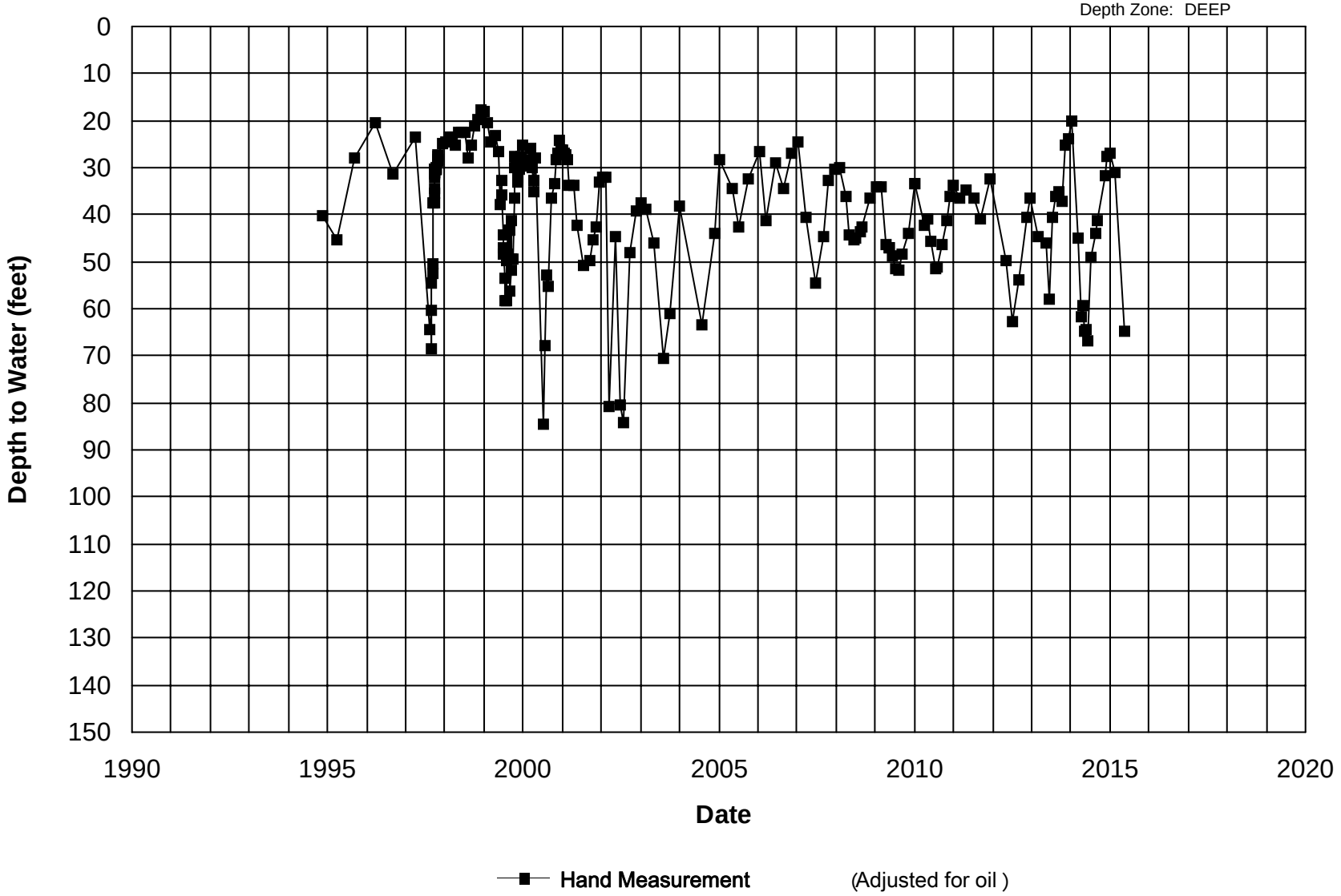
Reference Elevation: 164.36 feet NAVD88
Perforated Interval: 130 - 308 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3421-62 (W-74)

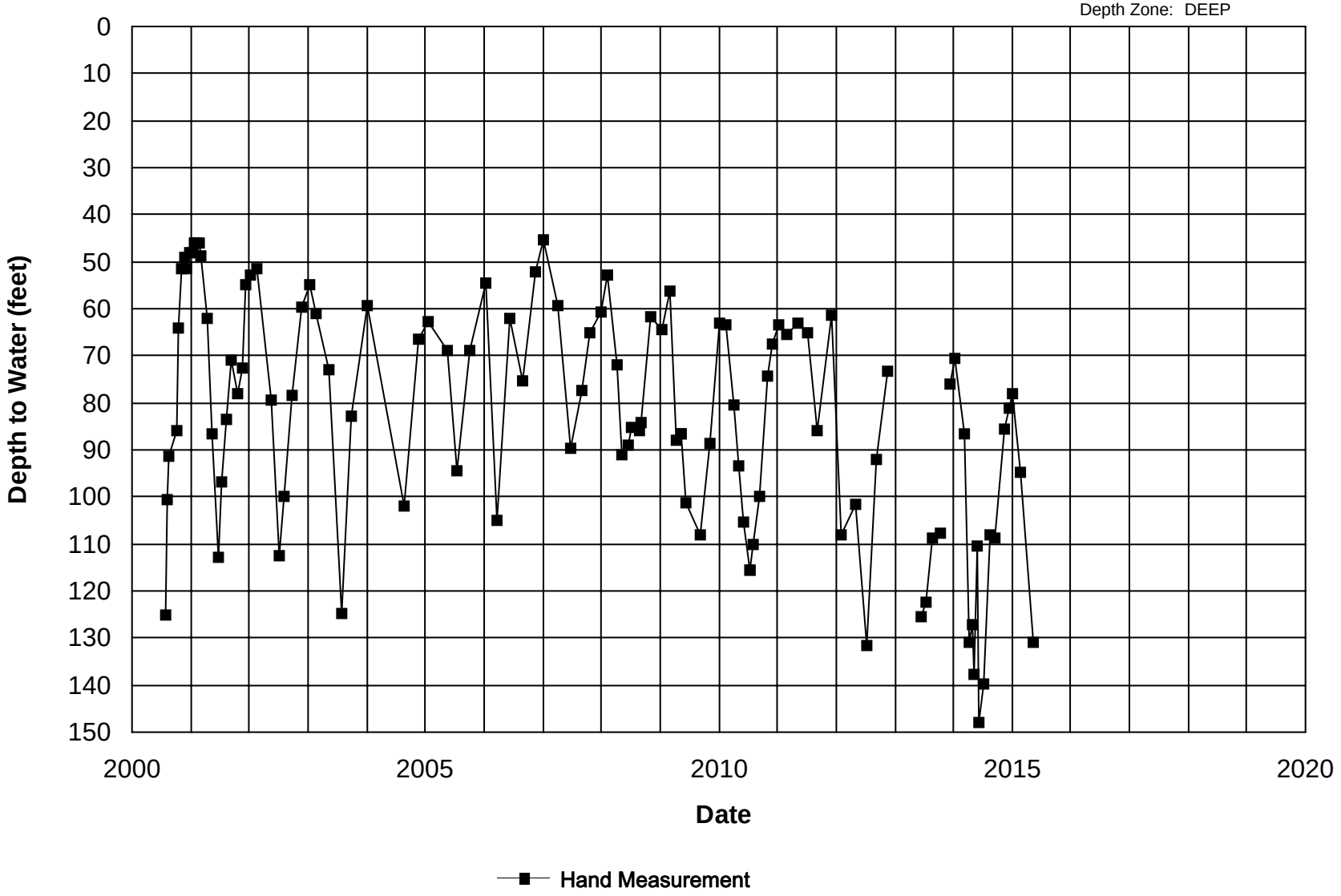
Reference Elevation: 158 feet NAVD88
Perforated Interval: 200 - 380 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3211-69 (W-77)

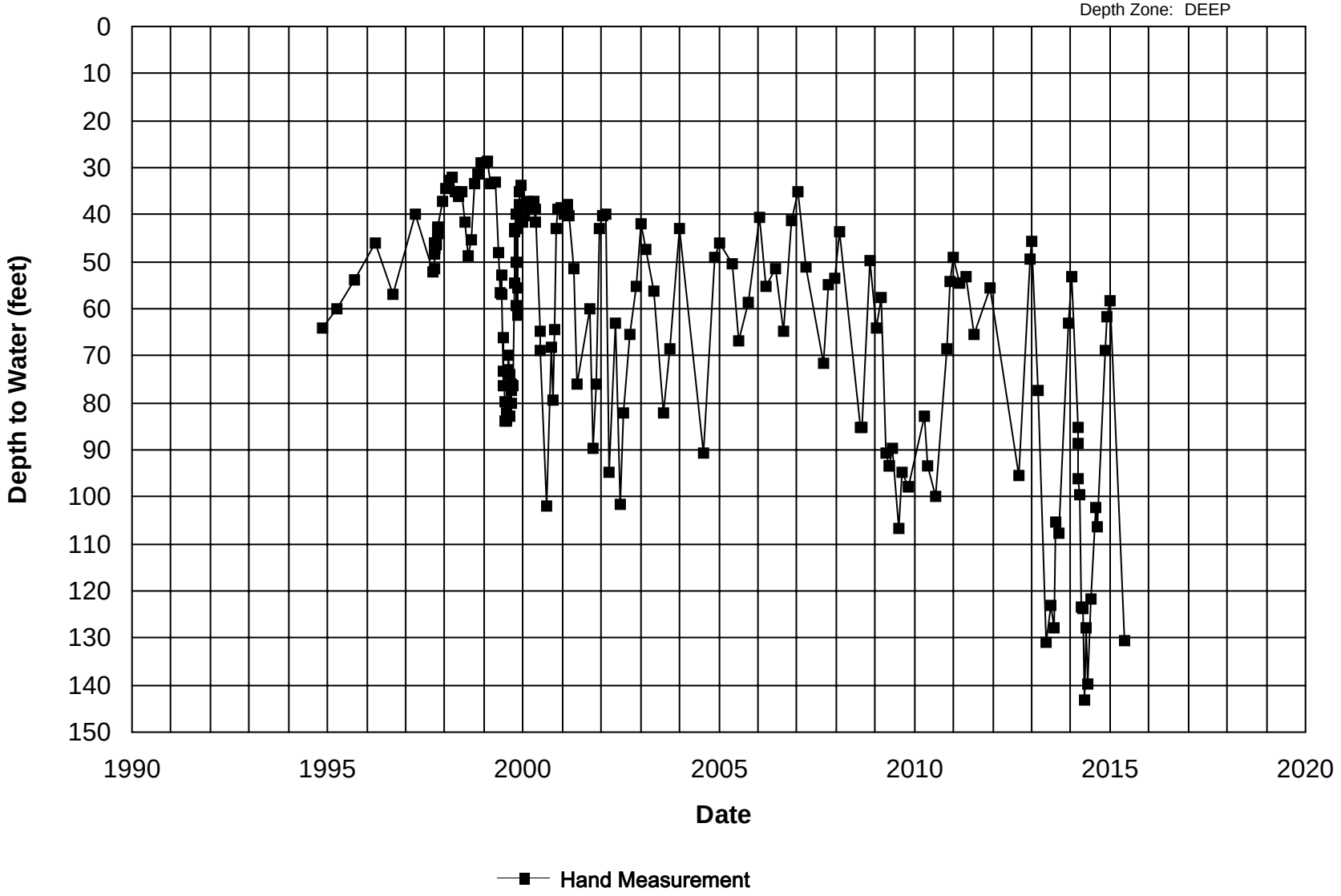
Reference Elevation: 166 feet NAVD88
Perforated Interval: 200 - 380 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 2630-61 (W-78)

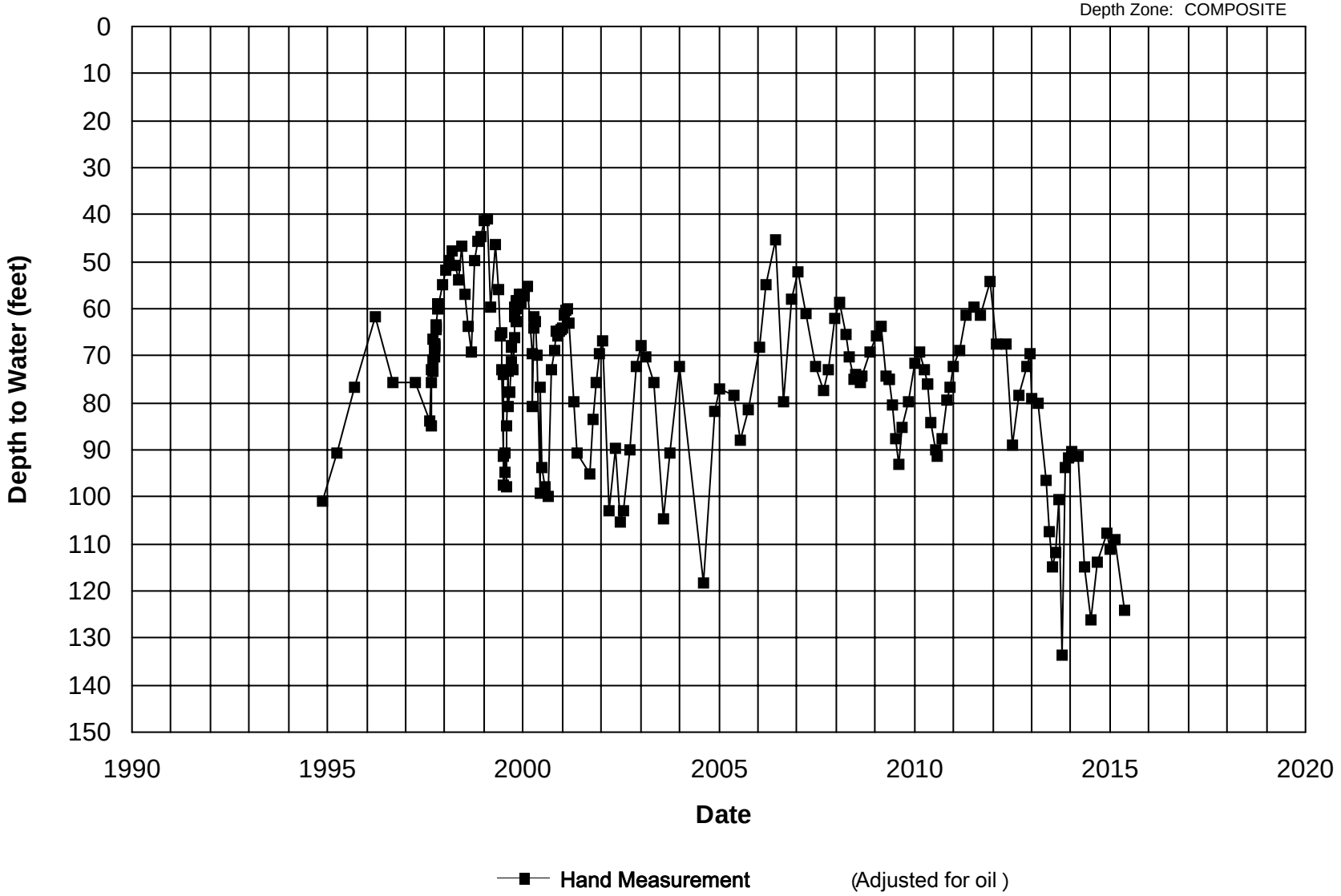
Reference Elevation: 157.5 feet NAVD88
Perforated Interval: 150 - 405 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3311-61 (W-89)

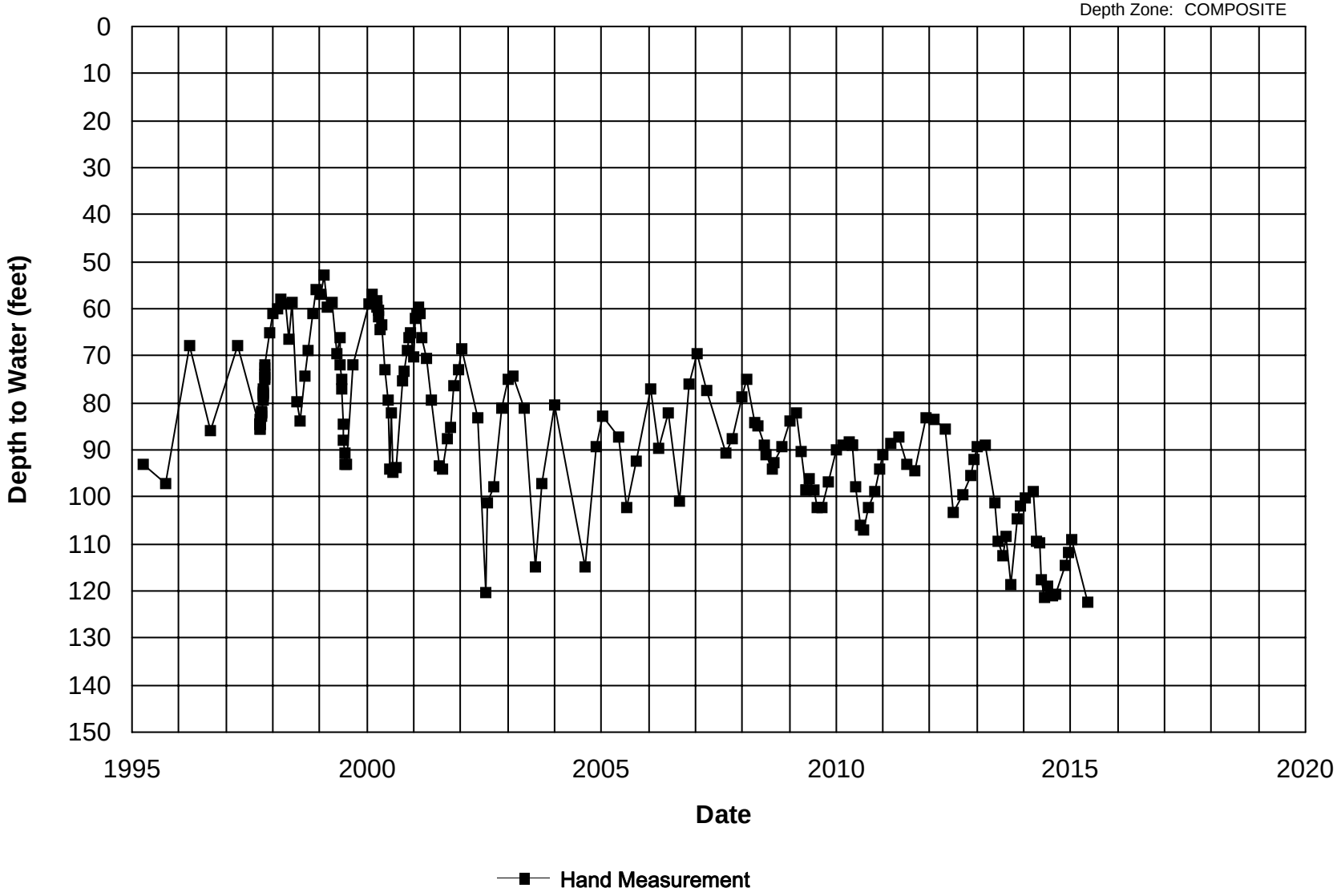
Reference Elevation: 165 feet NAVD88
Perforated Interval: 234 - 498 feet
Depth Zone: COMPOSITE



Thursday, July 16, 2015

Wonderful Orchards 3431-62 (W-91)

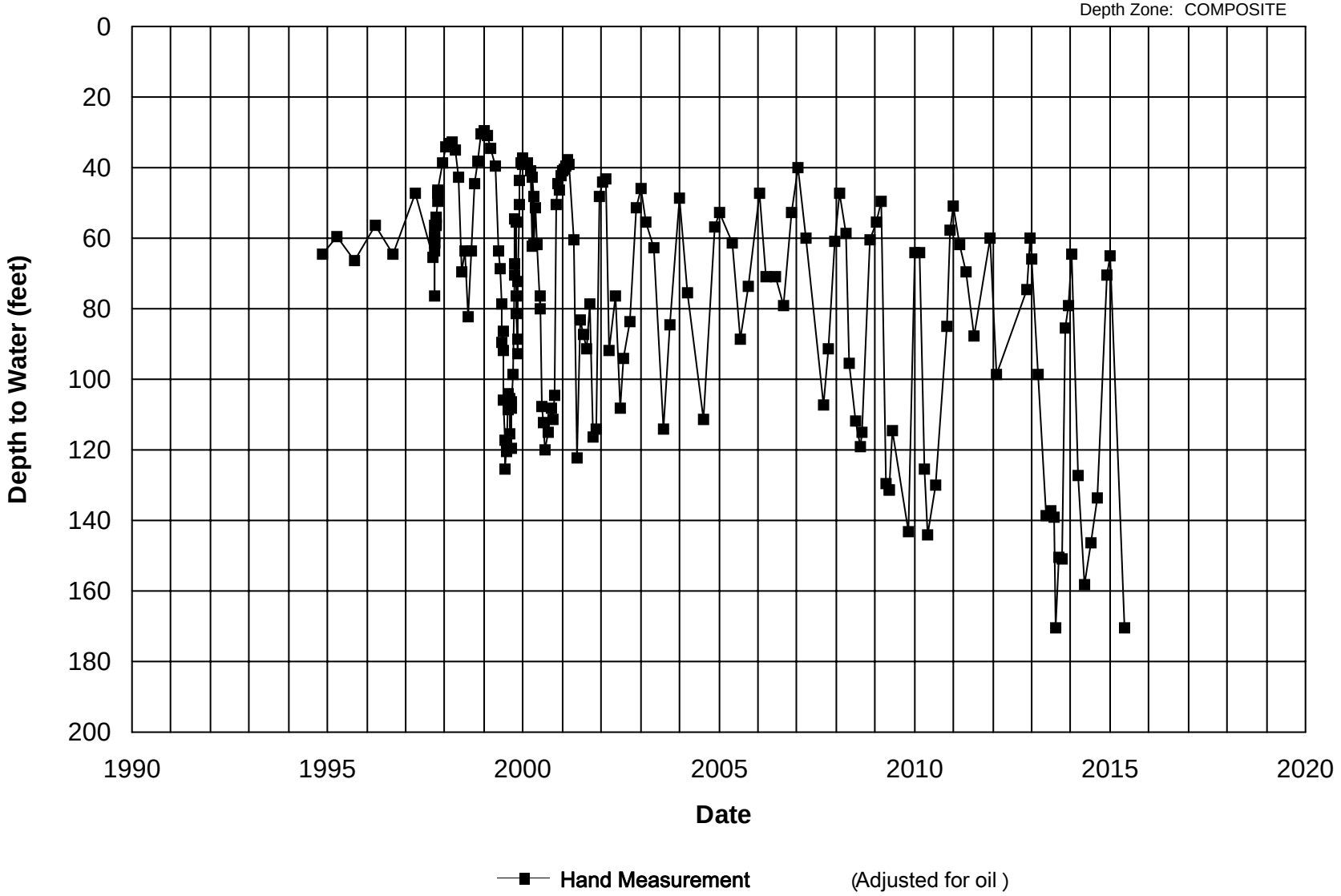
Reference Elevation: 159 feet NAVD88
Perforated Interval: 228 - 498 feet
Depth Zone: COMPOSITE



Thursday, July 16, 2015

Wonderful Orchards 3730-62 (W-94)

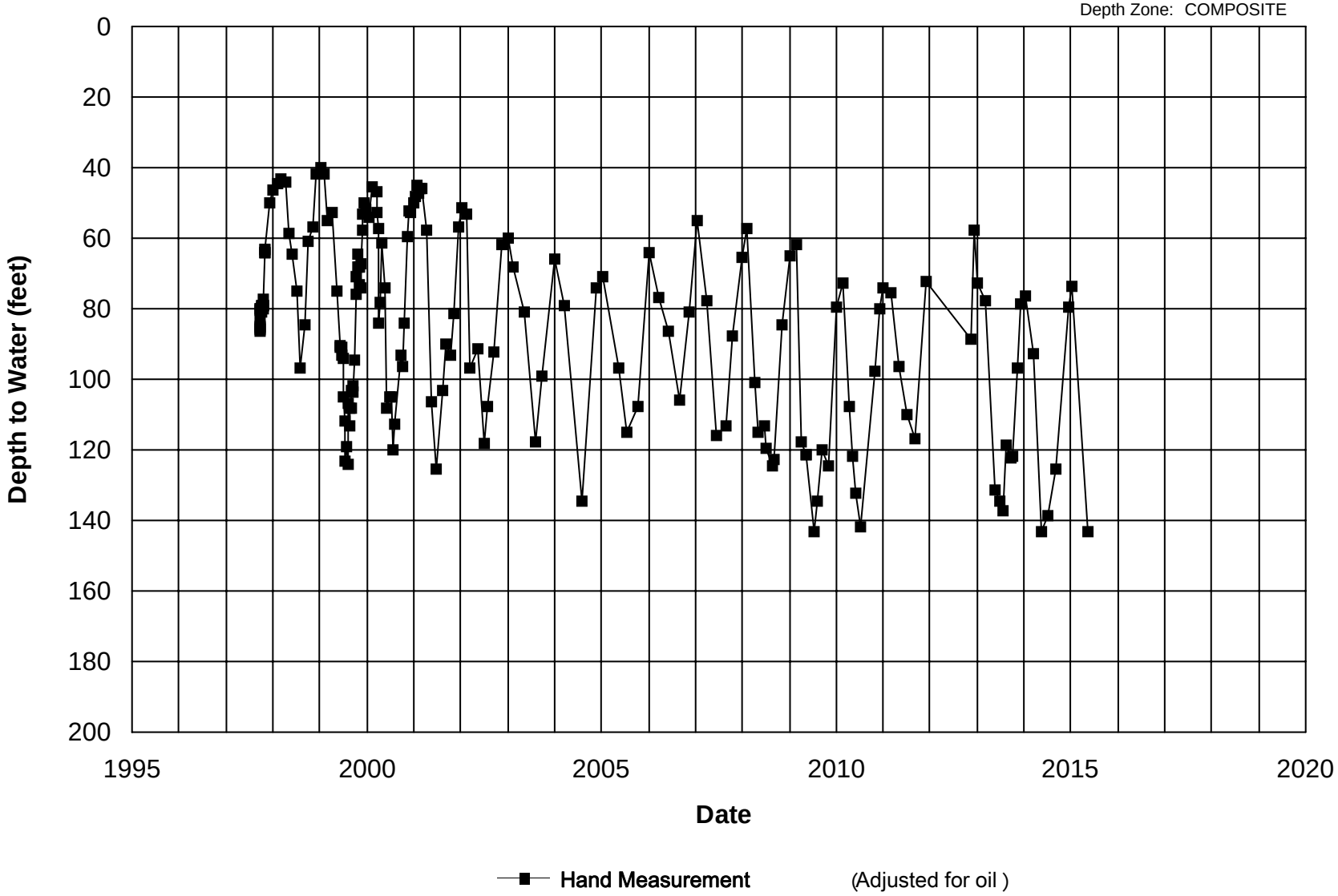
Reference Elevation: 168 feet NAVD88
Perforated Interval: 225 - 498 feet
Depth Zone: COMPOSITE



Thursday, July 16, 2015

Wonderful Orchards 3730-61 (W-95)

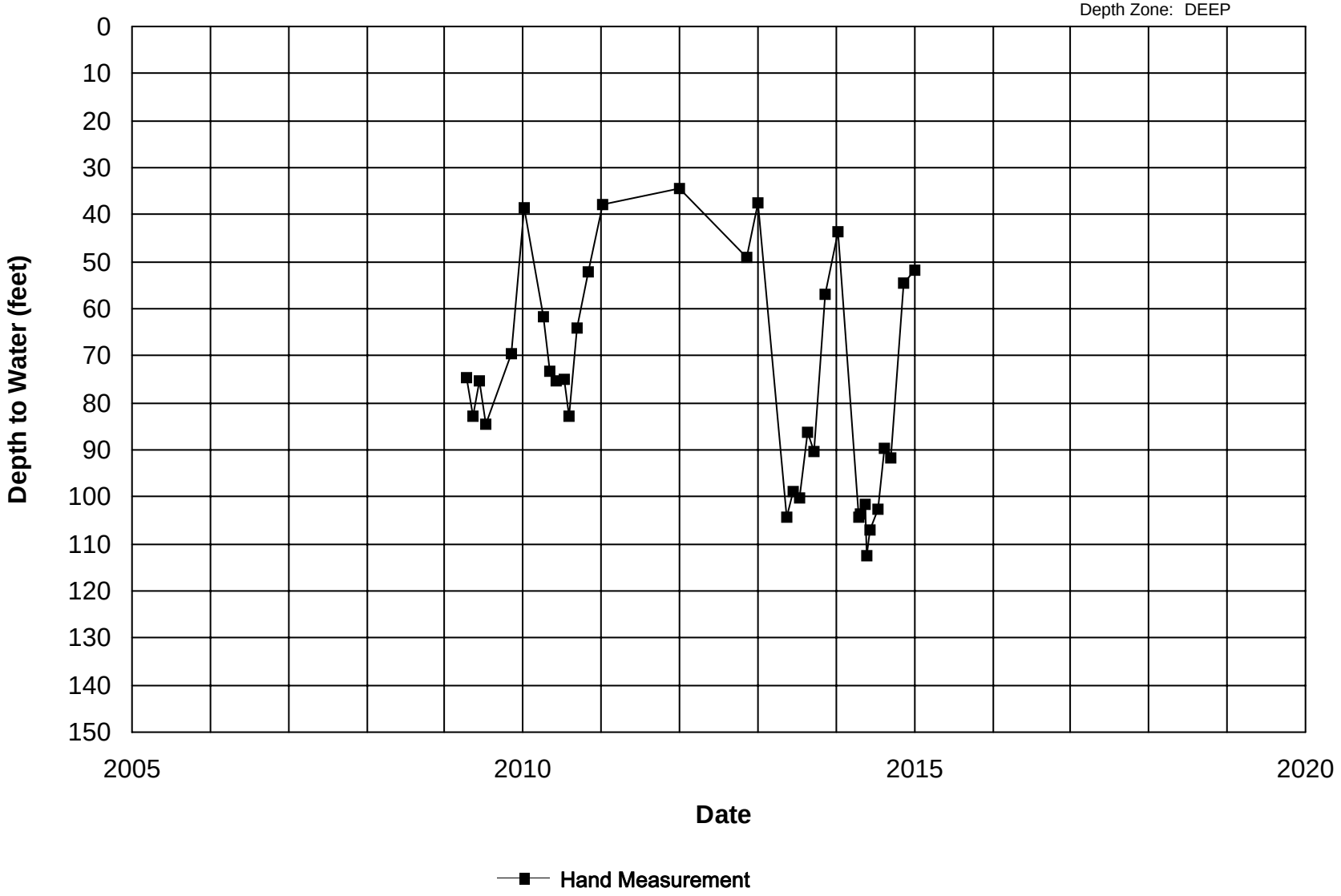
Reference Elevation: 173 feet NAVD88
Perforated Interval: 234 - 498 feet
Depth Zone: COMPOSITE



Thursday, July 16, 2015

Wonderful Orchards 3921-61 (W-106)

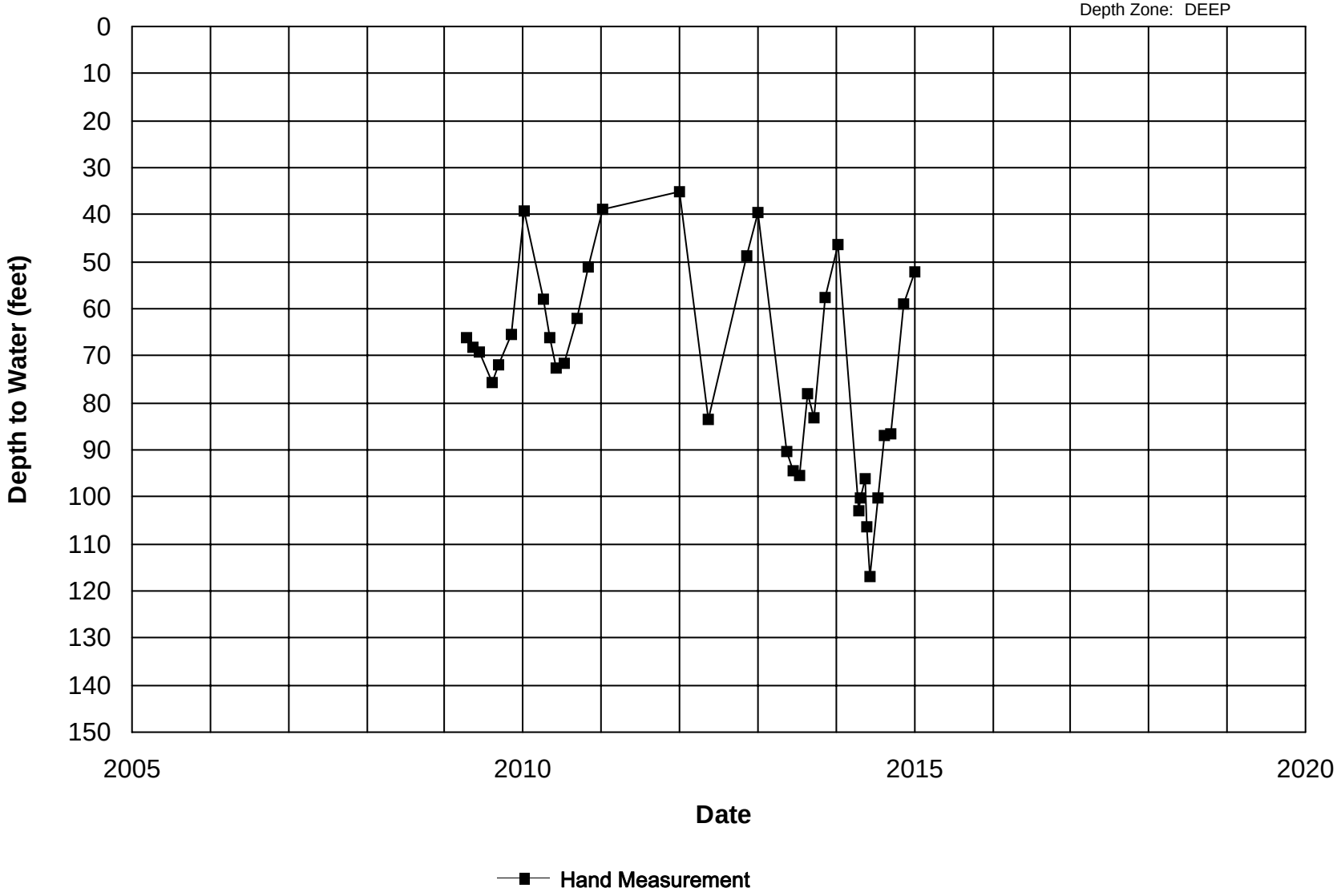
Reference Elevation: 163 feet NAVD88
Perforated Interval: 140 - 360 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3730-72 (W-107)

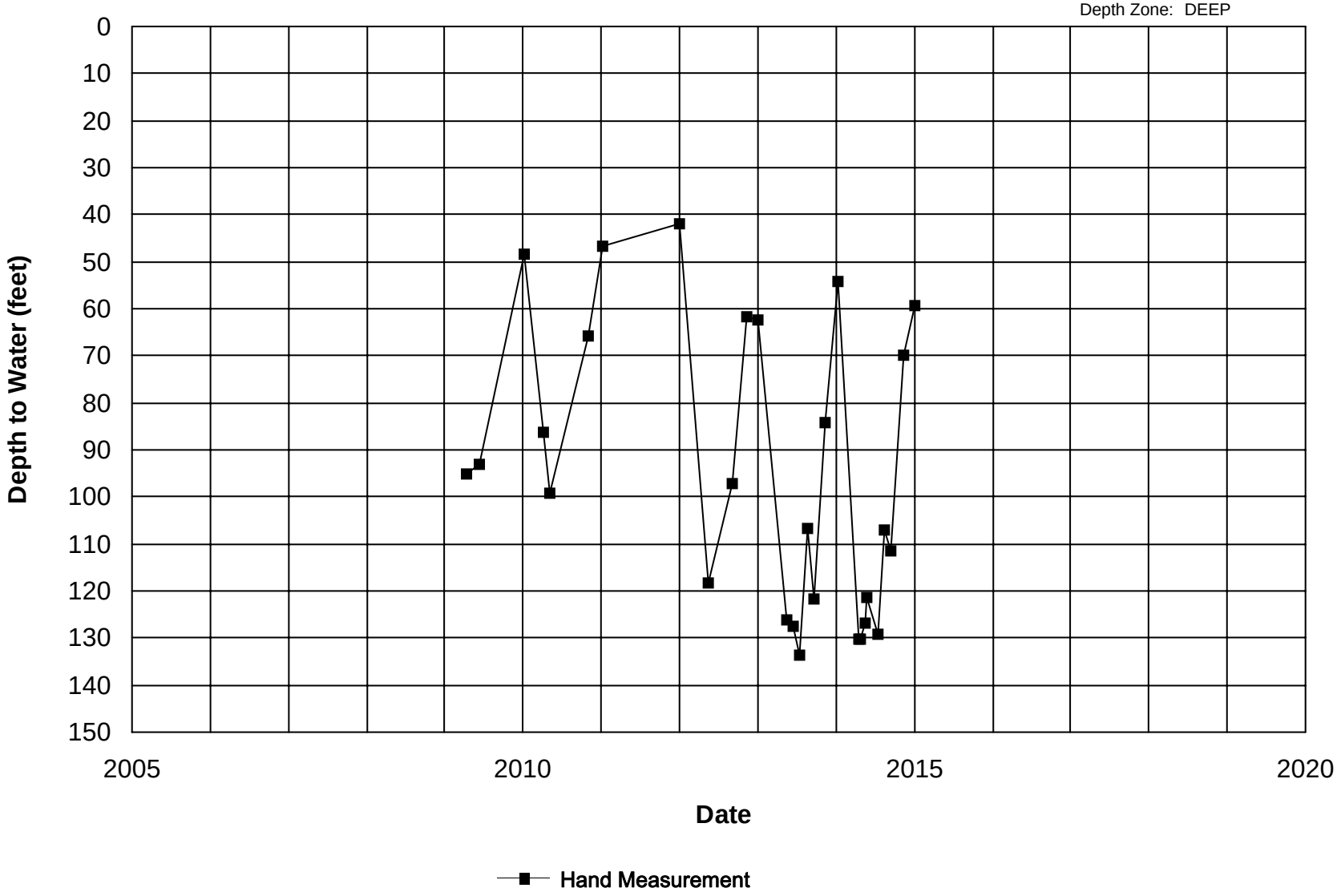
Reference Elevation: 163 feet NAVD88
Perforated Interval: 150 - 340 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3730-70 (W-108)

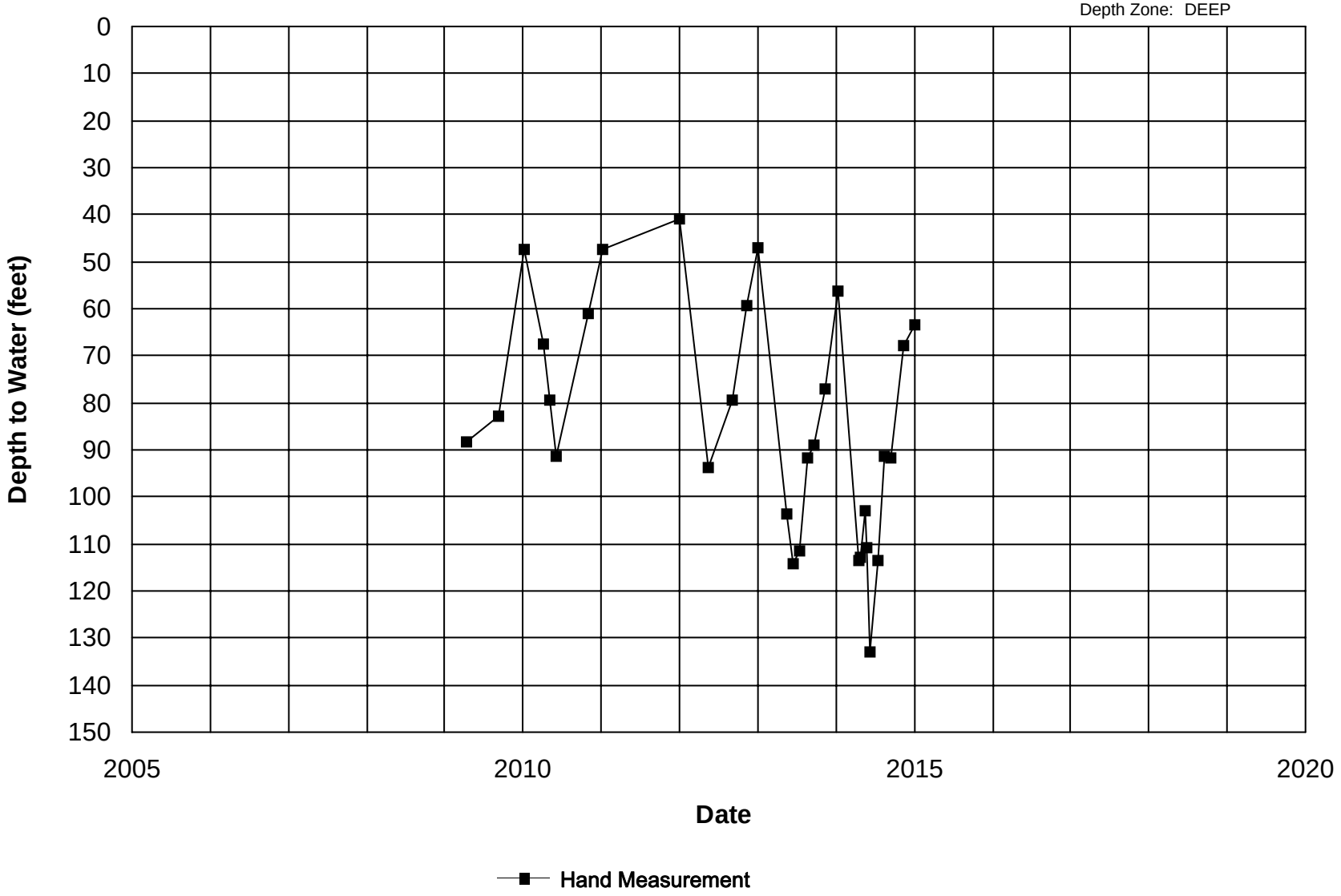
Reference Elevation: 163 feet NAVD88
Perforated Interval: 150 - 340 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3211-68 (W-110)

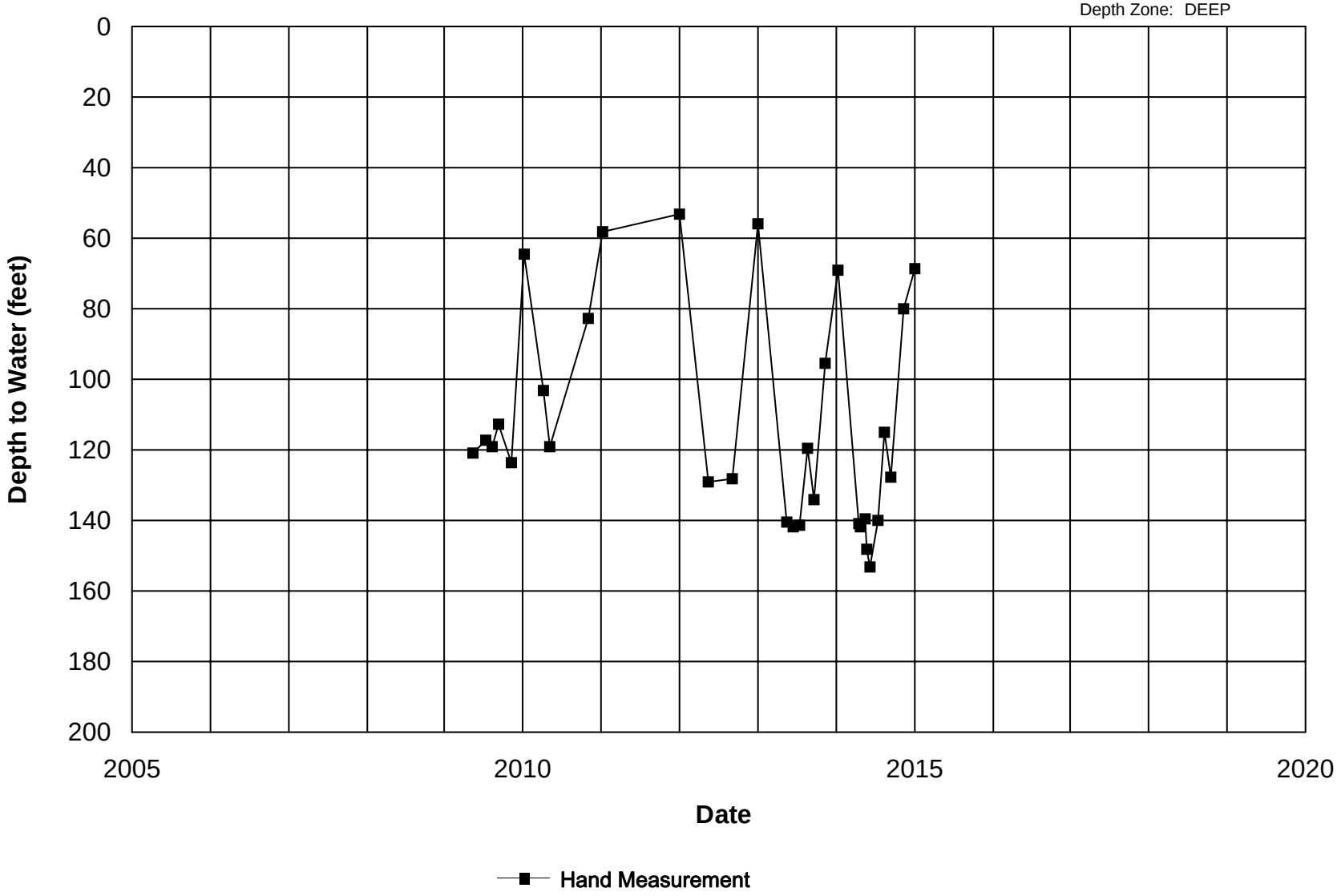
Reference Elevation: 163 feet NAVD88
Perforated Interval: 160 - 330 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3730-63 (W-112)

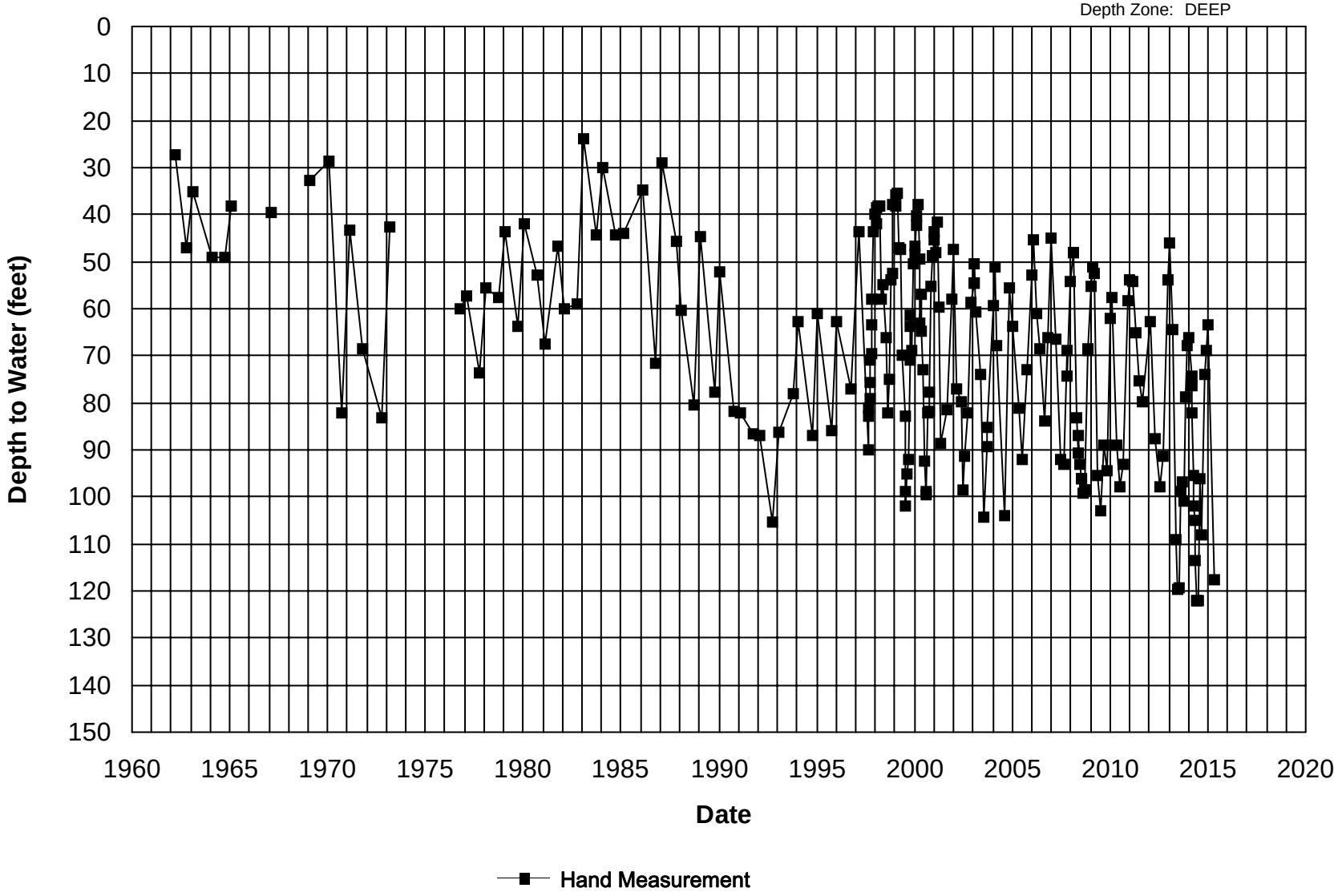
Reference Elevation: 171 feet NAVD88
Perforated Interval: 160 - 340 feet
Depth Zone: DEEP



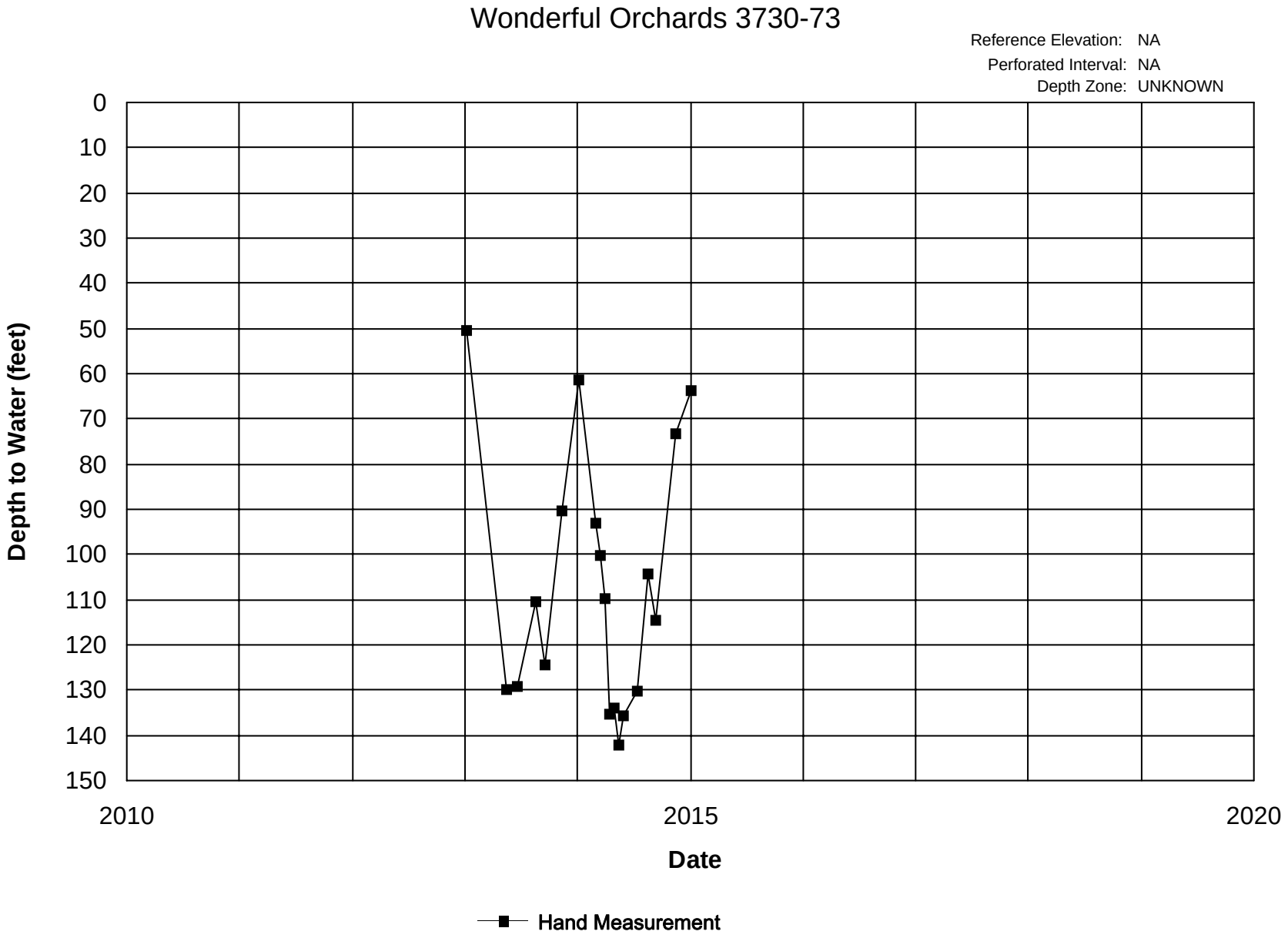
Thursday, July 16, 2015

Wonderful Orchards Well 3730-74 (CC-1)

Reference Elevation: 177 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP

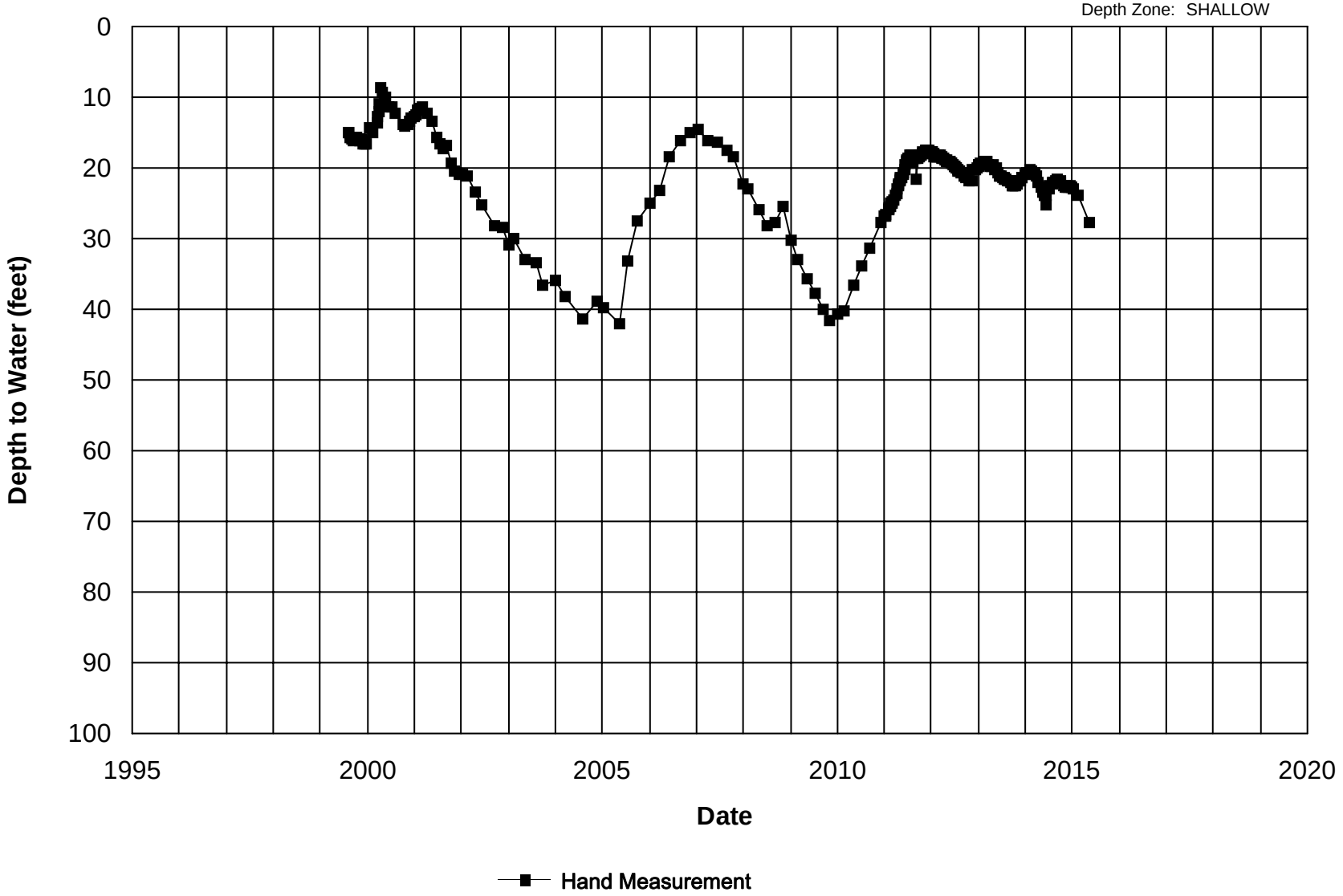


Thursday, July 16, 2015


Wonderful Orchards 3730-73
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN
Depth to Water (feet)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
2010
2015
2020
Date
Hand Measurement

Wonderful Orchards 3730-91 (MW-2)

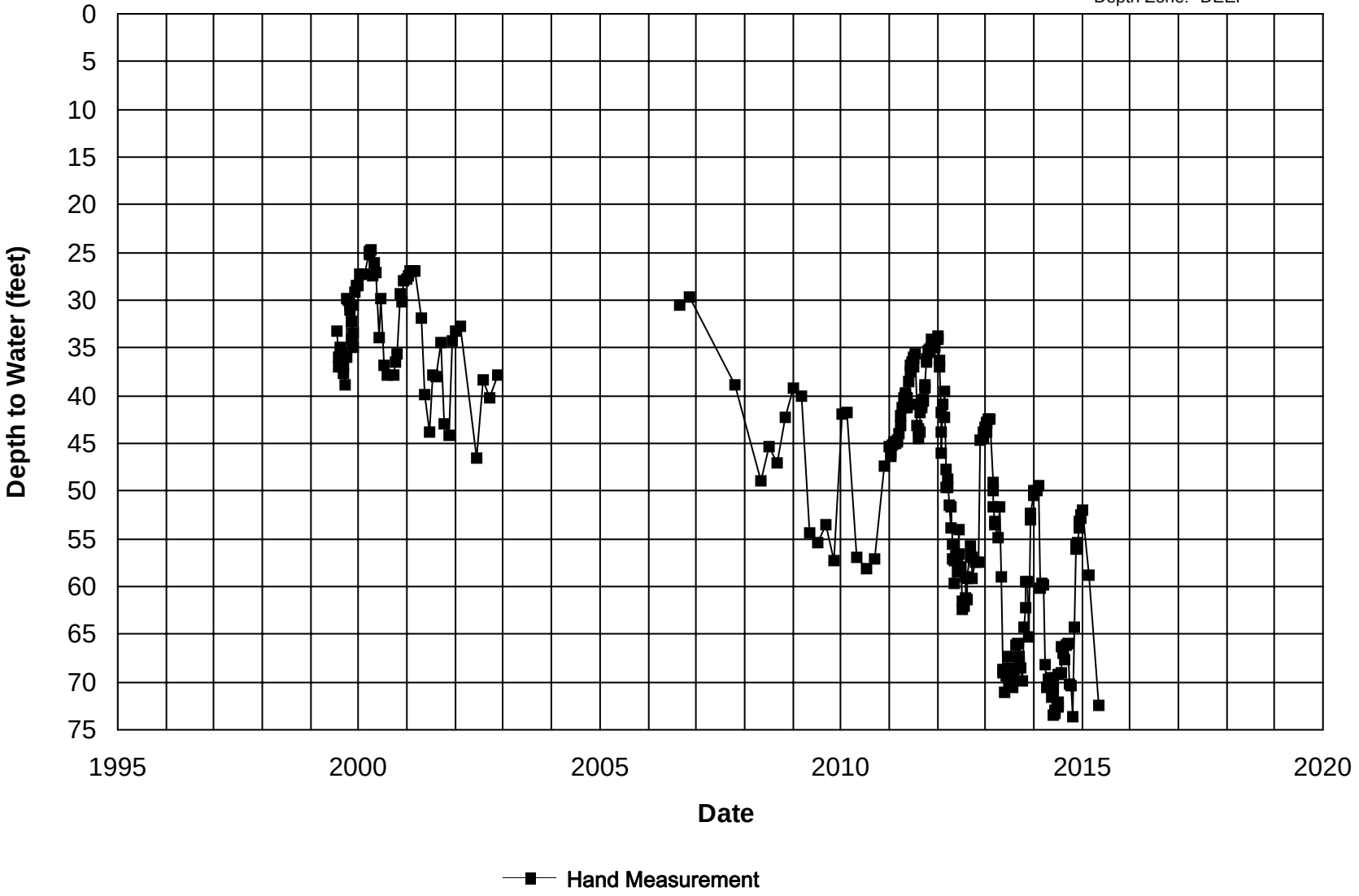
Reference Elevation: 167.61 feet NAVD88
Perforated Interval: 40 - 80 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3730-92 (MW-1)

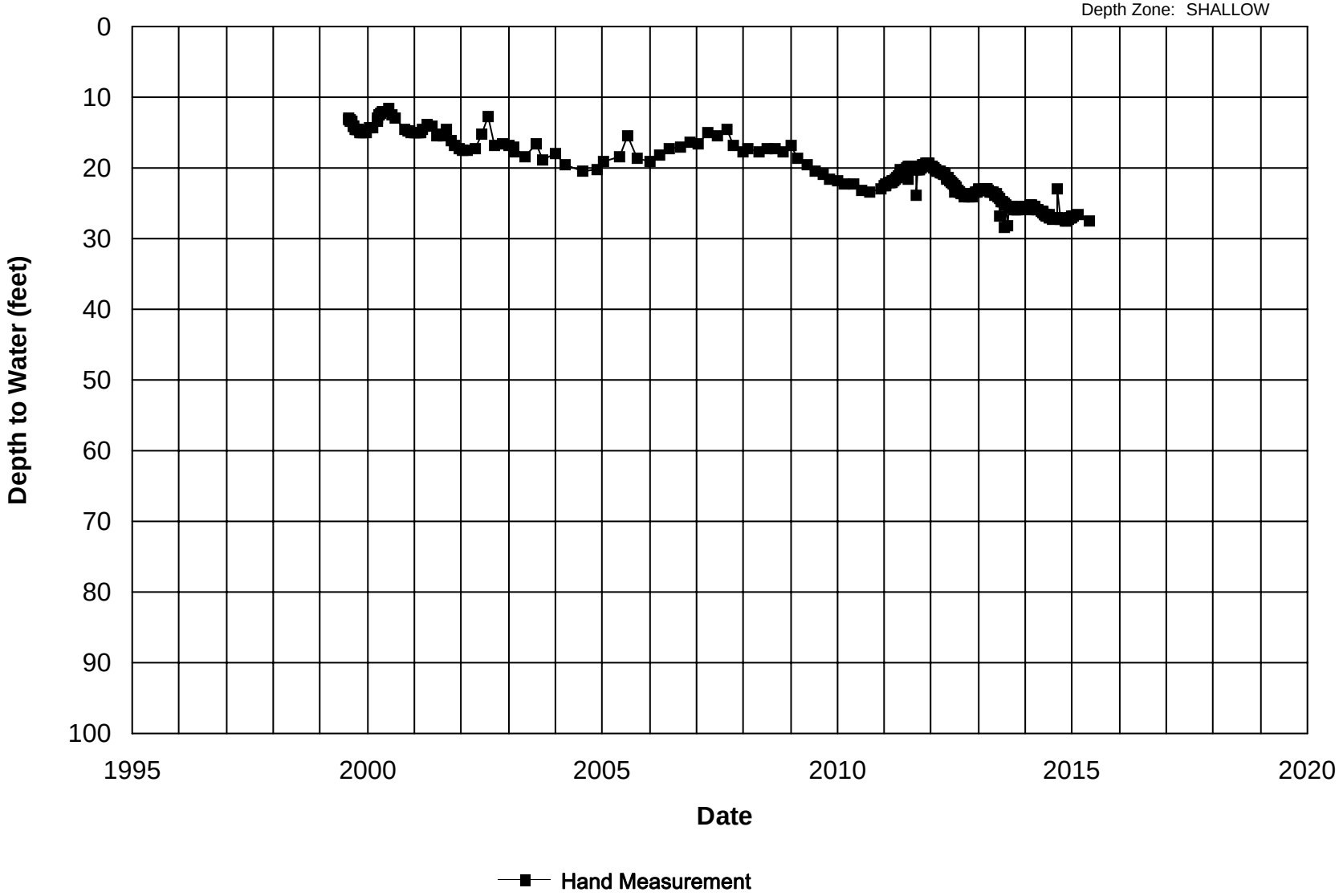
Reference Elevation: 165.08 feet NAVD88
Perforated Interval: 110 - 150 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 3730-93 (MW-3)

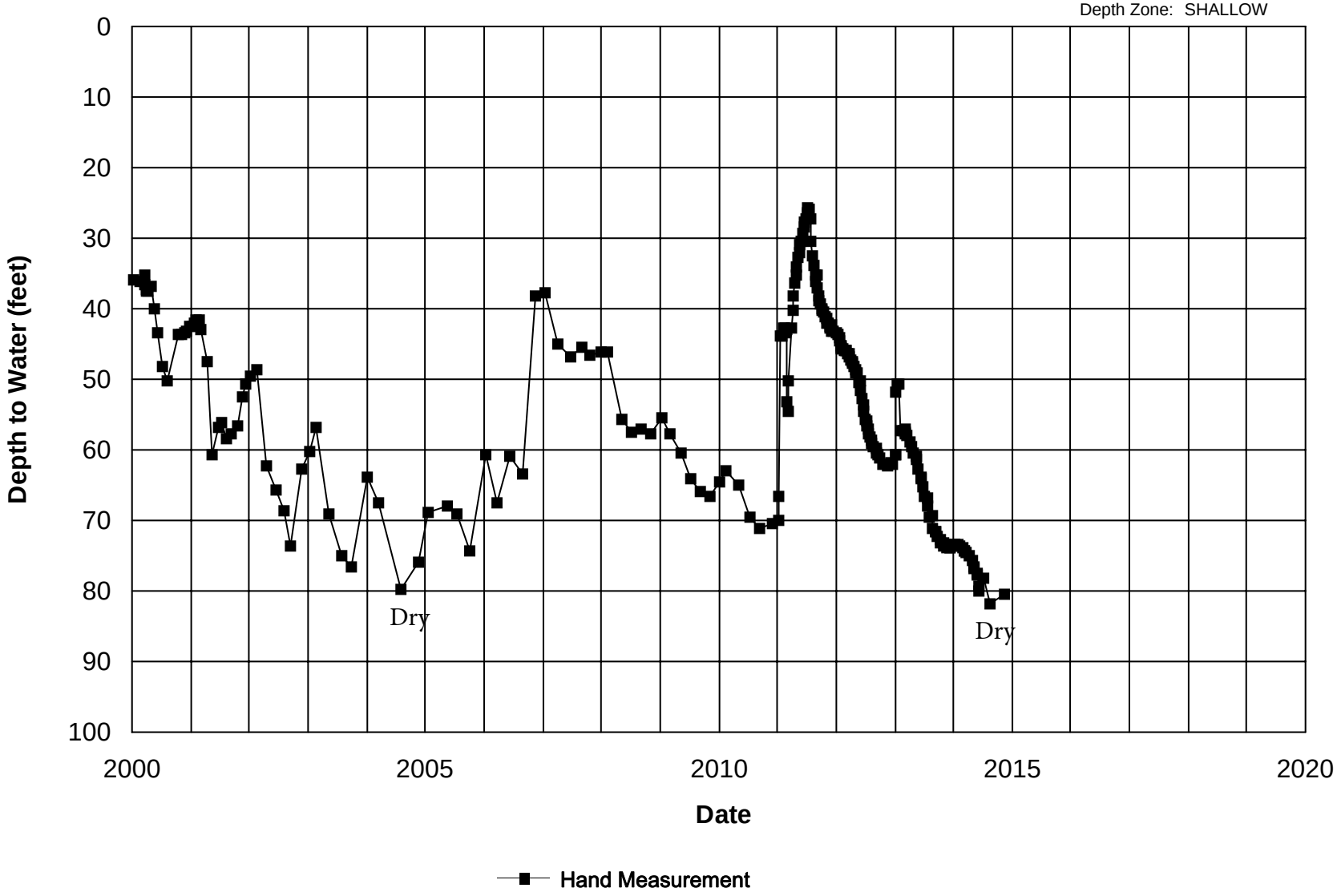
Reference Elevation: 160.28 feet NAVD88
Perforated Interval: 40 - 80 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 2480-93 (MW-4)

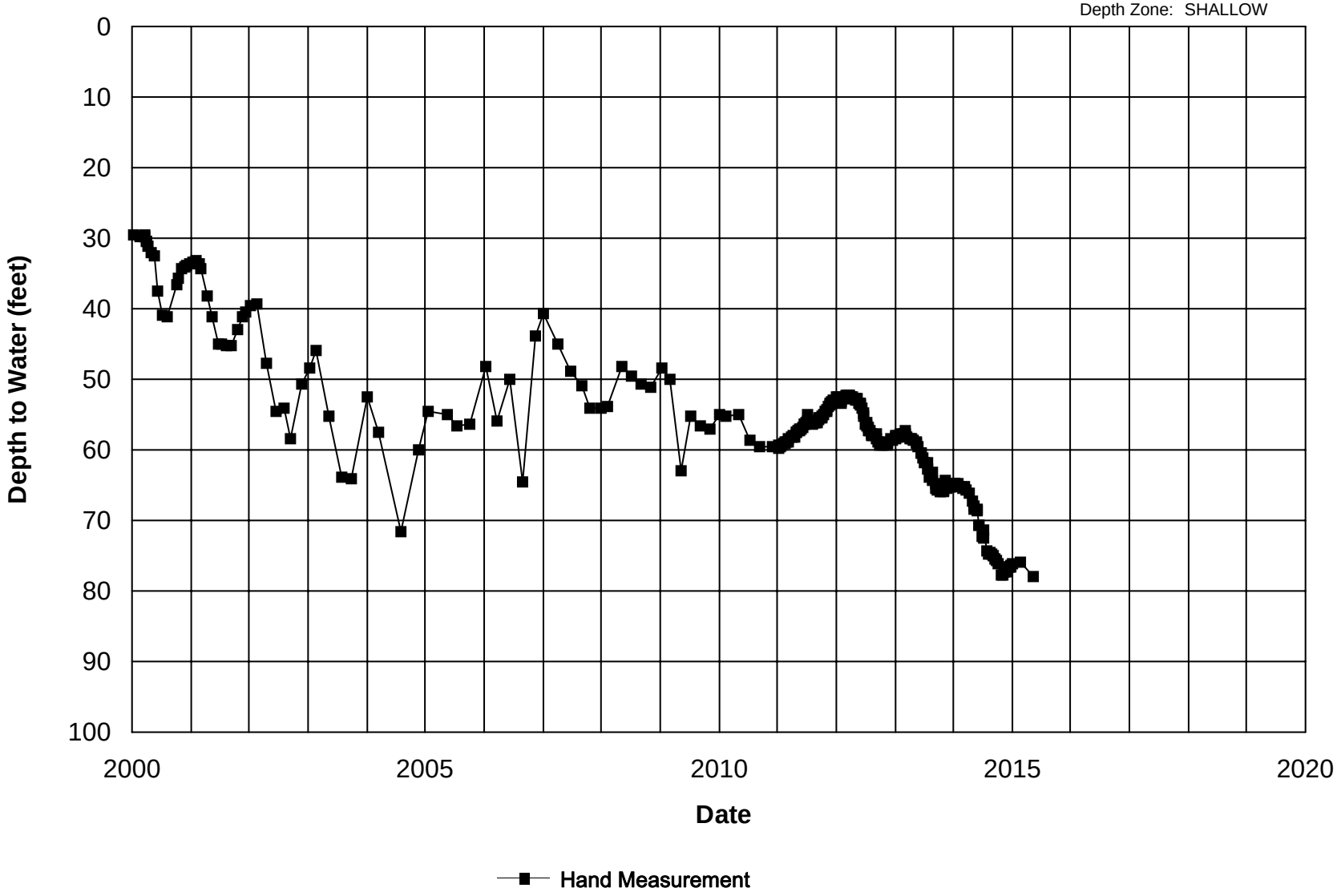
Reference Elevation: 158.62 feet NAVD88
Perforated Interval: 40 - 80 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3431-91 (MW-5)

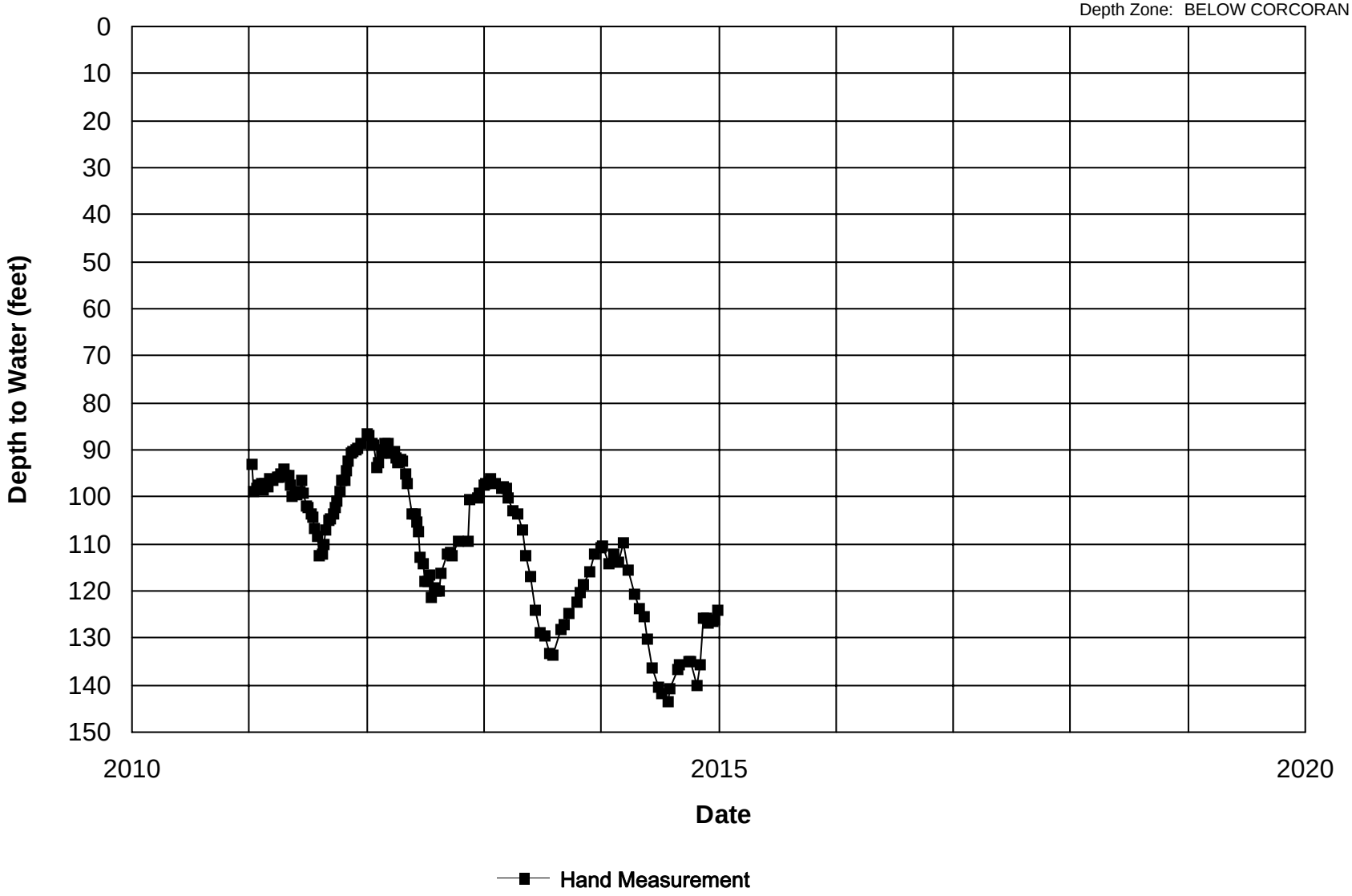
Reference Elevation: 155.7 feet NAVD88
Perforated Interval: 35 - 95 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

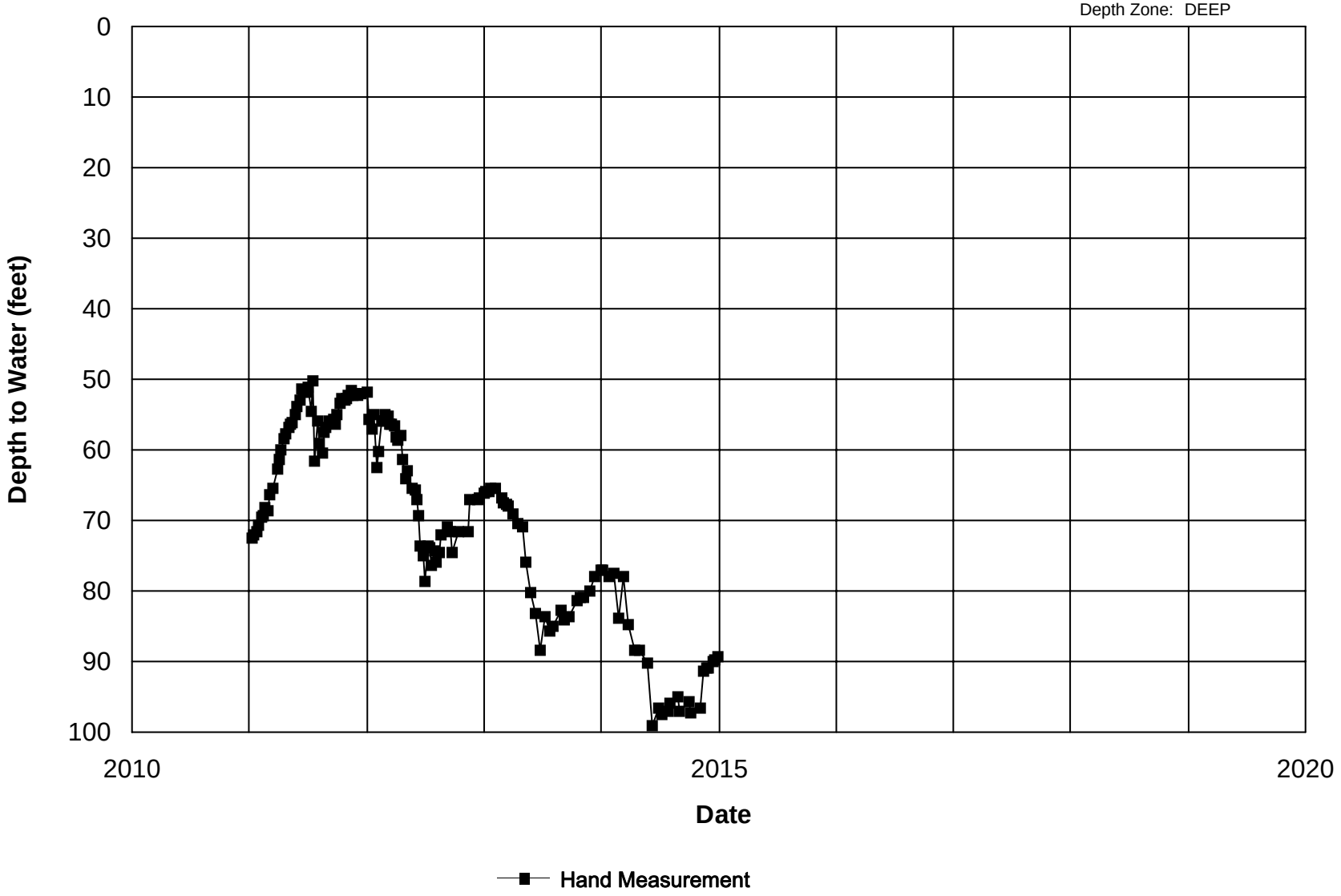
Wonderful Orchards 2480-91 (MW-6)

Reference Elevation: 159.14 feet NAVD88
Perforated Interval: 397.98 - 417.72 feet
Depth Zone: BELOW CORCORAN



Wonderful Orchards 2480-92 (MW-7)

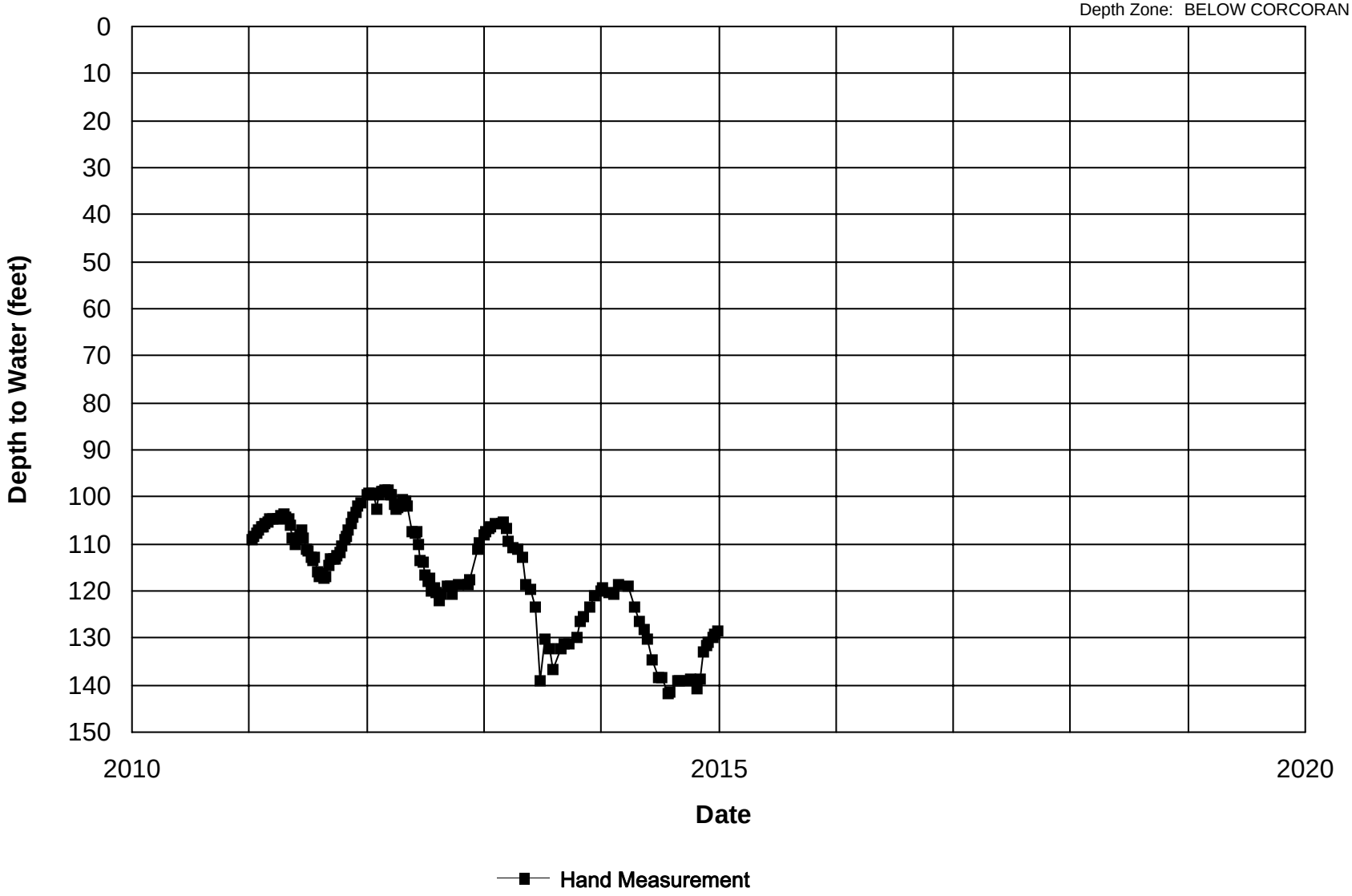
Reference Elevation: 159.22 feet NAVD88
Perforated Interval: 238.28 - 252.82 feet
Depth Zone: DEEP



Thursday, July 16, 2015

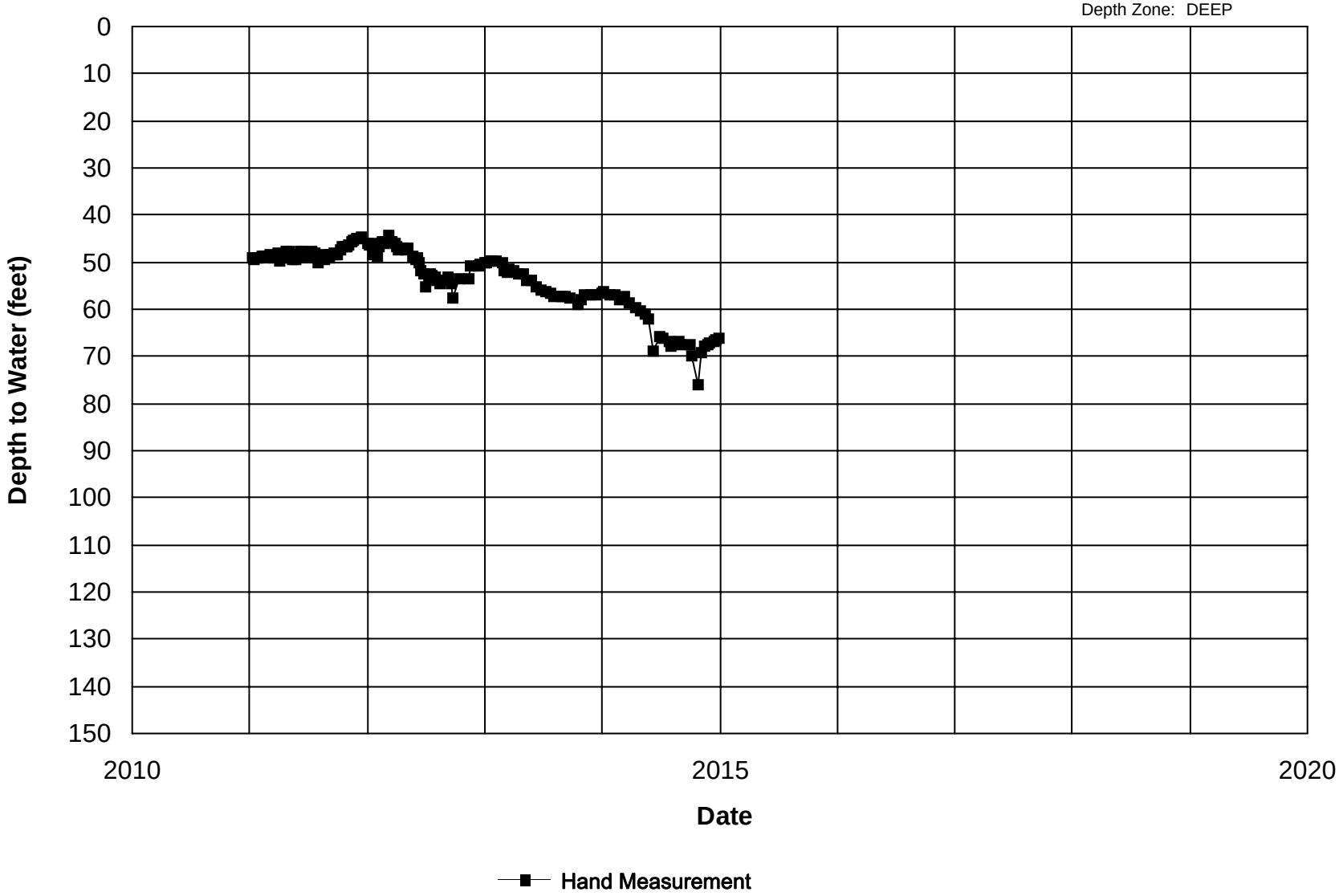
Wonderful Orchards 2480-94 (MW-8)

Reference Elevation: 154.61 feet NAVD88
Perforated Interval: 435 - 449.5 feet
Depth Zone: BELOW CORCORAN



Wonderful Orchards 2480-95 (MW-9)

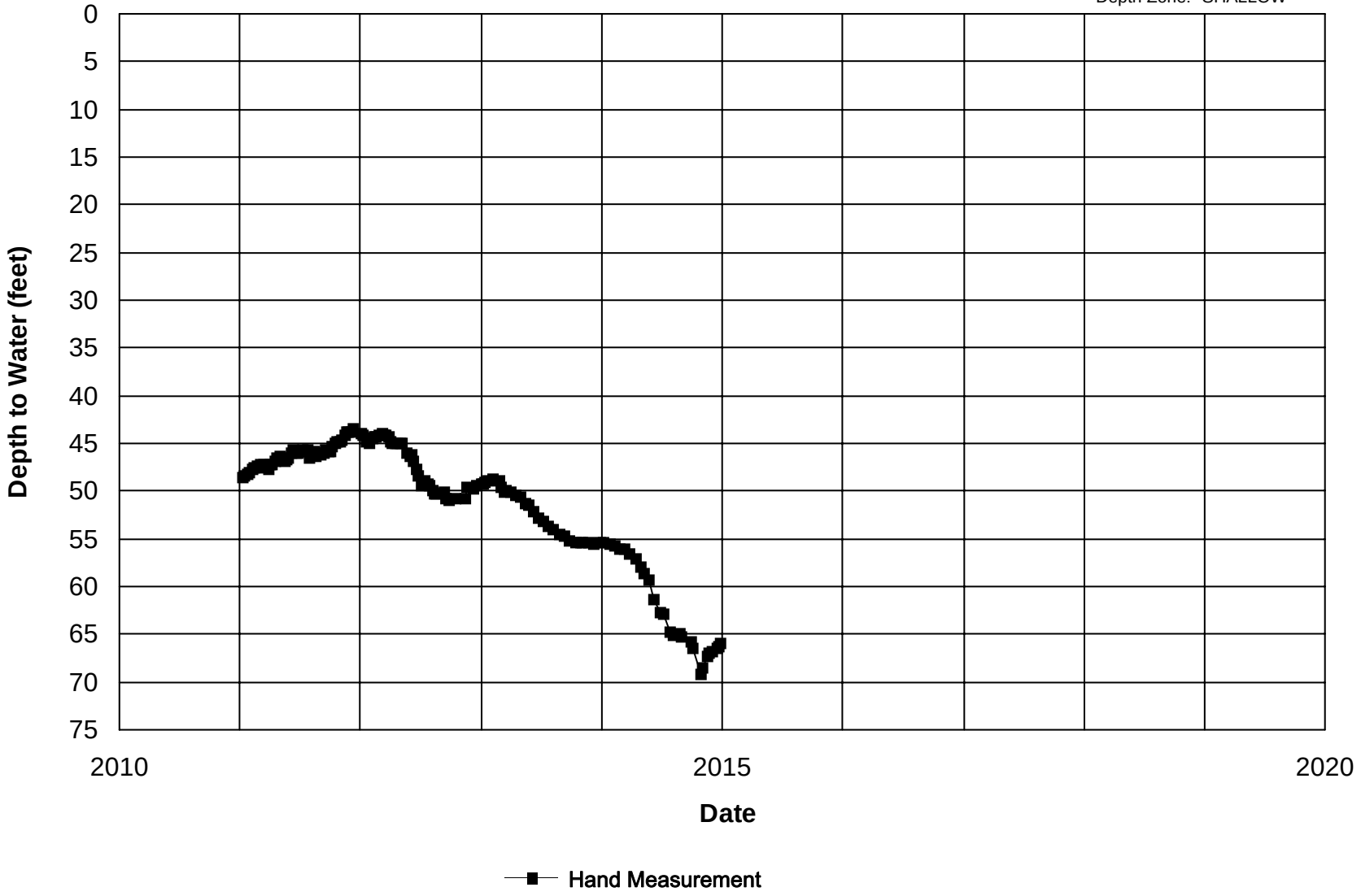
Reference Elevation: 154.65 feet NAVD88
Perforated Interval: 250.16 - 264.9 feet
Depth Zone: DEEP



Thursday, July 16, 2015

Wonderful Orchards 2480-96 (MW-10)

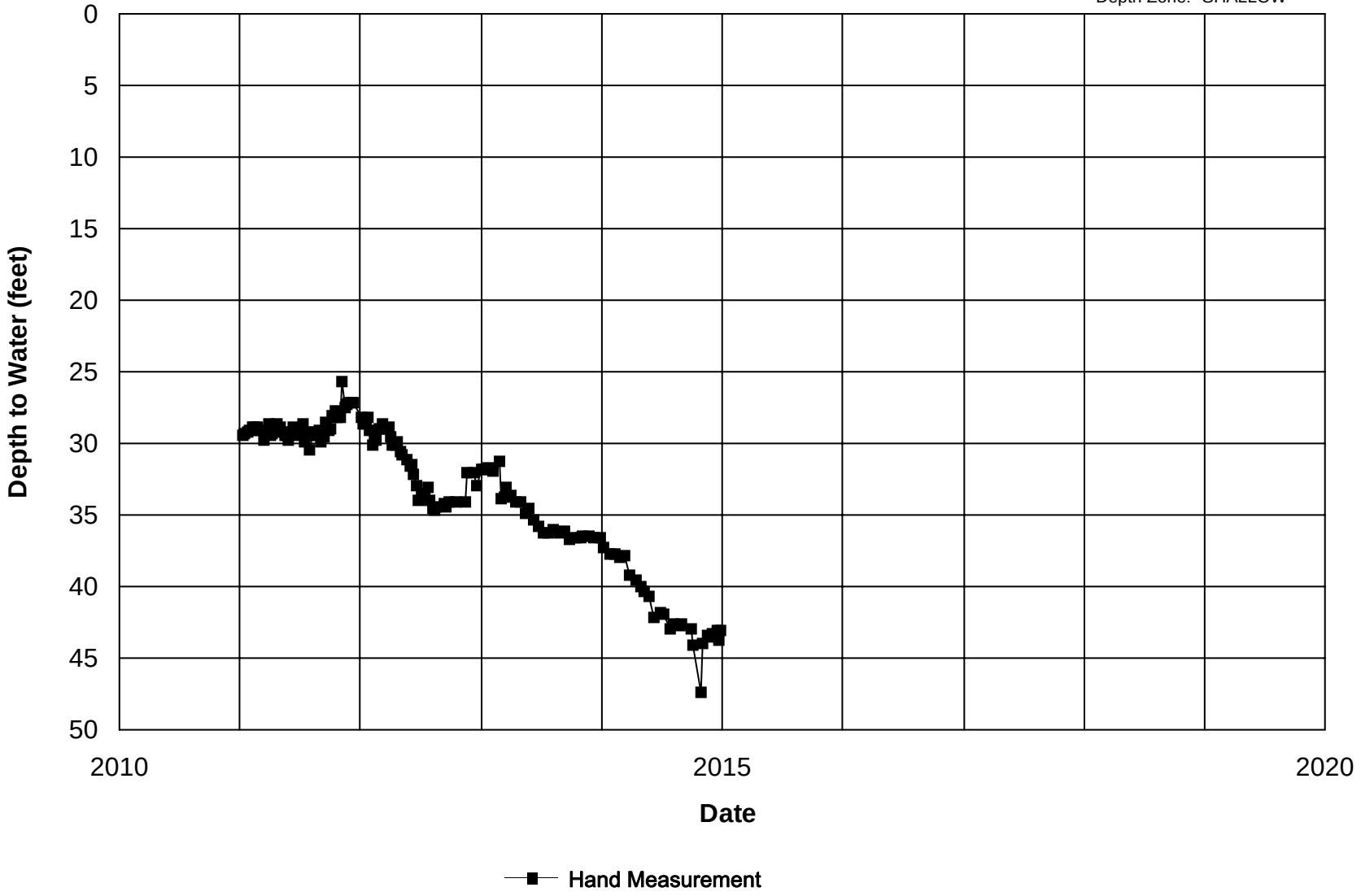
Reference Elevation: 154.67 feet NAVD88
Perforated Interval: 97.99 - 107.44 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3561-93 (MW-11)

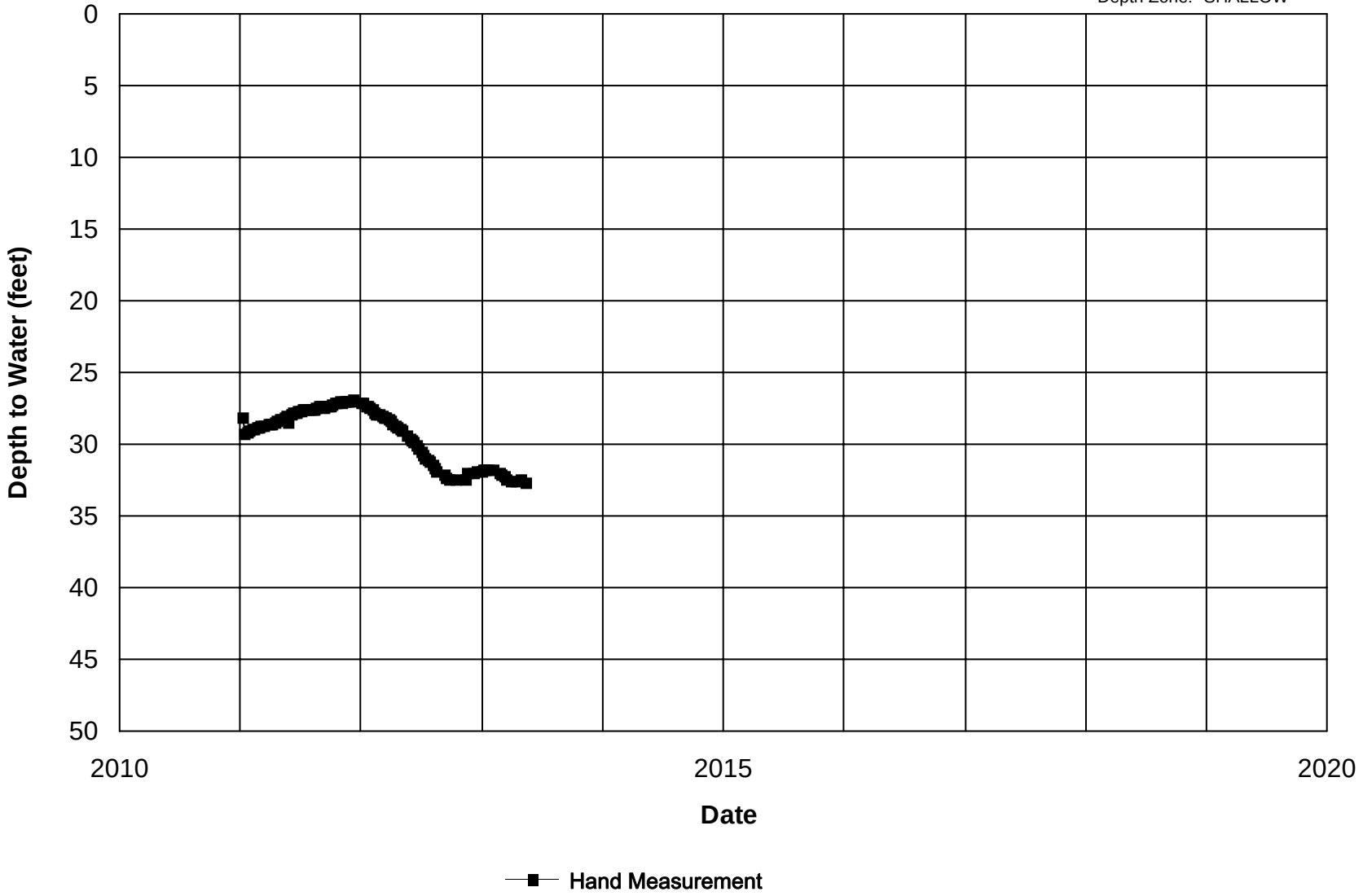
Reference Elevation: 150.88 feet NAVD88
Perforated Interval: 60.25 - 90 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3561-94 (MW-12)

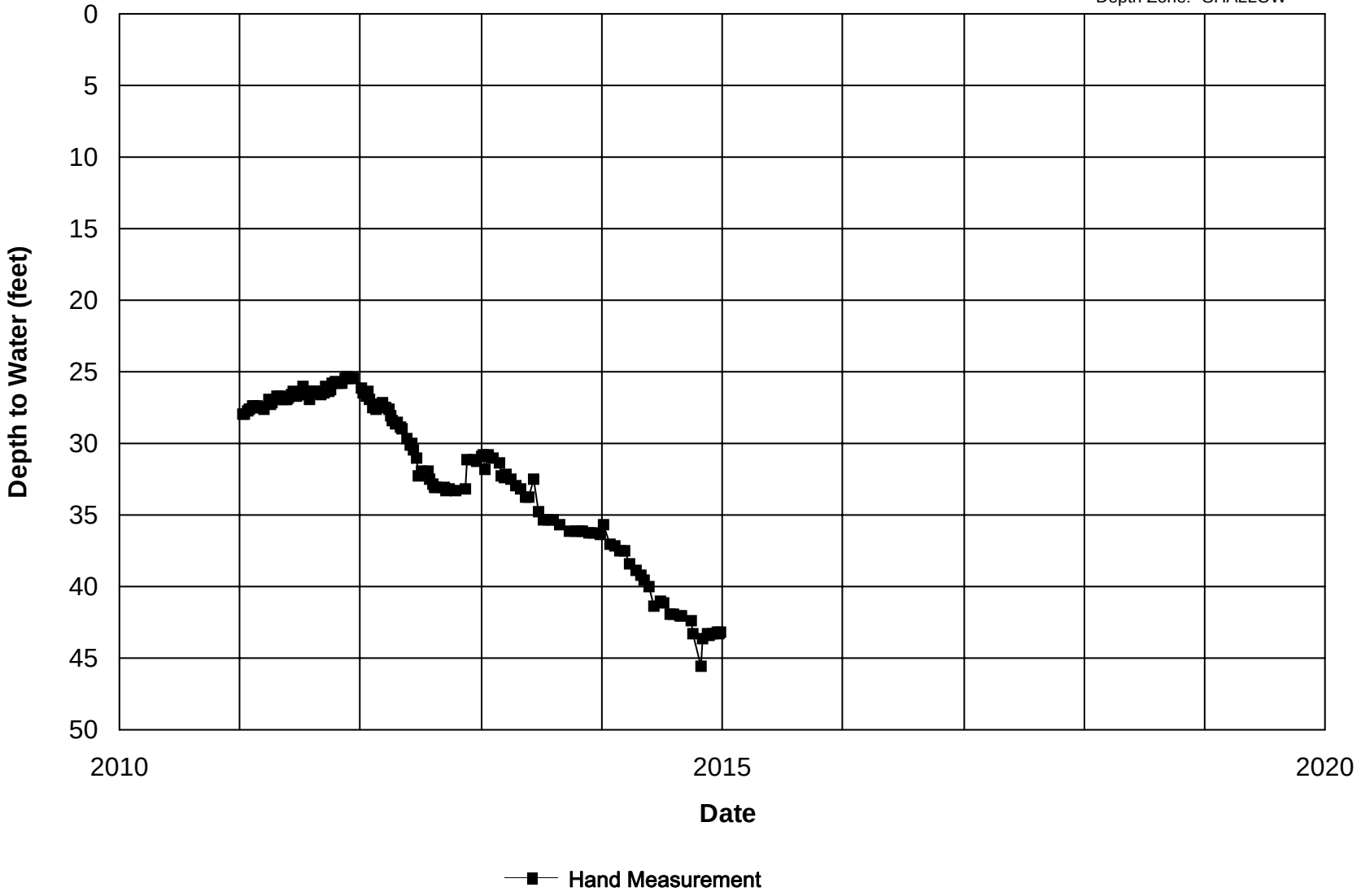
Reference Elevation: 152.24 feet NAVD88
Perforated Interval: 14.4 - 29.07 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3561-92 (MW-13)

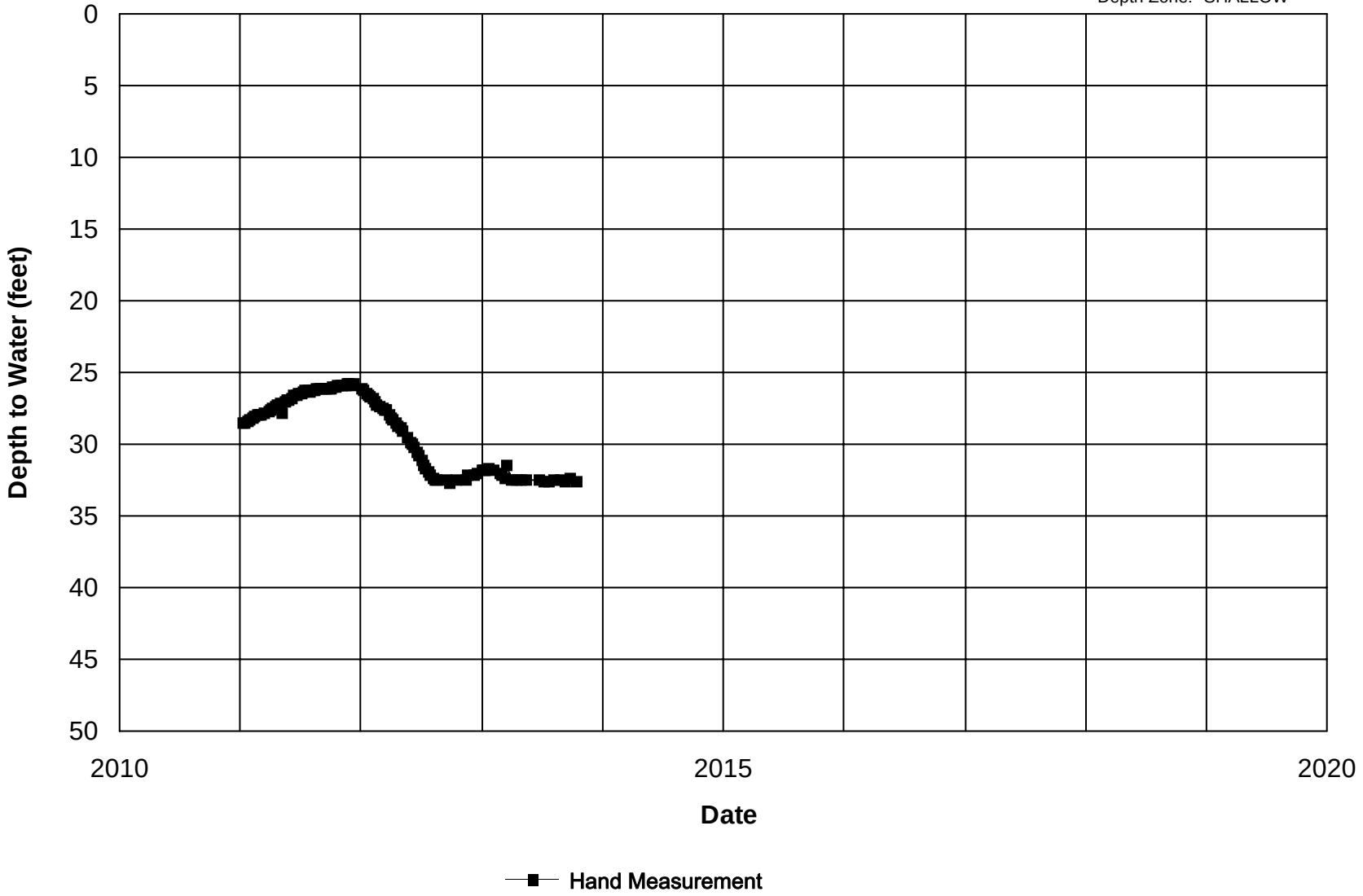
Reference Elevation: 150.2 feet NAVD88
Perforated Interval: 60 - 89.71 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3561-91 (MW-14)

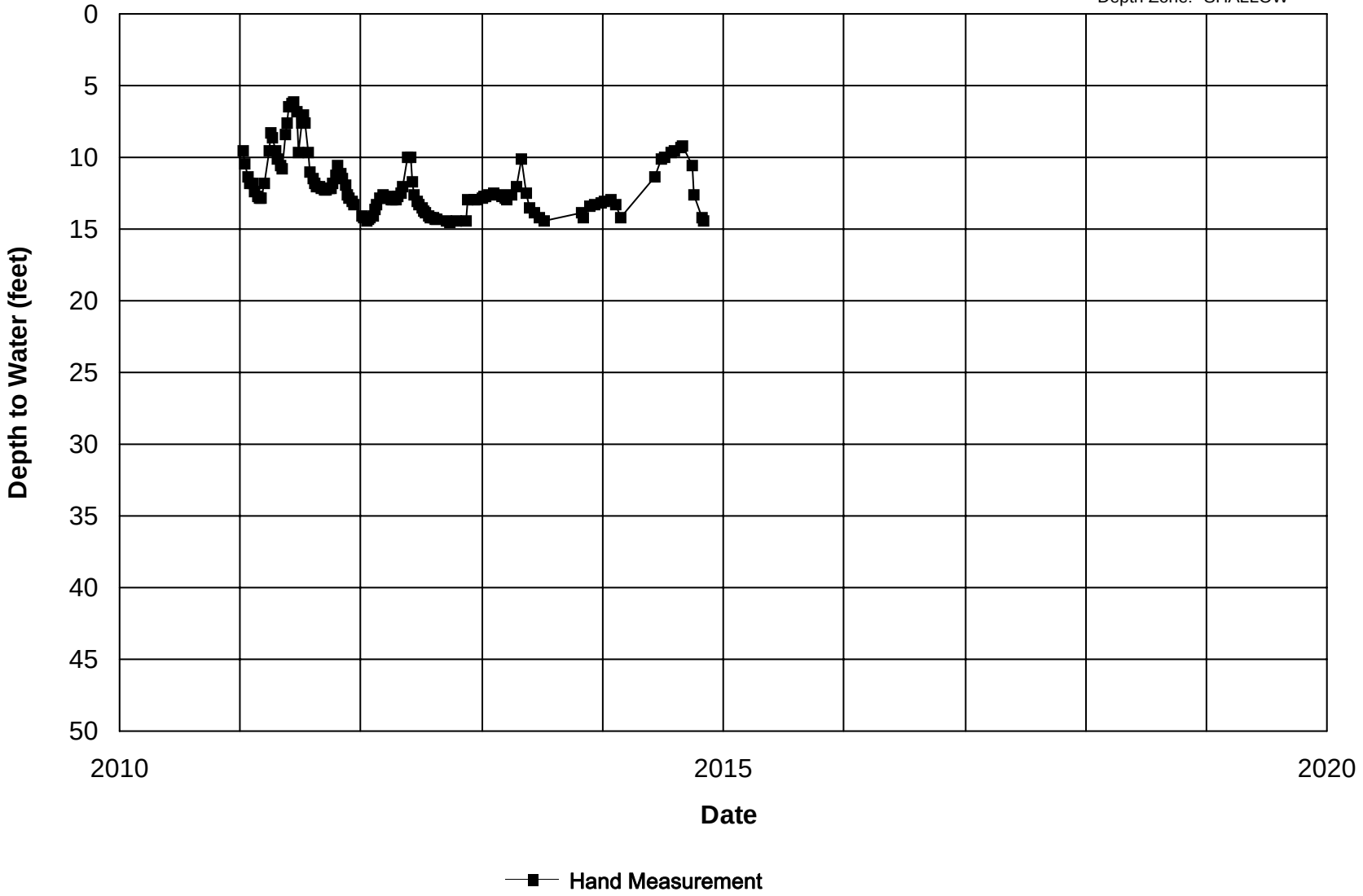
Reference Elevation: 151.8 feet NAVD88
Perforated Interval: 14.95 - 29.48 feet
Depth Zone: SHALLOW



Thursday, July 16, 2015

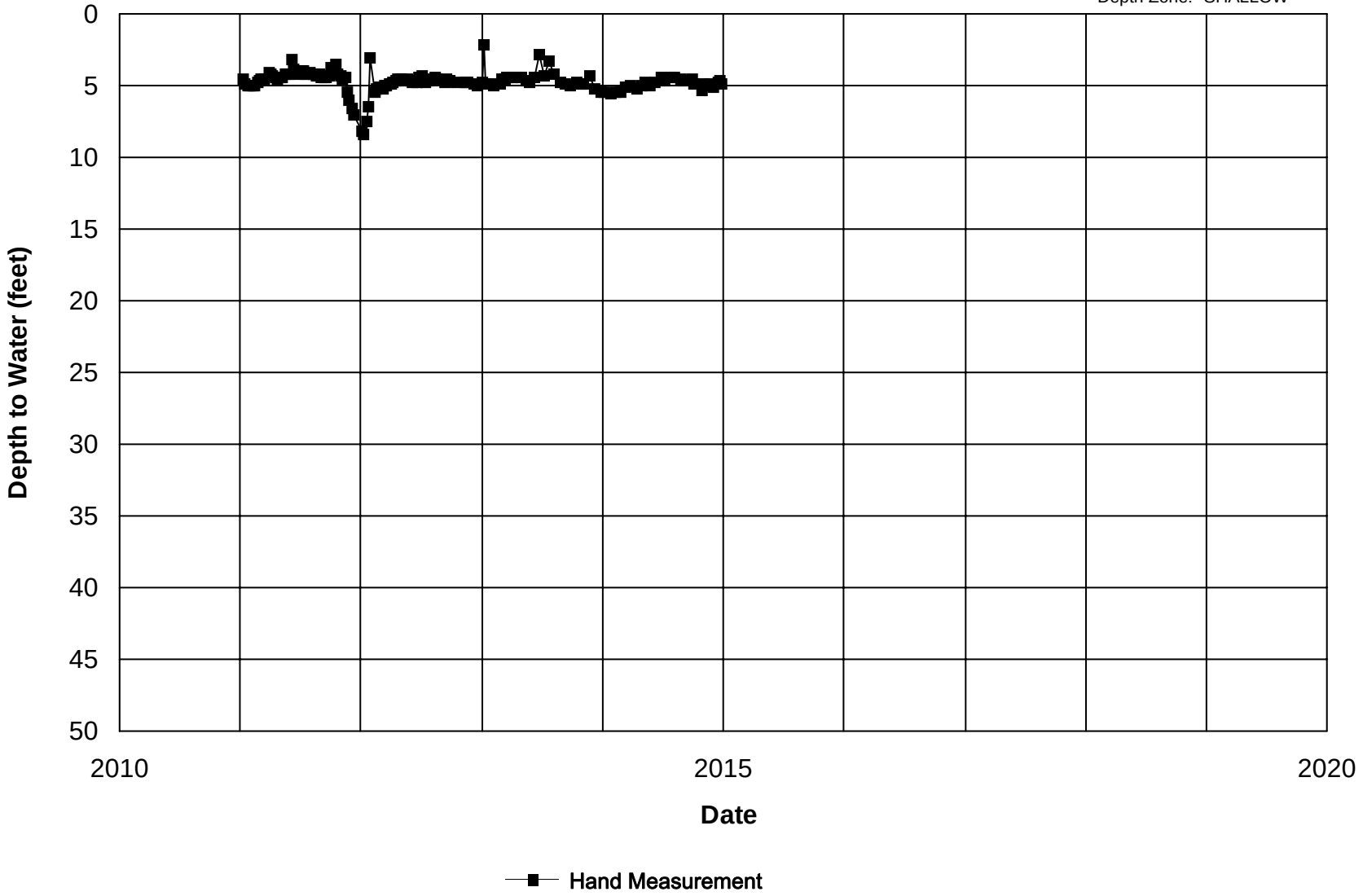
Wonderful Orchards 3730-94

Reference Elevation: 162.79 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW



Wonderful Orchards 3921-91

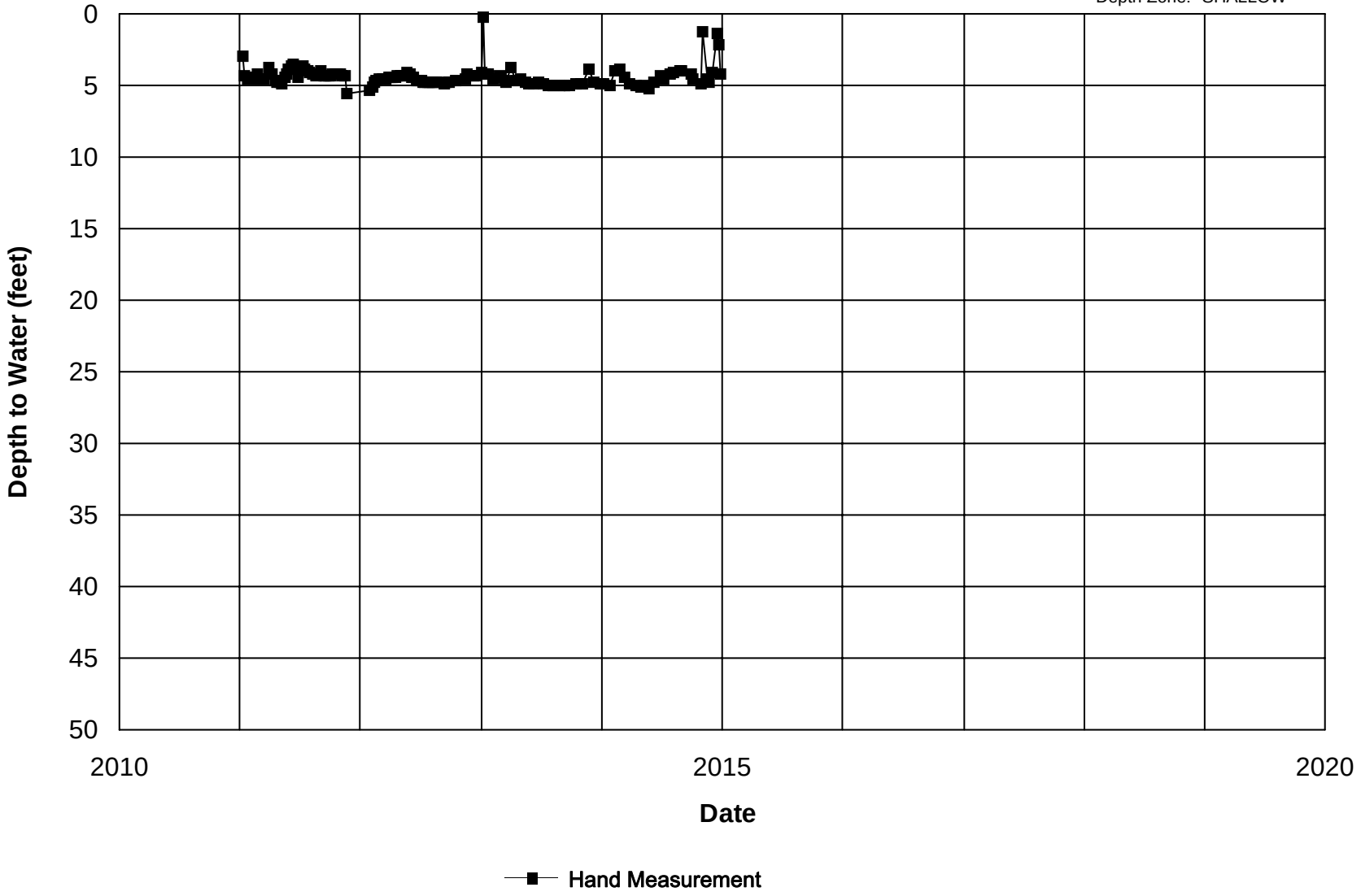
Reference Elevation: 157.14 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3921-92

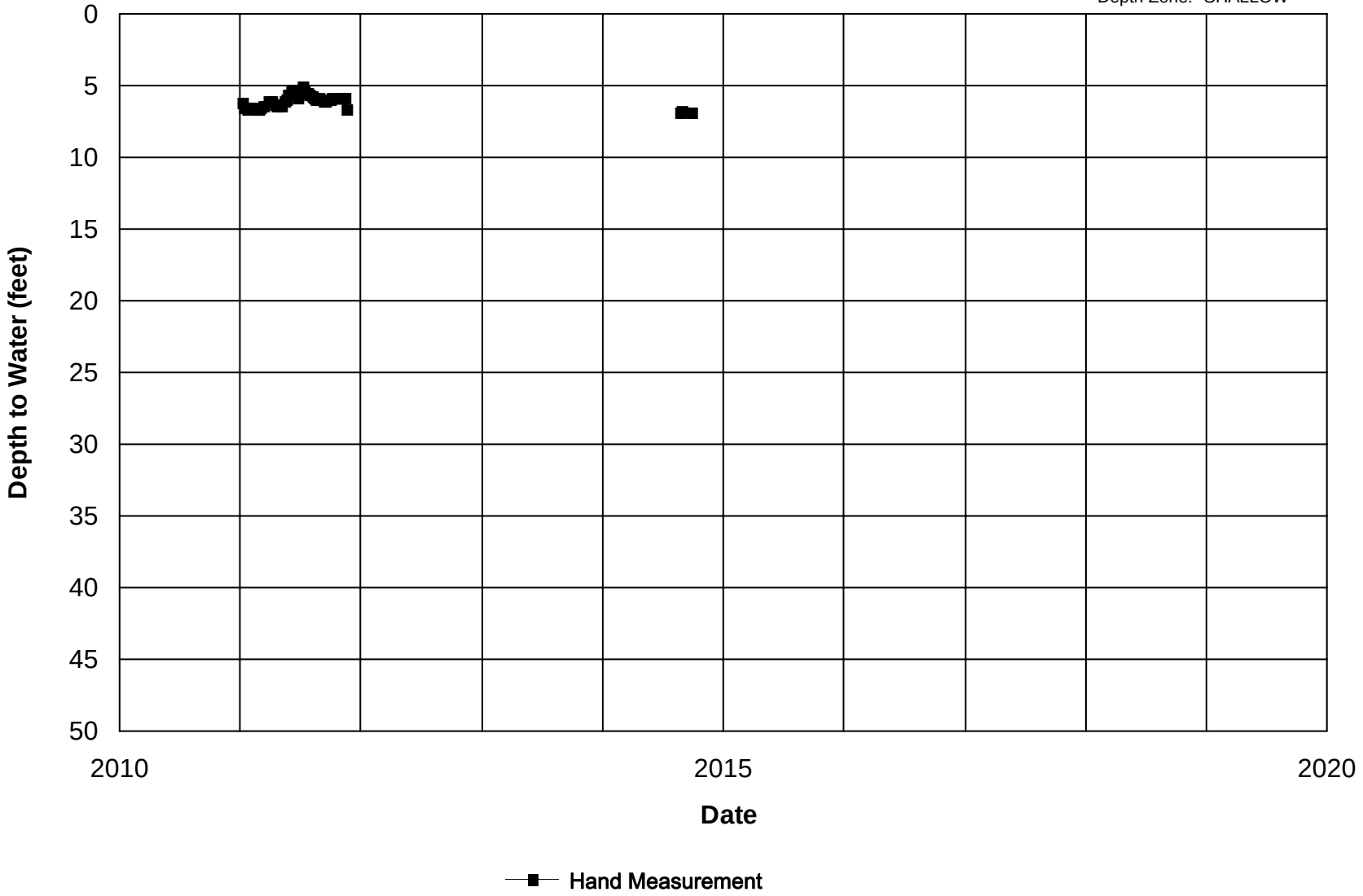
Reference Elevation: 157.41 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW



Thursday, July 16, 2015

Wonderful Orchards 3921-93

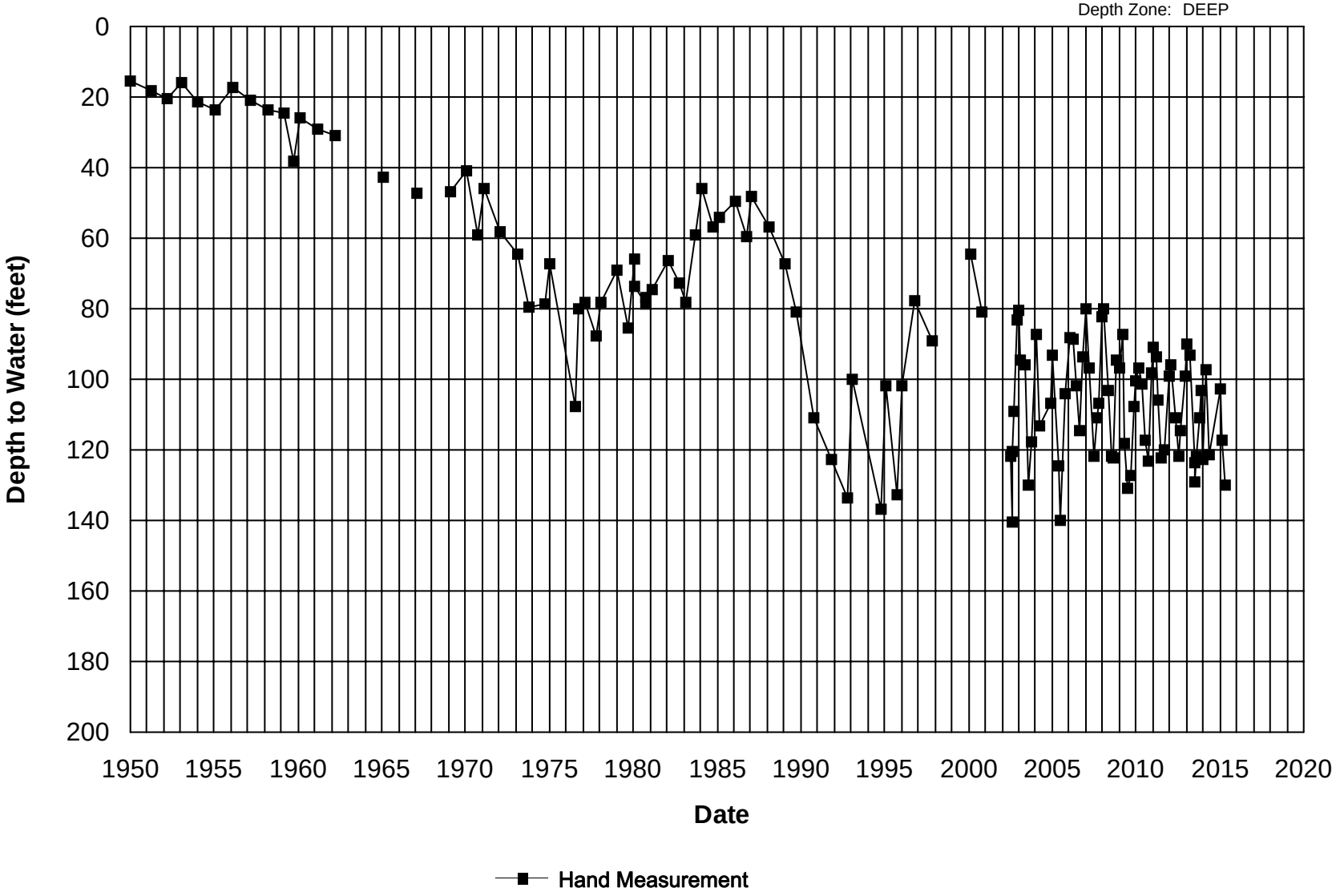
Reference Elevation: 157.61 feet NAVD88
Perforated Interval: NA
Depth Zone: SHALLOW



Thursday, July 16, 2015

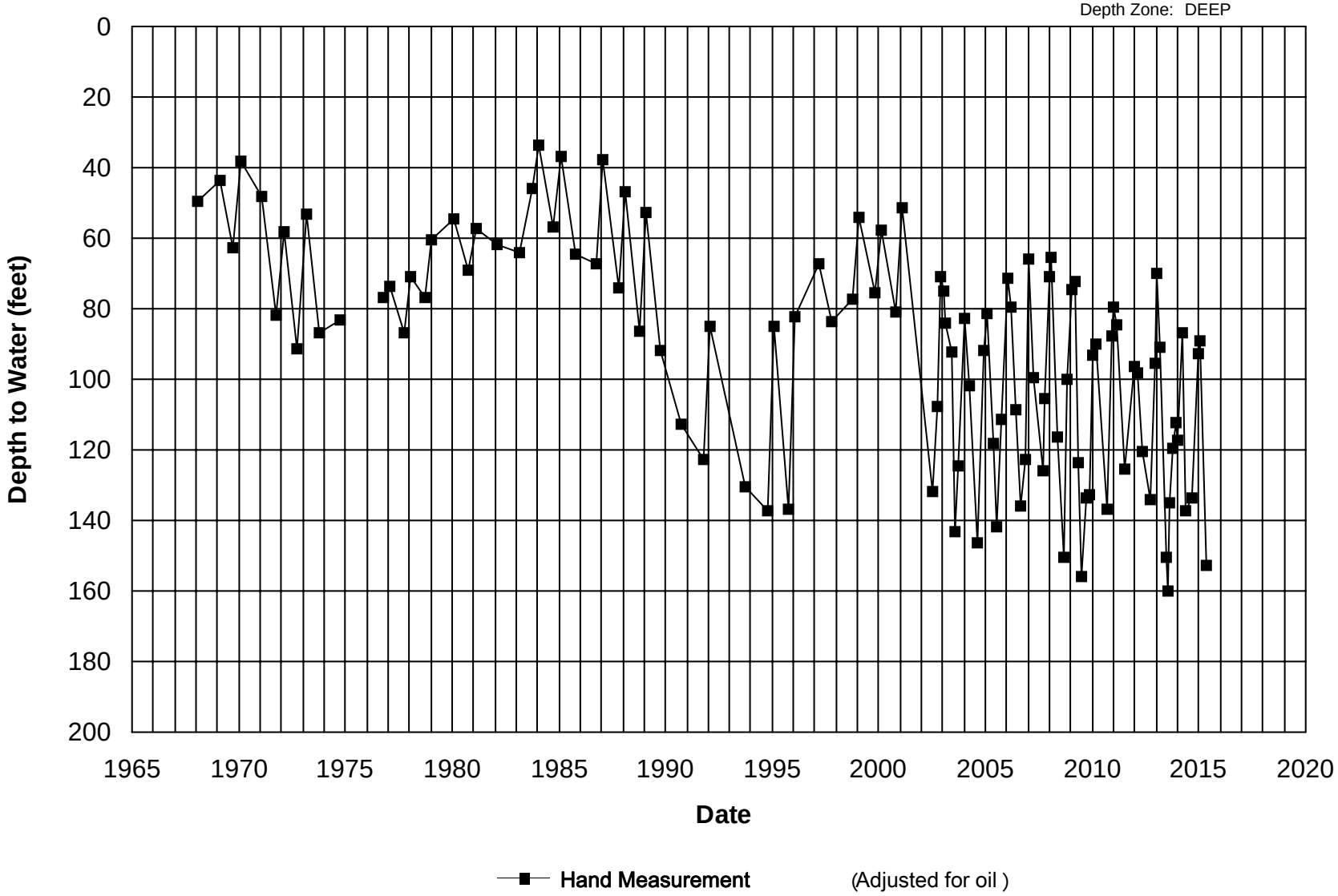
Aliso Water District - Woolf Enterprises T13S/R16E-18H1

Reference Elevation: 177 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Aliso Water District - Woolf Enterprises T13S/R16E-19K1

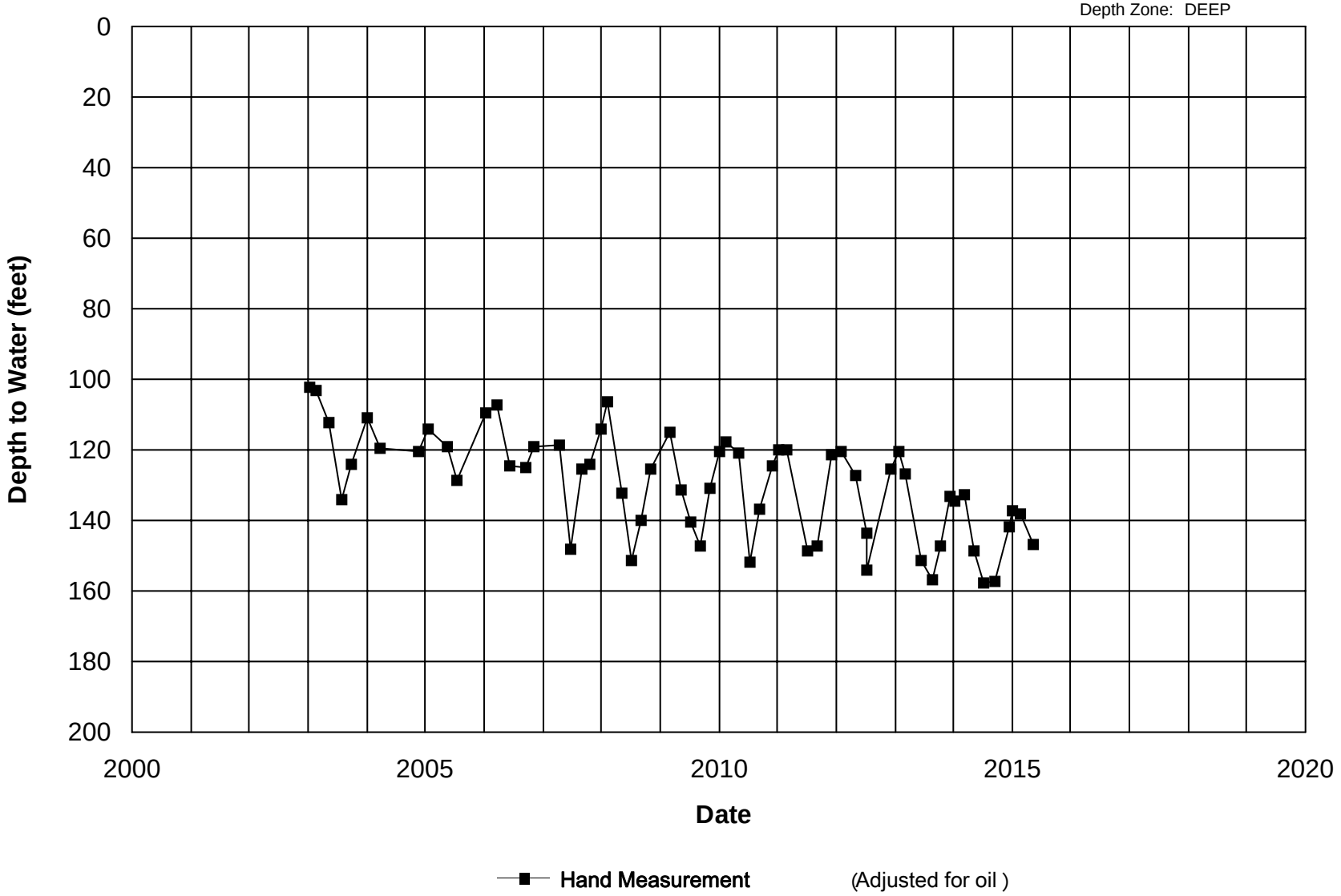
Reference Elevation: 177 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

Aliso Water District - Prosperi T12S/R16E-31G1 (DP-2)

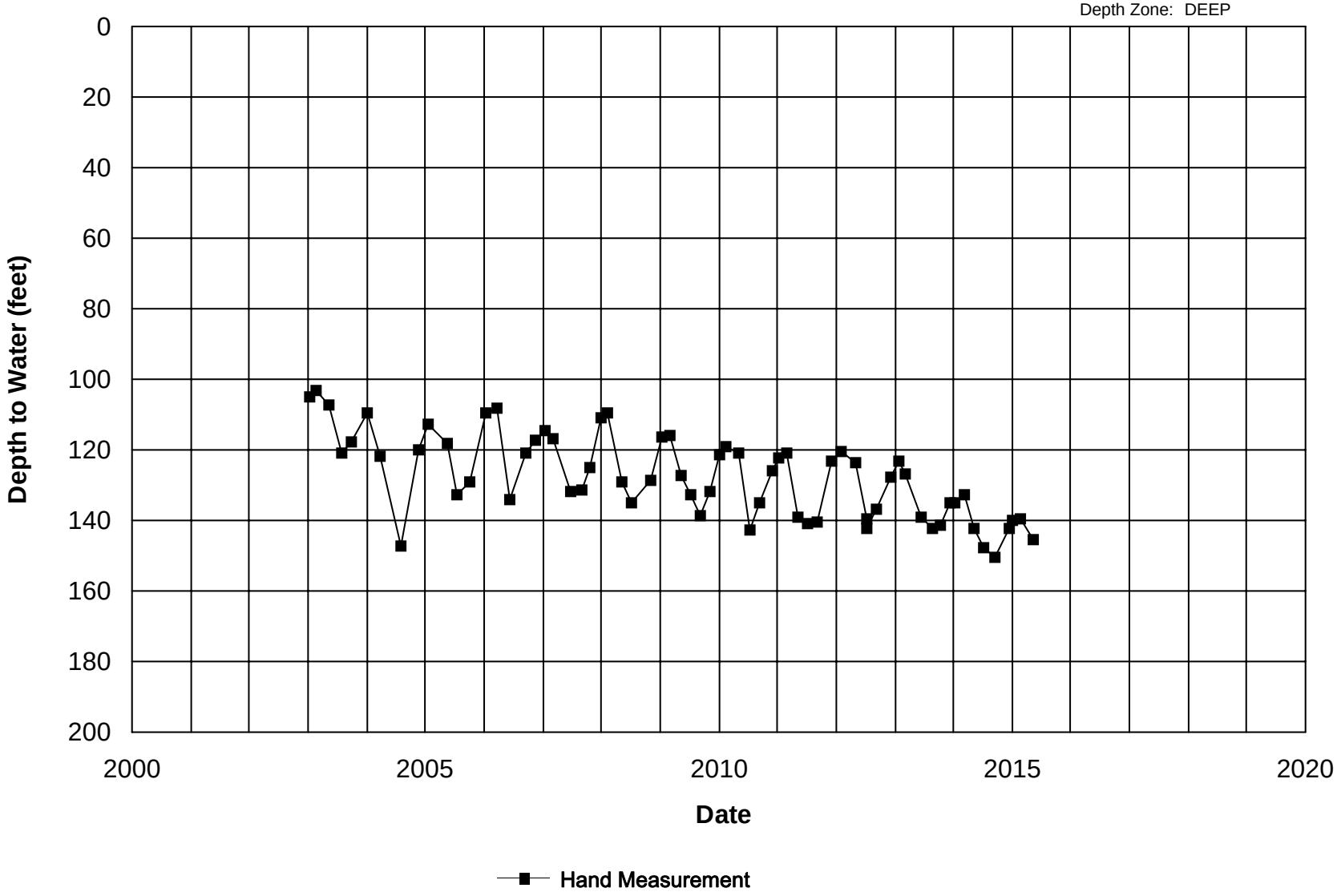
Reference Elevation: 182 feet NAVD88
Perforated Interval: NA
Depth Zone: DEEP



Thursday, July 16, 2015

Aliso Water District - Prosperi T12S/R16E-31A (DP-4)

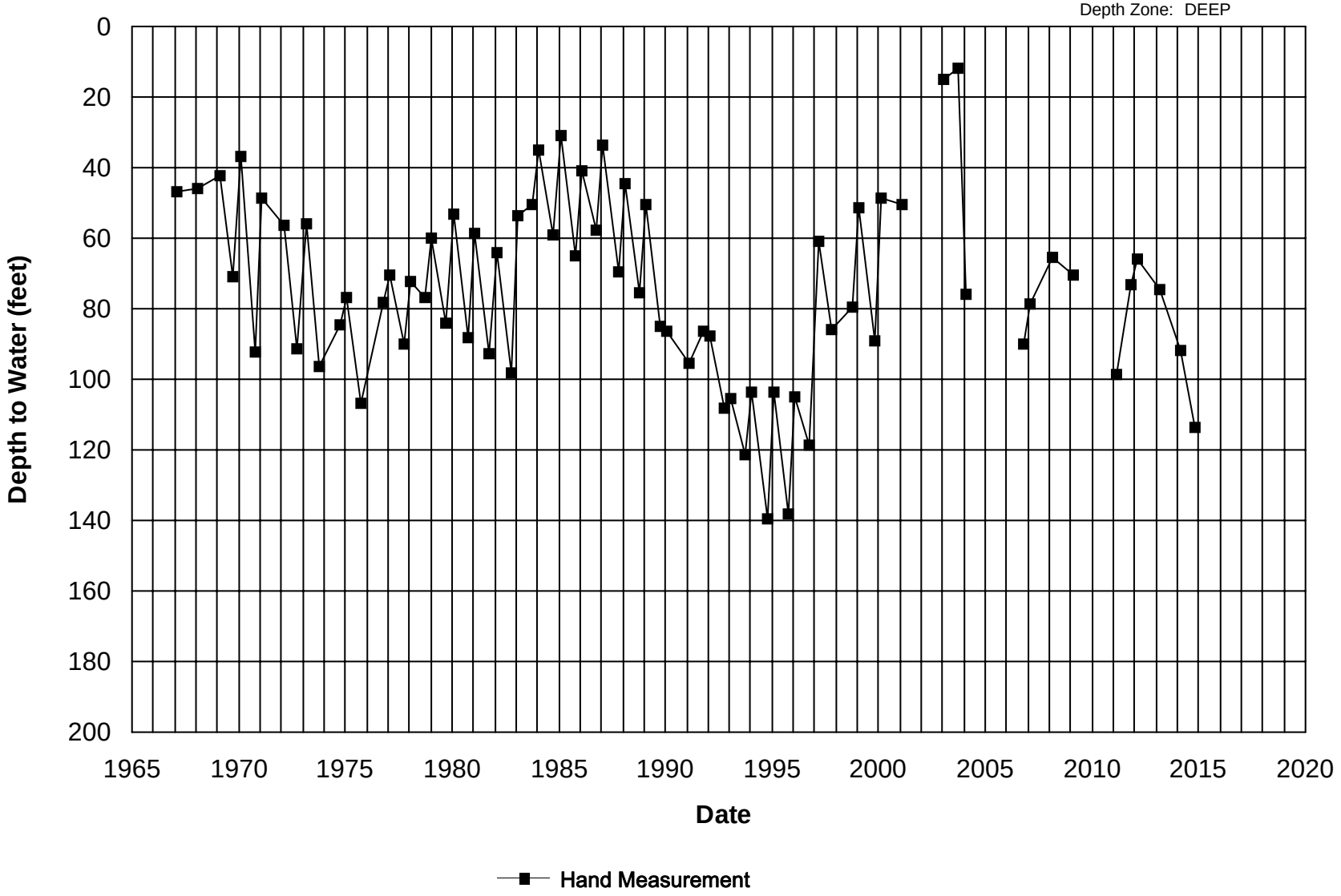
Reference Elevation: 182 feet NAVD88
Perforated Interval: 160 - 324 feet
Depth Zone: DEEP



Thursday, July 16, 2015

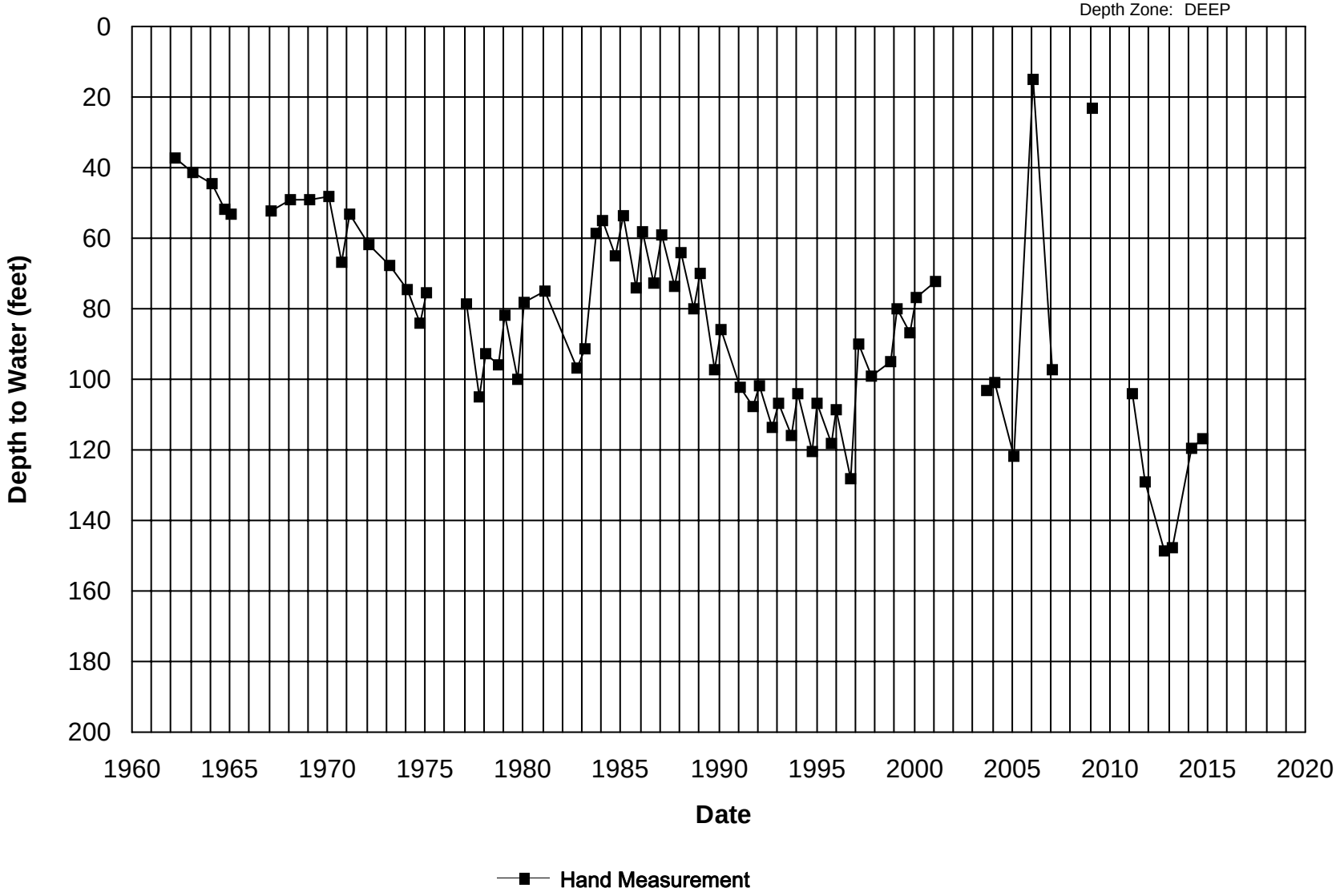
Aliso Water District - Woolf Enterprises T13S/R16E-30A1

Reference Elevation: NA
Perforated Interval: 190 - 390 feet
Depth Zone: DEEP



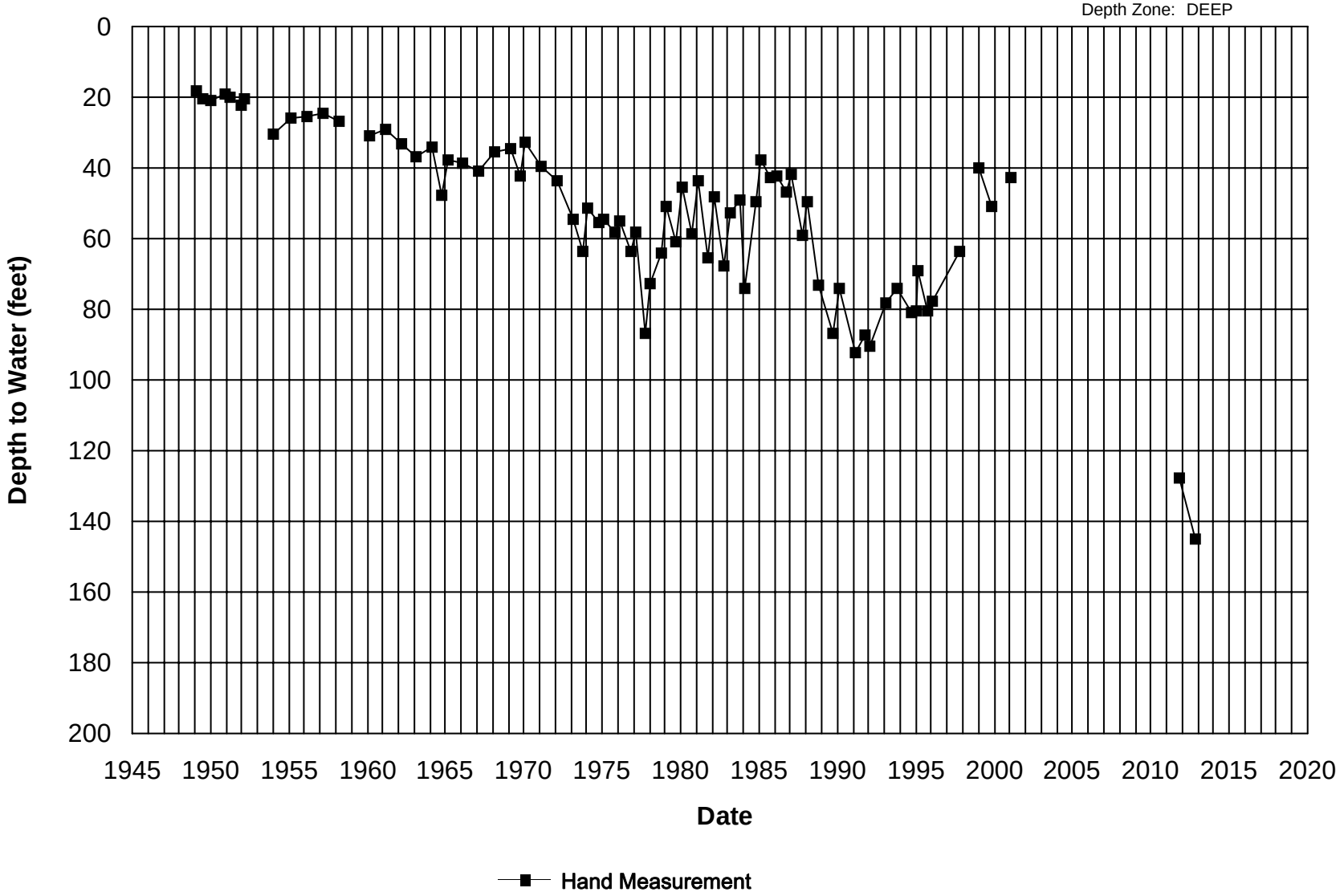
Aliso Water District - Golden State Vinters T13S/R16E-16D2

Reference Elevation: 179 feet msl
Perforated Interval: NA
Depth Zone: DEEP



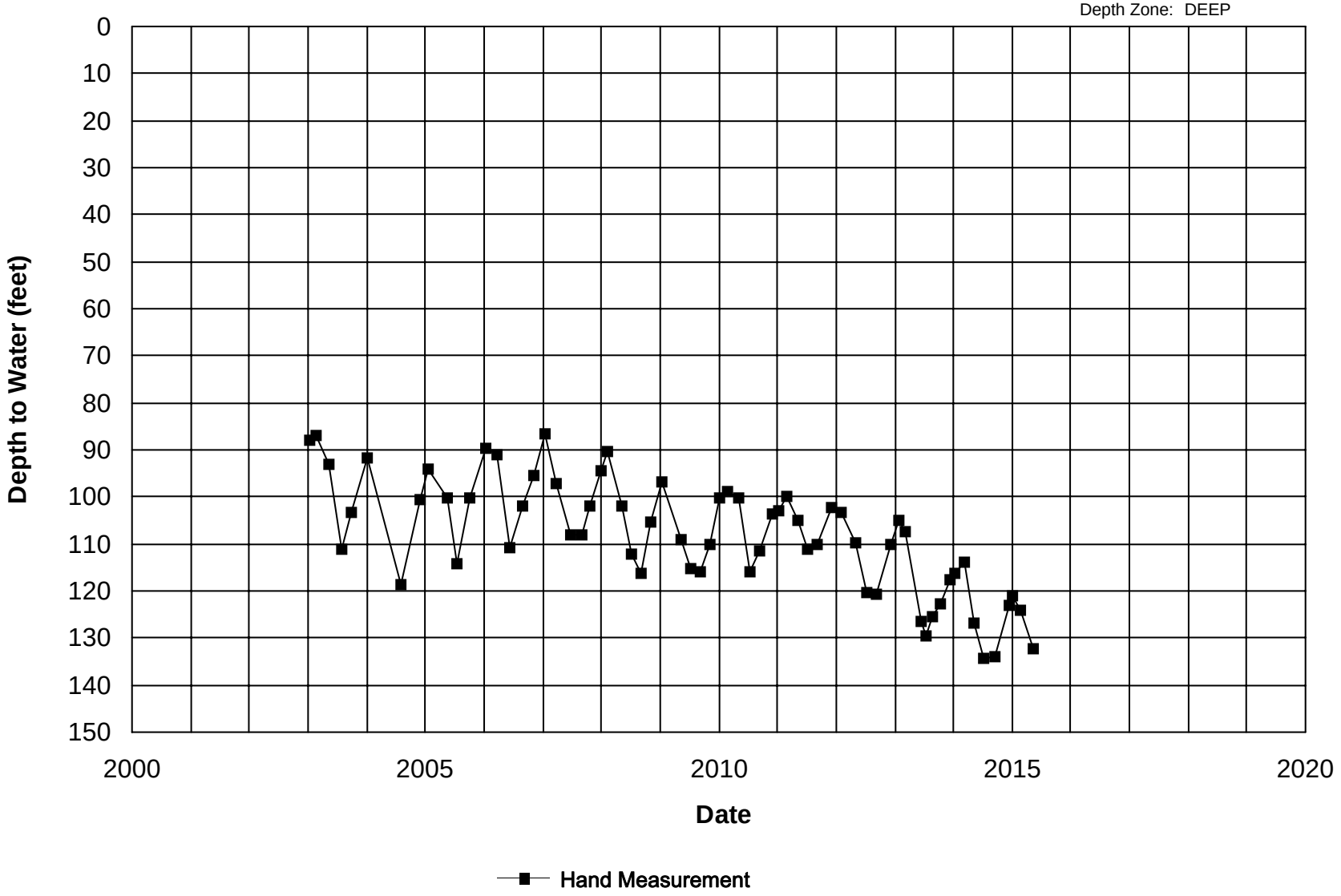
Aliso Water District - Groefsema Ranches T13S/R16E-14H2

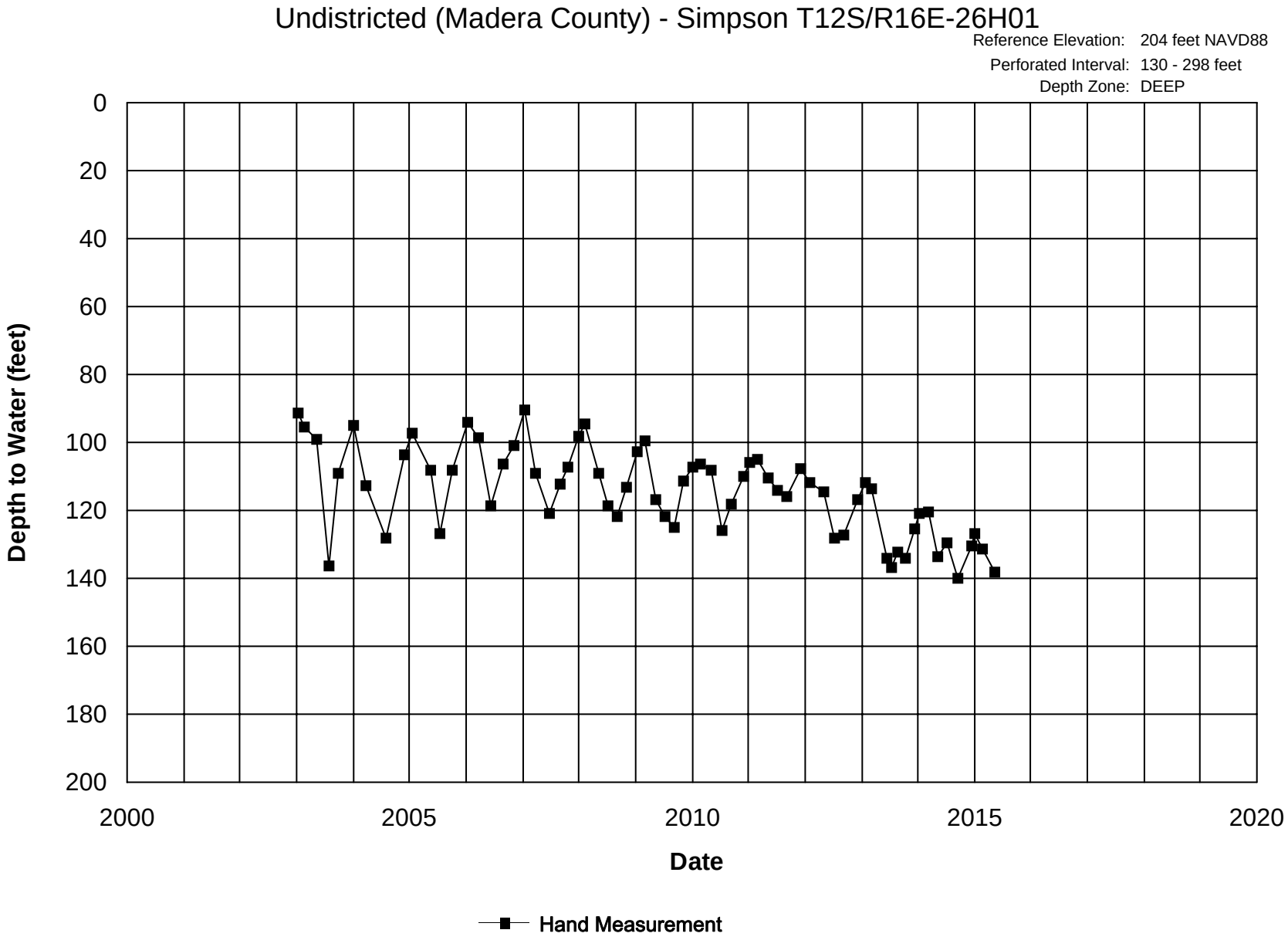
Reference Elevation: 197.8 feet msl
Perforated Interval: NA
Depth Zone: DEEP

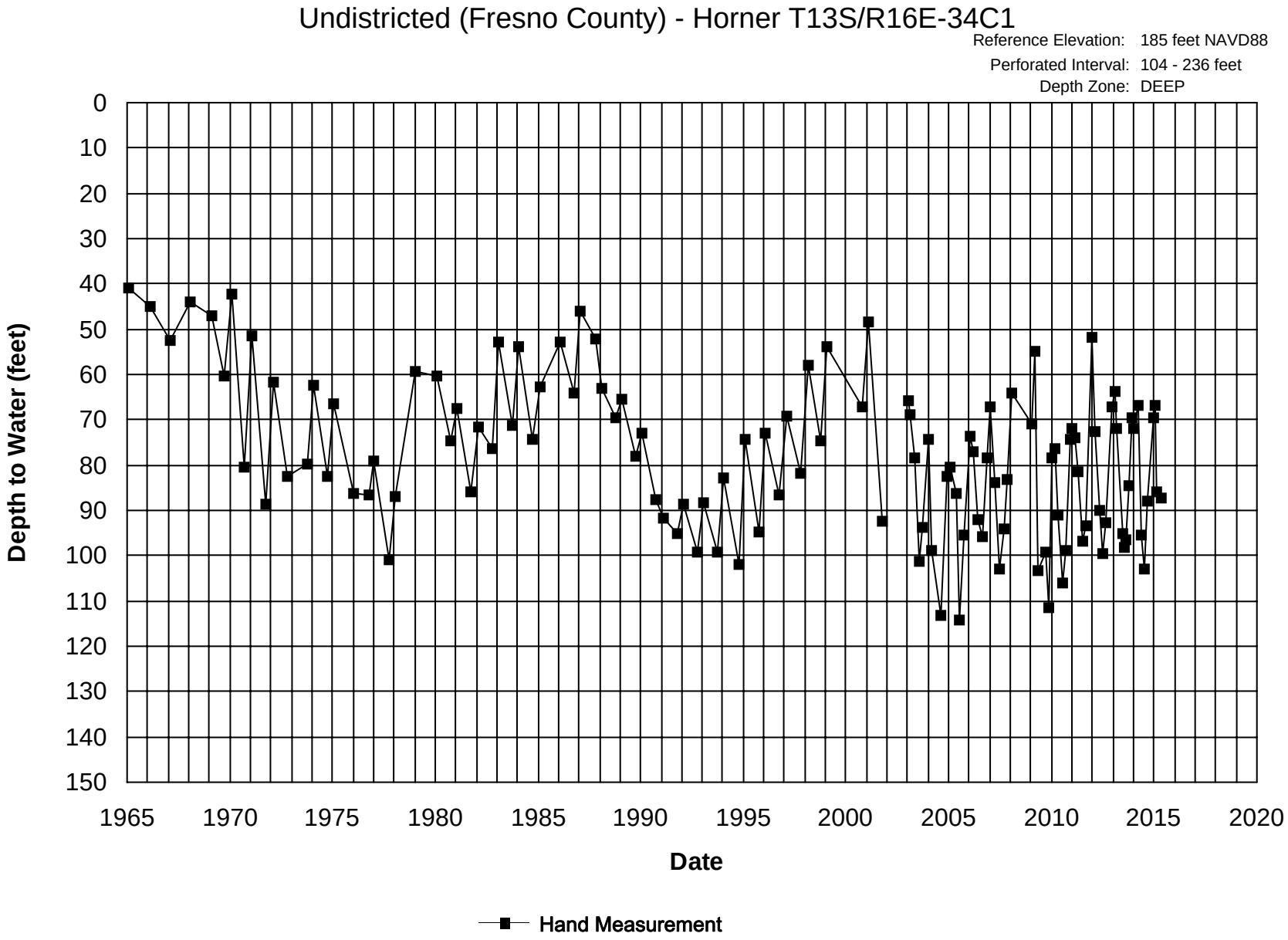


Undistricted (Madera County) - Simpson T12S/R16E-25A1

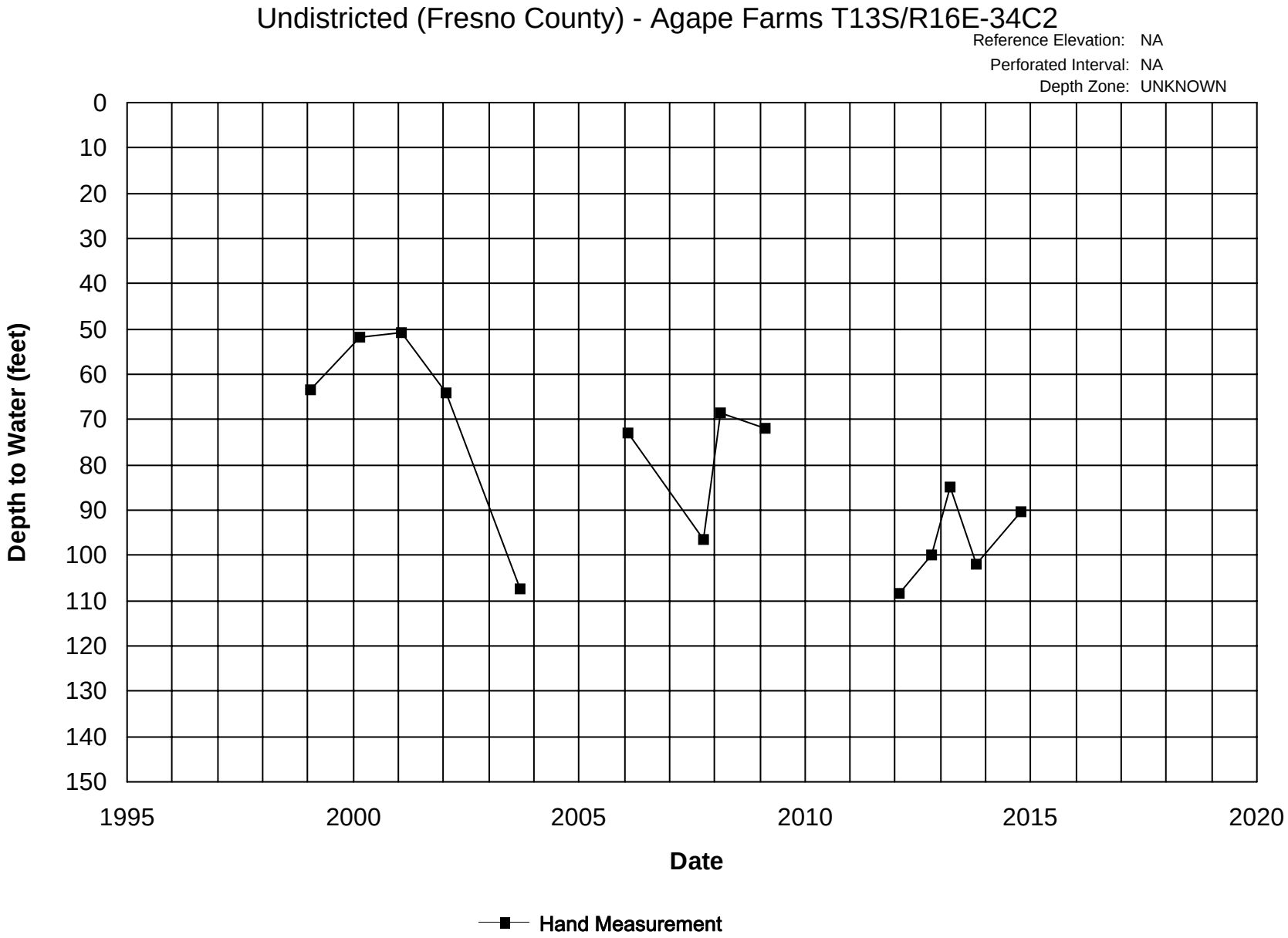
Reference Elevation: 211 feet NAVD88
Perforated Interval: 135 - 150 feet
Depth Zone: DEEP

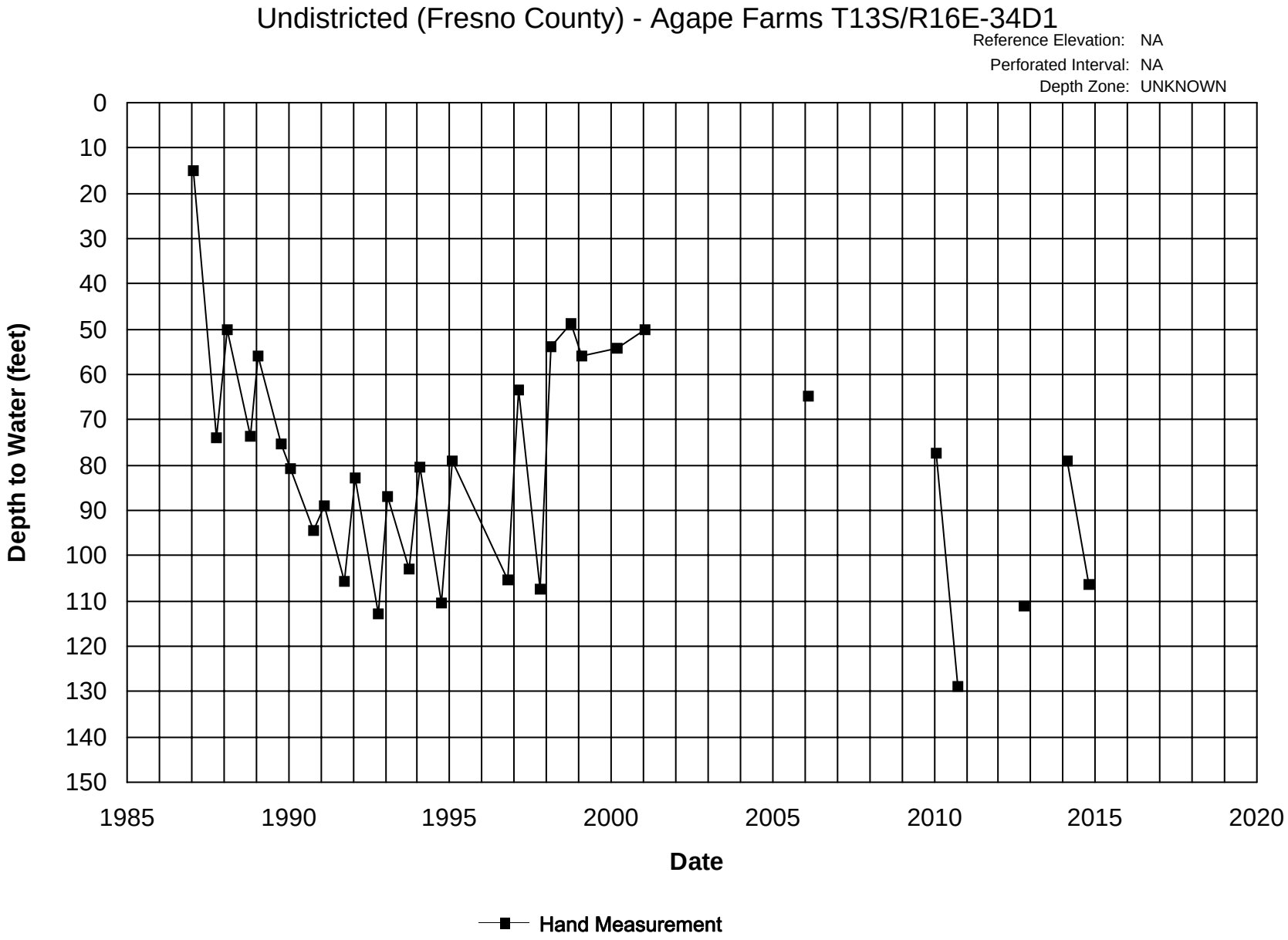



Undistricted (Madera County) - Simpson T12S/R16E-26H01
Reference Elevation: 204 feet NAVD88
Perforated Interval: 130 - 298 feet
Depth Zone: DEEP
Depth to Water (feet)
0
20
40
60
80
100
120
140
160
180
200
2000
2005
2010
2015
2020
Date
Hand Measurement



Thursday, July 16, 2015

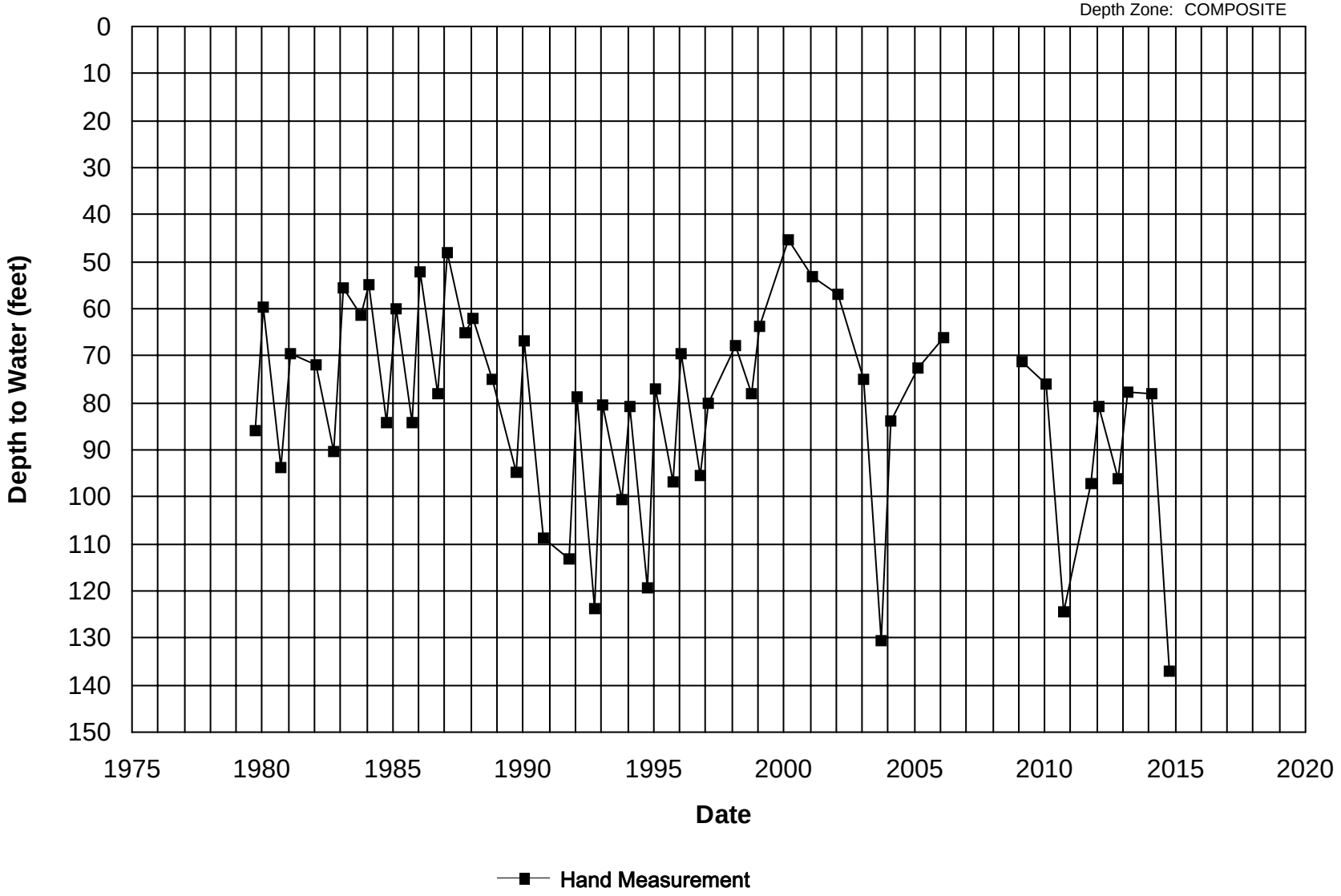

Undistricted (Fresno County) - Agape Farms T13S/R16E-34C2
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN
Depth to Water (feet)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
1995
2000
2005
2010
2015
2020
Date
Hand Measurement



Thursday, July 16, 2015

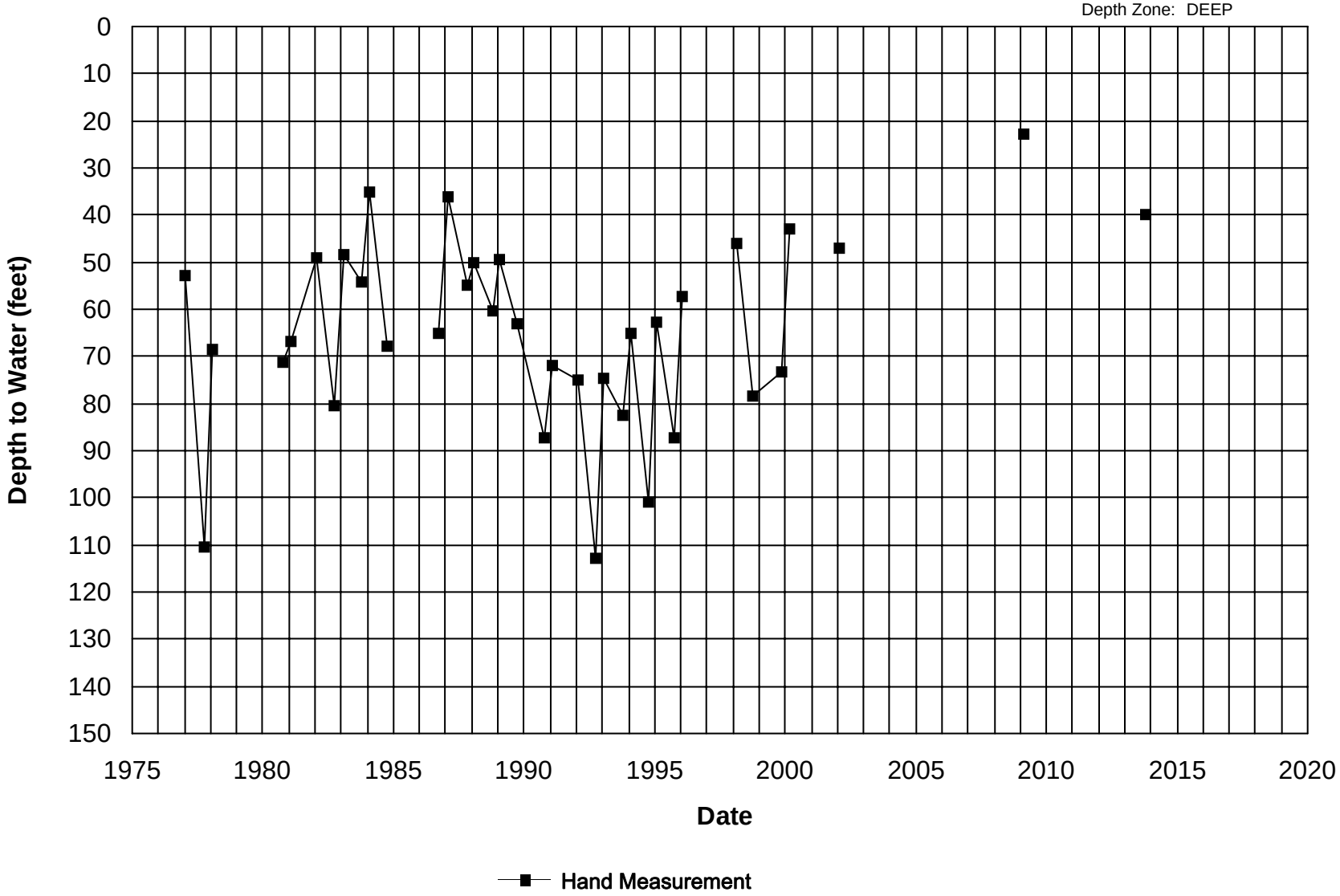
Undistricted (Fresno County) - Agape Farms T13S/R16E-34P2

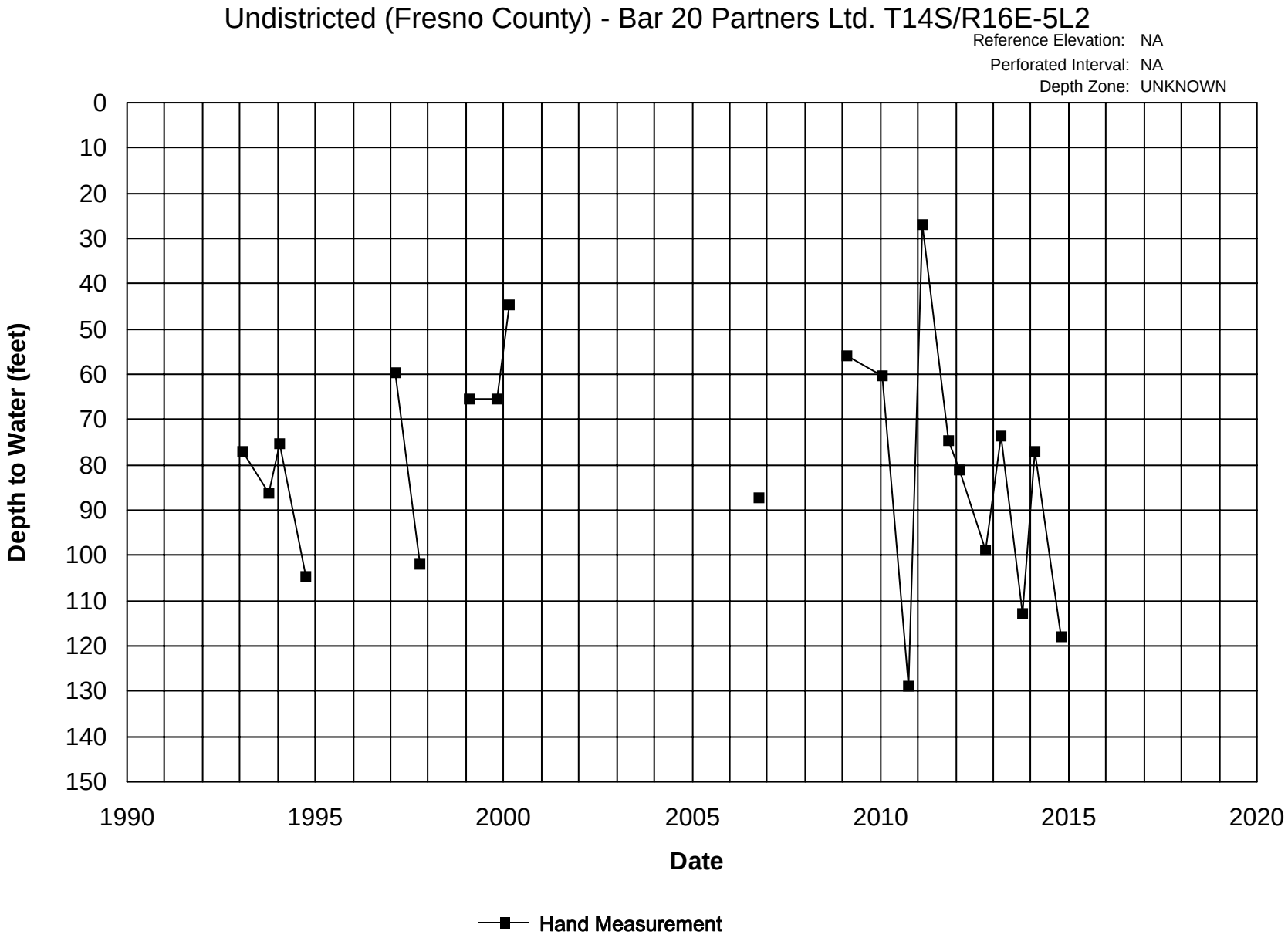
Reference Elevation: 181 feet msl
Perforated Interval: 220 - 418 feet
Depth Zone: COMPOSITE



Undistricted (Fresno County) - Bar 20 Partners Ltd. T13S/R15E-21

Reference Elevation: NA
Perforated Interval: 175 - 320 feet
Depth Zone: DEEP

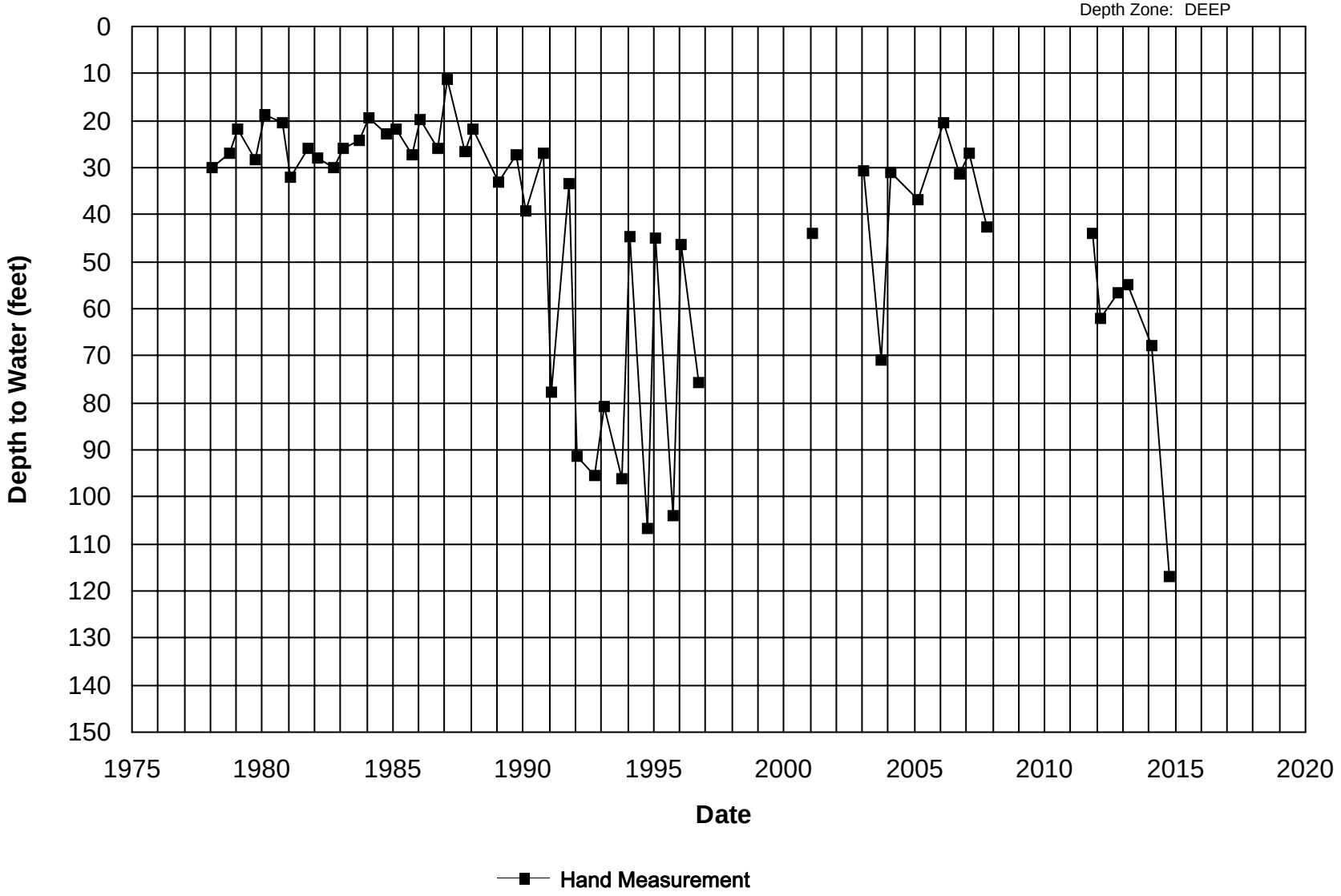


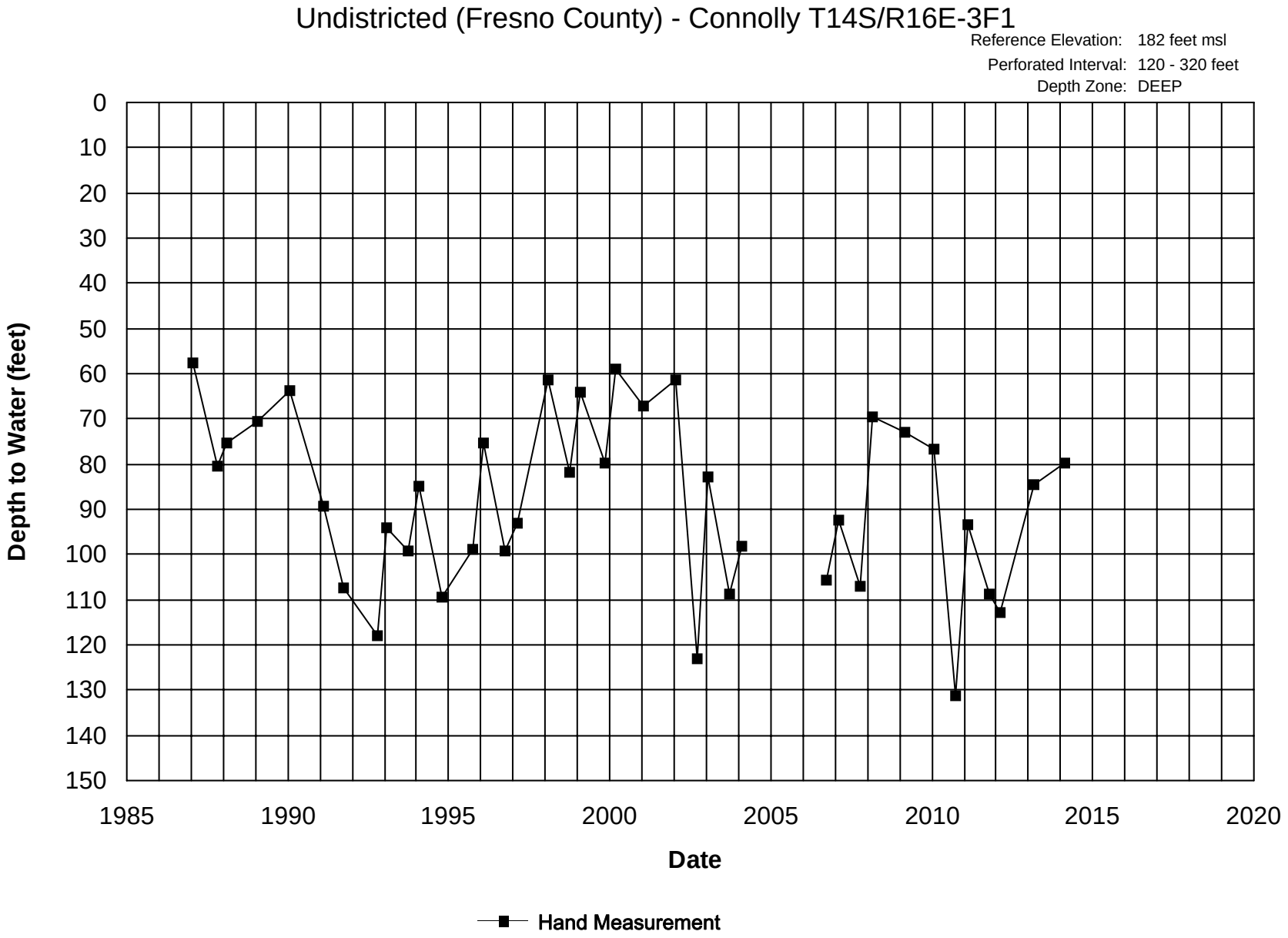


Thursday, July 16, 2015

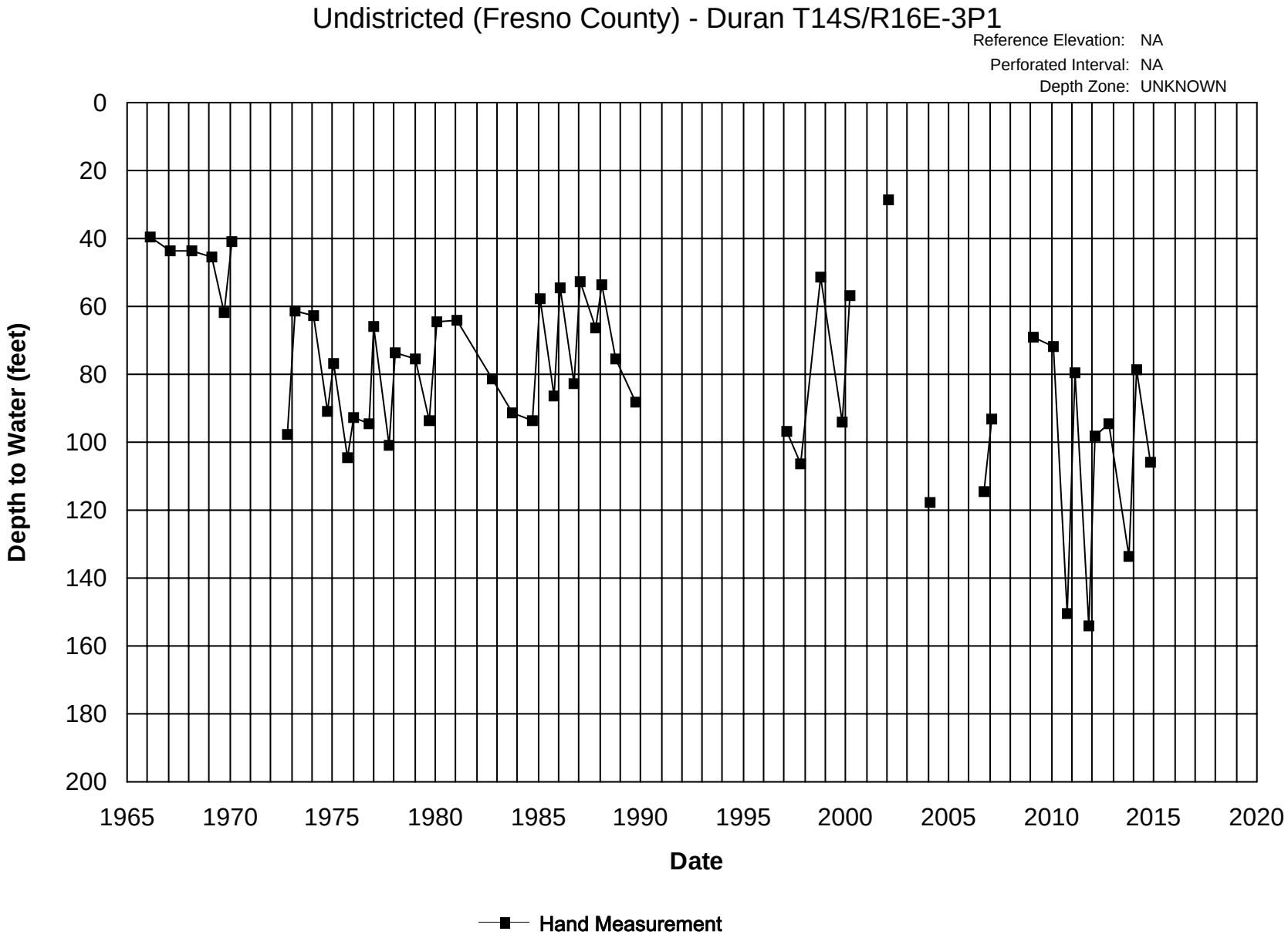
Undistricted (Fresno County) - Bar 20 Partners Ltd. T13S/R15E-20G2

Reference Elevation: NA
Perforated Interval: 180 - 420 feet
Depth Zone: DEEP

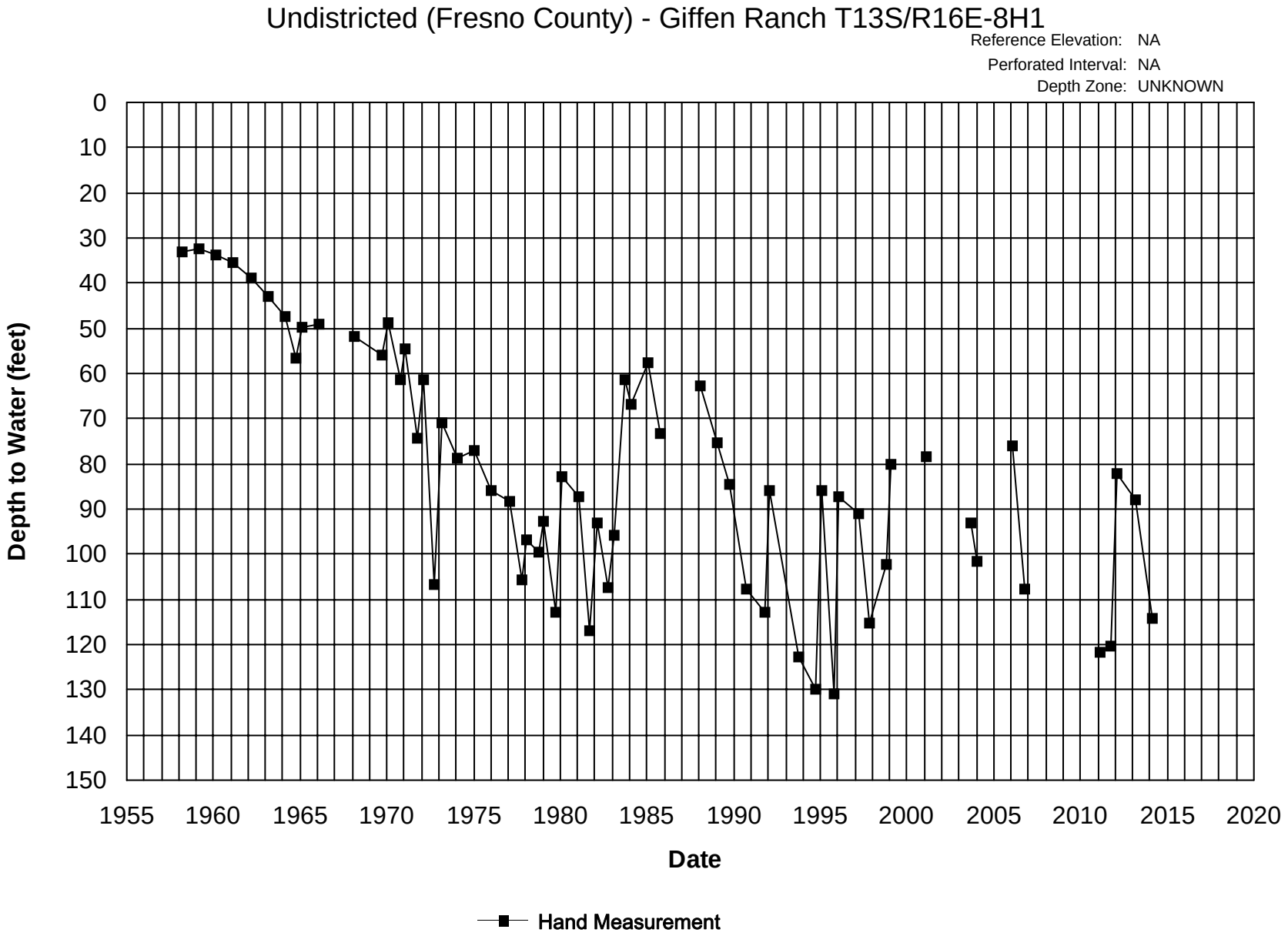




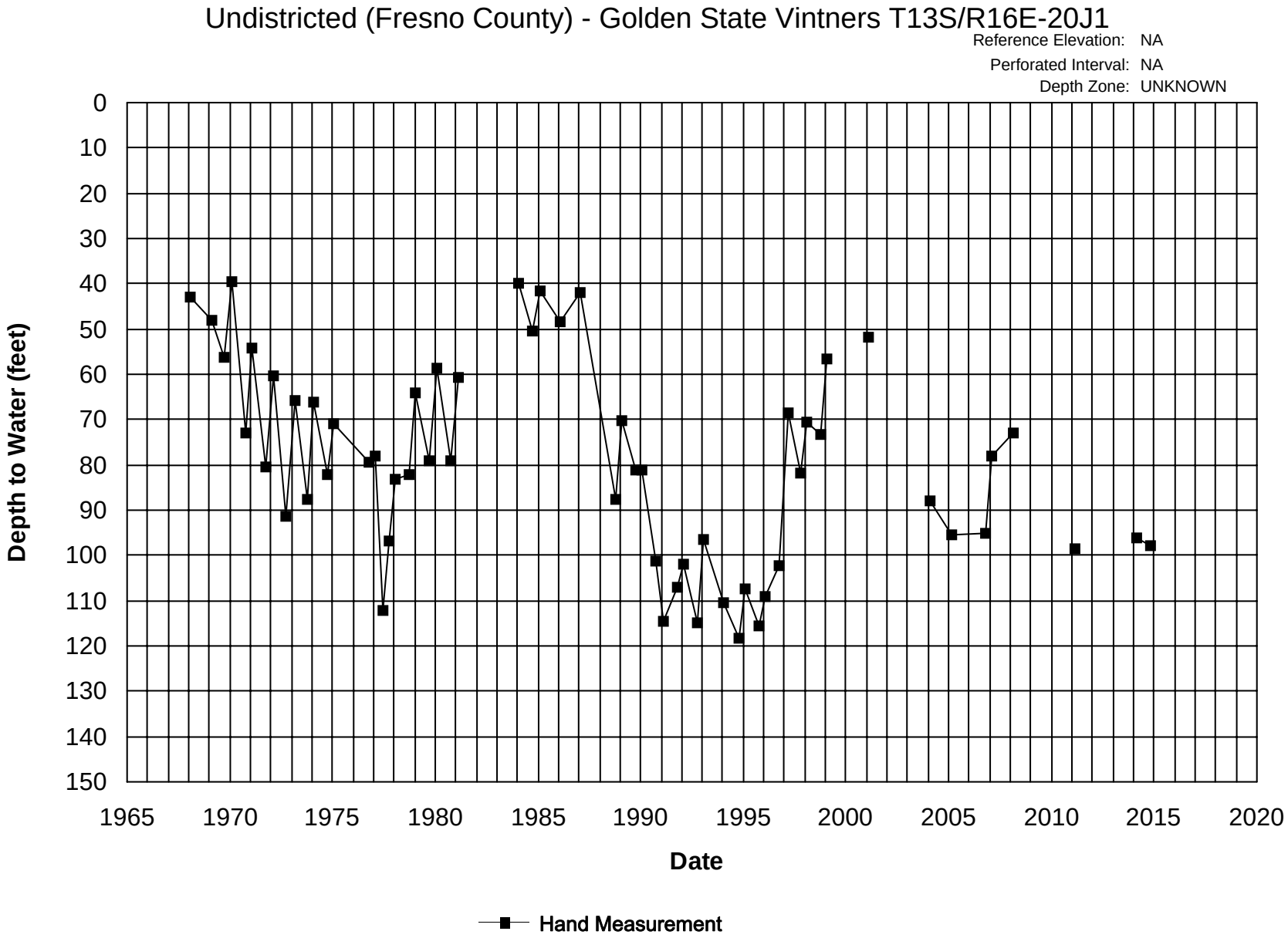
Thursday, July 16, 2015



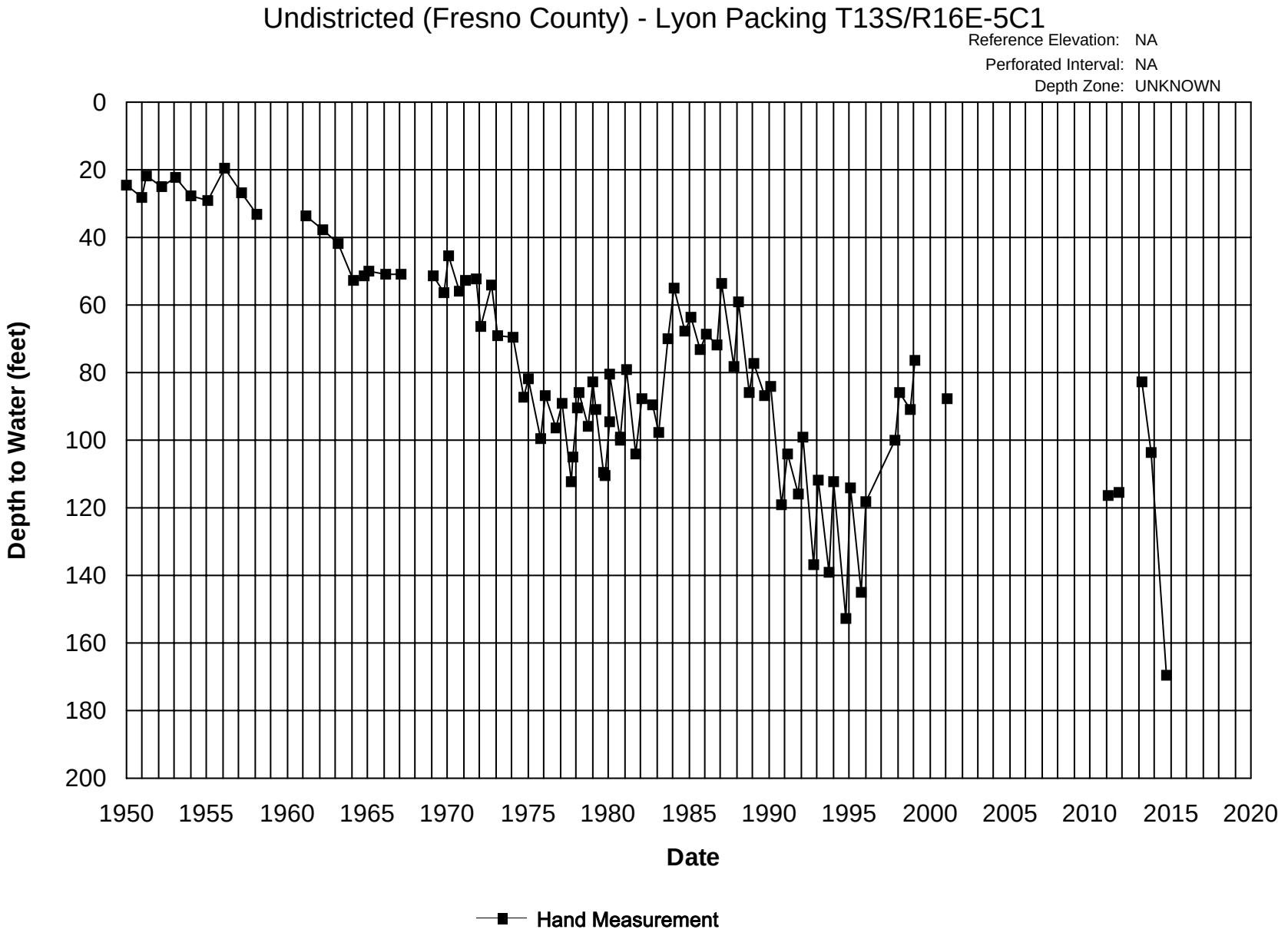
Thursday, July 16, 2015



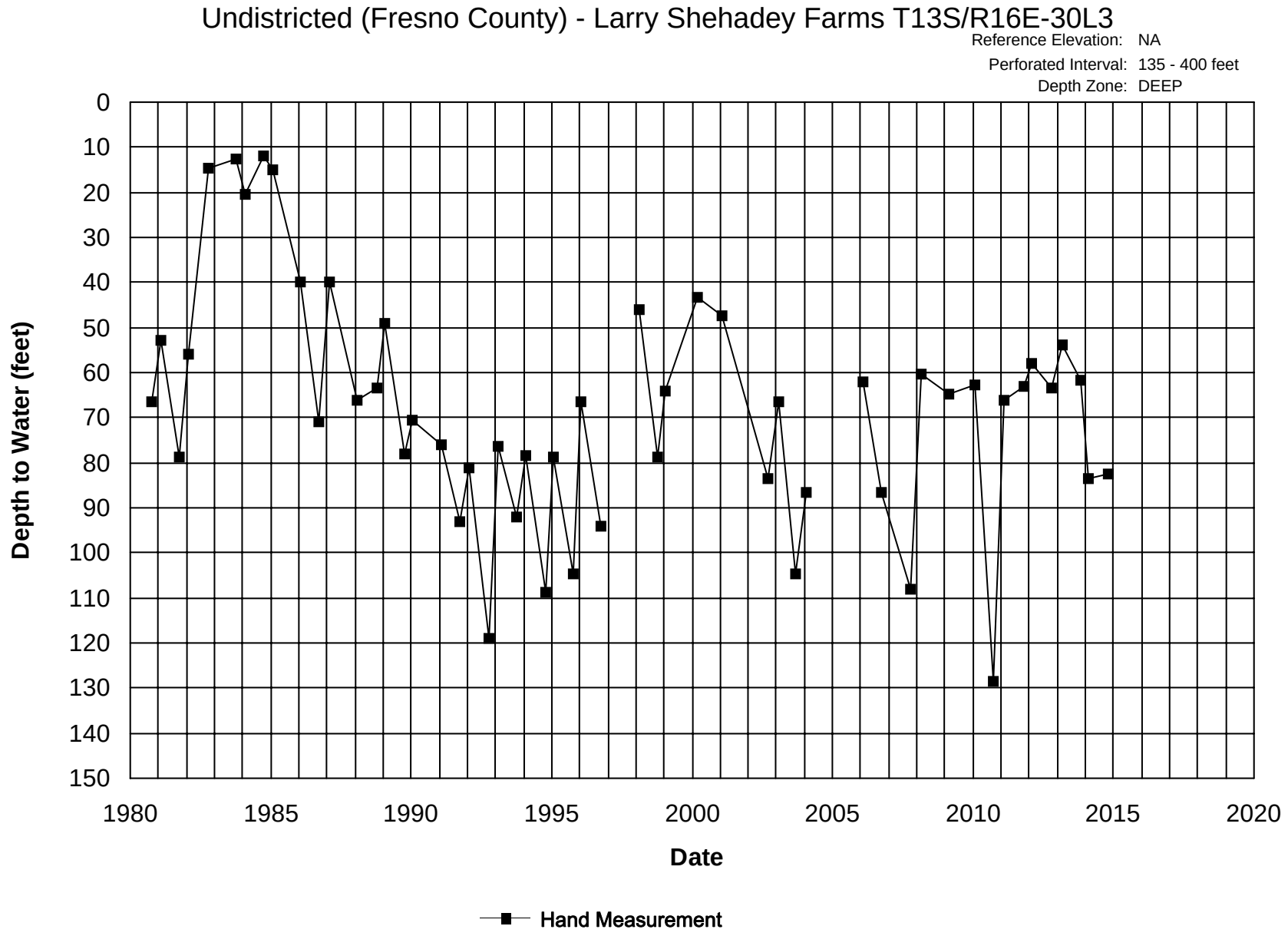
Thursday, July 16, 2015



Thursday, July 16, 2015

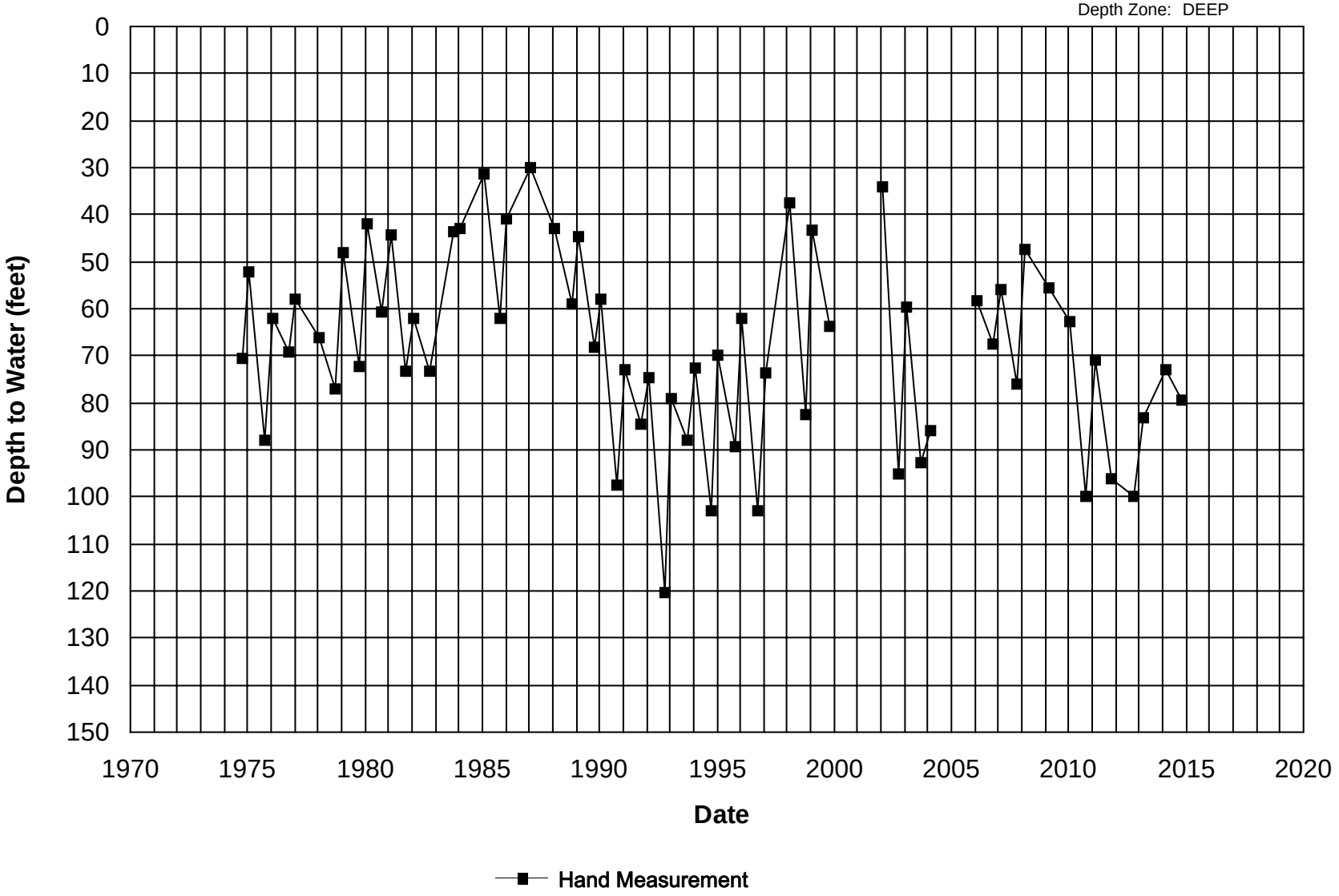


Thursday, July 16, 2015


Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-30L3
Reference Elevation: NA
Perforated Interval: 135 - 400 feet
Depth Zone: DEEP
Depth to Water (feet)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
1980
1985
1990
1995
2000
2005
2010
2015
2020
Date
Hand Measurement

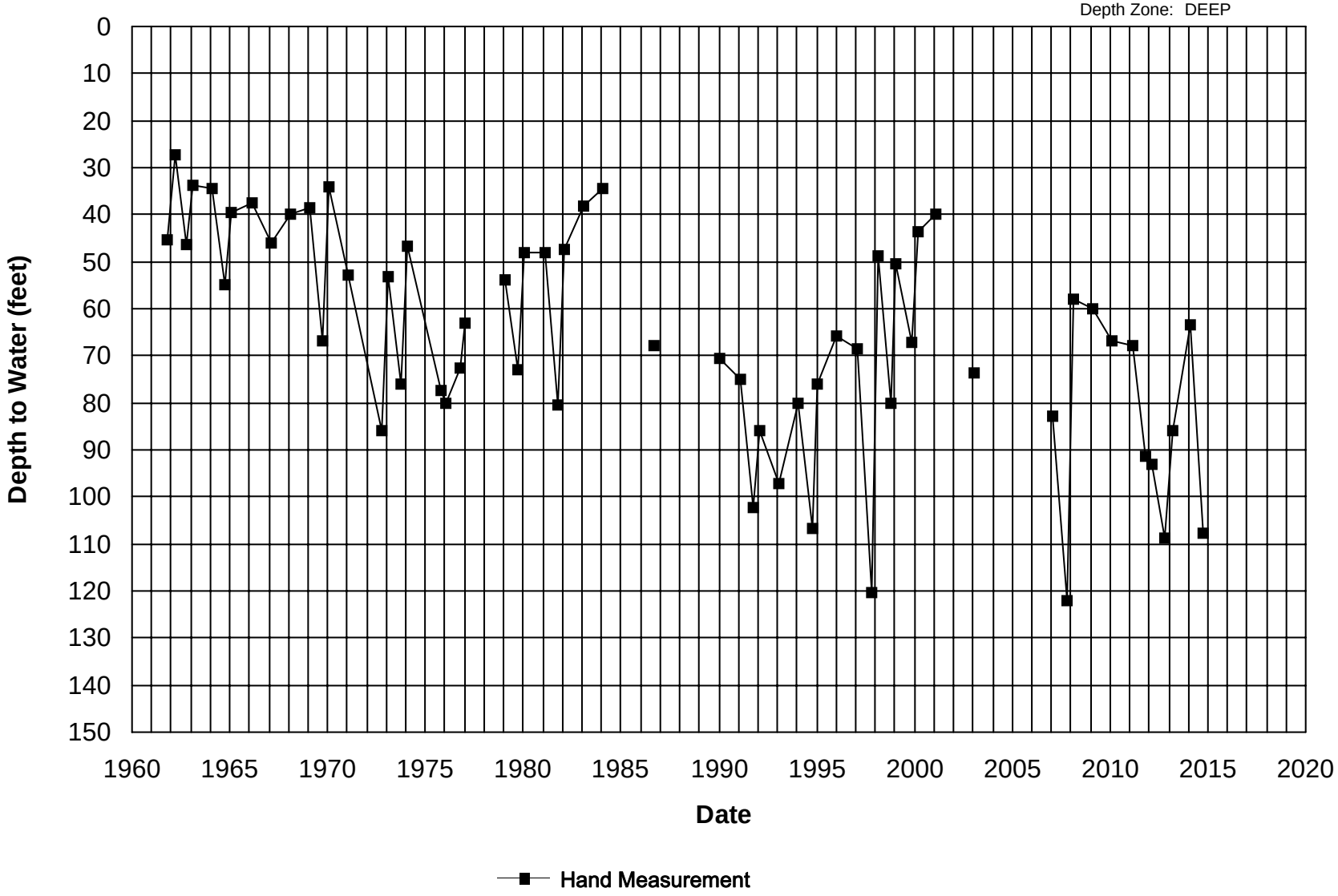
Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-30Q1

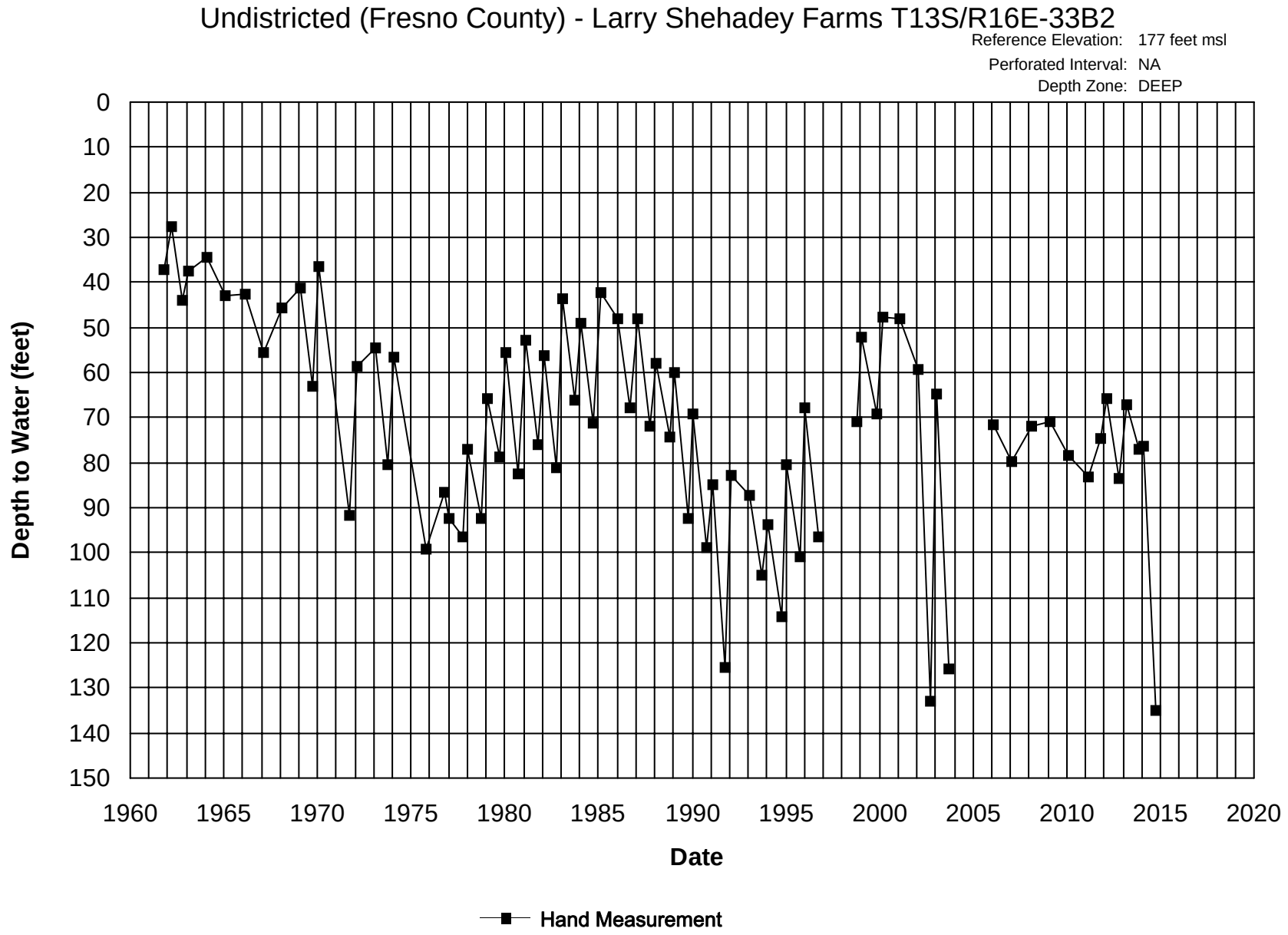
Reference Elevation: NA
Perforated Interval: 130 - 340 feet
Depth Zone: DEEP



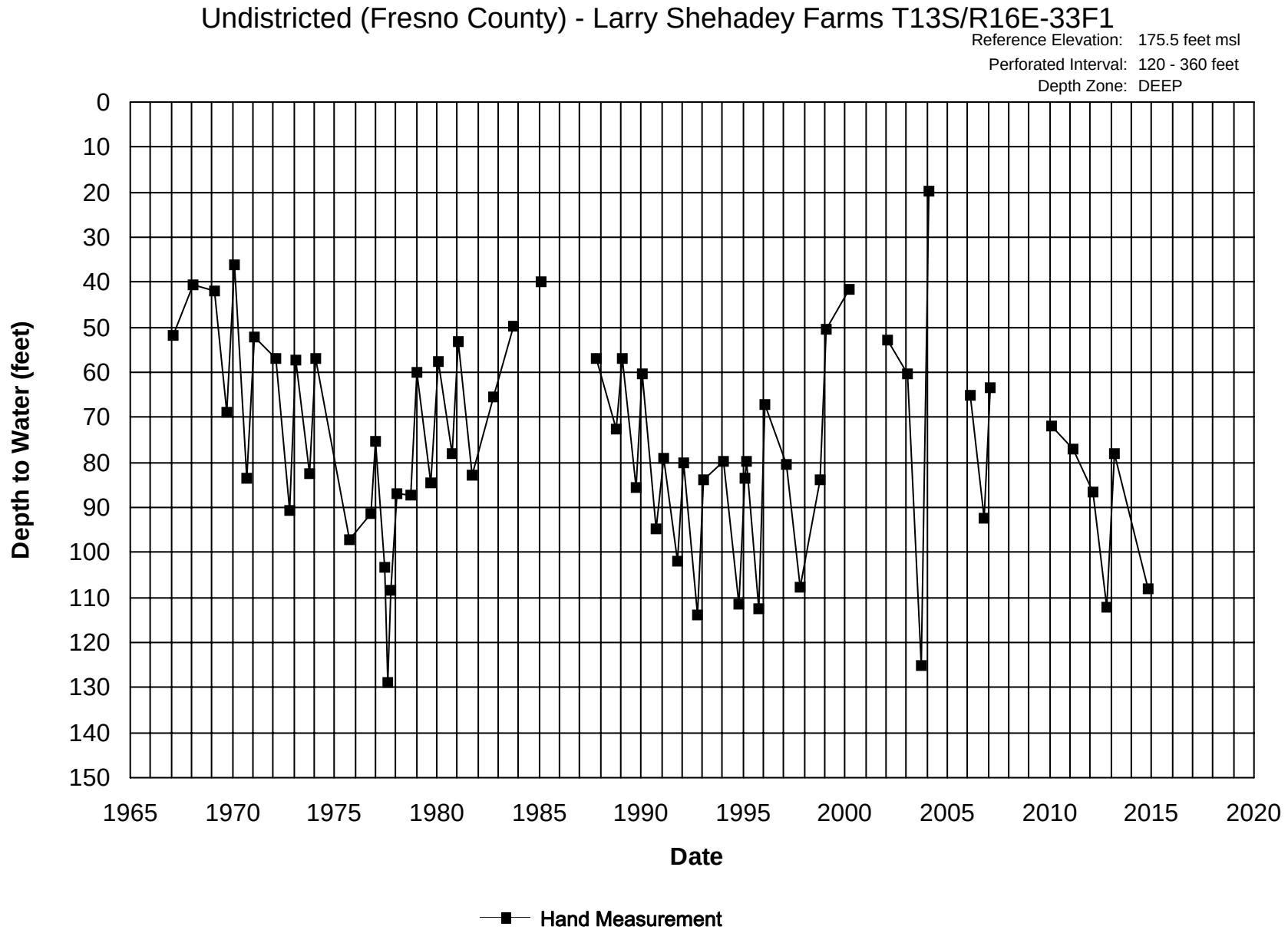
Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-32F1

Reference Elevation: NA
Perforated Interval: 116 - 368 feet
Depth Zone: DEEP





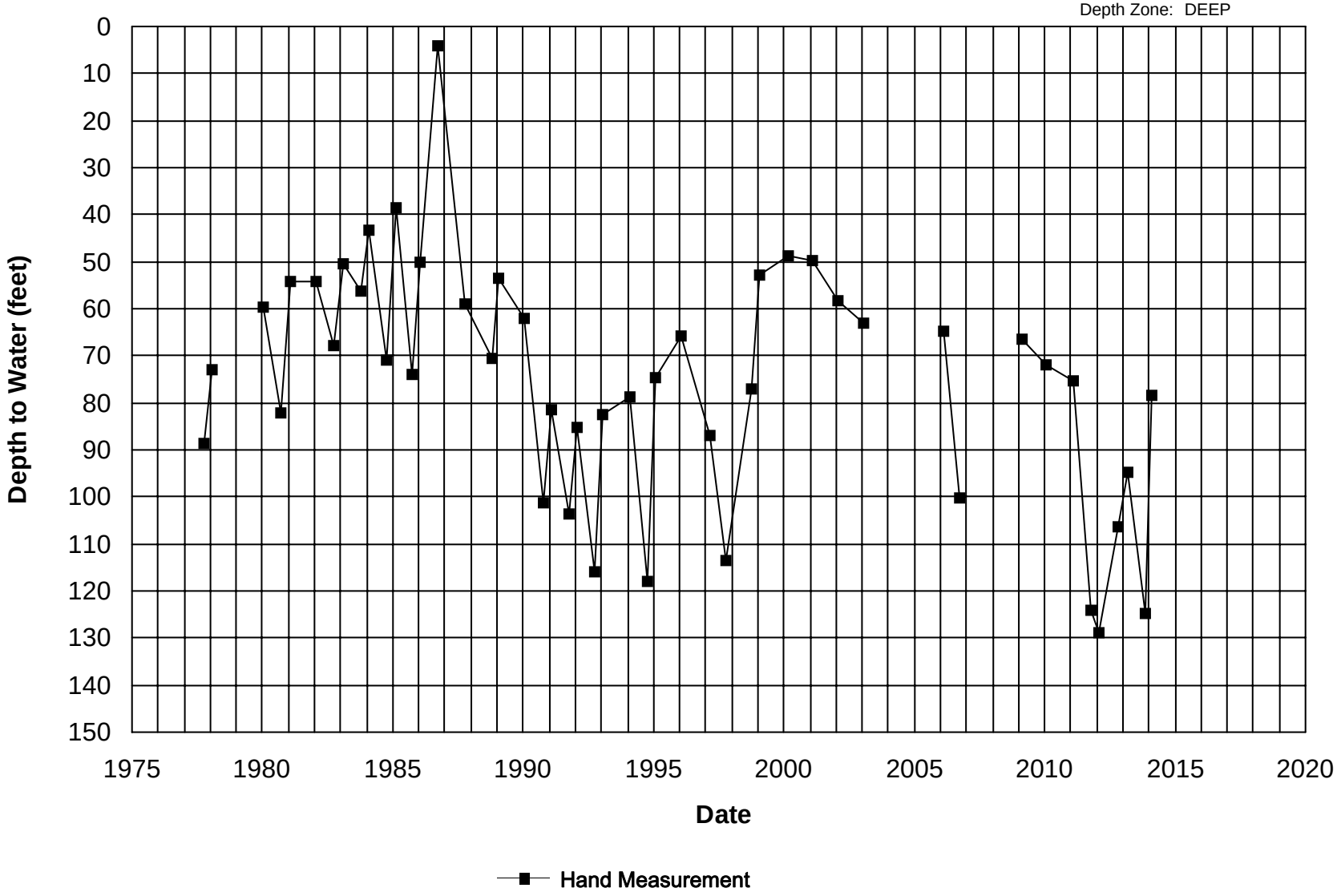
Thursday, July 16, 2015

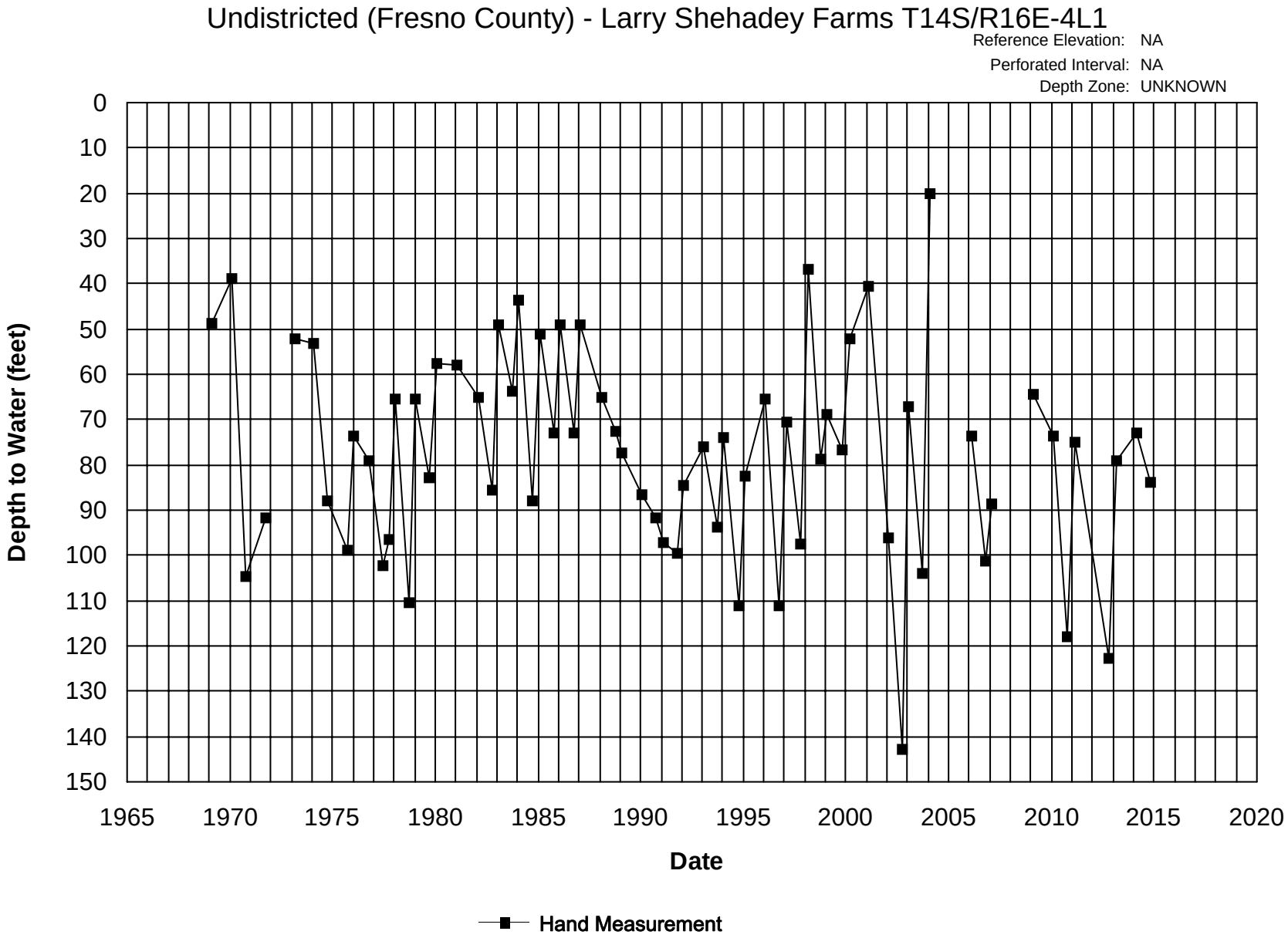


Thursday, July 16, 2015

Undistricted (Fresno County) - Larry Shehadey Farms T13S/R16E-33L1

Reference Elevation: NA
Perforated Interval: 192 - 400 feet
Depth Zone: DEEP

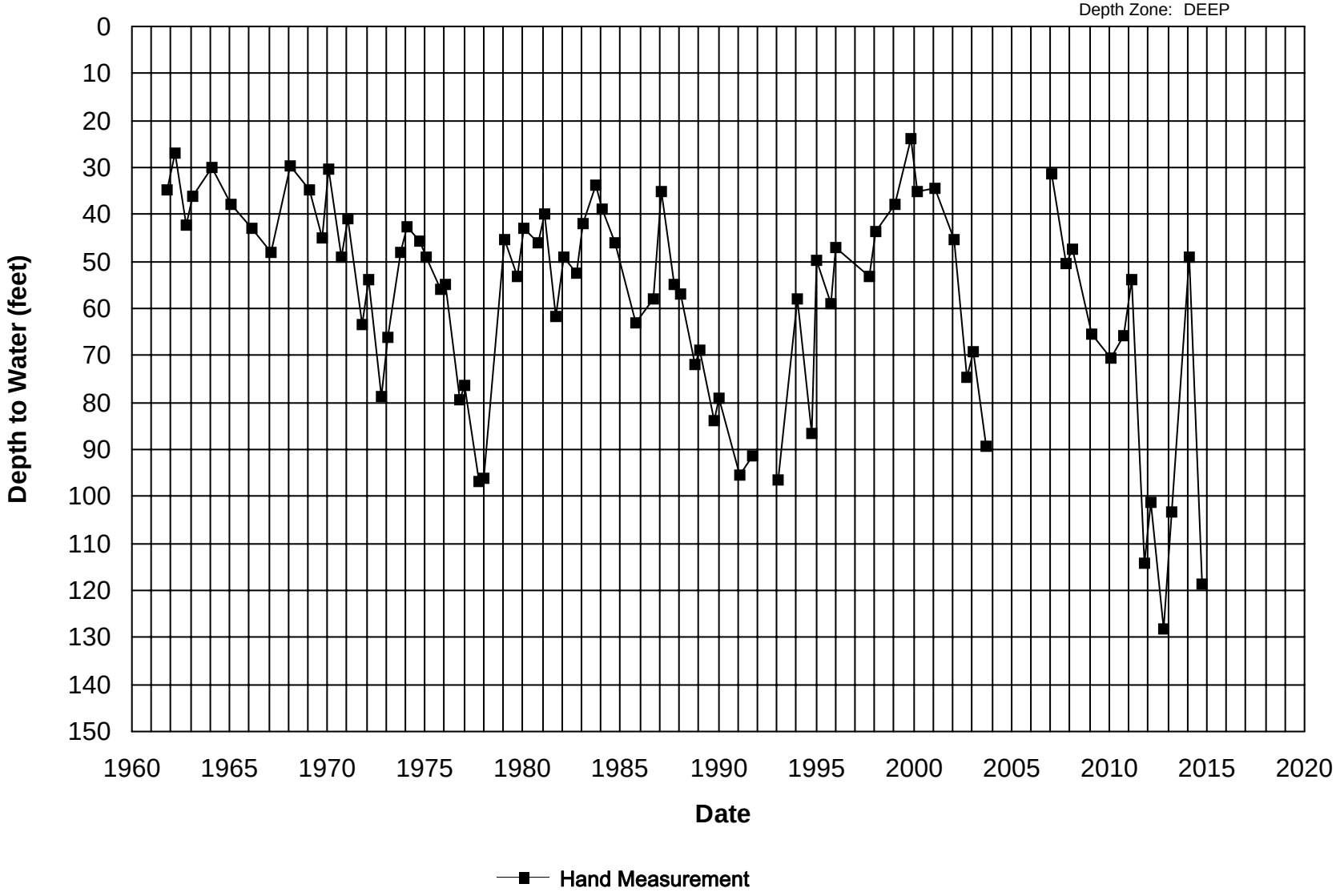




Thursday, July 16, 2015

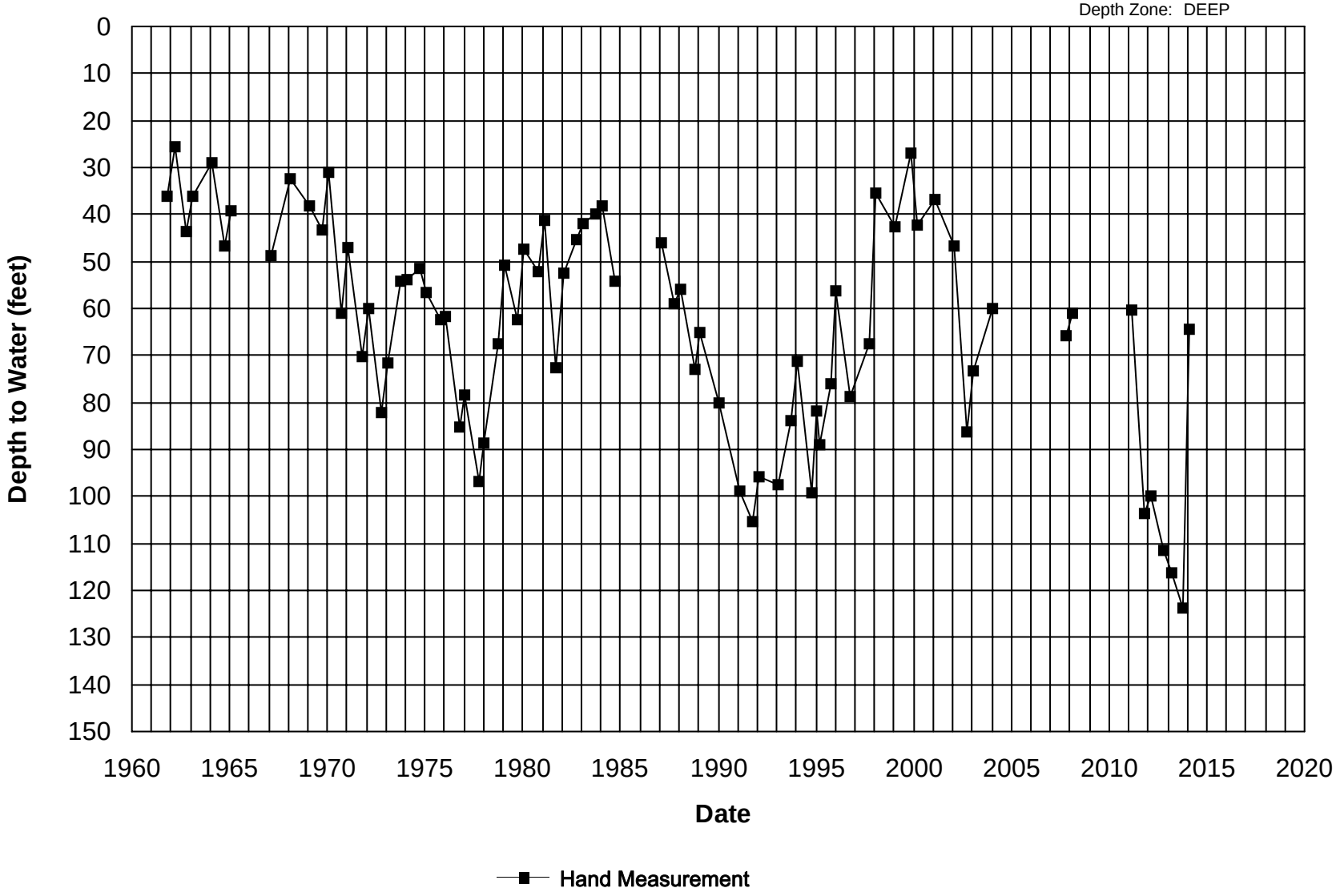
Undistricted (Fresno County) - Schaad T13S/R16E-22J1

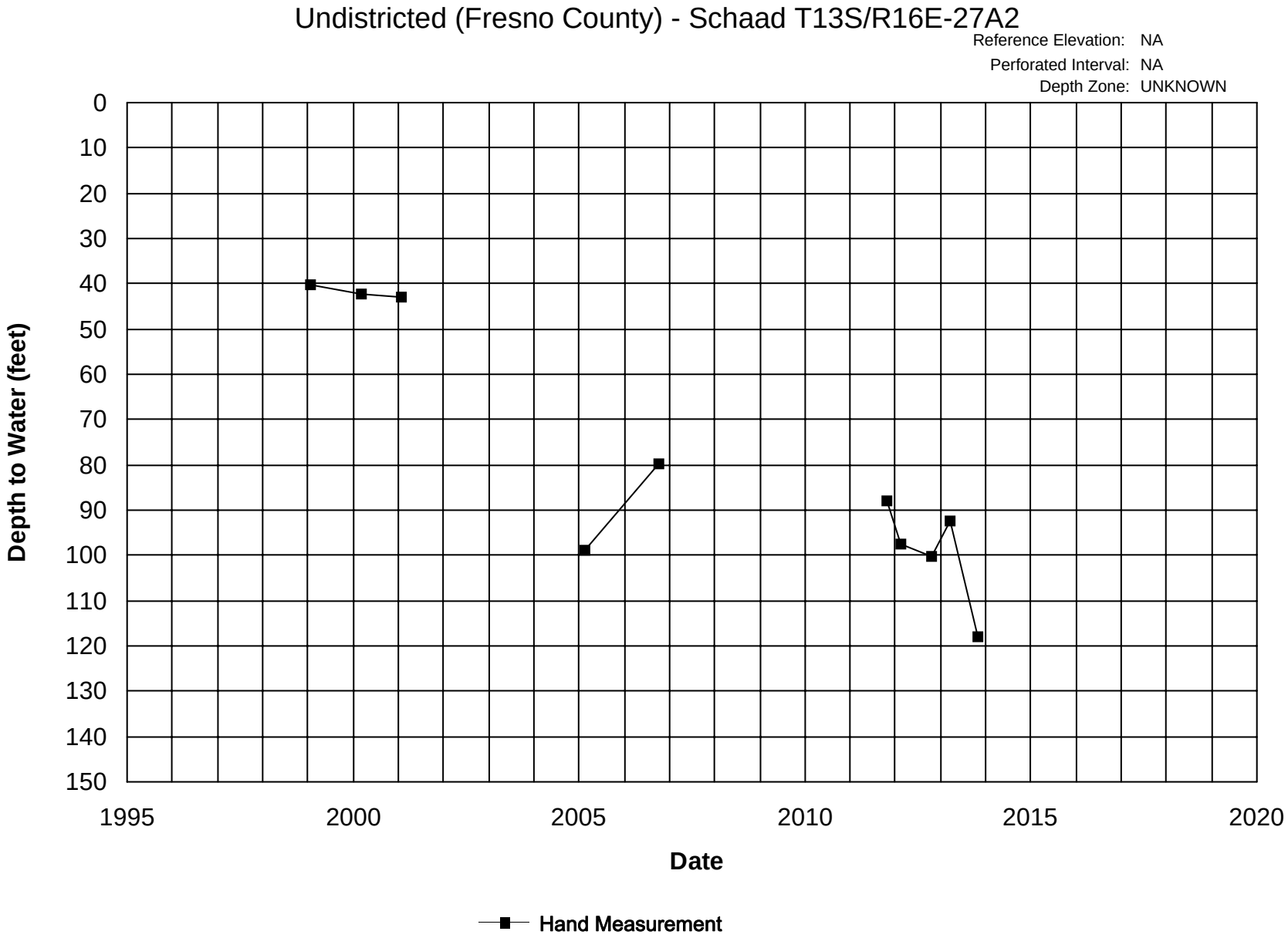
Reference Elevation: 191 feet msl
Perforated Interval: 150 - 260 feet
Depth Zone: DEEP

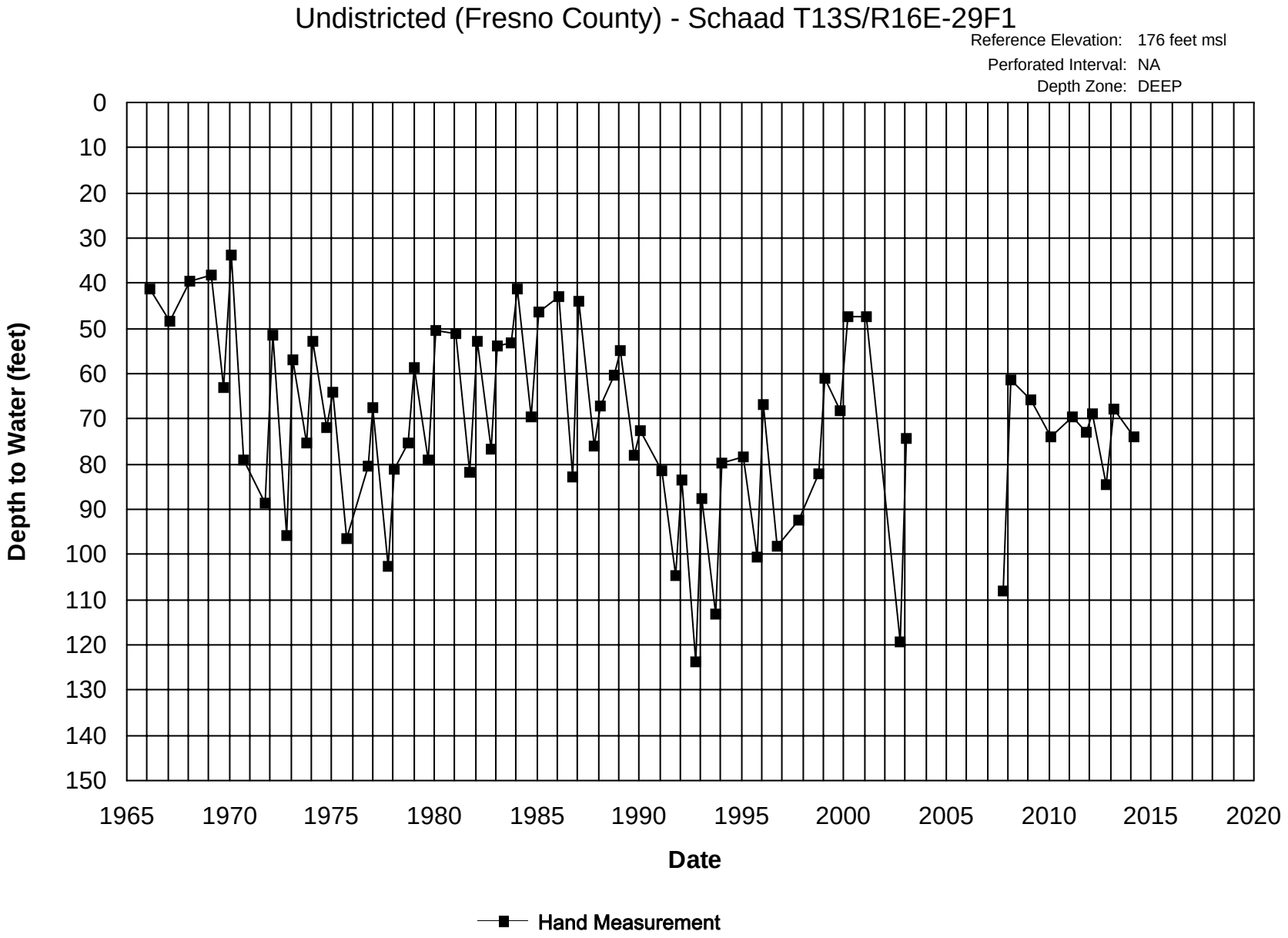


Undistricted (Fresno County) - Schaad T13S/R16E-22J2

Reference Elevation: 191 feet msl
Perforated Interval: 116 - 236 feet
Depth Zone: DEEP



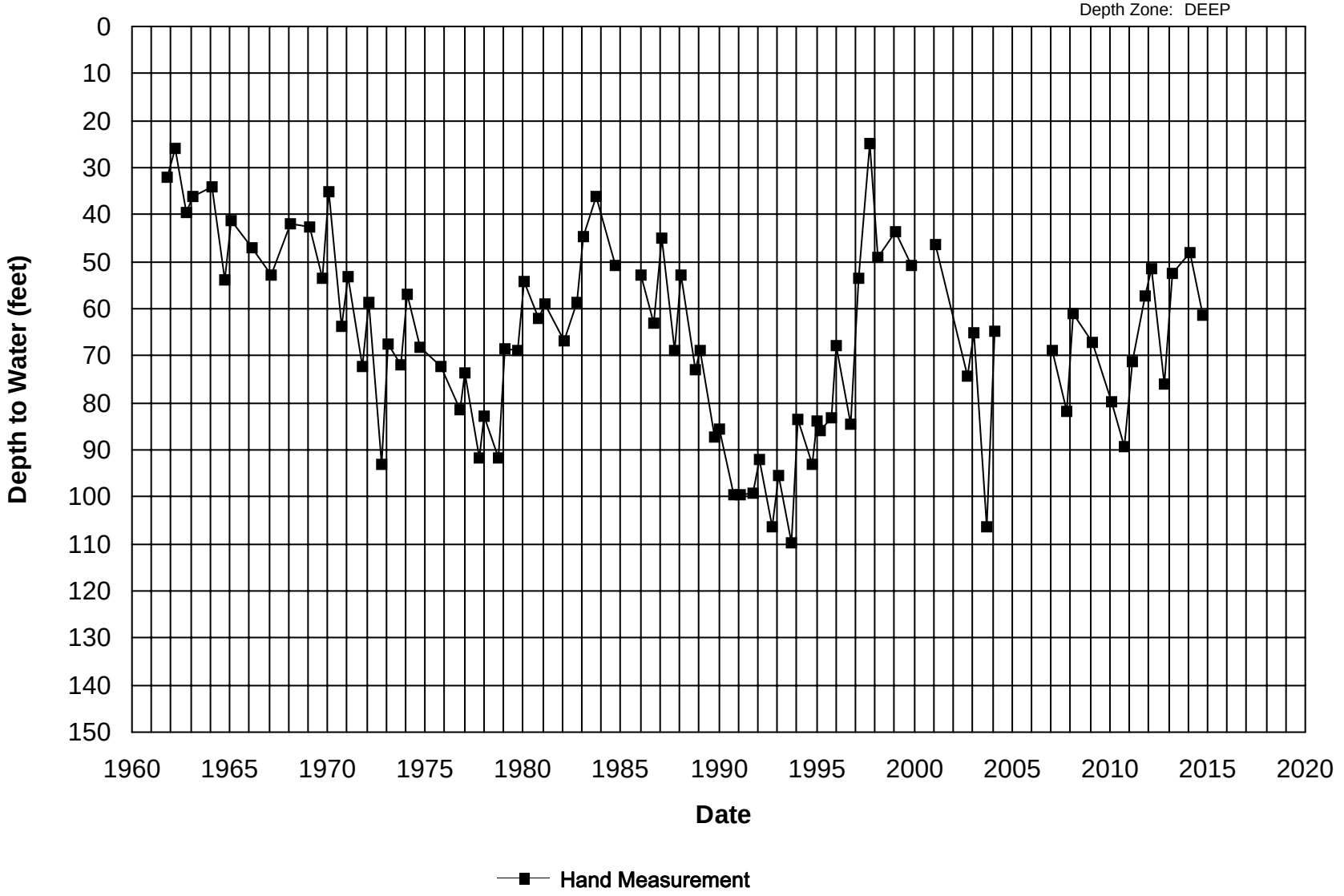

Undistricted (Fresno County) - Schaad T13S/R16E-27A2
Reference Elevation: NA
Perforated Interval: NA
Depth Zone: UNKNOWN
Depth to Water (feet)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
1995
2000
2005
2010
2015
2020
Date
Hand Measurement



Thursday, July 16, 2015

Undistricted (Fresno County) - Schaad T13S/R16E-27F1

Reference Elevation: 185.5 feet msl
Perforated Interval: 108 - 248 feet
Depth Zone: DEEP



Thursday, July 16, 2015

APPENDIX D

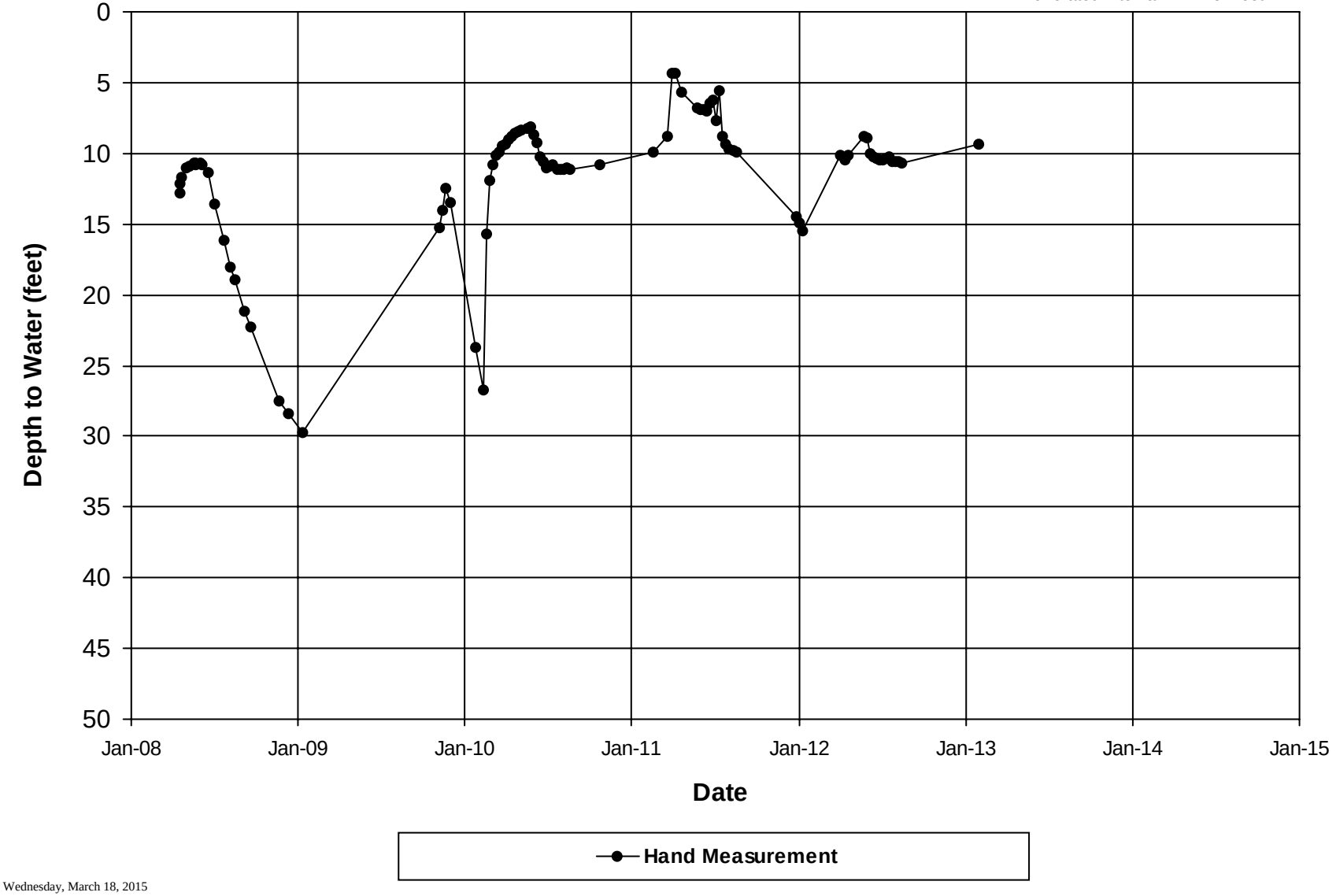
SAN JOAQUIN RIVER RESTORATION PROGRAM
MONITORING WELL HYDROGRAPHS

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SJRRP Monitoring Well Hydrograph

FA-7

Reach: Reach 2A
Reference Elevation: 178.96 feet NAVD88
Perforated Interval: 12 - 32 feet

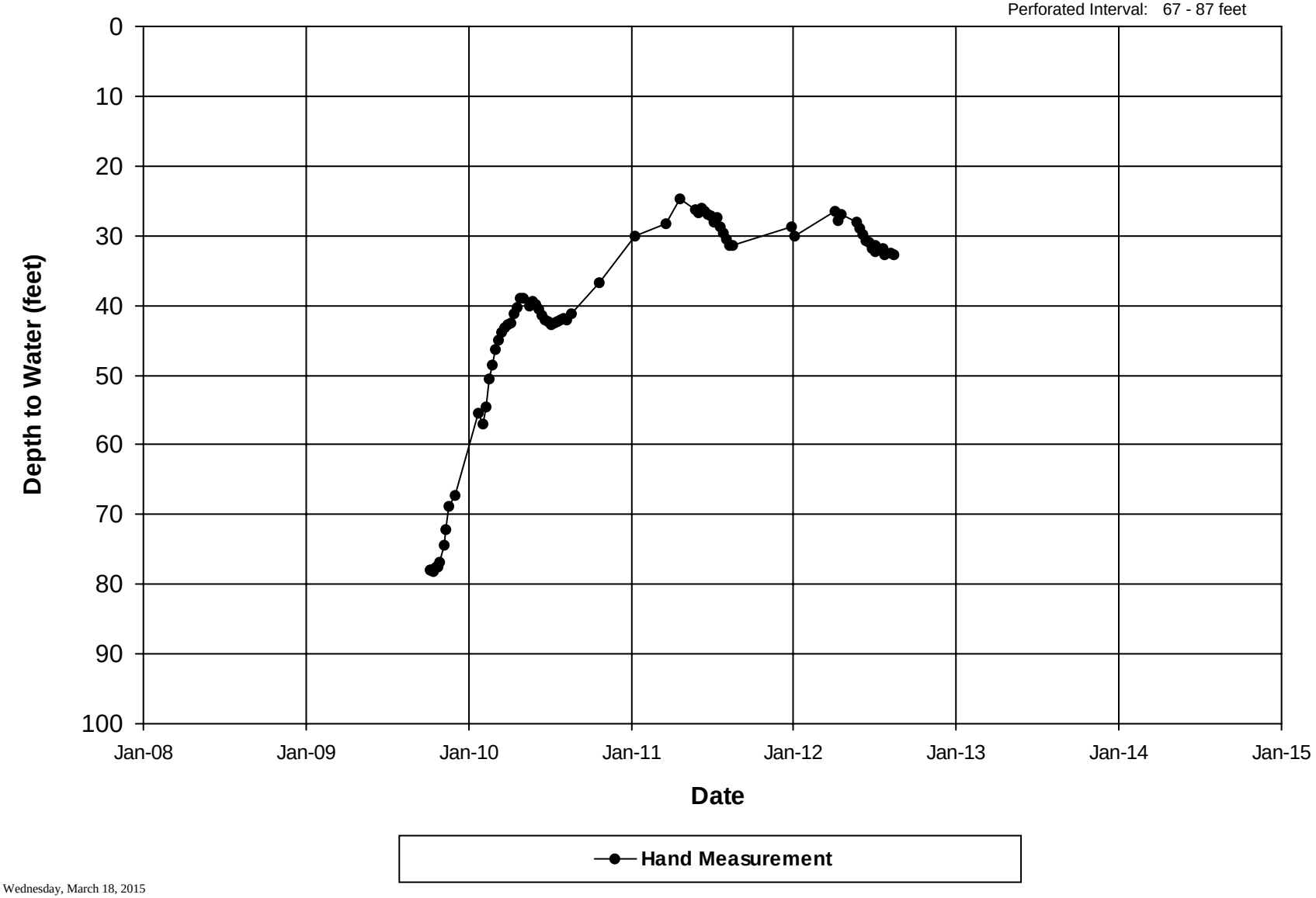


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-37

Reach: Reach 2A
Reference Elevation: 191.8 feet NAVD88
Perforated Interval: 67 - 87 feet

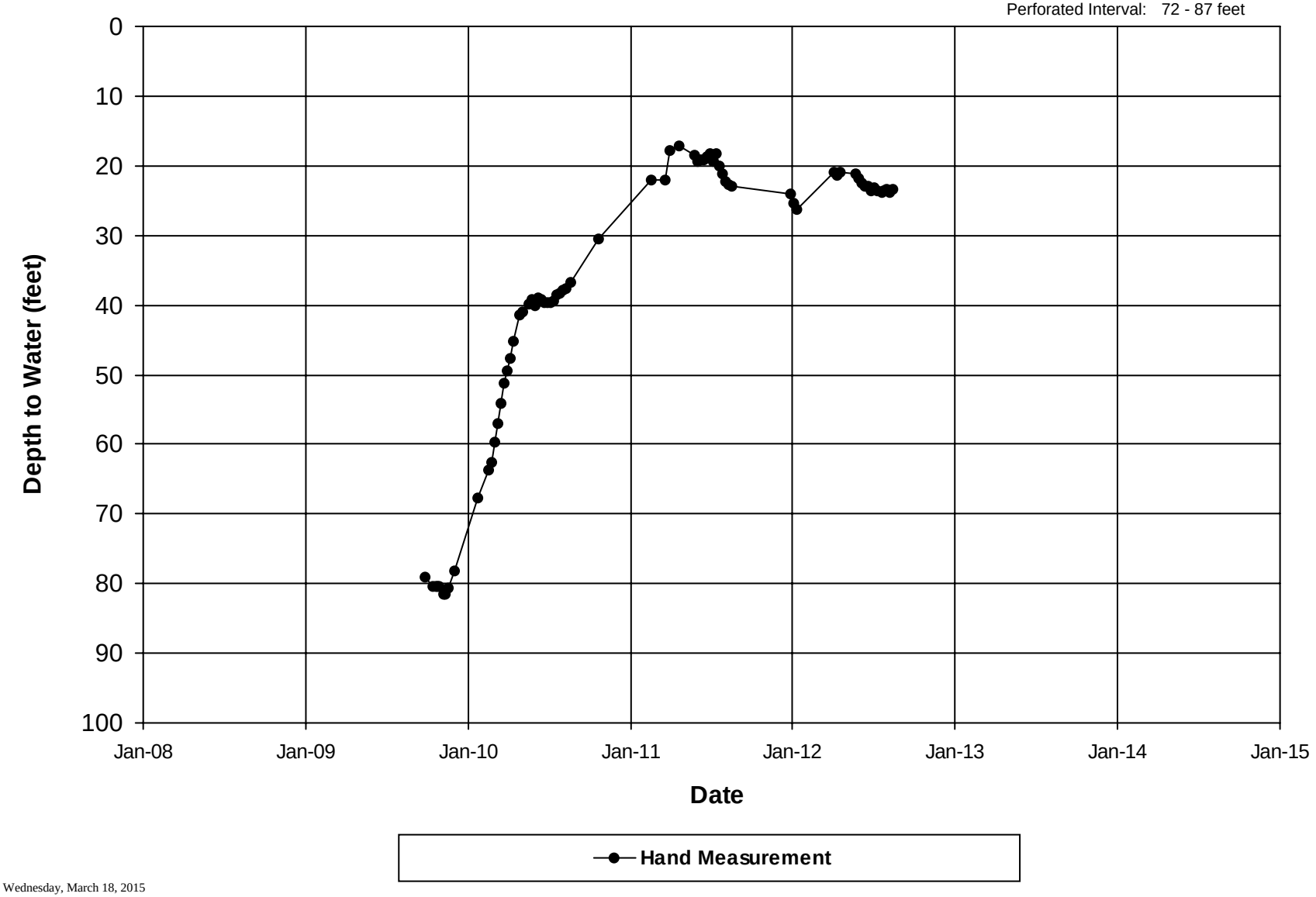


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-39

Reach: Reach 2A
Reference Elevation: 184.9 feet NAVD88
Perforated Interval: 72 - 87 feet

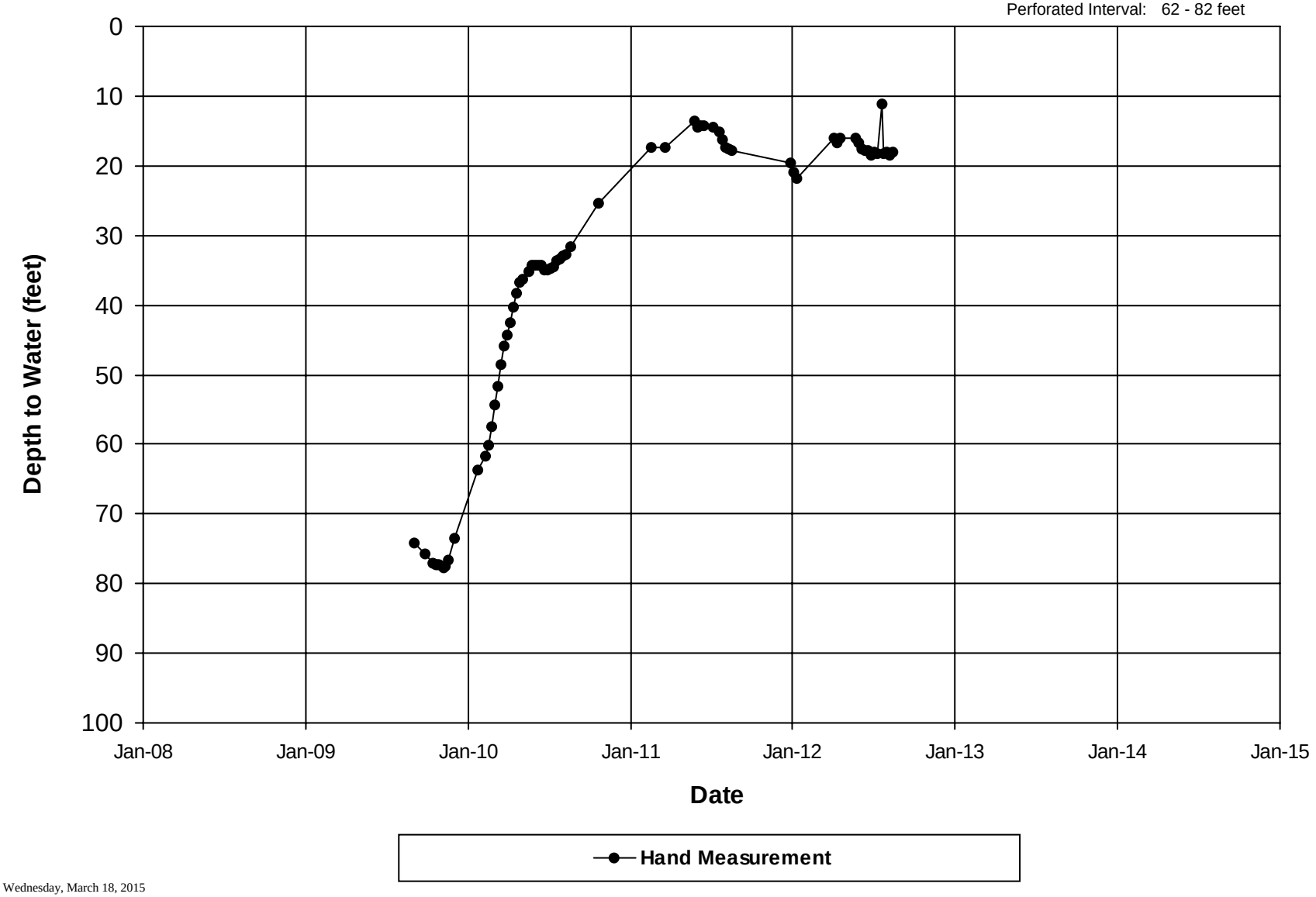


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-41

Reach: Reach 2A
Reference Elevation: 180.7 feet NAVD88
Perforated Interval: 62 - 82 feet

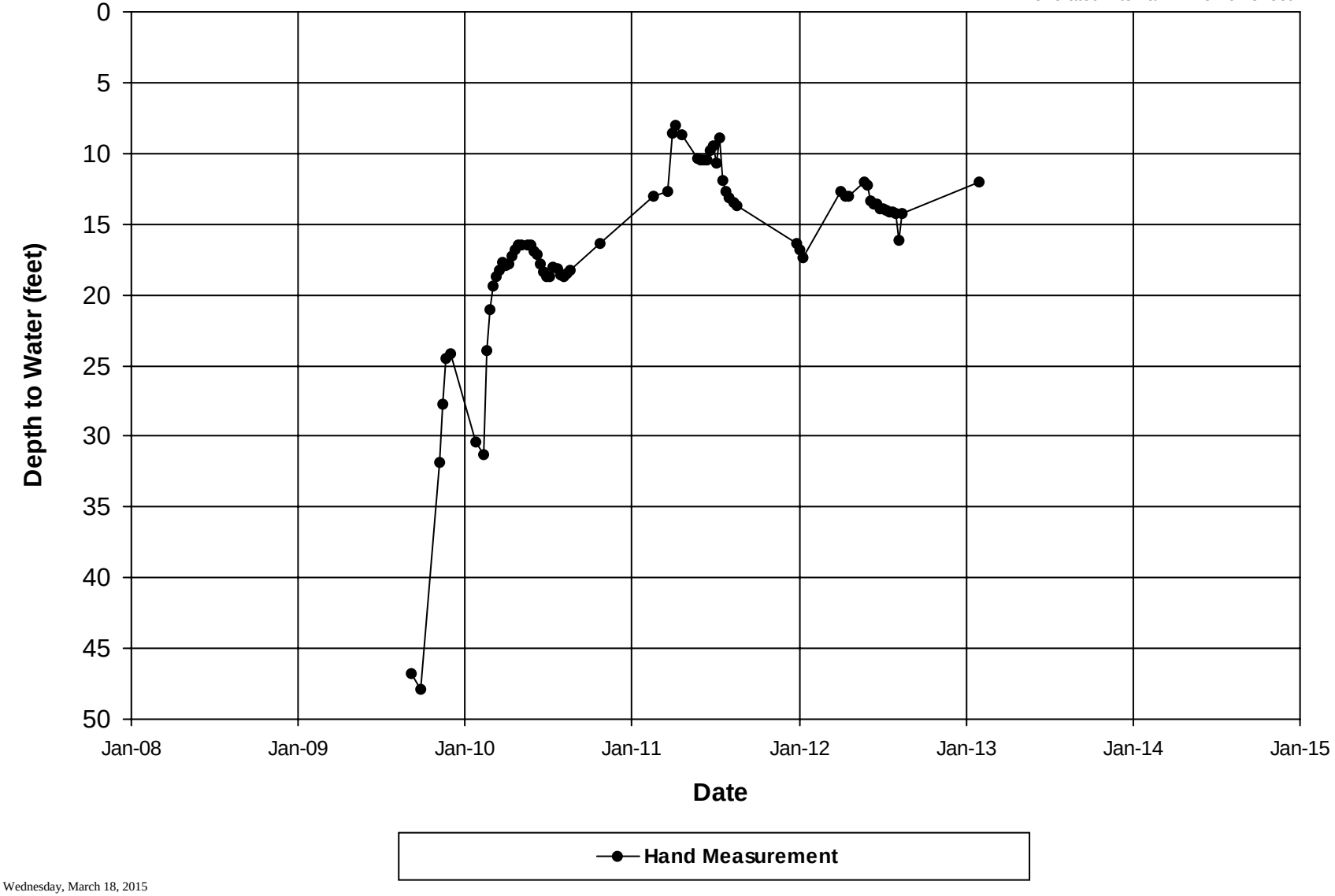


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-44

Reach: Reach 2A
Reference Elevation: 179.2 feet NAVD88
Perforated Interval: 41.5 - 61.5 feet

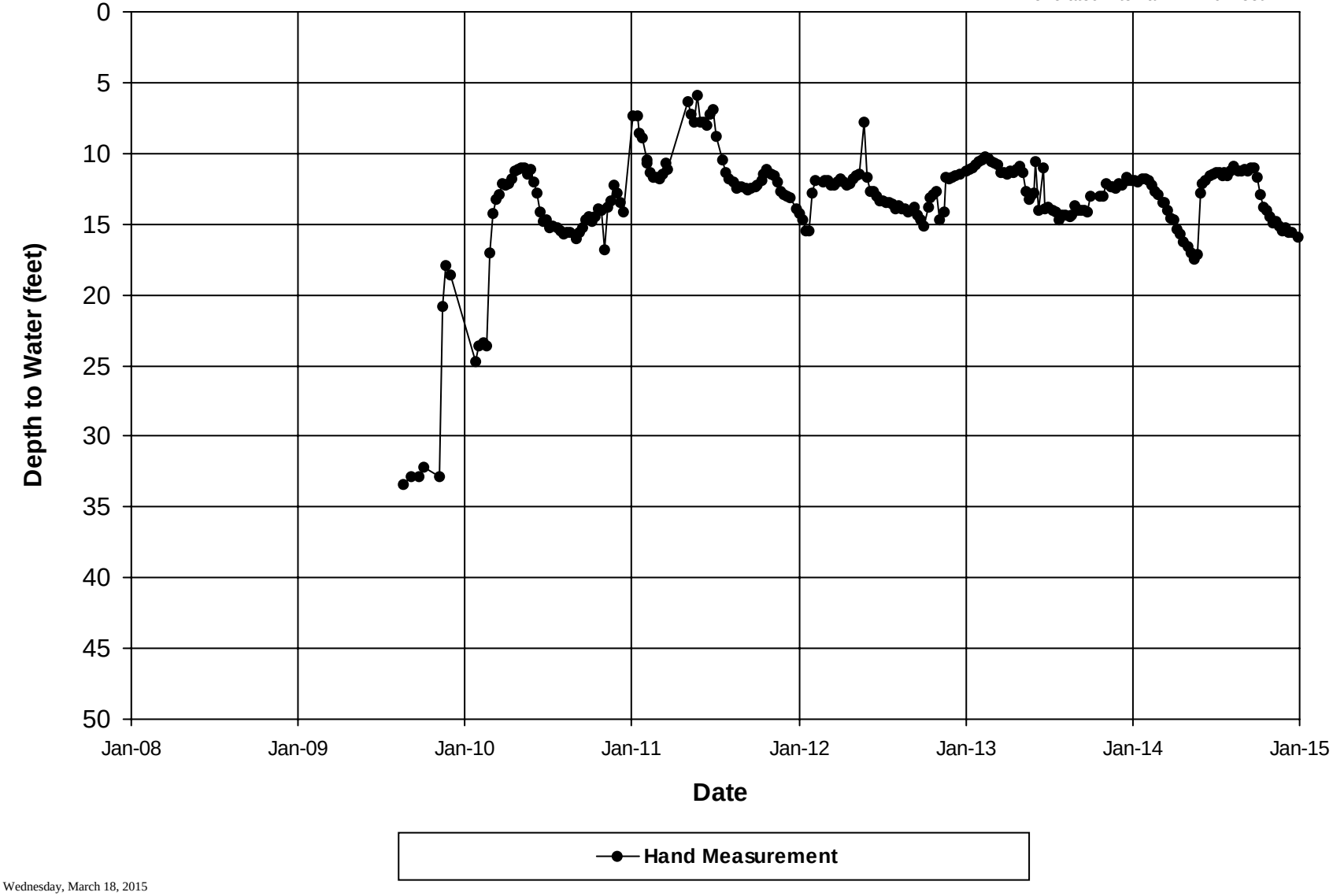


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-46

Reach: Reach 2A
Reference Elevation: 173.5 feet NAVD88
Perforated Interval: 42 - 62 feet

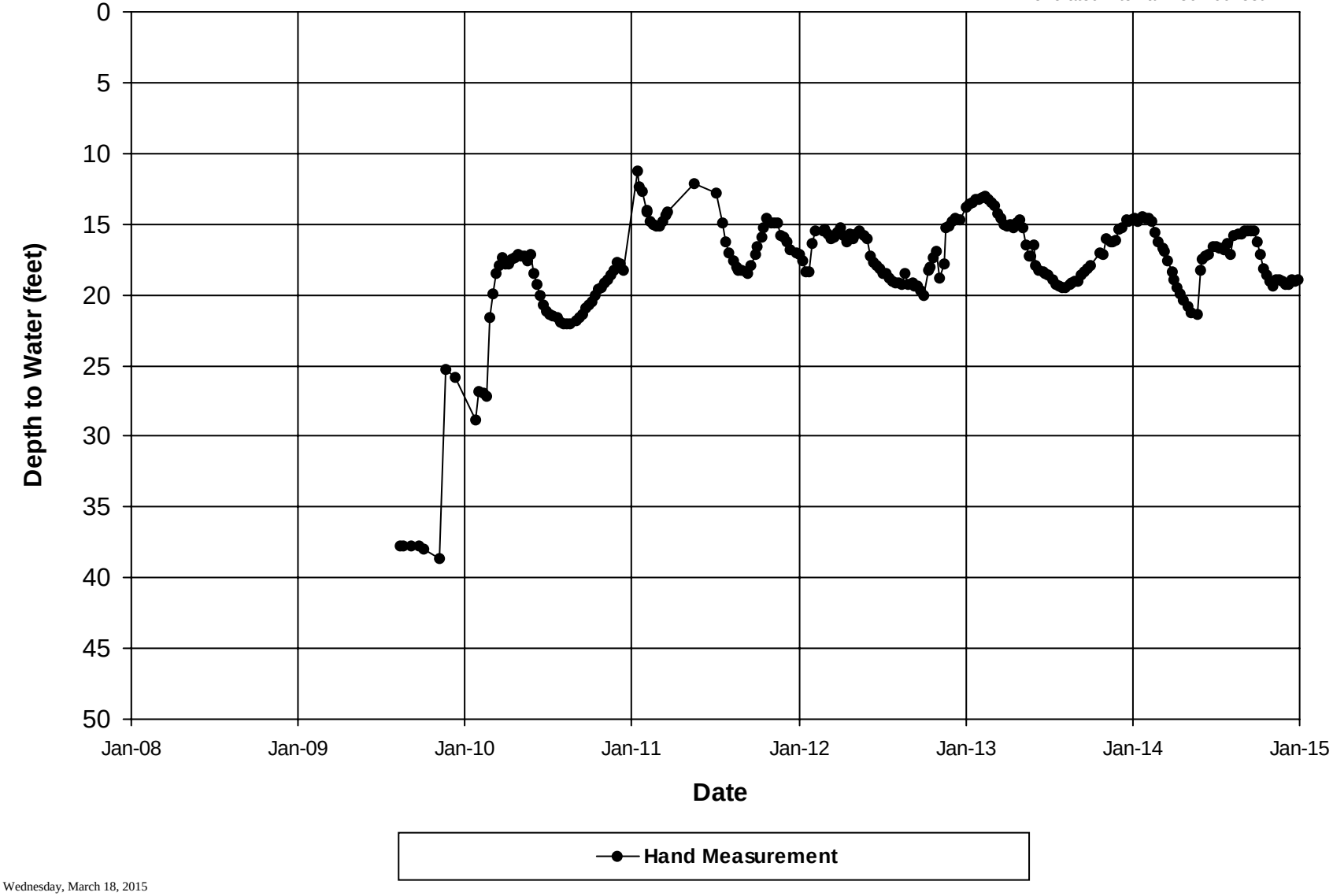


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-49

Reach: Reach 2A
Reference Elevation: 171 feet NAVD88
Perforated Interval: 50 - 60 feet

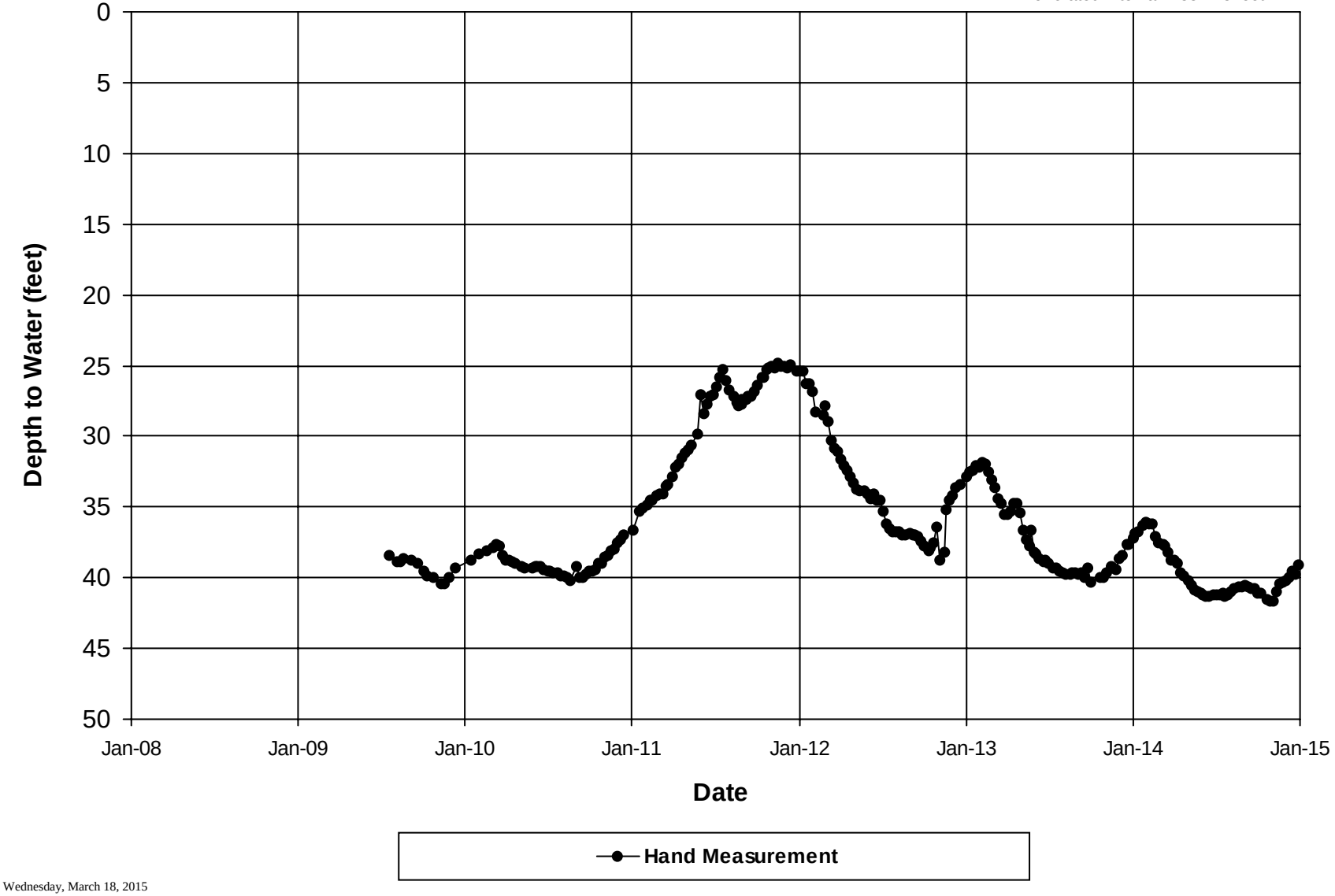


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-53

Reach: Reach 2B
Reference Elevation: 162.8 feet NAVD88
Perforated Interval: 33 - 48 feet

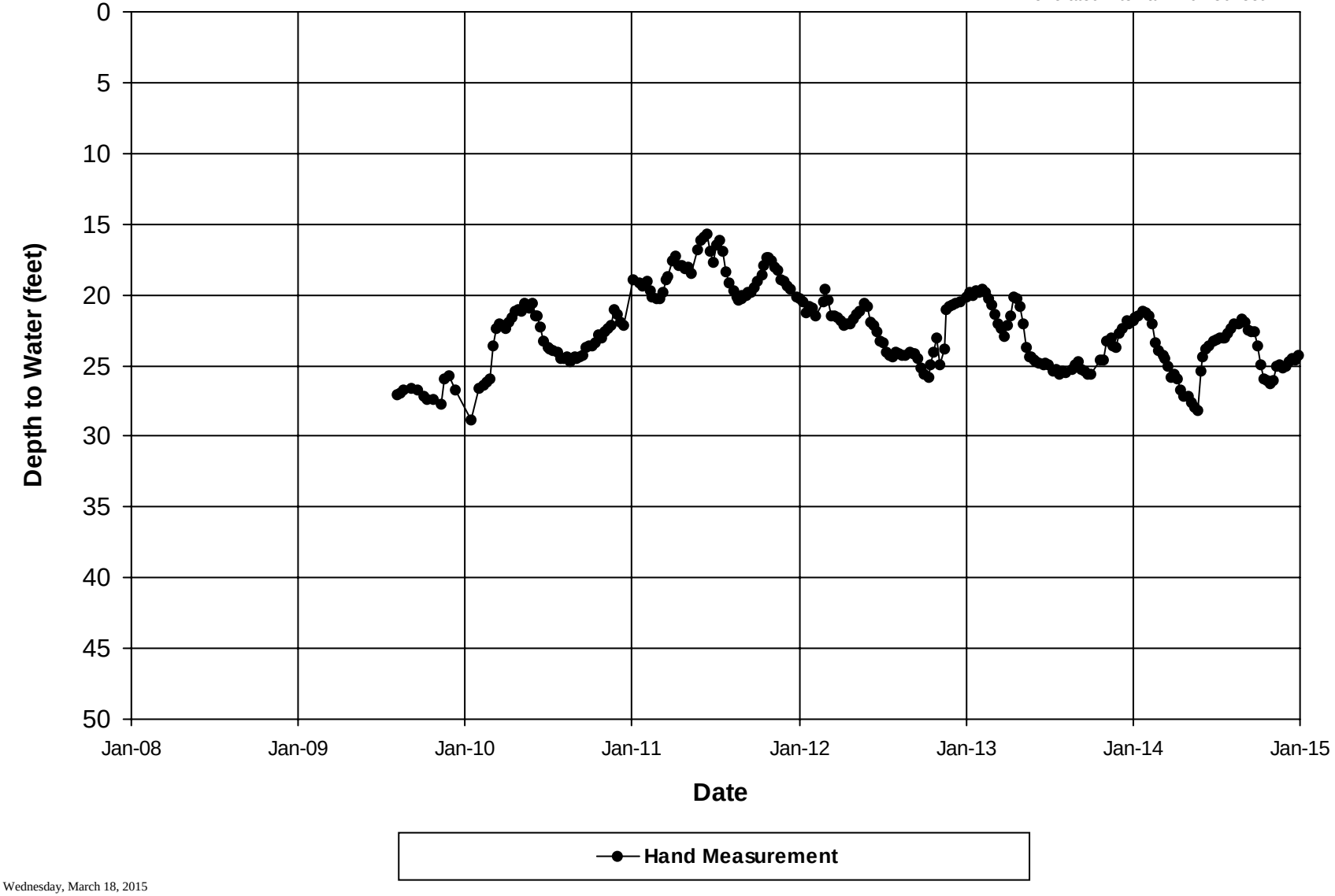


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-55

Reach: Reach 2B
Reference Elevation: 166.1 feet NAVD88
Perforated Interval: 40 - 50 feet

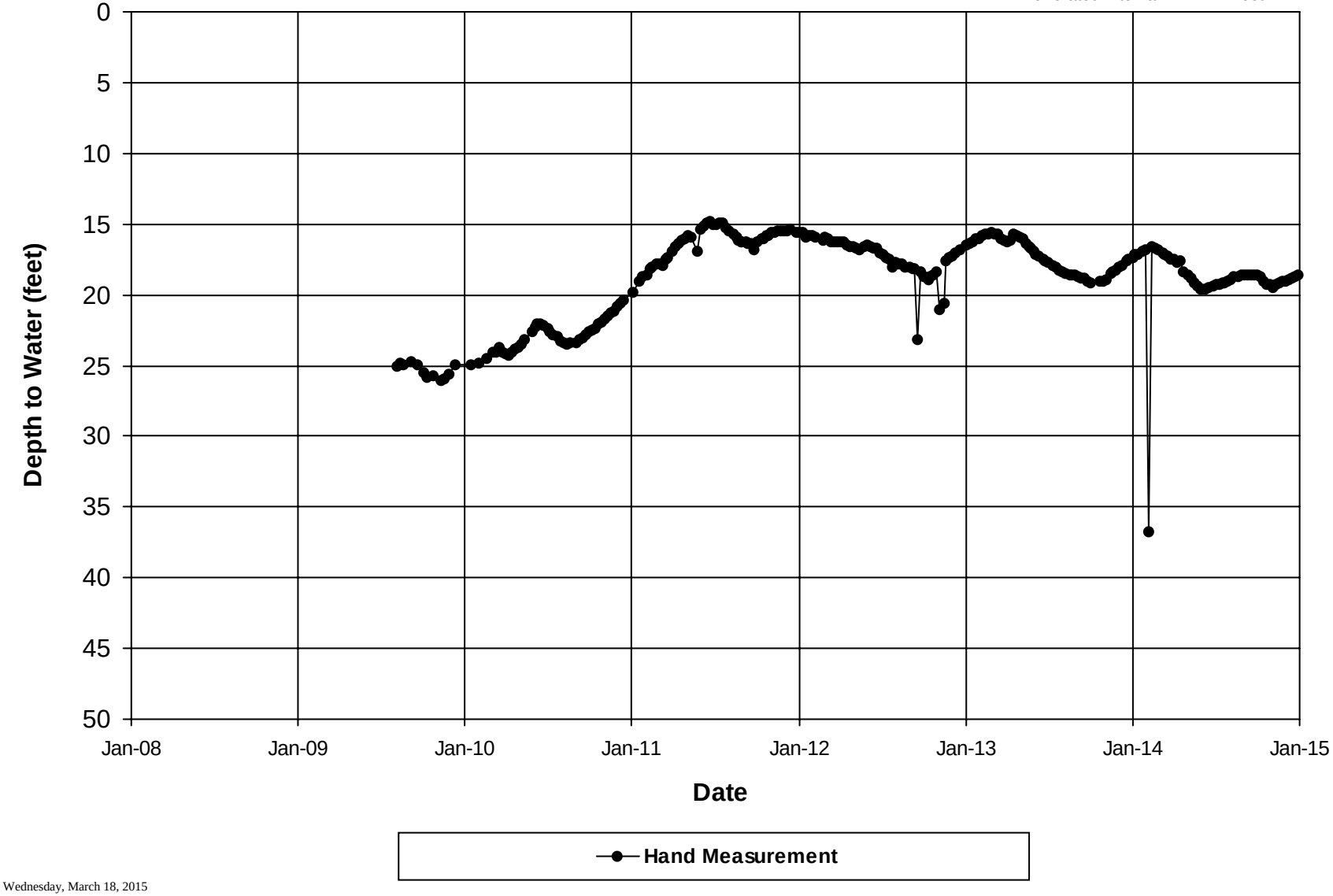


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-56

Reach: Reach 2B
Reference Elevation: 161.2 feet NAVD88
Perforated Interval: 22 - 42 feet

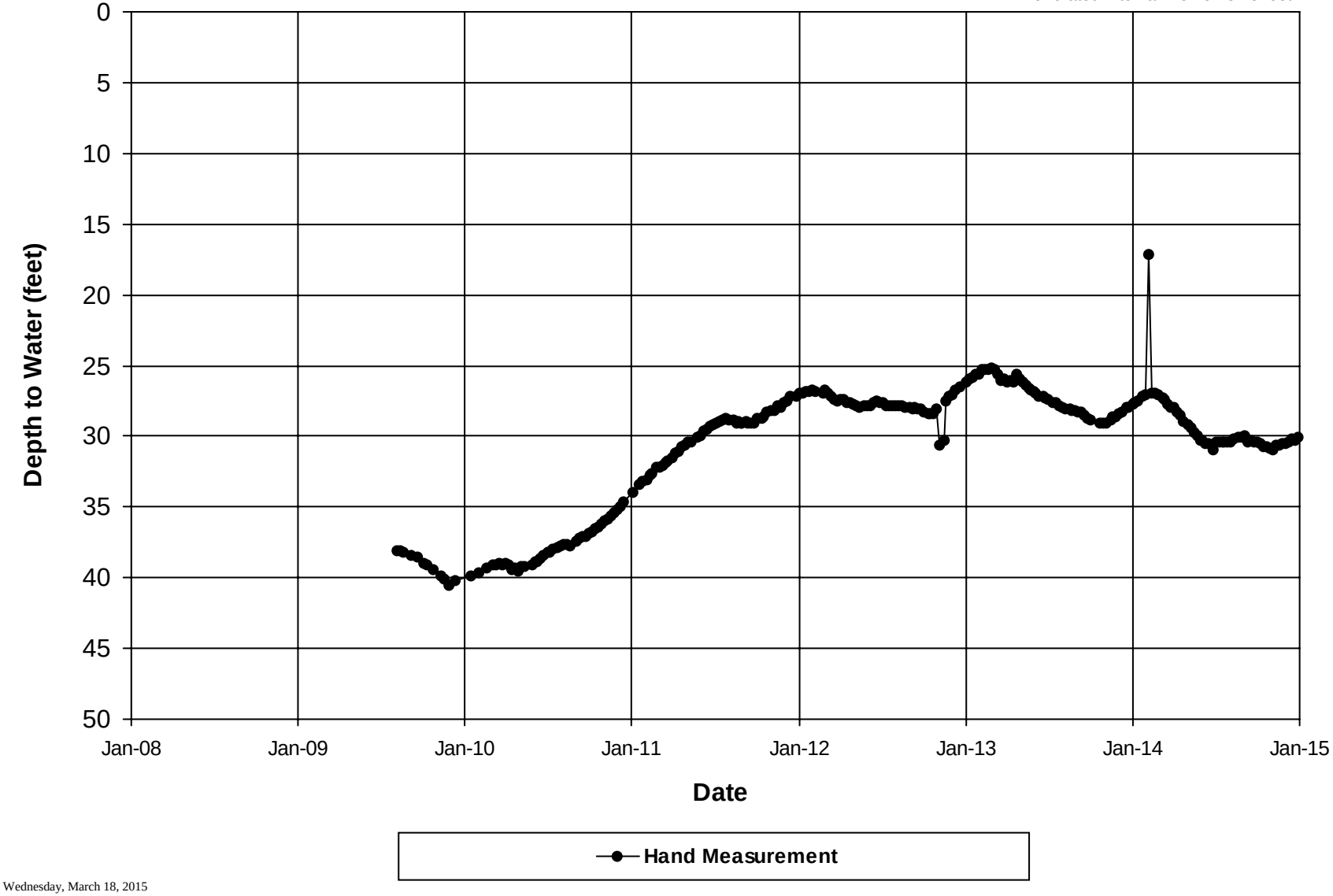


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-09-57

Reach: Reach 2B
Reference Elevation: 163.1 feet NAVD88
Perforated Interval: 31.5 - 51.5 feet

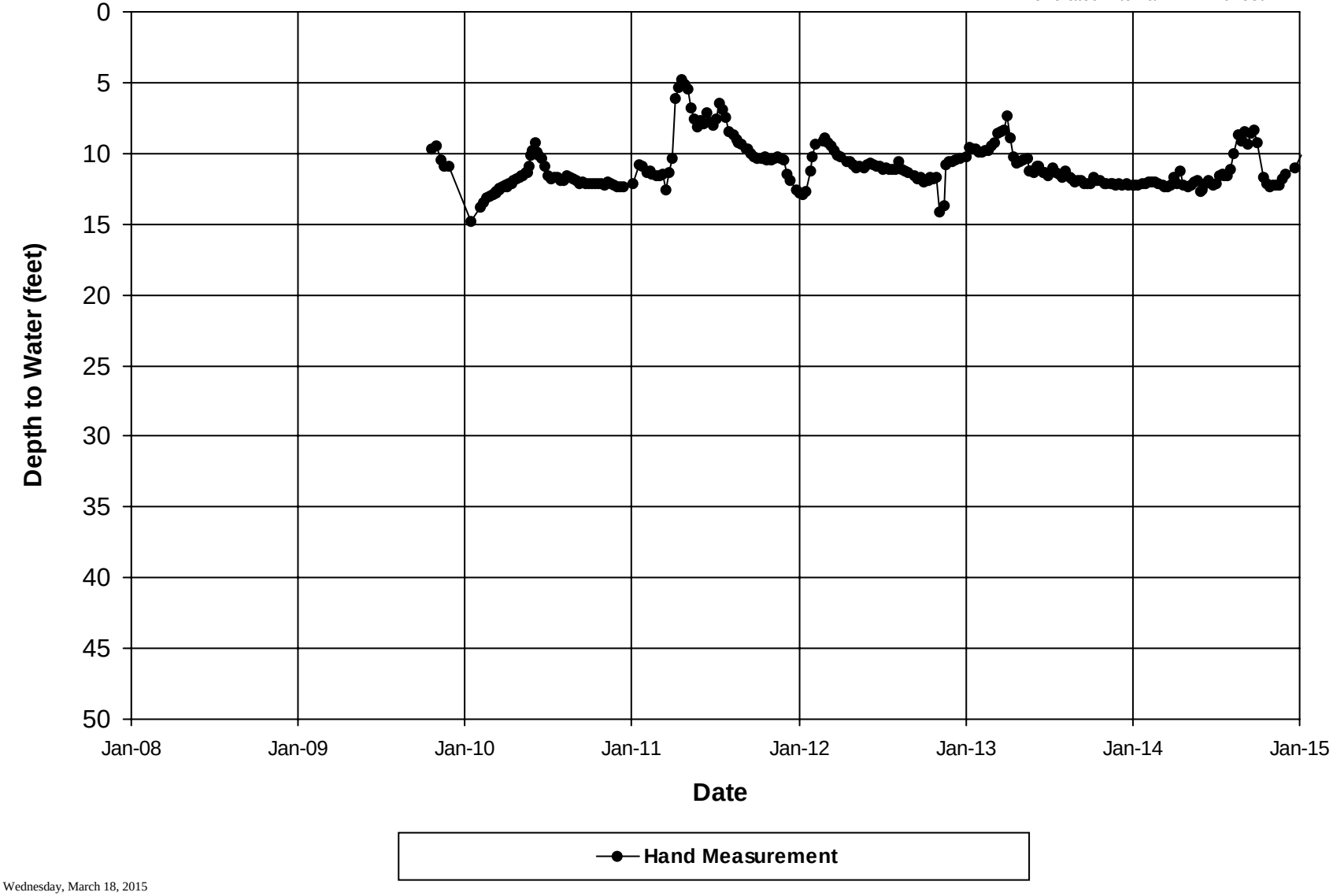


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

PZ-09-R2B-2

Reach: Reach 2B
Reference Elevation: 152.4 feet NAVD88
Perforated Interval: 17 - 20 feet

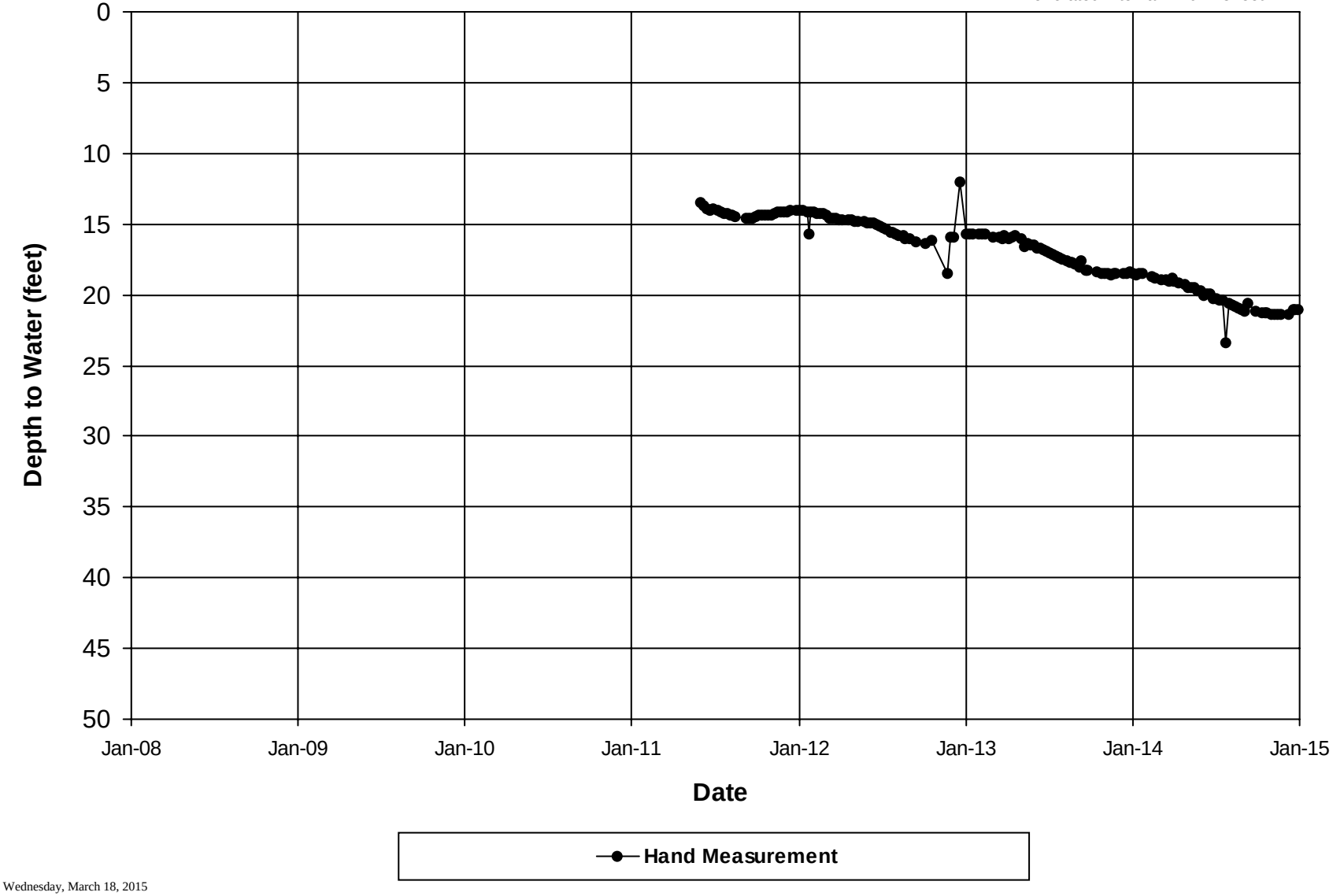


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-10-118

Reach: Reach 3
Reference Elevation: 138.3 feet NAVD88
Perforated Interval: 10 - 25 feet

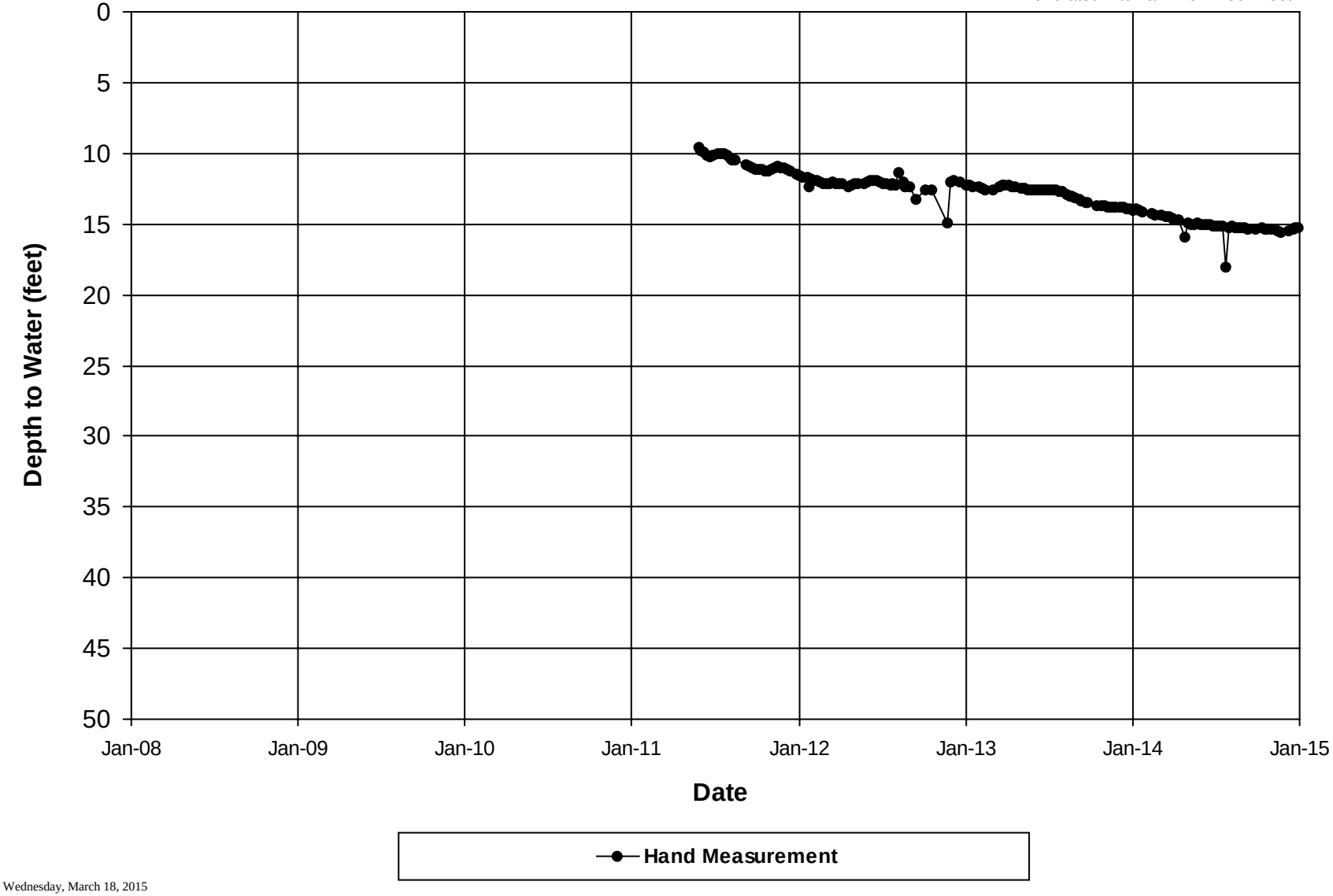


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-10-119

Reach: Reach 3
Reference Elevation: 140.5 feet NAVD88
Perforated Interval: 15.1 - 30.1 feet

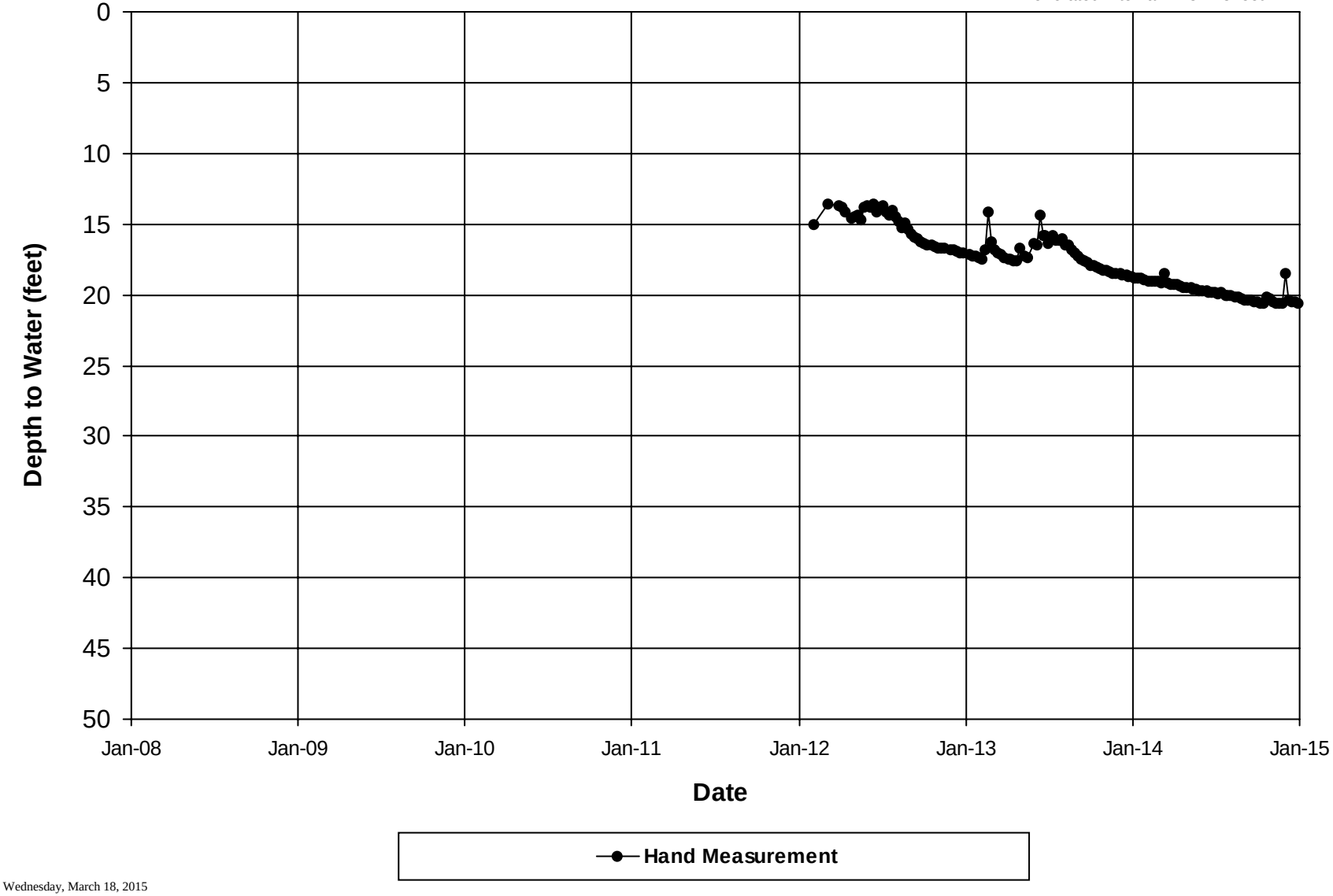


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-10-120

Reach: Reach 3
Reference Elevation: 166.9 feet NAVD88
Perforated Interval: 18 - 28 feet

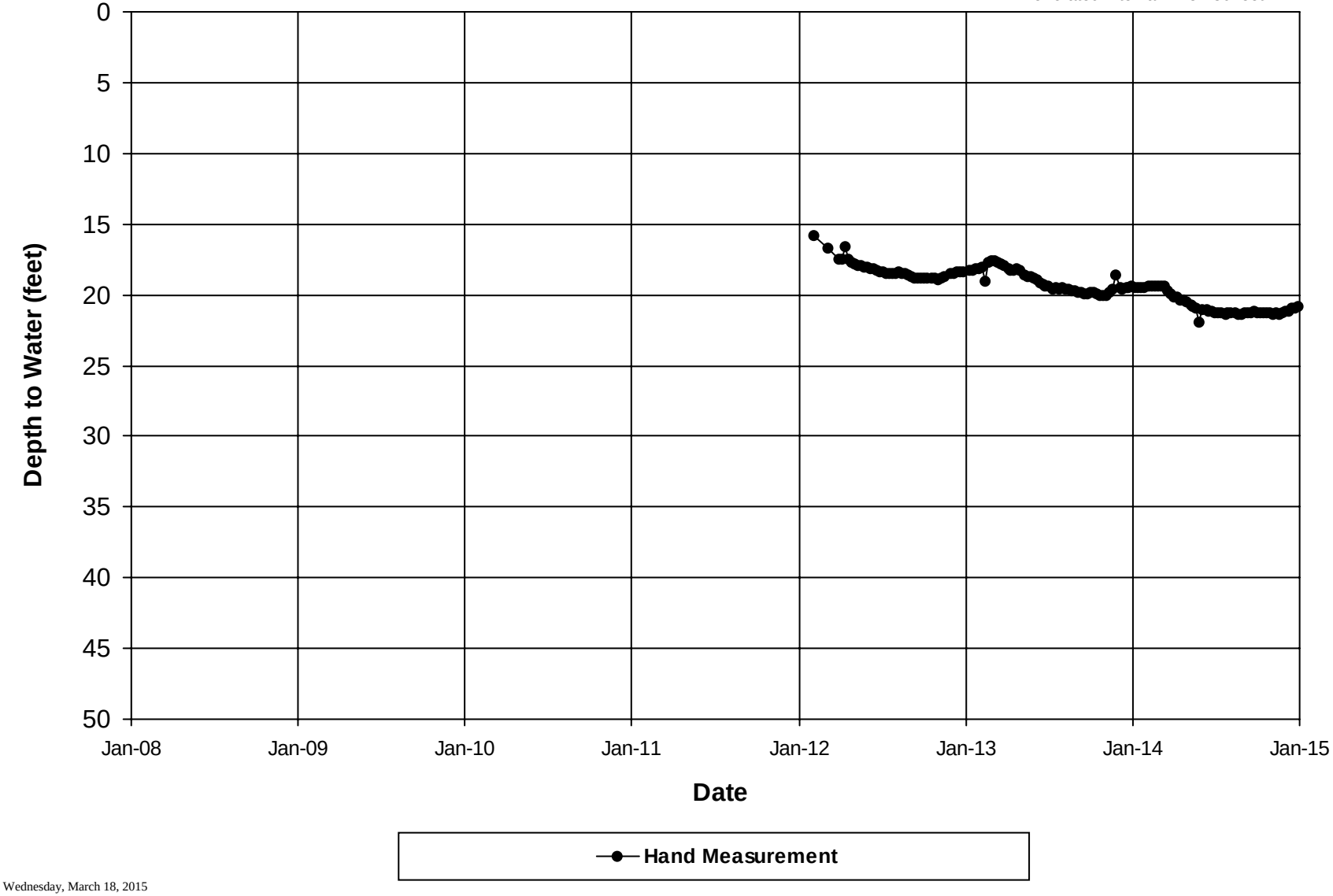


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-10-126

Reach: Reach 3
Reference Elevation: 150.4 feet NAVD88
Perforated Interval: 15 - 30 feet

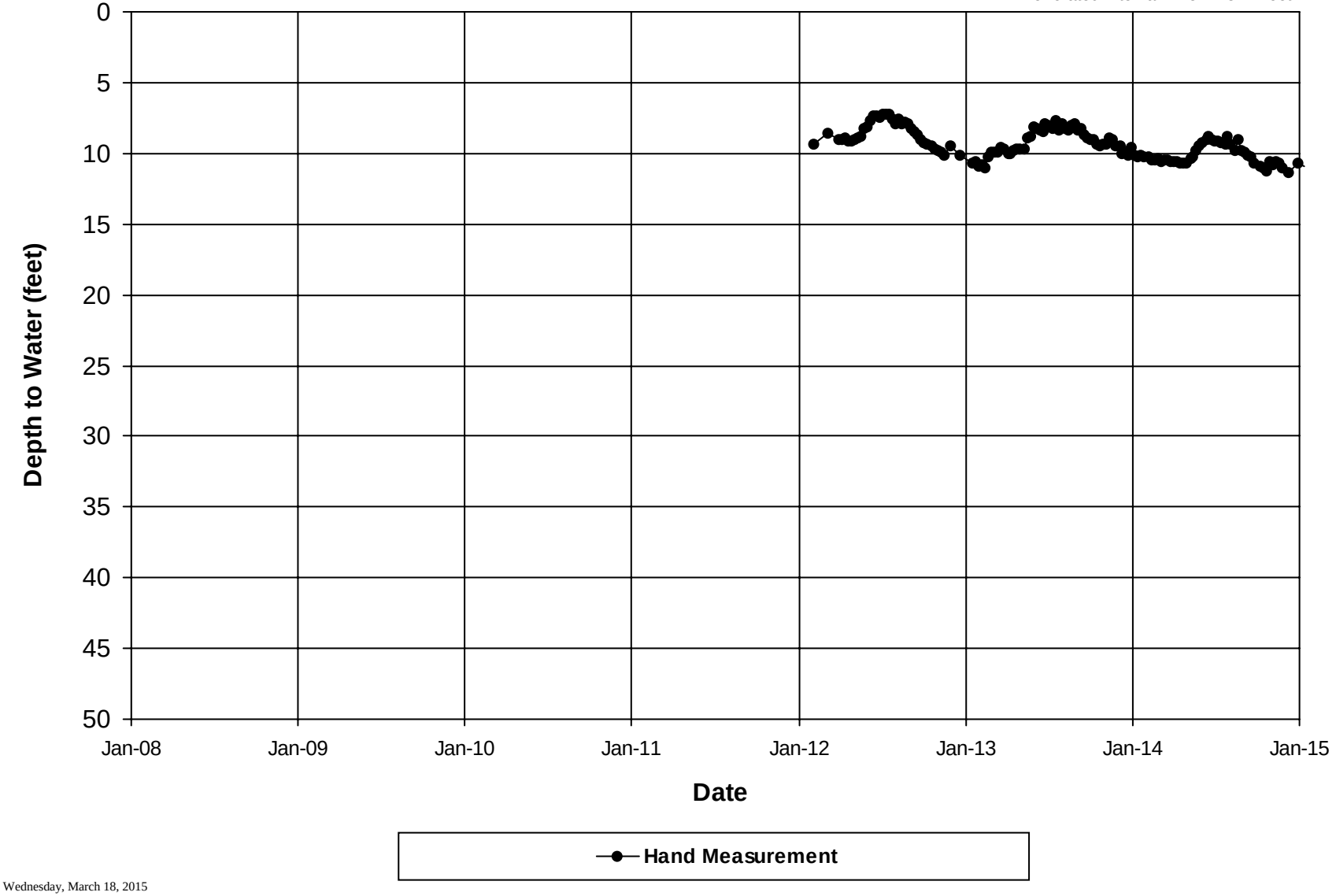


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-10-128

Reach: Reach 3
Reference Elevation: 168 feet NAVD88
Perforated Interval: 15.1 - 31.1 feet

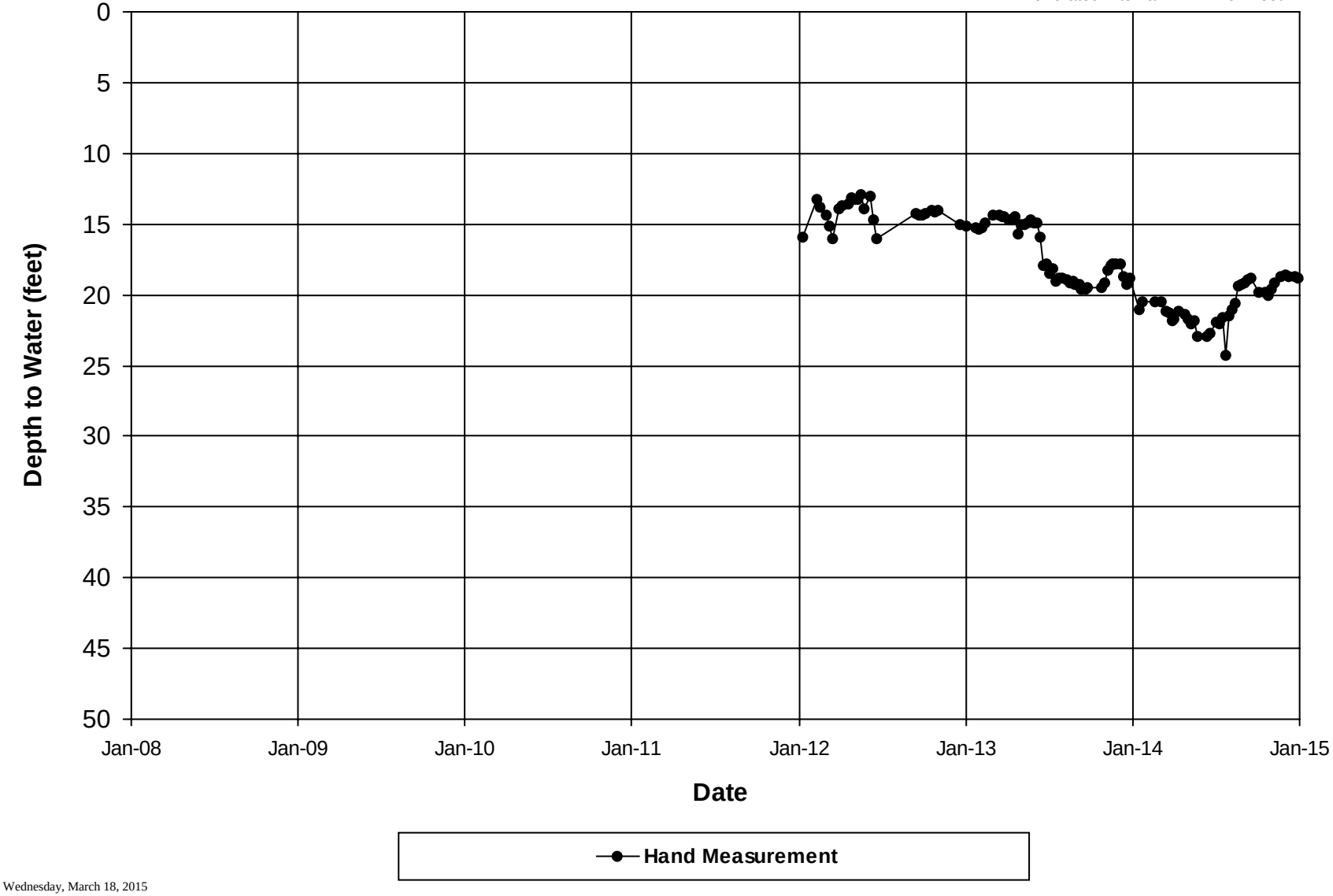


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-155

Reach: Reach 3
Reference Elevation: 132.9 feet NAVD88
Perforated Interval: 7.1 - 16.1 feet

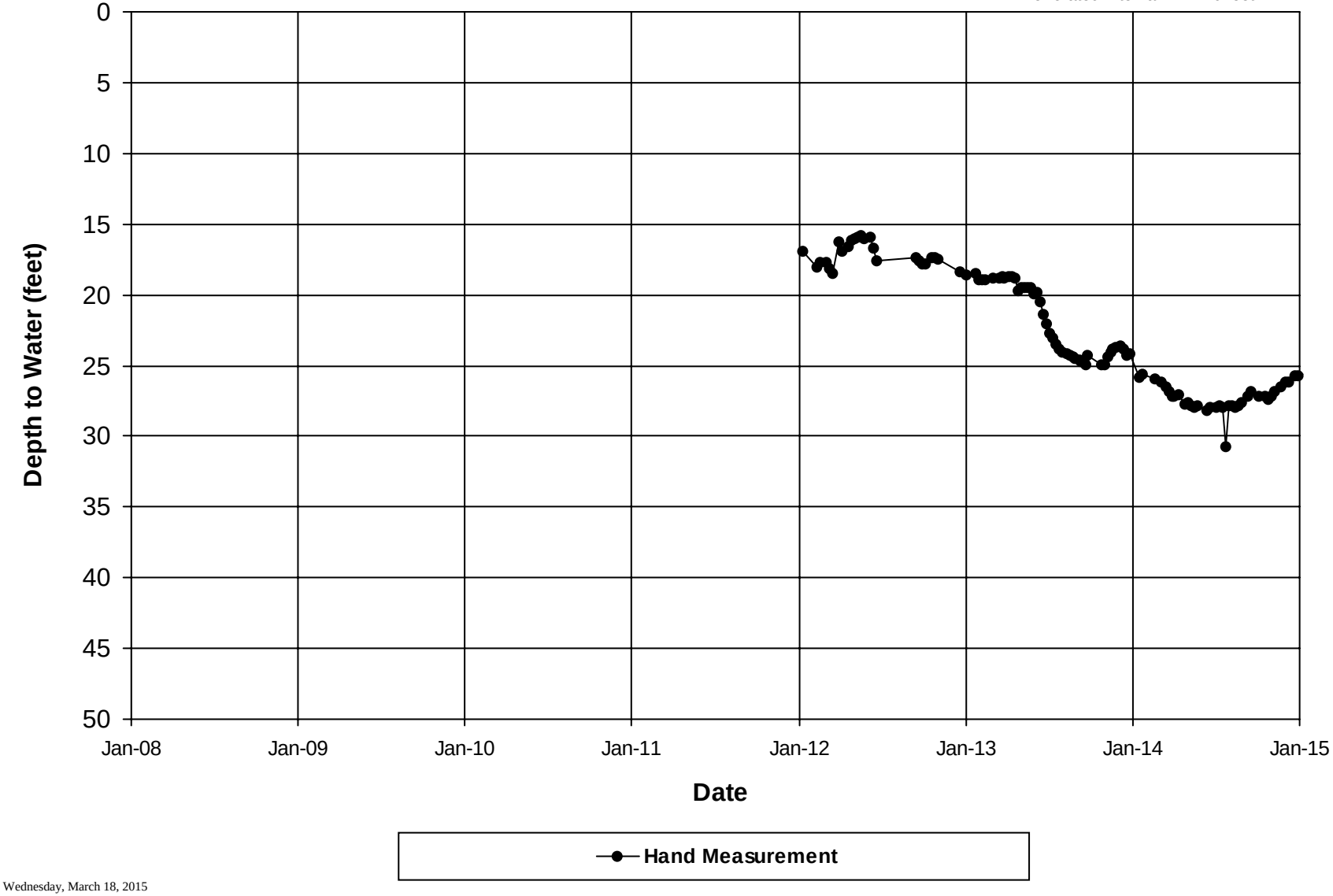


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-156

Reach: Reach 3
Reference Elevation: 135.7 feet NAVD88
Perforated Interval: 7 - 16 feet

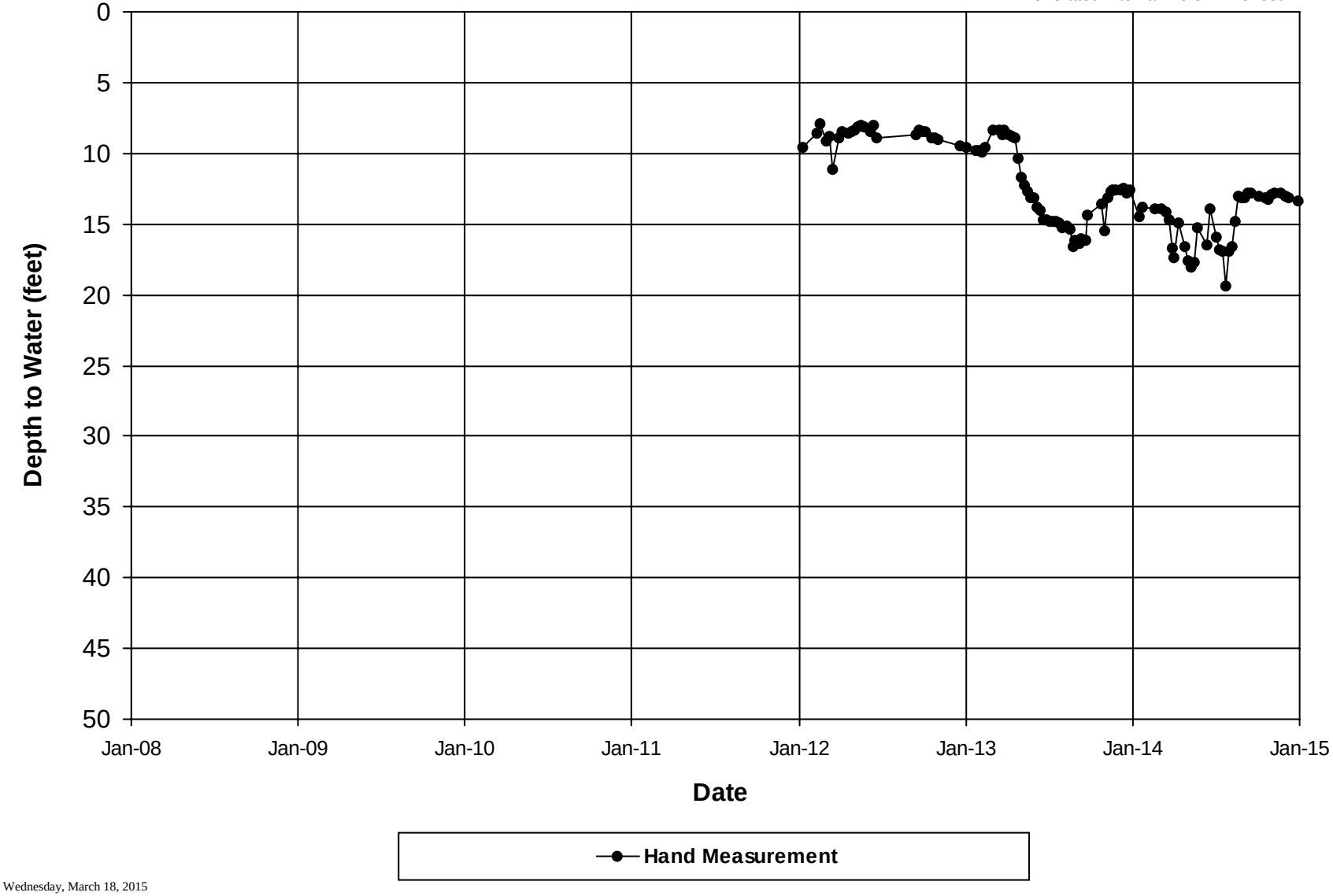


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-157

Reach: Reach 3
Reference Elevation: 137.8 feet NAVD88
Perforated Interval: 5.3 - 14.3 feet

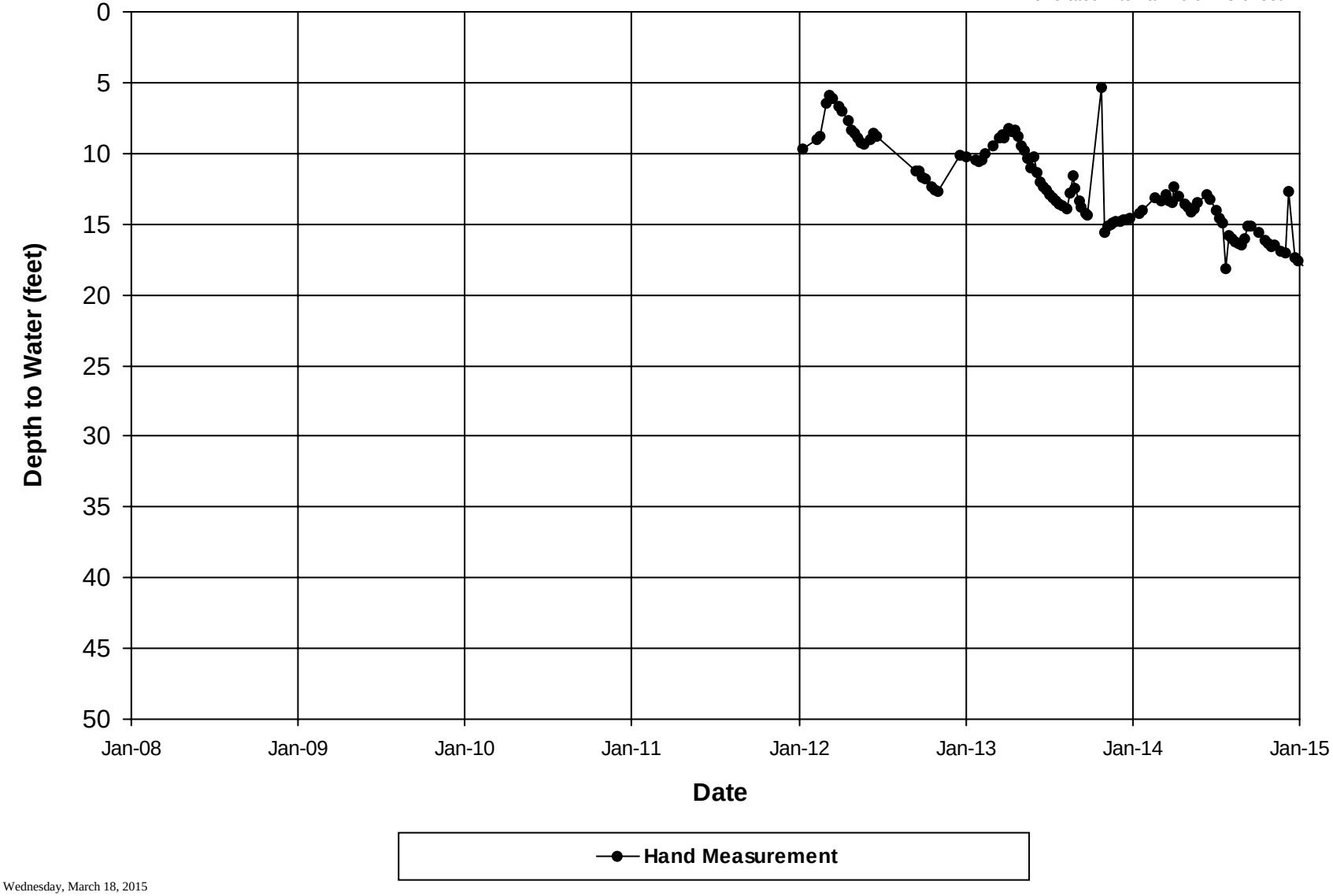


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-161

Reach: Reach 3
Reference Elevation: 142.8 feet NAVD88
Perforated Interval: 6.6 - 15.6 feet

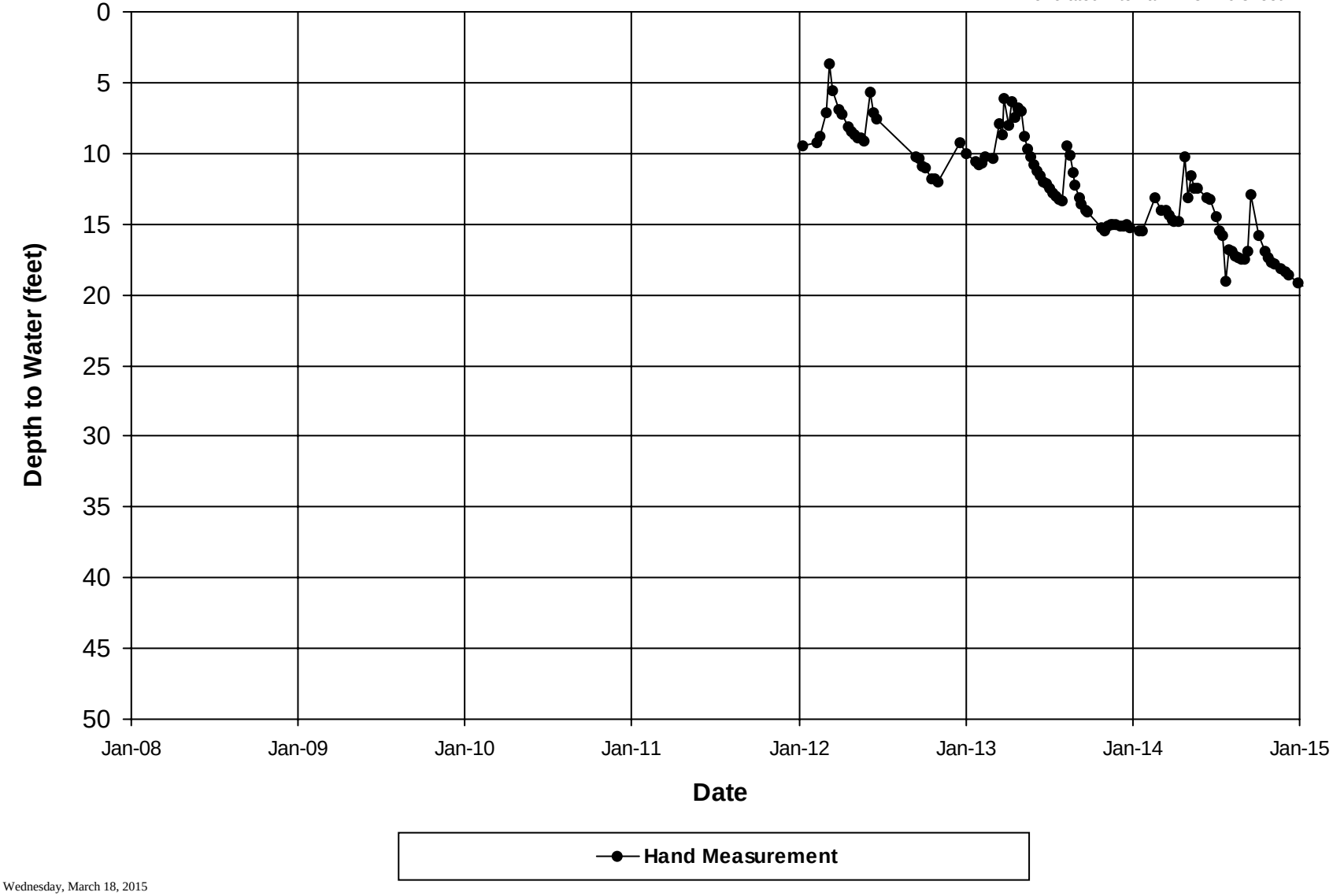


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-163

Reach: Reach 3
Reference Elevation: 132.5 feet NAVD88
Perforated Interval: 7.8 - 16.8 feet

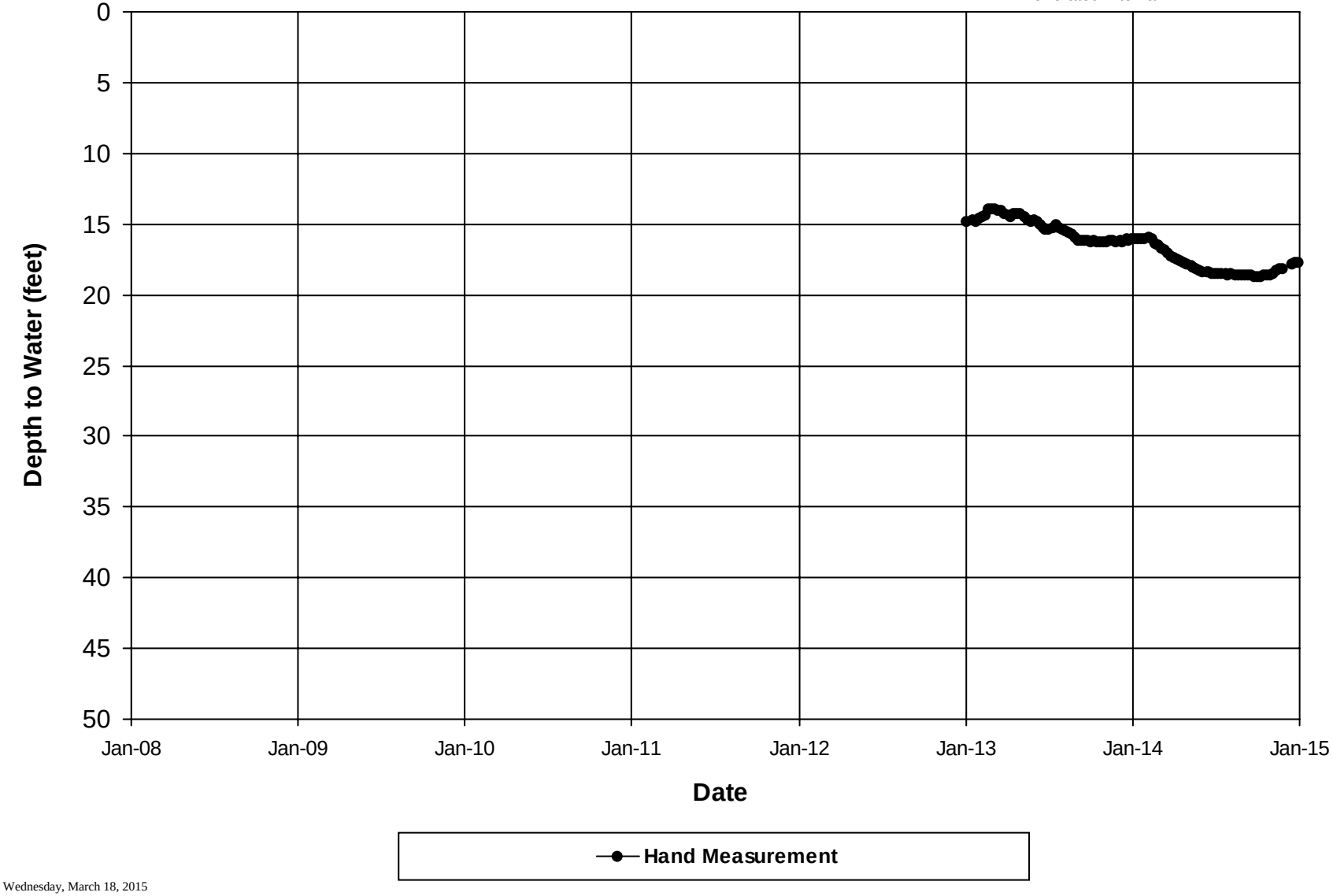


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-11-160

Reach: Reach 3
Reference Elevation: 149.2 feet NAVD88
Perforated Interval: NA

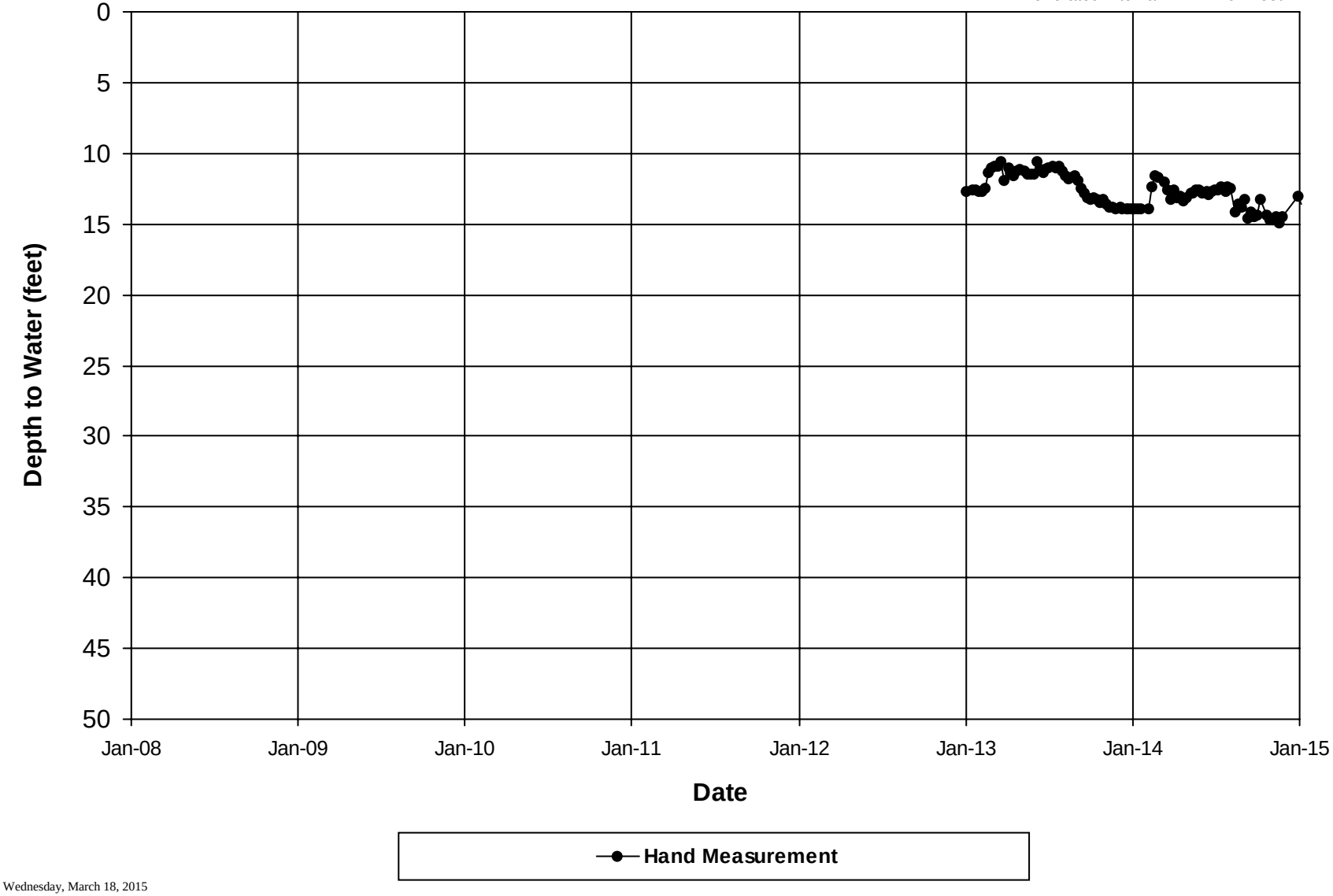


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-355

Reach: Reach 3
Reference Elevation: 145.3 feet NAVD88
Perforated Interval: 7.7 - 16.7 feet

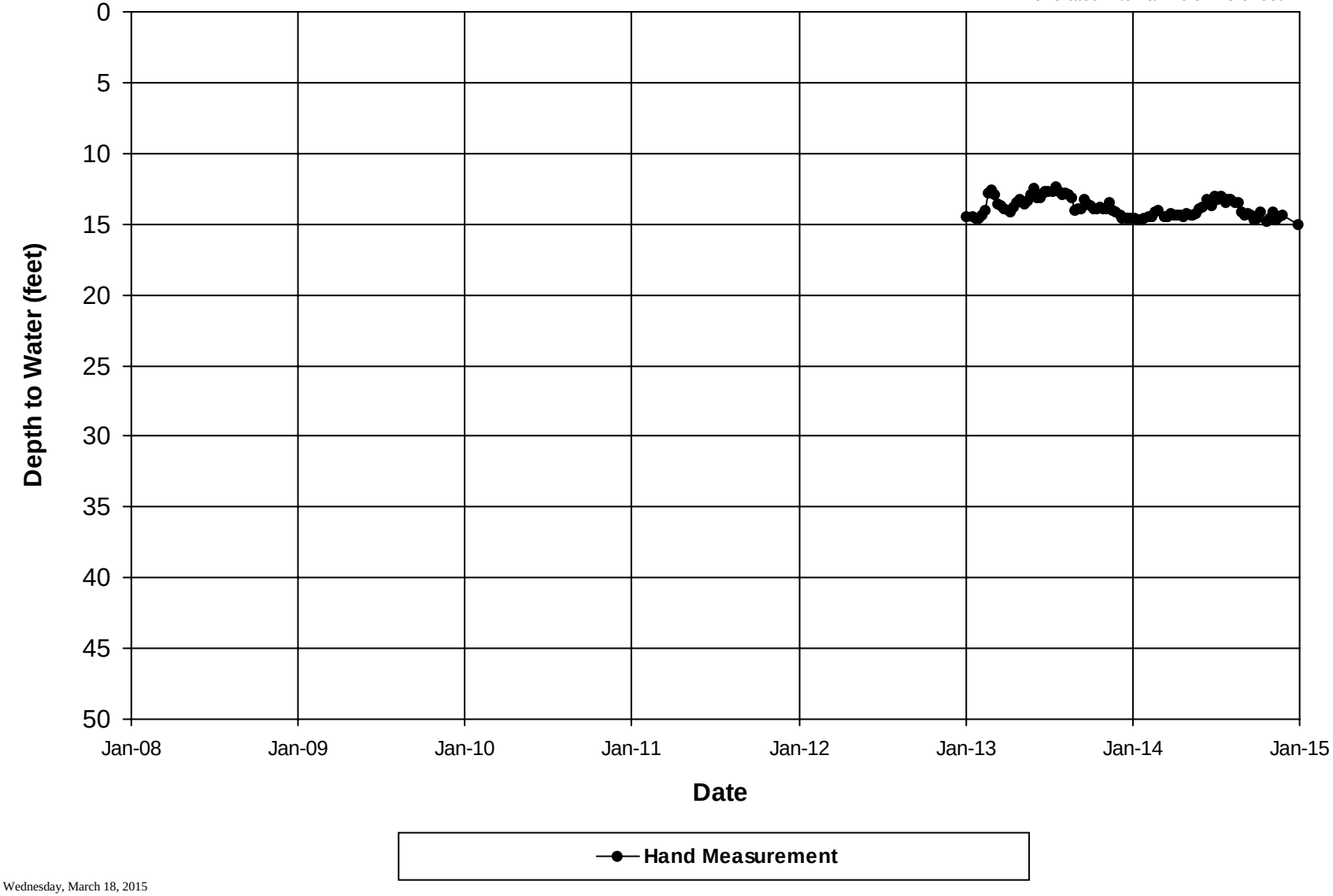


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-359

Reach: Reach 3
Reference Elevation: 148 feet NAVD88
Perforated Interval: 6.9 - 15.9 feet

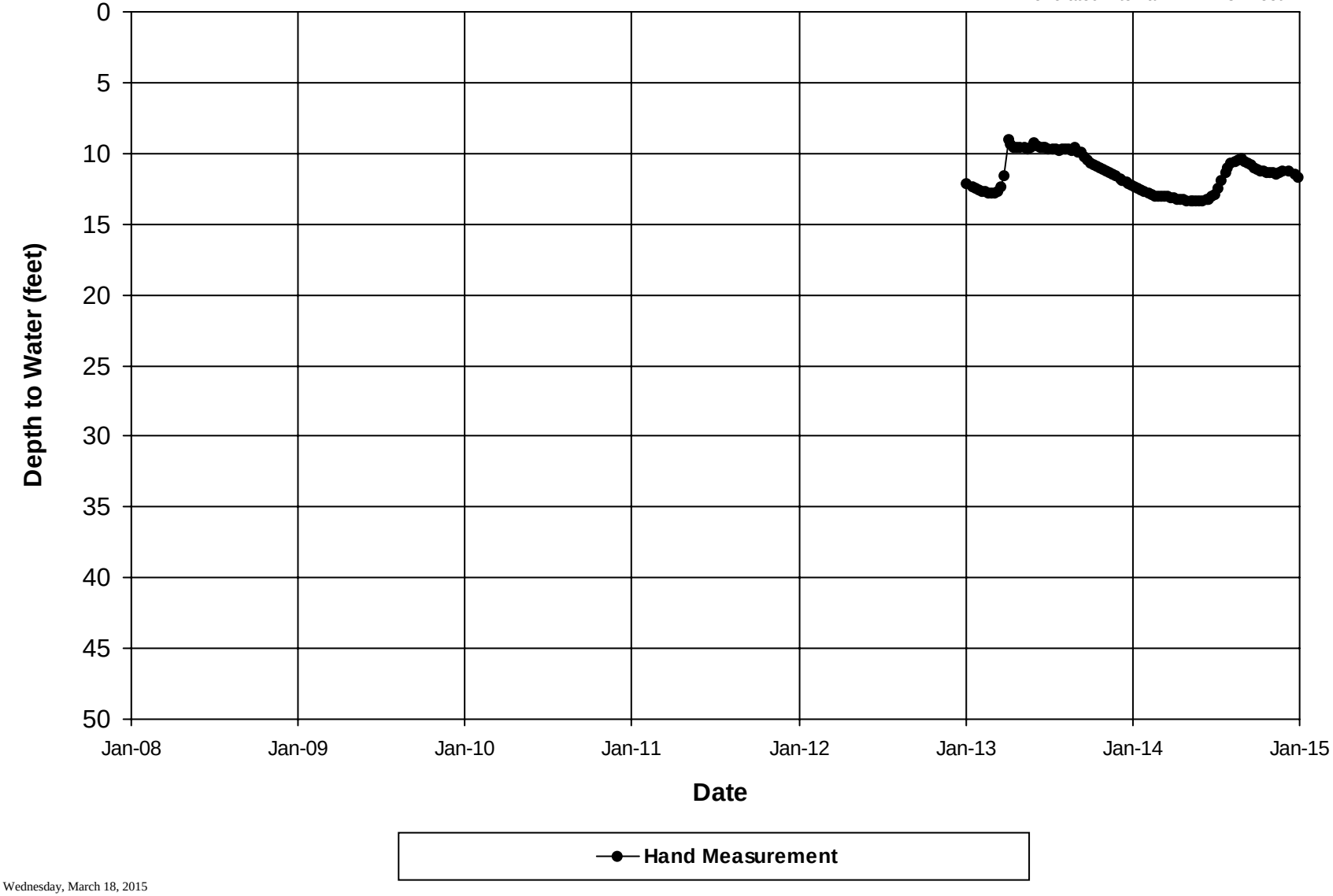


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-364

Reach: Reach 3
Reference Elevation: 154.5 feet NAVD88
Perforated Interval: 4.4 - 13.4 feet

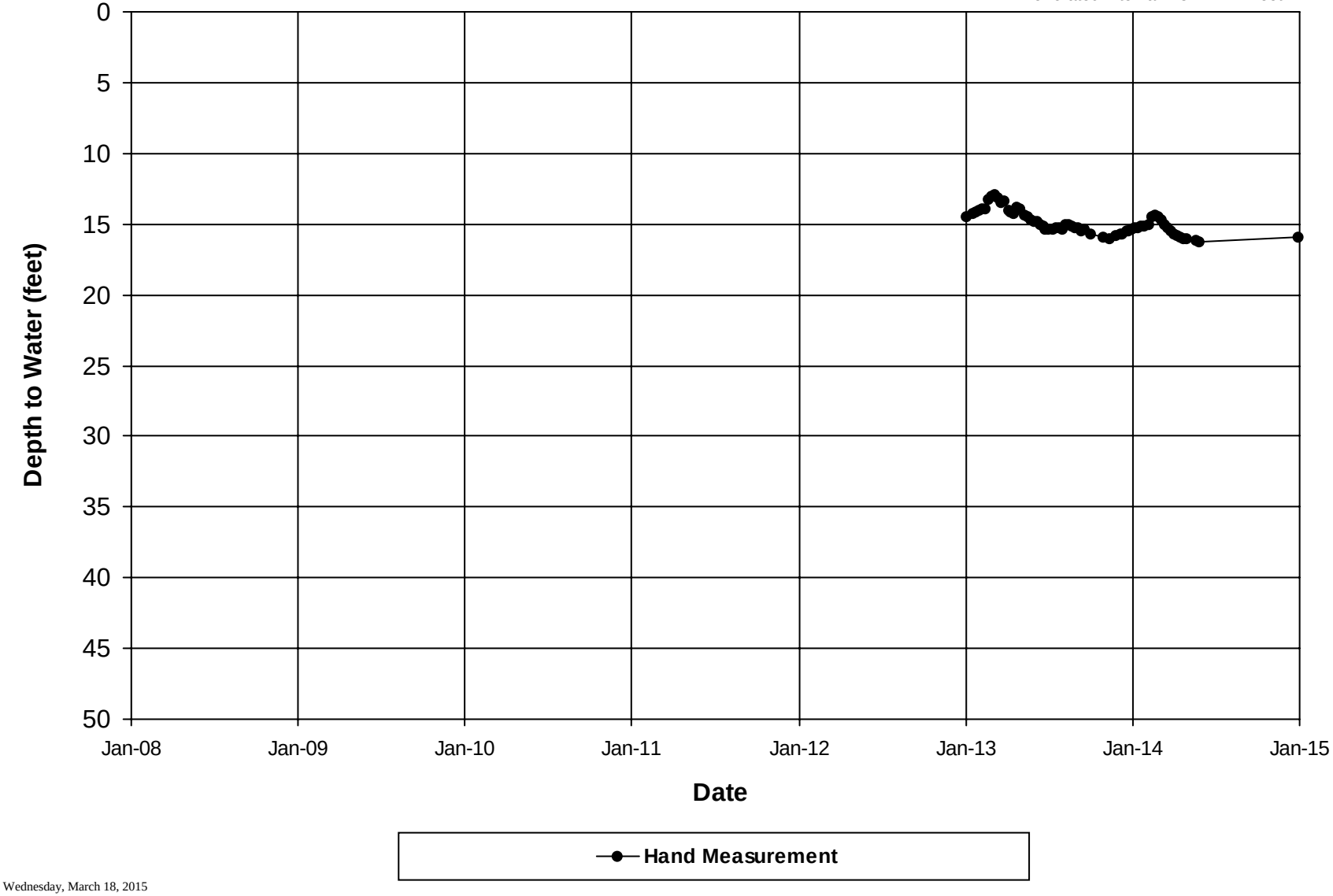


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-369

Reach: Reach 3
Reference Elevation: 146.7 feet NAVD88
Perforated Interval: 8.4 - 17.4 feet

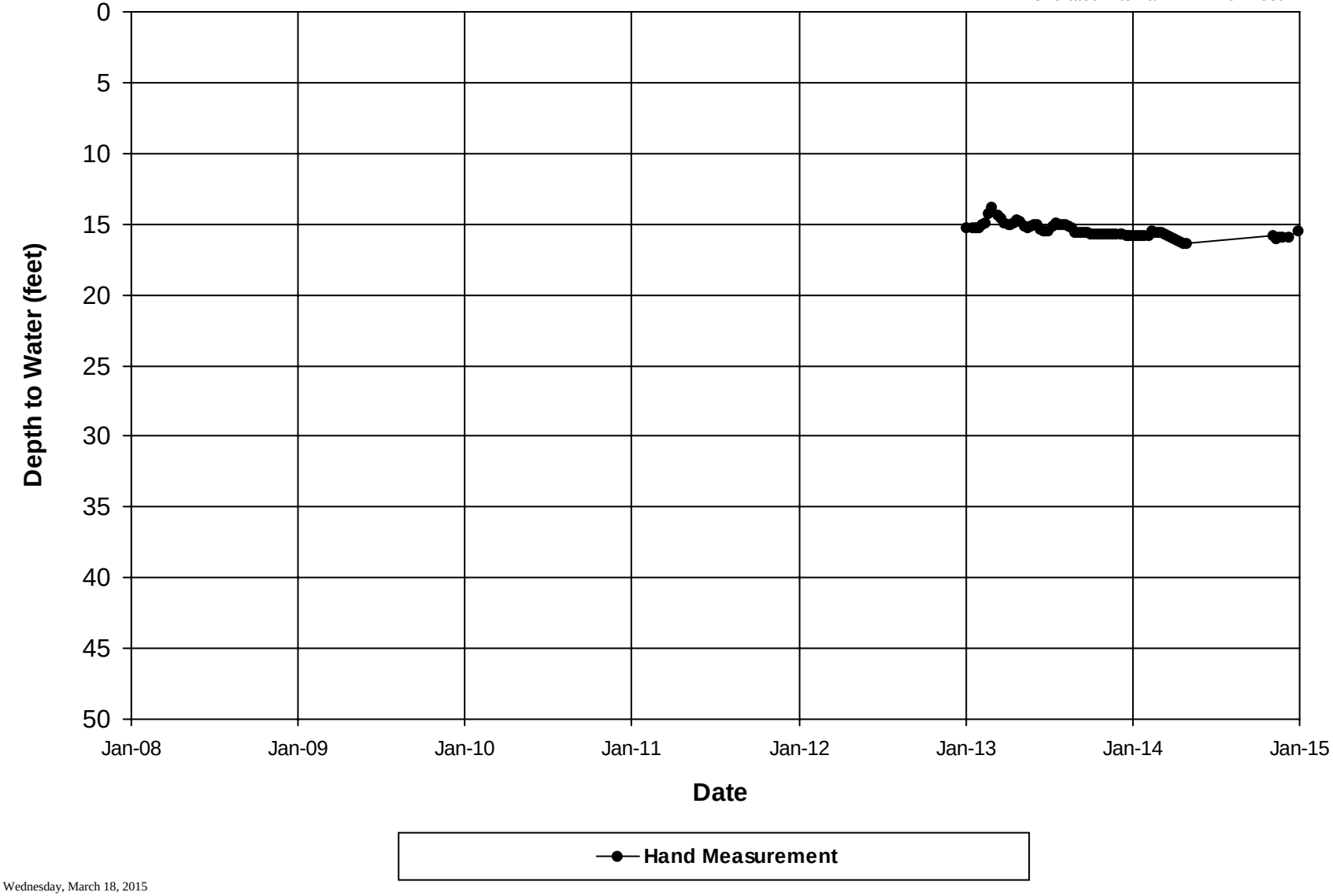


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

MW-370

Reach: Reach 3
Reference Elevation: 150.5 feet NAVD88
Perforated Interval: 7.1 - 16.1 feet

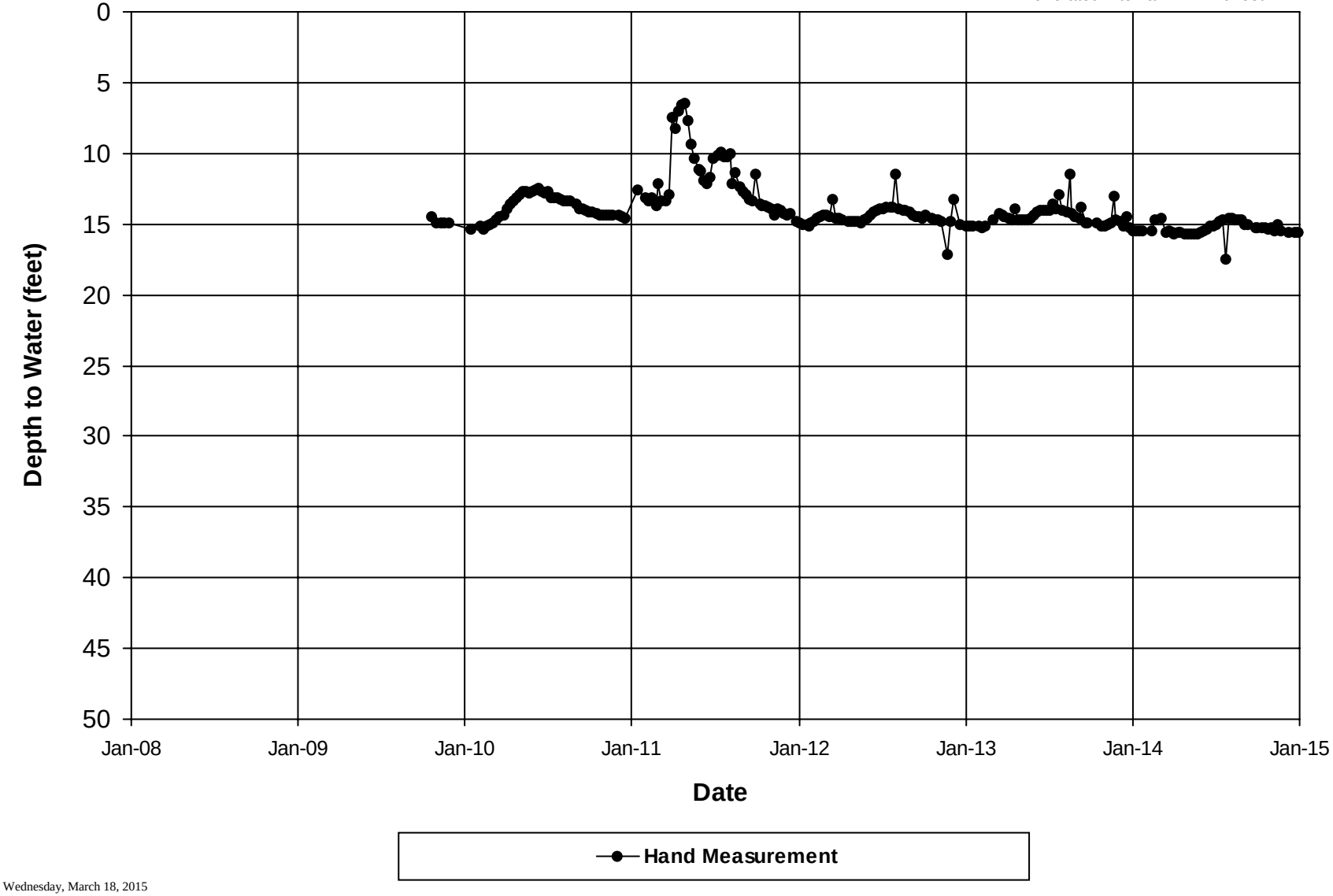


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

PZ-09-R3-3

Reach: Reach 3
Reference Elevation: 140.5 feet NAVD88
Perforated Interval: 17 - 20 feet

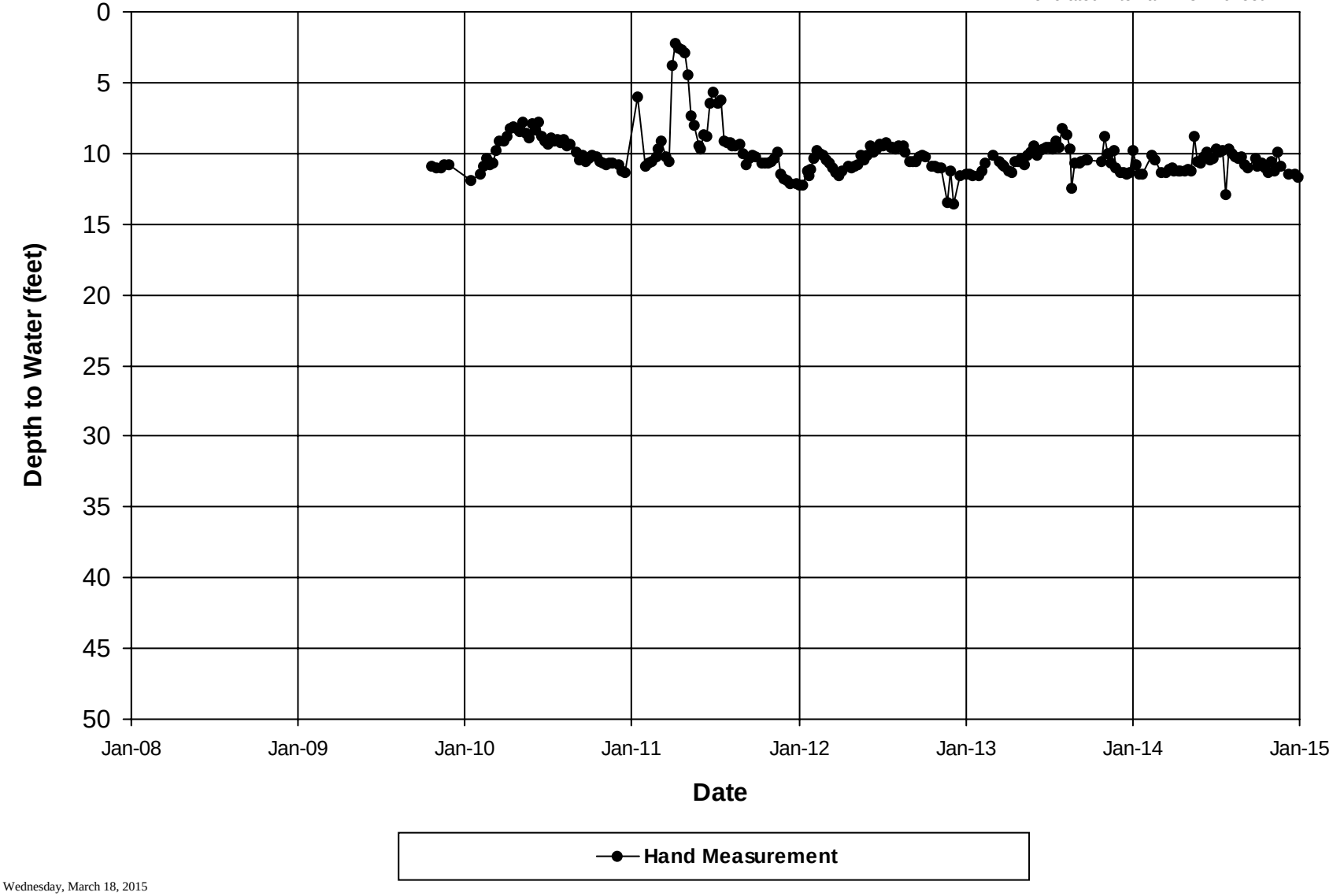


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

PZ-09-R3-4

Reach: Reach 3
Reference Elevation: 140.1 feet NAVD88
Perforated Interval: 13 - 16 feet

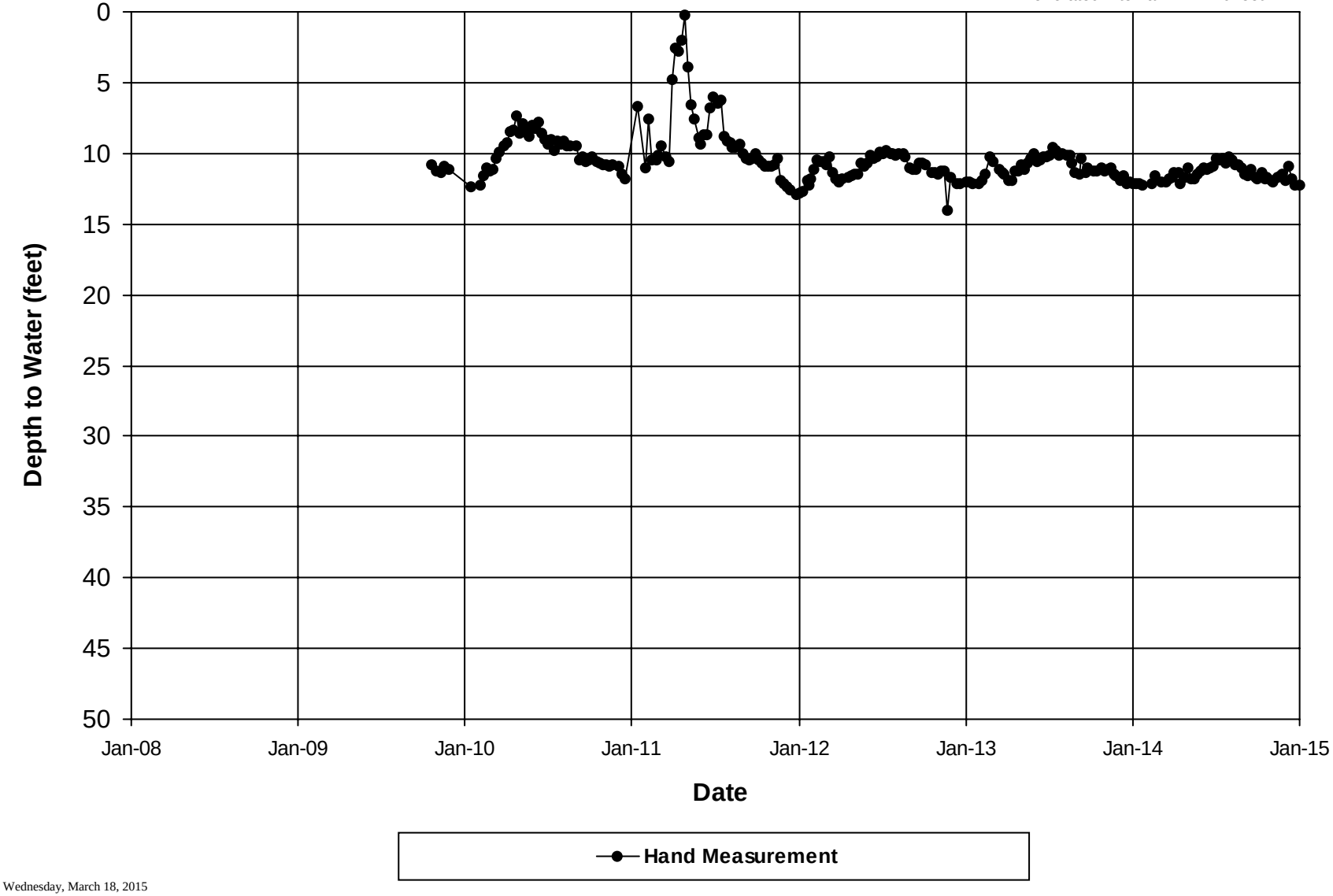


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

PZ-09-R3-5

Reach: Reach 3
Reference Elevation: 145.4 feet NAVD88
Perforated Interval: 17 - 20 feet

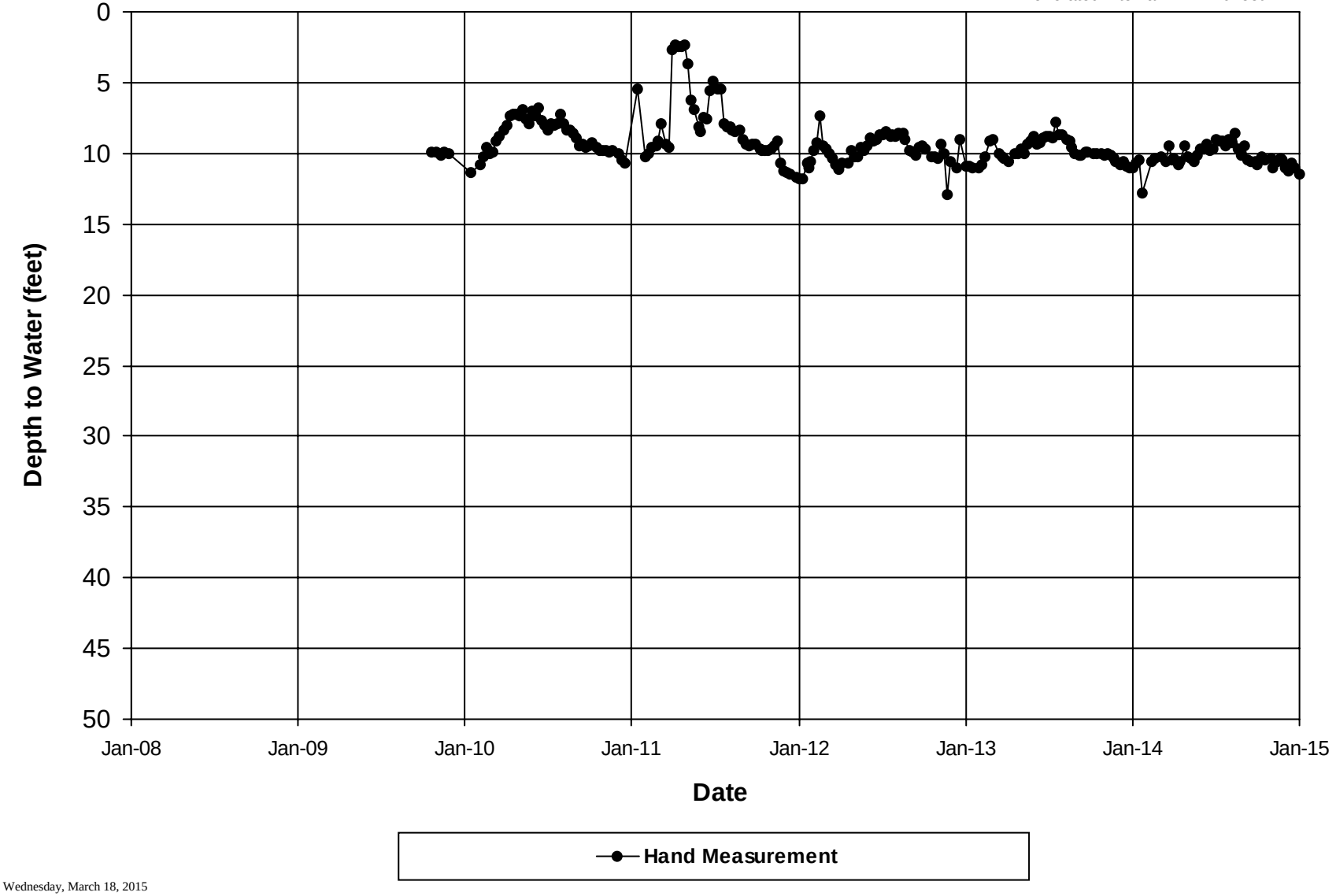


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

PZ-09-R3-6

Reach: Reach 3
Reference Elevation: 143 feet NAVD88
Perforated Interval: 17 - 20 feet

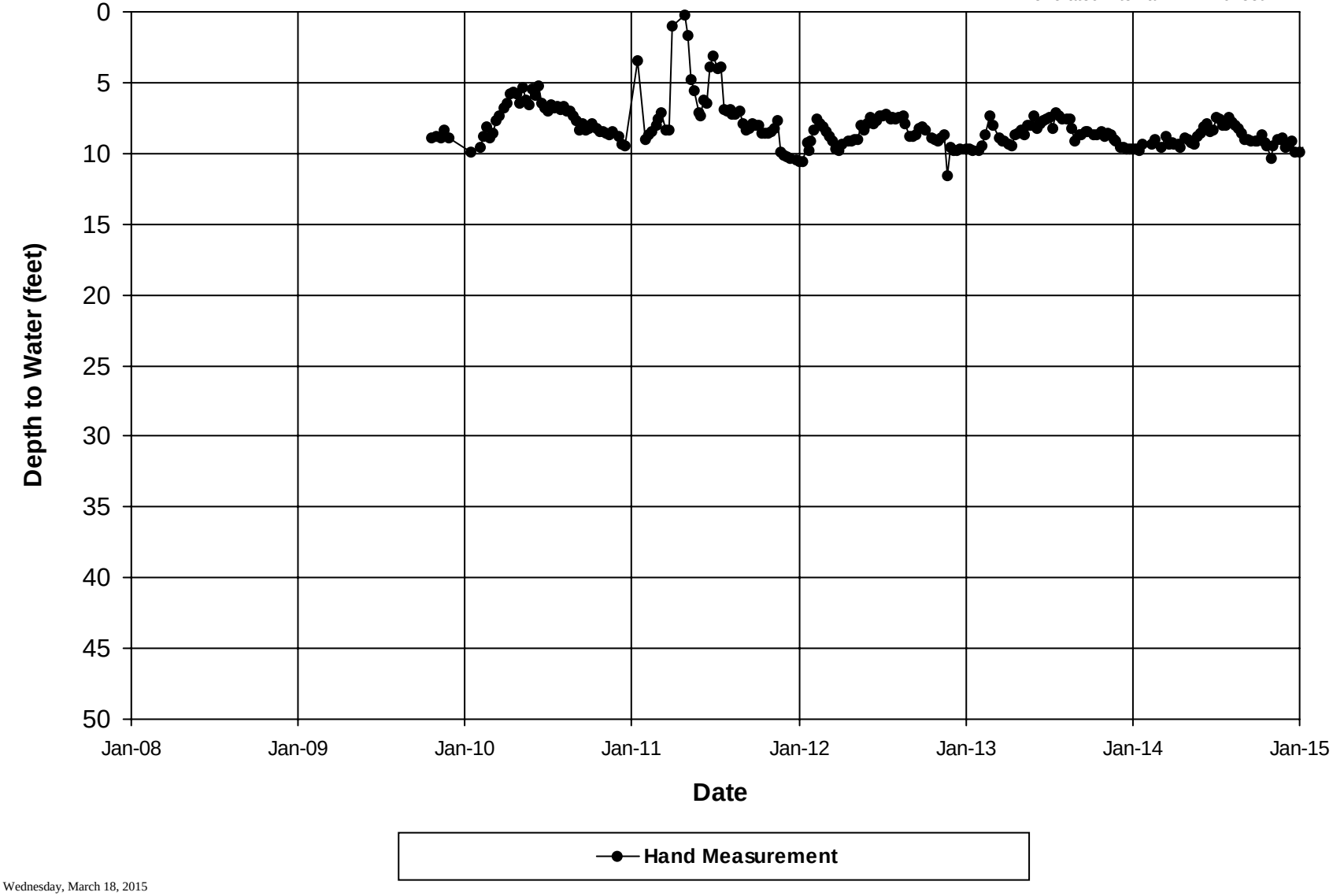


Wednesday, March 18, 2015

SJRRP Monitoring Well Hydrograph

PZ-09-R3-7

Reach: Reach 3
Reference Elevation: 144.6 feet NAVD88
Perforated Interval: 17 - 20 feet



Wednesday, March 18, 2015

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APPENDIX E

GROUNDWATER QUALITY TABLES

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Table E-1
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3730-91 (MW-2)	6/11/2002	JML	1090	-	7.1	-	4	-	-	154	-	-	74	384	17	-	-	0.17	-	-	-	-	-	-	-
3730-91 (MW-2)	3/11/2003	JML	1040	-	6.8	-	-	-	-	185	-	-	75	389	13.2	-	-	0.22	-	-	-	-	-	1.96	-
3730-91 (MW-2)	8/6/2003	JML	900	600	7.0	-	-	-	-	126	-	-	64	366	12.2	-	-	0.22	-	-	-	-	-	0.73	-
3730-91 (MW-2)	8/17/2004	JML	840	538	6.8	-	2.9	-	-	113	-	-	46	305	28	-	-	0.12	-	-	-	-	-	0.87	-
3730-91 (MW-2)	3/14/2005	JML	1480	-	7.0	-	2.9	-	-	120	-	-	67	372	37.6	-	-	0.14	-	-	-	-	-	1.66	-
3730-91 (MW-2)	8/25/2005	JML	1260	-	6.8	-	3.6	-	-	126	-	-	53	207	46.5	-	-	0.13	-	-	-	-	-	1.82	-
3730-91 (MW-2)	3/21/2006	JML	680	-	7.1	-	-	-	-	76	-	-	18	171	14.6	-	-	0.12	-	-	-	-	-	<1	-
3730-91 (MW-2)	9/21/2006	JML	350	224	7.1	-	-	-	-	67	-	-	21	128	10.2	-	-	0.12	-	-	-	-	-	<1	-
3730-91 (MW-2)	8/13/2007	JML	460	-	-	127	3.8	20	8	80	-	38	39	-	13.3	-	-	0.09	-	-	-	-	-	-	-
3730-91 (MW-2)	9/11/2008	JML	540	-	7.1	-	3.4	-	-	92	-	-	35.5	232	23.5	-	-	0.13	-	-	-	-	-	<1	-
3730-91 (MW-2)	8/17/2010	JML	290	-	6.8	-	3.47	-	-	60	-	-	12	131	17.3	-	-	0.09	-	-	-	-	-	-	-
3730-91 (MW-2)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-91 (MW-2)	9/27/2011	JML	200	-	6.53	-	1.99	-	-	34	-	-	9.2	97	2.2	-	-	0.07	-	-	-	-	-	-	-
3730-91 (MW-2)	9/27/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-91 (MW-2)	4/17/2012	FGL	254.8	-	7.19	-	-	12	4.1	33	1.7	11	11	110	3.5	0.15	-	0.025	-	0.0063	0.027	0.0028	-	-	0.0349
3730-91 (MW-2)	8/27/2012	JML	470	-	7.5	-	-	-	-	77	-	-	22	192	16.8	-	-	0.13	-	-	-	-	-	-	-
3730-91 (MW-2)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.24	-
3730-91 (MW-2)	8/5/2013	JML	400	-	7.23	-	-	18	7	65.3	-	-	19.1	186	12.8	-	-	0.11	-	-	-	-	-	-	-
3730-91 (MW-2)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.09	-
3730-91 (MW-2)	8/5/2014	JML	280	-	7.59	-	-	-	-	51	-	-	14	81	8	-	-	0.09	-	-	-	-	-	-	-
3730-91 (MW-2)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-93 (MW-3)	6/11/2002	JML	320	-	7.3	-	3.1	-	-	57	-	-	32	104	ND	-	-	0.15	-	-	-	-	-	-	-
3730-93 (MW-3)	3/11/2003	JML	350	-	7.2	-	-	-	-	70	-	-	34	102	ND	-	-	0.18	-	-	-	-	-	0.7	-
3730-93 (MW-3)	8/6/2003	JML	330	200	7.3	-	-	-	-	57	-	-	25	79	ND	-	-	0.16	-	-	-	-	-	ND	-
3730-93 (MW-3)	8/17/2004	JML	640	410	7.4	-	2.8	-	-	83	-	-	64	177	1.3	-	-	0.18	-	-	-	-	-	<0.4	-
3730-93 (MW-3)	3/14/2005	JML	540	-	7.5	-	3.2	-	-	55	-	-	28	73	0.4	-	-	0.13	-	-	-	-	-	<0.4	-
3730-93 (MW-3)	8/25/2005	JML	550	-	7.1	-	3	-	-	57	-	-	39	244	ND	-	-	0.11	-	-	-	-	-	<0.4	-
3730-93 (MW-3)	3/21/2006	JML	640	-	7.2	-	-	-	-	67	-	-	50	98	0.9	-	-	0.12	-	-	-	-	-	<1	-
3730-93 (MW-3)	9/21/2006	JML	460	294	7.2	-	-	-	-	71	-	-	57	116	<0.1	-	-	0.15	-	-	-	-	-	<1	-
3730-93 (MW-3)	8/13/2007	JML	530	-	-	89	2.9	28	10	72	-	62	74	-	1.3	-	-	0.12	-	-	-	-	-	-	-
3730-93 (MW-3)	9/11/2008	JML	370	-	7.2	-	3	-	-	60	-	-	46	104	ND	-	-	0.18	-	-	-	-	-	<1	-
3730-93 (MW-3)	8/17/2010	JML	410	-	7.4	-	3	-	-	66	-	-	54	106	ND	-	-	0.2	-	-	-	-	-	-	-
3730-93 (MW-3)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-93 (MW-3)	9/27/2011	JML	460	-	6.88	-	2.98	-	-	70	-	-	63.5	111	0.9	-	-	0.19	-	-	-	-	-	-	-
3730-93 (MW-3)	9/27/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-93 (MW-3)	4/17/2012	FGL	523	-	7.54	-	-	26	8.4	61	3.1	47	69	110	0.6	0.05	-	0.12	-	0.0036	0.182	0.0445	-	-	0.0057
3730-93 (MW-3)	8/27/2012	JML	390	-	7.49	-	-	-	-	56	-	-	41	104	ND	-	-	0.18	-	-	-	-	-	-	-
3730-93 (MW-3)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-93 (MW-3)	8/5/2013	JML	300	-	7.26	-	-	13	5	44.6	-	-	26.9	97	<0.2	-	-	0.18	-	-	-	-	-	-	-
3730-93 (MW-3)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-93 (MW-3)	8/5/2014	JML	270	-	7.63	-	-	-	-	45	-	-	27	375	<0.1	-	-	0.15	-	-	-	-	-	-	-
3730-93 (MW-3)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-93 (MW-4)	6/11/2002	JML	1270	-	8.0	-	13	-	-	278	-	-	170	366	6	-	-	0.28	-	-	-	-	-	-	-
2480-93 (MW-4)	3/11/2003	JML	1300	-	7.8	-	-	-	-	349	-	-	173	417	5.6	-	-	0.33	-	-	-	-	-	1.85	-
2480-93 (MW-4)	8/6/2003	JML	1580	1000	7.8	-	-	-	-	349	-	-	174	415	5.6	-	-	0.33	-	-	-	-	-	1.62	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
2480-93 (MW-4)	3/14/2005	JML	2650	-	7.9	-	13.5	-	-	326	-	-	195	531	29.7	-	-	0.33	-	-	-	-	-	1.28	-
2480-93 (MW-4)	8/25/2005	JML	2170	-	7.6	-	12.7	-	-	129	-	-	227	183	27	-	-	0.29	-	-	-	-	-	1.01	-
2480-93 (MW-4)	3/21/2006	JML	2490	-	7.7	-	-	-	-	372	-	-	206	567	22.6	-	-	0.34	-	-	-	-	-	1.1	-
2480-93 (MW-4)	9/21/2006	JML	1730	1107	7.6	-	-	-	-	136	-	-	195	295	19.5	-	-	0.43	-	-	-	-	-	1.01	-
2480-93 (MW-4)	8/13/2007	JML	1500	-	-	373	16.7	25	5	345	-	99	172	-	42.5	-	-	0.32	-	-	-	-	-	-	-
2480-93 (MW-4)	9/11/2008	JML	1490	-	7.8	-	13.8	-	-	356	-	-	202	519	36.3	-	-	0.32	-	-	-	-	-	1.4	-
2480-93 (MW-4)	8/17/2010	JML	1750	-	7.6	-	12.32	-	-	405	-	-	246	513	61.1	-	-	0.34	-	-	-	-	-	-	-
2480-93 (MW-4)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.02	-
2480-93 (MW-4)	9/27/2011	JML	240	-	7.93	-	13.52	-	-	67	-	-	3.9	154	0.4	-	-	0.13	-	-	-	-	-	-	-
2480-93 (MW-4)	9/27/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-
2480-93 (MW-4)	4/17/2012	FGL	300	-	8.39	-	-	2.4	0.6	69	0.6	2.3	3.3	170	1.6	0.7	-	0.099	-	0.0031	0.769	0.0678	-	-	0.0118
2480-93 (MW-4)	8/27/2012	JML	300	-	8.24	-	-	-	-	78	-	-	4.3	179	1.8	-	-	0.15	-	-	-	-	-	-	-
2480-93 (MW-4)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-93 (MW-4)	8/5/2013	JML	400	-	8.21	-	-	3.8	0.85	104	-	-	9.217	274	3.5	-	-	0.22	-	-	-	-	-	-	-
2480-93 (MW-4)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-91 (MW-5)	6/11/2002	JML	1060	-	7.5	-	5.3	-	-	175	-	-	124	336	5	-	-	0.25	-	-	-	-	-	-	-
3431-91 (MW-5)	3/11/2003	JML	1150	-	7.4	-	-	-	-	229	-	-	139	306	13.5	-	-	0.29	-	-	-	-	-	1.7	-
3431-91 (MW-5)	8/6/2003	JML	1090	700	7.4	-	-	-	-	230	-	-	138	366	13.5	-	-	0.29	-	-	-	-	-	0.83	-
3431-91 (MW-5)	8/17/2004	JML	1160	742	7.5	-	6.4	-	-	195	-	-	128	317	69	-	-	0.25	-	-	-	-	-	1.02	-
3431-91 (MW-5)	3/14/2005	JML	1970	-	7.5	-	5.1	-	-	191	-	-	138	329	60.2	-	-	0.26	-	-	-	-	-	1.1	-
3431-91 (MW-5)	8/25/2005	JML	1610	-	7.3	-	5.1	-	-	184	-	-	138	171	62	-	-	0.22	-	-	-	-	-	0.77	-
3431-91 (MW-5)	3/21/2006	JML	1950	-	7.3	-	-	-	-	193	-	-	149	342	56.2	-	-	0.25	-	-	-	-	-	<1	-
3431-91 (MW-5)	9/21/2006	JML	1500	960	7.5	-	-	-	-	278	-	-	188	433	57.6	-	-	0.3	-	-	-	-	-	<1	-
3431-91 (MW-5)	8/13/2007	JML	1510	-	-	289	6.6	87	14	251	-	127	211	-	75.3	-	-	0.23	-	-	-	-	-	-	-
3431-91 (MW-5)	9/11/2008	JML	1350	-	7.5	-	5.6	-	-	225	-	-	199	372	76.6	-	-	0.28	-	-	-	-	-	<1	-
3431-91 (MW-5)	8/17/2010	JML	1220	-	7.4	-	5.07	-	-	206	-	-	142	344	84.6	-	-	0.32	-	-	-	-	-	-	-
3431-91 (MW-5)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-91 (MW-5)	9/27/2011	JML	1240	-	7.61	-	4.79	-	-	191	-	-	126	374	73	-	-	0.31	-	-	-	-	-	-	-
3431-91 (MW-5)	9/27/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-91 (MW-5)	4/17/2012	FGL	1375	-	7.48	-	-	90	13.6	190	2.6	115	160	320	78	-	-	0.23	-	0.0012	0.386	0.0137	-	-	0.0069
3431-91 (MW-5)	8/27/2012	JML	1350	-	7.93	-	-	-	-	200	-	-	144	363	73.9	-	-	0.28	-	-	-	-	-	-	-
3431-91 (MW-5)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.927	-
3431-91 (MW-5)	8/5/2013	JML	1280	-	7.5	-	-	82	15	181	-	-	133	384	70.8	-	-	0.28	-	-	-	-	-	-	-
3431-91 (MW-5)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.08	-
3431-91 (MW-5)	8/5/2014	JML	1340	-	7.9	-	-	-	-	204	-	-	168	199	89.4	-	-	0.32	-	-	-	-	-	-	-
3431-91 (MW-5)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-96 (MW-10)	11/17/2006	BSK	1300	810	8.0	360	-	96	17	170	2.6	110	120	440	34	-	-	0.37	-	-	<0.05	0.24	-	-	-
2480-96 (MW-10)	11/29/2011	DL	1240	-	8.1	375	-	78	14.3	166	-	96	110	-	93.9	-	-	0.38	-	-	0.01	0.27	-	-	-
2480-96 (MW-10)	4/17/2012	FGL	1228	-	7.66	-	-	79	14.4	179	4.2	98	110	410	22	-	-	0.28	-	0.139	0.144	0.14	-	-	0.0358
3561-93 (MW-11)	11/16/2006	BSK	1600	1000	8.0	270	-	100	20	260	3	180	250	330	40	-	-	0.5	-	-	<0.05	0.61	-	-	-
3561-93 (MW-11)	11/29/2011	DL	1320	-	8.1	240	-	43	10	200	-	130	170	-	5.9	-	-	0.52	-	-	0.01	0.01	-	-	-
3561-93 (MW-11)	4/17/2012	FGL	1296	-	8.05	-	-	47	10.3	217	14	133	170	270	28	0.01	-	0.48	-	0.0071	0.107	0.0574	-	-	0.0175
3561-94 (MW-12)	11/17/2006	BSK	1400	860	7.7	280	-	58	11	230	3	200	100	342	26	-	-	0.46	-	-	<0.05	<0.01	-	-	-
3561-94 (MW-12)	11/29/2011	DL	1200	-	7.1	210	-	88	16.4	133	-	183	120	-	8.2	-	-	0.37	-	-	0.01	0.01	-	-	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3561-94 (MW-12)	4/17/2012	FGL	1186	-	6.9	-	-	99	26.6	118	5	273	100	200	37	0.13	-	0.15	-	0.062	28.355	4.66	-	-	0.2747
3561-92 (MW-13)	11/16/2006	BSK	1200	770	8.0	210	-	42	8.7	200	<2	120	150	260	51	-	-	0.48	-	-	<0.05	<0.01	-	-	-
3561-92 (MW-13)	11/29/2011	DL	1200	-	8.2	225	-	41	8.6	184	-	115	150	-	7.8	-	-	0.45	-	-	0.01	0.01	-	-	-
3561-92 (MW-13)	4/17/2012	FGL	1192	-	8.19	-	-	44	8.6	206	4	123	150	260	38	0.09	-	0.43	-	0.0067	0.224	0.0137	-	-	0.014
3561-91 (MW-14)	11/17/2006	BSK	2000	1200	7.9	380	-	53	16	380	7	190	270	464	63	-	-	0.75	-	-	<0.05	<0.01	-	-	-
3561-91 (MW-14)	11/29/2011	DL	1960	-	7.5	415	-	43	9.4	354	-	168	230	-	236.8	-	-	0.61	-	-	0.01	0.01	-	-	-
3561-91 (MW-14)	4/17/2012	FGL	1952	-	7.21	-	-	43	8.7	414	2.9	179	240	290	56	0.24	-	0.56	-	0.00022	0.01	0.0013	-	-	0.0072
MW-3730-94	11/29/2011	DL	250	-	6.9	85	-	11	2.6	41	-	10	7.1	-	66.4	-	-	0.12	-	-	0.01	0.01	-	-	-
MW-3730-94	4/17/2012	FGL	350	-	6.74	-	-	28	9.3	37	0.7	37	15	82	41	0.15	-	0.047	-	0.03	8.069	0.51	-	-	0.1149
MW-3921-91	11/29/2011	DL	2710	-	7.8	195	-	300	50.7	267	-	1013	200	-	7.8	-	-	0.63	-	-	0.01	0.01	-	-	-
MW-3921-91	4/17/2012	FGL	3230	-	7.35	-	-	370	65.4	356	7.1	1148	380	180	84	0.13	-	0.81	-	0.015	5.42	0.4	-	-	0.0969
MW-3921-92	4/17/2012	FGL	2878	-	6.92	-	-	270	30.4	352	4.4	668	490	66	140	0.17	-	0.29	-	0.0023	0.023	0.18	-	-	0.0092
MW-3921-93	4/17/2012	FGL	5640	-	7.27	-	-	410	84.3	886	7.5	1721	970	290	180	0.21	-	0.61	-	0.0043	0.018	0.0569	-	-	0.0204
City of Mendota																									
M-2	8/4/1999	FGL	509	320	6.8	-	2.5	25	10	58	2	42	51	200	<0.4	-	<2	0.2	-	-	5.8	0.7	-	<2	-
M-2	9/27/1999	FGL	627	370	6.7	-	2.8	33	14	75	3	59	65	210	<0.4	-	3	0.3	-	-	7.5	1	-	<2	-
M-2	8/23/2000	FGL	1350	780	6.7	160	8.1	35	15	226	4	201	174	190	<0.4	0.2	-	0.5	-	<0.01	8.12	1.21	-	<10	<0.02
M-2	6/28/2001	FGL	1020	650	6.8	130	4.4	42	16	133	4	154	132	160	<0.4	0.1	2	0.36	-	<0.01	8.49	1.24	10	-	<0.02
M-2	6/28/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
M-2	10/1/2001	FGL	1150	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M-2	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
M-2	6/25/2002	FGL	1150	690	6.8	140	5.1	42	17	155	4	197	147	170	<0.4	<0.1	3	0.44	-	<0.01	7.66	1.27	-	-	<0.02
M-2	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	<0.4	-
M-2	7/8/2003	FGL	879	670	7.7	140	-	42	15	127	4	123	121	170	<0.4	0.2	2	0.32	-	<0.01	4.8	0.88	-	-	<0.02
M-2	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.25	<0.4	-
M-3	4/8/1993	NA	1040	597	6.6	-	3.3	52	20	110	4	150	130	180	-	-	-	-	-	-	-	-	-	-	-
M-3	6/28/2001	FGL	1390	810	6.8	160	6.4	46	18	203	4	218	184	190	<0.4	0.1	3	0.51	-	<0.01	9.27	1.35	10	-	<0.02
M-3	6/28/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
M-3	10/1/2001	FGL	1160	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M-3	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
M-3	7/8/2003	FGL	1760	1060	7.4	190	-	52	20	296	6	305	285	230	<0.4	0.3	3	0.73	-	<0.01	9.4	1.25	-	-	<0.02
M-3	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	<0.4	-
M-4	10/1/2001	FGL	1250	760	6.7	180	5.4	49	19	177	4	196	169	220	<0.4	0.1	3	0.52	-	<0.01	8.57	1.21	-	-	<0.02
M-4	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.7	<0.4	-
M-4	7/8/2003	FGL	1270	780	7.3	180	-	43	18	222	5	187	196	220	<0.4	0.3	3	0.49	-	<0.01	7.64	0.9	-	-	<0.02
M-4	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.35	<0.4	-
M-5	10/1/2001	FGL	769	480	6.9	160	3.4	37	16	99	3	88	101	200	<0.4	0.1	<2	0.35	-	<0.01	8.76	1.27	-	-	<0.02
M-5	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.6	<0.4	-
M-5	7/8/2003	FGL	772	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M-6	6/28/2001	FGL	632	430	6.7	150	2.3	35	15	65	3	63	60	180	<0.4	0.1	<2	0.27	-	<0.01	7.59	1.07	3	-	<0.02
M-6	6/28/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																									
M-6	10/1/2001	FGL	629	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M-6	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
M-6	6/25/2002	FGL	650	390	6.7	160	2.1	36	16	61	3	43	83	190	<0.4	<0.1	3	0.26	-	<0.01	7.93	1.06	-	-	<0.02
M-6	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	0.4	-
M-6	7/8/2003	FGL	685	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
U.S. Geological Survey																									
31J4	11/21/1985	USGS	3290	1960	8.0	-	19.9	31	29	640	3	370	720	262	<0.4	-	<1	1	-	-	0.25	0.21	-	<1	-
31J4	4/23/1987	USGS	3270	1830	8.4	-	16.9	34	30	560	3	360	670	273	2	-	1	1	-	-	0.2	0.02	-	<1	-
31J4	8/2/1999	FGL	5740	3700	7.0	-	16.5	95	99	960	7	930	1360	260	<0.4	-	<2	1.4	-	-	0.83	1	-	-	-
31J4	9/28/1999	FGL	5970	3670	6.7	-	15.6	102	108	950	9	870	1290	280	0.6	-	<2	1.6	-	-	1.14	1.37	-	<2	-
31J4	8/25/2000	FGL	5890	3730	6.7	200	16.4	98	101	970	7	840	1240	250	<0.8	0.6	-	1.4	-	<0.01	0.83	1.22	-	<10	<0.02
31J4	6/27/2001	FGL	5940	3490	7.0	210	15.8	101	105	950	8	910	1240	260	<0.8	0.7	<2	1.43	-	<0.01	1.21	1.34	10	-	<0.02
31J4	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
31J4	6/26/2002	FGL	6370	4170	6.8	220	19.4	113	123	1250	9	1030	1580	260	<0.4	0.3	<2	1.37	-	<0.01	1.74	1.71	-	-	<0.02
31J4	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	<0.4	-
31J4	7/9/2003	FGL	6960	4570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31J4	6/18/2004	FGL	7520	4940	7.0	270	-	172	177	1460	7	1100	1760	330	<0.4	1	<2	2	-	<0.01	1.32	1.45	-	-	<0.02
31J4	6/18/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	<0.4	-
31J4	8/7/2006	FGL	7740	5110	7.0	250	-	148	149	1610	8	1250	1900	300	<0.4	0.4	5	2.3	-	<0.01	1.38	1.19	-	-	<0.02
31J4	8/7/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.9	<0.4	-
31J4	9/19/2007	FGL	7780	5080	7.6	260	21.5	172	167	1650	7	1280	1950	310	<0.4	0.4	6	2.33	-	<0.01	1.9	1.85	-	-	0.08
31J4	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	<0.4	-
31J4	9/17/2008	FGL	8060	5230	7.0	102	16.9	174	170	1310	10	1260	1910	125	<0.4	0.7	6	2.2	-	<0.01	2.15	1.67	-	-	<0.02
31J4	9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.73	<0.4	-
31J4	5/12/2010	FGL	8310	5370	6.8	220	20	186	178	1590	7	1300	2050	260	<0.8	0.9	3	2.1	-	<0.01	2.24	1.23	12	-	<0.02
31J4	5/12/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
31J4	5/7/2013	FGL	8230	5540	6.9	240	-	193	177	1550	8	1200	1860	290	<0.4	0.4	9	2.3	-	<0.01	1.57	0.93	13	24	<0.02
31J4	5/20/2014	FGL	8500	5800	6.99	230	-	191	181	1580	9	1860	2570	280	<0.4	<0.1	8	2.2	0.0336	<0.01	1.86	1.23	12	-	<0.02
31J4	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10A2	8/3/1999	FGL	6750	5590	7.5	-	4.7	640	230	540	3	2130	930	110	770	-	20	3.7	-	-	0.57	1.23	-	-	-
10A2	9/28/1999	FGL	6960	5750	7.2	-	4.7	670	270	570	5	2140	970	120	762	-	2	4.1	-	-	<0.25	1.11	-	-	-
Covanta Mendota																									
Well 6B	6/23/2004	BD	852	-	6.9	244	-	-	-	132	-	70	95	-	-	-	-	-	-	0.06	2.9	-	-	-	-
Well 6B	10/7/2004	BD	1000	-	7.3	236	-	-	-	155	-	117	113	-	-	-	-	-	-	<0.05	1.3	-	-	-	-
Well 6B	5/1/2005	BD	1040	-	-	232	-	-	-	-	-	-	117	-	-	-	-	-	-	-	-	-	-	-	-
Terra Linda Farms																									
TLF-1s	10/2/2001	FGL	769	460	-	170	4.8	30	9	117	2	82	97	210	<0.4	0.1	<2	0.28	-	<0.01	0.29	0.41	-	-	<0.02
TLF-1s	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	<0.4	-
TLF-1s	10/17/2002	FGL	864	520	8.0	210	-	26	5	152	1	59	107	260	<0.4	<0.1	<2	0.24	0.038	0.02	0.15	0.2	-	<2	<0.02
TLF-1s	7/9/2003	FGL	1070	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-1s	10/24/2005	FGL	1240	790	7.3	290	-	45	14	185	2	139	134	360	<0.4	0.2	<2	0.3	-	<0.01	1.6	0.63	-	-	<0.02
TLF-1s	10/24/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	<0.4	-
TLF-1s	5/21/2007	CLS	1400	830	7.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Terra Linda Farms																									
TLF-1s	9/18/2007	FGL	1350	840	7.9	390	7.7	44	17	236	2	99	153	470	<0.4	0.1	<2	0.3	-	<0.01	0.58	0.87	-	-	<0.02
TLF-1s	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	<0.4	-
TLF-1s	9/17/2008	FGL	1160	690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-1s	5/26/2009	FGL	1080	650	7.3	250	5.6	49	19	181	2	108	120	310	0.4	0.1	<2	0.3	-	0.03	1.23	1.2	6	-	<0.02
TLF-1s	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-1s	8/15/2011	FGL	1050	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-1s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-1s	5/8/2012	FGL	1200	700	7.4	260	-	37	13	195	2	128	148	320	<1.8	<0.1	<2	0.3	-	<0.01	0.81	0.7	6	-	<0.02
TLF-1s	5/7/2013	FGL	1220	770	7.7	240	-	49	20	206	3	175	140	290	<0.4	0.1	<2	0.3	-	<0.01	1.13	1.37	9	2	<0.02
TLF-1s	9/16/2014	FGL	1080	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-2s	6/26/2001	FGL	752	450	7.1	140	3.5	33	14	95	3	80	97	170	<0.4	0.1	<2	0.26	-	<0.01	3.04	0.78	4	-	<0.02
TLF-2s	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-2s	10/2/2001	FGL	860	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-2s	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-2s	7/9/2003	FGL	909	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-2s	6/16/2004	FGL	946	590	7.0	150	-	41	19	133	3	127	137	180	<0.4	0.2	<2	0.3	-	<0.01	3.41	1.04	-	-	<0.02
TLF-2s	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	<0.4	-
TLF-2s	10/24/2005	FGL	564	360	7.0	100	-	22	10	73	2	56	76	120	<0.4	0.2	<2	0.2	-	<0.01	2.53	0.42	-	-	<0.02
TLF-2s	10/24/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	<0.4	-
TLF-2s	5/21/2007	CLS	860	500	6.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-2s	9/18/2007	FGL	909	530	7.2	140	4.8	32	15	132	2	113	135	180	<0.4	0.2	<2	0.3	-	<0.01	3.11	0.88	-	-	<0.02
TLF-2s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2	<0.4	-
TLF-2s	9/16/2008	FGL	965	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-2s	5/26/2009	FGL	952	560	6.8	140	3.7	48	22	124	3	123	135	170	<0.4	0.2	<2	0.3	-	<0.01	3.95	1.23	4	-	<0.02
TLF-2s	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-2s	5/11/2010	FGL	945	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-2s	8/15/2011	FGL	719	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-2s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-2s	5/8/2012	FGL	891	500	7.3	140	-	30	12	121	2	115	122	160	<1.8	<0.1	<2	0.3	-	0.01	1.53	0.58	4	-	<0.02
TLF-2s	5/8/2013	FGL	954	560	7.1	130	-	41	18	143	3	134	143	160	<0.4	0.2	<2	0.3	-	0.01	3.06	0.88	4	2	<0.02
TLF-3s	6/26/2001	FGL	820	500	7.0	190	3.9	36	14	109	3	73	100	230	<0.4	0.2	<2	0.25	-	<0.01	1.78	0.91	10	-	<0.02
TLF-3s	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-3s	10/2/2001	FGL	1030	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-3s	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-3s	6/26/2002	FGL	1190	750	7.2	240	6.1	39	15	178	3	138	153	290	<0.4	<0.1	<2	0.24	-	0.06	2.19	0.93	-	-	<0.02
TLF-3s	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	<0.4	-
TLF-3s	7/9/2003	FGL	1220	770	8.0	250	-	43	18	196	3	144	171	310	<0.4	0.2	<2	0.28	-	<0.01	2.78	1.21	-	-	<0.02
TLF-3s	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.1	<0.4	-
TLF-3s	6/16/2004	FGL	1210	740	7.1	230	-	47	20	187	3	148	166	280	0.4	0.2	<2	0.3	-	<0.01	2.87	1.24	-	-	<0.02
TLF-3s	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	<0.4	-
TLF-3s	10/24/2005	FGL	1190	760	6.9	220	-	50	25	155	3	155	155	270	<0.4	0.1	5	0.3	-	0.01	14.1	1.66	-	-	<0.02
TLF-3s	10/24/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	<0.4	-
TLF-3s	5/21/2007	CLS	1100	650	6.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-3s	9/18/2007	FGL	1210	700	7.1	220	6	42	19	188	3	147	169	270	<0.4	0.1	<2	0.2	-	0.06	2.77	1.04	-	-	<0.02
TLF-3s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.6	<0.4	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Terra Linda Farms																									
TLF-3s	9/16/2008	FGL	1320	790	7.2	240	5.1	55	27	185	3	150	175	300	<0.4	<0.1	<2	0.3	-	<0.01	3.77	1.4	-	-	<0.02
TLF-3s	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.8	<0.4	-
TLF-3s	5/26/2009	FGL	1300	770	6.9	240	4.9	64	31	191	4	151	175	300	<0.4	0.2	6	0.3	-	<0.01	46	1.8	7	-	<0.02
TLF-3s	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-3s	5/11/2010	FGL	1340	770	7.0	250	4.6	56	30	172	4	168	184	300	<0.4	0.2	<2	0.3	-	<0.01	4.32	1.72	7	-	<0.02
TLF-3s	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-3s	8/15/2011	FGL	1150	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-3s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-3s	5/8/2012	FGL	1260	740	6.9	210	-	49	29	160	4	184	183	260	1.8	<0.1	<2	0.3	-	<0.01	3.53	1.46	5	-	<0.02
TLF-3s	5/8/2013	FGL	1470	910	7.1	250	-	69	33	219	4	212	207	310	<0.4	<0.1	<2	0.3	-	0.03	4.87	1.66	5	2.35	<0.02
TLF-3s	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
TLF-3s	5/21/2014	FGL	1420	850	7.31	240	-	58	27	196	3	193	201	290	0.4	<0.1	<2	0.3	-	<0.01	4.44	1.44	5	-	<0.02
TLF-3s	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-4s	6/26/2001	FGL	925	550	7.3	210	5.7	30	12	147	2	82	118	250	<0.4	0.2	<2	0.28	-	<0.01	2.04	0.79	10	-	<0.02
TLF-4s	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-4s	10/2/2001	FGL	955	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-4s	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-4s	7/9/2003	FGL	823	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-4s	6/16/2004	FGL	853	490	7.4	190	-	28	12	138	2	98	99	230	<0.4	0.3	<2	0.3	-	<0.01	1.89	0.75	-	-	<0.02
TLF-4s	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8	<0.4	-
TLF-4s	10/24/2005	FGL	752	470	7.1	170	-	27	16	102	2	64	94	210	<0.4	0.3	<2	0.2	-	<0.01	4.55	0.97	-	-	<0.02
TLF-4s	10/24/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	<0.4	-
TLF-4s	5/21/2007	CLS	950	520	6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-4s	9/18/2007	FGL	1220	720	7.4	220	6.1	43	17	188	2	143	172	270	<0.4	0.2	<2	0.3	-	<0.01	1.68	0.89	-	-	<0.02
TLF-4s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.7	<0.4	-
TLF-4s	9/16/2008	FGL	1310	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-4s	5/26/2009	FGL	1260	750	7.0	210	6	52	21	204	3	157	172	260	0.4	0.2	<2	0.3	-	0.01	3.58	1.46	6	-	<0.02
TLF-4s	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-4s	5/11/2010	FGL	1210	720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-4s	8/15/2011	FGL	829	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-4s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-4s	5/8/2012	FGL	976	580	6.9	170	-	39	22	136	3	147	129	200	<1.8	0.1	<2	0.3	-	<0.01	4.23	1.62	5	-	0.03
TLF-4s	5/8/2013	FGL	1220	780	7.0	220	-	51	23	198	3	177	158	270	<0.4	0.1	<2	0.3	-	<0.01	3.89	1.51	5	2	0.03
TLF-4s	5/21/2014	FGL	1130	660	7.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-7s	4/16/1993	NA	1064	647	7.0	-	3.9	57	24	140	4	93	120	349	-	-	-	-	-	-	-	-	-	-	-
TLF-7s	9/12/2001	FGL	904	540	7.4	240	3.6	47	23	119	4	83	102	290	<0.4	0.3	6	0.29	-	<0.01	2.59	1.67	-	-	<0.02
TLF-7s	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	<0.4	-
TLF-7s	10/1/2001	FGL	882	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-7s	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-7s	6/25/2002	FGL	727	420	7.2	200	3.5	30	14	92	3	55	79	240	<0.4	0.3	4	0.26	-	<0.01	2.04	0.97	-	-	<0.02
TLF-7s	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.5	<0.4	-
TLF-7s	7/9/2003	FGL	725	430	7.9	200	-	32	14	99	3	50	84	250	<0.4	0.3	5	0.26	-	<0.01	1.69	1.2	-	-	<0.02
TLF-7s	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.4	<0.4	-
TLF-7s	6/15/2004	FGL	731	450	7.1	200	-	34	16	102	3	55	88	240	ND	0.4	3	0.3	-	<0.01	1.77	1.09	-	-	<0.02
TLF-7s	6/15/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.3	<0.4	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Terra Linda Farms																										
TLF-7s	5/21/2007	CLS	710	430	6.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-7s	9/18/2007	FGL	689	430	7.8	180	3.4	30	15	91	3	48	80	220	1.2	0.3	4	0.3	-	<0.01	1.6	1.04	-	-	<0.02
TLF-7s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2	<0.4	-
TLF-7s	9/16/2008	FGL	668	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-7s	5/12/2010	FGL	790	430	7.2	190	3.4	36	16	97	3	55	97	240	<0.4	0.3	5	0.3	-	<0.01	1.95	1.38	15	-	0.03
TLF-7s	5/12/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-7s	5/8/2013	FGL	741	450	6.8	180	-	38	17	97	3	54	89	230	<0.4	0.3	8	0.3	-	<0.01	2.23	1.35	8	1	<0.02
TLF-7s	5/21/2014	FGL	735	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-8s	9/12/2001	FGL	989	580	7.5	250	3.6	51	25	124	5	101	109	300	<0.4	0.2	3	0.25	-	<0.01	1.94	1.28	-	-	<0.02
TLF-8s	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2	<0.4	-
TLF-8s	6/15/2004	FGL	889	550	7.2	220	-	4	23	112	4	77	108	270	<0.4	0.3	3	0.3	-	<0.01	2.33	1.27	-	-	<0.02
TLF-8s	6/15/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	<0.4	-
TLF-8s	5/21/2007	CLS	780	480	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-8s	9/18/2007	FGL	830	530	7.8	190	3.6	38	18	108	4	86	104	230	<0.4	0.2	2	0.3	-	<0.01	1.59	1.02	-	-	<0.02
TLF-8s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.4	<0.4	-
TLF-8s	9/16/2008	FGL	825	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-8s	5/12/2010	FGL	938	520	7.2	200	3.5	45	22	116	4	90	122	250	<0.4	0.2	4	0.3	-	<0.01	1.91	1.3	10	-	<0.02
TLF-8s	5/12/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-8s	5/21/2014	FGL	774	440	7.39	180	-	39	19	95	4	73.6	97	220	<0.4	<0.1	3	0.3	-	<0.01	2.05	1.1	7	-	<0.02
TLF-8s	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-9s	9/12/2001	FGL	896	560	7.6	210	3.5	47	22	115	5	99	106	250	<0.4	0.1	<2	0.26	-	<0.01	1.26	1.06	-	-	<0.02
TLF-9s	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.6	<0.4	-
TLF-9s	7/9/2003	FGL	963	590	7.6	190	-	53	24	110	5	124	132	230	<0.4	0.2	<2	0.23	-	<0.01	1.52	1.23	-	-	<0.02
TLF-9s	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	<0.4	-
TLF-9s	5/21/2007	CLS	910	540	6.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-9s	9/18/2007	FGL	868	530	7.8	190	3.3	40	19	101	4	91	108	230	<0.4	0.2	<2	0.3	-	<0.01	1.34	0.96	-	-	<0.02
TLF-9s	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	<0.4	-
TLF-9s	9/16/2008	FGL	827	460	7.3	180	3.4	40	19	103	4	85	95	220	<0.4	0.1	<2	0.3	-	<0.01	1.52	1.04	-	-	0.05
TLF-9s	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.9	<0.4	-
TLF-9s	5/12/2010	FGL	913	530	7.2	180	3.4	46	21	110	4	98	113	220	<0.4	0.1	<2	0.3	-	<0.01	1.7	1.1	9	-	<0.02
TLF-9s	5/12/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-9s	5/8/2013	FGL	822	510	7.4	180	-	44	20	105	4	90	96	220	<0.4	0.1	<2	0.3	-	<0.01	1.93	1.11	7	1	<0.02
TLF-9s	5/21/2014	FGL	922	550	7.31	190	-	46	22	102	4	107	103	230	<0.4	<0.1	<2	0.2	-	<0.01	2.19	1.28	5	-	<0.02
TLF-9s	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-10s	10/1/2001	FGL	921	550	7.7	200	2.4	62	27	90	5	95	119	240	<0.4	<0.1	<2	0.22	-	0.1	0.49	1.24	-	-	<0.02
TLF-10s	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	<0.4	-
TLF-10s	7/8/2003	FGL	858	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-10s	6/15/2004	FGL	1080	690	7.3	210	-	66	29	124	5	149	140	250	<0.4	0.2	<2	0.3	-	<0.01	0.97	1.72	-	-	<0.02
TLF-10s	6/15/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.1	<0.4	-
TLF-10s	10/24/2005	FGL	675	400	7.8	160	-	40	15	72	3	49	87	200	<0.4	<0.1	<2	0.2	-	<0.01	0.67	0.61	-	-	<0.02
TLF-10s	10/24/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	<0.4	-
TLF-10s	5/22/2007	CLS	860	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-10s	9/18/2007	FGL	922	540	7.2	190	3.3	52	22	111	4	112	118	240	<0.4	<0.1	<2	0.2	-	<0.01	0.7	1.3	-	-	<0.02
TLF-10s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	<0.4	-
TLF-10s	9/17/2008	FGL	972	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Terra Linda Farms																									
TLF-10s	5/26/2009	FGL	875	540	7.9	200	2.9	53	22	101	4	86	107	240	<0.4	0.1	<2	0.2	-	<0.01	0.6	1.27	5	-	<0.02
TLF-10s	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-10s	5/13/2010	FGL	900	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-10s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-10s	5/8/2012	FGL	852	470	7.5	200	-	45	21	89	4	78	104	250	<1.8	<0.1	<2	0.2	-	0.08	0.79	1.16	5	-	<0.02
TLF-11As	10/2/2001	FGL	935	570	7.6	220	2.9	53	24	103	4	98	111	260	<0.4	<0.1	<2	0.21	-	<0.01	0.89	1.09	-	-	<0.02
TLF-11As	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.7	<0.4	-
TLF-11As	7/8/2003	FGL	946	610	7.9	200	-	53	24	121	5	129	123	250	<0.4	0.2	<2	0.26	-	<0.01	1.41	1.59	-	-	<0.02
TLF-11As	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.7	<0.4	-
TLF-11As	5/22/2007	CLS	990	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-11As	9/17/2008	FGL	766	430	6.9	180	3.1	40	19	94	4	69	88	230	<0.4	<0.1	<2	0.3	-	<0.01	2.97	1.17	-	-	<0.02
TLF-11As	9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<0.4	-
TLF-11Cs	6/27/2001	FGL	1000	570	7.3	200	3.1	58	23	111	4	121	128	240	<0.4	<0.1	<2	0.27	-	<0.01	1.95	1.87	10	-	<0.02
TLF-11Cs	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
TLF-11Cs	10/2/2001	FGL	1090	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-11Cs	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-11Cs	6/25/2002	FGL	1380	870	6.9	180	4.3	67	26	162	5	227	167	220	<0.4	<0.1	<2	0.41	-	<0.01	3.92	2.67	-	-	<0.02
TLF-11Cs	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	<0.4	-
TLF-11Cs	7/8/2003	FGL	1190	760	7.7	160	-	62	24	169	5	212	161	200	<0.4	0.2	<2	0.38	-	<0.01	4.68	2.59	-	-	<0.02
TLF-11Cs	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	<0.4	-
TLF-11Cs	5/22/2007	CLS	1300	740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-11Cs	9/17/2008	FGL	1170	680	6.6	220	5.5	42	19	171	4	129	156	260	<0.4	<0.1	3	0.5	-	<0.01	4.59	1.93	-	-	<0.02
TLF-11Cs	9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.15	<0.4	-
TLF-13s	6/27/2001	FGL	689	390	7.0	130	2.6	39	14	74	3	92	73	160	<0.4	0.1	3	0.23	-	<0.01	4.62	1.35	4	-	<0.02
TLF-13s	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-13s	6/25/2002	FGL	926	580	6.7	140	3.6	43	16	109	4	147	115	170	<0.4	<0.1	3	0.31	-	0.01	6.43	1.53	-	-	<0.02
TLF-13s	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	<0.4	-
TLF-13s	6/18/2004	FGL	664	390	6.6	140	-	36	16	76	3	61	92	170	<0.4	0.2	3	0.2	-	<0.01	6.84	1.32	-	-	<0.02
TLF-13s	6/18/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	<0.4	-
TLF-13s	10/24/2005	FGL	634	410	7.2	140	-	40	10	68	2	58	78	180	<0.4	<0.1	3	0.2	-	<0.01	2.65	0.37	-	-	<0.02
TLF-13s	10/24/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	<0.4	-
TLF-13s	5/22/2007	CLS	840	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-13s	9/18/2007	FGL	705	420	7.3	150	3.8	32	13	102	3	84	87	180	<0.4	0.2	3	0.2	-	<0.01	3.71	0.88	-	-	<0.02
TLF-13s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	<0.4	-
TLF-13s	9/17/2008	FGL	630	340	7.3	130	2.9	31	12	75	3	57	72	160	<0.4	<0.1	4	0.2	-	<0.01	4.05	0.81	-	-	<0.02
TLF-13s	9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.07	<0.4	-
TLF-13s	5/26/2009	FGL	715	410	6.7	140	2.9	40	15	86	3	70	93	170	0.4	0.1	4	0.3	-	<0.01	5.67	1.11	3	-	<0.02
TLF-13s	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-13s	5/13/2010	FGL	697	420	7.0	140	2.6	38	15	75	3	60	91	170	0.6	0.1	3	0.2	-	<0.01	4.57	0.92	3	-	<0.02
TLF-13s	5/13/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-13s	5/8/2013	FGL	674	390	6.8	140	-	34	13	92	3	64	84	170	<0.4	0.2	4	0.3	-	<0.01	2.5	0.72	4	<1	<0.02
TLF-13s	5/21/2014	FGL	547	350	7.37	130	-	29	11	64	3	45.6	64	150	<0.4	<0.1	5	0.2	-	<0.01	2.12	0.7	4	-	<0.02
TLF-13s	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-15s	9/18/2007	FGL	723	480	7.8	160	3.5	35	13	95	2	82	83	190	<0.4	0.2	<2	0.2	-	<0.01	2.95	0.79	-	-	<0.02

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Terra Linda Farms																									
TLF-15s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<0.4	-
TLF-15s	5/26/2009	FGL	808	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-15s	5/11/2010	FGL	817	500	6.9	140	3.6	39	16	106	3	98	110	170	<0.4	0.2	3	0.3	-	<0.01	4.53	1.15	5	-	<0.02
TLF-15s	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-15s	8/15/2011	FGL	729	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-15s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-15s	5/8/2012	FGL	701	420	7.0	130	-	28	11	88	2	85	92	160	<1.8	0.1	3	0.2	-	<0.01	2.97	0.7	5	-	<0.02
TLF-15s	5/8/2013	FGL	745	460	7.3	140	-	35	14	108	3	86	98	170	<0.4	0.2	3	0.3	-	<0.01	3.9	0.83	5	1	<0.02
TLF-15s	5/21/2014	FGL	758	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-16s	9/18/2007	FGL	742	440	7.2	160	3.6	34	16	101	3	75	101	200	<0.4	0.3	<2	0.2	-	<0.01	2.25	1.72	-	-	<0.02
TLF-16s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.2	<0.4	-
TLF-16s	9/16/2008	FGL	762	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-16s	5/26/2009	FGL	749	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-16s	5/11/2010	FGL	903	560	7.0	140	2.8	45	22	93	3	155	102	180	<0.4	0.3	<2	0.2	-	<0.01	5.46	2.76	6	-	<0.02
TLF-16s	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-16s	8/15/2011	FGL	958	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-16s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-16s	5/8/2012	FGL	843	520	6.9	130	-	36	18	93	3	110	110	160	<1.8	0.2	<2	0.3	-	<0.01	3.97	1.99	6	-	<0.02
TLF-16s	5/8/2013	FGL	871	550	7.2	140	-	44	22	103	3	124	117	170	<0.4	0.2	<2	0.3	-	<0.01	4.6	2.51	5	1	<0.02
TLF-16s	9/16/2014	FGL	766	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-17s	9/18/2007	FGL	1040	620	8.2	180	5.6	35	14	154	2	130	146	220	<0.4	0.2	<2	0.2	-	<0.01	1.23	1.01	-	-	<0.02
TLF-17s	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	<0.4	-
TLF-17s	9/16/2008	FGL	1070	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-17s	5/26/2009	FGL	1050	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-17s	5/11/2010	FGL	1010	600	7.0	160	4.2	40	20	130	3	159	125	200	<0.4	0.3	<2	0.3	-	<0.01	3.15	1.6	7	-	<0.02
TLF-17s	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-17s	8/15/2011	FGL	732	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-17s	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-17s	5/8/2012	FGL	975	630	6.9	110	-	49	27	115	3	236	115	140	<1.8	0.2	<2	0.3	-	0.04	8.51	2.31	6	-	<0.02
TLF-17s	5/8/2013	FGL	933	580	7.0	140	-	44	24	127	3	169	115	170	<0.4	0.2	<2	0.3	-	0.03	5.52	1.85	5	1	<0.02
TLF-17s	5/21/2014	FGL	906	570	7.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TL-11	9/12/2001	FGL	774	450	7.6	210	3.7	35	17	107	3	67	86	260	<0.4	0.2	<2	0.28	-	<0.01	1.63	1.07	-	-	<0.02
TL-11	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.7	<0.4	-
Silver Creek Packing Co. (M. Britz TIC)																									
SC-3B	2/27/2002	FGL	847	510	7.3	150	4.4	31	14	117	3	95	111	190	<0.4	<0.1	-	0.29	-	<0.01	3.27	0.66	-	-	0.03
SC-3B	10/17/2002	FGL	1750	1020	6.9	150	-	68	30	245	2	219	325	180	<0.4	0.1	<2	0.28	0.11	0.02	7.78	1.32	-	<2	<0.02
SC-3B	5/21/2007	CLS	1100	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-3B	9/19/2007	FGL	1640	1010	7.7	150	7.5	64	27	285	2	218	258	190	0.6	0.1	<2	0.39	-	0.11	5	0.93	-	-	0.02
SC-3B	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.6	<0.4	-
SC-3B	9/16/2008	FGL	1580	890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-3B	5/26/2009	FGL	1440	870	6.8	140	6.9	56	22	242	3	207	236	180	<0.4	0.1	<2	0.3	-	0.67	6.84	0.71	5	-	0.06
SC-3B	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
SC-3B	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
SC-3B	5/8/2012	FGL	1110	650	7.0	130	-	30	11	173	2	146	187	150	<1.8	<0.1	<2	0.3	-	<0.01	1.48	0.26	4	-	<0.02

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Silver Creek Packing Co. (M. Britz TIC)																										
SC-3B	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
SC-3B	5/21/2014	FGL	1470	880	7.32	140	-	51	20	211	3	244	247	170	<0.4	<0.1	<2	0.3	-	<0.01	2.79	0.55	5	-	<0.02
SC-4B	2/21/2002	FGL	1150	660	7.0	160	5.3	41	18	161	3	144	159	190	<0.4	<0.1	-	0.37	-	<0.01	4.68	0.89	-	-	0.02
SC-4B	6/26/2002	FGL	1420	840	6.7	170	5	55	26	178	3	188	245	200	<0.4	0.1	<2	0.33	-	0.02	7.13	1.16	-	-	<0.02
SC-4B	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.7	<0.4	-
SC-4B	10/24/2005	FGL	562	340	6.9	90	-	20	10	70	2	60	80	110	<0.4	0.2	<2	0.2	-	<0.01	5.59	0.45	-	-	<0.02
SC-4B	10/24/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	<0.4	-
SC-4B	5/21/2007	CLS	930	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-4B	9/19/2007	FGL	1510	930	7.9	150	6.7	49	22	225	2	206	270	180	<0.4	0.1	<2	0.3	-	<0.01	4.11	0.88	-	-	<0.02
SC-4B	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<0.4	-
SC-4B	9/16/2008	FGL	1790	1030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-4B	5/26/2009	FGL	1760	1020	6.7	150	7	72	31	282	3	260	308	180	<0.4	0.1	<2	0.4	-	<0.01	6.29	1.24	7	-	<0.02
SC-4B	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
SC-4B	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
SC-4B	5/8/2012	FGL	1060	630	7.0	120	-	28	12	160	2	147	181	150	<1.8	0.1	<2	0.3	-	<0.01	1.82	0.37	6	-	<0.02
SC-4B	5/7/2013	FGL	1130	650	7.9	130	-	37	16	184	3	153	184	150	<0.4	0.1	<2	0.3	-	<0.01	2.83	0.46	6	2.36	<0.02
SC-4B	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
SC-4B	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-
SC-4B	5/21/2014	FGL	1740	1080	7.22	140	-	59	22	274	3	298	321	170	0.4	<0.1	<2	0.4	-	<0.01	3.55	0.69	6	-	<0.02
Coelho/Gardner/Hansen (Vista Verde Farms)																										
CGH-2 (CGH-1s)	8/25/1999	FGL	1370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-2 (CGH-1s)	7/13/2000	FGL	1350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-2 (CGH-1s)	9/10/2001	FGL	1900	1160	7.4	150	8.4	56	28	309	3	270	349	190	<0.4	0.1	<2	0.37	-	<0.01	3.09	0.87	-	-	<0.02
CGH-2 (CGH-1s)	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	<0.4	-
CGH-2 (CGH-1s)	6/27/2002	FGL	2720	1750	7.3	160	8.9	83	45	406	4	420	560	190	<0.4	<0.1	<2	0.41	-	<0.01	4.51	1.37	-	-	<0.02
CGH-2 (CGH-1s)	6/27/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	<0.4	-
CGH-2 (CGH-1s)	8/19/2002	CLS	2400	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-2 (CGH-1s)	8/19/2002	FGL	2410	1490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-2 (CGH-1s)	8/19/2002	TL	2400	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-2 (CGH-1s)	10/17/2002	FGL	2470	1510	7.1	290	-	77	42	387	4	320	420	330	<0.4	<0.1	<2	0.4	0.064	<0.01	7.83	1.15	-	-	<0.02
CGH-2 (CGH-1s)	6/16/2004	FGL	2560	1570	6.8	140	-	98	55	354	4	467	507	170	<0.4	0.2	<2	0.4	-	<0.01	11.1	2.23	-	-	<0.02
CGH-2 (CGH-1s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	<0.4	-
CGH-2 (CGH-1s)	10/25/2005	FGL	5280	3550	7.3	210	-	144	89	870	4	978	1070	260	<0.4	<0.5	<2	1.1	-	<0.01	4.06	1.7	-	-	<0.02
CGH-2 (CGH-1s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.9	<0.4	-
CGH-2 (CGH-1s)	5/22/2007	CLS	5200	3400	6.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-2 (CGH-1s)	5/11/2010	FGL	4620	3030	7.1	170	10.8	130	84	643	4	1010	950	210	<0.4	0.1	<2	0.8	-	<0.01	5.15	1.93	12	-	<0.02
CGH-2 (CGH-1s)	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-1C (CGH-2s)	6/26/2001	FGL	731	460	7.6	140	4.3	29	10	105	1	98	81	170	<0.4	0.1	<2	0.26	-	<0.01	0.61	0.53	10	-	<0.02
CGH-1C (CGH-2s)	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-1C (CGH-2s)	9/10/2001	FGL	944	580	7.0	130	4.3	42	18	133	2	132	141	160	<0.4	0.2	<2	0.3	-	<0.01	4.47	1.11	-	-	<0.02
CGH-1C (CGH-2s)	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.9	<0.4	-
CGH-1C (CGH-2s)	10/17/2002	FGL	1400	840	7.5	270	-	40	15	236	2	145	175	330	<0.4	<0.1	<2	0.31	0.09	<0.01	1.04	0.75	-	<2	<0.02
CGH-1C (CGH-2s)	7/9/2003	FGL	1170	720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1C (CGH-2s)	6/16/2004	FGL	1110	660	6.9	170	-	46	25	157	3	163	152	210	<0.4	0.3	<2	0.4	-	<0.01	4.18	2.23	-	-	<0.02

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Coelho/Gardner/Hansen (Vista Verde Farms)																									
CGH-1C (CGH-2s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	<0.4	-
CGH-1C (CGH-2s)	10/25/2005	FGL	1360	840	7.5	370	-	35	10	249	2	112	142	450	<0.4	0.2	<2	0.4	-	<0.01	0.79	0.75	-	-	<0.02
CGH-1C (CGH-2s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	<0.4	-
CGH-1C (CGH-2s)	5/22/2007	CLS	1200	630	7.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1C (CGH-2s)	9/19/2007	FGL	1430	910	8.0	330	7	48	22	234	2	149	176	400	<0.4	0.2	<2	0.4	-	<0.01	1.35	1.55	-	-	<0.02
CGH-1C (CGH-2s)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	<0.4	-
CGH-1C (CGH-2s)	9/17/2008	FGL	1700	1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1C (CGH-2s)	5/26/2009	FGL	2350	1450	6.9	210	7.8	90	38	350	3	420	370	250	<0.4	0.2	<2	0.6	-	<0.01	2.66	1.77	8	-	<0.02
CGH-1C (CGH-2s)	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-1B (CGH-3s)	10/17/2002	FGL	1940	1200	7.1	140	-	56	23	316	3	275	342	180	0.6	<0.1	<2	0.35	0.09	<0.01	2.37	0.86	-	-	<0.02
CGH-1B (CGH-3s)	6/16/2004	FGL	2100	1320	6.6	130	-	82	53	279	4	428	377	150	<0.4	0.3	<2	0.5	-	<0.01	7.15	2.64	-	-	<0.02
CGH-1B (CGH-3s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	<0.4	-
CGH-1B (CGH-3s)	10/25/2005	FGL	2110	1320	7.3	200	-	78	19	300	2	308	347	240	<0.4	<0.1	<2	0.4	-	<0.01	1	0.81	-	-	<0.02
CGH-1B (CGH-3s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.6	<0.4	-
CGH-1B (CGH-3s)	5/22/2007	CLS	1200	650	6.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1B (CGH-3s)	9/19/2007	FGL	3640	2420	7.6	170	12.4	113	74	689	4	631	670	210	<0.4	<0.1	<2	1.03	-	<0.01	5.17	3.08	-	-	<0.02
CGH-1B (CGH-3s)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.4	<0.4	-
CGH-1B (CGH-3s)	5/26/2009	FGL	2850	1780	6.4	150	8.8	90	61	441	4	640	450	190	<0.4	0.2	<2	0.9	-	<0.01	14.1	2.88	10	-	<0.02
CGH-1B (CGH-3s)	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-1B (CGH-3s)	5/11/2010	FGL	1540	910	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1A (CGH-4s)	6/27/2002	FGL	1530	1000	6.9	120	4	70	38	167	4	212	287	150	<0.4	<0.1	<2	0.29	-	<0.01	12.2	2.06	-	-	<0.02
CGH-1A (CGH-4s)	6/27/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	<0.4	-
CGH-1A (CGH-4s)	7/9/2003	FGL	1980	1270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1A (CGH-4s)	6/16/2004	FGL	2570	1580	6.6	140	-	101	62	350	5	451	520	170	0.6	0.2	<2	0.5	-	<0.01	21.5	3.11	-	-	<0.02
CGH-1A (CGH-4s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	<0.4	-
CGH-1A (CGH-4s)	10/24/2005	FGL	3020	2030	6.7	130	-	124	71	353	5	578	570	160	<0.4	<0.1	<2	0.5	-	0.02	13.1	3.59	-	-	<0.02
CGH-1A (CGH-4s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	<0.4	-
CGH-1A (CGH-4s)	5/22/2007	CLS	3200	2000	6.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1A (CGH-4s)	9/19/2007	FGL	4150	2740	7.2	140	10.6	141	96	665	6	930	840	170	<0.4	<0.1	<2	0.8	-	<0.01	14.9	3.71	-	-	<0.02
CGH-1A (CGH-4s)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	<0.4	-
CGH-1A (CGH-4s)	9/17/2008	FGL	3960	2480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-1A (CGH-4s)	5/26/2009	FGL	4010	2900	6.4	140	9.3	148	100	596	7	870	750	180	<0.4	0.1	<2	0.8	-	<0.01	18.8	3.92	8	-	<0.02
CGH-1A (CGH-4s)	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-4 (old)	7/13/2000	FGL	3190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-4 (old)	9/10/2001	FGL	4250	2620	7.9	240	23.6	70	23	892	6	460	940	290	<0.4	0.1	<2	0.98	-	<0.01	0.34	0.46	-	-	<0.02
CGH-4 (old)	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	<0.4	-
CGH-3 (CGH-5s)	6/26/2001	FGL	2310	1430	7.3	110	7.9	74	43	345	3	358	413	140	<0.4	0.1	<2	0.39	-	<0.01	2.64	1.84	10	-	<0.02
CGH-3 (CGH-5s)	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-3 (CGH-5s)	9/10/2001	FGL	2940	1820	7.4	170	9.5	90	54	462	4	420	610	210	<0.4	0.2	<2	0.48	-	<0.01	2.65	1.75	-	-	<0.02
CGH-3 (CGH-5s)	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	<0.4	-
CGH-3 (CGH-5s)	8/20/2002	CLS	3200	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-3 (CGH-5s)	8/20/2002	FGL	3410	2150	7.0	180	11.7	85	52	554	3	440	740	220	<0.4	<0.1	<2	0.54	-	<0.01	1.3	1.35	-	-	<0.02
CGH-3 (CGH-5s)	8/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	<0.4	-
CGH-3 (CGH-5s)	8/20/2002	TL	3400	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Coelho/Gardner/Hansen (Vista Verde Farms)																									
CGH-3 (CGH-5s)	7/9/2003	FGL	4530	2990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-3 (CGH-5s)	6/16/2004	FGL	4720	3200	6.9	180	-	148	106	910	5	950	950	220	<0.4	0.2	<2	0.9	-	<0.01	6.19	4.42	-	-	0.02
CGH-3 (CGH-5s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	<0.4	-
CGH-3 (CGH-5s)	5/22/2007	CLS	4200	2200	7.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-3 (CGH-5s)	5/10/2010	FGL	5880	4080	7.1	220	11.9	145	114	791	5	1540	1090	270	<0.4	<0.1	<2	1.7	-	<0.01	3.86	2.41	21	-	<0.02
CGH-3 (CGH-5s)	5/10/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-3 (CGH-5s)	5/21/2014	FGL	6140	4450	7.34	210	-	153	133	1190	7	1810	1040	260	<0.4	<0.1	3	1.9	-	<0.01	8.29	3.22	23	-	<0.02
CGH-3 (CGH-5s)	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-11 (CGH-6s)	6/26/2001	FGL	2680	1620	7.4	260	11.6	65	35	465	3	361	458	320	<0.4	0.2	<2	0.49	-	<0.01	1.14	1.4	10	-	<0.02
CGH-11 (CGH-6s)	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-11 (CGH-6s)	9/10/2001	FGL	2750	1720	7.5	230	10.3	81	48	475	4	440	480	280	<0.4	0.2	<2	0.57	-	<0.01	2.17	2.01	-	-	<0.02
CGH-11 (CGH-6s)	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.9	<0.4	-
CGH-11 (CGH-6s)	6/27/2002	FGL	4000	2630	7.1	230	11.3	104	78	628	5	780	800	280	<0.4	<0.1	<2	0.8	-	<0.01	4.65	3.19	-	-	<0.02
CGH-11 (CGH-6s)	6/27/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.5	<0.4	-
CGH-11 (CGH-6s)	8/19/2002	CLS	3200	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-11 (CGH-6s)	8/19/2002	FGL	3320	2130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-11 (CGH-6s)	8/19/2002	TL	3300	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-11 (CGH-6s)	7/9/2003	FGL	4390	2890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-11 (CGH-6s)	6/16/2004	FGL	3250	2010	6.8	220	-	68	58	672	4	641	570	270	ND	0.3	<2	0.7	-	<0.01	1.77	1.84	-	-	<0.02
CGH-11 (CGH-6s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	<0.4	-
CGH-11 (CGH-6s)	5/22/2007	CLS	1800	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-11 (CGH-6s)	9/19/2007	FGL	4570	3030	7.5	290	15.5	103	81	864	4	870	860	360	<0.4	0.2	2	1.1	-	<0.01	3.09	2.99	-	-	<0.02
CGH-11 (CGH-6s)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.8	<0.4	-
CGH-11 (CGH-6s)	9/17/2008	FGL	2580	1510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-11 (CGH-6s)	5/26/2009	FGL	4910	3720	7.1	290	12.9	135	88	784	5	1030	880	360	<0.4	0.2	<2	1.3	-	<0.01	2.74	2.26	18	-	<0.02
CGH-11 (CGH-6s)	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-11 (CGH-6s)	5/11/2010	FGL	4690	3070	7.2	290	12.1	101	81	675	4	1080	840	350	<0.4	0.3	<2	1.3	-	<0.01	1.82	1.49	19	-	<0.02
CGH-11 (CGH-6s)	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-6A (old)	6/27/2001	FGL	2910	1740	7.4	280	10.8	69	46	471	3	507	464	340	<0.4	0.2	<2	0.78	-	<0.01	2.36	1.24	20	-	<0.02
CGH-6A (old)	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-6A (old)	8/20/2002	CLS	3800	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-6A (old)	8/20/2002	FGL	3980	2480	7.4	280	12.3	100	69	654	3	640	800	340	<0.4	0.1	-	0.75	-	<0.01	2.44	1.75	-	-	<0.02
CGH-6A (old)	8/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.2	<0.4	-
CGH-6A (old)	8/20/2002	TL	4000	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-9 (CGH-7s)	6/26/2001	FGL	1320	810	7.9	430	12.2	27	7	276	2	65	130	530	<0.4	0.2	<2	0.32	-	<0.01	0.05	0.18	10	-	<0.02
CGH-9 (CGH-7s)	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-9 (CGH-7s)	9/10/2001	FGL	1720	1070	7.9	570	15.4	31	9	379	2	78	180	700	<0.4	0.2	<2	0.39	-	<0.01	0.11	0.22	-	-	<0.02
CGH-9 (CGH-7s)	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1	<0.4	-
CGH-9 (CGH-7s)	6/27/2002	FGL	2030	1290	7.6	520	11.1	48	21	367	3	213	230	640	<0.4	0.1	<2	0.49	-	<0.01	0.78	1.09	-	-	<0.02
CGH-9 (CGH-7s)	6/27/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.2	<0.4	-
CGH-9 (CGH-7s)	6/16/2004	FGL	1720	1030	7.2	420	-	40	22	320	3	166	223	510	<0.4	0.3	<2	0.5	-	<0.01	0.32	0.79	-	-	<0.02
CGH-9 (CGH-7s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	<0.4	-
CGH-9 (CGH-7s)	10/25/2005	FGL	2030	1290	7.3	620	-	61	22	347	2	148	225	760	0.8	<0.1	<2	0.5	-	0.02	0.5	0.61	-	-	<0.02
CGH-9 (CGH-7s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.3	<0.4	-
CGH-9 (CGH-7s)	5/22/2007	CLS	1900	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Coelho/Gardner/Hansen (Vista Verde Farms)																									
CGH-9 (CGH-7s)	5/11/2010	FGL	1670	990	7.5	420	10.8	31	15	292	2	175	179	510	<0.4	0.2	<2	0.4	-	<0.01	0.3	0.46	7	-	<0.02
CGH-9 (CGH-7s)	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-9 (CGH-7s)	8/15/2011	FGL	1440	890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-9 (CGH-7s)	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
CGH-9 (CGH-7s)	5/8/2012	FGL	1800	1110	7.2	290	-	38	20	342	3	280	252	350	<1.8	0.1	<2	0.4	-	<0.01	0.21	0.68	10	-	<0.02
CGH-9 (CGH-7s)	5/7/2013	FGL	1530	940	7.7	260	-	37	20	295	3	260	178	310	0.5	0.2	<2	0.4	-	<0.01	0.42	0.69	10	2.54	<0.02
CGH-9 (CGH-7s)	9/16/2014	FGL	3250	2110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-9 (CGH-7s)	9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-10 (CGH-8s)	6/26/2001	FGL	1010	620	7.9	290	8	25	10	188	2	75	98	350	<0.4	0.2	<2	0.31	-	<0.01	<0.05	0.27	10	-	<0.02
CGH-10 (CGH-8s)	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-10 (CGH-8s)	9/10/2001	FGL	1320	830	7.9	460	11.2	31	10	280	2	59	123	560	<0.4	0.3	<2	0.35	-	<0.01	<0.05	0.28	-	-	<0.02
CGH-10 (CGH-8s)	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	<0.4	-
CGH-10 (CGH-8s)	8/19/2002	CLS	1500	910	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-10 (CGH-8s)	8/19/2002	FGL	1560	1010	7.6	530	11.1	33	13	298	2	80	147	620	<0.4	0.2	<2	0.4	-	<0.01	0.08	0.37	-	-	<0.02
CGH-10 (CGH-8s)	8/19/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0.4	-
CGH-10 (CGH-8s)	8/19/2002	TL	1600	950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-10 (CGH-8s)	6/16/2004	FGL	1770	1060	7.4	560	-	50	25	330	3	116	205	680	<0.4	0.3	<2	0.4	-	<0.01	0.21	0.86	-	-	<0.02
CGH-10 (CGH-8s)	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5	<0.4	-
CGH-10 (CGH-8s)	10/25/2005	FGL	1860	1190	7.2	520	-	50	26	306	2	172	207	630	0.6	0.2	<2	0.4	-	<0.01	0.36	0.84	-	-	<0.02
CGH-10 (CGH-8s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5	<0.4	-
CGH-10 (CGH-8s)	5/22/2007	CLS	1500	910	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-10 (CGH-8s)	9/19/2007	FGL	1520	990	8.1	430	12.3	28	13	313	1	129	160	530	<0.4	0.2	<2	0.4	-	<0.01	0.24	0.52	-	-	<0.02
CGH-10 (CGH-8s)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1	<0.4	-
CGH-10 (CGH-8s)	9/17/2008	FGL	1440	860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-10 (CGH-8s)	5/11/2010	FGL	1730	1090	7.1	330	5.8	63	41	239	3	350	165	410	<0.4	0.3	<2	0.4	-	<0.01	0.54	2.35	9	-	<0.02
CGH-10 (CGH-8s)	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-10 (CGH-8s)	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
CGH-10 (CGH-8s)	5/8/2012	FGL	1410	870	7.3	300	-	29	17	258	2	196	159	360	<1.8	0.2	<2	0.3	-	<0.01	0.14	0.92	13	-	<0.02
CGH-10 (CGH-8s)	5/7/2013	FGL	1180	710	7.6	220	-	29	18	219	2	181	129	270	<0.4	0.3	<2	0.3	-	<0.01	0.26	0.83	13	1	<0.02
CGH-10 (CGH-8s)	9/16/2014	FGL	1250	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-8 (old)	7/22/1997	NA	1000	680	8.2	-	20.65	40	4	540	5	154	511	580	0.82	-	-	0.48	-	-	-	-	-	-	-
CGH-8 (old)	8/25/1999	FGL	3030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-8 (old)	9/22/1999	FGL	3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-5 (CGH-9As)	8/3/1999	FGL	3630	2130	8.0	-	16.4	49	20	540	4	280	860	290	<0.4	-	<2	0.7	-	-	0.2	0.3	-	<1	-
CGH-5 (CGH-9As)	7/13/2000	FGL	3290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-5 (CGH-9As)	10/17/2002	FGL	4870	3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-5 (CGH-9As)	7/9/2003	FGL	5210	3340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-5 (CGH-9As)	5/21/2007	CLS	3100	1800	7.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-5 (CGH-9As)	9/19/2007	FGL	4620	2810	8.0	260	24.3	74	30	981	4	590	1090	310	<0.4	0.2	2	1	-	<0.01	0.29	0.48	-	-	<0.02
CGH-5 (CGH-9As)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.8	<0.4	-
CGH-5 (CGH-9As)	9/17/2008	FGL	5310	3120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-5 (CGH-9As)	8/15/2011	FGL	1480	890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-6C (CGH-10s)	10/17/2002	FGL	2290	1400	7.7	380	-	53	30	290	2	210	330	460	<0.4	0.1	<2	0.46	0.084	0.01	0.42	0.78	-	<2	<0.02
CGH-6C (CGH-10s)	10/25/2005	FGL	1340	820	7.1	300	-	43	26	197	2	179	145	360	<0.4	0.2	<2	0.4	-	<0.01	1.55	1.29	-	-	<0.02

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Coelho/Gardner/Hansen (Vista Verde Farms)																									
CGH-6C (CGH-10s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.6	<0.4	-
CGH-6C (CGH-10s)	5/21/2007	CLS	1500	810	6.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-6C (CGH-10s)	8/15/2011	FGL	1660	1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-6D (CGH-11s)	10/17/2002	FGL	1990	1160	7.6	470	-	30	15	381	2	123	276	580	<0.4	0.1	<2	0.46	0.096	0.05	2.33	0.71	-	<2	<0.02
CGH-6D (CGH-11s)	7/9/2003	FGL	1730	1080	8.3	450	-	43	26	334	3	172	220	540	<0.4	0.4	<2	0.49	-	<0.01	1.25	1.05	-	-	<0.02
CGH-6D (CGH-11s)	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.7	<0.4	-
CGH-6D (CGH-11s)	10/25/2005	FGL	1610	1000	7.1	380	-	58	35	246	3	213	172	460	<0.4	0.2	<2	0.6	-	<0.01	1.32	1.75	-	-	<0.02
CGH-6D (CGH-11s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	<0.4	-
CGH-6D (CGH-11s)	9/19/2007	FGL	1690	1080	7.9	340	10.6	41	22	337	2	240	207	410	<0.4	0.2	<2	0.5	-	<0.01	0.83	0.87	-	-	<0.02
CGH-6D (CGH-11s)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.9	<0.4	-
CGH-6D (CGH-11s)	9/17/2008	FGL	4750	3110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-6D (CGH-11s)	5/26/2009	FGL	2480	1520	6.9	270	8.9	69	44	386	3	470	360	330	<0.4	0.3	<2	0.6	-	<0.01	2.33	2.1	14	-	<0.02
CGH-6D (CGH-11s)	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-6D (CGH-11s)	5/10/2010	FGL	1590	920	7.2	270	8.9	30	19	254	2	250	191	330	<0.4	0.4	<2	0.5	-	<0.01	0.72	0.8	14	-	<0.02
CGH-6D (CGH-11s)	5/10/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-6D (CGH-11s)	8/15/2011	FGL	3470	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-6D (CGH-11s)	9/16/2014	FGL	2880	1870	7.0	260	-	91	61	459	4	590	420	320	<0.4	<0.1	<2	0.7	-	<0.01	3	2.29	9	-	<0.02
CGH-6D (CGH-11s)	9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-6B (CGH-12s)	10/17/2002	FGL	3390	2110	7.8	150	-	87	51	567	4	470	640	190	<0.4	0.1	<2	0.54	0.12	<0.01	0.96	0.6	-	-	<0.02
CGH-6B (CGH-12s)	10/25/2005	FGL	1220	760	7.2	290	-	32	19	192	2	144	129	350	<0.4	0.3	<2	0.4	-	<0.01	0.53	0.75	-	-	<0.02
CGH-6B (CGH-12s)	10/25/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1	<0.4	-
CGH-6B (CGH-12s)	5/10/2010	FGL	3710	2360	7.1	280	10.3	94	70	543	3	830	620	340	<0.4	0.3	2	0.9	-	<0.01	2.33	2.44	16	-	<0.02
CGH-6B (CGH-12s)	5/10/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CGH-6B (CGH-12s)	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
CGH-6B (CGH-12s)	5/8/2012	FGL	1580	970	7.0	210	-	33	23	275	3	290	219	260	<1.8	0.2	<2	0.4	-	<0.01	0.65	0.92	11	-	<0.02
Meyers Farming																									
MS-1	3/22/1999	BSK	4100	2700	-	-	-	-	-	-	-	-	1100	-	-	-	-	0.69	-	-	-	-	-	<2	-
MS-1	3/23/1999	TL	-	2800	-	-	-	-	-	-	-	-	970	-	-	-	-	0.62	-	-	-	-	-	<2	-
MS-1	8/25/1999	FGL	5180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-1	9/22/1999	FGL	4750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-1A	8/28/2001	TL	6100	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	0.82	-	-	-	-	10	-	-
MS-1A	9/10/2001	FGL	6570	4410	7.2	240	16.3	159	141	1170	7	1230	1370	290	<0.4	0.3	<2	1.12	-	<0.01	13.7	2.94	-	-	<0.02
MS-1A	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.4	<0.4	-
MS-2	3/22/1999	BSK	3900	2500	-	-	-	-	-	-	-	-	890	-	-	-	-	0.68	-	-	-	-	-	-	-
MS-2	3/23/1999	TL	-	2600	-	-	-	-	-	-	-	-	790	-	-	-	-	0.63	-	-	-	-	-	<2	-
MS-2	8/28/2001	TL	5100	3200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.84	-	-	-	-	20	-	-
MS-2	9/10/2001	FGL	5000	3050	7.8	300	17.7	95	76	952	5	720	1020	370	<0.4	0.1	<2	0.69	-	<0.01	1.08	0.82	-	-	<0.02
MS-2	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.3	<0.4	-
MS-3	3/22/1999	BSK	2800	1900	-	-	-	-	-	-	-	-	620	-	-	-	-	0.72	-	-	-	-	-	<2	-
MS-3	3/23/1999	TL	-	2000	-	-	-	-	-	-	-	-	530	-	-	-	-	0.66	-	-	-	-	-	<2	-
MS-3	8/28/2001	TL	3500	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	0.66	-	-	-	-	-	-	-
MS-3	9/10/2001	FGL	3860	2290	7.9	260	25.3	48	18	809	4	380	860	320	<0.4	0.4	<2	0.65	-	<0.01	0.27	0.22	-	-	<0.02
MS-3	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.9	<0.4	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Meyers Farming																									
MS-4	3/22/1999	BSK	2300	1600	-	-	-	-	-	-	-	-	440	-	-	-	-	0.73	-	-	-	-	-	<2	-
MS-4	3/23/1999	TL	-	1700	-	-	-	-	-	-	-	-	390	-	-	-	-	0.7	-	-	-	-	-	<2	-
MS-4	7/13/2000	FGL	2720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-4	6/27/2001	FGL	2830	1720	7.8	340	13	49	36	493	3	495	403	410	<0.4	0.2	<2	0.9	-	<0.01	0.95	0.36	40	-	<0.02
MS-4	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MS-4	8/28/2001	TL	2700	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	0.86	-	-	-	-	40	-	-
MS-4	9/10/2001	FGL	2730	1740	7.7	350	14	50	38	539	3	510	350	430	<0.4	0.4	<2	1	-	<0.01	1.84	0.39	-	-	<0.02
MS-4	9/10/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.7	<0.4	-
MS-6	6/27/2002	FGL	2930	1900	8.0	370	12.7	54	43	516	3	640	360	460	<0.4	0.2	<2	1.1	-	<0.01	0.67	0.34	-	-	<0.02
MS-6	6/27/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41.2	<0.4	-
MS-6	8/21/2002	CLS	3500	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-6	8/21/2002	FGL	3590	2210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-6	8/21/2002	TL	3600	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-6	3/24/2004	TL	2800	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-6	8/4/2005	TL	2000	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-6	4/25/2007	TL	1500	960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-6	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
MS-6	5/8/2012	FGL	2290	1420	7.4	300	-	40	34	443	3	470	330	360	<1.8	0.1	<2	0.7	-	<0.01	2.33	0.51	30	-	<0.02
MS-6	5/7/2013	FGL	3130	1980	7.7	300	-	72	63	735	4	690	510	370	<0.4	0.2	<2	0.9	-	<0.01	4.5	1.01	19	4.83	<0.02
MS-6	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
MS-6	5/21/2014	FGL	4050	2740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-6	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MS-7	4/30/2002	TL	-	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-7	8/19/2002	CLS	2900	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-7	8/19/2002	FGL	2930	1890	7.3	370	14	49	38	538	2	460	430	450	<0.4	0.2	<2	0.98	-	<0.01	0.53	0.38	-	-	<0.02
MS-7	8/19/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.7	<0.4	-
MS-7	8/19/2002	TL	-	-	-	-	15.2	49	37	580	6	470	400	440	-	-	-	-	-	-	-	-	-	-	-
MS-7	3/24/2004	TL	2900	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-7	8/4/2005	TL	2200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-7	4/23/2007	TL	1400	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-7	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
MS-7	5/8/2012	FGL	2330	1440	7.9	340	-	31	24	478	2	430	350	410	<1.8	0.2	<2	0.8	-	<0.01	0.39	0.21	29	-	<0.02
MS-7	5/7/2013	FGL	2480	1530	8.1	340	-	43	33	704	3	470	360	410	<0.4	0.3	<2	0.8	-	<0.01	0.94	0.33	24	3.55	<0.02
MS-7	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
MS-7	5/21/2014	FGL	3090	1990	8.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-7	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
S-1	8/3/1998	BSK	6100	4300	-	-	-	-	-	-	-	-	1400	-	-	-	-	1.2	-	-	-	-	-	-	-
S-1	1/4/1999	BSK	7200	5600	-	-	-	-	-	-	-	-	1900	-	-	-	-	1.3	-	-	-	-	-	-	-
S-1	4/1/1999	BSK	7200	5200	-	-	-	-	-	-	-	-	2000	-	-	-	-	1.1	-	-	-	-	-	<2	-
S-1	8/5/1999	FGL	7470	5100	6.7	-	17.3	150	168	1300	11	1380	1610	230	<0.4	-	<2	1.4	-	-	3.4	2.2	-	<2	-
S-1	7/8/2003	FGL	5990	4100	7.8	240	-	116	112	1170	7	1510	1170	290	<0.4	<0.1	<2	1.65	-	<0.01	1.8	1.18	-	-	<0.02
S-1	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
S-2	8/3/1998	BSK	6500	4900	-	-	-	-	-	-	-	-	960	-	-	-	-	3.4	-	-	-	-	-	-	-
S-2	1/4/1999	BSK	5900	4600	-	-	-	-	-	-	-	-	1000	-	-	-	-	3.4	-	-	-	-	-	<2	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Meyers Farming																									
S-2	4/1/1999	BSK	6300	4600	-	-	-	-	-	-	-	-	1200	-	-	-	-	2.4	-	-	-	-	-	<2	-
S-2	8/5/1999	FGL	7410	5560	6.9	-	19.8	160	142	1430	16	2460	890	360	<0.4	-	<2	7.7	-	-	0.2	1.6	-	-	-
S-2	6/16/2004	FGL	6130	4520	7.4	350	-	123	99	1510	6	1920	710	430	<0.4	0.6	6	5.6	-	<0.01	8.24	1	-	-	<0.02
S-2	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.6	32	-
S-2	8/8/2006	FGL	15400	11100	7.2	430	-	270	289	3440	19	4250	3170	530	22.3	<0.1	27	6.5	-	<0.01	0.65	0.3	-	-	<0.02
S-2	8/8/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	211	-
S-2	5/21/2014	FGL	10000	7450	7.45	350	-	152	158	2520	21	3060	1840	430	1.8	<0.2	12	7.2	-	0.03	19	17.1	182	-	0.04
S-2	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36.4	-
S-3	8/3/1998	BSK	4400	3100	-	-	-	-	-	-	-	-	910	-	-	-	-	0.97	-	-	-	-	-	<2	-
S-3	1/4/1999	BSK	4500	3000	-	-	-	-	-	-	-	-	1000	-	-	-	-	1	-	-	-	-	-	<2	-
S-3	4/1/1999	BSK	4200	2800	-	-	-	-	-	-	-	-	960	-	-	-	-	0.75	-	-	-	-	-	-	-
S-3	8/5/1999	FGL	5300	3280	7.0	-	15.8	98	93	910	6	740	1090	350	<0.4	-	2	0.9	-	-	1.4	1.5	-	-	-
S-3	9/29/1999	FGL	5610	3540	6.9	-	15.1	108	99	900	7	770	1180	380	1	-	<2	1	-	-	3.3	1.6	-	-	-
S-3	6/27/2001	FGL	7430	4830	7.2	310	16.9	165	145	1230	8	1480	1420	370	<0.8	<0.2	<2	1.27	-	<0.01	1.77	1.26	50	-	<0.02
S-3	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
S-3	6/24/2002	FGL	8220	6000	7.4	360	17	204	181	1380	8	2040	1500	440	<0.4	<0.1	3	3.06	-	<0.01	2.3	1.16	-	-	<0.02
S-3	6/24/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58.4	0.66	-
S-3	6/16/2004	FGL	9020	6800	7.3	340	-	215	167	1930	7	2840	1540	410	<0.4	<0.1	2	7.3	-	<0.01	2.74	1.48	-	-	<0.02
S-3	6/16/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83.4	4.52	-
S-3	8/8/2006	FGL	8490	6000	7.0	280	-	179	144	1910	8	2040	1650	340	0.8	<0.1	4	3.6	-	<0.01	1.47	1.46	-	-	<0.02
S-3	8/8/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49.9	24.355	-
S-3	9/15/2008	FGL	8760	6130	6.6	210	20	167	181	1570	12	2240	1600	260	<0.4	0.2	4	4.8	-	<0.01	0.89	5.48	-	-	<0.02
S-3	9/15/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53.65	12.23	-
S-3	5/20/2014	FGL	8660	2300	7.31	350	-	162	134	2160	12	3250	1530	420	0.4	<0.1	8	6.8	0.224	<0.01	18.7	1.59	128	-	0.03
S-3	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-
P-1	8/3/1998	BSK	4000	2500	-	-	-	-	-	-	-	-	790	-	-	-	-	0.89	-	-	-	-	-	-	-
P-1	1/4/1999	BSK	3500	2400	-	-	-	-	-	-	-	-	690	-	-	-	-	1	-	-	-	-	-	<2	-
P-1	4/1/1999	BSK	3800	2500	-	-	-	-	-	-	-	-	830	-	-	-	-	0.88	-	-	-	-	-	<2	-
P-1	8/5/1999	FGL	4620	2920	7.6	-	15	82	85	810	5	760	870	360	<0.4	-	3	0.9	-	-	0.12	0.7	-	-	-
P-1	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
P-1	6/28/2001	FGL	4810	3380	7.7	290	13.7	98	96	796	4	857	920	360	<0.4	0.1	2	0.89	-	<0.01	0.35	0.68	50	-	<0.02
P-1	8/8/2006	FGL	5420	3560	7.8	320	-	121	119	1070	5	1100	1050	390	<0.4	0.6	3	1	-	<0.01	1.17	0.84	-	-	<0.02
P-1	8/8/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49.2	<0.4	-
P-1	9/18/2008	FGL	5620	3340	7.4	320	12.6	118	118	812	8	1180	1060	390	<0.4	0.2	3	1	-	<0.01	3.23	1.01	-	-	0.03
P-1	9/18/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55.45	<0.4	-
P-1	9/16/2014	FGL	5600	3650	7.49	320	-	124	122	1310	6	1210	1040	390	0.6	<0.1	4	1.2	-	<0.01	1.42	0.88	78	-	<0.02
P-2	8/3/1998	BSK	6000	4000	-	-	-	-	-	-	-	-	1300	-	-	-	-	0.84	-	-	-	-	-	-	-
P-2	1/4/1999	BSK	6000	4300	-	-	-	-	-	-	-	-	1500	-	-	-	-	0.8	-	-	-	-	-	<2	-
P-2	4/1/1999	BSK	5800	4100	-	-	-	-	-	-	-	-	1400	-	-	-	-	0.89	-	-	-	-	-	<2	-
P-3	8/3/1998	BSK	5500	3500	-	-	-	-	-	-	-	-	1100	-	-	-	-	1.2	-	-	-	-	-	-	-
P-3	1/4/1999	BSK	5000	3600	-	-	-	-	-	-	-	-	1100	-	-	-	-	1.2	-	-	-	-	-	<2	-
P-3	4/1/1999	BSK	5300	3600	-	-	-	-	-	-	-	-	1200	-	-	-	-	1.1	-	-	-	-	-	<2	-
P-4	8/3/1998	BSK	9000	5800	-	-	-	-	-	-	-	-	2300	-	-	-	-	1.5	-	-	-	-	-	-	-
P-4	1/4/1999	BSK	8200	5900	-	-	-	-	-	-	-	-	2100	-	-	-	-	1.3	-	-	-	-	-	<2	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Meyers Farming																									
P-4	4/1/1999	BSK	8900	6200	-	-	-	-	-	-	-	-	2600	-	-	-	-	1.2	-	-	-	-	-	<2	-
P-4	8/8/2006	FGL	8730	5800	7.6	250	-	185	178	1820	8	1610	2160	300	<0.4	<0.1	3	1.3	-	<0.01	4.26	1.33	-	-	<0.02
P-4	8/8/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.1	<0.4	-
P-4	9/18/2008	FGL	33200	23600	6.4	300	31	643	955	5300	29	4500	9800	400	<0.4	<0.5	18	4.4	-	<0.01	30.7	3.69	-	-	<0.02
P-4	9/18/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.5	<0.4	-
P-4	9/16/2014	FGL	7990	5470	6.7	250	-	183	186	1450	8	1780	1590	310	<0.4	<0.1	5	1.2	-	<0.01	17.2	4.11	40	-	<0.02
P-5	8/3/1998	BSK	6200	4000	-	-	-	-	-	-	-	-	1200	-	-	-	-	1.1	-	-	-	-	-	-	-
P-5	1/4/1999	BSK	5300	4000	-	-	-	-	-	-	-	-	1100	-	-	-	-	1.3	-	-	-	-	-	-	-
P-5	4/1/1999	BSK	6000	4200	-	-	-	-	-	-	-	-	1300	-	-	-	-	1	-	-	-	-	-	<2	-
P-6	8/3/1998	BSK	37000	-	-	-	-	-	-	-	-	-	8800	-	-	-	-	6.5	-	-	-	-	-	-	-
P-6	1/4/1999	BSK	31000	-	-	-	-	-	-	-	-	-	7600	-	-	-	-	8	-	-	-	-	-	-	-
P-6	4/1/1999	BSK	35000	-	-	-	-	-	-	-	-	-	8600	-	-	-	-	8.3	-	-	-	-	-	-	-
Five Star (Casaca Vineyards, Solo Mio Farms, & Daddy's Pride Farming)																									
FS-1	10/19/1993	NA	1520	907	7.3	-	7.4	36	26	240	2	200	240	241	-	-	-	-	-	-	-	-	-	-	-
FS-1	9/12/2001	FGL	1030	590	8.0	200	6.6	29	15	176	2	102	139	240	<0.4	0.2	<2	0.36	-	<0.01	0.3	0.4	-	-	<0.02
FS-1	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	<0.4	-
FS-1	8/21/2002	CLS	1200	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-1	8/21/2002	FGL	1160	710	7.9	220	7.1	29	15	190	2	110	166	260	<0.4	0.1	<2	0.36	-	<0.01	0.24	0.39	-	-	<0.02
FS-1	8/21/2002	TL	1200	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-1	9/21/2007	FGL	856	520	8.0	170	9.3	14	7	171	1	78	116	200	<0.4	0.4	<2	0.25	-	<0.01	0.19	0.2	-	-	<0.02
FS-1	9/21/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.7	<0.4	-
FS-1	9/15/2008	FGL	1020	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-1	5/27/2009	FGL	1060	620	7.5	190	6.8	32	15	187	2	105	157	230	<0.4	0.2	<2	0.4	-	<0.01	1.06	0.5	16	-	<0.02
FS-1	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-1	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
FS-1	5/9/2012	FGL	923	540	7.4	160	-	21	11	168	2	99	144	200	<1.8	0.2	<2	0.4	-	<0.01	0.27	0.43	13	-	<0.02
FS-1	5/7/2013	FGL	1040	610	8.0	160	-	32	17	178	3	151	142	200	0.5	0.2	<2	0.4	-	<0.01	0.6	0.54	11	2	<0.02
FS-1	5/20/2014	FGL	1080	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-2	10/3/2001	FGL	1190	740	7.4	180	4.4	51	27	157	3	202	134	210	<0.4	0.1	<2	0.36	-	<0.01	1.24	1.17	-	-	<0.02
FS-2	10/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.9	<0.4	-
FS-2	5/14/2007	CLS	840	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-2	9/15/2008	FGL	1050	560	7.1	150	5.2	36	18	154	3	134	143	190	<0.4	0.2	<2	0.4	-	<0.01	1.1	0.65	-	-	<0.02
FS-2	9/15/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.77	<0.4	-
FS-2	5/27/2009	FGL	1270	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-2	5/13/2010	FGL	1350	750	7.2	180	7.6	35	18	222	3	119	242	220	<0.4	0.3	<2	0.4	-	<0.01	1.19	0.75	10	-	<0.02
FS-2	5/13/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-2	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
FS-2	5/9/2012	FGL	1140	660	7.2	180	-	30	19	200	3	160	173	220	<1.8	0.1	<2	0.4	-	<0.01	1.18	0.7	12	-	<0.02
FS-2	5/7/2013	FGL	1350	780	7.6	180	-	37	19	235	3	155	233	220	<0.4	0.2	<2	0.4	-	<0.01	1.08	0.74	10	2.58	<0.02
FS-2	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
FS-2	5/20/2014	FGL	1400	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-2	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-3	9/12/2001	FGL	1680	1020	8.0	400	11.9	30	17	330	3	181	194	490	<0.4	0.2	<2	0.5	-	<0.01	1.13	0.68	-	-	<0.02
FS-3	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	<0.4	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Five Star (Casaca Vineyards, Solo Mio Farms, & Daddy's Pride Farming)																									
FS-3	10/2/2001	FGL	1930	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-3	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-3	5/14/2007	CLS	1200	770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-3	9/16/2008	FGL	1380	810	7.3	260	9.5	24	16	244	2	186	150	310	<0.4	0.3	<2	0.5	-	<0.01	1.62	0.81	-	-	<0.02
FS-3	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.45	<0.4	-
FS-3	5/27/2009	FGL	1740	1070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-3	5/13/2010	FGL	1250	760	7.4	210	7.9	27	19	218	2	188	141	260	<0.4	0.3	<2	0.4	-	<0.01	2.03	0.92	9	-	<0.02
FS-3	5/13/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-3	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
FS-3	5/9/2012	FGL	1040	610	7.4	190	-	13	8	214	2	147	126	230	3.1	0.3	<2	0.4	-	<0.01	0.77	0.41	10	-	<0.02
FS-3	5/7/2013	FGL	1060	640	7.4	190	-	20	11	210	2	168	115	230	0.6	0.2	<2	0.3	-	<0.01	1.25	0.57	7	1	<0.02
FS-3	5/20/2014	FGL	1280	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-4	10/2/2001	FGL	1740	1060	7.8	420	13.8	24	14	345	2	175	211	520	<0.4	0.2	<2	0.5	-	<0.01	0.66	0.5	-	-	<0.02
FS-4	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	<0.4	-
FS-4	5/14/2007	CLS	1900	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-4	9/21/2007	FGL	2210	1420	8.2	530	18	33	20	531	2	290	200	640	<0.4	0.3	<2	0.55	-	<0.01	0.66	0.55	-	-	<0.02
FS-4	9/21/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.7	<0.4	-
FS-4	9/16/2008	FGL	1340	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-4	5/27/2009	FGL	1280	740	7.4	270	12.8	18	10	274	2	146	140	330	0.4	0.3	<2	0.5	-	<0.01	0.81	0.4	16	-	<0.02
FS-4	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-4	5/10/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
FS-4	5/10/2012	FGL	940	560	7.6	150	-	11	6	196	2	128	118	190	<1.8	0.2	<2	0.3	0.0355	<0.01	0.23	0.29	8	-	<0.02
FS-4	5/7/2013	FGL	910	540	7.6	170	-	14	8	184	2	126	106	210	0.9	0.2	<2	0.3	-	<0.01	0.31	0.23	8	1	<0.02
FS-4	5/20/2014	FGL	1020	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-5	8/4/1999	FGL	765	470	7.4	-	4.3	24	13	105	3	98	93	190	<0.4	-	<2	0.3	-	-	0.6	0.4	-	<2	-
FS-5	9/27/1999	FGL	698	440	7.4	-	4.1	24	13	101	2	63	94	190	<0.4	-	<2	0.3	-	-	0.6	0.3	-	<2	-
FS-5	10/3/2001	FGL	1040	640	7.6	170	5.9	31	16	161	3	117	151	200	<0.4	0.3	<2	0.37	-	<0.01	0.88	0.3	-	-	<0.02
FS-5	10/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.2	<0.4	-
FS-5	6/25/2002	FGL	921	540	7.6	150	5.1	27	14	131	2	90	143	190	<0.4	0.1	<2	0.31	-	<0.01	0.55	0.32	-	-	<0.02
FS-5	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	<0.4	-
FS-5	8/21/2002	CLS	1200	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-5	8/21/2002	FGL	1200	740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-5	8/21/2002	TL	1200	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-5	7/10/2003	FGL	1240	840	7.6	150	-	61	33	169	4	265	146	180	<0.4	0.2	-	0.34	-	<0.01	4800	1.97	-	-	<0.02
FS-5	7/10/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.3	<0.4	-
FS-5	10/27/2005	FGL	797	520	7.2	120	-	28	19	98	2	129	101	140	<0.4	0.2	<2	0.3	-	<0.01	2.5	1.16	-	-	<0.02
FS-5	10/27/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-5	10/27/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	<0.4	-
FS-5	5/14/2007	CLS	780	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-5	5/27/2009	FGL	1270	750	7.3	170	6.7	42	22	214	3	191	180	210	<0.4	0.2	<2	0.4	-	<0.01	2.3	0.66	14	-	<0.02
FS-5	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-5	5/13/2010	FGL	1210	720	7.6	180	5.1	45	24	169	3	157	175	230	<0.4	0.2	<2	0.3	0.11	<0.01	1.38	0.68	12	-	<0.02
FS-5	5/13/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-5	5/10/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
FS-5	5/10/2012	FGL	1060	650	7.2	140	-	33	20	162	3	153	161	170	<1.8	0.1	<2	0.3	0.0916	<0.01	3.32	0.74	12	-	<0.02

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Five Star (Casaca Vineyards, Solo Mio Farms, & Daddy's Pride Farming)																									
FS-5	5/7/2013	FGL	1110	660	7.5	150	-	40	21	176	3	172	157	190	<0.4	0.2	<2	0.4	-	<0.01	2.15	0.66	12	1	<0.02
FS-5	5/20/2014	FGL	1080	640	7.83	160	-	32	16	156	3	132	150	200	<0.4	<0.1	<2	0.3	-	<0.01	1.52	0.48	12	-	<0.02
FS-5	9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-6	9/12/2001	FGL	2340	1390	7.9	260	9.6	63	39	392	3	330	401	320	<0.4	0.2	<2	0.52	-	<0.01	0.42	0.6	-	-	<0.02
FS-6	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.2	<0.4	-
FS-6	7/13/2009	FGL	1960	1150	7.7	260	11.5	39	25	374	2	310	287	320	<0.4	0.1	<2	0.6	-	<0.01	0.41	0.32	18	-	<0.02
FS-6	7/13/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-6	5/13/2010	FGL	1970	1180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-6	5/10/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
FS-6	5/10/2012	FGL	1960	1250	7.3	240	-	53	38	365	3	420	268	290	<1.8	0.1	<2	0.5	0.11	<0.01	0.62	1.17	15	-	<0.02
FS-6	5/7/2013	FGL	2220	1430	7.4	270	-	62	43	406	3	500	310	330	<0.4	0.1	<2	0.6	-	<0.01	1.18	1.11	17	3.06	<0.02
FS-6	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
FS-6	5/20/2014	FGL	1900	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-6	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-7	10/3/2001	FGL	2500	1600	7.3	280	7.9	83	57	380	3	489	374	340	<0.4	0.1	<2	0.53	-	<0.01	1.85	1.35	-	-	<0.02
FS-7	10/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.7	<0.4	-
FS-7	9/21/2007	FGL	2260	1490	7.8	420	9	69	58	418	3	390	250	510	<0.4	0.2	<2	0.53	-	<0.01	6.45	2.1	-	-	<0.02
FS-7	9/21/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2	<0.4	-
FS-7	9/16/2008	FGL	2190	1330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-7	7/13/2009	FGL	2330	1450	7.5	290	9.5	62	50	415	3	530	290	360	<0.4	<0.1	<2	0.7	-	<0.01	2.66	1.18	15	-	<0.02
FS-7	7/13/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-7	5/13/2010	FGL	2350	1490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-7	5/7/2013	FGL	1760	1120	7.4	240	-	43	38	319	3	420	193	300	<0.4	0.2	<2	0.5	-	<0.01	1.6	1.12	11	2	<0.02
FS-7	5/20/2014	FGL	2220	1470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-8	10/3/2001	FGL	2240	1310	7.7	240	12.1	43	24	400	3	210	444	290	<0.4	0.2	<2	0.6	-	<0.01	0.63	0.38	-	-	<0.02
FS-8	10/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	<0.4	-
FS-8	5/14/2007	CLS	1200	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-8	9/16/2008	FGL	1800	1000	7.6	210	10.2	34	19	299	2	181	314	260	<0.4	0.3	<2	0.5	-	<0.01	0.8	0.35	-	-	<0.02
FS-8	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.97	<0.4	-
FS-8	5/27/2009	FGL	2140	1250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-8	5/13/2010	FGL	2040	1190	7.7	230	9.6	46	28	334	2	280	360	280	<0.4	0.2	<2	0.6	-	<0.01	0.57	0.52	17	-	<0.02
FS-8	5/13/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-8	5/7/2013	FGL	2130	1320	7.5	220	-	56	38	382	4	410	360	270	1.1	0.2	<2	0.6	-	<0.01	2.51	1.18	15	3.54	<0.02
FS-8	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
FS-8	5/20/2014	FGL	2000	1190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-8	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-9	9/12/2001	FGL	2090	1290	7.9	310	9.8	44	38	368	3	343	286	380	<0.4	0.2	<2	0.56	-	<0.01	1.14	1.14	-	-	<0.02
FS-9	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.6	<0.4	-
FS-9	5/14/2007	CLS	1500	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-9	9/16/2008	FGL	1890	1130	7.3	330	8.9	39	31	308	3	300	223	400	<0.4	0.3	<2	0.5	-	<0.01	2.17	1.72	-	-	0.03
FS-9	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.1	<0.4	-
FS-9	5/27/2009	FGL	2130	1340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-9	5/7/2013	FGL	1540	990	7.3	190	-	28	27	283	3	310	166	230	0.4	0.3	<2	0.4	-	<0.01	1.39	1.22	11	2.06	<0.02
FS-9	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Five Star (Casaca Vineyards, Solo Mio Farms, & Daddy's Pride Farming)																									
FS-9	5/20/2014	FGL	2420	1590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-9	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-10	10/19/1993	NA	1440	874	8.0	-	13.4	16	9	270	2	130	190	333	-	-	-	-	-	-	-	-	-	-	-
FS-10	6/26/2001	FGL	1280	770	7.6	300	9.1	25	16	237	2	154	125	370	<0.4	0.3	<2	0.42	-	0.03	0.5	0.64	10	-	<0.02
FS-10	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-10	10/3/2001	FGL	1400	910	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-10	10/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-10	6/25/2002	FGL	1630	1060	7.4	290	6.1	54	35	236	3	295	158	350	<0.4	0.1	<2	0.39	-	<0.01	0.85	2.32	-	-	<0.02
FS-10	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.4	<0.4	-
FS-10	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.8	<0.4	-
FS-10	7/10/2003	FGL	2510	1690	7.8	460	-	96	70	389	6	490	270	560	<0.4	0.3	-	0.55	-	<0.01	1.13	5.9	-	-	<0.02
FS-10	10/27/2005	FGL	1530	940	7.5	400	-	14	9	287	2	109	184	490	<0.4	0.5	<2	0.5	-	<0.01	0.16	0.65	-	-	<0.02
FS-10	10/27/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-10	10/27/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.9	<0.4	-
FS-10	5/14/2007	CLS	1800	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS-10	9/16/2008	FGL	2480	1550	7.4	570	10.3	66	41	433	4	370	250	700	<0.4	0.2	<2	0.7	-	<0.01	1.72	0.98	-	-	<0.02
FS-10	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.9	<0.4	-
FS-10	7/13/2009	FGL	2360	1420	7.7	540	13.8	45	30	488	3	350	230	660	<0.4	0.2	<2	0.7	-	<0.01	0.48	0.41	19	-	<0.02
FS-10	7/13/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
FS-10	5/7/2013	FGL	1120	690	7.6	180	-	20	13	222	2	170	118	220	0.6	0.2	<2	0.4	-	<0.01	0.44	0.38	9	1	0.02
FS-10	5/20/2014	FGL	1490	940	7.61	240	-	29	17	269	2	288	153	290	0.4	<0.1	<2	0.4	-	<0.01	1.97	0.8	11	-	<0.02
FS-10	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
Coelho West																									
CW-1	10/20/1993	NA	1175	697	7.4	-	9.5	21	12	220	3	110	160	239	-	-	-	-	-	-	-	-	-	-	-
CW-1	9/12/2001	FGL	1280	780	8.2	210	12.1	18	9	251	2	218	133	260	<0.4	0.1	<2	0.44	-	<0.01	0.53	0.19	-	-	<0.02
CW-1	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.5	<0.4	-
CW-1	6/17/2002	TL	1100	660	7.4	190	11.9	18	9	250	4	160	120	230	<2	-	-	0.44	0.048	<0.05	0.94	0.24	-	-	<0.05
CW-1	8/21/2002	CLS	1000	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-1	8/21/2002	FGL	1060	680	8.1	200	11.1	14	7	203	1	131	134	240	<0.4	<0.1	-	0.4	-	<0.01	0.41	0.18	-	-	<0.02
CW-1	8/21/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.7	<0.4	-
CW-1	8/21/2002	TL	1100	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-1	10/27/2005	FGL	891	570	7.6	160	-	30	16	128	3	92	117	190	0.6	<0.5	3	0.3	-	<0.01	0.17	0.01	-	-	0.03
CW-1	10/27/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-1	10/27/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.7	<0.4	-
CW-1	5/15/2007	CLS	830	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-1	9/20/2007	FGL	930	550	8.1	170	7.3	23	12	173	2	140	105	210	<0.4	0.2	<2	0.26	0.0448	<0.01	0.76	0.29	-	-	<0.02
CW-1	9/20/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	<0.4	-
CW-1	9/16/2008	FGL	1150	710	7.6	180	6.9	29	15	184	2	163	137	220	<0.4	0.2	<2	0.4	0.062	<0.01	0.8	0.39	-	-	<0.02
CW-1	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.27	<0.4	-
CW-1	5/27/2009	FGL	947	570	7.5	170	6.8	26	13	170	2	104	130	210	0.4	0.2	<2	0.4	0.0489	<0.01	0.88	0.39	7	-	<0.02
CW-1	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-1	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
CW-1	5/9/2012	FGL	892	530	7.6	200	-	15	9	175	2	87	109	240	<1.8	0.2	<2	0.4	0.0386	<0.01	0.84	0.18	14	-	<0.02
CW-1	5/7/2013	FGL	1170	720	7.7	240	-	34	20	211	3	159	138	290	<0.4	0.2	<2	0.4	-	<0.01	0.91	0.4	13	1	0.05
CW-1	5/20/2014	FGL	1020	620	7.91	190	-	28	18	149	2	114	131	230	<0.4	<0.1	<2	0.3	-	<0.01	0.73	0.4	10	-	<0.02

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Coelho West																									
CW-1	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-1	9/16/2014	FGL	-	-	7.59	-	-	-	-	-	-	-	-	-	-	-	-	-	0.067	-	-	-	-	-	-
CW-2	9/12/2001	FGL	1780	1100	8.3	440	17.9	18	11	391	2	183	202	500	<0.4	0.2	<2	0.61	-	<0.01	1.24	0.2	-	-	<0.02
CW-2	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30.5	<0.4	-
CW-2	6/25/2002	FGL	1100	670	8.5	250	13.4	9	6	212	1	108	133	300	<0.4	0.1	<2	0.46	-	<0.01	1.1	0.06	-	-	<0.02
CW-2	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.7	<0.4	-
CW-2	8/21/2002	CLS	1200	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-2	8/21/2002	FGL	1160	710	8.5	250	14	10	7	236	<1	120	133	290	<0.4	0.2	-	0.43	0.0245	<0.01	0.09	0.05	-	-	<0.02
CW-2	8/21/2002	TL	1200	690	-	-	14.8	10	7	250	2	110	140	300	-	-	-	-	-	-	-	-	-	-	-
CW-2	5/15/2007	CLS	1500	860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-2	9/20/2007	FGL	1460	910	8.5	320	14.5	19	12	327	<1	178	162	380	<0.4	0.3	<2	0.44	0.0436	<0.01	0.19	0.08	-	-	<0.02
CW-2	9/20/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.7	<0.4	-
CW-2	9/16/2008	FGL	1510	870	8.1	330	11.8	20	13	276	1	140	180	410	<0.4	0.2	<2	0.6	0.0637	<0.01	2.11	0.12	-	-	<0.02
CW-2	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.2	<0.4	-
CW-2	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
CW-2	5/9/2012	FGL	1490	890	7.9	350	-	18	12	323	2	159	182	430	<1.8	0.2	<2	0.6	0.049	<0.01	0.35	0.14	33	-	<0.02
CW-2	9/16/2014	FGL	1250	750	7.85	290	-	17	12	251	1	125	134	350	<0.4	0.2	<2	0.5	0.0413	<0.01	1.11	0.22	21	-	<0.02
CW-2	9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-3	8/24/2000	FGL	1570	920	8.1	300	18.2	13	8	338	1	204	156	340	<0.4	0.2	-	0.5	0.041	<0.01	0.73	0.12	-	-	<0.02
CW-3	6/25/2001	FGL	1710	1050	8.0	330	16.8	16	10	348	2	232	188	400	<0.4	0.3	<2	0.51	-	<0.01	0.8	0.2	30	-	<0.02
CW-3	6/28/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-3	6/17/2002	TL	1500	920	7.6	300	16	16	11	340	3	180	190	370	<2	-	-	0.56	0.045	<0.05	1.4	0.26	-	-	<0.05
CW-3	8/21/2002	CLS	1600	940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-3	8/21/2002	FGL	1650	1020	8.1	350	16.9	15	9	336	1	208	187	390	<0.4	0.3	-	0.56	-	<0.01	0.35	0.15	-	-	0.02
CW-3	8/21/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.4	<0.4	-
CW-3	8/21/2002	TL	1700	999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-3	7/9/2003	FGL	1270	810	7.5	170	-	29	25	198	2	250	155	210	<0.4	0.5	-	0.42	-	<0.01	6.58	1.26	-	-	0.05
CW-3	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.25	<0.4	-
CW-3	10/27/2005	FGL	1410	880	7.4	250	-	23	16	257	2	198	169	310	<0.4	0.3	<2	0.5	-	<0.01	2.45	0.46	-	-	<0.02
CW-3	10/27/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-3	10/27/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.5	<0.4	-
CW-3	5/15/2007	CLS	1800	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-3	9/21/2007	FGL	1990	1240	8.4	500	17.5	26	17	467	1	211	225	610	<0.4	0.4	<2	0.55	0.09	<0.01	0.69	0.48	-	-	<0.02
CW-3	9/21/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	<0.4	-
CW-3	9/16/2008	FGL	1970	1170	8.0	490	16.6	21	13	393	2	189	218	580	<0.4	0.4	<2	0.7	0.075	<0.01	0.42	0.33	-	-	<0.02
CW-3	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.87	<0.4	-
CW-3	5/27/2009	FGL	1780	1040	8.0	430	16.6	17	10	348	1	175	202	530	0.7	0.4	<2	0.7	0.0549	<0.01	0.43	0.29	27	-	<0.02
CW-3	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-3	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
CW-3	5/9/2012	FGL	2200	1370	7.7	520	-	27	19	479	2	320	280	640	<1.8	0.2	<2	0.6	0.0954	0.02	0.77	0.62	28	-	<0.02
CW-3	5/7/2013	FGL	2140	1340	7.8	540	-	27	18	544	2	280	210	660	1	0.3	<2	0.6	-	<0.01	0.65	0.57	26	2.96	<0.02
CW-3	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
CW-3	5/20/2014	FGL	1590	1010	8.16	370	-	13	9	327	1	183	175	460	<0.4	<0.1	<2	0.5	-	<0.01	0.41	0.24	28	-	<0.02
CW-3	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-3	9/16/2014	FGL	-	-	8.31	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0456	-	-	-	-	-	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Coelho West																									
CW-4	4/9/1993	NA	1850	1050	7.3	-	11.8	29	14	310	3	140	190	497	-	-	-	-	-	-	-	-	-	-	-
CW-4	9/12/2001	FGL	2780	1730	8.3	790	29	20	11	650	2	216	319	910	<0.4	0.4	<2	0.85	-	<0.01	1.11	0.21	-	-	<0.02
CW-4	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59.5	<0.4	-
CW-4	6/17/2002	TL	1600	940	7.2	250	12.6	24	15	320	5	250	160	310	<2	-	-	0.51	0.072	<0.05	0.81	0.65	-	-	<0.05
CW-4	8/21/2002	CLS	1500	970	-	330	10.7	26	16	280	3	220	180	403	-	-	-	-	-	-	-	-	-	-	-
CW-4	8/21/2002	FGL	1600	1000	7.5	330	11.3	25	16	295	2	190	174	400	<0.4	0.4	-	0.5	-	<0.01	1.95	0.61	-	-	<0.02
CW-4	8/21/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.2	0.9	-
CW-4	8/21/2002	TL	1600	960	-	-	12.2	26	16	320	5	210	170	400	-	-	-	-	-	-	-	-	-	-	-
CW-4	7/9/2003	FGL	1260	810	7.8	160	-	31	22	193	4	246	156	190	<0.4	0.3	-	0.39	-	<0.01	1.31	1.09	-	-	<0.02
CW-4	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.75	<0.4	-
CW-4	10/27/2005	FGL	1390	870	7.4	260	-	20	14	246	3	181	172	320	<0.4	0.5	<2	0.5	-	<0.01	1.29	0.69	-	-	<0.02
CW-4	10/27/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-4	10/27/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	<0.4	-
CW-4	5/15/2007	CLS	1300	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-4	9/21/2007	FGL	2490	1520	8.4	700	17.2	42	26	575	4	193	280	850	<0.4	0.4	<2	0.58	0.167	<0.01	2.07	0.97	-	-	<0.02
CW-4	9/21/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.1	<0.4	-
CW-4	9/16/2008	FGL	2410	1410	7.5	610	13.4	41	26	446	4	230	270	750	<0.4	0.3	<2	0.6	0.174	<0.01	2.77	0.87	-	-	<0.02
CW-4	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.6	<0.4	-
CW-4	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
CW-4	5/9/2012	FGL	1490	910	7.4	350	-	19	13	305	2	149	179	430	<1.8	0.3	<2	0.5	0.0653	<0.01	0.72	0.37	15	-	<0.02
CW-4	5/7/2013	FGL	1440	870	7.7	310	-	19	12	292	3	180	163	380	<0.4	0.3	<2	0.5	-	<0.01	0.75	0.34	16	2.02	<0.02
CW-4	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
CW-4	5/20/2014	FGL	1580	980	7.64	300	-	25	16	290	3	221	178	370	<0.4	<0.1	<2	0.4	-	<0.01	1.3	0.48	17	-	<0.02
CW-4	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-4	9/16/2014	FGL	-	-	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0965	-	-	-	-	-	-
CW-5	6/28/2001	FGL	2340	1450	8.2	630	20.4	21	12	474	2	176	267	750	<0.4	0.3	<2	0.7	-	<0.01	0.35	0.23	60	-	<0.02
CW-5	6/28/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-5	10/3/2001	FGL	2630	1620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-5	10/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-5	6/17/2002	TL	1900	1100	7.9	440	20.5	17	10	430	4	180	210	540	<2	-	-	0.64	0.061	<0.05	0.48	0.23	-	-	<0.05
CW-5	8/20/2002	FGL	2640	1590	8.0	760	26.9	18	10	574	2	217	290	860	<0.4	0.4	-	0.81	-	<0.01	0.38	0.23	-	-	<0.02
CW-5	8/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.2	<0.4	-
CW-5	8/21/2002	CLS	2600	1600	-	780	25.3	19	11	560	2	200	290	952	-	-	-	-	-	-	-	-	-	-	-
CW-5	8/21/2002	TL	2700	1600	-	-	29	17	10	610	4	190	310	930	-	-	-	-	-	-	-	-	-	-	-
CW-5	7/9/2003	FGL	1640	1030	8.4	380	-	19	11	356	2	181	199	460	<0.4	-	-	0.55	-	<0.01	0.35	0.35	-	-	<0.02
CW-5	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	<0.4	-
CW-5	10/27/2005	FGL	1400	880	7.8	340	-	16	10	244	2	141	158	410	<0.4	0.5	<2	0.5	0.0439	<0.01	0.57	0.3	-	-	<0.02
CW-5	10/27/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-5	10/27/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.4	<0.4	-
CW-5	5/15/2007	CLS	2900	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CW-5	9/21/2007	FGL	2910	1850	8.5	840	38	17	9	778	1	240	300	980	<0.4	0.3	<2	0.81	0.0954	<0.01	0.34	0.18	-	-	<0.02
CW-5	9/21/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31.7	<0.4	-
CW-5	9/16/2008	FGL	2120	1260	8.1	600	29.8	9	5	449	1	160	220	710	<0.4	0.4	<2	0.7	0.0559	<0.01	0.19	0.09	-	-	<0.02
CW-5	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.7	<0.4	-
CW-5	5/27/2009	FGL	2020	1250	8.0	560	28.2	10	6	456	1	157	220	690	1.1	0.4	<2	0.6	0.0553	<0.01	0.49	0.13	25	-	0.22
CW-5	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-

Table E-1 (continued)
Summary of Groundwater Quality Laboratory Results (Shallow Zone Wells)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Coelho West																									
CW-5	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
CW-5	5/9/2012	FGL	1420	850	8.1	320	-	6	4	327	1	155	158	390	<1.8	0.3	<2	0.4	0.0294	<0.01	0.26	0.11	16	-	<0.02
CW-5	5/7/2013	FGL	1120	680	8.5	250	-	5	3	266	1	-	-	310	0.4	-	<2	0.4	-	<0.01	0.24	0.06	15	2	0.06
CW-5	5/20/2014	FGL	1930	1180	7.92	420	-	11	7	412	2	251	198	520	<0.4	<0.1	<2	0.5	-	<0.01	0.58	0.2	19	-	<0.02
CW-5	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
CW-5	9/16/2014	FGL	-	-	7.83	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0693	-	-	-	-	-	-

1. Laboratory Abbreviations: BAS - Basic Laboratory; BD - Betz Dearborn; BSK - BSK Analytical Laboratories, Fresno; CAL - Caltest Analytical Laboratories, Napa; CLS - California Laboratory Services, Rancho Cordova; DL - Dellavalle Labs; FGL - Fruit Growers Laboratory, Santa Paula; JML - JM Lord, Fresno; NA - Not Available; OBL - Olson Biochemistry Laboratories of South Dakota State University, Brookings, SD; SDAL - South Dakota Agricultural Laboratories; TL - The Twining Laboratories, Inc., Fresno.; UAG - U.S. Agricultural Consultants and Laboratories, Burbank; USGS - U.S. Geological Survey

2. Constituent Abbreviations: EC - Electrical Conductivity; TDS - Total Dissolved Solids; SAR - Sodium Absorption Ratio; Ca - Calcium; Mg - Magnesium; Na - Sodium; K - Potassium; SO4 - Sulfate; Cl - Chloride; HCO3 - Bicarbonate; NO3 - Nitrate; F - Fluoride; As - Arsenic; B - Boron; Ba - Barium; Cu - Copper; Fe - Iron; Mn - Manganese; Mo - Molybdenum; Se - Selenium; Zn - Zinc

3. Electrical Conductivity at 25°C

4. HCO3 , Total Alkalinity and NO3 reported as HCO3 , CaCO3 and NO3 respectively. Some 2008 NO3 results may include NO2 in reported value.

NA = Not Available; ND = Non Detect (detection limit unknown)

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Table E-2
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Central California ID																										
5A	8/1/1990	NA	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5A	8/1/1991	NA	794	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5A	8/1/1992	NA	584	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5A	8/1/1996	NA	828	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5A	6/9/1997	NA	710	430	8.3	-	-	16	5	120	2	98	83	134	<0.4	-	-	0.3	-	-	0.54	0.31	-	-	-	-
5A	8/4/1999	FGL	688	450	7.9	-	6	16	5	107	2	97	85	150	<0.4	-	2	0.3	-	-	0.05	0.03	-	<2	-	-
5A	9/29/1999	FGL	587	350	7.7	-	4	23	8	88	2	70	79	140	<0.4	-	<2	0.2	-	-	0.6	0.3	-	<2	-	-
5A	6/7/2001	CCID	730	460	7.9	110	7.5	18	5.3	140	2	110	92	134	<10	-	-	0.2	-	-	-	-	-	-	-	-
5A	9/30/2002	BSK	910	590	7.7	120	-	19	5	180	2	150	98	120	ND	-	-	0.4	-	-	-	-	-	-	-	-
5A	8/25/2003	BSK	620	390	8.1	110	-	26	8	110	ND	68	84	110	ND	-	-	0.2	-	-	-	-	-	-	-	-
5A	7/14/2004	BSK	880	580	8.1	-	-	20	5	180	2	170	100	130	ND	-	-	0.3	-	-	-	-	-	2	-	-
5A	8/24/2007	BSK	890	570	8.2	120	-	15	3	160	2.2	170	100	120	ND	-	-	0.35	-	-	-	-	-	ND	-	-
5A	9/2/2008	NA	1100	-	8.2	120	-	24	5	200	2.7	230	110	146	ND	-	-	0.46	-	-	-	-	-	ND	-	-
5A	7/16/2009	BSK	1200	700	8.3	140	-	26	5.1	210	2.8	240	110	140	ND	-	-	0.5	-	-	-	-	-	ND	-	-
5A	9/23/2010	BSK	660	390	8.3	120	-	20	5.9	100	2.1	85	82	120	ND	-	-	0.22	-	-	-	-	-	ND	-	-
5A	3/2/2012	BSK	1100	660	8.2	130	-	23	4.6	210	2.9	220	110	130	ND	-	-	0.47	-	-	-	-	-	ND	-	-
5A	8/9/2013	BSK	1200	760	8.3	140	-	34	6.1	220	3.2	270	120	209	ND	-	-	0.57	-	-	-	-	-	ND	-	-
5A	8/19/2014	BSK	1300	820	8.2	130	-	30	5.2	240	3.2	300	130	159	<5	-	-	0.64	-	-	-	-	-	<1	-	-
12C	6/7/2001	CCID	1700	1200	7.3	120	5.7	86	42	260	4	420	260	146	ND	-	-	0.5	-	-	-	-	-	-	-	-
12C	9/30/2002	BSK	1900	1300	6.8	130	-	82	41	270	6	430	250	130	ND	-	-	0.6	-	-	-	-	-	-	-	-
12C	8/25/2003	BSK	1400	1000	7.4	120	-	68	35	200	5	330	180	120	ND	-	-	0.5	-	-	-	-	-	-	-	-
12C	7/15/2004	BSK	1800	1300	7.4	-	-	89	43	280	5	490	250	140	ND	-	-	0.6	-	-	-	-	-	4	-	-
12C	8/24/2007	BSK	1800	1400	7.4	140	-	69	33	230	3.9	550	280	140	ND	-	-	0.7	-	-	-	-	-	ND	-	-
12C	9/2/2008	NA	2200	-	7.6	140	-	91	46	310	5.5	560	270	171	ND	-	-	0.94	-	-	-	-	-	ND	-	-
12C	7/16/2009	BSK	2300	1500	8.0	160	-	98	48	340	5.6	600	290	160	ND	-	-	1	-	-	-	-	-	ND	-	-
12C	9/23/2010	BSK	2200	1600	7.9	160	-	90	45	320	5.1	610	290	160	ND	-	-	1.1	-	-	-	-	-	ND	-	-
12C	3/2/2012	BSK	2100	1400	7.6	150	-	95	48	330	5.6	540	260	150	ND	-	-	1.1	-	-	-	-	-	ND	-	-
12C	8/9/2013	BSK	2400	1600	8.0	180	-	100	50	350	5.6	630	300	268	ND	-	-	1.2	-	-	-	-	-	ND	-	-
12C	8/19/2014	BSK	2500	1700	7.8	160	-	100	49	390	5.4	690	310	195	<10	-	-	1.4	-	-	-	-	-	<1	-	-
15	7/15/1960	NA	813	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7/15/1961	NA	1050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7/15/1965	NA	753	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7/15/1972	NA	659	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7/15/1974	NA	641	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7/15/1975	NA	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7/15/1976	NA	641	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	4/15/1977	NA	528	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	7/15/1978	NA	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	4/15/1979	NA	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	7/15/1980	NA	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	4/15/1981	NA	845	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	7/15/1982	NA	863	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	4/15/1984	NA	847	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	7/15/1987	NA	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	7/15/1988	NA	860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	7/1/1989	NA	951	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15A	8/1/1990	NA	1170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Central California ID																										
15A	8/1/1991	NA	1024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15B	8/1/1992	NA	1020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15B	7/1/1993	NA	1050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15B	8/1/1994	NA	1120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15B	8/1/1996	NA	1050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15B	6/9/1997	NA	1100	680	7.9	-	-	47	24	120	5	190	140	134	<0.4	-	-	0.3	-	-	<0.05	1.3	-	-	-
15B	6/21/2001	CCID	1100	730	7.3	98	4	59	29	150	4	230	160	120	ND	-	-	0.3	-	-	-	-	-	-	-
15B	9/30/2002	BSK	1200	770	6.8	120	-	56	29	160	4	240	160	120	ND	-	-	0.4	-	-	-	-	-	-	-
15B	8/25/2003	BSK	1100	720	7.6	120	-	63	31	140	5	220	150	120	ND	-	-	0.3	-	-	-	-	-	-	-
15B	7/15/2004	BSK	1100	720	7.5	-	-	56	27	160	4	220	150	130	ND	-	-	0.3	-	-	-	-	-	3	-
15B	8/24/2007	BSK	980	700	7.6	120	-	49	24	150	3.8	220	150	120	ND	-	-	0.38	-	-	-	-	-	ND	-
15B	9/2/2008	NA	1100	-	7.7	120	-	49	24	150	3.9	220	150	146	ND	-	-	0.38	-	-	-	-	-	ND	-
15B	7/16/2009	BSK	1200	680	8.0	130	-	48	23	150	3.8	210	150	130	ND	-	-	0.4	-	-	-	-	-	ND	-
15B	9/23/2010	BSK	940	600	8.0	120	-	45	23	110	3.9	170	130	120	ND	-	-	0.32	-	-	-	-	-	ND	-
15B	3/2/2012	BSK	1100	710	7.7	120	-	48	23	170	4	230	150	120	ND	-	-	0.43	-	-	-	-	-	ND	-
15B	8/9/2013	BSK	1200	700	8.0	130	-	50	23	170	4	220	150	194	ND	-	-	0.43	-	-	-	-	-	ND	-
15B	8/19/2014	BSK	1200	700	7.6	120	-	45	20	170	3.7	220	150	146	<3	-	-	0.44	-	-	-	-	-	<1	-
16B	10/20/1993	NA	839	523	6.8	-	3.1	38	23	99	3.6	120	120	-	-	-	-	-	-	-	-	-	-	-	-
16C	9/30/2002	BSK	1000	620	6.7	110	-	51	27	130	4	180	130	110	ND	-	-	0.3	-	-	-	-	-	-	-
16C	8/25/2003	BSK	790	510	7.6	110	-	39	21	110	4	140	99	110	ND	-	-	0.3	-	-	-	-	-	-	-
16B	7/15/2004	BSK	970	650	7.5	-	-	55	26	130	4	180	140	130	ND	-	-	0.3	-	-	-	-	-	3	-
16C	8/24/2007	BSK	920	650	7.5	120	-	52	24	120	3.6	180	150	120	2.2	-	-	0.31	-	-	-	-	-	ND	-
16C	7/16/2009	BSK	1200	720	8.0	130	-	59	28	140	4	210	170	130	ND	-	-	0.36	-	-	-	-	-	ND	-
16C	9/23/2010	BSK	850	510	7.9	120	-	41	20	99	3.5	130	120	120	ND	-	-	0.32	-	-	-	-	-	ND	-
16C	3/2/2012	BSK	1000	620	7.6	110	-	51	25	130	3.8	180	150	110	ND	-	-	0.34	-	-	-	-	-	ND	-
16C	8/9/2013	BSK	1400	850	7.9	130	-	74	34	180	4.5	260	200	194	ND	-	-	0.4	-	-	-	-	-	ND	-
16C	8/19/2014	BSK	1400	840	7.5	120	-	61	29	170	4.1	260	200	146	<5	-	-	0.4	-	-	-	-	-	<1	-
23B	6/7/2001	CCID	2600	1100	7.5	120	7.4	120	62	400	6	670	380	146	ND	-	-	1.2	-	-	-	-	-	-	-
23B	9/30/2002	BSK	2700	1900	6.5	140	-	110	61	400	6	700	360	140	ND	-	-	1.2	-	-	-	-	-	-	-
23B	8/25/2003	BSK	2400	1800	7.5	140	-	120	62	350	6	640	340	140	ND	-	-	0.9	-	-	-	-	-	-	-
23B	7/15/2004	BSK	2500	1900	7.4	-	-	120	65	400	7	760	370	160	ND	-	-	1.4	-	-	-	-	-	6	-
23B	8/24/2007	BSK	2400	1900	7.0	160	-	110	57	380	5.8	800	360	160	ND	-	-	1.5	-	-	-	-	-	ND	-
23B	9/3/2008	NA	2700	-	7.4	150	-	110	60	420	6.4	780	340	183	ND	-	-	1.6	-	-	-	-	-	ND	-
23B	7/16/2009	BSK	2900	2000	7.9	160	-	120	65	430	6.7	810	358	160	ND	-	-	1.8	-	-	-	-	-	ND	-
23B	9/23/2010	BSK	2600	1700	7.8	150	-	100	55	380	5.7	740	330	150	ND	-	-	1.5	-	-	-	-	-	ND	-
23B	3/2/2012	BSK	2500	1700	7.5	150	-	110	62	410	6.5	720	310	150	ND	-	-	1.7	-	-	-	-	-	ND	-
23B	8/9/2013	BSK	2500	1700	7.8	150	-	99	56	370	6.1	690	310	223	ND	-	-	1.5	-	-	-	-	-	ND	-
23B	8/19/2014	BSK	2300	1500	7.3	140	-	86	48	360	5.4	640	290	171	<10	-	-	1.4	-	-	-	-	-	<1	-
28	7/15/1963	NA	741	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	7/15/1964	NA	880	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	7/15/1968	NA	681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	7/15/1972	NA	889	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	4/15/1973	NA	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/15/1974	NA	930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/15/1975	NA	970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/15/1976	NA	970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Central California ID																									
28A	4/15/1977	NA	825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/15/1978	NA	1172	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	4/15/1979	NA	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	4/15/1981	NA	1159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/15/1982	NA	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	4/15/1984	NA	962	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/15/1987	NA	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/15/1988	NA	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	7/1/1989	NA	1118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	8/1/1990	NA	1382	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	8/1/1991	NA	1335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	8/1/1992	NA	1304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28A	8/1/1994	NA	1480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28B	2/1/1995	NA	1160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28B	8/1/1996	NA	1370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28B	6/9/1997	NA	-	890	-	-	-	-	-	175	-	314	137	-	-	-	-	-	-	-	<0.05	0.96	-	-	-
28B	8/4/1999	FGL	1400	940	6.9	-	3.9	70	32	157	5	310	153	200	<0.4	-	3	0.4	-	-	11.4	1.5	-	<2	-
28B	9/29/1999	FGL	1410	960	6.7	-	3.6	76	36	152	6	326	162	210	<0.4	-	<2	0.4	-	-	0.05	0.01	-	<2	-
28C	7/15/2004	BSK	1300	850	8.0	-	-	16	3	280	3	220	180	160	-	-	-	0.8	-	-	-	-	-	4	-
28C	8/24/2007	BSK	1300	830	8.1	150	-	14	2	250	2.7	220	180	150	ND	-	-	0.76	-	-	-	-	-	ND	-
28C	9/2/2008	NA	1400	-	8.1	150	-	15	3	280	3	220	180	183	ND	-	-	0.83	-	-	-	-	-	ND	-
28C	7/27/2009	BSK	1400	860	8.1	170	-	14	2.6	270	3	230	200	170	ND	-	-	0.85	-	-	-	-	-	ND	-
28C	9/23/2010	BSK	1800	1100	8.2	150	-	28	5.6	350	3.7	410	230	150	ND	-	-	0.73	-	-	-	-	-	ND	-
28C	3/2/2012	BSK	1400	860	8.1	250	-	17	3.1	300	3.3	250	200	150	ND	-	-	0.89	-	-	-	-	-	ND	-
28C	8/9/2013	BSK	1500	930	8.3	160	-	17	2.9	290	3.3	250	200	238	ND	-	-	0.86	-	-	-	-	-	ND	-
32	7/15/1964	NA	416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	7/15/1968	NA	653	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32A	7/15/1970	NA	745	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32A	7/15/1972	NA	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32A	7/15/1974	NA	1030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32A	7/15/1975	NA	1050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32A	7/15/1976	NA	941	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32A	4/15/1977	NA	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32A	4/15/1979	NA	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	4/15/1981	NA	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	7/15/1982	NA	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	4/15/1984	NA	991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	7/15/1987	NA	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	7/15/1988	NA	1548	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	7/1/1989	NA	1674	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	8/1/1990	NA	2060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	8/1/1991	NA	1789	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	8/1/1992	NA	1370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	8/1/1996	NA	2090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32B	6/9/1997	NA	2000	1400	7.9	-	-	110	36	270	7	610	200	195	<0.4	-	-	1.2	-	-	<0.05	2.5	-	-	-
32B	8/4/1999	FGL	2120	1480	7.1	-	4.9	120	40	242	6	630	204	210	<0.4	-	<2	1.3	-	-	0.8	2.8	-	<2	-
32B	9/29/1999	FGL	1450	1010	7.2	-	3.6	88	33	156	5	362	152	210	<0.4	-	<2	0.7	-	-	0.9	3	-	<2	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)	
Central California ID																										
32B	8/23/2000	FGL	2270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32B	6/7/2001	CCID	2100	1600	7.8	160	5.5	130	47	290	5	720	240	195	28	-	-	1.4	-	-	-	-	-	-	-	
32B	9/30/2002	BSK	2100	1500	7.3	160	-	130	48	300	6	630	210	160	ND	-	-	1.3	-	-	-	-	-	-	-	
32B	8/25/2003	BSK	1300	910	7.8	140	-	86	35	160	4	320	160	140	ND	-	-	0.5	-	-	-	-	-	-	-	
32B	7/15/2004	BSK	490	330	8.2	-	-	8.1	4	100	-	52	65	100	ND	-	-	0.2	-	-	-	-	-	-	-	
32B	8/24/2007	BSK	1600	1400	7.9	160	-	100	39	250	4.8	620	190	160	ND	-	-	1.4	-	-	-	-	-	ND	-	
32B	8/27/2008	NA	1300	-	7.9	120	-	70	27	180	4.3	360	130	146	ND	-	-	1	-	-	-	-	-	ND	-	
32C	8/12/2009	BSK	1600	1100	8.0	150	-	85	32	210	4.5	460	150	150	ND	-	-	1.3	-	-	-	-	-	ND	-	
32C	3/2/2012	BSK	1100	660	8.0	130	-	62	25	140	4.1	220	100	130	ND	-	-	0.62	-	-	-	-	-	ND	-	
32C	8/9/2013	BSK	1900	1300	8.2	170	-	100	41	290	5.1	610	170	253	ND	-	-	1.8	-	-	-	-	-	ND	-	
32C	8/19/2014	BSK	660	390	7.8	91	-	30	12	79	3	110	80	111	<2	-	-	0.3	-	-	-	-	-	<1	-	
35	7/15/1966	NA	555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1972	NA	853	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1974	NA	891	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1975	NA	870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1976	NA	900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	4/15/1977	NA	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1978	NA	675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	4/15/1979	NA	725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	4/15/1981	NA	1155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1982	NA	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	4/15/1984	NA	584	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1987	NA	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	7/15/1988	NA	925	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	7/1/1989	NA	1068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	8/1/1990	NA	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	8/1/1991	NA	1167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	8/1/1992	NA	1141	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	7/1/1993	NA	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	8/1/1994	NA	1270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	8/1/1996	NA	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35A	6/9/1997	NA	1300	810	7.2	-	-	65	29	160	6	290	140	159	<0.4	-	-	0.4	-	-	<0.05	1.1	-	-	-	
35A	6/7/2001	CCID	1200	830	7.6	110	4.2	62	30	160	5	280	150	134	ND	-	-	0.3	-	-	-	-	-	-	-	
35A	9/30/2002	BSK	1400	900	6.8	130	-	71	33	190	5	310	160	130	ND	-	-	0.3	-	-	-	-	-	-	-	
35A	8/25/2003	BSK	1300	890	7.4	110	-	72	36	170	6	290	180	110	ND	-	-	0.3	-	-	-	-	-	-	-	
35A	7/15/2004	BSK	1400	990	7.5	-	-	84	38	200	6	370	180	150	ND	-	-	0.3	-	-	-	-	-	2	-	
35A	8/24/2007	BSK	1300	1000	7.6	140	-	74	33	170	4.5	410	180	140	ND	-	-	0.36	-	-	-	-	-	ND	-	
35A	9/2/2008	NA	1500	-	7.6	130	-	76	36	200	5.3	360	180	159	ND	-	-	0.4	-	-	-	-	-	ND	-	
35A	7/16/2009	BSK	1600	998	7.2	170	-	78	37	200	5.4	380	180	170	ND	-	-	0.44	-	-	-	-	-	ND	-	
35A	9/23/2010	BSK	1200	700	7.6	110	-	51	26	140	4.6	250	160	110	ND	-	-	0.32	-	-	-	-	-	ND	-	
35A	3/2/2012	BSK	1500	910	7.7	140	-	72	34	200	5.1	360	170	140	ND	-	-	0.43	-	-	-	-	-	ND	-	
35A	8/9/2013	BSK	1500	950	7.9	150	-	73	35	190	5.3	340	170	223	ND	-	-	0.42	-	-	-	-	-	ND	-	
38A	6/9/1997	NA	540	320	8.1	-	-	3	1	110	5	47	65	134	<0.4	-	-	0.2	-	-	-	-	-	-	-	
38A	6/15/2001	CCID	620	340	7.9	110	14.9	3	1	120	ND	58	76	134	ND	-	-	0.1	-	-	-	-	-	-	-	
38A	8/25/2003	BSK	590	390	8.1	110	-	3.8	1	130	ND	57	78	110	ND	-	-	0.2	-	-	-	-	-	-	-	
38A	7/15/2004	BSK	550	380	8.1	-	-	4	1	130	-	60	71	120	ND	-	-	0.2	-	-	-	-	-	-	-	
38A	8/24/2007	BSK	580	370	8.2	110	-	2.9	1	100	ND	66	75	110	ND	-	-	0.16	-	-	-	-	-	ND	-	

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Central California ID																									
38A	10/17/2008	NA	590	-	8.1	110	-	3.5	1	120	ND	67	76	134	ND	-	-	0.17	-	-	-	-	-	ND	-
38A	7/16/2009	BSK	620	360	8.3	120	-	3.7	1.2	120	ND	63	72	120	ND	-	-	0.22	-	-	-	-	-	ND	-
38A	3/2/2012	BSK	600	350	8.2	110	-	3.8	1.2	130	ND	63	72	110	ND	-	-	0.21	-	-	-	-	-	ND	-
38A	8/9/2013	BSK	630	390	8.3	110	-	5	1.8	120	ND	71	78	163	ND	-	-	0.17	-	-	-	-	-	ND	-
38A	8/19/2014	BSK	620	390	8.1	110	-	5.5	1.7	120	ND	75	80	134	<2	-	-	0.19	-	-	-	-	-	<1	-
Columbia Canal Co.																									
MLT-W	7/21/2010	JML	540	-	8.13	-	-	2.4	0.4	143.7	-	70.6	79.8	136.7	2.9	-	-	0.272	-	-	-	-	-	-	-
MLT-W	8/9/2011	JML	550	-	8.05	-	22.3	2	-	136	-	73	70	145	ND	-	-	0.24	-	-	-	-	-	-	-
MLT-W	6/14/2012	JML	690	-	8.17	-	22.21	2.2	0.5	138	-	59	71	157	0.9	-	-	0.26	-	-	-	-	-	-	-
MLT-W	7/2/2013	JML	580	-	8.29	-	-	-	0.4	136	-	62	73.7	173	<0.2	-	-	0.16	-	-	-	-	-	-	-
Elrod-1	5/14/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
Elrod-1	7/31/2002	JML	1700	1088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-1	9/17/2003	JML(1)	1590	1020	8.1	155	15.2	34	5	361	-	160	352	-	ND	-	-	0.65	-	-	-	-	-	-	-
Elrod-1	8/4/2004	JML(1)	2730	1747	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-1	8/24/2005	JML	550	-	7.55	-	7.4	18	4.3	134	-	56	79	-	0.4	-	-	0.18	-	-	-	-	-	-	-
Elrod-1	8/11/2006	JML	910	582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-1	7/31/2007	JML	1520	976	-	130	15.8	31	4.9	356	-	176	388	-	0.9	-	-	0.64	-	-	-	-	-	-	-
Elrod-1	7/16/2008	JML	2320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-1	7/21/2010	JML	1540	-	7.65	-	-	27.1	4.3	326.4	-	163.8	333.4	153.1	2.4	-	-	0.647	-	-	-	-	-	-	-
Elrod-1	8/9/2011	JML	1560	-	7.42	-	15.51	30	4	345	-	174	348	158	0.4	-	-	0.69	-	-	-	-	-	-	-
Elrod-1	6/19/2012	JML	610	-	7.99	-	10.42	10	2.4	142	-	60	79	160	1.3	-	-	0.38	-	-	-	-	-	-	-
Elrod-1	7/1/2013	JML	810	-	7.77	-	-	19	4.6	174	-	82.1	127	233	<0.2	-	-	0.28	-	-	-	-	-	-	-
Elrod-2	2/24/1999	JML	400	-	7.8	-	21.2	2	0.3	109	-	27	43	-	10.6	-	-	0.26	-	-	-	-	-	-	-
Elrod-2	5/14/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
Elrod-2	7/31/2002	JML	510	326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-2	9/17/2003	JML(1)	470	300	8.1	122	7.7	10	2	102	-	35	58	-	ND	-	-	0.25	-	-	-	-	-	-	-
Elrod-2	8/4/2004	JML(1)	1020	653	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-2	8/23/2005	JML	1600	-	7.59	-	15.6	30.9	4.6	352	-	165	358	-	ND	-	-	0.62	-	-	-	-	-	-	-
Elrod-2	8/11/2006	JML	2120	1357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-2	8/1/2007	JML	550	352	-	118	10.6	9.2	1.8	134	-	66	74	-	0.4	-	-	0.38	-	-	-	-	-	-	-
Elrod-2	7/17/2008	JML	810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Elrod-2	7/21/2010	JML	670	-	7.84	-	-	15.7	3.6	151.3	-	56.2	103	176.3	1.9	-	-	0.244	-	-	-	-	-	-	-
Elrod-2	6/19/2012	JML	1370	-	7.75	-	13.76	25	5.2	292	-	152	255	171	2.7	-	-	0.6	-	-	-	-	-	-	-
Elrod-2	7/3/2013	JML	1340	-	7.73	-	-	29.3	5.5	264	-	150	340	200	2.2	-	-	0.56	-	-	-	-	-	-	-
Elrod-3	7/21/2010	JML	470	-	7.5	-	-	10.2	2.5	112.9	-	45.2	69.8	134.8	2.3	-	-	0.209	-	-	-	-	-	-	-
Elrod-3	6/19/2012	JML	520	-	7.95	-	9.98	7	1.9	116	-	44	64	137	1.3	-	-	0.22	-	-	-	-	-	-	-
Elrod-3	7/1/2013	JML	610	-	7.83	-	-	8.4	2	133	-	65.3	78	165	<0.2	-	-	0.38	-	-	-	-	-	-	-
Burkhart-Heirs	7/31/2002	JML	510	326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burkhart-Heirs	8/4/2004	JML(1)	880	563	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burkhart-Heirs	8/9/2006	JML	1160	724	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burkhart-Heirs	7/31/2007	JML	540	246	-	119	4.9	23	9.7	111	-	63	84	-	<0.4	-	-	0.22	-	-	-	-	-	-	-
Burkhart-Heirs	7/16/2008	JML	810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burkhart-Heirs	7/21/2010	JML	660	-	7.58	-	-	29.9	13.9	120.2	-	76.4	106	159.9	2.3	-	-	0.213	-	-	-	-	-	-	-
Burkhart-Heirs	8/9/2011	JML	680	-	7.49	-	4.71	24	11	112	-	72	91	173	ND	-	-	0.23	-	-	-	-	-	-	-
Burkhart-Heirs	6/15/2012	JML	800	-	8.13	-	4.23	37	19	126	-	98	122	179	ND	-	-	0.19	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Columbia Canal Co.																									
Burkhart-Heirs	7/1/2013	JML	710	-	7.71	-	-	25.3	11.3	122	-	73.5	102	196	<0.2	-	-	0.19	-	-	-	-	-	-	-
Agriland-1	2/24/1999	JML	360	-	7.0	-	3.6	17.03	3.8	63	ND	32	47	-	13.3	-	-	0.07	-	-	-	-	-	-	-
Agriland-1	6/4/1999	JML	1740	-	7.2	-	9.4	72	14	333	-	182	362	-	ND	-	-	0.37	-	-	-	-	-	-	-
Agriland-1	8/1/2002	JML	2490	1594	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agriland-1	9/17/2003	JML(1)	1820	1170	7.6	327	6.7	127	25	315	-	209	333	-	3.5	-	-	0.42	-	-	-	-	-	-	-
Agriland-1	8/4/2004	JML(1)	3040	1946	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agriland-1	8/23/2005	JML	1710	-	7.5	-	10.1	65.1	12.3	340	-	168	334	-	8.4	-	-	0.42	-	-	-	-	-	-	-
Agriland-1	8/11/2006	JML	2530	1619	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agriland-1	7/31/2007	JML	1610	1030	-	220	12.2	51	9.7	363	-	162	380	-	6.6	-	-	0.45	-	-	-	-	-	-	-
Agriland-1	7/17/2008	JML	2320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agriland-1	7/21/2010	JML	1710	-	7.58	-	-	50.5	9.5	340.2	-	154.2	343.6	267.2	9.3	-	-	0.46	-	-	-	-	-	-	-
Agriland-1	8/9/2011	JML	1680	-	7.18	-	10.1	67	13	345	-	179	311	323	10.2	-	-	0.44	-	-	-	-	-	-	-
Agriland-1	6/19/2012	JML	1700	-	7.55	-	8.9	72	16	320	-	186	278	336	7.5	-	-	0.43	-	-	-	-	-	-	-
Agriland-1	7/3/2013	JML	1760	-	7.69	-	-	5.4	16.3	306	-	184	264	413	8.9	-	-	0.4	-	-	-	-	-	-	-
Agriland-2	7/22/2010	JML	2110	-	7.57	-	-	63.9	9.6	402.3	-	180.6	497	293.5	9.3	-	-	0.561	-	-	-	-	-	-	-
Agriland-2	8/9/2011	JML	2090	-	7.37	-	13.11	66	10	430	-	188	445	322	9.3	-	-	0.57	-	-	-	-	-	-	-
Agriland-2	6/19/2012	JML	1930	-	8.09	-	13.45	50	8.5	391	-	173	321	351	10.6	-	-	0.53	-	-	-	-	-	-	-
Agriland-2	7/3/2013	JML	2130	-	8.01	-	-	5.2	8.9	402	-	172	439	333	8.4	-	-	0.57	-	-	-	-	-	-	-
Davis-1	2/24/1999	JML	840	-	7.6	-	9.6	18	8	193	-	102	112	-	9.7	-	-	0.5	-	-	-	-	-	-	-
Davis-1	8/1/2002	JML	890	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis-1	9/17/2003	JML(1)	630	400	8.2	158	5.7	23	8	126	-	57	89	-	ND	-	-	0.36	-	-	-	-	-	-	-
Davis-1	8/4/2004	JML(1)	1140	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis-1	8/24/2005	JML	700	-	7.14	-	5.5	33	11.4	144	-	69	103	-	ND	-	-	0.25	-	-	-	-	-	-	-
Davis-1	8/9/2006	JML	1040	666	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis-1	7/31/2007	JML	740	474	-	139	8.7	19	6.9	173	-	104	117	-	<0.4	-	-	0.57	-	-	-	-	-	-	-
Davis-1	7/16/2008	JML	1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis-1	7/21/2010	JML	900	-	7.88	-	-	12.3	2.2	201.4	-	100.9	154.5	157.4	0.8	-	-	0.642	-	-	-	-	-	-	-
Davis-1	8/11/2011	JML	770	-	7.47	-	8.23	18	6	161	-	95	105	775	0.4	-	-	0.56	-	-	-	-	-	-	-
Davis-1	6/19/2012	JML	690	-	7.69	-	4.03	30	13	104	-	53	104	159	0.9	-	-	0.29	-	-	-	-	-	-	-
Davis-1	7/2/2013	JML	760	-	7.77	-	-	16.6	5.8	152	-	93.7	114	193	<0.2	-	-	0.62	-	-	-	-	-	-	-
Davis-2	8/23/2006	JML	800	512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis-2	7/31/2007	JML	490	506	-	137	13.1	13	2.2	197	-	95	137	-	0.4	-	-	0.6	-	-	-	-	-	-	-
Davis-2	7/16/2008	JML	1120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Davis-2	7/21/2010	JML	760	-	7.64	-	-	21.6	7.9	155.9	-	89.3	112.8	166.6	1.9	-	-	0.545	-	-	-	-	-	-	-
Davis-2	8/11/2011	JML	860	-	7.61	-	15.2	11	2	200	-	94	144	708	ND	-	-	0.6	-	-	-	-	-	-	-
Davis-2	6/14/2012	JML	820	-	7.75	-	11.26	15	2.4	178	-	57	126	204	0.9	-	-	0.48	-	-	-	-	-	-	-
Davis-2	7/3/2013	JML	890	-	7.88	-	-	26.7	2.9	186	-	62.4	164	256	<0.2	-	-	0.42	-	-	-	-	-	-	-
Samarin-1	8/6/2002	JML	780	499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-1	9/4/2003	JML(1)	810	520	7.8	146	22.7	5	1	208	-	121	123	-	0.1	-	-	0.52	-	-	-	-	-	-	-
Samarin-1	8/4/2004	JML(1)	940	602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-1	8/23/2005	JML	800	-	7.9	-	21.6	5	0.9	200	-	116	119	-	ND	-	-	0.51	-	-	-	-	-	-	-
Samarin-1	8/8/2006	JML	970	621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-1	8/1/2007	JML	630	403	-	113	22.1	2.8	0.7	163	-	90	69	-	0.4	-	-	0.29	-	-	-	-	-	-	-
Samarin-1	7/16/2008	JML	940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-1	7/22/2010	JML	660	-	7.48	-	-	24	11.1	114.9	-	69.6	104	154.4	ND	-	-	0.204	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Columbia Canal Co.																									
Samarin-1	6/14/2012	JML	700	-	8.06	-	4.3	30	14	114	-	75	103	157	0.9	-	-	0.2	-	-	-	-	-	-	-
Samarin-1	7/2/2013	JML	650	-	7.59	-	-	21.6	10.3	108	-	66.3	95.7	181	<0.2	-	-	0.19	-	-	-	-	-	-	-
Samarin-2	8/1/2002	JML	1430	915	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-2	9/4/2003	JML(1)	930	600	7.8	143	22.1	6	1	224	-	142	139	-	ND	-	-	0.63	-	-	-	-	-	-	-
Samarin-2	8/4/2004	JML(1)	1390	890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-2	8/23/2005	JML	930	-	7.84	-	21.5	6.6	1.1	227	-	139	145	-	ND	-	-	0.64	-	-	-	-	-	-	-
Samarin-2	8/8/2006	JML	1240	794	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-2	8/1/2007	JML	960	614	-	124	21.5	6.4	1.6	234	-	169	128	-	0.4	-	-	0.69	-	-	-	-	-	-	-
Samarin-2	7/16/2008	JML	1130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-2	7/22/2010	JML	890	-	7.84	-	-	11	2.9	198.2	-	77.8	149.1	210.5	ND	-	-	0.209	-	-	-	-	-	-	-
Samarin-2	6/14/2012	JML	920	-	8.28	-	13.84	12	3	210	-	80	134	231	0.9	-	-	0.17	-	-	-	-	-	-	-
Samarin-2	7/2/2013	JML	940	-	7.83	-	-	12.2	3.2	205	-	80.2	153	278	<0.2	-	-	0.15	-	-	-	-	-	-	-
Samarin-3	8/1/2002	JML	1000	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-3	9/17/2003	JML(1)	690	440	8.0	158	9.5	14	4	158	-	70	98	-	ND	-	-	0.13	-	-	-	-	-	-	-
Samarin-3	8/4/2004	JML(1)	1170	749	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-3	8/8/2006	JML	930	595	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-3	8/1/2007	JML	640	410	-	139	9.4	13	4.4	152	-	81	78	-	0.4	-	-	0.2	-	-	-	-	-	-	-
Samarin-3	7/17/2008	JML	920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-3	6/14/2012	JML	880	-	8.29	-	13.87	13	3	211	-	81	136	232	0.9	-	-	0.18	-	-	-	-	-	-	-
Samarin-3	7/3/2013	JML	690	-	7.92	-	-	11.4	3.8	146	-	68.7	91.1	205	<0.2	-	-	0.21	-	-	-	-	-	-	-
Samarin-4	8/6/2002	JML	750	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-4	9/17/2003	JML(1)	890	570	8.1	192	14	12	3	208	-	74	138	-	ND	-	-	0.15	-	-	-	-	-	-	-
Samarin-4	8/4/2004	JML	1250	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-4	8/23/2005	JML	790	-	7.8	-	14.5	9.6	2.2	190	-	75	122	-	0.9	-	-	0.23	-	-	-	-	-	-	-
Samarin-4	8/7/2007	JML	830	534	-	169	13.9	13	2.6	208	-	80	145	-	0.4	-	-	0.23	-	-	-	-	-	-	-
Samarin-4	7/17/2008	JML	1140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-4	7/22/2010	JML	980	-	7.85	-	-	6.5	1.3	210.3	-	139.3	170.5	147.7	ND	-	-	0.708	-	-	-	-	-	-	-
Samarin-4	6/14/2012	JML	920	-	7.95	-	20.56	6.6	1.2	218	-	131	143	153	0.9	-	-	0.73	-	-	-	-	-	-	-
Samarin-4	7/2/2013	JML	990	-	8.04	-	-	6.2	1.2	214	-	132	168	184	<0.2	-	-	0.69	-	-	-	-	-	-	-
Samarin-5	8/1/2002	JML	960	614	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-5	9/17/2003	JML(1)	660	420	8.2	144	6.5	19	8	134	-	66	90	-	ND	-	-	0.28	-	-	-	-	-	-	-
Samarin-5	8/4/2004	JML(1)	1010	646	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-5	8/23/2005	JML	600	-	7.46	-	6.6	16.4	7.2	127	-	68	83	-	0.9	-	-	0.27	-	-	-	-	-	-	-
Samarin-5	8/9/2006	JML	860	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-5	8/1/2007	JML	640	410	-	136	5.8	22	10	131	-	84	62	-	0.4	-	-	0.25	-	-	-	-	-	-	-
Samarin-5	7/17/2008	JML	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Samarin-5	7/22/2010	JML	640	-	7.89	-	-	2.8	0.5	150.1	-	73	96.5	137.3	ND	-	-	0.311	-	-	-	-	-	-	-
Snyder	5/4/2001	JML	950	608	7.9	-	9	20	3	164	-	123	147	-	4.4	-	-	0.5	-	-	-	-	-	-	-
Snyder	7/31/2002	JML	660	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Snyder	9/9/2003	JML(1)	650	420	8.1	146	21.3	3	1	166	-	80	85	-	ND	-	-	0.22	-	-	-	-	-	-	-
Snyder	8/4/2004	JML(1)	1060	678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Snyder	8/26/2005	JML	710	-	7.89	-	19.7	3.6	1.1	166	-	92	95	-	ND	-	-	0.14	-	-	-	-	-	-	-
Snyder	8/11/2006	JML	990	634	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Snyder	8/1/2007	JML	680	435	-	124	69	0.2	0.2	177	-	90	77	-	0.4	-	-	0.23	-	-	-	-	-	-	-
Snyder	7/16/2008	JML	890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Columbia Canal Co.																									
Snyder	7/21/2010	JML	750	-	8.02	-	-	4.3	1.3	178.9	-	97	105.9	150.1	ND	-	-	0.207	-	-	-	-	-	-	-
Snyder	8/11/2011	JML	760	-	7.8	-	22.35	3	1	185	-	99	104	171	0.9	-	-	0.27	-	-	-	-	-	-	-
Snyder	6/14/2012	JML	560	-	8.12	-	20.45	3.6	0.97	171	-	88	96	138	0.9	-	-	0.21	-	-	-	-	-	-	-
Snyder	7/2/2013	JML	750	-	8.05	-	-	3.8	0.9	171	-	93.7	106	187	<0.2	-	-	0.45	-	-	-	-	-	-	-
Cardella-Lopes	9/29/1997	JML	800	-	7.9	-	21.4	-	-	175	-	-	71	220	7.1	-	-	0.1	-	-	-	-	-	-	-
Cardella-Lopes	5/4/2001	JML	750	480	7.7	-	7.3	21	4.3	140	-	77	100	-	ND	-	-	0.1	-	-	-	-	-	-	-
Cardella-Lopes	8/1/2002	JML	840	538	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardella-Lopes	9/17/2003	JML(1)	660	420	8.0	145	12.2	9	3	160	-	65	95	-	ND	-	-	0.17	-	-	-	-	-	-	-
Cardella-Lopes	8/4/2004	JML(1)	890	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardella-Lopes	8/24/2005	JML	480	-	8.42	-	21.5	2.2	0.5	133	-	78	51	-	0.4	-	-	0.17	-	-	-	-	-	-	-
Cardella-Lopes	8/9/2006	JML	1570	1005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardella-Lopes	7/26/2007	JML	680	435	-	119	20.9	4.6	0.9	185	-	143	85	-	<0.4	-	-	0.34	-	-	-	-	-	-	-
Cardella-Lopes	7/17/2008	JML	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cardella-Lopes	8/9/2011	JML	890	-	7.97	-	21.38	5	1	211	-	203	91	166	ND	-	-	0.37	-	-	-	-	-	-	-
Cardella-Lopes	6/14/2012	JML	1250	-	8.15	-	19.07	15	2.2	299	-	344	116	154	0.9	-	-	0.6	-	-	-	-	-	-	-
Cardella-Lopes	7/2/2013	JML	1450	-	8.12	-	-	20.6	3.2	313	-	397	139	191	<0.2	-	-	0.74	-	-	-	-	-	-	-
Mowry Diesel	5/17/2001	JML	630	-	8.1	-	29.8	2.2	ND	160.5	-	84	97	-	ND	-	-	0.47	-	-	-	-	-	-	-
Mowry Diesel	8/2/2002	JML	700	448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mowry River	6/24/1999	JML	720	-	7.9	-	5.5	26	5	115	-	70	81	-	2.66	-	-	0.18	-	-	-	-	-	-	-
Mowry River	5/17/2001	JML	480	-	7.8	-	4.3	27.3	2.9	87.6	-	52	77	-	ND	-	-	0.1	-	-	-	-	-	-	-
Mowry #1 (Electric)	7/18/2014	JML	810	-	8.57	-	-	3.6	0.61	215	-	67	97	309	ND	-	-	0.18	-	-	-	-	-	-	-
Wonderful Orchards																									
3591-63 (W-7)	6/23/2014	FGL	888	-	7.73	-	-	68	15	106	5.4	79	59	314	39	0.06	-	0.092	-	0.071	0.084	ND	-	-	0.048
3311-62 (W-8)	8/20/2007	JML	580	-	-	204	5.3	28	7	121	-	49	31	-	18.2	-	-	0.12	-	-	-	-	-	<1	-
3311-62 (W-8)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
3311-62 (W-8)	9/10/2009	JML	710	-	7.8	-	6.6	-	-	153	-	-	43	360	21.2	-	-	0.18	-	-	-	-	-	-	-
3311-62 (W-8)	8/17/2010	JML	760	-	7.7	-	6.39	-	-	158	-	-	51	309	23.5	-	-	0.19	-	-	-	-	-	-	-
3311-62 (W-8)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3311-62 (W-8)	9/22/2011	JML	770	-	7.58	-	5.47	-	-	139	-	-	44.3	289	23.9	-	-	0.15	-	-	-	-	-	-	-
3311-62 (W-8)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3311-62 (W-8)	8/27/2012	JML	860	-	8.15	-	-	-	-	159	-	-	53	333	23.5	-	-	0.16	-	-	-	-	-	-	-
3311-62 (W-8)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3311-62 (W-8)	8/5/2013	JML	880	-	7.7	-	-	33	8.4	163	-	-	60.3	378	22.1	-	-	0.16	-	-	-	-	-	-	-
3311-62 (W-8)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3311-62 (W-8)	6/20/2014	FGL	929	-	7.53	-	-	39	9	162	5.2	77	62	340	25	0.17	-	0.05	-	-	0.038	ND	-	-	ND
3311-62 (W-8)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3311-62 (W-8)	8/5/2014	JML	910	-	8.07	-	-	-	-	168	-	-	66	369	29.7	-	-	0.17	-	-	-	-	-	-	-
3591-66 (W-11)	8/13/2007	JML	720	-	-	250	2.3	70	15	80	-	67	37	-	20.4	-	-	0.03	-	-	-	-	-	<1	-
3591-66 (W-11)	9/18/2008	JML	770	-	7.7	-	2.1	-	-	85	-	-	35	366	23	-	-	0.05	-	-	-	-	-	<1	-
3591-66 (W-11)	9/10/2009	JML	760	-	7.6	-	2.4	-	-	91	-	-	34	345	28.3	-	-	0.08	-	-	-	-	-	-	-
3591-66 (W-11)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3591-66 (W-11)	8/17/2010	JML	790	-	7.5	-	2.52	-	-	100	-	-	41	340	32.3	-	-	0.08	-	-	-	-	-	-	-
3591-66 (W-11)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3591-66 (W-11)	9/22/2011	JML	760	-	7.27	-	1.9	-	-	75.2	-	-	31.2	364	21.2	-	-	0.06	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3591-66 (W-11)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3591-66 (W-11)	8/24/2012	JML	850	-	7.78	-	-	-	-	94	-	-	38	354	27	-	-	0.04	-	-	-	-	-	-	-
3591-66 (W-11)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3591-66 (W-11)	8/5/2013	JML	870	-	7.64	-	-	80	18	88.5	-	-	44.7	390	23.5	-	-	0.06	-	-	-	-	-	-	-
3591-66 (W-11)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3591-66 (W-11)	6/26/2014	FGL	938	-	7.74	-	-	88	18	96	5.2	88	56	349	29.2	0.06	-	0.076	-	0.011	0.091	ND	-	-	0.019
3591-66 (W-11)	8/5/2014	JML	960	-	7.96	-	-	-	-	108	-	-	66	390	32.3	-	-	0.08	-	-	-	-	-	-	-
3591-66 (W-11)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3311-63 (W-12)	6/20/2014	FGL	906	-	7.39	-	-	69	17	116	2.6	91	54	323	52.1	0.06	-	0.025	-	0.01	0.061	ND	-	-	0.011
3211-66 (W-15)	8/22/2007	JML	770	-	-	219	9.3	18	5	178	-	86	68	-	8	-	-	0.1	-	-	-	-	-	<1	-
3211-66 (W-15)	9/18/2008	JML	750	-	7.9	-	7.8	-	-	163	-	-	71	262	9.7	-	-	0.11	-	-	-	-	-	<1	-
3211-66 (W-15)	9/10/2009	JML	730	-	7.8	-	7.6	-	-	155	-	-	67	148	10.6	-	-	0.12	-	-	-	-	-	-	-
3211-66 (W-15)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-66 (W-15)	8/17/2010	JML	720	-	7.8	-	7.27	-	-	159	-	-	71	245	13.7	-	-	0.15	-	-	-	-	-	-	-
3211-66 (W-15)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-66 (W-15)	9/22/2011	JML	740	-	7.51	-	7.28	-	-	155	-	-	69.8	231	12.4	-	-	0.13	-	-	-	-	-	-	-
3211-66 (W-15)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-66 (W-15)	8/27/2012	JML	770	-	8.15	-	-	-	-	145	-	-	69	240	13.7	-	-	0.14	-	-	-	-	-	-	-
3211-66 (W-15)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-66 (W-15)	8/7/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-66 (W-15)	8/7/2013	JML	750	-	7.85	-	-	24	7.5	143	-	-	77.3	267	12	-	-	0.15	-	-	-	-	-	-	-
3211-66 (W-15)	6/24/2014	FGL	751	-	8.08	-	-	24	6.5	135	3.8	69	68	228	10.7	0.06	-	0.156	-	0.003	0.082	0.254	-	-	0.021
3211-66 (W-15)	8/5/2014	JML	780	-	8.17	-	-	-	-	154	-	-	82	260	14.6	-	-	0.15	-	-	-	-	-	-	-
3211-66 (W-15)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-61 (W-32)	8/28/1953	AT	-	277	8.1	-	6.2	6	3.5	77	-	4.1	39	168	-	-	-	0.04	-	-	-	-	-	-	-
3431-61 (W-32)	5/18/1979	AT	600	380	7.9	-	-	-	-	106	-	-	43	275	-	-	-	0.3	-	-	-	-	-	-	-
3431-61 (W-32)	8/4/1979	AT	680	440	8.0	-	-	-	-	124	-	-	60	287	-	-	-	0.5	-	-	-	-	-	-	-
3431-61 (W-32)	11/8/1994	JML	970	-	7.8	-	4.7	-	-	154	-	-	99	262	28	-	-	0.29	-	-	-	-	-	<0.5	-
3431-61 (W-32)	4/3/1995	JML	980	-	8.2	-	4.7	-	-	152	-	-	99	275	28	-	-	0.29	-	-	-	-	-	<0.5	-
3431-61 (W-32)	9/15/1995	JML	1080	-	8.0	-	6.7	-	-	184	-	-	99	366	27	-	-	0.43	-	-	-	-	-	0.59	-
3431-61 (W-32)	3/19/1996	JML	1020	-	7.9	-	5.9	-	-	163	-	-	96	384	28	-	-	0.33	-	-	-	-	-	<0.5	-
3431-61 (W-32)	9/4/1996	JML	1100	-	7.8	-	5.8	-	-	159	-	-	121	305	30	-	-	0.3	-	-	-	-	-	<0.5	-
3431-61 (W-32)	4/4/1997	JML	1100	-	8.0	-	4.6	-	-	149	-	-	96	165	44	-	-	0.3	-	-	-	-	-	<0.5	-
3431-61 (W-32)	7/2/1997	JML	1100	-	8.6	-	6.6	-	-	182	-	-	82	574	54	-	-	0.3	-	-	-	-	-	-	-
3431-61 (W-32)	4/17/2001	JML	1100	-	7.7	-	6.4	-	-	198	-	-	124	366	56	-	-	0.3	-	-	-	-	-	ND	-
3431-61 (W-32)	9/14/2001	JML	1210	-	7.3	-	4.8	-	-	184	-	-	117	421	53	-	-	0.22	-	-	-	-	-	0.73	-
3431-61 (W-32)	3/13/2002	JML	1120	-	7.9	-	5.6	-	-	195	-	-	124	384	9	-	-	0.3	-	-	-	-	-	<0.5	-
3431-61 (W-32)	8/15/2002	JML	830	-	8.0	-	10.6	-	-	191	-	-	64	293	2	-	-	0.1	-	-	-	-	-	<0.5	-
3431-61 (W-32)	8/14/2003	JML	1000	800	7.8	-	-	-	-	210	-	-	121	378	8.2	-	-	0.34	-	-	-	-	-	<0.4	-
3431-61 (W-32)	8/12/2004	JML	1820	1165	7.6	-	6	-	-	205	-	-	121	348	45	-	-	0.38	-	-	-	-	-	<0.4	-
3431-61 (W-32)	3/11/2005	JML	1800	-	7.6	-	6.6	-	-	214	-	-	128	354	39	-	-	0.36	-	-	-	-	-	<0.4	-
3431-61 (W-32)	9/9/2005	JML	1710	-	7.5	-	6.1	-	-	209	-	-	124	366	47.8	-	-	0.31	-	-	-	-	-	<0.4	-
3431-61 (W-32)	9/18/2006	JML	1110	710.4	7.5	-	-	-	-	214	-	-	103	378	42.1	-	-	0.4	-	-	-	-	-	<1	-
3431-61 (W-32)	4/19/2007	JML	1240	-	-	313	5.2	86	19	203	-	132	121	-	66.4	-	-	0.27	-	-	-	-	-	-	-
3431-61 (W-32)	8/20/2007	JML	1200	-	-	295	5.6	75	17	205	-	121	126	-	57.6	-	-	0.28	-	-	-	-	-	<1	-
3431-61 (W-32)	9/11/2008	JML	1140	-	7.7	-	5.5	-	-	200	-	-	131	384	56.7	-	-	0.32	-	-	-	-	-	<1	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3431-61 (W-32)	9/10/2009	JML	1170	-	7.7	-	5.7	-	-	210	-	-	129	375	85.4	-	-	0.33	-	-	-	-	-	-	-
3431-61 (W-32)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-61 (W-32)	8/17/2010	JML	1190	-	7.5	-	5.51	-	-	212	-	-	136	373	63.3	-	-	0.33	-	-	-	-	-	-	-
3431-61 (W-32)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-61 (W-32)	9/22/2011	JML	1260	-	7.6	-	6.04	-	-	219	-	-	138	346	55.3	-	-	0.34	-	-	-	-	-	-	-
3431-61 (W-32)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-61 (W-32)	8/24/2012	JML	1360	-	7.7	-	-	-	-	213	-	-	139	412	67.7	-	-	0.28	-	-	-	-	-	-	-
3431-61 (W-32)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-61 (W-32)	8/7/2013	JML	1350	-	7.68	-	-	87	18	200	-	-	161	455	52.2	-	-	0.29	-	-	-	-	-	-	-
3431-61 (W-32)	8/7/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-61 (W-32)	6/20/2014	FGL	1339	-	7.42	-	-	77	16	195	4.7	118	121	387	65.5	0.14	-	0.202	-	0.005	0.063	0.001	-	-	0.032
3431-61 (W-32)	8/5/2014	JML	1270	-	7.97	-	-	-	-	209	-	-	161	420	46.9	-	-	0.35	-	-	-	-	-	-	-
3431-61 (W-32)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-66 (W-42)	11/8/1994	JML	1050	-	7.8	-	5.4	-	-	184	-	-	135	244	21	-	-	0.47	-	-	-	-	-	<0.5	-
2480-66 (W-42)	4/3/1995	JML	1040	-	8.0	-	3.3	-	-	85	-	-	117	275	4	-	-	0.05	-	-	-	-	-	<0.5	-
2480-66 (W-42)	9/15/1995	JML	1280	-	8.0	-	8	-	-	218	-	-	149	397	27	-	-	0.39	-	-	-	-	-	0.8	-
2480-66 (W-42)	3/19/1996	JML	1110	-	7.9	-	7.9	-	-	198	-	-	124	336	20	-	-	0.48	-	-	-	-	-	<0.5	-
2480-66 (W-42)	9/4/1996	JML	1100	-	7.8	-	9.1	-	-	191	-	-	142	287	22	-	-	0.5	-	-	-	-	-	<0.5	-
2480-66 (W-42)	4/4/1997	JML	1100	-	8.0	-	7	-	-	182	-	-	131	134	27	-	-	0.5	-	-	-	-	-	<0.5	-
2480-66 (W-42)	7/2/1997	JML	1100	-	8.5	-	9.3	-	-	205	-	-	96	714	48	-	-	0.5	-	-	-	-	-	-	-
2480-66 (W-42)	3/21/2001	JML	1100	-	7.7	-	9.4	-	-	218	-	-	149	329	34	-	-	0.4	-	-	-	-	-	ND	-
2480-66 (W-42)	9/14/2001	JML	1130	-	7.5	-	9.3	-	-	221	-	-	145	384	20	-	-	0.42	-	-	-	-	-	ND	-
2480-66 (W-42)	3/13/2002	JML	1110	-	8.0	-	8.8	-	-	228	-	-	152	354	5	-	-	0.5	-	-	-	-	-	<0.5	-
2480-66 (W-42)	8/15/2002	JML	1200	-	7.7	-	6.2	-	-	205	-	-	121	378	6	-	-	0.3	-	-	-	-	-	<0.5	-
2480-66 (W-42)	8/14/2003	JML	1000	800	7.7	-	-	-	-	241	-	-	142	383	5.4	-	-	0.46	-	-	-	-	-	<0.4	-
2480-66 (W-42)	8/12/2004	JML	1830	1171	7.7	-	9.4	-	-	241	-	-	145	348	27	-	-	0.48	-	-	-	-	-	<0.4	-
2480-66 (W-42)	3/11/2005	JML	1990	-	7.6	-	8.8	-	-	253	-	-	149	384	30	-	-	0.45	-	-	-	-	-	<0.4	-
2480-66 (W-42)	9/9/2005	JML	1710	-	7.5	-	7.4	-	-	244	-	-	145	409	45.2	-	-	0.34	-	-	-	-	-	<0.57	-
2480-66 (W-42)	9/18/2006	JML	1120	716.8	7.5	-	-	-	-	244	-	-	131	391	28.3	-	-	0.4	-	-	-	-	-	<1	-
2480-66 (W-42)	4/19/2007	JML	1170	-	-	293	8.8	43	9	244	-	96	143	-	32.8	-	-	0.41	-	-	-	-	-	-	-
2480-66 (W-42)	8/20/2007	JML	1210	-	-	292	8.1	50	11	244	-	99	146	-	37.2	-	-	0.37	-	-	-	-	-	<1	-
2480-66 (W-42)	9/11/2008	JML	1180	-	7.8	-	7.6	-	-	237	-	-	152	384	39.4	-	-	0.41	-	-	-	-	-	<1	-
2480-66 (W-42)	9/10/2009	JML	1190	-	7.7	-	7.7	-	-	246	-	-	147	390	46.5	-	-	0.41	-	-	-	-	-	-	-
2480-66 (W-42)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-66 (W-42)	8/17/2010	JML	1240	-	7.4	-	7.62	-	-	246	-	-	156	383	45.2	-	-	0.45	-	-	-	-	-	-	-
2480-66 (W-42)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-66 (W-42)	9/22/2011	JML	1300	-	7.72	-	7.17	-	-	246	-	-	150	375	50	-	-	0.38	-	-	-	-	-	-	-
2480-66 (W-42)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-66 (W-42)	8/27/2012	JML	1330	-	8.08	-	-	-	-	229	-	-	140	411	45.6	-	-	0.35	-	-	-	-	-	-	-
2480-66 (W-42)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-66 (W-42)	8/7/2013	JML	1310	-	7.69	-	-	61	13	226	-	-	170	469	37.6	-	-	0.35	-	-	-	-	-	-	-
2480-66 (W-42)	8/7/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-66 (W-42)	6/24/2014	FGL	1209	-	7.61	-	-	39	8.5	217	4.2	85	147	346	28.4	0.06	-	0.453	-	0.006	0.075	0.001	-	-	0.024
2480-66 (W-42)	8/5/2014	JML	1230	-	8.06	-	-	-	-	234	-	-	175	403	33.6	-	-	0.44	-	-	-	-	-	-	-
2480-66 (W-42)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-65 (W-53)	1/28/1964	UAG	225	160	7.8	-	-	-	-	56	-	-	23	164	-	-	-	0.2	-	-	-	-	-	-	-
3730-65 (W-53)	11/8/1994	JML	530	-	8.3	-	3.1	-	-	76	-	-	71	92	4	-	-	0.21	-	-	-	-	-	<0.5	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3730-65 (W-53)	4/3/1995	JML	550	-	8.3	-	3.9	-	-	85	-	-	71	122	4	-	-	0.06	-	-	-	-	-	-	-
3730-65 (W-53)	9/15/1995	JML	540	-	8.3	-	5.2	-	-	92	-	-	39	140	7	-	-	0.06	-	-	-	-	-	-	-
3730-65 (W-53)	3/19/1996	JML	570	-	8.4	-	4.4	-	-	92	-	-	78	244	2	-	-	0.1	-	-	-	-	-	<0.5	-
3730-65 (W-53)	9/4/1996	JML	600	-	8.2	-	5.2	-	-	83	-	-	82	92	2	-	-	0.1	-	-	-	-	-	<0.5	-
3730-65 (W-53)	4/4/1997	JML	600	-	8.3	-	3.5	-	-	78	-	-	74	55	4	-	-	0.2	-	-	-	-	-	<0.5	-
3730-65 (W-53)	7/2/1997	JML	600	-	8.3	-	6.5	-	-	108	-	-	64	177	14	-	-	0.1	-	-	-	-	-	<0.8	-
3730-65 (W-53)	9/1/1997	BSK	500	-	8.2	-	-	-	-	-	-	97	57	110	4	-	-	0.1	-	-	-	-	-	-	-
3730-65 (W-53)	3/1/1998	BSK	565	-	8.3	-	-	-	-	21	1	97	83	-	<2	-	-	0.1	-	-	-	-	-	<0.5	-
3730-65 (W-53)	9/1/1998	BSK	610	-	8.3	-	-	-	-	-	-	97	64	-	3	-	-	0.1	-	-	-	-	-	<0.5	-
3730-65 (W-53)	3/1/1999	BSK	570	-	8.1	-	-	-	-	-	-	122	57	134	6	-	-	0.1	-	-	-	-	-	<0.5	-
3730-65 (W-53)	9/1/1999	BSK	600	-	8.2	-	-	-	-	-	-	110	71	153	3	-	-	0.1	-	-	-	-	-	1.2	-
3730-65 (W-53)	3/21/2000	JML	530	-	8.1	122	6.4	22	2	117	-	56	105	-	2	-	-	0.03	-	-	-	-	-	<0.4	-
3730-65 (W-53)	10/3/2000	JML	520	-	8.2	121	5.5	27	2	110	-	54	71	-	-	-	-	0.08	-	-	-	-	-	<0.4	-
3730-65 (W-53)	3/21/2001	JML	540	-	8.2	115	5.6	19	3	99	-	49	75	-	-	-	-	0.07	-	-	-	-	-	<0.4	-
3730-65 (W-53)	6/26/2001	JML	530	-	8.3	120	6.6	18	ND	102	-	49	78	-	-	-	-	0.08	-	-	-	-	-	-	-
3730-65 (W-53)	9/14/2001	JML	580	-	8.1	-	5.5	-	-	97	-	-	71	262	ND	-	-	0.07	-	-	-	-	-	ND	-
3730-65 (W-53)	3/13/2002	JML	520	-	8.1	-	5.6	-	-	101	-	-	74	153	-	-	-	0.1	-	-	-	-	-	<0.5	-
3730-65 (W-53)	8/15/2002	JML	1200	-	7.6	-	10.1	-	-	262	-	-	145	354	6	-	-	0.4	-	-	-	-	-	<0.5	-
3730-65 (W-53)	7/15/2003	JML(1)	550	350	8.3	141	5.8	23	3	112	-	52	67	-	ND	-	-	0.13	-	-	-	-	-	-	-
3730-65 (W-53)	8/14/2003	JML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
3730-65 (W-53)	8/17/2004	JML	560	352	8.3	-	5.4	-	-	99	-	-	53	140	0.9	-	-	0.09	-	-	-	-	-	<0.4	-
3730-65 (W-53)	3/11/2005	JML	850	-	8.1	-	5.2	-	-	101	-	-	64	146	ND	-	-	0.11	-	-	-	-	-	<0.4	-
3730-65 (W-53)	9/9/2005	JML	710	-	8.0	-	5.4	-	-	99	-	-	64	146	ND	-	-	0.1	-	-	-	-	-	<0.4	-
3730-65 (W-53)	7/19/2006	JML	840	538	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-65 (W-53)	9/18/2006	JML	480	307.2	8.2	-	-	-	-	99	-	-	57	146	1.3	-	-	0.1	-	-	-	-	-	<1	-
3730-65 (W-53)	4/19/2007	JML	480	-	-	107	5.3	22	3	100	-	50	63	-	30.1	-	-	0.11	-	-	-	-	-	-	-
3730-65 (W-53)	8/20/2007	JML	480	-	-	110	5.3	20	3	96	-	47	61	-	<0.4	-	-	0.1	-	-	-	-	-	<1	-
3730-65 (W-53)	9/11/2008	JML	410	-	8.3	-	5.8	-	-	92	-	-	57	128	ND	-	-	0.16	-	-	-	-	-	<1	-
3730-65 (W-53)	9/10/2009	JML	430	-	8.3	-	5.9	-	-	93	-	-	54	121	0.4	-	-	0.13	-	-	-	-	-	-	-
3730-65 (W-53)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-65 (W-53)	8/9/2010	JML	410	-	8.0	-	6.47	-	-	90	-	-	47	120	3.1	-	-	0.19	-	-	-	-	-	-	-
3730-65 (W-53)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-65 (W-53)	9/22/2011	JML	470	-	7.73	-	5.48	-	-	86.9	-	-	53.9	123	ND	-	-	0.15	-	-	-	-	-	-	-
3730-65 (W-53)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-65 (W-53)	8/24/2012	JML	430	-	8.32	-	-	-	-	92	-	-	51	121	ND	-	-	0.15	-	-	-	-	-	-	-
3730-65 (W-53)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-65 (W-53)	8/5/2013	JML	510	-	8.22	-	-	18	2.7	93.3	-	-	63.8	154	<0.2	-	-	0.1	-	-	-	-	-	-	-
3730-65 (W-53)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-65 (W-53)	6/16/2014	FGL	451	-	8.35	-	-	14	1.7	79	2.3	28	51	116	<0.4	0.24	-	0.148	-	0.016	0.106	0.063	-	-	0.027
3730-65 (W-53)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-65 (W-53)	8/5/2014	JML	550	-	8.39	-	-	-	-	99	-	-	76	153	<0.1	-	-	0.13	-	-	-	-	-	-	-
3421-62 (W-74)	1/27/1975	TL	-	684	8.1	-	20	7	1	214	-	124	156	168	-	-	-	0.3	-	-	-	-	-	-	-
3421-62 (W-74)	11/8/1994	JML	1000	-	8.1	-	11.4	-	-	177	-	-	152	122	4	-	-	0.61	-	-	-	-	-	<0.5	-
3421-62 (W-74)	4/3/1995	JML	1020	-	8.0	-	11.9	-	-	193	-	-	145	153	4	-	-	0.78	-	-	-	-	-	ND	-
3421-62 (W-74)	9/15/1995	JML	1090	-	8.2	-	23.9	-	-	223	-	-	163	140	2	-	-	0.75	-	-	-	-	-	<0.5	-
3421-62 (W-74)	3/19/1996	JML	980	-	8.2	-	13.9	-	-	202	-	-	138	244	4	-	-	0.84	-	-	-	-	-	<0.5	-
3421-62 (W-74)	9/4/1996	JML	1000	-	8.0	-	36.7	-	-	189	-	-	149	122	3	-	-	0.6	-	-	-	-	-	<0.5	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3421-62 (W-74)	4/4/1997	JML	1000	-	8.2	-	11.5	-	-	179	-	-	128	43	5	-	-	0.6	-	-	-	-	-	<0.5	-
3421-62 (W-74)	7/2/1997	JML	1000	-	8.4	-	23.6	-	-	218	-	-	96	214	15	-	-	0.7	-	-	-	-	-	<0.8	-
3421-62 (W-74)	9/1/1997	JML	1000	-	8.0	-	-	-	-	209	-	-	89	153	9	-	-	0.7	-	-	-	-	-	<2	-
3421-62 (W-74)	3/1/1998	JML	964	-	8.0	-	-	2	<1	198	-	-	118	-	1	-	-	0.6	-	-	-	-	-	<0.5	-
3421-62 (W-74)	9/1/1998	BSK	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-
3421-62 (W-74)	9/1/1998	JML	1070	-	8.3	-	-	-	-	205	-	-	124	-	-	-	-	0.6	-	-	-	-	-	<0.5	-
3421-62 (W-74)	3/1/1999	JML	950	-	7.9	-	-	-	-	248	-	-	92	159	5	-	-	0.7	-	-	-	-	-	1	-
3421-62 (W-74)	9/1/1999	BSK	-	-	-	-	-	-	-	-	-	-	138	-	-	-	-	-	-	-	-	-	-	-	-
3421-62 (W-74)	9/1/1999	JML	1050	-	8.0	-	-	-	-	243	-	-	-	171	2	-	-	0.6	-	-	-	-	-	<0.5	-
3421-62 (W-74)	3/21/2000	JML	920	-	7.9	135	21.3	7	<1	227	-	123	171	-	2	-	-	0.5	-	-	-	-	-	<0.4	-
3421-62 (W-74)	10/3/2000	JML	930	-	7.8	202	17.1	12	<1	230	-	145	140	-	-	-	-	0.68	-	-	-	-	-	<0.4	-
3421-62 (W-74)	3/21/2001	JML	950	-	8.0	136	20.5	6	1	206	-	126	155	-	-	-	-	0.59	-	-	-	-	-	<0.4	-
3421-62 (W-74)	6/28/2001	JML	980	-	8.1	88	-	2	ND	157	-	82	178	-	-	-	-	0.51	-	-	-	-	-	-	-
3421-62 (W-74)	9/14/2001	JML	940	-	7.8	-	21.3	-	-	202	-	-	142	232	ND	-	-	0.6	-	-	-	-	-	ND	-
3421-62 (W-74)	3/13/2002	JML	920	-	7.9	-	24.1	-	-	212	-	-	149	171	-	-	-	0.6	-	-	-	-	-	<0.5	-
3421-62 (W-74)	8/15/2002	JML	570	-	8.2	-	6.4	-	-	115	-	-	67	146	-	-	-	0.1	-	-	-	-	-	<0.5	-
3421-62 (W-74)	7/17/2003	JML(1)	930	600	7.9	158	22	6	1	217	-	126	135	-	ND	-	-	0.65	-	-	-	-	-	-	-
3421-62 (W-74)	8/14/2003	JML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
3421-62 (W-74)	8/12/2004	JML	1320	845	8.0	-	25.4	-	-	207	-	-	135	159	ND	-	-	0.53	-	-	-	-	-	<0.4	-
3421-62 (W-74)	3/11/2005	JML	1410	-	7.8	-	23.3	-	-	212	-	-	124	159	ND	-	-	0.65	-	-	-	-	-	<0.4	-
3421-62 (W-74)	9/9/2005	JML	1210	-	7.8	-	24.9	-	-	223	-	-	135	165	0.4	-	-	0.64	-	-	-	-	-	<0.4	-
3421-62 (W-74)	8/7/2006	JML	1230	787	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3421-62 (W-74)	9/18/2006	JML	880	563.2	7.8	-	-	-	-	216	-	-	113	171	ND	-	-	0.6	-	-	-	-	-	<1	-
3421-62 (W-74)	4/19/2007	JML	890	-	-	125	22.7	5	1	218	-	131	134	-	0.4	-	-	0.66	-	-	-	-	-	-	-
3421-62 (W-74)	8/20/2007	JML	940	-	-	122	21.7	6	1	224	-	138	147	-	<0.4	-	-	0.62	-	-	-	-	-	<1	-
3421-62 (W-74)	9/18/2008	JML	940	-	7.9	-	23.9	-	-	230	-	-	142	159	ND	-	-	0.63	-	-	-	-	-	<1	-
3421-62 (W-74)	9/10/2009	JML	1060	-	7.8	-	9.8	-	-	248	-	-	157	153	-	-	-	0.68	-	-	-	-	-	-	-
3421-62 (W-74)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3421-62 (W-74)	8/17/2010	JML	940	-	7.8	-	21.04	-	-	232	-	-	158	156	ND	-	-	0.74	-	-	-	-	-	-	-
3421-62 (W-74)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3421-62 (W-74)	7/22/2011	FGL	952	604	7.8	-	24.6	5	<1	200	3	122	133	140	<0.4	0.9	-	0.7	-	<0.01	0.09	0.04	-	-	<0.02
3421-62 (W-74)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3421-62 (W-74)	9/22/2011	JML	960	-	7.7	-	21.65	-	-	229	-	-	148	141	0.4	-	-	0.69	-	-	-	-	-	-	-
3421-62 (W-74)	8/27/2012	JML	990	-	8.08	-	-	-	-	213	-	-	143	158	ND	-	-	0.66	-	-	-	-	-	-	-
3421-62 (W-74)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3421-62 (W-74)	8/5/2013	JML	1000	-	7.98	-	-	5.6	0.85	223	-	-	164	179	<0.2	-	-	0.61	-	-	-	-	-	-	-
3421-62 (W-74)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3421-62 (W-74)	6/17/2014	FGL	991	-	8.0	-	-	5.8	0.8	204	2.8	123	144	152	<0.4	0.6	-	0.624	-	0.001	0.039	0.036	-	-	0.018
3211-69 (W-77)	7/15/2003	JML(1)	770	490	8.0	215	15	8	2	185	-	55	93	-	0.5	-	-	0.36	-	-	-	-	-	-	-
3211-69 (W-77)	8/14/2003	JML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
3211-69 (W-77)	8/12/2004	JML	1150	736	7.9	-	15.3	-	-	175	-	-	99	214	1.8	-	-	0.36	-	-	-	-	-	<0.4	-
3211-69 (W-77)	3/11/2005	JML	1140	-	8.0	-	12.2	-	-	170	-	-	74	244	3.1	-	-	0.25	-	-	-	-	-	<0.4	-
3211-69 (W-77)	9/9/2005	JML	1030	-	7.8	-	14.6	-	-	175	-	-	89	238	3.1	-	-	0.29	-	-	-	-	-	<0.4	-
3211-69 (W-77)	7/24/2006	JML	740	474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3211-69 (W-77)	9/18/2006	JML	720	460.8	7.8	-	-	-	-	179	-	-	64	287	3.5	-	-	0.2	-	-	-	-	-	<1	-
3211-69 (W-77)	4/19/2007	JML	780	-	-	209	13.7	11	3	195	-	72	90	-	4.9	-	-	0.25	-	-	-	-	-	-	-
3211-69 (W-77)	8/20/2007	JML	790	-	-	190	13.8	10	2	191	-	69	100	-	4.4	-	-	0.28	-	-	-	-	-	<1	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3211-69 (W-77)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-69 (W-77)	9/10/2009	JML	890	-	7.7	-	11.9	-	-	204	-	-	84	303	9.7	-	-	0.16	-	-	-	-	-	-	-
3211-69 (W-77)	8/17/2010	JML	820	-	7.8	-	12.59	-	-	204	-	-	106	260	8.4	-	-	0.3	-	-	-	-	-	-	-
3211-69 (W-77)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-69 (W-77)	9/22/2011	JML	840	-	7.75	-	12.17	-	-	197	-	-	100	234	7.1	-	-	0.29	-	-	-	-	-	-	-
3211-69 (W-77)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-69 (W-77)	8/27/2012	JML	930	-	8.11	-	-	-	-	197	-	-	103	272	8	-	-	0.27	-	-	-	-	-	-	-
3211-69 (W-77)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-69 (W-77)	8/5/2013	JML	920	-	7.93	-	-	14.2	4.3	200	-	-	105	320	8.9	-	-	0.22	-	-	-	-	-	-	-
3211-69 (W-77)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-69 (W-77)	6/26/2014	FGL	978	-	8.11	-	-	19	4.9	204	4.8	98	96	287	11.5	0.2	-	0.209	-	ND	0.087	0.092	-	-	0.011
3211-69 (W-77)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-69 (W-77)	8/5/2014	JML	1050	-	8.17	-	-	-	-	229	-	-	115	355	17.7	-	-	0.17	-	-	-	-	-	-	-
2630-61 (W-78)	4/13/1976	TL	-	314	8.0	-	12.9	2	2	108	-	42	64	137	1	-	-	0.6	-	-	-	-	-	-	-
2630-61 (W-78)	7/21/1977	TL	337	-	8.4	-	11.4	2	1	79	-	39	35	64	1	-	-	0.3	-	-	-	-	-	-	-
2630-61 (W-78)	11/8/1994	JML	430	-	8.6	-	8.4	-	-	87	-	-	57	110	4	-	-	0.22	-	-	-	-	-	<0.5	-
2630-61 (W-78)	4/3/1995	JML	360	-	8.6	-	ND	-	-	78	-	-	53	92	3	-	-	0.2	-	-	-	-	-	ND	-
2630-61 (W-78)	9/15/1995	JML	390	-	8.3	-	19.8	-	-	85	-	-	21	122	8	-	-	0.15	-	-	-	-	-	0.54	-
2630-61 (W-78)	3/19/1996	JML	390	-	8.7	-	7.8	-	-	87	-	-	53	122	2	-	-	0.16	-	-	-	-	-	<0.5	-
2630-61 (W-78)	9/4/1996	JML	500	-	8.6	-	24.7	-	-	85	-	-	43	85	2	-	-	0.2	-	-	-	-	-	<0.5	-
2630-61 (W-78)	4/4/1997	JML	400	-	8.5	-	5.9	-	-	74	-	-	39	37	3	-	-	0.2	-	-	-	-	-	ND	-
2630-61 (W-78)	7/2/1997	JML	400	-	8.4	-	46	-	-	106	-	-	43	177	14	-	-	0.1	-	-	-	-	-	<0.8	-
2630-61 (W-78)	9/1/1997	JML	400	-	8.5	-	-	-	-	94	-	-	32	110	8	-	-	0.1	-	-	-	-	-	<2	-
2630-61 (W-78)	3/1/1998	JML	396	-	8.5	-	-	<1	<1	88	-	-	75	-	<2	-	-	0.1	-	-	-	-	-	<0.5	-
2630-61 (W-78)	9/1/1998	JML	480	-	8.5	-	-	-	-	94	-	-	39	-	5	-	-	0.2	-	-	-	-	-	<0.5	-
2630-61 (W-78)	3/1/1999	JML	410	-	8.5	-	-	-	-	120	-	-	43	122	11	-	-	0.2	-	-	-	-	-	<0.5	-
2630-61 (W-78)	9/1/1999	JML	500	-	8.2	-	-	-	-	117	-	-	46	146	3	-	-	0.2	-	-	-	-	-	1.4	-
2630-61 (W-78)	3/21/2000	JML	400	-	8.5	113	13.9	3	<1	109	-	38	58	-	3	-	-	0.05	-	-	-	-	-	<0.4	-
2630-61 (W-78)	10/3/2000	JML	450	-	8.3	116	11.3	7	<1	121	-	51	55	-	-	-	-	0.15	-	-	-	-	-	<0.4	-
2630-61 (W-78)	3/21/2001	JML	450	-	7.4	109	16.8	1	<1	99	-	44	54	-	-	-	-	0.13	-	-	-	-	-	<0.4	-
2630-61 (W-78)	6/26/2001	JML	400	-	8.5	112	16.4	1	ND	97	-	32	50	-	-	-	-	0.09	-	-	-	-	-	-	-
2630-61 (W-78)	9/14/2001	JML	430	-	8.3	-	29.2	-	-	94	-	-	46	140	ND	-	-	0.1	-	-	-	-	-	ND	-
2630-61 (W-78)	3/13/2002	JML	440	-	8.2	-	37.5	-	-	106	-	-	57	140	-	-	-	0.1	-	-	-	-	-	<0.5	-
2630-61 (W-78)	8/15/2002	JML	1000	-	7.9	-	23.4	-	-	232	-	-	138	165	-	-	-	0.6	-	-	-	-	-	<0.5	-
2630-61 (W-78)	6/20/2003	JML	560	-	8.3	-	-	-	-	101	-	-	46	157	ND	-	-	0.13	-	-	-	-	-	-	-
2630-61 (W-78)	8/14/2003	JML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
2630-61 (W-78)	8/12/2004	JML	400	256	8.4	-	81.6	-	-	101	-	-	32	122	ND	-	-	0.14	-	-	-	-	-	<0.4	-
2630-61 (W-78)	3/11/2005	JML	570	-	8.3	-	24.2	-	-	92	-	-	43	110	ND	-	-	0.13	-	-	-	-	-	<0.4	-
2630-61 (W-78)	9/9/2005	JML	550	-	8.2	-	66.9	-	-	97	-	-	43	122	ND	-	-	0.12	-	-	-	-	-	<0.4	-
2630-61 (W-78)	7/20/2006	JML	960	614	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2630-61 (W-78)	9/18/2006	JML	370	236.8	8.4	-	-	-	-	99	-	-	35	122	0.4	-	-	0.1	-	-	-	-	-	<1	-
2630-61 (W-78)	4/19/2007	JML	390	-	-	94	22.6	1	0.24	103	-	45	51	-	0.4	-	-	0.13	-	-	-	-	-	-	-
2630-61 (W-78)	8/20/2007	JML	420	-	-	104	20.7	1	0.36	110	-	43	51	-	0.4	-	-	0.12	-	-	-	-	-	<1	-
2630-61 (W-78)	9/11/2008	JML	420	-	8.4	-	19	-	-	110	-	-	64	128	ND	-	-	0.18	-	-	-	-	-	<1	-
2630-61 (W-78)	9/10/2009	JML	420	-	8.1	-	21.4	-	-	107	-	-	51	126	0.4	-	-	0.15	-	-	-	-	-	-	-
2630-61 (W-78)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2630-61 (W-78)	8/9/2010	JML	430	-	8.1	-	29.61	-	-	113	-	-	50	124	2.7	-	-	0.21	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
2630-61 (W-78)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2630-61 (W-78)	9/22/2011	JML	450	-	7.79	-	21.65	-	-	111	-	-	55.7	134	ND	-	-	0.2	-	-	-	-	-	-	-
2630-61 (W-78)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2630-61 (W-78)	8/24/2012	JML	500	-	8.31	-	-	-	-	121	-	-	58	134	ND	-	-	0.17	-	-	-	-	-	-	-
2630-61 (W-78)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2630-61 (W-78)	8/5/2013	JML	480	-	8.32	-	-	1	0.24	115	-	-	55.3	149	<0.2	-	-	0.13	-	-	-	-	-	-	-
2630-61 (W-78)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2630-61 (W-78)	8/5/2014	JML	510	-	8.46	-	-	-	-	124	-	-	65	151	<0.1	-	-	0.2	-	-	-	-	-	-	-
2630-61 (W-78)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3311-61 (W-89)	11/8/1994	JML	890	-	7.7	-	2.4	-	-	122	-	-	85	250	19	-	-	0.26	-	-	-	-	-	0.57	-
3311-61 (W-89)	4/3/1995	JML	920	-	8.1	-	2.7	-	-	138	-	-	96	262	17	-	-	0.23	-	-	-	-	-	0.58	-
3311-61 (W-89)	9/15/1995	JML	980	-	8.1	-	2.5	-	-	168	-	-	89	366	15	-	-	0.17	-	-	-	-	-	0.98	-
3311-61 (W-89)	3/19/1996	JML	940	-	8.2	-	2.4	-	-	161	-	-	85	293	17	-	-	0.21	-	-	-	-	-	0.5	-
3311-61 (W-89)	9/4/1996	JML	900	-	7.8	-	2.6	-	-	154	-	-	92	305	26	-	-	0.2	-	-	-	-	-	0.62	-
3311-61 (W-89)	4/4/1997	JML	1000	-	7.9	-	1.9	-	-	152	-	-	67	201	22	-	-	0.1	-	-	-	-	-	-	-
3311-61 (W-89)	7/2/1997	JML	1000	-	8.6	-	1.8	-	-	166	-	-	64	470	42	-	-	0.2	-	-	-	-	-	-	-
3311-61 (W-89)	9/14/2001	JML	1050	-	7.4	-	5.9	-	-	175	-	-	89	378	24	-	-	0.16	-	-	-	-	-	0.9	-
3311-61 (W-89)	3/13/2002	JML	1080	-	7.8	-	6.1	-	-	202	-	-	99	415	6	-	-	0.2	-	-	-	-	-	0.8	-
3311-61 (W-89)	8/15/2002	JML	810	-	8.0	-	14.8	-	-	186	-	-	89	250	1	-	-	0.3	-	-	-	-	-	1	-
3311-61 (W-89)	8/14/2003	JML	1000	-	7.6	-	-	-	-	203	-	-	81	430	5.9	-	-	0.21	-	-	-	-	-	0.83	-
3311-61 (W-89)	8/12/2004	JML	1450	928	7.5	-	5.9	-	-	189	-	-	78	378	28	-	-	0.21	-	-	-	-	-	0.72	-
3311-61 (W-89)	3/11/2005	JML	1730	-	7.5	-	6.5	-	-	209	-	-	82	433	24.3	-	-	0.21	-	-	-	-	-	0.84	-
3311-61 (W-89)	9/9/2005	JML	1430	-	7.4	-	6.4	-	-	193	-	-	71	378	27.4	-	-	0.19	-	-	-	-	-	0.67	-
3311-61 (W-89)	9/18/2006	JML	960	614.4	7.5	-	-	-	-	189	-	-	57	433	27	-	-	0.2	-	-	-	-	-	<1	-
3311-61 (W-89)	4/19/2007	JML	1010	-	-	319	6.4	54	13	200	-	107	86	-	26.1	-	-	0.19	-	-	-	-	-	-	-
3311-61 (W-89)	8/22/2007	JML	1040	-	-	315	6.5	55	13	208	-	122	84	-	30.1	-	-	0.17	-	-	-	-	-	<1	-
3311-61 (W-89)	9/18/2008	JML	1160	-	7.6	-	6.3	-	-	225	-	-	110	464	35.9	-	-	0.2	-	-	-	-	-	1.22	-
3311-61 (W-89)	9/10/2009	JML	1230	-	7.6	-	6.4	-	-	232	-	-	114	442	42.9	-	-	0.22	-	-	-	-	-	-	-
3311-61 (W-89)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
3311-61 (W-89)	8/17/2010	JML	1310	-	7.3	-	6.19	-	-	241	-	-	126	457	47.4	-	-	0.23	-	-	-	-	-	-	-
3311-61 (W-89)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.48	-
3311-61 (W-89)	9/22/2011	JML	1350	-	7.37	-	6.26	-	-	237	-	-	128	405	38.5	-	-	0.22	-	-	-	-	-	-	-
3311-61 (W-89)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.21	-
3311-61 (W-89)	9/5/2012	JML	1280	-	7.64	-	-	-	-	217	-	-	117	400	40.3	-	-	0.23	-	-	-	-	-	-	-
3311-61 (W-89)	9/5/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
3311-61 (W-89)	8/7/2013	JML	1360	-	7.58	-	-	78	18	214	-	-	163	504	32.3	-	-	0.21	-	-	-	-	-	-	-
3311-61 (W-89)	8/7/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.66	-
3311-61 (W-89)	6/24/2014	FGL	1338	-	7.86	-	-	69	16	210	7	127	129	416	39.7	0.04	-	0.199	-	0.002	0.082	ND	-	-	0.02
3311-61 (W-89)	8/5/2014	JML	1370	-	7.89	-	-	-	-	229	-	-	163	462	40.3	-	-	0.22	-	-	-	-	-	-	-
3311-61 (W-89)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.47	-
3431-62 (W-91)	11/8/1994	JML	890	-	7.7	-	4.7	-	-	163	-	-	106	238	27	-	-	0.27	-	-	-	-	-	<0.5	-
3431-62 (W-91)	4/3/1995	JML	840	-	7.7	-	6.1	-	-	133	-	-	96	232	27	-	-	0.25	-	-	-	-	-	<0.5	-
3431-62 (W-91)	9/15/1995	JML	980	-	8.1	-	7.2	-	-	172	-	-	103	305	24	-	-	0.29	-	-	-	-	-	0.84	-
3431-62 (W-91)	3/19/1996	JML	950	-	8.0	-	6.5	-	-	166	-	-	96	323	27	-	-	0.22	-	-	-	-	-	0.45	-
3431-62 (W-91)	9/4/1996	JML	1600	-	7.9	-	12.1	-	-	274	-	-	284	250	18	-	-	0.2	-	-	-	-	-	<0.5	-
3431-62 (W-91)	4/4/1997	JML	1000	-	8.0	-	5.3	-	-	143	-	-	92	140	19	-	-	0.3	-	-	-	-	-	<0.5	-
3431-62 (W-91)	7/2/1997	JML	1300	-	8.6	-	11.3	-	-	267	-	-	128	445	50	-	-	0.3	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3431-62 (W-91)	3/21/2001	JML	1000	-	7.7	-	6.9	-	-	172	-	-	110	360	46	-	-	0.18	-	-	-	-	-	ND	-
3431-62 (W-91)	9/14/2001	JML	1020	-	7.7	-	6.1	-	-	175	-	-	106	348	31	-	-	0.19	-	-	-	-	-	ND	-
3431-62 (W-91)	3/13/2002	JML	1000	-	7.8	-	6.4	-	-	189	-	-	117	366	7	-	-	0.2	-	-	-	-	-	<0.5	-
3431-62 (W-91)	8/15/2002	JML	420	-	8.3	-	28.4	-	-	113	-	-	50	128	-	-	-	0.1	-	-	-	-	-	0.4	-
3431-62 (W-91)	8/14/2003	JML	1100	-	7.3	-	-	-	-	188	-	-	111	426	7.6	-	-	0.24	-	-	-	-	-	<0.4	-
3431-62 (W-91)	8/12/2004	JML	1660	1062	7.3	-	6.3	-	-	228	-	-	142	354	34	-	-	0.26	-	-	-	-	-	<0.4	-
3431-62 (W-91)	3/11/2005	JML	1740	-	7.5	-	6.8	-	-	205	-	-	113	360	32.8	-	-	0.24	-	-	-	-	-	0.5	-
3431-62 (W-91)	9/9/2005	JML	1500	-	7.5	-	7.9	-	-	218	-	-	124	366	34.5	-	-	0.23	-	-	-	-	-	<0.4	-
3431-62 (W-91)	9/18/2006	JML	1340	857.6	7.6	-	-	-	-	280	-	-	230	372	28.3	-	-	0.2	-	-	-	-	-	<1	-
3431-62 (W-91)	4/19/2007	JML	1030	-	-	280	6.6	52	10	199	-	81	111	-	33.6	-	-	0.23	-	-	-	-	-	-	-
3431-62 (W-91)	8/27/2007	JML	1000	-	-	281	7.2	51	10	214	-	171	119	-	36.7	-	-	0.26	-	-	-	-	-	<1	-
3431-62 (W-91)	9/11/2008	JML	1010	-	7.6	-	6.7	-	-	198	-	-	117	348	38.1	-	-	0.26	-	-	-	-	-	<1	-
3431-62 (W-91)	9/10/2009	JML	990	-	7.7	-	6.9	-	-	201	-	-	115	337	41.2	-	-	0.27	-	-	-	-	-	-	-
3431-62 (W-91)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-62 (W-91)	8/17/2010	JML	830	-	7.5	-	6.94	-	-	211	-	-	122	329	42.1	-	-	0.29	-	-	-	-	-	-	-
3431-62 (W-91)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-62 (W-91)	9/22/2011	JML	1020	-	7.63	-	6.62	-	-	194	-	-	122	290	35.9	-	-	0.28	-	-	-	-	-	-	-
3431-62 (W-91)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-62 (W-91)	8/27/2012	JML	1060	-	7.96	-	-	-	-	190	-	-	121	329	31.4	-	-	0.28	-	-	-	-	-	-	-
3431-62 (W-91)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-62 (W-91)	8/5/2013	JML	1060	-	7.72	-	-	39	8.6	191	-	-	136	367	27	-	-	0.26	-	-	-	-	-	-	-
3431-62 (W-91)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3431-62 (W-91)	6/23/2014	FGL	1088	-	7.49	-	-	45	8.4	187	5.3	74	128	310	30.1	0.06	-	0.311	-	0.01	0.075	ND	-	-	0.026
3431-62 (W-91)	8/5/2014	JML	1090	-	7.96	-	-	-	-	200	-	-	151	347	33.2	-	-	0.31	-	-	-	-	-	-	-
3431-62 (W-91)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-62 (W-94)	11/8/1994	JML	480	-	8.8	-	8.3	-	-	85	-	-	64	110	3	-	-	0.3	-	-	-	-	-	0.23	-
3730-62 (W-94)	4/3/1995	JML	390	-	8.8	-	7.7	-	-	78	-	-	35	92	4	-	-	0.19	-	-	-	-	-	0.11	-
3730-62 (W-94)	9/15/1995	JML	650	-	8.6	-	6.5	-	-	110	-	-	64	171	1	-	-	0.3	-	-	-	-	-	0.33	-
3730-62 (W-94)	3/19/1996	JML	500	-	8.8	-	9	-	-	106	-	-	64	110	2	-	-	0.32	-	-	-	-	-	0.11	-
3730-62 (W-94)	9/4/1996	JML	500	-	8.7	-	-	ND	ND	94	-	-	57	79	6	-	-	0.3	-	-	-	-	-	0.02	-
3730-62 (W-94)	4/4/1997	JML	500	-	8.6	-	1.7	-	-	90	-	-	53	43	4	-	-	0.3	-	-	-	-	-	ND	-
3730-62 (W-94)	7/2/1997	JML	400	-	8.5	-	30.1	-	-	108	-	-	43	177	19	-	-	0.2	-	-	-	-	-	<0.8	-
3730-62 (W-94)	9/1/1997	JML	400	-	8.6	-	-	-	-	92	-	-	32	110	11	-	-	0.2	-	-	-	-	-	<2	-
3730-62 (W-94)	3/1/1998	JML	403	-	8.3	-	-	<1	<1	92	-	-	59	-	ND	-	-	0.2	-	-	-	-	-	<0.5	-
3730-62 (W-94)	9/1/1998	JML	450	-	8.6	-	-	-	-	92	-	-	35	-	11	-	-	0.2	-	-	-	-	-	<0.5	-
3730-62 (W-94)	3/1/1999	JML	380	-	8.6	-	-	-	-	113	-	-	32	134	14	-	-	0.2	-	-	-	-	-	<0.5	-
3730-62 (W-94)	9/1/1999	JML	440	-	8.5	-	-	-	-	108	-	-	35	159	2	-	-	0.2	-	-	-	-	-	1.3	-
3730-62 (W-94)	3/21/2000	JML	410	-	8.6	123	17.7	2	<1	123	-	40	21	-	3	-	-	0.14	-	-	-	-	-	<0.4	-
3730-62 (W-94)	10/3/2000	JML	410	-	8.5	129	10.4	7	<1	111	-	39	39	-	-	-	-	0.14	-	-	-	-	-	<0.4	-
3730-62 (W-94)	3/29/2001	JML	400	-	8.8	-	14.5	-	-	97	-	-	35	146	ND	-	-	0.12	-	-	-	-	-	ND	-
3730-62 (W-94)	6/22/2001	JML	450	-	8.5	145	33	1	ND	120	-	37	48	-	-	-	-	0.07	-	-	-	-	-	-	-
3730-62 (W-94)	9/14/2001	JML	380	-	8.5	-	24.3	-	-	87	-	-	35	153	ND	-	-	0.14	-	-	-	-	-	ND	-
3730-62 (W-94)	3/13/2002	JML	390	-	8.4	-	34.1	-	-	97	-	-	39	165	-	-	-	0.2	-	-	-	-	-	<0.5	-
3730-62 (W-94)	8/15/2002	JML	1110	-	7.8	-	6.6	-	-	214	-	-	82	391	6	-	-	0.2	-	-	-	-	-	<0.5	-
3730-62 (W-94)	7/2/2003	JML(1)	350	220	8.6	141	31.3	1	ND	106	-	42	47	-	ND	-	-	0.2	-	-	-	-	-	-	-
3730-62 (W-94)	8/14/2003	JML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
3730-62 (W-94)	8/12/2004	JML	700	448	8.6	-	36.7	-	-	115	-	-	53	153	0.9	-	-	0.26	-	-	-	-	-	<0.4	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3730-62 (W-94)	3/11/2005	JML	610	-	8.5	-	27.8	-	-	99	-	-	39	128	ND	-	-	0.21	-	-	-	-	-	<0.4	-
3730-62 (W-94)	9/9/2005	JML	660	-	8.4	-	51.3	-	-	117	-	-	53	146	ND	-	-	0.25	-	-	-	-	-	<0.4	-
3730-62 (W-94)	7/18/2006	JML	510	326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-62 (W-94)	9/18/2006	JML	400	256	8.7	-	-	-	-	101	-	-	46	146	ND	-	-	0.2	-	-	-	-	-	<1	-
3730-62 (W-94)	4/19/2007	JML	380	-	-	111	22	1	0.12	100	-	42	39	-	<0.4	-	-	0.16	-	-	-	-	-	-	-
3730-62 (W-94)	8/20/2007	JML	480	-	-	123	26.8	1	0.24	125	-	45	56	-	<0.4	-	-	0.22	-	-	-	-	-	<1	-
3730-62 (W-94)	9/10/2009	JML	450	-	8.3	-	27	-	-	115	-	-	52	484	0.4	-	-	0.2	-	-	-	-	-	-	-
3730-62 (W-94)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-62 (W-94)	8/9/2010	JML	480	-	8.3	-	35.24	-	-	126	-	-	55	144	3.1	-	-	0.27	-	-	-	-	-	-	-
3730-62 (W-94)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-62 (W-94)	9/22/2011	JML	500	-	7.93	-	26.68	-	-	126	-	-	61.7	154	ND	-	-	0.28	-	-	-	-	-	-	-
3730-62 (W-94)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-62 (W-94)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-62 (W-94)	8/24/2012	JML	540	-	8.49	-	-	-	-	132	-	-	64	144	ND	-	-	0.26	-	-	-	-	-	-	-
3730-62 (W-94)	8/5/2013	JML	540	-	8.49	-	-	1.4	0.24	127	-	-	63.1	165	<0.2	-	-	0.24	-	-	-	-	-	-	-
3730-62 (W-94)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-62 (W-94)	6/16/2014	FGL	533	-	8.71	-	-	1.7	0.22	112	1.7	38	59	130	<0.4	0.45	-	0.325	-	0.011	0.137	0.011	-	-	0.049
3730-62 (W-94)	8/5/2014	JML	540	-	8.62	-	-	-	-	130	-	-	69	164	<0.1	-	-	0.27	-	-	-	-	-	-	-
3730-62 (W-94)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-61 (W-95)	9/1/1997	JML	200	-	8.9	-	-	-	-	57	-	-	14	110	11	-	-	0.1	-	-	-	-	-	<2	-
3730-61 (W-95)	3/1/1998	JML	305	-	8.7	-	-	<1	<1	70	-	-	3	-	4	-	-	0.1	-	-	-	-	-	<0.5	-
3730-61 (W-95)	9/1/1998	JML	310	-	8.7	-	-	-	-	67	-	-	21	-	10	-	-	0.1	-	-	-	-	-	<0.5	-
3730-61 (W-95)	3/1/1999	JML	300	-	8.6	-	-	-	-	90	-	-	21	128	14	-	-	0.1	-	-	-	-	-	<0.5	-
3730-61 (W-95)	9/1/1999	JML	280	-	8.6	-	-	-	-	7	-	-	18	134	1	-	-	0.1	-	-	-	-	-	0.8	-
3730-61 (W-95)	3/21/2000	JML	240	-	8.8	106	11.2	2	<1	78	-	45	21	-	3	-	-	0.03	-	-	-	-	-	<0.4	-
3730-61 (W-95)	10/3/2000	JML	230	-	8.6	105	6.9	6	<1	69	-	23	12	-	-	-	-	0.06	-	-	-	-	-	<0.4	-
3730-61 (W-95)	3/29/2001	JML	560	-	8.6	-	8.9	-	-	60	-	-	11	116	ND	-	-	0.05	-	-	-	-	-	ND	-
3730-61 (W-95)	6/22/2001	JML	240	-	8.6	100	13.3	ND	ND	62	-	6	13	-	-	-	-	0.05	-	-	-	-	-	-	-
3730-61 (W-95)	9/14/2001	JML	250	-	8.6	-	25	-	-	57	-	-	14	128	ND	-	-	0.06	-	-	-	-	-	ND	-
3730-61 (W-95)	3/13/2002	JML	230	-	8.4	-	17.7	-	-	57	-	-	14	122	-	-	-	0.1	-	-	-	-	-	<0.5	-
3730-61 (W-95)	8/15/2002	JML	1250	-	7.9	-	9	-	-	248	-	-	160	354	7	-	-	0.2	-	-	-	-	-	<0.5	-
3730-61 (W-95)	7/2/2003	JML(1)	220	140	8.6	115	26.2	ND	ND	65	-	48	18	-	ND	-	-	0.1	-	-	-	-	-	-	-
3730-61 (W-95)	8/14/2003	JML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
3730-61 (W-95)	8/12/2004	JML	520	333	8.7	-	30.7	-	-	87	-	-	32	134	ND	-	-	0.16	-	-	-	-	-	<0.4	-
3730-61 (W-95)	3/11/2005	JML	430	-	8.6	-	32.6	-	-	71	-	-	18	110	ND	-	-	0.1	-	-	-	-	-	<0.4	-
3730-61 (W-95)	9/9/2005	JML	530	-	8.4	-	35.4	-	-	92	-	-	35	134	ND	-	-	0.14	-	-	-	-	-	0.46	-
3730-61 (W-95)	7/18/2006	JML	350	224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-61 (W-95)	9/18/2006	JML	330	211.2	8.6	-	-	-	-	90	-	-	25	140	ND	-	-	0.1	-	-	-	-	-	<1	-
3730-61 (W-95)	4/19/2007	JML	280	-	-	100	16.2	1	0.24	77	-	46	23	-	<0.4	-	-	0.09	-	-	-	-	-	-	-
3730-61 (W-95)	8/20/2007	JML	280	-	-	97	20.3	1	0.12	77	-	73	19	-	<0.4	-	-	0.08	-	-	-	-	-	<1	-
3730-61 (W-95)	9/11/2008	JML	290	-	8.5	-	11.1	-	-	78	-	-	21	128	ND	-	-	0.09	-	-	-	-	-	<1	-
3730-61 (W-95)	9/10/2009	JML	290	-	8.7	-	16.4	-	-	80	-	-	22	121	0.4	-	-	0.12	-	-	-	-	-	-	-
3730-61 (W-95)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-61 (W-95)	8/9/2010	JML	340	-	8.3	-	22.92	-	-	89	-	-	27	126	3.1	-	-	0.14	-	-	-	-	-	-	-
3730-61 (W-95)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-61 (W-95)	9/22/2011	JML	310	-	8.06	-	19.79	-	-	81.4	-	-	21.6	134	0.4	-	-	0.09	-	-	-	-	-	-	-
3730-61 (W-95)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3730-61 (W-95)	8/24/2012	JML	360	-	8.61	-	-	-	-	91	-	-	27	130	ND	-	-	0.09	-	-	-	-	-	-	-
3730-61 (W-95)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-61 (W-95)	8/5/2013	JML	380	-	8.56	-	-	1	0.24	92.2	-	-	30.1	163	<0.2	-	-	0.12	-	-	-	-	-	-	-
3730-61 (W-95)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-61 (W-95)	6/19/2014	FGL	366	-	8.23	-	-	1.2	0.19	79	1.1	23	28	115	<0.4	0.19	-	ND	-	0.004	0.106	0.008	-	-	0.007
3730-61 (W-95)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-61 (W-95)	8/5/2014	JML	370	-	8.73	-	-	-	-	93	-	-	28	149	<0.1	-	-	0.13	-	-	-	-	-	-	-
3921-61 (W-106)	9/10/2009	JML	580	-	8.3	-	23.6	-	-	141	-	-	75	136	-	-	-	0.1	-	-	-	-	-	-	-
3921-61 (W-106)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3921-61 (W-106)	8/17/2010	JML	520	-	8.3	-	27.44	-	-	137	-	-	74	135	ND	-	-	0.09	-	-	-	-	-	-	-
3921-61 (W-106)	8/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3921-61 (W-106)	9/22/2011	JML	510	-	7.97	-	26.32	-	-	126	-	-	67.7	138	0.4	-	-	0.09	-	-	-	-	-	-	-
3921-61 (W-106)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3921-61 (W-106)	8/24/2012	JML	560	-	8.33	-	-	-	-	137	-	-	68	138	ND	-	-	0.27	-	-	-	-	-	-	-
3921-61 (W-106)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3921-61 (W-106)	8/5/2013	JML	560	-	8.32	-	-	1.4	0.24	132	-	-	68.4	171	<0.2	-	-	0.26	-	-	-	-	-	-	-
3921-61 (W-106)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3921-61 (W-106)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3921-61 (W-106)	8/5/2014	JML	580	-	8.43	-	-	-	-	141	-	-	78	159	<0.1	-	-	0.32	-	-	-	-	-	-	-
3730-72 (W-107)	9/10/2009	JML	520	-	8.1	-	17.1	-	-	126	-	-	62	143	-	-	-	0.2	-	-	-	-	-	-	-
3730-72 (W-107)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-72 (W-107)	8/9/2010	JML	510	-	8.0	-	17.94	-	-	129	-	-	59	144	3.1	-	-	0.23	-	-	-	-	-	-	-
3730-72 (W-107)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-72 (W-107)	9/22/2011	JML	510	-	7.76	-	18.29	-	-	124	-	-	62.4	653	0.4	-	-	0.25	-	-	-	-	-	-	-
3730-72 (W-107)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-72 (W-107)	8/24/2012	JML	540	-	8.18	-	-	-	-	138	-	-	65	150	ND	-	-	0.27	-	-	-	-	-	-	-
3730-72 (W-107)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-72 (W-107)	8/5/2013	JML	580	-	8.19	-	-	2.2	0.61	135	-	-	71.3	173	<0.2	-	-	0.26	-	-	-	-	-	-	-
3730-72 (W-107)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-72 (W-107)	6/16/2014	FGL	597	-	8.33	-	-	2.6	0.56	126	1.5	46	69	144	<0.4	0.46	-	0.264	-	0.035	0.292	0.051	-	-	0.051
3730-72 (W-107)	8/5/2014	JML	570	-	8.39	-	-	-	-	141	-	-	74	175	<0.1	-	-	0.27	-	-	-	-	-	-	-
3730-72 (W-107)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-70 (W-108)	9/10/2009	JML	530	-	8.1	-	19.3	-	-	128	-	-	68	146	0.4	-	-	0.27	-	-	-	-	-	-	-
3730-70 (W-108)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-70 (W-108)	8/9/2010	JML	550	-	8.0	-	19.77	-	-	139	-	-	79	138	3.1	-	-	0.35	-	-	-	-	-	-	-
3730-70 (W-108)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-70 (W-108)	9/22/2011	JML	560	-	7.75	-	20.22	-	-	137	-	-	76.9	159	ND	-	-	0.36	-	-	-	-	-	-	-
3730-70 (W-108)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-70 (W-108)	8/24/2012	JML	600	-	8.26	-	-	-	-	149	-	-	79	145	ND	-	-	0.35	-	-	-	-	-	-	-
3730-70 (W-108)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-70 (W-108)	8/5/2013	JML	610	-	8.24	-	-	2.2	0.49	140	-	-	82.6	167	<0.2	-	-	0.31	-	-	-	-	-	-	-
3730-70 (W-108)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-70 (W-108)	6/16/2014	FGL	607	-	8.38	-	-	2.4	0.39	126	1.9	50	76	127	<0.4	0.49	-	0.318	-	0.005	0.11	0.053	-	-	0.015
3730-70 (W-108)	8/5/2014	JML	620	-	8.4	-	-	-	-	148	-	-	92	158	<0.1	-	-	0.37	-	-	-	-	-	-	-
3730-70 (W-108)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-68 (W-110)	9/10/2009	JML	630	-	8.1	-	21.5	-	-	153	-	-	76	181	0.4	-	-	0.21	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																										
3211-68 (W-110)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-68 (W-110)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-68 (W-110)	8/9/2010	JML	660	-	7.9	-	21.6	-	-	163	-	-	88	176	2.7	-	-	0.27	-	-	-	-	-	-	-
3211-68 (W-110)	9/22/2011	JML	670	-	7.61	-	21.95	-	-	161	-	-	87.2	179	ND	-	-	0.27	-	-	-	-	-	-	-
3211-68 (W-110)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-68 (W-110)	8/24/2012	JML	700	-	8.13	-	-	-	-	178	-	-	79	193	ND	-	-	0.14	-	-	-	-	-	-	-
3211-68 (W-110)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-68 (W-110)	8/5/2013	JML	700	-	8.11	-	-	2.6	0.61	165	-	-	94.7	201	<0.2	-	-	0.21	-	-	-	-	-	-	-
3211-68 (W-110)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3211-68 (W-110)	6/19/2014	FGL	720	-	8.04	-	-	3	0.6	154	2.1	64	90	170	<0.4	0.27	-	0.108	-	0.062	0.155	0.074	-	-	0.014
3730-64 (W-111)	9/10/2009	JML	540	-	8.4	-	17.3	-	-	134	-	-	66	168	0.4	-	-	0.22	-	-	-	-	-	-	-
3730-64 (W-111)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-64 (W-111)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-64 (W-111)	8/9/2010	JML	570	-	8.3	-	18.48	-	-	144	-	-	75	174	2.7	-	-	0.25	-	-	-	-	-	-	-
3730-63 (W-112)	9/10/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-63 (W-112)	9/10/2009	JML	570	-	8.4	-	13.7	-	-	135	-	-	50	159	0.4	-	-	0.05	-	-	-	-	-	-	-
3730-63 (W-112)	8/9/2010	JML	500	-	8.3	-	16.21	-	-	125	-	-	51	151	3.1	-	-	0.2	-	-	-	-	-	-	-
3730-63 (W-112)	8/9/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-63 (W-112)	9/22/2011	JML	560	-	8.11	-	13.61	-	-	131	-	-	45.7	146	ND	-	-	0.06	-	-	-	-	-	-	-
3730-63 (W-112)	9/22/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-63 (W-112)	8/24/2012	JML	510	-	8.46	-	-	-	-	127	-	-	50	148	ND	-	-	0.17	-	-	-	-	-	-	-
3730-63 (W-112)	8/24/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-63 (W-112)	8/5/2013	JML	510	-	8.46	-	-	2	0.36	120	-	-	52.1	173	<0.2	-	-	0.2	-	-	-	-	-	-	-
3730-63 (W-112)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-63 (W-112)	6/17/2014	FGL	512	-	8.68	-	-	2.8	0.32	107	1.9	38	52	135	<0.4	0.41	-	0.238	-	0.233	0.288	0.028	-	-	0.259
3730-63 (W-112)	8/5/2014	JML	510	-	8.53	-	-	-	-	126	-	-	61	164	<0.1	-	-	0.25	-	-	-	-	-	-	-
3730-63 (W-112)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-92 (MW-1)	6/11/2002	JML	670	-	7.4	-	2.8	-	-	90	-	-	82	183	ND	-	-	0.2	-	-	-	-	-	-	-
3730-92 (MW-1)	3/11/2003	JML	660	-	7.2	-	-	-	-	101	-	-	82	189	ND	-	-	0.21	-	-	-	-	-	1.14	-
3730-92 (MW-1)	8/6/2003	JML	610	400	7.4	-	-	-	-	85	-	-	78	122	ND	-	-	0.2	-	-	-	-	-	0.43	-
3730-92 (MW-1)	8/17/2004	JML	300	192	7.3	-	3.1	-	-	51	-	-	74	61	0.4	-	-	0.12	-	-	-	-	-	<0.4	-
3730-92 (MW-1)	3/14/2005	JML	1060	-	7.6	-	2.8	-	-	87	-	-	78	177	ND	-	-	0.19	-	-	-	-	-	<0.4	-
3730-92 (MW-1)	8/25/2005	JML	930	-	7.1	-	2.8	-	-	85	-	-	78	226	ND	-	-	0.17	-	-	-	-	-	<0.4	-
3730-92 (MW-1)	3/21/2006	JML	980	-	7.4	-	-	-	-	90	-	-	78	171	0.4	-	-	0.19	-	-	-	-	-	<1	-
3730-92 (MW-1)	9/21/2006	JML	640	410	7.3	-	-	-	-	87	-	-	74	183	<0	-	-	0.21	-	-	-	-	-	<1	-
3730-92 (MW-1)	8/13/2007	JML	690	-	-	133	2.8	49	14	87	-	86	93	-	4.4	-	-	0.18	-	-	-	-	-	-	-
3730-92 (MW-1)	9/11/2008	JML	610	-	7.4	-	2.8	-	-	85	-	-	82	171	ND	-	-	0.19	-	-	-	-	-	<1	-
3730-92 (MW-1)	8/19/2010	JML	640	-	7.3	-	2.94	-	-	95	-	-	87	171	ND	-	-	0.21	-	-	-	-	-	-	-
3730-92 (MW-1)	8/19/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-92 (MW-1)	9/27/2011	JML	660	-	6.9	-	2.88	-	-	91	-	-	80.5	184	ND	-	-	0.21	-	-	-	-	-	-	-
3730-92 (MW-1)	9/27/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-92 (MW-1)	4/17/2012	FGL	705	-	7.55	-	-	45	10.9	80	3.6	77	77	160	0.1	0.05	-	0.13	-	0.0036	0.166	0.147	-	-	0.0147
3730-92 (MW-1)	8/27/2012	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
3730-92 (MW-1)	8/27/2012	JML	690	-	7.8	-	-	-	-	94	-	-	79	181	ND	-	-	0.2	-	-	-	-	-	-	-
3730-92 (MW-1)	8/5/2013	JML	690	-	7.49	-	-	45	13	90.1	-	-	81.5	203	<0.2	-	-	0.18	-	-	-	-	-	-	-
3730-92 (MW-1)	8/5/2013	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Wonderful Orchards																									
3730-92 (MW-1)	8/5/2014	JML	700	-	7.76	-	-	-	-	96	-	-	94	120	<0.1	-	-	0.2	-	-	-	-	-	-	-
3730-92 (MW-1)	8/5/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
2480-92 (MW-7)	11/16/2006	BSK	1600	1100	8.0	360	-	120	26	240	7.9	130	230	440	40	-	-	0.18	-	-	<0.05	0.078	-	-	-
2480-92 (MW-7)	11/29/2011	DL	1400	-	8.2	245	-	54	12.3	200	-	77	230	-	92.1	-	-	0.27	-	-	0.01	0.01	-	-	-
2480-92 (MW-7)	4/17/2012	FGL	1390	-	7.97	-	-	57	11.9	230	13	84	230	310	22	0.03	-	0.2	-	0.123	0.197	0.0246	-	-	0.0469
2480-95 (MW-9)	11/17/2006	BSK	1100	710	8.2	320	-	33	6.5	230	4.6	87	110	390	<1	-	-	0.33	-	-	<0.05	0.28	-	-	-
2480-95 (MW-9)	11/29/2011	DL	1110	-	8.2	295	-	23	3.4	200	-	82	110	-	68.6	-	-	0.36	-	-	0.01	0.01	-	-	-
2480-95 (MW-9)	4/17/2012	FGL	1089	-	7.9	-	-	22	3.4	217	5.6	83	110	340	16	0.07	-	0.29	-	0.078	0.675	0.1108	-	-	0.0286
3730-74 (CC-1)	11/8/1994	JML	270	-	8.8	-	-	-	-	62	-	-	18	-	3.5	-	-	0.19	-	-	-	-	-	-	-
3730-74 (CC-1)	9/29/1997	JML	300	-	8.2	-	11.7	-	-	67	-	-	14	116	1.8	-	-	0.1	-	-	-	-	-	-	-
3730-74 (CC-1)	6/4/1999	JML	860	-	8.6	-	12.9	2	ND	73	-	27	16	-	6.2	-	-	0.07	-	-	-	-	-	-	-
3730-74 (CC-1)	5/4/2001	JML	270	173	8.6	-	3.4	17	2	54	-	27	14	-	ND	-	-	0.04	-	-	-	-	-	-	-
3730-74 (CC-1)	8/6/2002	JML	250	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-74 (CC-1)	8/25/2003	JML(1)	260	170	8.7	107	24	ND	ND	74	-	30	14	-	ND	-	-	0.05	-	-	-	-	-	-	-
3730-74 (CC-1)	8/4/2004	JML(1)	440	282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-74 (CC-1)	7/22/2005	JML	300	-	8.51	-	9.1	3.2	1.3	76	-	34	16	-	0.9	-	-	0.09	-	-	-	-	-	-	-
3730-74 (CC-1)	7/18/2006	JML	350	224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-74 (CC-1)	7/25/2007	JML	290	186	-	105	12.4	2.6	0.4	79	-	44	15	-	<0.4	-	-	0.07	-	-	-	-	-	-	-
3730-74 (CC-1)	7/2/2013	JML	640	-	7.79	-	-	9.8	3.3	139	-	55.2	77.3	228	1.3	-	-	0.16	-	-	-	-	-	-	-
3730-74 (CC-1)	6/19/2014	FGL	239.8	-	8.59	-	-	1.4	0.13	52	0.63	18	7.8	89	<0.4	0.14	-	ND	-	0.026	0.338	0.01	-	-	0.206
3730-75 (CC-2)	11/8/1994	JML	320	-	8.8	-	-	-	-	67	-	-	32	-	3.5	-	-	0.19	-	-	-	-	-	-	-
3730-75 (CC-2)	9/29/1997	JML	400	-	8.3	-	32.3	-	-	92	-	-	21	140	1.8	-	-	0.1	-	-	-	-	-	-	-
3730-75 (CC-2)	5/4/2001	JML	350	224	8.6	-	4.3	16	2	69	-	55	27	-	ND	-	-	0.06	-	-	-	-	-	-	-
3730-75 (CC-2)	5/14/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
3730-75 (CC-2)	8/6/2002	JML	330	211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-75 (CC-2)	8/25/2003	JML(1)	330	210	8.7	127	61.9	ND	ND	101	-	80	30	-	ND	-	-	0.06	-	-	-	-	-	-	-
3730-75 (CC-2)	8/4/2004	JML(1)	570	365	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-75 (CC-2)	7/22/2005	JML	420	-	8.27	-	20	1.6	0.4	109	-	56	33	-	ND	-	-	0.09	-	-	-	-	-	-	-
3730-75 (CC-2)	7/18/2006	JML	480	307	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3730-75 (CC-2)	7/25/2007	JML	400	256	-	119	16.8	2.6	0.4	109	-	86	33	-	<0.4	-	-	0.09	-	-	-	-	-	-	-
3730-75 (CC-2)	6/17/2013	FGL	464	349	8.5	130	-	3	<1	101	<1	51	34	160	<0.2	<0.1	-	<0.1	-	-	<0.05	<0.01	-	-	<0.02
3730-75 (CC-2)	6/19/2014	FGL	435	-	8.43	-	-	2.8	0.35	93	1.2	45	31	133	<0.4	0.08	-	ND	-	0.01	0.736	0.032	-	-	0.009
3421-61 (Card-1)	3/18/1999	JML	490	-	8.2	-	40.5	1	ND	132	-	56	50	-	2.2	-	-	0.31	-	-	-	-	-	-	-
3421-61 (Card-1)	5/4/2001	JML	510	326	8.1	-	5.7	15.8	2.6	93.3	-	60	65	-	ND	-	-	0.3	-	-	-	-	-	-	-
3421-61 (Card-1)	5/14/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
3421-61 (Card-1)	8/1/2002	JML	890	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3421-61 (Card-1)	9/17/2003	JML(1)	710	450	8.2	170	13.1	9	3	177	-	76	94	-	0.1	-	-	0.1	-	-	-	-	-	-	-
3421-61 (Card-1)	8/4/2004	JML(1)	1160	742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3421-61 (Card-1)	8/23/2005	JML	690	-	7.89	-	12.7	8.8	2.6	167	-	76	90	-	0.9	-	-	0.11	-	-	-	-	-	-	-
3421-61 (Card-1)	8/10/2006	JML	1010	646	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3421-61 (Card-1)	7/26/2007	JML	640	406	-	154	13.5	8.2	2.2	169	-	78	92	-	0.4	-	-	0.1	-	-	-	-	-	-	-
3421-61 (Card-1)	7/21/2010	JML	650	-	8.09	-	-	3.4	0.7	170.1	-	124.9	83.7	144	2	-	-	0.292	-	-	-	-	-	-	-
3421-61 (Card-1)	7/28/2011	FGL	696	473	7.9	-	11.5	9	2	146	2	65	78	170	0.7	<100	-	<0.1	-	<0.01	0.14	0.1	-	-	<0.02
3421-61 (Card-1)	6/17/2013	FGL	696	504	7.8	170	-	9	2	144	1	61	77	210	2.2	<0.1	-	<0.1	-	-	0.05	0.09	-	-	<0.02
3421-61 (Card-1)	6/17/2014	FGL	718	-	8.03	-	-	11	3.1	143	2	68	84	179	<0.4	0.04	-	0.123	-	0.033	1.497	0.151	-	-	0.062

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																									
M-1	8/3/1999	FGL	923	580	8.5	-	20.9	4	0.5	167	2	97	134	180	<0.4	-	<2	0.5	-	-	<0.05	<0.03	-	<2	-
M-1	9/27/1999	FGL	1040	620	8.2	-	22.8	5	0.5	200	2	118	148	190	<0.4	-	<2	0.5	-	-	<0.05	0.04	-	<2	-
M-1	8/23/2000	FGL	1020	610	7.8	150	22.1	6	0.5	210	2	106	137	180	<0.4	0.4	-	0.5	-	<0.01	<0.05	0.04	-	<10	<0.02
M-1	6/28/2001	FGL	1240	760	8.3	160	22.2	9	0.5	253	3	155	176	190	<0.4	0.5	<2	0.56	-	<0.01	<0.05	0.07	9	-	<0.02
M-1	6/28/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
M-1	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
M-1	10/1/2001	FGL	1200	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M-1	7/8/2003	FGL	1260	780	8.2	160	-	14	1	250	3	180	200	190	<0.4	0.5	<2	0.53	-	<0.01	<0.05	0.1	-	-	<0.02
M-1	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	<0.4	-
M-1	6/15/2004	FGL	1230	740	8.2	170	-	17	4	241	3	176	179	190	0.6	0.6	<2	0.5	-	<0.01	0.87	0.1	-	-	<0.02
M-1	6/15/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6	<0.4	-
No. 2	7/10/1979	TL	988	564	8.1	169.1	2.7	33	35	94	-	98	135	168	0.1	0.55	<5	-	<0.5	<0.05	0.49	0.38	-	<5	<0.05
No. 2	9/15/1980	BSK	928	612	7.9	182	6.5	27	7.3	148	2	63	124	222	<1	0.49	-	0.25	-	<0.02	0.4	0.26	-	-	<0.1
No. 2	2/22/1982	NA	945	542	-	-	-	-	-	-	-	115	134	-	-	-	-	-	-	-	-	-	-	-	-
No. 2	4/8/1983	NA	875	553	-	-	-	-	-	-	-	60	136	-	-	-	-	-	-	-	-	-	-	-	-
No. 2	4/21/1986	NA	897	648	7.9	-	8.8	25.5	5.4	188	-	170	162	207	1	0.34	<1	-	<0.08	<0.01	0.19	0.328	-	<1	<0.01
No. 2	11/19/1987	BCL	1300	800	-	-	7.6	48	11	224	3	199	190	229	<1	0.3	<10	-	-	-	0.4	0.55	-	-	-
No. 2	9/15/1989	NA	1600	930	7.9	-	9.2	54	10	280	-	260	250	210	<1	0.3	<5	-	<0.1	<0.05	0.27	0.6	-	<5	<0.05
No. 2	6/7/1990	NA	2200	1300	-	-	-	-	-	-	-	390	320	-	-	-	-	-	-	-	-	-	-	-	-
No. 2	2/15/1991	NA	2200	1500	7.6	-	5.2	140	40	270	-	470	260	300	<2	0.1	-	-	-	-	-	-	-	-	-
No. 2	4/4/1991	NA	2100	1300	7.7	-	5	140	40	260	-	490	260	270	<1	0.1	<5	-	<0.1	<0.05	1.4	1.3	-	<5	<0.05
No. 2	10/10/1991	NA	2400	1500	-	-	-	-	-	-	-	500	320	-	-	-	-	-	-	-	-	-	-	-	-
No. 2	1/2/1992	NA	2300	1400	-	-	-	-	-	-	-	510	280	-	-	-	-	-	-	-	-	-	-	-	-
No. 2	8/6/1992	NA	2400	1500	-	-	-	-	-	-	-	500	340	-	-	-	-	-	-	-	-	-	-	-	-
No. 2	8/5/1993	NA	2500	1600	8.0	-	9.8	100	24	420	-	490	390	280	<2	0.2	<2	-	0.078	<0.05	0.58	1	-	<5	<0.05
No. 2	2/22/1994	NA	2000	1400	7.6	-	5.3	130	42	270	-	490	220	330	<2	0.1	<2	-	<0.1	0.059	2	1.6	-	<5	<0.05
No. 2	7/6/1995	NA	2700	1700	7.6	-	10.1	100	26	440	-	430	340	240	<2	0.4	<2	-	<0.1	<0.05	0.62	1.1	-	<5	<0.05
No. 2	10/5/1995	NA	2200	1600	7.9	-	9.8	100	24	420	-	440	400	280	<2	0.1	-	-	0.003	<0.05	0.72	0.99	-	-	<0.05
No. 2	1/4/1996	BSK	2000	1300	7.5	-	10.6	94	23	440	5	530	380	270	2	0.6	<2	-	<0.1	<0.05	0.62	0.09	-	-	<0.05
No. 2	2/25/1998	BCL	1340	830	7.8	-	6.9	56	13	220	ND	210	200	216	<0.4	0.29	<10	0.44	<0.1	<0.01	0.15	0.01	-	<5	<0.01
No. 2	5/4/2001	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	0.2	-	-	-
No. 2	4/26/2007	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
No. 3	3/5/1990	BCL	630	410	8.0	-	7.8	13	3	120	2.1	70	80	155	<1	0.33	<0.01	0.25	<0.1	-	0.29	0.25	-	<2	-
No. 3	5/2/1990	BSK	780	390	8.1	130	5.9	45	2.5	150	2.2	96	100	160	<1	0.2	-	-	-	-	-	-	-	-	-
No. 3	6/7/1990	BSK	1200	650	8.2	160	13.1	17	2.7	220	-	130	160	200	<1	0.4	<5	-	<0.1	<0.05	0.86	0.43	-	<5	<0.05
No. 3	7/6/1990	BSK	1300	750	7.9	160	12.1	26	5.3	260	-	210	190	190	<1	0.3	<5	-	<0.1	<0.05	1	0.58	-	<5	<0.05
No. 3	8/9/1990	NA	1400	830	-	-	-	-	-	-	-	220	230	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	2/6/1992	NA	1600	1000	-	-	-	-	-	-	-	280	210	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	11/5/1992	NA	2000	1300	-	-	-	-	-	-	-	380	290	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	1/14/1993	NA	2100	1300	7.6	-	9.7	84	13	360	-	250	320	<1	<1	0.2	<2	-	0.091	<0.05	0.71	0.86	-	<2	<0.001
No. 3	2/4/1993	NA	2000	1300	-	-	-	-	-	-	-	380	300	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	4/1/1993	NA	2100	1300	8.0	-	10.9	67	10	360	-	360	320	230	<1	0.4	<2	-	<0.1	<0.05	<0.1	<0.01	-	<50	<0.05
No. 3	1/12/1994	NA	1800	1200	7.8	-	9.3	66	11	310	-	290	290	220	<1	0.2	<2	-	<0.1	<0.05	0.76	0.61	-	<50	<0.05
No. 3	2/3/1994	NA	2000	1300	8.6	-	10.1	71	12	350	-	310	330	220	<1	0.3	<2	-	<0.1	<0.05	0.86	0.69	-	<50	<0.05
No. 3	2/22/1994	NA	2000	1200	8.0	-	10.6	69	11	360	-	410	250	260	<2	0.3	<2	-	<0.1	<0.05	0.81	0.67	-	<50	<0.05
No. 3	5/16/1995	NA	2300	1400	7.9	-	12.8	63	11	420	-	420	400	130	<2	0.4	<2	-	<0.1	<0.05	0.51	0.55	-	<50	<0.05
No. 3	11/2/1995	NA	1900	-	-	-	-	-	-	420	-	-	-	-	-	-	-	-	-	-	0.5	0.5	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																									
No. 3	4/4/1996	NA	1900	1300	7.9	-	11.3	65	10	370	-	390	600	230	<2	<0.1	2	-	<0.1	<0.05	0.55	0.54	-	<50	<0.05
No. 3	7/3/1996	NA	2000	1200	7.8	-	-	60	9	-	-	300	360	240	<2	1.4	<2	-	<0.1	<0.05	0.49	0.48	-	<50	<0.05
No. 3	10/9/1996	NA	2400	1500	7.5	-	11.7	77	13	420	-	440	350	200	<2	<0.1	<2	-	<0.1	<0.05	0.61	0.56	-	<50	<0.05
No. 3	11/14/1996	NA	2000	1400	-	-	-	-	-	-	-	440	360	-	-	-	-	-	-	-	0.5	0.52	-	-	-
No. 3	3/6/1997	NA	1700	1200	-	-	-	-	-	-	-	300	340	-	-	-	-	-	-	-	0.29	0.39	-	-	-
No. 3	4/3/1997	NA	2300	1400	8.2	-	13.5	66	11	450	-	420	350	200	<2	<0.1	3	-	<0.1	<0.05	0.48	0.5	-	-	<0.05
No. 3	5/1/1997	NA	2300	1400	-	-	-	-	-	-	-	420	350	-	-	-	-	-	-	-	0.46	0.52	-	-	-
No. 3	6/5/1997	NA	2700	1700	-	-	-	-	-	-	-	550	390	-	-	-	-	-	-	-	0.69	0.86	-	-	-
No. 3	7/3/1997	NA	2400	1600	8.1	-	11.7	83	15	440	-	480	380	210	<2	<0.1	2	-	<0.1	<0.05	0.52	0.62	-	<50	<0.05
No. 3	10/2/1997	BSK	2100	1400	7.9	-	12	71	13	420	6	420	350	210	<2	0.3	<2	-	<0.1	-	0.42	0.54	-	-	-
No. 3	9/3/1998	NA	2400	1500	-	-	-	-	-	-	-	440	420	-	-	-	-	-	-	-	0.26	0.32	-	-	-
No. 3	10/1/1998	NA	2400	1500	8.1	-	12.3	80	16	460	-	440	390	210	<2	<0.1	<2	-	<0.1	<0.05	0.56	0.66	-	<50	<0.05
No. 3	12/3/1998	NA	2400	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.59	-	-	-
No. 3	1/7/1999	NA	2400	1500	8.0	-	12.3	81	15	460	-	490	410	200	15	<0.1	<2	-	<0.1	<0.05	0.55	0.61	-	<50	<0.05
No. 3	4/1/1999	NA	2200	1400	8.1	-	11.5	72	18	420	-	340	380	210	<2	<0.1	4	-	<0.1	<0.05	0.31	0.56	-	<50	<0.05
No. 3	7/1/1999	NA	2400	1600	7.9	-	12.3	81	15	460	-	410	390	210	9	<0.1	<2	-	<0.1	<0.05	0.53	0.63	-	-	<0.05
No. 3	8/6/1999	FGL	2490	1570	7.7	-	13	70	13	450	6	440	410	270	<0.4	-	<2	1	-	-	0.4	0.6	-	-	-
No. 3	9/29/1999	FGL	2500	1540	7.8	-	11.8	73	14	420	6	440	390	280	<0.4	-	<2	1.1	-	-	0.4	0.6	-	<2	-
No. 3	11/4/1999	NA	2500	1500	-	-	-	-	-	-	-	460	400	-	-	-	-	-	-	-	0.39	0.51	-	-	-
No. 3	1/6/2000	BSK	2300	1500	7.6	200	13.9	67	12	470	6	460	380	244	<1	<2	2	-	0.07	<0.05	0.4	0.5	-	-	<0.05
No. 3	2/3/2000	BSK	2400	1500	-	-	-	-	-	-	-	430	350	-	-	-	-	-	-	-	0.41	0.48	-	-	-
No. 3	3/2/2000	BSK	2500	1500	-	-	-	-	-	-	-	430	380	-	-	-	-	-	-	-	0.39	0.47	-	-	-
No. 3	4/6/2000	BSK	2300	1500	7.9	200	12.3	66	11	410	4	410	360	244	<1	<2.5	2	-	0.06	<0.05	0.37	0.48	-	-	<0.05
No. 3	5/4/2000	NA	2500	1700	-	-	-	-	-	-	-	500	390	-	-	-	-	-	-	-	0.14	0.49	-	-	-
No. 3	6/1/2000	BSK	2300	1500	-	-	-	-	-	-	-	390	360	-	-	-	-	-	-	-	0.35	0.46	-	-	-
No. 3	11/1/2000	BSK	2800	1700	-	-	-	-	-	-	-	530	430	-	-	-	-	-	-	-	0.43	0.53	-	-	-
No. 3	11/9/2000	BSK	2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	11/16/2000	BSK	2600	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	11/21/2000	BSK	2700	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	11/30/2000	BSK	2600	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	12/7/2000	BSK	2900	1800	7.6	200	13.5	97	17	550	6	580	390	244	-	-	-	-	-	<0.05	0.5	0.67	-	-	<0.05
No. 3	12/15/2000	BSK	2600	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	12/21/2000	BSK	2700	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 3	2/1/2001	NA	2600	1600	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-
No. 3	5/4/2001	NA	2000	1200	7.9	-	-	83	18	340	-	380	240	230	-	<2	<2	-	<0.1	<0.05	0.78	0.65	-	<50	<0.05
No. 3	10/2/2001	FGL	2660	1680	7.9	210	13	71	15	463	6	561	399	250	<0.4	0.2	<2	1.36	-	<0.01	0.42	0.56	-	-	<0.02
No. 3	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.1	<0.4	-
No. 3	5/13/2002	NA	2200	1400	7.8	-	9.5	78	15	350	-	-	-	210	<30	-	-	-	-	<0.05	-	-	-	-	<0.05
No. 3	9/2/2002	NA	2560	1546	-	-	-	-	-	-	-	703	479	-	-	-	-	-	-	-	0.25	0.42	-	-	-
No. 3	1/7/2003	NA	2540	1578	-	-	-	-	-	-	-	517	275	-	-	-	-	-	-	-	<0.1	0.4	-	-	-
No. 3	5/11/2007	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
No. 4	9/27/1990	BCL	2020	1230	7.7	-	12.5	54	9.6	380	3.8	336	299	262	<0.4	0.27	<2	0.72	0.002	-	<0.005	<0.01	-	<2	-
No. 4	2/15/1991	NA	2300	1400	7.9	-	7.8	120	19	350	-	440	320	270	<1	0.1	<10	-	0.18	<0.05	0.68	0.96	-	<5	<0.05
No. 4	5/2/1991	NA	2300	1400	7.8	-	8.7	100	19	360	-	410	330	270	<1	0.2	<10	-	0.12	<0.05	0.64	0.87	-	<5	<0.05
No. 4	8/1/1991	NA	2300	1400	8.1	-	10.2	89	17	400	-	480	330	270	<1	0.2	-	-	-	-	0.77	0.69	-	-	-
No. 4	12/12/1991	NA	2300	1400	-	-	-	-	-	-	-	410	330	-	-	-	-	-	-	-	-	-	-	-	-
No. 4	7/2/1992	NA	2500	1600	-	-	-	-	-	-	-	480	330	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																									
No. 4	9/2/1993	NA	2300	1400	7.9	-	10.8	91	15	420	-	440	400	250	<1	0.3	<50	-	<0.1	<0.05	0.73	0.76	-	<5	<0.05
No. 4	2/22/1994	NA	2400	1600	7.9	-	7.8	130	30	380	-	510	330	320	<2	0.2	<50	-	<0.1	0.38	0.57	1	-	<5	0.27
No. 4	3/30/1995	NA	-	-	-	-	7.1	120	34	340	-	470	330	320	-	-	-	-	-	0.35	0.84	1.1	-	-	0.09
No. 4	7/6/1995	NA	2700	1700	7.8	-	11.5	98	18	470	-	440	420	250	<2	0.4	3	-	<0.1	0.49	0.61	0.75	-	-	<0.05
No. 4	10/5/1995	NA	2500	1500	8.0	-	11.6	86	14	440	-	450	380	260	<2	0.1	3	-	<0.1	0.38	1.8	0.65	-	-	<0.05
No. 4	11/2/1995	NA	2600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49	0.62	-	-	-
No. 4	1/4/1996	NA	1900	1500	7.6	-	12.5	80	14	460	-	480	390	250	<2	0.6	3	-	<0.1	<0.05	0.52	0.61	-	-	<0.05
No. 4	8/7/1997	NA	2600	1100	-	-	-	-	-	-	-	590	370	-	-	-	-	-	-	-	0.67	0.91	-	-	-
No. 4	11/6/1997	NA	2600	1600	-	-	-	-	-	-	-	500	370	-	-	-	-	-	-	-	0.54	0.63	-	-	-
No. 4	1/8/1998	NA	2500	1700	8.1	-	12	98	17	490	-	560	410	220	5	<0.1	<50	-	<0.1	<0.05	0.52	0.66	-	<5	<0.05
No. 4	5/7/1998	NA	-	-	-	-	-	-	-	-	-	480	390	-	-	-	-	-	-	-	0.51	0.64	-	-	-
No. 4	6/4/1998	NA	2700	1700	-	-	-	-	-	-	-	510	400	-	-	-	-	-	-	-	0.52	0.66	-	-	-
No. 4	8/6/1999	FGL	2450	1650	7.7	-	8.2	120	32	390	5	590	290	320	<0.4	-	<2	1.3	-	-	0.6	1	-	<2	-
No. 4	9/29/1999	FGL	2600	1710	7.6	-	8.4	118	27	390	6	650	320	320	<0.4	-	<2	1.5	-	-	0.8	1	-	-	-
No. 4	5/4/2001	NA	1900	1600	7.6	-	8.8	120	27	410	-	580	300	260	<25	<2.5	3	-	<0.1	<0.05	0.95	1.1	-	<5	<0.05
No. 4	6/27/2001	FGL	2890	1790	7.8	220	12.4	88	17	484	6	592	415	270	<0.4	0.2	<2	1.3	-	<0.01	0.56	0.72	8	-	<0.02
No. 4	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
No. 4	5/13/2002	NA	2700	1800	7.7	-	8.7	130	28	420	-	-	-	230	<40	-	-	-	-	<0.05	-	-	-	-	<0.05
No. 4	9/2/2002	NA	2940	1900	-	-	-	-	-	-	-	851	500	-	-	-	-	-	-	-	0.45	0.75	-	-	-
No. 4	1/7/2003	NA	2570	1574	-	-	-	-	-	-	-	606	282	-	-	-	-	-	-	-	<0.1	0.46	-	-	-
No. 5	9/15/1994	SAL	1600	1100	7.9	140	15.2	36	7.1	380	3.6	380	200	140	<0.1	<0.1	<2	-	<0.1	<0.01	0.51	0.44	-	<2	0.02
No. 5	1/19/1996	NA	710	400	8.1	-	10.3	11	3	150	-	84	80	160	4	0.2	<2	-	<0.1	<0.05	0.37	0.18	-	<5	<0.05
No. 5	10/9/1996	NA	1300	800	7.8	-	12.7	23	4	250	-	240	150	150	<2	<0.1	<2	-	<0.1	<0.05	0.41	0.23	-	<5	<0.05
No. 5	4/3/1997	NA	1100	640	8.3	-	12.3	19	3.3	220	-	190	160	160	5	<0.1	<2	-	<0.1	<0.05	0.26	0.17	-	<5	<0.05
No. 5	5/1/1997	NA	1200	710	-	-	-	-	-	-	-	210	130	-	-	-	-	-	-	-	0.29	0.19	-	-	-
No. 5	6/5/1997	NA	1400	850	-	-	-	-	-	-	-	300	150	-	-	-	-	-	-	-	0.46	0.3	-	-	-
No. 5	7/3/1997	NA	1400	850	8.2	-	12.3	29	4.5	270	-	280	160	150	<2	<0.1	<2	-	<0.1	<0.05	0.38	0.25	-	<5	<0.05
No. 5	8/7/1997	NA	1700	1100	-	-	-	-	-	-	-	380	190	-	-	-	-	-	-	-	0.46	0.33	-	-	-
No. 5	10/2/1997	BSK	1600	970	8.0	-	12.6	40	5.3	320	5	340	180	150	<2	0.3	<2	-	<0.1	<0.05	0.43	0.3	-	<5	<0.05
No. 5	11/6/1997	NA	1400	870	-	-	-	-	-	-	-	270	150	-	-	-	-	-	-	-	0.59	0.28	-	-	-
No. 5	5/7/1998	NA	-	-	-	-	-	-	-	-	-	340	180	-	-	-	-	-	-	-	0.38	0.28	-	-	-
No. 5	6/4/1998	NA	1500	950	-	-	-	-	-	-	-	320	170	-	-	-	-	-	-	-	0.33	0.26	-	-	-
No. 5	9/3/1998	NA	1800	1100	-	-	-	-	-	-	-	470	230	-	-	-	-	-	-	-	0.45	0.35	-	-	-
No. 5	10/1/1998	NA	1700	1100	8.1	-	11.7	47	5.9	320	-	400	200	150	<2	<0.1	<2	-	<0.1	<0.05	0.37	0.3	-	<5	<0.05
No. 5	12/3/1998	NA	1600	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.35	0.29	-	-	-
No. 5	4/1/1999	NA	1700	1200	8.0	-	11.7	53	6.4	340	-	410	210	150	<2	<0.1	<2	-	<0.1	<0.05	0.4	0.33	-	<5	<0.05
No. 5	7/1/1999	NA	1800	1200	7.8	-	11.7	57	6.9	350	-	320	160	150	<2	<0.1	<2	-	<0.1	<0.05	0.33	0.33	-	<5	<0.05
No. 5	8/6/1999	FGL	2150	1420	7.5	-	11.5	70	8	380	5	559	246	200	<0.4	-	<2	1.1	-	-	0.4	0.4	-	<2	-
No. 5	9/29/1999	FGL	1950	1260	7.9	-	10.1	63	8	320	5	479	217	210	<0.4	-	<2	1	-	-	0.4	0.4	-	<2	-
No. 5	11/4/1999	NA	1800	1100	-	-	-	-	-	-	-	430	200	-	-	-	-	-	-	-	0.34	0.32	-	-	-
No. 5	5/4/2000	NA	1800	1200	-	-	-	-	-	-	-	390	190	-	-	-	-	-	-	-	0.44	0.34	-	-	-
No. 5	6/1/2000	BSK	1800	1200	-	-	-	-	-	-	-	280	130	-	-	-	-	-	-	-	0.35	0.34	-	-	-
No. 5	5/4/2001	NA	1800	1300	7.9	-	10.4	80	9.7	370	-	520	220	140	-	-	<2	-	<0.1	<0.05	0.44	0.46	-	<5	<0.05
No. 5	10/2/2001	FGL	2180	1400	7.9	170	11.5	75	11	403	5	587	235	210	<0.4	0.2	<2	1.21	-	<0.01	0.42	0.47	-	-	<0.02
No. 5	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9	<0.4	-
No. 5	5/13/2002	NA	2100	1400	7.7	-	9.8	80	10	350	-	-	-	170	<30	-	-	-	-	<0.05	-	-	-	-	<0.05
No. 5	9/2/2002	NA	2370	1420	-	-	-	-	-	-	-	766	468	-	-	-	-	-	-	-	0.05	0.34	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																										
No. 5	1/7/2003	NA	2570	1596	-	-	-	-	-	-	-	280	611	-	-	-	-	-	-	-	<0.1	0.23	-	-	-
No. 5	4/18/2006	NA	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-
No. 6	1/23/1996	NA	630	350	7.4	-	2.2	39	17	66	-	63	83	160	<2	0.1	<2	-	0.21	<0.05	7.7	1.6	-	<5	0.055
No. 7	6/12/2001	NA	732	468	8.3	133	27.2	2.9	0.339	184	2	86	87.9	162	<0.2	0.71	5.8	0.61	0.01	0.01	0.28	0.03	-	<2	0.03
No. 7	2/11/2003	NA	380	380	-	-	-	-	-	-	-	78	94	-	-	-	-	-	-	-	0.403	ND	-	-	-
No. 7	3/4/2003	NA	664	410	-	-	-	-	-	-	-	68	58	-	-	-	-	-	-	-	0.211	0.29	-	-	-
No. 7	4/1/2003	NA	720	428	-	-	-	-	-	-	-	80	73	-	-	-	-	-	-	-	0.191	ND	-	-	-
No. 7	5/6/2003	NA	783	492	-	-	-	-	-	-	-	110	99	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	6/3/2003	NA	799	468	-	-	-	-	-	-	-	103	91	-	-	-	-	-	-	-	0.167	0.26	-	-	-
No. 7	7/1/2003	NA	799	508	-	-	-	-	-	-	-	101	86	-	-	-	-	-	-	-	0.118	0.21	-	-	-
No. 7	8/5/2003	NA	800	530	-	-	-	-	-	-	-	112	96	-	-	-	-	-	-	-	0.164	0.23	-	-	-
No. 7	10/7/2003	NA	805	502	-	-	-	-	-	-	-	109	95	-	-	-	-	-	-	-	0.152	ND	-	-	-
No. 7	11/4/2003	NA	818	484	-	-	-	-	-	-	-	111	86	-	-	-	-	-	-	-	0.181	ND	-	-	-
No. 7	12/2/2003	NA	815	486	-	-	-	-	-	-	-	96	85	-	-	-	-	-	-	-	0.39	ND	-	-	-
No. 7	1/13/2004	NA	822	512	-	-	-	-	-	-	-	116	104	-	-	-	-	-	-	-	0.2	0.025	-	-	-
No. 7	3/2/2004	BSK	310	230	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	0.08	0.01	-	-	-
No. 7	4/7/2004	NA	820	510	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	<0.1	0.03	-	-	-
No. 7	6/9/2004	NA	810	510	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	<0.1	0.03	-	-	-
No. 7	9/7/2004	NA	780	500	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	<0.1	0.03	-	-	-
No. 7	10/20/2004	NA	810	520	8.3	-	-	4.5	0.6	160	-	100	94	180	<2	0.8	8	-	<0.1	<0.05	<0.1	0.03	-	ND	<0.05
No. 7	12/7/2004	NA	770	510	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	<0.05	0.03	-	-	-
No. 7	3/1/2005	NA	850	530	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	0.06	0.02	-	-	-
No. 7	8/2/2005	NA	590	430	-	-	-	-	-	-	-	-	77	-	-	-	-	-	-	-	0.05	0.2	-	-	-
No. 7	10/4/2005	NA	790	510	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	ND	0.03	-	-	-
No. 7	1/4/2006	NA	800	500	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	0.061	0.025	-	-	-
No. 7	4/4/2006	NA	450	310	-	-	-	-	-	-	-	-	54	-	-	-	-	-	-	-	0.12	<0.1	-	-	-
No. 7	7/6/2006	NA	810	510	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	<0.1	0.03	-	-	-
No. 7	7/10/2006	NA	800	1000	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	<0.1	0.03	-	-	-
No. 7	10/4/2006	NA	820	510	-	-	-	-	-	-	-	-	66	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 7	1/9/2007	NA	820	500	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	<0.1	0.027	-	-	-
No. 7	4/3/2007	NA	790	500	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	<0.1	0.027	-	-	-
No. 7	4/26/2007	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
No. 7	5/11/2007	NA	706	-	-	-	-	-	<2	160	-	106	-	-	<2	0.9	8.1	-	<0.1	<0.05	<0.1	0.022	-	<5	<0.05
No. 7	7/10/2007	NA	800	490	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	<0.1	-	-	-	-
No. 7	10/2/2007	NA	770	480	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	<0.1	-	-	-	-
No. 7	10/23/2007	NA	798	510	7.19	-	-	<2	<2	180	-	112	96	123	-	0.5	8.6	-	<0.1	<0.05	ND	0.03	-	<5	<0.05
No. 7	3/26/2008	NA	-	-	-	-	-	-	-	-	-	-	-	-	<8.9	-	-	-	-	-	-	-	-	-	-
No. 7	4/2/2008	NA	800	490	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	ND	0.057	-	-	-
No. 7	2/23/2009	NA	500	420	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	0.245	0.0384	-	-	-
No. 7	4/14/2009	NA	910	500	-	-	-	-	-	-	-	-	94.3	-	-	-	-	-	-	-	<0.1	0.0329	-	-	-
No. 7	11/3/2009	NA	719	490	-	-	-	-	-	-	-	-	98.8	-	-	-	-	-	-	-	<0.1	0.0343	-	-	-
No. 7	1/12/2010	NA	-	510	-	-	-	-	-	-	-	-	97	-	-	-	-	-	-	-	<0.1	0.0364	-	-	-
No. 7	7/14/2010	NA	-	480	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	<0.1	0.0387	-	-	-
No. 7	1/11/2011	NA	-	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0.0523	-	-	-
No. 7	2/28/2011	NA	-	-	-	-	-	-	-	-	-	-	88.3	-	<2	-	-	-	-	-	-	-	-	-	-
No. 7	5/10/2011	NA	810	480	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	7/12/2011	NA	750	490	-	-	-	-	-	-	-	-	85	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																										
No. 7	8/2/2011	NA	780	480	-	-	-	-	-	-	-	-	84	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	9/27/2011	NA	800	500	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	10/18/2011	NA	800	520	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	11/1/2011	NA	820	510	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	12/6/2011	NA	770	520	-	-	-	-	-	-	-	-	97	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	12/13/2011	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-
No. 7	1/10/2012	NA	790	470	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	2/7/2012	NA	830	500	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	2/15/2012	NA	820	490	-	-	-	3	0.38	170	-	110	96	160	<2	-	4.6	-	<0.1	<0.05	<0.1	0.026	-	<5	<0.05	
No. 7	3/6/2012	NA	660	450	-	-	-	-	-	-	-	-	84	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	4/3/2012	NA	800	490	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	5/1/2012	NA	790	500	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	6/12/2012	NA	780	500	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	7/3/2012	NA	400	270	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	8/7/2012	NA	800	500	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	9/4/2012	NA	780	510	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	10/2/2012	NA	710	440	-	-	-	-	-	-	-	-	83	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	11/6/2012	NA	690	460	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	12/4/2012	NA	800	510	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	1/3/2013	NA	820	500	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	2/12/2013	NA	820	500	-	-	-	-	-	-	-	-	92	-	<2	-	-	-	-	-	<0.1	0.028	-	-	-	
No. 7	3/5/2013	NA	710	460	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	4/2/2013	NA	780	480	-	-	-	-	-	-	-	-	89	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	5/7/2013	NA	720	500	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	6/4/2013	NA	790	510	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	7/2/2013	NA	720	500	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	8/6/2013	NA	790	500	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	8/20/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-
No. 7	9/3/2013	NA	800	510	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	10/1/2013	NA	730	500	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	11/5/2013	NA	790	510	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	12/3/2013	NA	760	460	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	1/7/2014	NA	800	490	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	<0.1	0.027	-	-	-	
No. 7	2/4/2014	NA	780	490	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	<0.1	0.028	-	-	-	
No. 7	3/4/2014	NA	820	490	-	-	-	-	-	-	-	-	98	-	-	-	-	-	-	-	<0.1	0.03	-	-	-	
No. 7	4/1/2014	NA	790	510	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	<0.1	0.029	-	-	-	
No. 7	5/6/2014	NA	790	530	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	<0.1	0.028	-	-	-	
No. 7	6/3/2014	NA	790	510	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	<0.1	0.03	-	-	-	
No. 7	7/1/2014	NA	790	510	-	-	-	-	-	-	-	-	98	-	-	-	-	-	-	-	<0.1	0.028	-	-	-	
No. 7	8/5/2014	NA	820	500	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	<0.1	0.029	-	-	-	
No. 7	9/2/2014	NA	830	500	-	-	-	-	-	-	-	-	95	-	-	-	-	-	-	-	<0.1	0.03	-	-	-	
No. 7	10/7/2014	NA	830	500	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	<0.1	0.03	-	-	-	
No. 7	10/28/2014	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 7	11/4/2014	NA	500	170	-	-	-	-	-	-	-	-	61	-	-	-	-	-	-	-	0.1	<0.02	-	-	-	
No. 7	12/2/2014	NA	820	520	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	<0.1	0.031	-	-	-	
No. 8	6/12/2001	NA	564	401	8.5	117	17.2	3.1	0.666	128	2.1	68	77.2	135	<0.2	0.61	3.5	0.46	0.01	0.01	0.41	0.03	-	<2	0.215	
No. 8	8/31/2001	NA	564	401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																										
No. 8	2/11/2003	NA	548	368	-	-	-	-	-	-	-	70	87	-	-	-	-	-	-	-	0.271	ND	-	-	-
No. 8	3/4/2003	NA	591	354	-	-	-	-	-	-	-	47	55	-	-	-	-	-	-	-	0.195	0.25	-	-	-
No. 8	5/6/2003	NA	289	232	-	-	-	-	-	-	-	15	29	-	-	-	-	-	-	-	0.758	ND	-	-	-
No. 8	6/24/2003	NA	291	266	-	-	-	-	-	-	-	13	26	-	-	-	-	-	-	-	0.708	ND	-	-	-
No. 8	7/1/2003	NA	292	186	-	-	-	-	-	-	-	13	24	-	-	-	-	-	-	-	0.635	ND	-	-	-
No. 8	8/5/2003	NA	292	220	-	-	-	-	-	-	-	14	27	-	-	-	-	-	-	-	0.682	0.2	-	-	-
No. 8	9/3/2003	NA	295	214	-	-	-	-	-	-	-	14	26	-	-	-	-	-	-	-	0.406	ND	-	-	-
No. 8	10/7/2003	NA	295	206	-	-	-	-	-	-	-	15	27	-	-	-	-	-	-	-	0.534	ND	-	-	-
No. 8	11/4/2003	NA	296	204	-	-	-	-	-	-	-	13	27	-	-	-	-	-	-	-	0.603	ND	-	-	-
No. 8	12/2/2003	NA	298	208	-	-	-	-	-	-	-	14	25	-	-	-	-	-	-	-	0.63	0.22	-	-	-
No. 8	1/13/2004	NA	302	210	-	-	-	-	-	-	-	16.6	31	-	-	-	-	-	-	-	0.24	<0.02	-	-	-
No. 8	3/2/2004	BSK	300	200	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	0.1	0.01	-	-	-
No. 8	4/7/2004	NA	300	220	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	0.11	<0.02	-	-	-
No. 8	6/9/2004	NA	340	240	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	0.17	0.02	-	-	-
No. 8	9/7/2004	NA	300	220	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	0.14	<0.02	-	-	-
No. 8	10/20/2004	NA	310	230	8.6	-	-	0.4	0.1	69	-	18	35	93	<2	0.4	<2	-	<0.1	<0.05	0.39	0.02	-	ND	<0.05
No. 8	12/7/2004	NA	300	230	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.1	0.01	-	-	-
No. 8	3/1/2005	NA	330	530	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.2	0.01	-	-	-
No. 8	8/2/2005	NA	540	380	-	-	-	-	-	-	-	-	70	-	-	-	-	-	-	-	0.07	0.03	-	-	-
No. 8	10/4/2005	NA	560	230	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	0.12	0.04	-	-	-
No. 8	12/7/2005	NA	300	230	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.1	0.01	-	-	-
No. 8	1/4/2006	NA	320	220	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	0.12	0.01	-	-	-
No. 8	4/4/2006	NA	310	230	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	0.12	<0.02	-	-	-
No. 8	7/6/2006	NA	330	230	-	-	-	-	-	-	-	-	38	-	-	-	-	-	-	-	0.14	<0.02	-	-	-
No. 8	7/10/2006	NA	320	110	-	-	-	-	-	-	-	-	36	-	-	-	-	-	-	-	0.22	<0.02	-	-	-
No. 8	10/4/2006	NA	320	220	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	0.11	<0.02	-	-	-
No. 8	1/9/2007	NA	330	220	-	-	-	-	-	-	-	-	38	-	-	-	-	-	-	-	<0.1	<0.02	-	-	-
No. 8	4/3/2007	NA	320	220	-	-	-	-	-	-	-	-	38	-	-	-	-	-	-	-	0.12	<0.02	-	-	-
No. 8	4/26/2007	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
No. 8	5/11/2007	NA	302	-	-	-	-	-	<2	74	-	22.3	-	-	<2	0.5	<2	-	<0.1	<0.05	<0.1	<0.02	-	<5	<0.05
No. 8	7/10/2007	NA	330	220	-	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	0.12	-	-	-	-
No. 8	10/2/2007	NA	330	220	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	0.12	-	-	-	-
No. 8	10/23/2007	NA	334	240	7.47	-	-	<2	<2	66	-	20.6	38	80	-	0.4	<2	-	<0.1	<0.05	0.52	ND	-	<5	<0.05
No. 8	3/26/2008	NA	-	-	-	-	-	-	-	-	-	-	-	-	<8.9	-	-	-	-	-	-	-	-	-	-
No. 8	4/2/2008	NA	330	220	-	-	-	-	-	-	-	22	38	-	-	-	-	-	-	-	0.3	1.2	-	-	-
No. 8	2/23/2009	NA	500	430	-	-	-	-	-	-	-	-	81.9	-	-	-	-	-	-	-	0.3	0.0366	-	-	-
No. 8	4/14/2009	NA	830	-	-	-	-	-	-	-	-	-	90.2	-	-	-	-	-	-	-	<0.1	0.0255	-	-	-
No. 8	11/3/2009	NA	337	250	-	-	-	-	-	-	-	-	46	-	-	-	-	-	-	-	0.16	0.0212	-	-	-
No. 8	1/12/2010	NA	-	470	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	<0.1	0.0304	-	-	-
No. 8	7/14/2010	NA	-	270	-	-	-	-	-	-	-	-	46.7	-	-	-	-	-	-	-	0.15	0.0257	-	-	-
No. 8	1/11/2011	NA	-	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0.0415	-	-	-
No. 8	2/28/2011	NA	-	-	-	-	-	-	-	-	-	-	87.9	-	<2	-	-	-	-	-	-	-	-	-	-
No. 8	5/10/2011	NA	360	240	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	7/12/2011	NA	770	500	-	-	-	-	-	-	-	-	85	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	8/2/2011	NA	790	480	-	-	-	-	-	-	-	-	85	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	9/27/2011	NA	800	500	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	10/18/2011	NA	340	250	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																										
No. 8	11/1/2011	NA	340	250	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	12/6/2011	NA	580	400	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	12/13/2011	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-
No. 8	1/10/2012	NA	330	220	-	-	-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	2/7/2012	NA	340	230	-	-	-	-	-	-	-	-	38	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	2/15/2012	NA	350	240	-	-	-	0.35	ND	77	-	20	42	89	<2	-	<2	-	<0.1	<0.05	0.27	<0.02	-	<5	<0.05	
No. 8	3/6/2012	NA	320	240	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	4/3/2012	NA	380	270	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	5/1/2012	NA	380	260	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	6/12/2012	NA	550	370	-	-	-	-	-	-	-	-	66	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	7/3/2012	NA	340	230	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	8/7/2012	NA	620	380	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	9/4/2012	NA	620	410	-	-	-	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	10/2/2012	NA	620	390	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	11/6/2012	NA	340	250	-	-	-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	12/4/2012	NA	620	400	-	-	-	-	-	-	-	-	77	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	1/3/2013	NA	650	400	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	2/12/2013	NA	350	240	-	-	-	-	-	-	-	-	40	-	<2	-	-	-	-	-	0.26	<0.02	-	-	-	
No. 8	3/5/2013	NA	670	420	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	4/2/2013	NA	680	390	-	-	-	-	-	-	-	-	83	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	5/7/2013	NA	330	240	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	6/4/2013	NA	340	240	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	7/2/2013	NA	320	240	-	-	-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	8/6/2013	NA	620	380	-	-	-	-	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	8/20/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-
No. 8	9/3/2013	NA	620	390	-	-	-	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	10/1/2013	NA	640	410	-	-	-	-	-	-	-	-	76	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	11/5/2013	NA	630	400	-	-	-	-	-	-	-	-	76	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	12/3/2013	NA	360	240	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	1/7/2014	NA	350	240	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	0.2	<0.02	-	-	-	
No. 8	2/4/2014	NA	340	240	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	0.2	<0.02	-	-	-	
No. 8	3/4/2014	NA	630	390	-	-	-	-	-	-	-	-	74	-	-	-	-	-	-	-	0.14	0.03	-	-	-	
No. 8	4/1/2014	NA	500	330	-	-	-	-	-	-	-	-	60	-	-	-	-	-	-	-	0.14	<0.02	-	-	-	
No. 8	5/6/2014	NA	620	410	-	-	-	-	-	-	-	-	74	-	-	-	-	-	-	-	0.13	0.03	-	-	-	
No. 8	6/3/2014	NA	620	410	-	-	-	-	-	-	-	-	73	-	-	-	-	-	-	-	0.13	0.032	-	-	-	
No. 8	7/1/2014	NA	360	250	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	0.2	<0.02	-	-	-	
No. 8	8/5/2014	NA	370	240	-	-	-	-	-	-	-	-	43	-	-	-	-	-	-	-	0.21	<0.02	-	-	-	
No. 8	9/2/2014	NA	660	410	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	0.13	0.028	-	-	-	
No. 8	10/7/2014	NA	650	400	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	0.14	0.03	-	-	-	
No. 8	10/28/2014	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 8	11/4/2014	NA	360	260	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	0.2	<0.02	-	-	-	
No. 8	12/2/2014	NA	470	300	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	0.15	<0.02	-	-	-	
No. 9	8/16/2001	NA	598	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	8/27/2001	NA	598	420	8.3	126	22.7	2.1	0.249	130	1.9	67	78.4	149	<0.2	0.7	2.7	0.48	0.01	0.01	0.32	0.03	-	<2	<0.025	
No. 9	2/11/2003	NA	337	250	-	-	-	-	-	-	-	22	70	-	-	-	-	-	-	-	0.56	ND	-	-	-	
No. 9	3/4/2003	NA	569	368	-	-	-	-	-	-	-	55	48	-	-	-	-	-	-	-	0.232	0.28	-	-	-	
No. 9	5/6/2003	NA	721	452	-	-	-	-	-	-	-	90	94	-	-	-	-	-	-	-	0.175	0.2	-	-	-	

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																										
No. 9	6/3/2003	NA	724	416	-	-	-	-	-	-	-	80	84	-	-	-	-	-	-	-	0.156	0.21	-	-	-
No. 9	7/1/2003	NA	732	402	-	-	-	-	-	-	-	77	80	-	-	-	-	-	-	-	0.149	ND	-	-	-
No. 9	8/5/2003	NA	728	468	-	-	-	-	-	-	-	82	88	-	-	-	-	-	-	-	0.134	ND	-	-	-
No. 9	10/7/2003	NA	720	450	-	-	-	-	-	-	-	80	85	-	-	-	-	-	-	-	0.152	ND	-	-	-
No. 9	11/14/2003	NA	734	454	-	-	-	-	-	-	-	82	87	-	-	-	-	-	-	-	0.2	ND	-	-	-
No. 9	12/2/2003	NA	734	448	-	-	-	-	-	-	-	76	80	-	-	-	-	-	-	-	0.16	0.22	-	-	-
No. 9	1/13/2004	NA	746	460	-	-	-	-	-	-	-	91	96	-	-	-	-	-	-	-	0.16	<0.02	-	-	-
No. 9	3/2/2004	BSK	350	260	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	0.07	0.01	-	-	-
No. 9	4/7/2004	NA	750	480	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 9	4/27/2004	NA	810	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	-	-	-
No. 9	6/9/2004	NA	360	240	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 9	9/7/2004	NA	720	460	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 9	10/20/2004	NA	740	470	8.4	-	-	3	0.3	150	-	85	89	170	<2	0.6	2	-	<0.1	<0.05	<0.1	0.02	-	ND	<0.05
No. 9	12/7/2004	NA	710	480	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	<0.05	0.02	-	-	-
No. 9	3/1/2005	NA	780	480	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	ND	0.02	-	-	-
No. 9	8/2/2005	NA	670	450	-	-	-	-	-	-	-	-	89	-	-	-	-	-	-	-	ND	0.02	-	-	-
No. 9	10/4/2005	NA	560	370	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	ND	0.01	-	-	-
No. 9	1/4/2006	NA	740	460	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	ND	0.019	-	-	-
No. 9	4/4/2006	NA	480	320	-	-	-	-	-	-	-	-	60	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-
No. 9	7/6/2006	NA	740	490	-	-	-	-	-	-	-	-	87	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 9	10/4/2006	NA	750	460	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	<0.1	<0.02	-	-	-
No. 9	1/9/2007	NA	760	450	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 9	4/3/2007	NA	740	450	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 9	4/26/2007	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
No. 9	5/11/2007	NA	675	-	-	-	-	-	<2	150	-	90	-	-	<2	0.8	2.8	-	<0.1	<0.05	<0.1	<0.02	-	<5	<0.05
No. 9	7/10/2007	NA	730	420	-	-	-	-	-	-	-	-	84	-	-	-	-	-	-	-	<0.1	-	-	-	-
No. 9	10/2/2007	NA	710	440	-	-	-	-	-	-	-	-	87	-	-	-	-	-	-	-	<0.1	-	-	-	-
No. 9	10/23/2007	NA	716	470	7.56	-	-	<2	<2	167	-	86.6	91	133	-	0.47	3.3	-	<0.1	<0.05	ND	0.021	-	<5	<0.05
No. 9	3/26/2008	NA	-	-	-	-	-	-	-	-	-	-	-	-	<8.9	-	-	-	-	-	-	-	-	-	-
No. 9	4/2/2008	NA	750	460	-	-	-	-	-	-	-	76	88	-	-	-	-	-	-	-	0.168	0.056	-	-	-
No. 9	2/23/2009	NA	500	420	-	-	-	-	-	-	-	-	80.2	-	-	-	-	-	-	-	0.246	0.0363	-	-	-
No. 9	4/14/2009	NA	820	460	-	-	-	-	-	-	-	-	89.3	-	-	-	-	-	-	-	<0.1	0.0258	-	-	-
No. 9	11/3/2009	NA	676	460	-	-	-	-	-	-	-	-	92.4	-	-	-	-	-	-	-	<0.1	0.0336	-	-	-
No. 9	1/12/2010	NA	-	450	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	<0.1	0.0302	-	-	-
No. 9	7/14/2010	NA	-	340	-	-	-	-	-	-	-	-	64.6	-	-	-	-	-	-	-	0.13	0.0259	-	-	-
No. 9	1/11/2011	NA	-	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0.0413	-	-	-
No. 9	2/28/2011	NA	-	-	-	-	-	-	-	-	-	-	88.1	-	<2	-	-	-	-	-	-	-	-	-	-
No. 9	5/10/2011	NA	760	430	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	7/12/2011	NA	690	400	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	8/2/2011	NA	720	410	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	9/27/2011	NA	730	450	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	10/18/2011	NA	740	480	-	-	-	-	-	-	-	-	89	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	11/1/2011	NA	750	470	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	12/6/2011	NA	710	490	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	12/13/2011	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
No. 9	1/10/2012	NA	730	430	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	2/7/2012	NA	730	450	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
City of Mendota																									
No. 9	2/15/2012	NA	760	470	-	-	-	2.4	0.3	150	-	88	91	150	<2	-	<2	-	<0.1	<0.05	<0.1	0.02	-	<5	<0.05
No. 9	3/6/2012	NA	670	460	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	4/3/2012	NA	740	460	-	-	-	-	-	-	-	-	86	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	5/1/2012	NA	720	450	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	6/12/2012	NA	710	460	-	-	-	-	-	-	-	-	87	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	7/3/2012	NA	560	350	-	-	-	-	-	-	-	-	67	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	8/7/2012	NA	750	450	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	9/4/2012	NA	740	450	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	10/2/2012	NA	720	440	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	11/6/2012	NA	400	260	-	-	-	-	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	12/4/2012	NA	720	460	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	1/3/2013	NA	750	450	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	2/12/2013	NA	750	460	-	-	-	-	-	-	-	-	90	-	<2	-	-	-	-	-	<0.1	0.021	-	-	-
No. 9	3/5/2013	NA	680	430	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	4/2/2013	NA	730	470	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	5/7/2013	NA	650	440	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	6/4/2013	NA	390	270	-	-	-	-	-	-	-	-	46	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	7/2/2013	NA	360	260	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	8/6/2013	NA	730	450	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	8/20/2013	NA	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	-	-	-	-
No. 9	9/3/2013	NA	710	460	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	10/1/2013	NA	740	470	-	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	11/5/2013	NA	730	470	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	12/3/2013	NA	740	440	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	1/7/2014	NA	730	460	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	<0.1	0.021	-	-	-
No. 9	2/4/2014	NA	710	440	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	<0.1	0.021	-	-	-
No. 9	3/4/2014	NA	610	360	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	0.11	0.023	-	-	-
No. 9	4/1/2014	NA	730	460	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	<0.1	0.023	-	-	-
No. 9	5/6/2014	NA	690	450	-	-	-	-	-	-	-	-	84	-	-	-	-	-	-	-	<0.1	0.022	-	-	-
No. 9	6/3/2014	NA	740	470	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	<0.1	0.021	-	-	-
No. 9	7/1/2014	NA	740	470	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	<0.1	0.021	-	-	-
No. 9	8/5/2014	NA	750	470	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	<0.1	0.022	-	-	-
No. 9	9/2/2014	NA	760	460	-	-	-	-	-	-	-	-	91	-	-	-	-	-	-	-	<0.1	0.02	-	-	-
No. 9	10/7/2014	NA	750	460	-	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	<0.1	0.021	-	-	-
No. 9	10/28/2014	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
No. 9	11/4/2014	NA	380	280	-	-	-	-	-	-	-	-	52	-	-	-	-	-	-	-	0.13	<0.02	-	-	-
No. 9	12/2/2014	NA	740	450	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	<0.1	0.023	-	-	-
U.S. Geological Survey																									
31J5	11/20/1985	USGS	4040	2450	7.9	-	29.4	49	6	820	5	420	990	248	<0.1	-	1	0.9	-	-	0.22	0.34	-	<1	-
31J5	11/6/1991	USGS	5200	2780	7.7	-	20.4	130	19	940	9	520	990	-	<0.1	-	1	0.72	-	-	0.91	0.46	-	<1	-
31J5	8/2/1999	FGL	9410	6550	7.4	-	15.3	380	140	1370	16	1580	2440	290	<0.4	-	<2	2.3	-	-	1.66	3.69	-	<2	-
31J5	9/28/1999	FGL	10100	6700	7.4	-	16.2	425	178	1580	19	1660	2400	320	<0.4	-	<2	3.1	-	-	2.34	4	-	-	-
31J5	8/25/2000	FGL	10300	7000	7.3	230	17.8	395	174	1690	17	1630	2360	280	<0.8	<0.2	-	2.8	-	<0.01	2.18	3.28	-	<10	<0.02
31J5	6/27/2001	FGL	9750	6400	6.9	230	16.9	356	168	1540	34	1430	2190	280	<0.8	0.8	3	3.07	-	<0.01	10.9	3.61	103	-	<0.02
31J5	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
31J5	6/26/2002	FGL	10100	7100	7.2	240	21.6	326	177	1950	18	1920	2720	290	<0.4	<0.1	<2	3.2	-	<0.01	1.8	3.12	-	-	<0.02
31J5	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.2	<0.4	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
U.S. Geological Survey																									
31J5	7/8/2003	FGL	9900	6900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31J5	6/18/2004	FGL	10300	7200	7.3	250	-	416	228	1860	15	1740	2530	310	<0.4	1	<2	3.5	-	<0.01	2.2	3.57	-	-	<0.02
31J5	6/18/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.1	<0.4	-
31J5	8/7/2006	FGL	10000	6700	7.8	220	-	360	194	2000	20	1650	2470	270	<0.4	<0.1	4	3.7	-	<0.01	2.33	3.1	-	-	<0.02
31J5	8/7/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.3	<0.4	-
31J5	9/19/2007	FGL	10200	6870	7.7	230	20.5	392	199	2000	18	1500	1160	280	<0.4	<0.1	7	4.02	-	<0.01	1.98	3	-	-	<0.02
31J5	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.3	<0.4	-
31J5	9/17/2008	FGL	10300	6920	8.1	100	16.1	394	198	1570	20	1800	2480	200	<0.4	<0.5	5	3.8	-	<0.01	2.22	2.99	-	-	<0.02
31J5	9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.5	<0.4	-
31J5	5/12/2010	FGL	10000	6780	7.3	220	16.8	389	199	1630	14	1800	2550	260	<0.8	0.3	<2	3.8	-	<0.01	2	2.92	22	-	<0.02
31J5	5/12/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
31J5	5/9/2012	FGL	7500	4950	7.8	190	-	281	138	1280	16	1300	1820	230	<1.8	0.3	9	3.1	0.367	<0.01	0.84	1.88	21	-	<0.02
31J5	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.8	-
31J5	5/7/2013	FGL	9830	6950	7.4	220	-	358	182	1990	17	1500	2300	270	0.5	<0.2	8	4.4	-	<0.01	1.96	2.56	23	32	<0.02
31J5	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
31J5	5/20/2014	FGL	8640	5920	7.62	200	-	288	150	1510	16	1480	2230	240	<0.4	<0.1	6	3.5	0.265	<0.01	1.82	2.12	21	-	<0.02
10A4	9/28/1999	FGL	2820	2370	7.5	130	2.5	221	167	200	3	1370	129	160	5.5	-	2	2.1	-	-	<0.25	0.16	-	-	-
Covanta Mendota																									
Well 6A	5/17/1991	BCL	990	625	8.6	180	-	-	-	209	1	83	133	-	-	0.12	-	0.2	-	-	0.058	0.068	-	-	-
Well 6A	8/12/1994	BD	1050	-	8.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	9/19/1996	BD	1200	-	8.4	225	-	-	-	258	-	119	172	-	-	-	-	-	-	<0.05	<0.05	-	-	-	<0.05
Well 6A	9/9/1999	BD	1290	-	8.5	236	-	-	-	269	-	127	173	-	-	-	-	-	-	<0.05	0.35	-	-	-	-
Well 6A	5/11/2000	BD	1340	-	8.4	223	-	-	-	272	-	144	208	-	-	-	-	-	-	<0.05	0.1	-	-	-	-
Well 6A	11/2/2000	BD	1290	-	8.4	233	-	-	-	276	-	128	199	-	-	-	-	-	-	<0.05	0.17	-	-	-	-
Well 6A	8/23/2001	BD	1330	-	8.3	241	-	-	-	287	-	143	196	-	-	-	-	-	-	<0.05	0.09	-	-	-	-
Well 6A	4/18/2002	BD	1460	-	8.4	242	-	-	-	296	-	144	218	-	-	-	-	-	-	<0.05	0.06	-	-	-	<0.01
Well 6A	6/13/2002	BD	1430	-	8.4	237	-	-	-	307	-	160	216	-	-	-	-	-	-	<0.05	0.21	-	-	-	-
Well 6A	3/11/2004	BD	2100	-	7.9	211	-	-	-	414	-	196	430	-	-	-	-	-	-	<0.05	0.39	-	-	-	-
Well 6A	6/1/2005	BD	1430	-	-	237	-	-	-	-	-	-	202	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	7/1/2005	BD	1350	-	-	231	-	-	-	-	-	-	196	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	8/1/2005	BD	1400	-	-	229	-	-	-	-	-	-	207	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	10/1/2005	BD	1850	-	-	226	-	-	-	-	-	-	315	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	12/1/2005	BD	2230	-	-	172	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	2/1/2006	BD	2220	-	-	214	-	-	-	-	-	-	506	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	5/1/2006	BD	1800	-	-	218	-	-	-	-	-	-	322	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	6/1/2008	NA	2046	-	-	221	-	-	-	-	-	-	355	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	11/1/2008	NA	2585	-	-	212	-	-	-	-	-	-	519	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	4/1/2009	NA	2417	-	-	211	-	-	-	-	-	-	446	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	6/1/2009	NA	2019	-	-	223	-	-	-	-	-	-	378	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	2/8/2010	NA	3109	-	-	198	-	-	-	-	-	-	700	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	1/12/2011	NA	2834	-	-	214	-	-	-	-	-	-	590	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	10/13/2011	NA	3135	-	-	206	-	-	-	-	-	-	662	-	-	-	-	-	-	-	-	-	-	-	-
Well 6A	1/7/2013	NA	2879	-	8.24	206	-	-	-	548	5.3	351	567	-	<1	-	-	-	-	<0.05	0.07	-	-	-	<0.05
Hansen Farms																									
7C1	8/3/1999	FGL	8860	5700	7.8	-	18.2	216	140	1400	8	1020	2380	320	7	-	10	3.9	-	-	0.32	0.28	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Hansen Farms																										
7C1	9/28/1999	FGL	9510	6130	7.6	-	18.1	250	173	1520	10	1270	2370	310	21	-	4	5.2	-	-	<0.05	0.38	-	-	-
7C1	6/27/2001	FGL	9480	5950	7.8	240	20.9	226	163	1690	8	1330	2330	290	20.6	<0.1	5	4.98	-	<0.01	0.31	0.36	-	-	0.13
7C1	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	50.4	-
7C1	10/3/2001	FGL	9430	6300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65.6	-
Fordel, Inc.																										
Biomass	7/13/2000	FGL	1350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terra Linda Farms																										
TLF-5d	8/3/1999	FGL	1430	880	8.5	-	24	8	0.5	259	3	135	251	210	<0.4	-	<2	0.6	-	-	<0.05	<0.03	-	<2	-
TLF-5d	8/25/1999	FGL	1410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-5d	9/22/1999	FGL	1376	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-5d	9/27/1999	FGL	1370	810	8.4	-	26.6	7	0.5	270	3	126	238	230	<0.4	-	<2	0.6	-	-	<0.05	0.02	-	<2	-
TLF-5d	7/13/2000	FGL	1450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-5d	6/26/2001	FGL	1530	900	8.3	190	29.4	8	0.5	317	4	141	261	230	<0.4	0.4	<2	0.55	-	<0.01	<0.05	0.02	9	-	<0.02
TLF-5d	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-5d	6/15/2004	FGL	2120	1220	8.2	190	-	17	2	398	4	195	444	210	<0.4	0.5	<2	0.6	-	<0.01	0.05	0.04	-	-	<0.02
TLF-5d	6/15/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	<0.4	-
TLF-5d	5/21/2007	CLS	2200	1300	7.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-5d	9/18/2007	FGL	2070	1160	8.8	190	29.6	15	1	439	4	186	460	230	<0.4	0.4	<2	0.6	-	<0.01	<0.05	0.03	-	-	<0.02
TLF-5d	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9	<0.4	-
TLF-5d	5/26/2009	FGL	2240	1280	7.8	180	22.7	22	2	415	5	196	470	220	<0.4	0.4	<2	0.7	-	<0.01	0.06	0.05	8	-	<0.02
TLF-5d	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-5d	5/11/2010	FGL	2370	1330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-5d	8/15/2011	FGL	2970	1720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-5d	5/8/2013	FGL	2680	1570	7.9	190	-	34	3	676	6	270	620	230	<0.4	0.3	2	0.7	-	0.01	0.06	0.07	7	8.41	<0.02
TLF-5d	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-5d	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
TLF-5d	5/21/2014	FGL	2870	1720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	8/25/1999	FGL	962	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	9/22/1999	FGL	1003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	7/13/2000	FGL	1040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	6/26/2001	FGL	1140	700	8.5	170	26.1	5	<1	244	3	105	183	200	<0.4	0.6	<2	0.5	-	<0.01	<0.05	0.02	8	-	<0.02
TLF-6d	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-6d	9/12/2001	FGL	1140	680	8.6	170	27.1	5	<1	254	3	105	185	200	<0.4	0.8	<2	0.52	-	<0.01	<0.05	0.02	-	-	<0.02
TLF-6d	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.4	<0.4	-
TLF-6d	6/26/2002	FGL	1250	760	8.4	170	24.2	6	<1	243	3	108	217	210	<0.4	0.4	<2	0.5	-	<0.01	<0.05	0.02	-	-	<0.02
TLF-6d	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	<0.4	-
TLF-6d	6/15/2004	FGL	1570	950	8.3	170	-	10	ND	310	3	143	311	190	<0.4	0.7	<2	0.5	-	<0.01	0.05	0.03	-	-	<0.02
TLF-6d	6/15/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.7	<0.4	-
TLF-6d	5/21/2007	CLS	1800	980	7.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2	<0.4	-
TLF-6d	9/18/2007	FGL	1600	960	8.1	170	29.5	10	<1	339	3	143	312	210	<0.4	0.4	<2	0.5	-	<0.01	<0.05	0.03	-	-	<0.02
TLF-6d	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1	<0.4	-
TLF-6d	9/16/2008	FGL	1680	950	8.2	170	26.2	11	<1	315	3	145	312	200	<0.4	0.5	<2	0.6	-	<0.01	<0.05	0.03	-	-	<0.02
TLF-6d	5/26/2009	FGL	1740	980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	5/11/2010	FGL	1960	1120	8.0	170	23.6	16	1	360	4	176	413	200	<0.4	0.4	<2	0.6	-	<0.01	0.07	0.04	6	-	<0.02

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Terra Linda Farms																									
TLF-6d	5/11/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-6d	8/15/2011	FGL	1540	910	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
TLF-6d	5/8/2012	FGL	2110	1200	8.3	160	-	18	2	439	5	209	490	190	<1.8	0.2	<2	0.6	-	<0.01	<0.05	0.05	6	-	<0.02
TLF-6d	5/8/2013	FGL	2040	1190	7.8	170	-	20	2	437	5	198	440	210	<0.4	0.4	<2	0.6	-	<0.01	<0.05	0.06	6	5.47	<0.02
TLF-6d	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
TLF-6d	5/21/2014	FGL	2210	1310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-6d	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-12d	8/25/1999	FGL	651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-12d	9/22/1999	FGL	664	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-12d	7/13/2000	FGL	675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-12d	10/1/2001	FGL	733	450	8.4	140	15.6	5	<1	146	2	65	104	170	<0.4	0.5	<2	0.35	-	<0.01	0.12	0.05	-	-	<0.02
TLF-12d	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	<0.4	-
TLF-12d	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-12d	5/8/2012	FGL	1740	1060	8.4	160	-	17	2	333	5	330	259	200	3.5	0.4	<2	0.6	-	0.52	0.92	0.17	10	-	0.9
TLF-14d	8/25/1999	FGL	971	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-14d	9/22/1999	FGL	1035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-14d	7/13/2000	FGL	1060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-14d	6/26/2001	FGL	1070	650	8.4	160	24.4	5	<1	228	3	113	162	200	<0.4	0.6	<2	0.51	-	<0.01	<0.05	0.02	8	-	<0.02
TLF-14d	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-14d	9/12/2001	FGL	1190	730	8.5	170	24.7	6	<1	248	3	140	183	210	<0.4	0.7	<2	0.56	-	<0.01	<0.05	0.02	-	-	<0.02
TLF-14d	9/12/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.7	<0.4	-
TLF-14d	10/2/2001	FGL	1110	690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-14d	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-14d	6/25/2002	FGL	1250	780	8.3	170	24.4	6	<1	245	3	134	196	210	<0.4	0.3	<2	0.5	-	<0.01	<0.05	0.03	-	-	<0.02
TLF-14d	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	<0.4	-
TLF-14d	5/21/2007	CLS	1400	840	7.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-14d	9/18/2007	FGL	1560	970	8.2	180	26.5	11	1	342	3	172	278	210	0.8	0.4	<2	0.5	-	<0.01	<0.05	0.04	-	-	<0.02
TLF-14d	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4	<0.4	-
TLF-14d	9/16/2008	FGL	1650	950	8.0	170	22.9	12	1	307	4	173	280	210	<0.4	0.4	<2	0.6	-	<0.01	0.05	0.05	-	-	<0.02
TLF-14d	9/16/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.25	<0.4	-
TLF-14d	5/26/2009	FGL	1680	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-14d	5/12/2010	FGL	1790	1030	8.0	170	21.4	15	2	332	4	207	329	210	<0.4	0.4	<2	0.6	-	<0.01	0.07	0.06	7	-	<0.02
TLF-14d	5/12/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
TLF-18d	7/13/2000	FGL	1440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-18d	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8	<0.4	-
TLF-18d	9/19/2007	FGL	1230	770	8.5	210	25.8	8	<1	265	2	129	185	250	<0.4	0.2	<2	0.3	-	<0.01	<0.05	0.04	-	-	<0.02
TLF-18d	9/16/2008	FGL	1340	780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-18d	8/15/2011	FGL	829	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TLF-18d	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
TLF-18d	5/8/2012	FGL	1410	850	8.3	190	-	11	1	305	3	178	229	230	<1.8	0.1	<2	0.4	-	<0.01	<0.05	0.06	3	-	<0.02
TL-1	7/13/2000	FGL	877	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TL-1	6/25/2002	FGL	1450	880	8.1	210	19.4	14	1	278	3	157	220	260	<0.4	0.2	<2	0.4	-	<0.01	<0.05	0.08	-	-	<0.02
TL-1	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5	<0.4	-
TL-6	9/22/1999	FGL	4040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Terra Linda Farms																										
TL-9	8/25/1999	FGL	1290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TL-9	9/22/1999	FGL	1387	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coelho/Coelho																										
Conejo West	8/3/1999	FGL	1460	880	8.3	-	23.3	8	<1	263	4	132	268	200	<0.4	-	<2	0.6	-	-	<0.05	<0.03	-	<2	-	
Conejo West	8/25/1999	FGL	1440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conejo West	9/28/1999	FGL	1470	870	8.3	-	24.8	8	<1	280	4	136	270	230	<0.4	-	<2	0.7	-	-	<0.05	0.03	-	-	-	
Conejo West	7/13/2000	FGL	1550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coelho/Coelho/Fordel																										
CCF-1	7/13/2000	FGL	1660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCF-1	6/26/2001	FGL	1710	1030	8.2	180	25.5	13	1	355	4	197	285	220	<0.4	0.4	<2	0.62	-	<0.01	<0.05	0.05	8	-	<0.02	
CCF-1	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-	
CCF-1	9/20/2001	FGL	1720	1040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCF-1	10/2/2001	FGL	1740	1040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCF-1	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-	
Silver Creek Packing Co. (M. Britz TIC)																										
SC-5	8/6/1999	FGL	3010	1730	8.0	-	24.6	38	9	650	10	330	630	240	<0.4	-	<2	0.6	-	-	<0.05	0.1	-	-	-	
SC-5	8/25/1999	FGL	3180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-5	9/22/1999	FGL	3210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-5	9/27/1999	FGL	3380	1940	8.0	-	23.7	42	4	600	8	260	770	270	<0.4	-	<2	1	-	-	0.08	0.1	-	-	-	
SC-5	7/13/2000	FGL	3620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-5	8/23/2000	FGL	3770	2110	7.6	200	25.4	52	6	726	7	280	800	240	<0.4	0.2	-	1	-	<0.01	0.11	0.16	-	<10	0.06	
SC-5	6/27/2001	FGL	3970	2140	8.0	200	24.3	59	7	742	9	390	890	240	<0.4	0.2	<2	1.11	-	<0.01	0.15	0.19	-	-	<0.02	
SC-5	6/27/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	<0.4	-	
SC-6	8/25/1999	FGL	2820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-6	9/22/1999	FGL	2680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-6	7/13/2000	FGL	2740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC-6	6/26/2001	FGL	2770	1560	8.0	190	27.7	25	2	536	6	200	610	240	<0.4	0.3	<2	0.72	-	<0.01	<0.05	0.09	-	-	<0.02	
SC-6	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	<0.4	-	
Coelho/Gardner/Hansen (Vista Verde Farms)																										
CGH-7 (CGH-13d)	7/22/1997	NA	1000	680	8.1	-	10.7	32	13	283	4	110	511	445	0.71	-	-	0.42	-	-	-	-	-	-	-	
CGH-7 (CGH-13d)	9/22/1999	FGL	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-7 (CGH-13d)	7/13/2000	FGL	1710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-7 (CGH-13d)	5/21/2007	CLS	1700	1000	6.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CGH-7 (CGH-13d)	9/19/2007	FGL	1710	1090	7.9	390	12.3	33	17	350	2	193	207	470	<0.4	0.2	<2	0.5	-	<0.01	1.69	0.76	-	-	<0.02	
CGH-7 (CGH-13d)	9/19/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.7	<0.4	-	
CGH-7 (CGH-13d)	9/17/2008	FGL	2170	1270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CGH-7 (CGH-13d)	5/26/2009	FGL	2770	1640	7.5	330	11.9	66	37	486	3	410	460	400	<0.4	0.2	<2	0.6	-	<0.01	1.17	0.88	16	-	<0.02	
CGH-7 (CGH-13d)	5/26/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-	
CGH-7 (CGH-13d)	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	
CGH-7 (CGH-13d)	5/8/2012	FGL	1600	960	7.3	290	-	26	15	306	2	195	228	360	<1.8	0.1	<2	0.4	-	<0.01	1.78	0.75	10	-	<0.02	
Meyers Farming																										
MS-5	3/15/1999	BSK	2600	1600	-	-	-	-	-	-	-	-	610	-	-	-	-	0.9	-	-	-	-	-	-	-	
MS-5	3/22/1999	BSK	2800	1700	-	-	-	-	-	-	-	-	650	-	-	-	-	0.87	-	-	-	-	-	<2	0.61	

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Meyers Farming																									
MS-5	3/23/1999	TL	-	1700	-	-	-	-	-	-	-	-	600	-	-	-	-	0.82	-	-	-	-	-	<2	-
MS-5	8/5/1999	FGL	2940	1710	8.3	-	24	26	12	590	3	220	570	390	<0.4	-	<2	0.8	-	-	<0.05	0.09	-	-	-
MS-5	8/25/1999	FGL	2970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-5	9/22/1999	FGL	2820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-5	9/27/1999	FGL	3060	1750	5.2	-	23.8	27	11	580	3	250	620	410	<0.4	-	<2	0.9	-	-	<0.05	0.1	-	<2	-
MS-5	7/13/2000	FGL	2970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-5	8/24/2000	FGL	2890	1670	8.0	340	20.5	28	16	548	2	300	450	390	<0.4	0.2	-	0.8	-	0.02	0.08	0.12	-	<10	0.16
MS-5	6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MS-5	6/26/2001	FGL	3030	1790	8.1	310	23.7	28	13	604	3	333	549	380	<0.4	0.4	<2	0.87	-	<0.01	0.07	0.11	22	-	<0.02
MS-5	9/10/2001	TL	3000	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	0.83	-	-	-	-	18	-	-
MS-5	10/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MS-5	10/3/2001	FGL	3130	1820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-5	6/27/2002	FGL	3110	1860	8.4	290	22	32	14	592	3	320	670	360	<0.4	0.3	<2	0.8	-	<0.01	0.06	0.12	-	-	<0.02
MS-5	6/27/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.6	<0.4	-
MS-5	8/20/2002	CLS	3200	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-5	8/20/2002	FGL	3190	1890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-5	8/20/2002	TL	3200	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MS-5	7/9/2003	FGL	3190	1830	8.2	280	-	34	15	667	3	350	710	340	<0.4	0.4	<2	0.89	-	<0.01	0.07	0.13	-	-	<0.02
MS-5	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.8	<0.4	-
Meyers Farm Water Bank																									
DW-1	12/21/2007	BCL	2400	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DW-1	4/17/2008	BCL	2000	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DW-1	4/21/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.46	<0.4	-
DW-1	4/21/2008	BCL	-	-	-	-	-	-	-	-	-	-	-	280	-	-	-	-	-	-	-	-	-	-	-
DW-1	10/4/2008	BCL	1970	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DW-1	7/22/2009	BCL	2940	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.079	-	-	-	-	-	-
Farmers Water District																									
R-1	6/25/2001	FGL	430	270	8.8	110	12.5	2	<1	87	<1	45	34	130	<0.1	0.1	<2	0.09	-	<0.01	0.11	<0.01	5	-	<0.02
R-1	6/25/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-1	10/2/2001	FGL	444	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-1	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-1	8/20/2002	CLS	430	270	-	110	11.9	2	<1	87	<1	47	35	122	-	-	-	-	-	-	-	-	-	-	-
R-1	8/20/2002	FGL	436	290	8.8	110	13.7	2	<1	95	<1	42	35	140	<0.4	<0.1	-	0.1	-	<0.01	0.08	<0.01	-	-	<0.02
R-1	8/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	<0.4	-
R-1	8/20/2002	TL	440	260	-	-	15.9	2	0.3	95	1	46	35	130	-	-	-	-	-	-	-	-	-	-	-
R-1	7/9/2003	FGL	465	320	8.8	120	-	2	<1	111	<1	50	41	140	<0.4	0.3	<2	0.1	-	<0.01	<0.05	<0.01	-	-	<0.02
R-1	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	<0.4	-
R-1	6/17/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	<0.4	-
R-1	6/17/2004	FGL	441	300	8.8	120	-	3	ND	99	ND	54	28	130	<0.4	0.1	<2	<0.1	-	<0.01	0.09	0.02	-	-	<0.02
R-1	10/26/2005	FGL	461	330	8.7	130	-	2	<1	93	<1	50	27	160	<0.4	<0.1	<2	<0.1	-	<0.01	0.57	0.01	-	-	<0.02
R-1	10/26/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	<0.4	-
R-1	8/8/2006	FGL	476	310	9.1	130	-	2	<1	100	<1	55	29	120	<0.4	<0.1	<2	<0.1	0.0112	<0.01	0.86	0.03	-	-	<0.02
R-1	8/8/2006	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	<0.4	-
R-1	5/16/2007	CLS	450	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-1	5/27/2009	FGL	571	350	8.7	140	21	3	<1	132	<1	65	43	170	<0.4	<0.1	<2	<0.1	-	<0.01	<0.05	0.01	4	-	<0.02
R-1	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Farmers Water District																									
R-1	5/17/2010	FGL	720	440	8.4	140	20.1	4	<1	146	<1	71	82	180	<0.4	0.1	<2	0.1	0.0112	<0.01	0.05	0.01	5	-	<0.02
R-1	5/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-1	5/7/2013	FGL	927	540	8.2	160	-	6	<1	211	2	89	136	190	<0.4	0.1	<2	0.2	-	<0.01	0.06	0.02	6	2.35	<0.02
R-1	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
R-1	5/20/2014	FGL	947	560	8.21	160	-	5	<1	191	2	87.6	141	190	<0.4	<0.1	<2	0.2	0.0201	<0.01	<0.05	0.02	6	-	<0.02
R-1	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-2	7/31/1987	BCL	410	275	8.4	-	15.7	1	<1	93	1	20	39	131	<1	0.4	<10	0.2	<0.5	-	0.17	<0.01	-	<5	-
R-2	10/20/1993	NA	555	346	8.8	-	-	<3	<2	120	<1	47	48	-	-	-	-	-	-	-	-	-	-	-	-
R-2	10/2/2001	FGL	458	270	8.8	110	7.4	9	<1	88	1	56	41	130	<0.4	<0.1	<2	0.05	-	<0.01	<0.05	0.01	-	-	<0.02
R-2	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	<0.4	-
R-2	6/17/2002	TL	540	330	8.4	130	28	1	0.2	130	1	52	48	160	<2	-	-	0.1	<0.01	<0.05	0.13	<0.03	-	-	<0.05
R-2	7/8/2003	FGL	753	490	8.7	150	-	2	<1	181	2	43	119	190	<0.4	0.4	<2	0.35	0.0084	<0.01	<0.05	<0.01	-	-	<0.02
R-2	5/15/2007	CLS	500	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-2	9/18/2007	FGL	505	310	8.7	130	31.9	1	<1	116	<1	47	51	160	<0.4	0.2	<2	0.1	-	<0.01	0.06	<0.01	-	-	<0.02
R-2	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	<0.4	-
R-2	9/18/2008	FGL	631	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-2	5/27/2009	FGL	564	360	8.6	140	36.6	1	<1	133	<1	54	49	170	<0.4	0.2	<2	0.1	-	<0.01	<0.05	<0.01	2	-	<0.02
R-2	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-2	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-2	5/9/2012	FGL	611	380	8.7	140	-	2	<1	140	<1	68	59	170	<1.8	<0.1	<2	<0.1	-	<0.01	0.1	<0.01	2	-	<0.02
R-2	5/20/2014	FGL	609	390	8.75	150	-	2	<1	126	<1	66.4	56	180	<0.4	<0.1	<2	<0.1	0.0048	<0.01	<0.05	<0.01	3	-	<0.02
R-2	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-3	7/31/1987	BCL	560	365	8.3	-	-	3	<1	155	1	39	38	217	<1	0.2	<10	0.1	<0.1	-	0.06	0.03	-	<5	-
R-3	10/2/2001	FGL	776	460	8.4	240	11.5	12	2	163	1	78	55	300	<0.4	<0.1	<2	0.09	-	<0.01	0.07	0.08	-	-	<0.02
R-3	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	<0.4	-
R-3	6/25/2002	FGL	770	500	8.3	230	11.4	11	2	157	1	76	57	280	<0.4	<0.1	<2	0.2	-	<0.01	<0.05	0.06	-	-	<0.02
R-3	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
R-3	8/20/2002	CLS	740	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-3	8/20/2002	FGL	778	520	7.9	230	11.5	12	2	164	1	80	59	280	<0.4	<0.1	-	0.1	0.0214	<0.01	0.08	0.08	-	-	<0.02
R-3	8/20/2002	TL	790	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-3	7/9/2003	FGL	827	520	8.3	260	-	17	3	190	2	88	62	310	<0.4	<0.1	<2	0.08	0.028	<0.01	0.08	0.13	-	-	<0.02
R-3	7/9/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
R-3	6/17/2004	FGL	811	490	8.2	240	-	14	2	176	1	93	66	270	<0.4	0.1	<2	<0.1	0.0217	<10	0.08	0.08	-	-	<0.02
R-3	6/17/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
R-3	10/26/2005	FGL	883	570	7.9	280	-	25	4	162	2	90	65	350	<0.4	<0.1	<2	<0.1	0.0469	<0.01	0.2	0.25	-	-	<0.02
R-3	10/26/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
R-3	5/15/2007	CLS	820	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-3	9/17/2007	FGL	895	540	8.8	240	13.3	13	2	195	<1	107	79	280	<0.4	<0.1	<2	0.1	0.0238	<0.01	0.06	0.07	-	-	<0.02
R-3	9/17/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4	<0.4	-
R-3	9/18/2008	FGL	934	580	8.1	260	12.3	14	2	186	1	94	69	310	<0.4	<0.1	<2	<0.1	0.0293	0.01	0.06	0.07	-	-	<0.02
R-3	9/18/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	<0.4	-
R-3	5/27/2009	FGL	917	580	8.1	240	13	16	2	208	1	105	77	290	<0.4	<0.1	<2	0.1	0.0271	<0.01	0.08	0.07	<1	-	<0.02
R-3	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-3	5/17/2010	FGL	952	570	8.1	240	10.8	17	3	184	1	109	78	290	<0.4	<0.1	<2	<0.0001	0.0304	<0.01	<0.05	0.08	<1	-	<0.02
R-3	5/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-3	8/15/2011	FGL	949	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-3	5/8/2012	FGL	939	560	8.2	220	-	16	2	197	2	115	86	270	<1.8	<0.1	<2	<0.1	0.026	<0.01	0.07	0.08	<1	-	<0.02

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Farmers Water District																									
R-3	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-3	5/7/2013	FGL	982	620	8.1	240	-	20	3	208	2	111	81	300	1	<0.1	<2	<0.1	-	<0.01	0.08	0.09	1	1	<0.02
R-3	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-3	5/20/2014	FGL	999	630	7.93	240	-	20	3	191	2	121	92	300	<0.4	<0.1	<2	0.1	0.0374	<0.01	0.1	0.09	1	-	<0.02
R-4	10/1/2001	FGL	252	180	9.2	90	9.3	1	<1	55	<1	15	13	100	<0.4	0.2	3	0.08	-	<0.01	0.14	<0.01	-	-	<0.02
R-4	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	<0.4	-
R-4	6/17/2002	TL	240	150	8.7	84	13.7	1	0.1	56	<1	23	8.7	100	<2	-	-	<0.05	<0.01	<0.05	0.48	<0.03	-	-	<0.05
R-4	5/16/2007	CLS	500	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-4	9/20/2007	FGL	281	180	8.9	90	<0.1	<1	<1	63	<1	19	19	90	<0.4	0.3	3	<0.05	-	<0.01	0.11	<0.01	-	-	<0.02
R-4	9/20/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	<0.4	-
R-4	9/18/2008	FGL	341	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-4	5/27/2009	FGL	305	220	8.9	90	<0.1	<1	<1	68	<1	19	24	100	<0.4	0.3	4	0.1	-	<0.01	0.06	<0.01	4	-	<0.02
R-4	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-4	5/17/2010	FGL	617	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-4	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-4	5/9/2012	FGL	621	370	8.7	120	-	3	<1	138	2	40	84	140	<1.8	0.4	3	0.3	0.0134	<0.01	0.07	0.01	10	-	<0.02
R-4	5/7/2013	FGL	659	420	8.6	120	-	4	<1	147	2	43	97	150	<0.4	0.4	3	0.3	-	<0.01	0.08	0.01	9	2.23	<0.02
R-4	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
R-4	5/21/2014	FGL	608	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-4	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-6	10/1/2001	FGL	558	350	8.7	110	10.1	7	<1	108	1	58	67	140	<0.4	0.2	<2	0.16	-	<0.01	0.06	0.03	-	-	<0.02
R-6	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	<0.4	-
R-6	6/17/2002	TL	480	290	8.2	100	6.3	14	1.4	93	2	47	51	130	<2	-	-	0.1	0.011	<0.05	0.88	0.086	-	-	<0.05
R-6	5/16/2007	CLS	470	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-6	9/18/2007	FGL	510	310	8.7	110	10.1	8	<1	104	<1	55	64	130	<0.4	0.1	<2	<0.1	-	<0.01	<0.05	0.03	-	-	<0.02
R-6	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.3	<0.4	-
R-6	5/27/2009	FGL	498	300	8.4	100	8.9	10	<1	102	1	50	54	130	<0.4	0.1	<2	0.1	-	0.02	0.14	0.04	4	-	<0.02
R-6	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-6	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-6	5/9/2012	FGL	503	310	8.6	100	-	9	<1	100	1	55	61	120	<1.8	<0.1	11	0.1	-	<0.01	<0.05	0.03	30	-	<0.02
R-7	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	<0.4	-
R-7	10/1/2001	FGL	476	300	8.7	110	7.4	9	<1	88	1	58	43	130	<0.4	<0.1	<2	<0.05	-	<0.01	<0.05	0.02	-	-	<0.02
R-7	6/17/2002	TL	470	280	8.4	100	9	8	0.5	98	2	55	42	130	<2	-	-	0.1	<0.01	<0.05	<0.1	<0.03	-	-	<0.05
R-7	5/16/2007	CLS	460	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-7	9/20/2007	FGL	459	300	8.3	110	10.1	7	<1	97	<1	60	42	130	<0.4	0.2	<2	<0.05	-	<0.01	<0.05	0.01	-	-	<0.02
R-7	9/20/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	<0.4	-
R-7	9/18/2008	FGL	466	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-7	5/27/2009	FGL	452	270	8.6	100	10.9	6	<1	97	1	52	38	120	<0.4	0.1	<2	0.1	-	<0.01	<0.05	0.01	3	-	<0.02
R-7	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-7	5/17/2010	FGL	445	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-7	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-7	5/9/2012	FGL	419	260	8.7	90	-	7	<1	84	1	46	38	110	<1.8	0.1	<2	0.1	0.0054	<0.01	<0.05	0.01	4	-	<0.02
R-7	5/7/2013	FGL	423	290	8.5	90	-	6	<1	88	1	45	36	110	<0.4	<0.1	<2	0.1	-	<0.01	<0.05	0.01	5	<1	<0.02
R-8	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4	<0.4	-
R-8	10/2/2001	FGL	587	340	8.9	130	15.5	3	<1	121	1	59	66	160	<0.4	0.3	<2	0.22	-	<0.01	0.12	<0.01	-	-	<0.02
R-8	8/20/2002	FGL	616	420	8.7	140	18.3	2	<1	127	1	55	74	170	<0.4	0.2	-	0.2	-	<0.01	0.15	<0.01	-	-	<0.02

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Farmers Water District																									
R-8	8/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.7	<0.4	-
R-8	8/20/2002	TL	-	-	-	-	18.7	2	0.3	130	3	56	70	160	-	-	-	-	-	-	-	-	-	-	-
R-8	8/21/2002	CLS	620	380	-	140	17.1	2	<1	120	1	61	72	159	-	-	-	-	-	-	-	-	-	-	-
R-8	10/26/2005	FGL	536	350	8.7	150	-	2	<1	109	<1	53	37	180	<0.4	<0.1	<2	<0.1	-	<0.01	0.32	<0.01	-	-	<0.02
R-8	10/26/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	<0.4	-
R-8	5/15/2007	CLS	600	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-8	9/18/2007	FGL	630	380	8.8	140	27.8	2	<1	143	<1	63	74	150	<0.4	0.4	<2	0.2	-	<0.01	0.06	<0.01	-	-	<0.02
R-8	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	<0.4	-
R-8	9/18/2008	FGL	623	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-8	5/27/2009	FGL	603	380	8.7	130	27.3	2	<1	140	1	57	65	160	<0.4	0.3	<2	0.2	-	<0.01	0.05	<0.01	9	-	<0.02
R-8	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-8	5/17/2010	FGL	595	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-8	8/15/2011	FGL	597	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-8	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-8	5/9/2012	FGL	590	370	8.8	130	-	2	<1	130	1	57	62	150	<1.8	0.3	<2	0.2	-	<0.01	0.06	<0.01	9	-	<0.02
R-8	5/7/2013	FGL	588	380	8.7	130	-	3	<1	130	2	52	59	160	<0.4	0.2	<2	0.2	-	<0.01	0.06	<0.01	8	1	<0.02
R-8	5/20/2014	FGL	599	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-9	6/17/2002	TL	710	440	8.4	140	23	3	0.4	160	4	23	-	180	<2	-	-	0.3	0.011	<0.05	<0.1	<0.03	-	-	<0.05
R-9	6/17/2004	FGL	771	480	8.6	150	-	4	<1	165	2	58	115	160	<0.4	1	<2	0.3	-	<0.01	0.05	<0.01	-	-	<0.02
R-9	6/17/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.2	<0.4	-
R-9	10/26/2005	FGL	724	470	8.5	140	-	3	<1	142	2	47	105	170	<0.4	0.3	<2	0.3	-	<0.01	0.05	<0.01	-	-	<0.02
R-9	10/26/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.5	<0.4	-
R-9	8/8/2006	FGL	809	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-9	5/16/2007	CLS	340	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-9	9/20/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.4	<0.4	-
R-9	9/20/2007	FGL	787	470	8.7	150	28.5	3	<1	179	2	64	115	160	<0.4	0.5	<2	0.28	-	<0.01	0.07	<0.01	-	-	<0.02
R-9	9/18/2008	FGL	804	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-9	5/27/2009	FGL	766	450	8.6	140	23.8	4	<1	173	2	56	108	170	<0.4	0.5	<2	0.4	-	<0.01	<0.05	<0.01	14	-	<0.02
R-9	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-9	5/17/2010	FGL	763	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-9	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-9	5/9/2012	FGL	764	440	8.8	130	-	3	<1	168	2	58	107	160	<1.8	0.4	<2	0.4	0.0144	<0.01	0.05	<0.01	14	-	<0.02
R-9	5/7/2013	FGL	780	470	8.6	130	-	4	<1	175	3	64	118	160	1.5	0.4	<2	0.4	-	<0.01	0.06	<0.01	13	2.41	<0.02
R-9	5/21/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
R-9	5/21/2014	FGL	761	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-9	5/21/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-10	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.5	<0.4	-
R-10	10/2/2001	FGL	810	510	8.7	170	22.5	3	<1	176	2	76	104	200	<0.4	0.5	<2	0.51	-	<0.01	0.07	<0.01	-	-	<0.02
R-10	6/17/2002	TL	800	490	8.4	180	28.4	3	0.3	190	4	74	100	220	<2	-	-	0.5	0.01	<0.05	<0.1	<0.03	-	-	<0.05
R-10	6/17/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.7	<0.4	-
R-10	6/17/2004	FGL	818	530	8.6	170	-	3	<1	176	2	82	108	180	<0.4	0.6	<2	0.5	-	<0.01	0.06	0.01	-	-	<0.02
R-10	10/26/2005	FGL	562	360	8.7	170	-	2	<1	112	1	23	54	210	<0.4	0.3	<2	0.2	-	<0.01	0.07	<0.01	-	-	<0.02
R-10	10/26/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3	<0.4	-
R-10	5/15/2007	CLS	810	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-10	9/17/2007	FGL	856	530	8.7	160	30.7	3	<1	193	1	89	104	180	<0.4	0.4	<2	0.5	0.0112	<0.01	<0.05	<0.01	-	-	<0.02
R-10	9/17/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.1	<0.4	-
R-10	9/18/2008	FGL	846	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Farmers Water District																									
R-10	5/27/2009	FGL	844	530	8.6	150	31	3	<1	195	2	77	109	190	<0.4	0.5	<2	0.5	-	<0.01	<0.05	<0.01	14	-	<0.02
R-10	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-10	5/17/2010	FGL	859	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-10	8/15/2011	FGL	870	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-10	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-10	5/9/2012	FGL	877	540	8.6	150	-	3	<1	198	2	87	125	180	<1.8	0.3	<2	0.5	-	<0.01	<0.05	<0.01	14	-	<0.02
R-10	5/7/2013	FGL	893	570	8.6	150	-	3	<1	197	2	80	131	190	<0.4	0.4	<2	0.5	-	<0.01	<0.05	<0.01	14	2.71	<0.02
R-10	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
R-10	5/20/2014	FGL	896	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-10	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-11	8/24/2000	FGL	808	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-11	6/25/2001	FGL	739	470	8.6	150	22.1	2	<1	153	2	41	102	190	<0.1	0.4	<2	0.37	-	<0.01	0.09	<0.01	12	-	<0.02
R-11	6/25/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-11	6/25/2002	FGL	737	460	8.6	150	21	2	<1	146	2	34	106	190	<0.4	0.3	<2	0.4	-	<0.01	<0.05	<0.01	-	-	<0.02
R-11	6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	<0.4	-
R-11	8/20/2002	TL	540	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-11	8/20/2002	CLS	520	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-11	8/20/2002	FGL	535	370	8.7	140	-	<1	<1	115	<1	5	84	170	0.5	0.3	-	0.3	0.0041	<0.01	0.15	<0.01	-	-	<0.02
R-11	7/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2	<0.4	-
R-11	10/26/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.4	<0.4	-
R-11	10/26/2005	FGL	803	500	8.6	160	-	2	<1	156	2	39	118	190	<0.4	0.5	<2	0.4	-	<0.01	0.08	<0.01	-	-	<0.02
R-11	5/15/2007	CLS	790	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R-11	9/17/2007	FGL	810	480	8.4	150	34.9	2	<1	179	1	49	118	160	3	0.4	<2	0.4	0.0093	<0.01	0.09	<0.01	-	-	<0.02
R-11	9/17/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1	<0.4	-
R-11	9/18/2008	FGL	859	490	8.5	160	28.1	3	<1	177	2	41	141	190	<0.4	0.3	<2	0.4	0.011	<0.01	0.07	<0.01	-	-	<0.02
R-11	9/18/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.93	<0.4	-
R-11	5/27/2009	FGL	870	490	8.6	170	31.6	3	<1	199	2	40	145	200	<0.4	0.4	<2	0.4	0.0111	<0.01	0.05	<0.01	9	-	<0.02
R-11	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-11	5/17/2010	FGL	1000	600	8.4	190	32.1	3	<1	202	2	40	167	240	<0.4	0.3	<2	0.3	0.0141	<0.01	0.06	<0.01	8	-	<0.02
R-11	5/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-11	7/22/2011	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-
R-11	8/15/2011	FGL	1120	650	7.2	-	34.3	4	<1	249	2	16	180	330	<0.4	0.2	<2	0.3	0.0179	<0.01	0.09	0.01	-	-	<0.02
R-11	5/8/2012	FGL	1160	670	8.5	220	-	4	<1	261	3	41	215	270	<1.8	0.2	<2	0.4	0.0176	<0.01	<0.05	0.01	8	-	<0.02
R-11	5/8/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
R-11	5/7/2013	FGL	1220	750	8.6	230	-	5	<1	276	3	41	210	280	<0.4	0.2	<2	0.4	-	<0.01	<0.05	0.02	9	4.63	<0.02
R-11	5/20/2014	CAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
R-11	5/20/2014	FGL	1260	760	8.33	230	-	5	<1	260	3	41.1	236	280	<0.4	<0.1	<2	0.3	0.0241	<0.01	0.07	0.02	9	-	<0.02
R-11	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
R-12	5/20/2014	FGL	802	510	8.24	170	-	3	<1	170	2	80.1	97	210	<0.4	<0.1	<2	0.3	0.0128	<0.01	<0.05	0.01	9	-	<0.02
R-12	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
Baker Farming Co.																									
BF-1	8/25/1999	FGL	549	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-1	9/22/1999	FGL	686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-1	10/1/2001	FGL	497	300	8.9	120	17.3	1	<1	102	<1	44	53	140	<0.4	0.2	<2	0.12	-	<0.01	0.08	<0.01	-	-	<0.02
BF-1	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	<0.4	-
BF-1	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	<0.4	-

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Baker Farming Co.																									
BF-1	6/26/2002	FGL	555	380	8.7	120	15.9	2	<1	110	2	44	64	150	<0.4	0.2	<2	0.2	-	<0.01	0.08	<0.01	-	-	<0.02
BF-1	9/18/2007	FGL	492	290	8.5	110	30.8	1	<1	112	<1	49	55	130	<0.4	0.2	<2	<0.1	-	<0.01	0.08	<0.01	-	-	<0.02
BF-1	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.8	<0.4	-
BF-1	9/19/2008	FGL	474	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-1	5/17/2010	FGL	563	350	8.5	110	22.4	2	<1	115	1	52	64	140	<0.4	0.4	<2	0.2	-	<0.01	<0.05	<0.01	6	-	<0.02
BF-1	5/17/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
BF-1	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
BF-1	5/9/2012	FGL	548	350	8.7	110	-	2	<1	119	1	53	63	130	<1.8	0.3	<2	0.2	-	<0.01	0.06	<0.01	7	-	<0.02
BF-1	5/7/2013	FGL	588	390	8.6	110	-	2	<1	136	2	53	69	140	1.9	0.3	<2	0.3	-	<0.01	0.06	<0.01	9	<1	<0.02
BF-1	5/20/2014	FGL	457	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-2	8/25/1999	FGL	533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-2	6/25/2001	FGL	497	300	8.6	100	12.4	3	<1	97	<1	46	56	130	<0.1	0.1	<2	0.06	-	0.08	0.19	<0.01	2	-	<0.02
BF-2	6/25/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
BF-2	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	<0.4	-
BF-2	6/26/2002	FGL	496	310	8.6	100	12.5	3	<1	98	1	42	58	130	<0.4	<0.1	<2	0.1	-	<0.01	<0.05	<0.01	-	-	<0.02
BF-2	5/16/2007	CLS	510	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-2	9/18/2007	FGL	486	300	6.8	110	17.2	3	<1	108	<1	49	60	130	<0.4	<0.1	<2	<0.1	-	<0.01	<0.05	<0.01	-	-	<0.02
BF-2	9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	<0.4	-
BF-2	9/19/2008	FGL	486	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-2	5/27/2009	FGL	520	310	8.1	100	16.1	4	<1	117	2	56	57	120	0.8	0.2	<2	0.2	-	<0.01	0.94	<0.01	6	-	<0.02
BF-2	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
BF-2	5/18/2010	FGL	603	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-2	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
BF-2	5/9/2012	FGL	636	390	8.6	110	-	2	<1	137	2	78	83	130	<1.8	0.2	<2	0.3	-	<0.01	0.06	<0.01	9	-	<0.02
BF-2	5/7/2013	FGL	665	410	8.3	120	-	3	<1	151	2	77	81	140	<0.4	0.3	<2	0.4	-	<0.01	<0.05	<0.01	10	1	<0.02
BF-2	5/20/2014	FGL	703	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-3	10/1/2001	FGL	511	310	8.8	120	11.7	4	<1	101	<1	44	59	140	<0.4	<0.1	<2	0.09	-	<0.01	0.06	0.01	-	-	<0.02
BF-3	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5	<0.4	-
BF-3	5/16/2007	CLS	520	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-3	9/20/2007	FGL	515	330	9.5	120	15.4	4	<1	112	<1	49	62	140	0.8	0.1	<2	0.08	-	<0.01	<0.05	0.01	-	-	<0.02
BF-3	9/20/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	<0.4	-
BF-3	9/19/2008	FGL	521	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-3	5/7/2013	FGL	473	300	8.7	100	-	4	<1	103	1	44	51	130	<0.4	<0.1	<2	0.1	-	<0.01	<0.05	0.01	6	<1	<0.02
BF-3	5/20/2014	FGL	505	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-4	9/22/1999	FGL	562	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-4	10/2/2001	FGL	539	310	8.8	130	13.3	3	<1	104	1	43	64	150	<0.4	<0.1	<2	0.09	-	<0.01	<0.05	0.03	-	-	<0.02
BF-4	10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	<0.4	-
BF-4	5/16/2007	CLS	490	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-4	9/20/2007	FGL	500	290	8.4	120	13.1	5	<1	106	1	42	61	140	<0.4	0.2	<2	0.07	-	<0.01	<0.05	0.04	-	-	<0.02
BF-4	9/20/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6	<0.4	-
BF-4	9/19/2008	FGL	515	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-4	5/18/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
BF-4	5/18/2010	FGL	548	340	8.3	110	14.7	4	<1	107	1	48	65	140	<0.4	0.2	<2	0.2	-	<0.01	<0.05	0.03	5	-	<0.02
BF-4	5/7/2013	FGL	589	380	8.1	120	-	4	<1	130	2	53	70	140	<0.4	0.2	<2	0.2	-	<0.01	<0.05	0.03	7	<1	<0.02
BF-4	5/20/2014	FGL	608	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-5	10/1/2001	FGL	462	300	8.5	100	6	10	2	80	1	37	56	130	<0.4	<0.1	<2	0.11	-	<0.01	0.08	0.03	-	-	<0.02

Table E-2 (continued)
Summary of Groundwater Quality Laboratory Results (Deep Zone, Composite and Lower Aquifer)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Baker Farming Co.																									
BF-5	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.8	<0.4	-
BF-5	5/16/2007	CLS	470	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BF-5	9/19/2008	FGL	467	290	8.4	100	15.1	3	<1	95	<1	37	53	120	<0.4	0.1	<2	<0.1	0.006	<0.01	<0.05	0.02	-	-	<0.02
BF-5	9/19/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.85	<0.4	-
BF-5	5/18/2010	FGL	662	390	8.2	110	18	4	<1	131	2	73	82	140	<0.4	0.3	<2	0.3	-	<0.01	0.06	0.02	8	-	<0.02
BF-5	5/18/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
BF-5	5/20/2014	FGL	653	420	8.71	110	-	4	<1	128	2	72.1	85	140	<0.4	<0.1	<2	0.3	0.0144	<0.01	0.07	0.02	8	-	<0.02
BF-5	5/20/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
Panoche Creek Farms																									
PCF-1	6/25/2001	FGL	534	340	8.6	150	12.7	4	<1	110	1	38	51	180	<0.1	0.2	<2	0.15	-	<0.01	0.18	0.02	3	-	<0.02
PCF-1	6/25/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
PCF-1	10/1/2001	FGL	535	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCF-1	10/1/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
PCF-1	6/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8	<0.4	-
PCF-1	6/26/2002	FGL	575	390	8.6	160	13	4	<1	112	1	37	57	190	<0.4	0.1	<2	0.2	-	<0.01	<0.05	0.02	-	-	<0.02
PCF-1	5/15/2007	CLS	630	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCF-1	9/17/2007	FGL	619	400	8.8	170	19.7	4	<1	143	<1	53	71	200	0.5	0.2	<2	0.2	-	<0.01	<0.05	0.02	-	-	<0.02
PCF-1	9/17/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	<0.4	-
PCF-1	9/18/2008	FGL	633	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCF-1	5/27/2009	FGL	676	430	8.5	170	25.8	3	<1	162	1	56	69	200	<0.4	0.3	<2	0.3	-	<0.01	<0.05	0.02	6	-	<0.02
PCF-1	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
PCF-1	5/17/2010	FGL	685	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCF-1	5/9/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
PCF-1	5/9/2012	FGL	712	430	8.5	160	-	3	<1	162	1	67	80	200	<1.8	0.2	<2	0.2	-	<0.01	<0.05	0.02	6	-	<0.02
PCF-1	5/7/2013	FGL	701	450	8.3	180	-	3	<1	166	2	59	68	220	<0.4	0.1	<2	0.2	-	<0.01	<0.05	0.02	5	1	<0.02
PCF-1	5/20/2014	FGL	674	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1. Laboratory Abbreviations: AT - Agri Tech, Inc., Kerman; BCL - BC Laboratories, Bakersfield; BD - Betz Dearborn; BSK - BSK Analytical Laboratories, Fresno; CAL - Caltest Analytical Laboratories, Napa; CLS - California Laboratory Services, Rancho Cordova; FGL - Fruit Growers Laboratory, Santa Paula; JML - JM Lord, Fresno; JML(1) - JM Lord, Fresno (TDS estimated from EC); OBL = Olson Biochemistry Laboratories of South Dakota State University, Brookings, SD; TL - The Twining Laboratories, Inc., Fresno.; UAG - U.S. Agricultural Consultants and Laboratories, Burbank; USGS - U.S. Geological Survey

2. Constituent Abbreviations: EC - Electrical Conductivity; TDS - Total Dissolved Solids; SAR - Sodium Absorption Ratio; Ca - Calcium; Mg - Magnesium; Na - Sodium; K - Potassium; SO4 - Sulfate; Cl - Chloride; HCO3 - Bicarbonate; NO3 - Nitrate; F - Fluoride; As - Arsenic; B - Boron; Ba - Barium; Cu - Copper; Fe - Iron; Mn - Manganese; Mo - Molybdenum; Se - Selenium; Zn - Zinc

3. Electrical Conductivity at 25°C

4. HCO3, Total Alkalinity and NO3 reported as HCO3, CaCO3 and NO3 respectively. Some 2008 NO3 results may include NO2 in reported value.

NA = Not Available; ND = Non Detect (detection limit unknown)

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Table E-3
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mg/L)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-1	8/2/1982	TL	-	-	-	-	-	8	2	370	9	99	255	470	<1	-	<10	0.5	-	-	0.06	0.03	-	-	-
MW-1	11/1/1982	BCL	1480	890	9.2	-	52	2.5	0.51	345	2	93	206	390	<0.4	0.84	<10	0.44	-	-	0.06	0.02	-	-	-
MW-1	11/24/1982	UNK	1480	890	9.2	-	-	2.5	0.5	345	2	93	206	389.8	-	0.84	-	0.44	-	-	0.06	0.02	-	-	-
MW-1	5/5/1983	BCL	1400	973	8.6	-	52.4	2.9	0.6	375	1.2	120	203	428	<0.1	-	<10	-	-	-	0.05	0.03	-	-	-
MW-1	12/3/1983	UNK	-	1128	8.4	-	-	4	8	370	-	85	196	240	-	-	-	-	-	-	0.17	0.02	-	-	-
MW-1	5/22/1984	BCL	1780	1083	8.8	-	50.2	3	1.1	400	0.9	145	230	424	<0.4	-	-	-	-	-	0.08	0.04	-	-	-
MW-1	11/27/1984	UNK	1450	1033	8.3	-	-	3.4	1.7	355	0.7	110	185	474	-	-	-	0.44	-	-	-	0.03	-	-	-
MW-1	11/1/1985	UNK	1380	865	8.6	-	-	2.3	0.9	327	0.5	88	174	402	-	-	-	-	-	-	0.06	0.02	-	-	-
MW-1	9/27/1986	UNK	1510	950	8.6	-	-	2.4	1	352	0.6	114	190	468	-	-	-	0.56	-	-	-	0.02	-	-	-
MW-1	4/21/1987	BCL	1530	935	7.8	-	47.9	2.4	1	350	0.7	101	192	473	0.4	-	-	-	<0.1	-	0.06	0.03	-	-	-
MW-1	3/28/1988	BCL	1280	830	8.9	-	45.7	1.9	0.9	305	0.7	85	153	345	<0.4	-	-	-	<0.1	-	<0.05	0.01	-	-	-
MW-1	12/22/1988	BCL	1330	925	8.8	-	49	2	1	340	1	136	230	282	<0.4	-	-	-	-	-	<0.05	0.01	-	-	-
MW-1	12/15/1989	UNK	1480	905	8.9	-	-	2.6	1.5	325	0.6	124	225	304	-	-	-	-	-	-	-	0.024	-	-	-
MW-1	4/11/1990	BCL	1510	940	8.9	-	43.5	2.6	1.4	350	5	134	257	291	<0.4	-	5	-	<0.1	-	<0.05	0.021	-	-	-
MW-1	11/13/1990	UNK	-	1110	8.7	-	-	-	-	-	0.6	-	302	284	-	-	-	-	-	-	-	0.023	-	-	-
MW-1	6/10/1991	BCL	2400	1320	8.8	-	-	-	-	-	0.8	-	384	406	-	-	-	-	<0.1	-	-	-	-	-	-
MW-1	10/28/1991	UNK	2500	1365	8.8	-	-	5.3	2.8	530	0.7	209	299	542	4	0.6	-	0.56	-	-	-	49	-	-	-
MW-1	2/24/1992	BCL	2700	1570	8.6	-	54	4.8	2.3	575	0.5	384	267	632	<0.4	0.66	-	0.56	<0.1	-	<0.05	0.024	-	-	-
MW-1	10/19/1992	BCL	3600	2110	8.5	-	58	8	4	805	1.7	355	380	948	3.1	0.64	-	0.63	<0.1	-	<0.05	0.036	-	-	-
MW-1	3/3/1993	BCL	3900	2270	8.5	-	60.4	8.7	5.2	912	2	310	344	1230	<0.4	0.55	-	0.8	<0.1	-	0.059	0.046	-	-	-
MW-1	9/20/1993	UNK	4000	2230	8.4	-	-	9.5	4.9	937	2.5	340	350	1310	4	0.64	-	0.94	-	-	-	0.045	-	-	-
MW-1	3/8/1994	BCL	4050	2580	8.4	-	68.8	7.6	5.1	999	2.1	450	444	1270	<0.4	0.74	-	0.45	0.2	-	4.15	2.32	-	-	-
MW-1	9/19/1994	BCL	4050	2630	8.4	-	59.3	10.5	5.4	948	2.6	505	438	1090	1.3	0.38	-	0.86	<0.1	-	<0.05	0.046	-	-	-
MW-1	3/15/1995	BCL	4000	2580	8.4	-	66.9	8.5	4.9	989	2.7	489	493	1100	5.8	0.44	-	0.86	<0.1	-	<0.05	0.021	-	-	-
MW-1	10/9/1995	UNK	4270	2690	8.3	-	-	10.9	6.5	1020	2.4	365	488	1430	4	0.72	-	1.2	-	-	-	0.032	-	-	-
MW-1	4/2/1996	BCL	4300	2590	8.4	-	56.1	11.5	7.4	992	2.6	440	520	1280	<0.4	0.6	-	1	<0.1	-	<0.05	0.085	-	-	-
MW-1	9/30/1996	BCL	3660	2300	9.0	-	59.4	8.2	5.6	901	2.2	336	445	1070	8.9	0.54	-	1	<0.1	-	<0.05	0.067	-	-	-
MW-1	6/2/1997	BCL	2340	1440	8.6	-	54.4	3.8	2.4	550	1.4	186	241	665	<0.4	0.59	-	0.84	<0.1	-	<0.05	0.037	-	-	-
MW-1	3/18/1998	BSK	3600	2200	8.3	1100	59.5	9	4.6	880	1.8	<50	410	1342	<25	<2.5	31	1.3	0.06	-	<0.05	0.07	-	2	-
MW-1	8/25/1998	BSK	3300	2000	8.4	960	57.3	7.8	3.8	780	2.4	210	390	1171	<2	<1	-	1.2	<0.05	-	<0.05	0.06	-	-	-
MW-1	4/20/1999	BSK	2800	1800	8.4	780	58.4	6.1	3.1	710	2	370	490	952	<6	<3	-	1	<0.05	-	<0.05	0.04	-	-	-
MW-1	11/14/1999	BSK	3800	2400	8.2	1400	55.8	10	5.1	870	2	190	430	1708	<10	<5	-	1.2	0.05	-	<0.05	0.08	-	-	-
MW-1	5/21/2000	BSK	3400	2200	8.2	1100	60.3	8.9	4.4	880	<2	210	400	1342	<8	<4	-	1.2	0.05	-	<0.05	0.07	-	-	-
MW-1	12/19/2000	BSK	3900	2500	8.2	1300	60.7	7.6	4	830	2	220	440	1586	<10	<5	-	1.2	<0.05	-	<0.05	0.06	-	-	-
MW-1	6/5/2001	BSK	3800	2600	8.1	1400	67.7	8.3	5	1000	2	200	490	1708	-	<5	-	1.3	<0.05	-	<0.05	0.08	-	-	-
MW-1	10/2/2001	UNK	4300	2200	8.0	1400	-	11	6.1	1100	ND	210	480	1400	ND	ND	-	1.3	0.06	-	ND	0.1	-	-	-
MW-1	5/2/2002	BSK	4100	2400	8.2	1500	-	7.4	4.4	980	2	180	500	1500	<12	<6	-	1.2	0.06	-	<0.05	0.08	-	-	-
MW-1	9/17/2002	TL	4400	2700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	12/10/2002	BSK	4000	2500	8.2	1300	-	7.4	5.3	920	2	140	490	-	-	ND	-	1.2	0.06	-	ND	0.12	-	-	-
MW-1	1/13/2003	TL	4000	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	3/23/2003	BSK	3800	2400	8.0	1200	-	7.2	5.3	920	<2	130	460	1460	<27	<3	-	1.1	0.06	-	0.06	0.12	-	-	-
MW-1	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	38.2	<0.4	-
MW-1	9/30/2003	TL	4000	2700	7.9	1400	-	7.2	5.7	1100	8.3	160	490	1700	<1.8	-	-	1.2	0.06	<0.05	<0.05	0.14	-	-	<0.05
MW-1	10/24/2003	BSK	4200	2700	8.3	1500	-	8.2	6.8	1000	3	180	490	-	-	ND	-	1.2	0.06	-	ND	0.14	-	-	-
MW-1	3/4/2004	TL	3800	2400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	4/1/2004	UNK	3800	2400	8.2	1400	-	9	7	980	3	120	460	1400	ND	ND	-	1.1	0.06	-	ND	0.13	-	-	-
MW-1	11/14/2004	BSK	4000	2500	8.3	1500	-	9.5	8.8	920	3	120	470	1830	<9	<1	-	1.1	0.06	-	<0.05	0.15	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-1	3/2/2005	TL	4000	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	-	0.12	33	-	-
MW-1	4/7/2005	UNK	4200	2600	8.3	1500	-	12	8.7	960	3	160	490	1500	ND	0.6	-	1.2	0.07	-	ND	0.14	-	-	-
MW-1	8/9/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	38	<0.4	-
MW-1	8/9/2005	TL	4100	2900	7.9	1600	-	12	10	1100	9.5	190	470	2000	<2	-	-	1.4	0.089	<0.005	0.1	0.17	-	-	<0.005
MW-1	10/13/2005	UNK	4700	2900	8.4	1700	-	15	13	1200	ND	100	540	1600	ND	ND	-	1.6	0.1	-	ND	0.19	-	-	-
MW-1	4/20/2006	UNK	5140	2978	8.3	1682	-	13.6	12	1060	11.7	228	-	1682	ND	0.2	-	1.2	0.09	-	0.03	0.18	-	-	-
MW-1	4/20/2006	TL	4500	3000	8.1	1100	-	14	13	1200	11	220	490	-	<2	-	-	-	-	<0.01	<0.2	0.17	-	-	<0.01
MW-1	9/26/2006	UNK	5380	3045	8.1	1410	-	15.1	14	968	7	367	-	1410	ND	ND	-	1.37	0.1	-	0.03	0.26	-	-	-
MW-1	9/26/2006	TL	4600	3100	7.9	1600	-	17	15	1200	9.7	310	510	-	<20	-	<50	1.5	0.13	<0.025	<0.5	0.29	<25	<100	<0.025
MW-1	3/28/2007	TL	4300	2800	8.0	1200	-	14	13	1000	11	400	410	1500	-	-	ND	1.2	0.18	ND	ND	0.2	19	ND	0.027
MW-1	9/24/2007	TL	2000	820	8.1	520	-	3.7	4	450	4.7	170	180	620	-	-	ND	0.7	0.023	ND	0.11	0.075	-	-	ND
MW-1	9/24/2007	UNK	1900	900	-	-	-	-	-	-	-	-	-	600	ND	-	-	-	-	-	-	-	-	-	-
MW-1	4/6/2008	BCL	1520	980	8.34	-	-	-	-	-	-	150	160	476	<0.4	-	-	-	-	-	-	-	-	-	-
MW-1	9/3/2008	BCL	1720	1100	8.4	-	-	-	-	-	-	150	180	573	<0.4	-	-	-	0.02	-	-	-	-	-	-
MW-1	4/2/2009	BCL	1820	1200	8.15	540	-	4.9	6	450	2	160	200	650	-	-	-	-	-	<0.002	0.14	0.087	-	-	0.0061
MW-1	4/2/2009	UNK	-	1300	8.2	-	-	-	-	-	-	150	-	530	ND	-	-	-	0.023	-	-	-	-	-	-
MW-1	10/2/2009	BSK	1800	1000	8.3	-	-	-	-	-	-	140	200	647	<5	-	-	-	-	-	-	-	-	-	-
MW-1	10/20/2009	BCL	1760	1200	8.18	540	-	14	16	450	2.3	160	210	660	<0.4	-	<2	0.51	0.049	<0.002	0.22	0.28	-	-	0.0052
MW-1	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.6	<0.4	-
MW-1	5/20/2010	BCL	2050	1400	8.1	630	-	10	10	480	2.4	140	250	760	<0.4	-	-	-	-	<0.002	0.27	0.17	-	-	<0.005
MW-1	9/15/2010	BCL	1460	1100	8.16	390	-	6.6	6.2	350	1.7	160	150	480	-	-	<2	0.41	0.026	<0.002	0.2	0.11	-	-	<0.005
MW-1	9/15/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.9	<0.4	-
MW-1	4/20/2011	BCL	1130	740	7.94	250	-	7.3	7.2	260	1.5	160	120	310	<0.4	-	-	-	-	<0.002	0.17	0.098	-	-	<0.005
MW-1	9/1/2011	BCL	1380	850	7.9	270	-	13	13	290	2.1	210	130	330	<0.4	-	2.4	0.43	0.037	<0.002	0.26	0.23	-	-	<0.005
MW-1	9/1/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-1	3/29/2012	BCL	1470	980	7.94	260	-	15	14	330	2	290	140	317	<0.4	-	-	-	-	<0.002	0.23	0.2	-	-	0.0062
MW-1	10/3/2012	BCL	847	520	8.16	180	-	7	6.7	170	1.2	110	92	220	<0.4	-	<2	0.36	0.014	<0.002	0.073	0.098	7.8	-	0.017
MW-1	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-1	5/7/2013	BCL	620	370	8.21	170	-	5.2	5	1.3	<1	63	54	200	<0.4	-	-	-	-	<0.002	0.07	0.066	-	-	<0.005
MW-1	10/23/2013	BCL	722	450	8.2	-	-	-	-	-	-	87	63	170	<0.4	-	-	-	-	-	-	-	-	-	-
MW-1	5/15/2014	BCL	1930	1100	8.0	-	-	-	-	-	-	160	210	450	<0.9	-	-	-	-	-	-	-	-	-	-
MW-1	10/16/2014	BCL	2010	1200	8.1	-	-	-	-	-	-	250	210	470	0.3	-	-	-	-	-	-	-	-	-	-
MW-2	8/3/1982	TL	-	-	-	-	-	68	50	375	5	7	184	1130	<1	-	<10	0.5	-	-	0.31	1.4	-	-	-
MW-2	4/21/1987	UNK	2200	1140	7.6	-	-	76	47	338	4	8	179	1036	1.8	-	-	-	0.14	-	0.22	2.2	-	-	-
MW-2	3/28/1988	UNK	1975	1105	7.8	-	-	77	45	340	4.6	-	176	1047	-	-	-	-	0.14	-	4.2	2.2	-	-	-
MW-2	12/22/1988	BCL	1770	1005	7.6	-	7.2	61	43	300	3	12	168	880	0.9	-	-	-	0.1	-	<0.05	1.3	-	-	-
MW-2	12/14/1989	UNK	2300	1380	7.5	-	-	76	41	355	4.2	18	184	1045	-	-	-	-	-	-	4.9	2.042	-	-	-
MW-2	4/11/1990	UNK	2200	1235	7.4	-	-	77	39	360	37	29	202	1047	-	-	-	-	-	-	3.2	2.092	-	-	-
MW-2	11/13/1990	UNK	-	880	7.1	-	-	-	-	-	2.4	-	152	535	-	-	-	-	-	-	0.987	0.499	-	-	-
MW-2	6/10/1991	UNK	2100	1230	7.0	-	-	-	-	-	6.5	-	188	304	-	-	-	-	0.157	-	-	-	-	-	-
MW-2	10/28/1991	UNK	2200	1255	7.5	-	-	67	33	360	5.3	-	196	1030	-	0.35	-	0.4	0.125	-	3920	1660	-	-	-
MW-2	2/24/1992	UNK	2200	1260	7.5	-	-	68	33	380	6.9	9	194	1070	8	0.38	-	0.4	0.151	-	3.89	1.76	-	-	-
MW-2	10/19/1992	UNK	2300	1320	7.4	-	-	61	30	385	6.6	-	196	1070	-	0.37	-	0.47	0.149	-	3.65	1.81	-	-	-
MW-2	3/1/1993	UNK	2200	1230	7.4	-	-	64	38	383	6.6	-	214	1050	-	0.38	-	0.45	0.154	-	3.86	1.93	-	-	-
MW-2	9/20/1993	UNK	2200	1170	7.4	-	-	72	34	366	8.2	-	206	1040	-	0.35	-	0.43	0.17	-	4.01	2.12	-	-	-
MW-2	3/8/1994	UNK	2050	1230	7.3	-	-	75	35	355	8.5	16	210	1000	-	0.34	-	0.45	0.199	-	4.15	2.32	-	-	-
MW-2	9/19/1994	UNK	2120	1320	7.3	-	-	68	37	356	10.1	20	204	1020	-	0.3	-	0.38	0.16	-	0.059	2.37	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-2	3/15/1995	UNK	2200	1350	7.4	-	-	0.79	0.4	395	10.8	36	240	1020	-	0.31	-	0.42	0.18	-	-	2.46	-	-	-
MW-2	10/17/1995	UNK	2190	2190	7.4	-	-	85	38	362	8.9	-	235	1080	-	0.27	-	0.45	0.161	-	-	2.48	-	-	-
MW-2	4/3/1996	UNK	2140	1200	7.4	-	-	94	45	346	7.2	-	210	210	-	0.29	-	0.42	0.154	-	-	2.72	-	-	-
MW-2	9/30/1996	UNK	2170	1300	8.1	-	-	86	44	374	6.2	-	217	1110	-	0.31	-	0.43	0.154	-	-	2.42	-	-	-
MW-2	6/2/1997	UNK	2140	1300	7.9	-	-	78	37	392	5.7	-	194	1110	-	0.37	-	-	0.132	-	-	2.19	-	-	-
MW-2	3/18/1998	UNK	2100	1300	7.5	-	-	81	35	400	5.8	-	180	930	-	-	-	0.43	0.15	-	-	2.1	-	-	-
MW-2	8/25/1998	UNK	2200	1300	7.4	-	-	84	35	380	6.9	ND	210	910	ND	ND	-	0.44	0.15	-	ND	2.3	-	-	-
MW-2	4/20/1999	BSK	2200	1300	7.3	930	8.2	110	44	400	8	<50	220	1135	<5	<2.5	-	0.4	0.18	-	<0.05	2.6	-	-	-
MW-2	11/15/1999	UNK	2300	1400	7.7	-	-	110	41	370	8	ND	230	900	ND	ND	-	0.4	0.19	-	ND	4.1	-	-	-
MW-2	5/21/2000	BSK	2100	1400	7.3	940	7.9	99	36	360	7	<50	220	1147	<5	<2.5	-	0.4	0.17	-	<0.05	2.6	-	-	-
MW-2	12/19/2000	BSK	2200	1300	7.3	980	8.7	85	32	370	7	<50	200	1196	<5	<2.5	-	0.4	0.15	-	<0.05	2.2	-	-	-
MW-2	6/5/2001	BSK	2200	1400	7.0	1000	8.3	100	41	390	9	<60	250	1220	-	<3	-	0.4	0.18	-	<0.05	3.5	-	-	-
MW-2	10/2/2001	UNK	2500	1400	7.1	1000	-	110	44	390	10	ND	230	1000	ND	ND	-	0.4	0.2	-	ND	3.4	-	-	-
MW-2	5/2/2002	BSK	2300	1400	7.6	950	-	94	35	350	6	<70	220	950	<7	<3.5	-	0.4	0.18	-	<0.05	2.7	-	-	-
MW-2	9/17/2002	TL	2400	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/11/2002	BSK	2300	1400	7.4	910	-	74	29	360	4	ND	220	-	-	ND	-	0.4	0.16	-	ND	1.8	-	-	-
MW-2	1/13/2003	TL	2500	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	3/23/2003	BSK	2400	1400	7.5	980	-	91	35	370	6	<40	240	1200	<18	<2	-	0.4	0.18	-	<0.05	2.6	-	-	-
MW-2	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	1.8	<0.4	-
MW-2	9/30/2003	TL	2400	1500	7.1	990	-	110	43	420	20	41	500	1200	<1.8	-	-	0.41	0.26	<0.05	6.4	3.1	-	-	<0.05
MW-2	10/24/2003	BSK	2300	1400	7.8	-	-	110	41	350	8	ND	230	-	-	ND	-	0.4	0.17	-	ND	2.9	-	-	-
MW-2	3/4/2004	TL	2400	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	4/1/2004	UNK	2500	1600	7.7	1100	-	130	50	440	12	ND	290	1100	ND	ND	-	0.4	0.22	-	ND	3.6	-	-	-
MW-2	11/14/2004	BSK	2600	1600	7.7	1200	-	110	51	430	12	<2	280	1460	<4	0.7	-	0.4	0.21	-	<0.05	3.3	-	-	-
MW-2	3/2/2005	TL	2900	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	3.8	<5	-	-
MW-2	4/7/2005	UNK	2800	1700	7.8	1200	-	120	53	430	14	ND	320	1200	ND	ND	-	0.4	0.23	-	ND	3.7	-	-	-
MW-2	8/9/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	-	-	-	-	-	1.7	<0.4	-
MW-2	8/9/2005	TL	2500	1600	7.0	1100	-	120	53	430	23	<20	280	1400	<2	-	-	0.39	0.31	<0.005	9	3.5	-	-	<0.005
MW-2	10/13/2005	UNK	2700	1600	7.9	1100	-	120	55	450	12	ND	290	1100	ND	ND	-	0.5	0.23	-	ND	3.6	-	-	-
MW-2	4/20/2006	UNK	2772	1620	7.5	1161	-	115	50.8	399	17.6	ND	291	1161	ND	0.2	-	0.32	0.2	-	0.02	3.4	-	-	-
MW-2	4/20/2006	TL	2600	1700	7.2	1100	-	120	56	480	26	<2	280	-	<2	-	-	-	-	<0.01	9.5	3.4	-	-	<0.01
MW-2	9/26/2006	UNK	2902	1682	7.4	1160	-	122	54.4	452	15	ND	314	1160	ND	ND	-	0.43	0.2	-	0.02	3.56	-	-	-
MW-2	9/26/2006	TL	2700	1700	7.2	1100	-	130	58	430	26	<10	290	-	<10	-	42	0.41	0.32	<0.01	9.7	3.4	<10	<40	<0.01
MW-2	3/28/2007	TL	2700	1900	7.3	1100	-	120	55	440	24	ND	310	1300	-	-	25	0.42	0.33	ND	ND	3.1	ND	ND	0.028
MW-2	9/24/2007	TL	2600	1300	7.1	1100	-	110	53	440	25	-	240	1300	-	-	26	0.41	0.22	ND	8.7	2.9	-	-	ND
MW-2	9/24/2007	UNK	2500	1500	7.2	-	-	-	-	-	-	ND	250	1400	ND	-	-	-	-	-	-	-	-	-	-
MW-2	4/6/2008	BCL	2720	1700	7.36	-	-	-	-	-	-	6.6	290	1464	<0.4	-	-	-	-	-	-	-	-	-	-
MW-2	9/3/2008	BCL	2650	1600	7.4	-	-	-	-	-	-	<1	300	1342	<0.4	-	-	-	0.23	-	-	-	-	-	-
MW-2	4/2/2009	BCL	2500	1700	7.32	1100	-	120	56	460	12	2	290	1300	-	-	-	-	-	<0.002	8.4	3	-	-	<0.005
MW-2	4/2/2009	UNK	2590	1300	7.4	-	-	-	-	-	-	3	-	1100	ND	-	-	-	0.23	-	-	-	-	-	-
MW-2	10/2/2009	BSK	2600	1500	7.9	-	-	-	-	-	-	<20	280	1464	<10	-	-	-	-	-	-	-	-	-	-
MW-2	10/20/2009	BCL	2670	1500	7.53	1100	-	120	59	490	13	<2	300	1300	<0.9	-	29	0.45	0.3	<0.002	8.3	3.1	-	-	<0.005
MW-2	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	<0.4	-
MW-2	5/20/2010	BCL	2600	1400	7.46	1000	-	130	60	330	21	7.7	310	1200	<0.9	-	-	-	-	<0.002	10	3.4	-	-	0.0056
MW-2	9/15/2010	BCL	2610	1500	7.52	1000	-	120	56	450	15	6.5	320	-	1.7	-	37	0.42	0.33	<0.002	7.3	3.3	-	-	<0.005
MW-2	9/15/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.65	<0.4	-
MW-2	4/20/2011	BCL	2220	1500	7.36	920	-	100	48	410	11	4.2	270	1100	<0.4	-	-	-	-	<0.002	7.8	2.6	-	-	<0.005

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-2	9/1/2011	BCL	2140	1400	7.49	800	-	89	41	370	13	4.1	240	970	0.64	-	22	0.44	0.23	<0.002	6.2	2.1	-	-	<0.005
MW-2	9/1/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-2	3/29/2012	BCL	1800	1200	7.49	690	-	73	33	300	9.7	5	200	866	1.4	-	-	-	-	<0.002	4.6	1.7	-	-	<0.005
MW-2	10/3/2012	BCL	1720	1100	7.62	690	-	64	30	310	10	3.5	190	830	<0.9	-	27	0.4	0.17	<0.002	5	1.5	2.5	-	<0.005
MW-2	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-2	5/7/2013	BCL	1330	800	7.84	510	-	40	18	240	7.8	6.3	140	620	<0.4	-	-	-	-	<0.002	2.7	0.83	-	-	<0.005
MW-2	10/23/2013	BCL	1490	880	7.7	-	-	-	-	-	-	35	170	510	<0.4	-	-	-	-	-	-	-	-	-	-
MW-2	5/15/2014	BCL	1650	930	7.8	-	-	-	-	-	-	1	160	580	<0.4	-	-	-	-	-	-	-	-	-	-
MW-2	10/16/2014	BCL	1850	890	7.6	-	-	-	-	-	-	1	200	700	ND	-	-	-	-	-	-	-	-	-	-
MW-3	8/2/1982	TL	-	-	-	-	-	103	22	340	25	6	199	1015	<1	-	30	0.4	-	-	0.08	1.4	-	-	-
MW-3	11/24/1982	UNK	2100	1070	7.6	-	-	73	27	355	28	-	168.5	1091	-	0.34	-	0.3	-	-	11.7	1	-	-	-
MW-3	5/5/1983	UNK	1790	1147	7.4	-	-	64	32.5	295	39	15	165	910	-	-	-	-	-	-	18	1.1	-	-	-
MW-3	12/3/1983	UNK	1900	-	-	-	-	-	-	240	-	-	157	-	-	-	-	-	-	-	13.8	1	-	-	-
MW-3	5/22/1984	UNK	1810	1033	7.6	-	-	86	30	242	33	5	156	812	-	-	-	-	-	-	19	1.1	-	-	-
MW-3	11/27/1984	UNK	1890	1227	7.5	-	-	75	34	245	26	6	165	895	-	-	-	0.25	-	-	18	1.3	-	-	-
MW-3	11/1/1985	UNK	1800	1150	7.3	-	-	103	30	235	30.5	-	178	837	-	-	-	-	-	-	12.6	1.2	-	-	-
MW-3	9/25/1986	UNK	1800	1120	7.4	-	-	101	26	230	31	9	186	868	-	-	-	-	-	-	0.07	0.92	-	-	-
MW-3	4/21/1987	UNK	1850	1105	7.6	-	-	109	28	235	34	6	176	936	53.1	-	-	-	0.2	-	16.4	1	-	-	-
MW-3	3/28/1988	UNK	1925	1105	7.23	-	-	110	27	260	35	-	185	962	43.4	-	-	-	0.12	-	-	0.55	-	-	-
MW-3	12/22/1988	BCL	1325	735	7.3	-	5.5	51	17	176	14	15	150	533	<0.4	-	-	-	-	-	<0.05	0.3	-	-	-
MW-3	12/15/1989	UNK	1780	1050	7.3	-	-	119	23	263	41	25	187	874	-	-	-	-	-	-	17.3	0.942	-	-	-
MW-3	4/11/1990	UNK	2400	1215	7.2	-	-	129	25	275	39	26	210	1060	-	-	-	-	-	-	0.351	0.954	-	-	-
MW-3	11/13/1990	UNK	-	1435	6.9	-	-	-	-	-	44	-	282	1293	-	-	-	-	0.166	-	10	0.574	-	-	-
MW-3	6/10/1991	UNK	3200	1620	7.1	-	-	-	-	-	46	-	317	1572	-	-	-	-	0.466	-	-	-	-	-	-
MW-3	10/28/1991	UNK	3700	1995	7.1	-	-	206	49	540	40.6	7	395	1700	-	0.29	-	0.31	0.497	-	26.73	2.22	-	-	-
MW-3	2/24/1992	UNK	4400	2760	7.2	-	-	215	58	575	83	11	514	-	-	0.27	-	0.33	0.943	-	28.5	2.49	-	-	-
MW-3	10/19/1992	UNK	5500	2950	7.2	-	-	173	44	740	228	-	605	2480	-	0.3	-	0.41	1.7	-	12.8	1.45	-	-	-
MW-3	3/1/1993	UNK	5500	3040	7.1	-	-	172	57	749	246	-	630	2460	-	0.3	-	0.37	1.69	-	22.9	1.28	-	-	-
MW-3	9/20/1993	UNK	5000	2630	7.0	-	-	142	44	644	289	40	565	2120	-	0.35	-	0.42	1.76	-	20.5	1.11	-	-	-
MW-3	3/8/1994	UNK	3990	2350	7.1	-	-	162	48	554	152	10	474	1560	-	0.27	-	0.41	1.2	-	21	1.44	-	-	-
MW-3	9/19/1994	UNK	3250	1870	7.1	-	-	134	39	440	81	12.5	322	1540	-	0.31	-	0.36	0.33	-	0.13	1.76	-	-	-
MW-3	3/15/1995	UNK	3770	2140	7.0	-	-	139	38	569	123	-	401	1820	-	0.33	-	0.43	0.457	-	0.095	1.49	-	-	-
MW-3	10/9/1995	UNK	3080	1730	7.1	-	-	103	29	470	86	-	307	1510	-	0.41	-	0.45	0.3	-	0.054	1.25	-	-	-
MW-3	4/3/1996	UNK	2550	1420	7.3	-	-	91	27	416	50	10	220	1340	-	0.38	-	0.46	0.197	-	-	1.12	-	-	-
MW-3	9/30/1996	UNK	2400	1460	7.9	-	-	108	33	406	27	4.4	197	1300	-	0.38	-	0.49	0.126	-	-	1.51	-	-	-
MW-3	6/2/1997	UNK	2430	1450	7.7	-	-	106	38	392	26	69.6	182	1200	4	0.54	-	0.5	0.107	-	-	1.95	-	-	-
MW-3	3/18/1998	UNK	2300	1400	7.2	-	-	110	33	400	26	-	190	1000	57.6	-	-	0.49	0.13	-	-	1.5	-	-	-
MW-3	8/25/1998	UNK	2400	1400	7.1	-	-	110	36	380	22	60	210	970	ND	0.5	-	0.51	0.13	-	0.31	1.9	-	-	-
MW-3	4/20/1999	BSK	2300	1400	7.1	-	9.8	98	30	430	22	<50	200	970	<0.2	-	-	0.4	-	-	0.14	1.3	-	-	-
MW-3	11/1/1999	BSK	2500	1500	7.8	-	6.9	150	42	370	26	75	260	950	<0.2	-	-	0.4	-	-	0.3	2.2	-	-	-
MW-3	11/14/1999	UNK	2500	1500	7.76	-	-	150	42	370	26	75	260	950	ND	ND	-	0.4	0.13	-	0.31	2.2	-	-	-
MW-3	5/21/2000	BSK	2300	1400	7.3	1100	8.1	110	34	380	23	<50	240	1342	<5	<2.5	-	0.4	0.12	-	<0.05	1.6	-	-	-
MW-3	12/19/2000	BSK	2500	1400	7.1	1000	7.7	110	35	360	24	<60	240	-	<6	<3	-	0.4	0.12	-	<0.05	1.4	-	-	-
MW-3	6/5/2001	BSK	2400	1500	6.8	995	7.4	130	43	380	25	<60	280	1214	-	<3	-	0.4	0.13	-	<0.05	1.8	-	-	-
MW-3	10/2/2001	UNK	2700	1600	6.8	1000	-	150	47	370	24	ND	300	1000	ND	ND	-	0.4	0.14	-	ND	2.2	-	-	-
MW-3	3/27/2002	FGL	2510	1480	6.9	1030	7.9	108	33	365	21	1	230	1260	<0.4	0.4	60	0.47	0.21	<0.01	17.9	1.79	-	<10	<0.02
MW-3	4/23/2002	TL	2400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-3	5/2/2002	BSK	2600	1400	7.3	1000	-	120	37	360	21	<80	270	1000	<8	<4	-	0.5	0.14	-	<0.05	1.7	-	-	-
MW-3	9/17/2002	TL	2700	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	12/10/2002	BSK	2400	1500	7.6	960	-	82	25	380	13	ND	240	-	-	ND	-	0.5	0.1	-	ND	1.2	-	-	-
MW-3	1/13/2003	TL	2800	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	3/23/2003	BSK	2600	1600	7.3	1000	-	110	33	380	19	<40	280	1220	<18	<2	-	0.4	0.15	-	<0.05	1.8	-	-	-
MW-3	9/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-	-	11.1	<0.4	-
MW-3	9/29/2003	TL	3000	1800	6.9	1200	-	130	44	490	43	41	290	1500	<1.8	-	-	0.46	0.28	<0.05	25	2.1	-	-	<0.05
MW-3	10/24/2003	BSK	2800	1700	7.6	1300	-	130	43	400	27	ND	300	-	-	ND	-	0.4	0.11	-	ND	1.9	-	-	-
MW-3	3/4/2004	TL	2700	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	4/1/2004	UNK	2600	1500	7.7	1100	-	110	39	430	25	ND	270	1100	ND	ND	-	0.5	0.14	-	ND	1.6	-	-	-
MW-3	11/14/2004	BSK	2500	1500	7.7	1100	-	92	35	420	22	29	240	1340	<4	0.7	-	0.5	0.1	-	<0.05	1.4	-	-	-
MW-3	3/2/2005	TL	1800	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	0.47	-	-	-	0.8	<5	-	-
MW-3	4/7/2005	UNK	1800	970	7.8	670	-	48	16	290	20	35	180	670	ND	0.6	-	0.4	ND	-	ND	0.66	-	-	-
MW-3	8/9/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	-	-	-	-	-	3.1	<0.4	-
MW-3	8/9/2005	TL	1300	850	7.2	540	-	36	11	270	26	29	150	660	<2	-	-	0.42	0.079	<0.005	5	0.54	-	-	<0.005
MW-3	10/13/2005	UNK	1600	920	8.0	640	-	42	14	280	17	ND	150	640	ND	ND	-	0.5	ND	-	ND	0.53	-	-	-
MW-3	4/20/2006	UNK	997	578	7.7	335	-	16.6	5.4	198	17.2	33	110	335	ND	0.7	-	0.33	0.01	-	0.08	0.22	-	-	-
MW-3	4/20/2006	TL	940	600	7.4	320	-	17	5.4	200	21	33	120	-	<2	-	-	-	-	<0.005	2.8	0.25	-	-	<0.005
MW-3	9/26/2006	UNK	1048	612	7.7	365	-	18.6	5.8	187	14.5	36	116	356	ND	0.4	-	0.33	0.01	-	0.04	0.27	-	-	-
MW-3	9/26/2006	TL	1000	630	7.4	350	-	20	6.3	190	22	36	100	-	<10	-	79	0.34	0.043	<0.005	2.9	0.29	<5	<20	<0.005
MW-3	3/28/2007	TL	930	550	7.5	250	-	16	5	170	19	62	110	310	-	-	60	0.34	0.079	ND	ND	0.18	8	ND	0.022
MW-3	9/24/2007	TL	1800	800	7.1	720	-	66	20	310	37	36	150	880	-	-	54	0.42	0.05	ND	11	0.79	-	-	ND
MW-3	9/24/2007	UNK	1700	1000	7.2	-	-	-	-	-	-	38	160	1700	ND	-	-	-	-	-	-	-	-	-	-
MW-3	4/6/2008	BCL	1560	930	7.53	-	-	-	-	-	-	22	150	793	<0.4	-	-	-	-	-	-	-	-	-	-
MW-3	9/3/2008	BCL	1640	940	7.4	-	-	-	-	-	-	32	160	781	0.2	-	-	-	0.042	-	-	-	-	-	-
MW-3	4/2/2009	BCL	1730	1100	7.33	640	-	74	23	330	25	88	180	790	-	-	-	-	-	<0.002	12	0.88	-	-	0.0069
MW-3	4/2/2009	UNK	1790	980	7.4	-	-	-	-	-	-	-	170	640	ND	-	-	-	0.067	-	-	-	-	-	-
MW-3	10/2/2009	BSK	1200	690	8.1	-	-	-	-	-	-	<10	120	610	<5	-	-	-	-	-	-	-	-	-	-
MW-3	10/20/2009	BCL	1260	740	7.73	470	-	32	10	240	17	8.2	130	570	<0.4	-	77	0.41	0.073	<0.002	4.6	0.4	-	-	0.0061
MW-3	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	<0.4	-
MW-3	5/20/2010	BCL	1950	1300	6.89	290	-	110	33	270	30	500	190	350	22	-	-	-	-	0.0031	12	1.9	-	-	0.021
MW-3	9/15/2010	BCL	906	660	7.69	290	-	17	5.7	180	10	54	85	360	-	-	47	0.34	0.037	<0.002	2.5	0.23	-	-	<0.005
MW-3	9/15/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	<0.4	-
MW-3	4/20/2011	BCL	996	640	7.43	220	-	27	8.5	200	14	130	110	260	<0.4	-	-	-	-	<0.002	4	0.33	-	-	0.0054
MW-3	9/1/2011	BCL	999	580	7.51	200	-	24	7.4	170	13	120	110	240	<0.4	-	34	0.35	0.04	<0.002	3	0.3	-	-	<0.005
MW-3	9/1/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-3	3/29/2012	BCL	852	580	7.51	180	-	23	7.3	130	11	89	97	232	<0.4	-	-	-	-	<0.002	3	0.28	-	-	<0.005
MW-3	10/4/2012	BCL	1100	680	7.47	240	-	37	11	180	14	140	120	293	<0.4	-	36	0.32	0.052	<0.002	4.8	0.45	11	-	<0.005
MW-3	10/4/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-3	5/7/2013	BCL	814	490	7.7	170	-	29	9.1	120	9.3	97	93	210	<0.4	-	-	-	-	0.00094	3.1	0.31	-	-	0.0038
MW-3	10/23/2013	BCL	1080	630	7.5	-	-	-	-	-	-	130	120	240	<0.4	-	-	-	-	-	-	-	-	-	-
MW-3	5/15/2014	BCL	1060	610	7.6	-	-	-	-	-	-	100	110	230	<0.4	-	-	-	-	-	-	-	-	-	-
MW-3	10/16/2014	BCL	1060	570	7.5	-	-	-	-	-	-	100	110	260	ND	-	-	-	-	-	-	-	-	-	-
MW-4	8/2/1982	TL	-	-	-	-	-	80	34	98	8	116	176	240	<1	-	<10	0.2	-	-	0.1	1.1	-	-	-
MW-4	11/24/1982	UNK	1020	630	7.6	-	-	67.5	34	96	8.3	128	152.2	207.9	-	0.08	-	0.09	-	-	2	0.94	-	-	-
MW-4	6/30/1983	UNK	950	560	7.4	-	-	60	31	98	6.8	115	147	215	1.8	-	-	-	-	-	3	0.92	-	-	-
MW-4	10/7/1983	UNK	970	610	7.1	-	-	70	36	95	7.5	124	145	244	5.8	-	-	-	-	-	1.9	0.83	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-4	12/1/1983	UNK	750	-	6.7	-	-	98	18	110	-	75	87.9	207	-	-	-	-	-	-	0.89	0.3	-	-	-
MW-4	3/7/1984	UNK	1200	650	7.5	-	-	71	33	105	6.6	120	152	281	-	-	-	-	-	-	2.4	0.85	-	-	-
MW-4	5/22/1984	UNK	1080	653	7.4	-	-	84	35	93	6.5	125	143	268	1.8	-	-	-	-	-	0.65	0.57	-	-	-
MW-4	7/18/1984	UNK	-	687	7.1	-	-	79	37	80	6.2	128	135	265	-	-	-	-	-	-	1.4	0.9	-	-	-
MW-4	11/27/1984	UNK	1060	737	7.7	-	-	88	36	89	6.4	130	139	284	4	-	-	0.1	-	-	0.52	0.73	-	-	-
MW-4	4/23/1985	UNK	1050	663	7.6	-	-	75	36	85	5.9	130	132	240	5.8	-	-	-	-	-	-	0.9	-	-	-
MW-4	11/4/1985	UNK	1300	905	7.4	-	-	95	46	112	7.1	190	201	248	27.4	-	-	-	-	-	0.41	0.37	-	-	-
MW-4	9/23/1986	UNK	2250	1365	7.6	-	-	154	80	180	8.8	380	323	316	131.5	-	-	-	-	-	0.69	0.17	-	-	-
MW-4	4/21/1987	UNK	1990	1280	7.6	-	-	144	76	167	8.5	312	316	311	98.3	-	-	-	0.1	-	0.06	0.49	-	-	-
MW-4	3/24/1988	UNK	1860	1105	7.6	-	-	101	53	255	8.2	82	276	680	-	-	-	-	-	-	-	0.7	-	-	-
MW-4	12/19/1988	UNK	1240	760	7.6	-	-	68	33	170	6	100	165	415	8	-	-	-	-	-	0.29	0.27	-	-	-
MW-4	12/13/1989	UNK	1060	635	7.8	-	-	44	19	160	4.4	58	154	322	1.8	-	-	-	-	-	0.189	0.088	-	-	-
MW-4	4/10/1990	UNK	1120	405	7.8	-	-	54	23	155	4.8	72	166	325	5.8	-	-	-	-	-	0.225	-	-	-	-
MW-4	11/13/1990	UNK	-	950	7.2	-	-	-	-	-	2.9	285	-	410	-	-	-	-	-	-	-	0.034	-	-	-
MW-4	6/12/1991	UNK	2100	-	7.4	-	-	-	-	-	6.5	-	269	747	-	1200	-	-	0.16	-	-	-	-	-	-
MW-4	10/29/1991	UNK	1800	1120	7.6	-	-	72	41	280	6.3	109	251	629	-	0.1	-	0.13	0.11	-	0.361	1.58	-	-	-
MW-4	2/24/1992	UNK	1800	1090	7.4	-	-	120	57	196	6.9	130	253	623	-	0.08	-	0.12	0.146	-	0.479	1.8	-	-	-
MW-4	10/19/1992	UNK	1950	1180	7.2	-	-	141	52	216	7.9	150	243	636	-	0.06	-	0.22	-	-	0.951	2.04	-	-	-
MW-4	3/30/1993	UNK	1610	980	7.3	-	-	129	56	217	7.7	164	265	606	-	0.08	-	0.22	0.193	-	0.933	2.09	-	-	-
MW-4	9/20/1993	UNK	1880	1120	7.2	-	-	122	55	221	9	200	248	574	-	0.1	-	0.17	0.209	-	1.48	1.96	-	-	-
MW-4	3/8/1994	UNK	2340	1600	7.3	-	-	111	68	323	10.9	675	226	259	-	0.08	-	0.17	-	-	1.4	2.54	-	-	-
MW-4	9/20/1994	UNK	2120	1420	7.2	-	-	89	52	298	9.4	490	224	290	1.8	0.4	-	0.17	-	-	-	2.01	-	-	-
MW-4	3/16/1995	UNK	1920	1170	7.1	-	-	78	48	288	9.1	245	240	521	-	0.09	-	0.2	-	-	-	1.74	-	-	-
MW-4	10/9/1995	UNK	2220	1530	7.2	-	-	88	56	308	9.8	460	246	375	-	0.1	-	0.3	-	-	-	2.4	-	-	-
MW-4	4/6/1996	UNK	1660	995	7.2	-	-	112	52	162	6	230	221	385	-	0.1	-	0.21	0.158	-	-	0.595	-	-	-
MW-4	9/30/1996	UNK	1730	1100	8.4	-	-	53	36	257	10.1	296	254	240	-	0.07	-	0.25	-	-	-	1.77	-	-	-
MW-4	6/3/1997	UNK	1740	1030	7.4	-	-	39	24	298	9.6	220	254	313	-	0.19	-	0.25	-	-	-	1.38	-	-	-
MW-4	3/20/1998	UNK	1400	950	7.1	-	-	42	1.1	320	10	100	270	370	-	-	-	0.27	0.1	-	-	1.1	-	-	-
MW-4	8/26/1998	UNK	1800	960	7.3	-	-	37	22	310	8.8	91	250	380	ND	ND	-	0.27	0.1	-	ND	1.3	-	-	-
MW-4	4/22/1999	BSK	1700	1000	8.0	390	12	33	19	350	8	77	240	476	<4	<2	-	0.3	0.09	-	0.05	1.1	-	-	-
MW-4	11/14/1999	UNK	-	-	-	-	-	38	19	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	5/21/2000	BSK	1700	1100	6.9	450	11.7	36	19	350	7	59	290	549	<4	<2	-	0.2	0.08	-	<0.05	0.96	-	-	-
MW-4	12/17/2000	BSK	1700	998	7.3	430	9.8	34	17	280	6	50	280	525	<4	<2	-	0.2	0.07	-	<0.05	0.66	-	-	-
MW-4	6/5/2001	BSK	1900	1200	6.8	500	12	41	24	390	8	84	340	610	-	<2	-	0.2	0.1	-	<0.05	0.78	-	-	-
MW-4	10/3/2001	UNK	2000	1100	6.8	480	-	36	22	380	7	76	300	480	ND	ND	-	0.2	0.09	-	ND	0.55	-	-	-
MW-4	5/2/2002	BSK	2200	1200	7.5	560	-	39	24	410	7	82	340	560	6.6	<3.2	-	0.2	0.1	-	<0.05	0.44	-	-	-
MW-4	12/11/2002	BSK	1900	1100	7.3	590	-	33	20	320	-	81	290	-	-	ND	-	0.2	0.08	-	ND	0.4	-	-	-
MW-4	3/22/2003	BSK	2000	1200	7.4	450	-	40	21	320	6	94	310	-	-	ND	-	0.2	0.09	-	ND	0.75	-	-	-
MW-4	10/24/2003	BSK	1800	1000	7.7	410	-	39	22	320	7	87	270	-	-	ND	-	0.2	0.09	-	0.06	0.82	-	-	-
MW-4	3/31/2004	BSK	1800	1100	7.3	350	-	41	26	320	9	200	300	430	<0.9	<0.1	-	0.2	0.1	-	2.7	1.5	-	-	-
MW-4	11/13/2004	BSK	1700	1000	7.6	400	-	55	32	270	8	130	250	490	<4	<0.5	-	0.2	0.1	-	<0.05	0.98	-	-	-
MW-4	4/6/2005	UNK	1700	1000	7.8	460	-	84	38	260	8	120	260	460	ND	ND	-	0.2	0.12	-	ND	1.1	-	-	-
MW-4	10/13/2005	UNK	1900	1100	7.9	490	-	100	46	240	7	130	260	490	ND	ND	-	0.2	0.13	-	0.18	1.1	-	-	-
MW-4	4/19/2006	DL	1808	1143	7.6	483	-	108	45	221	13	145	254	483	0.2	0.1	-	0.16	0.14	-	0.06	1.16	-	-	-
MW-4	9/25/2006	UNK	1706	1145	7.6	512	-	84.2	37.4	257	7.9	144	278	512	3.1	ND	-	0.19	0.11	-	0.01	0.6	-	-	-
MW-4	3/29/2007	TL	1800	1100	7.2	510	-	110	44	250	15	110	240	620	<10.2	<0.5	<10	0.2	0.14	<0.005	-	-	<5	-	<0.005
MW-4	9/23/2007	TL	1900	1200	7.2	-	-	-	-	-	-	95	270	690	<20	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-4	4/5/2008	BCL	2270	1400	7.39	-	-	-	-	-	-	96	310	842	1.4	-	-	-	-	-	-	-	-	-	-
MW-4	9/2/2008	BCL	2160	1200	7.4	-	-	-	-	-	-	100	330	805	1.5	-	-	-	0.14	-	-	-	-	-	-
MW-4	4/2/2009	UNK	2100	1100	7.4	-	-	-	-	-	-	79	310	640	4	-	-	-	0.13	-	-	-	-	-	-
MW-4	9/30/2009	BSK	2300	1300	8.1	-	-	-	-	-	-	97	340	903	<10	-	-	-	-	-	-	-	-	-	-
MW-4	10/19/2010	SSC	2300	1400	7.0	-	-	-	-	-	-	100	330	860	<2	-	-	-	-	-	-	-	-	-	-
MW-4	6/2/2011	SSC	2300	1300	7.1	-	-	-	-	-	-	120	310	670	<2.2	-	-	-	-	-	-	-	-	-	-
MW-4	10/3/2011	SSC	2100	1200	7.0	-	-	-	-	-	-	140	280	570	4.9	-	-	-	-	-	-	-	-	-	-
MW-4	3/29/2012	BCL	2010	1300	7.5	-	-	-	-	-	-	120	280	647	2.1	-	-	-	-	-	-	-	-	-	-
MW-4	10/4/2012	BCL	1910	1200	7.54	-	-	-	-	-	-	140	270	610	2.4	-	-	-	-	-	-	-	-	-	-
MW-4	5/6/2013	BCL	1700	1100	7.5	-	-	-	-	-	-	120	260	470	<0.9	-	-	-	-	-	-	-	-	-	-
MW-4	10/23/2013	BCL	1800	1100	7.6	-	-	-	-	-	-	130	260	440	<0.9	-	-	-	-	-	-	-	-	-	-
MW-4	5/15/2014	BCL	1860	1100	7.7	-	-	-	-	-	-	140	250	380	<0.9	-	-	-	-	-	-	-	-	-	-
MW-4	10/16/2014	BCL	1680	890	7.6	-	-	-	-	-	-	130	230	360	0.3	-	-	-	-	-	-	-	-	-	-
MW-5	8/3/1982	TL	-	-	-	-	-	86	41	74	7	119	142	280	<1	-	<10	0.2	-	-	0.47	0.92	-	-	-
MW-5	11/24/1982	UNK	980	590	7.3	-	-	79	43	66.5	6.9	114	125.7	270.3	-	-	-	0.04	-	-	1.5	0.86	-	-	-
MW-5	5/5/1983	UNK	820	587	7.6	-	-	46	41	59	5.4	94	109	210	-	-	-	-	-	-	1.4	0.85	-	-	-
MW-5	12/2/1983	UNK	810	470	8.0	-	-	61	33	56	6	85	95.9	229	-	-	-	-	-	-	0.3	0.57	-	-	-
MW-5	5/22/1984	UNK	1390	973	7.2	-	-	108	53	91	6.5	220	204	198	117.8	-	-	-	-	-	5.4	1.3	-	-	-
MW-5	7/19/1984	UNK	1160	750	7.6	-	-	97	44	76	5.7	165	158	220	74.4	-	-	-	-	-	0.11	0.09	-	-	-
MW-5	11/28/1984	UNK	930	663	7.5	-	-	78	38	63	5.1	115	121	225	58.9	-	-	0.04	-	-	-	0.06	-	-	-
MW-5	4/23/1985	UNK	1000	727	7.3	-	-	76	41	70	4.9	120	131	250	62.9	-	-	-	-	-	-	0.26	-	-	-
MW-5	11/4/1985	UNK	1250	795	7.2	-	-	96	47	97	6.1	156	183	257	156.7	-	-	-	-	-	0.14	0.04	-	-	-
MW-5	9/23/1986	UNK	1900	1215	7.6	-	-	130	62	191	6.9	271	275	374	166.9	-	-	-	-	-	0.52	0.07	-	-	-
MW-5	4/21/1987	UNK	1290	845	7.5	-	-	93	46	119	5.7	160	177	328	58.9	-	-	-	-	-	0.17	0.11	-	-	-
MW-5	3/24/1988	UNK	1620	1015	7.3	-	-	102	47	205	608	118	236	520	46.9	-	-	-	-	-	0.1	0.06	-	-	-
MW-5	12/16/1988	UNK	860	525	7.9	-	-	49	30	94	4.3	86	118	243	12	-	-	-	-	-	-	0.04	-	-	-
MW-5	12/22/1988	BCL	860	525	7.9	-	2.6	49	30	94	4	86	118	243	3	-	-	-	<0.1	-	<0.05	0.04	-	-	-
MW-5	12/13/1989	UNK	1100	655	7.5	-	-	48	22	153	4.2	82	155	300	29.2	-	-	-	-	-	0.118	0.065	-	-	-
MW-5	11/14/1990	UNK	-	375	7.5	-	-	-	-	-	2.4	-	84.7	186	-	-	-	-	-	-	-	0.03	-	-	-
MW-5	6/20/1991	UNK	1510	980	7.4	-	-	-	-	-	4.6	-	227	514	-	-	-	-	-	-	-	-	-	-	-
MW-5	10/29/1991	UNK	1260	775	7.4	-	-	88	45	108	4.8	151	183	310	-	0.11	-	0.11	0.105	-	-	0.192	-	-	-
MW-5	2/24/1992	UNK	1300	835	7.3	-	-	110	51	88	5.5	160	193	301	-	0.06	-	0.11	0.125	-	0.158	0.92	-	-	-
MW-5	10/20/1992	UNK	1460	920	7.2	-	-	106	46	135	5.7	139	211	373	-	0.11	-	0.19	0.141	-	0.181	0.631	-	-	-
MW-5	3/1/1993	UNK	1130	680	7.2	-	-	126	53	89	5.4	186	227	283	-	0.12	-	0.18	0.167	-	0.522	1.18	-	-	-
MW-5	9/27/1993	UNK	1740	1500	7.6	-	-	43	20	316	4.2	60	270	517	68.6	0.22	-	0.2	0.102	-	0.082	0.151	-	-	-
MW-5	3/10/1994	UNK	1700	985	7.5	-	-	39	19	314	4	60	258	489	49.1	0.24	-	0.24	-	-	0.056	0.111	-	-	-
MW-5	9/20/1994	UNK	1250	800	7.1	-	-	94	42	104	6.9	109	156	367	-	0.07	-	0.12	0.14	-	-	0.74	-	-	-
MW-5	3/16/1995	UNK	1450	900	6.9	-	-	116	49	121	6.8	188	201	357	-	0.07	-	0.12	0.196	-	-	1.05	-	-	-
MW-5	10/10/1995	UNK	1680	860	7.7	-	-	39	17.5	306	4	33	252	556	12	0.25	-	0.28	-	-	-	-	-	-	-
MW-5	4/6/1996	UNK	2000	1210	7.3	-	-	84	51	283	9.6	434	258	321	-	0.08	-	-	-	-	-	2.3	-	-	-
MW-5	9/30/1996	UNK	1510	885	8.3	-	-	69	36	192	5.9	94	228	432	1.8	0.11	-	0.22	0.102	-	-	0.438	-	-	-
MW-5	6/30/1997	UNK	1650	970	7.8	-	-	98	46	186	5.9	243	-	484	5.3	0.1	-	0.22	0.116	-	-	0.414	-	-	-
MW-5	3/20/1998	UNK	1400	950	7.3	-	-	95	40	260	8.2	120	270	400	-	-	-	0.21	0.13	-	-	0.03	-	-	-
MW-5	8/26/1998	UNK	1800	1100	7.3	-	-	110	48	220	5.5	190	250	360	ND	ND	-	0.21	0.15	-	ND	0.23	-	-	-
MW-5	4/22/1999	BSK	1700	1000	7.7	440	7.1	72	34	290	6	67	260	537	<4	<2	-	0.2	0.09	-	<0.05	0.09	-	-	-
MW-5	5/21/2000	BSK	1600	1000	7.2	470	7.3	61	31	280	5	67	290	573	6.4	<2	-	0.2	0.1	-	<0.05	0.41	-	-	-
MW-5	12/17/2000	BSK	1700	996	7.2	440	7.2	61	32	280	5	50	280	537	<4	<2	-	0.2	0.11	-	<0.05	0.56	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-5	6/5/2001	BSK	1700	1000	6.8	450	7.2	66	34	290	6	55	320	549	-	<2	-	0.2	0.11	-	<0.05	0.56	-	-	-
MW-5	10/3/2001	UNK	1700	1000	6.9	-	-	60	33	280	5	54	280	430	ND	ND	-	0.2	0.11	-	ND	0.56	-	-	-
MW-5	5/2/2002	BSK	1800	940	7.4	450	-	60	32	270	5	<60	270	450	<6	<3	-	0.2	0.12	-	<0.05	0.65	-	-	-
MW-5	12/11/2002	BSK	1900	1000	7.4	460	-	57	30	260	5	54	330	-	-	ND	-	0.2	0.13	-	ND	0.58	-	-	-
MW-5	3/23/2003	BSK	1800	1000	7.5	440	-	57	30	250	4	55	310	-	-	ND	-	0.2	0.12	-	ND	0.67	-	-	-
MW-5	10/24/2003	BSK	1600	950	7.9	-	-	59	32	250	6	56	260	-	-	ND	-	0.2	0.13	-	ND	0.68	-	-	-
MW-5	3/31/2004	BSK	1700	980	7.6	420	-	58	31	270	5	100	270	510	<0.9	<0.1	-	0.2	0.13	-	0.06	0.73	-	-	-
MW-5	11/13/2004	BSK	1600	940	7.6	350	-	69	39	220	6	150	250	430	<2.7	<0.3	-	0.2	0.13	-	<0.05	0.83	-	-	-
MW-5	4/6/2005	UNK	1500	890	7.8	350	-	68	39	230	7	140	240	350	ND	ND	-	0.2	0.13	-	ND	0.84	-	-	-
MW-5	10/13/2005	UNK	1700	970	7.9	360	-	78	42	230	6	170	240	360	ND	ND	-	0.2	0.13	-	ND	0.75	-	-	-
MW-5	4/19/2006	DL	1508	925	7.6	349	-	82	45	176	10.1	173	215	349	1.6	<0.1	-	0.14	0.13	-	0.01	0.83	-	-	-
MW-5	9/25/2006	UNK	1244	890	7.2	352	-	78.4	42.8	143	6.2	183	200	352	ND	ND	-	0.14	0.12	-	ND	0.7	-	-	-
MW-5	3/29/2007	TL	1300	810	7.1	340	-	85	46	140	12	100	140	420	<6.6	<0.5	<10	0.14	0.13	<0.005	-	-	<5	-	<0.005
MW-5	9/23/2007	TL	1900	1100	7.2	-	-	-	-	-	-	120	520	640	34	-	-	-	-	-	-	-	-	-	-
MW-5	4/5/2008	BCL	1490	960	7.29	-	-	-	-	-	-	120	210	500	0.4	-	-	-	-	-	-	-	-	-	-
MW-5	9/2/2008	BCL	1510	870	7.3	-	-	-	-	-	-	100	220	525	<0.4	-	-	-	0.1	-	-	-	-	-	-
MW-5	4/2/2009	UNK	1510	890	7.3	-	-	-	-	-	-	100	220	400	ND	-	-	-	0.11	-	-	-	-	-	-
MW-5	9/30/2009	BSK	1500	840	8.1	-	-	-	-	-	-	110	200	500	<3	-	-	-	-	-	-	-	-	-	-
MW-5	10/6/2010	SSC	1600	920	7.0	-	-	-	-	-	-	110	220	480	<2	-	-	-	-	-	-	-	-	-	-
MW-5	5/19/2011	SSC	1900	1100	6.9	-	-	-	-	-	-	110	280	490	<2.2	-	-	-	-	-	-	-	-	-	-
MW-5	9/21/2011	SSC	2000	1100	6.9	-	-	-	-	-	-	97	310	520	<2.2	-	-	-	-	-	-	-	-	-	-
MW-5	3/30/2012	BCL	1990	1200	7.53	-	-	-	-	-	-	140	290	561	<0.9	-	-	-	-	-	-	-	-	-	-
MW-5	10/4/2012	BCL	1660	1100	7.5	-	-	-	-	-	-	120	260	488	<0.9	-	-	-	-	-	-	-	-	-	-
MW-5	5/6/2013	BCL	1560	1000	7.5	-	-	-	-	-	-	140	240	360	<0.9	-	-	-	-	-	-	-	-	-	-
MW-5	10/23/2013	BCL	1490	960	7.6	-	-	-	-	-	-	120	220	350	<0.9	-	-	-	-	-	-	-	-	-	-
MW-5	5/15/2014	BCL	1690	980	7.6	-	-	-	-	-	-	130	230	350	<0.9	-	-	-	-	-	-	-	-	-	-
MW-5	10/16/2014	BCL	1530	770	7.4	-	-	-	-	-	-	120	220	350	0.4	-	-	-	-	-	-	-	-	-	-
MW-6	5/6/1982	UNK	850	670	7.4	-	-	74	38.5	58	6.6	113	132	203	4	-	-	-	-	-	0.68	1.2	-	-	-
MW-6	8/3/1982	TL	-	-	-	-	-	85	35	66	8	121	153	210	<1	-	<10	0.2	-	-	0.51	1.4	-	-	-
MW-6	11/24/1982	UNK	920	530	7.2	-	-	77	36	58.5	7.8	112	135	201	-	ND	-	0.4	-	-	0.71	1.2	-	-	-
MW-6	12/2/1982	UNK	960	620	8.1	-	-	73	40	63	7.8	124	134	204	-	-	-	-	-	-	7	1.2	-	-	-
MW-6	5/6/1983	UNK	850	670	7.4	-	-	74	38.5	58	6.6	113	132	203	4	-	-	-	-	-	6.8	1.2	-	-	-
MW-6	5/23/1984	UNK	930	623	7.1	-	-	76	34	74	6	125	126	222	4	-	-	-	-	-	6.1	1.2	-	-	-
MW-6	7/19/1984	UNK	990	603	7.4	-	-	71	33	82	6.2	125	138	201	8	-	-	-	-	-	5.4	1.1	-	-	-
MW-6	11/28/1984	UNK	920	637	7.4	-	-	67	30	82	6	115	128	213	9.7	-	-	0.08	-	-	3.7	1	-	-	-
MW-6	4/23/1985	UNK	1000	633	7.1	-	-	65	32	97	6	130	140	224	21.7	-	-	-	-	-	-	0.91	-	-	-
MW-6	11/4/1985	UNK	1000	655	7.0	-	-	70	32	95	6.4	127	147	224	21.7	-	-	-	-	-	3.2	1	-	-	-
MW-6	9/23/1986	UNK	1240	760	7.3	-	-	81	35	125	6.7	194	173	206	72.6	-	-	-	-	-	1.3	0.66	-	-	-
MW-6	4/21/1987	UNK	1530	995	7.3	-	-	101	41	169	7.6	250	222	242	186.4	-	-	-	-	-	0.68	0.68	-	-	-
MW-6	3/24/1988	UNK	1525	950	7.0	-	-	76	26	225	6.5	190	223	296	164.7	-	-	-	-	-	-	0.08	-	-	-
MW-6	12/16/1988	UNK	1390	895	7.3	-	-	102	41	129	7.2	177	210	263	45.2	-	-	-	-	-	0.05	0.55	-	-	-
MW-6	12/22/1988	BCL	1390	895	7.3	-	2.7	102	41	129	7	177	210	263	10	-	-	-	<0.1	-	<0.05	0.55	-	-	-
MW-6	12/13/1989	UNK	1400	900	7.0	-	-	116	52	98	6.8	192	221	268	15.5	-	-	-	-	-	1.635	1.695	-	-	-
MW-6	11/14/1990	UNK	-	770	7.2	-	-	-	-	-	3.5	-	200	184	-	-	-	-	-	-	1.52	0.625	-	-	-
MW-6	6/20/1991	UNK	1500	-	6.8	-	-	-	-	-	7.6	-	252	268	-	-	-	-	-	-	-	-	-	-	-
MW-6	10/29/1991	UNK	1480	950	7.0	-	-	118	54	107	7	217	245	260	-	-	-	0.1	-	-	7.27	2.02	-	-	-
MW-6	2/24/1992	UNK	1500	1020	6.8	-	-	120	480	122	6.8	192	230	283	-	0.06	-	0.21	-	-	9.46	1.85	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																										
MW-6	10/20/1992	UNK	1450	940	7.0	-	-	100	40	138	6.6	167	221	295	-	-	-	0.25	0.102	-	8.11	1.4	-	-	-
MW-6	3/1/1993	UNK	1600	1060	7.0	-	-	117	48	154	6.5	185	262	354	-	0.07	-	0.26	0.13	-	9.95	1.84	-	-	-
MW-6	9/27/1993	UNK	1560	1010	7.0	-	-	102	47	164	7.1	162	241	394	-	0.06	-	0.14	0.165	-	10.4	1.53	-	-	-
MW-6	3/10/1994	UNK	1660	1060	7.1	-	-	104	47	169	7.1	191	248	356	-	0.05	-	0.21	0.154	-	8.4	1.51	-	-	-
MW-6	9/20/1994	UNK	1770	1170	7.0	-	-	121	51	173	7.2	220	258	362	-	0.05	-	0.2	0.16	-	-	2.12	-	-	-
MW-6	3/16/1995	UNK	1640	1030	6.9	-	-	116	47	159	7.3	216	247	346	-	0.05	-	0.16	-	-	-	1.93	-	-	-
MW-6	10/10/1995	UNK	1680	1020	7.0	-	-	122	51	146	6.9	213	257	357	-	-	-	0.25	-	-	-	2	-	-	-
MW-6	4/6/1996	UNK	1830	1160	7.0	-	-	144	54	154	6.8	263	274	352	-	-	-	0.23	0.1	-	0.205	2.82	-	-	-
MW-6	9/30/1996	UNK	1730	1080	8.4	-	-	118	55	152	7.4	202	282	348	-	-	-	0.22	-	-	-	2.21	-	-	-
MW-6	6/30/1997	UNK	1730	1050	7.0	-	-	123	55	140	6.7	222	284	310	-	0.05	-	0.22	-	-	2.02	2.5	-	-	-
MW-6	3/20/1998	UNK	1300	970	7.0	-	-	130	47	160	9.5	200	250	240	-	-	-	-	-	-	-	2.6	-	-	-
MW-6	8/26/1998	UNK	1700	1000	6.8	-	-	120	48	180	7.5	190	290	230	ND	ND	-	0.14	0.08	-	1.5	2.9	-	-	-
MW-6	4/21/1999	BSK	1700	1100	7.0	250	3.1	130	58	170	9	220	280	305	<4	<2	-	0.1	0.06	-	0.05	2.7	-	-	-
MW-6	5/21/2000	BSK	1400	900	6.6	240	3.2	88	48	150	8	190	220	293	<3	<1.5	-	0.1	<0.05	-	1.4	1.6	-	-	-
MW-6	12/17/2000	BSK	1400	880	6.4	230	3	90	44	140	7	190	210	281	<4	<2	-	0.1	0.05	-	0.75	1.6	-	-	-
MW-6	6/5/2001	BSK	1300	830	6.8	240	3.2	90	45	150	8	200	210	293	-	<1.5	-	0.2	0.05	-	0.43	1.8	-	-	-
MW-6	10/3/2001	UNK	1400	890	6.4	-	-	88	43	150	6	160	210	240	ND	ND	-	0.1	0.05	-	0.65	1.5	-	-	-
MW-6	5/2/2002	BSK	1300	900	6.8	240	-	74	37	130	6	170	180	240	<4	<2	-	0.2	<0.05	-	1.3	1.4	-	-	-
MW-6	12/11/2002	BSK	1500	870	7.0	260	-	73	34	160	6	180	230	-	-	ND	-	0.2	ND	-	0.33	1.3	-	-	-
MW-6	3/22/2003	BSK	1500	900	6.9	250	-	76	34	150	-	190	220	-	-	ND	-	0.2	ND	-	0.62	-	-	-	-
MW-6	10/24/2003	BSK	1600	1000	7.6	310	-	98	44	180	7	160	250	-	-	ND	-	0.2	0.05	-	0.56	1.5	-	-	-
MW-6	4/1/2004	UNK	1600	970	7.6	300	-	94	39	190	7	170	240	300	ND	ND	-	0.2	0.06	-	0.45	1.4	-	-	-
MW-6	11/13/2004	BSK	1400	880	7.6	290	-	71	34	190	7	140	160	350	<2.7	<0.3	-	0.2	0.06	-	0.99	1.1	-	-	-
MW-6	4/6/2005	UNK	1500	900	7.7	290	-	91	36	200	7	180	240	290	ND	ND	-	0.2	0.06	-	0.37	1.4	-	-	-
MW-6	10/14/2005	UNK	2000	1200	7.9	300	-	120	53	220	8	240	320	300	ND	ND	-	0.2	0.07	-	1.9	2.1	-	-	-
MW-6	4/19/2006	DL	1705	1103	7.2	313	-	114	46	185	10.2	197	287	313	<0.1	<0.1	-	0.14	0.06	-	1.51	2.15	-	-	-
MW-6	9/25/2006	UNK	1887	1390	6.9	380	-	122	55.7	234	9.6	248	440	380	ND	ND	-	0.17	0.07	-	2.43	2.34	-	-	-
MW-6	3/29/2007	TL	2100	1300	7.0	410	-	120	56	260	18	170	360	500	<10.2	<0.5	<10	0.21	0.078	<0.005	-	-	<5	-	<0.005
MW-6	9/23/2007	TL	2000	1200	6.9	-	-	-	-	-	-	130	320	510	<20	-	-	-	-	-	-	-	-	-	-
MW-6	9/4/2008	BCL	2070	1300	7.2	-	-	-	-	-	-	130	310	549	<0.4	-	-	-	0.078	-	-	-	-	-	-
MW-6	4/3/2009	UNK	2020	1300	7.2	-	-	-	-	-	-	160	380	420	ND	-	-	-	0.08	-	-	-	-	-	-
MW-6	9/30/2009	BSK	2400	1400	8.0	-	-	-	-	-	-	210	460	537	<10	-	-	-	-	-	-	-	-	-	-
MW-6	10/6/2010	SSC	2300	1300	6.9	-	-	-	-	-	-	200	360	520	<2	-	-	-	-	-	-	-	-	-	-
MW-6	5/19/2011	SSC	2400	1400	6.9	-	-	-	-	-	-	230	400	420	<2.2	-	-	-	-	-	-	-	-	-	-
MW-6	9/21/2011	SSC	2500	1500	6.8	-	-	-	-	-	-	240	430	440	<2.2	-	-	-	-	-	-	-	-	-	-
MW-6	3/30/2012	BCL	2360	1400	7.39	-	-	-	-	-	-	210	380	512	<0.9	-	-	-	-	-	-	-	-	-	-
MW-6	10/4/2012	BCL	2250	1500	7.34	-	-	-	-	-	-	220	380	598	<0.9	-	-	-	-	-	-	-	-	-	-
MW-6	5/6/2013	BCL	2260	1500	7.3	-	-	-	-	-	-	200	370	510	<0.9	-	-	-	-	-	-	-	-	-	-
MW-6	10/23/2013	BCL	2450	1500	7.5	-	-	-	-	-	-	190	400	540	<2.2	-	-	-	-	-	-	-	-	-	-
MW-6	5/15/2014	BCL	2670	1600	7.5	-	-	-	-	-	-	190	400	560	<2.2	-	-	-	-	-	-	-	-	-	-
MW-6	10/16/2014	BCL	2720	1400	7.3	-	-	-	-	-	-	210	470	550	ND	-	-	-	-	-	-	-	-	-	-
MW-9	4/7/1984	UNK	950	513	6.9	-	-	75	40	55	6	35	115	333	-	-	-	0.1	-	-	15.4	2.2	-	-	-
MW-9	7/19/1984	UNK	900	550	7.3	-	-	74	33	55	5.9	50	104	294	-	-	-	-	-	-	9.4	1.9	-	-	-
MW-9	11/28/1984	UNK	1050	670	7.0	-	-	78	44	60	6.1	18	131	380	-	-	-	0.1	-	-	0.86	2.6	-	-	-
MW-9	4/24/1985	UNK	1160	740	7.2	-	-	92	50	74	6	21	146	454	-	-	-	-	-	-	-	2.6	-	-	-
MW-9	11/5/1985	UNK	1390	850	7.0	-	-	105	52	73	6.9	6	144	533	-	-	-	-	-	-	16.8	3.1	-	-	-
MW-9	9/24/1986	UNK	1050	620	7.3	-	-	95	44	67	6.3	45	121	439	-	-	-	-	-	-	11.3	2.3	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																										
MW-9	3/29/1988	UNK	1210	715	7.1	-	-	97	45	103	7.7	37	149	491	-	-	-	-	0.15	-	-	2.2	-	-	-
MW-9	12/14/1989	UNK	1140	690	7.1	-	-	104	46	69	6	19	133	492	-	-	-	-	-	-	13.9	2.573	-	-	-
MW-9	11/14/1990	UNK	-	335	7.0	-	-	-	-	-	2.5	-	72.7	211	-	-	-	-	0.162	-	14.1	2.42	-	-	-
MW-9	6/20/1991	UNK	1070	685	7.0	-	-	-	-	-	6.3	-	141	358	-	-	-	-	0.15	-	-	-	-	-	-
MW-9	10/29/1991	UNK	1000	650	7.0	-	-	85	44	66	5.8	74	122	343	-	0.07	-	-	0.152	-	12.12	2.18	-	-	-
MW-9	2/24/1992	UNK	1030	660	7.1	-	-	88	40	68	6.4	75	135	351	7.1	0.08	-	-	0.163	-	14.4	2.31	-	-	-
MW-9	10/20/1992	UNK	1080	680	7.0	-	-	92	40	70	6.4	80	132	351	7	0.07	-	0.16	0.149	-	13	2.03	-	-	-
MW-9	3/1/1993	UNK	1060	720	6.9	-	-	94	41	72	5.9	67	140	342	6.9	0.07	-	0.14	0.143	-	12	2.16	-	-	-
MW-9	9/27/1993	UNK	960	615	6.9	-	-	0.82	35	69	6.6	80	121	302	6.9	0.1	-	-	0.139	-	10.2	1.92	-	-	-
MW-9	3/10/1994	UNK	940	540	7.0	-	-	71	32	69	5.7	79	107	293	7	0.07	-	-	0.128	-	8.62	1.68	-	-	-
MW-9	9/20/1994	UNK	1000	600	7.0	-	-	80	36	67	8.9	69	126	318	7	0.06	-	-	0.11	-	0.93	1.7	-	-	-
MW-9	3/16/1995	UNK	1210	735	6.8	-	-	97	44	81	6.9	78	170	371	6.8	0.08	-	0.1	0.132	-	-	2.13	-	-	-
MW-9	10/10/1995	UNK	1180	710	7.1	-	-	82	40	88	6.5	72	156	376	7.1	0.07	-	0.17	0.14	-	-	2.03	-	-	-
MW-9	4/6/1996	UNK	1180	695	7.1	-	-	88	40	91	6.5	73	158	382	7.1	0.08	-	0.16	0.14	-	0.333	1.99	-	-	-
MW-9	9/30/1996	UNK	1190	720	8.45	-	-	83	41	97	7.4	70.7	164	378	8.5	0.07	-	0.17	0.139	-	-	1.89	-	-	-
MW-9	6/30/1997	UNK	900	580	6.9	-	-	97	2.2	76	9.7	91	140	240	6.9	-	-	-	0.13	-	-	2.2	-	-	-
MW-9	8/26/1998	UNK	980	590	7.2	-	-	83	36	72	6.6	110	110	220	ND	ND	-	ND	0.13	-	2.4	2.3	-	-	-
MW-9	4/21/1999	BSK	990	610	6.9	270	1.8	88	41	80	7	76	140	329	<2	<1	-	<0.1	0.13	-	2.7	2.4	-	-	-
MW-9	11/15/1999	UNK	-	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-
MW-9	5/20/2000	BSK	960	660	6.6	200	1.3	89	41	60	7	170	99	244	<2	<1	-	<0.1	0.09	-	4.9	2.4	-	-	-
MW-9	12/17/2000	BSK	930	600	6.4	200	1.2	86	39	53	6	170	78	244	<2	<1	-	<0.1	0.08	-	1.1	1.8	-	-	-
MW-9	6/5/2001	BSK	840	580	6.4	170	1.1	86	38	50	6	190	76	207	-	<1	-	<0.1	0.07	-	0.97	2.1	-	-	-
MW-9	10/3/2001	UNK	870	620	6.6	-	-	79	35	48	5	180	65	160	ND	ND	-	ND	0.06	-	2.7	1.6	-	-	-
MW-9	5/2/2002	BSK	930	600	6.6	170	-	82	35	44	5	180	72	170	<3.2	<1.6	-	<0.1	0.09	-	4.6	1.6	-	-	-
MW-9	12/10/2002	BSK	920	640	6.4	110	-	84	36	42	5	280	58	-	-	ND	-	ND	0.1	-	3.5	1.7	-	-	-
MW-9	3/22/2003	BSK	950	670	6.5	110	-	84	35	42	4	280	66	-	-	ND	-	ND	0.08	-	5.5	1.6	-	-	-
MW-9	10/24/2003	BSK	850	610	7.4	120	-	76	32	40	5	-	54	-	-	ND	-	ND	0.08	-	3.9	1.6	-	-	-
MW-9	3/31/2004	BSK	670	440	7.3	170	-	61	25	40	5	120	56	210	<0.9	<0.1	-	<0.1	0.08	-	4.9	1.5	-	-	-
MW-9	11/13/2004	BSK	980	660	7.6	210	-	86	38	67	6	170	100	250	<1.8	<0.2	-	<0.1	0.13	-	2.4	2.1	-	-	-
MW-9	4/6/2005	UNK	1300	820	7.6	310	-	120	49	110	8	100	220	310	ND	ND	-	0.1	0.19	-	0.59	2.7	-	-	-
MW-9	10/13/2005	UNK	1700	990	7.9	450	-	140	57	150	8	57	260	450	ND	ND	-	0.2	0.23	-	1.4	2.9	-	-	-
MW-9	4/19/2006	DL	1773	1050	7.6	565	-	127	2.1	175	11.7	47	274	565	<0.1	<0.1	-	0.18	0.22	-	0.18	2.54	-	-	-
MW-9	9/25/2006	UNK	1685	1183	7.3	570	-	120	52.5	186	8.6	68	324	570	ND	ND	-	0.2	0.22	-	0.04	2.27	-	-	-
MW-9	3/29/2007	TL	2000	1200	7.1	560	-	130	58	240	19	63	270	680	<20	<1	<10	0.23	0.32	<0.005	-	-	<5	-	<0.005
MW-9	9/23/2007	TL	1700	1100	7.0	-	-	-	-	-	-	120	250	510	<10	-	-	-	-	-	-	-	-	-	-
MW-9	4/5/2008	BCL	2050	1300	7.31	-	-	-	-	-	-	58	320	720	<0.4	-	-	-	-	-	-	-	-	-	-
MW-9	9/2/2008	BCL	1900	1000	7.4	-	-	-	-	-	-	92	330	622	<0.4	-	-	-	0.2	-	-	-	-	-	-
MW-9	4/2/2009	UNK	1580	940	7.2	-	-	-	-	-	-	140	250	390	ND	-	-	-	0.19	-	-	-	-	-	-
MW-9	10/2/2009	BSK	1500	950	7.8	-	-	-	-	-	-	230	180	378	<5	-	-	-	-	-	-	-	-	-	-
MW-9	10/6/2010	SSC	1800	1000	7.1	-	-	-	-	-	-	90	260	550	<2	-	-	-	-	-	-	-	-	-	-
MW-9	5/19/2011	SSC	880	520	7.3	-	-	-	-	-	-	72	98	210	<2.2	-	-	-	-	-	-	-	-	-	-
MW-9	9/21/2011	SSC	790	480	7.3	-	-	-	-	-	-	71	89	190	<2.2	-	-	-	-	-	-	-	-	-	-
MW-9	3/30/2012	BCL	677	430	7.77	-	-	-	-	-	-	67	74	183	<0.4	-	-	-	-	-	-	-	-	-	-
MW-9	10/4/2012	BCL	830	560	7.56	-	-	-	-	-	-	100	97	232	1.9	-	-	-	-	-	-	-	-	-	-
MW-9	5/6/2013	BCL	727	480	7.6	-	-	-	-	-	-	79	86	160	<0.4	-	-	-	-	-	-	-	-	-	-
MW-9	10/23/2013	BCL	963	590	7.4	-	-	-	-	-	-	140	110	200	0.04	-	-	-	-	-	-	-	-	-	-
MW-9	5/15/2014	BCL	1060	640	7.5	-	-	-	-	-	-	150	110	190	<0.4	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-9	10/16/2014	BCL	1060	660	7.2	-	-	-	-	-	-	180	110	190	ND	-	-	-	-	-	-	-	-	-	-
MW-13	4/7/1984	UNK	1770	1043	7.8	-	-	15	14	365	4.8	10	128	840	-	-	-	0.41	-	-	0.67	0.88	-	-	-
MW-13	7/19/1984	UNK	1690	1040	7.4	-	-	14	12.4	350	7.1	13	126	809	-	-	-	-	-	-	0.58	0.86	-	-	-
MW-13	11/28/1984	UNK	1540	983	7.9	-	-	16	14	320	5.2	20	122	751	-	-	-	0.28	-	-	0.65	0.78	-	-	-
MW-13	4/24/1985	UNK	1550	1033	7.9	-	-	34	15	320	5.1	16	124	793	-	-	-	-	-	-	-	0.83	-	-	-
MW-13	11/5/1985	UNK	1540	1110	7.7	-	-	40	15	320	5.3	17	129	806	4	-	-	-	-	-	0.66	1	-	-	-
MW-13	9/24/1986	UNK	1610	1010	8.1	-	-	43	17	327	5.3	30	148	786	8	-	-	-	-	-	0.63	1	-	-	-
MW-13	4/22/1987	UNK	1600	1060	8.0	-	-	29	17	325	5.2	17	132	812	5.8	-	-	-	-	-	-	0.01	-	-	-
MW-13	3/24/1988	UNK	1580	1015	7.7	-	-	33	14	343	5.4	14	128	836	-	-	-	-	-	-	0.05	0.47	-	-	-
MW-13	12/19/1988	UNK	1310	945	7.6	-	-	12	4.7	320	3.6	30	138	643	8	-	-	-	-	-	0.22	0.27	-	-	-
MW-13	12/14/1989	UNK	1700	1060	7.8	-	-	33	12	350	4.3	82	207	633	-	-	-	-	-	-	0.49	0.695	-	-	-
MW-13	4/11/1990	UNK	1760	1125	7.8	-	-	39	16	360	4.8	82	236	638	1.8	-	-	-	-	-	0.625	0.891	-	-	-
MW-13	11/15/1990	UNK	-	1120	7.4	-	-	-	-	-	2.6	-	244	485	-	-	-	-	0.105	-	0.522	0.984	-	-	-
MW-13	6/20/1991	UNK	2400	1370	7.5	-	-	-	-	-	5.4	-	301	810	-	-	-	-	0.131	-	-	-	-	-	-
MW-13	10/29/1991	UNK	2400	1310	7.8	-	-	49	19	435	5.1	74	306	797	-	0.05	-	0.24	0.136	-	0.816	1.26	-	-	-
MW-13	2/24/1992	UNK	2400	1320	7.8	-	-	53	22	420	5.8	75	326	805	-	0.06	-	0.26	0.146	-	1.09	1.48	-	-	-
MW-13	10/20/1992	UNK	2400	1380	7.0	-	-	25	19.7	445	5.6	70	321	772	-	-	-	0.24	0.155	-	1.25	1.64	-	-	-
MW-13	3/1/1993	UNK	-	1330	7.4	-	-	64	25	387	5.4	85	315	778	-	0.05	-	0.27	0.179	-	1.66	2.05	-	-	-
MW-13	9/22/1993	BCL	3000	1240	7.3	-	9.7	69	26	371	6.1	65	300	-	-	-	-	-	-	-	-	-	-	-	-
MW-13	9/27/1993	UNK	-	1240	7.3	-	-	69	26	371	6.1	65	300	780	-	-	-	0.24	0.196	-	1.7	2.27	-	-	-
MW-13	3/10/1994	UNK	2140	1280	7.3	-	-	77	31	349	6.1	85	290	728	-	-	-	0.26	0.226	-	2.32	2.61	-	-	-
MW-13	9/20/1994	UNK	2120	1260	7.2	-	-	76	32	343	6.1	80	288	728	-	-	-	0.24	0.2	-	0.32	2.67	-	-	-
MW-13	3/16/1995	UNK	2200	1390	7.1	-	-	93	40	367	6.9	122	313	768	-	-	-	0.25	0.231	-	-	3.43	-	-	-
MW-13	10/10/1995	UNK	2570	1540	7.2	-	-	113	45	381	6.8	84	369	831	-	-	-	0.33	0.29	-	-	4.06	-	-	-
MW-13	4/6/1996	UNK	2800	1610	7.2	-	-	114	52	432	8	80	410	1020	-	-	-	0.31	0.296	-	-	-	-	-	-
MW-13	6/10/1996	UNK	2930	1690	8.2	-	-	105	50	484	10	48	436	1090	-	-	-	0.34	0.341	-	0.083	4.18	-	-	-
MW-13	6/3/1997	UNK	2740	1640	7.2	-	-	96	47	449	6.4	82.4	384	1000	-	-	-	0.33	0.292	-	-	3.85	-	-	-
MW-13	3/23/1998	UNK	2700	1900	7.0	-	-	120	57	580	10	69	470	970	-	-	-	0.28	0.44	-	-	3.4	-	-	-
MW-13	8/26/1998	UNK	3200	1800	7.3	-	-	120	55	510	7.7	73	490	900	10.2	ND	-	0.26	0.39	-	ND	4.3	-	-	-
MW-13	4/21/1999	BSK	3000	1800	7.5	1000	9.8	130	60	540	9	62	390	1220	<6	<3	-	0.2	0.41	-	<0.05	4	-	-	-
MW-13	5/20/2000	BSK	2500	1600	7.0	870	9.1	94	42	420	8	75	370	1061	6.3	<3	-	0.3	0.24	-	0.07	2.4	-	-	-
MW-13	12/17/2000	BSK	2400	1500	7.3	760	8.6	84	38	380	7	70	370	930	<5	<2.5	-	0.3	0.22	-	<0.05	2.2	-	-	-
MW-13	6/5/2001	BSK	2200	1700	7.3	560	7.8	87	40	350	8	100	380	683	<5	<2.5	-	0.2	0.18	-	<0.05	2.6	-	-	-
MW-13	10/3/2001	UNK	2400	1400	6.9	-	-	91	43	380	7	86	390	640	ND	ND	-	0.2	0.18	-	ND	2.4	-	-	-
MW-13	5/2/2002	BSK	2400	1400	7.6	600	-	81	38	360	6	100	380	600	<8	<4	-	0.2	0.18	-	<0.05	2.1	-	-	-
MW-13	12/10/2002	BSK	2100	1200	7.3	520	-	74	32	300	5	84	320	-	-	ND	-	0.2	0.15	-	ND	2	-	-	-
MW-13	3/22/2003	BSK	2200	1300	7.5	550	-	72	30	320	4	74	360	-	-	ND	-	0.3	0.16	-	ND	2	-	-	-
MW-13	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	2	<0.4	-
MW-13	9/30/2003	TL	2500	1400	7.0	190	-	90	40	430	17	64	400	230	<1.8	-	-	0.24	0.2	<0.05	1.6	2.2	-	-	<0.05
MW-13	10/24/2003	BSK	2500	1400	-	720	-	88	40	360	8	ND	400	-	-	ND	-	0.2	0.18	-	ND	2.2	-	-	-
MW-13	3/31/2004	BSK	2200	1400	7.7	630	-	85	39	400	6	96	400	770	<0.9	<0.1	-	0.2	0.2	-	0.06	2.2	-	-	-
MW-13	4/1/2004	TL	2300	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-13	11/13/2004	BSK	2400	1500	7.9	820	-	71	36	450	7	36	370	1000	<4	<0.5	-	0.3	0.21	-	<0.05	1.9	-	-	-
MW-13	3/8/2005	TL	3200	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	2.9	<25	-	-
MW-13	4/6/2005	UNK	2800	1700	7.8	800	-	92	49	500	8	100	490	800	ND	ND	-	0.3	0.28	-	ND	2.7	-	-	-
MW-13	8/11/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	5.6	<0.4	-
MW-13	8/11/2005	TL	1300	890	7.2	250	-	27	15	270	8.7	120	220	310	4.6	-	-	0.23	0.081	<0.005	0.29	0.76	-	-	<0.005

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-13	10/13/2005	UNK	1200	660	8.1	210	-	20	9.9	220	3	120	160	210	ND	ND	-	0.2	0.06	-	0.06	0.79	-	-	-
MW-13	4/19/2006	UNK	1273	773	7.6	394	-	23	12	238	6.3	66	158	394	ND	ND	-	0.22	0.1	-	0.03	0.83	-	-	-
MW-13	4/20/2006	TL	1500	950	7.3	510	-	27	14	280	8	54	180	-	<2	-	-	-	-	<0.005	2	1.1	-	-	<0.005
MW-13	9/25/2006	UNK	618	427	7.8	222	-	9.4	4.6	133	2.3	71	86	222	ND	ND	-	0.21	0.04	-	0.01	0.38	-	-	-
MW-13	9/26/2006	TL	740	470	7.6	210	-	14	6.7	150	5.7	55	74	-	11	-	10	0.25	0.037	<0.005	2.8	0.52	8.4	<20	0.0069
MW-13	3/29/2007	TL	660	410	7.6	150	-	7.4	3.6	140	4.3	67	78	190	<4	<0.2	<10	0.25	0.034	<0.005	-	-	9.9	-	0.01
MW-13	9/24/2007	TL	1000	590	7.3	280	-	19	9.1	200	7.4	98	200	340	-	-	ND	0.27	0.037	ND	0.61	0.58	-	-	ND
MW-13	9/24/2007	UNK	770	470	7.5	-	-	-	-	-	-	56	94	240	ND	-	-	-	-	-	-	-	-	-	-
MW-13	4/5/2008	BCL	515	320	8.03	-	-	-	-	-	-	46	57	146	<0.4	-	-	-	-	-	-	-	-	-	-
MW-13	9/3/2008	BCL	633	380	7.9	-	-	-	-	-	-	59	69	183	<0.4	-	-	-	0.016	-	-	-	-	-	-
MW-13	4/2/2009	BCL	931	610	7.7	240	-	16	7.7	190	3.2	82	120	290	1	-	-	-	0.039	<0.002	0.066	0.64	-	-	0.0094
MW-13	10/1/2009	BSK	760	420	8.1	-	-	-	-	-	-	74	88	207	<2	-	-	-	-	-	-	-	-	-	-
MW-13	10/20/2009	BCL	700	470	7.73	150	-	10	4.9	140	2.4	76	87	190	<0.4	-	2.2	0.23	0.022	<0.002	0.067	0.39	-	-	0.0051
MW-13	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.35	<0.4	-
MW-13	5/20/2010	BCL	786	490	7.78	150	-	13	6.3	150	2.8	94	100	180	<0.4	-	-	-	-	<0.002	0.15	0.58	-	-	<0.005
MW-13	9/15/2010	BCL	459	330	8.02	110	-	5.2	2.4	86	1.8	41	-	-	-	-	5.1	0.22	0.013	<0.002	0.11	0.28	-	-	<0.005
MW-13	9/15/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.65	<0.4	-
MW-13	4/20/2011	BCL	592	400	7.66	94	-	17	9.2	110	2.6	71	96	120	0.73	-	-	-	-	<0.002	0.42	0.82	-	-	0.0074
MW-13	9/1/2011	BCL	361	220	7.84	100	-	8.5	4.5	63	1.8	27	25	130	0.94	-	<2	0.21	0.016	<0.002	0.2	0.39	-	-	<0.005
MW-13	9/1/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41	-
MW-13	3/29/2012	BCL	369	250	7.93	86	-	8.5	4.3	66	1.6	34	36	106	0.51	-	-	-	-	<0.002	0.17	0.39	-	-	<0.005
MW-13	10/4/2012	BCL	657	390	7.68	110	-	18	9.6	110	2.7	58	100	134	1.6	-	<2	0.16	0.036	<0.002	0.23	0.95	4.2	-	<0.005
MW-13	10/4/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-13	5/6/2013	BCL	516	330	7.69	83	-	15	7.8	77	2.2	54	78	100	<0.4	-	-	-	-	<0.002	0.55	0.93	-	-	<0.005
MW-13	10/23/2013	BCL	545	310	7.7	-	-	-	-	-	-	54	84	78	<0.4	-	-	-	-	-	-	-	-	-	-
MW-13	5/15/2014	BCL	618	350	7.7	-	-	-	-	-	-	60	92	81	<0.4	-	-	-	-	-	-	-	-	-	-
MW-13	10/16/2014	BCL	565	340	7.5	-	-	-	-	-	-	56	86	86	ND	-	-	-	-	-	-	-	-	-	-
MW-15	12/7/1988	BCL	21600	13300	7.9	-	120.8	11	10	2300	3860	118	1894	11520	1	0.6	20	0.2	1.5	-	1.3	0.03	-	<5	-
MW-15	12/12/1989	UNK	-	15455	8.0	-	-	15	12	2750	2565	210	2412	12534	-	-	-	-	-	-	2.637	0.036	-	-	-
MW-15	4/10/1990	UNK	23980	17300	8.0	-	-	11	8.1	3100	4760	124	2942	14148	-	-	-	-	-	-	2.335	0.027	-	-	-
MW-15	6/18/1991	UNK	20000	14400	8.0	-	-	-	-	-	3950	-	2552	10162	-	-	-	-	1.57	-	-	-	-	-	-
MW-15	10/20/1991	UNK	19500	11200	7.9	-	-	14	20	2080	3150	65	1910	9440	-	0.51	-	0.29	1.79	-	4.02	0.046	-	-	-
MW-15	3/12/1992	UNK	18000	12000	8.1	-	-	19.2	28	2010	2875	-	1740	9260	9.7	0.45	-	0.32	1.74	-	3.88	0.027	-	-	-
MW-15	10/22/1992	UNK	7600	6800	7.7	-	-	15.9	22	1320	1740	-	1120	3360	-	0.24	-	0.33	1.68	-	4.85	0.03	-	-	-
MW-15	9/22/1993	UNK	11500	6650	7.8	-	-	26	35	1230	1800	-	1050	5860	-	0.27	-	0.32	1.55	-	4.02	0.032	-	-	-
MW-15	3/14/1994	UNK	11000	5900	7.8	-	-	23	30	1130	1650	14	945	5560	-	0.3	-	0.34	1.19	-	1.25	0.024	-	-	-
MW-15	9/22/1994	UNK	9180	5300	7.8	-	-	16.7	24	922	1210	35	739	4620	-	0.32	-	0.34	0.98	-	2.43	0.016	-	-	-
MW-15	3/20/1995	UNK	8300	4700	7.6	-	-	15.2	19.1	862	1130	46	630	4150	-	-	-	0.31	0.63	-	0.926	0.13	-	-	-
MW-15	10/15/1995	UNK	7560	4160	7.9	-	-	12.5	15.8	721	997	40	560	3760	-	0.29	-	0.39	0.57	-	0.85	0.012	-	-	-
MW-15	4/6/1996	UNK	6420	3120	7.9	-	-	8.5	12.2	593	844	55	408	3290	-	0.28	-	0.4	0.453	-	1.4	0.013	-	-	-
MW-15	10/4/1996	UNK	5920	2850	8.7	-	-	6.6	11	529	764	47.2	322	3010	-	0.26	-	0.44	0.389	-	1.09	0.017	-	-	-
MW-15	6/5/1997	UNK	5970	3010	7.9	-	-	7.9	11.7	560	762	56	362	2990	-	0.25	-	0.45	0.393	-	0.995	0.019	-	-	-
MW-15	3/30/1998	UNK	4900	2800	7.7	-	-	7.1	11	630	740	45	400	2200	-	-	-	0.38	0.33	-	0.75	0.02	-	-	-
MW-15	8/29/1998	UNK	5100	2400	7.7	-	-	6.9	13	550	650	ND	290	2200	ND	ND	-	0.51	0.36	-	0.74	0.03	-	-	-
MW-15	4/22/1999	BSK	5500	2800	7.6	2300	22.8	9.5	23	570	670	<200	350	2806	<20	<10	-	0.4	0.41	-	0.48	0.03	-	-	-
MW-15	5/21/2000	BSK	5500	2900	7.5	2400	21.4	8.5	17	470	650	<120	390	2440	<12	<6	-	0.4	0.47	-	1.1	0.03	-	-	-
MW-15	12/17/2000	BSK	5500	2800	7.6	2500	21.8	8.7	19	500	680	<120	380	3050	<12	<6	-	0.4	0.39	-	0.49	0.04	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-15	6/6/2001	BSK	6400	3500	7.6	2600	26.4	12	18	620	880	<200	560	3172	-	<10	-	0.4	0.44	-	1.8	0.03	-	-	-
MW-15	10/3/2001	UNK	6000	3000	7.4	-	-	8.6	20	520	750	ND	410	2400	ND	ND	-	0.4	0.39	-	0.5	0.03	-	-	-
MW-15	5/2/2002	BSK	6600	3500	7.8	2700	-	7.3	19	510	640	<20	59	2700	2.4	<1	-	0.3	0.5	-	0.72	0.02	-	-	-
MW-15	12/10/2002	BSK	6000	3200	7.8	2200	-	7.3	19	450	610	ND	440	-	-	ND	-	0.3	0.44	-	0.9	0.02	-	-	-
MW-15	3/22/2003	BSK	6200	3400	7.9	2200	-	9.5	19	500	670	180	490	-	-	ND	-	0.3	0.32	-	0.46	0.02	-	-	-
MW-15	10/25/2003	BSK	5400	2900	8.0	2100	-	15	37	470	650	140	350	-	-	ND	-	0.3	0.21	-	-	0.03	-	-	-
MW-15	3/31/2004	BSK	4800	2700	7.9	2200	-	16	38	490	610	140	320	2680	<0.9	<0.1	-	0.4	0.33	-	0.47	0.03	-	-	-
MW-15	11/14/2004	BSK	6100	3600	8.0	2400	-	20	24	620	860	280	420	2930	<18	<2	-	0.4	<0.1	-	0.27	0.09	-	-	-
MW-15	4/6/2005	UNK	8800	5800	8.0	2400	-	69	20	950	1500	1400	770	2400	53.1	ND	-	0.4	ND	-	0.1	0.05	-	-	-
MW-15	10/13/2005	UNK	9900	6000	7.9	1700	-	180	36	980	1600	2400	710	1700	ND	ND	-	ND	ND	-	ND	0.26	-	-	-
MW-15	4/19/2006	DL	11060	7823	7.6	1265	-	406	86	1689	2486	3301	776	1265	0.3	<0.1	-	0.18	0.05	-	0.02	0.37	-	-	-
MW-15	9/25/2006	UNK	13330	8087	7.2	1104	-	333	59.9	835	1331	3996	912	1104	447.1	ND	-	0.27	0.05	-	0.01	0.42	-	12	-
MW-15	3/28/2007	NA	11000	8800	7.1	960	-	430	52	980	1600	3000	710	1200	460	<5	-	0.3	0.11	-	-	-	-	-	-
MW-15	9/24/2007	TL	9000	6600	7.1	-	-	-	-	-	-	2500	530	1600	250	-	-	-	-	-	-	-	-	-	-
MW-15	4/5/2008	BCL	8110	6300	7.56	-	-	-	-	-	-	1500	690	2440	11.1	-	-	-	-	-	-	-	-	-	-
MW-15	9/2/2008	BCL	8160	5600	7.3	-	-	-	-	-	-	2100	580	1708	154.9	-	-	-	0.039	-	-	-	-	-	-
MW-15	4/3/2009	BCL	7320	5700	7.3	-	-	-	-	-	-	1800	580	1300	172.7	-	-	-	-	-	-	-	-	-	-
MW-15	4/3/2009	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	-
MW-15	10/1/2009	BSK	7700	4400	7.8	-	-	-	-	-	-	1700	560	1952	53	-	-	-	-	-	-	-	-	-	-
MW-15	5/4/2011	SSC	13000	9900	6.9	-	-	-	-	-	-	2900	990	680	1239.6	-	-	-	-	-	-	-	-	-	-
MW-15	7/12/2011	SSC	5600	3900	7.1	-	-	-	-	-	-	640	620	480	841.1	-	-	-	-	-	-	-	-	-	-
MW-15	9/12/2011	SSC	3200	2100	7.4	-	-	-	-	-	-	320	260	540	296.6	-	-	-	-	-	-	-	-	-	-
MW-15	3/29/2012	BCL	2200	1600	7.77	-	-	-	-	-	-	170	180	647	100	-	-	-	-	-	-	-	-	-	-
MW-15	10/4/2012	BCL	1900	1300	7.91	-	-	-	-	-	-	120	130	610	93	-	-	-	-	-	-	-	-	-	-
MW-15	5/6/2013	BCL	1950	1300	7.8	-	-	-	-	-	-	130	160	480	110	-	-	-	-	-	-	-	-	-	-
MW-15	10/24/2013	BCL	2440	1600	7.9	-	-	-	-	-	-	270	200	620	48	-	-	-	-	-	-	-	-	-	-
MW-15	5/15/2014	BCL	3240	2000	7.9	-	-	-	-	-	-	420	250	690	7.5	-	-	-	-	-	-	-	-	-	-
MW-15	10/16/2014	BCL	2490	1600	7.8	-	-	-	-	-	-	190	220	690	5.8	-	-	-	-	-	-	-	-	-	-
MW-17	12/8/1988	BCL	5000	2534	7.5	-	9.7	53	62	440	512	50	241	2694	4	0.2	20	0.3	0.5	-	0.18	0.17	-	<5	-
MW-17	12/20/1988	UNK	2400	1190	7.5	-	-	15	16	215	240	21	120	1409	-	-	-	-	-	-	-	0.02	-	-	-
MW-17	12/8/1989	UNK	3300	1705	7.7	-	-	100	83	257	171	50	163	1580	4	-	-	-	-	-	0.104	0.136	-	-	-
MW-17	4/10/1990	UNK	3000	1825	7.7	-	-	90	70	280	200	35	148	1709	4	-	-	-	-	-	0.421	0.12	-	-	-
MW-17	5/21/1990	UNK	-	2135	-	-	-	-	-	-	189	-	136	1134	-	-	-	-	-	-	-	-	-	-	-
MW-17	11/16/1990	UNK	-	1910	7.2	-	-	-	-	-	270	-	466	1190	-	-	-	-	0.26	-	6.21	0.112	-	-	-
MW-17	6/18/1991	UNK	3600	1900	7.4	-	-	-	-	-	194	-	227	430	-	-	-	-	0.312	-	-	-	-	-	-
MW-17	10/22/1991	UNK	4100	1985	7.2	-	-	181	83	346	206	10	229	2160	-	0.1	-	0.26	0.321	-	7.26	0.199	-	-	-
MW-17	2/25/1992	UNK	3900	2300	7.5	-	-	175	86	350	197	16	227	2120	-	0.11	-	0.27	0.342	-	8.36	0.199	-	-	-
MW-17	10/23/1992	UNK	3000	1750	7.1	-	-	160	81	268	158	-	183	1600	-	0.08	-	0.24	0.267	-	9.8	0.216	-	-	-
MW-17	3/9/1993	UNK	3700	1810	7.2	-	-	181	95	329	184	-	194	2040	-	0.09	-	0.39	0.297	-	12.1	0.257	-	-	-
MW-17	9/23/1993	UNK	3600	1840	7.2	-	-	164	95	290	184	5	204	1980	-	0.09	-	0.22	0.32	-	10.6	0.261	-	-	-
MW-17	3/14/1994	UNK	3010	1610	7.2	-	-	140	80	281	162	-	195	1670	-	0.07	-	0.27	0.275	-	9.37	0.295	-	-	-
MW-17	10/3/1994	UNK	2900	1470	7.2	-	-	128	67	270	141	3	201	1580	-	0.08	-	0.24	0.51	-	8.71	0.31	-	-	-
MW-17	10/16/1995	UNK	3000	1550	7.4	-	-	124	65	285	136	75	212	1450	-	0.08	-	0.34	0.17	-	0.079	0.25	-	-	-
MW-17	4/8/1996	UNK	2860	1350	8.2	-	-	128	69	307	129	80	240	1490	-	0.08	-	0.4	0.149	-	0.107	0.97	-	-	-
MW-17	10/4/1996	UNK	3440	1820	8.1	-	-	156	81	368	149	32	238	1910	-	0.08	-	0.41	0.264	-	0.054	0.253	-	-	-
MW-17	6/5/1997	UNK	4410	2440	7.4	-	-	164	95	407	295	24.9	264	2490	-	0.13	-	0.49	0.238	-	0.101	0.267	-	-	-
MW-17	8/26/1998	UNK	3800	1800	7.1	-	-	230	160	380	140	100	240	ND	35	ND	-	0.33	0.23	-	0.11	0.5	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-17	4/22/1999	BSK	3600	2200	7.0	2000	4.8	220	150	380	130	<100	250	2440	<10	<5	-	0.3	0.18	-	0.08	0.4	-	-	-
MW-17	5/21/2000	BSK	3700	2100	7.2	1800	5	190	110	350	140	88	280	2196	<8	<4	-	0.3	0.23	-	0.1	0.31	-	-	-
MW-17	12/17/2000	BSK	3800	2000	7.1	1800	4.9	180	110	340	150	80	290	2196	<8	<4	-	0.4	0.26	-	0.75	0.28	-	-	-
MW-17	6/6/2001	BSK	3600	2100	6.9	1800	5.4	190	110	380	170	<100	290	2196	-	<5	-	0.4	0.2	-	<0.05	0.29	-	-	-
MW-17	10/3/2001	UNK	3600	2100	6.7	-	-	210	98	340	150	240	290	1400	44.3	ND	-	0.3	0.19	-	ND	0.16	-	-	-
MW-17	5/2/2002	BSK	3600	440	7.2	1400	-	150	83	300	110	190	340	1400	<16	<8	-	0.3	0.16	-	0.06	0.24	-	-	-
MW-17	12/10/2002	BSK	4500	2800	7.3	2100	-	180	140	360	110	ND	350	-	-	ND	-	0.4	0.22	-	0.35	0.34	-	-	-
MW-17	3/22/2003	BSK	4600	2800	7.5	2300	-	220	200	420	120	ND	380	-	-	ND	-	0.4	0.32	-	0.17	0.34	-	-	-
MW-17	10/25/2003	BSK	4600	2900	7.7	2600	-	200	260	430	-	ND	360	-	-	ND	-	0.4	0.26	-	0.17	0.29	-	-	-
MW-17	3/31/2004	BSK	4300	3000	7.6	2600	-	150	280	470	170	<2	370	3170	<0.9	<0.1	-	0.4	0.21	-	0.12	0.12	-	-	-
MW-17	11/14/2004	BSK	4500	2900	7.6	2600	-	190	270	440	170	<40	350	3170	<18	<2	-	0.4	0.32	-	0.1	0.24	-	-	-
MW-17	4/7/2005	UNK	4400	2600	7.6	2400	-	170	240	430	160	31	350	2400	ND	ND	-	0.4	0.32	-	0.1	0.2	-	-	-
MW-17	10/13/2005	UNK	4300	2500	7.8	2200	-	170	240	430	150	ND	300	2200	ND	ND	-	0.5	0.32	-	0.17	0.18	-	-	-
MW-17	4/19/2006	DL	4624	2427	7.7	2239	-	157	203	437	269	1.9	257	2239	<0.1	<0.1	-	0.24	0.22	-	0.1	0.19	-	-	-
MW-17	9/25/2006	UNK	5100	2568	7.3	2109	-	152	195	359	189	29	305	2109	ND	ND	-	0.34	0.32	-	0.11	0.3	-	-	-
MW-17	3/29/2007	TL	4100	2300	7.3	2000	-	130	190	430	220	<20	250	2500	<20	<1	10	0.4	0.51	<0.005	-	-	5.1	-	<0.005
MW-17	9/23/2007	TL	4500	2800	7.2	-	-	-	-	-	-	16	280	3000	<50	-	-	-	-	-	-	-	-	-	-
MW-17	4/5/2008	BCL	4920	3100	7.3	-	-	-	-	-	-	16	390	3416	<2.2	-	-	-	-	-	-	-	-	-	-
MW-17	9/2/2008	BCL	5370	2700	7.3	-	-	-	-	-	-	4	400	3782	<0.9	-	-	-	0.33	-	-	-	-	-	-
MW-17	4/3/2009	BCL	5210	3300	7.3	-	-	-	-	-	-	13	390	2900	ND	-	-	-	-	-	-	-	-	-	-
MW-17	4/3/2009	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.42	-	-	-	-	-	-
MW-17	10/1/2009	BSK	5100	4700	7.8	-	-	-	-	-	-	<40	320	3538	<20	-	-	-	-	-	-	-	-	-	-
MW-17	10/19/2010	SSC	5200	3200	7.2	-	-	-	-	-	-	15	330	3600	<2	-	-	-	-	-	-	-	-	-	-
MW-17	6/2/2011	SSC	4200	2300	7.2	-	-	-	-	-	-	71	300	1900	<2.2	-	-	-	-	-	-	-	-	-	-
MW-17	10/3/2011	SSC	4600	2800	7.0	-	-	-	-	-	-	350	390	1800	38.1	-	-	-	-	-	-	-	-	-	-
MW-17	3/29/2012	BCL	4020	2700	7.49	-	-	-	-	-	-	240	350	2074	7.8	-	-	-	-	-	-	-	-	-	-
MW-17	10/4/2012	BCL	4250	3100	7.56	-	-	-	-	-	-	850	310	1830	21	-	-	-	-	-	-	-	-	-	-
MW-17	5/7/2013	BCL	4630	3600	7.7	-	-	-	-	-	-	950	350	1600	9.1	-	-	-	-	-	-	-	-	-	-
MW-17	10/24/2013	BCL	4410	3300	7.8	-	-	-	-	-	-	740	330	1700	<0.9	-	-	-	-	-	-	-	-	-	-
MW-17	5/15/2014	BCL	4120	2400	7.7	-	-	-	-	-	-	490	320	1300	<0.9	-	-	-	-	-	-	-	-	-	-
MW-17	10/17/2014	BCL	3100	1800	7.6	-	-	-	-	-	-	320	260	1100	ND	-	-	-	-	-	-	-	-	-	-
MW-18	12/9/1988	BCL	4700	2490	7.8	-	22.2	19	20	580	387	92	460	1964	1	0.1	<10	0.3	0.4	-	1.4	0.13	-	<5	-
MW-18	12/20/1988	UNK	5400	3220	7.5	-	-	30	70	1035	140	69	690	2451	-	-	-	-	-	-	0.06	0.19	-	-	-
MW-18	12/8/1989	UNK	5500	2980	8.0	-	-	41	39	820	233	80	626	2310	-	-	-	-	-	-	2.782	0.309	-	-	-
MW-18	5/21/1990	UNK	-	3200	-	-	-	-	-	-	265	-	-	2410	-	-	-	-	-	-	-	-	-	-	-
MW-18	11/16/1990	UNK	-	3000	7.3	-	-	-	-	-	310	-	634	2621	-	-	-	-	-	-	3.67	0.482	-	-	-
MW-18	6/18/1991	UNK	5500	2820	7.6	-	-	-	-	-	310	-	564	2602	-	-	-	-	0.768	-	-	-	-	-	-
MW-18	10/22/1991	UNK	5500	2930	7.5	-	-	41	38	830	300	18	576	2350	-	0.07	-	0.36	0.682	-	2.44	0.359	-	-	-
MW-18	2/25/1992	UNK	5100	2980	7.4	-	-	40	47	830	322	18	638	2470	-	0.07	-	0.44	0.775	-	2.94	0.353	-	-	-
MW-18	10/23/1992	UNK	-	1980	7.4	-	-	52	51	945	352	0.17	620	2770	-	0.05	-	0.4	0.68	-	2.7	0.37	-	-	-
MW-18	3/9/1993	UNK	5600	3120	7.6	-	-	45	51	842	306	16	635	2480	-	0.06	-	0.46	0.692	-	2.86	0.415	-	-	-
MW-18	9/23/1993	UNK	5900	3400	7.5	-	-	46	48	930	336	13	675	2490	-	0.07	-	0.45	0.761	-	3.29	0.501	-	-	-
MW-18	3/14/1994	UNK	6390	3680	7.4	-	-	47	47	1070	387	18	755	2810	-	0.07	-	0.54	0.896	-	3.19	0.534	-	-	-
MW-18	10/3/1994	UNK	6120	3350	7.2	-	-	40	42	104	330	14	745	2700	-	0.06	-	0.5	0.84	-	4.26	0.44	-	-	-
MW-18	3/15/1995	UNK	7100	4200	7.3	-	-	32	40	1200	436	14	845	3140	-	0.08	-	0.51	0.786	-	0.413	0.287	-	-	-
MW-18	10/15/1995	UNK	7700	4660	7.6	-	-	25	43	1300	445	12	936	2480	-	0.07	-	0.66	0.82	-	0.46	0.23	-	-	-
MW-18	4/4/1996	UNK	7930	4530	7.5	-	-	23	45	1440	407	10	956	3740	-	0.08	-	0.67	0.864	-	3.6	0.196	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-18	10/4/1996	UNK	8030	4640	8.7	-	-	25	46	1460	415	6.2	920	3680	-	0.07	-	0.65	0.837	-	0.475	0.146	-	-	-
MW-18	6/4/1997	UNK	7980	4700	7.5	-	-	40	64	1360	408	6.8	916	3830	-	0.07	-	0.64	0.894	-	0.435	0.275	-	-	-
MW-18	3/24/1998	UNK	7400	4600	7.4	-	-	45	79	1400	450	-	910	3100	1.3	-	-	0.5	1.1	-	0.43	0.31	-	-	-
MW-18	8/25/1998	UNK	8200	4600	7.5	-	-	46	79	1300	470	ND	870	3200	ND	ND	-	0.49	1.1	-	0.59	0.34	-	-	-
MW-18	4/20/1999	BSK	7900	4600	7.4	3200	30.9	44	82	1500	510	<200	860	3904	<20	<10	-	0.4	1.1	-	0.6	0.34	-	-	-
MW-18	5/21/2000	BSK	6700	4000	7.5	3200	21.6	54	54	940	600	<150	630	3904	<15	<7.5	-	0.4	1.4	-	0.54	0.27	-	-	-
MW-18	12/19/2000	BSK	7200	3800	7.4	3000	18.6	52	54	800	550	<200	720	3660	<20	<10	-	0.4	1.3	-	0.44	0.26	-	-	-
MW-18	6/6/2001	BSK	6800	3700	7.4	2800	21.9	44	46	870	580	<200	780	3360	-	<10	-	0.4	1.2	-	0.58	0.24	-	-	-
MW-18	10/3/2001	UNK	6900	3600	7.4	-	-	39	57	950	530	ND	760	2800	ND	ND	-	0.4	1.1	-	0.6	0.18	-	-	-
MW-18	5/2/2002	BSK	7200	4100	7.8	2700	-	36	48	1100	380	<240	870	2700	<24	<12	-	0.4	1	-	0.4	0.19	-	-	-
MW-18	9/19/2002	TL	7100	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-18	12/10/2002	BSK	6900	3800	7.8	2400	-	25	28	770	400	ND	770	-	-	ND	-	0.4	0.95	-	0.66	0.15	-	-	-
MW-18	1/13/2003	TL	7500	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-18	3/22/2003	BSK	7000	3900	8.0	2600	-	26	28	1700	520	ND	820	-	-	ND	-	0.5	0.99	-	0.79	0.14	-	-	-
MW-18	3/23/2003	BSK	7000	3900	8.0	2600	-	26	28	1700	520	<120	820	3170	<0.9	<6	-	0.5	0.99	-	0.79	0.14	-	-	-
MW-18	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	9.6	<0.4	-
MW-18	9/30/2003	TL	5700	3600	7.6	190	-	27	24	940	590	20	690	230	<1.8	-	-	0.51	0.89	<0.05	2.1	<0.03	-	-	<0.05
MW-18	10/25/2003	BSK	6600	3700	8.1	2500	-	31	28	970	460	ND	790	-	-	ND	-	0.4	0.86	-	0.91	0.13	-	-	-
MW-18	3/4/2004	TL	5200	2800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-18	3/31/2004	BSK	5000	2700	8.1	2000	-	19	17	660	450	<2	540	2440	<0.9	<0.1	-	0.5	0.66	-	1	0.09	-	-	-
MW-18	4/1/2004	UNK	5000	2700	8.1	2000	-	19	17	660	450	ND	540	2000	ND	ND	-	0.5	0.66	-	1	0.09	-	-	-
MW-18	11/14/2004	BSK	5000	2800	8.0	2000	-	27	29	660	430	44	550	2440	<18	<2	-	0.5	0.66	-	0.27	0.12	-	-	-
MW-18	3/8/2005	TL	4700	2600	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	0.12	<25	-	-
MW-18	4/6/2005	UNK	4200	2400	8.0	1800	-	29	27	670	260	ND	470	1800	ND	ND	-	0.56	0.48	-	0.22	0.17	-	-	-
MW-18	8/11/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	105	31	-
MW-18	8/11/2005	TL	7100	5200	7.1	1800	-	89	71	1700	210	550	1100	2100	470	-	-	0.41	0.31	0.05	0.53	0.87	-	-	<0.025
MW-18	10/13/2005	UNK	5000	2800	8.0	1800	-	48	43	860	210	ND	610	1800	62	ND	-	0.6	0.43	-	0.14	0.39	-	-	-
MW-18	4/20/2006	UNK	5176	2740	7.5	1644	-	37	32	867	176	48	634	1644	ND	ND	-	0.34	0.36	-	0.13	0.41	-	-	-
MW-18	4/20/2006	TL	4600	2800	7.2	1100	-	39	35	930	220	54	600	-	<2	-	-	-	-	<0.01	6.5	0.4	-	-	<0.01
MW-18	9/26/2006	UNK	6715	3915	7.7	1451	-	47.5	38.4	1116	82.8	581	781	1451	276.2	ND	-	0.39	0.11	-	0.06	0.22	-	-	-
MW-18	9/26/2006	TL	5900	4100	7.4	1500	-	51	41	1400	120	480	710	-	260	-	<50	0.41	0.15	0.029	0.64	0.21	160	<100	<0.025
MW-18	3/28/2007	TL	4500	2800	7.4	1400	-	48	41	880	150	150	600	1700	-	-	ND	0.4	0.48	ND	0.18	0.47	23	ND	0.048
MW-18	9/24/2007	TL	4900	2800	7.2	1600	-	45	45	1100	150	100	600	2000	-	-	ND	0.44	0.35	0.031	0.61	0.45	-	-	ND
MW-18	4/5/2008	BCL	4010	2500	7.61	-	-	-	-	-	-	140	560	1464	<0.9	-	-	-	-	-	-	-	-	-	-
MW-18	9/4/2008	BCL	3500	2200	7.6	-	-	-	-	-	-	150	510	1220	2.3	-	-	-	0.16	-	-	-	-	-	-
MW-18	4/2/2009	BCL	4440	3500	7.7	1300	-	36	33	980	68	160	710	1600	ND	-	-	-	-	0.0023	3.8	0.42	-	-	0.0065
MW-18	4/2/2009	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	-	-
MW-18	10/2/2009	BSK	4300	2500	8.1	-	-	-	-	-	-	150	620	2074	<20	-	-	-	-	-	-	-	-	-	-
MW-18	10/20/2009	BCL	4320	2700	7.59	1300	-	38	38	920	98	150	640	1600	<2.2	-	8.5	0.35	0.3	<0.002	5.7	0.36	-	-	0.0065
MW-18	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	<0.4	-
MW-18	5/20/2010	BCL	3670	2400	7.72	1100	-	29	28	740	77	150	600	1300	<0.9	-	-	-	-	0.0021	4.3	0.24	-	-	0.0057
MW-18	9/15/2010	BCL	1990	1500	8.03	560	-	8	7	430	32	120	260	690	-	-	4.1	0.25	0.049	<0.002	1.1	0.072	-	-	<0.005
MW-18	9/15/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.6	<0.4	-
MW-18	1/11/2011	SSC	1100	660	7.9	-	-	-	-	-	-	99	130	320	<2.2	-	-	-	-	-	-	-	-	-	-
MW-18	4/20/2011	BCL	1500	1000	8.07	360	-	8	5.6	370	18	140	200	440	11	-	-	-	-	0.0025	0.19	0.043	-	-	<0.005
MW-18	9/1/2011	BCL	5280	3600	7.92	940	-	43	22	1100	200	500	650	1100	470	-	4.1	0.29	0.14	0.024	0.17	0.025	-	-	0.0094
MW-18	9/1/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.1	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-18	3/29/2012	BCL	1850	1400	8.01	390	-	11	7.1	350	27	140	230	488	56	-	-	-	-	0.0047	0.25	0.036	-	-	<0.005
MW-18	10/4/2012	BCL	1830	1200	8.05	460	-	7.3	6.2	400	17	100	220	525	<0.9	-	5.2	0.23	0.04	0.0096	2	0.081	12	-	<0.005
MW-18	10/4/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.434	-
MW-18	5/6/2013	BCL	1060	720	8.16	240	-	4.5	3	220	12	100	130	300	0.61	-	-	-	-	<0.002	0.17	0.028	-	-	<0.005
MW-18	10/23/2013	BCL	1320	720	8.2	-	-	-	-	-	-	120	160	290	<0.4	-	-	-	-	-	-	-	-	-	-
MW-18	5/15/2014	BCL	2000	1200	8.2	-	-	-	-	-	-	160	230	570	<0.9	-	-	-	-	-	-	-	-	-	-
MW-18	10/15/2014	BCL	1960	1200	7.9	-	-	-	-	-	-	160	240	490	ND	-	-	-	-	-	-	-	-	-	-
MW-19	12/9/1988	BCL	16500	9840	8.0	-	53.9	24	24	1560	2800	77	1420	8922	<1	0.3	10	0.2	2.5	-	1.2	0.11	-	<5	-
MW-19	12/20/1988	UNK	9600	6375	7.6	-	-	15	16	1060	1700	70	998	5333	1133.3	-	-	-	-	-	1.7	0.13	-	-	-
MW-19	12/8/1989	UNK	15900	9600	7.8	-	-	24	30	1620	1360	74	1381	7796	-	-	-	-	-	-	1.307	0.142	-	-	-
MW-19	5/21/1990	UNK	-	3200	-	-	-	-	-	-	2560	-	-	7900	-	-	-	-	-	-	-	-	-	-	-
MW-19	11/16/1990	UNK	-	8100	7.7	-	-	-	-	-	1850	-	1312	3219	-	-	-	-	1.92	-	2.03	0.218	-	-	-
MW-19	6/18/1991	UNK	13300	7500	7.9	-	-	-	-	-	1670	-	1248	6835	-	-	-	-	2.01	-	-	-	-	-	-
MW-19	10/22/1991	UNK	13500	7320	7.8	-	-	12	20	1320	1920	50	1130	6650	-	0.4	-	0.28	1.54	-	2.74	0.118	-	-	-
MW-19	2/25/1992	UNK	12800	8400	8.0	-	-	12.3	25	1300	1850	19	1080	6360	4	0.42	-	0.33	1.51	-	3.02	0.108	-	-	-
MW-19	10/23/1992	UNK	7500	5360	7.7	-	-	8.4	23	1080	1340	29	925	3480	-	0.29	-	0.29	1.16	-	2.82	0.099	-	-	-
MW-19	3/9/1993	UNK	11100	5750	7.8	-	-	9.4	36	1140	1470	12	920	5470	-	0.33	-	0.32	1.03	-	2.85	0.094	-	-	-
MW-19	9/23/1993	UNK	10300	5350	7.7	-	-	8	30	1010	1470	105	815	4930	-	0.28	-	0.3	1.09	-	2.86	0.082	-	-	-
MW-19	3/14/1994	UNK	9500	4950	7.6	-	-	6.9	28	1010	1420	120	764	4570	-	0.36	-	0.32	0.983	-	2.34	0.052	-	-	-
MW-19	10/3/1994	UNK	8720	4350	7.6	-	-	6.6	24	800	1120	148	669	4190	-	0.25	-	0.3	0.88	-	1.98	0.051	-	-	-
MW-19	3/15/1995	UNK	8100	4250	7.5	-	-	5.5	21	798	1120	208	605	3770	-	0.29	-	0.31	0.657	-	1.1	0.04	-	-	-
MW-19	10/15/1995	UNK	7210	3980	7.8	-	-	5.5	18	652	935	135	525	3420	-	0.26	-	0.35	0.56	-	1.21	0.035	-	-	-
MW-19	4/4/1996	UNK	6620	3240	7.8	-	-	5.5	17	608	866	120	440	3310	-	0.26	-	0.33	0.478	-	1.01	0.035	-	-	-
MW-19	10/4/1996	UNK	5900	2820	8.7	-	-	4.9	14	522	748	88.8	336	2890	-	0.28	-	0.38	0.421	-	1.09	0.029	-	-	-
MW-19	6/4/1997	UNK	5660	2800	7.8	-	-	6.9	15	514	722	86	324	2810	-	0.27	-	0.41	0.41	-	0.811	0.078	-	-	-
MW-19	3/24/1998	UNK	4600	2500	7.8	-	-	7.8	16	530	590	70	270	2100	5.8	-	-	0.46	0.35	-	0.44	0.08	-	-	-
MW-19	8/25/1998	UNK	5000	2500	7.8	-	-	6.8	12	480	520	520	280	2100	ND	ND	-	0.45	0.35	-	1.1	0.1	-	-	-
MW-19	4/21/1999	BSK	4700	2500	7.9	2000	24.3	7.7	14	490	540	<100	260	2440	<10	<5	-	0.4	0.32	-	0.65	0.16	-	-	-
MW-19	5/21/2000	BSK	4100	2200	7.6	2100	23	6.4	10	400	470	<100	240	2100	<10	<5	-	0.5	0.28	-	0.93	0.15	-	-	-
MW-19	12/17/2000	BSK	4300	2200	7.5	1800	23.1	7.4	13	450	480	<100	270	2196	<10	<5	-	0.4	0.28	-	0.45	0.13	-	-	-
MW-19	6/6/2001	BSK	4200	2100	7.5	1800	21.7	8.3	13	430	490	<100	300	2196	-	<5	-	0.5	0.29	-	0.9	0.14	-	-	-
MW-19	6/10/2001	UNK	4200	2100	7.5	-	-	8.3	13	430	490	ND	300	1800	ND	ND	-	0.5	0.29	-	0.9	0.14	-	-	-
MW-19	10/3/2001	UNK	4400	2100	7.4	-	-	8.3	15	450	480	ND	310	1700	70.8	ND	-	0.4	0.29	-	0.81	0.13	-	-	-
MW-19	5/2/2002	BSK	4400	2200	7.8	1700	-	7.4	13	400	420	<120	300	1700	<12	<6	-	0.4	0.28	-	0.7	0.11	-	-	-
MW-19	12/11/2002	BSK	4300	2100	7.7	1700	-	7.5	14	390	390	ND	320	-	-	ND	-	0.4	0.29	-	0.6	0.11	-	-	-
MW-19	3/23/2003	BSK	4300	2200	8.0	1600	-	7.8	15	380	390	ND	320	-	-	ND	-	0.4	0.3	-	0.77	0.11	-	-	-
MW-19	10/25/2003	BSK	4200	2000	-	1700	-	8.1	17	390	440	ND	300	-	-	ND	-	0.4	0.28	-	0.4	-	-	-	-
MW-19	4/1/2004	UNK	3900	2000	7.8	1700	-	9.8	26	390	410	ND	260	1700	ND	ND	-	0.4	0.29	-	0.53	0.14	-	-	-
MW-19	11/14/2004	BSK	4200	2200	8.0	1900	-	11	26	520	510	57	270	2320	<18	<2	-	0.4	0.35	-	0.75	0.13	-	-	-
MW-19	4/7/2005	UNK	4700	2300	7.9	2000	-	13	29	430	550	92	310	2000	ND	ND	-	0.4	0.39	-	0.23	0.13	-	-	-
MW-19	10/14/2005	UNK	5400	2800	8.2	2200	-	22	45	590	700	190	390	2200	ND	ND	-	0.5	0.7	-	0.6	0.13	-	-	-
MW-19	4/19/2006	DL	6140	2973	7.9	2142	-	37	85	838	1158	74	394	2142	<0.1	<0.1	-	0.28	0.53	-	0.31	0.12	-	-	-
MW-19	9/25/2006	UNK	7310	3563	7.6	2213	-	31.1	81.2	619	608	557	554	2213	9.7	ND	-	0.37	0.31	-	0.24	0.24	-	-	-
MW-19	3/29/2007	TL	7100	4100	7.5	2200	-	54	120	720	790	710	500	2700	<50	<2.5	45	0.41	0.2	<0.005	-	-	<5	-	<0.005
MW-19	9/24/2007	TL	8300	4800	7.4	-	-	-	-	-	-	920	680	2700	190	-	-	-	-	-	-	-	-	-	-
MW-19	4/5/2008	BCL	8590	5200	7.6	-	-	-	-	-	-	1200	750	3050	12.4	-	-	-	-	-	-	-	-	-	-
MW-19	9/3/2008	BCL	8700	5000	7.6	-	-	-	-	-	-	2700	1700	2928	12.8	-	-	-	0.11	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-19	4/3/2009	UNK	8620	5300	7.5	-	-	-	-	-	-	1100	770	2400	ND	-	-	-	0.09	-	-	-	-	-	-
MW-19	10/1/2009	BSK	7600	3700	7.9	-	-	-	-	-	-	930	660	2806	<20	-	-	-	-	-	-	-	-	-	-
MW-19	10/19/2010	SSC	7100	4200	7.3	-	-	-	-	-	-	700	610	2700	2	-	-	-	-	-	-	-	-	-	-
MW-19	6/2/2011	SSC	6500	3800	7.4	-	-	-	-	-	-	480	650	1700	247.9	-	-	-	-	-	-	-	-	-	-
MW-19	10/3/2011	SSC	6700	4000	7.3	-	-	-	-	-	-	470	720	1800	287.8	-	-	-	-	-	-	-	-	-	-
MW-19	3/29/2012	BCL	5290	3700	7.77	-	-	-	-	-	-	110	260	1708	64	-	-	-	-	-	-	-	-	-	-
MW-19	10/4/2012	BCL	4780	3300	7.85	-	-	-	-	-	-	310	670	1342	230	-	-	-	-	-	-	-	-	-	-
MW-19	5/7/2013	BCL	5220	3300	7.9	-	-	-	-	-	-	460	750	1200	44	-	-	-	-	-	-	-	-	-	-
MW-19	10/24/2013	BCL	4840	3000	8.0	-	-	-	-	-	-	350	630	1300	<2.2	-	-	-	-	-	-	-	-	-	-
MW-19	5/15/2014	BCL	6010	3400	8.0	-	-	-	-	-	-	450	690	1500	2.1	-	-	-	-	-	-	-	-	-	-
MW-19	10/16/2014	BCL	6060	3400	7.8	-	-	-	-	-	-	520	730	1600	0.4	-	-	-	-	-	-	-	-	-	-
MW-20	5/21/1990	UNK	4000	2520	7.6	-	-	111	46	700	18	218	360	1545	-	-	-	-	-	-	1.445	2.059	-	-	-
MW-20	11/16/1990	UNK	-	2450	7.2	-	-	-	-	-	260	-	392	1106	-	-	-	0.43	0.379	-	3.12	1.95	-	-	-
MW-20	6/18/1991	UNK	4000	2340	7.2	-	-	-	-	-	30	-	408	1655	-	-	-	-	0.329	-	-	-	-	-	-
MW-20	10/22/1991	UNK	3200	2125	7.2	-	-	106	46	630	24	218	356	1410	-	0.06	-	0.37	0.237	-	2.33	1.74	-	-	-
MW-20	2/25/1992	UNK	3500	2040	7.6	-	-	115	44	585	22	210	333	1280	-	0.05	-	0.51	0.264	-	3.05	2.01	-	-	-
MW-20	10/23/1992	UNK	3100	1810	7.3	-	-	96	42	545	23	193	307	1210	-	0.06	-	0.25	0.19	-	2.5	1.6	-	-	-
MW-20	3/9/1993	UNK	3000	1700	7.8	-	-	91	41	518	20	205	305	1130	-	0.06	-	0.4	0.191	-	2.38	1.62	-	-	-
MW-20	9/23/1993	UNK	2440	2440	7.5	-	-	64	31	471	20	165	236	1010	-	0.06	-	0.36	0.23	-	1.43	1.24	-	-	-
MW-20	3/14/1994	UNK	2430	1510	7.4	-	-	71	33	447	22	155	226	1020	-	0.06	-	0.34	0.25	-	1.83	1.43	-	-	-
MW-20	10/3/1994	UNK	2420	1490	7.4	-	-	75	33	480	15.5	175	231	1030	-	0.07	-	0.35	0.232	-	-	1.43	-	-	-
MW-20	3/15/1995	UNK	2280	1380	7.6	-	-	70	30	406	12.2	165	215	818	-	0.06	-	0.38	0.2	-	-	1.29	-	-	-
MW-20	10/15/1995	UNK	2160	1320	7.8	-	-	66	29	389	11.6	170	203	871	-	0.06	-	0.38	0.193	-	-	1.29	-	-	-
MW-20	4/4/1996	UNK	2010	1150	8.48	-	-	56	26	376	10.7	158	176	818	-	0.06	-	0.42	0.183	-	-	1.14	-	-	-
MW-20	10/4/1996	UNK	2000	1220	7.6	-	-	58	24	362	10.9	157	170	803	-	0.06	-	0.45	0.172	-	-	1.06	-	-	-
MW-20	6/4/1997	UNK	1800	1300	7.4	-	-	67	28	430	11	170	200	630	-	-	-	0.46	0.18	-	-	1.1	-	-	-
MW-20	3/24/1998	UNK	2700	1590	7.4	-	-	74	34	468	21	170	243	1000	-	0.07	-	0.35	0.195	-	1.99	1.55	-	-	-
MW-20	8/25/1998	UNK	2100	1300	7.7	-	-	61	27	420	14	180	210	670	18.6	ND	-	0.41	0.18	-	ND	1.1	-	-	-
MW-20	4/21/1999	BSK	2000	1300	7.5	670	11.7	57	25	420	10	190	190	817	<4	<2	-	0.4	0.15	-	<0.05	1	-	-	-
MW-20	6/30/2000	UNK	2200	1300	7.5	600	-	54	25	380	10	220	170	600	ND	ND	-	0.4	0.12	-	ND	0.94	-	-	-
MW-20	12/19/2000	BSK	2200	1400	7.5	600	11.4	56	26	410	10	310	200	732	<5	<2.5	-	0.4	0.13	-	<0.05	0.89	-	-	-
MW-20	6/6/2001	BSK	2100	1400	7.3	580	10	64	28	380	11	300	220	708	-	<2.5	-	0.4	0.11	-	<0.05	1	-	-	-
MW-20	10/3/2001	UNK	2200	1400	7.4	-	-	58	27	420	10	280	200	560	ND	ND	-	0.3	0.11	-	ND	0.88	-	-	-
MW-20	5/2/2002	BSK	2400	1500	7.6	540	-	60	27	380	9	320	250	540	<6	<3	-	0.4	0.11	-	<0.05	1	-	-	-
MW-20	12/11/2002	BSK	2400	1500	8.0	600	-	56	26	410	10	300	260	-	-	ND	-	0.3	0.11	-	ND	0.93	-	-	-
MW-20	3/23/2003	BSK	2400	1500	7.9	620	-	58	28	400	9	290	280	-	-	ND	-	0.4	0.11	-	ND	1	-	-	-
MW-20	10/25/2003	BSK	2600	1600	8.2	660	-	66	31	430	11	-	-	-	-	ND	-	0.4	0.11	-	ND	1.1	-	-	-
MW-20	4/1/2004	UNK	2500	1600	8.0	680	-	73	36	480	10	290	320	680	ND	ND	-	0.4	0.13	-	ND	1.1	-	-	-
MW-20	11/15/2004	BSK	2400	1500	7.9	670	-	64	31	430	10	280	260	820	<2.7	<0.3	-	0.4	0.11	-	<0.05	1	-	-	-
MW-20	4/7/2005	UNK	2500	1500	8.0	690	-	67	32	460	11	310	300	690	ND	ND	-	0.4	0.14	-	ND	1.1	-	-	-
MW-20	10/14/2005	UNK	2600	1600	8.4	720	-	67	31	550	12	290	280	690	ND	ND	-	0.4	0.13	-	ND	1.2	-	-	-
MW-20	4/20/2006	DL	2610	1560	7.9	718	-	54	25	460	17	264	265	718	<0.1	<0.1	-	0.31	0.14	-	<0.01	0.98	-	-	-
MW-20	9/26/2006	UNK	2892	1703	7.9	667	-	59.8	27.8	533	17.6	353	336	667	ND	-	-	0.39	0.13	-	ND	1.15	-	-	-
MW-20	3/29/2007	TL	2600	1700	7.7	670	-	56	26	510	26	260	280	820	<20	<1	<10	0.41	0.17	<0.005	-	-	27	-	<0.005
MW-20	9/24/2007	TL	2700	1600	7.6	-	-	-	-	-	-	140	290	880	<50	-	-	-	-	-	-	-	-	-	-
MW-20	4/6/2008	BCL	2930	1900	7.78	-	-	-	-	-	-	280	340	1000	<0.4	-	-	-	-	-	-	-	-	-	-
MW-20	9/4/2008	BCL	2940	1800	7.8	-	-	-	-	-	-	300	340	1013	<0.4	-	-	-	0.15	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-20	4/3/2009	UNK	2760	1800	7.7	-	-	-	-	-	-	300	350	750	ND	-	-	-	0.12	-	-	-	-	-	-
MW-20	10/1/2009	BSK	2600	1600	8.1	-	-	-	-	-	-	280	290	964	<10	-	-	-	-	-	-	-	-	-	-
MW-20	10/19/2010	SSC	2800	1700	7.5	-	-	-	-	-	-	320	310	880	<2	-	-	-	-	-	-	-	-	-	-
MW-20	6/2/2011	SSC	2700	1700	7.5	-	-	-	-	-	-	230	290	800	<2.2	-	-	-	-	-	-	-	-	-	-
MW-20	10/3/2011	SSC	2800	1700	7.4	-	-	-	-	-	-	230	310	850	<2.2	-	-	-	-	-	-	-	-	-	-
MW-20	3/30/2012	BCL	2760	1700	7.94	-	-	-	-	-	-	230	310	915	<0.9	-	-	-	-	-	-	-	-	-	-
MW-20	10/4/2012	BCL	2680	1800	7.86	-	-	-	-	-	-	220	310	988	<0.9	-	-	-	-	-	-	-	-	-	-
MW-20	5/6/2013	BCL	2650	1800	7.7	-	-	-	-	-	-	220	310	860	<0.9	-	-	-	-	-	-	-	-	-	-
MW-20	10/24/2013	BCL	2780	1800	7.9	-	-	-	-	-	-	240	330	870	<0.9	-	-	-	-	-	-	-	-	-	-
MW-20	5/15/2014	BCL	3010	1800	7.9	-	-	-	-	-	-	240	310	870	<0.9	-	-	-	-	-	-	-	-	-	-
MW-20	10/16/2014	BCL	2810	1600	7.8	-	-	-	-	-	-	290	310	760	ND	-	-	-	-	-	-	-	-	-	-
MW-21	5/21/1990	UNK	5500	3120	7.1	-	-	135	75	730	265	84	521	2573	5.8	-	-	-	-	-	0.077	1.513	-	-	-
MW-21	11/16/1990	UNK	-	2530	6.9	-	-	-	-	-	140	-	433	2097	-	-	-	0.32	0.954	-	0.716	2.76	-	-	-
MW-21	6/18/1991	UNK	3900	2400	7.2	-	-	-	-	-	97	-	408	1667	-	-	-	-	0.719	-	-	-	-	-	-
MW-21	10/22/1991	UNK	4000	2340	7.0	-	-	159	59	580	83	279	415	1450	12	0.06	-	0.44	0.208	-	3.22	2.47	-	-	-
MW-21	2/25/1992	UNK	4000	2510	7.3	-	-	180	62	610	95	278	408	1520	-	0.05	-	0.72	0.258	-	4.62	2.98	-	-	-
MW-21	10/23/1992	UNK	3800	2230	7.1	-	-	145	47	575	123	279	347	1420	-	0.05	-	0.53	0.163	-	3.8	1.85	-	-	-
MW-21	3/9/1993	UNK	3800	2100	7.4	-	-	56	12.2	748	46	7	418	1630	-	-	-	0.2	0.761	-	4.08	0.784	-	-	-
MW-21	9/23/1993	UNK	4200	2470	7.2	-	-	145	61	643	122	210	390	1770	-	0.07	-	0.48	0.493	-	7.2	1.8	-	-	-
MW-21	3/14/1994	UNK	4300	2690	7.0	-	-	140	65	730	142	145	404	2010	-	-	-	0.47	0.969	-	6.88	1.37	-	-	-
MW-21	10/3/1994	UNK	3180	2560	7.0	-	-	128	60	690	92	177	405	1790	-	-	-	0.47	0.66	-	0.29	1.29	-	-	-
MW-21	3/15/1995	UNK	5000	2630	7.1	-	-	136	68	724	71	210	436	1820	-	-	-	0.45	0.48	-	-	1.26	-	-	-
MW-21	10/15/1995	UNK	3960	2380	7.4	-	-	120	57	639	71	256	426	1430	-	-	-	0.56	0.21	-	-	1.21	-	-	-
MW-21	10/4/1996	UNK	3520	2050	8.4	-	-	0.88	44	598	98	229	374	1350	-	-	-	0.48	0.272	-	-	0.768	-	-	-
MW-21	6/4/1997	UNK	2600	1530	7.5	-	-	54	26	435	64	223	270	923	-	0.07	-	0.4	0.172	-	-	0.474	-	-	-
MW-21	3/24/1998	UNK	2000	1400	7.4	-	-	56	25	380	61	200	250	700	-	2.3	-	0.24	0.16	-	-	0.52	-	-	-
MW-21	8/25/1998	UNK	2200	1300	7.7	-	-	23	4.6	460	28	44	260	700	ND	ND	-	0.017	0.29	-	0.24	0.32	-	-	-
MW-21	4/22/1999	BSK	2400	1400	7.2	730	12.6	51	25	440	78	200	230	891	<6	<3	-	0.4	0.17	-	<0.05	0.4	-	-	-
MW-21	5/21/2000	BSK	2200	1500	7.3	680	11.5	52	24	400	80	250	250	830	<5	<2.5	-	0.4	0.12	-	<0.05	0.5	-	-	-
MW-21	12/19/2000	BSK	2300	1400	7.4	640	12.1	44	21	390	63	200	240	781	<5	<2.5	-	0.3	0.13	-	<0.05	0.4	-	-	-
MW-21	6/4/2001	BSK	2100	1300	7.3	580	10.5	51	23	360	60	210	250	708	<4	<2	-	0.3	0.11	-	<0.05	0.5	-	-	-
MW-21	6/10/2001	UNK	2100	1300	7.3	-	-	51	23	360	60	210	250	580	ND	ND	-	0.3	0.11	-	ND	0.5	-	-	-
MW-21	10/4/2001	UNK	5600	2600	7.4	2200	-	20	14	590	680	ND	440	2200	ND	ND	-	0.3	0.17	-	0.27	0.23	-	-	-
MW-21	5/2/2002	BSK	7200	3900	7.9	2600	-	23	15	580	740	72	620	2600	<6	<3	-	0.3	0.12	-	0.22	0.27	-	-	-
MW-21	12/11/2002	BSK	3400	1800	8.1	1100	-	38	22	400	190	210	300	-	-	ND	-	0.3	0.1	-	ND	0.33	-	-	-
MW-21	3/22/2003	BSK	3300	1800	-	1000	-	47	27	390	170	210	320	-	-	ND	-	0.3	0.13	-	ND	0.61	-	-	-
MW-21	10/25/2003	BSK	2700	1600	7.9	880	-	62	31	410	120	190	-	-	-	ND	-	0.3	0.12	-	ND	0.79	-	-	-
MW-21	3/31/2004	BSK	2300	1400	7.8	750	-	69	34	390	66	210	260	920	<0.9	<0.1	-	0.3	0.11	-	<0.05	0.86	-	-	-
MW-21	11/14/2004	BSK	2300	1400	8.0	840	-	57	31	390	73	170	230	1020	<4	<0.5	-	0.3	0.09	-	<0.05	0.69	-	-	-
MW-21	4/7/2005	UNK	2300	1300	7.9	780	-	54	28	380	66	160	230	780	ND	ND	-	0.2	0.08	-	ND	0.59	-	-	-
MW-21	4/2/2009	UNK	2840	1600	7.7	-	-	-	-	-	-	180	280	1000	ND	-	-	-	0.19	-	-	-	-	-	-
MW-21	10/1/2009	BSK	2800	1600	8.0	-	-	-	-	-	-	190	250	1220	<10	-	-	-	-	-	-	-	-	-	-
MW-21	10/19/2010	SSC	2900	1800	7.3	-	-	-	-	-	-	190	250	1342	<2	-	-	-	-	-	-	-	-	-	-
MW-21	6/2/2011	SSC	3200	1900	7.3	-	-	-	-	-	-	180	280	1200	<2.2	-	-	-	-	-	-	-	-	-	-
MW-21	10/3/2011	SSC	3300	1900	7.1	-	-	-	-	-	-	180	280	1200	<2.2	-	-	-	-	-	-	-	-	-	-
MW-21	3/30/2012	BCL	3530	2200	7.72	-	-	-	-	-	-	170	320	1586	<0.9	-	-	-	-	-	-	-	-	-	-
MW-21	10/4/2012	BCL	3460	2100	7.72	-	-	-	-	-	-	180	330	1708	<0.9	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-21	5/6/2013	BCL	3570	2400	7.5	-	-	-	-	-	-	180	340	1400	<0.9	-	-	-	-	-	-	-	-	-	-
MW-21	10/24/2013	BCL	3820	2500	7.6	-	-	-	-	-	-	180	380	1400	<2.2	-	-	-	-	-	-	-	-	-	-
MW-21	5/16/2014	BCL	3910	2400	6.8	-	-	-	-	-	-	200	360	1100	<0.9	-	-	-	-	-	-	-	-	-	-
MW-21	10/17/2014	BCL	3840	2000	7.3	-	-	-	-	-	-	200	340	1400	ND	-	-	-	-	-	-	-	-	-	-
MW-23	4/12/1990	UNK	8400	4460	7.5	-	-	78	69	900	559	132	777	3756	-	-	-	-	-	-	0.195	0.566	-	-	-
MW-23	11/19/1990	UNK	-	4060	7.2	-	-	-	-	-	580	-	783	2616	-	-	-	0.25	2.94	-	0.573	0.717	-	-	-
MW-23	6/19/1991	UNK	8000	4200	7.2	-	-	-	-	-	595	-	776	3838	-	-	-	-	2.69	-	-	-	-	-	-
MW-23	10/23/1991	UNK	7500	3930	7.1	-	-	101	78	920	565	122	748	3480	-	-	-	0.23	2.42	-	6.45	0.635	-	-	-
MW-23	3/12/1992	UNK	7400	3900	7.4	-	-	98	70	840	615	102	644	3410	-	-	-	0.43	3.16	-	6.81	0.592	-	-	-
MW-23	10/26/1992	UNK	6500	3380	7.2	-	-	88	64	820	470	125	570	2940	-	-	-	0.26	2.1	-	5.11	0.561	-	-	-
MW-23	3/5/1993	UNK	6500	3340	7.3	-	-	102	75	825	487	135	585	2970	-	0.05	-	0.33	1.24	-	6.6	0.674	-	-	-
MW-23	9/24/1993	UNK	6000	3000	7.4	-	-	108	78	781	385	120	580	2730	-	0.06	-	0.27	1.76	-	6.89	0.71	-	-	-
MW-23	4/11/1994	UNK	6000	3210	7.0	-	-	81	62	780	489	80	542	2890	-	0.08	-	0.32	1.91	-	5.2	0.583	-	-	-
MW-23	10/4/1994	UNK	6280	3500	7.0	-	-	87	67	755	506	80	570	2990	-	-	-	0.29	2.02	-	0.91	0.57	-	-	-
MW-23	3/30/1995	UNK	5230	2820	7.0	-	-	61	51	705	390	42	470	2590	-	-	-	0.3	1.29	-	0.15	0.42	-	-	-
MW-23	3/24/1998	UNK	3900	2400	7.5	-	-	48	32	630	380	120	410	1700	-	-	-	0.37	0.81	-	-	0.31	-	-	-
MW-23	4/22/1999	BSK	4900	2700	7.3	1900	16	53	35	610	450	140	400	2318	<5	<5	-	0.38	0.85	-	0.15	0.42	-	-	-
MW-23	5/21/2000	BSK	4100	2500	7.2	1700	16.8	30	24	510	390	140	360	2074	<10	<5	-	0.4	0.49	-	0.07	0.42	-	-	-
MW-23	12/19/2000	BSK	4900	2500	7.4	1700	13.5	51	30	490	360	200	400	2074	<10	<5	-	0.4	0.6	-	0.21	0.43	-	-	-
MW-23	6/4/2001	BSK	4400	2400	7.4	1600	18.6	30	22	550	380	180	390	1952	<8	<4	-	0.4	0.46	-	0.2	0.36	-	-	-
MW-23	6/10/2001	UNK	4400	2400	7.4	1600	-	30	22	550	380	180	390	1600	ND	ND	-	0.4	0.46	-	0.2	0.36	-	-	-
MW-23	10/3/2001	UNK	4200	2200	7.2	1500	-	44	28	540	350	210	360	1500	ND	ND	-	0.4	0.4	-	0.14	0.38	-	-	-
MW-23	5/2/2002	BSK	3800	2400	7.7	1200	-	41	23	450	230	240	340	1200	<10	<5	-	0.4	0.28	-	0.07	0.42	-	-	-
MW-23	12/11/2002	BSK	3700	2000	8.1	-	-	40	22	420	230	220	310	-	-	ND	-	0.3	0.21	-	0.1	0.63	-	-	-
MW-23	3/22/2003	BSK	1300	1900	7.9	1200	-	17	15	460	210	94	-	-	-	ND	-	0.5	0.23	-	0.14	0.21	-	-	-
MW-23	10/24/2003	BSK	3300	1800	7.8	1100	-	36	21	440	230	170	280	-	-	ND	-	0.4	0.24	-	0.09	0.4	-	-	-
MW-23	3/31/2004	BSK	3300	1900	7.8	1200	-	18	16	490	230	150	300	1460	<0.9	<0.1	-	0.5	0.21	-	0.08	0.19	-	-	-
MW-23	11/14/2004	BSK	3000	1700	8.0	1200	-	16	14	440	210	83	240	1460	<9	<1	-	0.4	0.2	-	0.12	0.17	-	-	-
MW-23	4/7/2005	UNK	3400	1800	7.7	1400	-	17	14	470	260	63	260	1400	ND	ND	-	0.4	0.25	-	0.1	0.19	-	-	-
MW-23	10/14/2005	UNK	3400	1800	8.2	1400	-	18	17	490	250	82	230	1400	ND	ND	-	0.5	ND	-	0.1	0.22	-	-	-
MW-23	4/19/2006	DL	3804	1963	7.7	1575	-	16	15	720	559	34	246	1575	<0.1	<0.1	-	0.29	0.35	-	0.15	0.21	-	-	-
MW-23	9/25/2006	UNK	3502	1855	7.5	1100	-	17.5	13.4	423	270	59	264	1100	ND	ND	-	0.36	0.26	-	0.14	0.29	-	-	-
MW-23	4/2/2009	UNK	3800	2200	7.7	-	-	-	-	-	-	100	290	1500	ND	-	-	-	0.39	-	-	-	-	-	-
MW-23	10/1/2009	BSK	3200	1700	8.0	-	-	-	-	-	-	88	240	1586	<10	-	-	-	-	-	-	-	-	-	-
MW-23	10/19/2010	SSC	3300	1800	7.3	-	-	-	-	-	-	99	250	1600	<2	-	-	-	-	-	-	-	-	-	-
MW-23	6/2/2011	SSC	4700	2400	7.3	-	-	-	-	-	-	180	360	1800	<2.2	-	-	-	-	-	-	-	-	-	-
MW-23	10/3/2011	SSC	5200	2700	7.3	-	-	-	-	-	-	230	420	1900	<2.2	-	-	-	-	-	-	-	-	-	-
MW-23	3/30/2012	BCL	5920	3300	7.85	-	-	-	-	-	-	370	510	2318	<2.2	-	-	-	-	-	-	-	-	-	-
MW-23	4/3/2012	BCL	-	-	-	-	-	-	-	-	-	-	520	2440	-	-	-	-	-	-	-	-	-	-	-
MW-23	10/4/2012	BCL	5680	3400	7.48	-	-	-	-	-	-	400	520	2440	<2.2	-	-	-	-	-	-	-	-	-	-
MW-23	5/6/2013	BCL	5690	3400	7.5	-	-	-	-	-	-	360	560	2000	<2.2	-	-	-	-	-	-	-	-	-	-
MW-23	10/24/2013	BCL	5290	3000	7.5	-	-	-	-	-	-	290	500	1800	<2.2	-	-	-	-	-	-	-	-	-	-
MW-23	5/16/2014	BCL	4810	2600	8.2	-	-	-	-	-	-	220	440	1700	<2.2	-	-	-	-	-	-	-	-	-	-
MW-23	10/17/2014	BCL	4420	2200	7.3	-	-	-	-	-	-	190	360	1500	ND	-	-	-	-	-	-	-	-	-	-
MW-24	4/12/1990	UNK	1670	1110	7.1	-	-	121	43	157	11	236	276	259	-	-	-	-	-	-	8.731	1.888	-	-	-
MW-24	11/19/1990	UNK	-	1180	7.0	-	-	-	-	-	17.2	-	341	291	-	-	-	0.14	-	-	10.9	2.14	-	-	-
MW-24	6/19/1991	UNK	2300	1530	7.0	-	-	-	-	-	15.6	-	367	417	-	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-24	10/23/1991	UNK	2300	1280	6.9	-	-	140	51	206	14.9	218	326	432	-	0.05	-	0.17	-	-	14.26	1.93	-	-	-
MW-24	3/12/1992	UNK	2500	1580	7.0	-	-	160	54	256	14.5	163	339	604	-	0.05	-	0.29	0.11	-	12	2.05	-	-	-
MW-24	10/26/1992	UNK	2300	1260	7.3	-	-	132	46	230	21	183	328	503	-	0.06	-	0.2	0.257	-	18.1	2.04	-	-	-
MW-24	3/5/1993	UNK	1780	1070	7.1	-	-	113	43	199	9.7	166	294	432	-	0.06	-	0.25	0.111	-	8.51	1.55	-	-	-
MW-24	9/24/1993	UNK	1730	1030	7.2	-	-	116	42	194	11.6	145	294	400	-	0.06	-	0.16	0.178	-	58.6	1.98	-	-	-
MW-24	4/4/1994	UNK	1940	1170	7.1	-	-	84	36	265	16.7	125	306	483	-	0.05	-	0.26	-	-	11	1.2	-	-	-
MW-24	3/30/1995	UNK	2180	1440	7.2	-	-	98	40	324	21	180	341	550	13.7	-	-	0.19	0.19	-	-	0.66	-	-	-
MW-24	6/6/1997	UNK	2510	1580	7.3	-	-	149	60	288	21	384	386	450	-	0.05	-	0.27	0.237	-	-	1.99	-	-	-
MW-24	3/24/1998	UNK	2500	1600	7.0	-	-	180	69	280	18	390	450	320	-	-	-	-	-	-	-	2.6	-	-	-
MW-24	8/29/1998	UNK	2800	1700	6.8	-	-	200	95	300	21	540	440	280	48.7	ND	-	0.24	ND	-	0.19	6.1	-	-	-
MW-24	4/22/1999	BSK	2700	2000	6.4	220	4	210	100	280	18	650	440	268	<10	<5	-	0.2	0.07	-	0.22	7.1	-	-	-
MW-24	5/21/2000	BSK	2300	1600	6.2	150	3.8	140	81	230	13	490	440	183	<5	<2.5	-	0.2	<0.05	-	1.6	4.8	-	-	-
MW-24	12/17/2000	BSK	2600	1800	6.3	200	3.3	200	98	230	14	690	440	244	<6	<3	-	0.1	<0.05	-	2.6	4.1	-	-	-
MW-24	6/5/2001	BSK	2400	1700	6.7	220	3.3	200	97	230	14	600	460	268	-	<3	-	0.2	<0.05	-	1	3.9	-	-	-
MW-24	6/15/2001	UNK	2400	1700	6.7	220	-	200	97	230	14	600	460	220	ND	ND	-	0.2	ND	-	1	3.9	-	-	-
MW-24	10/3/2001	UNK	2600	1800	6.2	190	-	240	110	250	14	640	430	190	ND	ND	-	0.1	ND	-	ND	3.9	-	-	-
MW-24	5/2/2002	BSK	2600	1900	6.7	190	-	180	86	210	13	590	430	190	<8	<4	-	0.1	<0.05	-	2.7	3.4	-	-	-
MW-24	12/11/2002	BSK	2700	2900	7.7	200	-	200	83	200	12	670	420	-	-	ND	-	0.1	ND	-	3.1	3.6	-	-	-
MW-24	3/22/2003	BSK	2800	1900	-	190	-	210	95	190	12	620	500	-	-	ND	-	0.1	ND	-	3.4	4.3	-	-	-
MW-24	10/24/2003	BSK	3100	2200	7.4	160	-	240	110	220	15	640	570	-	-	ND	-	ND	ND	-	6.7	4.8	-	-	-
MW-24	4/1/2004	UNK	3200	2500	7.2	240	-	290	120	280	14	660	650	240	ND	ND	-	0.1	ND	-	7.2	5.1	-	-	-
MW-24	11/14/2004	BSK	2800	1900	7.6	300	-	200	84	280	13	570	500	370	<9	<1	-	0.2	<0.05	-	4.2	3.6	-	-	-
MW-24	4/7/2005	UNK	2800	1800	7.5	310	-	180	75	290	16	540	470	310	ND	ND	-	0.2	ND	-	0.29	3.2	-	-	-
MW-24	10/14/2005	UNK	2600	1600	7.9	370	-	160	72	300	20	440	400	370	ND	ND	-	0.2	ND	-	0.7	3.2	-	-	-
MW-24	4/19/2006	DL	2424	1420	7.4	422	-	128	57	264	36	317	336	422	<0.1	<0.1	-	0.21	0.06	-	1.54	2.2	-	-	-
MW-24	9/25/2006	UNK	2012	1512	7.0	426	-	128	58.1	273	25	390	373	426	ND	ND	-	0.2	0.05	-	1.45	2.33	-	-	-
MW-24	3/29/2007	TL	2300	1500	7.0	360	-	130	58	300	42	340	300	440	<20	<1	<10	0.25	0.072	<0.005	-	-	<5	-	<0.005
MW-24	9/23/2007	TL	2300	1500	6.9	-	-	-	-	-	-	300	350	450	<20	-	-	-	-	-	-	-	-	-	-
MW-24	4/5/2008	BCL	2150	1400	7.19	-	-	-	-	-	-	250	320	500	-	-	-	-	-	-	-	-	-	-	-
MW-24	9/2/2008	BCL	2320	1400	7.2	-	-	-	-	-	-	310	410	476	<0.9	-	-	-	0.044	-	-	-	-	-	-
MW-24	4/3/2009	UNK	2740	1800	7.0	-	-	-	-	-	-	360	510	440	ND	-	-	-	0.07	-	-	-	-	-	-
MW-24	9/30/2009	BSK	2600	1600	7.9	-	-	-	-	-	-	300	460	549	<10	-	-	-	-	-	-	-	-	-	-
MW-24	10/19/2010	SSC	2900	1800	6.8	-	-	-	-	-	-	350	470	561	<2	-	-	-	-	-	-	-	-	-	-
MW-24	6/2/2011	SSC	3100	1900	6.9	-	-	-	-	-	-	140	400	980	<2.2	-	-	-	-	-	-	-	-	-	-
MW-24	10/3/2011	SSC	3200	1900	6.8	-	-	-	-	-	-	220	420	940	<2.2	-	-	-	-	-	-	-	-	-	-
MW-24	3/30/2012	BCL	2890	1800	7.29	-	-	-	-	-	-	180	390	952	<0.9	-	-	-	-	-	-	-	-	-	-
MW-24	10/4/2012	BCL	2800	1900	7.09	-	-	-	-	-	-	150	420	1074	<2.2	-	-	-	-	-	-	-	-	-	-
MW-24	5/6/2013	BCL	2740	1800	7.2	-	-	-	-	-	-	150	420	830	<2.2	-	-	-	-	-	-	-	-	-	-
MW-24	10/24/2013	BCL	2890	1900	7.4	-	-	-	-	-	-	170	450	790	<2.2	-	-	-	-	-	-	-	-	-	-
MW-24	5/15/2014	BCL	3180	1800	7.2	-	-	-	-	-	-	200	460	740	<2.2	-	-	-	-	-	-	-	-	-	-
MW-24	10/16/2014	BCL	3020	1400	7.1	-	-	-	-	-	-	250	450	690	ND	-	-	-	-	-	-	-	-	-	-
MW-25	4/12/1990	UNK	3000	2190	7.9	-	-	28	16	620	2.2	160	293	1125	-	-	-	-	-	-	0.239	0.622	-	-	-
MW-25	11/19/1990	UNK	-	1695	7.7	-	-	-	-	-	80	-	273	1149	-	-	-	-	-	-	0.225	0.724	-	-	-
MW-25	6/19/1991	UNK	2800	1625	7.8	-	-	-	-	-	2.1	-	262	1165	-	-	-	-	-	-	-	-	-	-	-
MW-25	10/23/1991	UNK	2900	1635	7.6	-	-	28	21	600	2.5	139	2410	1150	-	0.39	-	0.69	-	-	0.831	0.766	-	-	-
MW-25	3/12/1992	UNK	2900	1640	7.7	-	-	24	20	585	2.4	165	266	1110	-	0.42	-	0.68	-	-	0.587	0.662	-	-	-
MW-25	10/26/1992	UNK	2800	1650	7.8	-	-	22	16.8	575	2.2	154	255	1070	-	0.35	-	0.56	-	-	0.681	0.619	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-25	3/5/1993	UNK	2800	1620	7.9	-	-	26	17.2	588	2.1	164	260	1100	-	0.32	-	0.61	-	-	0.585	0.611	-	-	-
MW-25	9/24/1993	UNK	2800	1550	8.0	-	-	20	15	578	2	155	260	1030	-	0.2	-	0.65	-	-	0.46	0.47	-	-	-
MW-25	4/13/1994	UNK	2640	1640	7.8	-	-	22	12.8	651	2.1	170	247	1050	-	0.14	-	0.58	-	-	0.431	0.392	-	-	-
MW-25	10/4/1994	UNK	2630	1610	7.8	-	-	18.8	11.5	600	2	180	260	998	-	0.1	-	0.59	-	-	0.45	0.41	-	-	-
MW-25	3/21/1995	UNK	2600	1600	7.9	-	-	18.7	10.6	600	2	186	270	969	-	0.13	-	0.64	-	-	0.07	0.387	-	-	-
MW-25	10/18/1995	UNK	2520	1950	7.9	-	-	17	9.2	558	1.7	225	280	863	-	0.1	-	0.55	-	-	0.061	0.37	-	-	-
MW-25	4/3/1996	UNK	2480	1640	8.0	-	-	16	9.1	552	1.7	215	282	843	-	0.1	-	0.52	-	-	0.169	0.357	-	-	-
MW-25	10/8/1996	UNK	2500	1450	8.8	-	-	17.1	10.7	576	2	212	308	783	-	0.1	-	0.53	-	-	0.059	0.387	-	-	-
MW-25	3/25/1997	UNK	2500	1700	7.7	-	-	25	15	650	3400	270	350	670	-	-	-	0.57	0.1	-	-	0.52	-	-	-
MW-25	6/7/1997	UNK	-	8100	7.9	-	-	13.4	15.6	1440	2040	9	1320	7270	19.5	0.12	-	0.34	1.74	-	1.72	0.02	-	-	-
MW-25	8/27/1998	UNK	2900	1700	7.9	-	-	25	16	660	5700	270	350	710	ND	ND	-	0.56	0.1	-	ND	0.55	-	-	-
MW-25	4/21/1999	BSK	2800	1800	7.9	700	22.6	29	16	610	3	280	350	854	<6	<3	-	0.5	0.09	-	<0.05	0.6	-	-	-
MW-25	11/14/1999	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-25	5/21/2000	BSK	2300	1600	7.6	760	21.7	24	13	530	2	160	300	927	<5	<2.5	-	0.5	0.08	-	0.14	0.55	-	-	-
MW-25	12/17/2000	UNK	2600	1600	7.6	750	-	22	13	540	300	150	320	750	ND	ND	-	0.5	0.07	-	0.05	0.44	-	-	-
MW-25	12/19/2000	BSK	2600	1600	7.6	750	22.6	22	13	540	3	150	320	915	<6	<3	-	0.5	0.07	-	0.05	0.44	-	-	-
MW-25	6/6/2001	BSK	2400	1500	7.7	800	21.5	23	13	520	3	160	330	976	-	<3	-	0.5	0.07	-	0.1	0.47	-	-	-
MW-25	6/15/2001	UNK	2400	1500	7.7	800	-	23	13	520	300	160	330	800	ND	ND	-	0.5	0.07	-	0.1	0.47	-	-	-
MW-25	10/3/2001	UNK	2500	1600	7.5	710	-	20	13	530	ND	150	300	710	ND	ND	-	0.5	0.07	-	0.12	0.4	-	-	-
MW-25	5/2/2002	BSK	2500	1400	7.1	1000	-	20	12	530	2	200	310	1000	<8	<4	-	0.6	0.07	-	0.11	0.4	-	-	-
MW-25	12/10/2002	BSK	2400	1400	7.8	640	-	18	11	480	3	190	290	-	-	ND	-	0.7	0.06	-	0.16	0.34	-	-	-
MW-25	3/23/2003	BSK	2500	1500	8.0	630	-	16	9.6	470	ND	210	310	-	-	ND	-	0.8	0.06	-	0.18	0.36	-	-	-
MW-25	10/24/2003	BSK	2600	1500	8.4	710	-	18	12	500	3	190	-	-	-	ND	-	0.7	0.06	-	0.14	0.38	-	-	-
MW-25	4/1/2004	UNK	2600	1600	8.2	710	-	23	15	600	3	430	650	710	ND	ND	-	0.8	0.09	-	0.06	0.55	-	-	-
MW-25	11/14/2004	BSK	2600	1600	8.1	820	-	39	31	520	2	180	340	1000	<9	<1	-	0.6	0.1	-	<0.05	1	-	-	-
MW-25	4/7/2005	UNK	2800	1600	8.0	810	-	55	38	510	2	220	360	810	ND	ND	-	0.6	0.13	-	ND	1.3	-	-	-
MW-25	10/13/2005	UNK	2900	1800	8.1	740	-	64	38	570	3	320	370	740	ND	ND	-	0.7	0.15	-	ND	1.4	-	-	-
MW-25	4/19/2006	DL	3528	2078	7.8	777	-	67	37	584	9.3	461	382	777	<0.1	<0.1	-	0.72	0.17	-	<0.01	1.4	-	-	-
MW-25	9/25/2006	UNK	3658	2313	7.8	255	-	70.4	39	679	6.6	572	461	255	ND	ND	-	0.82	0.18	-	0.03	1.52	-	-	-
MW-25	3/29/2007	TL	3700	2500	7.6	910	-	72	41	750	14	460	420	1100	<20	<1	<10	0.98	0.21	0.0065	-	-	74	-	<0.005
MW-25	9/24/2007	TL	3600	2100	7.5	-	-	-	-	-	-	410	390	1100	<50	-	-	-	-	-	-	-	-	-	-
MW-25	4/6/2008	BCL	3520	2300	7.84	-	-	-	-	-	-	400	450	1159	<0.9	-	-	-	-	-	-	-	-	-	-
MW-25	9/4/2008	BCL	3470	2300	7.8	-	-	-	-	-	-	320	430	1208	<0.4	-	-	-	0.13	-	-	-	-	-	-
MW-25	4/3/2009	UNK	3470	2400	7.6	-	-	-	-	-	-	390	460	910	ND	-	-	-	0.16	-	-	-	-	-	-
MW-25	10/2/2009	BSK	3400	2100	8.1	-	-	-	-	-	-	350	440	1171	<20	-	-	-	-	-	-	-	-	-	-
MW-25	10/19/2010	SSC	3600	2200	7.4	-	-	-	-	-	-	350	450	1200	<2	-	-	-	-	-	-	-	-	-	-
MW-25	6/2/2011	SSC	3300	2200	7.4	-	-	-	-	-	-	250	430	1000	<2.2	-	-	-	-	-	-	-	-	-	-
MW-25	10/3/2011	SSC	3400	2100	7.4	-	-	-	-	-	-	180	410	1100	<2.2	-	-	-	-	-	-	-	-	-	-
MW-25	3/30/2012	BCL	3320	2100	7.89	-	-	-	-	-	-	83	370	1464	<0.9	-	-	-	-	-	-	-	-	-	-
MW-25	10/4/2012	BCL	3020	2100	7.65	-	-	-	-	-	-	67	370	1464	<0.9	-	-	-	-	-	-	-	-	-	-
MW-25	5/7/2013	BCL	3160	2100	7.8	-	-	-	-	-	-	64	340	1200	<0.9	-	-	-	-	-	-	-	-	-	-
MW-25	10/24/2013	BCL	3160	2100	7.8	-	-	-	-	-	-	57	380	1200	<0.9	-	-	-	-	-	-	-	-	-	-
MW-25	5/15/2014	BCL	3590	2200	7.8	-	-	-	-	-	-	96	410	1100	<0.4	-	-	-	-	-	-	-	-	-	-
MW-25	10/17/2014	BCL	3350	2000	7.5	-	-	-	-	-	-	110	430	1100	1.9	-	-	-	-	-	-	-	-	-	-
MW-26	4/12/1990	UNK	14000	8340	7.8	-	-	6.2	16	1280	2150	64	1145	7553	-	-	-	-	-	-	1.79	0.027	-	-	-
MW-26	11/19/1990	UNK	-	7700	7.8	-	-	-	-	-	1780	-	1102	5694	-	-	-	-	1.95	-	2.73	0.062	-	-	-
MW-26	6/19/1991	UNK	15300	8640	7.6	-	-	-	-	-	1890	-	1241	8693	-	-	-	-	2.15	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-26	10/23/1991	UNK	16000	8400	7.6	-	-	14	27	1470	2380	54	1220	8130	-	0.2	-	0.3	2.26	-	3.26	0.016	-	-	-
MW-26	3/12/1992	UNK	16300	8520	7.8	-	-	24	31	1420	2580	65	1350	8420	-	0.19	-	0.29	2.6	-	3.12	0.016	-	-	-
MW-26	10/26/1992	UNK	16600	9300	7.8	-	-	32	23	1430	2480	-	1380	8440	-	0.14	-	0.29	2.73	-	2.93	0.02	-	-	-
MW-26	3/5/1993	UNK	17200	8800	7.8	-	-	29	22	1560	2680	6.2	1450	8600	-	0.14	-	0.28	2.44	-	2.69	0.011	-	-	-
MW-26	9/24/1993	UNK	17400	9150	7.9	-	-	27	21	1510	2630	-	1610	8630	-	0.15	-	0.27	2.8	-	2.62	0.012	-	-	-
MW-26	4/13/1994	UNK	17500	9550	7.6	-	-	21	16.2	1880	3130	-	1610	8870	-	0.14	-	0.25	-	-	2.41	-	-	-	-
MW-26	10/4/1994	UNK	17700	9500	7.7	-	-	20	16	1720	2510	3	1620	9040	-	0.16	-	0.25	2.48	-	2.38	0.014	-	-	-
MW-26	3/21/1995	UNK	18400	10700	7.8	-	-	17	16.9	1880	2980	17	1800	9220	19.5	0.11	-	0.22	2.13	-	1.74	0.012	-	-	-
MW-26	10/18/1995	UNK	18200	10800	7.8	-	-	17	13.6	1850	2720	15	1690	8870	-	0.14	-	0.28	2.09	-	2.5	0.013	-	-	-
MW-26	4/3/1996	UNK	17900	9570	7.8	-	-	16	17.2	1780	2700	0.8	1780	8960	-	0.15	-	0.29	2.04	-	2.54	0.019	-	-	-
MW-26	10/8/1996	UNK	16200	9300	8.8	-	-	15	18.5	1690	2660	7	1560	8210	-	0.14	-	0.45	-	-	2.17	0.02	-	-	-
MW-26	6/7/1997	UNK	14500	8100	7.9	-	-	13	15.6	1440	2040	9	1320	7270	19.5	0.12	-	0.34	1.74	-	1.72	0.02	-	-	-
MW-26	3/25/1998	UNK	9600	6500	7.8	-	-	10	12	1300	1800	-	1100	4500	-	-	-	0.36	1.1	-	1.8	0.03	-	-	-
MW-26	4/22/1999	BSK	9300	5200	7.6	3200	45.4	12	15	1000	1300	<200	790	3904	<20	<10	-	0.4	1.1	-	1	0.03	-	-	-
MW-26	5/21/2000	BSK	2500	1500	7.7	1100	12.5	41	22	400	120	79	270	1342	<5	<2.5	-	0.3	2.3	-	0.46	0.28	-	-	-
MW-26	12/17/2000	BSK	7800	4100	7.7	3400	31.2	13	18	740	1000	<200	660	4148	<20	<10	-	0.3	0.91	-	1.3	0.04	-	-	-
MW-26	6/4/2001	BSK	4900	2000	7.5	1900	15	37	35	530	510	180	420	2318	<12	<6	-	0.3	1.3	-	2	0.12	-	-	-
MW-26	6/15/2001	UNK	4900	2000	7.5	1900	-	37	35	530	510	180	420	1900	ND	ND	-	0.3	1.3	-	2	0.12	-	-	-
MW-26	10/3/2001	UNK	7500	3900	7.6	3200	-	12	17	700	995	ND	600	3200	124	ND	-	0.3	0.81	-	1.2	0.03	-	-	-
MW-26	5/2/2002	BSK	7700	4300	7.9	2400	-	9.2	11	600	850	<240	600	2400	<24	<12	-	0.3	0.73	-	1	0.02	-	-	-
MW-26	12/11/2002	BSK	7200	3800	7.8	2800	-	9	11	530	730	ND	560	-	-	ND	-	0.3	0.85	-	0.6	0.02	-	-	-
MW-26	3/22/2003	BSK	6000	3300	7.9	2400	-	11	13	500	780	ND	440	-	-	ND	-	0.4	4.1	-	5.2	0.02	-	-	-
MW-26	10/24/2003	BSK	7200	3800	7.9	2800	-	11	16	590	870	ND	570	-	-	ND	-	0.3	0.68	-	1.2	0.02	-	-	-
MW-26	3/31/2004	BSK	6600	3500	7.9	2800	-	12	17	610	960	<2	560	3420	<0.9	<0.1	-	0.4	0.61	-	1.9	0.03	-	-	-
MW-26	11/13/2004	BSK	7400	4200	8.0	3000	-	17	31	720	995	270	590	3660	<22	<2.5	-	0.4	0.54	-	0.53	0.04	-	-	-
MW-26	4/7/2005	UNK	7500	3900	7.8	3000	-	14	29	730	1000	190	630	3000	ND	ND	-	ND	0.51	-	0.39	ND	-	-	-
MW-26	9/24/2007	TL	7600	4000	7.7	-	-	-	-	-	-	1000	1300	2900	<100	-	-	-	-	-	-	-	-	-	-
MW-26	4/6/2008	BCL	7290	4200	7.88	-	-	-	-	-	-	480	620	2928	8	-	-	-	-	-	-	-	-	-	-
MW-26	9/4/2008	BCL	7000	4000	7.8	-	-	-	-	-	-	450	600	2928	3.5	-	-	-	0.24	-	-	-	-	-	-
MW-26	4/3/2009	UNK	6730	4000	7.7	-	-	-	-	-	-	410	630	2100	4.9	-	-	-	0.23	-	-	-	-	-	-
MW-26	9/30/2009	BSK	6400	3300	8.3	-	-	-	-	-	-	300	600	2806	<50	-	-	-	-	-	-	-	-	-	-
MW-26	5/4/2011	SSC	3900	2200	7.6	-	-	-	-	-	-	200	490	930	66.4	-	-	-	-	-	-	-	-	-	-
MW-26	9/12/2011	SSC	2900	1600	7.7	-	-	-	-	-	-	220	360	620	75.3	-	-	-	-	-	-	-	-	-	-
MW-26	3/30/2012	BCL	2470	1500	7.93	-	-	-	-	-	-	160	310	488	160	-	-	-	-	-	-	-	-	-	-
MW-26	10/4/2012	BCL	1540	980	7.85	-	-	-	-	-	-	140	170	439	20	-	-	-	-	-	-	-	-	-	-
MW-26	5/6/2013	BCL	1570	940	8.1	-	-	-	-	-	-	130	170	410	5.4	-	-	-	-	-	-	-	-	-	-
MW-26	10/24/2013	BCL	1590	920	8.2	-	-	-	-	-	-	130	160	430	0.5	-	-	-	-	-	-	-	-	-	-
MW-26	5/15/2014	BCL	1830	990	8.2	-	-	-	-	-	-	130	160	450	0.5	-	-	-	-	-	-	-	-	-	-
MW-26	10/16/2014	BCL	1820	1000	8.1	-	-	-	-	-	-	140	170	470	ND	-	-	-	-	-	-	-	-	-	-
MW-27	4/12/1990	UNK	4500	2295	8.3	-	-	46	27	380	330	35	268	1835	-	-	-	-	-	-	1.682	0.225	-	-	-
MW-27	11/19/1990	UNK	-	2425	7.4	-	-	-	-	-	730	-	275	2795	-	-	-	-	0.965	-	2.06	0.346	-	-	-
MW-27	6/19/1991	UNK	5000	2520	7.4	-	-	-	-	-	435	-	351	2542	-	-	-	-	0.856	-	-	-	-	-	-
MW-27	10/23/1991	UNK	5600	2560	7.3	-	-	37	33	410	670	21	278	2700	-	0.12	-	0.28	1.01	-	5.7	0.324	-	-	-
MW-27	3/12/1992	UNK	5500	2620	7.4	-	-	40	42	425	710	21	340	2810	-	0.09	-	0.29	1.1	-	5.82	0.224	-	-	-
MW-27	10/26/1992	UNK	6000	2820	7.5	-	-	42	29	455	730	-	375	2980	-	0.08	-	0.29	1.22	-	4.79	0.147	-	-	-
MW-27	3/5/1993	UNK	6400	3020	7.8	-	-	45	28	520	819	65	410	3080	-	0.11	-	0.3	1.21	-	4.41	0.112	-	-	-
MW-27	9/24/1993	UNK	6800	3300	7.5	-	-	37	37	576	829	14	515	3300	-	0.08	-	0.29	1.48	-	4.47	0.116	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-27	4/13/1994	UNK	8530	4150	7.2	-	-	47	40	798	1260	6	683	4180	-	0.14	-	0.3	2.05	-	4.6	0.121	-	-	-
MW-27	10/8/1996	UNK	13800	6900	8.7	-	-	48	40	1390	2120	14.5	1360	7090	-	0.12	-	-	4.25	-	1.35	0.054	-	-	-
MW-27	6/7/1997	UNK	12900	7020	7.8	-	-	38	28	1190	1860	133	1090	6240	-	0.11	-	0.36	3.32	-	1.12	0.057	-	-	-
MW-27	3/30/1998	UNK	9800	6000	7.6	-	-	32	23	1200	1700	240	990	4100	-	-	-	0.29	2.2	-	1.2	0.08	-	-	-
MW-27	8/29/1998	UNK	11000	5700	7.6	-	-	38	30	1000	1600	13	57	4200	ND	ND	-	0.35	2.2	-	1.5	0.14	-	-	-
MW-27	4/21/1999	BSK	9500	5200	7.9	3700	33.7	29	23	1000	1600	210	850	4514	<20	<10	-	0.3	1.8	-	1.1	0.12	-	-	-
MW-27	5/21/2000	BSK	7500	4500	7.4	3500	21.8	44	34	790	1000	220	750	4270	<20	<10	-	0.3	1.4	-	1.3	0.16	-	-	-
MW-27	12/17/2000	BSK	7600	4200	7.5	3200	21.7	42	34	780	940	<200	730	3904	<20	<10	-	0.3	1.4	-	0.8	0.19	-	-	-
MW-27	6/6/2001	BSK	7100	4100	7.4	3000	20.8	45	34	760	930	<200	720	3660	-	<10	-	0.3	1.3	-	1.2	0.21	-	-	-
MW-27	6/15/2001	UNK	7100	4100	7.4	3000	-	45	34	760	930	ND	720	3000	1.3	ND	-	0.3	1.3	-	1.2	0.21	-	-	-
MW-27	10/3/2001	UNK	7100	4000	7.5	2700	-	37	31	720	890	ND	640	2700	ND	ND	-	0.3	1.1	-	0.69	0.15	-	-	-
MW-27	5/2/2002	BSK	7400	4700	7.8	3100	-	30	27	630	700	<240	680	3100	<24	<12	-	0.3	1.1	-	0.72	0.11	-	-	-
MW-27	12/10/2002	UNK	7300	4100	7.8	2700	-	25	21	590	710	ND	630	2700	ND	ND	-	0.3	1.1	-	0.97	0.1	-	-	-
MW-27	3/22/2003	BSK	7500	4200	7.9	3000	-	32	29	700	860	ND	680	-	-	ND	-	0.3	1.2	-	0.96	0.12	-	-	-
MW-27	10/24/2003	BSK	7300	4000	7.9	2900	-	34	30	760	900	ND	640	-	-	ND	-	0.3	1.2	-	1	0.1	-	-	-
MW-27	3/31/2004	BSK	7000	3900	8.0	2900	-	34	28	700	880	130	650	3540	<0.9	<0.1	-	0.3	1.1	-	0.86	0.07	-	-	-
MW-27	11/14/2004	BSK	6500	3600	8.1	2500	-	34	26	670	840	340	510	3050	<22	<2.5	-	0.4	0.78	-	0.71	0.08	-	-	-
MW-27	4/6/2005	UNK	5600	3100	8.0	1900	-	36	26	580	700	490	480	1900	ND	ND	-	0.4	0.39	-	0.46	0.07	-	-	-
MW-27	10/13/2005	UNK	5500	3100	8.0	1700	-	60	31	650	680	500	470	1700	ND	ND	-	0.5	0.19	-	0.47	0.26	-	-	-
MW-27	4/20/2006	DL	6004	3443	7.9	2111	-	54	40	1004	1326	289	570	2111	<0.1	<0.1	-	0.28	0.27	-	0.59	0.08	-	-	-
MW-27	9/25/2006	UNK	7980	4040	7.5	2219	-	70.6	38.2	743	612	333	788	2219	8	ND	-	0.32	0.36	-	0.31	0.39	-	12	-
MW-27	3/29/2007	TL	7000	4000	7.6	2300	-	50	28	810	760	220	690	2800	<50	<2.5	41	0.36	0.43	0.023	-	-	8.1	-	0.14
MW-27	9/24/2007	TL	6200	3400	7.5	-	-	-	-	-	-	250	600	2400	<100	-	-	-	-	-	-	-	-	-	-
MW-27	9/3/2008	BCL	6290	3700	7.7	-	-	-	-	-	-	420	800	2318	6.6	-	-	-	0.3	-	-	-	-	-	-
MW-27	4/3/2009	UNK	5990	3700	7.7	-	-	-	-	-	-	410	720	1900	ND	-	-	-	0.12	-	-	-	-	-	-
MW-27	10/2/2009	BSK	6000	2900	8.2	-	-	-	-	-	-	370	660	2318	<20	-	-	-	-	-	-	-	-	-	-
MW-27	1/11/2011	SSC	3200	1800	7.3	-	-	-	-	-	-	320	480	690	24.3	-	-	-	-	-	-	-	-	-	-
MW-27	5/4/2011	SSC	670	340	7.5	-	-	-	-	-	-	68	54	140	<2.2	-	-	-	-	-	-	-	-	-	-
MW-27	9/12/2011	SSC	770	430	7.8	-	-	-	-	-	-	86	75	160	<2.2	-	-	-	-	-	-	-	-	-	-
MW-27	3/30/2012	BCL	713	410	7.97	-	-	-	-	-	-	77	91	146	2.2	-	-	-	-	-	-	-	-	-	-
MW-27	10/4/2012	BCL	770	460	7.76	-	-	-	-	-	-	78	110	171	2.2	-	-	-	-	-	-	-	-	-	-
MW-27	5/6/2013	BCL	882	550	7.9	-	-	-	-	-	-	91	110	200	<0.4	-	-	-	-	-	-	-	-	-	-
MW-27	10/23/2013	BCL	1300	700	8.1	-	-	-	-	-	-	120	160	270	<0.4	-	-	-	-	-	-	-	-	-	-
MW-27	5/16/2014	BCL	1370	780	8.1	-	-	-	-	-	-	140	170	280	<0.4	-	-	-	-	-	-	-	-	-	-
MW-27	10/15/2014	BCL	1410	760	7.9	-	-	-	-	-	-	120	170	300	ND	-	-	-	-	-	-	-	-	-	-
MW-28	10/10/1991	BCL	2900	1650	7.6	-	6.9	152	62	397	7	219	270	-	-	-	-	-	-	-	-	-	-	-	-
MW-28	10/26/1992	UNK	1920	1270	7.5	-	-	145	49	212	9.1	287	175	600	-	0.05	-	0.29	0.112	-	2.18	2.14	-	-	-
MW-28	3/5/1993	UNK	2400	1330	7.4	-	-	145	48	275	9.3	275	216	679	-	0.06	-	0.39	0.106	-	2.22	1.98	-	-	-
MW-28	9/24/1993	UNK	1850	1140	7.4	-	-	119	40	235	8.3	315	177	500	-	0.05	-	0.31	0.107	-	1.67	1.65	-	-	-
MW-28	3/30/1994	UNK	1720	1160	7.5	-	-	100	36	242	8.6	345	148	408	-	-	-	0.29	-	-	-	1.14	-	-	-
MW-28	4/13/1994	UNK	1870	1230	7.4	-	-	128	35	241	8.4	325	171	487	-	0.05	-	0.31	-	-	1.53	1.4	-	-	-
MW-28	9/23/1994	UNK	1750	1140	7.4	-	-	114	39	203	8.3	310	152	428	-	0.06	-	0.28	0.1	-	1.61	1.48	-	-	-
MW-28	3/30/1995	UNK	1720	1160	7.5	-	-	100	36	242	8.6	345	148	408	-	-	-	0.29	-	-	-	1.14	-	-	-
MW-28	10/18/1995	UNK	1700	1180	7.5	-	-	110	34	210	6.5	335	162	423	-	0.05	-	0.32	-	-	-	1.21	-	-	-
MW-28	4/8/1996	UNK	1750	1110	8.4	-	-	114	37	218	7.2	392	160	404	-	0.1	-	0.35	-	-	-	1.19	-	-	-
MW-28	10/9/1996	UNK	1800	1180	8.19	-	-	109	37	250	7.7	352	169	448	-	0.05	-	0.33	-	-	-	1.21	-	-	-
MW-28	6/9/1997	UNK	1840	1190	7.4	-	-	109	39	254	7.9	364	172	455	-	0.05	-	0.38	-	-	-	1.53	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-28	3/26/1998	UNK	1800	-	7.5	-	-	100	36	260	7.8	360	170	360	-	-	-	0.25	-	-	-	1.1	-	-	-
MW-28	8/29/1998	UNK	1800	1200	7.4	-	-	140	47	240	12	510	150	320	26.6	ND	-	0.28	ND	-	ND	2.2	-	-	-
MW-28	4/22/1999	BSK	1800	1200	7.3	360	5.4	92	34	240	6	440	150	439	<4	<2	-	0.3	0.06	-	<0.05	1	-	-	-
MW-28	5/20/2000	BSK	1800	1300	7.3	330	5.4	110	38	260	8	450	150	403	4.5	<2	-	0.3	0.06	-	<0.05	1.2	-	-	-
MW-28	12/18/2000	BSK	2100	1300	7.3	290	3.8	130	46	200	8	560	140	354	<5	<2.5	-	0.2	<0.05	-	<0.05	2.4	-	-	-
MW-28	6/5/2001	BSK	1800	1400	7.3	290	4.8	120	44	240	8	550	140	354	<4	<2	-	0.3	<0.05	-	<0.05	2	-	-	-
MW-28	6/15/2001	UNK	1800	1400	7.3	290	-	120	44	240	8	550	140	290	ND	ND	-	0.3	ND	-	ND	2	-	-	-
MW-28	10/3/2001	UNK	2000	1400	7.0	220	-	170	62	200	9	670	100	220	ND	ND	-	0.2	0.05	-	ND	3.4	-	-	-
MW-28	5/2/2002	BSK	2000	1500	7.1	240	-	160	51	180	8	680	120	240	<5	<2.5	-	0.2	<0.05	-	<0.05	2.7	-	-	-
MW-28	12/13/2002	BSK	1800	1200	7.5	290	-	110	38	210	6	500	140	-	-	ND	-	0.2	ND	-	ND	1.9	-	-	-
MW-28	3/23/2003	BSK	1800	1300	7.3	300	-	100	36	230	6	490	130	-	-	ND	-	0.3	ND	-	ND	1.5	-	-	-
MW-28	10/24/2003	BSK	1600	1200	7.6	200	-	120	47	170	-	550	82	-	-	ND	-	0.2	ND	-	1.1	2.6	-	-	-
MW-28	4/1/2004	UNK	1600	1100	7.8	230	-	120	39	190	8	500	87	230	ND	ND	-	0.2	ND	-	0.68	1.4	-	-	-
MW-28	11/15/2004	BSK	1500	1100	7.6	240	-	120	43	160	6	470	93	290	<1.8	<0.2	-	0.2	<0.05	-	<0.05	1.7	-	-	-
MW-28	4/7/2005	UNK	1500	1000	7.8	250	-	120	41	160	6	440	100	250	ND	ND	-	0.2	ND	-	ND	1.3	-	-	-
MW-28	10/14/2005	UNK	1500	1000	8.2	260	-	120	50	150	9.9	400	110	260	ND	ND	-	0.2	ND	-	0.06	2.2	-	-	-
MW-28	4/19/2006	DL	1516	1010	7.7	360	-	107	36	193	14.5	291	146	360	<0.1	<0.1	-	0.28	0.04	-	<0.01	1.15	-	-	-
MW-28	9/26/2006	UNK	1541	978	7.6	348	-	93.4	39.7	205	9.8	314	154	348	ND	ND	-	0.29	0.03	-	0.1	1.49	-	-	-
MW-28	3/29/2007	TL	1600	1100	7.3	380	-	97	37	230	15	280	140	460	<10.2	<0.5	<10	0.33	0.049	<0.005	-	-	16	-	0.088
MW-28	9/25/2007	TL	1600	1100	7.4	-	-	-	-	-	-	310	140	420	<10	-	-	-	-	-	-	-	-	-	-
MW-28	4/6/2008	BCL	1830	1200	7.61	-	-	-	-	-	-	330	180	537	<0.4	-	-	-	-	-	-	-	-	-	-
MW-28	9/4/2008	BCL	1740	1200	7.5	-	-	-	-	-	-	410	160	403	<0.4	-	-	-	0.041	-	-	-	-	-	-
MW-28	4/3/2009	UNK	1730	1200	7.5	-	-	-	-	-	-	350	190	360	ND	-	-	-	0.04	-	-	-	-	-	-
MW-28	10/5/2009	BSK	1800	1100	8.0	-	-	-	-	-	-	300	190	500	<10	-	-	-	-	-	-	-	-	-	-
MW-28	10/6/2010	SSC	2200	1300	7.3	-	-	-	-	-	-	320	240	550	<2	-	-	-	-	-	-	-	-	-	-
MW-28	5/19/2011	SSC	2100	1300	7.2	-	-	-	-	-	-	360	220	430	<2.2	-	-	-	-	-	-	-	-	-	-
MW-28	9/21/2011	SSC	2200	1400	7.2	-	-	-	-	-	-	350	250	470	<2.2	-	-	-	-	-	-	-	-	-	-
MW-28	3/30/2012	BCL	2280	1500	7.65	-	-	-	-	-	-	320	270	586	<0.9	-	-	-	-	-	-	-	-	-	-
MW-28	10/4/2012	BCL	2180	1500	7.5	-	-	-	-	-	-	320	270	622	<0.9	-	-	-	-	-	-	-	-	-	-
MW-28	5/7/2013	BCL	2050	1400	7.6	-	-	-	-	-	-	370	240	450	<0.9	-	-	-	-	-	-	-	-	-	-
MW-28	10/24/2013	BCL	2100	1500	7.5	-	-	-	-	-	-	360	240	460	<0.9	-	-	-	-	-	-	-	-	-	-
MW-28	5/16/2014	BCL	2200	1500	8.2	-	-	-	-	-	-	410	240	460	<0.9	-	-	-	-	-	-	-	-	-	-
MW-28	10/17/2014	BCL	2250	1300	7.5	-	-	-	-	-	-	440	240	420	ND	-	-	-	-	-	-	-	-	-	-
MW-29	10/14/1991	BCL	1910	1345	7.6	-	2.5	196	56	157	6.7	308	227	-	-	-	-	-	-	-	-	-	-	-	-
MW-29	10/26/1992	UNK	2500	1490	7.3	-	-	220	62	187	7.3	234	262	691	-	0.07	-	0.32	0.277	-	6.7	2.83	-	-	-
MW-29	3/5/1993	UNK	2600	1520	7.2	-	-	200	54	250	7.4	192	266	882	-	0.05	-	0.26	0.233	-	6.8	2.34	-	-	-
MW-29	9/24/1993	UNK	3000	1700	7.3	-	-	242	67	324	8.3	180	324	1110	-	0.05	-	0.4	0.231	-	8.53	2.67	-	-	-
MW-29	3/30/1994	UNK	2900	1640	7.3	-	-	203	60	309	8	165	316	1030	-	0.05	-	0.31	0.252	-	7	2.44	-	-	-
MW-29	4/13/1994	UNK	2190	1380	7.2	-	-	184	47	250	7.2	180	242	786	-	0.05	-	0.28	0.178	-	5.17	1.81	-	-	-
MW-29	9/23/1994	UNK	1750	1270	7.2	-	-	0.156	42	166	6.6	265	166	495	-	0.05	-	0.19	0.16	-	4.95	1.88	-	-	-
MW-29	3/30/1995	UNK	1800	1220	7.3	-	-	156	46	177	6.1	314	172	503	-	0.23	-	-	0.12	-	-	1.63	-	-	-
MW-29	10/18/1995	UNK	1820	1210	7.5	-	-	165	41	178	5.4	310	175	527	-	0.06	-	0.28	0.11	-	-	1.6	-	-	-
MW-29	4/8/1996	UNK	1900	1760	8.1	-	-	176	46	196	6.1	304	194	608	-	-	-	0.31	0.115	-	-	1.71	-	-	-
MW-29	10/9/1996	UNK	1900	1230	8.1	-	-	169	47	210	6.4	302	184	582	-	0.05	-	0.29	0.114	-	-	1.58	-	-	-
MW-29	6/9/1997	UNK	1960	1260	7.2	-	-	170	48	212	6.4	310	198	598	-	0.05	-	0.34	0.122	-	-	1.83	-	-	-
MW-29	3/26/1998	UNK	1600	1200	7.3	-	-	6.4	1.5	230	7	550	410	800	-	-	-	0.22	0.11	-	-	1.5	-	-	-
MW-29	8/29/1998	UNK	2000	1300	7.3	-	-	200	57	230	8.6	420	200	470	27.4	ND	-	0.22	0.12	-	ND	2.5	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-29	4/22/1999	BSK	1800	1300	7.1	470	3.2	170	45	180	6	290	210	573	<4	<2	-	0.2	0.09	-	<0.05	1.7	-	-	-
MW-29	5/20/2000	BSK	1700	1200	6.8	320	2.2	170	51	130	7	340	180	390	<4	<2	-	0.1	0.06	-	2.5	2.2	-	-	-
MW-29	12/18/2000	BSK	1800	1100	7.4	290	2.2	140	53	120	7	360	170	354	<4	<2	-	0.1	0.07	-	0.46	2.3	-	-	-
MW-29	6/5/2001	BSK	1600	1200	6.7	270	2.1	150	60	120	7	390	170	329	<4	<2	-	0.1	0.07	-	1	2.5	-	-	-
MW-29	10/4/2001	UNK	1600	1200	6.7	210	-	160	61	100	6	440	140	210	ND	ND	-	0.1	0.07	-	0.26	2.8	-	-	-
MW-29	5/2/2002	BSK	1600	1200	6.6	200	-	160	62	88	7	470	140	200	<4	<2	-	<0.1	0.06	-	0.69	2.8	-	-	-
MW-29	12/13/2002	BSK	1500	1000	6.9	220	-	130	52	85	6	380	150	-	-	ND	-	0.1	ND	-	1.3	2.3	-	-	-
MW-29	3/23/2003	BSK	1500	1100	6.8	210	-	140	51	83	6	400	-	-	-	ND	-	0.1	0.05	-	3	-	-	-	-
MW-29	10/24/2003	BSK	1500	1100	7.5	180	-	150	62	87	-	510	-	-	-	ND	-	ND	0.05	-	-	3	-	-	-
MW-29	4/1/2004	UNK	1500	1100	7.7	310	-	160	52	110	8	300	170	310	ND	ND	-	0.1	0.05	-	3.1	2.4	-	-	-
MW-29	11/15/2004	BSK	1700	1200	7.6	410	-	170	53	150	7	300	190	500	<2.7	<0.3	-	0.2	0.06	-	0.13	2.2	-	-	-
MW-29	4/7/2005	UNK	1800	1200	7.7	370	-	170	46	160	7	380	180	370	ND	ND	-	0.2	0.06	-	ND	2	-	-	-
MW-29	10/14/2005	UNK	1900	1300	8.2	370	-	180	47	180	8	420	170	370	ND	ND	-	0.2	0.06	-	ND	2	-	-	-
MW-29	4/19/2006	DL	1892	1360	7.4	470	-	147	40	228	11.8	391	181	470	<0.1	<0.1	-	0.19	0.06	-	2.31	1.87	-	-	-
MW-29	3/29/2007	TL	2200	1500	7.2	520	-	160	46	310	16	410	210	630	<6.6	<0.5	<10	0.25	0.084	0.009	-	-	<5	-	0.21
MW-29	9/25/2007	TL	1700	1300	7.1	-	-	-	-	-	-	400	71	420	<10	-	-	-	-	-	-	-	-	-	-
MW-29	4/6/2008	BCL	2180	1500	7.39	-	-	-	-	-	-	370	230	647	<0.4	-	-	-	-	-	-	-	-	-	-
MW-29	9/4/2008	BCL	1800	1300	7.2	-	-	-	-	-	-	470	180	366	<0.4	-	-	-	0.052	-	-	-	-	-	-
MW-29	4/3/2009	UNK	1930	1400	7.3	-	-	-	-	-	-	430	210	400	ND	-	-	-	0.06	-	-	-	-	-	-
MW-29	10/5/2009	BSK	1800	1200	7.7	-	-	-	-	-	-	470	160	366	<10	-	-	-	-	-	-	-	-	-	-
MW-29	10/6/2010	SSC	2000	1200	7.0	-	-	-	-	-	-	250	190	573	<2	-	-	-	-	-	-	-	-	-	-
MW-29	5/19/2011	SSC	2000	1200	7.0	-	-	-	-	-	-	270	190	510	<2.2	-	-	-	-	-	-	-	-	-	-
MW-29	9/21/2011	SSC	1900	1100	6.9	-	-	-	-	-	-	270	180	450	<2.2	-	-	-	-	-	-	-	-	-	-
MW-29	3/30/2012	BCL	1870	1200	7.53	-	-	-	-	-	-	280	180	525	<0.4	-	-	-	-	-	-	-	-	-	-
MW-29	10/4/2012	BCL	1790	1300	7.38	-	-	-	-	-	-	410	180	476	<0.9	-	-	-	-	-	-	-	-	-	-
MW-29	5/7/2013	BCL	1780	1300	7.5	-	-	-	-	-	-	350	170	380	<0.4	-	-	-	-	-	-	-	-	-	-
MW-29	10/24/2013	BCL	1750	1300	7.4	-	-	-	-	-	-	420	170	300	<0.9	-	-	-	-	-	-	-	-	-	-
MW-29	5/16/2014	BCL	1820	1300	8.1	-	-	-	-	-	-	450	180	310	<0.9	-	-	-	-	-	-	-	-	-	-
MW-29	10/17/2014	BCL	1820	1200	7.3	-	-	-	-	-	-	430	170	300	ND	-	-	-	-	-	-	-	-	-	-
MW-30	10/11/1991	BCL	240	160	7.3	-	0.8	18	7.7	15	2.3	34	7.1	-	-	-	-	-	-	-	-	-	-	-	-
MW-30	10/26/1992	UNK	250	160	7.3	-	-	18.7	7.2	13.1	2.3	37	6.8	71.3	-	0.1	-	-	-	-	0.123	0.095	-	-	-
MW-30	3/5/1993	UNK	270	175	7.1	-	-	21	8.4	13.9	2.5	51	6.1	71.3	-	0.07	-	-	-	-	0.052	0.02	-	-	-
MW-30	9/24/1993	UNK	290	160	7.2	-	-	24	10	15	2.6	62	6.4	71.3	-	0.07	-	-	-	-	0.167	0.046	-	-	-
MW-30	3/30/1994	UNK	290	140	7.2	-	-	22	10	15.3	2.4	63	6.1	67	-	0.06	-	-	-	-	0.241	0.037	-	-	-
MW-30	4/13/1994	UNK	310	215	7.1	-	-	27	10.6	17	2.7	80	5.4	67	-	0.06	-	-	-	-	0.284	0.044	-	-	-
MW-30	9/23/1994	UNK	288	180	7.2	-	-	21	9.9	17	2.6	61	6.4	70.4	-	0.06	-	-	-	-	0.45	0.045	-	-	-
MW-30	3/30/1995	UNK	288	215	7.2	-	-	21	10.5	18.6	2.5	65	8.9	73.9	-	0.05	-	-	-	-	0.11	0.062	-	-	-
MW-30	10/18/1995	UNK	288	210	7.2	-	-	21	9.6	16.8	2.2	65	8	72.2	-	0.07	-	-	-	-	0.35	0.059	-	-	-
MW-30	4/8/1996	UNK	314	190	8.0	-	-	24	10.8	18.8	2.4	74	11.1	70.4	-	0.05	-	-	-	-	0.164	0.082	-	-	-
MW-30	10/9/1996	UNK	362	235	8.0	-	-	29	14.1	19.1	2.8	74.3	19.4	79.1	-	0.06	-	-	-	-	0.07	0.08	-	-	-
MW-30	6/9/1997	UNK	469	308	7.0	-	-	43	17.8	19.6	3	142	13.5	68.7	-	0.06	-	-	-	-	0.182	0.116	-	-	-
MW-30	3/26/1998	UNK	440	310	7.0	-	-	48	18	26	3.6	140	21	56	-	-	-	-	0.05	-	-	0.16	-	-	-
MW-30	8/29/1998	UNK	900	640	7.1	-	-	110	44	27	6.5	380	14	52	6.2	ND	-	0.24	0.13	-	ND	0.36	-	-	-
MW-30	4/22/1999	BSK	500	370	6.4	60	0.5	46	18	17	3	170	13	73	<2	<1	-	<0.1	<0.05	-	<0.05	0.05	-	-	-
MW-30	5/20/2000	BSK	360	230	6.5	60	-	35	14	16	<2	96	10	73	<1	<0.5	-	<0.1	<0.05	-	0.08	0.06	-	-	-
MW-30	12/18/2000	BSK	400	240	6.4	60	0.6	32	14	16	2	110	9	73	<0.8	<0.4	-	<0.1	<0.05	-	0.08	0.06	-	-	-
MW-30	6/5/2001	BSK	340	250	6.2	56	0.6	32	13	15	3	100	8	68	<0.6	<0.3	-	<0.1	<0.05	-	0.09	0.06	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-30	6/15/2001	UNK	340	250	6.2	56	-	32	13	15	3	100	8	56	ND	ND	-	ND	ND	-	0.09	0.06	-	-	-
MW-30	10/3/2001	UNK	370	230	6.7	56	-	34	14	16	ND	100	9	56	ND	ND	-	ND	ND	-	ND	0.14	-	-	-
MW-30	5/2/2002	BSK	450	240	6.4	54	-	40	15	14	2	130	10	54	<0.6	<0.3	-	<0.1	<0.05	-	<0.05	0.07	-	-	-
MW-30	12/13/2002	BSK	460	280	6.4	58	-	41	17	15	3	150	10	-	-	ND	-	ND	ND	-	0.06	0.06	-	-	-
MW-30	3/23/2003	BSK	450	310	6.4	54	-	40	17	16	2	150	10	-	-	ND	-	ND	ND	-	0.13	0.08	-	-	-
MW-30	10/24/2003	BSK	590	430	7.5	66	-	57	24	17	4	220	7	-	-	ND	-	ND	0.05	-	0.14	0.1	-	-	-
MW-30	4/1/2004	UNK	550	390	7.3	66	-	59	24	17	3	200	9	66	ND	ND	-	ND	0.05	-	0.35	0.13	-	-	-
MW-30	11/15/2004	BSK	410	290	7.3	60	-	40	18	16	3	130	7	70	<0.9	<0.1	-	<0.1	<0.05	-	0.22	0.16	-	-	-
MW-30	4/7/2005	UNK	360	250	7.5	61	-	35	15	17	2	110	10	61	ND	ND	-	ND	ND	-	0.2	0.15	-	-	-
MW-30	10/14/2005	UNK	470	310	7.9	71	-	42	17	19	4	110	24	71	ND	ND	-	ND	ND	-	0.28	0.19	-	-	-
MW-30	4/19/2006	DL	570	415	7.2	94	-	53	23	28	6.2	139	45	94	<0.1	<0.1	-	0.02	0.06	-	0.69	0.15	-	-	-
MW-30	9/26/2006	UNK	717	458	7.2	99	-	63.6	28	41	4.6	229	49	99	ND	ND	-	0.02	0.06	-	0.64	0.16	-	-	-
MW-30	3/29/2007	TL	780	580	7.0	110	-	73	33	50	7.4	230	47	140	<6.2	<0.3	<10	<0.05	0.084	<0.005	-	-	<5	-	0.65
MW-30	9/25/2007	TL	740	540	6.9	-	-	-	-	-	-	210	42	130	<6	-	-	-	-	-	-	-	-	-	-
MW-30	4/6/2008	BCL	855	550	7.23	-	-	-	-	-	-	220	68	171	<0.4	-	-	-	-	-	-	-	-	-	-
MW-30	9/4/2008	BCL	852	590	7.8	-	-	-	-	-	-	230	57	146	<0.4	-	-	-	0.062	-	-	-	-	-	-
MW-30	4/3/2009	UNK	840	620	7.2	-	-	-	-	-	-	230	69	130	ND	-	-	-	0.08	-	-	-	-	-	-
MW-30	10/5/2009	BSK	820	520	7.7	-	-	-	-	-	-	220	47	146	<2	-	-	-	-	-	-	-	-	-	-
MW-30	10/6/2010	SSC	820	560	7.0	-	-	-	-	-	-	200	47	146	<2	-	-	-	-	-	-	-	-	-	-
MW-30	5/19/2011	SSC	870	580	6.9	-	-	-	-	-	-	220	58	130	<2.2	-	-	-	-	-	-	-	-	-	-
MW-30	9/21/2011	SSC	860	560	6.9	-	-	-	-	-	-	220	60	120	<2.2	-	-	-	-	-	-	-	-	-	-
MW-30	3/30/2012	BCL	904	600	7.26	-	-	-	-	-	-	220	70	159	<0.4	-	-	-	-	-	-	-	-	-	-
MW-30	10/4/2012	BCL	837	610	7.22	-	-	-	-	-	-	240	54	146	<0.4	-	-	-	-	-	-	-	-	-	-
MW-30	5/7/2013	BCL	945	690	7.3	-	-	-	-	-	-	240	83	150	<0.4	-	-	-	-	-	-	-	-	-	-
MW-30	10/24/2013	BCL	949	670	7.2	-	-	-	-	-	-	250	77	140	<0.4	-	-	-	-	-	-	-	-	-	-
MW-30	5/16/2014	BCL	945	700	7.9	-	-	-	-	-	-	260	71	140	<0.4	-	-	-	-	-	-	-	-	-	-
MW-30	10/17/2014	BCL	890	580	7.1	-	-	-	-	-	-	230	63	140	ND	-	-	-	-	-	-	-	-	-	-
MW-31	10/14/1991	BCL	450	305	7.6	-	1.4	37	11	37	3.5	103	20.2	-	-	-	-	-	-	-	-	-	-	-	-
MW-31	10/26/1992	UNK	540	330	7.2	-	-	45	14.6	36	4.2	137	22.4	101	-	0.06	-	-	-	-	1.78	0.327	-	-	-
MW-31	3/5/1993	UNK	520	335	7.2	-	-	47	15.3	35	4.1	140	19.6	112	-	0.06	-	-	-	-	5.28	0.378	-	-	-
MW-31	9/24/1993	UNK	530	350	7.1	-	-	48	16.3	34	4.1	149	18.8	99.1	-	0.07	-	-	-	-	1.66	0.378	-	-	-
MW-31	3/30/1994	UNK	540	360	7.1	-	-	51	15.1	33	4.2	150	17.7	94.8	-	0.06	-	-	-	-	1.19	0.328	-	-	-
MW-31	4/13/1994	UNK	428	280	7.2	-	-	34	11.3	30	3.8	92	20.3	90.4	-	0.06	-	-	-	-	0.674	0.31	-	-	-
MW-31	9/23/1994	UNK	440	315	7.2	-	-	33	11.8	34	3.7	93	17	93.9	-	0.06	-	-	-	-	-	0.33	-	-	-
MW-31	10/18/1995	UNK	258	190	7.5	-	-	25	6	14.5	2.1	50	4.9	84.3	-	0.09	-	-	-	-	-	0.033	-	-	-
MW-31	4/8/1996	UNK	474	320	8.1	-	-	38	11.8	38	3.5	117	21.2	98.3	-	0.06	-	-	-	-	-	0.27	-	-	-
MW-31	10/9/1996	UNK	441	290	8.1	-	-	37	11.9	34	3.7	100	19.8	96.5	-	0.07	-	-	-	-	-	0.266	-	-	-
MW-31	6/9/1997	UNK	532	362	7.2	-	-	43	15.2	42	3.7	150	17.5	93.9	-	0.06	-	-	-	-	-	0.643	-	-	-
MW-31	3/26/1998	UNK	370	290	7.1	-	-	38	12	35	4.2	110	22	74	-	-	-	-	-	-	0.16	0.45	-	-	-
MW-31	8/29/1998	UNK	550	350	6.7	-	-	42	22	38	8.7	180	20	48	4.9	ND	-	ND	ND	-	0.16	1.7	-	-	-
MW-31	4/22/1999	BSK	470	320	6.5	68	1.2	39	14	33	3	140	20	83	<1	<0.5	-	<0.1	<0.05	-	<0.05	0.47	-	-	-
MW-31	5/20/2000	BSK	820	530	6.4	74	1.2	82	30	48	5	290	39	90	<2	<1	-	<1	<0.05	-	0.37	0.52	-	-	-
MW-31	12/18/2000	BSK	920	600	6.3	74	1.2	77	28	49	5	300	44	90	<2	<1	-	<0.1	<0.05	-	0.27	0.53	-	-	-
MW-31	6/6/2001	BSK	810	570	7.0	78	1.2	84	30	50	6	300	53	95	-	<1	-	<0.1	<0.05	-	0.16	0.56	-	-	-
MW-31	6/15/2001	UNK	810	570	7.0	78	-	84	30	50	6	300	53	78	ND	ND	-	ND	ND	-	0.16	0.56	-	-	-
MW-31	10/3/2001	UNK	870	390	6.3	72	-	77	28	55	4	290	48	72	9.3	ND	-	ND	ND	-	ND	0.55	-	-	-
MW-31	5/2/2002	BSK	850	570	6.4	78	-	73	25	49	4	200	37	78	<2	<1	-	<0.1	<0.05	-	<0.05	0.53	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-31	12/13/2002	UNK	880	650	6.7	76	-	72	25	55	4	270	130	76	ND	ND	-	ND	ND	-	0.38	0.53	-	-	-
MW-31	3/22/2003	BSK	880	610	6.4	80	-	75	26	56	4	310	52	-	-	0.1	-	ND	ND	-	0.48	0.56	-	-	-
MW-31	10/25/2003	BSK	910	620	7.6	84	-	72	26	58	5	290	47	-	-	ND	-	ND	ND	-	0.34	0.55	-	-	-
MW-31	4/1/2004	UNK	890	630	7.3	90	-	85	30	66	6	300	49	90	ND	0.2	-	ND	ND	-	1.1	0.65	-	-	-
MW-31	11/15/2004	BSK	-	630	7.2	84	-	79	30	65	5	310	47	100	<1.8	<0.2	-	<0.1	<0.05	-	0.48	0.65	-	-	-
MW-31	4/7/2005	UNK	820	550	7.5	84	-	72	26	59	5	280	44	84	ND	ND	-	ND	ND	-	ND	0.59	-	-	-
MW-31	10/14/2005	UNK	940	640	7.8	79	-	81	30	62	7	320	48	79	ND	ND	-	ND	ND	-	0.98	0.68	-	-	-
MW-31	4/19/2006	DL	753	525	7.3	84	-	67	24	55	7.2	249	43	84	<0.1	<0.1	-	0.04	0.02	-	0.65	0.54	-	-	-
MW-31	3/29/2007	TL	710	530	7.3	86	-	68	22	51	7.4	220	38	100	<4	<0.2	<10	0.05	0.021	<0.005	-	-	<5	-	0.089
MW-31	9/25/2007	TL	790	580	6.8	-	-	-	-	-	-	260	41	100	<6	-	-	-	-	-	-	-	-	-	-
MW-31	4/6/2008	BCL	792	560	7.47	-	-	-	-	-	-	250	40	120	<0.4	-	-	-	-	-	-	-	-	-	-
MW-31	9/4/2008	BCL	828	590	7.2	-	-	-	-	-	-	260	42	106	<0.4	-	-	-	0.022	-	-	-	-	-	-
MW-31	4/3/2009	UNK	776	580	7.0	-	-	-	-	-	-	260	40	85	ND	-	-	-	0.02	-	-	-	-	-	-
MW-31	9/30/2009	BSK	780	510	7.8	-	-	-	-	-	-	250	40	105	<2	-	-	-	-	-	-	-	-	-	-
MW-31	10/6/2010	SSC	810	560	6.9	-	-	-	-	-	-	250	39	95	<2	-	-	-	-	-	-	-	-	-	-
MW-31	5/19/2011	SSC	800	550	6.9	-	-	-	-	-	-	260	38	83	<2.2	-	-	-	-	-	-	-	-	-	-
MW-31	9/21/2011	SSC	790	540	6.8	-	-	-	-	-	-	240	39	82	<2.2	-	-	-	-	-	-	-	-	-	-
MW-31	3/30/2012	BCL	777	560	7.41	-	-	-	-	-	-	240	36	106	<0.4	-	-	-	-	-	-	-	-	-	-
MW-31	10/4/2012	BCL	654	440	7.2	-	-	-	-	-	-	200	28	100	<0.4	-	-	-	-	-	-	-	-	-	-
MW-31	5/7/2013	BCL	598	410	7.4	-	-	-	-	-	-	180	24	81	0.81	-	-	-	-	-	-	-	-	-	-
MW-31	10/24/2013	BCL	609	420	7.2	-	-	-	-	-	-	180	29	84	<0.4	-	-	-	-	-	-	-	-	-	-
MW-31	5/16/2014	BCL	654	440	7.8	-	-	-	-	-	-	180	35	89	<0.4	-	-	-	-	-	-	-	-	-	-
MW-31	10/17/2014	BCL	677	430	7.1	-	-	-	-	-	-	190	38	85	ND	-	-	-	-	-	-	-	-	-	-
MW-32	10/11/1991	BCL	260	200	7.3	-	0.8	26	6.5	17	2.3	50	5	-	-	-	-	-	-	-	-	-	-	-	-
MW-32	3/19/1992	UNK	260	185	7.5	-	-	26	6.1	14.5	2.3	47	5	79.1	-	-	-	-	-	-	0.057	0.049	-	-	-
MW-32	10/26/1992	UNK	280	195	7.4	-	-	27	6.5	151	2.4	53	5	79.1	-	0.07	-	-	-	-	-	0.047	-	-	-
MW-32	3/5/1993	UNK	280	185	7.4	-	-	27	6.8	15.1	2.3	53	5	77.4	-	0.08	-	-	-	-	0.083	0.044	-	-	-
MW-32	9/24/1993	UNK	290	185	7.3	-	-	26	6.5	15.6	2.4	49	6	80.9	-	0.08	-	-	-	-	-	0.058	-	-	-
MW-32	4/12/1994	UNK	259	175	7.4	-	-	26	5.9	14.5	2.4	51	5	73	-	0.07	-	-	-	-	-	0.077	-	-	-
MW-32	9/23/1994	UNK	267	180	7.4	-	-	22	7.2	16.9	2.5	52	5	78.3	-	0.06	-	-	-	-	-	0.072	-	-	-
MW-32	10/18/1995	UNK	283	230	7.5	-	-	27	7.1	16	2.5	60	6	82.6	-	0.08	-	-	-	-	-	0.066	-	-	-
MW-32	4/8/1996	UNK	266	-	8.0	-	-	26	5.3	19.1	2.2	51	6	84.3	-	0.08	-	-	-	-	-	0.032	-	-	-
MW-32	10/9/1996	UNK	261	160	8.0	-	-	26	6.2	16.7	2.4	47	5	82.6	-	0.08	-	-	-	-	-	0.035	-	-	-
MW-32	6/9/1997	UNK	281	192	7.4	-	-	27	7.1	15.6	2.2	55	6	67	37.2	0.08	-	-	-	-	-	-	-	-	-
MW-32	3/26/1998	UNK	460	-	7.4	-	-	66	15	23	2.9	63	4	52	-	-	-	-	0.06	-	-	0.02	-	-	-
MW-32	8/29/1998	UNK	490	330	7.5	-	-	60	14	21	7.2	160	9	58	ND	ND	-	ND	ND	-	ND	0.04	-	-	-
MW-32	4/22/1999	BSK	420	310	6.8	54	0.6	48	12	18	3	140	7	66	<0.2	<0.3	-	<0.1	<0.05	-	<0.05	0.12	-	-	-
MW-32	5/20/2000	BSK	280	170	6.9	46	0.7	28	6.7	15	2	70	6	56	<0.6	<0.3	-	<0.1	<0.05	-	<0.05	0.09	-	-	-
MW-32	12/18/2000	BSK	340	210	7.2	56	0.7	30	7.5	17	2	92	7	68	<0.6	<0.3	-	<0.1	<0.05	-	<0.05	0.13	-	-	-
MW-32	6/5/2001	BSK	290	220	6.5	46	0.8	27	7.1	19	3	84	7	56	<0.6	<0.3	-	<0.1	<0.05	-	<0.05	0.1	-	-	-
MW-32	6/15/2001	UNK	290	220	6.5	46	-	27	7.1	19	3	84	7	46	ND	ND	-	ND	ND	-	ND	0.1	-	-	-
MW-32	10/3/2001	UNK	310	-	6.7	48	-	27	6.8	17	ND	80	8	48	3.5	ND	-	ND	ND	-	ND	0.1	-	-	-
MW-32	5/2/2002	BSK	290	160	6.3	48	-	20	4.9	14	2	50	6	48	<0.4	<0.2	-	<0.1	<0.05	-	<0.05	0.08	-	-	-
MW-32	12/13/2002	UNK	280	170	6.7	48	-	24	6.1	15	2	68	6	48	ND	ND	-	ND	ND	-	ND	0.11	-	-	-
MW-32	3/23/2003	BSK	250	170	6.8	48	-	21	5.4	17	ND	60	6	-	-	ND	-	ND	ND	-	ND	0.1	-	-	-
MW-32	10/24/2003	BSK	230	170	7.6	52	-	21	5.7	16	3	54	5	-	-	ND	-	ND	ND	-	ND	0.11	-	-	-
MW-32	4/1/2004	UNK	280	200	7.6	55	-	28	7.1	20	3	74	6	55	ND	ND	-	ND	ND	-	ND	0.16	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Spreckels)																									
MW-32	11/15/2004	BSK	250	180	7.5	57	-	24	6.4	16	2	60	5	70	<0.9	<0.1	-	<0.1	<0.05	-	<0.05	0.16	-	-	-
MW-32	4/7/2005	UNK	270	180	7.7	56	-	26	6.7	17	2	66	6	56	ND	ND	-	ND	ND	-	ND	0.17	-	-	-
MW-32	10/14/2005	UNK	280	190	8.0	58	-	26	6.7	16	2	70	6	58	ND	ND	-	ND	ND	-	ND	0.16	-	-	-
MW-32	4/19/2006	DL	266	185	7.5	54	-	25	6.7	17	3.8	68	7	54	<0.1	<0.1	-	0.03	0.04	-	0.02	0.16	-	-	-
MW-32	9/26/2006	UNK	707	183	7.2	62	-	26.8	7.2	16	2.5	79	6	62	ND	ND	-	0.03	0.02	-	ND	0.16	-	-	-
MW-32	3/29/2007	TL	270	190	7.3	50	-	26	6.8	16	3.2	68	6	61	<2	<0.1	<10	<0.05	0.026	<0.005	-	-	<5	-	0.064
MW-32	9/25/2007	TL	250	190	6.9	-	-	-	-	-	-	140	6	61	<2	-	-	-	-	-	-	-	-	-	-
MW-32	4/6/2008	BCL	284	200	7.48	-	-	-	-	-	-	72	5.1	66	<0.4	-	-	-	-	-	-	-	-	-	-
MW-32	9/4/2008	BCL	291	210	7.4	-	-	-	-	-	-	73	5	62	<0.4	-	-	-	0.026	-	-	-	-	-	-
MW-32	4/3/2009	UNK	282	210	7.3	-	-	-	-	-	-	80	5	54	ND	-	-	-	0.03	-	-	-	-	-	-
MW-32	9/30/2009	BSK	290	190	7.9	-	-	-	-	-	-	77	6	71	<1	-	-	-	-	-	-	-	-	-	-
MW-32	10/6/2010	SSC	330	220	7.2	-	-	-	-	-	-	70	6	70	<2	-	-	-	-	-	-	-	-	-	-
MW-32	5/19/2011	SSC	340	230	7.2	-	-	-	-	-	-	74	5	59	<2.2	-	-	-	-	-	-	-	-	-	-
MW-32	9/21/2011	SSC	400	260	7.1	-	-	-	-	-	-	110	9	63	<2.2	-	-	-	-	-	-	-	-	-	-
MW-32	3/30/2012	BCL	376	260	7.43	-	-	-	-	-	-	98	7.2	78	<0.4	-	-	-	-	-	-	-	-	-	-
MW-32	10/4/2012	BCL	285	220	7.39	-	-	-	-	-	-	67	7	73	<0.4	-	-	-	-	-	-	-	-	-	-
MW-32	5/7/2013	BCL	327	230	7.4	-	-	-	-	-	-	80	9	62	ND	-	-	-	-	-	-	-	-	-	-
MW-32	10/24/2013	BCL	307	220	7.3	-	-	-	-	-	-	66	9	62	<0.4	-	-	-	-	-	-	-	-	-	-
MW-32	5/16/2014	BCL	458	330	7.8	-	-	-	-	-	-	130	22	58	<0.4	-	-	-	-	-	-	-	-	-	-
MW-32	10/17/2014	BCL	427	280	7.0	-	-	-	-	-	-	120	21	53	ND	-	-	-	-	-	-	-	-	-	-
SHALLOW (Meyers Farm)																									
MF-1	10/27/2000	TL	1700	1100	-	-	-	-	-	-	-	-	200	-	-	-	-	0.24	-	-	-	-	-	<5	-
MF-1	3/26/2002	FGL	2170	1370	7.0	490	6.4	82	50	296	8	270	220	600	3.2	<0.1	<10	0.2	0.134	<0.01	3.66	1.36	-	<10	<0.02
MF-1	4/23/2002	TL	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-1	9/17/2002	TL	2100	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-1	12/13/2002	UNK	2000	1200	7.7	460	-	65	37	270	5	220	230	460	ND	ND	-	0.2	0.12	-	ND	1	-	-	-
MF-1	1/3/2003	TL	-	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-1	1/13/2003	TL	2100	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-1	4/12/2003	BSK	1700	1000	7.4	680	-	60	28	260	7	<40	170	680	<0.2	<2	-	-	0.21	-	<0.05	0.62	-	-	-
MF-1	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	4.15	<0.4	-
MF-1	9/30/2003	TL	1700	1200	7.0	650	-	73	39	310	18	66	170	790	<0.4	-	-	0.24	0.26	<0.05	2.4	1.1	-	-	<0.05
MF-1	3/5/2004	TL	2200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-1	4/2/2004	UNK	2300	1400	1.6	1000	-	140	74	320	9	ND	260	1000	ND	ND	-	0.3	0.26	-	0.96	2.1	-	-	-
MF-1	11/17/2004	BSK	2000	1200	7.6	850	-	100	59	280	6	30	210	850	<0.2	0.3	-	0.3	0.19	-	<0.05	1.5	-	-	-
MF-1	3/3/2005	TL	1800	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	1.3	<5	-	-
MF-1	3/23/2005	UNK	1800	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	1.3	ND	-	-
MF-1	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	5.1	<0.4	-
MF-1	8/10/2005	TL	1300	870	7.2	480	-	46	29	240	13	54	150	590	<2	-	-	0.3	0.14	<0.005	2.2	0.8	-	-	<0.005
MF-1	9/1/2005	UNK	1300	870	7.2	480	-	46	29	240	13	54	150	590	-	-	0.14	ND	-	ND	2.2	0.8	0.57	ND	ND
MF-1	4/20/2006	TL	950	630	7.2	290	-	27	16	190	8.1	65	130	-	<2	-	-	-	-	<0.005	2	0.44	-	-	<0.005
MF-1	9/26/2006	TL	1400	880	7.2	480	-	42	25	250	14	59	160	-	<10	-	19	0.34	0.14	<0.005	2.6	0.88	6.1	<20	0.0059
MF-1	3/28/2007	TL	1500	900	7.3	440	-	41	21	290	14	90	200	530	-	-	ND	0.36	0.17	ND	1.4	0.75	8.2	ND	ND
MF-1	9/24/2007	TL	1300	810	7.4	380	-	32	18	260	12	72	150	460	-	-	ND	0.29	0.13	ND	0.42	0.47	-	-	ND
MF-1	4/6/2008	BCL	937	550	7.64	190	-	22	13	170	5.6	90	120	240	1.8	-	-	-	-	<0.002	0.17	0.23	-	-	0.0061
MF-1	9/3/2008	BCL	1260	740	7.46	-	-	37	20	200	4.5	73	150	450	-	-	3.1	0.071	0.11	0.0073	0.34	0.82	-	-	0.0058
MF-1	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.77	<0.4	-
MF-1	4/2/2009	BCL	1200	840	7.51	310	-	32	20	230	5.3	110	160	380	-	-	-	-	-	<0.002	0.42	0.55	-	-	0.0053

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
MF-1	10/20/2009	BCL	1250	780	7.54	370	-	46	26	210	4.9	93	170	450	<0.4	-	9.8	0.28	0.12	<0.002	1.5	0.77	-	-	0.0067
MF-1	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.95	<0.4	-
MF-1	5/12/2010	BCL	1290	840	7.73	360	-	45	25	210	4.7	85	160	440	0.69	-	-	-	-	<0.002	1.1	0.64	-	-	<0.005
MF-1	9/14/2010	BCL	492	310	7.53	92	-	13	7.3	84	3.4	51	62	110	0.071	-	2	0.27	0.033	<0.002	0.15	0.059	-	-	<0.005
MF-1	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.75	<0.4	-
MF-1	4/19/2011	BCL	535	330	7.5	85	-	18	10	76	5.3	53	77	100	0.9	-	-	-	-	<0.002	0.3	0.095	-	-	<0.005
MF-1	8/31/2011	BCL	301	170	7.67	79	-	8.1	4.2	49	3.8	21	28	97	<0.4	-	<2	0.23	0.023	<0.002	0.18	0.034	-	-	<0.005
MF-1	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-1	3/29/2012	BCL	486	270	7.73	75	-	29	11	62	6.2	45	66	91	3.5	-	-	-	-	<0.002	0.081	0.023	-	-	<0.005
MF-1	10/3/2012	BCL	760	470	7.66	200	-	34	16	110	5.1	55	91	293	3.6	-	<2	0.21	0.081	0.0024	0.38	0.45	6	-	<0.005
MF-1	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-1	5/7/2013	BCL	674	430	7.47	86	-	37	15	78	5.6	110	94	110	5	-	-	-	-	<0.002	0.099	0.055	-	-	<0.005
MF-1	5/15/2014	BCL	1460	880	7.4	-	-	-	-	-	-	94	230	410	1.9	-	-	-	-	-	-	-	-	-	-
MF-2	10/27/2000	TL	1700	1000	-	-	-	-	-	-	-	-	220	-	-	-	-	0.27	-	-	-	-	-	<5	-
MF-2	3/26/2002	FGL	2450	1500	7.1	670	8	93	37	361	7	153	310	810	<0.4	<0.1	<10	0.29	0.243	<0.01	0.16	1	-	<10	<0.02
MF-2	4/23/2002	UNK	2300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-2	9/17/2002	TL	2300	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-2	12/13/2002	UNK	2300	1300	7.6	560	-	95	39	300	5	180	310	560	ND	ND	-	0.3	0.2	-	ND	1.2	-	-	-
MF-2	1/3/2003	TL	-	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-2	1/13/2003	TL	2500	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-2	4/12/2003	BSK	2400	1400	7.5	610	-	110	49	300	7	190	350	610	<0.2	<3	-	0.2	0.18	-	<0.05	1.3	-	-	-
MF-2	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	3.9	<0.4	-
MF-2	9/30/2003	TL	2500	1600	7.1	570	-	110	48	400	17	190	330	700	<0.4	-	-	0.27	0.2	<0.05	0.11	1.2	-	-	<0.05
MF-2	12/31/2003	TL	2200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-2	3/5/2004	TL	2100	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-2	4/2/2004	UNK	2200	1400	7.7	580	-	110	44	340	8	230	300	580	ND	ND	-	0.3	0.11	-	ND	1.1	-	-	-
MF-2	11/17/2004	BSK	1900	1200	7.7	490	-	100	46	280	7	250	230	490	<0.2	<0.1	-	0.2	0.08	-	<0.05	1.1	-	-	-
MF-2	3/3/2005	TL	220	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	-	-	1	5.3	-	-
MF-2	3/23/2005	UNK	2200	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	-	-	1	5.3	-	-
MF-2	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	5.6	<0.4	-
MF-2	8/10/2005	TL	1600	1100	7.1	430	-	73	31	290	13	180	210	530	3.5	-	-	0.25	0.088	<0.005	<0.1	0.8	-	-	<0.005
MF-2	9/1/2005	UNK	1600	1100	7.1	430	-	73	31	290	13	180	210	530	-	-	ND	0.25	0.088	-	ND	0.8	5.6	ND	ND
MF-2	4/20/2006	TL	1600	1000	7.0	400	-	83	41	240	14	210	180	-	<2	-	-	-	-	<0.005	<0.1	1	-	-	<0.005
MF-2	9/26/2006	TL	1200	780	7.3	300	-	56	27	180	11	140	130	-	11	-	<10	0.2	0.19	<0.005	0.14	0.45	7.4	<20	<0.005
MF-2	3/28/2007	TL	920	560	7.3	230	-	34	15	160	8.7	110	110	280	-	-	ND	0.22	0.096	ND	ND	0.23	6.5	ND	ND
MF-2	9/24/2007	TL	840	510	7.2	200	-	38	17	130	7	93	100	240	-	-	ND	0.25	0.094	ND	0.18	0.61	-	-	ND
MF-2	7/10/2008	BCL	977	550	7.46	220	-	51	22	130	5.7	85	120	270	-	-	-	-	-	0.0027	0.24	0.62	-	-	0.0078
MF-2	9/3/2008	BCL	864	510	7.3	-	-	44	19	100	4.3	92	110	240	-	-	ND	0.26	0.083	0.0028	0.064	0.42	-	-	0.0088
MF-2	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.45	<0.4	-
MF-2	4/2/2009	BCL	1090	730	7.29	300	-	60	26	160	5.5	92	140	360	-	-	-	-	-	<0.002	0.11	0.41	-	-	<0.005
MF-2	10/20/2009	BCL	1560	960	7.37	390	-	85	38	230	6.7	150	220	470	<0.4	-	<2	0.24	0.18	<0.002	0.48	0.92	-	-	0.0059
MF-2	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.15	<0.4	-
MF-2	5/20/2010	BCL	1560	1000	7.39	370	-	92	41	210	7.7	190	210	450	0.23	-	-	-	-	0.002	0.16	0.75	-	-	0.0074
MF-2	9/14/2010	BCL	1400	920	7.31	260	-	79	37	200	6.1	270	160	320	2.7	-	<2	0.26	0.088	<0.002	0.13	0.98	-	-	0.0067
MF-2	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	<0.4	-
MF-2	4/19/2011	BCL	1030	620	7.34	210	-	56	27	110	5.6	150	130	250	2.7	-	-	-	-	<0.002	0.12	0.65	-	-	0.0057
MF-2	8/31/2011	BCL	1270	820	7.34	150	-	58	25	200	9	270	120	190	61	-	<2	0.23	0.059	0.0022	0.15	0.23	-	-	<0.005

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
MF-2	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.756	-
MF-2	3/29/2012	BCL	1160	720	7.58	170	-	62	28	160	8.9	210	120	200	27	-	-	-	-	0.0024	<0.05	0.19	-	-	0.041
MF-2	10/3/2012	BCL	947	600	7.27	180	-	56	28	100	5.2	120	130	256	<0.4	-	<2	0.25	0.064	0.0041	<0.05	0.59	2.6	-	0.011
MF-2	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-2	5/7/2013	BCL	1020	660	7.3	180	-	61	34	110	5.7	130	150	220	1.1	-	-	-	-	<0.002	<0.05	0.52	-	-	<0.01
MF-2	5/15/2014	BCL	1190	690	7.1	-	-	-	-	-	-	210	120	210	<0.9	-	-	-	-	-	-	-	-	-	-
MF-3	3/26/2002	FGL	1810	1100	7.1	620	5.8	60	51	253	5	103	160	760	<0.4	0.1	<10	0.23	0.059	<0.01	0.65	2.01	-	<10	<0.02
MF-3	4/23/2002	TL	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-3	9/17/2002	TL	2100	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-3	12/13/2002	UNK	2200	1200	7.6	650	-	78	68	260	3	140	280	650	ND	ND	-	0.3	0.16	-	ND	2.8	-	-	-
MF-3	1/3/2003	TL	-	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-3	1/13/2003	TL	2500	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-3	4/12/2003	BSK	2800	1700	7.5	880	-	77	65	360	4	95	400	880	<0.2	<3	-	0.3	0.2	-	<0.05	2.9	-	-	-
MF-3	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	3.05	<0.4	-
MF-3	9/30/2003	TL	3000	1600	7.0	980	-	68	56	570	12	83	400	1200	<0.4	-	-	0.39	0.24	<0.05	2.9	2.5	-	-	<0.05
MF-3	12/31/2003	TL	2500	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-3	3/4/2004	TL	2000	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-3	4/2/2004	UNK	1800	1100	7.8	550	-	29	21	320	3	91	230	550	ND	ND	-	0.4	0.08	-	0.24	1.1	-	-	-
MF-3	11/17/2004	BSK	1100	690	7.9	310	-	15	10	220	2	90	130	310	<0.2	0.3	-	0.3	<0.05	-	0.5	0.56	-	-	-
MF-3	3/2/2005	TL	1000	620	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	-	-	-	0.41	14	-	-
MF-3	3/21/2005	UNK	1000	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-3	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	10.9	<0.4	-
MF-3	8/10/2005	TL	1100	780	7.5	340	-	14	11	260	3.8	64	67	410	<2	-	-	0.42	0.03	<0.005	0.58	0.56	-	-	<0.005
MF-3	9/1/2005	UNK	1100	780	7.5	340	-	14	11	260	3.8	64	67	410	-	-	ND	0.42	0.03	ND	0.58	0.56	0.11	ND	ND
MF-3	4/20/2006	TL	1000	680	7.5	250	-	11	8.8	240	3.7	130	110	-	<2	-	-	-	-	<0.005	0.46	0.45	-	-	<0.005
MF-3	9/26/2006	TL	950	610	7.7	240	-	13	9.3	190	3.5	97	90	-	<10	-	<10	0.37	0.017	<0.005	0.46	0.5	12	<20	<0.005
MF-3	3/28/2007	TL	720	450	7.6	380	-	9	7	150	2.7	79	75	470	-	-	ND	0.35	0.015	ND	0.37	0.38	11	ND	ND
MF-3	9/25/2007	TL	1500	970	7.2	370	-	42	35	270	7.8	160	170	450	-	-	ND	0.34	0.12	ND	5.6	1.9	-	-	0.12
MF-3	4/6/2008	BCL	1960	1200	7.49	480	-	41	35	360	4.5	140	270	590	<0.4	-	-	-	-	<0.002	3.4	1.9	-	-	0.0074
MF-3	9/3/2008	BCL	924	570	7.58	-	-	11	8.9	160	2	140	110	180	-	-	ND	0.23	0.038	<0.002	0.9	0.48	-	-	0.0095
MF-3	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.3	<0.4	-
MF-3	4/2/2009	BCL	1370	1000	7.48	240	-	26	22	280	3.1	250	160	300	-	-	-	-	-	<0.002	1.9	1.1	-	-	0.0055
MF-3	10/21/2009	BCL	872	540	7.35	130	-	22	19	150	2.4	130	120	150	<0.4	-	<2	0.28	0.058	<0.002	1.8	0.77	-	-	0.0055
MF-3	10/21/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	<0.4	-
MF-3	5/12/2010	BCL	1130	720	7.69	210	-	21	18	180	2.8	160	140	250	<0.4	-	-	-	-	<0.002	1.7	0.94	-	-	<0.005
MF-3	9/14/2010	BCL	1420	900	7.59	370	-	21	21	290	3.3	120	180	450	<0.4	-	<2	0.36	0.059	<0.002	1.5	0.87	-	-	0.0056
MF-3	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.4	<0.4	-
MF-3	4/19/2011	BCL	1850	1200	7.52	470	-	35	33	390	4	210	200	570	<0.4	-	-	-	-	<0.002	2.6	1.3	-	-	0.0058
MF-3	8/31/2011	BCL	1860	1200	7.5	450	-	33	31	380	4.5	220	210	550	<0.9	-	<2	0.41	0.082	<0.002	2.1	1.2	-	-	<0.005
MF-3	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-3	3/29/2012	BCL	1640	1000	7.73	360	-	29	26	330	3.5	200	180	440	<0.4	-	-	-	-	<0.002	2.1	0.94	-	-	<0.005
MF-3	10/3/2012	BCL	1410	920	7.42	250	-	27	24	250	3.2	180	200	366	<0.9	-	<2	0.26	0.095	<0.002	3.1	1	11	-	<0.005
MF-3	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-3	5/7/2013	BCL	1380	880	7.56	330	-	23	21	290	3.4	140	180	410	<0.9	-	-	-	-	<0.004	2.3	0.76	-	-	<0.01
MF-3	5/15/2014	BCL	866	540	7.2	-	-	-	-	-	-	190	110	100	<0.4	-	-	-	-	-	-	-	-	-	-
MF-4	3/27/2002	FGL	2810	1580	6.9	1130	6.3	160	41	343	40	2	270	1380	<0.4	0.2	40	0.28	0.511	<0.01	11.5	2.37	-	<10	<0.02
MF-4	4/23/2002	TL	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
MF-4	9/17/2002	TL	2900	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-4	12/13/2002	UNK	2900	1500	7.5	1200	-	150	34	300	36	ND	280	1200	ND	ND	-	0.3	0.27	-	0.7	1.8	-	-	-
MF-4	1/3/2003	TL	-	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-4	4/12/2003	BSK	2600	1400	7.3	1100	-	150	36	240	39	<60	270	1100	<0.2	<3	-	0.3	0.36	-	<0.05	2.2	-	-	-
MF-4	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	1.2	<0.4	-
MF-4	9/30/2003	TL	2700	1600	7.1	1200	-	180	45	350	62	7.9	270	1500	0.76	-	-	0.3	0.43	<0.05	11	2.8	-	-	<0.05
MF-4	3/4/2004	TL	2600	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-4	4/2/2004	UNK	2400	1400	7.6	1000	-	160	42	300	36	ND	260	1000	ND	ND	-	0.4	0.24	-	1.8	2.6	-	-	-
MF-4	11/17/2004	BSK	1900	1100	7.7	760	-	100	30	250	26	24	200	760	<0.2	0.5	-	0.4	0.13	-	<0.05	1.8	-	-	-
MF-4	3/2/2005	TL	1500	850	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	1.1	<5	-	-
MF-4	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	-	-	-	-	-	2.1	<0.4	-
MF-4	8/10/2005	TL	1300	890	7.2	500	-	72	20	220	28	57	150	610	<2	-	-	0.29	0.17	<0.005	9	1.3	-	-	<0.005
MF-4	9/1/2005	UNK	1300	890	7.2	500	-	72	20	220	28	57	150	610	-	-	74	0.29	0.17	ND	9	1.3	2	ND	ND
MF-4	4/20/2006	TL	1400	820	7.2	490	-	61	16	220	32	49	150	-	<2	-	-	-	-	<0.005	5.9	1.1	-	-	<0.005
MF-4	9/26/2006	TL	1300	770	7.3	450	-	56	15	190	26	41	130	-	<10	-	70	0.33	0.12	<0.005	6.8	1	5.3	<20	0.0057
MF-4	3/28/2007	TL	1400	820	7.3	520	-	76	21	210	23	23	150	630	-	-	73	0.31	0.17	ND	8.1	1.5	5.1	ND	ND
MF-4	9/25/2007	TL	1500	880	7.3	600	-	78	22	230	33	18	150	740	-	-	45	0.33	0.091	ND	8.1	1.4	-	-	ND
MF-4	4/6/2008	BCL	1380	880	7.56	500	-	73	21	190	19	31	140	610	<0.4	-	-	-	-	<0.002	8.4	1.5	-	-	0.0067
MF-4	9/3/2008	BCL	2110	1200	7.45	-	-	130	36	280	30	3.8	210	1100	-	-	64	0.16	0.33	<0.002	11	2	-	-	0.0062
MF-4	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.03	<0.4	-
MF-4	4/2/2009	BCL	2000	1300	7.43	820	-	120	34	270	28	5.9	200	1000	-	-	-	-	-	<0.002	12	2	-	-	0.005
MF-4	10/21/2009	BCL	1830	990	7.36	730	-	100	28	290	37	2.8	180	890	<0.4	-	56	0.38	0.27	<0.002	9.6	1.3	-	-	0.005
MF-4	10/21/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
MF-4	5/12/2010	BCL	1750	980	7.64	650	-	82	24	230	27	23	190	790	<0.4	-	-	-	-	<0.002	6.2	1.1	-	-	<0.005
MF-4	9/14/2010	BCL	1290	780	7.59	470	-	54	15	220	22	31	140	570	<0.4	-	49	0.4	0.15	<0.002	5.1	0.71	-	-	<0.005
MF-4	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	<0.4	-
MF-4	4/19/2011	BCL	1640	1200	7.5	610	-	83	24	250	24	28	150	740	<0.4	-	-	-	-	<0.002	8.4	1.4	-	-	<0.005
MF-4	8/31/2011	BCL	1210	700	7.62	350	-	56	16	180	19	65	140	420	<0.4	-	46	0.32	0.14	<0.002	4.5	1.1	-	-	<0.005
MF-4	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-4	3/29/2012	BCL	1790	1000	7.37	620	-	100	28	250	25	40	180	750	1.3	-	-	-	-	<0.002	8.1	2	-	-	<0.005
MF-4	10/3/2012	BCL	1200	720	7.7	320	-	51	14	180	17	100	140	476	<0.4	-	60	0.3	0.15	<0.002	6.5	0.86	5	-	<0.005
MF-4	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-4	5/7/2013	BCL	1190	720	7.63	390	-	56	16	180	17	51	130	470	0.62	-	-	-	-	<0.002	3.4	1.1	-	-	<0.005
MF-4	5/15/2014	BCL	1320	780	7.6	-	-	-	-	-	-	68	140	490	<0.4	-	-	-	-	-	-	-	-	-	-
MF-5	3/27/2002	FGL	2750	1710	6.9	720	7.7	109	55	395	10	270	240	870	<0.4	0.4	<10	0.37	0.216	<0.01	5.85	1.47	-	<10	<0.02
MF-5	4/23/2002	TL	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-5	10/1/2002	UNK	3000	1800	7.0	770	-	120	56	460	19	300	330	940	-	-	ND	0.37	0.28	ND	8.6	1.4	-	ND	ND
MF-5	10/10/2002	TL	3000	1800	7.0	770	-	120	56	460	19	300	330	940	<2	-	<10	0.37	0.28	<0.05	8.6	1.4	-	<10	<0.05
MF-5	12/13/2002	UNK	2500	1500	7.2	540	-	89	44	340	9	330	310	540	ND	ND	-	0.4	0.16	-	ND	1.1	-	-	-
MF-5	1/6/2003	UNK	2100	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-5	1/13/2003	TL	2100	1300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-5	4/12/2003	BSK	1500	900	7.6	450	-	43	43	190	3	83	200	450	<0.2	<3	-	0.4	0.1	-	<0.05	0.59	-	-	-
MF-5	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	7.2	<0.4	-
MF-5	9/30/2003	TL	1300	860	7.0	420	-	39	40	230	4.7	80	170	510	<0.4	-	-	0.42	0.1	<0.05	3.6	0.48	-	-	<0.05
MF-5	3/3/2004	UNK	700	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-5	3/31/2004	TL	700	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-5	4/2/2004	UNK	670	410	7.7	120	-	18	8.3	97	6	52	100	120	ND	ND	-	0.3	ND	-	0.14	0.24	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
MF-5	5/27/2004	UNK	660	380	6.9	-	-	17	9.5	100	10	60	93	130	-	-	-	-	-	ND	1.5	0.24	-	-	ND
MF-5	11/17/2004	BSK	710	410	7.7	120	-	25	14	95	7	100	84	120	<0.2	0.2	-	0.4	<0.05	-	0.23	0.39	-	-	-
MF-5	3/3/2005	TL	720	410	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	0.31	7.5	-	-
MF-5	3/23/2005	UNK	720	410	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	0.31	7.5	-	-
MF-5	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	6.1	<0.4	-
MF-5	8/10/2005	TL	1200	810	6.8	340	-	42	41	190	5.5	110	150	420	<2	-	-	0.4	0.098	<0.005	4	0.48	-	-	<0.005
MF-5	9/1/2005	UNK	1200	810	6.8	340	-	42	41	190	5.5	110	150	420	-	-	ND	0.4	0.098	ND	4	0.48	6	ND	ND
MF-5	4/20/2006	TL	680	430	7.0	190	-	21	18	120	9	59	86	-	<2	-	-	-	-	<0.005	3.2	0.27	-	-	0.0062
MF-5	9/26/2006	TL	1300	800	7.0	380	-	44	43	200	8	100	150	-	<10	-	<10	0.41	0.13	0.0082	11	0.56	<5	<20	0.025
MF-5	3/28/2007	TL	570	870	7.2	180	-	33	39	81	17	55	51	220	-	-	280	0.28	0.31	0.071	50	0.96	ND	ND	0.17
MF-5	9/25/2007	TL	480	320	7.2	90	-	23	13	59	14	49	72	110	-	-	ND	0.2	0.045	ND	4.3	0.41	-	-	0.0056
MF-5	4/6/2008	BCL	638	490	7.5	120	-	36	20	69	12	66	81	140	<0.4	-	-	-	-	<0.002	6.5	0.51	-	-	0.0091
MF-5	9/3/2008	BCL	1100	680	7.51	-	-	68	39	110	17	140	150	250	-	-	5.6	0.28	0.24	<0.002	29	1.2	-	-	0.076
MF-5	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	<0.4	-
MF-5	4/2/2009	BCL	947	730	7.46	150	-	56	28	110	13	150	130	190	-	-	-	-	-	0.006	9	0.68	-	-	0.022
MF-5	10/21/2009	BCL	1300	780	7.33	380	-	43	46	220	4.2	120	150	460	1.8	-	<2	0.45	0.11	0.011	9.1	0.13	-	-	0.02
MF-5	10/21/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.05	<0.4	-
MF-5	5/12/2010	BCL	1200	740	7.56	190	-	53	36	150	7.9	170	180	240	<0.4	-	-	-	-	<0.002	3.7	0.56	-	-	0.0062
MF-5	9/14/2010	BCL	483	310	7.52	95	-	19	7.9	72	6.3	52	55	120	<0.4	-	2	0.34	0.03	<0.002	1.4	0.19	-	-	0.0076
MF-5	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.85	<0.4	-
MF-5	4/19/2011	BCL	808	950	7.37	120	-	36	19	91	8.9	70	130	150	<0.4	-	-	-	-	<0.002	2.4	0.39	-	-	<0.005
MF-5	8/31/2011	BCL	1020	590	7.37	180	-	32	31	140	4.9	82	170	220	<0.4	-	2	0.3	0.07	<0.002	2.7	0.35	-	-	<0.005
MF-5	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-5	3/29/2012	BCL	458	280	7.45	120	-	18	11	74	5.7	26	44	150	<0.4	-	-	-	-	<0.002	2	0.19	-	-	<0.005
MF-5	10/3/2012	BCL	653	400	7.55	95	-	30	12	84	8.7	70	100	146	<0.4	-	<2	0.17	0.0019	<0.002	3.3	0.33	4.3	-	<0.005
MF-5	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-5	5/7/2013	BCL	713	450	7.42	100	-	33	16	89	7.2	96	110	130	<0.4	-	-	-	-	<0.002	3.5	0.42	-	-	<0.005
MF-6	10/11/2002	TL	1200	640	7.1	300	-	30	14	200	9	87	130	360	-	-	<10	0.32	0.14	<0.05	0.4	0.4	-	<10	<0.05
MF-6	12/13/2002	UNK	2400	1300	7.2	640	-	55	35	360	2	76	370	640	ND	ND	-	0.4	ND	-	0.7	0.92	-	-	-
MF-6	1/3/2003	TL	-	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-6	1/13/2003	TL	1800	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-6	4/12/2003	BSK	2400	1400	7.0	750	-	64	43	340	2	67	360	750	<0.2	<2	-	0.4	0.06	-	0.08	1.3	-	-	-
MF-6	5/20/2003	TL	2300	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-6	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	4.3	<0.4	-
MF-6	9/30/2003	TL	2300	1400	6.9	720	-	54	33	450	7.1	64	300	880	<0.4	-	-	0.39	0.28	<0.05	7.7	1	-	-	<0.05
MF-6	12/31/2003	TL	2400	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-6	3/4/2004	TL	2300	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-6	4/2/2004	UNK	2400	1400	7.4	740	-	66	41	420	4	74	340	740	ND	ND	-	0.4	0.08	-	5.3	1.3	-	-	-
MF-6	5/27/2004	UNK	2300	1400	6.7	-	-	59	38	450	7.2	80	310	870	-	-	-	-	-	ND	11	1.2	-	-	ND
MF-6	11/17/2004	BSK	2100	1200	7.5	680	-	47	30	380	2	72	190	680	<0.2	0.4	-	0.3	0.05	-	0.79	0.87	-	-	-
MF-6	3/2/2005	TL	1800	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-	0.69	5.6	-	-
MF-6	3/21/2005	UNK	1800	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-	0.69	5.6	-	-
MF-6	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	3.5	<0.4	-
MF-6	8/10/2005	TL	1700	1200	6.9	580	-	38	22	360	5	76	250	710	<2	-	-	0.36	0.21	<0.005	4.5	0.66	-	-	<0.005
MF-6	9/1/2005	UNK	1700	1200	6.9	580	-	38	22	360	5	76	250	710	-	-	-	0.36	0.21	ND	4.5	0.66	-	-	ND
MF-6	4/20/2006	TL	1100	720	6.9	340	-	24	14	240	4.6	62	140	-	<2	-	-	-	-	<0.005	3	0.42	-	-	<0.005
MF-6	9/26/2006	TL	1700	1100	7.0	550	-	36	21	350	5.4	56	220	-	<10	-	<10	0.34	0.2	<0.005	4.9	0.65	<5	<20	<0.005

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
MF-6	3/28/2007	TL	850	510	7.0	240	-	17	10	160	4.8	50	110	290	-	-	ND	0.2	0.098	ND	2.7	0.33	5.4	ND	ND
MF-6	9/25/2007	TL	1400	870	7.1	410	-	30	17	290	4.6	66	170	500	-	-	ND	0.28	0.046	ND	4	0.55	-	-	ND
MF-6	4/6/2008	BCL	1460	830	7.34	390	-	35	21	290	2.8	98	180	470	<0.4	-	-	-	-	<0.002	5.6	0.56	-	-	0.0056
MF-6	9/3/2008	BCL	2150	1300	7.26	-	-	44	27	410	2.5	85	280	850	-	-	7.9	0.33	0.24	0.031	6	0.86	-	-	0.0083
MF-6	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.75	<0.4	-
MF-6	4/2/2009	BCL	1850	1400	7.33	610	-	39	23	390	2.5	92	230	740	-	-	-	-	-	<0.002	4.9	0.6	-	-	0.0056
MF-6	10/21/2009	BCL	1520	1100	7.38	450	-	38	19	310	5.3	84	190	550	<0.4	-	4.3	0.33	0.14	0.0026	4	0.55	-	-	0.0058
MF-6	10/21/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	<0.4	-
MF-6	5/12/2010	BCL	1820	1100	7.5	550	-	36	22	360	2.3	87	230	680	<0.4	-	-	-	-	<0.002	5	0.57	-	-	<0.005
MF-6	9/14/2010	BCL	444	280	7.39	86	-	14	5.9	69	6.6	42	53	100	<0.4	-	7.9	0.25	0.046	<0.002	1.7	0.14	-	-	0.0051
MF-6	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.1	<0.4	-
MF-6	4/19/2011	BCL	580	430	7.45	150	-	12	6.5	100	2.4	35	57	190	<0.4	-	-	-	-	0.0025	2.1	0.18	-	-	<0.005
MF-6	8/31/2011	BCL	1270	800	7.4	380	-	21	13	260	2.3	55	150	460	<0.4	-	6.8	0.36	0.11	<0.002	3.2	0.34	-	-	<0.005
MF-6	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-6	3/29/2012	BCL	1240	720	7.33	350	-	20	12	270	1.9	57	130	430	<0.4	-	-	-	-	<0.002	3	0.3	-	-	<0.005
MF-6	10/3/2012	BCL	1280	830	7.51	350	-	27	16	250	2.1	80	160	512	<0.4	-	5.7	0.26	0.12	<0.002	3.6	0.4	6.8	-	<0.005
MF-6	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-6	5/7/2013	BCL	855	520	7.43	150	-	41	19	120	4.3	120	120	180	<0.4	-	-	-	-	<0.002	3.7	0.43	-	-	<0.005
MF-6	5/15/2014	BCL	1310	800	7.5	-	-	-	-	-	-	100	160	430	<0.9	-	-	-	-	-	-	-	-	-	-
MF-7	10/1/2002	UNK	4100	2600	7.3	1000	-	75	69	760	18	470	410	1200	-	-	ND	0.88	0.2	ND	1.6	0.65	-	ND	ND
MF-7	10/11/2002	TL	4100	2600	7.3	1000	-	75	69	760	18	470	410	1200	-	-	<10	0.2	0.88	<0.05	1.6	0.7	-	<10	<0.05
MF-7	12/13/2002	UNK	4200	2600	7.8	1100	-	65	71	730	8	420	460	1100	66.4	ND	-	0.9	0.1	-	ND	0.55	-	-	-
MF-7	1/6/2003	UNK	3600	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-7	1/13/2003	TL	3600	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-7	4/12/2003	BSK	3200	2000	7.6	1200	-	36	38	340	6	160	280	1200	<0.2	<2	-	0.8	0.06	-	<0.05	0.32	-	-	-
MF-7	9/30/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	30.2	<0.4	-
MF-7	9/30/2003	TL	3200	2100	7.7	1200	-	33	38	740	18	240	240	1500	<0.4	-	-	0.75	0.07	<0.05	0.58	0.34	-	-	<0.05
MF-7	3/4/2004	TL	3200	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-7	4/2/2004	UNK	2600	1700	7.6	440	-	23	19	530	4	340	250	440	239.1	ND	-	0.8	ND	-	ND	0.15	-	-	-
MF-7	11/17/2004	BSK	1300	800	7.8	240	-	17	14	250	4	190	130	240	12	0.6	-	0.5	<0.05	-	<0.05	0.08	-	-	-
MF-7	3/3/2005	TL	800	490	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46	-	-	-	0.021	21	-	-
MF-7	3/23/2005	UNK	800	490	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46	-	-	-	0.021	21	-	-
MF-7	8/9/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	18.5	1.3	-
MF-7	8/9/2005	TL	980	680	7.2	230	-	3.8	3.2	250	4.3	110	110	280	<2	-	-	0.44	0.015	0.0061	<0.1	0.012	-	-	0.0056
MF-7	8/30/2005	UNK	980	680	7.2	230	-	3.8	3.2	250	4.3	110	110	280	-	-	ND	0.44	0.015	ND	ND	0.012	19	-	0.0056
MF-7	4/20/2006	TL	670	480	7.3	190	-	2.7	2.4	170	3.8	60	67	-	17	-	-	-	-	0.0068	1.1	0.019	-	-	0.005
MF-7	9/26/2006	TL	950	630	7.3	260	-	2.4	2.2	210	4.1	77	72	-	35	-	<10	0.47	0.029	0.0081	3.4	0.29	27	<20	0.0054
MF-7	3/28/2007	TL	580	400	7.5	200	-	1.3	1.3	140	2.9	35	32	250	-	-	ND	0.33	0.023	0.0061	2.9	0.24	20	ND	ND
MF-7	9/24/2007	TL	500	310	7.1	97	-	9.4	9.3	85	5	52	67	120	-	-	ND	0.18	0.031	ND	1.8	0.27	-	-	ND
MF-7	4/6/2008	BCL	770	430	7.65	150	-	19	17	120	3.6	87	98	180	0.57	-	-	-	-	0.0026	2.1	0.2	-	-	0.0082
MF-7	9/3/2008	BCL	837	480	7.48	-	-	39	28	83	5.3	100	-	190	-	-	ND	0.32	0.083	0.0022	1.8	1	-	-	0.013
MF-7	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.95	<0.4	-
MF-7	4/2/2009	BCL	794	510	7.33	160	-	37	30	97	5.3	110	100	200	-	-	-	-	-	<0.002	3.1	0.58	-	-	<0.005
MF-7	10/21/2009	BCL	946	580	7.33	180	-	52	39	100	6.3	170	110	220	<0.4	-	2.9	0.26	0.15	<0.002	4.7	0.65	-	-	0.0064
MF-7	10/21/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	<0.4	-
MF-7	5/12/2010	BCL	841	510	6.85	84	-	27	23	120	6.1	140	130	100	4.6	-	-	-	-	0.0023	13	0.9	-	-	0.0052
MF-7	9/14/2010	BCL	652	420	7.22	160	-	11	9.1	120	3.1	63	61	200	4.1	-	2.6	0.41	0.031	0.0033	2.1	0.18	-	-	0.0062

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
MF-7	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.85	2.25	-
MF-7	4/19/2011	BCL	724	450	7.27	110	-	17	12	120	3.5	73	110	130	0.81	-	-	-	-	0.0028	2.2	0.38	-	-	0.0053
MF-7	8/31/2011	BCL	530	350	7.44	120	-	8.2	5.5	97	2.2	57	53	140	1	-	2.9	0.18	0.025	0.0044	2.9	0.18	-	-	<0.005
MF-7	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-7	3/29/2012	BCL	460	290	7.51	150	-	9	5.9	85	2.1	38	18	180	7.3	-	-	-	-	0.0068	4.1	0.3	-	-	0.0053
MF-7	10/3/2012	BCL	617	370	7.62	110	-	26	16	80	4.5	63	86	171	<0.4	-	<2	0.19	0.065	<0.002	1.4	0.43	8.1	-	<0.005
MF-7	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-7	5/7/2013	BCL	680	430	7.59	100	-	18	8	120	2.6	92	94	130	1.8	-	-	-	-	0.004	1.6	0.086	-	-	<0.005
MF-7	5/15/2014	BCL	1020	640	7.6	-	-	-	-	-	-	180	110	230	<0.4	-	-	-	-	-	-	-	-	-	-
MF-8	10/10/2002	TL	4900	3100	7.5	1300	-	30	22	970	19	370	630	1500	2.5	-	<10	1	0.14	<0.05	<0.1	0.5	-	-	<0.05
MF-8	12/13/2002	UNK	5000	3000	8.1	1300	-	32	24	1100	7	350	700	1300	ND	ND	-	1	0.07	-	ND	0.5	-	-	-
MF-8	1/6/2003	UNK	3500	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-8	1/13/2003	TL	3500	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-8	4/12/2003	BSK	3500	2100	7.5	880	-	23	20	600	4	310	460	880	<0.2	<2	-	0.8	0.07	-	<0.05	0.98	-	-	-
MF-8	9/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	29.2	2.7	-
MF-8	9/29/2003	TL	4500	2900	7.1	1300	-	25	18	1100	22	290	600	1600	17	-	-	1.1	0.06	<0.05	<0.1	0.46	-	-	<0.05
MF-8	3/4/2004	TL	3300	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-8	4/2/2004	UNK	3500	2300	7.8	810	-	28	23	770	4	440	460	810	0.2	ND	-	1	0.12	-	ND	1.7	-	-	-
MF-8	11/17/2004	BSK	3200	2000	7.8	730	-	25	24	660	5	450	380	730	<0.2	0.6	-	0.9	<0.05	-	-	0.86	-	-	-
MF-8	3/2/2005	TL	3400	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	0.78	-	-	-	1.1	55	-	-
MF-8	3/21/2005	UNK	3400	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	0.78	-	-	-	1.1	55	-	-
MF-8	8/9/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	21	0.78	-
MF-8	8/9/2005	TL	2900	2000	6.9	1400	-	130	92	500	26	12	350	1700	<2	-	-	0.47	0.39	0.012	<0.1	4.4	-	-	<0.005
MF-8	8/30/2005	UNK	2900	2000	6.9	1400	-	130	92	500	26	12	350	1700	-	-	ND	0.47	0.39	0.012	ND	4.4	21	0.8	ND
MF-8	4/20/2006	TL	3000	1900	6.9	1200	-	160	65	480	46	5.2	330	-	<2	-	-	-	-	0.011	<0.2	4.1	-	-	<0.01
MF-8	9/26/2006	TL	3000	1900	7.0	1300	-	180	62	450	48	13	310	-	<10	-	<20	0.43	0.46	0.02	2.3	4.5	31	<40	0.011
MF-8	3/28/2007	TL	2800	1700	7.2	1200	-	150	49	500	33	ND	310	1400	-	-	ND	0.45	0.38	ND	5.1	3.9	44	ND	ND
MF-8	9/24/2007	TL	2800	1400	7.1	1200	-	150	51	480	41	ND	250	1500	-	-	ND	0.49	0.3	ND	13	3.4	-	-	ND
MF-8	4/6/2008	BCL	2760	1600	7.37	1200	-	130	48	480	23	3.1	290	1400	<0.4	-	-	-	-	0.0039	14	3.6	-	-	0.0065
MF-8	9/3/2008	BCL	2800	1700	7.19	-	-	150	50	420	22	5.8	290	1500	-	-	56	0.4	0.5	0.0049	49	3.6	-	-	0.01
MF-8	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	<0.4	-
MF-8	4/2/2009	BCL	2820	1600	7.22	1200	-	160	55	490	23	15	310	1400	-	-	-	-	-	0.0054	29	4	-	-	0.0081
MF-8	10/21/2009	BCL	3560	2200	7.24	1200	-	190	68	650	26	140	470	1500	14	-	38	0.59	0.59	0.005	36	4.4	-	-	0.0055
MF-8	10/21/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	<0.668	-
MF-8	5/12/2010	BCL	3480	2100	7.61	1300	-	160	68	570	11	50	440	1600	<0.4	-	-	-	-	<0.002	20	4.9	-	-	<0.005
MF-8	9/14/2010	BCL	2930	2000	7.24	1200	-	140	63	480	16	7.1	360	1400	<0.9	-	16	0.56	0.36	<0.002	18	4.5	-	-	0.0051
MF-8	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.5	<0.4	-
MF-8	4/19/2011	BCL	2530	1600	7.46	1000	-	110	50	410	12	<1	260	1200	<0.4	-	-	-	-	<0.002	19	3	-	-	0.0051
MF-8	8/31/2011	BCL	2700	1600	7.38	1000	-	150	56	460	18	2.9	320	1300	<0.9	-	30	0.48	0.32	0.0057	15	3.5	-	-	<0.005
MF-8	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.443	-
MF-8	3/29/2012	BCL	2640	1600	7.32	990	-	140	51	550	16	<2	300	1200	<0.9	-	-	-	-	0.0095	15	2.6	-	-	<0.005
MF-8	10/3/2012	BCL	2610	1600	7.62	1000	-	140	51	420	18	15	330	1464	0.94	-	27	0.41	0.32	0.023	13	2.9	13	-	<0.005
MF-8	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.602	-
MF-8	5/7/2013	BCL	2220	1400	7.44	850	-	110	38	370	14	8.2	270	1000	<0.9	-	-	-	-	0.0096	13	2.8	-	-	0.013
MF-8	5/15/2014	BCL	3410	2100	7.4	-	-	-	-	-	-	140	540	1200	16	-	-	-	-	-	-	-	-	-	-
MF-9	10/10/2002	TL	2300	1500	7.4	500	-	47	23	440	12	330	240	610	<2	-	<10	0.59	0.11	<0.05	0.21	0.68	-	<10	<0.05
MF-9	12/13/2002	UNK	2300	1400	7.8	440	-	40	20	390	4	340	240	440	ND	ND	-	0.6	0.08	-	ND	0.64	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
MF-9	1/6/2003	UNK	2300	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-9	1/13/2003	TL	2300	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-9	3/23/2003	BSK	-	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-9	4/12/2003	BSK	2100	1400	7.6	460	-	32	16	350	4	310	230	460	<0.2	<2	-	0.6	0.07	-	<0.05	0.53	-	-	-
MF-9	9/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	-	32.6	<0.4	-
MF-9	9/29/2003	TL	2400	1500	7.3	280	-	54	27	460	22	410	250	340	<0.4	-	-	0.61	0.09	<0.05	0.11	1	-	-	<0.05
MF-9	3/4/2004	TL	2200	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MF-9	4/2/2004	UNK	2200	1400	8.1	560	-	47	23	450	6	260	280	560	2.2	ND	-	0.6	0.09	-	ND	0.88	-	-	-
MF-9	11/17/2004	BSK	2600	1600	7.9	780	-	63	34	510	7	220	330	780	<0.2	<0.1	-	0.6	0.08	-	<0.05	1.1	-	-	-
MF-9	3/2/2005	TL	3300	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	0.67	-	-	-	1.8	25	-	-
MF-9	3/21/2005	UNK	3300	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	0.67	-	-	-	1.8	25	-	-
MF-9	8/9/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	26.1	<0.4	-
MF-9	8/9/2005	TL	3200	2100	7.0	950	-	95	42	630	17	300	380	1200	<2	-	-	0.7	0.1	<0.005	0.8	1.4	-	-	<0.005
MF-9	8/30/2005	UNK	3200	2100	7.0	950	-	95	42	630	17	300	380	1200	-	-	ND	0.7	0.1	ND	0.8	1.4	26	ND	ND
MF-9	4/20/2006	TL	3100	2100	7.3	1000	-	67	33	700	20	280	320	-	<2	-	-	-	-	<0.01	1.6	1.4	-	-	<0.01
MF-9	9/26/2006	TL	2800	1800	7.4	920	-	54	24	620	16	190	290	-	<20	-	<20	0.8	0.074	<0.01	2.6	0.88	56	<40	0.013
MF-9	3/28/2007	TL	2600	1600	7.5	820	-	49	20	550	15	170	290	1000	-	-	ND	0.72	0.073	ND	1.2	0.65	43	ND	ND
MF-9	9/24/2007	TL	1500	860	7.7	400	-	13	6.7	330	9.1	150	120	490	-	-	ND	0.56	0.031	ND	0.87	0.29	-	-	ND
MF-9	4/6/2008	BCL	1540	1000	8.06	400	-	14	7	370	5.3	180	150	490	<0.4	-	-	-	-	<0.002	1.1	0.27	-	-	0.0054
MF-9	9/3/2008	BCL	2000	1200	7.85	-	-	22	12	440	5.4	8.3	8.3	680	-	-	2	0.53	0.059	ND	1.7	0.53	-	-	0.0083
MF-9	9/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.2	<0.4	-
MF-9	4/2/2009	BCL	2200	1400	7.7	630	-	29	16	520	5.7	250	230	770	-	-	-	-	-	<0.002	1.7	0.63	-	-	<0.005
MF-9	10/21/2009	BCL	3010	2000	7.44	660	-	53	33	650	7.9	470	380	800	<0.9	-	2.1	0.93	0.14	0.0022	4.8	1.2	-	-	0.0052
MF-9	10/21/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.6	<0.4	-
MF-9	5/12/2010	BCL	2960	1900	7.7	620	-	50	33	590	6.7	470	380	760	<0.4	-	-	-	-	0.0071	6.1	1.3	-	-	<0.005
MF-9	9/14/2010	BCL	3120	2100	7.56	830	-	44	32	710	7.6	410	340	1000	<0.9	-	<2	0.93	0.099	<0.002	3.8	1.1	-	-	<0.005
MF-9	9/14/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	<0.4	-
MF-9	4/19/2011	BCL	1150	700	8.1	300	-	4.3	3	250	2.3	110	100	360	<0.4	-	-	-	-	<0.002	1.2	0.11	-	-	0.007
MF-9	8/31/2011	BCL	992	610	8.05	190	-	3.2	2.3	230	2.5	130	110	240	<0.4	-	<2	0.36	0.018	0.0021	1.3	0.08	-	-	<0.005
MF-9	8/31/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-9	3/29/2012	BCL	1060	660	8.05	210	-	3.6	2.4	240	2.1	130	110	260	<0.4	-	-	-	-	<0.002	1	0.083	-	-	<0.005
MF-9	10/3/2012	BCL	885	570	8.18	210	-	2.7	1.8	200	1.8	110	86	305	<0.4	-	<2	0.36	0.018	<0.002	1.2	0.071	16	-	<0.005
MF-9	10/3/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MF-9	5/7/2013	BCL	865	520	8.21	190	-	2.4	1.7	190	1.7	100	92	230	0.85	-	-	-	-	<0.002	0.26	0.049	-	-	<0.005
MF-9	5/15/2014	BCL	1500	930	7.9	-	-	-	-	-	-	220	170	380	<0.9	-	-	-	-	-	-	-	-	-	-
EW-1	6/25/2004	TL	1100	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW-1	9/13/2004	FGL	1040	650	6.9	-	-	25	16	175	2	133	120	240	<0.4	-	<2	0.3	0.06	0.004	1.64	0.37	-	-	<0.01
EW-1	9/13/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	<0.4	-
EW-1	8/1/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.3	<0.4	-
EW-1	8/1/2007	TL	760	490	7.4	210	-	22	13	150	3.5	66	80	260	<4	-	<10	0.31	0.052	<0.005	1.4	0.42	12	<20	<0.005
EW-1	5/9/2008	BCL	660	440	7.3	-	-	24	16	110	3.3	-	60	180	-	-	ND	0.26	0.054	ND	2.2	0.56	-	-	ND
EW-1	5/9/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.33	<0.4	-
EW-1	11/25/2008	BCL	807	480	7.2	130	-	33	22	110	2.7	130	88	160	-	-	1.1	0.25	0.07	0.0074	10	0.99	11	ND	0.054
EW-1	3/11/2009	BCL	1090	800	7.62	240	-	45	27	190	2.6	170	120	290	-	-	ND	0.32	0.091	<0.002	4.1	1.1	-	-	<0.005
EW-1	3/11/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	ND	-
EW-1	8/14/2009	BCL	1100	720	7.73	270	-	34	19	220	2.5	130	150	320	-	-	ND	0.35	0.078	<0.002	1.7	0.63	-	-	0.0061
EW-1	8/14/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	ND	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
EW-1	4/24/2012	BCL	714	440	7.46	130	-	26	15	100	2.9	80	95	160	<0.4	-	-	-	-	<0.002	-	-	-	-	<0.005
EW-1	4/24/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
EW-1	5/10/2013	BCL	633	430	7.24	120	-	25	15	96	2.9	76	85	150	<0.4	-	<2	0.25	0.059	<0.002	2.2	0.6	9.6	-	<0.005
EW-2	8/1/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.78	<0.4	-
EW-2	8/1/2007	TL	1500	960	7.4	520	-	33	16	340	5.2	65	140	630	<6	-	<10	0.34	0.054	<0.005	0.67	0.79	12	<20	<0.005
EW-2	6/2/2008	BCL	1530	980	7.58	400	-	35	28	290	2.8	180	180	480	-	-	ND	0.34	0.11	ND	1.4	1.6	-	-	0.0052
EW-2	6/2/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.5	<0.4	-
EW-2	11/25/2008	BCL	956	580	7.53	160	-	17	14	180	2.3	140	120	200	-	-	1.8	0.24	0.08	0.01	11	0.96	21	ND	0.0099
EW-2	8/14/2009	BCL	1390	920	7.81	450	-	27	10	320	1.9	83	170	550	-	-	ND	0.28	0.079	<0.002	0.45	0.5	-	-	0.0055
EW-2	8/14/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.15	ND	-
EW-2	4/27/2012	BCL	996	620	7.43	190	-	25	21	170	2.6	130	120	230	<0.4	-	-	-	-	<0.002	2.3	1.2	11	-	<0.005
EW-2	4/27/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
EW-2	5/10/2013	BCL	810	500	7.36	180	-	20	16	150	2.2	91	100	220	<0.4	-	<2	0.26	0.05	<0.002	1.8	0.99	14	-	<0.005
EW-3	8/1/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.9	<0.4	-
EW-3	8/1/2007	TL	1100	730	7.6	390	-	22	8.9	260	3.3	47	99	480	<4	-	<10	0.3	0.1	<0.005	0.57	0.43	9.4	<20	<0.005
EW-3	5/9/2008	BCL	960	640	7.5	-	-	26	15	200	3.7	33	84	380	-	-	ND	0.28	0.074	ND	3.2	1.1	-	<0.4	ND
EW-3	5/9/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.83	-	-
EW-3	11/25/2008	BCL	796	450	7.42	190	-	31	23	120	2.6	84	86	230	-	-	11	0.26	0.15	0.027	20	1.5	12	ND	0.29
EW-3	8/14/2009	BCL	1350	980	7.82	480	-	31	11	310	1.9	73	150	590	-	-	ND	0.33	0.077	<0.002	0.49	0.56	-	-	0.0062
EW-3	8/14/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	ND	-
EW-3	4/27/2012	BCL	653	400	7.36	140	-	20	14	100	2.6	77	67	170	<0.4	-	-	-	-	<0.002	1	0.69	13	-	0.015
EW-3	4/27/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
EW-3	5/10/2013	BCL	747	440	7.19	150	-	29	19	120	3.2	89	98	180	<0.4	-	4	0.26	0.067	<0.002	1.9	0.92	10	-	<0.005
EW-4	6/2/2008	BCL	635	440	7.77	140	-	14	9.3	110	2.1	78	64	180	-	-	ND	0.28	0.052	ND	1.6	0.28	-	-	0.0057
EW-4	6/2/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.13	<0.4	-
EW-4	11/25/2008	BCL	738	430	7.44	130	-	28	16	100	3.3	90	97	150	-	-	ND	0.23	0.091	<0.002	2.7	0.51	7.1	ND	0.013
EW-4	3/11/2009	BCL	883	580	7.64	200	-	27	16	160	2.9	100	110	240	-	-	ND	0.32	0.084	<0.002	2.1	0.43	-	-	<0.005
EW-4	3/11/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	ND	-
EW-5	6/2/2008	BCL	954	620	7.79	250	-	12	7.6	210	1.4	95	110	300	-	-	ND	0.41	0.042	ND	1	0.19	-	-	ND
EW-5	6/2/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.35	<0.4	-
EW-5	11/25/2008	BCL	746	450	7.7	190	-	7.5	4.8	160	1.2	78	72	230	-	-	ND	0.33	0.065	0.027	7.7	0.17	10	ND	0.012
EW-5	3/11/2009	BCL	1220	880	7.74	290	-	17	10	280	1.5	160	150	350	-	-	ND	0.47	0.053	<0.002	2	0.33	-	-	<0.005
EW-5	3/11/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	ND	-
EW-5	8/14/2009	BCL	1640	1100	7.78	370	-	15	6.9	360	1.7	150	240	450	-	-	ND	0.46	0.061	<0.002	0.92	0.21	-	-	0.0052
EW-5	8/14/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	ND	-
EW-5	4/27/2012	BCL	948	600	7.09	130	-	30	20	170	2.3	170	110	160	<0.4	-	-	-	-	<0.002	7.1	0.78	5.6	-	<0.005
EW-5	4/27/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
EW-5	5/10/2013	BCL	716	480	7.19	140	-	19	13	140	1.8	100	87	170	<0.4	-	<2	0.31	0.052	<0.002	3.1	0.44	6.7	-	<0.005
EW-6	6/2/2008	BCL	682	440	7.54	160	-	20	12	110	2.2	67	79	200	-	-	ND	0.26	0.045	ND	2.6	0.37	-	-	0.0056
EW-6	6/2/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.75	<0.4	-
EW-6	11/25/2008	BCL	802	470	7.16	140	-	37	20	110	3.4	110	100	160	-	-	1.2	0.26	0.073	0.0026	6.5	0.67	9.3	ND	0.012
EW-6	3/11/2009	BCL	1070	660	7.61	260	-	28	15	210	2.7	110	140	320	-	-	ND	0.38	0.072	<0.002	3	0.43	-	-	<0.005
EW-6	3/11/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	ND	-
EW-6	8/14/2009	BCL	1180	740	7.67	300	-	24	11	230	2.9	110	160	360	-	-	ND	0.37	0.071	ND	1.8	0.37	-	-	0.0058
EW-6	8/14/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.65	ND	-
EW-6	4/27/2012	BCL	466	290	7.37	91	-	16	8.7	73	4.5	53	48	110	<0.4	-	-	-	-	<0.002	2.1	0.31	5.7	-	<0.005

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SHALLOW (Meyers Farm)																									
EW-6	4/27/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
EW-6	5/10/2013	BCL	691	440	7.17	110	-	28	15	96	5.7	77	100	140	<0.4	-	<2	0.24	0.078	<0.002	4	0.49	5.6	-	<0.005
EW-7	11/12/2008	BCL	1330	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW-7	3/11/2009	BCL	1550	860	7.8	480	-	52	14	300	2.6	55	200	590	-	-	ND	0.21	0.14	<0.002	0.54	0.51	-	-	<0.005
EW-7	3/11/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	-
EW-7	8/14/2009	BCL	1410	900	7.83	450	-	43	8.4	290	2.2	28	210	550	-	-	ND	0.21	0.096	ND	0.2	0.41	-	-	0.0069
EW-7	8/14/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.65	ND	-
EW-7	4/24/2012	BCL	1630	1000	7.92	520	-	66	14	310	3	38	-	630	<0.4	-	-	-	-	<0.002	0.41	0.78	1.4	-	<0.005
EW-7	4/24/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
EW-7	5/10/2013	BCL	1510	940	7.69	500	-	62	13	310	2.9	39	200	610	<0.9	-	<2	0.22	0.14	<0.002	0.37	0.53	1.9	-	<0.005
EW-8	11/8/2008	BCL	1130	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EW-8	3/11/2009	BCL	1090	720	7.9	280	-	48	16	180	2.2	69	160	340	-	-	ND	0.23	0.091	<0.002	0.35	0.52	-	-	0.074
EW-8	3/11/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	-
EW-8	8/14/2009	BCL	1030	670	7.92	280	-	38	10	190	1.8	65	150	350	-	-	ND	0.21	0.07	0.0037	0.27	0.52	-	-	0.0072
EW-8	8/14/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.95	ND	-
EW-8	4/27/2012	BCL	1170	730	7.91	270	-	65	18	200	2.7	87	160	320	<0.4	-	-	-	-	<0.002	0.41	0.7	2.2	-	<0.005
EW-8	4/27/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
EW-8	5/10/2013	BCL	1170	740	7.83	290	-	59	15	210	2.5	79	170	360	<0.9	-	<2	0.24	0.099	<0.002	0.36	0.58	2	-	<0.005
DEEP (Spreckels)																									
MW-7	5/6/1983	BCL	960	657	7.8	-	-	54	36	102	7	123	157	192	<1	-	<10	-	-	-	3.2	1	-	-	-
MW-7	5/29/1983	UNK	960	657	7.8	-	-	54	36	102	7.4	123	157	192	-	-	-	-	-	-	3.2	1	-	-	-
MW-7	11/24/1983	UNK	3000	1837	7.8	-	-	63	12.1	630	5.5	10	406	1221	4	-	-	-	-	-	3.4	1.2	-	-	-
MW-7	12/2/1983	UNK	3100	1730	8.0	-	-	6	8	700	6	10	414	1209	-	-	-	-	-	-	0.14	0.94	-	-	-
MW-7	3/6/1984	UNK	3000	1740	7.6	-	-	46	10.2	620	3.5	13	389	1140	-	-	-	-	-	-	-	-	-	-	-
MW-7	5/22/1984	UNK	2800	1663	7.6	-	-	9	6.5	610	3	9	367	1064	12	-	-	-	-	-	1.6	0.065	-	-	-
MW-7	7/19/1984	UNK	2600	1590	8.0	-	-	13.5	5.9	600	3.3	10	350	1032	-	-	-	-	-	-	1.9	0.6	-	-	-
MW-7	11/27/1984	UNK	2700	1713	7.6	-	-	14	5.1	590	3.1	8	337	1036	-	-	-	0.14	-	-	0.76	0.44	-	-	-
MW-7	4/23/1985	UNK	2500	1700	7.8	-	-	26	6.1	615	3.6	11	368	1084	-	-	-	-	-	-	-	0.49	-	-	-
MW-7	11/4/1985	UNK	2890	1820	7.7	-	-	27	5.3	570	4.3	-	375	1139	-	-	-	-	-	-	1.7	0.59	-	-	-
MW-7	9/23/1986	UNK	3250	1910	7.9	-	-	50	7.5	690	4.8	19	467	1212	-	-	-	-	-	-	1.6	0.77	-	-	-
MW-7	4/21/1987	UNK	3200	1845	7.8	-	-	36	9	715	4.7	9	441	1269	-	-	-	-	0.31	-	1.4	0.84	-	-	-
MW-7	3/24/1988	UNK	4000	2410	7.3	-	-	92	13	820	6.5	9	536	1620	-	-	-	-	0.51	-	1.9	1.4	-	-	-
MW-7	12/19/1988	UNK	4400	2655	7.5	-	-	106	15	910	6	12	584	1776	-	-	-	-	-	-	5.4	1.6	-	-	-
MW-7	12/12/1989	UNK	5300	3295	7.1	-	-	178	30	970	30	52	663	2194	-	-	-	-	-	-	0.219	2.3	-	-	-
MW-7	4/10/1990	UNK	5300	3310	7.2	-	-	166	27	970	42	30	680	2252	-	-	-	-	-	-	10.56	2.04	-	-	-
MW-7	11/14/1990	UNK	-	2340	6.9	-	-	-	-	-	36	-	576	223	-	-	-	-	0.521	-	0.077	0.338	-	-	-
MW-7	6/20/1991	UNK	6100	3780	7.1	-	-	-	-	-	97	-	835	2743	-	-	-	-	2.95	-	-	-	-	-	-
MW-7	10/29/1991	UNK	6500	3860	6.9	-	-	167	37	1220	116	36	853	2740	1.8	-	-	0.17	2.7	-	15.79	2.24	-	-	-
MW-7	2/24/1992	UNK	6600	4040	7.1	-	-	192	45	1270	106	31	947	2640	-	-	-	0.17	2.8	-	16.6	2.18	-	-	-
MW-7	10/20/1992	UNK	7100	4350	6.9	-	-	204	44	1290	116	-	970	2990	-	-	-	0.23	2.88	-	10.5	2.1	-	-	-
MW-7	3/1/1993	UNK	7100	4240	6.8	-	-	210	53	1330	116	-	1040	3070	-	0.05	-	0.24	3.08	-	18.6	2	-	-	-
MW-7	9/27/1993	UNK	7200	5000	6.7	-	-	203	50	1350	131	-	1040	2950	-	-	-	0.22	3.29	-	7.59	2.31	-	-	-
MW-7	3/10/1994	UNK	7350	4520	6.9	-	-	184	51	1410	179	-	1040	3170	-	-	-	0.19	3.51	-	5.73	1.85	-	-	-
MW-7	9/20/1994	UNK	7070	4600	6.8	-	-	138	48	1350	124	-	1020	2970	-	-	-	0.15	2.64	-	19.7	1.59	-	-	-
MW-7	3/16/1995	UNK	7250	4750	6.7	-	-	180	52	1400	163	-	1050	3120	-	-	-	0.18	2.3	-	0.422	1.34	-	-	-
MW-7	10/10/1995	UNK	6930	4280	7.0	-	-	169	48	1260	116	-	962	2720	-	-	-	0.27	2.24	-	0.41	1.51	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-7	4/6/1996	UNK	7150	4000	7.0	-	-	172	50	1280	152	-	980	3170	-	-	-	-	2.82	-	3.69	1.31	-	-	-
MW-7	9/30/1996	UNK	7530	4520	7.73	-	-	175	54	1340	184	-	1060	3250	-	-	-	0.28	2.6	-	0.407	1.27	-	-	-
MW-7	6/30/1997	UNK	7600	4610	7.5	-	-	168	54	1390	201	-	997	3500	-	-	-	0.3	2.98	-	0.605	1.25	-	-	-
MW-7	3/20/1998	UNK	6300	4500	6.9	-	-	160	51	1400	280	220	240	2700	-	-	-	0.23	3.7	-	0.45	0.62	-	-	-
MW-7	8/26/1998	UNK	7500	4400	7.2	-	-	170	44	1300	170	ND	1100	2600	ND	ND	-	0.23	3	-	1.6	1	-	-	-
MW-7	4/21/1999	BSK	7000	4400	7.3	2500	26.8	160	47	1500	200	<150	1000	3050	<0.2	<7.5	-	0.2	2.4	-	1.4	0.86	-	-	-
MW-7	5/21/2000	BSK	6400	4300	6.8	2700	11.9	170	43	670	100	<200	1100	3294	<20	<10	-	0.2	1.6	-	0.59	0.91	-	-	-
MW-7	12/17/2000	BSK	6400	4400	6.9	2400	26.5	150	37	1400	90	<140	1000	2928	<14	<7	-	0.2	1.5	-	0.65	0.6	-	-	-
MW-7	6/5/2001	BSK	6500	4500	6.6	1300	23.3	160	46	1300	82	<200	1100	1586	-	<10	-	0.2	1.5	-	0.54	0.74	-	-	-
MW-7	10/3/2001	UNK	6600	4000	6.7	-	-	150	43	1400	84	ND	970	2400	ND	ND	-	0.2	1.4	-	0.68	0.58	-	-	-
MW-7	5/2/2002	BSK	6700	4000	7.1	2300	-	140	37	1300	80	<220	1100	2300	<22	<11	-	0.2	1.5	-	0.76	0.54	-	-	-
MW-7	12/11/2002	BSK	6700	4200	7.8	2300	-	120	34	1100	80	ND	1000	-	-	ND	-	0.2	1.4	-	0.51	0.39	-	-	-
MW-7	3/23/2003	BSK	6600	4000	7.5	2300	-	130	39	1300	92	ND	1000	-	-	ND	-	0.2	1.6	-	0.5	0.4	-	-	-
MW-7	10/24/2003	BSK	6600	4200	7.4	2400	-	150	46	1400	110	ND	990	-	-	ND	-	0.2	1.8	-	0.56	0.44	-	-	-
MW-7	3/31/2004	BSK	6500	4400	7.2	2600	-	160	49	1400	120	<2	1000	3170	<0.9	<0.1	-	0.2	2.2	-	13	0.42	-	-	-
MW-7	11/13/2004	BSK	6900	4300	7.3	2500	-	150	51	1300	160	<40	1100	3050	<18	<2	-	0.2	2	-	0.79	0.36	-	-	-
MW-7	4/6/2005	UNK	6600	4200	7.4	2400	-	150	51	1300	130	ND	1100	2400	ND	ND	-	0.2	1.9	-	0.99	0.37	-	-	-
MW-7	10/13/2005	UNK	6900	4200	7.4	2500	-	170	60	1300	100	ND	1100	2500	ND	ND	-	0.2	2	-	1	0.39	-	-	-
MW-7	4/19/2006	DL	7590	4205	7.0	2417	-	135	45	1311	108	0.7	1047	2417	<0.1	<0.1	-	<0.01	1.2	-	0.01	0.28	-	-	-
MW-7	9/25/2006	UNK	8190	4545	6.8	2331	-	163	57.2	1110	67.8	ND	1162	2331	ND	ND	-	0.14	0.96	-	12.59	0.37	-	-	-
MW-7	3/29/2007	TL	6400	4200	6.9	2300	-	170	58	1300	100	<50	1000	2800	<50	<2.5	<10	0.2	2.2	<0.005	-	-	7.9	-	<0.005
MW-7	9/23/2007	TL	6800	4200	6.8	-	-	-	-	-	-	<50	1000	2800	<50	-	-	-	-	-	-	-	-	-	-
MW-7	4/5/2008	BCL	6920	4400	6.99	-	-	-	-	-	-	<5	1100	2928	-	-	-	-	-	-	-	-	-	-	-
MW-7	9/2/2008	BCL	6800	4000	70	-	-	-	-	-	-	<10	1200	2928	<4.4	-	-	-	1.7	-	-	-	-	-	-
MW-7	4/2/2009	UNK	6600	3700	7.0	-	-	-	-	-	-	ND	1100	2200	ND	-	-	-	1.6	-	-	-	-	-	-
MW-7	9/30/2009	BSK	6200	3600	7.8	-	-	-	-	-	-	<100	980	2806	<50	-	-	-	-	-	-	-	-	-	-
MW-7	10/19/2010	SSC	6400	3900	6.8	-	-	-	-	-	-	<10	920	2928	11	-	-	-	-	-	-	-	-	-	-
MW-7	6/2/2011	SSC	6800	4000	6.8	-	-	-	-	-	-	<10	1000	2400	10.2	-	-	-	-	-	-	-	-	-	-
MW-7	10/3/2011	SSC	6500	3800	6.8	-	-	-	-	-	-	<10	1000	2200	12	-	-	-	-	-	-	-	-	-	-
MW-7	3/29/2012	BCL	6120	4300	7.05	-	-	-	-	-	-	<10	1100	2562	<4.4	-	-	-	-	-	-	-	-	-	-
MW-7	10/4/2012	BCL	5860	4100	7.14	-	-	-	-	-	-	<10	980	2562	<4.4	-	-	-	-	-	-	-	-	-	-
MW-7	5/6/2013	BCL	5860	4000	7.1	-	-	-	-	-	-	<10	990	2100	<0.4	-	-	-	-	-	-	-	-	-	-
MW-7	10/24/2013	BCL	6120	4100	7.1	-	-	-	-	-	-	3	1000	2100	<0.4	-	-	-	-	-	-	-	-	-	-
MW-7	5/15/2014	BCL	6320	3800	7.2	-	-	-	-	-	-	14	1000	2100	<0.4	-	-	-	-	-	-	-	-	-	-
MW-7	10/17/2014	BCL	6390	3700	7.0	-	-	-	-	-	-	ND	1000	2100	ND	-	-	-	-	-	-	-	-	-	-
MW-8	4/7/1984	UNK	450	270	8.2	-	-	2.5	0.1	106	0.8	8	28.7	175	8	-	-	0.1	-	-	0.11	-	-	-	-
MW-8	7/19/1984	UNK	530	327	8.6	-	-	2.2	0.3	120	0.7	9	35.4	213	-	-	-	-	-	-	0.06	-	-	-	-
MW-8	11/28/1984	UNK	540	350	8.4	-	-	2.3	0.3	124	0.7	5	38.9	236	-	-	-	0.04	-	-	0.05	-	-	-	-
MW-8	4/24/1985	UNK	560	377	8.2	-	-	2.9	0.4	120	0.8	7	40.4	233	-	-	-	-	-	-	-	0.01	-	-	-
MW-8	11/5/1985	UNK	560	370	8.1	-	-	4	0.4	132	0.9	-	46	282	-	-	-	-	-	-	-	0.02	-	-	-
MW-8	9/24/1986	UNK	650	390	8.0	-	-	5.2	0.6	136	1	9	45	288	-	-	-	-	-	-	0.05	0.02	-	-	-
MW-8	3/29/1988	UNK	690	460	8.1	-	-	9.2	1	155	1.4	6	62.7	335	-	-	-	-	-	-	0.09	0.06	-	-	-
MW-8	1/13/1989	UNK	725	445	8.4	-	-	10	1.1	164	1.4	6	59.8	325	-	-	-	-	-	-	-	0.06	-	-	-
MW-8	12/14/1989	UNK	-	-	-	-	-	9.9	1.2	160	1.2	7	59.8	354	-	-	-	-	-	-	0.411	0.067	-	-	-
MW-8	11/14/1990	UNK	-	315	8.0	-	-	-	-	-	1.2	-	50	236	-	-	-	-	-	-	-	0.079	-	-	-
MW-8	6/20/1991	UNK	780	510	7.9	-	-	-	-	-	1.7	-	72	372	-	-	-	-	-	-	-	-	-	-	-
MW-8	10/29/1991	UNK	790	485	8.2	-	-	14	1.7	175	1.8	-	70.2	371	-	0.06	-	-	-	-	0.141	0.086	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-8	2/24/1992	UNK	810	505	8.1	-	-	13.7	1.8	179	1.7	5	76.6	397	-	0.07	-	-	-	-	1.9	0.143	-	-	-
MW-8	10/20/1992	UNK	910	353	8.2	-	-	17.2	2.2	196	2	-	81	410	-	0.06	-	-	-	-	0.254	0.122	-	-	-
MW-8	3/1/1993	UNK	940	575	8.1	-	-	20	2.7	207	2	-	86.3	466	-	0.06	-	-	-	-	2.12	0.189	-	-	-
MW-8	9/27/1993	UNK	950	540	8.1	-	-	17.8	2.5	207	2.2	-	89	463	-	-	-	-	-	-	0.646	0.148	-	-	-
MW-8	3/10/1994	UNK	970	560	8.0	-	-	15.1	2.4	215	2	-	90.5	460	-	-	-	0.19	3.51	-	5.73	1.85	-	-	-
MW-8	9/20/1994	UNK	1050	635	8.1	-	-	19.7	3.1	220	2.3	-	96.1	496	-	-	-	-	-	-	-	0.15	-	-	-
MW-8	3/16/1995	UNK	1000	650	8.1	-	-	16.7	2.6	217	2.2	-	96	478	-	0.05	-	-	-	-	-	0.117	-	-	-
MW-8	10/10/1995	UNK	1000	605	8.2	-	-	14.7	2.2	214	1.9	-	97.5	475	-	0.05	-	-	-	-	-	0.1	-	-	-
MW-8	4/6/1996	UNK	1020	610	8.3	-	-	13.3	2.1	218	1.9	-	97.6	481	-	0.06	-	-	-	-	-	0.092	-	-	-
MW-8	9/30/1996	UNK	979	585	8.77	-	-	12.4	1.9	214	1.9	-	96.6	416	-	0.05	-	-	-	-	-	0.07	-	-	-
MW-8	6/30/1997	UNK	1120	695	8.5	-	-	15.6	2.4	246	2	-	110	465	-	-	-	-	-	-	-	0.092	-	-	-
MW-8	3/23/1998	UNK	1200	800	7.8	-	-	29	4.2	330	3.5	21	160	500	-	-	-	-	0.1	-	-	0.19	-	-	-
MW-8	8/26/1998	UNK	1200	690	8.1	-	-	19	2.7	270	2.4	ND	120	460	ND	ND	-	ND	0.06	-	ND	0.12	-	-	-
MW-8	4/21/1999	BSK	1100	720	8.1	450	15.7	18	2.7	270	2	<30	120	549	<3	<1.5	-	<0.1	0.06	-	<0.05	0.11	-	-	-
MW-8	5/20/2000	BSK	1200	760	7.9	480	13.5	21	3.1	250	<2	<30	140	586	<3	<1.5	-	<0.1	0.06	-	<0.05	0.14	-	-	-
MW-8	12/17/2000	BSK	1300	830	7.8	490	13.9	24	4	280	2	<32	150	598	<3.2	<1.6	-	<0.1	0.07	-	<0.05	0.16	-	-	-
MW-8	6/5/2001	BSK	1300	810	7.8	490	14.2	25	3.9	290	2	<30	160	598	-	<1.5	-	<0.1	0.07	-	<0.05	0.17	-	-	-
MW-8	10/3/2001	UNK	1300	800	7.7	-	-	24	4	290	ND	ND	150	490	ND	ND	-	ND	0.06	-	ND	0.14	-	-	-
MW-8	5/2/2002	BSK	1400	790	8.0	500	-	22	3.6	280	<2	<40	160	500	<4	<2	-	<0.1	0.07	-	<0.05	0.15	-	-	-
MW-8	12/10/2002	BSK	1300	800	7.9	460	-	22	3.4	240	ND	ND	150	-	-	ND	-	0.1	0.08	-	ND	0.14	-	-	-
MW-8	3/22/2003	BSK	1400	820	7.9	470	-	21	3.5	260	ND	ND	160	-	-	ND	-	ND	0.07	-	ND	0.14	-	-	-
MW-8	10/24/2003	BSK	1400	850	8.3	540	-	19	3	270	3	-	150	-	-	ND	-	ND	0.06	-	ND	0.12	-	-	-
MW-8	4/1/2004	UNK	1400	860	8.3	550	-	19	2.8	310	2	ND	170	550	ND	ND	-	ND	0.06	-	ND	0.11	-	-	-
MW-8	11/13/2004	BSK	1500	950	8.3	610	-	19	2.9	330	2	<6	180	740	<2.7	<0.3	-	<0.1	0.07	-	<0.05	0.11	-	-	-
MW-8	4/6/2005	UNK	1500	890	8.3	590	-	17	2.4	360	3	ND	180	580	ND	ND	-	ND	0.07	-	ND	0.1	-	-	-
MW-8	10/13/2005	UNK	1600	920	8.4	590	-	17	2.2	360	ND	ND	170	570	ND	ND	-	0.1	0.07	-	ND	0.1	-	-	-
MW-8	4/19/2006	DL	1571	1005	8.2	621	-	17	46	328	5.4	ND	185	621	<0.1	<0.1	-	0.06	0.06	-	0.03	0.1	-	-	-
MW-8	9/25/2006	UNK	1310	950	8.2	565	-	15.1	1.9	314	2.3	ND	194	565	ND	ND	-	0.06	0.05	-	0.05	0.09	-	-	-
MW-8	3/29/2007	TL	1600	980	7.9	590	-	16	2	370	4.9	<10	170	720	<10.2	<0.5	<10	0.088	0.067	<0.005	-	-	<5	-	<0.005
MW-8	9/23/2007	TL	1600	980	7.8	-	-	-	-	-	-	<20	170	730	<20	-	-	-	-	-	-	-	-	-	-
MW-8	4/5/2008	BCL	1670	1100	8.2	-	-	-	-	-	-	<1	200	744	-	-	-	-	-	-	-	-	-	-	-
MW-8	9/2/2008	BCL	1640	1000	82	-	-	-	-	-	-	5	220	756	<0.9	-	-	-	0.089	-	-	-	-	-	-
MW-8	4/2/2009	UNK	1500	960	8.1	-	-	-	-	-	-	ND	190	570	ND	-	-	-	0.081	-	-	-	-	-	-
MW-8	10/2/2009	BSK	1500	880	8.3	-	-	-	-	-	-	<10	180	659	<5	-	-	-	-	-	-	-	-	-	-
MW-8	10/6/2010	SSC	1600	940	7.8	-	-	-	-	-	-	<10	190	690	<2	-	-	-	-	-	-	-	-	-	-
MW-8	5/19/2011	SSC	1700	1000	7.8	-	-	-	-	-	-	<10	200	600	<2.2	-	-	-	-	-	-	-	-	-	-
MW-8	9/21/2011	SSC	1600	920	7.9	-	-	-	-	-	-	<10	190	560	<2.2	-	-	-	-	-	-	-	-	-	-
MW-8	3/30/2012	BCL	1600	960	8.3	-	-	-	-	-	-	1.1	200	634	<0.9	-	-	-	-	-	-	-	-	-	-
MW-8	10/4/2012	BCL	1520	980	8.03	-	-	-	-	-	-	4.7	200	659	<0.9	-	-	-	-	-	-	-	-	-	-
MW-8	5/6/2013	BCL	1490	950	8.0	-	-	-	-	-	-	<2	200	520	<0.9	-	-	-	-	-	-	-	-	-	-
MW-8	10/24/2013	BCL	1520	880	8.1	-	-	-	-	-	-	2	220	490	<0.9	-	-	-	-	-	-	-	-	-	-
MW-8	5/16/2014	BCL	1580	930	8.2	-	-	-	-	-	-	4	230	480	<0.9	-	-	-	-	-	-	-	-	-	-
MW-8	10/16/2014	BCL	1550	820	8.1	-	-	-	-	-	-	7	220	470	ND	-	-	-	-	-	-	-	-	-	-
MW-10	4/7/1984	UNK	750	427	7.6	-	-	14.1	3.1	150	1.6	17	75	300	-	-	-	0.02	-	-	0.07	0.13	-	-	-
MW-10	7/19/1984	UNK	770	460	7.6	-	-	14.7	3.5	159	2.5	17	79.6	319	-	-	-	-	-	-	0.22	0.16	-	-	-
MW-10	11/28/1984	UNK	690	417	7.9	-	-	11	2.2	147	1.3	14	68	294	-	-	-	0.06	-	-	0.08	0.11	-	-	-
MW-10	4/24/1985	UNK	720	453	8.0	-	-	12	2.3	156	1.2	16	70.8	321	-	-	-	-	-	-	-	0.15	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-10	11/5/1985	UNK	710	450	7.9	-	-	11	2.1	151	1.2	13	70.8	316	1.8	-	-	-	-	-	0.4	0.06	-	-	-
MW-10	9/24/1986	UNK	725	450	8.0	-	-	12	2.5	157	1.3	16	70.8	333	-	-	-	-	-	-	0.06	0.11	-	-	-
MW-10	3/29/1988	UNK	825	530	8.0	-	-	15	3.3	179	1.6	14	83.2	378	-	-	-	-	-	-	0.1	0.16	-	-	-
MW-10	1/13/1989	UNK	600	385	8.1	-	-	9	1.8	130	1	8	60.2	272	-	-	-	-	-	-	-	-	-	-	-
MW-10	12/14/1989	UNK	930	595	8.1	-	-	13	2.4	199	1.5	10	84.2	436	-	-	-	-	-	-	0.09	0.096	-	-	-
MW-10	11/14/1990	UNK	-	490	7.6	-	-	-	-	-	1.2	-	77.6	350	-	-	-	-	-	-	0.306	0.117	-	-	-
MW-10	6/20/1991	UNK	990	625	7.5	-	-	-	-	-	1.8	-	98.9	469	-	-	-	-	-	-	-	-	-	-	-
MW-10	10/29/1991	UNK	1000	610	8.2	-	-	13	2.1	230	1.5	-	94.3	478	-	-	-	-	-	-	0.069	0.092	-	-	-
MW-10	2/24/1992	UNK	1000	620	8.2	-	-	14.5	2.1	214	1.5	-	91.3	484	-	-	-	-	-	-	0.086	0.1	-	-	-
MW-10	10/20/1992	UNK	860	580	7.6	-	-	5.8	1.9	212	1.6	-	91	408	-	-	-	-	-	-	0.105	0.09	-	-	-
MW-10	3/1/1993	UNK	1010	610	8.1	-	-	12.2	2.2	230	1.5	-	96.3	503	-	0.06	-	-	-	-	0.063	0.081	-	-	-
MW-10	9/27/1993	UNK	1050	670	8.1	-	-	14.5	2.2	233	1.7	-	96	536	-	-	-	-	-	-	0.065	0.097	-	-	-
MW-10	3/10/1994	UNK	1080	645	8.1	-	-	13.7	2.3	234	1.6	-	99.3	519	-	-	-	-	-	-	0.133	0.104	-	-	-
MW-10	9/20/1994	UNK	1080	645	8.2	-	-	13	2	243	1.6	-	97.3	509	-	-	-	-	-	-	-	0.074	-	-	-
MW-10	3/16/1995	UNK	1100	685	8.0	-	-	14.1	2.2	258	1.8	-	102	542	-	-	-	-	-	-	0.06	0.083	-	-	-
MW-10	10/10/1995	UNK	1100	650	8.3	-	-	13	1.8	242	1.5	-	100	542	-	-	-	-	-	-	0.052	0.082	-	-	-
MW-10	4/6/1996	UNK	1070	605	8.4	-	-	8	0.9	244	1.1	-	96	506	-	-	-	-	-	-	-	0.031	-	-	-
MW-10	6/10/1996	UNK	1200	670	8.6	-	-	19.2	4.2	264	1.8	-	109	592	-	-	-	-	-	-	-	0.131	-	-	-
MW-10	6/3/1997	UNK	1210	730	8.5	-	-	17.2	2.7	271	1.8	-	106	541	-	-	-	64	-	-	0.064	0.164	-	-	-
MW-10	3/23/1998	UNK	1100	680	7.9	-	-	19	2.4	290	5.4	-	130	440	-	-	-	0.21	-	-	-	2.4	-	-	-
MW-10	8/26/1998	UNK	1200	720	8.1	-	-	18	2.4	280	2.5	ND	110	490	ND	ND	-	ND	-	-	0.05	0.14	-	-	-
MW-10	4/20/1999	BSK	1200	700	7.8	490	12.5	31	4.2	280	2	<30	120	598	<3	<1.5	-	0.1	0.06	-	<0.05	0.35	-	-	-
MW-10	5/21/2000	BSK	1200	730	7.8	470	12.6	25	2.9	250	2	<30	130	573	3.3	<1.5	-	<0.1	<0.05	-	0.1	0.25	-	-	-
MW-10	12/19/2000	BSK	1200	760	7.9	480	14.5	19	2.2	250	<2	<30	120	586	<3	<1.5	-	<0.1	<0.05	-	0.08	0.15	-	-	-
MW-10	6/5/2001	BSK	1200	740	7.8	470	13.1	25	2.9	260	<2	<30	130	573	-	<1.5	-	<0.1	<0.05	-	<0.05	0.22	-	-	-
MW-10	10/3/2001	UNK	1300	750	7.8	-	-	20	2.4	280	ND	ND	130	480	20.4	ND	-	ND	ND	-	0.16	0.16	-	-	-
MW-10	5/2/2002	BSK	1300	800	8.0	500	-	20	2.4	280	2	<40	130	500	<4	<2	-	0.1	0.05	-	0.06	0.15	-	-	-
MW-10	12/11/2002	BSK	1200	740	7.8	460	-	16	2	250	ND	ND	120	-	-	ND	-	ND	ND	-	0.06	0.12	-	-	-
MW-10	3/23/2003	BSK	1300	770	8.0	-	-	19	2.3	260	ND	ND	140	-	-	ND	-	ND	ND	-	0.06	0.14	-	-	-
MW-10	10/25/2003	BSK	1200	760	8.3	510	-	18	2.2	260	2	ND	120	-	-	ND	-	ND	ND	-	0.05	0.13	-	-	-
MW-10	3/31/2004	BSK	1200	770	8.2	520	-	22	2.6	280	<2	<2	140	630	<0.9	<0.1	-	<0.1	0.05	-	0.08	0.17	-	-	-
MW-10	4/1/2004	TL	1200	770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	11/13/2004	BSK	1200	760	8.3	510	-	21	2.8	270	<2	<6	130	620	<2.7	<0.3	-	<0.1	<0.05	-	0.08	0.18	-	-	-
MW-10	3/3/2005	TL	1300	780	-	-	-	-	-	-	-	-	-	-	-	-	-	0.094	-	-	-	0.16	<5	-	-
MW-10	4/6/2005	UNK	1200	730	8.3	510	-	23	3	280	2	ND	130	510	ND	ND	-	0.1	0.06	-	ND	0.2	-	-	-
MW-10	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	<1	<0.4	-
MW-10	8/10/2005	TL	1000	780	7.9	480	-	22	2.6	290	4.1	2.9	140	580	<2	-	-	0.098	0.055	<0.005	0.13	0.19	-	-	0.0098
MW-10	10/14/2005	UNK	1300	770	8.5	510	-	23	2.7	270	2	ND	140	480	ND	ND	-	0.1	0.05	-	0.08	0.2	-	-	-
MW-10	4/20/2006	TL	1200	770	7.7	460	-	24	3.1	290	4.3	11	150	-	<2	-	-	-	-	<0.005	0.16	0.24	-	-	<0.005
MW-10	9/26/2006	TL	1300	790	7.9	480	-	28	3.8	270	4.3	18	130	-	<10	-	<10	0.11	0.058	<0.005	0.19	0.33	<5	<20	<0.005
MW-10	3/29/2007	TL	1200	780	7.8	460	-	31	4.7	270	4.3	15	130	560	<10.2	<0.5	<10	0.11	0.064	<0.005	-	-	<5	-	<0.005
MW-10	9/24/2007	TL	1300	770	7.9	470	-	24	3.1	290	3.9	11	130	570	-	-	ND	0.11	0.058	ND	0.13	0.24	-	-	ND
MW-10	4/6/2008	BCL	1330	820	8.13	-	-	-	-	-	-	5.2	160	622	<0.4	-	-	-	-	-	-	-	-	-	-
MW-10	9/3/2008	BCL	1330	880	8.2	-	-	-	-	-	-	7	160	573	<0.4	-	-	-	0.056	-	-	-	-	-	-
MW-10	4/2/2009	BCL	1330	860	8.1	510	-	31	3.7	330	2.1	8.8	170	620	ND	-	-	-	0.064	<0.002	0.15	0.22	-	-	0.0076
MW-10	10/1/2009	BSK	1400	830	8.3	-	-	-	-	-	-	<6	150	659	<3	-	-	-	-	-	-	-	-	-	-
MW-10	10/20/2009	BCL	1430	900	8.16	520	-	36	4.9	330	2.2	6.3	160	640	<0.4	-	<2	0.14	0.073	<0.002	0.2	0.29	-	-	0.0055

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-10	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
MW-10	5/20/2010	BCL	1370	860	8.2	490	-	26	3.4	320	2.1	5.6	160	600	<0.4	-	-	-	-	<0.002	0.14	0.17	-	-	<0.005
MW-10	9/15/2010	BCL	-	920	8.22	470	-	24	2.9	310	2	5.3	160	570	-	-	<2	0.13	0.053	<0.002	0.1	0.17	-	-	<0.005
MW-10	9/15/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	<0.4	-
MW-10	4/20/2011	BCL	1260	800	8.21	470	-	20	2.4	290	1.9	4.1	150	570	<0.4	-	-	-	-	<0.002	0.1	0.13	-	-	<0.005
MW-10	9/1/2011	BCL	1340	810	8.19	470	-	20	2.4	300	2.1	3.9	150	570	<0.4	-	<2	0.12	0.054	<0.002	0.11	0.14	-	-	<0.005
MW-10	9/1/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-10	3/29/2012	BCL	1320	900	8.14	460	-	22	2.7	290	1.9	5.6	150	573	<0.4	-	-	-	-	0.0043	0.11	0.15	-	-	<0.005
MW-10	10/4/2012	BCL	1300	800	8.19	480	-	20	2.3	300	1.8	6.4	150	586	<0.9	-	<2	0.1	0.049	<0.002	0.094	0.14	<1	-	<0.005
MW-10	10/4/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-10	5/7/2013	BCL	1290	780	8.31	470	-	22	2.6	300	2	8.9	150	560	<0.4	-	-	-	-	<0.004	0.11	0.16	-	-	<0.01
MW-10	10/23/2013	BCL	1340	840	8.3	-	-	-	-	-	-	6	160	460	<0.4	-	-	-	-	-	-	-	-	-	-
MW-10	5/15/2014	BCL	1530	920	8.3	-	-	-	-	-	-	6	170	490	<0.4	-	-	-	-	-	-	-	-	-	-
MW-10	10/17/2014	BCL	1650	940	8.1	-	-	-	-	-	-	7	210	540	ND	-	-	-	-	-	-	-	-	-	-
MW-11	4/7/1984	UNK	1320	807	8.2	-	-	7.5	0.6	313	1	-	100	630	-	-	-	0.14	-	-	0.07	0.09	-	-	-
MW-11	7/19/1984	UNK	1350	877	8.4	-	-	8.9	1	326	1.1	7	106	643	-	-	-	-	-	-	0.06	0.08	-	-	-
MW-11	11/28/1984	UNK	1320	910	8.2	-	-	9	0.7	329	1.2	-	106	674	-	-	-	0.12	-	-	0.05	0.07	-	-	-
MW-11	4/24/1985	UNK	1360	873	8.2	-	-	9.8	0.8	337	1.1	5	106	653	-	-	-	-	-	-	-	0.06	-	-	-
MW-11	11/5/1985	UNK	1360	935	8.1	-	-	10	0.9	332	1.2	-	108	723	-	-	-	-	-	-	-	0.09	-	-	-
MW-11	9/24/1986	UNK	1360	885	8.2	-	-	11	1.2	333	1.1	10	103	708	-	-	-	-	-	-	-	0.08	-	-	-
MW-11	3/29/1988	UNK	1375	885	8.3	-	-	11	1.2	343	1.3	-	7	687	-	-	-	-	-	-	-	0.01	-	-	-
MW-11	12/1/1988	BCL	1460	940	8.3	-	36.8	6	1	370	1	6	113	797	<0.4	-	-	-	-	-	<0.05	0.02	-	-	-
MW-11	1/13/1989	UNK	1460	940	8.3	-	-	6	0.8	370	1.4	6	113	797	-	-	-	-	-	-	-	-	-	-	-
MW-11	12/14/1989	UNK	1590	1050	8.1	-	-	17	2	380	1.4	15	119	858	-	-	-	-	-	-	0.074	0.13	-	-	-
MW-11	11/14/1990	UNK	-	995	7.6	-	-	-	-	-	1.6	-	112	899	-	-	-	-	-	-	0.106	0.227	-	-	-
MW-11	6/20/1991	UNK	1600	1040	7.9	-	-	-	-	-	1.4	-	131	855	-	-	-	-	-	-	-	-	-	-	-
MW-11	10/29/1991	UNK	1590	1000	8.2	-	-	20	2.6	382	1.4	-	132	844	-	-	-	0.17	-	-	0.07	0.187	-	-	-
MW-11	2/24/1992	UNK	1560	1040	8.0	-	-	25	28	360	1.4	-	119	823	-	-	-	0.22	-	-	0.107	0.239	-	-	-
MW-11	10/20/1992	UNK	1640	1010	7.7	-	-	25	3	360	1.7	-	133	871	-	-	-	0.16	-	-	0.081	0.23	-	-	-
MW-11	3/1/1993	UNK	1660	1010	7.9	-	-	25.4	3.9	382	1.5	-	148	899	-	-	-	0.2	-	-	0.125	0.326	-	-	-
MW-11	9/22/1993	BCL	1650	1040	7.7	-	16.7	31	4	371	1.8	<5	149	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	9/27/1993	UNK	1650	1040	7.7	-	-	31	4	371	1.8	-	149	889	-	-	-	0.19	-	-	0.155	0.448	-	-	-
MW-11	3/10/1994	UNK	1770	1070	7.8	-	-	34	4.8	393	1.8	-	164	872	-	-	-	-	-	-	-	-	-	-	-
MW-11	9/20/1994	UNK	1750	1080	7.7	-	-	43	6.1	373	1.8	-	167	864	-	-	-	0.2	0.11	-	0.12	0.52	-	-	-
MW-11	3/16/1995	UNK	1680	1030	7.6	-	-	40	5.9	374	1.9	-	162	846	-	-	-	0.18	0.107	-	-	0.378	-	-	-
MW-11	10/10/1995	UNK	1700	1100	7.9	-	-	40	5.4	350	1.7	-	163	789	-	-	-	0.19	0.11	-	-	0.48	-	-	-
MW-11	4/6/1996	UNK	1740	1040	7.7	-	-	40	6	366	1.7	-	175	863	-	-	-	0.2	-	-	-	0.122	-	-	-
MW-11	6/10/1996	UNK	1750	1010	8.4	-	-	43	6.5	381	2.5	-	165	876	-	-	-	0.2	0.118	-	-	0.48	-	-	-
MW-11	6/3/1997	UNK	1720	1070	8.3	-	-	39	5.7	380	1.8	-	163	822	-	-	-	0.2	0.114	-	-	0.493	-	-	-
MW-11	3/23/1998	UNK	1400	1000	7.7	-	-	41	5.8	390	5.2	-	170	660	-	-	-	0.21	0.12	-	-	0.37	-	-	-
MW-11	8/26/1998	UNK	1700	1000	8.0	-	-	41	5.4	380	2	ND	170	690	ND	ND	-	0.2	0.12	-	ND	0.41	-	-	-
MW-11	4/20/1999	BSK	1600	1000	7.7	-	15.4	41	6	400	2	<40	180	700	<0.2	-	-	0.2	-	-	<0.05	0.4	-	-	-
MW-11	11/1/1999	BSK	1800	1000	7.8	-	14.7	40	5	370	2	<40	180	620	<0.2	-	-	0.2	-	-	<0.05	0.4	-	-	-
MW-11	5/21/2000	BSK	1600	1100	7.7	700	15	38	4.8	370	2	<40	190	854	<4	<2	-	0.2	0.1	-	0.08	0.39	-	-	-
MW-11	12/19/2000	BSK	1900	1200	7.5	680	14.2	40	5.4	360	<2	<40	220	-	<4	<2	-	0.2	0.11	-	<0.05	0.37	-	-	-
MW-11	6/5/2001	BSK	1700	1100	7.4	680	15.8	41	6.1	410	2	<40	230	830	-	<2	-	0.2	0.11	-	<0.05	0.43	-	-	-
MW-11	10/3/2001	UNK	1900	1400	7.4	-	-	46	7.1	400	ND	ND	220	740	27.9	ND	-	0.2	0.13	-	0.09	0.41	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-11	5/2/2002	BSK	1900	1200	7.8	680	-	46	7.4	380	<2	<60	230	680	<6	<3	-	0.2	0.14	-	<0.05	0.42	-	-	-
MW-11	12/10/2002	BSK	1800	1000	7.6	640	-	35	5.6	340	ND	ND	200	-	-	ND	-	0.2	0.11	-	0.06	0.34	-	-	-
MW-11	3/23/2003	BSK	1900	1200	7.8	680	-	44	7.1	370	ND	ND	230	-	-	ND	-	0.2	0.13	-	0.05	0.39	-	-	-
MW-11	10/25/2003	BSK	1800	1100	8.1	720	-	40	6.3	360	2	-	190	-	-	ND	-	0.2	0.11	-	-	0.4	-	-	-
MW-11	3/5/2004	TL	1800	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	3/31/2004	BSK	1700	1100	7.9	730	-	47	7.9	380	3	<2	220	890	<0.9	<0.1	-	0.2	0.13	-	<0.05	0.43	-	-	-
MW-11	11/13/2004	BSK	1900	1200	8.1	750	-	49	8.5	380	<2	<10	220	920	<4	<0.5	-	0.2	0.14	-	<0.05	0.49	-	-	-
MW-11	3/3/2005	TL	1900	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	0.5	<5	-	-
MW-11	4/6/2005	UNK	1800	1100	8.0	740	-	55	8.8	400	2	ND	230	740	ND	ND	-	0.2	0.15	-	ND	0.52	-	-	-
MW-11	8/10/2005	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-	-	-	<1	<0.4	-
MW-11	8/10/2005	TL	1800	1200	7.5	750	-	56	8.9	440	5.2	<2	250	910	<2	-	-	0.2	0.17	<0.005	0.41	0.53	-	-	<0.005
MW-11	10/14/2005	UNK	2000	1200	8.4	780	-	51	7.7	430	2	ND	230	760	ND	ND	-	0.2	0.15	-	ND	0.54	-	-	-
MW-11	4/20/2006	TL	1900	1200	7.5	730	-	46	7	440	5.2	<2	240	-	<2	-	-	-	-	<0.005	0.36	0.47	-	-	<0.005
MW-11	9/26/2006	TL	2000	1300	7.5	730	-	47	7.3	410	4.7	<10	240	-	<10	-	<20	0.21	0.15	<0.01	0.44	0.54	<10	<40	<0.01
MW-11	3/29/2007	TL	2000	1200	7.4	720	-	50	7.7	430	5.3	<20	230	880	<20	<1	<10	0.22	0.17	<0.005	-	-	<5	-	<0.005
MW-11	9/24/2007	TL	2100	1200	7.5	760	-	54	8.9	440	5.5	ND	260	930	-	-	ND	0.23	0.18	ND	0.89	0.6	-	-	ND
MW-11	4/6/2008	BCL	2200	1400	7.77	-	-	-	-	-	-	<1	290	976	<0.4	-	-	-	-	-	-	-	-	-	-
MW-11	9/3/2008	BCL	2200	1400	7.8	-	-	-	-	-	-	<1	310	952	<0.4	-	-	-	0.19	-	-	-	-	-	-
MW-11	4/2/2009	BCL	2060	1300	7.8	740	-	62	11	470	2.4	2	300	900	ND	-	-	-	0.18	<0.002	0.76	0.55	-	-	<0.005
MW-11	10/1/2009	BSK	2000	1200	8.1	-	-	-	-	-	-	<10	270	891	<5	-	-	-	-	-	-	-	-	-	-
MW-11	10/20/2009	BCL	2130	1300	7.76	740	-	62	12	470	2.3	<2	290	900	<0.9	-	<2	0.22	0.18	<0.002	0.79	0.55	-	-	<0.005
MW-11	10/20/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
MW-11	5/20/2010	BCL	2110	1300	7.82	740	-	63	12	450	2.6	1.6	310	900	<0.9	-	-	-	-	<0.002	1.6	0.54	-	-	0.0066
MW-11	9/15/2010	BCL	2140	1400	7.77	730	-	64	12	470	2.5	0.67	310	890	-	-	<2	0.24	0.2	<0.002	0.8	0.59	-	-	<0.005
MW-11	9/15/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	<0.4	-
MW-11	4/20/2011	BCL	1930	1400	7.71	740	-	62	12	440	2.3	<1	290	900	<0.4	-	-	-	-	<0.002	0.83	0.62	-	-	<0.005
MW-11	9/1/2011	BCL	2340	1400	7.75	780	-	71	14	480	3	<2	310	950	<0.9	-	<2	0.24	0.23	<0.002	0.83	0.6	-	-	<0.005
MW-11	9/1/2011	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-11	3/29/2012	BCL	2240	1500	7.66	760	-	69	13	440	2.5	2.2	300	952	<0.9	-	-	-	-	0.0064	0.86	0.61	-	-	<0.005
MW-11	10/4/2012	BCL	2090	1300	7.71	740	-	66	13	460	2.4	3.4	270	903	<0.9	-	<2	0.22	0.21	<0.002	0.94	0.57	<1	-	<0.005
MW-11	10/4/2012	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MW-11	5/7/2013	BCL	2020	1300	7.93	720	-	64	13	440	2.3	4.5	270	880	<0.9	-	-	-	-	<0.004	0.87	0.61	-	-	<0.01
MW-11	10/23/2013	BCL	1950	1200	7.9	-	-	-	-	-	-	4	250	670	<0.9	-	-	-	-	-	-	-	-	-	-
MW-11	5/15/2014	BCL	2100	1200	7.9	-	-	-	-	-	-	<2	250	670	<0.9	-	-	-	-	-	-	-	-	-	-
MW-11	10/17/2014	BCL	2160	1100	7.6	-	-	-	-	-	-	2	290	720	ND	-	-	-	-	-	-	-	-	-	-
MW-12	4/7/1984	UNK	1350	833	8.2	-	-	8.3	1.5	309	1.3	-	108	625	-	-	-	0.1	-	-	-	0.05	-	-	-
MW-12	7/19/1984	UNK	1360	907	8.4	-	-	8.9	2.2	320	1.4	6	119	624	-	-	-	-	-	-	0.06	0.04	-	-	-
MW-12	11/28/1984	UNK	1350	880	8.2	-	-	9.3	2.5	320	1.5	-	122	645	-	-	-	0.13	-	-	0.07	0.01	-	-	-
MW-12	4/24/1985	UNK	1390	913	8.3	-	-	9.8	2.6	330	1.5	5	130	658	-	-	-	-	-	-	-	-	-	-	-
MW-12	11/5/1985	UNK	1400	980	8.1	-	-	10	2.5	344	1.5	-	133	718	-	-	-	-	-	-	0.05	0.02	-	-	-
MW-12	9/24/1986	UNK	1520	970	8.2	-	-	13	3.6	367	1.6	11	143	754	-	-	-	-	-	-	0.06	0.04	-	-	-
MW-12	4/22/1987	UNK	1500	1005	8.2	-	-	11	3.3	364	1.7	6	137	739	-	-	-	-	-	-	-	0.02	-	-	-
MW-12	3/24/1988	UNK	1725	1165	8.3	-	-	14	3.9	420	1.9	-	165	806	-	-	-	-	-	-	0.05	0.03	-	-	-
MW-12	12/19/1988	UNK	2500	1520	7.8	-	-	12	13	585	2.2	9	265	1170	-	-	-	-	-	-	0.61	0.39	-	-	-
MW-12	12/14/1989	UNK	4400	2640	7.2	-	-	147	38	810	4	30	469	1894	-	-	-	-	-	-	0.706	1.372	-	-	-
MW-12	4/11/1990	UNK	4300	2635	7.3	-	-	134	36	850	4.4	30	481	1984	5.8	-	-	-	-	-	1.031	1.92	-	-	-
MW-12	11/15/1990	UNK	-	955	6.9	-	-	-	-	-	1.2	-	164	501	-	-	-	-	0.413	-	0.138	1.8	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-12	6/20/1991	UNK	4000	2480	7.3	-	-	-	-	-	5.2	-	466	1946	-	-	-	-	0.532	-	-	-	-	-	-
MW-12	10/29/1991	UNK	4200	2540	7.3	-	-	120	38	830	5.8	12	493	1950	-	-	-	0.2	0.648	-	4.58	2.02	-	-	-
MW-12	2/24/1992	UNK	4300	2620	7.2	-	-	130	43	840	8.3	12	496	1990	25.7	-	-	0.22	0.739	-	6.25	2.15	-	-	-
MW-12	10/20/1992	UNK	5400	3440	6.8	-	-	180	41	1010	9.6	-	580	2540	-	-	-	0.2	0.951	-	8.4	2.52	-	-	-
MW-12	3/1/1993	UNK	4800	2910	6.9	-	-	168	50	950	11.4	-	565	2260	-	-	-	0.23	1.01	-	8.47	2.24	-	-	-
MW-12	9/22/1993	BCL	-	1010	8.0	-	10.6	49	11	314	2.9	180	280	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	9/27/1993	UNK	5000	3180	6.9	-	-	167	49	967	13.4	-	605	2330	-	-	-	0.17	1.22	-	10.2	2.55	-	-	-
MW-12	3/10/1994	UNK	4680	3000	7.0	-	-	143	42	973	13.5	-	570	2190	-	0.06	-	0.18	1.15	-	10	2.05	-	-	-
MW-12	9/20/1994	UNK	5190	3250	7.0	-	-	124	51	1020	23	-	665	2330	-	-	-	0.16	1.14	-	2.81	2.15	-	-	-
MW-12	3/16/1995	UNK	4950	3150	6.8	-	-	154	47	1020	20	-	650	2310	-	-	-	0.16	0.942	-	0.331	1.32	-	-	-
MW-12	10/10/1995	UNK	5370	3540	7.0	-	-	170	50	1070	23	-	710	2490	-	-	-	0.24	1.26	-	0.52	1.26	-	-	-
MW-12	4/6/1996	UNK	5500	3240	7.0	-	-	157	57	1040	35	-	745	2490	-	-	-	0.25	1.98	-	10	1.13	-	-	-
MW-12	6/10/1996	UNK	5330	3310	7.9	-	-	145	48	1090	45	-	702	2400	-	-	-	0.24	1.55	-	0.276	1.49	-	-	-
MW-12	6/3/1997	UNK	5290	3240	7.1	-	-	142	45	984	48	-	670	2490	-	-	-	0.26	1.63	-	0.292	1.59	-	-	-
MW-12	3/23/1998	UNK	4500	3200	7.1	-	-	130	43	1000	74	-	680	1900	-	-	-	0.2	2	-	0.24	0.71	-	-	-
MW-12	8/26/1998	UNK	5400	3200	7.3	-	-	160	43	1000	44	ND	720	2000	ND	-	-	0.23	1.6	-	0.32	1.3	-	-	-
MW-12	4/21/1999	BSK	4900	3100	7.3	1900	22.5	140	46	1200	47	<100	670	2318	<10	<5	-	0.3	1.5	-	0.23	0.88	-	-	-
MW-12	5/20/2000	BSK	4700	3000	7.1	2000	21.7	110	29	990	43	<100	740	2440	12	<5	-	0.3	1.2	-	0.23	0.7	-	-	-
MW-12	12/17/2000	BSK	4400	2800	7.1	1600	18.2	99	27	790	35	<100	650	1952	<10	<5	-	0.3	0.99	-	0.16	0.53	-	-	-
MW-12	6/5/2001	BSK	4700	2800	7.4	1600	21.7	100	29	960	40	<100	710	1952	<10	<5	-	0.3	1.1	-	0.2	0.85	-	-	-
MW-12	10/3/2001	UNK	4500	2700	6.9	-	-	110	33	880	31	ND	630	1700	ND	ND	-	0.2	0.89	-	0.15	0.71	-	-	-
MW-12	5/2/2002	BSK	4100	2400	7.5	1500	-	94	25	750	21	<120	600	1500	<12	<6	-	0.2	0.8	-	0.15	0.58	-	-	-
MW-12	12/10/2002	BSK	4300	2600	7.8	560	-	84	21	700	24	-	610	-	-	ND	-	0.2	0.84	-	0.14	0.5	-	-	-
MW-12	3/22/2003	BSK	4300	2700	7.6	1500	-	93	26	750	22	ND	610	-	-	ND	-	0.2	0.79	-	0.18	0.43	-	-	-
MW-12	10/24/2003	BSK	5200	3200	7.6	1900	-	120	37	990	48	ND	710	-	-	ND	-	0.2	1.4	-	0.32	0.71	-	-	-
MW-12	3/31/2004	BSK	5200	3200	7.4	2000	-	120	42	1100	70	<2	790	2440	<0.9	<0.1	-	0.2	1.6	-	0.46	0.69	-	-	-
MW-12	11/13/2004	BSK	5500	3400	7.7	2100	-	120	44	1100	91	<40	790	2560	<18	<2	-	0.3	1.8	-	0.23	0.62	-	-	-
MW-12	4/6/2005	UNK	5400	3300	7.7	2100	-	100	37	1100	79	ND	810	2100	ND	ND	-	0.3	1.6	-	0.27	0.63	-	-	-
MW-12	10/13/2005	UNK	5600	3300	7.9	2000	-	98	39	1100	87	ND	820	2000	ND	ND	-	0.3	1.7	-	0.3	0.73	-	-	-
MW-12	4/19/2006	DL	5625	3115	7.4	1895	-	79	54	891	112	0.4	674	1895	<0.1	<0.1	-	0.16	1.27	-	0.28	0.58	-	-	-
MW-12	9/25/2006	UNK	4750	2470	7.2	1677	-	57.8	23.4	668	88.5	ND	649	1677	ND	ND	-	0.21	0.85	-	0.17	0.54	-	-	-
MW-12	3/29/2007	TL	3300	1900	7.3	1200	-	36	12	580	110	<20	370	1400	<20	<1	<10	0.23	0.86	<0.005	-	-	<5	-	0.0056
MW-12	9/23/2007	TL	3100	1700	7.2	-	-	-	-	-	-	<20	400	1400	<20	-	-	-	-	-	-	-	-	-	-
MW-12	4/5/2008	BCL	3250	1900	7.62	-	-	-	-	-	-	<2	420	1464	<0.9	-	-	-	-	-	-	-	-	-	-
MW-12	9/3/2008	BCL	3530	2100	7.4	-	-	-	-	-	-	<2	550	1464	<0.4	-	-	-	0.46	-	-	-	-	-	-
MW-12	4/2/2009	BCL	3400	2100	7.6	-	-	-	-	-	-	ND	540	1200	ND	-	-	-	0.5	-	-	-	-	-	-
MW-12	10/1/2009	BSK	3000	1700	8.0	-	-	-	-	-	-	<20	450	1220	<10	-	-	-	-	-	-	-	-	-	-
MW-12	5/4/2011	SSC	5300	3100	7.1	-	-	-	-	-	-	<10	750	1800	<2.2	-	-	-	-	-	-	-	-	-	-
MW-12	9/12/2011	SSC	5200	3100	7.0	-	-	-	-	-	-	<10	740	1800	<2.2	-	-	-	-	-	-	-	-	-	-
MW-12	3/30/2012	BCL	4350	2700	7.64	-	-	-	-	-	-	2	620	1830	<2.2	-	-	-	-	-	-	-	-	-	-
MW-12	10/4/2012	BCL	3450	2200	7.52	-	-	-	-	-	-	18	470	1586	<2.2	-	-	-	-	-	-	-	-	-	-
MW-12	5/6/2013	BCL	2780	1900	7.5	-	-	-	-	-	-	15	360	1100	<0.9	-	-	-	-	-	-	-	-	-	-
MW-12	10/24/2013	BCL	3170	2000	7.6	-	-	-	-	-	-	7	430	1100	<2.2	-	-	-	-	-	-	-	-	-	-
MW-12	5/16/2014	BCL	2300	1300	7.9	-	-	-	-	-	-	21	300	760	<0.9	-	-	-	-	-	-	-	-	-	-
MW-12	10/16/2014	BCL	1940	1100	7.8	-	-	-	-	-	-	26	230	630	ND	-	-	-	-	-	-	-	-	-	-
MW-14	3/31/1984	UNK	1220	707	8.3	-	-	6	0.6	265	1.3	140	140	244	-	-	-	0.1	-	-	-	0.04	-	-	-
MW-14	11/29/1984	UNK	1400	887	8.1	-	-	26	4.2	287	2.2	195	189	305	-	-	-	0.12	-	-	0.06	0.08	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																										
MW-14	11/5/1985	UNK	1230	765	8.2	-	-	11	1.5	271	1.6	128	154	314	-	-	-	-	-	-	0.05	0.05	-	-	-
MW-14	9/26/1986	UNK	1300	790	8.2	-	-	23	4.2	260	1.7	160	173	262	-	-	-	-	-	-	0.1	0.12	-	-	-
MW-14	7/23/1987	BCL	1550	920	8.2	-	12.3	35	6.9	303	2.4	195	233	283	<0.4	0.04	<10	-	<0.1	-	0.06	0.18	-	<5	-
MW-14	3/1/1988	BCL	1660	1000	8.1	-	12.2	39	8	320	3	196	277	301	0.4	-	-	-	-	-	<0.05	0.2	-	-	-
MW-14	12/13/1989	UNK	1700	1030	8.1	-	-	47	10	304	2.7	188	282	303	-	-	-	-	-	-	0.13	0.136	-	-	-
MW-14	11/15/1990	UNK	-	575	8.0	-	-	-	-	-	1.4	-	159	173	-	-	-	-	-	-	0.082	0.18	-	-	-
MW-14	6/18/1991	UNK	1600	930	7.9	-	-	-	-	-	2.3	-	276	275	-	-	-	-	-	-	-	-	-	-	-
MW-14	10/25/1991	UNK	1430	860	8.3	-	-	30	6.3	290	2	150	232	288	-	-	-	0.13	-	-	0.069	0.196	-	-	-
MW-14	3/2/1992	UNK	1360	850	8.3	-	-	33	6.4	254	1.9	130	198	294	-	-	-	0.16	-	-	0.097	0.238	-	-	-
MW-14	10/22/1992	UNK	1110	710	7.8	-	-	21	4.6	300	2.1	149	213	336	-	-	-	0.14	-	-	0.058	0.148	-	-	-
MW-14	3/4/1993	UNK	1340	860	8.1	-	-	26	4.7	271	1.9	129	176	343	-	0.05	-	0.14	-	-	0.18	0.152	-	-	-
MW-14	9/21/1993	UNK	1730	1010	8.0	-	-	49	11.2	314	2.9	180	280	348	-	-	-	0.12	-	-	0.105	0.304	-	-	-
MW-14	9/22/1993	BCL	1730	1010	8.0	-	10.6	49	11	314	2.9	180	280	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	3/10/1994	UNK	1360	820	8.2	-	-	16.3	3.5	279	2.2	123	171	342	-	-	-	0.18	-	-	0.072	0.112	-	-	-
MW-14	3/17/1995	UNK	1440	895	8.0	-	-	22	4.8	304	2.2	136	187	365	-	-	-	0.16	-	-	-	0.138	-	-	-
MW-14	10/15/1995	UNK	1590	890	8.2	-	-	19	4.4	315	3.1	145	218	339	-	-	-	-	-	-	-	0.12	-	-	-
MW-14	4/5/1996	UNK	1490	885	8.4	-	-	13.5	3.2	300	1.8	135	202	367	-	-	-	0.19	-	-	-	0.097	-	-	-
MW-14	10/20/1996	UNK	1630	960	8.6	-	-	32	7.5	332	2.8	150	228	371	-	-	-	0.21	-	-	-	0.222	-	-	-
MW-14	6/10/1997	UNK	2010	1190	7.7	-	-	96	18.1	326	4.2	201	343	401	-	-	-	0.26	0.171	-	-	0.706	-	-	-
MW-14	3/18/1998	UNK	1500	940	8.1	-	-	19	3.7	320	2.2	140	190	310	-	-	-	0.19	-	-	-	0.12	-	-	-
MW-14	3/28/1998	UNK	1660	1000	8.1	-	-	39	7.6	320	2.6	196	277	301	1.8	-	-	-	-	-	-	0.19	-	-	-
MW-14	8/25/1998	UNK	1800	970	7.8	-	-	72	14	290	3.4	150	260	330	ND	ND	-	0.25	0.13	-	ND	0.54	-	-	-
MW-14	4/1/1999	BSK	1600	920	8.0	-	12.2	44	7	330	3	160	230	310	<0.2	-	-	0.2	-	-	<0.05	0.2	-	-	-
MW-14	4/22/1999	UNK	1600	-	-	-	-	44	6.8	-	-	160	-	310	ND	ND	-	-	0.09	-	-	0.24	-	-	-
MW-14	11/1/1999	BSK	1500	900	7.9	-	10.8	39	5	270	1	210	300	330	<0.2	-	-	0.2	-	-	<0.05	0.2	-	-	-
MW-14	5/20/2000	UNK	1500	-	-	-	-	41	-	-	-	150	-	340	ND	-	-	-	-	-	-	0.21	-	-	-
MW-14	5/21/2000	BSK	1500	960	7.9	340	11.6	41	5.8	300	3	<30	200	415	<3	<1.5	-	0.2	0.07	-	<0.05	0.21	-	-	-
MW-14	12/17/2000	UNK	1500	-	-	-	-	49	-	-	-	-	-	330	ND	-	-	-	-	-	-	0.34	-	-	-
MW-14	12/19/2000	BSK	1500	910	7.7	330	7.8	49	9.9	230	4	120	180	-	<3	<1.5	-	0.2	0.07	-	<0.05	0.34	-	-	-
MW-14	6/5/2001	UNK	1600	-	-	-	-	90	-	-	-	-	-	310	ND	-	-	-	-	-	-	-	-	-	-
MW-14	6/6/2001	BSK	1600	980	7.4	310	6.1	90	17	240	4	160	260	378	-	<2	-	0.2	0.12	-	<0.05	0.65	-	-	-
MW-14	10/3/2001	UNK	1500	910	7.4	-	-	76	16	240	2	150	220	300	22.6	ND	-	0.2	0.1	-	ND	0.55	-	-	-
MW-14	5/1/2002	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	5/2/2002	BSK	1500	840	7.8	320	-	55	12	230	2	120	170	320	<5	<2.5	-	0.2	0.09	-	<0.05	0.43	-	-	-
MW-14	12/13/2002	BSK	1400	1000	7.7	300	-	65	16	190	3	140	200	300	ND	ND	-	0.2	0.09	-	ND	0.55	-	-	-
MW-14	12/13/2002	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	3/23/2003	BSK	1400	840	7.9	310	-	43	10	220	ND	120	180	310	ND	ND	-	0.2	0.07	-	0.05	-	-	-	-
MW-14	3/23/2003	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.35	-	-	-
MW-14	10/25/2003	BSK	1200	750	8.1	290	-	52	12	190	3	100	150	290	ND	ND	-	0.3	0.08	-	ND	0.42	-	-	-
MW-14	10/25/2003	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	4/1/2004	BSK	1200	760	8.0	-	-	-	-	-	-	110	160	300	ND	-	-	-	-	-	-	-	-	-	-
MW-14	4/1/2004	UNK	-	-	-	300	-	60	13	190	2	-	-	-	-	ND	-	0.3	0.09	-	ND	0.5	-	-	-
MW-14	11/13/2004	BSK	1100	710	8.1	290	-	51	12	190	3	110	140	350	<2.7	<0.3	-	0.3	0.08	-	<0.05	0.42	-	-	-
MW-14	11/14/2004	UNK	-	-	-	-	-	-	-	-	-	-	-	290	-	-	-	-	-	-	-	-	-	-	-
MW-14	4/7/2005	UNK	1200	690	8.1	290	-	52	12	180	3	120	140	290	ND	ND	-	0.3	0.09	-	ND	0.45	-	-	-
MW-14	10/14/2005	UNK	1100	700	8.4	280	-	49	10	180	2.4	110	140	270	ND	ND	-	0.31	0.08	-	0.06	0.38	-	-	-
MW-14	4/19/2006	DL	1080	678	8.0	279	-	41	9	183	4.9	100	129	279	<0.1	<0.1	-	0.25	0.08	-	<0.01	0.35	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-14	4/19/2006	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	9/26/2006	TL	1014	633	8.1	-	-	-	-	-	-	114	128	259	ND	-	-	-	-	-	-	-	-	-	-
MW-14	9/26/2006	UNK	-	-	-	259	-	41.8	9	185	3	-	-	-	-	ND	-	0.29	0.06	-	ND	0.33	-	-	-
MW-14	3/29/2007	TL	1000	640	7.8	260	-	41	9.7	180	5.6	96	120	310	<6	<0.3	<10	0.29	0.075	<0.005	-	-	6.7	-	<0.005
MW-14	3/29/2007	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	9/24/2007	BCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	9/24/2007	TL	1000	630	7.7	280	-	45	9.7	180	5.4	100	110	340	ND	-	ND	0.28	0.084	ND	0.11	0.33	-	-	ND
MW-14	4/6/2008	BCL	1100	670	8.12	-	-	-	-	-	-	110	120	378	<0.4	-	-	-	-	-	-	-	-	-	-
MW-14	9/3/2008	BCL	1100	640	8.1	-	-	-	-	-	-	100	120	378	<0.4	-	-	-	0.058	-	-	-	-	-	-
MW-14	10/2/2009	BSK	1000	630	8.3	-	-	-	-	-	-	95	110	354	<2	-	-	-	-	-	-	-	-	-	-
MW-14	10/6/2010	SSC	1200	720	7.7	-	-	-	-	-	-	93	120	403	<2	-	-	-	-	-	-	-	-	-	-
MW-14	5/19/2011	SSC	1200	690	7.6	-	-	-	-	-	-	98	120	330	<2.2	-	-	-	-	-	-	-	-	-	-
MW-14	9/21/2011	SSC	1100	650	7.8	-	-	-	-	-	-	95	110	310	<2.2	-	-	-	-	-	-	-	-	-	-
MW-14	3/30/2012	BCL	1170	700	8.19	-	-	-	-	-	-	100	120	366	<0.4	-	-	-	-	-	-	-	-	-	-
MW-14	10/4/2012	BCL	1110	750	8.15	-	-	-	-	-	-	100	120	366	<0.4	-	-	-	-	-	-	-	-	-	-
MW-14	5/7/2013	BCL	1130	740	8.1	-	-	-	-	-	-	110	130	310	<0.4	-	-	-	-	-	-	-	-	-	-
MW-14	10/23/2013	BCL	1080	690	8.1	-	-	-	-	-	-	93	120	290	<0.4	-	-	-	-	-	-	-	-	-	-
MW-14	5/15/2014	BCL	1180	710	8.1	-	-	-	-	-	-	99	120	300	<0.4	-	-	-	-	-	-	-	-	-	-
MW-14	10/17/2014	BCL	1160	660	8.0	-	-	-	-	-	-	100	120	310	ND	-	-	-	-	-	-	-	-	-	-
MW-16	12/8/1988	BCL	11600	6100	7.4	-	37.2	54	38	1460	1172	38	1094	5752	1	0.1	<10	0.2	3.7	-	0.33	0.18	-	<5	-
MW-16	12/20/1988	UNK	-	2190	7.4	-	-	30	30	200	120	25	389	1803	-	-	-	-	-	-	0.05	0.04	-	-	-
MW-16	12/19/1989	UNK	10400	6800	7.6	-	-	76	65	1360	696	125	1055	4936	-	-	-	-	-	-	0.577	0.358	-	-	-
MW-16	4/10/1990	UNK	9500	5260	7.3	-	-	63	54	1250	760	70	1063	4418	-	-	-	-	-	-	0.665	0.24	-	-	-
MW-16	11/16/1990	UNK	-	5060	7.1	-	-	-	-	-	690	-	922	4401	-	-	-	-	3.38	-	1.16	0.248	-	-	-
MW-16	6/18/1991	UNK	8400	4650	7.2	-	-	-	-	-	445	-	893	4007	-	-	-	-	3.74	-	-	-	-	-	-
MW-16	10/22/1991	UNK	8000	4360	7.1	-	-	77	49	1170	540	22	847	3790	-	-	-	0.28	3.12	-	8.62	0.3	-	-	-
MW-16	2/25/1992	UNK	8200	4340	7.5	-	-	79	56	1140	590	28	823	3940	-	-	-	0.26	3	-	7.6	0.221	-	-	-
MW-16	10/22/1992	UNK	-	2240	7.1	-	-	44	27	595	275	-	497	1510	-	-	-	0.3	2.64	-	8.31	0.282	-	-	-
MW-16	3/8/1993	UNK	7000	3420	7.3	-	-	62	40	955	500	-	620	3320	-	-	-	0.36	2.32	-	4.93	0.197	-	-	-
MW-16	9/23/1993	UNK	6200	3250	7.4	-	-	50	34	857	443	-	570	2980	-	-	-	0.31	2.27	-	5.59	0.197	-	-	-
MW-16	3/14/1994	UNK	5660	3020	7.3	-	-	49	31	830	410	6	520	2720	-	-	-	0.35	1.93	-	4.33	0.194	-	-	-
MW-16	10/3/1994	UNK	5200	2800	7.2	-	-	55	28	795	74	24	505	2460	-	-	-	0.3	1.81	-	5.23	0.21	-	-	-
MW-16	3/20/1995	UNK	4910	2900	7.1	-	-	35	23	746	316	34	474	2310	-	-	-	0.3	1.26	-	0.308	0.162	-	-	-
MW-16	10/14/1995	UNK	4880	2560	7.3	-	-	33	22	683	314	28	457	2280	-	-	-	0.36	1.24	-	0.25	0.135	-	-	-
MW-16	4/8/1996	UNK	4900	2710	8.6	-	-	33	24	720	328	24	447	2410	-	-	-	0.38	1.2	-	0.373	0.13	-	-	-
MW-16	10/4/1996	UNK	4810	2400	8.6	-	-	30	21	688	309	25.6	395	2310	-	-	-	0.38	1.24	-	0.177	0.121	-	-	-
MW-16	6/6/1997	UNK	4640	2440	7.4	-	-	32	23	711	318	14.9	413	2550	-	-	-	0.4	1.42	-	0.244	0.126	-	-	-
MW-16	4/21/1999	BSK	7000	3700	7.7	2900	26.3	49	37	1000	590	<150	630	3538	<15	<7.5	-	0.3	2.6	-	0.59	0.16	-	-	-
MW-16	5/21/2000	BSK	6800	3900	7.3	1500	28.1	43	31	990	500	<150	680	1830	<15	<7.5	-	0.3	2.5	-	0.62	0.16	-	-	-
MW-16	12/17/2000	BSK	6400	3500	7.4	2900	21.5	42	29	740	440	<140	620	3538	<14	<7	-	0.3	2.2	-	0.82	0.16	-	-	-
MW-16	6/6/2001	BSK	6200	3400	7.2	2500	23	44	32	820	510	<80	650	3050	-	<4	-	0.4	2.2	-	0.44	0.16	-	-	-
MW-16	10/3/2001	UNK	6000	3000	7.2	-	-	42	30	780	440	ND	520	2600	ND	ND	-	0.3	1.7	-	0.42	0.13	-	-	-
MW-16	5/2/2002	BSK	6000	3000	7.6	2400	-	30	22	640	330	<20	58	2400	2.5	<1	-	0.3	1.6	-	0.34	0.11	-	-	-
MW-16	12/10/2002	BSK	5600	2800	7.4	2200	-	25	17	610	300	ND	480	-	-	ND	-	0.3	1.5	-	0.38	0.12	-	-	-
MW-16	3/22/2003	BSK	5600	3000	7.6	2200	-	33	24	690	320	ND	560	-	-	ND	-	0.3	1.6	-	0.52	0.14	-	-	-
MW-16	10/25/2003	BSK	5400	2800	7.8	2300	-	36	27	720	420	ND	430	-	-	ND	-	0.3	1.5	-	0.43	0.13	-	-	-
MW-16	4/1/2004	UNK	6300	3300	7.7	2700	-	41	34	780	450	ND	580	2700	ND	ND	-	0.3	1.9	-	0.58	0.15	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-16	11/14/2004	BSK	6200	3300	7.8	2800	-	35	30	840	510	<40	560	3420	<18	<2	-	0.3	1.9	-	0.41	0.14	-	-	-
MW-16	4/7/2005	UNK	7300	3900	7.6	3100	-	49	47	1000	590	41	750	3100	ND	ND	-	ND	2.6	-	0.61	0.18	-	-	-
MW-16	10/14/2005	UNK	6400	3300	8.0	2600	-	35	37	950	480	ND	640	2600	ND	ND	-	0.4	2	-	0.5	0.16	-	-	-
MW-16	4/19/2006	DL	7130	3795	7.5	2846	-	140	37	1114	459	1.1	726	2846	<0.1	<0.1	-	0.09	1.83	-	0.72	0.13	-	-	-
MW-16	9/25/2006	TL	7430	3510	7.3	-	-	-	-	-	-	2	710	2481	ND	-	-	-	-	-	-	-	-	-	-
MW-16	9/25/2006	UNK	-	-	-	2461	-	41.4	34	729	424	-	-	-	-	0.1	-	0.26	1.44	-	0.55	0.11	-	-	-
MW-16	3/29/2007	TL	6700	3600	7.3	2700	-	50	44	880	530	<50	660	3300	<50	<2.5	<10	0.29	2.8	<0.005	-	-	<5	-	<0.005
MW-16	9/23/2007	TL	6400	3200	7.3	-	-	-	-	-	-	<50	620	3000	<50	-	-	-	-	-	-	-	-	-	-
MW-16	4/5/2008	BCL	6420	3400	7.53	-	-	-	-	-	-	8	660	3050	<2.2	-	-	-	-	-	-	-	-	-	-
MW-16	9/2/2008	BCL	6400	3300	7.5	-	-	-	-	-	-	13	750	3172	<2.2	-	-	-	2	-	-	-	-	-	-
MW-16	4/2/2009	BCL	5930	3200	7.5	-	-	-	-	-	-	28	680	2400	ND	-	-	-	-	-	-	-	-	-	-
MW-16	4/2/2009	UNK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-
MW-16	10/1/2009	BSK	5700	2700	7.9	-	-	-	-	-	-	74	580	2806	<20	-	-	-	-	-	-	-	-	-	-
MW-16	5/4/2011	SSC	5800	3000	7.3	-	-	-	-	-	-	150	530	2100	<2.2	-	-	-	-	-	-	-	-	-	-
MW-16	9/12/2011	SSC	6400	3400	7.2	-	-	-	-	-	-	190	630	2400	3.1	-	-	-	-	-	-	-	-	-	-
MW-16	3/29/2012	BCL	6740	4500	7.49	-	-	-	-	-	-	180	750	3050	<2.2	-	-	-	-	-	-	-	-	-	-
MW-16	10/4/2012	BCL	5950	3500	7.57	-	-	-	-	-	-	180	600	2684	<4.4	-	-	-	-	-	-	-	-	-	-
MW-16	5/6/2013	BCL	5610	3300	7.5	-	-	-	-	-	-	210	620	2000	<2.2	-	-	-	-	-	-	-	-	-	-
MW-16	10/24/2013	BCL	5590	3200	7.5	-	-	-	-	-	-	230	610	2000	<2.2	-	-	-	-	-	-	-	-	-	-
MW-16	5/16/2014	BCL	5580	3000	7.7	-	-	-	-	-	-	160	580	2000	<2.2	-	-	-	-	-	-	-	-	-	-
MW-16	10/17/2014	BCL	5620	2800	7.4	-	-	-	-	-	-	180	580	1900	ND	-	-	-	-	-	-	-	-	-	-
MW-22	4/12/1990	UNK	4500	2780	7.3	-	-	55	12	920	52	32	510	2016	-	-	-	-	-	-	0.692	0.991	-	-	-
MW-22	11/19/1990	UNK	-	2575	7.1	-	-	-	-	-	63	-	502	1989	-	-	-	-	1.19	-	2.51	1.26	-	-	-
MW-22	6/19/1991	UNK	4400	2530	7.3	-	-	-	-	-	62	-	523	1949	-	-	-	-	0.995	-	-	-	-	-	-
MW-22	10/23/1991	UNK	4500	2540	7.2	-	-	72	15	935	44	10	498	1910	-	-	-	0.19	-	-	4.75	1.15	-	-	-
MW-22	3/12/1992	UNK	4300	2660	7.3	-	-	77	15	910	49	-	492	1870	-	0.05	-	0.22	0.95	-	5.22	1.18	-	-	-
MW-22	10/26/1992	UNK	3900	2170	7.2	-	-	52	11	760	42	6.2	426	1650	-	-	-	0.17	0.649	-	3.78	0.725	-	-	-
MW-22	3/5/1993	UNK	4100	2390	7.1	-	-	149	59	607	137	235	370	1670	-	0.06	-	0.54	0.33	-	5.84	1.2	-	-	-
MW-22	9/24/1993	UNK	3000	1740	7.3	-	-	33	7.3	605	34	18	341	1200	-	-	-	0.15	0.481	-	2.75	0.521	-	-	-
MW-22	4/11/1994	UNK	2670	1570	7.2	-	-	27	6.3	580	33	20	326	1100	-	-	-	0.16	0.408	-	2.22	0.41	-	-	-
MW-22	10/4/1994	UNK	2290	1310	7.4	-	-	22	4.6	482	22	29	283	901	-	-	-	0.15	0.28	-	1.72	0.33	-	-	-
MW-22	3/30/1995	UNK	2300	1440	7.5	-	-	25	5.8	484	26	30	287	935	-	-	-	0.15	0.308	-	0.2	0.342	-	-	-
MW-22	10/17/1995	UNK	2190	1320	7.5	-	-	20	3.8	443	22	41	278	843	-	-	-	0.15	0.25	-	0.47	0.28	-	-	-
MW-22	4/6/1996	UNK	2260	1250	7.5	-	-	22	4.6	449	29	40	292	886	-	-	-	15	0.278	-	0.219	0.296	-	-	-
MW-22	10/4/1996	UNK	2100	1140	8.7	-	-	18	3.6	433	26	39.4	266	796	-	-	-	0.15	0.242	-	0.417	0.261	-	-	-
MW-22	6/4/1997	UNK	2210	1280	7.6	-	-	21	4.1	441	27	40.7	270	858	-	-	-	0.17	0.265	-	0.102	0.285	-	-	-
MW-22	3/24/1998	UNK	1800	1200	7.6	-	-	24	4.2	480	24	42	270	690	-	-	-	-	0.27	-	0.2	0.32	-	-	-
MW-22	8/25/1998	UNK	2200	1300	7.7	-	-	23	4.6	460	28	44	260	700	ND	ND	-	0.17	0.29	-	0.24	0.32	-	-	-
MW-22	4/21/1999	BSK	2100	1300	7.5	690	22.6	22	4.1	440	33	55	270	842	<4	<2	-	0.2	0.29	-	0.22	0.26	-	-	-
MW-22	5/20/2000	UNK	2000	1200	7.6	-	-	17	3.4	420	33	51	270	700	ND	ND	-	0.2	0.24	-	0.72	0.24	-	-	-
MW-22	5/21/2000	BSK	2000	1200	7.6	700	24.3	17	3.4	420	33	51	270	854	<4	<2	-	0.2	0.24	-	0.72	0.24	-	-	-
MW-22	12/19/2000	BSK	2100	1200	7.5	640	22.2	15	3	360	26	<50	270	781	<5	<2.5	-	0.1	0.2	-	0.64	0.18	-	-	-
MW-22	6/6/2001	BSK	2000	1200	7.4	660	22.3	19	4	410	30	<50	300	805	-	<2.5	-	0.2	0.23	-	0.53	0.26	-	-	-
MW-22	10/3/2001	UNK	1700	990	7.3	-	-	12	2.3	360	21	44	190	480	ND	ND	-	0.1	0.13	-	0.55	0.15	-	-	-
MW-22	5/2/2002	BSK	2000	1200	7.7	580	-	12	2.7	380	23	50	260	580	<5	<2.5	-	0.1	0.18	-	0.56	0.16	-	-	-
MW-22	12/11/2002	BSK	1800	980	7.8	470	-	10	2	330	16	66	230	-	-	ND	-	0.1	0.12	-	0.51	0.14	-	-	-
MW-22	3/22/2003	BSK	1800	1000	7.7	500	-	11	2.3	330	17	59	250	-	-	ND	-	0.1	0.14	-	0.57	0.16	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
MW-22	10/25/2003	BSK	1800	-	8.2	480	-	11	2.2	330	12	74	230	-	-	ND	-	0.1	0.1	-	0.56	0.16	-	-	-
MW-22	4/1/2004	UNK	1800	1100	8.0	510	-	14	2.8	410	15	75	250	510	ND	ND	-	0.2	0.15	-	0.7	0.2	-	-	-
MW-22	11/14/2004	BSK	1700	1000	8.2	500	-	13	2.5	350	11	82	230	610	<4	<0.5	-	0.1	0.11	-	0.56	0.17	-	-	-
MW-22	4/7/2005	UNK	1800	1000	7.9	520	-	16	2.7	380	11	84	250	520	ND	ND	-	0.1	0.14	-	0.57	0.19	-	-	-
MW-22	10/14/2005	UNK	1800	1000	8.4	500	-	14	2.3	420	10	86	230	480	ND	ND	-	0.1	0.13	-	0.49	0.18	-	-	-
MW-22	4/19/2006	DL	1866	1178	7.8	578	-	16	2.7	376	22	74	249	578	<0.1	<0.1	-	0.09	0.15	-	0.23	0.19	-	-	-
MW-22	9/25/2006	UNK	1719	1187	7.9	605	-	15.1	2.7	402	15.5	88	288	605	ND	ND	-	0.11	0.13	-	0.19	0.19	-	-	-
MW-22	3/29/2007	TL	2000	1200	7.6	600	-	19	3.1	440	25	68	250	740	<10.2	<0.5	<10	0.15	0.18	<0.005	-	-	8.9	-	<0.005
MW-22	9/23/2007	TL	2300	1300	7.5	-	-	-	-	-	-	62	280	890	<20	-	-	-	-	-	-	-	-	-	-
MW-22	4/5/2008	BCL	2490	1500	7.8	-	-	-	-	-	-	53	310	1013	<0.9	-	-	-	-	-	-	-	-	-	-
MW-22	9/3/2008	BCL	2710	1700	7.6	-	-	-	-	-	-	42	380	1122	<0.4	-	-	-	0.27	-	-	-	-	-	-
MW-22	4/2/2009	UNK	2800	1700	7.7	-	-	-	-	-	-	34	390	970	ND	-	-	-	0.3	-	-	-	-	-	-
MW-22	10/1/2009	BSK	3000	1600	8.0	-	-	-	-	-	-	24	390	1342	<10	-	-	-	-	-	-	-	-	-	-
MW-22	10/19/2010	SSC	3100	1900	7.2	-	-	-	-	-	-	14	400	1400	<2	-	-	-	-	-	-	-	-	-	-
MW-22	6/2/2011	SSC	3100	1900	7.3	-	-	-	-	-	-	24	400	1100	<2.2	-	-	-	-	-	-	-	-	-	-
MW-22	10/3/2011	SSC	3200	2000	7.2	-	-	-	-	-	-	20	410	1200	<2.2	-	-	-	-	-	-	-	-	-	-
MW-22	3/30/2012	BCL	3230	2100	7.79	-	-	-	-	-	-	16	420	1342	<2.2	-	-	-	-	-	-	-	-	-	-
MW-22	10/4/2012	BCL	2990	1800	7.67	-	-	-	-	-	-	25	390	1342	<2.2	-	-	-	-	-	-	-	-	-	-
MW-22	5/6/2013	BCL	3020	2100	7.5	-	-	-	-	-	-	21	410	1100	<2.2	-	-	-	-	-	-	-	-	-	-
MW-22	10/24/2013	BCL	3160	2000	7.6	-	-	-	-	-	-	16	420	1200	<2.2	-	-	-	-	-	-	-	-	-	-
MW-22	5/16/2014	BCL	3370	2000	8.2	-	-	-	-	-	-	14	430	1200	<2.2	-	-	-	-	-	-	-	-	-	-
MW-22	10/17/2014	BCL	3490	2000	7.4	-	-	-	-	-	-	9	450	1300	ND	-	-	-	-	-	-	-	-	-	-
PW-1	3/24/1962	UNK	-	235	-	-	-	-	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-
PW-1	10/24/1963	TL	-	114	8.8	-	-	1	<1	37	-	3	14	58	-	-	-	<0.1	-	-	-	-	-	-	-
PW-1	12/14/1964	UNK	-	169	8.2	-	-	2.5	0.5	51	-	3.3	24.8	97.6	-	-	-	0.05	-	-	2	-	-	-	-
PW-1	5/17/1965	UNK	-	149	8.3	-	-	2.6	-	48	-	6.2	17.7	85.4	-	-	-	-	-	-	2.8	-	-	-	-
PW-1	3/1/1966	UNK	-	177	8.8	-	-	4.9	-	50	-	4.9	28.4	79.3	-	-	-	-	-	-	4	-	-	-	-
PW-1	11/12/1968	UNK	-	169	-	-	-	1.4	0.9	92	1	-	30	96	-	-	-	-	-	-	-	-	-	-	-
PW-1	7/19/1980	UNK	-	284	8.3	-	-	17	3	-	-	14	-	74	-	-	-	-	-	-	0.1	-	-	-	-
PW-1	11/4/1980	UNK	-	300	8.2	-	-	11	3	-	-	11	-	76	-	-	-	-	-	-	0.1	-	-	-	-
PW-1	12/13/1980	UNK	-	235	8.7	-	-	12	-	-	-	8	-	72	-	-	-	-	-	-	0.1	-	-	-	-
PW-1	5/16/1981	UNK	-	236	8.5	-	-	6	2	-	-	27	-	83	-	-	-	-	-	-	ND	-	-	-	-
PW-1	8/6/1981	UNK	-	256	8.8	-	-	6	2	-	-	29	-	55	-	-	-	-	-	-	ND	-	-	-	-
PW-1	10/3/1981	UNK	-	232	8.7	-	-	6	2	-	-	27	-	61	-	-	-	-	-	-	ND	-	-	-	-
PW-1	11/10/1981	UNK	473	294	8.6	-	-	6	1	93	1	32	57	157	1.3	-	-	0.1	-	-	0.4	0.04	-	-	-
PW-1	2/2/1982	UNK	-	288	8.7	-	-	7	1	-	-	26	-	67	-	-	-	-	-	-	0.1	-	-	-	-
PW-1	5/15/1982	UNK	-	260	8.6	-	-	6	4	-	-	25	-	63	-	-	-	-	-	-	ND	-	-	-	-
PW-1	10/8/1982	UNK	-	240	8.2	-	-	28	3	-	-	29	-	74	-	-	-	-	-	-	0.1	-	-	-	-
PW-1	11/24/1982	UNK	460	280	8.6	-	-	3	0.37	96	1.2	22	47.4	147.3	-	0.18	-	0.11	-	-	0.05	0.02	-	-	-
PW-1	5/6/1983	UNK	-	168	8.5	-	-	4	ND	-	-	38	-	96	-	-	-	-	-	-	-	-	-	-	-
PW-1	5/10/1983	BCL	430	223	8.5	-	-	3	<1	98	1	26	44	135	<1	-	<10	-	-	-	0.08	0.02	-	-	-
PW-1	12/2/1983	UNK	470	283	8.0	-	-	5.4	0.86	100	1.4	24	53.1	166	-	-	-	-	-	-	0.52	0.04	-	-	-
PW-1	3/2/1984	UNK	510	290	8.2	-	-	4.4	0.66	105	0.7	22	56.6	149	-	-	-	-	-	-	-	0.02	-	-	-
PW-1	5/22/1984	UNK	500	280	8.2	-	-	6.7	1	95	1	23	49.2	140	-	-	-	-	-	-	0.07	0.04	-	-	-
PW-1	6/19/1984	UNK	-	240	7.9	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-1	7/17/1984	UNK	480	303	8.6	-	-	3.9	0.76	101	0.7	22	53.1	136	-	-	-	-	-	-	0.06	0.02	-	-	-
PW-1	11/27/1984	UNK	510	327	8.1	-	-	22	4.1	84	2	26	62.3	172	-	-	-	0.2	-	-	0.35	0.18	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-1	4/29/1985	UNK	550	337	8.3	-	-	29	5.7	82	2.7	36	64.1	167	-	-	-	-	-	-	-	-	-	-	-
PW-1	11/6/1985	UNK	550	355	8.2	-	-	1.7	0.19	124	0.6	24	58.4	194	-	-	-	-	-	-	-	-	-	-	-
PW-1	9/23/1986	UNK	660	400	8.0	-	-	61	11.2	66	3.7	70	72.6	210	-	-	-	-	-	-	-	-	-	-	-
PW-1	4/13/1987	UNK	650	415	8.0	-	-	40	7.5	90	3.8	56	70.8	209	-	-	-	-	-	-	0.38	0.29	-	-	-
PW-1	4/22/1987	UNK	1860	1135	6.7	-	-	192	27	136	50	15	88.8	1011	-	-	-	-	-	-	1.2	0.83	-	-	-
PW-1	4/23/1987	UNK	4000	1975	7.7	-	-	630	86	183	54	15	121	2535	-	-	-	-	-	-	0.49	0.19	-	-	-
PW-1	9/4/1987	UNK	690	420	7.9	-	-	61	12	66	4.2	68	75	219	-	-	-	-	-	-	5.1	0.7	-	-	-
PW-1	12/16/1988	BCL	700	420	8.1	-	7.7	18	3	134	2	33	81	254	<1	-	-	-	<0.1	-	0.27	0.14	-	-	-
PW-1	12/6/1989	UNK	1100	680	7.8	-	-	41	7.1	198	2.8	86	134	355	-	-	-	-	-	-	0.182	0.299	-	-	-
PW-1	11/9/1990	UNK	-	710	-	-	-	-	-	-	3.2	7.6	144	385	-	-	-	-	-	-	0.604	0.358	-	-	-
PW-1	4/29/1992	UNK	2400	1350	7.3	-	-	68	-	-	7.1	-	291	853	-	-	-	-	0.355	-	-	-	-	-	-
PW-1	10/28/1992	UNK	1510	1000	7.4	-	-	30	4.9	306	3.6	20	224	512	-	0.19	-	0.25	0.159	-	1.66	0.452	-	-	-
PW-1	3/11/1993	UNK	2500	1390	7.3	-	-	-	-	-	8.7	-	305	896	-	-	-	-	0.454	-	-	-	-	-	-
PW-1	9/28/1993	UNK	1610	930	7.4	-	-	31	5.7	331	4.6	15	247	547	-	0.2	-	0.26	0.208	-	1.51	0.445	-	-	-
PW-1	3/7/1994	UNK	2660	1560	8.2	-	-	25	2.8	560	1.6	265	432	476	-	0.09	-	-	-	-	-	-	-	-	-
PW-1	10/4/1994	UNK	1950	1110	7.2	-	-	41	8.7	391	9.1	23	281	712	-	0.16	-	0.22	0.41	-	2.96	0.59	-	-	-
PW-1	3/22/1995	UNK	-	-	-	-	-	78	16.5	485	-	58	-	-	-	0.06	-	0.12	-	-	0.07	1.02	-	-	-
PW-1	4/12/1996	UNK	1480	880	8.6	-	-	24	4.6	296	4.8	21	241	459	-	0.2	-	0.36	0.13	-	0.109	0.26	-	-	-
PW-1	10/8/1996	UNK	1770	1000	8.59	-	-	28	6.6	361	10	10.4	282	584	-	0.24	-	0.28	0.295	-	-	0.33	-	-	-
PW-1	6/10/1997	UNK	2020	1190	7.2	-	-	41	9.1	376	12.3	15.6	302	714	-	0.18	-	0.28	0.406	-	-	0.487	-	-	-
PW-1	3/17/1998	UNK	1700	1000	7.7	-	-	23	4.3	350	7	-	320	360	-	-	-	0.42	0.18	-	0.09	0.26	-	-	-
PW-1	4/22/1999	BSK	2400	1500	7.4	830	12	86	16	460	23	55	320	1013	<25	<2.5	<50	0.1	0.65	-	0.09	0.66	-	<20	-
PW-1	5/20/2000	BSK	2800	1700	6.9	940	11.9	78	16	440	27	66	390	1147	<30	<3	2	0.1	0.81	-	0.09	0.74	-	4	-
PW-1	12/18/2000	BSK	2200	1200	7.9	560	21.7	16	4.4	380	12	<50	340	683	<25	<2.5	<2	0.2	0.11	-	0.17	0.05	-	4	-
PW-1	6/4/2001	BSK	3400	2100	7.0	1600	16.3	81	22	640	49	<60	500	1952	<30	<3	2	0.1	1.2	-	0.14	0.83	-	8	-
PW-1	10/4/2001	UNK	2500	1500	8.0	750	-	14	8.9	510	28	ND	380	750	ND	ND	-	0.2	0.15	-	0.06	0.05	-	-	-
PW-1	5/3/2002	UNK	2100	1200	7.4	560	-	22	4.2	360	9	ND	350	560	ND	ND	-	0.3	0.23	-	0.07	0.16	-	-	-
PW-1	12/13/2002	UNK	3700	2100	8.0	1300	-	83	21	660	53	ND	530	1300	ND	ND	-	0.2	1.2	-	0.19	0.83	-	-	-
PW-1	3/23/2003	BSK	3100	1700	8.0	1000	-	58	14	520	30	ND	420	-	-	ND	-	0.2	0.75	-	0.12	-	-	-	-
PW-2	10/24/1963	TL	-	121	8.6	-	-	3	<1	35	-	5	11	67	-	-	-	<0.1	-	-	-	-	-	-	-
PW-2	12/14/1964	UNK	-	144	8.3	-	-	1.7	0.5	46	-	4.9	17.7	85.4	-	-	-	0.05	-	-	1.6	-	-	-	-
PW-2	5/17/1965	UNK	-	156.2	8.3	-	-	2.6	1	46	-	4.1	17.7	85.4	-	-	-	-	-	-	-	-	-	-	-
PW-2	3/1/1966	UNK	-	148	8.8	-	-	3.3	-	48	-	3.3	21.3	73.2	-	-	-	-	-	-	-	-	-	-	-
PW-2	11/12/1968	UNK	-	186	-	-	-	2.1	0.9	94	-	-	30	96	-	-	-	-	-	-	-	-	-	-	-
PW-2	5/28/1980	UNK	-	376	8.4	-	-	6	2	-	-	20	-	81	-	-	-	-	-	-	0.1	-	-	-	-
PW-2	7/19/1980	UNK	-	344	8.0	-	-	6	3	-	-	24	-	104	-	-	-	-	-	-	0.1	-	-	-	-
PW-2	11/4/1980	UNK	-	400	7.4	-	-	12	1	-	-	24	-	135	-	-	-	-	-	-	0.2	-	-	-	-
PW-2	12/13/1980	UNK	-	365	7.7	-	-	12	2	-	-	27	-	150	-	-	-	-	-	-	0.2	-	-	-	-
PW-2	5/16/1981	UNK	-	468	7.7	-	-	14	ND	-	-	28	-	124	-	-	-	-	-	-	0.2	-	-	-	-
PW-2	8/6/1981	UNK	-	552	7.4	-	-	20	2	-	-	28	-	313	-	-	-	-	-	-	0.4	-	-	-	-
PW-2	10/3/1981	UNK	-	392	7.6	-	-	26	4	-	-	50	-	137	-	-	-	-	-	-	0.3	-	-	-	-
PW-2	11/10/1981	UNK	761	476	7.6	-	-	13	5	150	-	33	93	260	8.9	-	-	0.3	-	-	0.4	0.17	-	-	-
PW-2	2/2/1982	UNK	-	380	8.0	-	-	10	2	-	-	35	-	111	-	-	-	-	-	-	0.2	-	-	-	-
PW-2	5/15/1982	UNK	-	552	7.8	-	-	17	11	-	-	28	-	172	-	-	-	-	-	-	0.3	-	-	-	-
PW-2	10/8/1982	UNK	-	672	7.1	-	-	32	3	-	-	29	-	259	-	-	-	-	-	-	0.6	-	-	-	-
PW-2	11/24/1982	UNK	900	607	7.8	-	-	20	3.7	202	2	25	119	381	-	-	-	-	-	-	0.6	0.3	-	-	-
PW-2	5/10/1983	BCL	900	607	7.8	-	-	20	4	202	2	25	119	381	<1	-	<10	-	-	-	0.62	0.3	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements									
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																										
PW-2	11/10/1983	UNK	-	1256	6.9	-	-	70	8	-	-	8	-	449	-	-	-	-	-	-	1.9	-	-	-	-
PW-2	11/18/1983	UNK	2200	1273	7.7	-	-	59	12	425	4.3	28	270	838	4	-	-	-	-	-	1.8	0.96	-	-	-
PW-2	1/21/1984	UNK	-	1248	6.2	-	-	72	16	-	-	-	-	442	-	-	-	-	-	-	0.6	-	-	-	-
PW-2	1/23/1984	UNK	-	1148	7.0	-	-	68	12	-	-	-	-	460	-	-	-	-	-	-	2	-	-	-	-
PW-2	2/16/1984	UNK	-	956	7.3	-	-	53	9	-	-	-	-	348	-	-	-	-	-	-	2	-	-	-	-
PW-2	2/18/1984	UNK	-	1520	7.3	-	-	40	9	-	-	-	-	318	-	-	-	-	-	-	1	-	-	-	-
PW-2	2/22/1984	UNK	-	920	7.4	-	-	36	7	-	-	-	-	268	-	-	-	-	-	-	1	-	-	-	-
PW-2	2/29/1984	UNK	-	824	7.3	-	-	33	6	-	-	-	-	268	-	-	-	-	-	-	1	-	-	-	-
PW-2	3/7/1984	UNK	-	700	7.2	-	-	30	10	-	-	-	-	279	-	-	-	-	-	-	1	-	-	-	-
PW-2	3/14/1984	UNK	-	688	7.0	-	-	28	6	-	-	-	-	281	-	-	-	-	-	-	1	-	-	-	-
PW-2	3/20/1984	UNK	690	370	7.8	-	-	46	8.9	84	3.2	75	743	201	-	-	-	-	-	-	0.16	0.04	-	-	-
PW-2	3/29/1984	UNK	-	692	6.9	-	-	27	8	-	-	29	-	275	-	-	-	-	-	-	0.8	-	-	-	-
PW-2	7/17/1984	UNK	1300	827	7.5	-	-	11	4.5	275	2	26	168	467	-	-	-	-	-	-	1.3	0.51	-	-	-
PW-2	11/27/1984	UNK	880	560	7.5	-	-	42	8.3	144	3.4	48	118	291	-	-	-	0.08	-	-	0.62	0.46	-	-	-
PW-2	4/29/1985	UNK	1800	1100	8.2	-	-	62	12	334	4.4	27	243	614	-	-	-	-	-	-	-	-	-	-	-
PW-2	11/6/1985	UNK	810	500	8.3	-	-	36	6.7	135	2.6	45	105	252	-	-	-	-	-	-	-	-	-	-	-
PW-2	9/23/1986	UNK	910	555	7.9	-	-	74	14.1	105	4.1	93	108	285	-	-	-	-	-	-	-	-	-	-	-
PW-2	9/3/1987	UNK	2200	1280	7.5	-	-	58	9.7	425	4	30	277	858	-	-	-	-	0.26	-	0.05	0.99	-	-	-
PW-2	3/29/1988	UNK	2600	1605	7.1	-	-	74	14	476	13	25	330	956	-	-	-	-	0.4	-	-	1.3	-	-	-
PW-3	10/24/1963	TL	-	138	8.7	-	-	1	<1	41	-	4	14	67	-	-	-	<0.1	-	-	-	-	-	-	-
PW-3	3/1/1966	UNK	-	293	8.6	-	-	3.3	-	98	-	37	67.4	94.5	-	-	-	-	-	-	-	-	-	-	-
PW-3	11/12/1968	UNK	-	143	-	-	-	3.6	1.7	80	-	-	16	93	-	-	-	-	-	-	-	-	-	-	-
PW-3	5/28/1980	UNK	-	576	7.7	-	-	14	2	-	-	6	-	165	-	-	-	-	-	-	-	-	-	-	-
PW-3	7/19/1980	UNK	-	456	7.6	-	-	13	1	-	-	15	-	161	-	-	-	-	-	-	0.2	-	-	-	-
PW-3	11/4/1980	UNK	-	340	8.1	-	-	9	ND	-	-	19	-	98	-	-	-	-	-	-	-	-	-	-	-
PW-3	12/13/1980	UNK	-	396	8.5	-	-	7	ND	-	-	14	-	123	-	-	-	-	-	-	-	-	-	-	-
PW-3	5/16/1981	UNK	-	372	8.5	-	-	7	ND	-	-	9	-	118	-	-	-	-	-	-	0.1	-	-	-	-
PW-3	8/6/1981	UNK	-	432	8.8	-	-	6	2	-	-	9	-	118	-	-	-	-	-	-	0.1	-	-	-	-
PW-3	10/3/1981	UNK	-	560	7.4	-	-	20	2	-	-	12	-	205	-	-	-	-	-	-	0.4	-	-	-	-
PW-3	11/10/1981	UNK	1003	617	7.6	-	-	15	4	200	-	12	134	369	0.9	-	-	0.2	-	-	0.51	0.21	-	-	-
PW-3	2/2/1982	UNK	-	-	7.9	-	-	17	3	-	-	26	-	120	-	-	-	-	-	-	0.4	-	-	-	-
PW-3	5/15/1982	UNK	-	536	7.5	-	-	42	12	-	-	36	-	170	-	-	-	-	-	-	1	-	-	-	-
PW-3	10/8/1982	UNK	-	596	7.9	-	-	14	12	-	-	27	-	174	-	-	-	-	-	-	0.2	-	-	-	-
PW-3	11/22/1982	UNK	800	420	7.7	-	-	36	6	132	4	42	106.2	258.1	-	0.6	-	0.09	-	-	1.3	0.33	-	-	-
PW-3	5/10/1983	BCL	900	590	8.4	-	-	20	6	186	3	32	131	312	<1	-	<10	-	-	-	1.3	0.28	-	-	-
PW-3	11/28/1983	UNK	920	553	7.6	-	-	36	7.9	156	3.4	43	124	296	-	-	-	-	-	-	0.64	0.34	-	-	-
PW-3	3/20/1984	UNK	770	463	7.8	-	-	36	5.4	127	2.4	54	93.1	241	-	-	-	-	-	-	0.36	0.26	-	-	-
PW-3	7/20/1984	UNK	730	447	8.0	-	-	33	5.5	116	2.5	46	88.2	220	-	-	-	-	-	-	0.34	0.25	-	-	-
PW-3	11/28/1984	UNK	710	457	7.6	-	-	36	5.9	112	2.7	45	86	232	-	-	-	0.02	-	-	0.39	0.2	-	-	-
PW-3	4/23/1985	UNK	710	427	8.3	-	-	32	5.5	115	3	47	83.2	210	-	-	-	-	-	-	-	-	-	-	-
PW-3	11/6/1985	UNK	660	405	8.3	-	-	31	4.6	107	2.5	44	76.8	210	-	-	-	-	-	-	-	-	-	-	-
PW-3	9/25/1986	UNK	-	-	-	-	-	32	4.9	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-3	3/29/1988	UNK	670	415	7.9	-	-	31	4.5	114	2.4	49	77.5	235	-	-	-	-	-	-	0.37	0.2	-	-	-
PW-4	10/24/1963	TL	-	382	8.4	-	-	5	1	117	-	44	99	95	-	-	-	0.2	-	-	-	-	-	-	-
PW-4	3/1/1966	UNK	-	368	8.5	-	-	3.3	-	127	-	52.7	102.8	97.6	-	-	-	-	-	-	-	-	-	-	-
PW-4	11/12/1968	UNK	-	434	-	-	-	4.3	0.9	193	-	-	130	104	-	-	-	-	-	-	-	-	-	-	-
PW-4	5/28/1980	UNK	-	1148	8.2	-	-	17	2	-	-	130	-	434	-	-	-	-	-	-	0.1	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-4	7/19/1980	UNK	-	1096	8.2	-	-	17	2	-	-	130	-	150	-	-	-	-	-	-	0.15	-	-	-	-
PW-4	11/10/1980	UNK	2060	1189	8.3	-	-	18	4	405	1	247	344	297	0.9	-	-	0.3	-	-	0.53	0.06	-	-	-
PW-4	2/2/1982	UNK	-	-	8.4	-	-	16	4	-	-	130	-	109	-	-	-	-	-	-	0.1	-	-	-	-
PW-4	10/8/1982	UNK	-	1304	8.3	-	-	18	28	-	-	150	-	145	-	-	-	-	-	-	0.3	-	-	-	-
PW-4	11/24/1982	UNK	2200	1220	8.3	-	-	18	2	450	2.8	240	338.1	336.1	-	0.22	-	0.3	-	-	0.4	0.07	-	-	-
PW-4	5/10/1983	BCL	1750	1227	8.5	-	-	15	2	440	2	244	325	317	<1	-	<10	-	-	-	1.1	0.06	-	-	-
PW-4	12/3/1983	UNK	2200	1220	7.9	-	-	18	3	415	-	140	319	191	-	-	-	-	-	-	1.3	0.06	-	-	-
PW-4	3/20/1984	UNK	2200	1170	8.2	-	-	16.3	1.6	430	1.1	230	330	324	-	-	-	-	-	-	0.36	0.05	-	-	-
PW-4	7/17/1984	UNK	2100	1223	8.3	-	-	16.8	1.3	445	1.3	245	368	300	-	-	-	-	-	-	0.37	0.06	-	-	-
PW-4	11/30/1984	UNK	1990	1223	8.2	-	-	16	1.6	440	1.3	230	326	330	-	-	-	0.3	-	-	0.82	0.02	-	-	-
PW-4	4/30/1985	UNK	2200	1227	8.5	-	-	16	1.4	444	1.2	223	330	321	-	-	-	-	-	-	-	-	-	-	-
PW-4	11/7/1985	UNK	2300	1265	8.5	-	-	18	2	467	1.3	223	347	368	-	-	-	-	-	-	-	-	-	-	-
PW-4	9/23/1986	UNK	2400	1275	8.5	-	-	18	1.8	460	1.2	236	346	343	-	-	-	-	-	-	-	-	-	-	-
PW-4	9/4/1987	UNK	2400	1360	8.3	-	-	19	1.9	499	1.3	236	366	385	-	-	-	-	-	-	0.21	0.04	-	-	-
PW-4	12/15/1988	UNK	1450	890	8.5	-	-	8.6	1.3	306	0.9	175	200	239	-	-	-	-	-	-	-	-	-	-	-
PW-4	12/6/1989	UNK	2600	1430	8.4	-	-	22	2.1	495	1.3	258	377	417	-	-	-	-	-	-	0.186	0.046	-	-	-
PW-4	11/9/1990	UNK	-	1495	8.1	-	-	-	-	-	1.5	-	376	470	-	-	-	-	-	-	0.145	0.047	-	-	-
PW-4	7/10/1991	UNK	2700	1520	8.1	-	-	-	-	-	1.4	-	407	466	-	-	-	-	-	-	-	-	-	-	-
PW-4	10/30/1991	UNK	2700	1505	8.5	-	-	23	2.2	560	1.5	284	429	440	-	0.13	-	0.37	-	-	105	44	-	-	-
PW-4	4/28/1992	UNK	2400	1280	8.3	-	-	17	-	-	1.3	-	397	356	-	-	-	-	-	-	-	-	-	-	-
PW-4	10/28/1992	UNK	2800	1520	8.2	-	-	24	2.3	540	1.6	270	408	415	-	0.11	-	0.39	-	-	0.099	0.045	-	-	-
PW-4	3/30/1993	UNK	2700	1410	8.4	-	-	-	-	-	1.6	-	420	438	-	-	-	-	-	-	-	-	-	-	-
PW-4	9/29/1993	UNK	2800	1520	8.2	-	-	25	2.7	550	1.7	263	431	476	-	0.11	-	0.4	-	-	0.116	0.048	-	-	-
PW-4	3/7/1994	UNK	2660	1560	8.2	-	-	25	2.8	560	1.6	265	432	476	-	0.09	-	-	-	-	-	-	-	-	-
PW-4	9/26/1994	UNK	2780	1600	7.8	-	-	27	2.9	576	1.7	270	435	519	-	-	-	-	-	-	-	0.104	-	-	-
PW-4	4/1/1995	UNK	-	-	-	-	-	24	3.1	602	-	270	-	-	-	0.08	-	-	-	-	-	0.04	-	-	-
PW-4	10/16/1995	UNK	2300	1360	8.3	-	-	16.5	1.8	466	1.3	145	413	380	-	0.18	-	0.39	-	-	-	0.032	-	-	-
PW-4	4/12/1996	UNK	2700	1540	8.7	-	-	22	2.8	576	1.5	245	441	479	-	0.08	-	0.47	-	-	-	0.041	-	-	-
PW-4	10/8/1996	UNK	2250	1280	8.6	-	-	15.2	1.6	477	1.3	137	442	388	-	0.23	-	ND	-	-	-	0.016	-	-	-
PW-4	6/10/1997	UNK	2250	1160	8.3	-	-	15.6	1.4	460	1.3	125	436	398	-	0.24	-	0.43	-	-	-	0.036	-	-	-
PW-4	3/19/1998	UNK	2300	1400	8.2	-	-	20	2	520	1.3	130	430	360	-	-	-	0.49	0.08	-	-	0.04	-	-	-
PW-4	8/21/1998	UNK	2200	1200	8.2	-	-	17	1.6	480	1	140	450	330	ND	ND	-	0.5	0.07	-	ND	0.03	-	-	-
PW-4	4/27/1999	BSK	-	1200	8.4	320	31.1	15	1.4	470	1	120	410	390	<15	<1.5	<40	0.5	0.06	-	<0.05	0.03	-	<40	-
PW-4	5/12/1999	UNK	1200	1200	8.4	-	-	15	1.4	470	1	120	410	320	ND	ND	-	0.5	0.06	-	-	0.03	-	-	-
PW-4	5/20/2000	BSK	2000	1200	8.1	340	29.6	14	1.2	430	<2	120	400	415	<30	<3	<2	0.4	0.05	-	<0.05	0.03	-	7	-
PW-4	12/18/2000	BSK	2200	1200	8.1	350	27.4	14	1.3	400	<2	110	420	427	<25	<2.5	<2	0.5	0.06	-	0.05	0.03	-	7	-
PW-4	6/4/2001	BSK	2000	1200	8.0	350	30.3	14	1.2	440	<2	110	410	427	<16	<1.6	<2	0.5	0.05	-	<0.05	0.04	-	7	-
PW-4	10/4/2001	UNK	2100	1300	8.0	380	-	18	1.9	460	ND	77	390	380	ND	ND	-	0.5	0.06	-	ND	0.05	-	-	-
PW-4	5/3/2002	UNK	2100	1300	8.0	350	-	13	1	350	ND	110	420	350	119.5	ND	-	0.4	ND	-	0.05	0.03	-	-	-
PW-5	10/24/1963	TL	-	134	9.0	-	-	1	<1	44	-	10	21	52	-	-	-	<0.1	-	-	-	-	-	-	-
PW-5	12/14/1964	UNK	-	206	8.4	-	-	2.6	-	61	-	10.3	46.1	82.4	-	2.2	-	-	-	-	-	-	-	-	-
PW-5	3/1/1966	UNK	-	166.8	8.8	-	-	1.7	-	58	-	17.7	28.4	70.2	-	ND	-	-	-	-	-	-	-	-	-
PW-5	11/20/1968	UNK	-	242	-	-	-	0.2	1.4	119	1	-	58	86	-	0.05	-	-	-	-	-	-	-	-	-
PW-5	5/28/1980	UNK	-	1452	7.1	-	-	50	4	-	-	12	-	434	-	-	-	-	-	-	-	-	-	-	-
PW-5	11/4/1980	UNK	-	828	7.1	-	-	24	0.5	-	-	5	-	279	-	-	-	-	-	-	-	-	-	-	-
PW-5	12/13/1980	UNK	-	3816	7.0	-	-	32	137	-	-	8	-	1625	-	-	-	-	-	-	-	-	-	-	-
PW-5	5/16/1981	UNK	-	1188	7.3	-	-	46	3	-	-	-	-	362	-	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-5	8/6/1981	UNK	-	984	7.3	-	-	28	3	-	-	-	-	331	-	-	-	-	-	-	-	-	-	-	-
PW-5	11/2/1981	UNK	-	1092	-	-	-	21	8	360	-	17	261	681	3.5	-	-	0.2	-	-	-	-	-	-	-
PW-5	11/10/1981	BCL	7120	3999	7.6	-	-	119	67	1050	220	9	977	3000	10	-	<10	-	-	-	9.93	1.22	-	-	-
PW-5	8/2/1982	UNK	-	-	-	-	-	137	59	1260	400	17	970	-	15.5	-	-	0.2	-	-	0.71	1.4	-	-	-
PW-5	11/24/1982	UNK	7800	4177	7.2	-	-	130	82	1240	350	20	998	3435	-	1.2	-	1.1	-	-	3.5	1.1	-	-	-
PW-5	4/28/1983	BCL	4200	2643	8.0	-	-	29	34	840	150	27	595	1705	<1	-	<10	-	-	-	7.5	0.8	-	-	-
PW-5	10/7/1983	UNK	7200	4433	6.9	-	-	170	82	1300	220	26	995	3283	5.8	-	-	-	-	-	0.51	1.4	-	-	-
PW-5	12/2/1983	UNK	7500	-	-	-	-	-	-	1250	-	-	1032	-	-	-	-	-	-	-	0.65	1.2	-	-	-
PW-5	12/16/1983	UNK	-	2304	7.1	-	-	114	4	-	-	7	-	767	-	-	-	-	-	-	13	-	-	-	-
PW-5	2/15/1984	UNK	-	1544	7.1	-	-	44	21	-	-	ND	-	470	-	-	-	-	-	-	4	-	-	-	-
PW-5	2/29/1984	UNK	-	1488	7.2	-	-	46	10	-	-	6	-	268	-	-	-	-	-	-	3	-	-	-	-
PW-5	3/6/1984	UNK	2800	1513	7.3	-	-	36	12.4	518	37	17	354	960	-	-	-	-	-	-	3.2	0.3	-	-	-
PW-5	3/14/1984	UNK	-	1400	6.7	-	-	38	10	-	-	-	-	503	-	-	-	-	-	-	3	-	-	-	-
PW-5	3/20/1984	UNK	580	327	8.3	-	-	1.9	0.18	124	0.7	18	82.1	149	-	-	-	-	-	-	0.34	0.01	-	-	-
PW-5	3/29/1984	UNK	-	1304	6.9	-	-	37	13	-	-	-	-	495	-	-	-	-	-	-	2.5	-	-	-	-
PW-5	7/17/1984	UNK	2400	1310	7.4	-	-	26	9.1	444	46	11	340	793	-	-	-	-	-	-	2.1	0.24	-	-	-
PW-5	11/27/1984	UNK	2500	1500	7.3	-	-	26	9.3	430	58	13	317	895	-	-	-	0.29	-	-	1.6	0.2	-	-	-
PW-5	4/22/1985	UNK	2500	1503	8.4	-	-	25	8.9	435	55	13	309	811	-	-	-	-	-	-	-	-	-	-	-
PW-5	11/6/1985	UNK	2550	1570	8.4	-	-	26	8.5	490	58	11	323	902	-	-	-	-	-	-	-	-	-	-	-
PW-5	9/23/1986	UNK	710	430	8.2	-	-	3	0.34	160	1	26	105	197	-	-	-	-	-	-	-	-	-	-	-
PW-5	4/22/1987	UNK	3400	1800	7.7	-	-	32	14	530	135	13	385	1361	1.8	-	-	-	-	-	1.1	0.22	-	-	-
PW-5	9/3/1987	UNK	610	375	8.2	-	-	2	0.34	135	0.8	19	88.2	160	-	-	-	-	-	-	0.06	0.08	-	-	-
PW-5	4/29/1988	UNK	390	257	8.5	-	-	1.1	0.5	93	-	10	44.6	147	-	-	-	-	-	-	0.09	0.02	-	-	-
PW-6	4/29/1983	UNK	450	310	8.3	-	-	2.6	0.16	106	1.3	28	49.9	158	-	-	-	-	-	-	0.06	0.02	-	-	-
PW-6	4/30/1983	BCL	390	300	8.3	-	-	2	-	107	1	27	46	158	<1	-	<10	-	-	-	0.05	0.02	-	-	-
PW-6	5/6/1983	UNK	-	168	8.5	-	-	4	ND	-	-	38	-	59	-	-	-	-	-	-	-	-	-	-	-
PW-6	12/3/1983	UNK	450	256	8.3	-	-	2	2	96	-	13	47.1	65	-	-	-	-	-	-	0.32	0.01	-	-	-
PW-6	3/20/1984	UNK	520	310	8.3	-	-	0.9	0.06	111	0.05	25	54.9	149	-	-	-	-	-	-	-	-	-	-	-
PW-6	5/22/1984	UNK	510	333	8.3	-	-	1.5	0.8	114	0.7	24	57.4	158	1.8	-	-	-	-	-	0.08	0.01	-	-	-
PW-6	6/19/1984	UNK	-	344	8.7	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-6	7/17/1984	UNK	540	337	8.6	-	-	1.4	0.14	118	0.6	26	57	170	-	-	-	-	-	-	-	-	-	-	-
PW-6	11/28/1984	UNK	540	367	8.4	-	-	1.1	0.14	122	0.7	26	55.2	158	-	-	-	0.16	-	-	0.07	-	-	-	-
PW-6	4/29/1985	UNK	530	333	8.3	-	-	1.5	0.12	120	0.7	26	52.8	184	-	-	-	-	-	-	-	-	-	-	-
PW-6	11/6/1985	UNK	500	320	8.4	-	-	1.2	0.12	111	0.7	-	61.6	165	-	-	-	-	-	-	-	-	-	-	-
PW-6	9/24/1986	UNK	550	385	8.2	-	-	1.9	0.23	129	0.7	39	52.8	194	-	-	-	-	-	-	-	-	-	-	-
PW-6	9/3/1987	UNK	560	355	8.2	-	-	1.6	0.18	126	1.4	27	62	175	-	-	-	-	-	-	-	0.02	-	-	-
PW-6	3/28/1988	UNK	570	375	8.4	-	-	1.8	0.21	130	0.7	30	65.5	173	-	-	-	-	-	-	-	0.02	-	-	-
PW-6	12/13/1988	BCL	800	495	8.3	-	24	3	<1	184	1	28	86	300	<1	-	-	-	<0.1	-	0.07	0.02	-	-	-
PW-6	12/6/1989	UNK	870	570	8.2	-	-	6.8	0.87	187	1	25	92.4	312	-	-	-	-	-	-	0.144	0.136	-	-	-
PW-6	11/9/1990	UNK	-	605	7.9	-	-	-	-	-	1.4	-	117	379	-	-	-	0.16	-	-	0.259	0.191	-	-	-
PW-6	7/9/1991	UNK	960	605	8.1	-	-	-	-	-	1.3	-	110	368	-	-	-	-	-	-	-	-	-	-	-
PW-6	10/29/1991	UNK	1110	680	8.1	-	-	10	1.4	248	1.4	20	137	449	-	0.1	-	0.14	-	-	0.235	0.208	-	-	-
PW-6	10/30/1991	UNK	1110	680	8.1	-	-	10	1.4	248	1.4	20	137	449	-	0.1	-	0.14	-	-	0.235	0.208	-	-	-
PW-6	4/28/1992	UNK	1130	740	8.0	-	-	11.7	-	-	1.4	-	131	465	-	-	-	-	-	-	-	-	-	-	-
PW-6	10/28/1992	UNK	1170	690	7.8	-	-	13.3	1.7	258	1.6	21	132	471	-	0.09	-	0.15	0.1	-	0.31	0.254	-	-	-
PW-6	3/10/1993	UNK	1190	720	7.9	-	-	-	-	-	1.7	-	131	489	-	-	-	-	-	-	-	-	-	-	-
PW-6	9/29/1993	UNK	1260	760	7.7	-	-	14.6	2.1	279	1.7	26	146	487	-	0.1	-	0.14	-	-	0.409	0.288	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-6	3/7/1994	UNK	1060	630	8.0	-	-	11.7	1.7	231	1.5	36	109	414	-	-	-	-	-	-	-	-	-	-	-
PW-6	9/26/1994	UNK	1450	910	7.6	-	-	18.9	2.7	316	1.9	33	155	586	-	-	-	-	-	-	-	-	-	-	-
PW-6	3/22/1995	UNK	-	-	-	-	-	16.7	2.3	305	-	31	-	-	-	0.08	-	0.14	-	-	0.077	0.266	-	-	-
PW-6	10/16/1995	UNK	1640	1040	7.5	-	-	23	3.8	349	2.3	27	202	647	-	0.09	-	0.16	0.11	-	0.4	0.41	-	-	-
PW-6	4/12/1996	UNK	1660	985	8.6	-	-	25	4.2	358	2.2	29	207	649	-	0.08	-	0.21	0.115	-	0.06	0.394	-	-	-
PW-6	10/8/1996	UNK	1900	1120	8.6	-	-	37	7.2	408	4.9	29.4	234	755	-	-	-	ND	0.249	-	-	0.573	-	-	-
PW-6	6/10/1997	UNK	1660	1000	7.4	-	-	27	4.6	350	3.9	33.7	198	672	-	0.06	-	0.14	0.172	-	0.075	0.377	-	-	-
PW-6	3/17/1998	UNK	1600	1000	7.5	-	-	34	6.1	350	4.7	54	190	530	-	-	-	0.12	0.2	-	-	0.47	-	-	-
PW-6	8/21/1998	UNK	1800	1100	7.4	-	-	32	6.1	390	6.1	43	230	590	ND	ND	-	ND	0.2	-	ND	0.47	-	-	-
PW-6	4/22/1999	BSK	1200	720	8.3	400	18	14	1.9	270	3	44	120	488	<15	<1.5	<50	0.1	0.05	-	0.3	0.14	-	<5	-
PW-6	5/20/2000	BSK	1300	800	7.4	430	16.4	17	2.2	270	<2	46	160	525	<16	<1.5	<2	0.1	0.07	-	0.17	0.17	-	2	-
PW-6	12/18/2000	BSK	1800	980	7.3	550	14.8	26	4.3	310	3	43	200	671	<20	2	<2	0.1	0.14	-	0.08	0.32	-	<2	-
PW-6	6/4/2001	BSK	1200	770	7.4	390	13.7	20	3.1	250	2	46	150	476	<10	<1	<2	0.1	0.09	-	0.17	0.24	-	2	-
PW-6	10/4/2001	UNK	1200	770	7.3	390	-	23	3.8	270	2	50	140	390	ND	ND	-	ND	0.1	-	0.14	0.24	-	-	-
PW-6	5/3/2002	UNK	1000	600	7.6	310	-	17	2.4	190	ND	46	110	310	ND	ND	-	0.1	0.05	-	0.07	0.17	-	-	-
PW-6	12/11/2002	UNK	1100	610	7.8	310	-	18	2.5	200	2	55	110	310	ND	ND	-	ND	0.06	-	0.16	0.19	-	-	-
PW-6	3/23/2003	BSK	1000	610	7.7	300	-	18	2.4	200	ND	53	120	-	-	ND	-	ND	0.06	-	0.08	0.18	-	-	-
PW-6	10/24/2003	BSK	1900	-	7.9	650	-	38	6.6	390	8	35	240	-	-	ND	-	0.1	0.27	-	0.07	0.44	-	3	-
PW-6	11/15/2004	UNK	1800	1100	1.9	600	-	42	ND	360	7.9	56	220	600	2.5	ND	-	0.1	0.32	-	0.09	7.9	-	-	-
PW-6	10/13/2005	UNK	2000	1200	1.6	700	-	42	ND	430	7.6	-	240	700	2.4	-	-	0.2	0.32	-	0.06	7.4	-	-	-
PW-6	4/19/2006	BCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.49	-	-	-	-	-	-	1.6	-
PW-6	4/19/2006	DL	1530	940	7.8	534	-	29.6	4.9	306	11.4	47.9	184	534	0.1	<0.1	-	0.08	0.19	-	0.05	0.33	-	-	-
PW-6	9/26/2006	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	0.77	-
PW-6	3/29/2007	TL	1600	940	7.4	500	-	30	5.1	330	16	47	170	610	<10.2	-	<10	0.12	0.23	-	-	-	-	-	-
PW-6	9/23/2007	TL	1400	840	7.4	-	-	-	-	-	-	64	150	510	<20	-	-	-	-	-	-	-	-	-	-
PW-6	4/6/2008	BCL	1840	1100	7.59	-	-	-	-	-	-	43	220	756	<0.4	-	-	-	-	-	-	-	-	-	-
PW-6	9/4/2008	BCL	1650	1000	9.1	-	-	-	-	-	-	52	230	464	<0.4	-	-	-	0.0067	-	-	-	-	-	-
PW-6	4/3/2009	UNK	1320	810	7.7	-	-	-	-	-	-	54	170	400	ND	-	-	-	0.16	-	-	-	-	-	-
PW-6	10/5/2009	BSK	1000	600	8.3	-	-	-	-	-	-	66	120	366	<2	-	-	-	-	-	-	-	-	-	-
PW-6	5/4/2011	SSC	1100	630	7.7	-	-	-	-	-	-	56	120	320	<2.2	-	-	-	-	-	-	-	-	-	-
PW-6	9/12/2011	SSC	1000	590	7.8	-	-	-	-	-	-	61	110	290	<2.2	-	-	-	-	-	-	-	-	-	-
PW-6	4/23/2012	BCL	1040	650	8.0	-	-	-	-	-	-	74	110	342	<0.4	-	-	-	-	-	-	-	-	-	-
PW-6	10/4/2012	BCL	1950	1600	7.55	-	-	-	-	-	-	43	260	793	<0.9	-	-	-	-	-	-	-	-	-	-
PW-6	10/24/2013	BCL	1340	840	7.7	-	-	-	-	-	-	65	180	390	<0.4	-	-	-	-	-	-	-	-	-	-
PW-6	5/16/2014	BCL	1390	800	8.3	-	-	-	-	-	-	74	170	390	<0.9	-	-	-	-	-	-	-	-	-	-
PW-6	10/16/2014	BCL	-	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-6	10/17/2014	BCL	1460	780	7.6	-	-	-	-	-	-	61	180	410	ND	-	-	-	-	-	-	-	-	-	-
PW-7	5/12/1983	UNK	380	270	8.4	-	-	0.6	0.01	94	-	12	47.1	146	-	-	-	-	-	-	0.06	0.01	-	-	-
PW-7	5/13/1983	BCL	360	280	8.4	-	-	1	-	94	-	12	47	142	<1	-	<10	-	-	-	<0.05	<0.01	-	-	-
PW-7	5/14/1983	UNK	360	280	8.4	-	-	0.6	0.01	94	-	12	47.4	142	-	-	-	-	-	-	-	-	-	-	-
PW-7	12/2/1983	UNK	510	308	8.3	-	-	3	7	110	-	18	73	59	-	-	-	-	-	-	0.15	-	-	-	-
PW-7	3/20/1984	UNK	560	277	8.3	-	-	0.9	0.03	100	0.4	17	54.2	137	-	-	-	-	-	-	-	-	-	-	-
PW-7	5/22/1984	UNK	460	270	8.3	-	-	0.5	-	100	0.6	18	53.4	120	-	-	-	-	-	-	0.07	-	-	-	-
PW-7	7/17/1984	UNK	400	277	8.7	-	-	0.5	0.05	100	0.6	16	55.2	128	-	-	-	-	-	-	-	-	-	-	-
PW-7	11/28/1984	UNK	470	317	8.5	-	-	0.9	0.1	108	0.7	26	51.3	141	-	-	-	0.22	-	-	-	-	-	-	-
PW-7	4/29/1985	UNK	460	307	8.2	-	-	0.8	0.06	104	0.6	19	53.4	146	-	-	-	-	-	-	-	-	-	-	-
PW-7	11/6/1985	UNK	480	325	8.3	-	-	0.7	0.07	107	0.6	12	59.8	165	-	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Cations				Anions					Trace Elements								
								Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-7	9/24/1986	UNK	460	345	8.2	-	-	0.9	0.09	108	0.5	35	45.3	153	-	-	-	-	-	-	-	-	-	-	-
PW-7	9/3/1987	UNK	490	340	8.3	-	-	0.7	0.07	113	0.5	19	61.6	142	-	-	-	-	-	-	-	-	-	-	-
PW-7	3/28/1988	UNK	500	315	8.4	-	-	0.8	0.08	111	0.7	19	63	137	-	-	-	-	-	-	-	-	-	-	-
PW-7	12/16/1988	BCL	470	300	8.7	-	17.9	1	<1	106	1	24	45	140	<1	-	-	-	<0.1	-	<0.05	<0.01	-	-	-
PW-7	12/6/1989	UNK	510	350	8.8	-	-	1.1	0.12	112	0.6	18	60.9	153	-	-	-	-	-	-	-	0.011	-	-	-
PW-7	11/9/1990	UNK	-	335	8.2	-	-	-	-	-	0.6	-	52.5	188	-	-	-	0.12	-	-	-	0.018	-	-	-
PW-7	7/10/1991	UNK	600	365	8.7	-	-	-	-	-	0.7	-	60.2	195	-	-	-	-	-	-	-	-	-	-	-
PW-7	10/30/1991	UNK	610	365	8.8	-	-	1.3	0.14	138	0.7	14	72.7	207	-	0.23	-	0.17	-	-	-	-	-	-	-
PW-7	4/28/1992	UNK	650	360	8.5	-	-	2.1	-	-	0.7	-	74.8	218	-	-	-	-	-	-	-	-	-	-	-
PW-7	10/28/1992	UNK	720	420	8.4	-	-	2.3	0.2	160	0.9	24	69	241	-	0.09	-	0.12	-	-	-	0.013	-	-	-
PW-7	3/10/1993	UNK	640	435	8.4	-	-	-	-	-	0.9	-	74	324	-	-	-	-	-	-	-	-	-	-	-
PW-7	9/29/1993	UNK	700	390	8.5	-	-	1.8	0.16	159	1	19	85	245	-	0.22	-	0.18	-	-	-	-	-	-	-
PW-7	3/7/1994	UNK	740	445	8.5	-	-	2.4	0.25	169	0.9	28	73.8	266	-	0.09	-	-	-	-	-	-	-	-	-
PW-7	9/26/1994	UNK	827	480	8.5	-	-	3.3	0.3	183	1.1	22	88.8	294	-	-	-	-	-	-	-	-	-	-	-
PW-7	3/22/1995	UNK	-	-	-	-	-	2.3	0.21	179	-	19	-	-	-	0.22	-	0.2	-	-	-	0.011	-	-	-
PW-7	10/16/1995	UNK	764	450	8.6	-	-	2.1	0.19	165	0.8	15	92.6	269	-	0.26	-	0.2	-	-	-	-	-	-	-
PW-7	4/12/1996	UNK	734	510	8.5	-	-	2.6	0.22	162	0.9	22	86.5	243	-	0.2	-	0.23	-	-	-	0.012	-	-	-
PW-7	10/8/1996	UNK	737	430	8.44	-	-	2.2	0.21	169	0.9	14.8	86.8	246	-	0.26	-	0.2	-	-	-	0.011	-	-	-
PW-7	6/10/1997	UNK	906	548	8.6	-	-	4.6	0.5	200	1	29.5	95.8	281	-	0.07	-	0.12	-	-	-	0.026	-	-	-
PW-7	3/18/1998	UNK	860	530	8.3	-	-	3.4	0.3	210	1.7	18	100	260	-	-	-	0.24	0.05	-	-	0.01	-	-	-
PW-7	8/21/1998	UNK	910	440	8.3	-	-	3.9	0.42	210	5.5	20	120	290	ND	ND	-	0.2	ND	-	ND	ND	-	-	-
PW-7	4/22/1999	BSK	760	490	8.2	240	27.6	3.1	0.3	190	1	<20	94	293	<10	<1	<50	0.2	<0.05	-	<0.05	0.01	-	<40	-
PW-7	5/20/2000	BSK	890	560	8.3	290	24.4	4.1	0.3	190	<2	24	120	354	11	<1	<2	0.2	<0.05	-	<0.05	0.02	-	2	-
PW-7	12/18/2000	BSK	1000	560	8.1	290	19.5	5.5	0.6	180	<2	34	100	354	<12	<1.2	<2	0.1	<0.05	-	<0.05	0.03	-	<2	-
PW-7	6/4/2001	BSK	960	650	8.1	300	23.6	5.6	0.6	220	<2	35	120	366	<10	<1	<2	0.1	<0.05	-	<0.05	0.04	-	<2	-
PW-7	10/4/2001	UNK	1200	710	8.1	380	-	6.6	0.6	290	ND	ND	140	380	ND	ND	-	0.2	ND	-	ND	0.6	-	-	-
PW-7	5/3/2002	UNK	1200	740	8.0	370	-	5.7	0.5	250	ND	ND	140	370	ND	ND	-	0.2	ND	-	0.05	0.02	-	-	-
PW-7	12/11/2002	UNK	1200	680	8.0	360	-	5.7	0.5	240	ND	ND	140	360	ND	ND	-	0.2	ND	-	0.05	0.02	-	-	-
PW-7	3/23/2003	BSK	1100	600	8.1	320	-	7.5	0.8	200	-	41	120	-	-	ND	-	0.1	ND	-	0.1	0.05	-	-	-
PW-7	10/24/2003	BSK	1200	700	8.4	370	-	6.2	0.6	250	2	14	150	-	-	ND	-	0.2	ND	-	0.08	0.03	-	2	-
PW-7	3/31/2004	BSK	1000	670	8.4	370	-	6.9	0.8	250	<2	38	120	440	<4	<0.1	<2	0.1	<0.05	-	0.07	0.04	-	2	-
PW-7	11/15/2004	UNK	1200	740	8.3	420	-	7.4	0.8	280	ND	14	160	420	ND	0.3	-	0.2	ND	-	0.13	0.04	-	-	-
PW-7	4/6/2005	UNK	1100	660	8.2	370	-	42	7.4	200	2	54	130	370	ND	ND	-	0.1	0.09	-	ND	0.23	-	-	-
PW-7	10/13/2005	UNK	1100	660	8.4	360	-	6	0.6	230	ND	ND	140	340	ND	-	-	0.2	ND	-	0.11	0.04	-	-	-
PW-7	4/19/2006	BCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.49	-	-	-	-	-	-	<0.34	-
PW-7	4/19/2006	DL	930	565	8.4	287	-	3.8	0.4	198	3.4	47.8	98.2	281	0.1	0.1	-	0.1	0.02	-	0.09	0.03	-	-	-
PW-7	9/26/2006	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	<2	-
PW-7	3/29/2007	TL	960	590	8.4	300	-	6.8	0.8	220	2.7	44	97	360	<6.2	-	<10	0.13	0.024	-	-	-	-	-	-
PW-7	9/23/2007	TL	1300	770	8.1	-	-	-	-	-	-	11	70	500	<10	-	-	-	-	-	-	-	-	-	-
PW-7	4/6/2008	BCL	1180	720	8.4	-	-	-	-	-	-	12	150	439	<0.4	-	-	-	-	-	-	-	-	-	-
PW-7	9/4/2008	BCL	1860	1200	7.9	-	-	-	-	-	-	14	250	769	<0.4	-	-	-	0.1	-	-	-	-	-	-
PW-7	4/3/2009	UNK	1080	690	8.5	-	-	-	-	-	-	35	130	330	ND	-	-	-	0.03	-	-	-	-	-	-
PW-7	10/5/2009	BSK	1700	970	8.3	-	-	-	-	-	-	<20	200	695	<10	-	-	-	-	-	-	-	-	-	-
PW-7	5/4/2011	SSC	1500	840	7.8	-	-	-	-	-	-	26	160	500	<2.2	-	-	-	-	-	-	-	-	-	-
PW-7	9/12/2011	SSC	1700	1000	7.7	-	-	-	-	-	-	13	210	590	<2.2	-	-	-	-	-	-	-	-	-	-
PW-7	4/23/2012	BCL	1430	920	8.09	-	-	-	-	-	-	25	160	573	<0.4	-	-	-	-	-	-	-	-	-	-
PW-7	10/4/2012	BCL	1120	720	8.13	-	-	-	-	-	-	49	130	427	0.36	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-7	5/7/2013	BCL	1190	750	8.2	-	-	-	-	-	-	51	140	370	<0.4	-	-	-	-	-	-	-	-	-	-
PW-7	10/24/2013	BCL	1250	800	8.1	-	-	-	-	-	-	44	160	390	<0.4	-	-	-	-	-	-	-	-	-	-
PW-7	5/16/2014	BCL	1360	730	8.6	-	-	-	-	-	-	39	160	400	<0.4	-	-	-	-	-	-	-	-	-	-
PW-7	10/16/2014	BCL	-	970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-7	10/17/2014	BCL	1370	780	8.1	-	-	-	-	-	-	44	160	420	ND	-	-	-	-	-	-	-	-	-	-
PW-8	9/11/1984	UNK	440	265	8.4	-	-	0.8	0.07	90	0.6	25	35	113	-	-	-	-	-	-	0.05	-	-	-	-
PW-8	11/28/1984	UNK	420	277	8.6	-	-	0.5	0.1	94	0.5	26	41.1	123	-	-	-	0.1	-	-	-	-	-	-	-
PW-8	4/22/1985	UNK	440	327	8.2	-	-	1.1	0.13	100	6.2	26	41.4	152	-	-	-	-	-	-	-	-	-	-	-
PW-8	11/6/1985	UNK	550	360	8.3	-	-	1.6	0.015	124	0.7	22	59.5	199	-	-	-	-	-	-	-	-	-	-	-
PW-8	9/24/1986	UNK	750	490	7.8	-	-	5.3	0.68	171	1	35	85.3	283	-	-	-	-	-	-	-	-	-	-	-
PW-8	7/24/1987	BCL	1030	650	8.2	-	15.4	13	1.7	223	1.4	38	123	371	<0.4	0.06	<10	-	<0.1	-	0.16	0.14	-	<5	-
PW-8	3/24/1988	UNK	560	480	8.0	-	-	7.6	1	167	1.2	36	86.5	273	-	-	-	-	-	-	0.12	0.08	-	-	-
PW-8	12/13/1988	BCL	1475	1110	7.5	-	23.6	18	2	395	2	43	243	662	<1	-	-	-	<0.1	-	<0.05	0.17	-	-	-
PW-8	11/9/1990	UNK	-	340	7.0	-	-	-	-	-	4.2	-	415	206	-	-	-	-	0.511	-	4.82	2.2	-	-	-
PW-8	7/23/1991	UNK	3000	1830	7.0	-	-	-	-	-	3.7	-	390	1106	-	-	-	-	0.29	-	-	-	-	-	-
PW-8	10/20/1998	UNK	3900	2300	7.01	-	-	150	34	-	10	-	600	-	ND	ND	-	0.1	0.84	-	0.11	1.6	-	-	-
PW-8	4/22/1999	BSK	2700	1700	7.2	880	14.2	100	19	590	12	65	370	1074	<30	<3	<50	0.1	0.56	-	0.09	1.1	-	<20	-
PW-8	12/18/2000	BSK	2500	1400	7.1	780	13.1	53	13	410	19	60	310	952	<25	<2.5	<2	<0.1	0.67	-	0.09	0.44	-	2	-
PW-8	6/4/2001	BSK	2700	1700	7.7	860	14.9	64	17	520	28	65	390	1049	<20	<2	<2	0.1	0.86	-	0.11	0.61	-	5	-
PW-8	5/3/2002	UNK	2800	1600	7.1	880	-	57	14	420	26	ND	390	880	ND	ND	-	ND	0.76	-	0.08	0.53	-	-	-
PW-9	11/29/1984	UNK	1050	670	7.0	-	-	78	44	60	6.1	18	131	380	-	-	-	0.1	-	-	0.86	2.6	-	-	-
PW-9	12/13/1988	BCL	650	390	8.5	-	24.5	1	<1	145	1	18	109	157	<1	-	-	-	<0.1	-	0.06	<0.01	-	-	-
PW-9	12/6/1989	UNK	840	530	8.6	-	-	2.4	0.23	182	1.2	19	141	204	-	-	-	-	-	-	0.091	-	-	-	-
PW-9	11/9/1990	UNK	-	510	8.0	-	-	-	-	-	1.4	-	147	242	-	-	-	-	-	-	0.102	0.017	-	-	-
PW-9	7/10/1991	UNK	860	515	8.6	-	-	-	-	-	1.3	-	164	184	-	-	-	-	-	-	-	-	-	-	-
PW-9	10/30/1991	UNK	510	315	8.8	-	-	1.1	0.13	110	0.6	31	60.6	128	-	0.13	-	0.1	-	-	0.062	-	-	-	-
PW-9	4/28/1992	UNK	950	575	8.4	-	-	2.9	-	-	1.4	-	186	189	-	-	-	-	-	-	-	-	-	-	-
PW-9	10/28/1992	UNK	1000	560	8.5	-	-	2.8	0.22	210	1.6	16	188	185	-	0.26	-	0.31	-	-	-	-	-	-	-
PW-9	3/11/1993	UNK	600	360	8.5	-	-	-	-	-	0.7	-	60	173	-	-	-	-	-	-	-	-	-	-	-
PW-9	9/29/1993	UNK	1070	620	8.5	-	-	3.1	0.28	221	1.7	17	213	222	-	0.25	-	0.34	-	-	-	-	-	-	-
PW-9	3/7/1994	UNK	1050	610	8.5	-	-	3.5	0.33	227	1.5	26	186	230	-	0.18	-	-	-	-	-	-	-	-	-
PW-9	9/26/1994	UNK	1140	660	8.3	-	-	3.9	0.38	242	1.6	23	193	260	-	-	-	-	-	-	-	-	-	-	-
PW-9	3/22/1995	UNK	-	-	-	-	-	4.4	0.5	175	-	-	-	-	-	0.08	-	-	-	-	0.176	0.033	-	-	-
PW-9	10/16/1995	UNK	1260	730	8.3	-	-	4.9	0.47	256	1.7	21	246	252	-	0.23	-	0.29	-	-	-	0.025	-	-	-
PW-9	4/12/1996	UNK	900	570	8.5	-	-	6.5	0.7	196	1	49	103	301	-	0.06	-	-	-	-	0.192	0.057	-	-	-
PW-9	10/8/1996	UNK	1250	710	8.49	-	-	6.6	0.73	272	1.7	32.9	233	278	-	0.14	-	0.2	-	-	0.108	0.044	-	-	-
PW-9	6/10/1997	UNK	1120	655	8.0	-	-	7.6	0.85	229	1.4	31.4	188	285	-	0.15	-	0.21	-	-	0.094	0.067	-	-	-
PW-9	4/22/1999	BSK	1200	730	7.9	210	27.2	6.9	0.7	280	3	31	260	256	<15	<1.5	<50	0.1	<0.05	-	<0.05	0.04	-	<20	-
PW-9	5/20/2000	BSK	1200	670	8.2	180	26.7	5.3	0.5	240	<2	35	260	220	<15	<1.5	3	0.3	<0.05	-	<0.05	<0.02	-	6	-
PW-9	12/18/2000	BSK	1300	660	8.2	170	26.9	4.7	0.5	230	2	<30	240	207	<15	<1.5	2	0.3	<0.05	-	<0.05	0.02	-	4	-
PW-9	6/4/2001	BSK	1100	680	8.1	170	27.2	4.6	0.5	230	2	38	220	207	<10	<1	<2	0.2	<0.05	-	<0.05	0.03	-	5	-
PW-9	10/4/2001	UNK	1200	700	8.1	190	-	5.5	0.6	240	ND	45	270	190	ND	ND	-	0.2	ND	-	ND	0.03	-	-	-
PW-9	5/3/2002	UNK	1100	670	8.1	190	-	4.7	0.5	200	ND	44	220	190	ND	ND	-	0.2	ND	-	ND	0.02	-	-	-
PW-9	12/11/2002	UNK	900	510	8.2	200	-	3.7	0.4	180	ND	80	99	200	ND	ND	-	ND	ND	-	0.81	0.03	-	-	-
PW-9	3/23/2003	BSK	940	560	8.1	210	-	4.5	0.5	180	ND	76	110	-	-	ND	-	ND	ND	-	0.07	0.03	-	-	-
PW-9	10/24/2003	BSK	1200	720	8.2	290	-	8.1	0.9	240	ND	62	170	-	-	ND	-	ND	ND	-	0.08	0.07	-	3	-
PW-9	3/31/2004	BSK	1400	850	8.2	360	-	13	1.3	300	<2	64	220	440	<4	<0.1	<2	0.1	0.06	-	0.12	0.011	-	4	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity[3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-9	11/15/2004	UNK	1800	1100	7.8	560	-	36	4.7	370	ND	70	230	560	ND	ND	-	ND	0.15	-	0.1	0.44	-	-	-
PW-9	4/6/2005	UNK	1800	1100	8.0	420	-	28	3.3	390	3	36	360	420	ND	ND	-	0.3	0.12	-	ND	0.32	-	-	-
PW-9	10/13/2005	UNK	2300	1400	8.0	740	-	69	9.8	500	3	-	290	740	ND	-	-	ND	0.28	-	0.07	0.96	-	-	-
PW-9	4/19/2006	BCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.49	-	-	-	-	-	-	4.2	-
PW-9	4/19/2006	DL	2566	1550	7.7	828	-	74.6	11.4	464	6.5	66	327	828	<0.1	<0.1	-	0.03	0.32	-	0.15	1.13	-	-	-
PW-9	9/26/2006	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	1.8	-
PW-9	3/29/2007	TL	2500	1600	7.1	810	-	79	14	490	14	65	310	990	<20	-	<10	0.092	0.5	-	-	-	-	-	-
PW-9	9/23/2007	TL	1700	1000	7.3	-	-	-	-	-	-	85	200	600	<20	-	-	-	-	-	-	-	-	-	-
PW-9	4/6/2008	BCL	2830	1800	7.23	-	-	-	-	-	-	52	370	1147	0.2	-	-	-	-	-	-	-	-	-	-
PW-9	9/4/2008	BCL	3340	2200	7.6	-	-	-	-	-	-	140	1200	1342	<0.4	-	-	-	1	-	-	-	-	-	-
PW-9	4/3/2009	UNK	3100	2000	7.3	-	-	-	-	-	-	64	450	1000	ND	-	-	-	0.93	-	-	-	-	-	-
PW-9	5/27/2009	FGL	2840	1710	6.8	790	15.8	62	12	519	26	44	450	970	<0.4	0.1	<2	0.2	0.419	<0.01	2.42	0.79	4	-	<0.02
PW-9	5/27/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
PW-9	10/15/2009	BSK	3100	1700	7.8	-	-	-	-	-	-	62	420	1342	<20	-	-	-	-	-	-	-	-	-	-
PW-9	5/4/2011	SSC	4100	2400	7.0	-	-	-	-	-	-	49	520	1400	<2.2	-	-	-	-	-	-	-	-	-	-
PW-9	7/19/2011	SSC	3000	1700	7.0	-	-	-	-	-	-	28	810	500	<2.2	-	-	-	-	-	-	-	-	-	-
PW-9	9/12/2011	SSC	3200	1900	7.1	-	-	-	-	-	-	68	420	1000	<2.2	-	-	-	-	-	-	-	-	-	-
PW-9	4/23/2012	BCL	3230	2000	7.42	-	-	-	-	-	-	55	440	1220	<2.2	-	-	-	-	-	-	-	-	-	-
PW-9	10/4/2012	BCL	2630	1700	7.44	-	-	-	-	-	-	70	360	1013	<0.9	-	-	-	-	-	-	-	-	-	-
PW-9	5/7/2013	BCL	2900	1800	7.6	-	-	-	-	-	-	63	410	950	<2.2	-	-	-	-	-	-	-	-	-	-
PW-9	10/24/2013	BCL	2550	1600	7.5	-	-	-	-	-	-	51	420	670	<2.2	-	-	-	-	-	-	-	-	-	-
PW-9	5/16/2014	BCL	2610	1500	8.2	-	-	-	-	-	-	64	420	700	1.2	-	-	-	-	-	-	-	-	-	-
PW-9	10/16/2014	BCL	-	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-9	10/17/2014	BCL	2590	1500	7.5	-	-	-	-	-	-	41	540	470	2.4	-	-	-	-	-	-	-	-	-	-
PW-10	12/14/1988	BCL	690	430	8.4	-	10.2	11	2	140	1	35	87	198	3	0.2	<10	-	<0.1	-	0.12	0.05	-	<5	-
PW-10	12/6/1989	UNK	680	420	8.5	-	-	5.3	0.63	140	0.8	35	75.4	195	-	-	-	-	-	-	-	0.021	-	-	-
PW-10	11/9/1990	UNK	-	445	8.1	-	-	-	-	-	1	-	75.5	230	-	-	-	0.19	-	-	-	0.026	-	-	-
PW-10	7/9/1991	UNK	750	455	8.4	-	-	-	-	-	1.2	-	81.5	252	-	-	-	-	-	-	-	-	-	-	-
PW-10	10/29/1991	UNK	720	445	8.5	-	-	11	1.4	147	1.1	30	86.9	237	-	0.19	-	0.18	-	-	-	0.044	-	-	-
PW-10	10/30/1991	UNK	720	445	8.5	-	-	11	1.4	147	1.1	30	86.9	237	-	0.19	-	0.18	-	-	-	44	-	-	-
PW-10	4/28/1992	UNK	840	455	8.2	-	-	20	-	-	1.5	-	92.5	298	-	-	-	-	-	-	-	-	-	-	-
PW-10	10/28/1992	UNK	800	500	8.1	-	-	19.1	2.6	157	1.5	32	86	299	-	0.13	-	0.16	-	-	-	0.079	-	-	-
PW-10	3/11/1993	UNK	920	540	8.0	-	-	-	-	-	1.9	-	99.1	358	-	-	-	-	-	-	-	-	-	-	-
PW-10	9/29/1993	UNK	900	500	8.0	-	-	25	3.8	176	1.8	37	99	336	-	0.07	-	0.12	-	-	0.075	0.109	-	-	-
PW-10	3/7/1994	UNK	880	530	8.0	-	-	23	3.5	175	1.7	40	94.3	325	-	0.05	-	-	-	-	-	-	-	-	-
PW-10	9/26/1994	UNK	922	540	8.0	-	-	24	3.8	173	1.8	38	94.2	336	-	-	-	-	-	-	-	-	-	-	-
PW-10	3/22/1995	UNK	-	-	-	-	-	37	5.7	200	-	40	-	-	-	-	-	-	-	-	-	0.172	-	-	-
PW-10	10/16/1995	UNK	850	470	8.2	-	-	15.5	2.6	165	1.3	33	102	268	-	0.19	-	0.19	-	-	0.062	0.077	-	-	-
PW-10	4/12/1996	UNK	843	605	8.5	-	-	15	2.2	166	1.3	39	97.6	269	-	0.15	-	0.22	-	-	-	0.066	-	-	-
PW-10	10/8/1996	UNK	867	490	8.5	-	-	17	2.8	178	1.5	31.5	108	296	-	0.19	-	0.19	-	-	0.056	0.076	-	-	-
PW-10	6/10/1997	UNK	942	565	8.0	-	-	25	3.8	178	1.6	36.4	102	349	-	0.11	-	0.16	-	-	-	0.129	-	-	-
PW-10	4/22/1999	BSK	820	510	8.2	250	10.5	18	2.7	180	3	40	99	305	<10	<1	<50	0.1	0.05	-	0.06	0.08	-	<40	-
PW-10	5/20/2000	BSK	840	510	7.9	250	10.4	18	2.8	180	<2	39	110	305	<10	<1	<2	0.2	<0.05	-	<0.05	0.08	-	2	-
PW-10	12/18/2000	BSK	930	520	8.0	240	9.8	16	2.6	160	<2	37	110	293	<10	<1	<2	0.2	<0.05	-	0.06	0.07	-	2	-
PW-10	6/4/2001	BSK	910	590	7.8	260	9.6	21	3.5	180	<2	41	120	317	<10	<1	<2	0.2	<0.05	-	<0.05	0.11	-	2	-
PW-10	10/4/2001	UNK	890	540	7.8	250	-	19	3.2	190	ND	40	120	250	62	ND	-	0.2	ND	-	ND	0.09	-	-	-
PW-10	5/3/2002	UNK	1100	660	7.7	330	-	45	7.5	170	2	60	120	330	ND	ND	-	0.1	0.09	-	ND	0.24	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-10	12/11/2002	UNK	1100	640	7.8	320	-	33	5.6	190	2	52	120	320	ND	ND	-	0.1	0.07	-	ND	0.17	-	-	-
PW-10	3/23/2003	BSK	1000	620	7.8	320	-	32	5.4	180	2	45	120	-	-	ND	-	0.1	0.07	-	ND	0.14	-	-	-
PW-10	10/24/2003	BSK	970	570	8.3	270	-	21	3.7	180	ND	32	130	-	-	ND	-	-	ND	-	ND	0.11	-	2	-
PW-10	3/31/2004	BSK	1000	650	8.3	340	-	24	3.9	210	3	47	120	410	<4	<0.1	<2	0.2	0.06	-	<0.05	0.12	-	<2	-
PW-10	11/15/2004	UNK	1000	640	8.2	350	-	34	6.3	200	2	50	120	350	ND	ND	-	0.1	0.08	-	ND	0.27	-	-	-
PW-10	4/6/2005	UNK	1000	620	8.4	340	-	6.3	0.8	220	ND	45	110	330	ND	ND	-	0.1	ND	-	0.1	0.04	-	-	-
PW-10	10/13/2005	UNK	1200	680	8.3	380	-	52	8.9	200	2	-	120	370	ND	-	-	0.2	0.1	-	ND	0.29	-	-	-
PW-10	4/19/2006	BCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.49	-	-	-	-	-	-	0.83	-
PW-10	4/19/2006	DL	1077	668	8.2	368	-	39.1	7	190	4.6	47.9	117	368	0.1	<0.1	-	0.13	0.09	-	0.01	0.22	-	-	-
PW-10	9/26/2006	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	<2	-
PW-10	3/29/2007	TL	1000	650	7.8	340	-	45	8.4	190	5.9	56	110	410	<6	-	<10	0.16	0.11	-	-	-	-	-	-
PW-10	9/23/2007	TL	1100	670	7.7	-	-	-	-	-	-	69	110	400	<10	-	-	-	-	-	-	-	-	-	-
PW-10	4/6/2008	BCL	1180	720	7.91	-	-	-	-	-	-	72	130	451	0.2	-	-	-	-	-	-	-	-	-	-
PW-10	9/4/2008	BCL	1120	690	8.1	-	-	-	-	-	-	48	130	464	<0.4	-	-	-	0.093	-	-	-	-	-	-
PW-10	4/3/2009	UNK	960	650	8.4	-	-	-	-	-	-	14	140	280	ND	-	-	-	0.07	-	-	-	-	-	-
PW-10	10/5/2009	BSK	1100	600	8.4	-	-	-	-	-	-	33	160	329	<2	-	-	-	-	-	-	-	-	-	-
PW-10	5/4/2011	SSC	1200	710	7.6	-	-	-	-	-	-	58	140	360	<2.2	-	-	-	-	-	-	-	-	-	-
PW-10	9/12/2011	SSC	1100	650	7.9	-	-	-	-	-	-	50	140	320	<2.2	-	-	-	-	-	-	-	-	-	-
PW-10	4/23/2012	BCL	1180	720	8.02	-	-	-	-	-	-	56	140	415	<0.4	-	-	-	-	-	-	-	-	-	-
PW-10	10/4/2012	BCL	1280	840	7.86	-	-	-	-	-	-	72	160	476	<0.4	-	-	-	-	-	-	-	-	-	-
PW-10	5/7/2013	BCL	1260	780	8.0	-	-	-	-	-	-	69	160	380	<0.4	-	-	-	-	-	-	-	-	-	-
PW-10	10/24/2013	BCL	1320	830	8.0	-	-	-	-	-	-	64	160	390	<0.4	-	-	-	-	-	-	-	-	-	-
PW-10	6/5/2014	BCL	1180	680	8.4	-	-	-	-	-	-	84	150	290	<0.4	-	-	-	-	-	-	-	-	-	-
PW-10	10/16/2014	BCL	-	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-10	10/17/2014	BCL	1530	790	7.8	-	-	-	-	-	-	53	200	450	ND	-	-	-	-	-	-	-	-	-	-
PW-11	10/4/2001	UNK	300	-	8.4	80	-	0.2	ND	63	ND	29	20	76	17.7	ND	-	ND	ND	-	0.07	ND	-	-	-
PW-11	5/3/2002	UNK	330	200	8.5	84	-	0.2	ND	58	ND	33	17	80	ND	ND	-	ND	ND	-	0.17	ND	-	-	-
PW-11	12/13/2002	UNK	330	220	8.4	80	-	0.2	ND	67	ND	43	19	76	ND	ND	-	ND	ND	-	ND	ND	-	-	-
PW-11	3/23/2003	BSK	320	200	8.5	82	-	0.2	ND	66	ND	43	19	-	-	ND	-	ND	ND	-	ND	ND	-	-	-
PW-11	10/24/2003	BSK	640	380	-	130	-	1	0.1	130	ND	16	100	-	-	ND	-	0.2	ND	-	ND	ND	-	2	-
PW-11	3/31/2004	BSK	350	230	8.8	94	-	0.2	<0.1	78	<2	51	20	100	<4	<0.1	2	<0.1	<0.05	-	<0.05	<0.01	-	<2	-
PW-11	11/15/2004	UNK	370	240	8.9	97	-	0.3	ND	84	ND	54	20	84	ND	ND	-	ND	ND	-	ND	ND	-	-	-
PW-11	4/6/2005	UNK	490	280	8.8	110	-	1.1	0.2	110	ND	51	59	92	ND	ND	-	0.1	ND	-	ND	ND	-	-	-
PW-11	10/14/2005	UNK	880	500	8.6	160	-	2.6	0.2	190	ND	37	150	150	-	0.3	-	0.2	ND	-	ND	0.01	-	-	-
PW-11	4/19/2006	BCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.49	-	-	-	-	-	-	<0.34	-
PW-11	4/19/2006	DL	704	438	8.5	170	-	3.3	0.3	154	2.3	93.7	65.2	162	0.1	<0.1	-	0.04	<0.01	-	0.05	0.01	-	-	-
PW-11	9/26/2006	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	-	<2	-
PW-11	3/29/2007	TL	500	300	8.8	93	-	0.91	<0.1	100	1.1	52	46	110	<4	-	<10	0.074	<0.01	-	-	-	-	-	-
PW-11	9/23/2007	TL	720	440	8.7	-	-	-	-	-	-	31	140	150	<6	-	-	-	-	-	-	-	-	-	-
PW-11	4/6/2008	BCL	444	300	8.94	-	-	-	-	-	-	64	26	95	<0.4	-	-	-	-	-	-	-	-	-	-
PW-11	9/4/2008	BCL	514	330	8.7	-	-	-	-	-	-	72	41	107	<0.4	-	-	-	0.0074	-	-	-	-	-	-
PW-11	10/5/2009	BSK	470	270	8.9	-	-	-	-	-	-	70	32	105	<1	-	-	-	-	-	-	-	-	-	-
PW-11	5/4/2011	SSC	790	440	8.6	-	-	-	-	-	-	55	120	130	<2.2	-	-	-	-	-	-	-	-	-	-
PW-11	9/12/2011	SSC	530	310	8.8	-	-	-	-	-	-	78	40	97	<2.2	-	-	-	-	-	-	-	-	-	-
PW-11	4/23/2012	BCL	525	340	8.68	-	-	-	-	-	-	80	38	117	<0.4	-	-	-	-	-	-	-	-	-	-
PW-11	10/4/2012	BCL	534	360	8.72	-	-	-	-	-	-	83	39	121	<0.4	-	-	-	-	-	-	-	-	-	-
PW-11	5/7/2013	BCL	707	430	8.7	-	-	-	-	-	-	65	100	110	<0.4	-	-	-	-	-	-	-	-	-	-

Table E-3 (continued)
Summary of Groundwater Quality Laboratory Results (Spreckels Sugar Co. and Meyers Farm Water Bank)

								Cations				Anions					Trace Elements								
Well Owner and Name	Date	Lab [1]	EC [2] (µmhos/cm)	TDS (mgL)	pH	Total Alkalinity [3] (mg/L)	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3 [3] (mg/L)	NO_3 [3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Cu (mg/Ll)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DEEP (Spreckels)																									
PW-11	10/24/2013	BCL	652	420	8.7	-	-	-	-	-	-	81	74	100	<0.4	-	-	-	-	-	-	-	-	-	-
PW-11	5/16/2014	BCL	592	360	8.6	-	-	-	-	-	-	93	46	110	<0.4	-	-	-	-	-	-	-	-	-	-
PW-11	10/16/2014	BCL	-	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-11	10/17/2014	BCL	617	360	8.7	-	-	-	-	-	-	98	50	110	ND	-	-	-	-	-	-	-	-	-	-
PW-12	3/31/2004	BSK	510	320	8.7	110	-	0.9	<0.1	78	<2	51	34	120	<4	<0.1	<2	<0.1	<0.05	-	0.06	<0.01	-	<2	-
PW-12	11/15/2004	UNK	600	380	8.7	130	-	2.7	0.3	130	ND	97	42	120	ND	ND	-	ND	ND	-	ND	ND	-	-	-
PW-12	4/6/2005	UNK	590	360	8.7	130	-	3.3	0.3	130	ND	100	47	120	ND	ND	-	ND	ND	-	ND	0.01	-	-	-
PW-12	10/14/2005	UNK	360	230	8.5	96	-	0.3	ND	75	ND	54	18	89	ND	ND	-	ND	ND	-	0.07	ND	-	-	-
PW-12	4/19/2006	BCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49	-	-	-	-	-	-	<0.34	-
PW-12	4/19/2006	DL	455	280	8.6	94.8	-	0.5	<0.1	104	1.6	50.6	51.4	94.8	0.1	0.1	-	0.08	<0.01	-	0.05	<0.01	-	-	-
PW-12	9/26/2006	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	<2	-
PW-12	3/29/2007	TL	780	480	8.6	170	-	5.4	0.53	170	1.8	100	68	200	<6.2	-	<10	0.063	0.012	-	-	-	-	-	-
PW-12	9/23/2007	TL	780	510	8.5	-	-	-	-	-	-	110	74	190	<6	-	-	-	-	-	-	-	-	-	-
PW-12	4/6/2008	BCL	825	510	8.65	-	-	-	-	-	-	110	78	183	<0.4	-	-	-	-	-	-	-	-	-	-
PW-12	9/4/2008	BCL	843	530	8.6	-	-	-	-	-	-	110	87	195	<0.4	-	-	-	0.012	-	-	-	-	-	-
PW-12	10/5/2009	BSK	900	520	8.7	-	-	-	-	-	-	110	90	207	<2	-	-	-	-	-	-	-	-	-	-
PW-12	5/4/2011	SSC	1000	590	8.5	-	-	-	-	-	-	97	100	220	<2.2	-	-	-	-	-	-	-	-	-	-
PW-12	9/12/2011	SSC	1000	620	8.5	-	-	-	-	-	-	100	110	230	<2.2	-	-	-	-	-	-	-	-	-	-
PW-12	4/23/2012	BCL	1070	680	8.51	-	-	-	-	-	-	100	120	281	<0.4	-	-	-	-	-	-	-	-	-	-
PW-12	10/4/2012	BCL	1090	720	8.44	-	-	-	-	-	-	110	130	305	<0.4	-	-	-	-	-	-	-	-	-	-
PW-12	5/7/2013	BCL	1110	720	8.5	-	-	-	-	-	-	110	130	250	<0.4	-	-	-	-	-	-	-	-	-	-
PW-12	10/24/2013	BCL	1210	770	8.4	-	-	-	-	-	-	110	140	280	<0.9	-	-	-	-	-	-	-	-	-	-
PW-12	5/16/2014	BCL	1260	760	8.6	-	-	-	-	-	-	120	150	270	<0.9	-	-	-	-	-	-	-	-	-	-
PW-12	10/16/2014	BCL	-	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PW-12	10/17/2014	BCL	1250	740	8.3	-	-	-	-	-	-	120	120	280	ND	-	-	-	-	-	-	-	-	-	-
DEEP (Meyers Farm)																									
DW-1	12/21/2007	BCL	2400	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DW-1	4/17/2008	BCL	2000	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DW-1	4/21/2008	BCL	-	-	-	-	-	-	-	-	-	-	-	280	-	-	-	-	-	-	-	-	-	-	-
DW-1	4/21/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.46	<0.4	-
DW-1	10/4/2008	BCL	1970	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DW-1	7/22/2009	BCL	2940	1800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.079	-	-	-	-	-	-

1. Laboratory Abbreviations: AT - Agri Tech, Inc., Kerman; BD - Betz Dearborn; BCL - BC Laboratories, Bakersfield; BD - Betz Dearborn; BSK - BSK Analytical Laboratories, Fresno; CLS - California Laboratory Services, Rancho Cordova; FGL - Fruit Growers Laboratory, Santa Paula; JML - JM Lord, Fresno; JML(1) - JM Lord, Fresno (TDS estimated from EC); OBL = Olson Biochemistry Laboratories of South Dakota State University, Brookings, SD; TL - The Twining Laboratories, Inc., Fresno.; UAG - U.S. Agricultural Consultants and Laboratories, Burbank; USGS - U.S. Geological Survey

2. Electrical Conductivity at 25°C

3. HCO3, Total Alkalinity and NO3 reported as HCO3, CaCO3 and NO3 respectively. Some 2008 NO3 results may include NO2 in reported value.

NA = Not Available; ND = Non Detect (detection limit unknown)

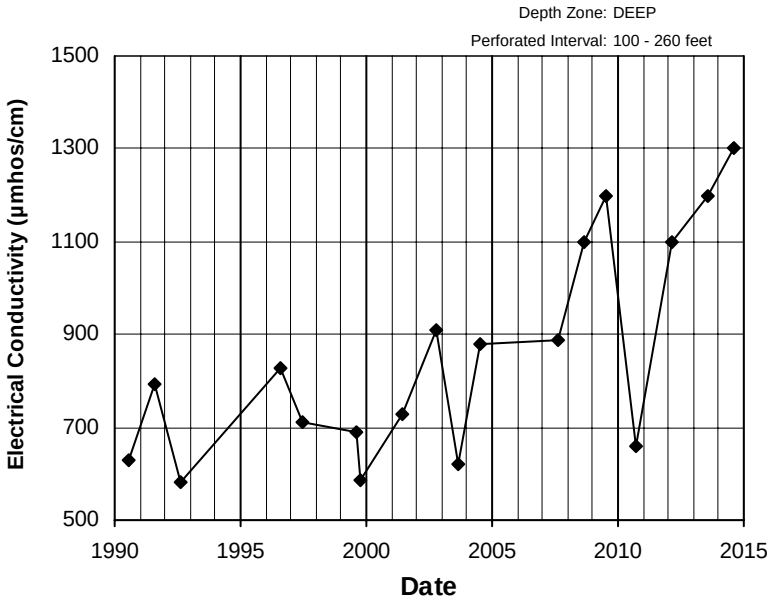
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APPENDIX F

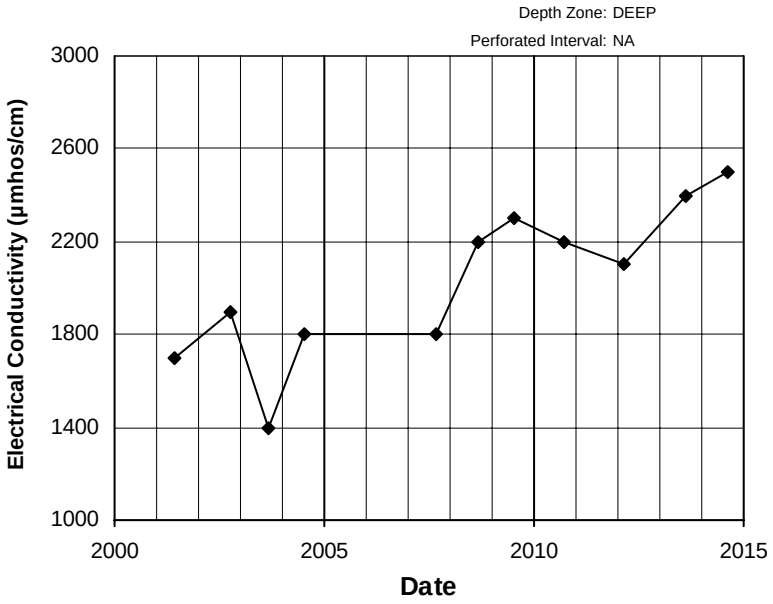
ELECTRICAL CONDUCTIVITY HYDROGRAPHS

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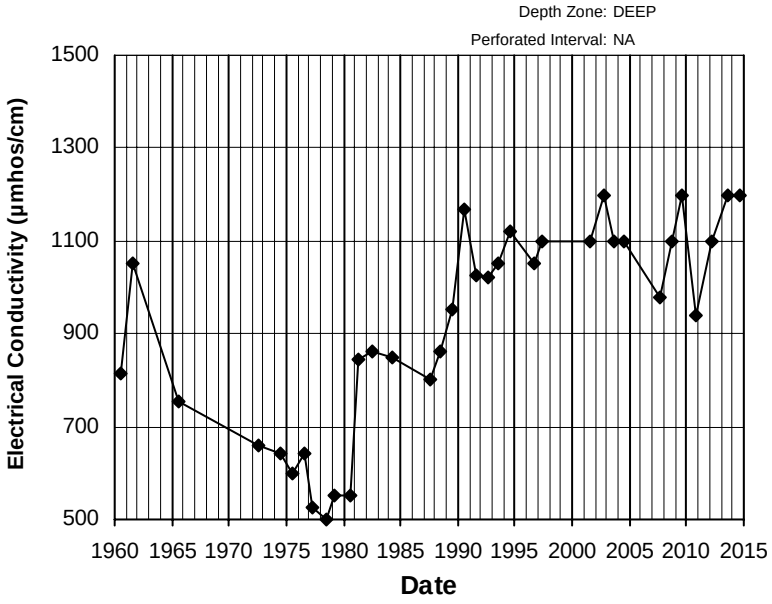
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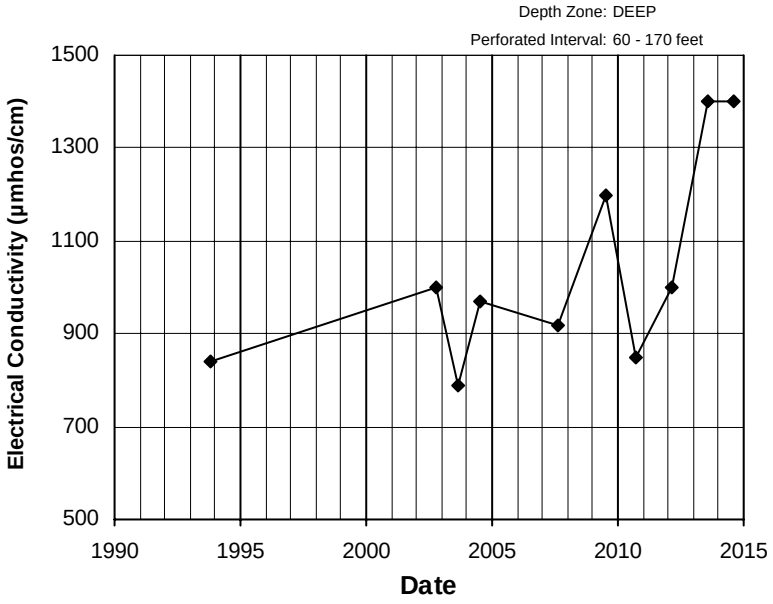
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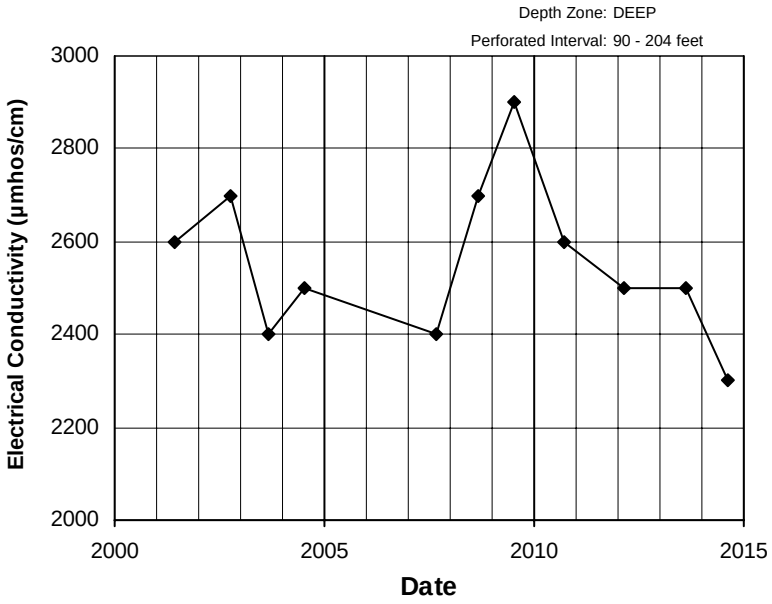
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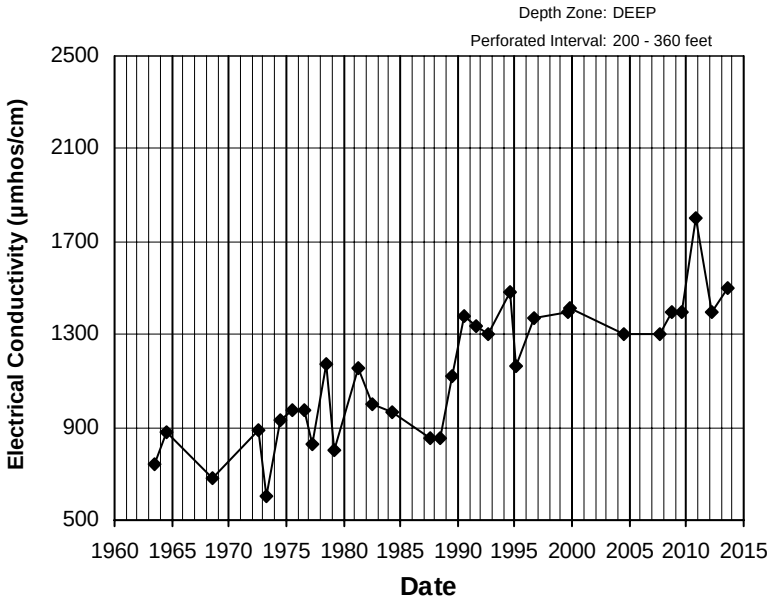
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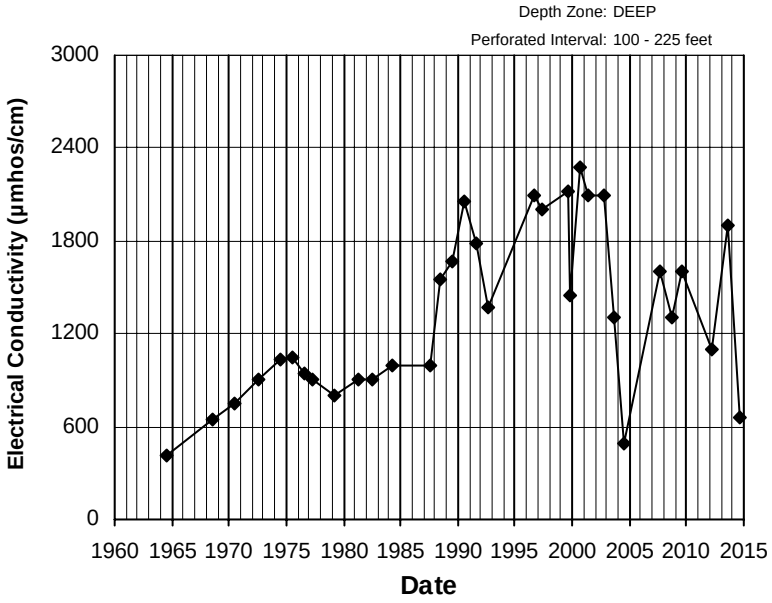
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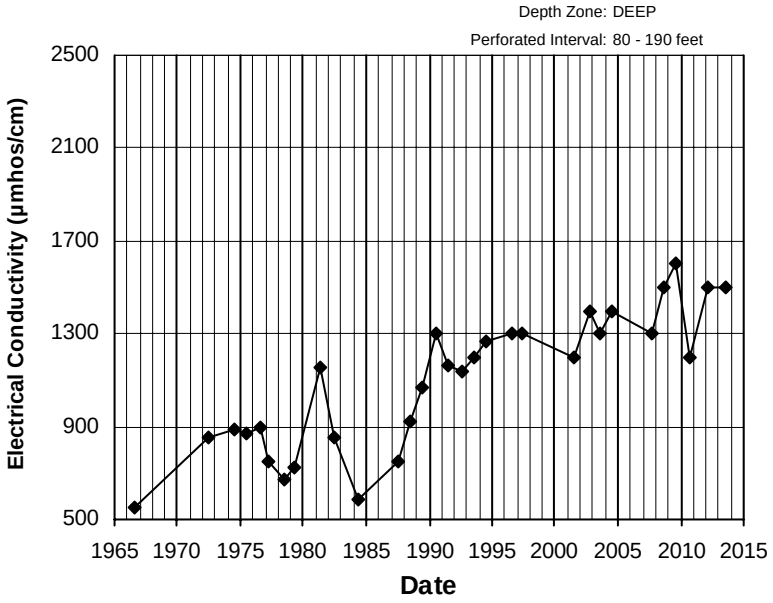
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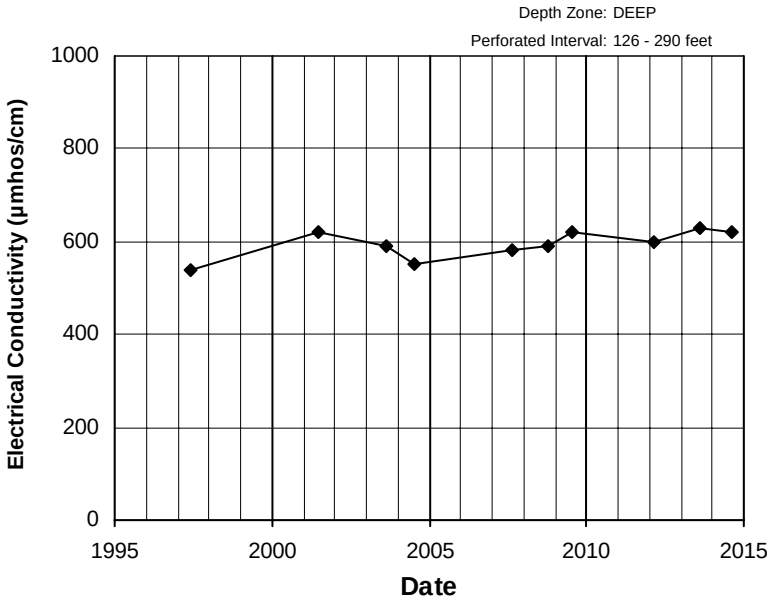
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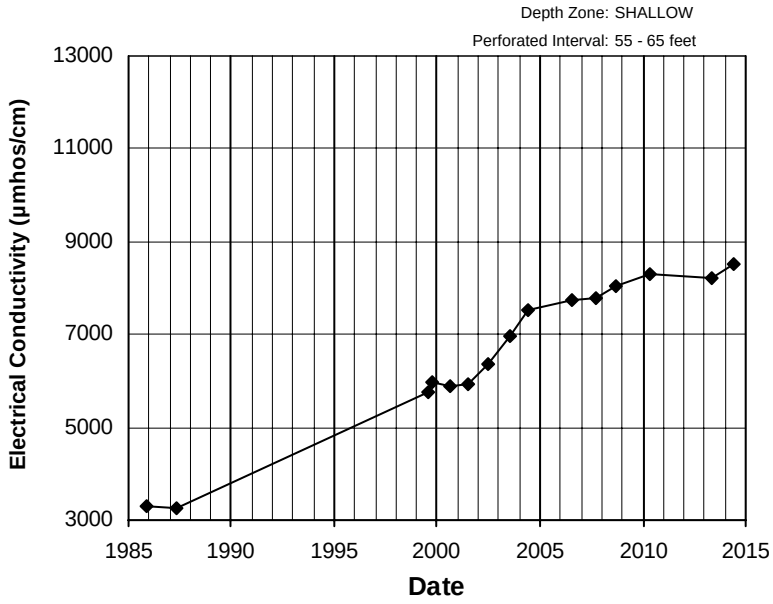
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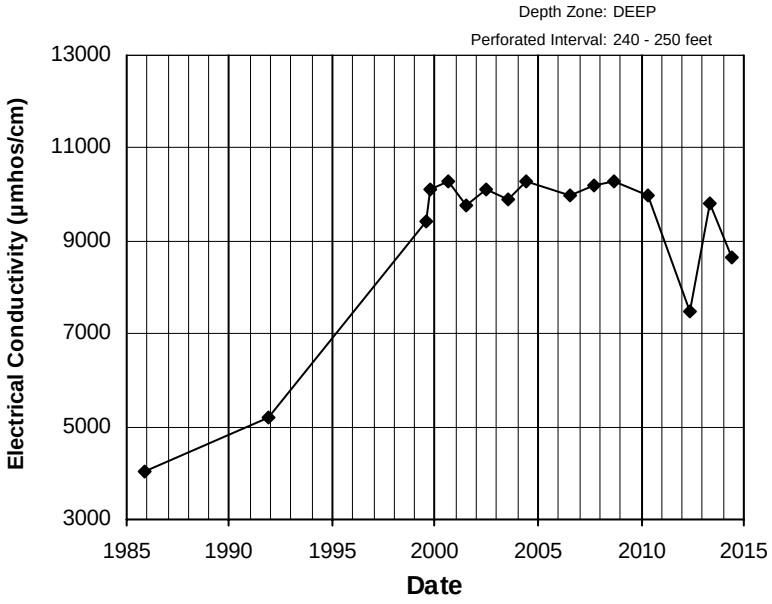
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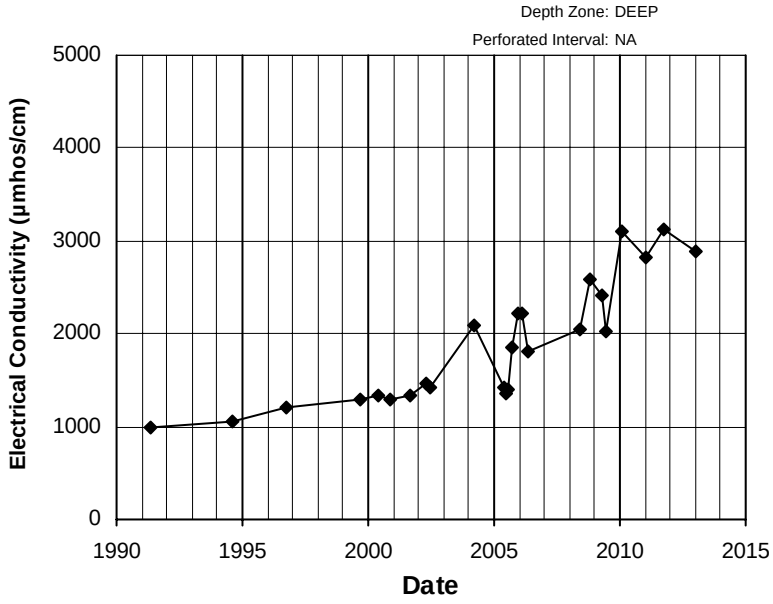
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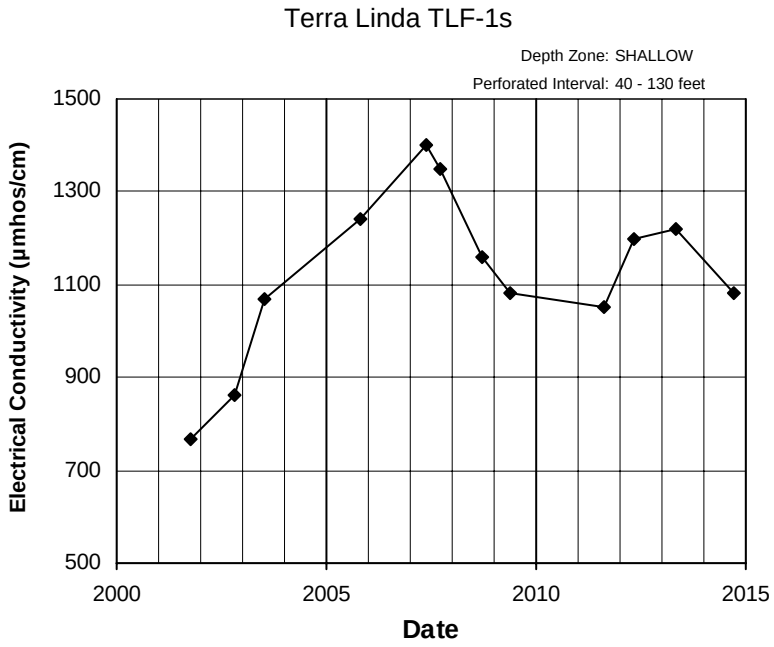


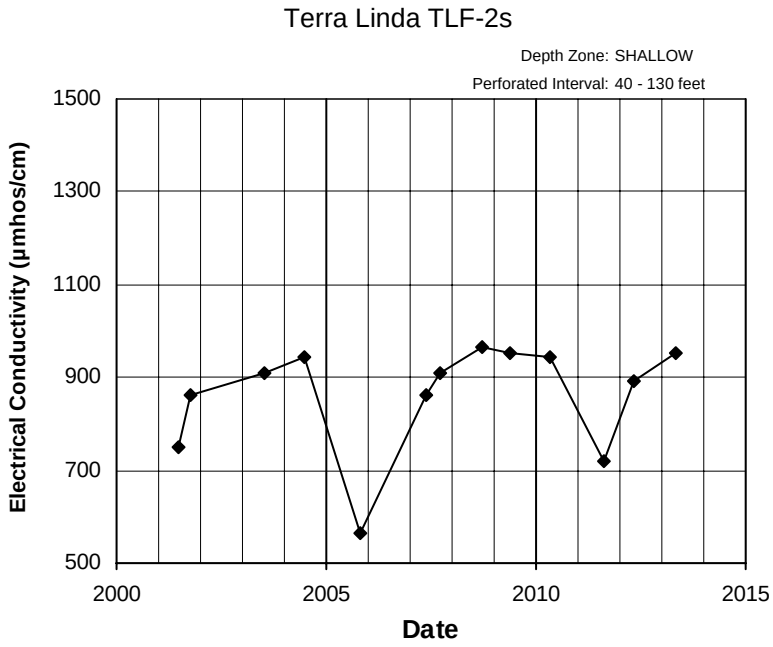
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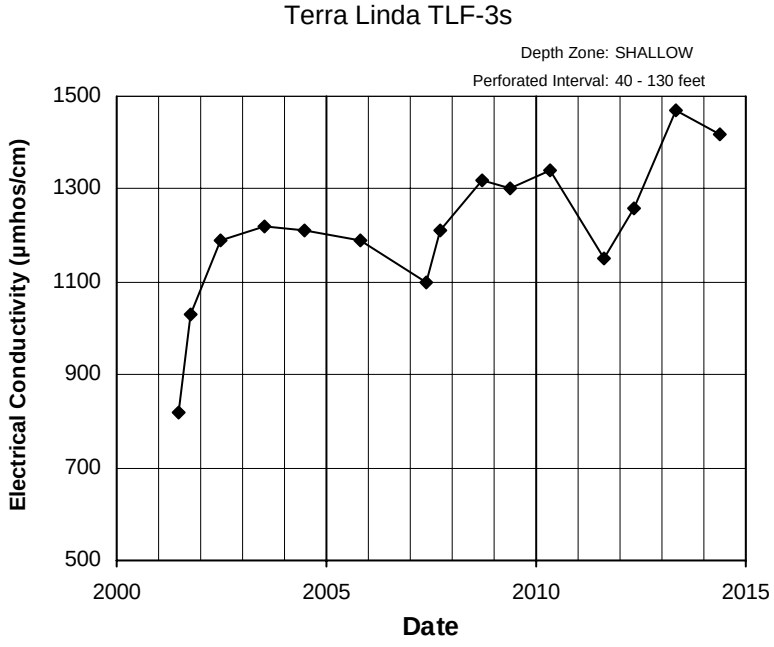


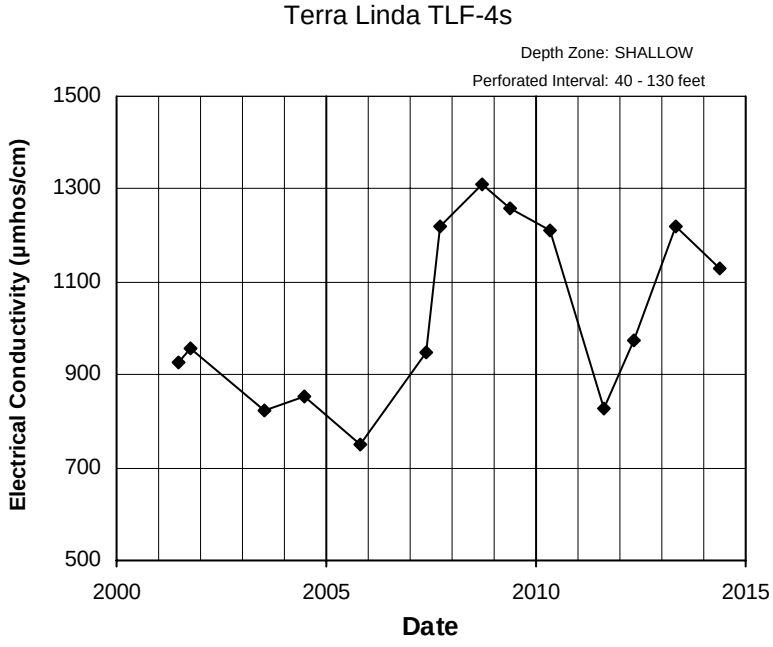
Covanta-Mendota/Biomass 6A



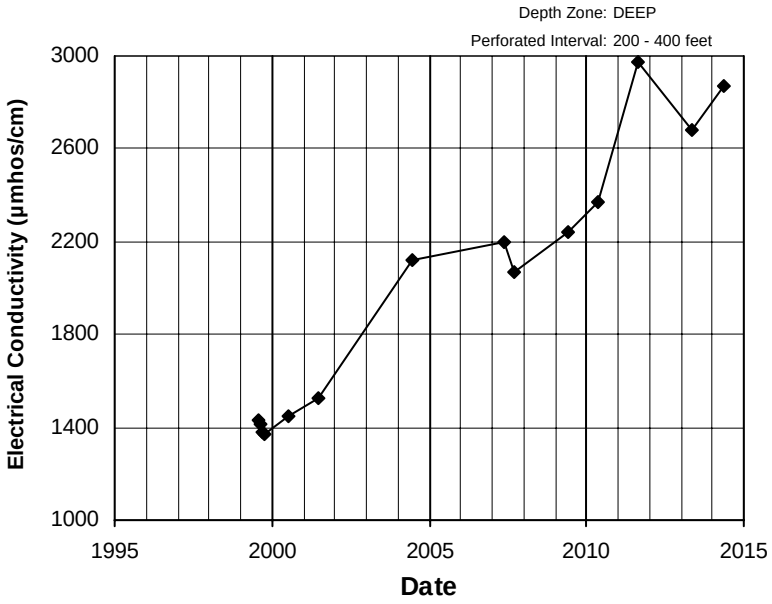

Terra Linda TLF-1s
Depth Zone: SHALLOW
Perforated Interval: 40 - 130 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date


Terra Linda TLF-2s
Depth Zone: SHALLOW
Perforated Interval: 40 - 130 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date

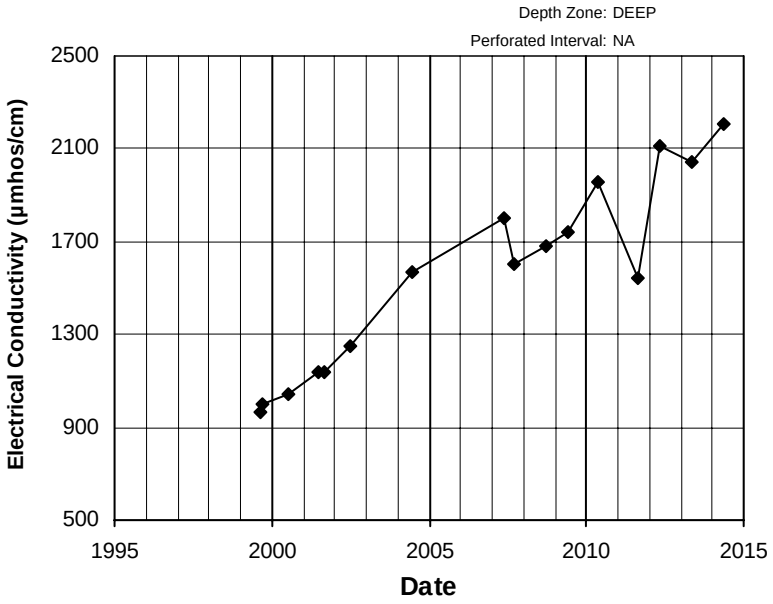

Terra Linda TLF-3s
Depth Zone: SHALLOW
Perforated Interval: 40 - 130 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date


Terra Linda TLF-4s
Depth Zone: SHALLOW
Perforated Interval: 40 - 130 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date

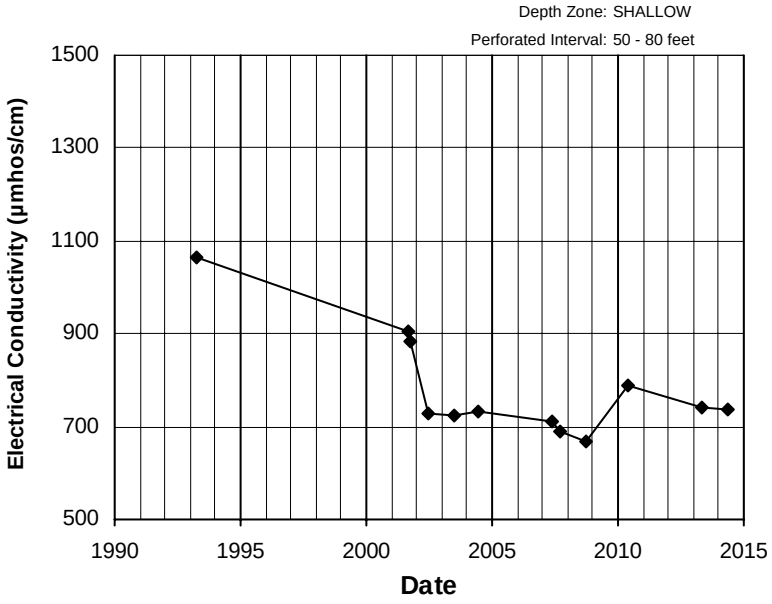
Terra Linda TLF-5d



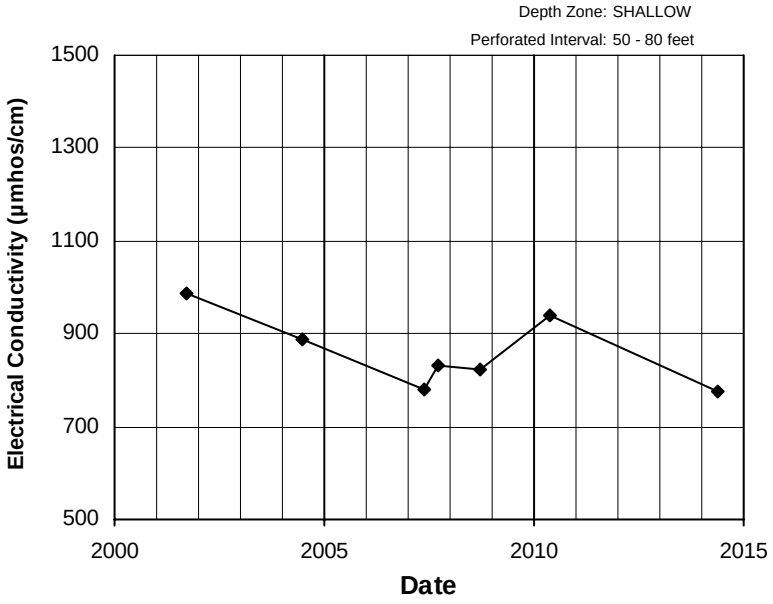
Terra Linda TLF-6d

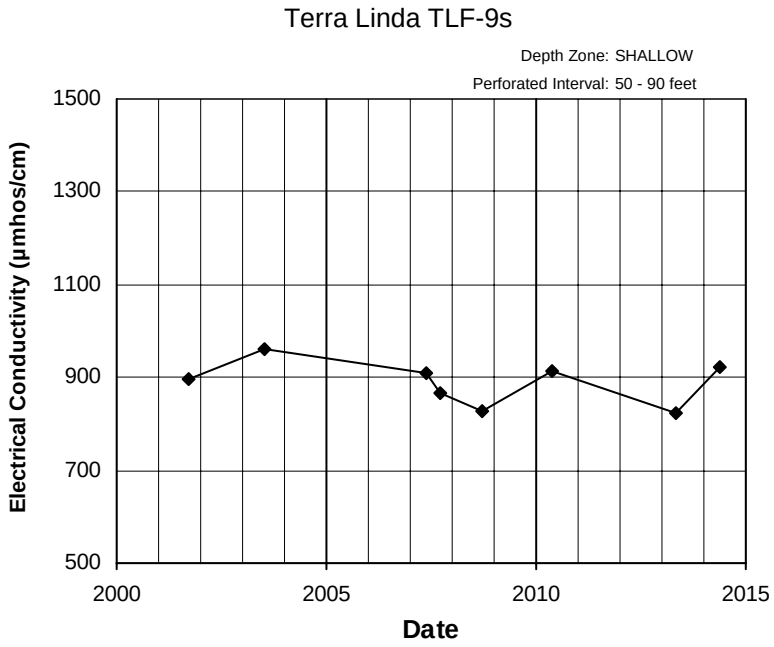


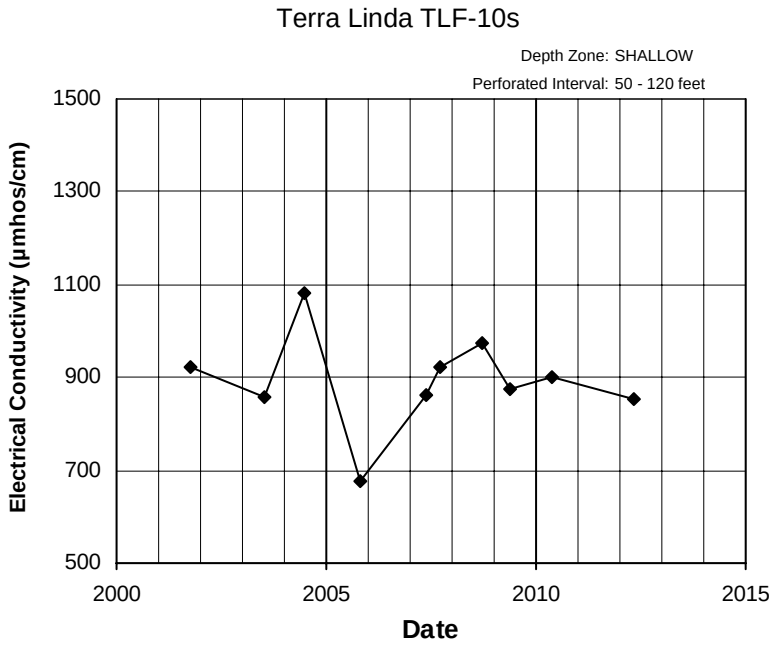
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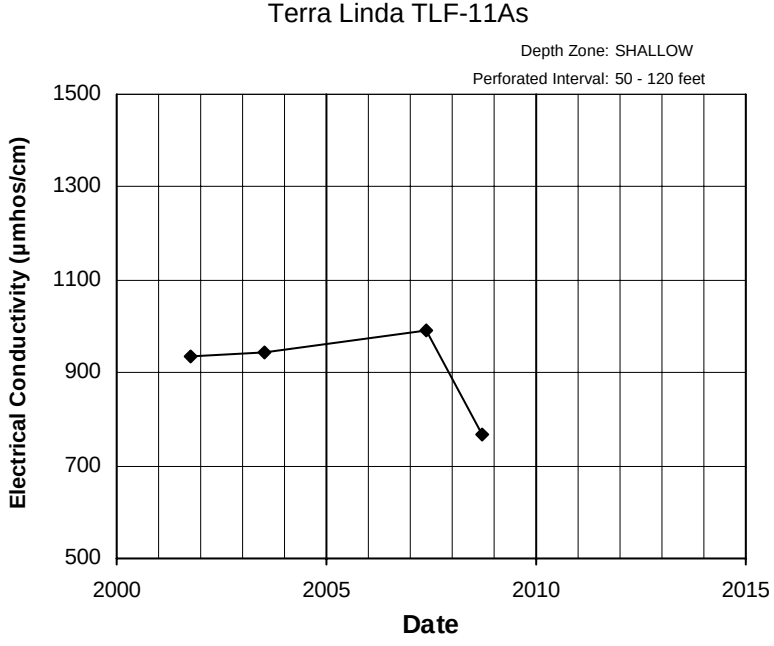


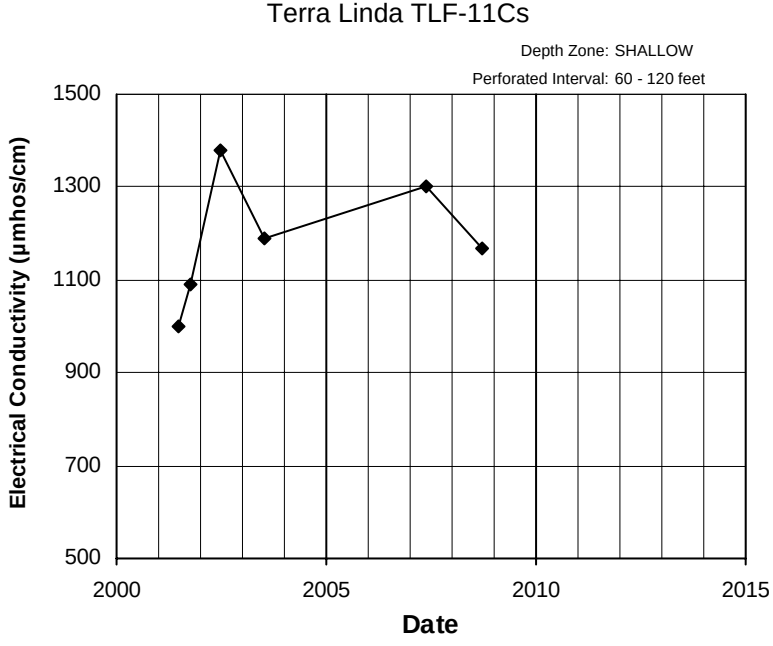
Terra Linda TLF-8s



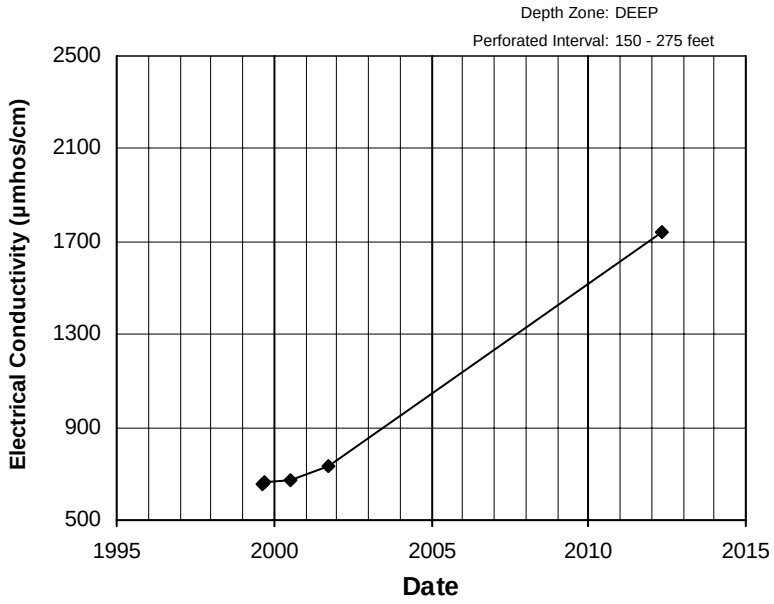

Terra Linda TLF-9s
Depth Zone: SHALLOW
Perforated Interval: 50 - 90 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date


Terra Linda TLF-10s
Depth Zone: SHALLOW
Perforated Interval: 50 - 120 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date

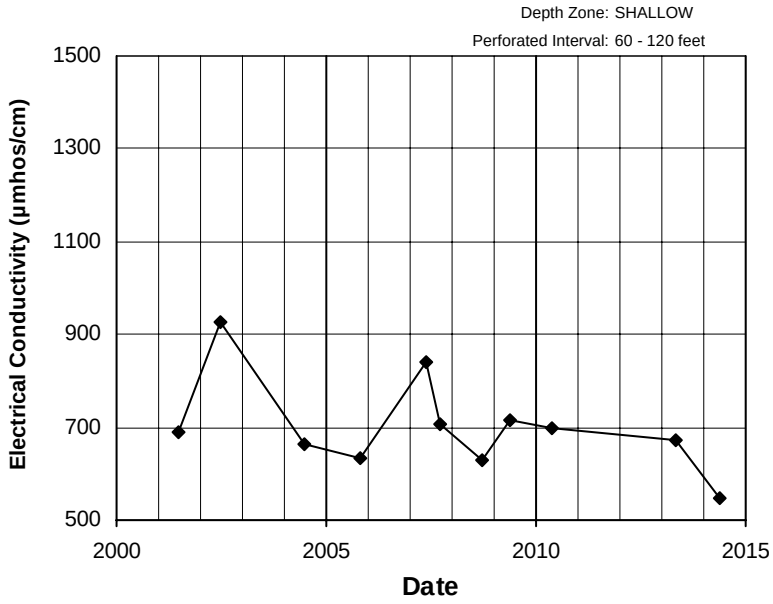

Terra Linda TLF-11As
Depth Zone: SHALLOW
Perforated Interval: 50 - 120 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date


Terra Linda TLF-11Cs
Depth Zone: SHALLOW
Perforated Interval: 60 - 120 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date

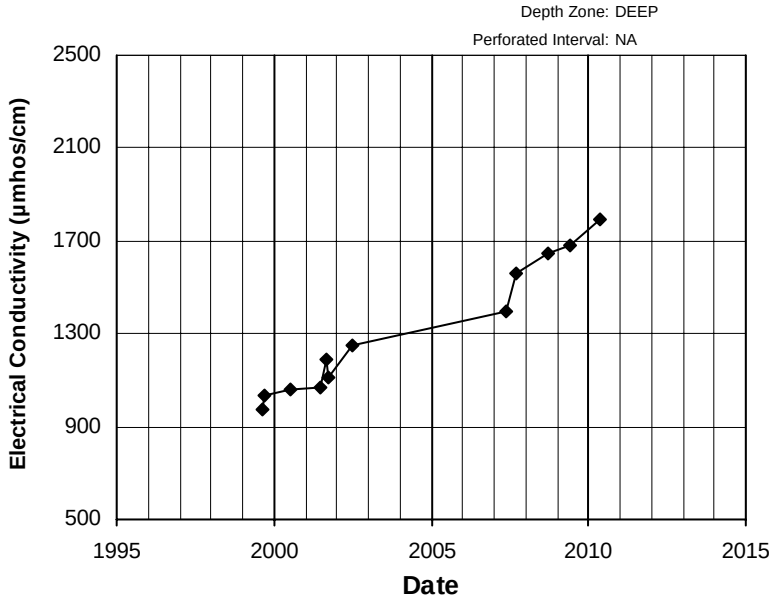
Terra Linda TLF-12d



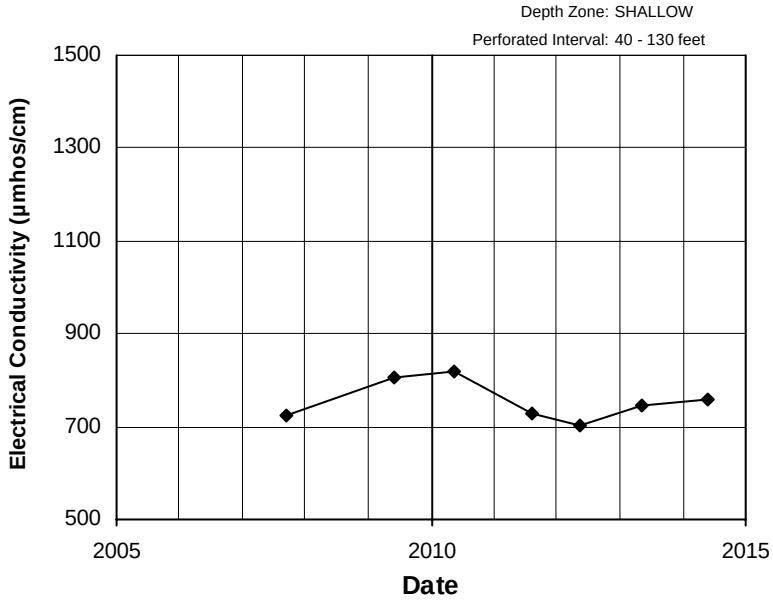
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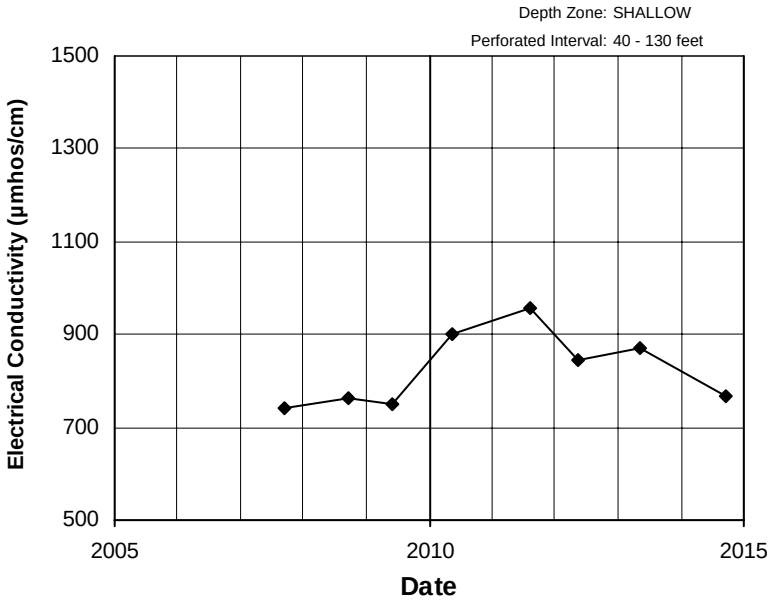
Terra Linda TLF-14d



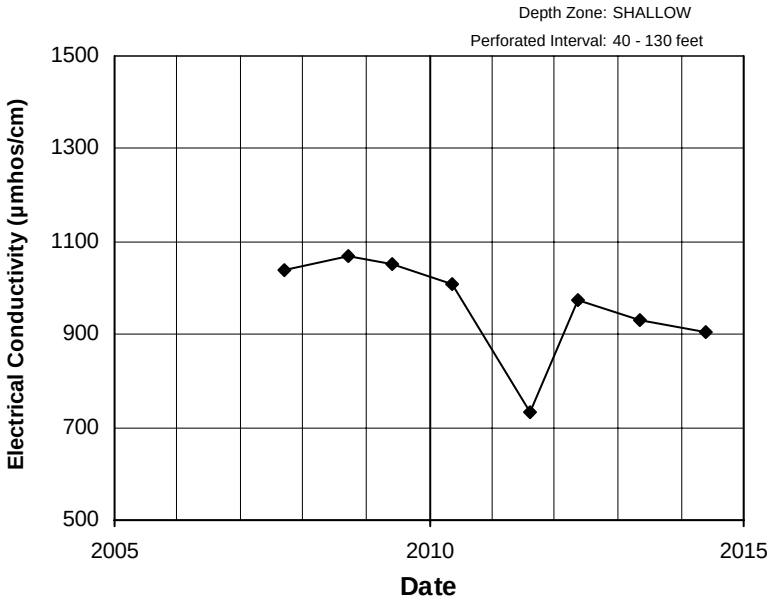
Terra Linda TLF-15s



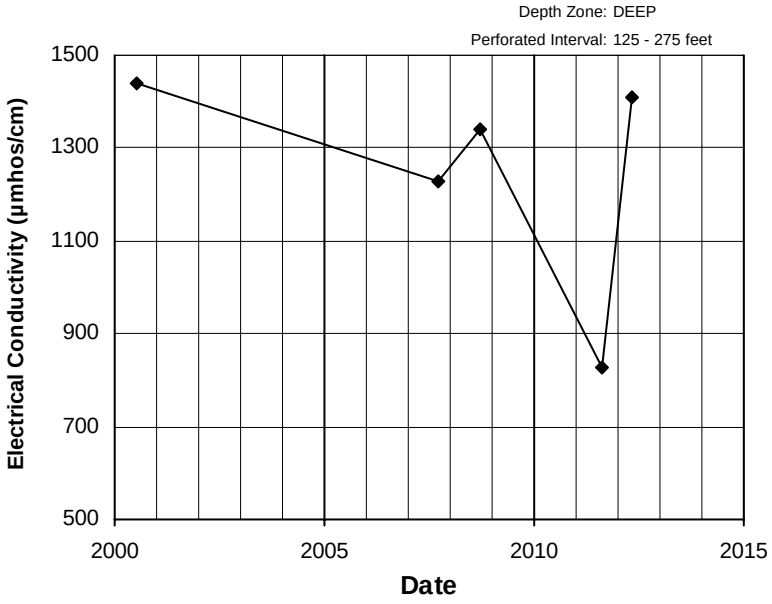
Terra Linda TLF-16s



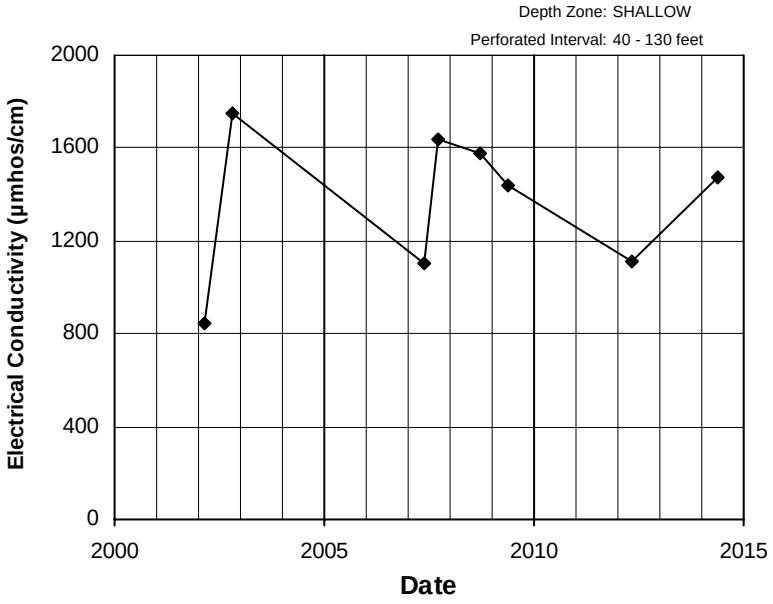
Terra Linda TLF-17s



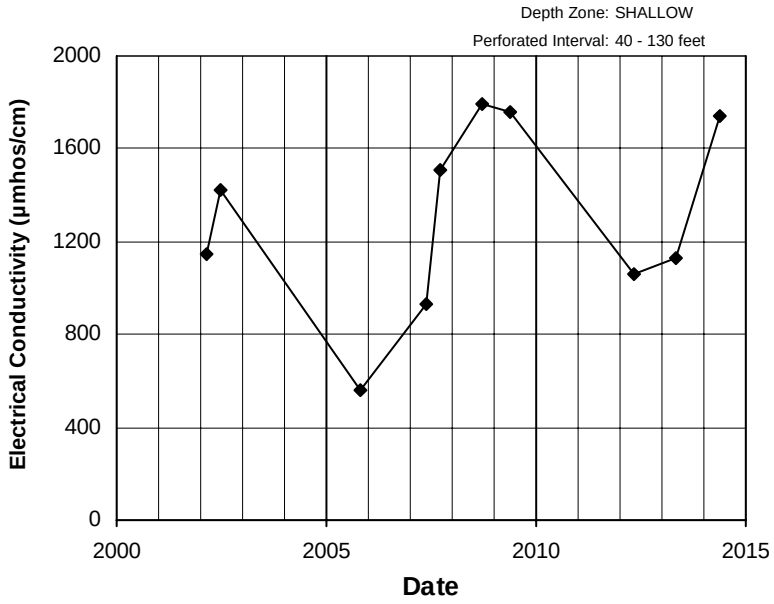
Terra Linda TLF-18d



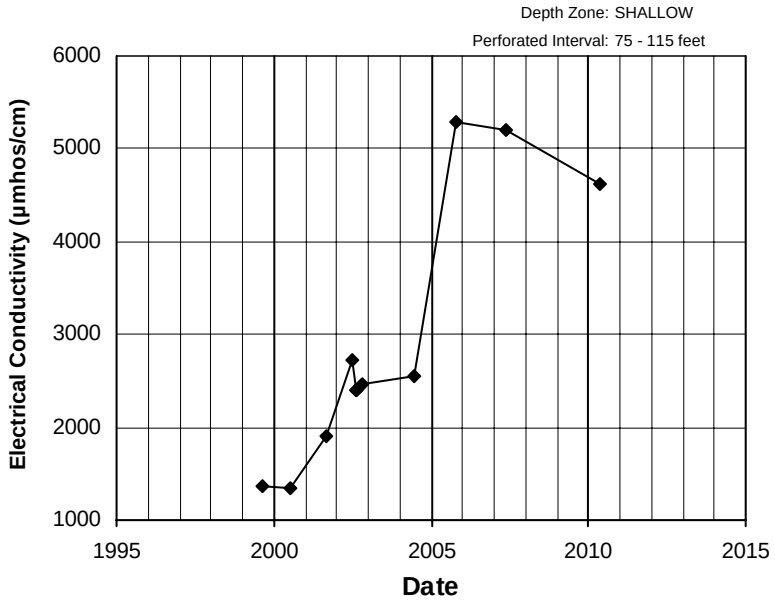
Silver Creek Packing Well 3B



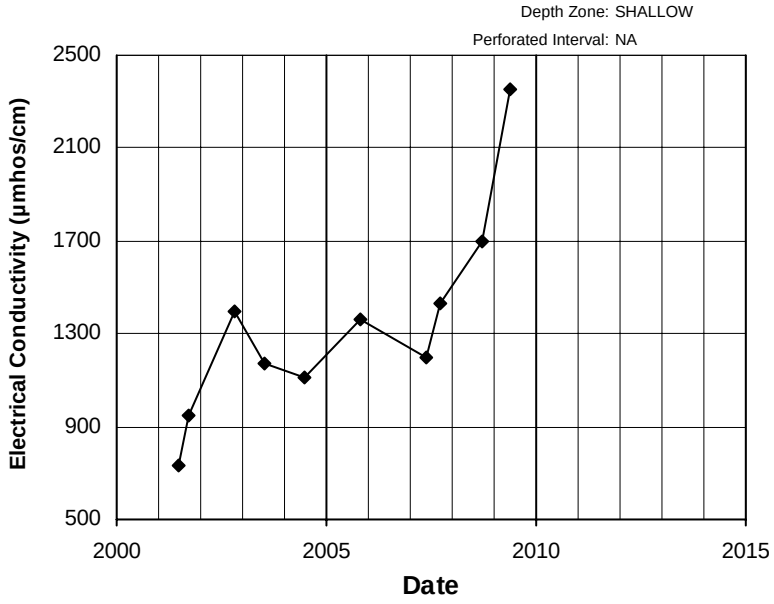
Silver Creek Packing Well 4B



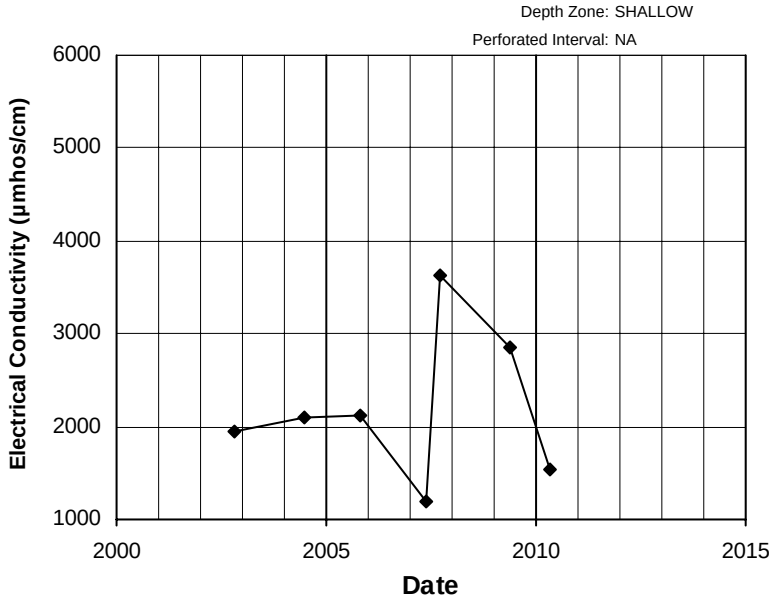
Coelho/Gardner/Hanson CGH-2 (CGH-1s)



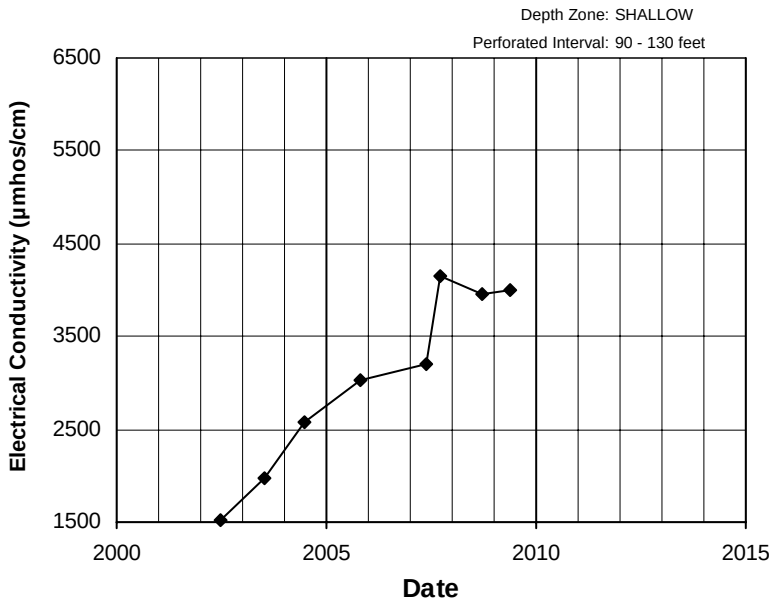
Coelho/Gardner/Hanson CGH-1C (CGH-2s)



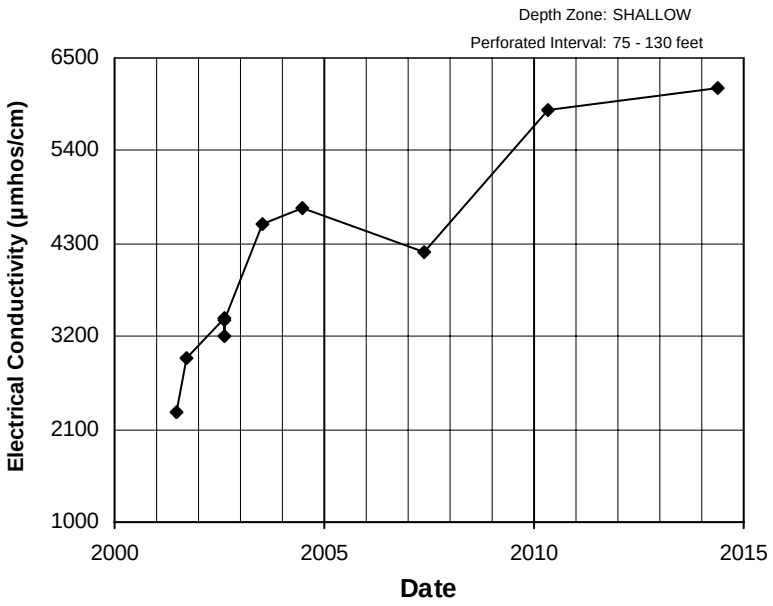
Coelho/Gardner/Hanson CGH-1B (CGH-3s)



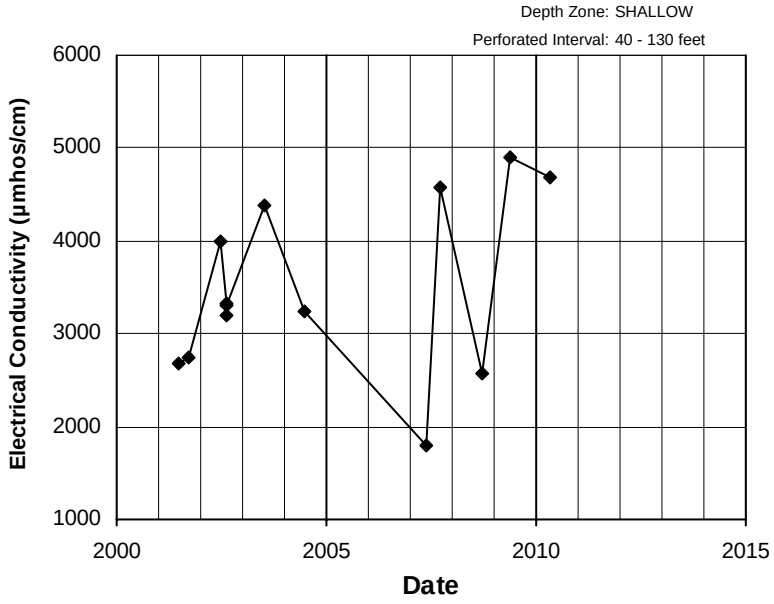
Coelho/Gardner/Hanson CGH-1A (CGH-4s)



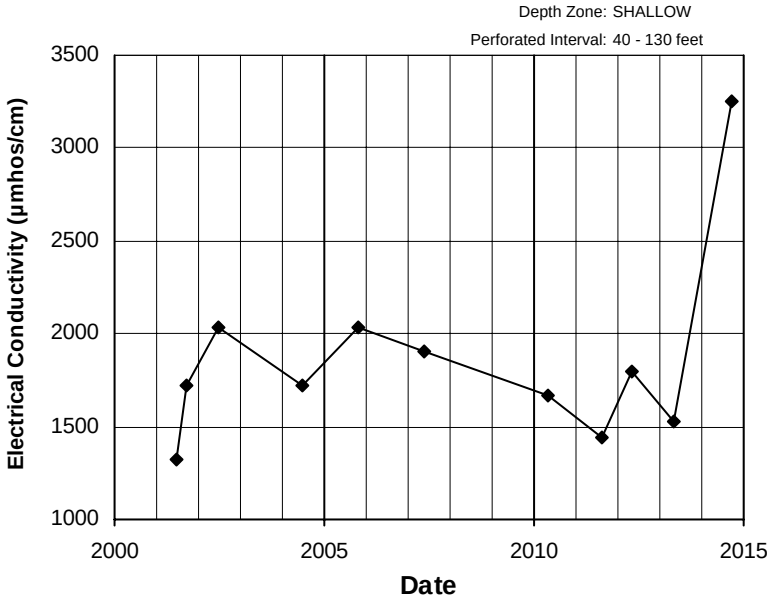
Coelho/Gardner/Hanson CGH-3 (CGH-5s)

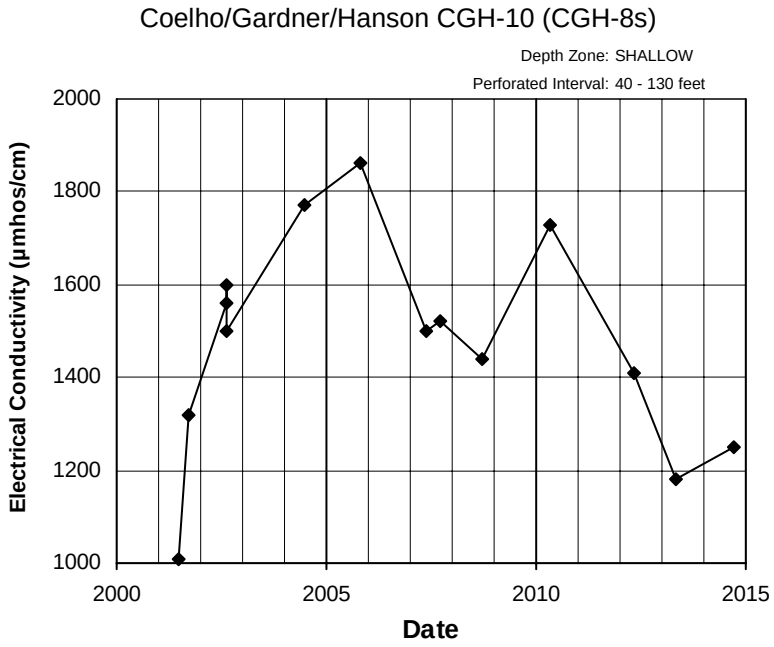


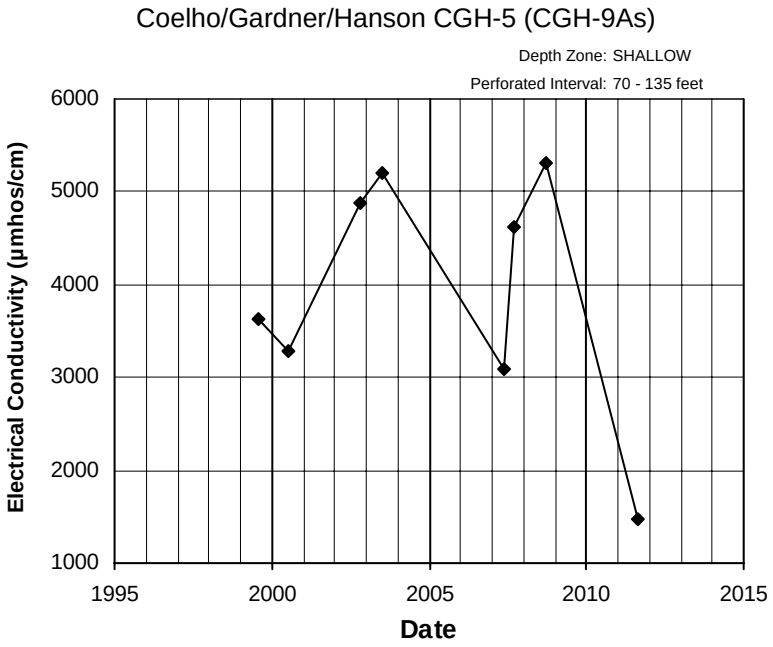
Coelho/Gardner/Hanson CGH-11 (CGH-6s)

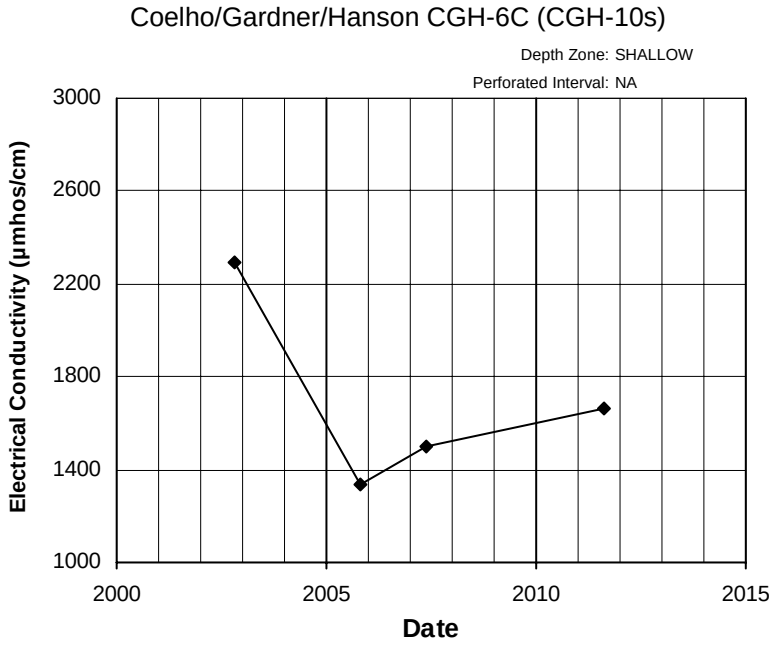


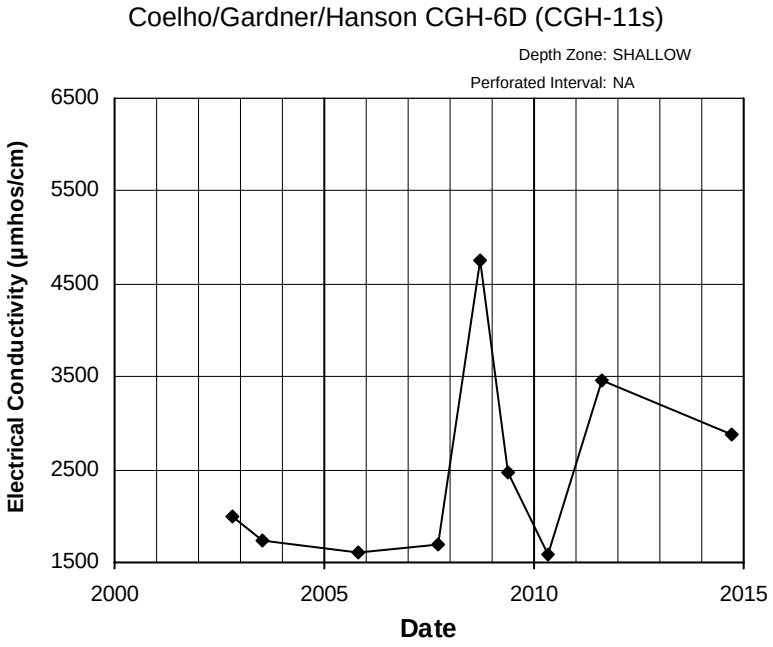
Coelho/Gardner/Hanson CGH-9 (CGH-7s)



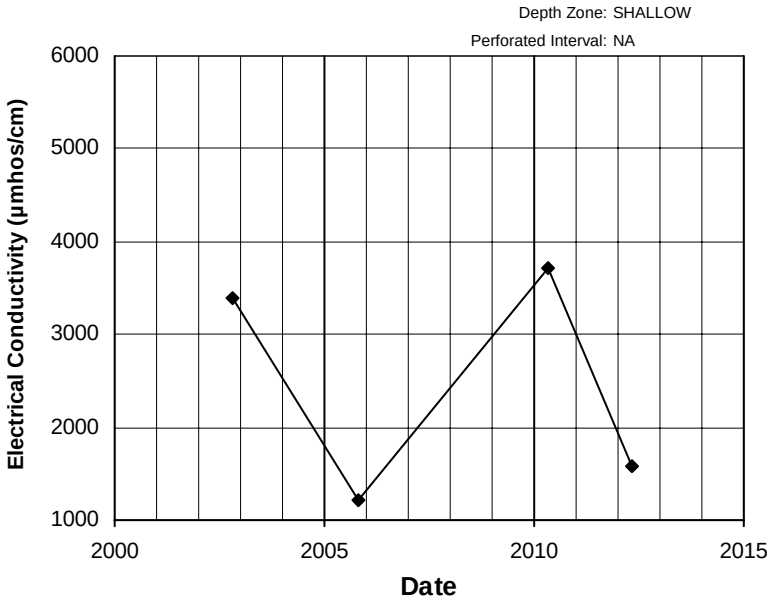

Coelho/Gardner/Hanson CGH-10 (CGH-8s)
Depth Zone: SHALLOW
Perforated Interval: 40 - 130 feet
Electrical Conductivity (µmhos/cm)
2000
1800
1600
1400
1200
1000
2000
2005
2010
2015
Date


Coelho/Gardner/Hanson CGH-5 (CGH-9As)
Depth Zone: SHALLOW
Perforated Interval: 70 - 135 feet
Electrical Conductivity (µmhos/cm)
6000
5000
4000
3000
2000
1000
1995
2000
2005
2010
2015
Date

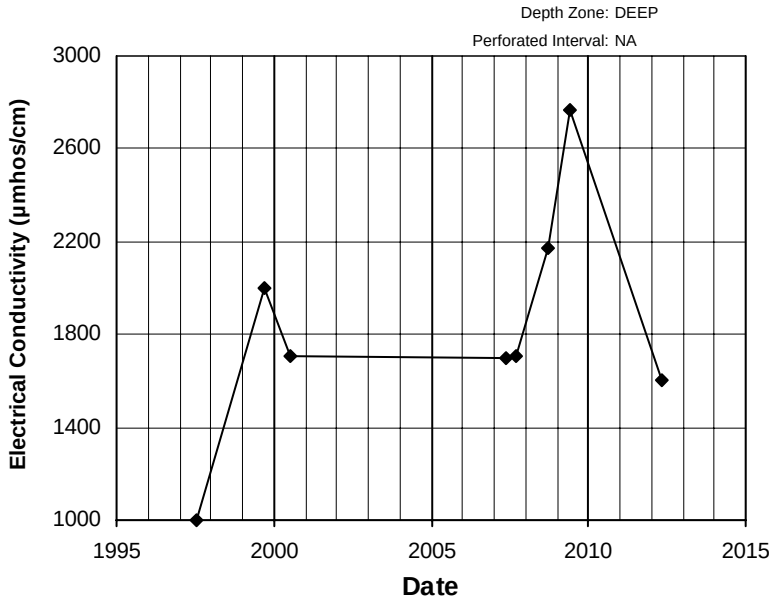

Coelho/Gardner/Hanson CGH-6C (CGH-10s)
Depth Zone: SHALLOW
Perforated Interval: NA
Electrical Conductivity (µmhos/cm)
3000
2600
2200
1800
1400
1000
2000
2005
2010
2015
Date


Coelho/Gardner/Hanson CGH-6D (CGH-11s)
Depth Zone: SHALLOW
Perforated Interval: NA
Electrical Conductivity (µmhos/cm)
6500
5500
4500
3500
2500
1500
2000
2005
2010
2015
Date

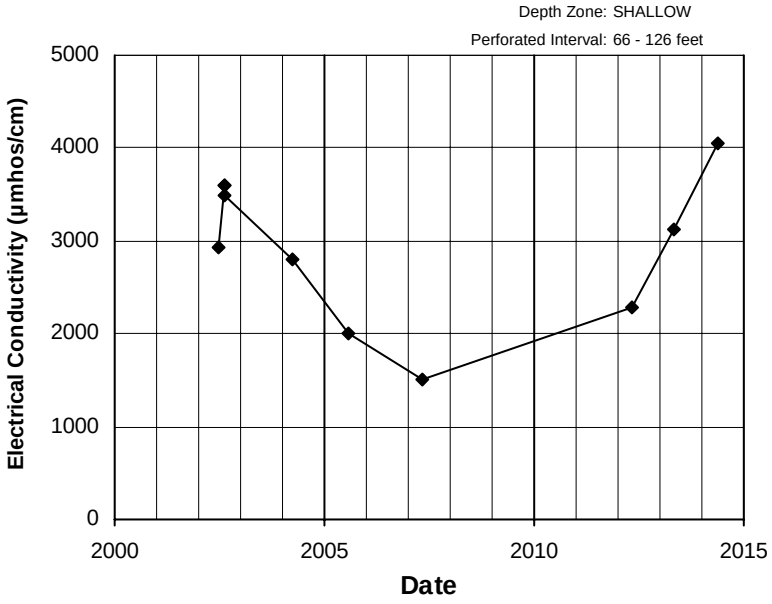
Coelho/Gardner/Hanson CGH-6B (CGH-12s)



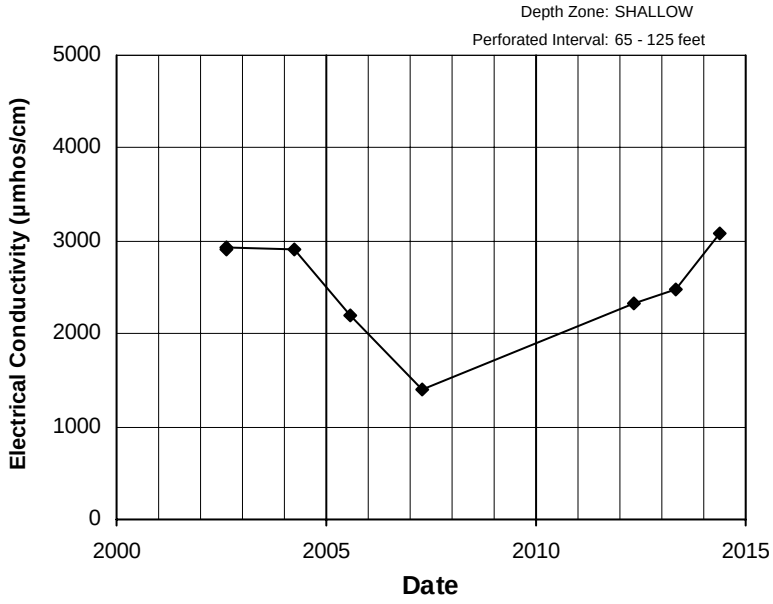
Coelho/Gardner/Hanson CGH-7 (CGH-13d)

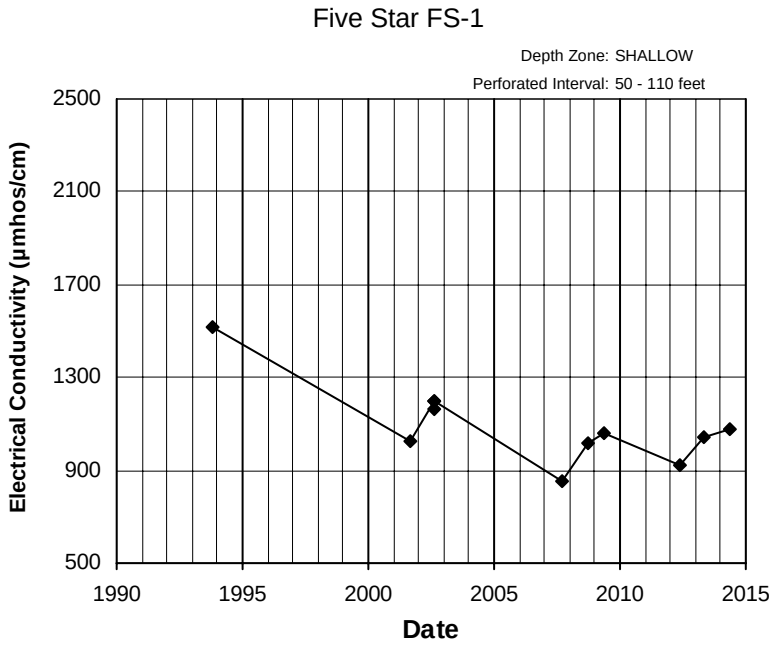


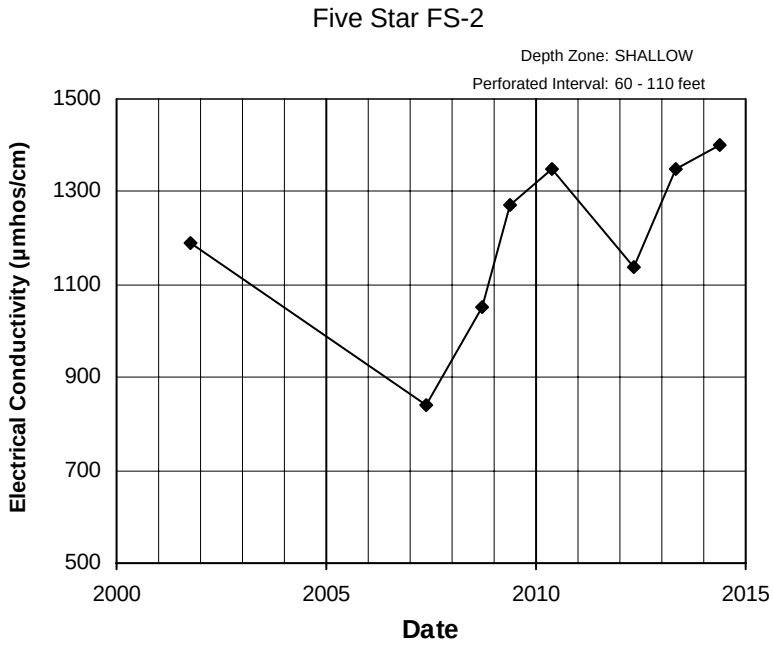
Meyers Farming MS-6

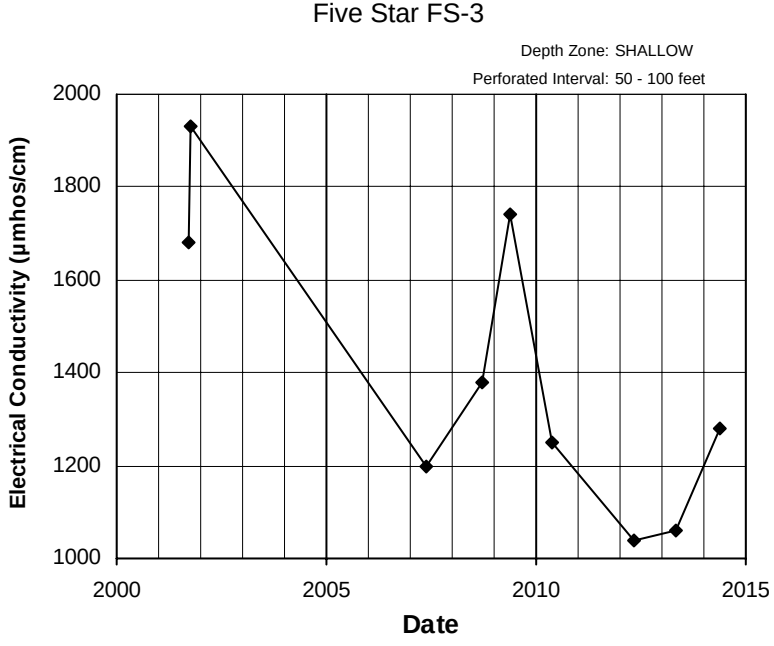


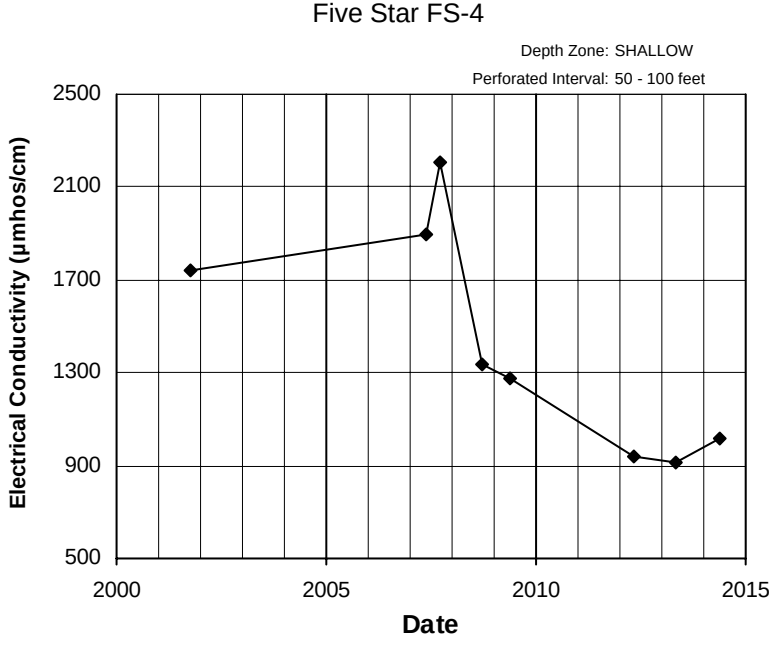
Meyers Farming MS-7

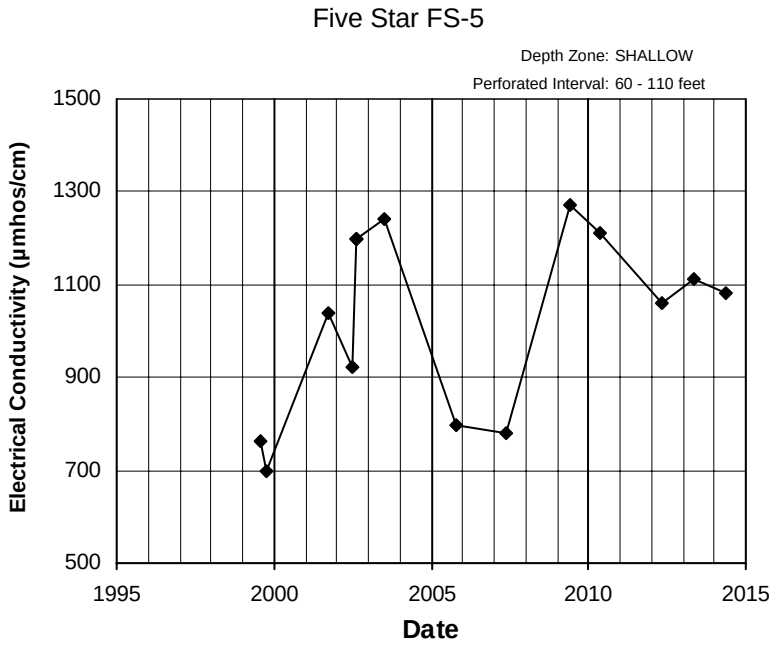


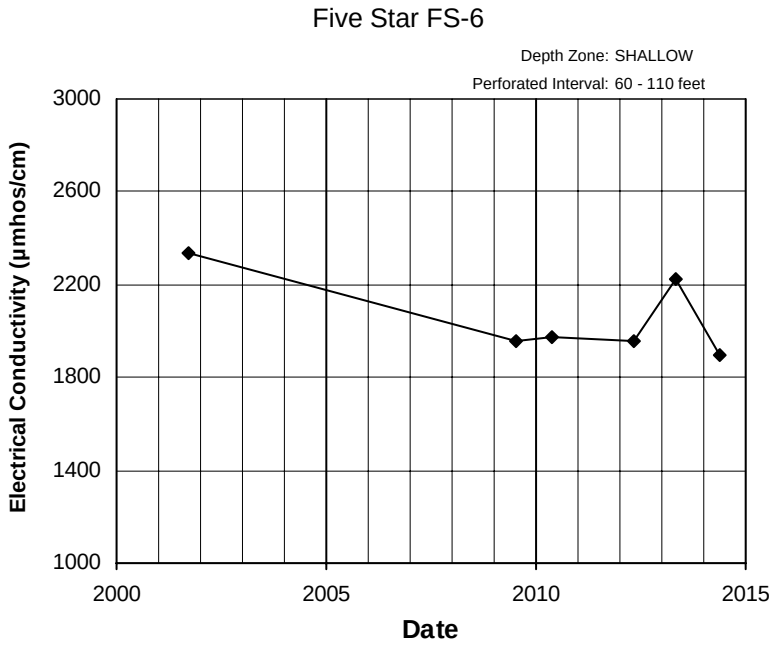

Five Star FS-1
Depth Zone: SHALLOW
Perforated Interval: 50 - 110 feet
Electrical Conductivity (µmhos/cm)
2500
2100
1700
1300
900
500
1990
1995
2000
2005
2010
2015
Date

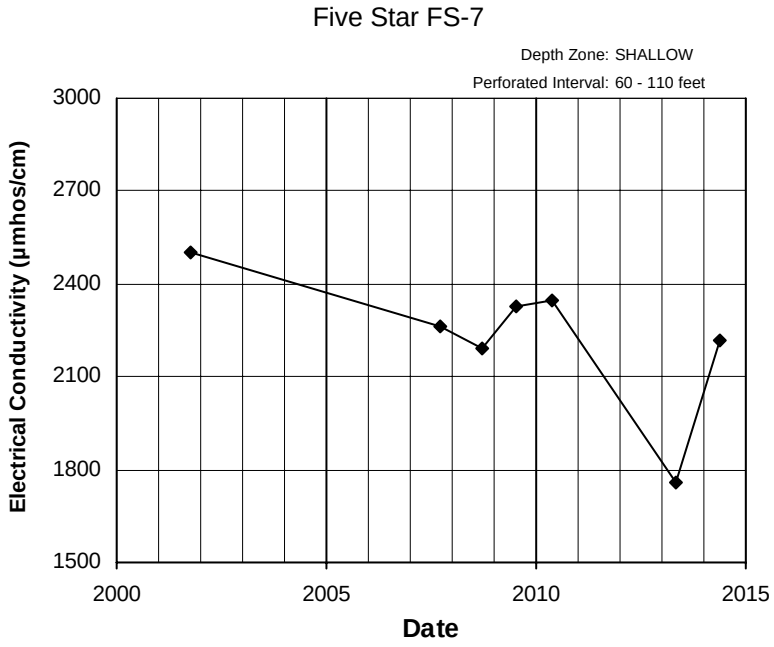

Five Star FS-2
Depth Zone: SHALLOW
Perforated Interval: 60 - 110 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date

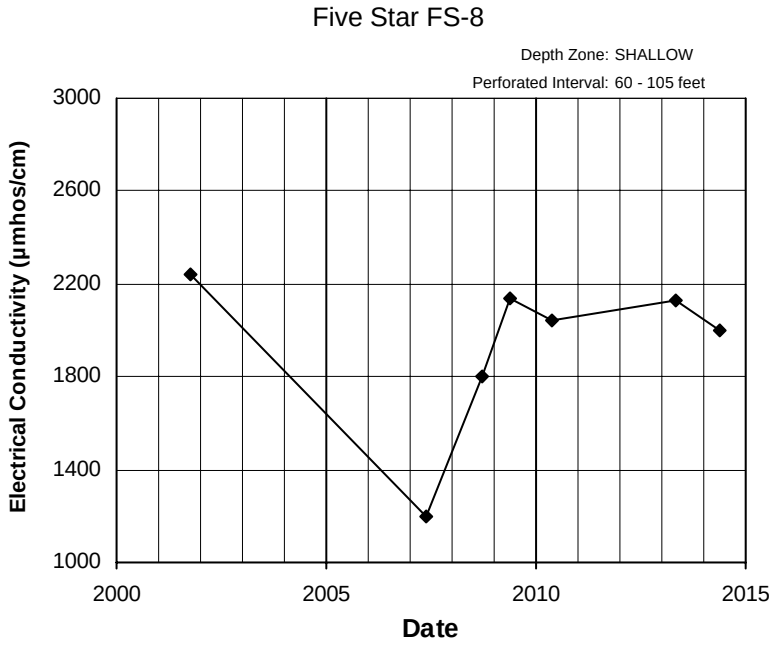

Five Star FS-3
Depth Zone: SHALLOW
Perforated Interval: 50 - 100 feet
Electrical Conductivity (µmhos/cm)
2000
1800
1600
1400
1200
1000
2000
2005
2010
2015
Date


Five Star FS-4
Depth Zone: SHALLOW
Perforated Interval: 50 - 100 feet
Electrical Conductivity (µmhos/cm)
2500
2100
1700
1300
900
500
2000
2005
2010
2015
Date

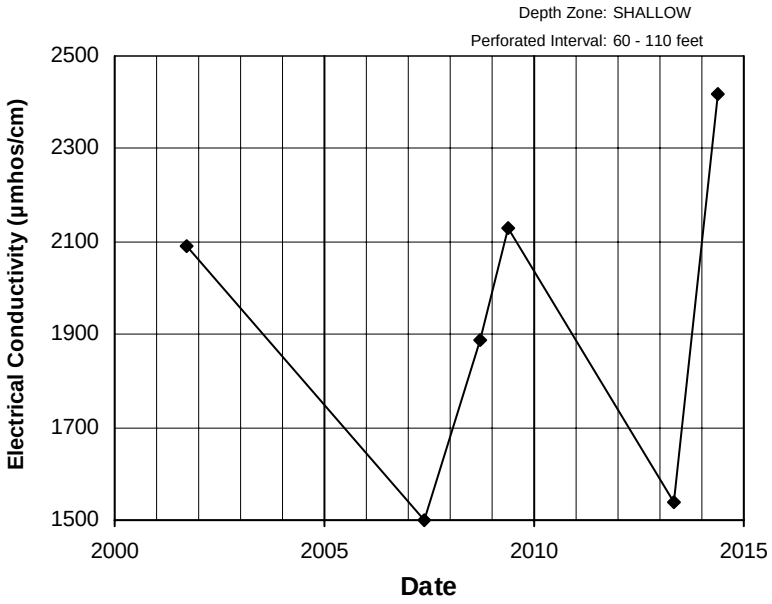

Five Star FS-5
Depth Zone: SHALLOW
Perforated Interval: 60 - 110 feet
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
1995
2000
2005
2010
2015
Date


Five Star FS-6
Depth Zone: SHALLOW
Perforated Interval: 60 - 110 feet
Electrical Conductivity (µmhos/cm)
3000
2600
2200
1800
1400
1000
2000
2005
2010
2015
Date

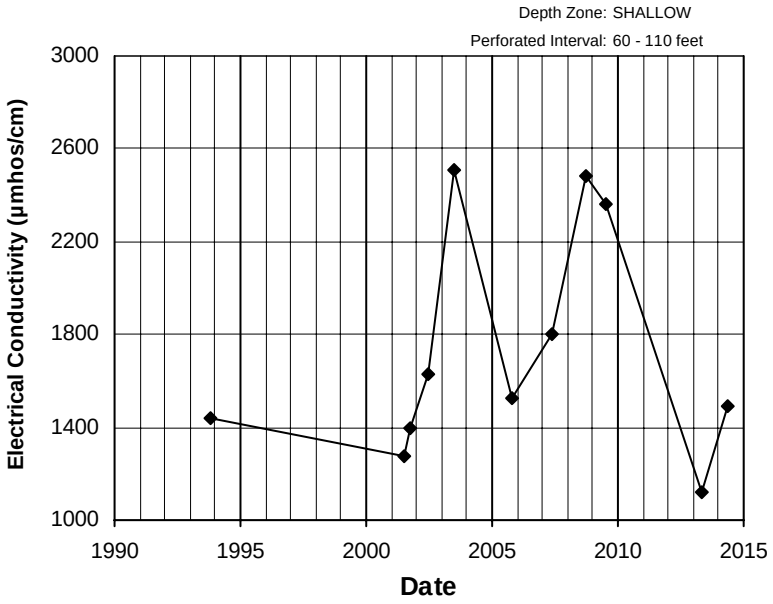

Five Star FS-7
Depth Zone: SHALLOW
Perforated Interval: 60 - 110 feet
Electrical Conductivity (µmhos/cm)
3000
2700
2400
2100
1800
1500
2000
2005
2010
2015
Date


Five Star FS-8
Depth Zone: SHALLOW
Perforated Interval: 60 - 105 feet
Electrical Conductivity (µmhos/cm)
3000
2600
2200
1800
1400
1000
2000
2005
2010
2015
Date

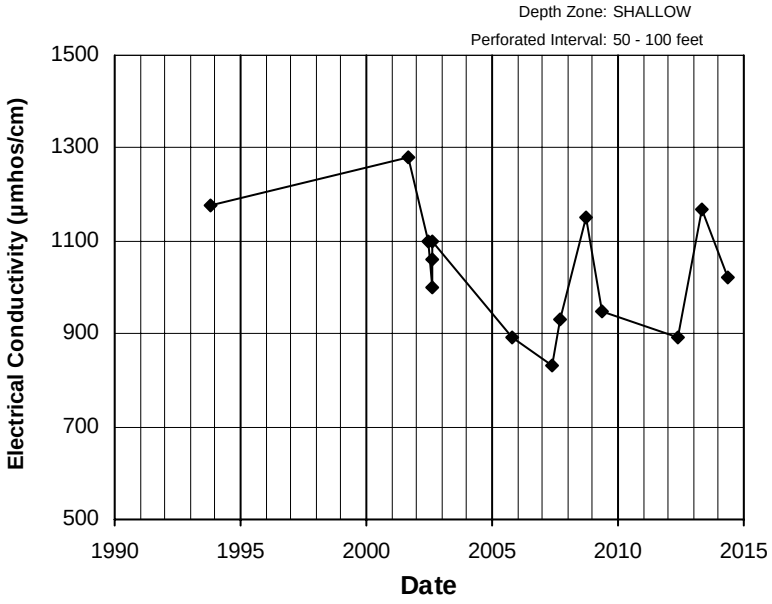
Five Star FS-9



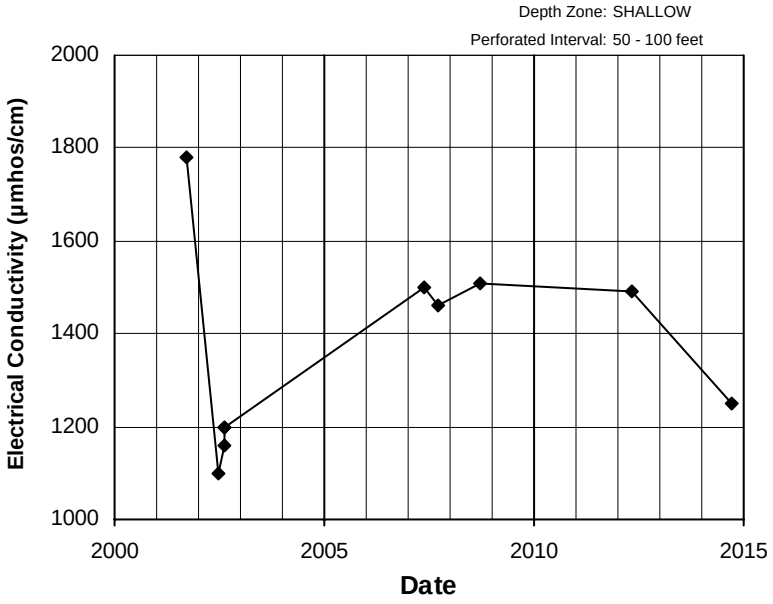
Five Star FS-10



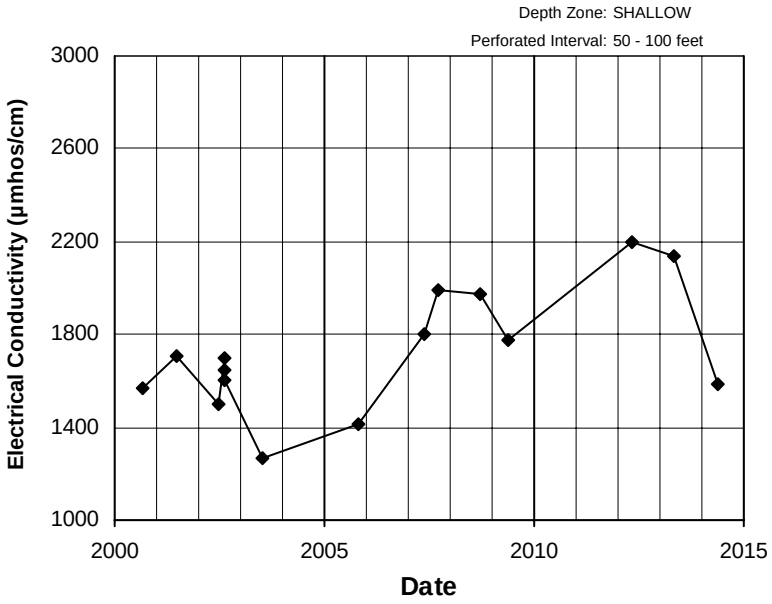
Coelho West CW-1



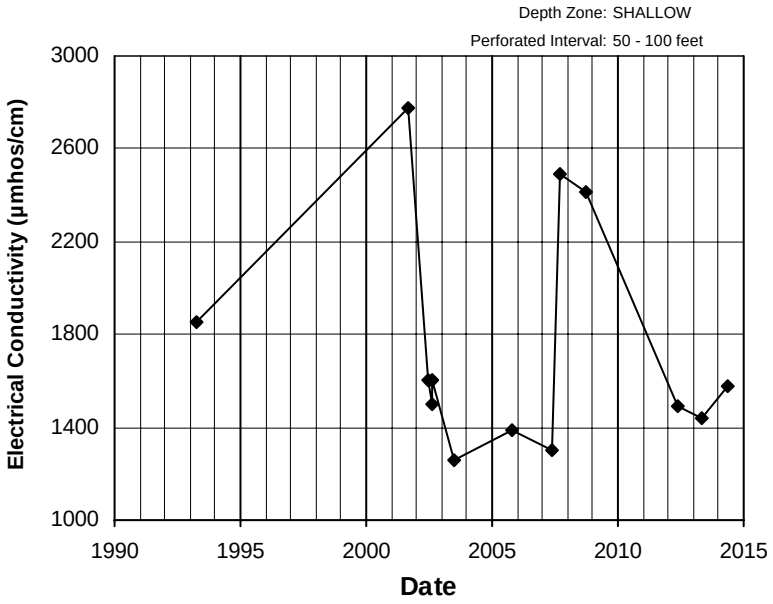
Coelho West CW-2



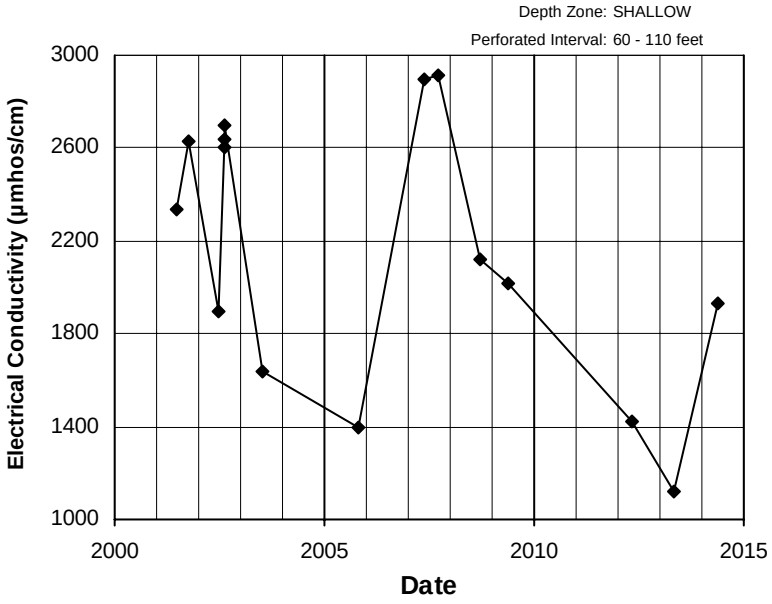
Coelho West CW-3



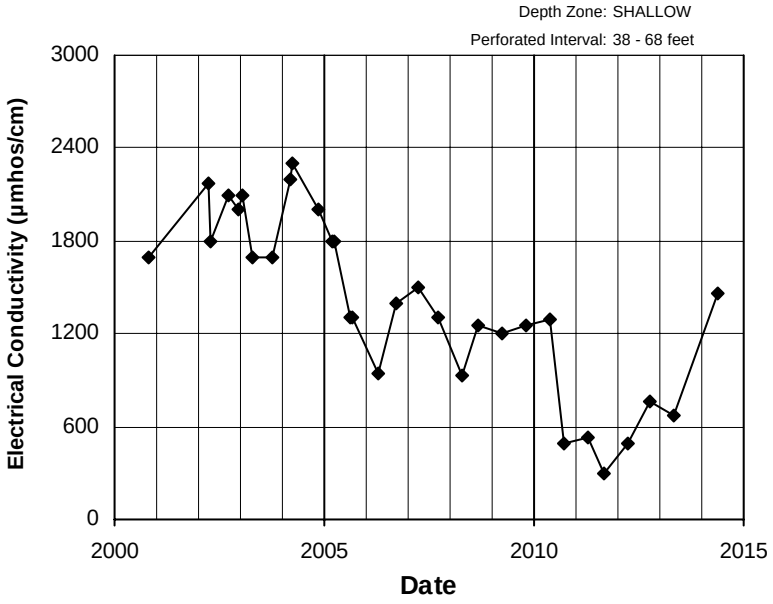
Coelho West CW-4

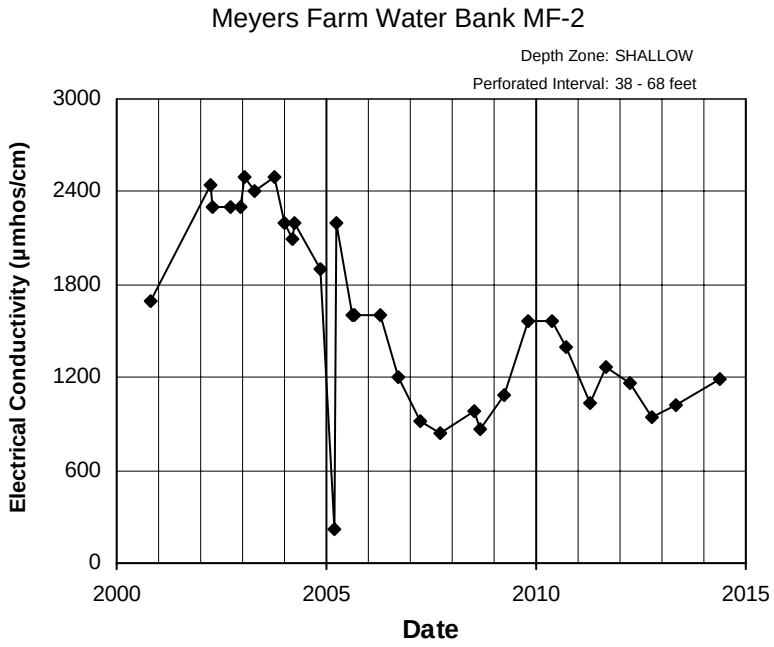


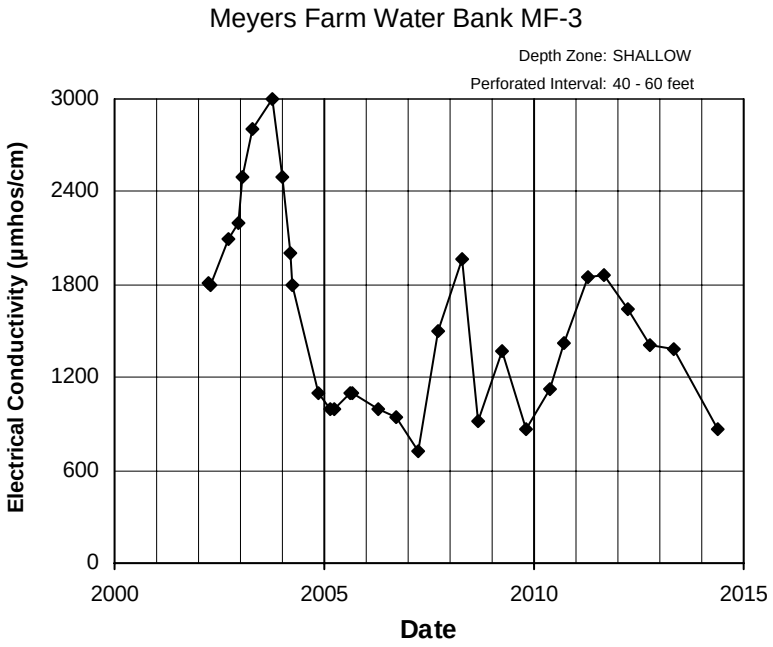
Coelho West CW-5

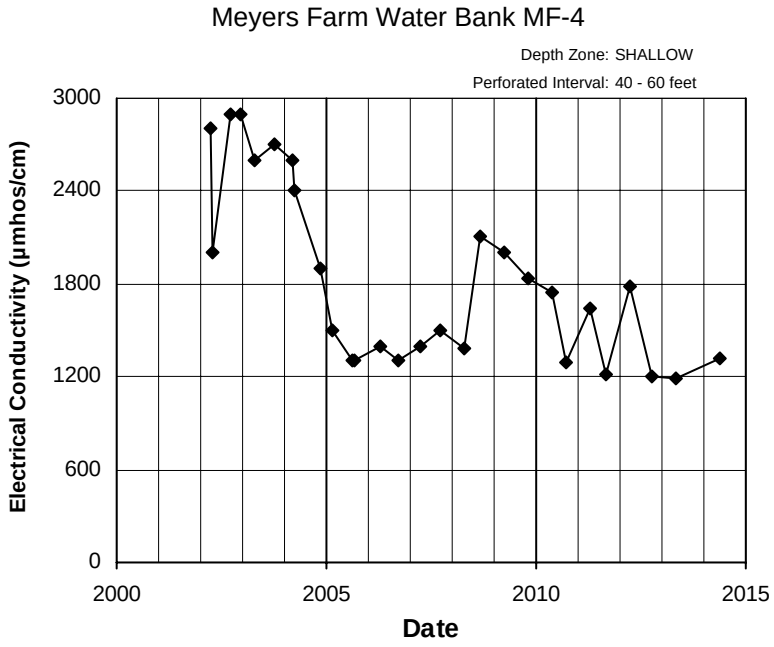


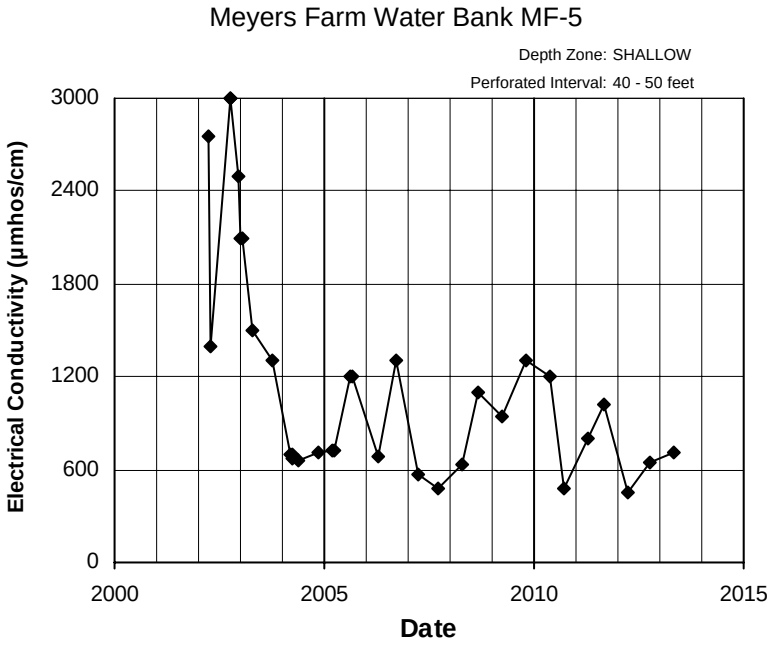
Meyers Farm Water Bank MF-1

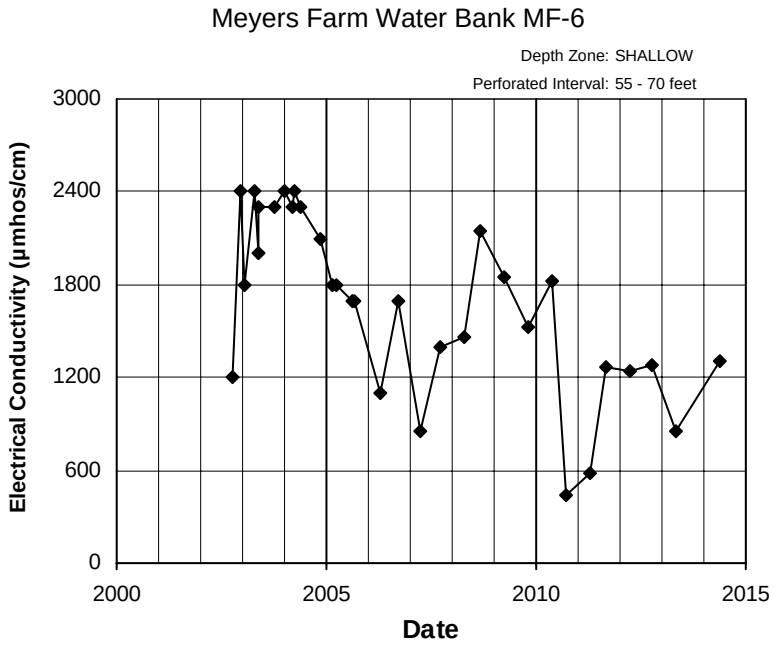


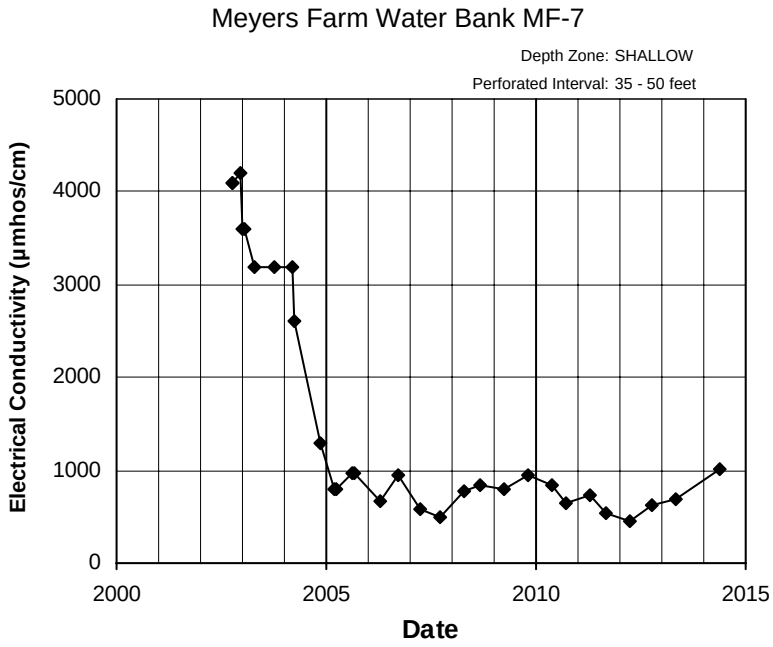

Meyers Farm Water Bank MF-2
Depth Zone: SHALLOW
Perforated Interval: 38 - 68 feet
Electrical Conductivity (µmhos/cm)
3000
2400
1800
1200
600
0
2000
2005
2010
2015
Date

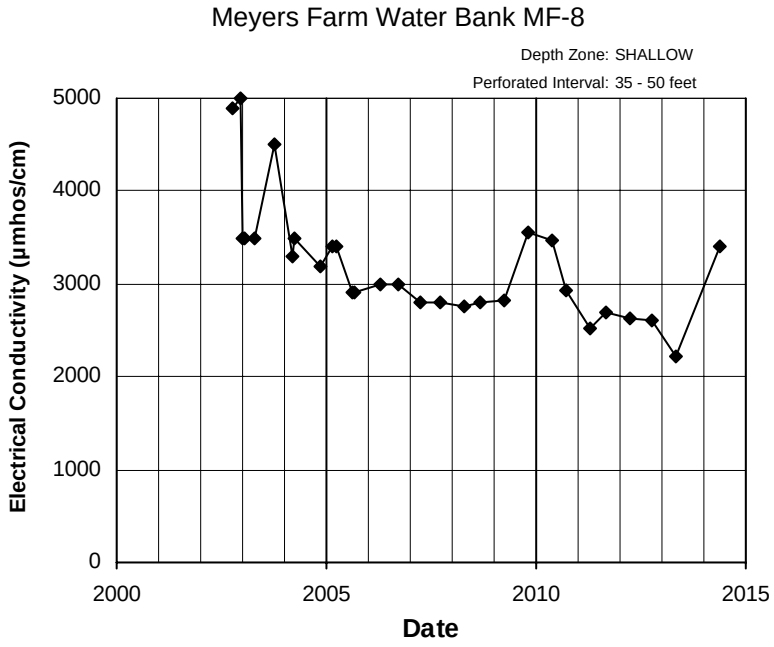

Meyers Farm Water Bank MF-3
Depth Zone: SHALLOW
Perforated Interval: 40 - 60 feet
Electrical Conductivity (µmhos/cm)
3000
2400
1800
1200
600
0
2000
2005
2010
2015
Date

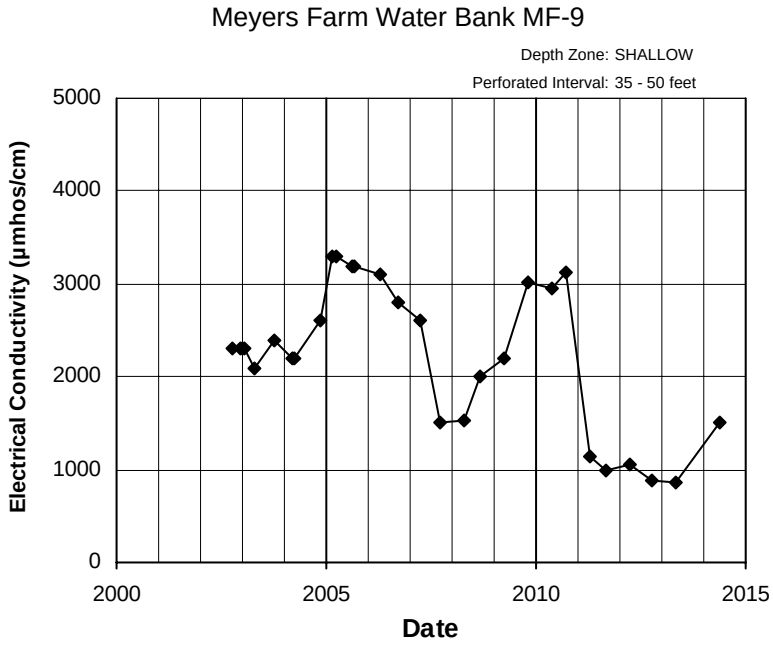

Meyers Farm Water Bank MF-4
Depth Zone: SHALLOW
Perforated Interval: 40 - 60 feet
Electrical Conductivity (µmhos/cm)
3000
2400
1800
1200
600
0
2000
2005
2010
2015
Date


Meyers Farm Water Bank MF-5
Depth Zone: SHALLOW
Perforated Interval: 40 - 50 feet
Electrical Conductivity (µmhos/cm)
3000
2400
1800
1200
600
0
2000
2005
2010
2015
Date

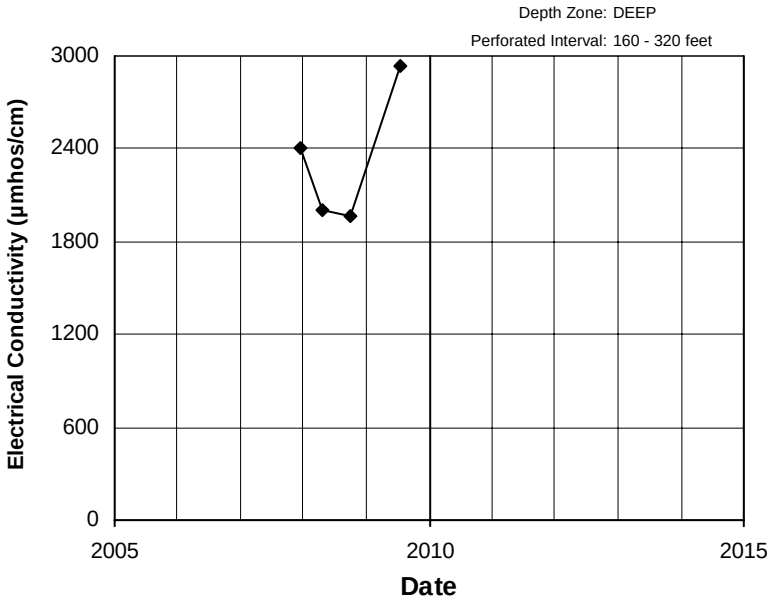

Meyers Farm Water Bank MF-6
Depth Zone: SHALLOW
Perforated Interval: 55 - 70 feet
Electrical Conductivity (µmhos/cm)
3000
2400
1800
1200
600
0
2000
2005
2010
2015
Date


Meyers Farm Water Bank MF-7
Depth Zone: SHALLOW
Perforated Interval: 35 - 50 feet
Electrical Conductivity (µmhos/cm)
5000
4000
3000
2000
1000
0
2000
2005
2010
2015
Date

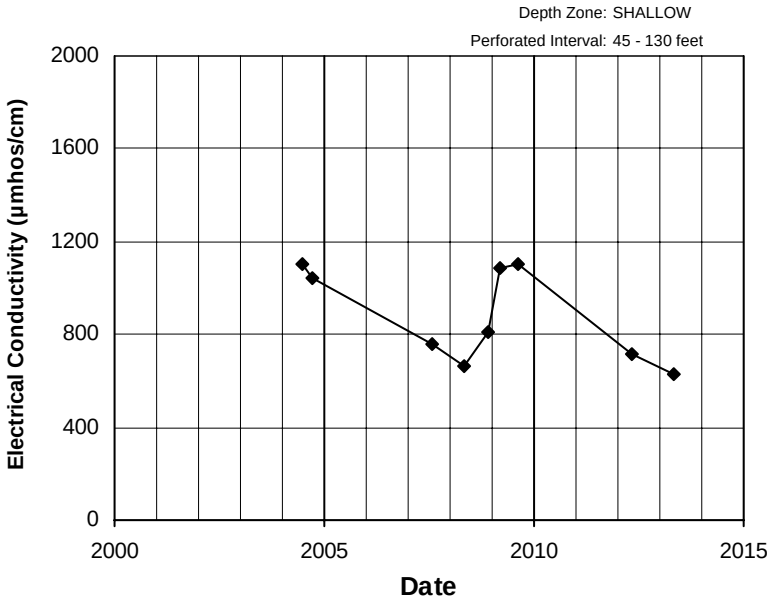

Meyers Farm Water Bank MF-8
Depth Zone: SHALLOW
Perforated Interval: 35 - 50 feet
Electrical Conductivity (µmhos/cm)
5000
4000
3000
2000
1000
0
2000
2005
2010
2015
Date


Meyers Farm Water Bank MF-9
Depth Zone: SHALLOW
Perforated Interval: 35 - 50 feet
Electrical Conductivity (µmhos/cm)
5000
4000
3000
2000
1000
0
2000
2005
2010
2015
Date

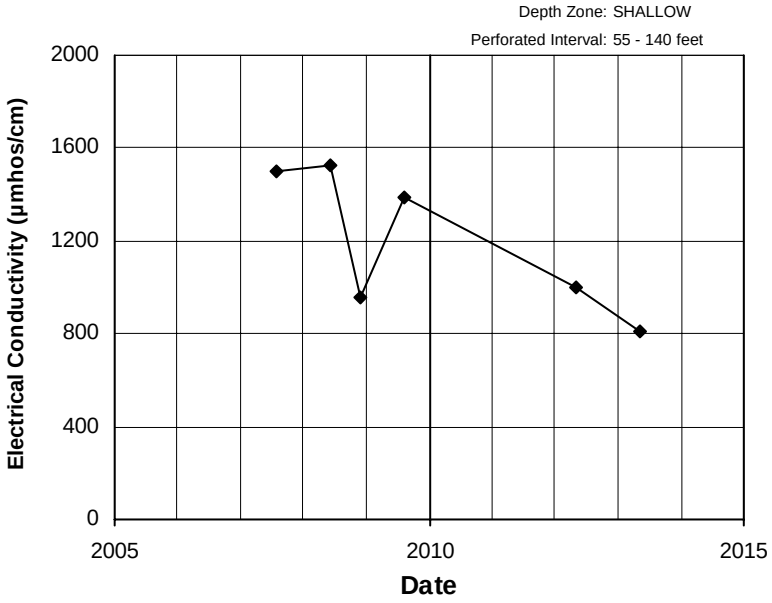
Meyers Farm Water Bank DW-1



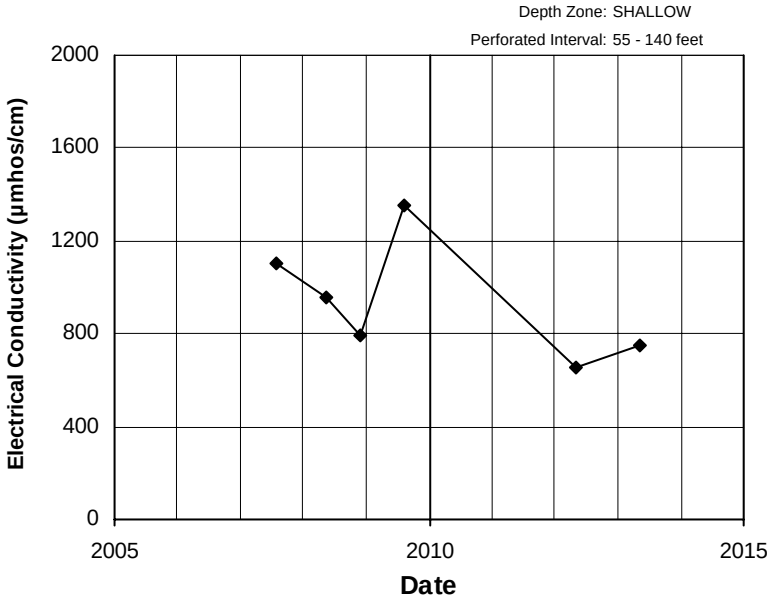
Meyers Farm Water Bank EW-1



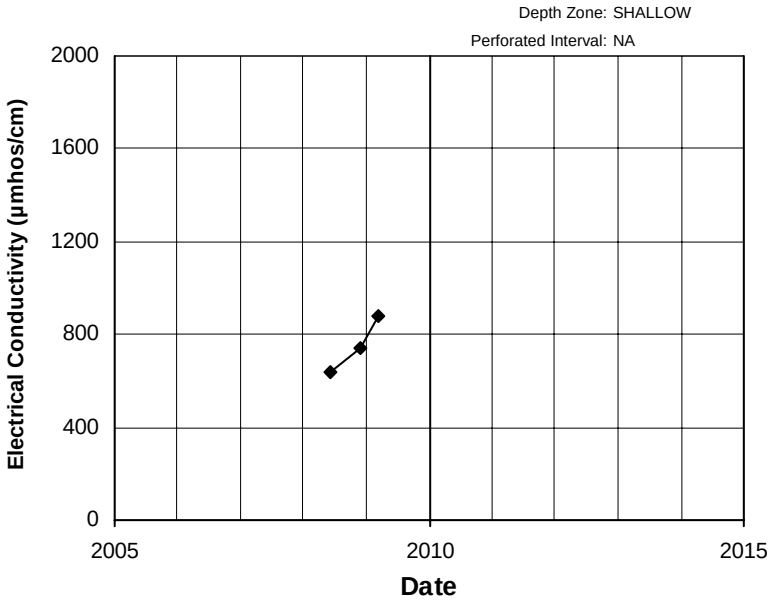
Meyers Farm Water Bank EW-2



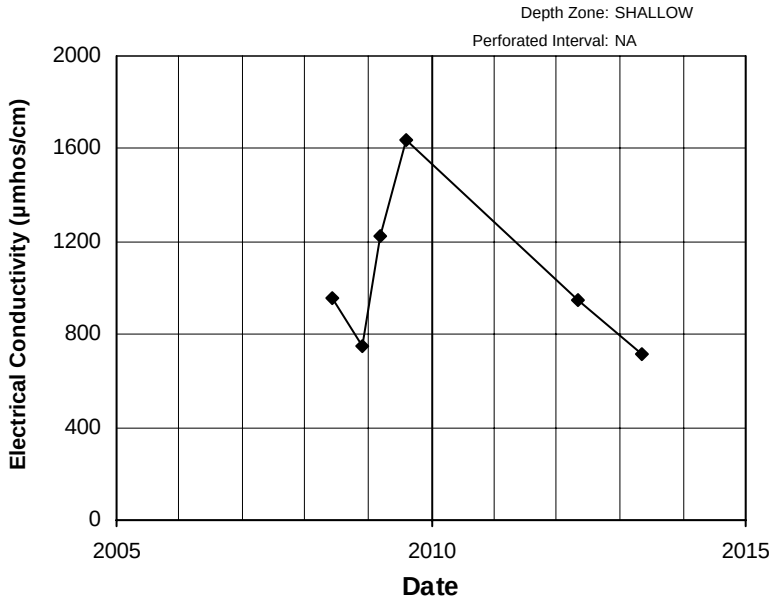
Meyers Farm Water Bank EW-3



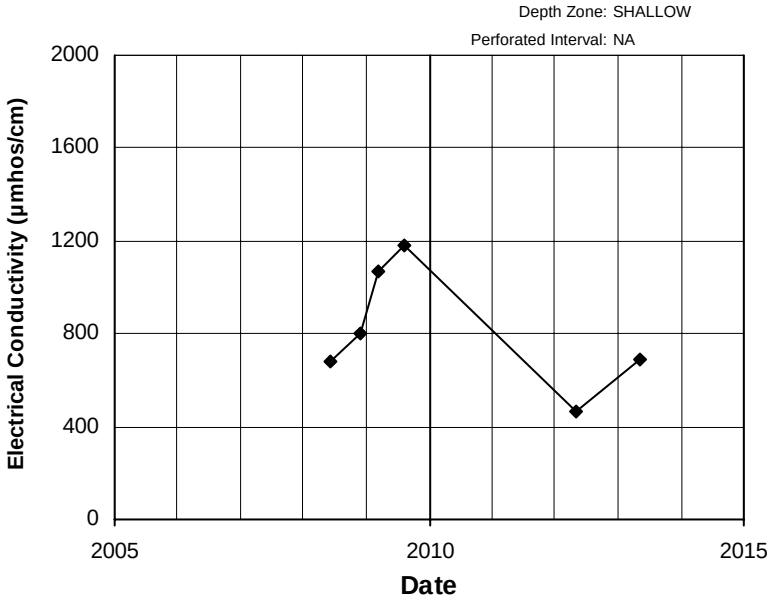
Meyers Farm Water Bank EW-4



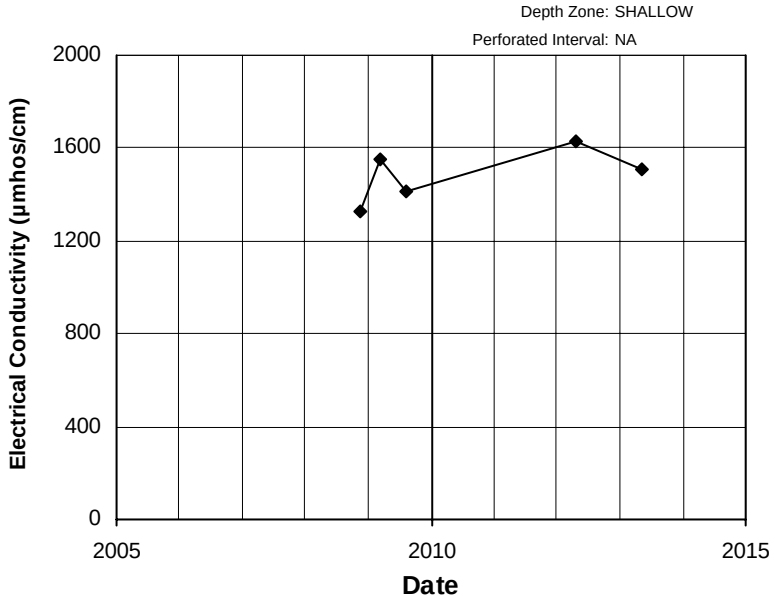
Meyers Farm Water Bank EW-5



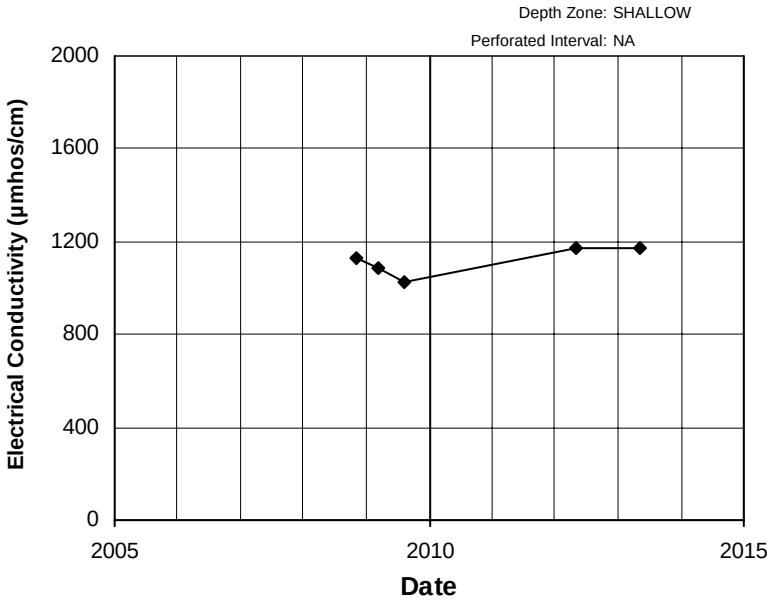
Meyers Farm Water Bank EW-6



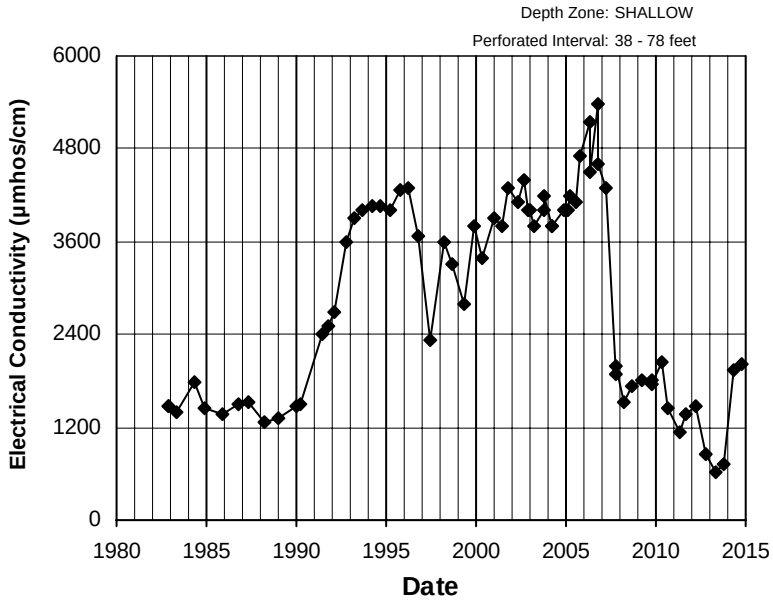
Meyers Farm Water Bank EW-7



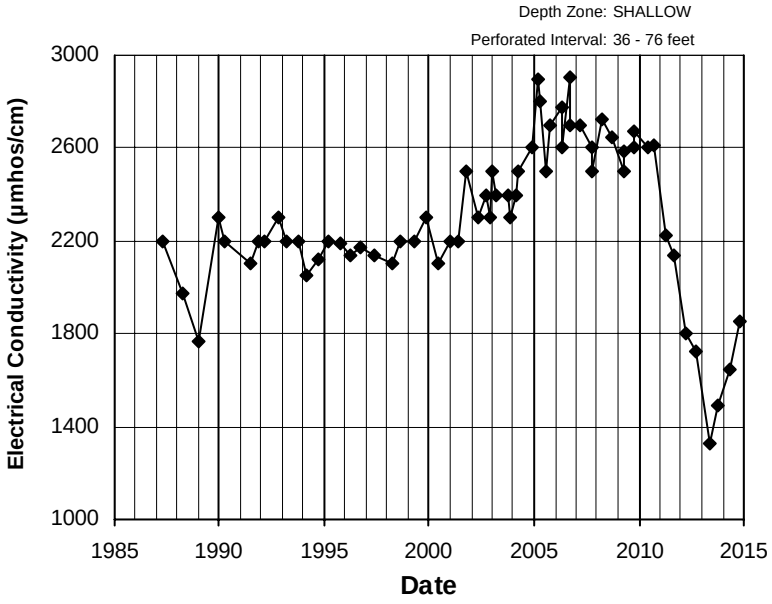
Meyers Farm Water Bank EW-8



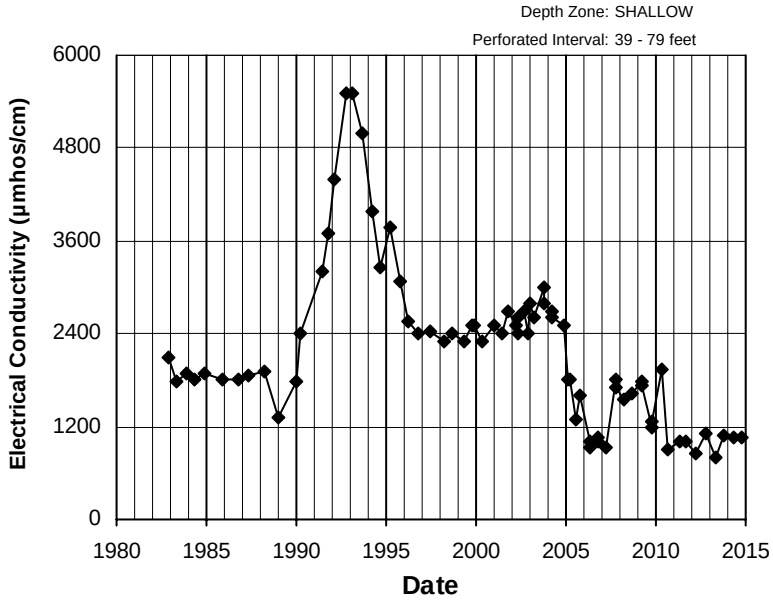
Spreckels Sugar Co. MW-1



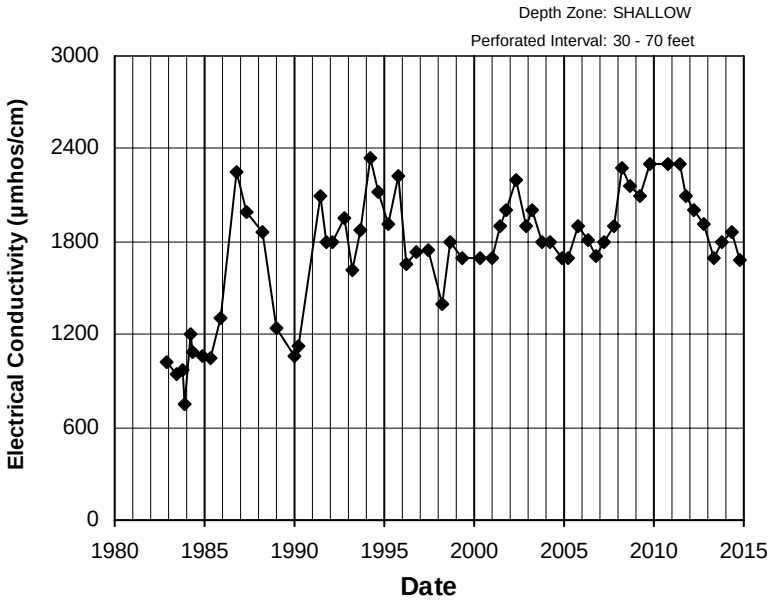
Spreckels Sugar Co. MW-2



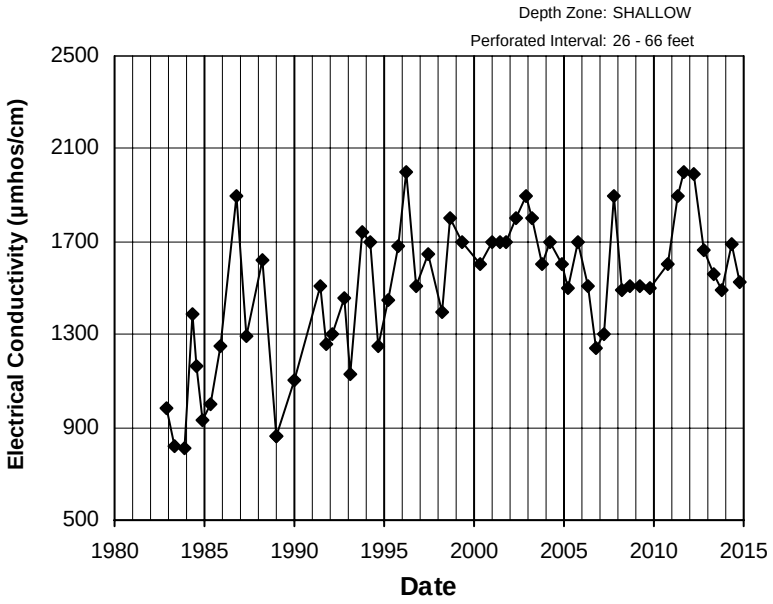
Spreckels Sugar Co. MW-3



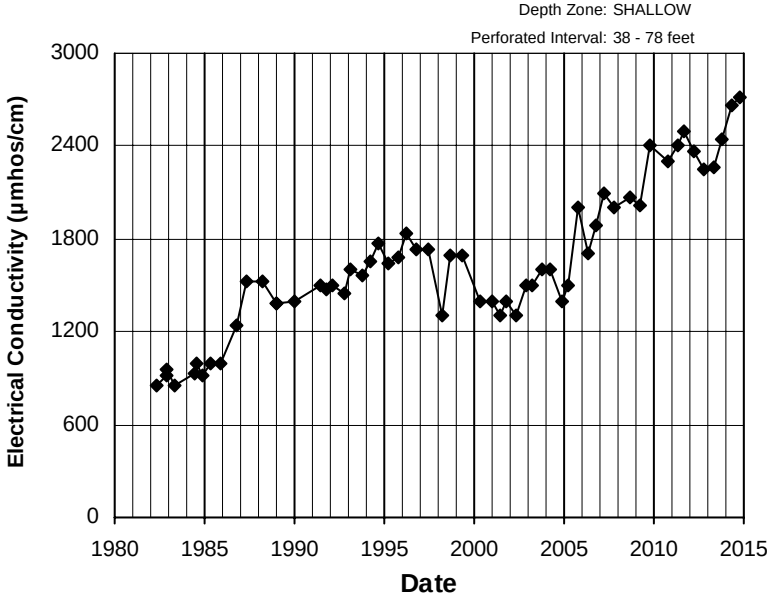
Spreckels Sugar Co. MW-4



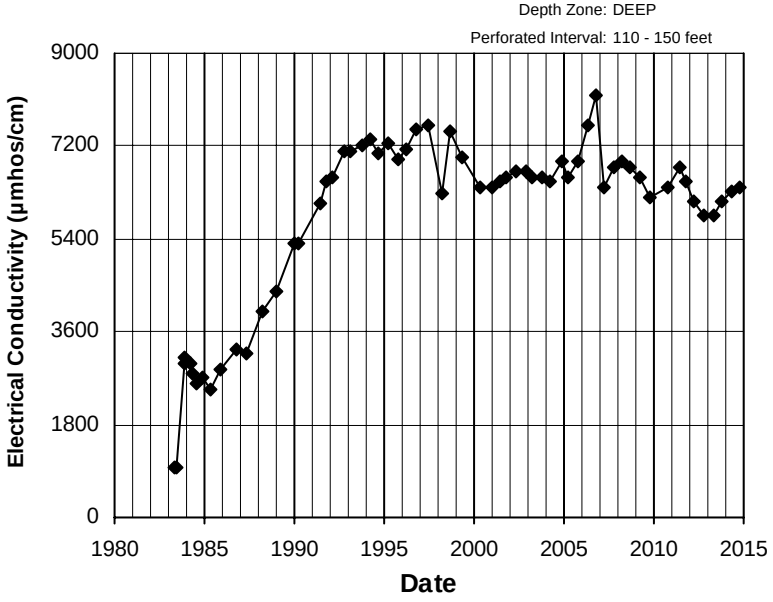
Spreckels Sugar Co. MW-5

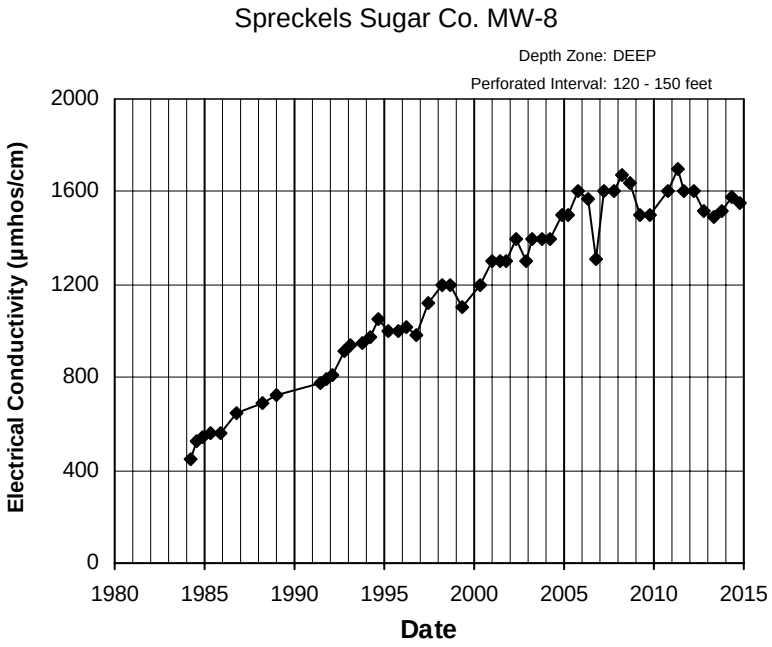


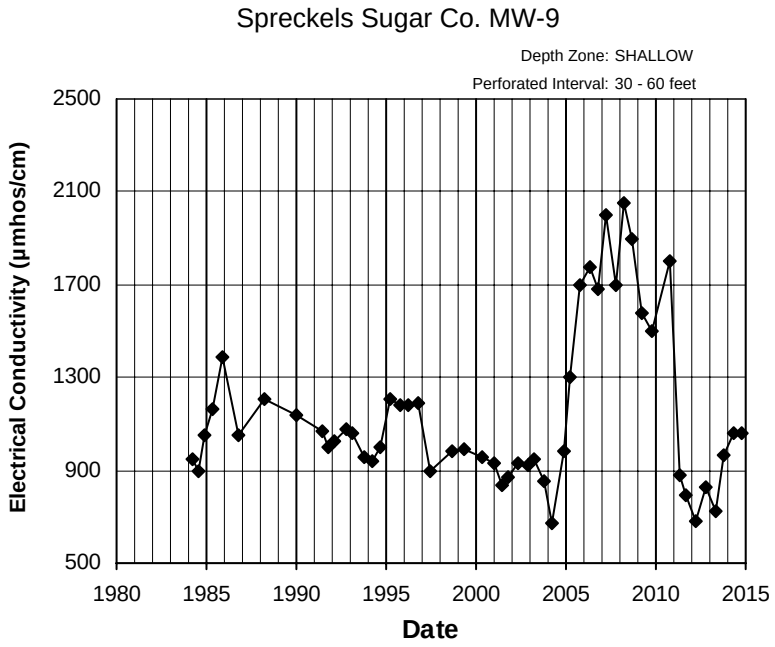
Spreckels Sugar Co. MW-6

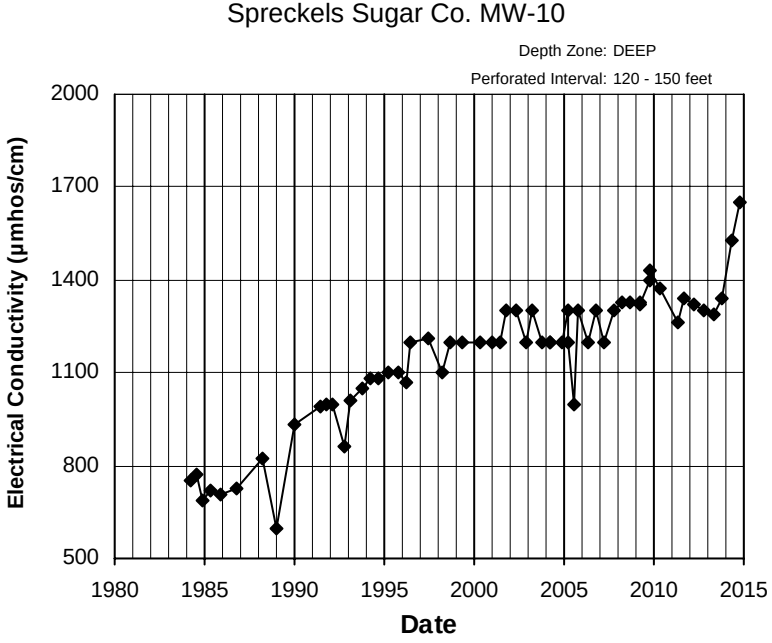


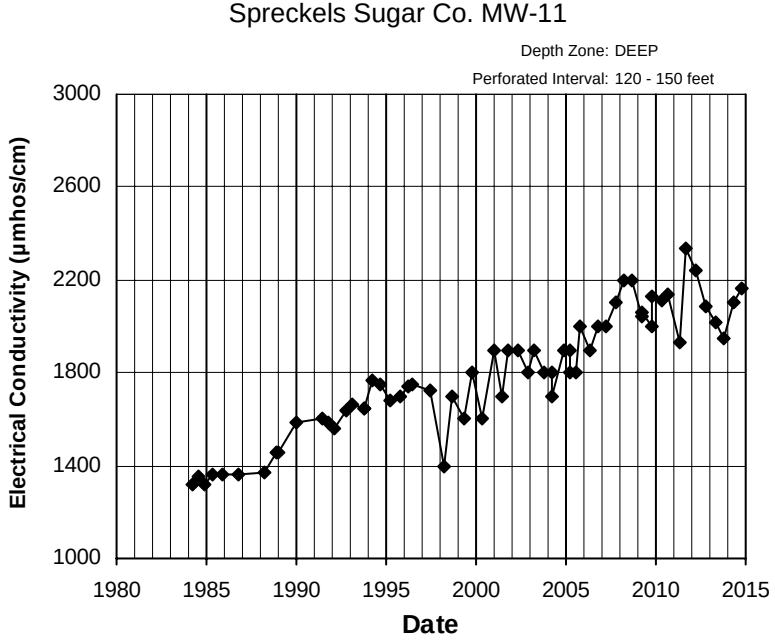
Spreckels Sugar Co. MW-7

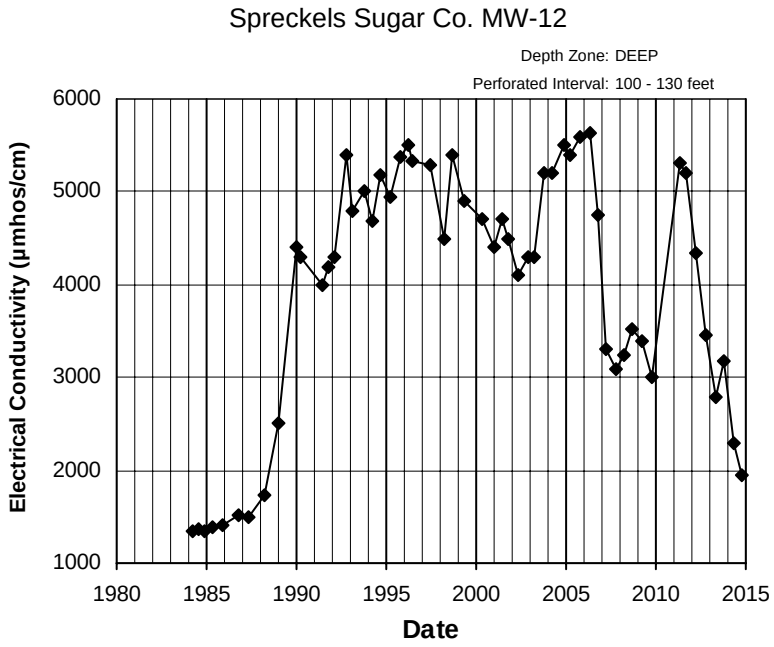


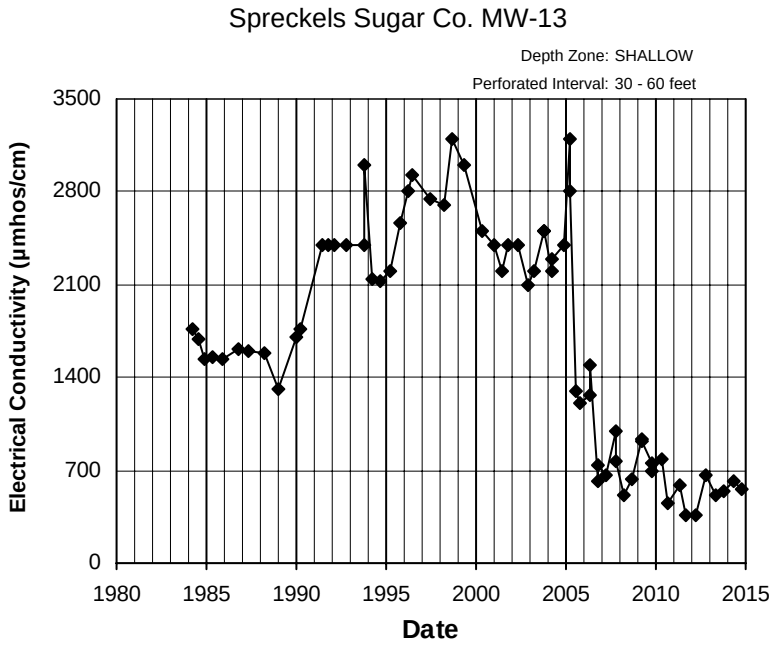

Spreckels Sugar Co. MW-8
Depth Zone: DEEP
Perforated Interval: 120 - 150 feet
Electrical Conductivity (µmhos/cm)
2000
1600
1200
800
400
0
1980
1985
1990
1995
2000
2005
2010
2015
Date

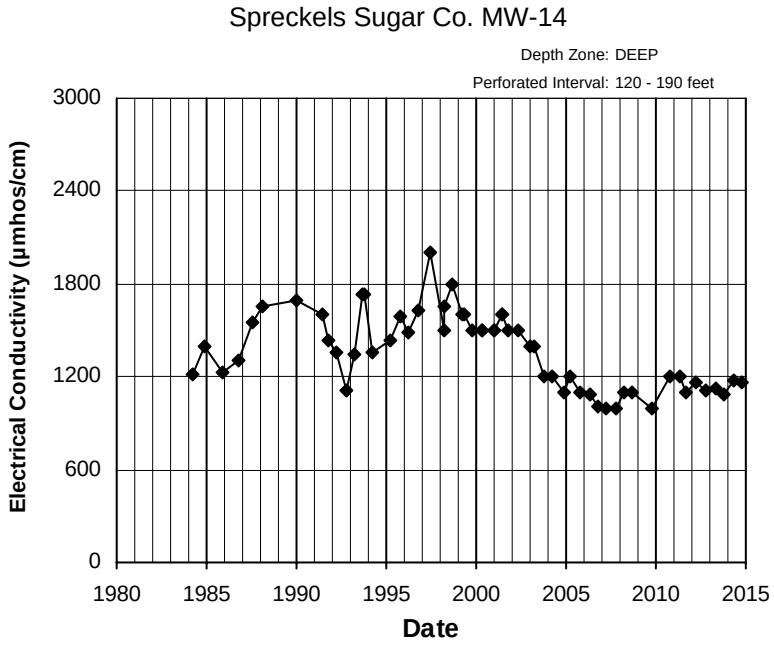

Spreckels Sugar Co. MW-9
Depth Zone: SHALLOW
Perforated Interval: 30 - 60 feet
Electrical Conductivity (µmhos/cm)
2500
2100
1700
1300
900
500
1980
1985
1990
1995
2000
2005
2010
2015
Date

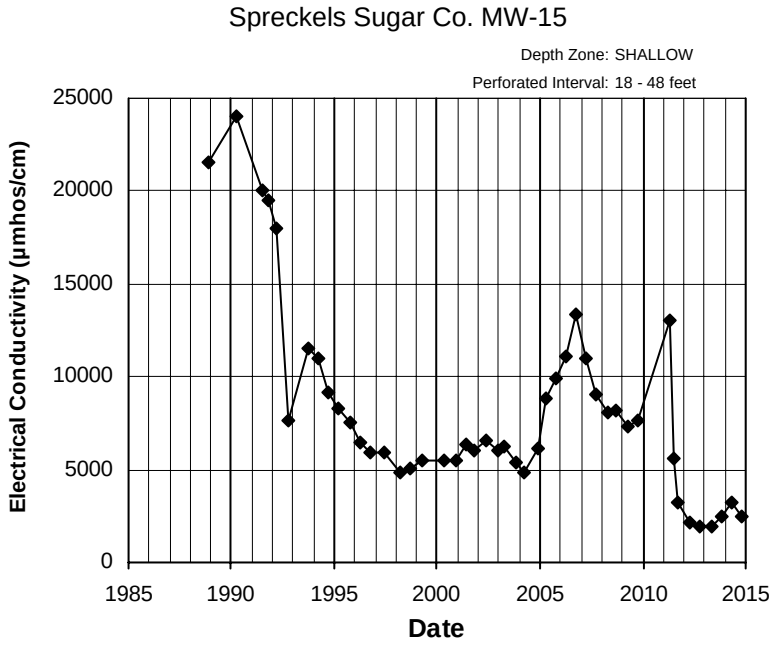

Spreckels Sugar Co. MW-10
Depth Zone: DEEP
Perforated Interval: 120 - 150 feet
Electrical Conductivity (µmhos/cm)
2000
1700
1400
1100
800
500
1980
1985
1990
1995
2000
2005
2010
2015
Date


Spreckels Sugar Co. MW-11
Depth Zone: DEEP
Perforated Interval: 120 - 150 feet
Electrical Conductivity (µmhos/cm)
3000
2600
2200
1800
1400
1000
1980
1985
1990
1995
2000
2005
2010
2015
Date

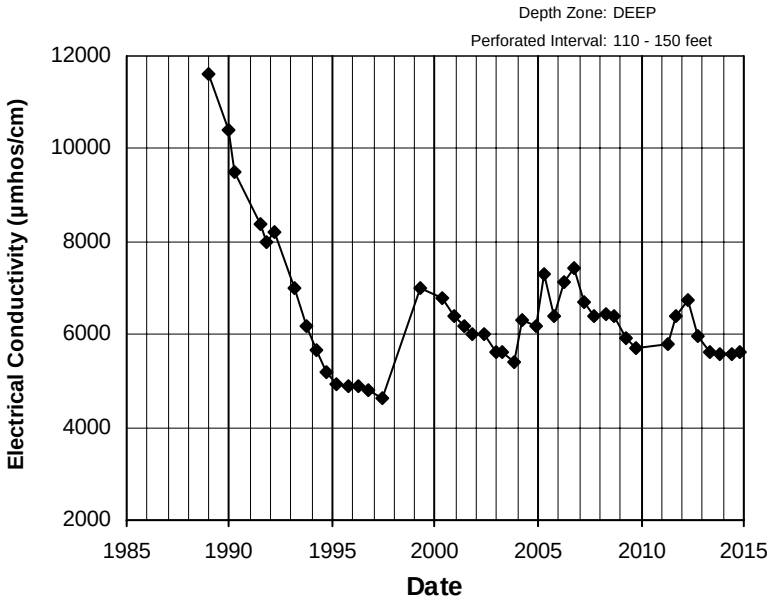

Spreckels Sugar Co. MW-12
Depth Zone: DEEP
Perforated Interval: 100 - 130 feet
Electrical Conductivity (µmhos/cm)
6000
5000
4000
3000
2000
1000
1980
1985
1990
1995
2000
2005
2010
2015
Date


Spreckels Sugar Co. MW-13
Depth Zone: SHALLOW
Perforated Interval: 30 - 60 feet
Electrical Conductivity (µmhos/cm)
3500
2800
2100
1400
700
0
1980
1985
1990
1995
2000
2005
2010
2015
Date

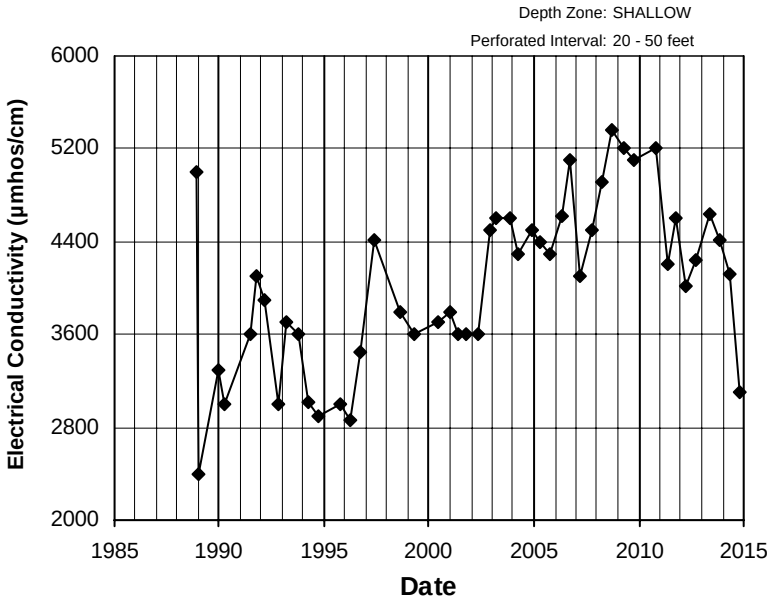

Spreckels Sugar Co. MW-14
Depth Zone: DEEP
Perforated Interval: 120 - 190 feet
Electrical Conductivity (µmhos/cm)
3000
2400
1800
1200
600
0
1980
1985
1990
1995
2000
2005
2010
2015
Date


Spreckels Sugar Co. MW-15
Depth Zone: SHALLOW
Perforated Interval: 18 - 48 feet
Electrical Conductivity (µmhos/cm)
25000
20000
15000
10000
5000
0
1985
1990
1995
2000
2005
2010
2015
Date

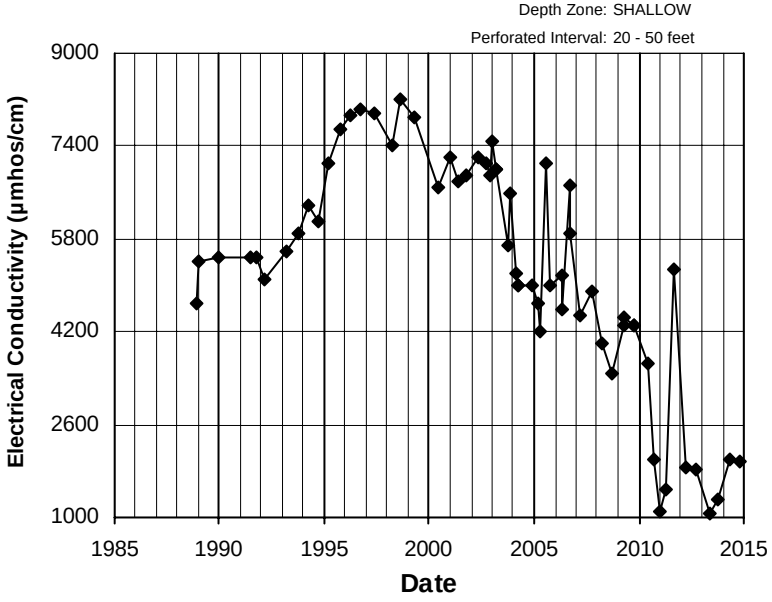
Spreckels Sugar Co. MW-16



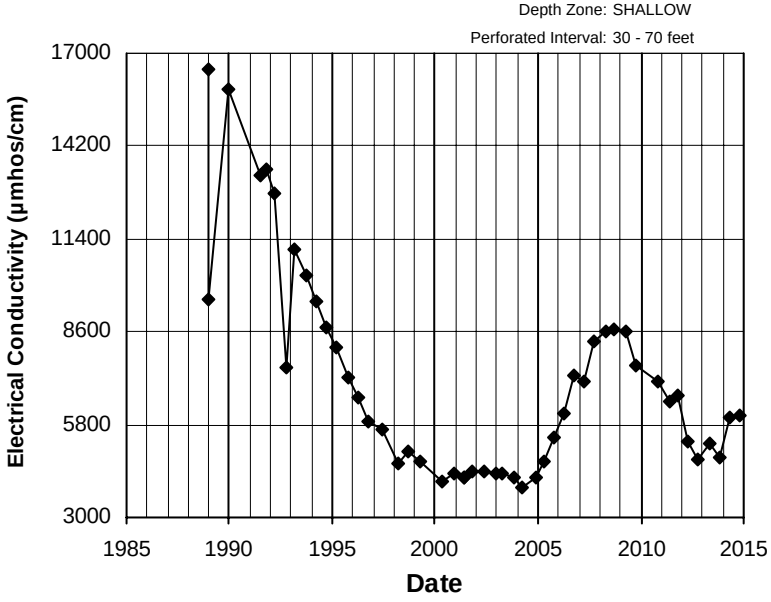
Spreckels Sugar Co. MW-17



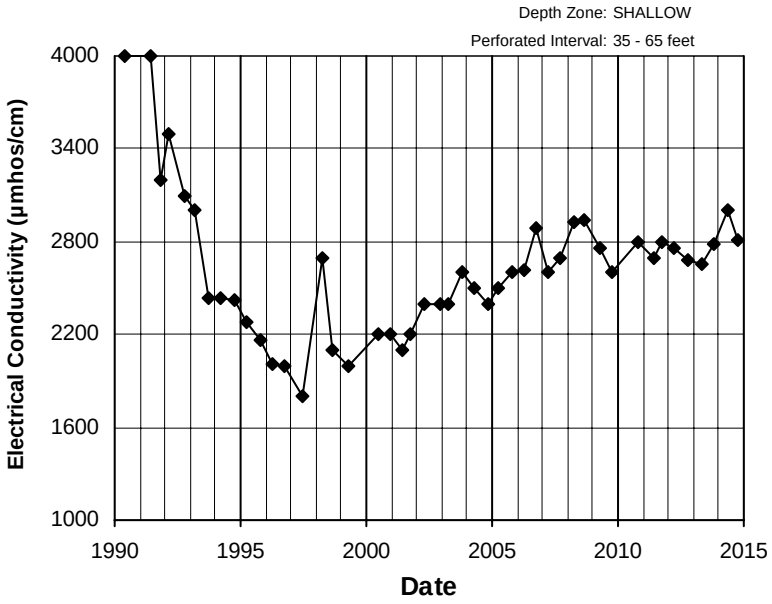
Spreckels Sugar Co. MW-18



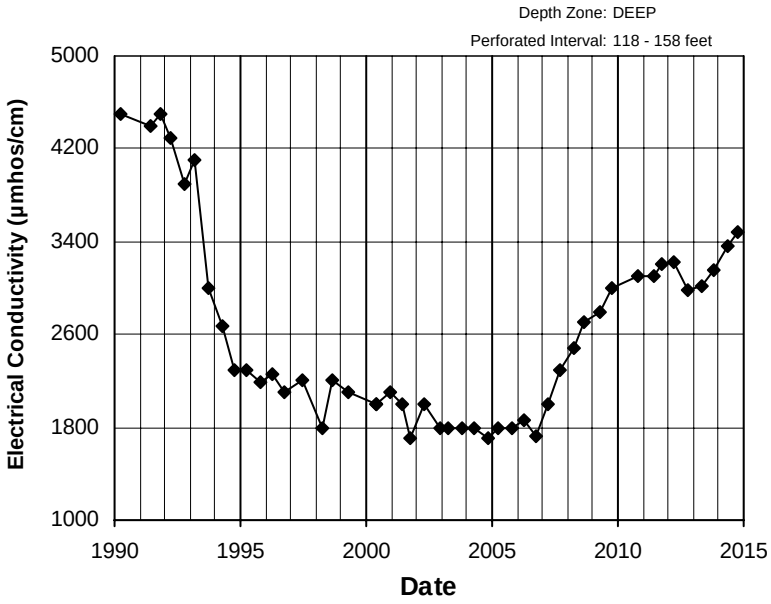
Spreckels Sugar Co. MW-19



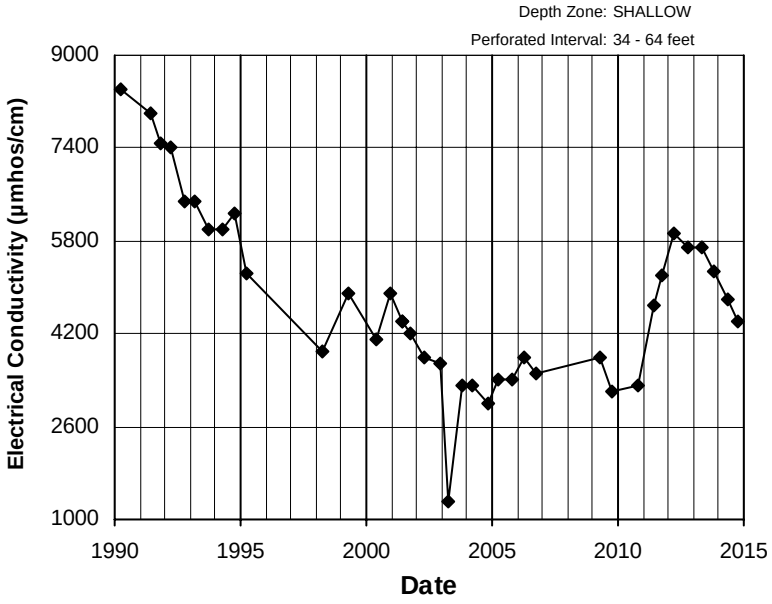
Spreckels Sugar Co. MW-20



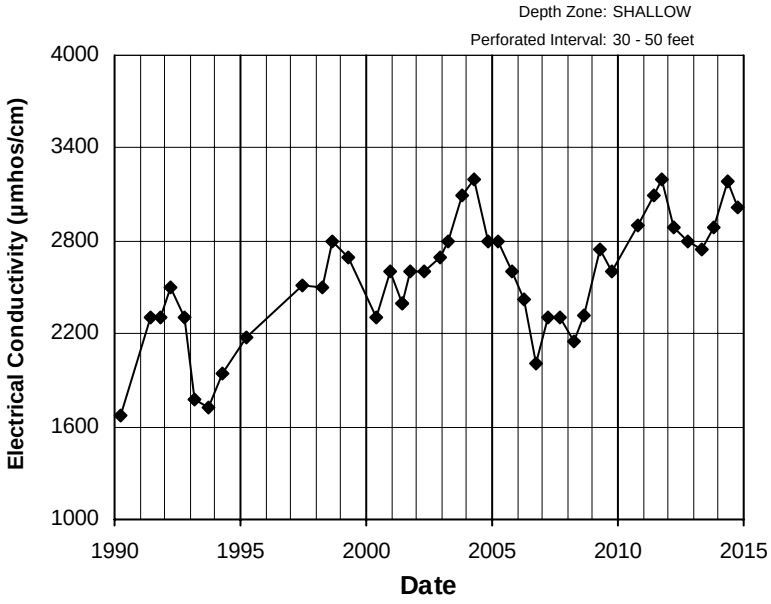
Spreckels Sugar Co. MW-22

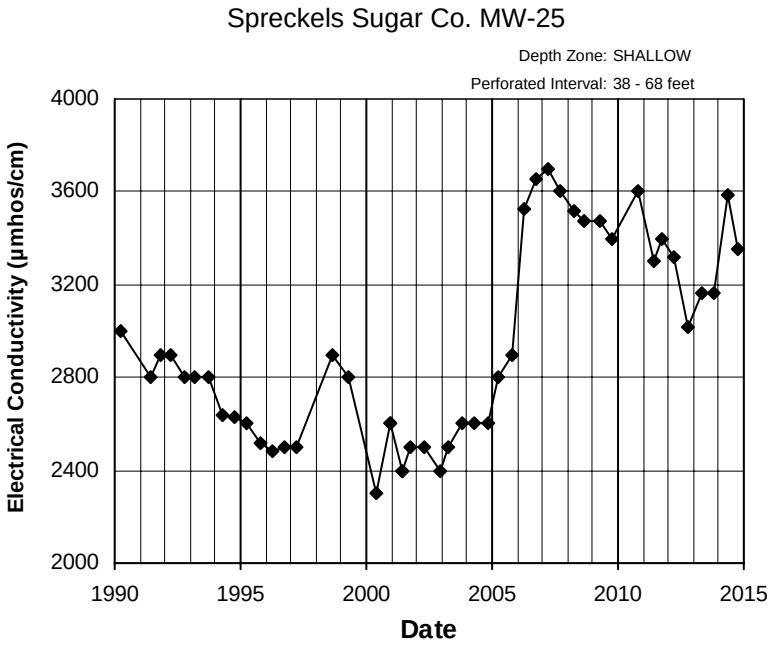


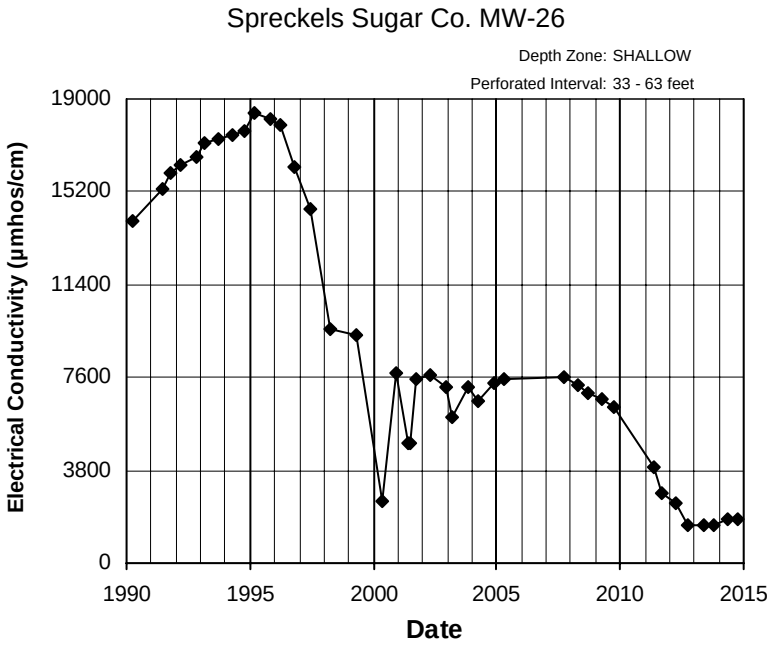
Spreckels Sugar Co. MW-23

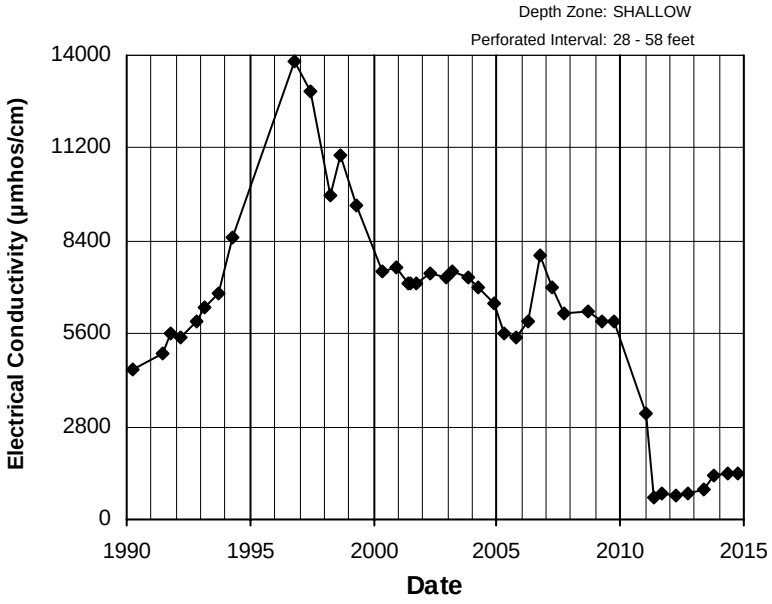


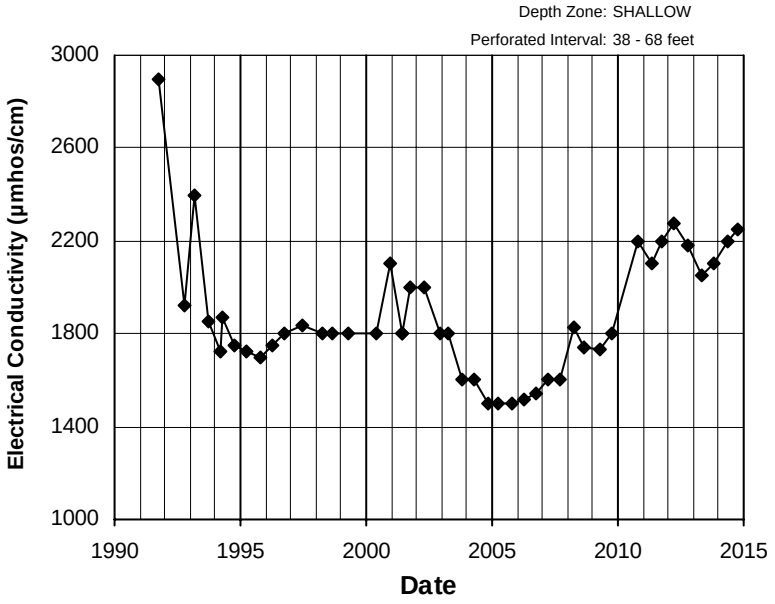
Spreckels Sugar Co. MW-24

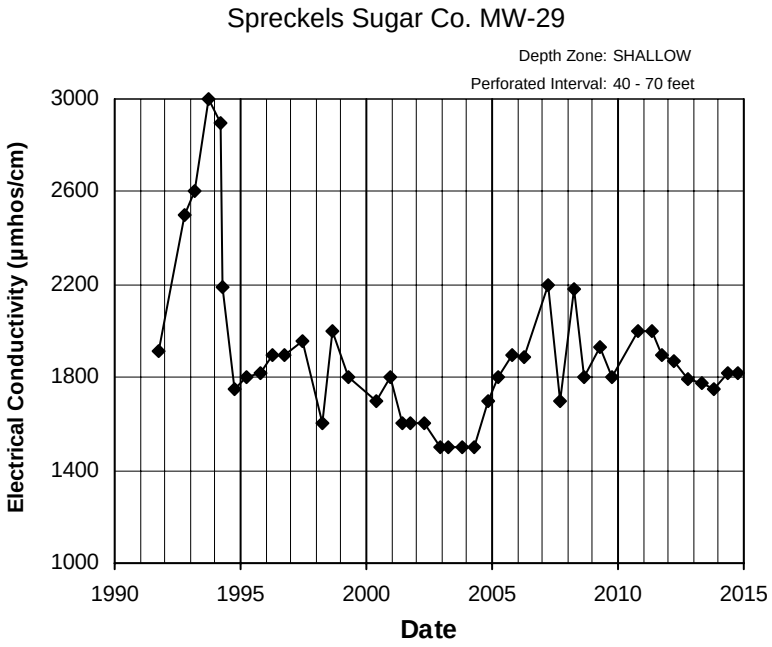


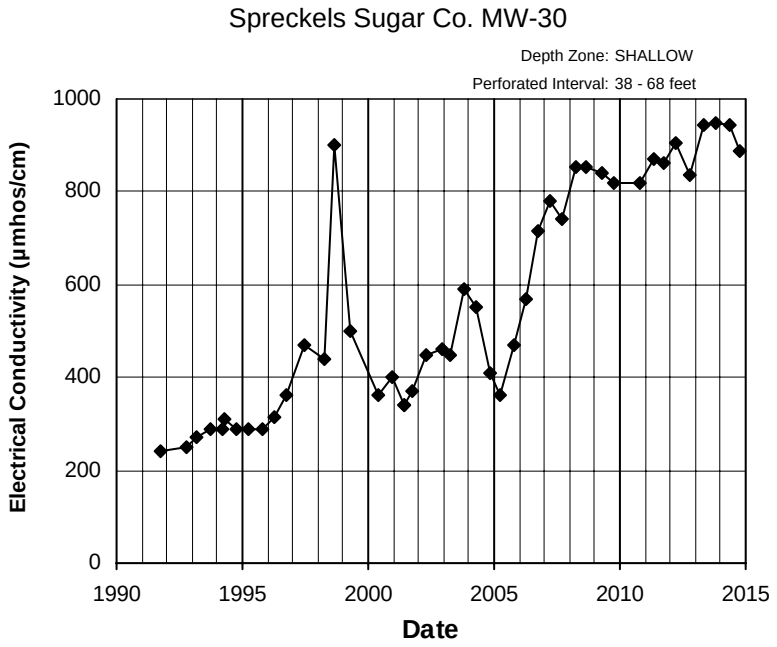

Spreckels Sugar Co. MW-25
Depth Zone: SHALLOW
Perforated Interval: 38 - 68 feet
Electrical Conductivity (µmhos/cm)
4000
3600
3200
2800
2400
2000
1990
1995
2000
2005
2010
2015
Date

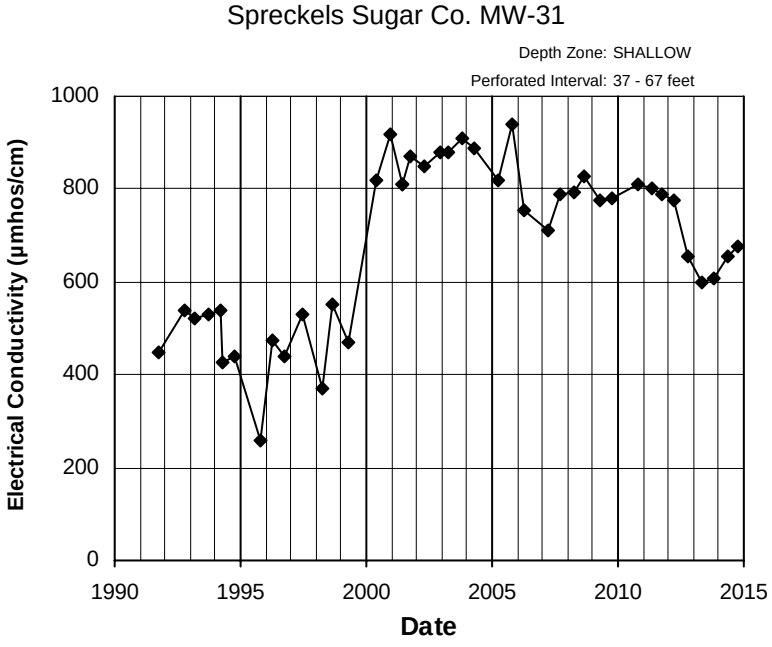

Spreckels Sugar Co. MW-26
Depth Zone: SHALLOW
Perforated Interval: 33 - 63 feet
Electrical Conductivity (µmhos/cm)
19000
15200
11400
7600
3800
0
1990
1995
2000
2005
2010
2015
Date

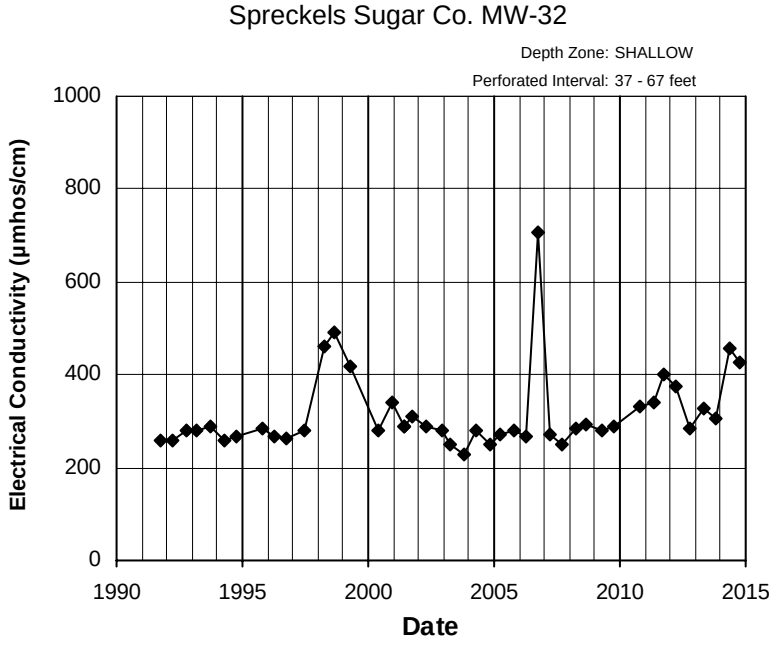

Spreckels Sugar Co. MW-27
Depth Zone: SHALLOW
Perforated Interval: 28 - 58 feet
Electrical Conductivity (µmhos/cm)
14000
11200
8400
5600
2800
0
1990
1995
2000
2005
2010
2015
Date


Spreckels Sugar Co. MW-28
Depth Zone: SHALLOW
Perforated Interval: 38 - 68 feet
Electrical Conductivity (µmhos/cm)
3000
2600
2200
1800
1400
1000
1990
1995
2000
2005
2010
2015
Date

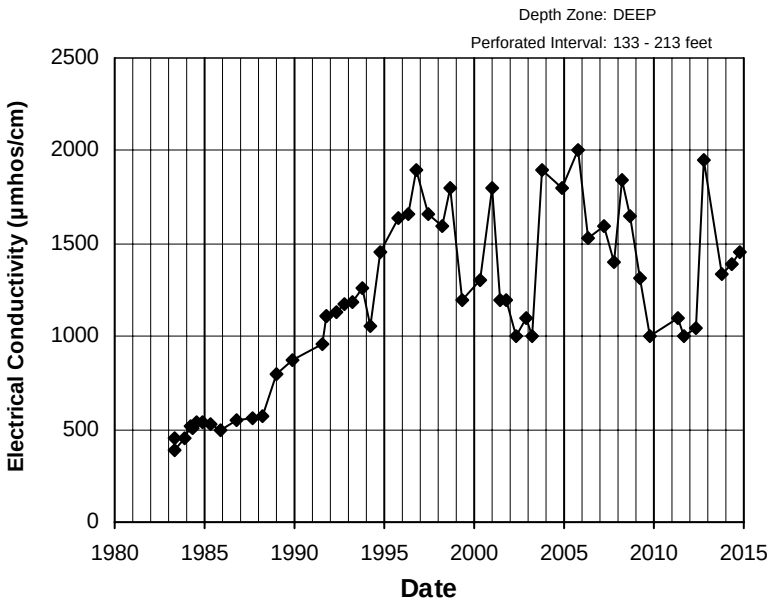

Spreckels Sugar Co. MW-29
Depth Zone: SHALLOW
Perforated Interval: 40 - 70 feet
Electrical Conductivity (µmhos/cm)
3000
2600
2200
1800
1400
1000
1990
1995
2000
2005
2010
2015
Date


Spreckels Sugar Co. MW-30
Depth Zone: SHALLOW
Perforated Interval: 38 - 68 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
1990
1995
2000
2005
2010
2015
Date

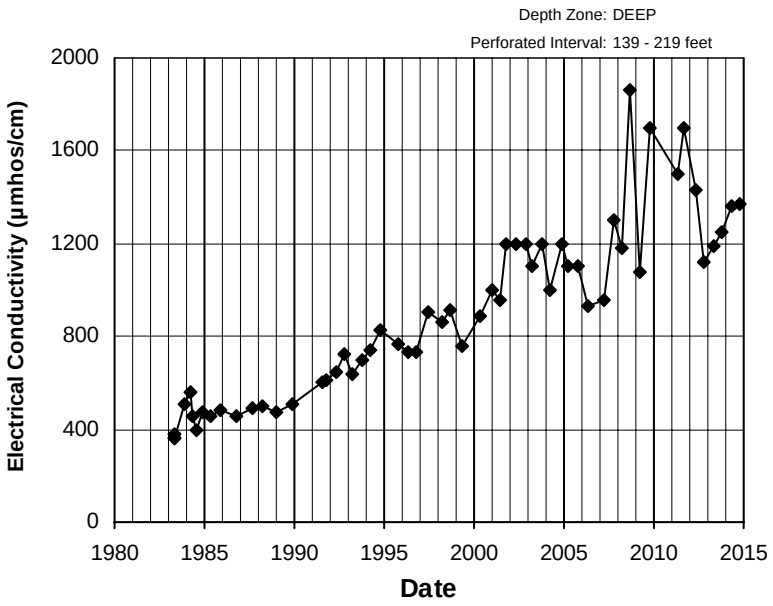

Spreckels Sugar Co. MW-31
Depth Zone: SHALLOW
Perforated Interval: 37 - 67 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
1990
1995
2000
2005
2010
2015
Date


Spreckels Sugar Co. MW-32
Depth Zone: SHALLOW
Perforated Interval: 37 - 67 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
1990
1995
2000
2005
2010
2015
Date

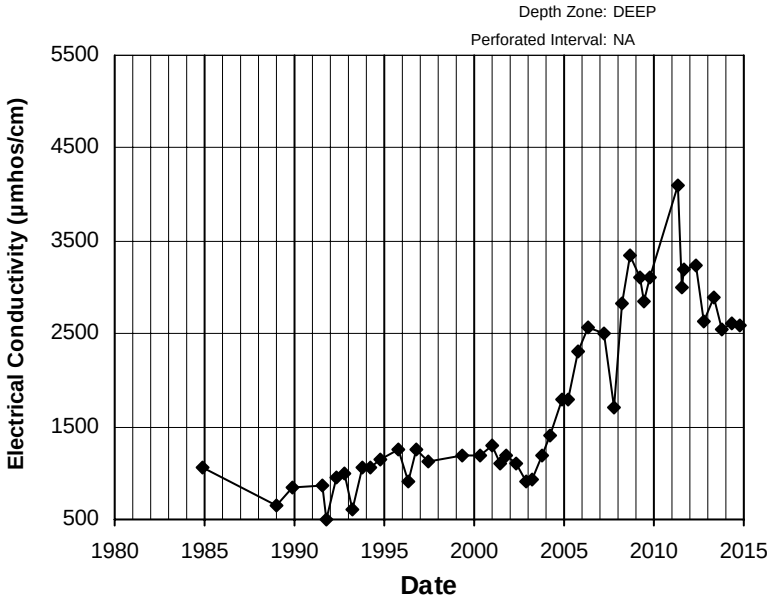
Spreckels Sugar Co. PW-6



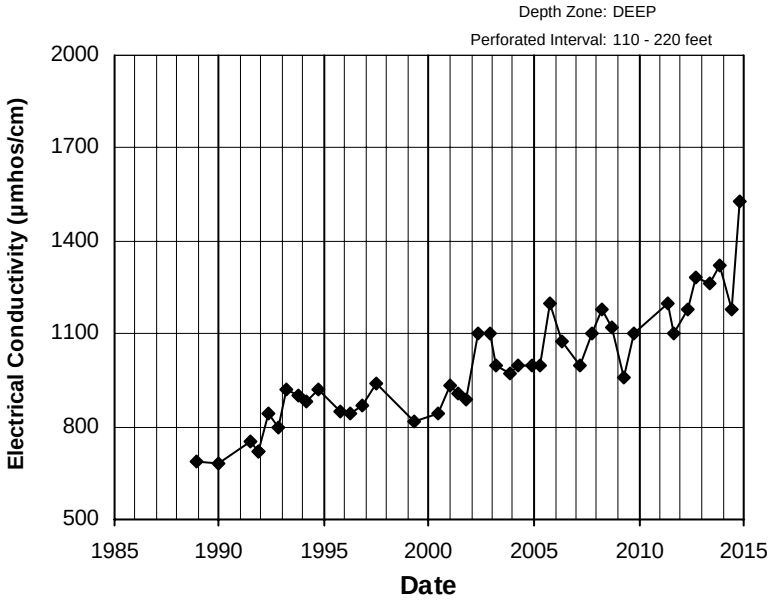
Spreckels Sugar Co. PW-7



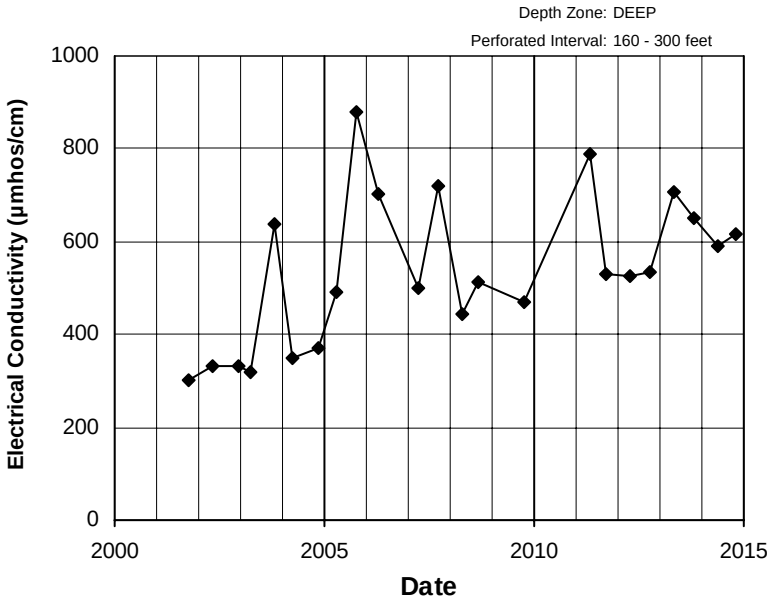
Spreckels Sugar Co. PW-9



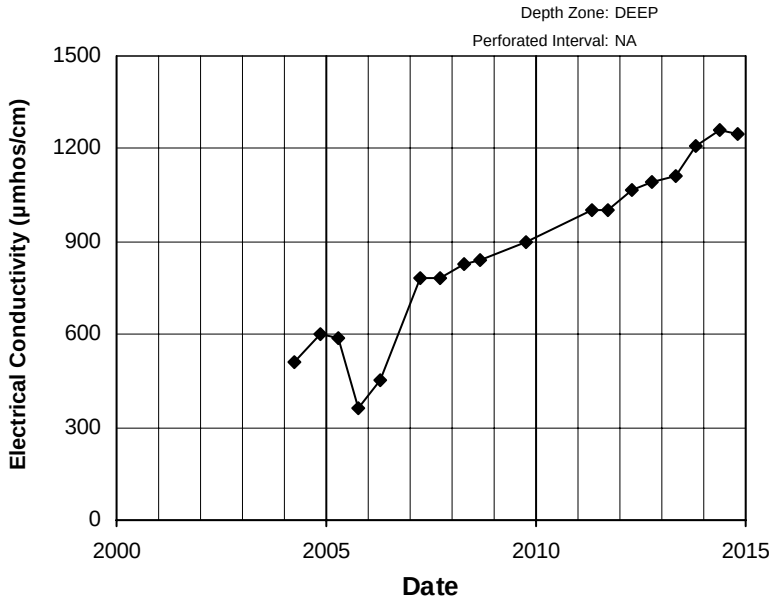
Spreckels Sugar Co. PW-10



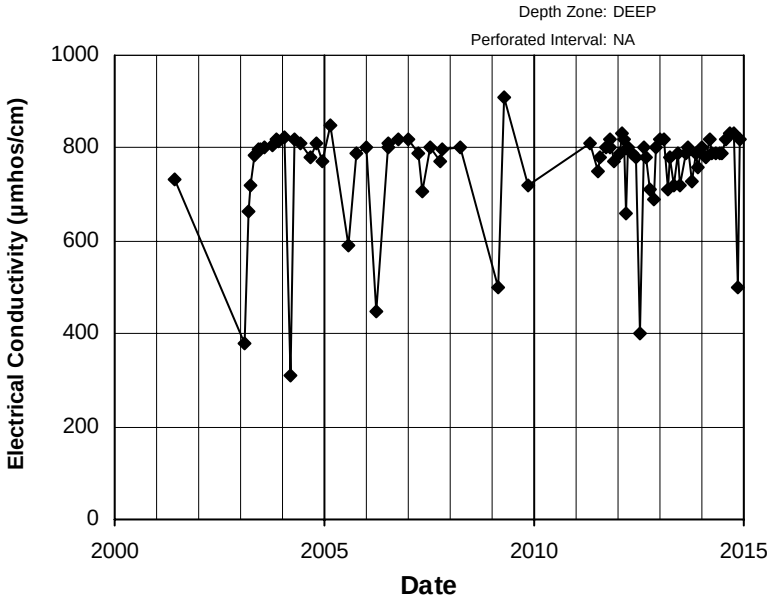
Spreckels Sugar Co. PW-11



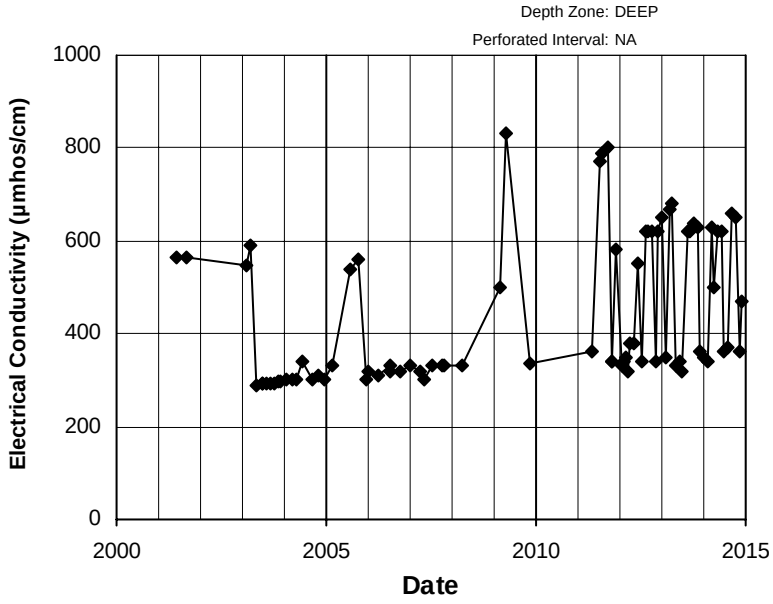
Spreckels Sugar Co. PW-12



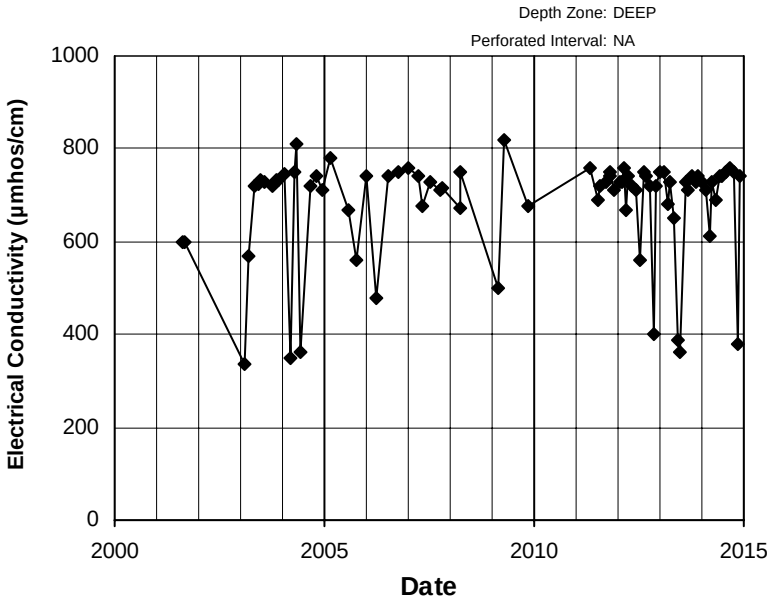
City of Mendota Well No. 7



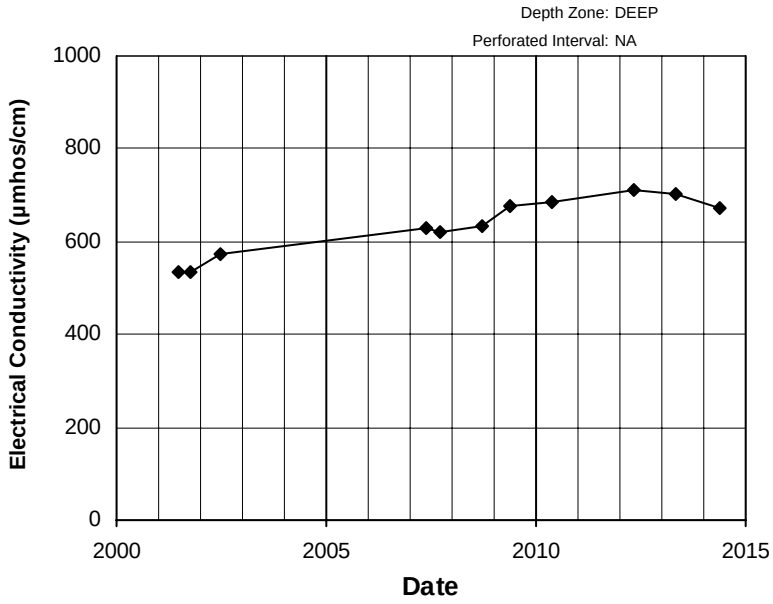
City of Mendota Well No. 8



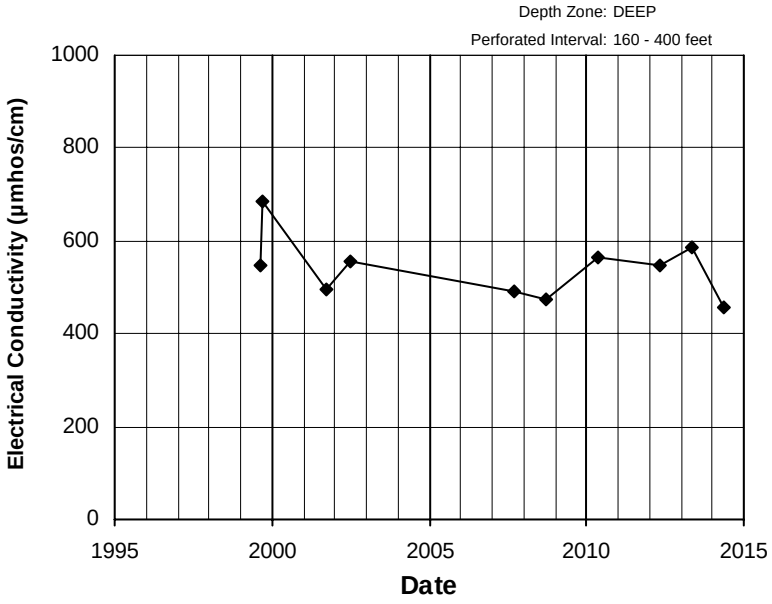
City of Mendota Well No. 9



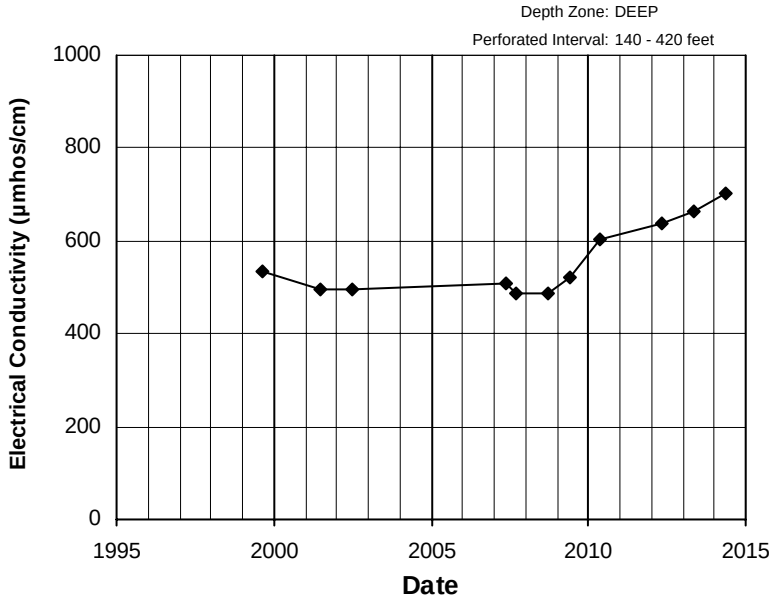
Panoche Creek Farms PCF-1



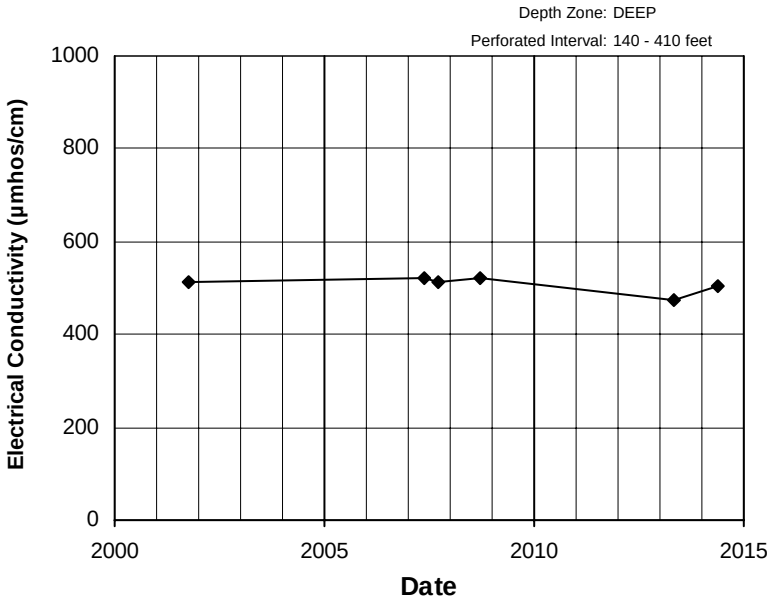
Baker Farming BF-1



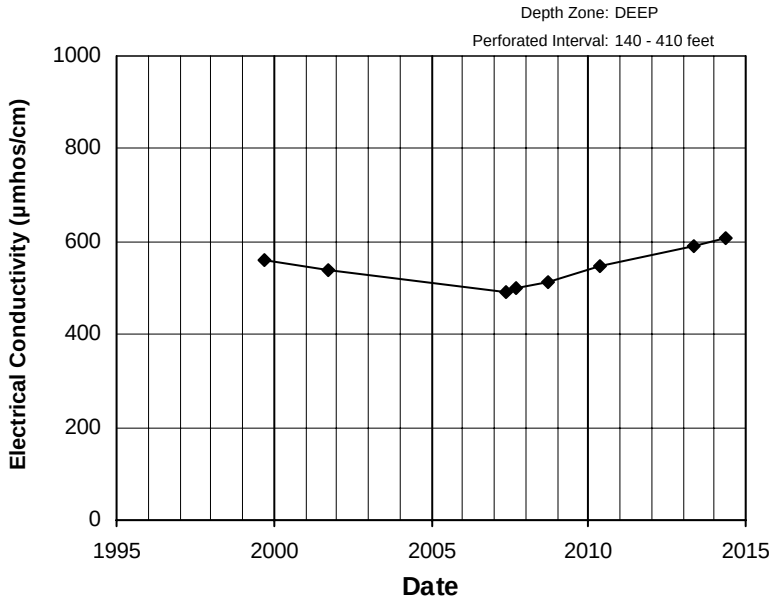
Baker Farming BF-2



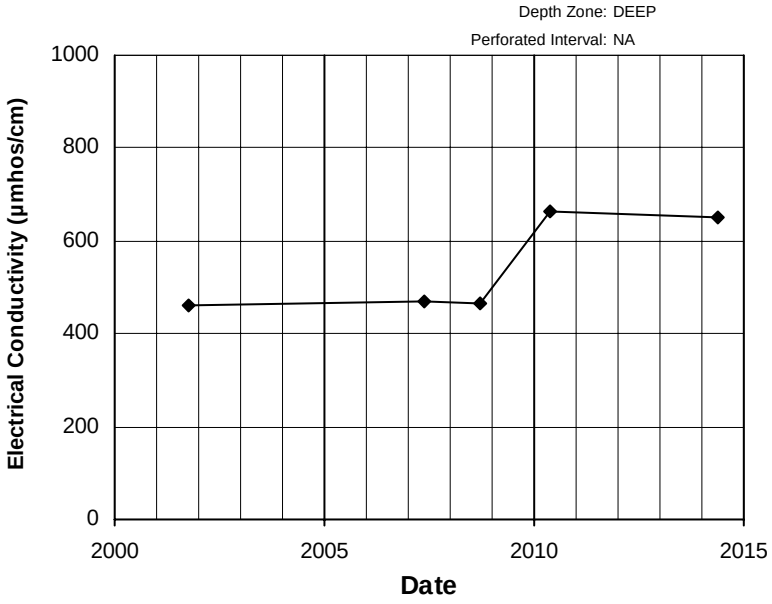
Baker Farming BF-3



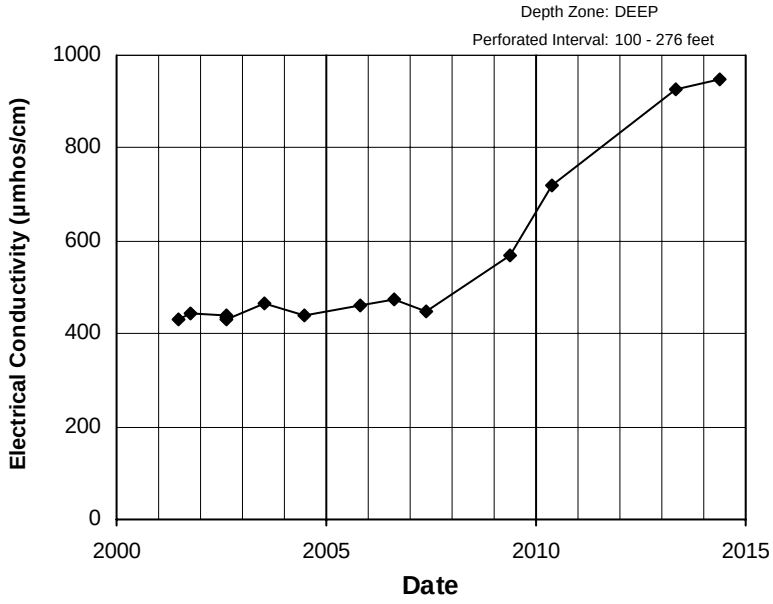
Baker Farming BF-4



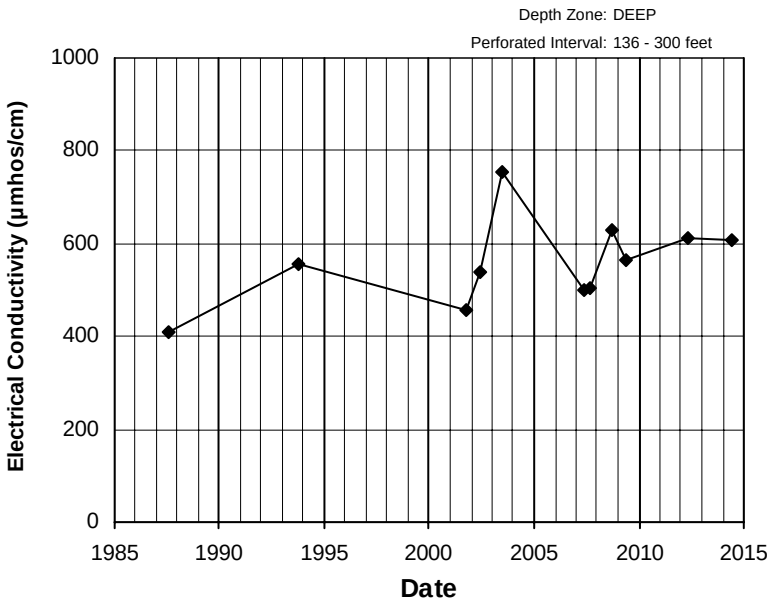
Baker Farming BF-5



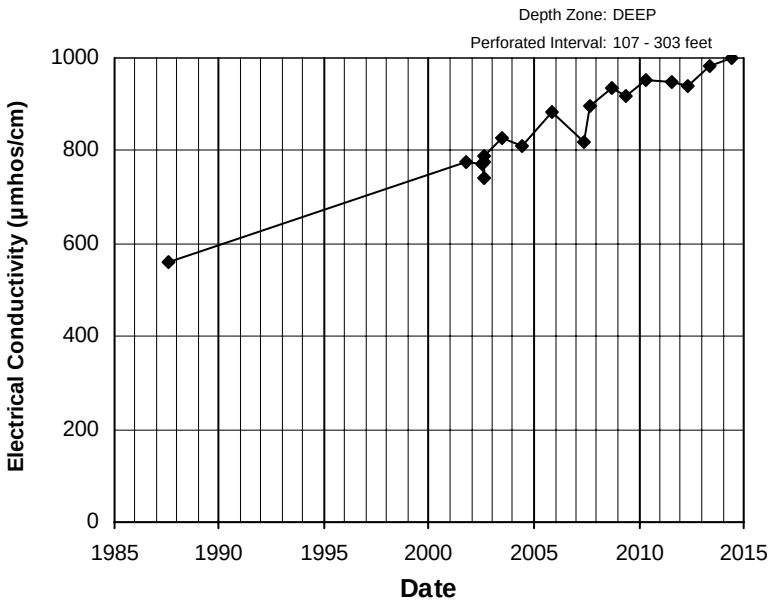
Farmers WD R-1



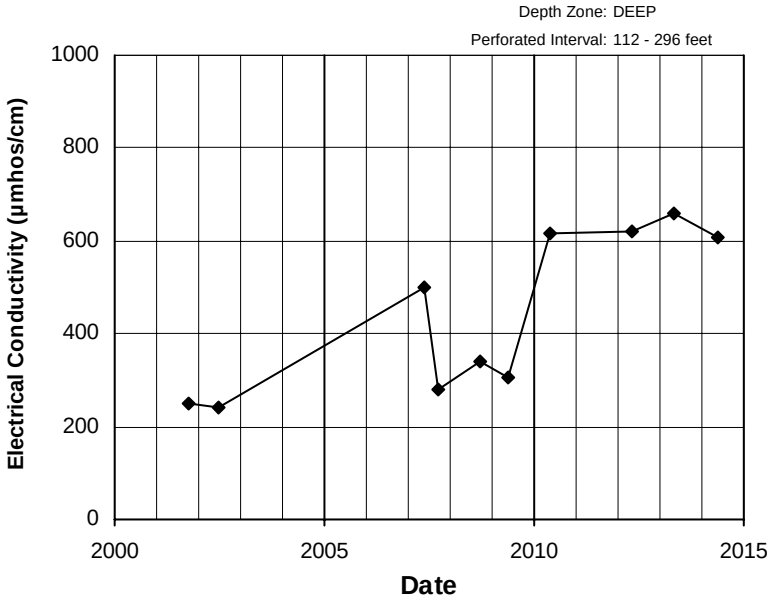
Farmers WD R-2



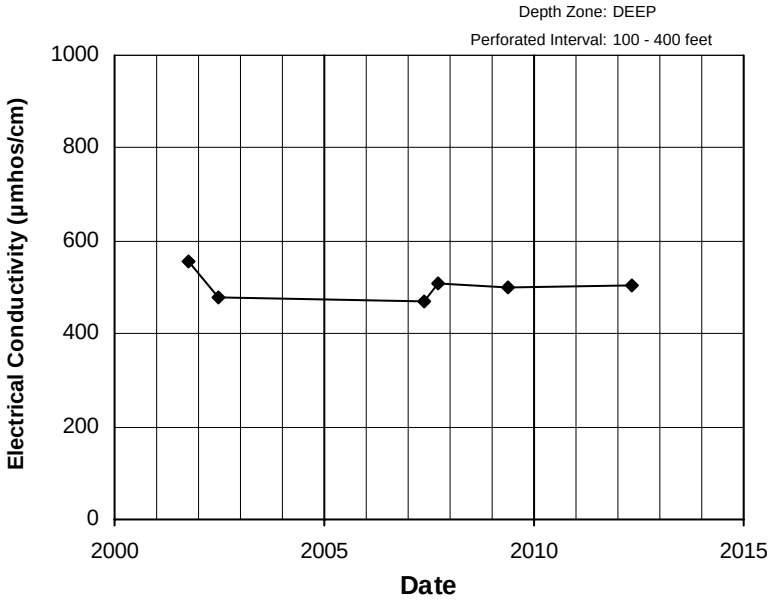
Farmers WD R-3

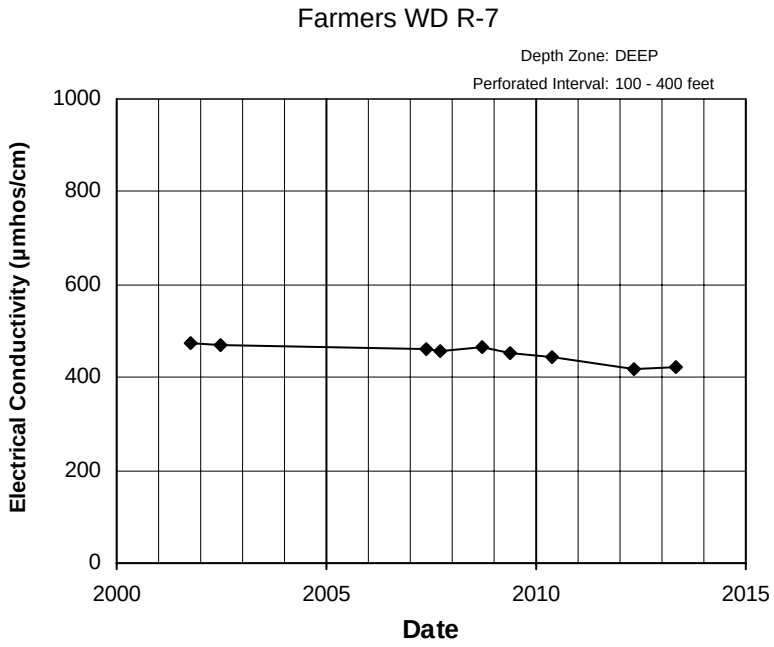


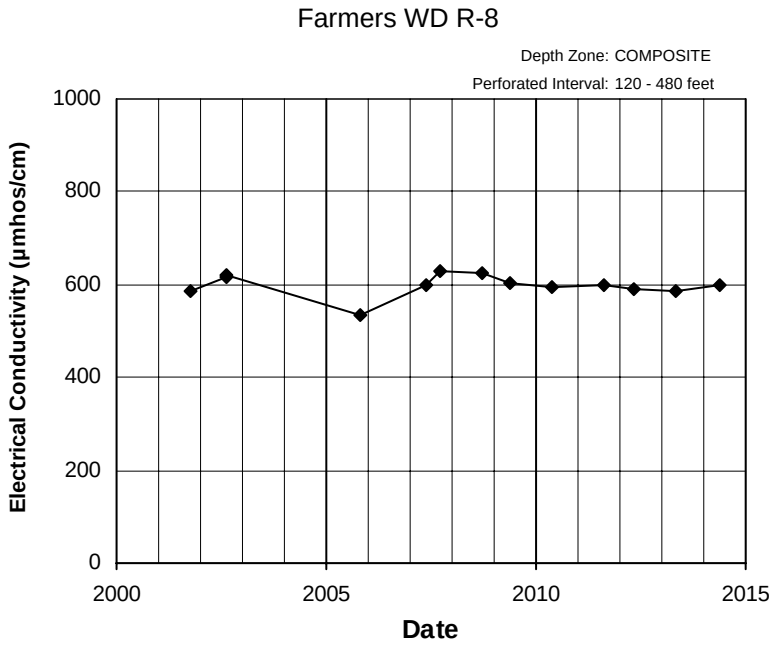
Farmers WD R-4

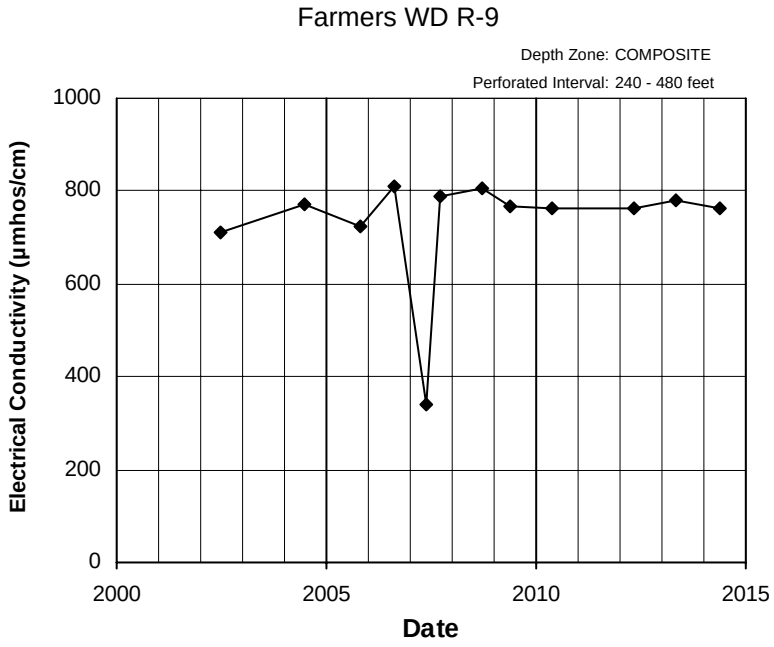


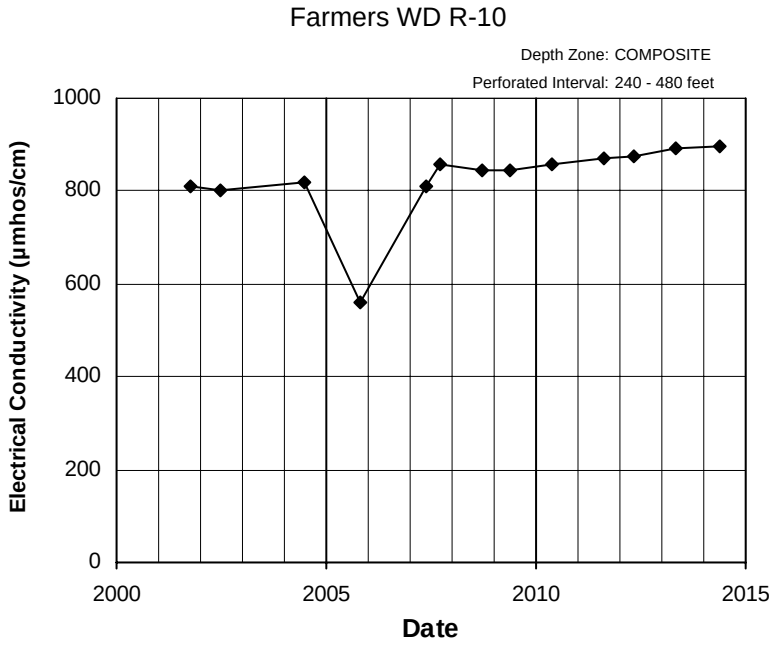
Farmers WD R-6



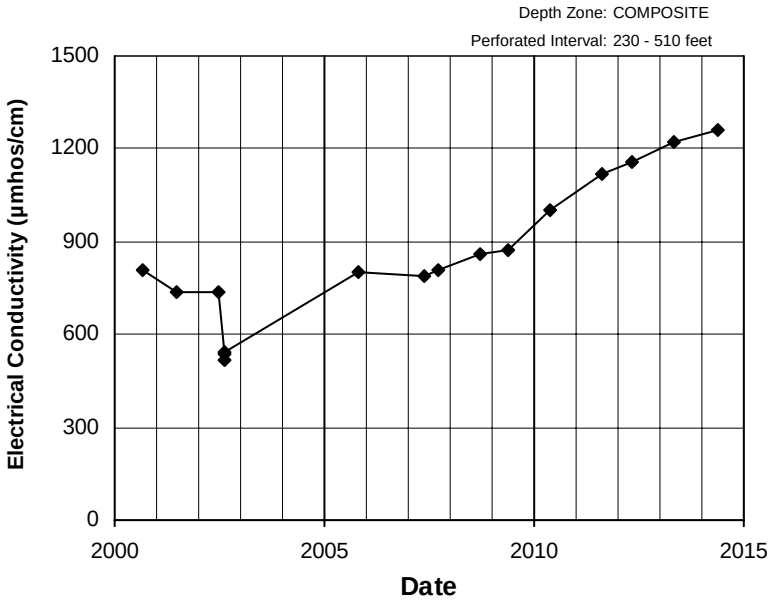

Farmers WD R-7
Depth Zone: DEEP
Perforated Interval: 100 - 400 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
2000
2005
2010
2015
Date


Farmers WD R-8
Depth Zone: COMPOSITE
Perforated Interval: 120 - 480 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
2000
2005
2010
2015
Date

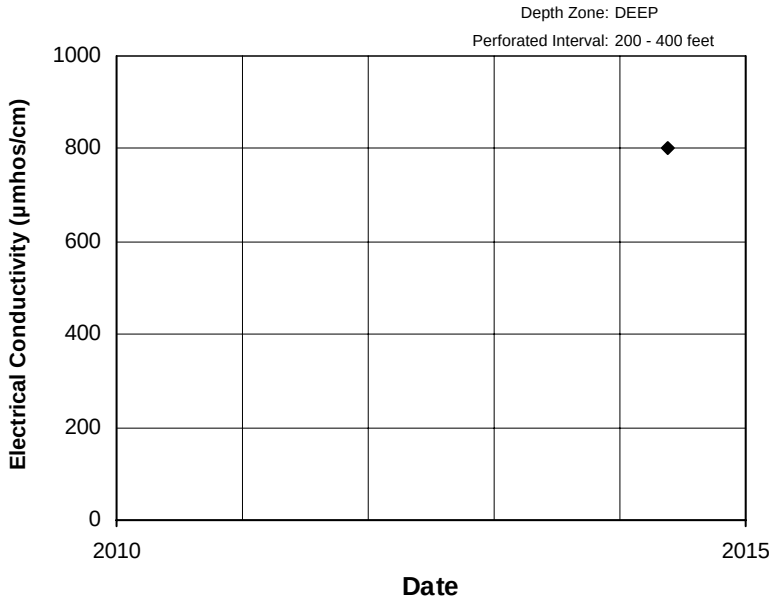

Farmers WD R-9
Depth Zone: COMPOSITE
Perforated Interval: 240 - 480 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
2000
2005
2010
2015
Date


Farmers WD R-10
Depth Zone: COMPOSITE
Perforated Interval: 240 - 480 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
2000
2005
2010
2015
Date

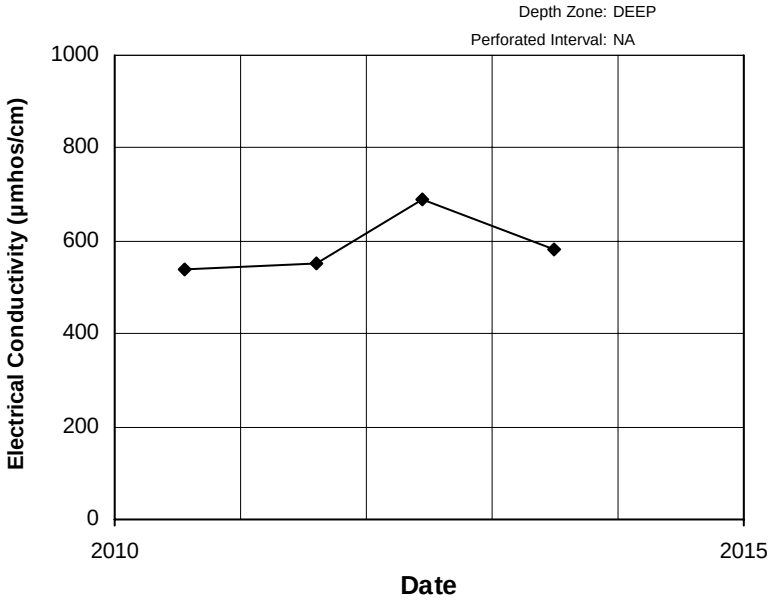
Farmers WD R-11



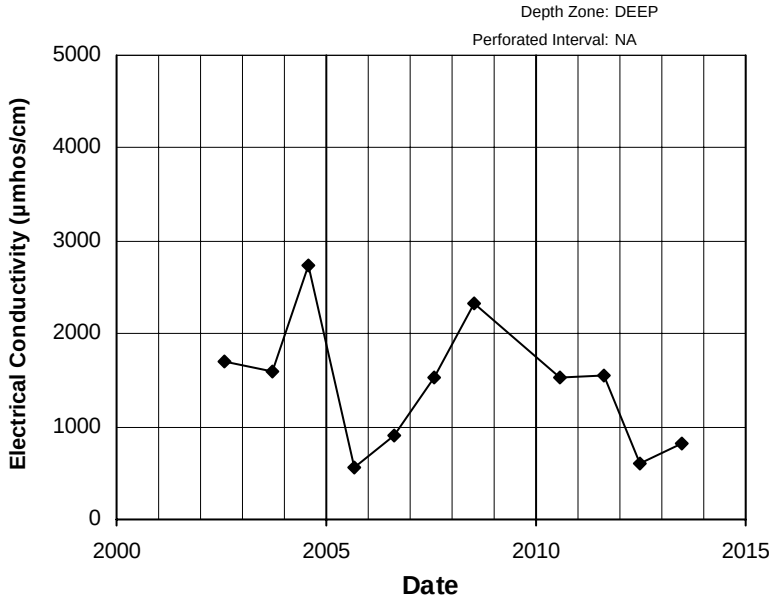
Farmers WD R-12



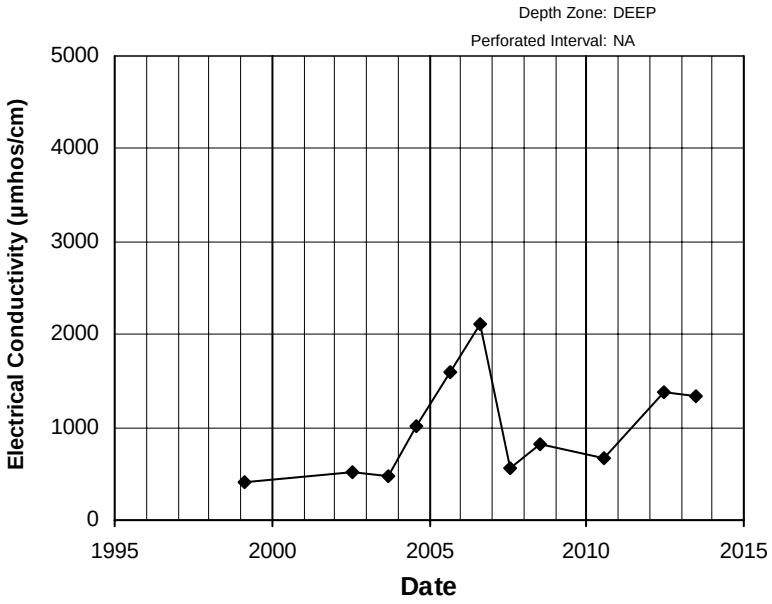
Columbia Canal Company MLT-West Well



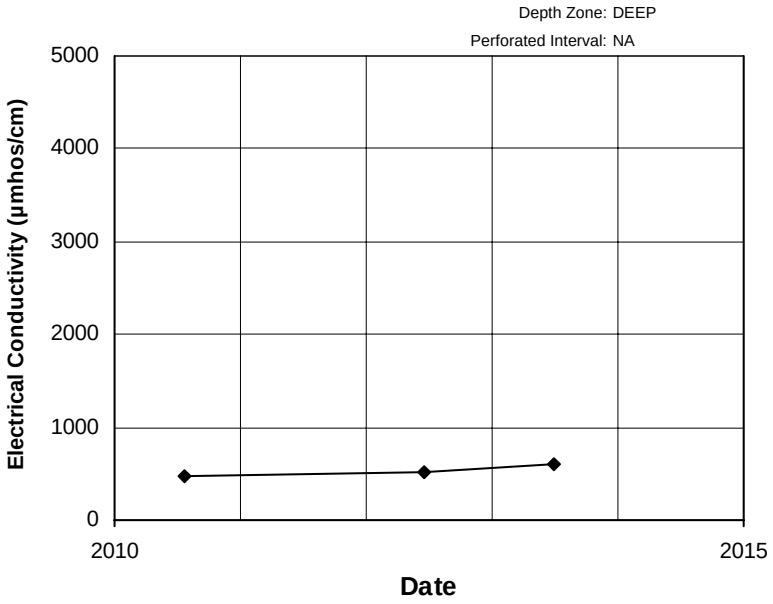
Columbia Canal Company Well Elrod-1



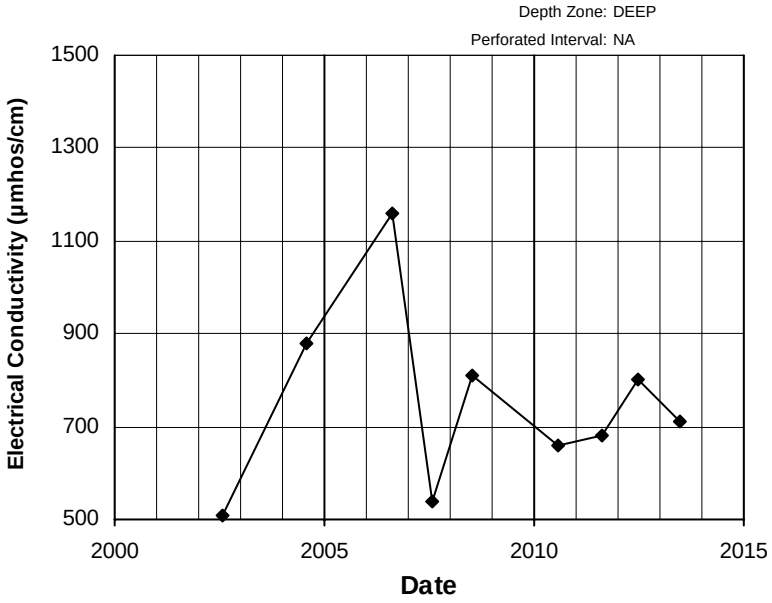
Columbia Canal Company Well Elrod-2



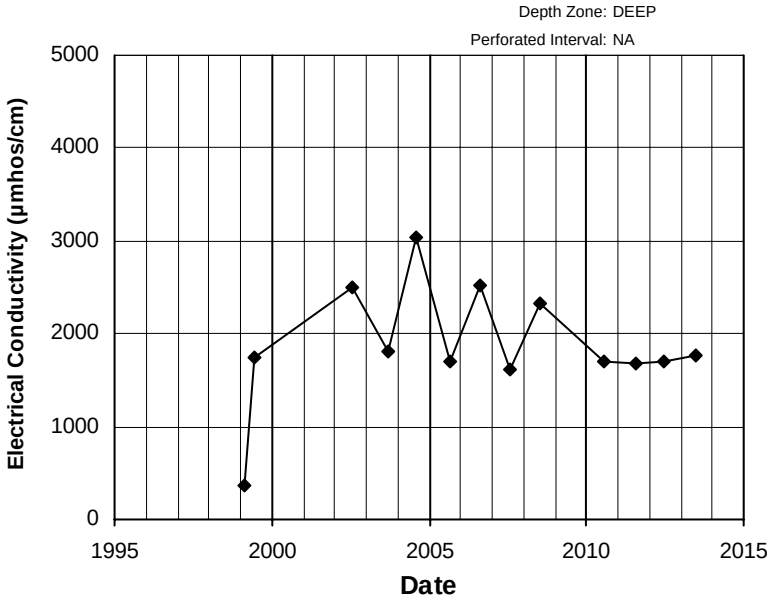
Columbia Canal Company Well Elrod-3



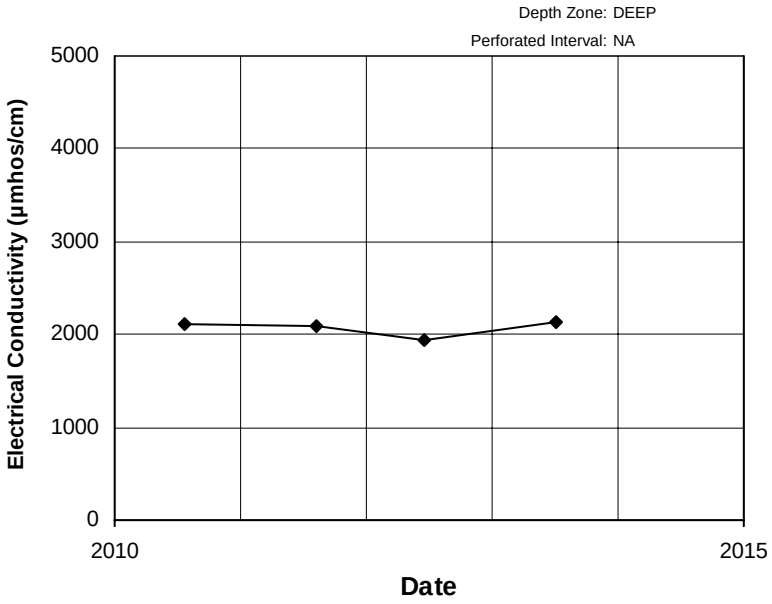
Columbia Canal Company Burkhart-Heirs



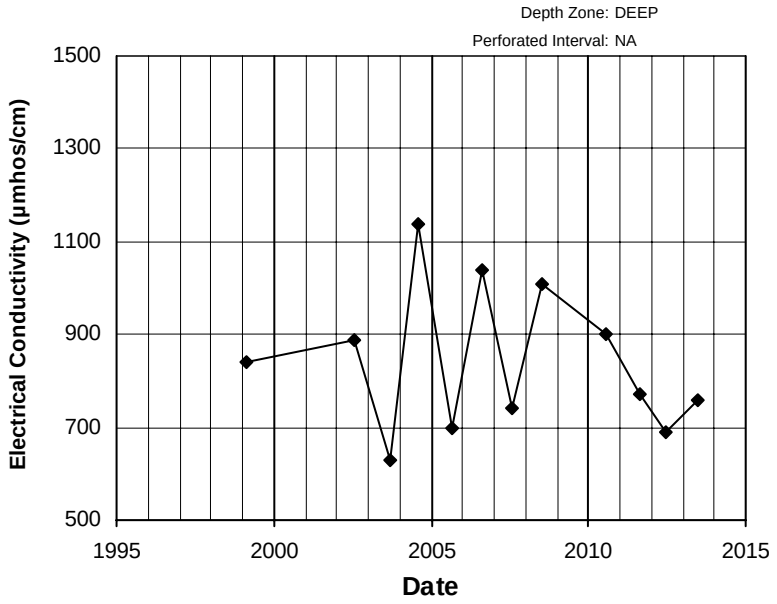
Columbia Canal Company Agriland-1



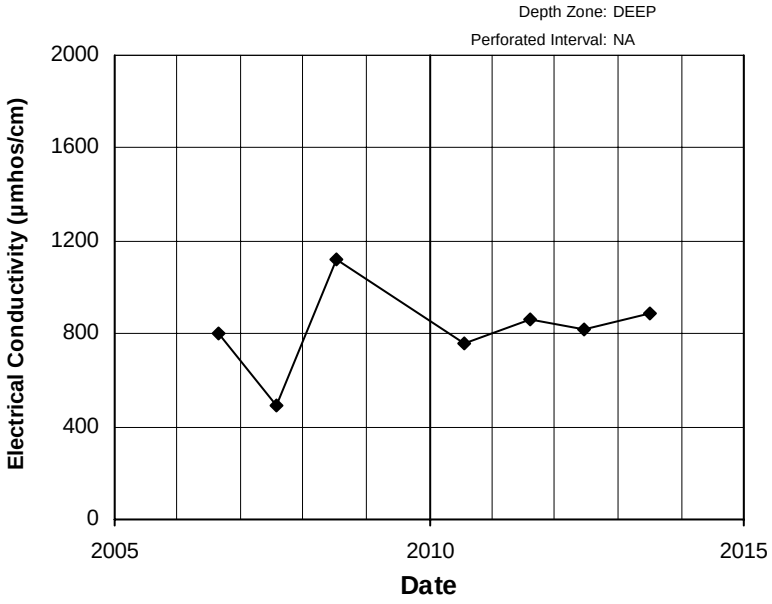
Columbia Canal Company Agriland-2



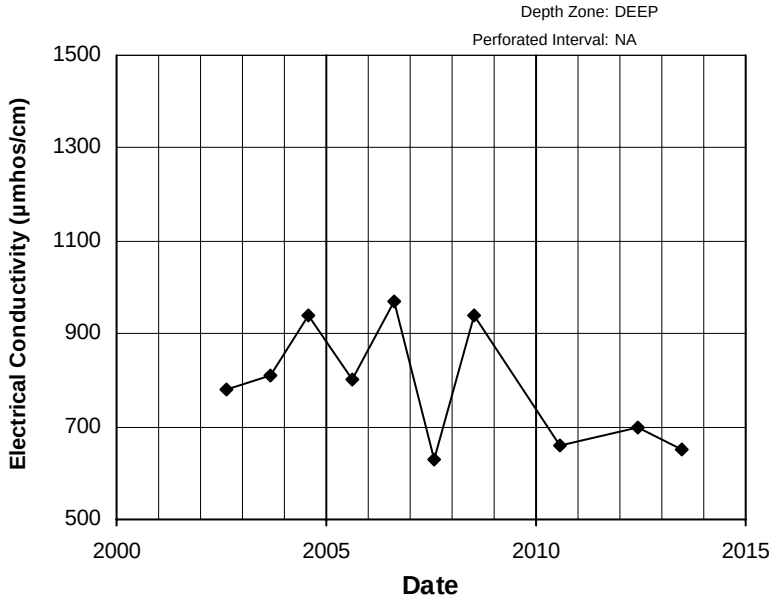
Columbia Canal Company Davis-1

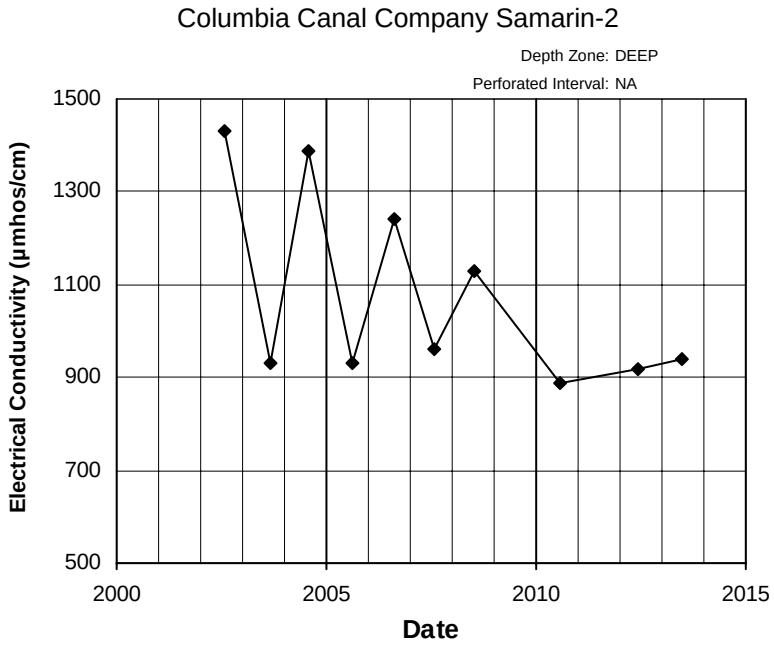


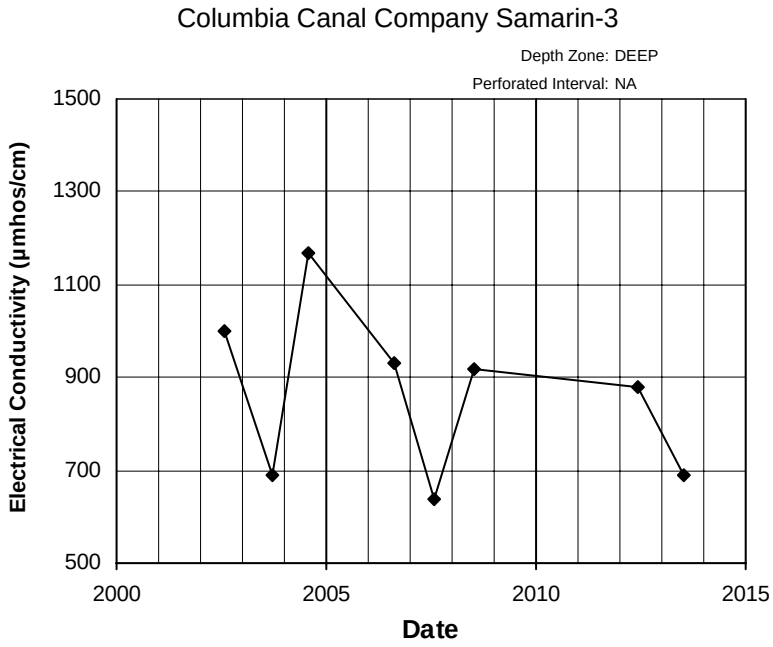
Columbia Canal Company Davis-2

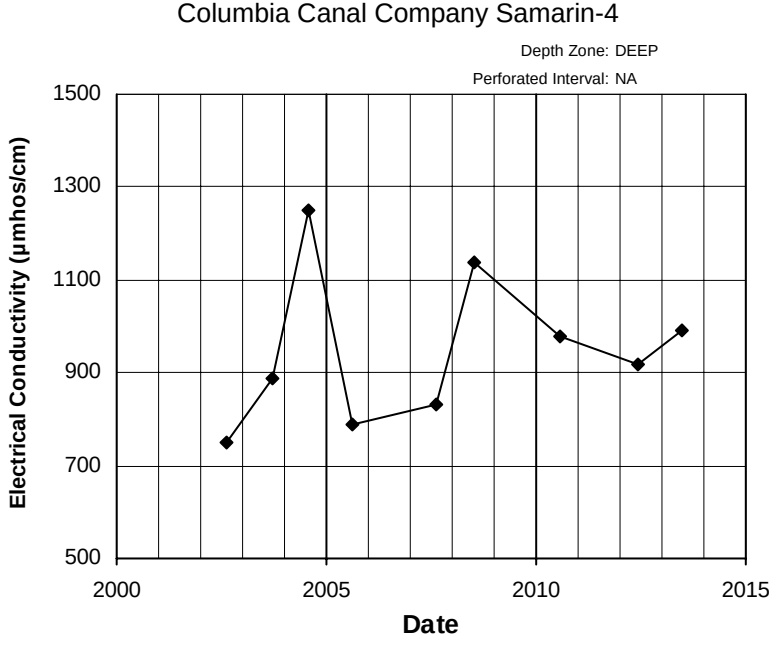


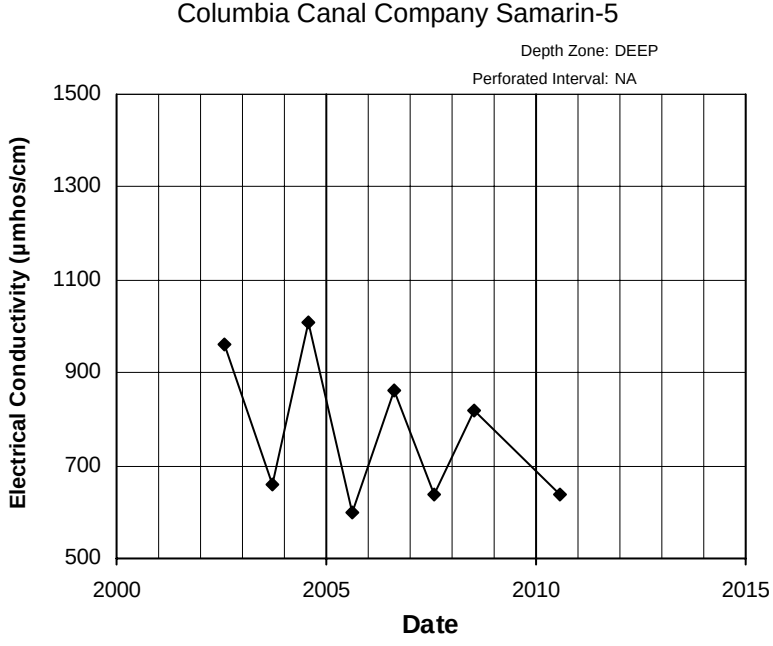
Columbia Canal Company Samarin-1



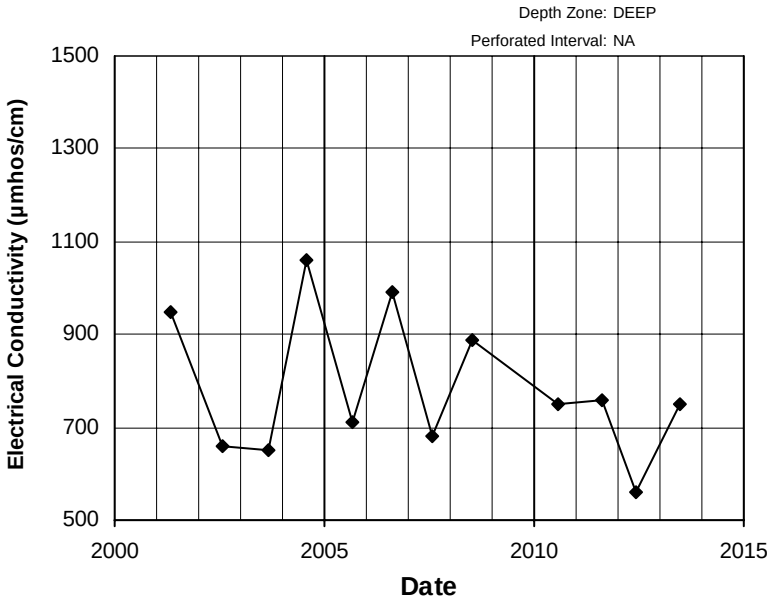

Columbia Canal Company Samarin-2
Depth Zone: DEEP
Perforated Interval: NA
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date


Columbia Canal Company Samarin-3
Depth Zone: DEEP
Perforated Interval: NA
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date

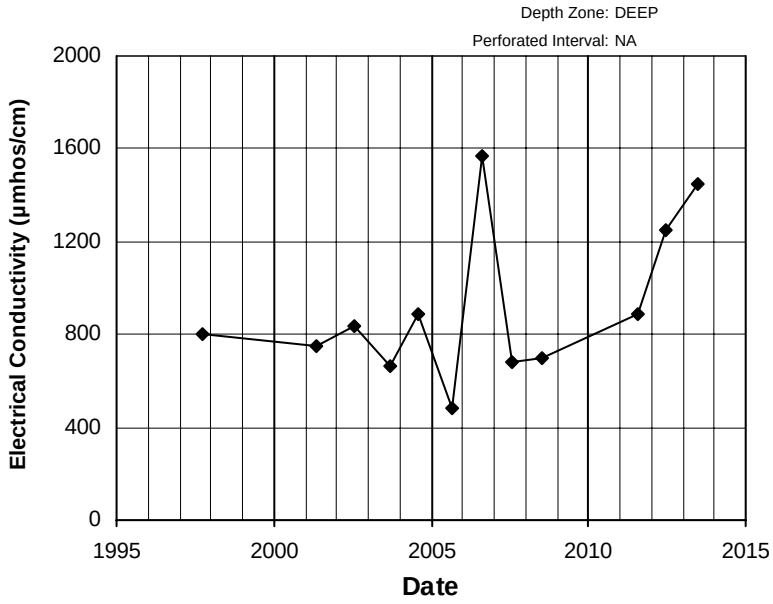

Columbia Canal Company Samarin-4
Depth Zone: DEEP
Perforated Interval: NA
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date


Columbia Canal Company Samarin-5
Depth Zone: DEEP
Perforated Interval: NA
Electrical Conductivity (µmhos/cm)
1500
1300
1100
900
700
500
2000
2005
2010
2015
Date

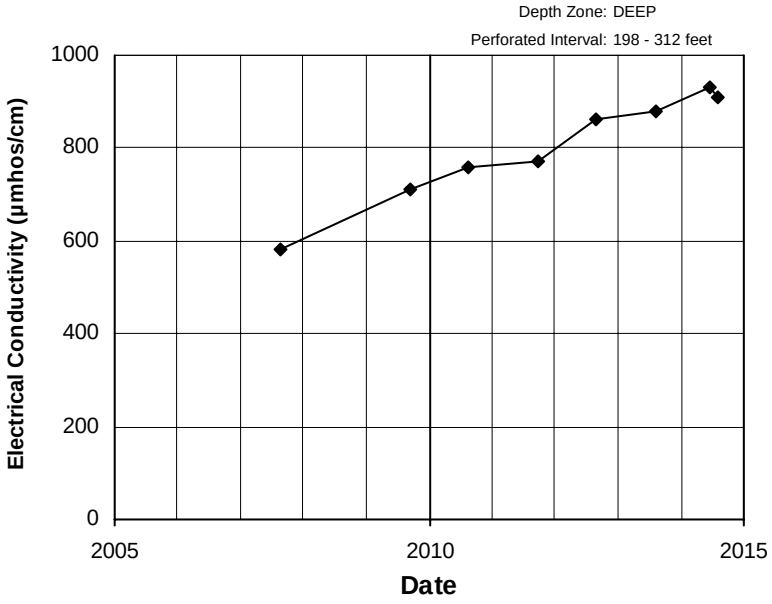
Columbia Canal Company Snyder



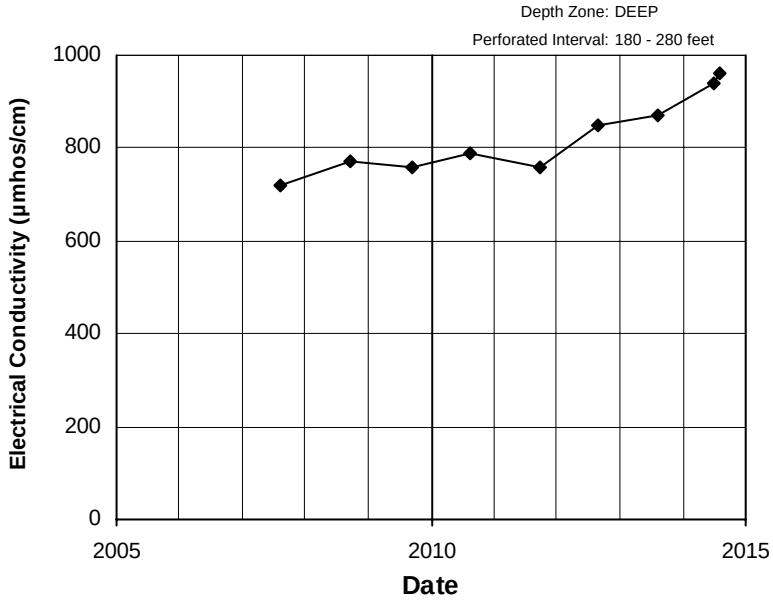
Columbia Canal Company Cardella-Lopes (Lopes-1)



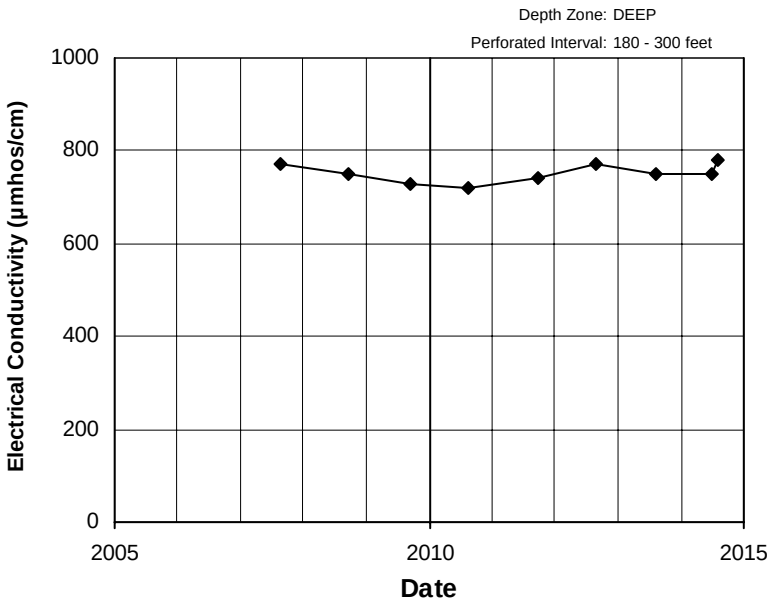
Wonderful Orchards 3311-62 (W-8)



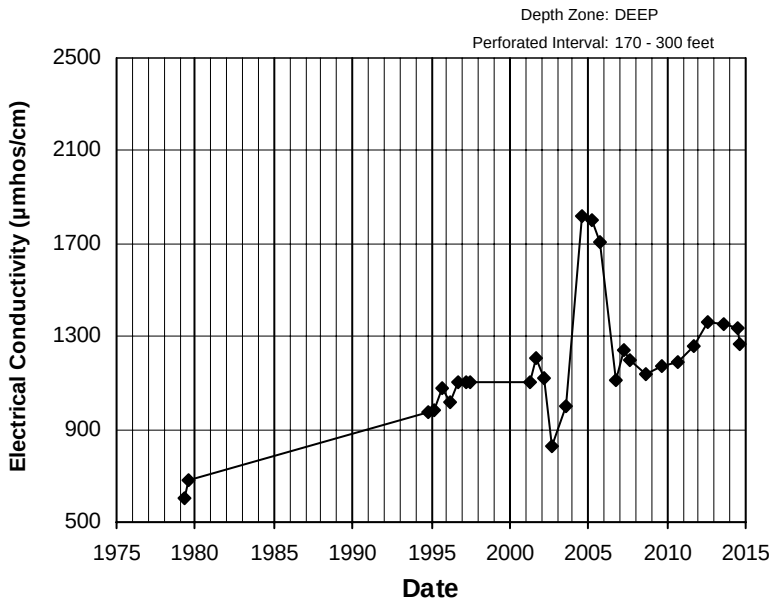
Wonderful Orchards 3591-66 (W-11)



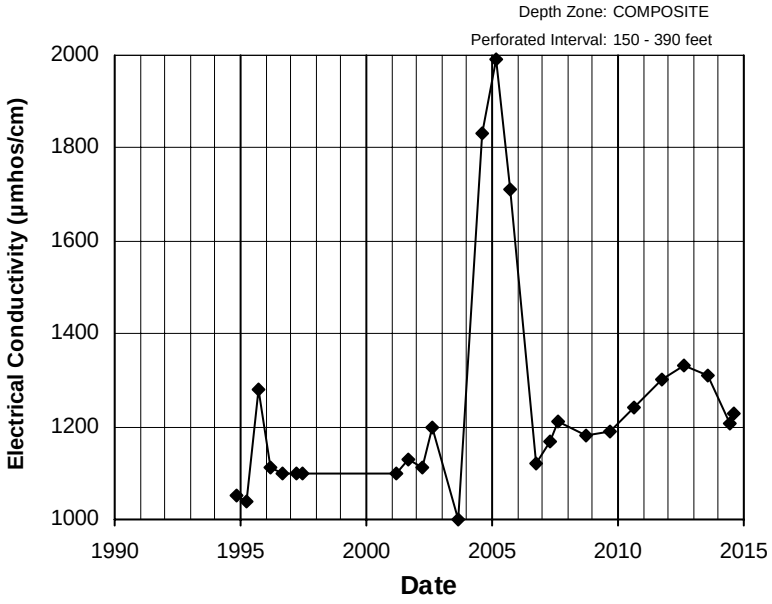
Wonderful Orchards 3211-66 (W-15)



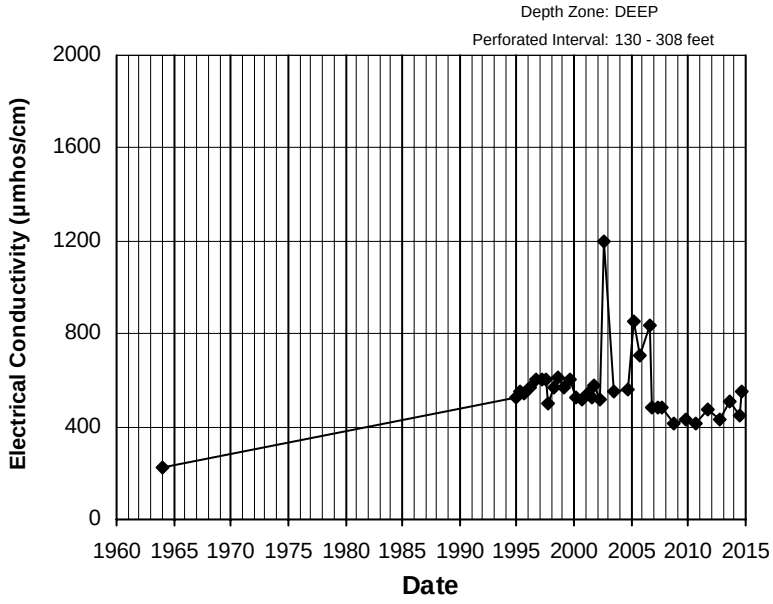
Wonderful Orchards 3431-61 (W-32)



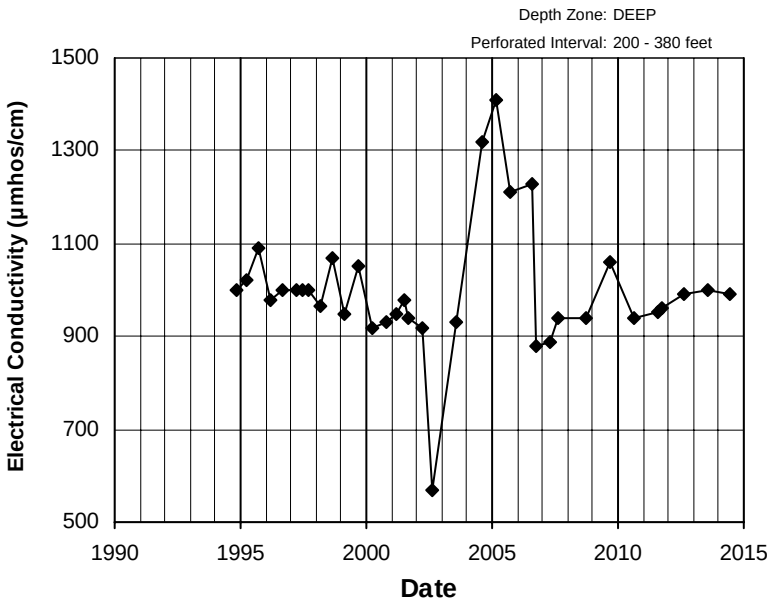
Wonderful Orchards 2480-66 (W-42)



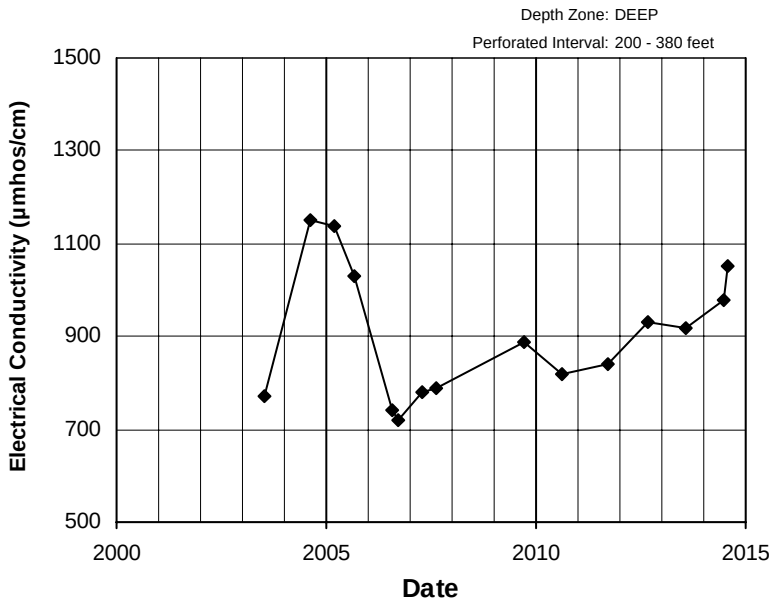
Wonderful Orchards 3730-65 (W-53)



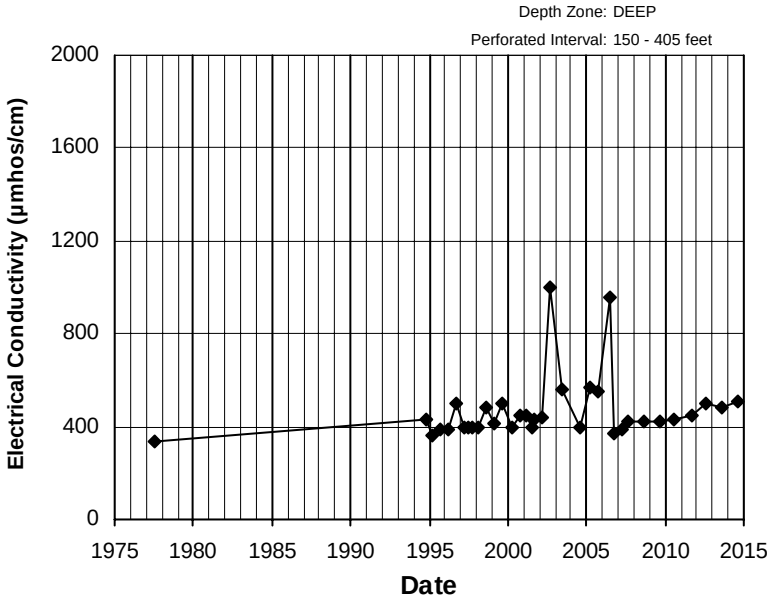
Wonderful Orchards 3421-62 (W-74)



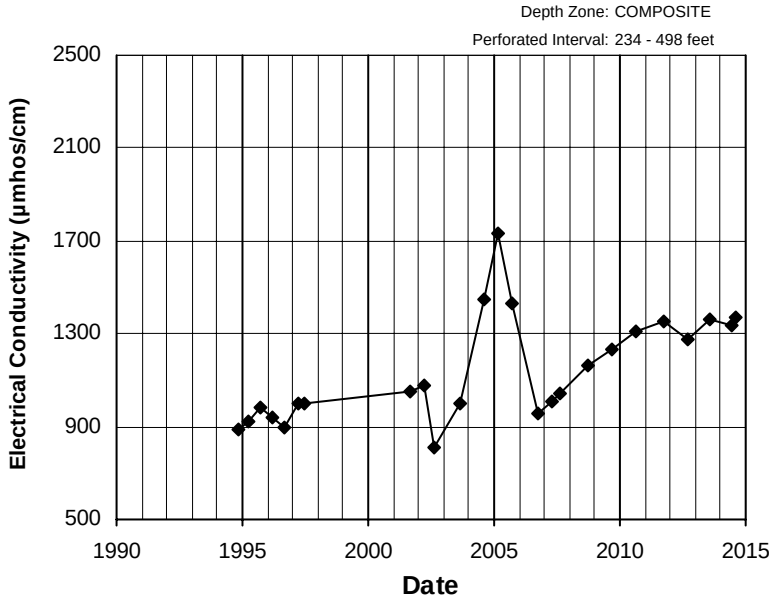
Wonderful Orchards 3211-69 (W-77)



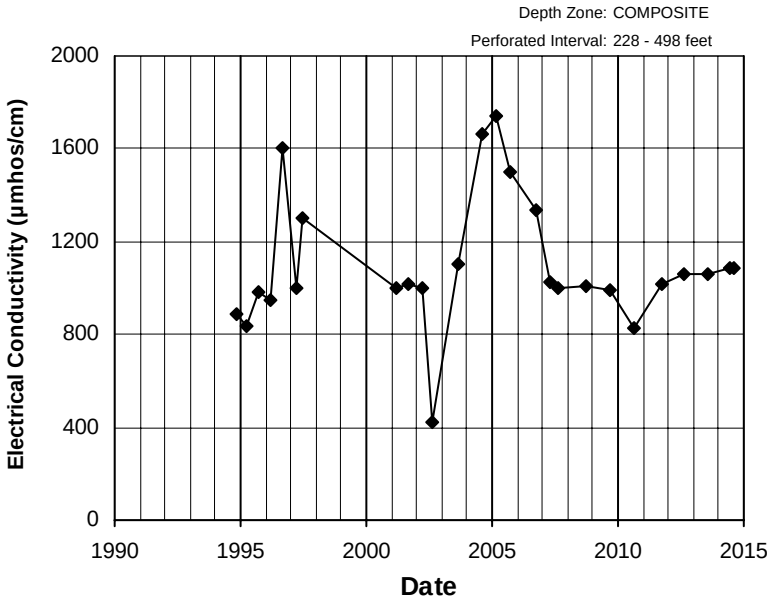
Wonderful Orchards 2630-61 (W-78)



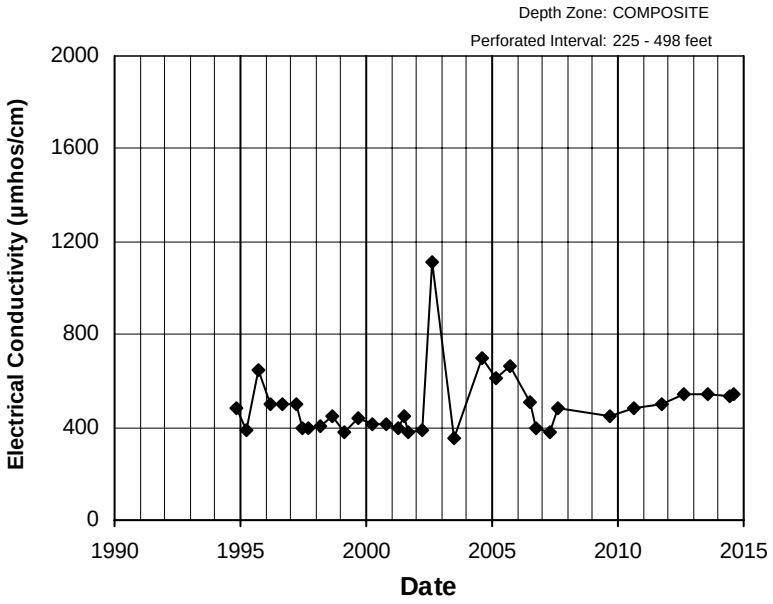
Wonderful Orchards 3311-61 (W-89)



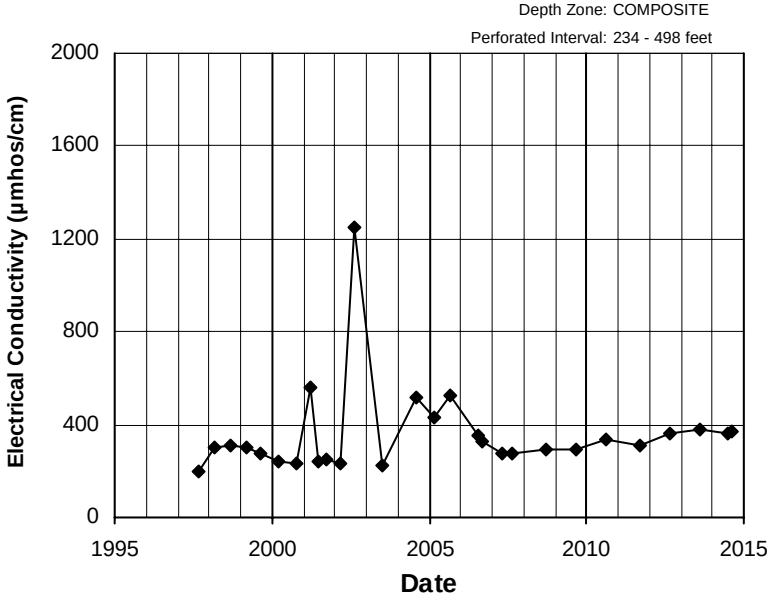
Wonderful Orchards 3431-62 (W-91)



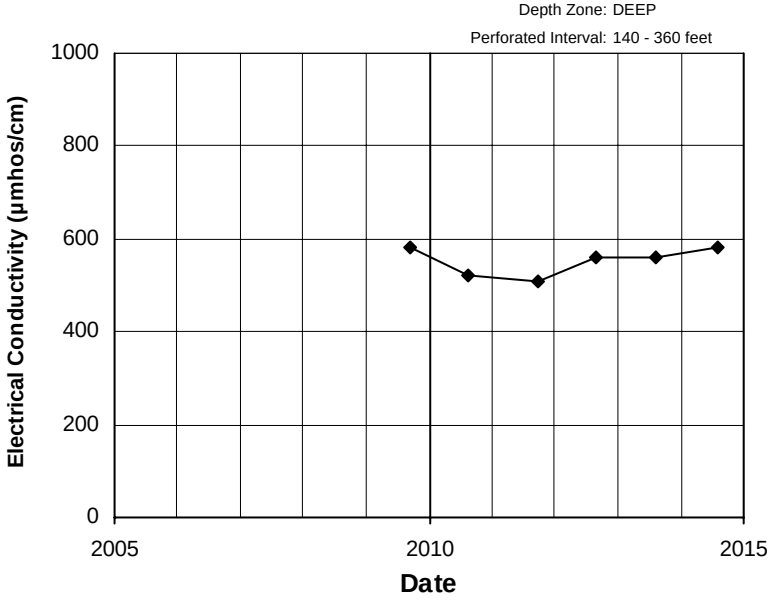
Wonderful Orchards 3730-62 (W-94)



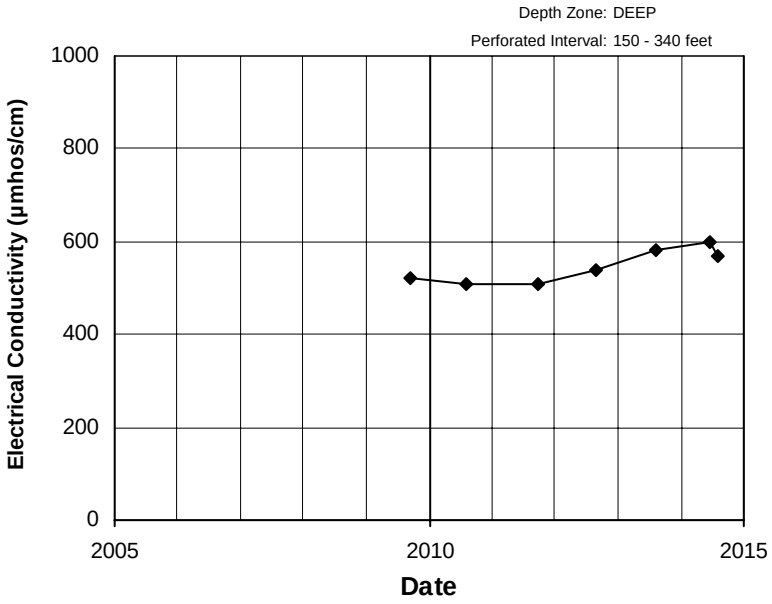
Wonderful Orchards 3730-61 (W-95)



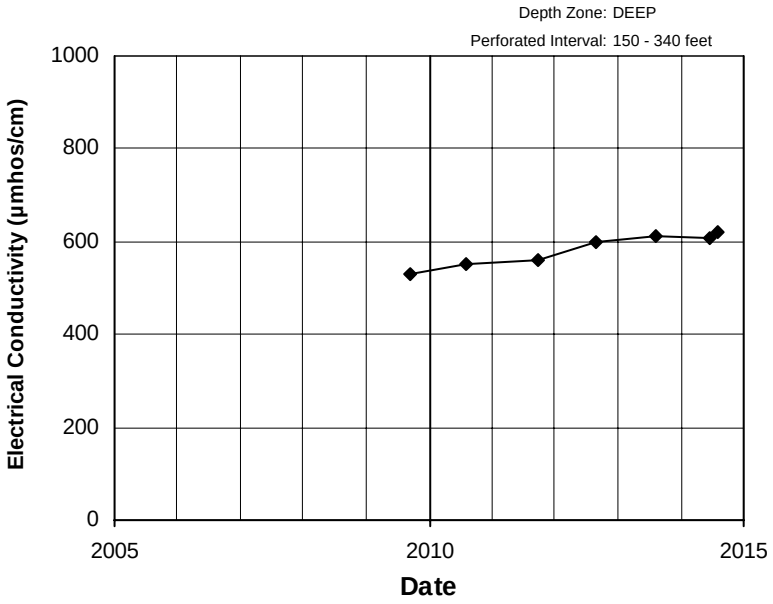
Wonderful Orchards 3921-61 (W-106)



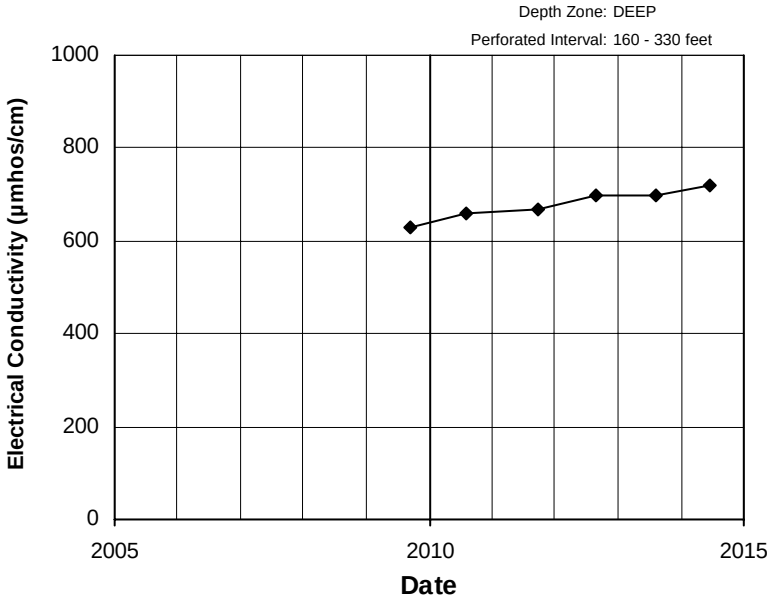
Wonderful Orchards 3730-72 (W-107)



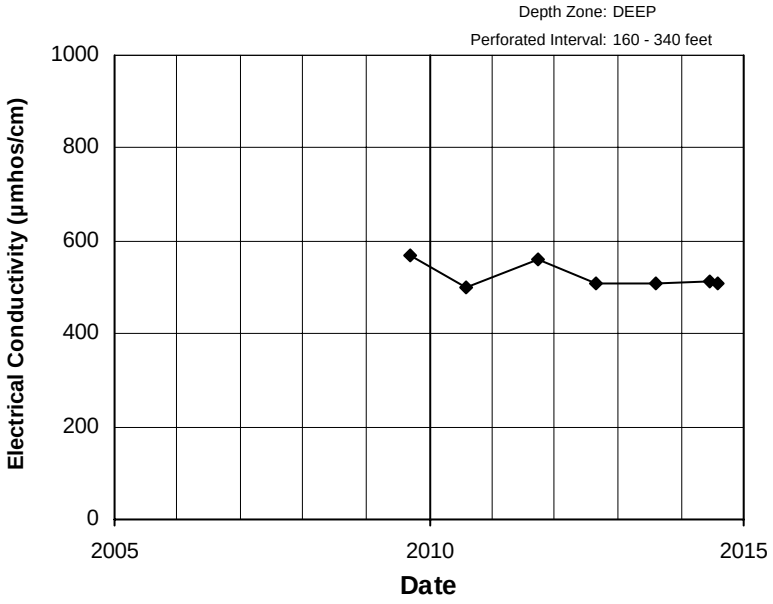
Wonderful Orchards 3730-70 (W-108)

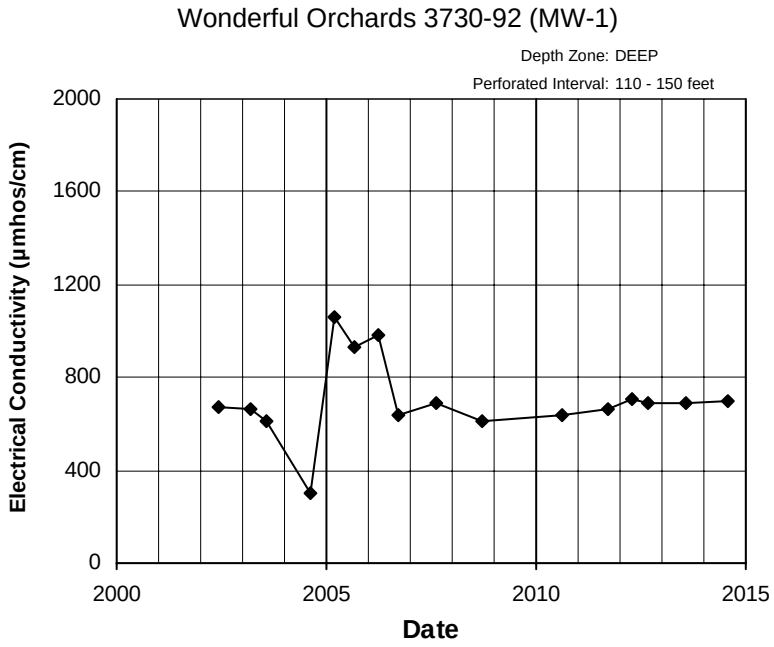


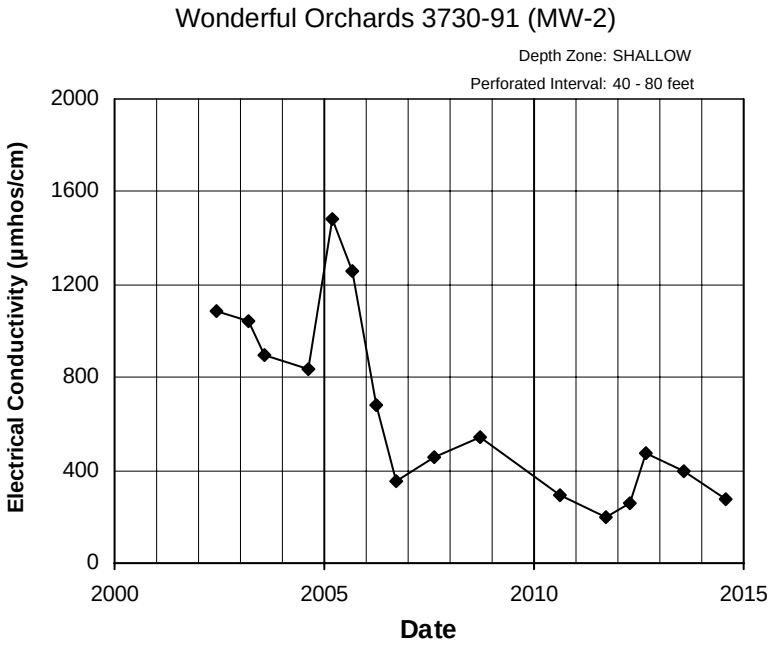
Wonderful Orchards 3211-68 (W-110)

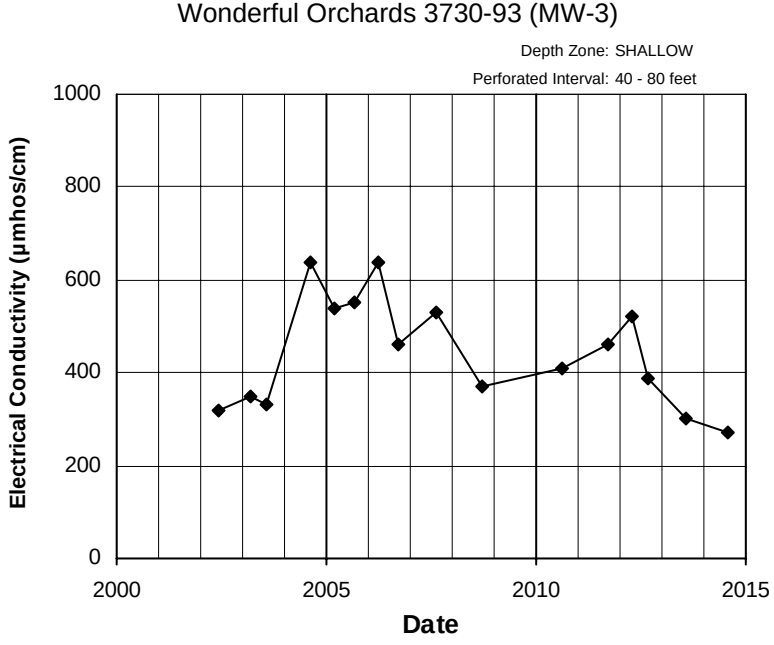


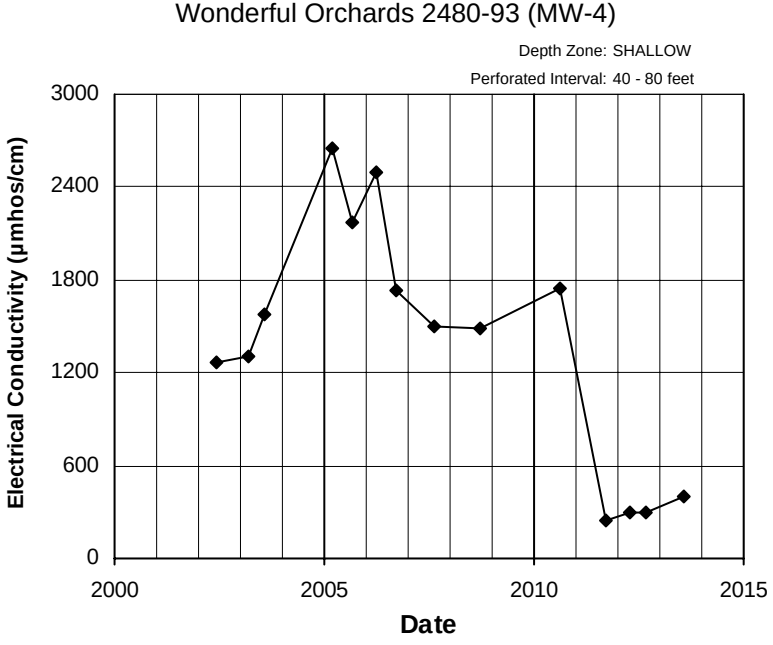
Wonderful Orchards 3730-63 (W-112)




Wonderful Orchards 3730-92 (MW-1)
Depth Zone: DEEP
Perforated Interval: 110 - 150 feet
Electrical Conductivity (µmhos/cm)
2000
1600
1200
800
400
0
2000
2005
2010
2015
Date


Wonderful Orchards 3730-91 (MW-2)
Depth Zone: SHALLOW
Perforated Interval: 40 - 80 feet
Electrical Conductivity (µmhos/cm)
2000
1600
1200
800
400
0
2000
2005
2010
2015
Date

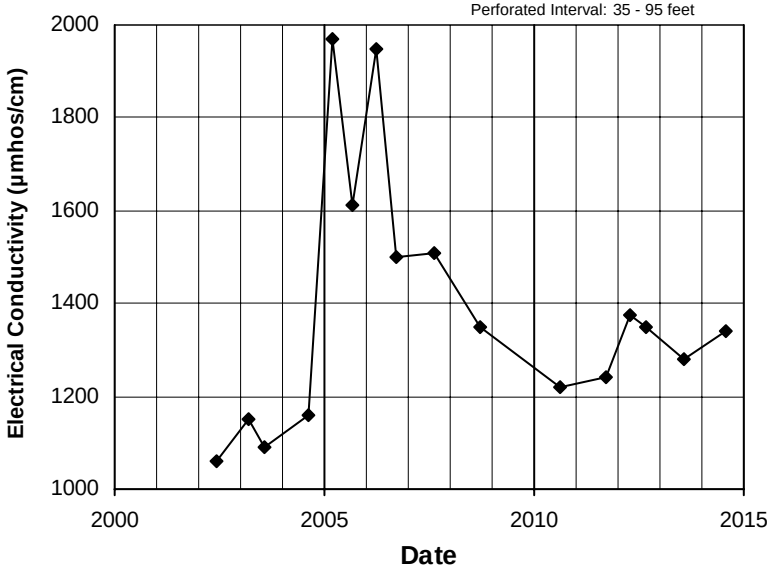

Wonderful Orchards 3730-93 (MW-3)
Depth Zone: SHALLOW
Perforated Interval: 40 - 80 feet
Electrical Conductivity (µmhos/cm)
1000
800
600
400
200
0
2000
2005
2010
2015
Date


Wonderful Orchards 2480-93 (MW-4)
Depth Zone: SHALLOW
Perforated Interval: 40 - 80 feet
Electrical Conductivity (µmhos/cm)
3000
2400
1800
1200
600
0
2000
2005
2010
2015
Date

Wonderful Orchards 3431-91 (MW-5)

Depth Zone: SHALLOW

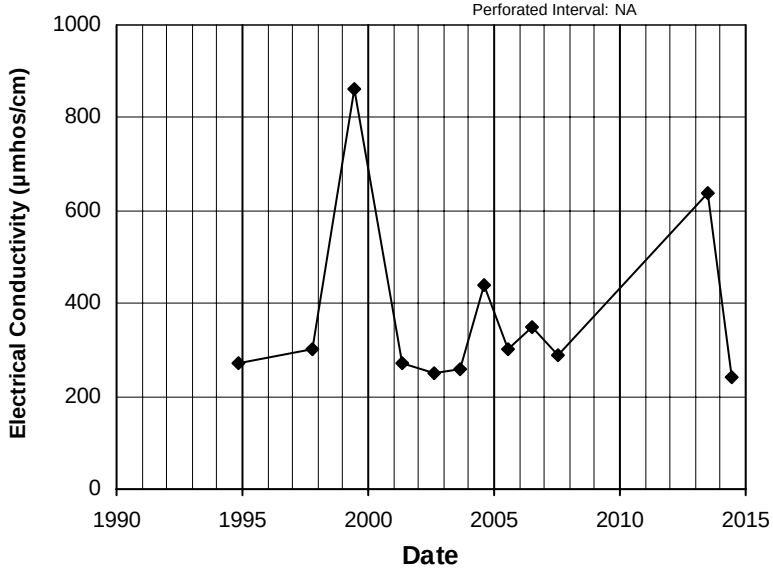
Perforated Interval: 35 - 95 feet



Wonderful Orchards Well 3730-74 (CC-1)

Depth Zone: DEEP

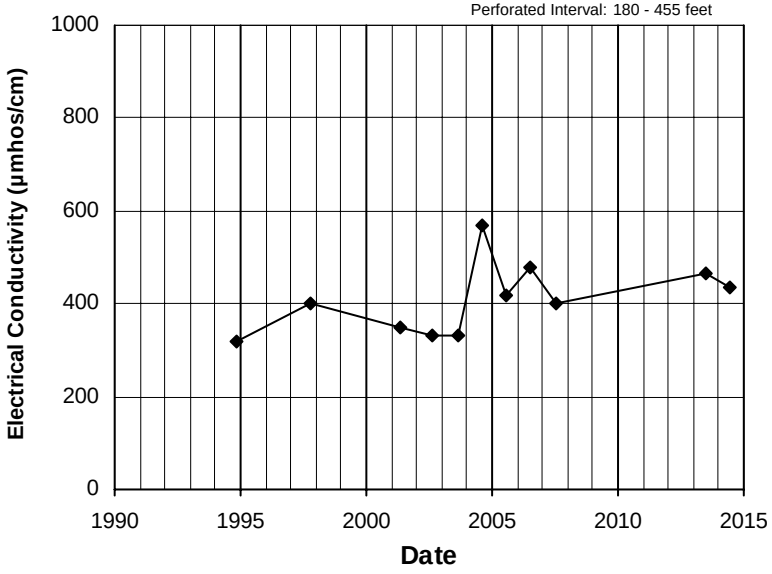
Perforated Interval: NA



Wonderful Orchards Well 3730-75 (CC-2)

Depth Zone: DEEP

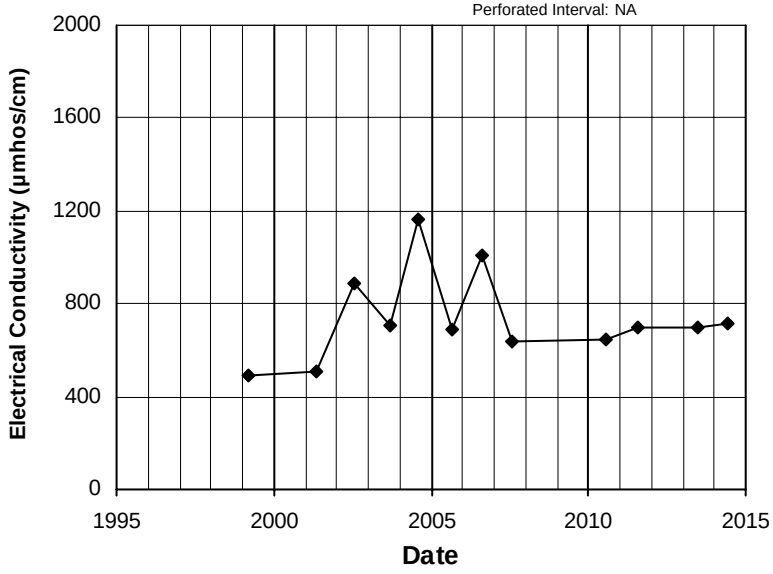
Perforated Interval: 180 - 455 feet



Wonderful Orchards Well 3421-61 (Card-1)

Depth Zone: DEEP

Perforated Interval: NA



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APPENDIX G

SURFACE-WATER QUALITY LABORATORY RESULTS

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Table G-1
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Columbia Canal																							
2/3/1999	BSK	220	140	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	<2	-
4/21/1999	BSK	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	2	-
5/26/1999	BSK	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
6/30/1999	BSK	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/8/1999	FGL	248	190	8.6	1.4	12	6	23	2	26	25	50	50	0.7	-	-	0.1	-	-	-	-	<2	-
7/28/1999	BSK	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/29/1999	BSK	450	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	0.2	-	-	-	-	<2	-
10/27/1999	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/17/1999	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/14/2000	FGL	258	150	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
7/10/2000	FGL	348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2000	FGL	346	210	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/9/2000	FGL	348	210	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/25/2000	FGL	324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/13/2000	FGL	348	200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
10/11/2000	FGL	451	310	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
7/19/2001	FGL	421	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/12/2001	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/3/2001	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
2/20/2002	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
4/10/2002	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
5/8/2002	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/12/2002	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/25/2002	FGL	383	240	7.8	1.6	19	10	34	2	35	43	100	80	2.4	<0.1	3	0.16	<0.01	0.56	0.03	-	-	<0.02
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.1	0.71	-
7/10/2002	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/22/2002	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/10/2002	BSK	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2002	BSK	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
3/5/2003	BSK	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<2	-
4/16/2003	BSK	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	3	-
4/27/2003	FGL	422	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<2	-
5/8/2003	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
5/29/2003	FGL	579	369	8.1	2.4	27	15	63	3	72	84	100	80	4.7	<0.1	-	0.29	<0.01	90	10	-	-	<0.02
6/11/2003	BSK	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/21/2003	FGL	360	229	7.7	1.5	20	10	34	2	41	40	80	70	2	<0.1	<2	0.19	<0.01	0.3	0.03	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	0.79	-
7/9/2003	BSK	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/18/2003	FGL	263	169	7.5	1.2	15	8	23	2	23	26	70	60	1.5	0.2	2	0.13	<0.01	0.41	0.03	-	-	<0.02
8/13/2003	BSK	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/23/2003	BSK	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
3/3/2004	BSK	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	2	-
4/7/2004	BSK	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	2	-
5/5/2004	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	BSK	600	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Columbia Canal																							
7/13/2004	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/3/2004	BSK	460	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/1/2004	BSK	380	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/6/2004	BSK	530	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/29/2004	FGL	559	350	7.8	2.7	20	14	64	3	41	105	100	80	2.8	0.2	<2	0.2	<0.01	0.1	0.02	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	0.636	-
6/15/2005	USBR	43	-	7.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
8/3/2005	USBR	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
9/7/2005	USBR	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/5/2005	USBR	340	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
7/12/2006	BSK	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
8/2/2006	BSK	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.11	-	-	-	-	<2	-
9/6/2006	BSK	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
10/4/2006	BSK	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
11/8/2006	BSK	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
3/7/2007	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
5/9/2007	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	<2	-
6/25/2007	FGL	400	254	6.7	1.7	17	10	35	2	47	49	90	70	3.8	<0.1	3	0.15	<0.01	0.33	0.03	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	0.782	-
7/3/2007	BSK	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<2	-
9/11/2007	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
9/18/2007	FGL	640	364	7.9	3.3	20	15	80	4	41	114	90	80	0.4	<0.1	2	0.13	<0.01	0.25	0.02	-	-	<0.02
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	0.55	-
4/1/2008	BSK	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-	-	2.5	-
6/23/2008	FGL	590	313	7.7	2.5	24	15	63	3	51	93	60	50	3.8	0.4	3	0.2	<0.01	0.3	0.03	-	-	<0.02
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.93	0.57	-
7/2/2008	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	<2	-
8/6/2008	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<2	-
9/10/2008	BSK	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<2	-
9/17/2008	FGL	623	372	7.3	3	23	17	77	3	42	109	100	80	1	0.1	3	0.2	<0.01	0.36	0.04	-	-	<0.02
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.05	<0.4	-
10/1/2008	BSK	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
3/13/2009	BSK	760	-	8.5	-	36	21	89	3.7	93	110	121	100	5.5	-	-	0.42	-	-	-	-	-	-
4/1/2009	BSK	640	-	8.5	-	-	-	-	-	-	-	-	-	-	-	-	0.38	-	-	-	-	<1	-
5/19/2009	BSK	490	-	8.0	-	24	14	56	2.6	58	64	106	87	3.3	-	-	0.28	-	-	-	-	-	-
6/30/2009	FGL	545	345	7.7	2.3	25	14	59	3	56	85	100	80	2.6	0.2	2	0.2	<0.01	0.25	0.03	2	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.51	-
7/15/2009	BSK	320	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	<1	-
9/25/2009	FGL	588	347	7.0	3.2	19	14	75	3	40	105	90	80	1.1	0.1	3	0.2	<0.01	0.36	0.04	2	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/30/2009	BSK	590	-	8.6	-	11	7.9	97	2.3	45	90	134	120	<1	-	-	0.17	-	-	-	-	-	-
3/16/2010	BSK	130	-	8.0	-	5.8	1.7	19	<2	5.9	11	52	43	<1	-	-	<0.1	-	-	-	-	-	-
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/7/2010	FGL	44	39	7.0	0.6	3	<1	4	<1	<2	2	30	20	<0.4	<0.1	2	<0.1	<0.01	0.21	<0.01	-	-	<0.02
6/16/2010	APP	174	114	-	-	8.35	3.44	13.6	1.14	13.1	12.6	39	32.2	0.99	-	-	0.0687	-	-	-	-	<1	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Columbia Canal																							
7/21/2010	APP	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0762	-	-	-	-	<1	-
8/18/2010	APP	268	132	8.1	-	12.8	6.87	28	1.62	21.7	31.7	54	43.9	1.2	-	-	0.107	-	-	-	-	<1	-
9/15/2010	APP	366	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.142	-	-	-	-	<1	-
9/24/2010	FGL	360	200	8.0	2.2	13	8	40	2	24	63	50	40	<0.4	<0.1	2	0.1	<0.01	0.36	0.03	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.05	0.471	-
10/6/2010	APP	614	208	7.5	-	16.8	10.5	44.9	2.27	28.2	55.5	74	60.6	2.5	-	-	0.132	-	-	-	-	<1	-
3/2/2011	APP	105	64	7.7	-	8.68	2.59	7.71	1.59	3.3	5.1	42	34.6	<0.5	-	-	<0.025	-	-	-	-	<1	-
5/11/2011	APP	42.1	46	7.3	-	4.12	0.988	3.97	0.914	1.2	2.1	16	13.3	<0.5	-	-	<0.025	-	-	-	-	<1	-
6/8/2011	APP	31.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	<1	-
7/20/2011	APP	120	30	7.8	-	3.66	0.853	2.77	0.757	2.4	1.8	13	10.4	<0.5	-	-	<0.025	-	-	-	-	<1	-
8/10/2011	APP	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.025	-	-	-	-	<1	-
10/19/2011	APP	20.4	18	7.5	-	1.48	0.447	1.71	0.533	1.2	1.9	10	8	0.99	-	-	<0.025	-	-	-	-	<1	-
11/9/2011	APP	23.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.025	-	-	-	-	<1	-
2/15/2012	APP	45.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.025	-	-	-	-	<1	-
3/6/2012	APP	173	125	8.0	-	3.95	0.974	34.6	1.04	11.9	17	53	43.4	<0.5	-	-	0.0655	-	-	-	-	<1	-
5/16/2012	APP	339	50	7.6	-	3.46	0.763	9.73	0.856	3.5	5.6	25	20.1	<0.5	-	-	0.0321	-	-	-	-	<1	-
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
6/6/2012	FGL	44	30	8.2	-	3	<1	4	<1	<2	3	20	20	<1.8	<0.1	<2	<0.1	<0.01	0.19	<0.01	1	-	<0.02
9/5/2012	APP	380	222	7.5	-	15.4	10.5	49.5	2.4	29.6	58.8	67	55.1	1.6	-	-	0.14	-	-	-	-	<1	-
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	612	363	7.6	-	18	14	74	3	42	131	80	70	3.1	<0.1	2	0.2	<0.01	0.13	0.02	2	-	<0.02
10/31/2012	APP	41.1	28	7.6	-	3.4	1.1	4.7	0.81	2	3.7	14	11.7	0.78	-	-	0.027	-	-	-	-	<1	-
2/22/2013	APP	49.3	29	7.5	-	3.6	0.81	4.9	0.81	1.8	4.1	14	11.6	<0.5	-	-	0.034	-	-	-	-	<1	-
3/8/2013	APP	162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.077	-	-	-	-	<1	-
4/12/2013	APP	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.029	-	-	-	-	<1	-
5/1/2013	APP	80.1	51	7.4	-	3.9	0.84	12.9	0.93	4.5	7.9	27	22.3	<0.9	-	-	0.056	-	-	-	-	<1	-
6/4/2013	APP	508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	<1	-
6/24/2013	FGL	312	223	7.9	-	14	8	32	2	26	40	100	80	0.9	<0.1	2	0.1	<0.01	0.12	0.02	2	<1	<0.02
7/29/2013	APP	520	254	8.0	-	19.6	13.7	57.1	3.1	33.1	85.5	78	64	1.1	-	-	0.16	-	-	-	-	<1	-
8/14/2013	APP	583	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<1	-
9/11/2013	APP	530	289	7.96	-	13.6	9.4	84.8	2.6	37.7	77.9	103	84.3	<0.5	-	-	0.17	-	-	-	-	<1	-
10/2/2013	FGL	390	252	8.2	-	4	1	75	1	31	50	90	80	<0.4	0.1	<2	0.2	<0.01	0.19	<0.01	4	<1	<0.02
10/2/2013	APP	375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	<1	-
4/2/2014	APP	810	464	8.51	-	4	0.79	166	1.7	64	94	185	152	<0.5	-	-	0.29	-	-	-	-	<1	-
5/28/2014	APP	105	69	7.27	-	3.7	0.83	16	0.89	5.8	9.7	35	28.5	1.8	-	-	0.051	-	-	-	-	<1	-
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-
6/30/2014	FGL	50	34	7.3	-	5	<1	5	<1	1.4	3	20	10	<0.4	<0.1	2	<0.1	<0.01	0.1	<0.01	3	-	0.03
7/1/2014	APP	52.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.034	-	-	-	-	<1	-
8/27/2014	APP	39.4	31	6.81	-	2.7	0.52	3.5	0.52	1.7	3	16	13.4	<0.5	-	-	0.025	-	-	-	-	21	-
9/10/2014	APP	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.026	-	-	-	-	<1	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	1	-	-
10/1/2014	APP	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	<1	-
11/12/2014	APP	725	411	8.0	-	27.7	17	73.9	3.3	71.7	124	112	91.6	2.4	-	-	0.27	-	-	-	-	<1	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Mendota Dam																							
7/8/1999	FGL	395	240	7.8	1.6	20	10	35	2	47	44	110	90	4.4	-	-	0.2	-	-	-	-	-	-
7/21/1999	FGL	228	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/11/1999	FGL	296	170	-	3.5	16	8	68	4	29	27	80	70	4	-	-	0.1	-	-	-	-	-	-
8/25/1999	FGL	301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/1999	FGL	378	230	7.7	1.8	18	10	39	2	37	40	100	80	3.2	-	-	-	-	-	-	-	-	-
9/22/1999	FGL	507	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/11/1999	FGL	601	350	7.8	2.4	25	13	60	3	61	77	110	90	7.3	-	-	0.2	-	-	-	-	-	-
7/10/2000	FGL	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/25/2000	FGL	356	-	-	-	-	-	-	-	30	37	-	-	-	-	-	0.1	-	-	-	-	-	-
11/6/2000	FGL	447	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	FGL	390	-	-	-	-	-	-	-	35	52	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	<0.25	-	-	-	3.4	0.59	-
11/5/2001	FGL	668	380	8.0	2.7	26	17	73	4	51	110	120	90	4	<0.1	<2	0.25	<0.01	0.24	0.02	-	-	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	0.59	-
6/25/2002	FGL	344	210	7.9	1.4	18	10	30	2	31	35	90	70	2.6	<0.1	3	0.15	<0.01	0.63	0.04	-	-	<0.02
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	0.68	-
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	0.744	-
6/21/2003	FGL	201	143	7.8	0.9	14	7	16	2	18	14	70	60	1.6	<0.1	3	0.1	<0.01	0.27	0.02	-	-	<0.02
10/29/2003	FGL	538	328	7.7	2.5	21	14	60	3	38	90	100	80	2.3	0.2	<2	0.2	<0.01	0.19	0.02	-	-	0.07
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
12/17/2003	BSK	540	-	8.0	-	29	16	58	2	41	79	100	100	<2	-	-	0.2	-	-	-	-	<2	-
4/7/2004	BSK	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	2	-
5/5/2004	BSK	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	BSK	580	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
7/13/2004	BSK	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
8/3/2004	BSK	310	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
9/1/2004	BSK	380	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/6/2004	BSK	520	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/29/2004	FGL	658	410	8.0	2.8	27	16	73	4	72	103	110	90	5.1	0.2	2	0.2	<0.01	0.16	0.03	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.685	-
11/10/2004	BSK	540	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
6/15/2005	USBR	180	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
8/3/2005	USBR	280	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/7/2005	USBR	390	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/5/2005	USBR	350	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
2/8/2006	BSK	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/12/2006	BSK	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
8/2/2006	BSK	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
9/6/2006	BSK	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
11/8/2006	BSK	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
1/10/2007	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.29	-	-	-	-	<2	-
1/31/2007	BSK	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.36	-	-	-	-	<2	-
3/7/2007	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	<2	-
5/9/2007	BSK	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
6/25/2007	FGL	465	288	7.0	1.9	21	11	43	2	58	58	90	80	4.7	<0.1	3	0.17	<0.01	0.37	0.05	-	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Mendota Dam																							
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	0.851	-
7/3/2007	BSK	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	<2	-
9/11/2007	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<2	-
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	0.61	-
9/18/2007	FGL	646	364	8.3	3.3	19	15	79	4	38	118	90	70	1.4	<0.1	2	0.16	<0.01	0.25	0.3	-	-	<0.02
4/1/2008	BSK	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38	-	-	-	-	<2	-
5/13/2008	BSK	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.37	0.54	-
6/23/2008	FGL	578	402	7.6	2.5	24	15	63	3	49	94	150	120	4.1	0.4	3	0.2	<0.01	0.26	0.03	-	-	<0.02
7/2/2008	BSK	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	<2	-
8/6/2008	BSK	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/10/2008	BSK	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.45	<0.4	-
9/22/2008	FGL	713	421	8.4	3.3	25	18	88	4	50	124	110	90	2.4	<0.1	3	0.2	<0.01	0.28	0.06	-	-	<0.02
10/1/2008	BSK	610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
11/5/2008	BSK	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
3/4/2009	BSK	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	-	-	-	<1	-
4/1/2009	BSK	770	-	8.3	-	-	-	-	-	-	-	-	-	-	-	-	0.49	-	-	-	-	1.2	-
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.53	-
6/30/2009	FGL	659	415	7.8	2.7	30	17	74	3	73	105	110	90	2.9	0.2	3	0.3	<0.01	0.26	0.04	3	-	<0.02
7/15/2009	BSK	280	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	<1	-
9/25/2009	FGL	570	342	7.1	2.7	22	15	67	3	44	99	90	80	1.7	0.1	3	0.2	<0.01	0.29	0.04	2	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/30/2009	BSK	580	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<1	-
11/4/2009	BSK	480	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<1	-
3/16/2010	BSK	500	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	1.2	-
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/7/2010	FGL	328	204	7.8	1.7	17	8	33	2	43	39	60	50	1.8	<0.1	2	0.2	<0.01	0.6	0.06	-	-	<0.02
6/16/2010	APP	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.178	-	-	-	-	<1	-
7/21/2010	APP	253	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0981	-	-	-	-	<1	-
8/18/2010	APP	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.165	-	-	-	-	<1	-
9/15/2010	APP	498	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.162	-	-	-	-	<1	-
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	0.475	-
9/24/2010	FGL	578	333	8.2	3	19	13	69	3	35	114	80	70	<0.4	<0.1	2	0.2	<0.01	0.25	0.04	-	-	<0.02
10/6/2010	APP	624	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	0.218	-	-	-	-	<1	-
11/10/2010	APP	386	-	7.5	-	-	-	-	-	-	-	-	-	-	-	-	0.106	-	-	-	-	<1	-
12/8/2010	APP	727	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.439	-	-	-	-	1.4	-
2/9/2011	APP	302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.142	-	-	-	-	<1	-
5/11/2011	APP	87.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0359	-	-	-	-	<1	-
6/8/2011	APP	71.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0246	-	-	-	-	<1	-
7/20/2011	APP	157	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0886	-	-	-	-	<1	-
8/10/2011	APP	291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.163	-	-	-	-	<1	-
10/19/2011	APP	173	-	7.6	-	-	-	-	-	-	-	-	-	-	-	-	0.0852	-	-	-	-	<1	-
11/9/2011	APP	386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.196	-	-	-	-	<1	-
2/15/2012	APP	773	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.364	-	-	-	-	<1	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Mendota Dam																							
3/6/2012	APP	728	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.398	-	-	-	-	1.4	-
5/16/2012	APP	311	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	0.184	-	-	-	-	<1	-
6/6/2012	FGL	429	262	7.6	-	21	11	45	2	52	58	70	60	3.1	<0.1	2	0.2	<0.01	0.29	0.03	2	-	<0.02
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/5/2012	APP	461	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<1	-
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	722	418	7.7	-	19	16	91	4	45	162	80	70	3.1	<0.1	3	0.2	<0.01	0.1	0.03	1	-	<0.02
10/31/2012	APP	426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<1	-
2/22/2013	APP	401	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<1	-
3/8/2013	APP	449	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-	-	<1	-
4/12/2013	APP	365	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
5/1/2013	APP	357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<1	-
6/4/2013	APP	519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
6/24/2013	FGL	510	341	8.0	-	24	13	56	3	45	68	130	100	1.8	<0.1	3	0.3	<0.01	0.16	0.04	2	<1	<0.02
7/29/2013	APP	516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<1	-
8/14/2013	APP	579	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<1	-
9/11/2013	APP	694	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<1	-
10/2/2013	APP	574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<1	-
10/2/2013	FGL	582	338	7.9	-	20	14	68	3	40	102	90	70	1	0.2	3	0.2	<0.01	0.17	0.03	1	1.43	<0.02
11/13/2013	APP	523	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<1	-
12/4/2013	APP	576	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<1	-
1/29/2014	APP	592	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	1.1	-
3/12/2014	APP	1110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.54	-	-	-	-	1.5	-
4/2/2014	APP	973	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46	-	-	-	-	<1	-
5/28/2014	APP	375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<1	-
6/30/2014	FGL	308	176	7.7	-	16	8	33	2	23.3	43	50	40	0.6	<0.1	3	0.2	<0.01	0.12	0.02	3	-	0.03
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-
7/1/2014	APP	314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<1	-
8/27/2014	APP	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.025	-	-	-	-	20	-
9/10/2014	APP	55.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.026	-	-	-	-	<1	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	1	-	-
10/1/2014	APP	567	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<1	-
11/12/2014	APP	725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	<1	-
SLCC Arroyo Canal																							
2/3/1999	BSK	230	130	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	<2	-
4/21/1999	BSK	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	4	-
5/26/1999	BSK	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/30/1999	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	3	-
7/28/1999	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/29/1999	BSK	640	-	-	-	-	-	-	-	-	-	-	-	8	-	-	0.3	-	-	-	-	2	-
10/27/1999	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/17/1999	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/14/2000	FGL	470	280	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SLCC Arroyo Canal																							
7/17/2000	FGL	460	280	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
8/9/2000	FGL	420	240	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
9/13/2000	FGL	436	250	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
10/11/2000	FGL	509	300	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
12/13/2000	FGL	641	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
9/12/2001	BSK	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/3/2001	BSK	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	4	-
2/20/2002	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	-
4/10/2002	BSK	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<2	-
5/8/2002	BSK	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	2	-
6/12/2002	BSK	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/10/2002	BSK	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
8/22/2002	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/10/2002	BSK	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2002	BSK	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
2/12/2003	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	3	-
3/5/2003	BSK	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	2	-
4/16/2003	BSK	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	3	-
5/8/2003	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	2	-
6/11/2003	BSK	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/9/2003	BSK	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/13/2003	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/23/2003	BSK	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/29/2003	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
3/3/2004	BSK	810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	3	-
4/7/2004	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	3	-
5/5/2004	BSK	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	BSK	640	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
7/13/2004	BSK	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
8/3/2004	BSK	330	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/1/2004	BSK	440	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/6/2004	BSK	540	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
11/10/2004	BSK	530	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
2/9/2011	APP	347	191	7.7	-	20.6	7.54	35.6	1.82	52.9	34.2	51	42.1	3.2	-	-	0.209	-	-	-	-	1.8	-
5/11/2011	APP	94.1	70	7.3	-	8.46	2.59	7.91	1.29	8.4	4.3	30	24.9	0.73	-	-	0.0355	-	-	-	-	<1	-
6/8/2011	APP	69.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0268	-	-	-	-	<1	-
7/20/2011	APP	138	90	7.6	-	9.15	3.79	13.3	1.25	15.3	10.4	35	29	1.7	-	-	0.0744	-	-	-	-	<1	-
8/10/2011	APP	295	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<1	-
10/19/2011	APP	213	129	7.5	-	11.3	5.52	20.8	1.46	25.1	19.2	48	39.4	2.3	-	-	0.106	-	-	-	-	<1	-
11/9/2011	APP	274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.146	-	-	-	-	<1	-
2/15/2012	APP	579	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.188	-	-	-	-	<1	-
3/6/2012	APP	699	428	7.9	-	33	17.9	83	3.15	95.9	92.3	110	90	6.1	-	-	0.382	-	-	-	-	1	-
5/16/2012	APP	288	177	7.6	-	15.1	8.07	35.5	2.53	31.2	36	59	48.3	1.6	-	-	0.156	-	-	-	-	<1	-
9/5/2012	APP	457	262	7.5	-	18.3	12.6	58.9	2.8	36.3	73.8	77	63.5	1.6	-	-	0.17	-	-	-	-	<1	-
10/31/2012	APP	480	295	7.9	-	25.9	15.7	64.6	2.8	59.4	77.8	85	69.3	2.7	-	-	0.23	-	-	-	-	<1	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
SLCC Arroyo Canal																							
2/22/2013	APP	445	281	7.8	-	28.3	14.9	51.6	2.9	57.1	55.8	94	76.7	5.1	-	-	0.24	-	-	-	-	<1	-
3/8/2013	APP	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
4/12/2013	APP	183	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.11	-	-	-	-	<1	-
5/1/2013	APP	351	200	7.7	-	18.1	9.8	45.7	2.1	42.4	45.5	64	52.7	2.3	-	-	0.24	-	-	-	-	<1	-
6/4/2013	APP	591	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
7/29/2013	APP	514	257	7.6	-	20.3	14.2	58.1	3.2	33.8	82.8	77	62.8	2.1	-	-	0.17	-	-	-	-	<1	-
8/14/2013	APP	622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<1	-
9/11/2013	APP	701	352	7.89	-	25.6	19.3	91	4.2	49	112	99	81.4	1.2	-	-	0.21	-	-	-	-	<1	-
10/2/2013	APP	592	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	<1	-
11/13/2013	APP	522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<1	-
12/4/2013	APP	507	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	<1	-
1/29/2014	APP	483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<1	-
3/12/2014	APP	1080	568	8.1	-	40.3	25.5	127	4.1	122	175	140	115	5.1	-	-	0.49	-	-	-	-	1.3	-
4/2/2014	APP	1000	542	7.89	-	35.7	21.5	135	3.5	121	139	150	123	3.4	-	-	0.42	-	-	-	-	<1	-
5/28/2014	APP	387	202	7.73	-	16.9	9.5	46.9	1.9	43.6	52.2	70	57.3	2.7	-	-	0.18	-	-	-	-	<1	-
7/1/2014	APP	321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<1	-
8/27/2014	APP	64.6	37	6.84	-	2.8	1.4	5.7	0.61	3.7	5.8	22	18.1	<0.5	-	-	0.035	-	-	-	-	62	-
9/10/2014	APP	57.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.028	-	-	-	-	<1	-
10/1/2014	APP	465	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<1	-
11/12/2014	APP	728	415	8.19	-	27.5	17	71.2	3.1	74.1	122	115	94	3.1	-	-	0.27	-	-	-	-	<1	-
CCID Main Canal																							
1/8/1999	USBR	366	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/8/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
2/3/1999	BSK	240	130	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	<2	-
2/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
2/4/1999	USBR	254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/4/1999	USBR	307	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
4/6/1999	USBR	521	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	-
4/21/1999	BSK	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	3	-
5/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-
5/6/1999	USBR	376	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/26/1999	BSK	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
6/3/1999	USBR	427	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/3/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/30/1999	BSK	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	3	-
7/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
7/6/1999	USBR	287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/8/1999	FGL	323	170	7.8	1.4	18	9	29	2	35	32	90	70	3.8	-	-	0.1	-	-	-	-	<2	-
7/28/1999	BSK	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
8/4/1999	USBR	277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
8/11/1999	FGL	280	160	-	1.1	16	8	22	2	28	24	80	70	2.9	-	-	0.1	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Main Canal																							
9/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
9/2/1999	USBR	298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/1999	FGL	354	200	8.3	1.6	17	10	34	2	33	39	100	80	2.7	-	-	-	-	-	-	-	<2	-
9/29/1999	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/5/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
10/5/1999	USBR	571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/27/1999	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
11/2/1999	USBR	495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
11/11/1999	FGL	518	300	7.9	2.4	20	12	54	3	39	81	90	70	4.4	-	-	0.1	-	-	-	-	<2	-
11/17/1999	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	2	-
12/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
12/2/1999	USBR	965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/4/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.2	-
1/4/2000	USBR	1018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/2/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
2/2/2000	USBR	767	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/29/2000	USBR	223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/29/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
4/4/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
4/4/2000	USBR	521	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/2/2000	USBR	414	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/2/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
5/31/2000	USBR	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/31/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
6/14/2000	FGL	460	270	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
7/6/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	-
7/6/2000	USBR	285	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/10/2000	FGL	426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2000	FGL	312	200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/1/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
8/1/2000	USBR	316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/9/2000	FGL	321	200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/25/2000	FGL	344	-	-	-	-	-	-	-	28	35	-	-	-	-	-	0.1	-	-	-	-	-	-
9/6/2000	USBR	361	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/6/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
9/13/2000	FGL	343	200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
10/3/2000	USBR	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/3/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
10/11/2000	FGL	469	270	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
10/31/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
10/31/2000	USBR	422	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/6/2000	FGL	474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/5/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
12/5/2000	USBR	513	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Main Canal																							
12/13/2000	FGL	704	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
1/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65	-
1/3/2001	USBR	222	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/7/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.08	-
2/7/2001	USBR	595	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/8/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.32	-
3/8/2001	USBR	562	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.96	-
4/3/2001	USBR	778	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/9/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.56	-
5/9/2001	USBR	513	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/6/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.99	-
6/6/2001	USBR	488	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/26/2001	USBR	452	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	FGL	410	-	-	-	-	-	-	-	38	54	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	<0.25	-	-	-	3.6	0.6	-
7/24/2001	USBR	423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/24/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.89	-
8/29/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.78	-
8/29/2001	USBR	639	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/12/2001	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.48	-
10/2/2001	USBR	720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/3/2001	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/30/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/30/2001	USBR	666	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	0.57	-
11/5/2001	FGL	657	390	8.0	2.8	24	16	72	4	48	115	110	90	3.7	<0.1	<2	0.21	<0.01	0.24	0.02	-	-	<0.02
12/5/2001	USBR	982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.82	-
1/8/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
1/8/2002	USBR	698	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/7/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
2/7/2002	USBR	197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/20/2002	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
3/5/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
4/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-
4/11/2002	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
4/30/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
5/8/2002	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/12/2002	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
6/25/2002	FGL	387	240	7.9	1.5	20	11	34	2	36	43	90	80	3	<0.1	3	0.17	<0.01	0.95	0.08	-	-	0.02
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	0.79	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Main Canal																							
7/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
7/10/2002	BSK	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/7/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
8/22/2002	BSK	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
9/10/2002	BSK	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2002	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
11/6/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
12/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
1/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
2/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
2/12/2003	BSK	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<2	-
3/5/2003	BSK	930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	2	-
3/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
4/2/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
4/16/2003	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
4/27/2003	FGL	527	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<2	-
5/7/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
5/8/2003	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	2	-
5/29/2003	FGL	545	354	8.0	2.4	26	14	60	3	67	79	100	80	4.9	<0.1	-	0.27	<0.01	0.07	0.01	-	-	<0.02
6/7/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/11/2003	BSK	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.747	-
6/21/2003	FGL	198	142	7.8	0.8	14	7	15	2	18	14	70	60	1.6	<0.1	2	0.1	<0.01	0.56	0.07	-	-	<0.02
7/2/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
7/9/2003	BSK	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/6/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
8/13/2003	BSK	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/3/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
9/23/2003	BSK	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/1/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/29/2003	FGL	540	323	7.7	2.5	19	13	57	3	39	90	100	80	2.2	0.2	2	0.2	<0.01	0.17	0.02	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
10/30/2003	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
11/19/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
2/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
3/3/2004	BSK	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
3/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
4/7/2004	BSK	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	2	-
4/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
5/4/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
5/5/2004	BSK	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	BSK	450	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Main Canal																							
6/2/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
7/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
7/13/2004	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/3/2004	BSK	310	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/5/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
9/1/2004	BSK	400	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/8/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
10/6/2004	BSK	530	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/6/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/29/2004	FGL	662	417	8.0	2.8	27	16	74	4	74	97	120	100	5.2	0.2	2	0.2	<0.01	0.17	0.03	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	0.854	-
11/3/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
11/10/2004	BSK	520	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
1/5/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
2/2/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-
3/3/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
4/6/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
5/4/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/2/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
7/5/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
8/3/2005	USBR	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	0.6	-
9/7/2005	USBR	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	1	-
10/5/2005	USBR	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
11/1/2005	USBR	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
2/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-
2/8/2006	BSK	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<2	-
3/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
4/5/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
5/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
7/5/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
7/12/2006	BSK	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	-	-	-	<2	-
8/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
8/2/2006	BSK	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
9/6/2006	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<2	-
9/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/4/2006	BSK	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/4/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
11/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
11/8/2006	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	3.2	-
1/9/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
1/10/2007	BSK	590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<2	-
1/31/2007	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-	-	<2	-
2/6/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
3/6/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Main Canal																							
3/7/2007	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
4/4/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
5/2/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
5/9/2007	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<2	-
6/5/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
6/25/2007	FGL	482	306	7.0	2	22	11	45	2	60	61	100	80	4.8	<0.1	3	0.17	<0.01	0.56	0.08	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	0.87	-
7/3/2007	BSK	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	<2	-
7/3/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
8/2/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
9/4/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
9/11/2007	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	0.55	-
9/18/2007	FGL	649	368	7.9	3.5	18	15	82	4	34	124	90	70	1.3	<0.1	2	0.13	<0.01	0.3	0.03	-	-	<0.02
10/3/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
11/8/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
4/1/2008	BSK	740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46	-	-	-	-	2.4	-
5/13/2008	BSK	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<2	-
6/23/2008	FGL	573	318	7.7	2.5	23	15	62	3	49	92	70	60	4	0.4	3	0.2	<0.01	0.31	0.03	-	-	<0.02
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.17	0.55	-
7/2/2008	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	<2	-
8/6/2008	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/10/2008	BSK	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.45	<0.4	-
9/22/2008	FGL	714	424	8.3	3.3	25	18	88	4	50	127	110	90	2.4	<0.1	3	0.2	<0.01	0.42	0.06	-	-	<0.02
10/1/2008	BSK	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<2	-
11/5/2008	BSK	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
2/3/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
3/4/2009	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-	-	<1	-
3/5/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
3/13/2009	BSK	740	-	8.1	-	36	20	87	3.4	98	110	122	100	7.5	-	-	0.41	-	-	-	-	-	-
4/1/2009	BSK	680	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	0.45	-	-	-	-	1	-
4/1/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
5/5/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
5/19/2009	BSK	510	-	8.0	-	25	14	56	2.7	62	70	98	80	3.7	-	-	0.28	-	-	-	-	-	-
6/2/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
6/30/2009	FGL	654	406	7.8	2.7	29	16	72	3	71	102	110	90	2.8	0.2	3	0.3	<0.01	0.32	0.04	3	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.55	-
7/15/2009	BSK	260	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<1	-
8/4/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/25/2009	FGL	549	327	7.3	2.7	20	14	64	3	39	96	90	80	1.4	<0.1	3	0.2	<0.01	0.47	0.06	1	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/30/2009	BSK	570	-	8.2	-	21	15	66	3.1	44	98	109	89	2.4	-	-	0.2	-	-	-	-	-	-
11/4/2009	BSK	490	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
3/16/2010	BSK	370	-	8.1	-	19	8.5	40	2.2	47	36	83	68	3.1	-	-	0.21	-	-	-	-	-	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Main Canal																							
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/7/2010	FGL	335	217	7.9	1.6	18	9	34	2	43	39	70	50	1.8	<0.1	2	0.2	<0.01	0.85	0.12	-	-	<0.02
6/16/2010	APP	400	195	-	-	16.6	8.83	31.8	1.66	37.7	37.7	73	59.6	2.7	-	-	0.151	-	-	-	-	<1	-
7/21/2010	APP	246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0974	-	-	-	-	<1	-
8/18/2010	APP	490	253	7.9	-	25.7	13.4	50.3	2.37	55.3	66.1	93	76.5	3.2	-	-	0.216	-	-	-	-	<1	-
9/15/2010	APP	473	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.154	-	-	-	-	<1	-
9/24/2010	FGL	605	347	8.2	3.1	19	14	73	3	35	123	80	70	<0.4	<0.1	2	0.2	<0.01	0.28	0.04	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	0.51	-
10/6/2010	APP	428	369	7.7	-	32.1	17.6	75.5	3.07	65.9	90.1	120	98.7	7.3	-	-	0.267	-	-	-	-	<1	-
11/10/2010	APP	387	-	7.6	-	-	-	-	-	-	-	-	-	-	-	-	0.102	-	-	-	-	<1	-
12/8/2010	APP	651	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.354	-	-	-	-	1.1	-
2/9/2011	APP	327	183	7.8	-	18.8	8.34	32.5	1.9	44.2	34.3	59	48.7	2.8	-	-	0.173	-	-	-	-	1.2	-
5/11/2011	APP	104	75	7.7	-	8.55	2.65	8.88	1.2	11.9	5.1	29	24.1	0.63	-	-	0.0462	-	-	-	-	<1	-
6/8/2011	APP	71.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0252	-	-	-	-	<1	-
7/20/2011	APP	153	93	7.6	-	9.95	4.17	14.4	1.25	19.1	11.4	36	29.5	2.7	-	-	0.0826	-	-	-	-	<1	-
8/10/2011	APP	303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.166	-	-	-	-	<1	-
10/19/2011	APP	183	106	7.4	-	10.1	4.87	18.2	1.13	22.3	14.9	40	32.8	2.1	-	-	0.0985	-	-	-	-	<1	-
11/9/2011	APP	409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.215	-	-	-	-	<1	-
2/15/2012	APP	742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.374	-	-	-	-	<1	-
3/7/2012	APP	795	488	7.9	-	39.2	21.2	90.7	3.42	112	109	123	101	7.8	-	-	0.417	-	-	-	-	1.3	-
5/16/2012	APP	390	230	7.8	-	19.5	10.5	44	2.14	49.7	48.4	74	60.6	2.5	-	-	0.216	-	-	-	-	<1	-
6/6/2012	FGL	430	263	7.8	-	21	12	45	2	52	58	70	60	3.1	<0.1	2	0.2	<0.01	0.46	0.06	2	-	<0.02
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/5/2012	APP	446	262	7.8	-	18.8	12.6	57.3	2.6	35.2	69.4	80	65.7	2.4	-	-	0.16	-	-	-	-	<1	-
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	726	420	7.8	-	19	16	92	4	44	164	80	70	3.1	<0.1	3	0.2	<0.01	0.13	0.03	1	-	0.03
10/31/2012	APP	435	272	7.8	-	26.9	14.4	57.8	2.5	60.4	64.9	81	66.5	3.6	-	-	0.25	-	-	-	-	<1	-
2/22/2013	APP	427	285	7.9	-	28.3	14.7	48	3.1	55	54.5	97	79.8	4.9	-	-	0.21	-	-	-	-	<1	-
3/8/2013	APP	468	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	-	-	-	-	<1	-
4/12/2013	APP	617	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41	-	-	-	-	1.3	-
5/1/2013	APP	371	212	7.6	-	18.7	9.8	45.6	2	46.5	49	67	55	2.8	-	-	0.24	-	-	-	-	<1	-
6/4/2013	APP	519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
6/24/2013	FGL	514	344	8.0	-	24	13	57	3	46	69	130	100	1.8	<0.1	2	0.2	<0.01	0.17	0.05	2	<1	<0.02
7/29/2013	APP	516	261	7.7	-	19.3	13.5	54.9	3	34.2	82.5	77	63.4	1.5	-	-	0.16	-	-	-	-	<1	-
8/14/2013	APP	572	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<1	-
9/11/2013	APP	683	353	7.68	-	25.2	19.3	88.3	4.1	46.2	113	98	80.4	1.6	-	-	0.19	-	-	-	-	<1	-
10/2/2013	APP	576	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	<1	-
10/2/2013	FGL	575	340	7.9	-	20	14	69	3	40	103	90	70	1	<0.1	3	0.2	<0.01	0.21	0.04	2	1.38	<0.02
11/13/2013	APP	546	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	<1	-
12/4/2013	APP	334	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<1	-
1/29/2014	APP	517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<1	-
3/12/2014	APP	1110	593	8.04	-	43.8	27.9	126	4.4	134	174	142	116	6.7	-	-	0.56	-	-	-	-	1.5	-
4/2/2014	APP	1020	561	7.94	-	42.6	25.5	129	3.8	130	139	148	121	4.6	-	-	0.49	-	-	-	-	<1	-
5/28/2014	APP	294	158	7.15	-	13.2	6.7	36	1.5	30.1	37.6	55	45.2	2.7	-	-	0.14	-	-	-	-	<1	-
6/30/2014	FGL	379	223	7.8	-	19	10	42	3	31.4	57	60	50	0.9	<0.1	3	0.2	<0.01	0.14	0.03	3	-	0.03

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Main Canal																							
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-
7/1/2014	APP	395	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<1	-
8/27/2014	APP	38	18	6.12	-	2.6	0.53	3.3	<0.5	1.9	3.1	16	13.4	<0.5	-	-	<0.025	-	-	-	-	18	-
9/10/2014	APP	54.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.027	-	-	-	-	<1	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	1	-	-
10/1/2014	APP	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<1	-
11/12/2014	APP	723	399	7.81	-	29.1	16.5	71.1	3.1	77.5	110	112	92	3.3	-	-	0.29	-	-	-	-	<1	-
Mowry Bridge																							
7/8/1999	FGL	291	180	-	-	-	-	-	-	30	27	-	-	-	-	-	-	-	-	-	-	-	-
7/21/1999	FGL	274	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/11/1999	FGL	266	170	-	-	-	-	-	-	29	22	-	-	-	-	-	-	-	-	-	-	-	-
8/25/1999	FGL	293	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/1999	FGL	343	200	8.3	-	-	-	-	-	29	39	-	-	-	-	-	-	-	-	-	-	-	-
9/22/1999	FGL	550	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/10/2000	FGL	394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/25/2000	FGL	312	-	-	-	-	-	-	-	24	28	-	-	-	-	-	0.1	-	-	-	-	-	-
11/6/2000	FGL	509	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	FGL	430	-	-	-	-	-	-	-	43	57	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	<0.25	-	-	-	3.6	0.7	-
11/5/2001	FGL	652	370	7.9	2.8	23	16	72	4	44	118	110	90	3.4	<0.1	<2	0.2	<0.01	0.25	0.02	-	-	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	0.51	-
6/25/2002	FGL	359	250	7.7	0.1	19	10	31	2	34	38	90	80	2.8	<0.1	2	0.17	<0.01	0.97	0.07	-	-	<0.02
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	0.81	-
6/21/2003	FGL	206	141	7.8	0.8	14	6	15	2	18	14	70	60	2.3	<0.1	3	0.1	<0.01	0.37	0.04	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.676	-
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.25	<0.4	-
10/29/2003	FGL	526	318	7.6	2.4	19	13	56	3	38	87	100	80	2.2	0.2	<2	0.2	<0.01	0.14	0.02	-	-	<0.02
10/29/2004	FGL	623	386	8.0	2.7	25	15	69	4	58	100	110	90	4.4	0.2	2	0.2	<0.01	0.15	0.02	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.693	-
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.847	-
6/25/2007	FGL	487	308	7.3	2	22	11	45	2	61	62	100	80	4.9	0.1	3	0.17	<0.01	0.38	0.04	-	-	<0.02
DMC Check 21																							
1/8/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
1/8/1999	USBR	464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
2/4/1999	USBR	322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
3/4/1999	USBR	308	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1999	USBR	575	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-
5/6/1999	USBR	372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
5/26/1999	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
6/3/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
6/3/1999	USBR	434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/30/1999	BSK	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
7/6/1999	USBR	291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/8/1999	FGL	291	170	7.8	1.3	17	9	26	2	30	26	80	70	3.7	-	-	0.1	-	-	-	-	<2	-
8/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
8/4/1999	USBR	264	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/11/1999	FGL	269	170	-	1.1	15	8	22	2	28	21	70	60	2.8	-	-	0.1	-	-	-	-	<2	-
9/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
9/2/1999	USBR	309	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/1999	FGL	344	130	8.2	1.6	16	9	33	2	29	39	90	70	2.1	-	-	-	-	-	-	-	<2	-
10/5/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
10/5/1999	USBR	448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
11/2/1999	USBR	492	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/11/1999	FGL	530	300	8.2	2.5	18	12	56	3	33	87	80	70	3.2	-	-	0.1	-	-	-	-	<2	-
11/17/1999	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
12/2/1999	USBR	522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-
1/4/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
1/4/2000	USBR	536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/2/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-
2/2/2000	USBR	623	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/29/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-
2/29/2000	USBR	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/4/2000	USBR	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/4/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
5/2/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
5/2/2000	USBR	419	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/31/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
5/31/2000	USBR	516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/14/2000	FGL	414	230	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
7/6/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
7/6/2000	USBR	301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2000	FGL	289	210	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/1/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
8/1/2000	USBR	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/9/2000	FGL	304	190	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/25/2000	FGL	316	-	-	-	-	-	-	-	25	29	-	-	-	-	-	0.1	-	-	-	-	-	-
9/6/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
9/6/2000	USBR	351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/13/2000	FGL	367	240	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
10/3/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
10/3/2000	USBR	416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/11/2000	FGL	464	270	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
10/31/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
10/31/2000	USBR	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/6/2000	FGL	517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/5/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
12/5/2000	USBR	492	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/13/2000	FGL	581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
1/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
1/3/2001	USBR	358	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/7/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.75	-
2/7/2001	USBR	570	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/8/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.38	-
3/8/2001	USBR	543	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/3/2001	USBR	857	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.32	-
5/9/2001	USBR	524	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/9/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.84	-
6/6/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.86	-
6/6/2001	USBR	495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/26/2001	USBR	434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	FGL	418	-	-	-	-	-	-	-	40	55	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	<0.25	-	-	-	3.1	0.67	-
7/24/2001	USBR	469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/24/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
8/29/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.66	-
8/29/2001	USBR	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/12/2001	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/20/2001	FGL	770	479	8.1	3.6	26	20	99	4	57	150	120	90	<0.4	0.1	3	0.25	<0.01	0.37	0.03	2	2	<0.02
10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.48	-
10/2/2001	USBR	686	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/3/2001	BSK	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	5	-
10/30/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/30/2001	USBR	676	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.5	-
11/5/2001	FGL	651	380	7.9	2.8	24	16	72	4	44	117	110	90	3.4	<0.1	<2	0.2	<0.01	0.22	0.02	-	-	<0.02
12/5/2001	USBR	767	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.56	-
1/8/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
1/8/2002	USBR	687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/7/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
2/7/2002	USBR	698	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/20/2002	BSK	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<2	-
3/5/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
4/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-
4/11/2002	BSK	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	<2	-
4/30/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
5/8/2002	BSK	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/5/2002	FGL	504	320	7.9	1.9	25	14	48	3	60	66	100	80	4.8	<0.1	-	0.24	<0.01	0.21	0.02	-	-	<0.02
6/5/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1.19	-
6/12/2002	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/25/2002	FGL	340	220	7.7	0.1	18	10	29	2	32	36	90	70	2.6	<0.1	<2	0.15	<0.01	0.85	0.06	-	-	<0.02
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	0.78	-
7/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
7/9/2002	FGL	321	210	8.0	1.4	18	10	30	2	26	32	90	70	2.2	<0.1	-	0.15	<0.01	0.41	0.02	-	-	<0.02
7/10/2002	BSK	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/7/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
8/9/2002	FGL	474	270	7.5	2.4	16	12	52	3	21	86	80	70	1.4	<0.1	2	0.13	<0.01	0.35	0.03	-	-	0.03
8/9/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.79	-
8/22/2002	BSK	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
9/8/2002	FGL	535	304	7.8	2.4	19	13	55	3	27	96	90	80	1.4	<0.1	-	0.14	<0.01	0.21	0.01	-	-	<0.02
9/10/2002	BSK	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/20/2002	FGL	623	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	1.34	-
10/2/2002	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/4/2002	FGL	637	381	7.9	3.1	20	16	77	4	31	121	110	90	1.8	<0.1	3	0.2	<0.01	0.21	0.02	-	-	<0.02
11/4/2002	FGL	605	353	8.1	3	20	15	73	4	37	102	100	80	2.2	<0.1	<2	0.15	<0.01	0.13	0.01	-	-	<0.02
11/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
11/6/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
12/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
12/26/2002	FGL	817	506	7.8	3.1	37	22	95	4	90	120	130	110	7.5	<0.1	2	0.4	<0.01	0.05	0.01	-	-	<0.02
12/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3	1.9	-
1/8/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-
1/20/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	0.622	-
1/20/2003	FGL	771	482	7.8	2.8	36	20	83	4	97	95	140	110	7.4	<0.1	<2	0.42	<0.01	0.43	0.02	-	-	<0.02
1/31/2003	FGL	698	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
2/12/2003	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	2	-
2/25/2003	FGL	548	358	7.6	2.2	28	15	58	3	73	65	110	90	5.6	<0.1	-	0.31	<0.01	0.24	0.02	-	-	<0.02
2/25/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	1.27	-
3/5/2003	BSK	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	2	-
3/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-
3/23/2003	FGL	870	578	7.9	3.3	41	21	104	3	149	110	140	110	9.9	<1	-	0.58	<0.01	0.15	0.01	-	-	<0.02
4/2/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
4/16/2003	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
4/27/2003	FGL	520	336	7.8	2.2	25	14	55	3	64	71	100	80	4.4	<0.1	-	0.25	<0.01	0.35	0.02	-	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
5/7/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
5/8/2003	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
5/29/2003	FGL	516	336	7.9	2.3	24	13	56	3	61	74	100	80	4.7	<0.1	-	0.26	<0.01	0.06	0.01	-	-	<0.02
6/7/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
6/11/2003	BSK	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
6/21/2003	FGL	212	144	8.0	0.9	14	7	16	2	18	15	70	60	1.5	<0.1	3	0.1	<0.01	0.19	0.06	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.7	-
7/2/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
7/9/2003	BSK	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
7/18/2003	FGL	254	165	7.6	1.1	15	8	22	2	21	25	70	60	1.7	<0.1	2	0.12	<0.01	0.66	0.06	-	-	<0.02
8/6/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
8/13/2003	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
8/27/2003	FGL	279	181	7.6	1.3	15	8	25	3	20	30	80	70	1.2	0.2	-	0.11	<0.01	0.21	0.02	-	-	<0.02
9/3/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
9/18/2003	FGL	380	242	8.2	2	17	11	39	2	27	54	90	70	2	0.2	-	0.1	<0.01	0.08	<0.01	-	-	<0.02
9/23/2003	BSK	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/1/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/29/2003	FGL	519	312	7.7	2.3	19	13	54	3	36	85	100	80	2.3	0.2	2	0.1	<0.01	0.14	0.02	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
10/30/2003	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
11/19/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
2/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
3/3/2004	BSK	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
3/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
3/26/2004	FGL	435	288	7.5	1.9	24	12	45	2	61	49	90	70	4.4	0.1	<2	0.2	<0.01	0.35	0.02	-	-	<0.02
3/26/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.32	-
4/7/2004	BSK	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<2	-
4/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
4/28/2004	FGL	484	310	7.7	2.1	22	13	51	3	47	71	100	80	3.2	0.2	<2	0.2	<0.01	0.15	0.02	-	-	<0.02
5/4/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
5/5/2004	BSK	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
5/24/2004	FGL	486	311	8.0	2.1	23	13	51	3	49	68	100	80	3.7	0.2	-	0.2	<0.01	0.25	0.02	-	-	<0.02
6/2/2004	BSK	420	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/18/2004	FGL	498	332	7.8	2.2	27	15	58	3	55	71	100	80	3.2	0.2	<2	0.2	<0.01	1.33	0.03	-	-	0.26
7/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
7/13/2004	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/3/2004	BSK	320	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/5/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
9/1/2004	BSK	360	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/8/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
10/6/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/6/2004	BSK	530	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/29/2004	FGL	573	365	7.9	2.6	22	14	64	4	54	103	100	80	3.7	0.2	2	0.2	<0.01	0.18	0.03	-	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.6	1	-
11/3/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
11/10/2004	BSK	500	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
1/5/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
2/2/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
3/3/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
4/6/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
5/4/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	-
6/2/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	-
6/15/2005	USBR	210	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
7/5/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
8/3/2005	USBR	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	0.4	-
9/7/2005	USBR	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	0.8	-
10/5/2005	USBR	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
11/1/2005	USBR	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<2	-
1/4/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
2/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	-
2/8/2006	BSK	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<2	-
3/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
4/5/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	-
5/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-
6/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-
7/5/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
7/12/2006	BSK	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
8/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
8/2/2006	BSK	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
9/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/6/2006	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.29	-	-	-	-	<2	-
10/4/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
10/4/2006	BSK	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
11/8/2006	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	4.5	-
1/9/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
1/10/2007	BSK	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
1/31/2007	BSK	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<2	-
2/6/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
3/6/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-
3/7/2007	BSK	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
4/4/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
5/2/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
5/9/2007	BSK	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
5/21/2007	FGL	471	300	7.9	2.3	20	13	53	4	38	69	100	80	2.4	0.2	-	0.19	<0.01	0.47	0.07	-	-	<0.02
6/5/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
6/25/2007	FGL	489	308	7.3	2	22	11	45	2	61	62	100	80	5	<0.1	3	0.25	<0.01	0.54	0.07	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6	0.9	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
7/3/2007	BSK	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	<2	-
7/3/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
7/22/2007	FGL	333	216	7.7	1.6	16	9	33	3	26	47	80	60	2.4	<0.1	3	0.21	<0.01	0.4	0.05	-	-	<0.02
8/2/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
8/13/2007	FGL	474	305	7.7	2.6	20	13	61	3	34	82	90	70	1.8	<0.1	3	0.05	<0.01	0.41	0.05	-	-	<0.02
9/4/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
9/11/2007	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<2	-
9/18/2007	FGL	646	369	7.7	3.5	17	15	82	4	34	126	90	70	1.2	<0.1	2	0.11	<0.01	0.24	0.03	-	-	<0.02
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	0.55	-
10/3/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
10/30/2007	FGL	509	318	7.9	2.6	19	13	60	3	37	83	100	80	3.1	0.1	-	0.1	<0.01	0.13	0.02	-	-	<0.02
11/8/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
2/5/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
3/11/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
4/1/2008	BSK	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	-	-	-	-	2.3	-
4/2/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
5/7/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
5/13/2008	BSK	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<2	-
6/5/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.85	0.56	-
6/23/2008	FGL	572	382	7.7	2.6	25	15	66	3	49	90	130	100	4.1	0.4	3	0.2	<0.01	0.31	0.03	-	-	<0.02
7/2/2008	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	-	-	-	<2	-
7/2/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
7/14/2008	FGL	326	185	8.1	1.5	16	10	31	2	27	38	60	50	0.6	0.4	3	0.1	<0.01	0.53	0.08	-	-	<0.02
8/5/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
8/6/2008	BSK	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<2	-
8/26/2008	FGL	604	351	7.2	2.9	20	14	68	3	50	104	90	70	1.8	<0.1	3	0.2	<0.01	0.25	0.04	-	-	<0.02
9/4/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
9/10/2008	BSK	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	<0.4	-
9/22/2008	FGL	705	412	8.0	3.4	24	18	91	4	44	129	100	80	2	<0.1	3	0.2	<0.01	0.31	0.04	-	-	<0.02
10/1/2008	BSK	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/13/2008	FGL	602	355	7.6	2.7	21	15	66	3	38	100	110	90	2.1	<0.1	3	0.2	<0.01	0.15	0.02	-	-	<0.02
10/29/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
11/4/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
11/5/2008	BSK	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
12/3/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
12/9/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-
2/3/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
3/4/2009	BSK	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	-	-	-	-	<1	-
3/5/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
4/1/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
4/1/2009	BSK	480	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	1.1	-
4/16/2009	FGL	484	310	8.0	1.8	26	14	47	3	60	55	100	80	4.7	0.1	-	0.3	<0.01	0.45	0.03	-	-	<0.02
5/5/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
5/14/2009	FGL	617	380	7.9	2.6	29	16	69	3	68	92	100	80	3.4	0.1	3	0.3	<0.01	0.35	0.05	-	-	<0.02
6/2/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.55	-
6/30/2009	FGL	654	410	7.6	2.6	30	17	73	3	71	103	110	90	3	0.2	2	0.3	<0.01	0.31	0.04	3	-	<0.02
7/15/2009	BSK	260	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<1	-
7/23/2009	FGL	248	154	7.7	1.2	13	7	22	2	19	30	60	50	1.2	<0.1	3	0.1	<0.01	0.37	0.05	-	-	<0.02
8/4/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
8/6/2009	FGL	453	272	7.2	2.5	15	10	51	3	29	93	70	50	1.1	<0.1	2	<0.1	<0.01	0.31	0.04	-	-	<0.02
8/30/2009	FGL	532	311	7.6	2.8	17	12	62	3	34	102	80	60	1	<0.1	3	0.1	<0.01	0.17	0.03	-	-	<0.02
9/25/2009	FGL	544	325	7.3	2.7	20	14	64	3	37	96	90	80	1.3	0.1	3	0.2	<0.01	0.31	0.04	2	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/30/2009	BSK	570	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<1	-
10/26/2009	FGL	537	322	7.7	2.4	23	13	57	3	54	78	90	80	4.4	<0.1	2	0.2	<0.01	0.15	0.02	-	-	<0.02
11/4/2009	BSK	490	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	-	-	-	<1	-
3/16/2010	BSK	670	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-	-	1.7	-
5/28/2010	FGL	530	330	7.9	2.3	24	13	57	3	65	74	90	70	3.5	<0.1	2	0.2	<0.01	0.26	0.04	-	-	<0.02
6/7/2010	FGL	377	237	7.9	1.8	20	10	39	2	49	45	70	60	2.1	<0.1	2	0.2	<0.01	0.71	0.08	-	-	<0.02
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.447	-
6/16/2010	APP	377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.178	-	-	-	-	<1	-
6/28/2010	FGL	344	219	8.0	1.6	18	9	34	2	43	41	70	60	2.3	<0.1	2	0.1	<0.01	0.45	0.05	-	-	<0.02
7/9/2010	FGL	222	144	7.3	1	13	6	18	1	24	20	60	50	1.5	<0.1	3	0.1	<0.01	0.54	0.07	-	-	<0.02
7/21/2010	APP	236	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0883	-	-	-	-	<1	-
8/18/2010	APP	526	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.228	-	-	-	-	<1	-
8/29/2010	FGL	464	278	7.8	2.1	22	12	49	2	45	65	80	70	3	<0.1	3	0.2	<0.01	0.28	0.04	-	-	<0.02
9/15/2010	APP	455	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.159	-	-	-	-	<1	-
9/24/2010	FGL	577	334	8.3	2.9	19	14	69	3	34	115	80	70	<0.4	<0.1	2	0.2	<0.01	0.25	0.03	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	0.504	-
10/6/2010	APP	687	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	0.197	-	-	-	-	<1	-
10/15/2010	FGL	557	348	7.4	2.4	27	14	61	3	64	73	100	80	5.6	<0.1	2	0.3	<0.01	0.23	0.03	-	-	<0.02
11/10/2010	APP	477	-	7.5	-	-	-	-	-	-	-	-	-	-	-	-	0.124	-	-	-	-	<1	-
12/8/2010	APP	673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.369	-	-	-	-	1.2	-
2/9/2011	APP	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.204	-	-	-	-	1.2	-
5/11/2011	APP	466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.367	-	-	-	-	4.9	-
6/8/2011	APP	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0348	-	-	-	-	<1	-
7/20/2011	APP	202	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.113	-	-	-	-	<1	-
8/10/2011	APP	293	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	<1	-
10/19/2011	APP	320	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	0.174	-	-	-	-	<1	-
11/9/2011	APP	399	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.193	-	-	-	-	<1	-
2/15/2012	APP	754	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.36	-	-	-	-	<1	-
3/7/2012	APP	867	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.477	-	-	-	-	1.4	-
5/9/2012	FGL	634	408	8.2	-	31	17	69	3	97	85	100	80	5.8	<0.1	2	0.4	<0.01	0.16	0.03	-	-	<0.02
5/16/2012	APP	549	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.337	-	-	-	-	<1	-
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
6/6/2012	FGL	433	260	7.7	-	21	11	44	2	51	58	70	60	3.1	<0.1	2	0.2	<0.01	0.36	0.05	2	-	<0.02
7/19/2012	FGL	315	196	8.6	-	16	9	31	2	34	44	60	60	<1.8	<0.1	3	0.2	<0.01	0.54	0.11	-	-	0.03

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
DMC Check 21																							
9/5/2012	APP	431	-	7.6	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	<1	-
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	731	425	7.8	-	19	16	91	3	45	170	80	70	3.1	<0.1	3	0.2	<0.01	0.09	0.02	1	-	<0.02
10/29/2012	FGL	583	348	8.0	-	23	14	67	3	57	92	90	70	8.4	<0.1	2	0.2	<0.01	0.06	0.02	-	-	<0.02
10/31/2012	APP	456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<1	-
2/22/2013	APP	397	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<1	-
3/8/2013	APP	592	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.48	-	-	-	-	<1	-
4/12/2013	APP	714	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.53	-	-	-	-	1.6	-
5/1/2013	APP	666	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-	-	1.3	-
5/31/2013	FGL	536	324	8.1	-	25	13	58	3	56	76	90	80	2.7	<0.1	2	0.3	<0.01	0.11	0.03	-	-	0.04
6/4/2013	APP	525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
6/24/2013	FGL	515	337	8.0	-	24	14	58	3	46	70	120	100	1.8	<0.1	3	0.2	<0.01	0.15	0.04	2	<1	<0.02
7/26/2013	FGL	436	252	7.9	-	17	11	53	3	27	70	70	60	1.1	<0.1	3	0.1	<0.01	0.23	0.06	-	-	<0.02
7/29/2013	APP	522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	<1	-
8/14/2013	APP	579	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<1	-
8/31/2013	FGL	542	323	9.0	-	22	15	73	3	36	94	80	70	<0.4	<0.1	3	0.3	<0.01	0.23	0.07	-	-	0.07
9/11/2013	APP	668	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<1	-
10/2/2013	APP	578	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	<1	-
10/2/2013	FGL	590	346	7.9	-	20	15	72	3	38	107	90	70	0.9	<0.1	3	0.2	<0.01	0.18	0.04	1	1.51	<0.02
11/13/2013	APP	642	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<1	-
12/4/2013	APP	726	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	1.1	-
1/29/2014	APP	1070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	2.1	-
3/12/2014	APP	1130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	1.5	-
4/2/2014	APP	893	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-	-	1.2	-
5/20/2014	FGL	619	374	8.0	-	28	16	62	3	72.5	92	100	80	<0.4	<0.1	2	0.3	<0.01	0.11	0.03	-	-	<0.02
5/28/2014	APP	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33	-	-	-	-	<1	-
6/30/2014	FGL	689	427	8.0	-	32	19	79	4	67.6	114	110	90	1.4	<0.1	3	0.4	<0.01	0.12	0.04	4	-	0.02
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-
7/1/2014	APP	681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<1	-
7/30/2014	FGL	797	489	8.0	-	34	20	94	5	81.4	144	110	90	0.9	<0.1	-	0.4	<0.01	0.12	0.07	-	-	0.04
8/27/2014	APP	756	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	-	-	-	-	570	-
8/28/2014	FGL	805	483	7.5	-	32	21	98	4	94.4	134	100	80	<0.4	<0.1	-	0.3	<0.01	0.1	0.08	-	-	<0.02
9/10/2014	APP	777	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<1	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	3	-	-
10/1/2014	APP	664	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<1	-
10/31/2014	FGL	748	456	7.6	-	32	19	89	4	70	131	110	90	0.6	<0.1	-	0.3	<0.01	0.08	0.04	-	-	0.03
11/12/2014	APP	735	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	<1	-
CCID Outside Canal																							
1/8/1999	USBR	456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/8/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
2/3/1999	BSK	280	160	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
2/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
2/4/1999	USBR	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Outside Canal																							
3/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
3/4/1999	USBR	307	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1999	USBR	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	-
4/21/1999	BSK	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	4	-
5/6/1999	USBR	371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-
5/26/1999	BSK	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
6/3/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
6/3/1999	USBR	411	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/30/1999	BSK	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/6/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
7/6/1999	USBR	291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/8/1999	FGL	295	180	7.9	1.3	17	9	26	2	31	28	90	70	3.4	-	-	0.1	-	-	-	-	<2	-
7/28/1999	BSK	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/4/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
8/4/1999	USBR	352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/11/1999	FGL	270	160	-	1.2	14	7	22	2	28	22	80	60	2.8	-	-	0.1	-	-	-	-	<2	-
9/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
9/2/1999	USBR	294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/1999	FGL	346	210	8.5	1.4	16	9	29	2	29	39	90	70	2.3	-	-	-	-	-	-	-	<2	-
9/29/1999	BSK	480	-	-	-	-	-	-	-	-	-	-	-	2	-	-	0.2	-	-	-	-	<2	-
10/5/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
10/5/1999	USBR	447	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/27/1999	BSK	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
11/2/1999	USBR	471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/11/1999	FGL	596	350	8.3	2.4	26	14	60	3	63	79	110	90	7.4	-	-	0.2	-	-	-	-	<2	-
11/17/1999	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
12/2/1999	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
12/2/1999	USBR	237	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/4/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
1/4/2000	USBR	742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/2/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
2/2/2000	USBR	754	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/29/2000	USBR	444	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/29/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
4/4/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-
4/4/2000	USBR	574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/2/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
5/2/2000	USBR	428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/31/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
5/31/2000	USBR	507	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/14/2000	FGL	478	280	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
7/6/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Outside Canal																							
7/6/2000	USBR	278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/10/2000	FGL	426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2000	FGL	296	200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/1/2000	USBR	316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/1/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
8/9/2000	FGL	314	180	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/25/2000	FGL	323	-	-	-	-	-	-	-	26	32	-	-	-	-	-	0.1	-	-	-	-	-	-
9/6/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
9/6/2000	USBR	371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/13/2000	FGL	350	200	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
10/3/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
10/3/2000	USBR	398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/11/2000	FGL	469	270	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
10/31/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
10/31/2000	USBR	428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/6/2000	FGL	504	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/5/2000	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
12/5/2000	USBR	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/13/2000	FGL	706	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
1/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
1/3/2001	USBR	592	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/7/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
2/7/2001	USBR	514	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/8/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.18	-
3/8/2001	USBR	550	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/3/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69	-
4/3/2001	USBR	683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/9/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.95	-
5/9/2001	USBR	525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/6/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.92	-
6/6/2001	USBR	463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/26/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/26/2001	USBR	445	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	FGL	417	-	-	-	-	-	-	-	40	55	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	<0.25	-	-	-	3.8	0.69	-
7/24/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
7/24/2001	USBR	479	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/29/2001	USBR	624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/29/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.93	-
9/12/2001	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	3	-
10/2/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
10/2/2001	USBR	731	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/3/2001	BSK	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/30/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49	-
10/30/2001	USBR	667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Outside Canal																							
11/5/2001	FGL	662	370	8.0	2.9	24	17	75	4	46	119	110	90	3.7	0.1	<2	0.2	<0.01	0.26	0.02	-	-	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	0.51	-
12/5/2001	USBR	866	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.68	-
1/8/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
1/8/2002	USBR	887	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/7/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
2/7/2002	USBR	336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/20/2002	BSK	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
3/5/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
4/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
4/11/2002	BSK	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<2	-
4/30/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
5/8/2002	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/12/2002	BSK	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
6/25/2002	FGL	387	250	7.7	0.1	21	11	35	3	40	45	100	80	3.2	<0.1	<2	0.17	<0.01	0.81	0.06	-	-	<0.02
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	0.83	-
7/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
7/10/2002	BSK	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/7/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
8/22/2002	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
9/10/2002	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/2/2002	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/6/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
12/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
1/8/2003	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-
2/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
2/12/2003	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
3/5/2003	BSK	970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	<2	-
3/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
4/2/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
4/16/2003	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	3	-
4/27/2003	FGL	526	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<2	-
5/7/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
5/8/2003	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
5/29/2003	FGL	541	351	8.0	2.4	25	14	60	3	66	78	100	80	4.6	<0.1	-	0.27	<0.01	0.07	0.01	-	-	<0.02
6/7/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
6/11/2003	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/21/2003	FGL	205	142	7.8	0.8	14	7	15	2	18	14	70	50	1.5	<0.1	3	0.1	<0.01	0.38	0.04	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.671	-
7/2/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
7/9/2003	BSK	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Outside Canal																							
8/6/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
8/13/2003	BSK	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/3/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
9/23/2003	BSK	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/1/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/29/2003	FGL	528	322	7.7	2.5	20	13	58	3	38	88	100	80	2.3	0.2	2	0.2	<0.01	0.16	0.02	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	<0.4	-
10/30/2003	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/5/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
11/19/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
2/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
3/3/2004	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	2	-
3/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
4/7/2004	BSK	740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	2	-
4/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
5/4/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
5/5/2004	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	BSK	430	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
7/7/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
7/13/2004	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/3/2004	BSK	320	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/5/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
9/1/2004	BSK	370	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/8/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
10/6/2004	BSK	540	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/6/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/29/2004	FGL	608	380	8.0	2.7	24	15	68	4	56	98	110	90	4.3	0.2	2	0.2	<0.01	0.19	0.03	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	0.826	-
11/3/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
11/10/2004	BSK	510	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
1/5/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
2/2/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
3/3/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
4/6/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
5/4/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
6/2/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/15/2005	USBR	210	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
7/5/2005	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
8/3/2005	USBR	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	0.7	-
9/7/2005	USBR	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	1	-
10/5/2005	USBR	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
11/1/2005	USBR	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
2/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	-
2/8/2006	BSK	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Outside Canal																							
3/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
4/5/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-
5/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
7/5/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-
7/12/2006	BSK	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	-	-	-	3.1	-
8/1/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-
8/2/2006	BSK	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<2	-
9/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/6/2006	BSK	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/4/2006	BSK	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<2	-
10/4/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
11/6/2006	USBR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
11/8/2006	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
1/9/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
1/10/2007	BSK	590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<2	-
1/31/2007	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32	-	-	-	-	<2	-
2/6/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
3/6/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
3/7/2007	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
4/4/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
5/2/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
5/9/2007	BSK	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
6/5/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
6/25/2007	FGL	489	306	7.1	1.9	22	11	44	2	61	61	100	80	4.9	0.1	3	0.23	<0.01	0.47	0.06	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.8	0.985	-
7/3/2007	BSK	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	<2	-
7/3/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
8/2/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
9/4/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
9/11/2007	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<2	-
9/18/2007	FGL	646	366	7.5	3.4	18	15	80	4	36	123	90	70	<0.4	<0.1	2	0.11	<0.01	0.27	0.03	-	-	<0.02
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	0.55	-
10/3/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
11/8/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
4/1/2008	BSK	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	-	-	-	-	2	-
5/13/2008	BSK	550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<2	-
6/23/2008	FGL	573	404	7.8	2.5	23	14	61	3	48	91	160	130	4.1	0.4	3	0.2	<0.01	0.25	0.03	-	-	<0.02
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	0.61	-
7/2/2008	BSK	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	-	-	-	<2	-
8/6/2008	BSK	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	2.1	-
9/10/2008	BSK	590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	<0.4	-
9/22/2008	FGL	711	423	7.8	3.3	25	18	88	4	50	126	110	90	2.3	<0.1	3	0.2	<0.01	0.31	0.04	-	-	<0.02
10/1/2008	BSK	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Outside Canal																							
11/5/2008	BSK	570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<2	-
2/3/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
3/4/2009	BSK	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	<1	-
3/5/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
3/13/2009	BSK	680	-	8.1	-	34	20	79	3.4	82	100	122	100	7.3	-	-	0.36	-	-	-	-	-	-
4/1/2009	BSK	610	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	0.38	-	-	-	-	<1	-
4/1/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
5/5/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
5/19/2009	BSK	510	-	8.0	-	25	14	56	2.7	63	70	98	80	3.6	-	-	0.28	-	-	-	-	-	-
6/2/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
6/30/2009	FGL	661	414	7.9	2.7	31	17	75	3	72	103	110	90	2.8	0.1	3	0.3	<0.01	0.39	0.05	3	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.52	-
7/15/2009	BSK	260	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<1	-
8/4/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/25/2009	FGL	559	334	7.4	2.7	21	14	65	3	41	98	90	80	1.5	0.1	3	0.2	<0.01	0.29	0.04	2	-	<0.02
9/30/2009	BSK	570	-	8.2	-	22	15	68	3.1	47	96	112	92	3	-	-	0.22	-	-	-	-	-	-
11/4/2009	BSK	480	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
3/16/2010	BSK	690	-	8.2	-	38	18	73	3.5	110	71	122	100	6.8	-	-	0.44	-	-	-	-	-	-
6/7/2010	FGL	376	238	7.8	1.8	20	10	39	2	50	45	70	60	2.2	<0.1	2	0.2	<0.01	0.67	0.08	-	-	<0.02
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.478	-
6/16/2010	APP	398	193	-	-	16.8	8.93	32.1	1.68	37.4	37.6	73	60	2.5	-	-	0.156	-	-	-	-	<1	-
7/21/2010	APP	268	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.109	-	-	-	-	<1	-
8/18/2010	APP	481	242	7.6	-	23.9	12.5	46.5	2.26	46.8	61.1	89	73.1	2.9	-	-	0.194	-	-	-	-	<1	-
9/15/2010	APP	475	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.155	-	-	-	-	<1	-
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	0.478	-
9/24/2010	FGL	589	341	8.3	3	19	14	71	3	35	119	80	70	<0.4	<0.1	<2	0.2	<0.01	0.25	0.03	-	-	<0.02
10/6/2010	APP	709	364	7.7	-	31.3	17.5	74.8	3.05	66.1	90.5	119	97.7	7	-	-	0.265	-	-	-	-	<1	-
11/10/2010	APP	487	-	7.5	-	-	-	-	-	-	-	-	-	-	-	-	0.135	-	-	-	-	<1	-
2/9/2011	APP	386	223	7.7	-	21	9.6	39.1	1.92	53.1	42.4	63	51.5	3.5	-	-	0.205	-	-	-	-	1.9	-
5/11/2011	APP	56.8	50	7.5	-	6.17	1.63	3.57	1.06	2.2	1.7	26	21.4	0.64	-	-	<0.025	-	-	-	-	<1	-
6/8/2011	APP	77.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0167	-	-	-	-	<1	-
7/20/2011	APP	200	115	7.6	-	12.7	5.55	19.3	1.45	24.9	16	43	35.5	2.4	-	-	0.114	-	-	-	-	<1	-
8/10/2011	APP	288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.154	-	-	-	-	<1	-
10/19/2011	APP	321	183	7.7	-	17.6	8.61	33.2	1.66	44.4	29	65	53.3	3.3	-	-	0.186	-	-	-	-	<-1	-
11/9/2011	APP	411	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.213	-	-	-	-	<1	-
2/15/2012	APP	779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.342	-	-	-	-	<1	-
3/7/2012	APP	814	512	7.9	-	43.9	23.6	100	3.8	118	114	127	104	8.5	-	-	0.462	-	-	-	-	1.4	-
5/16/2012	APP	564	337	7.9	-	29.1	16.3	65.2	2.91	72.8	74.2	99	80.8	3.9	-	-	0.335	-	-	-	-	<1	-
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/6/2012	FGL	435	263	7.8	-	21	11	45	2	52	59	70	60	3.1	<0.1	2	0.2	<0.01	0.33	0.04	2	-	<0.02
9/5/2012	APP	436	252	7.7	-	18.4	12.4	56.6	2.6	32.4	67.5	80	65.3	1.8	-	-	0.15	-	-	-	-	<1	-
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	724	422	7.8	-	19	16	92	4	45	166	80	70	2.2	<0.1	3	0.2	<0.01	0.1	0.03	1	-	<0.02
10/31/2012	APP	440	275	7.9	-	26.7	14.7	58.5	2.5	59.9	66	81	66.5	3.7	-	-	0.25	-	-	-	-	<1	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
CCID Outside Canal																							
2/22/2013	APP	438	307	7.9	-	29.8	15.5	54.7	3	62.6	60.7	96	79	5.1	-	-	0.24	-	-	-	-	<1	-
3/8/2013	APP	563	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.44	-	-	-	-	<1	-
4/12/2013	APP	709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.48	-	-	-	-	1.5	-
5/1/2013	APP	677	411	7.9	-	34.2	19	80	2.9	95.1	96.4	112	92.2	5.3	-	-	0.44	-	-	-	-	1.2	-
6/4/2013	APP	519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<1	-
6/24/2013	FGL	518	335	8.0	-	24	14	57	3	46	69	120	100	1.8	<0.1	3	0.2	<0.01	0.14	0.04	2	<1	<0.02
7/29/2013	APP	520	257	7.6	-	19.9	13.9	57.1	3.1	34.2	84.3	79	64.4	2	-	-	0.16	-	-	-	-	<1	-
8/14/2013	APP	584	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-	<1	-
9/11/2013	APP	686	352	7.71	-	25.3	19.3	87.8	4	46.6	111	98	80.1	1.7	-	-	0.19	-	-	-	-	<1	-
10/2/2013	FGL	580	341	8.0	-	21	15	69	3	41	101	90	80	1.3	<0.1	3	0.2	<0.01	0.18	0.04	2	1.45	<0.02
10/2/2013	APP	581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<1	-
1/29/2014	APP	908	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	1.6	-
3/12/2014	APP	1140	613	8.09	-	45.2	28	133	4.4	140	182	148	121	6.5	-	-	0.56	-	-	-	-	1.4	-
4/2/2014	APP	1130	631	8.02	-	40	22.7	156	3.7	147	162	167	137	4.5	-	-	0.5	-	-	-	-	<1	-
5/28/2014	APP	665	368	7.9	-	31.3	18.2	75.3	2.7	80	90.5	106	86.6	5.7	-	-	0.32	-	-	-	-	<1	-
6/30/2014	FGL	691	421	8.0	-	30	18	79	4	67.1	112	110	90	1.3	<0.1	3	0.3	<0.01	0.14	0.04	3	-	<0.02
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.404	-
7/1/2014	APP	682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.29	-	-	-	-	<1	-
8/27/2014	APP	735	419	7.46	-	30.6	18.7	90.8	3.4	88.9	123	100	81.6	<0.5	-	-	0.33	-	-	-	-	590	-
9/10/2014	APP	313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	<1	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	-	-
10/1/2014	APP	681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<1	-
11/12/2014	APP	819	460	7.81	-	29.9	16.8	85.5	3.1	87.3	132	116	95.2	3.1	-	-	0.3	-	-	-	-	<1	-
Firebaugh Intake Canal																							
2/3/1999	BSK	280	170	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	<2	-
4/21/1999	BSK	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	3	-
5/26/1999	BSK	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<2	-
6/30/1999	BSK	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	2	-
7/8/1999	FGL	293	170	7.8	1.2	15	8	24	2	30	27	90	70	3.4	-	-	0.1	-	-	-	-	<2	-
7/28/1999	BSK	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/11/1999	FGL	269	170	-	1.2	14	8	23	2	28	22	80	60	2.7	-	-	0.1	-	-	-	-	<2	-
9/8/1999	FGL	366	210	8.6	1.6	17	9	32	2	34	41	90	80	2.7	-	-	-	-	-	-	-	<2	-
9/29/1999	BSK	540	-	-	-	-	-	-	-	-	-	-	-	5	-	-	0.3	-	-	-	-	2	-
10/27/1999	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/11/1999	FGL	528	300	8.1	2.4	18	11	52	3	38	84	90	70	4.1	-	-	0.1	-	-	-	-	<2	-
11/17/1999	BSK	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/14/2000	FGL	492	280	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-
7/10/2000	FGL	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2000	FGL	301	190	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/9/2000	FGL	335	190	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
8/25/2000	FGL	338	-	-	-	-	-	-	-	27	35	-	-	-	-	-	0.1	-	-	-	-	-	-
9/13/2000	FGL	350	210	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
10/11/2000	FGL	482	270	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Firebaugh Intake Canal																							
11/6/2000	FGL	464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/13/2000	FGL	705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
7/19/2001	FGL	423	-	-	-	-	-	-	-	42	57	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	<0.25	-	-	-	3.5	0.67	-
9/12/2001	BSK	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/3/2001	BSK	590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
11/5/2001	FGL	664	390	8.0	2.8	25	17	73	4	49	117	110	90	3.9	<0.1	<2	0.22	<0.01	0.26	0.02	-	-	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	0.46	-
2/20/2002	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
4/11/2002	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
5/8/2002	BSK	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/12/2002	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/25/2002	FGL	401	260	7.9	0.1	21	11	36	2	42	46	100	80	3.1	<0.1	2	0.18	<0.01	0.64	0.05	-	-	0.03
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	0.84	-
7/10/2002	BSK	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	2	-
8/22/2002	BSK	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/10/2002	BSK	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/2/2002	BSK	770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
2/12/2003	BSK	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	7	-
3/5/2003	BSK	720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<2	-
4/16/2003	BSK	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
4/27/2003	FGL	516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	<2	-
5/8/2003	BSK	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
5/29/2003	FGL	556	359	8.0	2.4	26	14	62	3	68	81	100	80	4.7	<0.1	-	0.28	<0.01	0.08	0.02	-	-	<0.02
6/11/2003	BSK	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/21/2003	FGL	204	141	7.9	0.8	14	7	15	2	18	14	70	60	1.4	<0.1	<2	0.1	<0.01	0.24	0.02	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.7	-
7/9/2003	BSK	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/13/2003	BSK	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
9/23/2003	BSK	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/29/2003	FGL	532	323	7.8	2.5	19	13	58	3	37	91	100	80	2	0.2	<2	0.2	<0.01	0.25	0.03	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
10/30/2003	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
3/3/2004	BSK	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
4/7/2004	BSK	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	2	-
5/5/2004	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
6/2/2004	BSK	430	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/13/2004	BSK	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
8/3/2004	BSK	320	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	<2	-
9/1/2004	BSK	360	-	8.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/6/2004	BSK	540	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/29/2004	FGL	633	408	8.0	2.7	26	16	71	4	68	108	110	90	4.6	0.2	2	0.2	<0.01	0.25	0.04	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.83	0.654	-
11/10/2004	BSK	530	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<2	-
6/15/2005	USBR	220	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Firebaugh Intake Canal																							
8/3/2005	USBR	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/7/2005	USBR	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
10/5/2005	USBR	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
11/1/2005	USBR	440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
2/8/2006	BSK	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
7/12/2006	BSK	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	-	-	-	<2	-
8/2/2006	BSK	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<2	-
9/6/2006	BSK	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	<2	-
10/4/2006	BSK	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<2	-
11/8/2006	BSK	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
1/10/2007	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	<2	-
1/31/2007	BSK	630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	<2	-
3/7/2007	BSK	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	<2	-
5/9/2007	BSK	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<2	-
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	0.905	-
6/25/2007	FGL	486	307	7.3	1.9	21	11	44	2	62	62	100	80	4.9	<0.1	3	0.21	<0.01	0.45	0.06	-	-	<0.02
7/3/2007	BSK	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	-	-	2	-
9/11/2007	BSK	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<2	-
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	0.64	-
9/18/2007	FGL	622	365	7.9	3	20	15	73	3	41	113	100	80	<0.4	<0.1	2	0.13	<0.01	0.4	0.05	-	-	<0.02
4/1/2008	BSK	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-	-	2.3	-
5/13/2008	BSK	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-	-	-	-	<2	-
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.75	0.61	-
6/23/2008	FGL	573	332	7.8	2.5	23	14	61	3	47	90	90	80	3.9	0.3	3	0.2	<0.01	0.24	0.03	-	-	<0.02
7/2/2008	BSK	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-	-	-	-	<2	-
8/6/2008	BSK	470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
9/10/2008	BSK	590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	-	-	-	<2	-
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	<0.4	-
9/22/2008	FGL	710	420	7.7	3.2	25	18	87	4	49	125	110	90	2.4	<0.1	3	0.2	<0.01	0.29	0.04	-	-	<0.02
10/1/2008	BSK	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	<2	-
11/5/2008	BSK	590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	<2	-
3/4/2009	BSK	690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	-	-	-	-	<1	-
3/13/2009	BSK	710	-	8.2	-	35	20	82	3.4	86	100	122	100	6.8	-	-	0.38	-	-	-	-	-	-
4/1/2009	BSK	690	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	0.38	-	-	-	-	<1	-
5/19/2009	BSK	520	-	8.0	-	25	14	57	2.7	63	70	99	81	3.6	-	-	0.29	-	-	-	-	-	-
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.52	-
6/30/2009	FGL	613	375	8.0	2.5	27	16	66	3	65	95	100	80	2.8	0.2	3	0.3	<0.01	0.35	0.05	3	-	<0.02
7/15/2009	BSK	270	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<1	-
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/25/2009	FGL	580	346	7.5	2.7	22	15	68	3	45	101	90	80	1.6	<0.1	3	0.2	<0.01	0.29	0.04	2	-	<0.02
9/30/2009	BSK	570	-	8.2	-	22	15	69	3.2	50	95	112	92	3	-	-	0.23	-	-	-	-	-	-
11/4/2009	BSK	480	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<1	-
3/16/2010	BSK	760	-	8.2	-	37	17	93	3.7	120	82	134	110	5.6	-	-	0.46	-	-	-	-	-	-
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.484	-
6/7/2010	FGL	375	238	7.9	1.8	20	10	39	2	50	45	70	60	2.2	<0.1	2	0.2	<0.01	0.59	0.05	-	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Firebaugh Intake Canal																							
6/16/2010	APP	402	194	-	-	16.8	8.93	32.1	1.69	37.5	37.6	74	60.4	2.5	-	-	0.156	-	-	-	-	<1	-
7/21/2010	APP	301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	-	-	-	<1	-
8/18/2010	APP	428	200	7.9	-	23.1	12.2	45.4	2.28	40.6	54.6	84	69.2	2.4	-	-	0.18	-	-	-	-	<1	-
9/15/2010	APP	496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.196	-	-	-	-	<1	-
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	0.64	-
9/24/2010	FGL	560	326	8.8	2.8	20	13	66	3	36	108	80	70	<0.4	<0.1	2	0.2	<0.01	0.31	0.05	-	-	<0.02
10/6/2010	APP	658	307	7.8	-	24.6	15.4	65.3	2.95	45.9	85.9	104	85	4.2	-	-	0.191	-	-	-	-	<1	-
11/10/2010	APP	497	-	7.6	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	-	-	-	<1	-
2/9/2011	APP	383	228	7.8	-	20.2	9.2	37.6	1.87	49.6	42.9	66	54	3.6	-	-	0.199	-	-	-	-	1.3	-
5/11/2011	APP	275	51	7.5	-	6.08	1.62	3.56	1.05	2.3	1.8	41	33.4	0.74	-	-	<0.025	-	-	-	-	<1	-
6/8/2011	APP	168	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0476	-	-	-	-	<1	-
7/20/2011	APP	202	115	7.7	-	12.9	5.65	19.5	1.49	24.2	16.5	43	35.2	2.4	-	-	0.113	-	-	-	-	<1	-
8/10/2011	APP	289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.152	-	-	-	-	<1	-
10/19/2011	APP	304	179	7.7	-	16	7.83	28.2	1.48	38.9	26.3	69	56.3	3	-	-	0.155	-	-	-	-	<1	-
11/9/2011	APP	339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.171	-	-	-	-	<1	-
2/15/2012	APP	789	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.353	-	-	-	-	<1	-
3/7/2012	APP	823	513	8.0	-	43.2	23.2	98.7	3.66	117	113	129	106	8.2	-	-	0.466	-	-	-	-	1.4	-
5/16/2012	APP	557	341	7.9	-	29.3	16.6	65.7	2.99	73.8	75.6	100	81.9	3.8	-	-	0.338	-	-	-	-	<1	-
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
6/6/2012	FGL	436	262	7.8	-	21	11	45	2	52	58	70	60	3.1	<0.1	2	0.2	<0.01	0.3	0.04	2	-	<0.02
9/5/2012	APP	471	268	8.2	-	18.7	12.5	58.8	2.6	38.4	74.6	84	68.6	2.5	-	-	0.16	-	-	-	-	<1	-
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	720	422	7.9	-	20	16	92	4	45	164	80	70	3.1	<0.1	3	0.2	<0.01	0.12	0.03	1	-	<0.02
10/31/2012	APP	426	267	7.9	-	27.2	14.1	56.3	2.4	59.5	60.2	82	66.9	3.8	-	-	0.26	-	-	-	-	<1	-
2/22/2013	APP	487	340	7.9	-	30.3	15.7	62	2.8	71.7	67	100	82	5.1	-	-	0.28	-	-	-	-	<1	-
3/8/2013	APP	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	<1	-
4/12/2013	APP	712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.51	-	-	-	-	1.6	-
5/1/2013	APP	680	419	7.9	-	35.3	19.6	82.8	3	98	96.8	113	92.3	5.3	-	-	0.46	-	-	-	-	1.2	-
6/4/2013	APP	517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<1	-
6/24/2013	FGL	512	337	8.1	-	25	14	59	3	46	68	120	100	1.8	<0.1	2	0.2	<0.01	0.15	0.04	2	<1	<0.02
7/29/2013	APP	526	258	7.9	-	19.4	13.7	57.4	3.1	33.3	86.5	78	64.3	1.8	-	-	0.16	-	-	-	-	<1	-
8/14/2013	APP	602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<1	-
9/11/2013	APP	695	357	7.73	-	24.7	19.1	89.2	4	45.6	117	92	75.1	1.5	-	-	0.19	-	-	-	-	<1	-
10/2/2013	FGL	580	339	8.2	-	21	14	68	3	43	99	90	80	1.3	<0.1	3	0.2	<0.01	0.21	0.04	2	1.45	<0.02
10/2/2013	APP	583	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	<1	-
11/13/2013	APP	658	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28	-	-	-	-	<1	-
1/29/2014	APP	808	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.44	-	-	-	-	1.5	-
3/12/2014	APP	959	635	8.33	-	43.5	25.7	153	4.4	138	187	157	129	4.1	-	-	0.52	-	-	-	-	1.2	-
4/2/2014	APP	1390	789	8.16	-	38.6	19.2	226	3.9	182	204	206	169	2.2	-	-	0.59	-	-	-	-	<1	-
5/28/2014	APP	663	371	7.93	-	31.9	18.5	76.5	2.8	80.8	91.2	96	78.5	5.2	-	-	0.33	-	-	-	-	<1	-
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.406	-
6/30/2014	FGL	697	424	8.1	-	32	18	79	4	67	113	110	90	1.3	<0.1	3	0.3	<0.01	0.15	0.04	4	-	0.02
7/1/2014	APP	682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	<1	-
8/27/2014	APP	749	420	7.58	-	28.6	17.6	89.6	3.2	86.5	122	100	81.8	<0.5	-	-	0.33	-	-	-	-	530	-
9/10/2014	APP	493	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	<1	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Firebaugh Intake Canal																							
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	-	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/1/2014	APP	735	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	<1	-
11/12/2014	APP	1170	664	7.78	-	34.7	18.6	143	3.3	138	200	146	120	2.2	-	-	0.36	-	-	-	-	<1	-
West of Fordel																							
7/8/1999	FGL	402	260	-	-	-	-	-	-	49	46	-	-	-	-	-	-	-	-	-	-	-	-
7/21/1999	FGL	285	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/11/1999	FGL	343	210	-	-	-	-	-	-	39	35	-	-	-	-	-	-	-	-	-	-	-	-
8/25/1999	FGL	325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/1999	FGL	417	240	9.0	-	-	-	-	-	45	47	-	-	-	-	-	-	-	-	-	-	-	-
9/22/1999	FGL	469	-	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/10/2000	FGL	354	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/25/2000	FGL	333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/6/2000	FGL	494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	FGL	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	0.51	-
11/5/2001	FGL	675	380	8.7	3	23	16	76	4	45	127	110	90	2.6	-	<2	0.2	<0.01	0.23	0.03	-	-	<0.02
6/25/2002	FGL	358	220	8.7	0.1	19	10	31	2	34	39	90	80	3	<0.1	3	0.16	<0.01	0.42	0.03	-	-	<0.02
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	0.71	-
6/21/2003	FGL	221	148	9.1	1	14	7	18	2	19	17	70	60	1.4	<0.1	3	0.11	<0.01	0.33	0.03	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	1	-
10/29/2003	FGL	527	309	7.7	2.5	18	13	58	3	33	92	90	80	1.8	0.2	<2	0.1	<0.01	0.21	0.04	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	<0.4	-
10/29/2004	FGL	621	392	8.8	2.8	24	15	72	4	65	108	100	90	3.5	0.2	2	0.2	<0.01	0.25	0.04	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.63	0.576	-
6/25/2007	FGL	388	247	7.4	1.7	17	9	35	2	45	46	90	70	3.3	<0.1	3	0.14	<0.01	0.35	0.05	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0.832	-
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	0.61	-
9/18/2007	FGL	615	359	8.1	3	20	15	74	4	41	105	100	80	<0.4	<0.1	2	0.14	<0.01	0.31	0.06	-	-	<0.02
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.55	0.57	-
6/23/2008	FGL	577	321	8.3	2.4	22	14	59	3	48	91	80	70	3.8	0.4	3	0.2	<0.01	0.23	0.02	-	-	<0.02
9/17/2008	FGL	611	340	7.6	2.9	22	16	74	3	39	105	80	80	0.6	0.1	3	0.2	<0.01	0.65	0.06	-	-	<0.02
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.15	0.44	-
6/30/2009	FGL	536	320	9.1	2.3	24	14	57	3	56	84	70	80	2	0.2	3	0.2	<0.01	0.39	0.05	2	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.47	-
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/25/2009	FGL	576	341	7.6	2.8	21	14	67	3	44	101	90	80	1.3	0.1	3	0.2	<0.01	0.27	0.04	2	-	<0.02
6/7/2010	FGL	381	239	8.7	1.8	20	10	39	2	51	45	70	60	1.8	<0.1	2	0.2	<0.01	0.66	0.04	-	-	<0.02
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.565	-
9/24/2010	FGL	508	300	8.7	2.5	21	12	57	3	41	86	80	70	<0.4	<0.1	2	0.2	<0.01	0.44	0.06	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	0.624	-
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/6/2012	FGL	439	264	7.9	-	21	12	46	2	52	58	70	60	2.7	<0.1	2	0.2	<0.01	0.36	0.04	2	-	<0.02
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Cations				Anions						Trace Elements							
						Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
West of Fordel																							
9/24/2012	FGL	664	400	8.1	-	21	15	82	3	48	140	90	70	5.3	<0.1	3	0.2	<0.01	0.14	0.04	2	-	<0.02
6/24/2013	FGL	506	321	9.0	-	24	14	57	3	45	67	100	100	0.9	<0.1	3	0.2	<0.01	0.25	0.07	2	<1	<0.02
10/2/2013	FGL	560	347	8.8	-	20	14	69	3	41	109	90	80	0.9	<0.1	3	0.2	<0.01	0.23	0.04	2	1.24	<0.02
6/30/2014	FGL	695	425	8.0	-	32	18	79	4	67.3	113	110	90	1.3	<0.1	3	0.3	<0.01	0.16	0.05	4	-	0.03
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	2	-	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
Etchegoinberry																							
7/8/1999	FGL	380	230	-	-	-	-	-	-	43	42	-	-	-	-	-	-	-	-	-	-	-	-
7/21/1999	FGL	400	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/11/1999	FGL	364	230	-	-	-	-	-	-	38	40	-	-	-	-	-	-	-	-	-	-	-	-
8/25/1999	FGL	372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/1999	FGL	646	380	8.9	-	-	-	-	-	67	92	-	-	-	-	-	-	-	-	-	-	-	-
9/22/1999	FGL	685	-	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/10/2000	FGL	471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/25/2000	FGL	474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/6/2000	FGL	507	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/19/2001	FGL	423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/5/2001	FGL	854	500	8.2	4.7	24	14	118	4	80	146	150	120	1.5	0.2	<2	0.3	<0.01	0.26	0.08	-	-	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	0.47	-
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	0.67	-
6/25/2002	FGL	439	280	8.0	1.9	20	11	43	3	41	54	100	80	2.4	<0.1	3	0.18	<0.01	0.45	0.05	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	1.01	-
6/21/2003	FGL	299	195	8.0	1.4	17	8	27	2	30	29	80	70	1.6	<0.1	3	0.14	<0.01	0.44	0.08	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
10/29/2003	FGL	541	329	7.7	2.6	19	13	61	3	38	93	100	80	1.4	0.2	<2	0.2	<0.01	0.12	0.02	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	0.512	-
10/29/2004	FGL	719	470	8.2	4.3	21	12	100	3	85	116	130	100	2.8	0.3	2	0.2	<0.01	0.32	0.06	-	-	<0.02
6/25/2007	FGL	480	304	7.2	2.3	19	10	49	2	58	62	100	80	3.5	0.1	3	0.16	<0.01	0.38	0.05	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	0.843	-
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	0.48	-
9/18/2007	FGL	809	498	7.9	5.3	21	13	125	3	68	137	130	100	0.4	0.1	<2	0.23	<0.01	0.31	0.05	-	-	<0.02
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.77	0.6	-
6/23/2008	FGL	656	407	8.2	3.2	26	16	84	3	57	107	110	90	3.3	0.4	2	0.2	<0.01	0.35	0.04	-	-	<0.02
9/17/2008	FGL	850	503	7.0	5	24	15	128	3	66	147	120	110	<0.4	0.2	3	0.2	<0.01	0.37	0.12	-	-	<0.02
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	<0.4	-
6/30/2009	FGL	614	387	8.1	2.9	25	14	73	3	64	96	110	90	2.1	0.2	2	0.3	<0.01	0.23	0.03	3	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/25/2009	FGL	796	499	7.6	4.8	23	15	120	3	72	146	120	100	<0.4	0.1	3	0.2	<0.01	0.22	0.14	2	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	0.636	-
9/24/2010	FGL	581	347	8.5	3.3	20	11	74	3	47	102	90	70	<0.4	<0.1	<2	0.2	<0.01	0.27	0.06	-	-	<0.02
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
6/6/2012	FGL	495	296	7.8	-	22	12	55	2	57	66	80	70	2.2	<0.1	2	0.2	<0.01	0.71	0.11	2	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Etchegoinberry																							
6/24/2013	FGL	590	372	8.2	-	25	14	74	3	55	79	120	100	1.5	<0.1	2	0.3	<0.01	0.19	0.04	3	<1	<0.02
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.446	-
6/30/2014	FGL	777	481	8.1	-	33	18	96	4	80.8	128	120	100	1	0.1	3	0.4	<0.01	0.27	0.05	4	-	0.03
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	4	-	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
MWA (Refuge)																							
7/8/1999	FGL	513	310	8.0	2.8	19	9	60	2	55	68	110	90	2.9	-	-	0.2	-	-	-	-	<2	-
8/11/1999	FGL	633	360	-	3.9	18	9	82	2	71	90	130	100	1.6	-	-	0.2	-	-	-	-	<2	-
9/8/1999	FGL	920	530	9.0	6.4	21	10	142	3	89	148	110	120	<0.4	-	-	-	-	-	-	-	<2	-
11/11/1999	FGL	716	440	9.2	3.7	24	13	90	3	77	97	140	110	2.7	-	-	0.2	-	-	-	-	<2	-
7/10/2000	FGL	706	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/25/2000	FGL	777	-	-	-	-	-	-	-	75	110	-	-	-	-	-	0.2	-	-	-	-	-	-
10/25/2000	FGL	721	442	8.4	4	25	14	100	4	64	104	130	110	1.3	<0.1	-	0.27	<0.01	0.27	0.02	-	-	<0.02
11/18/2000	FGL	502	314	7.7	2.5	22	12	59	3	42	73	100	80	3	<0.1	-	0.19	<0.01	0.26	0.01	-	-	<0.02
12/15/2000	FGL	801	484	7.7	4.6	25	15	118	4	71	128	120	100	3.3	<0.1	-	0.28	<0.01	0.41	0.02	-	-	<0.02
1/31/2001	FGL	853	540	7.8	4.3	29	17	119	4	94	139	130	110	3.4	<0.1	-	0.28	<0.01	0.78	0.03	-	-	<0.02
2/22/2001	FGL	682	430	7.8	2.7	31	17	76	4	85	89	120	100	6.6	<0.1	-	0.33	<0.01	0.78	0.03	-	-	<0.02
3/28/2001	FGL	670	440	7.9	3.1	29	15	83	4	94	87	120	100	4.1	<0.1	-	0.35	<0.01	0.57	0.03	-	-	<0.02
4/25/2001	FGL	772	490	8.2	4	28	14	103	4	104	96	140	120	3.5	<0.1	-	0.41	<0.01	0.34	0.02	-	-	<0.02
5/30/2001	FGL	1030	650	8.5	6.1	27	14	157	4	118	163	170	140	<0.4	<0.1	<2	0.32	<0.01	0.44	0.07	6	<2	<0.02
6/26/2001	FGL	711	457	8.4	4.1	24	12	98	3	79	100	140	110	1.2	0.2	2	0.26	<0.01	0.31	0.05	4	<1	<0.02
7/19/2001	FGL	573	367	8.8	3.2	23	12	76	3	58	75	120	100	<0.4	0.1	-	0.2	<0.01	0.39	0.04	-	-	<0.02
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	4.2	0.62	-
8/15/2001	FGL	660	430	9.0	4	22	13	95	3	59	109	130	100	<0.4	0.1	2	0.21	<0.01	0.24	0.04	3	<2	<0.02
9/10/2001	FGL	1010	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/20/2001	FGL	777	492	8.7	4.3	24	16	112	4	60	146	130	110	<0.4	0.1	2	0.21	<0.01	0.37	0.04	3	1	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4	<0.4	-
11/5/2001	FGL	1060	610	8.4	6.2	25	15	158	4	102	172	190	160	<0.4	0.2	<2	0.33	<0.01	0.27	0.04	-	-	<0.02
6/5/2002	FGL	678	440	8.4	3.3	24	15	84	4	69	109	130	110	1.7	<0.1	-	0.22	<0.01	0.16	0.02	-	-	<0.02
6/5/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.73	-
6/25/2002	FGL	667	410	8.6	0.1	24	12	85	3	72	102	130	110	1.2	0.1	<2	0.23	<0.01	0.41	0.03	-	-	0.03
6/25/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.7	-
7/9/2002	FGL	533	340	8.6	2.9	21	11	67	2	53	69	120	100	1.2	<0.1	2	0.2	<0.01	0.27	0.02	-	-	<0.02
7/15/2002	FGL	514	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-
7/25/2002	FGL	500	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/9/2002	FGL	659	400	8.4	3.9	19	12	89	3	49	113	110	90	<0.4	<0.1	<2	0.17	<0.01	0.15	0.02	-	-	<0.02
8/9/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	0.54	-
8/14/2002	FGL	613	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/19/2002	FGL	658	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/2002	FGL	849	515	8.3	4.2	25	15	108	3	75	149	140	120	<0.4	<0.1	-	0.25	<0.01	0.24	0.05	-	-	<0.02
9/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	0.5	-
9/20/2002	FGL	824	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2002	FGL	823	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/4/2002	FGL	850	520	8.3	4.5	24	17	118	4	130	165	130	110	0.5	<0.1	2	0.2	<0.01	0.14	0.04	-	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
MWA (Refuge)																							
10/11/2002	FGL	717	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/17/2002	FGL	654	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/2002	FGL	620	366	8.4	2.8	22	15	70	4	42	101	110	90	1.6	<0.1	<2	0.17	<0.01	0.19	0.02	-	-	<0.02
11/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
12/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1.16	-
12/26/2002	FGL	630	401	7.9	2.7	27	17	73	4	59	97	120	100	4.4	<0.1	<2	0.27	<0.01	0.1	0.02	-	-	<0.02
1/20/2003	FGL	695	418	7.8	2.9	28	17	78	5	66	99	120	100	4.9	<0.1	<2	0.29	<0.01	0.49	0.02	-	-	<0.02
1/20/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	0.542	-
1/31/2003	FGL	688	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/25/2003	FGL	642	414	7.7	2.9	28	15	76	3	84	83	120	100	4.6	<0.1	-	0.31	<0.01	0.23	0.03	-	-	<0.02
2/25/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	1.12	-
3/23/2003	FGL	743	497	8.5	3.5	31	16	96	3	107	101	140	120	2.6	<0.1	-	0.37	<0.01	0.19	0.02	-	-	<0.02
4/27/2003	FGL	750	499	8.0	3.5	31	16	97	3	106	103	140	110	2.8	<0.1	-	0.36	<0.01	0.52	0.03	-	-	<0.02
5/29/2003	FGL	632	413	8.5	3	27	14	78	3	76	92	120	100	2.8	<0.1	-	0.28	<0.01	0.08	0.01	-	-	<0.02
6/21/2003	FGL	374	246	8.0	1.9	19	9	40	2	42	42	90	70	1.5	<0.1	2	0.17	<0.01	0.32	0.03	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	0.724	-
7/18/2003	FGL	394	256	7.9	2.3	17	9	48	2	40	50	90	80	<0.4	0.2	2	0.17	<0.01	0.23	0.03	-	-	<0.02
8/27/2003	FGL	368	232	8.4	2	17	8	39	2	32	44	90	80	<0.4	0.2	-	0.15	<0.01	0.15	0.02	-	-	<0.02
9/18/2003	FGL	542	355	9.0	3	21	12	68	2	54	78	120	100	<0.4	0.2	-	0.2	<0.01	0.08	0.02	-	-	<0.02
10/29/2003	FGL	584	344	8.1	2.8	20	14	67	3	37	102	100	80	0.6	0.2	<2	0.1	<0.01	0.09	0.02	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
3/26/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.54	1.26	-
3/26/2004	FGL	718	472	7.9	3	34	17	86	3	109	90	130	110	3.3	0.2	<2	0.4	<0.01	160	0.04	-	-	<0.02
4/28/2004	FGL	627	403	8.2	2.9	28	15	76	3	86	83	110	100	1.4	0.2	<2	0.3	<0.01	0.21	0.02	-	-	<0.02
5/24/2004	FGL	605	388	8.2	2.8	26	14	72	3	65	86	120	100	1.6	0.2	-	0.2	<0.01	0.4	0.04	-	-	<0.02
6/18/2004	FGL	609	410	8.2	3.2	28	15	84	3	71	87	120	100	1.4	0.2	<2	0.3	<0.01	0.55	0.03	-	-	<0.02
10/29/2004	FGL	580	360	8.1	2.9	20	14	69	3	44	108	100	80	1.9	0.3	5	0.1	<0.01	0.19	0.04	-	-	0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	<0.4	-
5/21/2007	FGL	955	635	7.9	6.2	27	15	161	4	102	135	190	160	0.7	0.3	-	0.35	<0.01	0.58	0.17	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	0.763	-
6/25/2007	FGL	635	398	7.1	3.3	21	11	75	2	77	80	130	110	2.2	<0.1	2	0.2	<0.01	0.29	0.05	-	-	<0.02
7/22/2007	FGL	599	392	8.2	3.7	21	11	83	3	65	88	120	100	0.8	<0.1	2	0.23	<0.01	0.31	0.06	-	-	<0.02
8/13/2007	FGL	837	-	8.3	6.1	25	15	156	3	91	-	160	130	<0.4	0.2	3	0.17	<0.01	0.39	0.09	-	-	0.1
9/18/2007	FGL	1090	708	8.4	7.3	25	15	188	3	120	167	190	150	<0.4	0.2	<2	0.38	<0.01	0.65	0.11	-	-	<0.02
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	0.42	-
10/30/2007	FGL	708	461	8.2	4	23	15	100	3	61	108	150	120	0.7	0.2	-	0.2	<0.01	0.23	0.05	-	-	<0.02
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	0.54	-
6/23/2008	FGL	837	591	8.4	4.8	27	15	125	3	83	116	220	180	1.2	0.4	2	0.3	<0.01	0.31	0.05	-	-	<0.02
7/14/2008	FGL	704	449	8.8	4	24	13	99	3	76	104	130	100	<0.4	0.3	2	0.3	<0.01	0.15	0.04	-	-	<0.02
8/26/2008	FGL	929	586	7.4	5.8	24	14	144	3	94	147	160	130	<0.4	0.1	3	0.3	<0.01	0.2	0.06	-	-	<0.02
9/17/2008	FGL	958	582	7.5	5.7	25	16	149	3	86	153	150	130	<0.4	0.2	2	0.3	<0.01	0.26	0.08	-	-	<0.02
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.87	<0.4	-
10/13/2008	FGL	914	558	7.9	5	25	17	131	4	75	156	150	120	0.5	<0.1	2	0.3	<0.01	0.3	0.09	-	-	<0.02
4/16/2009	FGL	1460	984	8.2	9	36	18	264	4	177	234	250	200	1	0.2	-	0.5	<0.01	0.55	0.08	-	-	<0.02
5/14/2009	FGL	1500	1000	8.0	9	44	18	281	4	173	243	240	200	0.6	0.2	3	0.5	<0.01	0.77	0.09	-	-	0.03

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
MWA (Refuge)																							
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/30/2009	FGL	745	462	8.5	3.9	27	15	101	3	83	112	120	100	0.4	0.2	2	0.3	<0.01	0.26	0.04	4	-	<0.02
7/23/2009	FGL	612	393	8.4	4.1	20	11	91	2	65	84	120	100	<0.4	0.1	3	0.2	<0.01	0.25	0.05	-	-	<0.02
8/6/2009	FGL	879	596	8.1	6.1	23	12	146	3	106	146	160	130	<0.4	0.1	3	0.2	<0.01	0.37	0.09	-	-	<0.02
8/30/2009	FGL	835	514	8.0	5.3	22	13	127	3	84	145	120	100	<0.4	0.1	3	0.2	<0.01	0.16	0.04	-	-	<0.02
9/25/2009	FGL	886	555	8.2	5.5	24	15	140	3	86	157	130	110	<0.4	0.1	2	0.3	<0.01	0.13	0.03	4	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/26/2009	FGL	900	565	7.9	4.7	27	16	126	3	100	152	140	110	0.9	0.1	<2	0.3	<0.01	0.24	0.06	-	-	<0.02
5/28/2010	FGL	729	454	8.2	3.8	27	14	98	3	100	101	110	90	1.4	<0.1	2	0.3	<0.01	0.25	0.05	-	-	<0.02
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.511	-
6/7/2010	FGL	669	432	8.4	3.6	26	14	91	2	100	88	110	90	1.3	<0.1	<2	0.3	<0.01	0.47	0.05	-	-	<0.02
6/28/2010	FGL	417	268	8.7	2.4	19	9	51	2	53	54	80	60	0.4	<0.1	2	0.2	<0.01	0.39	0.03	-	-	<0.02
7/9/2010	FGL	405	249	8.2	2.5	17	8	50	2	48	53	70	60	1	<0.1	2	0.2	<0.01	0.3	0.04	-	-	<0.02
8/29/2010	FGL	615	385	8.3	3.8	22	11	87	2	69	94	100	80	<0.4	<0.1	2	0.2	<0.01	0.28	0.08	-	-	<0.02
9/24/2010	FGL	541	324	9.1	2.7	22	13	65	3	47	94	80	70	<0.4	<0.1	<2	0.2	<0.01	0.19	0.03	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.4	<0.4	-
10/15/2010	FGL	529	327	8.1	2.5	23	13	60	3	44	83	100	80	0.9	<0.1	2	0.2	<0.01	0.09	0.02	-	-	<0.02
5/9/2012	FGL	1410	950	8.4	-	36	18	237	4	188	247	220	180	<1.8	0.1	3	0.5	<0.01	0.19	0.03	-	-	<0.02
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/6/2012	FGL	665	413	8.2	-	26	14	88	2	88	93	100	80	9.3	<0.1	<2	0.3	<0.01	0.51	0.09	3	-	<0.02
7/19/2012	FGL	633	396	8.6	-	21	11	92	2	74	96	100	90	<1.8	<0.1	3	0.2	<0.01	0.28	0.06	-	-	<0.02
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	896	566	8.4	-	24	15	137	3	97	170	120	100	<1.8	<0.1	2	0.2	<0.01	0.14	0.05	3	-	<0.02
10/29/2012	FGL	590	429	8.1	-	22	14	71	3	54	94	170	140	4.9	<0.1	<2	0.2	<0.01	0.09	0.02	-	-	<0.02
5/31/2013	FGL	928	586	8.3	-	28	13	142	3	106	143	150	120	1.3	0.1	<2	0.4	<0.01	0.28	0.05	-	-	0.02
6/24/2013	FGL	734	462	8.3	-	27	14	104	3	75	98	140	110	0.9	<0.1	2	0.3	<0.01	0.22	0.05	4	<1	<0.02
7/26/2013	FGL	905	554	8.4	-	24	12	143	3	93	129	150	120	<0.4	<0.1	3	0.3	<0.01	0.14	0.06	-	-	<0.02
8/31/2013	FGL	728	463	8.4	-	27	15	118	3	72	108	120	100	<0.4	<0.1	2	0.3	<0.01	0.2	0.06	-	-	0.08
10/2/2013	FGL	840	552	8.3	-	26	16	130	3	96	141	140	110	<0.4	<0.1	2	0.3	<0.01	0.31	0.06	4	1.64	0.02
5/20/2014	FGL	1450	969	8.4	-	34	15	243	4	201	222	250	200	<0.4	<0.1	3	0.6	<0.01	0.35	0.07	-	-	<0.02
6/30/2014	FGL	888	566	8.3	-	35	19	120	4	105	143	140	110	<0.4	0.1	3	0.4	<0.01	0.24	0.05	6	-	0.04
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.499	-
7/30/2014	FGL	1390	890	7.8	-	38	19	224	5	182	232	190	160	<0.4	0.1	-	0.5	<0.01	0.24	0.07	-	-	0.03
8/28/2014	FGL	1470	930	8.0	-	36	20	255	4	180	255	180	150	<0.4	<0.1	-	0.5	<0.01	0.17	0.05	-	-	<0.02
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	5	-	-
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/31/2014	FGL	1000	647	8.0	-	36	21	145	4	118	173	150	120	<0.5	<0.1	-	0.4	<0.01	0.23	0.08	-	-	0.03
James ID Booster Plant																							
10/25/2000	FGL	836	537	8.2	5.2	26	13	131	3	83	131	150	120	<0.4	0.1	-	0.34	<0.01	0.44	0.01	-	-	<0.02
11/18/2000	FGL	710	449	8.4	4.2	24	13	102	3	65	102	140	110	<0.4	<0.1	-	0.25	<0.01	0.13	<0.01	-	-	<0.02
12/15/2000	FGL	848	533	8.2	6	21	10	133	3	84	122	160	130	<0.4	0.1	-	0.38	<0.01	0.4	<0.01	-	-	<0.02
1/31/2001	FGL	710	450	8.2	4.2	24	12	102	3	60	109	140	110	<0.4	0.1	-	0.3	<0.01	0.34	<0.01	-	-	<0.02
3/28/2001	FGL	805	510	8.6	4.1	30	15	110	4	90	131	110	110	1.4	<0.1	-	0.35	<0.01	0.16	<0.01	-	-	<0.02
4/25/2001	FGL	826	550	8.4	6.4	27	5	138	7	53	107	210	170	4.5	0.2	-	0.37	0.02	0.12	0.01	-	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
James ID Booster Plant																							
5/30/2001	FGL	824	540	8.7	5.7	29	5	126	6	53	125	190	170	4.2	0.1	10	0.38	<0.01	0.32	0.02	8	<2	<0.02
6/26/2001	FGL	784	514	8.7	4.4	27	13	110	3	94	117	150	120	<0.4	0.2	2	0.29	<0.01	0.56	0.05	5	1	<0.02
7/19/2001	FGL	665	442	8.6	3.8	26	14	96	3	72	91	140	110	<0.4	0.1	-	0.23	<0.01	1.17	0.06	-	-	<0.02
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3	-	-	-	-	4.9	0.57	-
8/15/2001	FGL	687	440	8.5	3.9	25	14	97	3	66	109	130	110	<0.4	0.1	3	0.21	<0.01	0.51	0.05	3	<2	<0.02
9/20/2001	FGL	1030	656	8.2	5.6	30	19	160	4	99	174	170	140	<0.4	0.2	3	0.28	<0.01	0.69	0.04	5	2	<0.02
11/5/2001	FGL	933	580	8.4	4.8	28	17	131	4	81	161	160	-	<0.4	0.2	<2	0.27	<0.01	0.23	0.01	-	-	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	0.59	-
6/5/2002	FGL	708	440	8.0	3.4	26	15	88	4	70	99	140	120	1.3	<0.1	-	0.25	<0.01	0.38	0.02	-	-	<0.02
6/5/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.95	-
7/9/2002	FGL	463	300	8.3	2.4	21	11	54	3	44	54	110	90	0.9	<0.1	-	0.22	<0.01	0.63	0.02	-	-	0.06
7/15/2002	FGL	530	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-
7/25/2002	FGL	512	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/9/2002	FGL	672	420	7.7	2.5	22	13	88	3	54	109	130	100	<0.4	<0.1	2	0.13	<0.01	0.33	0.03	-	-	0.02
8/9/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	0.64	-
8/14/2002	FGL	666	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/19/2002	FGL	671	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/2002	FGL	737	470	8.1	3.6	24	14	110	3	55	134	130	100	<0.4	<0.1	-	0.22	<0.01	0.31	0.2	-	-	<0.02
9/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	0.69	-
9/20/2002	FGL	860	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/27/2002	FGL	935	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
10/4/2002	FGL	940	587	8.1	5.3	27	16	140	4	80	160	160	130	<0.4	<0.1	2	0.25	<0.01	0.18	0.01	-	-	<0.02
10/11/2002	FGL	893	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/17/2002	FGL	874	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	<0.4	-
11/4/2002	FGL	755	423	8.4	3.6	24	17	94	4	52	112	120	100	<0.4	<0.1	<2	0.19	<0.01	0.16	0.01	-	-	<0.02
12/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	0.61	-
12/26/2002	FGL	719	430	8.1	3.7	24	15	94	4	45	128	120	100	<0.4	0.1	<2	0.21	<0.01	0.05	<0.01	-	-	0.02
1/20/2003	FGL	691	418	8.1	3.2	24	16	83	5	41	129	120	100	<0.4	<0.1	<2	0.19	<0.01	0.44	<0.01	-	-	<0.02
1/20/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
1/31/2003	FGL	674	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/25/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.15	0.973	-
3/23/2003	FGL	730	474	8.6	3.4	30	16	93	4	91	100	140	120	<0.4	<0.1	-	0.33	<0.01	0.13	<0.01	-	-	<0.02
3/26/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.05	-	-
4/27/2003	FGL	917	606	8.0	4.2	36	19	124	4	118	134	170	140	1.4	<0.1	-	0.42	<0.01	0.53	<0.01	-	-	<0.02
5/29/2003	FGL	769	501	8.7	3.9	30	15	105	4	98	109	140	120	<0.4	<0.1	-	0.33	<0.01	0.11	<0.01	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.55	0.71	-
6/21/2003	FGL	342	224	7.8	1.7	19	9	35	2	33	35	90	70	0.8	0.2	2	0.17	<0.01	0.41	0.03	-	-	<0.02
7/18/2003	FGL	406	276	8.2	2.4	19	9	50	2	44	52	100	80	<0.4	0.2	2	0.18	<0.01	0.57	0.03	-	-	<0.02
8/27/2003	FGL	370	232	7.8	1.9	17	9	38	2	32	44	90	80	<0.4	0.2	-	0.15	<0.01	0.4	0.03	-	-	<0.02
9/18/2003	FGL	454	297	8.3	2.3	20	11	52	2	43	59	110	90	<0.4	0.2	-	0.2	<0.01	0.27	0.02	-	-	<0.02
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	<0.4	-
10/29/2003	FGL	543	344	7.4	2.6	22	13	63	3	41	82	120	100	<0.4	0.2	<2	0.2	<0.01	0.27	0.02	-	-	<0.02
3/26/2004	FGL	723	470	8.5	3	34	17	87	4	105	92	120	120	0.5	0.1	3	0.3	<0.01	0.16	0.04	-	-	<0.02
3/26/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.12	1.12	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
James ID Booster Plant																							
4/28/2004	FGL	802	533	7.9	3.5	35	18	101	4	109	106	160	140	<0.4	0.2	<2	0.4	<0.01	0.15	0.01	-	-	<0.02
5/24/2004	FGL	696	451	8.3	3.2	29	15	86	3	82	96	140	110	<0.4	0.2	-	0.3	<0.01	0.3	0.02	-	-	<0.02
6/18/2004	FGL	651	436	8.5	3	32	17	85	3	86	93	120	100	<0.4	0.2	2	0.3	<0.01	0.74	0.02	-	-	<0.02
10/29/2004	FGL	571	374	8.1	2.8	23	13	67	3	46	102	120	100	<0.4	0.3	<2	0.2	<0.01	0.17	0.02	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	0.458	-
5/21/2007	FGL	1020	668	8.5	6.2	31	16	170	4	119	138	190	170	<0.4	0.3	-	0.43	<0.01	0.58	0.05	-	-	<0.02
6/25/2007	FGL	775	462	8.7	4	24	13	99	2	94	100	120	120	<0.4	<0.1	3	0.27	<0.01	0.25	0.03	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.7	0.786	-
7/22/2007	FGL	712	474	7.4	4.4	23	12	105	3	83	98	150	130	<0.4	<0.1	3	0.26	<0.01	0.43	0.04	-	-	<0.02
8/13/2007	FGL	740	498	7.5	4.9	23	13	118	3	75	106	160	130	<0.4	0.2	3	0.23	<0.01	0.82	0.04	-	-	<0.02
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	0.44	-
9/18/2007	FGL	911	570	8.2	5.8	24	14	144	3	87	138	160	130	<0.4	0.2	2	0.27	<0.01	0.45	0.2	-	-	<0.02
10/30/2007	FGL	1070	692	8.2	7	27	15	183	4	104	169	190	160	<0.4	0.2	-	0.3	<0.01	0.33	0.01	-	-	<0.02
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.85	0.67	-
6/23/2008	FGL	906	721	8.2	5.4	28	15	142	3	94	137	300	240	1.2	0.4	3	0.3	<0.01	0.58	0.04	-	-	<0.02
7/14/2008	FGL	820	477	8.4	4.2	27	15	110	3	97	115	100	100	<0.4	0.3	4	0.3	<0.01	0.52	0.03	-	-	<0.02
8/26/2008	FGL	1000	656	6.8	6.3	27	14	161	3	140	141	170	140	<0.4	0.2	4	0.5	<0.01	0.34	0.03	-	-	<0.02
9/17/2008	FGL	1000	625	7.2	5.6	29	16	150	3	111	156	160	130	<0.4	0.2	3	0.4	<0.01	0.36	0.03	-	-	<0.02
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.73	<0.4	-
10/13/2008	FGL	1120	677	7.6	6.1	28	16	164	4	110	185	170	140	<0.4	0.1	3	0.4	<0.01	0.3	0.01	-	-	<0.02
4/16/2009	FGL	1270	852	8.4	6.6	41	21	208	4	154	194	230	190	<0.4	0.2	-	0.5	<0.01	0.32	0.01	-	-	<0.02
5/14/2009	FGL	1640	1030	8.3	18.3	20	3	332	6	35	356	280	230	0.8	0.6	8	1.6	<0.01	0.43	0.03	-	-	<0.02
6/30/2009	FGL	841	548	8.2	4.5	29	15	121	3	105	125	150	120	<0.4	0.2	2	0.4	<0.01	0.67	0.04	5	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.42	-
7/23/2009	FGL	662	425	8.3	4	23	12	96	3	72	89	130	110	<0.4	0.2	3	0.3	<0.01	0.47	0.04	-	-	<0.02
8/6/2009	FGL	723	497	8.2	4.9	23	11	115	3	97	108	140	120	<0.4	0.2	3	0.3	<0.01	0.47	0.03	-	-	<0.02
8/30/2009	FGL	1000	640	7.9	6.6	26	13	164	3	107	157	170	140	<0.4	0.2	3	0.3	<0.01	0.27	0.02	-	-	<0.02
9/25/2009	FGL	1060	689	8.1	6.8	28	15	180	3	132	171	160	130	<0.4	0.2	3	0.4	<0.01	0.4	0.02	7	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/26/2009	FGL	993	618	7.8	5.9	27	15	154	4	116	162	140	120	<0.4	0.2	2	0.3	<0.01	0.28	0.01	-	-	<0.02
5/28/2010	FGL	960	614	8.2	5.2	32	16	145	3	134	144	140	120	<0.4	0.1	3	0.4	<0.01	0.27	0.01	-	-	<0.02
6/7/2010	FGL	862	566	8.6	4.8	31	16	132	3	120	124	140	110	<0.4	0.1	3	0.4	<0.01	0.4	0.02	-	-	<0.02
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.484	-
6/28/2010	FGL	410	262	8.1	2.3	19	9	49	2	53	50	80	70	<0.4	<0.1	2	0.2	<0.01	0.38	0.03	-	-	<0.02
7/9/2010	FGL	469	302	8.0	2.6	21	10	58	2	57	64	90	70	<0.4	<0.1	3	0.2	<0.01	0.44	0.04	-	-	<0.02
8/29/2010	FGL	555	349	7.8	3.3	22	11	76	2	58	80	100	80	<0.4	<0.1	3	0.2	<0.01	0.44	0.04	-	-	<0.02
9/24/2010	FGL	641	409	8.6	3.7	24	12	88	3	93	89	100	90	<0.4	0.1	2	0.3	<0.01	0.34	0.03	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.06	<0.4	-
10/15/2010	FGL	646	388	7.9	3.5	23	13	85	3	53	111	100	80	<0.4	<0.1	<2	0.2	<0.01	0.23	0.02	-	-	<0.02
5/9/2012	FGL	1480	1040	8.4	-	40	19	256	5	240	236	240	190	<1.8	0.3	6	0.6	<0.01	0.28	0.02	-	-	<0.02
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
6/6/2012	FGL	773	501	8.2	-	29	15	112	3	103	109	130	110	<1.8	0.1	3	0.4	<0.01	0.34	0.04	4	-	<0.02
7/19/2012	FGL	774	519	8.2	-	26	12	122	3	129	107	120	100	<1.8	0.1	4	0.4	<0.01	0.43	0.04	-	-	0.02
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	935	597	8.2	-	25	12	151	3	139	137	130	110	<1.8	0.1	4	0.4	<0.01	0.18	0.01	7	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
James ID Booster Plant																							
10/29/2012	FGL	993	614	8.0	-	28	16	151	4	99	166	150	120	<1.8	<0.1	2	0.3	<0.01	0.11	0.02	-	-	0.02
5/31/2013	FGL	1180	760	8.3	-	35	17	188	3	149	178	190	160	<0.4	0.1	3	0.5	<0.01	0.46	0.03	-	-	0.03
6/24/2013	FGL	852	535	8.3	-	30	16	130	3	87	119	150	120	<0.4	<0.1	2	0.4	<0.01	0.37	0.04	4	<1	<0.02
7/26/2013	FGL	876	562	8.3	-	27	12	141	3	125	104	150	120	<0.4	0.1	4	0.4	<0.01	0.27	0.03	-	-	<0.02
8/31/2013	FGL	919	642	8.2	-	32	17	174	4	100	145	170	140	<0.4	0.1	3	0.4	<0.01	0.6	<0.01	-	-	0.1
10/2/2013	FGL	939	597	8.3	-	28	15	143	3	115	142	150	120	0.4	0.2	3	0.4	<0.01	0.3	0.02	5	2.05	<0.02
5/20/2014	FGL	1560	985	8.6	-	18	2	301	5	64.2	335	260	220	<0.4	<0.1	8	1.5	<0.01	0.3	0.05	-	-	<0.02
6/30/2014	FGL	1080	701	8.1	-	37	18	165	4	134	173	170	140	<0.4	0.1	3	0.4	<0.01	0.38	0.04	7	-	0.03
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.458	-
7/30/2014	FGL	1150	736	7.9	-	38	19	171	5	150	173	180	140	<0.4	0.1	-	0.5	<0.01	0.33	0.03	-	-	0.03
8/28/2014	FGL	1550	993	7.9	-	41	22	266	5	196	263	200	170	<0.4	0.2	-	0.5	<0.01	0.17	0.02	-	-	0.02
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	12	-	-
10/31/2014	FGL	1450	1020	7.9	-	33	10	285	5	320	179	190	150	0.4	0.5	-	1.1	<0.01	0.33	0.01	-	-	0.03
Tranquillity ID Inlet																							
7/25/2002	FGL	540	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/9/2002	FGL	712	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/14/2002	FGL	703	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-
8/19/2002	FGL	672	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-
9/8/2002	FGL	1570	925	8.0	12.2	23	6	255	5	90	296	250	200	<0.4	0.2	-	1.29	0.01	0.05	0.12	-	3	<0.02
9/20/2002	FGL	1790	1080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
9/27/2002	FGL	2240	1390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/4/2002	FGL	2370	1480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
10/11/2002	FGL	2430	1510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
10/17/2002	FGL	1330	770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<0.02
11/4/2002	FGL	977	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-
1/31/2003	FGL	698	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-
3/23/2003	FGL	728	473	7.9	3.1	30	17	86	4	94	101	140	120	-	<0.1	-	0.33	<0.01	0.31	0.02	-	-	<0.02
4/27/2003	FGL	918	613	7.8	4.4	35	18	128	5	120	136	170	140	1.3	<0.1	-	0.44	<0.01	0.41	0.01	-	-	<0.02
5/29/2003	FGL	756	497	8.4	3.8	29	16	104	3	95	109	140	120	0.7	<0.1	-	0.32	<0.01	0.13	0.01	-	-	<0.02
6/21/2003	FGL	344	225	7.8	1.7	19	9	35	2	34	35	90	70	0.7	<0.1	<2	0.17	<0.01	0.47	0.03	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.679	-
7/18/2003	FGL	396	267	8.2	2.2	19	9	47	2	41	49	100	80	<0.4	0.2	2	0.17	<0.01	0.66	0.04	-	-	<0.02
8/27/2003	FGL	368	230	7.8	1.8	17	9	36	2	32	44	90	80	<0.4	0.2	-	0.00015	<0.01	0.13	0.03	-	-	<0.02
9/18/2003	FGL	1760	1120	8.2	15	26	5	316	5	209	305	250	210	<0.4	0.4	-	1.4	<0.01	0.29	0.12	-	-	<0.02
10/29/2003	FGL	556	363	8.1	2.8	24	12	67	3	45	82	130	100	<0.4	0.2	<2	0.2	<0.01	0.21	0.03	-	-	0.06
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	<0.4	-
3/26/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	1.11	-
3/26/2004	FGL	725	468	8.5	3.1	34	17	88	3	102	94	110	120	<0.4	0.2	3	0.4	<0.01	0.2	0.03	-	-	<0.02
4/28/2004	FGL	729	489	7.9	3.1	33	17	88	3	105	93	150	120	<0.4	0.2	<2	0.4	<0.01	0.21	0.02	-	-	<0.02
5/24/2004	FGL	654	424	8.3	3	29	15	79	3	75	92	130	110	0.5	0.2	-	0.3	<0.01	0.42	0.04	-	-	<0.02
6/18/2004	FGL	630	424	8.3	3	31	17	83	3	79	90	120	100	0.5	0.2	<2	0.3	<0.01	1.41	0.04	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.47	0.407	-
10/29/2004	FGL	1540	968	8.0	10.6	30	10	263	5	190	259	210	170	0.9	0.3	2	1	<0.01	0.36	0.03	-	-	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Tranquillity ID Inlet																							
6/23/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.25	0.62	-
6/23/2008	FGL	923	690	8.3	5.4	29	16	147	3	97	138	260	220	<0.4	0.4	3	0.3	<0.01	0.91	0.07	-	-	<0.02
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.45	<0.4	-
9/17/2008	FGL	996	608	7.9	5.5	28	16	147	3	104	160	150	130	<0.4	0.2	3	0.4	<0.01	0.29	0.03	-	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	-
6/30/2009	FGL	778	497	8.3	4.1	28	15	108	3	89	114	140	110	<0.4	0.2	3	0.3	<0.01	0.94	0.06	4	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/25/2009	FGL	1180	756	8.0	8.3	28	13	213	4	112	216	170	140	<0.4	0.2	3	0.6	<0.01	0.42	0.04	5	-	<0.02
6/7/2010	FGL	824	534	8.6	4.4	31	16	121	3	117	116	130	110	<0.4	0.1	3	0.4	<0.01	0.49	0.05	-	-	<0.02
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.591	-
9/24/2010	FGL	609	381	8.4	3.4	23	12	80	3	77	86	100	80	<0.4	<0.1	3	0.3	<0.01	0.39	0.03	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	<0.4	-
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
6/6/2012	FGL	802	517	8.2	-	27	14	120	3	117	106	130	110	<1.8	0.1	3	0.4	<0.01	0.38	0.05	5	-	<0.02
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	1360	607	8.0	-	25	13	149	3	119	158	140	120	<1.8	<0.1	3	0.3	<0.01	0.16	0.02	5	-	<0.02
6/24/2013	FGL	861	547	8.3	-	29	15	136	3	100	114	150	130	<0.4	0.1	3	0.4	<0.01	0.42	0.05	5	<1	<0.02
10/2/2013	FGL	1410	962	8.1	-	18	2	305	4	270	183	180	150	<0.4	0.5	10	1.2	<0.01	0.25	0.06	18	2.24	<0.02
6/30/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.433	-
6/30/2014	FGL	1090	719	8.2	-	35	16	174	4	168	162	160	130	<0.4	0.2	4	0.5	<0.01	0.43	0.05	12	-	0.03
9/16/2014	SDAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
9/16/2014	FGL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	21	-	-
Lateral 6 & 7																							
8/25/1999	FGL	664	390	8.6	3.8	24	12	91	2	71	94	120	110	<0.4	-	-	0.2	-	-	-	-	<2	-
9/29/1999	FGL	1160	670	-	-	-	-	-	-	116	192	-	-	<0.4	-	-	0.2	-	-	-	-	<1	-
10/25/2000	FGL	735	474	8.5	4	28	14	105	3	68	105	150	120	1.4	<0.1	-	0.28	<0.01	0.6	0.04	-	-	<0.02
11/18/2000	FGL	719	451	8.4	4.1	26	13	102	3	64	103	140	120	<0.4	<0.1	-	0.24	<0.01	0.36	0.02	-	-	<0.02
12/15/2000	FGL	605	379	8.2	2.9	28	14	76	3	52	85	120	100	1.3	<0.1	-	0.22	<0.01	0.68	0.03	-	-	<0.02
1/31/2001	FGL	742	480	7.8	3.9	27	14	100	4	73	133	130	110	2.5	0.1	-	0.25	<0.01	1	0.02	-	-	<0.02
2/22/2001	FGL	787	500	8.4	3.5	36	15	100	4	79	117	150	120	1	0.1	-	0.27	<0.01	0.6	0.03	-	-	<0.02
3/28/2001	FGL	680	450	8.4	2.9	33	16	80	4	84	91	140	120	<0.4	<0.1	-	0.32	<0.01	0.47	0.02	-	-	<0.02
4/25/2001	FGL	718	480	8.5	4.5	27	9	106	6	49	87	190	160	2.5	<0.1	-	0.26	<0.01	0.4	0.02	-	-	<0.02
5/30/2001	FGL	1020	650	8.4	5.2	33	17	148	4	122	159	170	140	0.9	<0.1	<2	0.33	<0.01	0.5	0.04	5	<2	<0.02
6/26/2001	FGL	820	529	9.0	4.5	29	14	117	3	107	119	120	120	<0.4	0.2	4	0.33	<0.01	0.54	0.04	6	1	<0.02
7/19/2001	FGL	677	446	8.7	3.8	26	14	96	3	75	92	140	110	<0.4	0.1	<3	0.23	<0.01	0.75	0.04	-	-	<0.02
7/19/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	0.69	-
8/15/2001	FGL	685	440	8.7	4.5	24	14	95	3	65	109	130	110	<0.4	0.1	3	0.21	<0.01	0.44	0.05	3	<2	<0.02
9/20/2001	FGL	1020	650	8.4	5.7	30	18	159	4	99	170	170	140	<0.4	0.2	3	0.27	<0.01	0.79	0.04	5	2	<0.02
11/5/2001	FGL	889	560	8.5	4.8	27	16	127	4	76	153	160	-	<0.4	0.1	<2	0.26	<0.01	0.48	0.05	-	-	<0.02
11/5/2001	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4	0.48	-
6/5/2002	FGL	720	470	8.2	3.5	27	15	91	4	73	105	150	120	3.4	0.1	-	0.25	<0.01	0.52	0.02	-	-	<0.02
6/5/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.9	-
7/9/2002	FGL	459	300	8.2	2.3	22	11	54	3	43	54	110	90	1	<0.1	3	0.23	<0.01	0.75	0.03	-	-	0.03
7/15/2002	FGL	533	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Lateral 6 & 7																							
7/25/2002	FGL	522	310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	-
8/9/2002	FGL	675	420	8.0	3.8	22	13	91	3	54	109	130	100	<0.4	<0.1	2	0.21	<0.01	0.8	0.05	-	-	0.03
8/9/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	0.51	-
8/14/2002	FGL	680	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/19/2002	FGL	680	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/8/2002	FGL	742	451	8.2	3.7	25	14	93	4	56	129	130	110	<0.4	<0.1	-	0.22	<0.01	0.49	0.03	-	-	<0.02
9/20/2002	FGL	874	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/20/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	0.71	-
9/27/2002	FGL	906	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/4/2002	FGL	851	529	8.2	4.5	27	17	122	4	65	154	140	120	<0.4	0.1	2	0.21	<0.01	0.3	0.02	-	-	<0.02
10/11/2002	FGL	872	520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/17/2002	FGL	781	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/2002	FGL	694	400	8.6	3.3	24	16	84	4	43	109	120	100	<0.4	<0.1	<2	0.17	<0.01	0.26	0.02	-	-	0.02
11/4/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	<0.4	-
12/26/2002	FGL	752	476	8.5	3.2	34	17	92	4	61	128	140	120	<0.4	0.1	2	0.21	<0.01	0.8	0.01	-	-	0.02
12/26/2002	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5	0.9	-
1/20/2003	FGL	671	409	8.5	2.7	30	16	73	4	45	101	140	110	<0.4	<0.1	<2	0.18	<0.01	0.38	0.01	-	-	<0.02
1/20/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.05	<0.4	-
1/31/2003	FGL	668	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/25/2003	FGL	718	459	8.2	2.9	34	17	82	4	59	113	150	130	<0.4	0.1	-	0.2	<0.01	0.16	0.02	-	-	<0.02
2/25/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.17	0.537	-
3/23/2003	FGL	783	514	8.4	3.1	38	18	93	4	91	110	160	130	<0.4	<0.1	-	0.27	<0.01	0.25	0.01	-	-	<0.02
4/27/2003	FGL	894	607	8.3	3.7	41	19	115	5	110	127	190	160	<0.4	<0.1	-	0.4	<0.01	0.37	0.01	-	-	<0.02
5/29/2003	FGL	772	488	9.1	3.8	32	16	105	4	104	107	100	120	<0.4	<0.1	-	0.37	<0.01	0.12	0.02	-	-	<0.02
6/21/2003	FGL	344	224	8.3	1.7	19	9	35	2	34	34	90	70	0.5	<0.1	<2	0.17	<0.01	0.48	0.04	-	-	<0.02
6/21/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	0.71	-
7/18/2003	FGL	410	277	8.3	2.3	20	10	50	2	43	52	100	80	<0.4	0.2	3	0.18	<0.01	0.6	0.04	-	-	<0.02
8/27/2003	FGL	446	286	8.3	2	23	10	46	2	42	53	110	90	<0.4	0.2	-	0.18	<0.01	0.8	0.05	-	-	<0.02
9/18/2003	FGL	483	322	9.0	2.4	23	11	56	2	47	63	120	100	<0.4	0.2	-	0.2	<0.01	0.25	0.02	-	-	<0.02
10/29/2003	FGL	638	389	8.1	2.9	25	13	73	3	40	105	130	110	<0.4	0.2	<2	0.2	<0.01	0.35	0.01	-	-	0.03
10/29/2003	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
3/26/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	0.919	-
3/26/2004	FGL	752	495	8.4	2.9	39	18	86	4	104	94	140	130	<0.4	0.2	4	0.4	<0.01	0.29	0.02	-	-	<0.02
4/28/2004	FGL	856	567	8.2	3.3	43	20	103	4	118	109	170	150	<0.4	0.3	4	0.4	<0.01	0.24	0.02	-	-	<0.02
5/24/2004	FGL	839	554	8.6	3.3	41	20	104	4	115	110	140	150	<0.4	0.2	-	0.4	<0.01	0.36	0.03	-	-	<0.02
6/18/2004	FGL	943	660	8.7	5.1	39	17	152	4	207	91	140	130	<0.4	0.4	7	0.6	<0.01	1.6	0.05	-	-	<0.02
10/29/2004	FGL	576	376	8.4	2.6	24	14	66	3	43	106	120	100	<0.4	0.3	2	0.2	<0.01	0.32	0.03	-	-	<0.02
10/29/2004	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<0.4	-
5/21/2007	FGL	1170	783	8.3	6.6	48	17	209	5	210	104	180	170	<0.4	0.4	-	0.7	<0.01	1.11	0.17	-	-	<0.02
6/25/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.8	0.713	-
6/25/2007	FGL	1080	702	8.0	4.9	42	14	143	4	181	128	190	150	<0.4	0.2	7	0.51	<0.01	0.62	0.1	-	-	<0.02
7/22/2007	FGL	854	592	8.5	5.7	28	11	140	4	172	87	150	130	<0.4	0.3	6	0.5	<0.01	0.71	0.06	-	-	<0.02
8/13/2007	FGL	858	594	8.7	6.1	30	13	159	3	132	107	140	140	<0.4	0.2	6	0.32	<0.01	0.77	0.07	-	-	<0.02
9/18/2007	FGL	941	628	8.3	5.9	29	13	152	3	95	146	190	150	<0.4	0.2	5	0.32	<0.01	0.94	0.6	-	-	<0.02
9/18/2007	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	<0.4	-

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)
Lateral 6 & 7																							
10/30/2007	FGL	899	596	8.3	5.3	30	15	142	4	84	141	180	150	<0.4	<0.1	-	0.3	<0.01	0.54	0.05	-	-	<0.02
7/14/2008	FGL	1390	874	8.6	9	35	9	230	4	370	105	120	100	<0.4	0.6	12	1	<0.01	0.62	0.06	-	-	<0.02
8/26/2008	FGL	1430	928	7.6	10.6	30	5	238	5	430	79	140	120	<0.4	0.5	12	1.2	<0.01	0.63	0.06	-	-	<0.02
9/17/2008	FGL	1220	807	7.1	9.3	28	7	212	4	330	85	140	110	<0.4	0.6	9	0.9	<0.01	0.49	0.05	-	-	<0.02
9/17/2008	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.87	<0.4	-
10/13/2008	FGL	1220	794	7.9	9	26	7	201	4	327	89	140	110	<0.4	0.3	8	0.9	<0.01	0.29	0.03	-	-	<0.02
4/16/2009	FGL	1700	1210	8.6	13.2	42	6	346	4	560	110	140	120	<0.4	0.6	-	1.6	<0.01	0.47	0.02	-	-	<0.02
5/14/2009	FGL	1480	1010	8.1	13.3	33	4	303	5	370	146	150	120	<0.4	0.7	10	1.2	<0.01	0.96	0.05	-	-	<0.02
6/30/2009	FGL	1350	954	8.1	11.3	32	6	265	5	410	95	140	110	<0.4	0.6	8	1.1	<0.01	1.09	0.05	31	-	<0.02
6/30/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
7/23/2009	FGL	1240	864	8.2	11.1	29	6	251	5	330	102	140	110	<0.4	0.6	9	1	<0.01	0.58	0.04	-	-	<0.02
8/6/2009	FGL	1490	1080	8.5	12	38	6	301	5	470	114	150	120	<0.4	0.6	9	1.3	<0.01	0.64	0.04	-	-	<0.02
8/30/2009	FGL	1660	1160	8.1	13.6	38	5	335	4	540	106	130	110	<0.4	0.7	11	1.5	<0.01	0.49	0.04	-	-	<0.02
9/25/2009	FGL	1350	952	8.2	10.9	34	7	268	5	380	107	150	120	<0.4	0.9	13	1	<0.01	1.27	0.08	26	-	<0.02
9/25/2009	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
10/26/2009	FGL	1370	950	8.0	12.3	30	4	271	4	430	80	130	110	<0.4	0.7	10	1.1	<0.01	0.64	0.04	-	-	<0.02
5/28/2010	FGL	943	602	8.4	5	33	16	141	3	131	138	140	120	<0.4	0.2	3	0.4	<0.01	0.33	0.04	-	-	<0.02
6/7/2010	FGL	1330	954	8.3	12.1	31	5	276	4	420	87	130	110	<0.4	0.7	9	1.2	<0.01	0.55	0.05	-	-	<0.02
6/7/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.4	-
6/28/2010	FGL	422	270	8.2	2.4	20	9	52	2	54	53	80	70	<0.4	0.1	3	0.2	<0.01	0.47	0.05	-	-	<0.02
7/9/2010	FGL	490	326	8.1	2.5	25	10	59	2	60	60	110	90	<0.4	0.1	4	0.2	<0.01	0.47	0.04	-	-	<0.02
8/29/2010	FGL	956	649	8.0	5.9	37	12	161	4	181	104	150	120	<0.4	0.3	6	0.6	<0.01	1.12	0.1	-	-	<0.02
9/24/2010	FGL	1310	922	8.4	12.4	28	4	265	4	410	80	130	110	<0.4	0.6	10	1.2	<0.01	0.49	0.05	-	-	<0.02
9/24/2010	OBL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30.1	<0.4	-
10/15/2010	FGL	1320	922	8.1	12.4	28	4	265	5	410	80	130	100	<0.4	0.5	11	1.1	<0.01	0.4	0.05	-	-	<0.02
5/9/2012	FGL	1450	1040	8.4	-	32	5	289	5	430	136	140	120	<1.8	0.6	10	1.3	<0.01	1.34	0.09	-	-	<0.02
6/6/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6/6/2012	FGL	1050	705	8.5	-	30	10	186	4	241	104	130	100	<1.8	0.4	6	0.7	<0.01	0.45	0.07	15	-	<0.02
7/19/2012	FGL	1660	1160	8.5	-	42	6	330	4	550	106	120	110	<1.8	0.4	11	1.5	<0.01	0.66	0.06	-	-	0.02
9/23/2012	BAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-
9/24/2012	FGL	958	972	8.3	-	31	6	275	4	420	96	140	110	<1.8	0.4	17	1.1	<0.01	1.05	0.11	27	-	<0.02
10/29/2012	FGL	1340	903	8.3	-	28	5	257	4	390	88	130	110	<1.8	0.7	9	1.1	<0.01	0.22	0.03	-	-	0.02
5/31/2013	FGL	1250	860	8.3	-	46	18	228	6	260	142	160	130	<0.4	0.4	10	0.8	0.02	8.48	0.27	-	-	0.08
6/24/2013	FGL	1250	825	8.3	-	29	7	242	4	300	93	150	120	<0.4	0.4	8	1	<0.01	0.37	0.05	25	<1	<0.02
7/26/2013	FGL	1640	1040	8.4	-	40	6	275	4	490	92	130	110	<0.4	0.4	10	1.4	<0.01	0.3	0.05	-	-	<0.02
8/31/2013	FGL	1340	928	8.4	-	34	5	294	5	380	80	130	100	<0.4	0.5	11	1.3	<0.01	0.98	0.07	-	-	0.08
10/2/2013	FGL	1430	939	7.9	-	29	3	270	4	410	93	130	110	<0.4	0.4	10	1.2	<0.01	0.38	0.05	31	1.42	<0.02

Table G-1 (continued)
Surface-Water Quality Laboratory Results

						Cations				Anions						Trace Elements							
Date	Lab[1]	EC[2] (µmhos/cm)	TDS (mg/L)	pH	SAR	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	SO_4 (mg/L)	Cl (mg/L)	HCO_3[3] (mg/L)	Total Alkalinity[3] (mg/L)	NO_3[3] (mg/L)	F (mg/L)	As (µg/L)	B (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Mo (µg/L)	Se (µg/L)	Zn (mg/L)

1. Laboratory Abbreviations: APP - Appl Inc., Clovis; AT - Agri Tech, Inc., Kerman; BD - Betz Dearborn; BCL - BC Laboratories, Bakersfield; BD - Betz Dearborn; BSK - BSK Analytical Laboratories, Fresno; CLS - California Laboratory Services, Rancho Cordova; FGL - Fruit Growers Laboratory, Santa Paula; JML - JM Lord, Fresno; JML(1) - JM Lord, Fresno (TDS estimated from EC); OBL = Olson Biochemistry Laboratories of South Dakota State University, Brookings, SD; TL - The Twining Laboratories, Inc., Fresno.; UAG - U.S. Agricultural Consultants and Laboratories, Burbank; USGS - U.S. Geological Survey

2. Electrical Conductivity at 25°C

3. HCO3, Total Alkalinity and NO3 reported as HCO3, CaCO3 and NO3 respectively. Some 2008 NO3 results may include NO2 in reported value.

NA = Not Available; ND = Non Detect (detection limit unknown)

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APPENDIX H

ELECTRICAL CONDUCTIVITY AT DMC AND SJREC CANAL INTAKES

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Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
1/1/2014	829	0	0	0	0
1/2/2014	825	0	0	0	0
1/3/2014	799	0	0	0	0
1/4/2014	821	0	0	0	0
1/5/2014	829	0	0	0	0
1/6/2014	847	0	0	0	0
1/7/2014	880	0	0	0	0
1/8/2014	872	0	0	0	0
1/9/2014	845	0	0	0	0
1/10/2014	815	0	0	0	0
1/11/2014	770	0	0	0	0
1/12/2014	795	0	0	0	0
1/13/2014	833	0	0	0	0
1/14/2014	828	0	0	0	0
1/15/2014	823	0	0	0	0
1/16/2014	841	0	0	0	0
1/17/2014	835	0	0	0	0
1/18/2014	810	0	0	0	0
1/19/2014	801	0	0	0	0
1/20/2014	806	0	0	0	0
1/21/2014	832	0	0	0	0
1/22/2014	828	0	0	0	0
1/23/2014	822	0	0	0	0
1/24/2014	816	0	0	0	0
1/25/2014	812	0	0	0	0
1/26/2014	821	0	0	0	0
1/27/2014	845	0	0	0	0
1/28/2014	879	0	0	0	0
1/29/2014	898	0	0	0	0
1/30/2014	914	0	0	0	0
1/31/2014	943	0	0	0	0
2/1/2014	892	0	0	0	0
2/2/2014	908	0	0	0	0
2/3/2014	915	0	0	0	0
2/4/2014	877	0	0	0	0
2/5/2014	825	0	0	0	0
2/6/2014	776	0	0	0	0
2/7/2014	737	0	0	0	0
2/8/2014	710	0	0	0	0
2/9/2014	711	0	0	0	0
2/10/2014	708	0	0	0	0
2/11/2014	713	0	0	0	0
2/12/2014	742	0	0	0	0
2/13/2014	788	0	0	0	0
2/14/2014	837	0	0	0	0
2/15/2014	983	0	1123	1204	998
2/16/2014	988	0	1155	1226	1015
2/17/2014	908	0	1083	1159	968

Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
2/18/2014	884	0	1036	1075	984
2/19/2014	832	0	977	996	978
2/20/2014	816	0	976	989	970
2/21/2014	815	0	970	982	965
2/22/2014	818	0	976	984	973
2/23/2014	822	0	971	979	976
2/24/2014	801	0	963	965	952
2/25/2014	774	0	959	963	965
2/26/2014	805	0	964	971	966
2/27/2014	830	0	1015	992	981
2/28/2014	760	0	941	1001	1007
3/1/2014	840	0	1006	1010	1010
3/2/2014	801	0	1017	1020	1018
3/3/2014	756	0	942	1015	1018
3/4/2014	819	0	1005	1005	1008
3/5/2014	790	0	953	967	965
3/6/2014	872	0	966	980	988
3/7/2014	862	0	1025	1020	1015
3/8/2014	852	0	0	0	0
3/9/2014	865	0	0	0	0
3/10/2014	878	0	966	1084	1110
3/11/2014	870	0	1029	1070	1099
3/12/2014	875	0	1048	1062	1069
3/13/2014	927	0	1090	1148	1114
3/14/2014	875	0	1038	1110	1135
3/15/2014	832	0	974	1106	1178
3/16/2014	784	0	927	1102	1266
3/17/2014	754	0	885	1092	1211
3/18/2014	775	0	917	1063	1263
3/19/2014	773	0	941	1188	1364
3/20/2014	885	0	952	1068	1378
3/21/2014	946	0	944	1028	1394
3/22/2014	920	0	922	1072	1418
3/23/2014	894	0	885	1029	1415
3/24/2014	913	0	903	939	1120
3/25/2014	807	0	820	910	1109
3/26/2014	748	0	762	857	1209
3/27/2014	760	0	754	832	1292
3/28/2014	745	0	805	1033	1353
3/29/2014	777	0	759	873	1250
3/30/2014	747	0	785	997	1255
3/31/2014	783	0	875	1189	1271
4/1/2014	889	0	957	1307	1249
4/2/2014	832	748	902	1102	1210
4/3/2014	827	750	841	1016	1189
4/4/2014	835	758	852	989	1052
4/5/2014	887	768	875	909	906
4/6/2014	962	674	932	978	943

Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
4/7/2014	991	544	985	1047	911
4/8/2014	990	791	981	1083	1126
4/9/2014	937	887	946	969	1124
4/10/2014	953	915	961	968	1043
4/11/2014	779	926	810	805	827
4/12/2014	679	836	701	696	710
4/13/2014	646	759	653	659	697
4/14/2014	668	711	666	691	817
4/15/2014	711	706	714	727	818
4/16/2014	678	716	695	701	796
4/17/2014	667	712	677	676	785
4/18/2014	658	716	667	666	763
4/19/2014	609	706	616	613	768
4/20/2014	633	694	644	639	855
4/21/2014	634	673	642	652	883
4/22/2014	689	709	672	711	766
4/23/2014	671	699	696	746	826
4/24/2014	702	706	695	732	880
4/25/2014	681	713	698	727	796
4/26/2014	630	700	646	665	694
4/27/2014	569	684	581	614	654
4/28/2014	556	679	572	597	670
4/29/2014	528	660	541	590	752
4/30/2014	532	687	541	561	628
5/1/2014	539	699	556	561	558
5/2/2014	521	641	538	551	555
5/3/2014	515	582	528	544	547
5/4/2014	512	571	528	544	568
5/5/2014	522	567	535	549	562
5/6/2014	548	587	556	584	585
5/7/2014	583	606	594	610	609
5/8/2014	563	590	571	587	581
5/9/2014	605	625	615	634	636
5/10/2014	579	626	584	613	620
5/11/2014	632	620	642	674	706
5/12/2014	603	640	613	749	928
5/13/2014	654	664	665	720	977
5/14/2014	653	662	658	677	773
5/15/2014	652	647	662	675	693
5/16/2014	631	645	640	662	717
5/17/2014	625	650	638	666	712
5/18/2014	653	646	654	682	693
5/19/2014	641	651	641	665	656
5/20/2014	624	648	627	653	649
5/21/2014	617	559	621	634	615
5/22/2014	630	635	621	653	682
5/23/2014	610	152	517	648	632
5/24/2014	620	659	636	662	661

Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
5/25/2014	632	117	481	662	664
5/26/2014	652	113	442	680	683
5/27/2014	648	116	432	664	662
5/28/2014	656	113	355	666	667
5/29/2014	647	95	370	664	662
5/30/2014	629	90	341	644	644
5/31/2014	652	87	294	665	662
6/1/2014	662	78	336	680	678
6/2/2014	654	56	284	674	673
6/3/2014	641	56	263	658	657
6/4/2014	642	56	291	657	657
6/5/2014	628	56	298	646	645
6/6/2014	619	56	328	635	634
6/7/2014	616	57	331	634	633
6/8/2014	628	58	314	649	645
6/9/2014	633	57	320	654	650
6/10/2014	658	57	322	680	675
6/11/2014	677	57	232	622	643
6/12/2014	669	56	161	646	644
6/13/2014	703	56	294	726	720
6/14/2014	688	56	308	710	707
6/15/2014	662	56	288	688	679
6/16/2014	687	56	264	711	707
6/17/2014	704	54	221	730	725
6/18/2014	712	54	232	737	734
6/19/2014	717	54	225	747	749
6/20/2014	719	54	243	744	746
6/21/2014	738	54	282	763	758
6/22/2014	708	54	262	736	730
6/23/2014	697	54	268	724	719
6/24/2014	703	54	252	731	723
6/25/2014	705	53	267	732	726
6/26/2014	700	52	341	723	719
6/27/2014	693	51	381	717	713
6/28/2014	684	52	402	711	704
6/29/2014	681	52	392	706	702
6/30/2014	678	51	390	706	701
7/1/2014	678	51	381	709	704
7/2/2014	666	50	366	696	693
7/3/2014	673	49	380	704	700
7/4/2014	673	50	388	706	703
7/5/2014	667	50	338	704	705
7/6/2014	669	49	331	702	699
7/7/2014	679	48	302	714	714
7/8/2014	701	47	313	732	725
7/9/2014	737	46	364	774	771
7/10/2014	752	46	412	793	788
7/11/2014	733	46	410	779	772

Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
7/12/2014	700	46	384	736	737
7/13/2014	685	46	367	711	719
7/14/2014	696	46	367	716	716
7/15/2014	737	46	318	758	758
7/16/2014	734	45	356	755	759
7/17/2014	722	44	384	740	741
7/18/2014	747	44	372	761	759
7/19/2014	762	44	349	776	776
7/20/2014	765	44	339	780	780
7/21/2014	769	44	360	783	783
7/22/2014	782	44	340	797	795
7/23/2014	776	43	382	796	794
7/24/2014	786	43	416	803	807
7/25/2014	759	42	401	782	801
7/26/2014	749	40	334	774	773
7/27/2014	750	40	286	775	784
7/28/2014	755	40	299	775	804
7/29/2014	761	40	303	783	810
7/30/2014	762	40	331	787	807
7/31/2014	763	40	348	791	812
8/1/2014	752	40	327	777	793
8/2/2014	744	40	306	766	780
8/3/2014	741	40	324	762	777
8/4/2014	734	40	241	755	768
8/5/2014	745	40	195	766	793
8/6/2014	747	40	185	782	905
8/7/2014	756	40	202	810	1058
8/8/2014	795	40	211	820	923
8/9/2014	799	40	180	818	832
8/10/2014	762	40	167	784	800
8/11/2014	748	62	167	784	800
8/12/2014	778	123	195	777	832
8/13/2014	766	169	264	799	809
8/14/2014	740	143	299	792	804
8/15/2014	719	119	307	766	776
8/16/2014	715	101	316	748	758
8/17/2014	712	114	286	745	751
8/18/2014	717	57	245	743	750
8/19/2014	717	62	205	749	756
8/20/2014	725	53	161	747	774
8/21/2014	744	44	158	762	824
8/22/2014	761	39	217	779	784
8/23/2014	721	46	216	796	805
8/24/2014	711	37	93	739	770
8/25/2014	718	54	51	727	742
8/26/2014	734	38	35	696	735
8/27/2014	770	36	41	722	759
8/28/2014	770	36	41	714	830

Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
8/29/2014	769	35	44	758	788
8/30/2014	792	35	33	720	762
8/31/2014	785	35	32	591	643
9/1/2014	768	39	36	471	542
9/2/2014	761	54	51	425	500
9/3/2014	755	54	50	528	538
9/4/2014	775	54	51	652	657
9/5/2014	838	54	50	685	700
9/6/2014	904	54	50	723	752
9/7/2014	864	47	48	525	600
9/8/2014	827	52	50	391	446
9/9/2014	802	55	49	476	485
9/10/2014	799	52	48	423	470
9/11/2014	802	52	46	437	431
9/12/2014	825	52	46	517	511
9/13/2014	855	51	46	487	497
9/14/2014	887	52	46	366	408
9/15/2014	891	54	46	314	334
9/16/2014	886	53	46	316	355
9/17/2014	900	66	49	335	356
9/18/2014	914	69	49	442	450
9/19/2014	904	52	47	445	485
9/20/2014	897	59	51	364	397
9/21/2014	913	74	52	363	382
9/22/2014	941	60	52	329	520
9/23/2014	962	83	96	739	824
9/24/2014	984	76	275	1014	979
9/25/2014	894	69	360	927	900
9/26/2014	665	69	329	684	661
9/27/2014	657	72	352	677	655
9/28/2014	661	70	390	677	655
9/29/2014	672	85	487	692	669
9/30/2014	671	102	514	686	670
10/1/2014	652	123	570	712	720
10/2/2014	644	143	645	667	656
10/3/2014	639	163	653	662	650
10/4/2014	645	181	671	668	655
10/5/2014	640	0	657	662	650
10/6/2014	645	0	667	671	661
10/7/2014	629	0	657	655	645
10/8/2014	646	0	677	675	662
10/9/2014	643	0	678	674	679
10/10/2014	654	0	694	687	675
10/11/2014	614	0	653	644	635
10/12/2014	625	0	660	650	642
10/13/2014	650	0	687	680	669
10/14/2014	643	0	683	674	667
10/15/2014	661	0	699	705	683

Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
10/16/2014	668	0	711	713	695
10/17/2014	660	0	703	703	686
10/18/2014	671	0	713	711	695
10/19/2014	703	0	742	747	752
10/20/2014	707	0	753	755	775
10/21/2014	678	0	722	709	709
10/22/2014	719	0	763	762	745
10/23/2014	775	0	799	786	780
10/24/2014	789	0	802	786	769
10/25/2014	737	0	743	713	715
10/26/2014	851	0	844	791	821
10/27/2014	840	0	854	821	816
10/28/2014	790	0	804	769	774
10/29/2014	852	0	845	816	821
10/30/2014	825	0	839	805	809
10/31/2014	753	0	766	748	728
11/1/2014	812	0	819	808	781
11/2/2014	764	0	773	750	748
11/3/2014	768	0	777	720	747
11/4/2014	736	0	750	713	721
11/5/2014	725	0	738	714	705
11/6/2014	780	0	788	758	732
11/7/2014	771	0	785	783	760
11/8/2014	747	0	759	749	729
11/9/2014	731	0	741	720	709
11/10/2014	738	0	750	734	720
11/11/2014	734	0	746	776	792
11/12/2014	721	707	731	887	1103
11/13/2014	717	731	716	785	1018
11/14/2014	686	708	695	680	690
11/15/2014	645	687	650	642	645
11/16/2014	671	652	673	660	664
11/17/2014	688	654	691	681	684
11/18/2014	722	681	727	718	724
11/19/2014	705	715	712	705	703
11/20/2014	714	709	720	706	711
11/21/2014	711	713	715	704	713
11/22/2014	687	728	725	713	713
11/23/2014	701	0	0	0	0
11/24/2014	699	0	0	0	0
11/25/2014	708	0	0	0	0
11/26/2014	723	0	0	0	0
11/27/2014	731	0	0	0	0
11/28/2014	756	0	769	752	758
11/29/2014	761	0	766	746	758
11/30/2014	764	0	768	752	760
12/1/2014	767	0	759	793	788
12/2/2014	774	0	772	779	776

Table H-1
Electrical Conductivity (µmhos/cm) at DMC Terminus and SJREC Canal Intakes (2014)

Date	DMC (Check 21)	Columbia Canal	CCID Main Canal	CCID Outside Canal	Firebaugh Intake Canal
12/3/2014	833	0	810	804	782
12/4/2014	840	0	855	853	853
12/5/2014	823	0	823	808	807
12/6/2014	845	0	832	831	832
12/7/2014	856	0	859	854	851
12/8/2014	816	0	825	813	812
12/9/2014	812	0	818	800	800
12/10/2014	800	0	814	794	794
12/11/2014	785	0	789	783	787
12/12/2014	781	0	799	762	746
12/13/2014	844	0	846	827	827
12/14/2014	849	0	857	840	842
12/15/2014	838	0	865	824	828
12/16/2014	740	0	775	759	776
12/17/2014	715	0	741	716	737
12/18/2014	747	0	767	739	752
12/19/2014	725	0	731	709	717
12/20/2014	828	0	814	797	793
12/21/2014	907	0	882	876	876
12/22/2014	901	0	924	898	897
12/23/2014	879	0	886	866	867
12/24/2014	906	0	898	880	846
12/25/2014	861	0	859	839	840
12/26/2014	880	0	897	879	856
12/27/2014	850	0	844	828	858
12/28/2014	919	0	906	892	858
12/29/2014	899	0	915	900	884
12/30/2014	902	0	881	875	883
12/31/2014	951	0	949	936	917

Notes: 1. EC values recorded at the intake canals at the Mendota Pool are shaded when they exceed the DMC by 90 µmhos/cm

2. Transfer pumpage occurred between March 1st and November 30th, 2014. The MPG suspended transfer pumping peridically in March and April, 2014 when notified to do so by the SJREC when EC criteria was exceeded.

Data Source: DMC (http://www.usbr.gov/mp/cvo/wqrpt_14.html) and SJREC.