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March 15, 2007

Mr. Aaron Yue
Project Manager
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Subject: February 2007 Performance Monitoring Report
Interim Measures Performance Monitoring Program
PG&E Topock Compressor Station, Needles, California

Dear Mr. Yue:

Enclosed is the *Performance Monitoring Report for February 2007* for the Interim Measure Performance Monitoring Program at the PG&E Topock Compressor Station. This monitoring report documents the performance monitoring results for February 1 through 28, 2007, and has been prepared in conformance with DTSC's letter dated February 14, 2005.

Please contact me at (805) 546-5243 if you have any questions on the performance monitoring program.

Sincerely,

Paul Butler for Yvonne Meeks

Enclosure
Cc: Chris Guerre/DTSC

Performance Monitoring Report for February 2007

Interim Measures Performance Monitoring Program PG&E Topock Compressor Station Needles, California

Prepared for

California Department of Toxic Substances Control

on behalf of

Pacific Gas and Electric Company

March 15, 2007

CH2MHILL
155 Grand Avenue, Suite 1000
Oakland, California 94612

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Interim Measures Performance Monitoring Program

PG&E Topock Compressor Station Needles, California

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This report was prepared under the supervision of a California Certified Engineering Geologist

Paul Bertucci

Paul Bertucci, C.E.G. No. 1977
Project Hydrogeologist

Contents

Acronyms and Abbreviations

µg/L	micrograms per liter (essentially the same as parts per billion [ppb])
cfs	cubic feet per second
Cr(T)	total chromium
Cr(VI)	hexavalent chromium
DTSC	California Department of Toxic Substances Control
gpm	gallons per minute
IM	Interim Measure
PG&E	Pacific Gas and Electric Company
PMP	Performance Monitoring Program
TDS	total dissolved solids
USBR	United States Bureau of Reclamation

1.0 Introduction

Pacific Gas and Electric Company (PG&E) is implementing an Interim Measure (IM) to address chromium concentrations in groundwater at the Topock Compressor Station near Needles, California. The IM consists of groundwater extraction for hydraulic control of the plume boundaries in the Colorado River floodplain and management of extracted groundwater. Collectively, the groundwater extraction, treatment, and injection systems are referred to as Interim Measure Number 3 (IM No. 3). Currently, the IM No. 3 facilities include a groundwater extraction system (four extraction wells: TW-2D, TW-3D, TW-2S, and PE-1), conveyance piping, a groundwater treatment plant, and an injection well field for the discharge of the treated groundwater. Figure 1-1 shows the location of the IM No. 3 extraction, conveyance, treatment, and injection facilities.

In a letter dated February 14, 2005, the California Department of Toxic Substances Control (DTSC) established the criteria for evaluating the performance of the IM. As defined by DTSC, the performance standard for this IM is to "establish and maintain a net landward hydraulic gradient, both horizontally and vertically, that ensures that hexavalent chromium [Cr(VI)] concentrations at or greater than 20 micrograms per liter [µg/L] in the floodplain are contained for removal and treatment" (DTSC 2005). The DTSC directive also defined the monitoring and reporting requirements for the IM. A draft *Performance Monitoring Plan for Interim Measures in the Floodplain Area* (CH2M HILL 2005) was submitted to DTSC on April 15, 2005 (herein referred to as the Performance Monitoring Plan). The site monitoring, data evaluation, reporting, and response actions required under the February 2005 DTSC directive are collectively referred to as the IM Performance Monitoring Program for the floodplain area.

This monthly report has been prepared in compliance with DTSC's requirements and documents the monitoring activities and performance evaluation of the IM hydraulic containment system for the period from February 1 through February 28, 2007. The results and status of IM performance monitoring during March 2007 will be reported in the next monthly performance monitoring report.

Figure 1-2 shows the locations of wells used for IM extraction, performance monitoring, and hydraulic gradient measurements. The performance monitoring wells that were in service/active as of February 2007 are defined as:

- **Floodplain Wells** (monitoring wells on the Colorado River floodplain): MW-22, MW-27 cluster (three), MW-28 cluster (two), MW-29, MW-30 cluster (two), MW-32 cluster (two), MW-33 cluster (four), MW-34 cluster (three), MW-36 cluster (six), MW-39 cluster (six), MW-42 cluster (three), MW-43 cluster (three), MW-44 cluster (three), MW-45, MW-46 cluster (two), MW-49 cluster (three).
- **Intermediate Wells** (monitoring wells located immediately north, west, and southwest of the floodplain): MW-12, MW-19, MW-20 cluster (three), MW-21, MW-26, MW-31 cluster (two), MW-35 cluster (two), MW-47 cluster (two), MW-50 cluster (two), and MW-51.

- **Interior Wells** (monitoring wells located upgradient of IM pumping): MW-10 and MW-25.

Three extraction wells (TW-2D, TW-3D and TW-2S) are located on the MW-20 bench (Figure 1-1). In March 2005, extraction well PE-1 was installed on the floodplain approximately 450 feet east of extraction well TW-2D (Figure 1-1). Construction of the conveyance piping and power supply to well PE-1 was completed in January. Testing and commissioning of well PE-1 began on January 25, 2006, with full-time operation of the well beginning on January 26, 2006. Currently, both TW-3D and PE-1 are in full-time operation.

The wells screened in the unconsolidated alluvial fan and fluvial deposits that comprise the Alluvial Aquifer have been separated into three depth intervals to present groundwater quality and groundwater level data. The depth intervals of the Alluvial Aquifer—designated upper, middle, and lower—are based on grouping the monitoring wells screened at common elevations and do not represent distinct hydrostratigraphic units or separate aquifer zones. The subdivision of the aquifer into three depth intervals is an appropriate construct for presenting and evaluating groundwater quality data in the floodplain. The three-interval concept is also useful for presenting and evaluating lateral gradients, while minimizing effects of vertical gradients and observing the influence of pumping from partially-penetrating wells. It should be noted, however, that these divisions do not correspond to any distinct lithostratigraphic layers within the aquifer. The floodplain aquifer is considered to be hydraulically undivided.

2.0 Extraction System Operations

Pumping data for the IM groundwater extraction system for the period February 1 through February 28, 2007 are shown in Table 2-1. During the reporting period, extraction wells TW-3D and PE-1 operated at a combined target pump rate of 135 gallons per minute (gpm), excluding periods of planned and unplanned downtime.

The February 2007 monthly average pumping rate was 134.3 gpm. A total of 5,415,047 gallons of groundwater was extracted and treated by the IM No. 3 treatment plant during February 2007. The IM No. 3 facility also treated approximately 2,200 gallons of water generated from the groundwater monitoring program and 7,300 gallons of water generated from injection well re-development during February 2007. The operational run time for the IM extraction system was over 99 percent during this reporting period. An operations log for the extraction system during February 2007, including downtime, is included in Appendix A.

The concentrate (i.e., brine) from the reverse osmosis system was shipped offsite with shipping papers as a Resource Conservation and Recovery Act non-hazardous waste and transported to Liquid Environmental Solutions in Phoenix, Arizona for treatment and disposal. No containers of solids from the IM No. 3 facility were transported offsite during February 2007.

Daily inspections included general facility inspections, process control monitoring, and site security monitoring. Daily logs with documentation of inspections are maintained onsite.

Table 2-2 summarizes the analytical results of groundwater samples collected from the extraction well system during the February reporting period and prior months.

3.0 Chromium Sampling Results

During February 2007, the groundwater monitoring wells in the floodplain area were sampled for Cr(VI), total chromium [Cr(T)], and field water quality parameters under newly updated monthly and biweekly schedules, in accordance with the approved groundwater monitoring plan and DTSC directives. Refer to PG&E's Topock *Groundwater and Surface Water Monitoring Report, Third Quarter 2006* (CH2M HILL 2006) and DTSC (2006) for the prior and current sampling plan and frequencies for groundwater wells in the performance monitoring area.

Table B-1 in Appendix B presents the groundwater sampling results for Cr(VI) and Cr(T), as well as groundwater elevation and selected field water quality parameters for monitoring wells in the floodplain area during February 2007 and the previous months. Table B-2 (Appendix B) presents the groundwater sampling data for the other wells monitored in the Performance Monitoring Program area during February 2007 and the previous months.

Figure 3-1 presents the Cr(VI) results distribution for February 2007, in plan view, for the groundwater wells monitoring the upper, middle, and lower depth intervals of the Alluvial Aquifer in the floodplain area. Interpretations of Cr(VI) contours at each depth interval are also provided on this figure. The actual locations of contours beyond well data points are not certain but are inferred using available site investigation and monitoring data (bedrock structure, hydraulic gradients, observed distribution of geochemically-reducing conditions, and Cr(VI) concentration gradients). The aquifer depth intervals, well screens, and February 2007 Cr(VI) sampling results and interpreted contours are also shown on Figure 3-1 in a vertical cross-section extending east-west across the floodplain. The California drinking water standard for Cr(T) is 50 µg/L.

Figure 3-2 presents the February 2007 Cr(VI) results for additional floodplain monitoring wells on a cross-section oriented parallel to the Colorado River (see Figure 1-2 for locations of the cross-sections). For ongoing IM performance evaluation, Cr(VI) concentration trend graphs and hydrographs for key floodplain monitoring wells are presented on Figures B-1 (well MW-33-90), B-2 (well MW-34-100), and B-3 (well MW-36-100) in Appendix B.

4.0 Hydraulic Gradient Results

During the reporting period, water levels were recorded at intervals of 30 minutes with pressure transducers in 61 wells and two river monitoring stations (I-3 and RRB). The data are typically continuous, with only short interruptions for sampling or maintenance. The location of the wells monitored are shown on Figure 1-2 and listed in Section 1.0.

The monthly average and the minimum and maximum daily average groundwater and river elevations have been calculated from the pressure transducer data for the February reporting period (February 1 through February 28, 2007) and are summarized in Appendix C, Table C-1.

Due to the variation in groundwater salinity at the site, the water level measurements need to be adjusted (density-corrected) to equivalent freshwater hydraulic heads prior to calculating groundwater elevations and gradients (Fetter 1994). The methods and procedures used for adjusting the performance monitoring water level data for salinity and temperature differences are described in the Performance Monitoring Plan. Groundwater elevation hydrographs (for February 2007) for all wells with transducers are included in Appendix C. The elevation of the Colorado River measured at the river gauge (I-3, Figure 1-2) during February 2007 is also shown on the hydrographs.

The February 2007 hydraulic data and groundwater gradient maps for the upper, middle, and lower depth intervals are shown on Figures 4-1, 4-2, and 4-3, respectively. The groundwater elevations for all depth intervals of the Alluvial Aquifer indicate strong landward hydraulic gradients within the IM No. 3 capture zone throughout the floodplain. To the west of the TW-3D and PE-1 pumping area, the hydraulic gradient in the upper depth interval is easterly and consistent with the regional gradient outside of the floodplain area. Note that several monitoring wells are significantly deeper than other wells in the lower aquifer zone. Due to vertical gradients present at the Topock site, water levels in deeper wells tend to be higher than water levels in shallower wells. Consequently, some of the wells with screen intervals significantly deeper than most of the lower zone wells exhibit water levels that are not contoured in the plan view on Figure 4-3.

The landward gradients measured during February 2007 were greater than those measured in January 2007, due to rising river levels over the reporting period. The February 2007 average monthly groundwater elevations are also presented and contoured in cross-section on Figure 4-4 (cross-section location shown on Figure 1-2). The groundwater elevation contours on this cross-section show the strong downward and landward hydraulic gradients produced by the combined pumping from IM extraction wells TW-3D and PE-1.

Table 4-1 summarizes the estimated and actual dam discharges and river elevations since April 2004. The actual Davis Dam average discharge for February 2007 of 11,680 cubic feet per second (cfs) was more than the United States Bureau of Reclamation (USBR) projected discharge of 9,800 cfs for the current reporting period. As a result, the actual Colorado River elevation at I-3 (monthly average) was greater (0.7 ft) than the level predicted during the

previous month by using the multiple regression method with USBR projections for the February reporting period.

Table 4-2 summarizes gradients measured between the three designated well pairs (MW-31-135/MW-33-150, MW-20-130/MW-34-80, and MW-20-130/MW-42-65) during February 2007. Pumping from extraction well PE-1 began on January 26, 2006. Since that time, the central well pair has been affected by PE-1 pumping. Pumping at well PE-1 would tend to lower the water level in well MW-34-80 and decrease the apparent gradient in the central well pair. Nevertheless, average gradients in the three well pairs were landward at magnitudes that were three to four times the target value of 0.001 feet per foot (0.0028, 0.0037, and 0.0042, respectively). These gradients were greater than the average gradients for these well pairs measured in January 2007 due to rising river levels and steady pumping rates over the reporting period.

5.0 Status of Operation and Monitoring

Reporting of the IM extraction and monitoring activities will continue as described in the Performance Monitoring Plan. The next monthly monitoring report for the March 2007 reporting period will be submitted by April 15, 2007.

Per DTSC direction, PG&E will continue to operate both TW-3D and PE-1 at a target combined pumping rate of 135 gpm during March 2007, except for periods when planned and unplanned downtime occurs. Treated groundwater will be discharged into the IM No. 3 injection wells in accordance with Waste Discharge Requirements Order No. R7-2006-0060. Brine generated as a byproduct of the treatment process will continue to be transported offsite.

PG&E will balance the pumping rates between wells TW-3D and PE-1 to maintain the target pumping rate and maintain appropriate hydraulic gradients across the Alluvial Aquifer. If, at any time, hydraulic data indicate that well PE-1 pumping has the potential to draw higher concentrations of chromium away from the capture zone of well TW-3D, PG&E will request authorization from DTSC to increase the pumping rate at TW-3D and decrease the rate at well PE-1. Extraction well TW-2D will continue serve as a backup extraction well to TW-3D and PE-1.

Current USBR projections show that the average Davis Dam release for March 2007 (14,300 cfs) will increase compared to February 2007 (11,680 cfs) (Table 4-1). Based on March 8, 2007 USBR projections, it is anticipated that the Colorado River level at the I-3 gauge location during March 2007 will be greater (0.8 ft) compared to the average river level in February 2007.

With the initiation of pumping from PE-1 (late January 2006) and expansion of the IM monitoring well network, new gradient control well pairs will be defined by DTSC to account for the more complex gradient caused by pumping at both TW-3D and PE-1. Modifications and updates to the IM performance monitoring program will be incorporated pending DTSC approval and direction.

6.0 References

California Department of Toxic Substances Control (DTSC). 2005. Letter. "Criteria for Evaluating Interim Measures Performance Requirements to Hydraulically Contain Chromium Plume in Floodplain Area, Pacific Gas & Electric Company, Topock Compressor Station." February 14.

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Tables

TABLE 2-1
Pumping Rate and Extracted Volume for IM System through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Extraction Well	February 2007 Period		Project To Date[b]
	Average Pumping Rate[c] (gpm)	Volume Pumped (gal)	Cumulative Volume Pumped (gal)
TW-2S	0	0	994,438
TW-2D	0	0	53,015,001
TW-3D	101.3	4,085,607	60,640,869
PE-1	33.0	1,329,440	19,679,557
Total	134.3	5,415,047	134,329,865
	Volume Pumped from the MW-20 Well Cluster		1,527,724
	Total Volume Pumped[b] (gal)		135,857,589
	Total Volume Pumped (ac-ft)		417.0

gpm: gallons per minute.
gal: gallons.
ac-ft: acre-feet.

[a] Pumping results during the monthly period are based on readings collected between February 1, 2007 at 12:00 a.m. and February 28, 2007 at 11:59 p.m. (28 days).
[b] Interim Measure groundwater extraction at the Topock site was initiated in March 2004.
[c] The "Average Pumping Rate" is the overall average during the reporting period, including system downtime based on flow meter readings.

TABLE 2-2
Analytical Results for Extraction Wells, September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well ID	Sample Date	Dissolved Total Chromium mg/L	Hexavalent Chromium mg/L	Total Dissolved Solids mg/L
TW-3D	07-Sep-06	2.44	2.38	5700
TW-3D	04-Oct-06	2.46	2.47	5350 J
TW-3D	01-Nov-06	3.18	2.49	4920
TW-3D	06-Dec-06	2.09	2.50	5420
TW-3D	10-Jan-07	2.58	2.44	5520
TW-3D	06-Feb-07	2.31	2.40	5780
PE-1	07-Sep-06	0.0905	0.0854	5920
PE-1	04-Oct-06	0.0839	0.0901	5950 J
PE-1	01-Nov-06	0.0833	0.0925	5010
PE-1	06-Dec-06	0.0858	0.0972	5650
PE-1	10-Jan-07	0.103	0.0889	5320
PE-1	06-Feb-07	0.0895	0.0808	5440

NOTES:

mg/L = concentration in milligrams per liter
Analytical results from inactive extraction wells are presented in Table B-2.
Groundwater samples from active extraction wells are taken at sample taps in Valve Vault 1 on the MW-20 Bench.

J = concentration or reporting limit estimated by laboratory or data validation

TABLE 4-1

Predicted and Actual Monthly Average Davis Dam Discharge and Colorado River Elevation at I-3

Interim Measures Performance Monitoring

PG&E Topock Compressor Station

	Davis Dam Release			Colorado River Elevation at I-3		
Month	Projected (cfs)	Actual (cfs)	Difference (cfs)	Predicted (ft AMSL)	Actual (ft AMSL)	Difference (feet)
April 2004	17,400	17,354	-46	456.4	456.2	-0.2
May 2004	17,100	16,788	-312	456.3	456.3	-0.1
June 2004	15,800	16,869	1,069	455.8	456.6	0.7
July 2004	14,000	14,951	951	455.2	455.9	0.7
August 2004	12,100	12,000	-100	454.5	454.9	0.4
September 2004	11,200	10,979	-221	454.2	454.6	0.4
October 2004	8,600	7,538	-1,062	453.2	453.5	0.3
November 2004	9,500	8,075	-1,425	453.6	453.4	-0.2
December 2004	6,200	8,090	1,890	452.4	453.3	0.9
January 2005	8,800	4,900	-3,900	453.4	452.4	-1.0
February 2005	8,000	4,820	-3,180	453.1	452.6	-0.5
March 2005	15,600	7,110	-8,490	455.8	452.9	-2.9
April 2005	16,700	16,306	-394	455.9	456.0	0.1
May 2005	16,700	15,579	-1,121	456.2	456.1	-0.1
June 2005	14,600	15,223	623	455.8	456.1	0.3
July 2005	15,400	15,612	212	456.0	456.0	0.0
August 2005	11,700	11,544	-156	454.6	454.8	0.2
September 2005	12,400	12,335	-65	454.6	NA	NA
October 2005	12,300	11,201	-1,099	454.5	454.3	-0.2
November 2005	10,900	10,216	-684	454.3	454.3	0
December 2005	6,900	6,745	-155	452.8	452.7	-0.1
January 2006	8,400	9,166	766	453.2	453.6	0.4
February 2006	11,100	10,790	-310	454.1	454.1	0.1
March 2006	13,000	12,429	-571	454.7	454.8	0.2
April 2006	16,600	18,300	1700	456.0	456.1	0.0
May 2006	15,500	16,818	1318	456.0	456.3	0.3
June 2006	16,100	17,547	1447	456.2	456.4	0.2
July 2006	14,700	15,171	-471	455.7	455.8	0.1
August 2006	12,900	12,871	29	454.9	455.1	0.1
September 2006	12,100	12,409	-309	454.7	454.7	0.0
October 2006	11,400	11,150	250	454.1	454.4	0.3
November 2006	8,300	8,222	78	452.9	453.3	0.4
December 2006	8,100	8,823	-723	453.0	453.4	0.4
January 2007	8,600	8,796	-196	453.2	453.6	0.4
February 2007	9,800	11,680	-1,880	453.6	454.3	0.7
March 2007	14,300	--	--	455.1	--	--

NOTES:

1) Predicted Colorado River elevations (river levels) at I-3 are based upon BOR projections for Davis Dam releases and Lake Havasu elevations from the preceding month, using a multiple regression between historical dam releases and measured river levels at I-3 (updated monthly). This data is reported monthly by the US Department of Interior, at http://www.usbr.gov/lc/region/g4000/24mo.pdf

2) Listed projections for April 2004 through July 2004 are from April 2004, and the remainder were from the beginning of each respective month.

3) The difference in I-3 elevation is the difference between the I-3 elevation predicted, and the actual elevation measured at I-3. The main source of this difference is differences between BOR projections and actual dam releases/Havasu reservoir levels, rather than the multiple regression error.

4) NA = I-3 transducer data unavailable for month of September 2005 due to damage by debris.

5) I-3 elevation for the month of October 2006 limited to average of data from 10/4/2006 through 10/31/2006.

6) cfs = cubic feet per second; ft AMSL = feet above mean sea level

TABLE 4-2
Average Hydraulic Gradients Measured at Well Pairs, February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well Pair[1]	Mean Landward Hydraulic Gradient (feet/foot)[2]	Measurement Dates 2007
Northern Gradient Pair		
MW-31-135 / MW-33-150	0.0028	February 1 through February 28
Central Gradient Pair[3]		
MW-20-130 / MW-34-80	0.0037	February 1 through February 28
Southern Gradient Pair		
MW-20-130 / MW-42-65	0.0042	February 1 through February 28

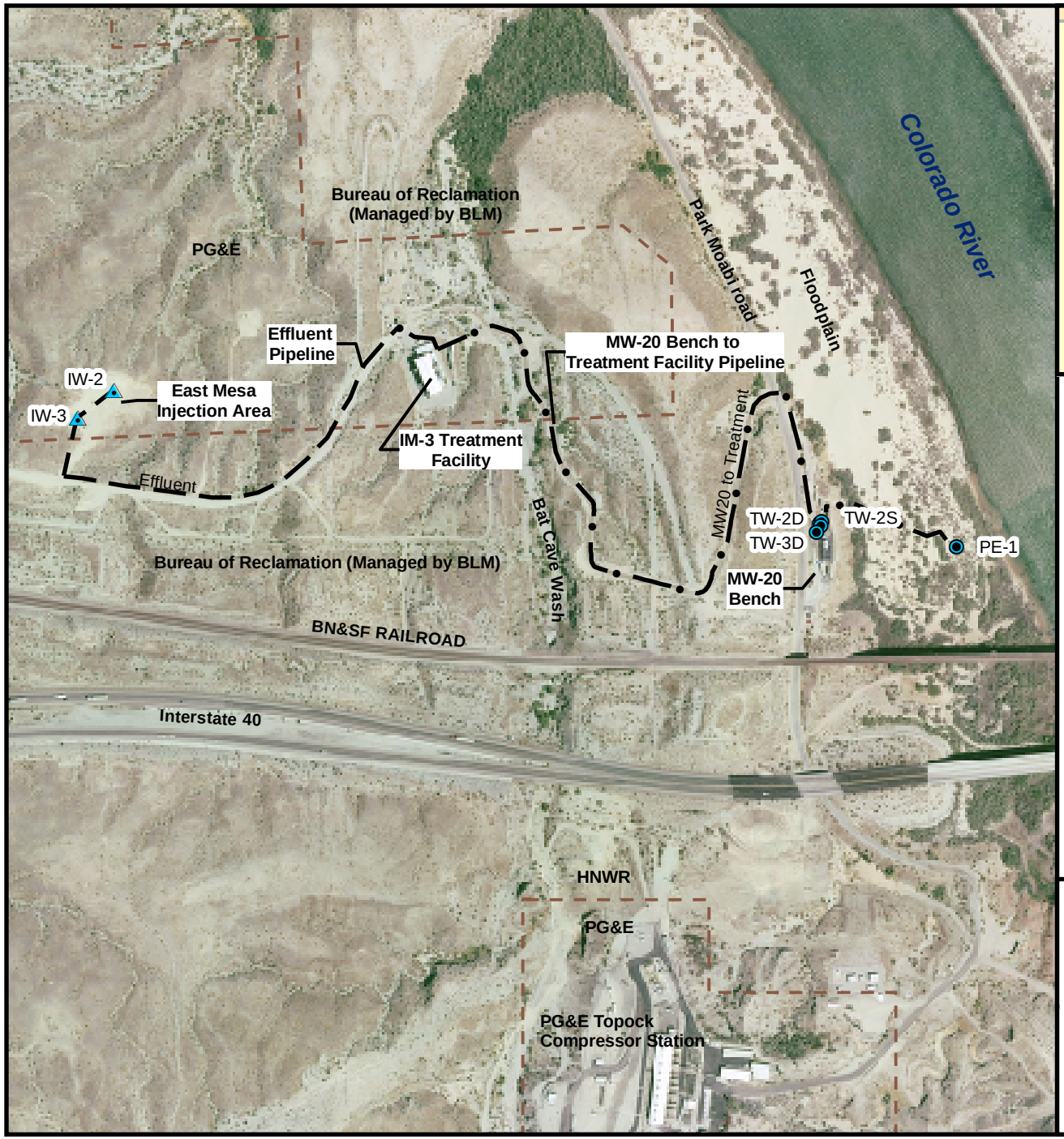
Notes:

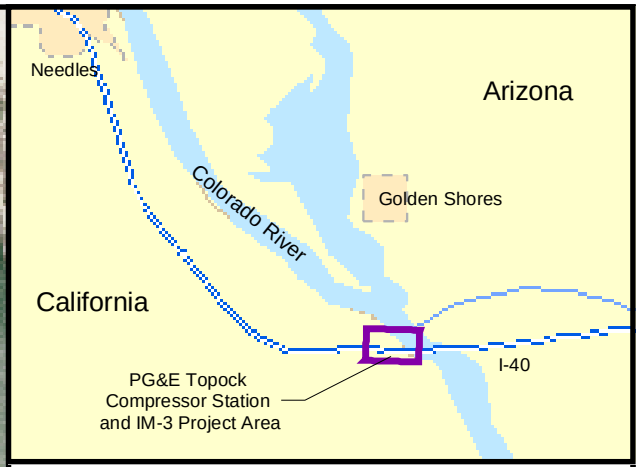
1) Refer to Figure 1-2 for location of well pairs

2) For IM pumping, the target landward gradient for the selected well pairs is 0.001 feet/foot

3) Extraction well PE-1 began pumping on 1/26/06. As a result, the gradient reported for the central well pair is affected by having an additional pumping well between wells used for gradient calculation.

Figures





N

0 550 1,100 Feet

1 inch equals 550 feet

LEGEND

- PG&E Property Line
- Existing IM Extraction Well
- Existing IM Injection Well
- Treatment Facility Pipeline

Notes: Location map shows Interim Measures No.3 (IM-3) facilities as of of January 2006. Aerial photography taken May 2005.

FIGURE 1-1
LOCATIONS OF IM NO. 3 GROUNDWATER EXTRACTION, CONVEYANCE, AND TREATMENT FACILITIES

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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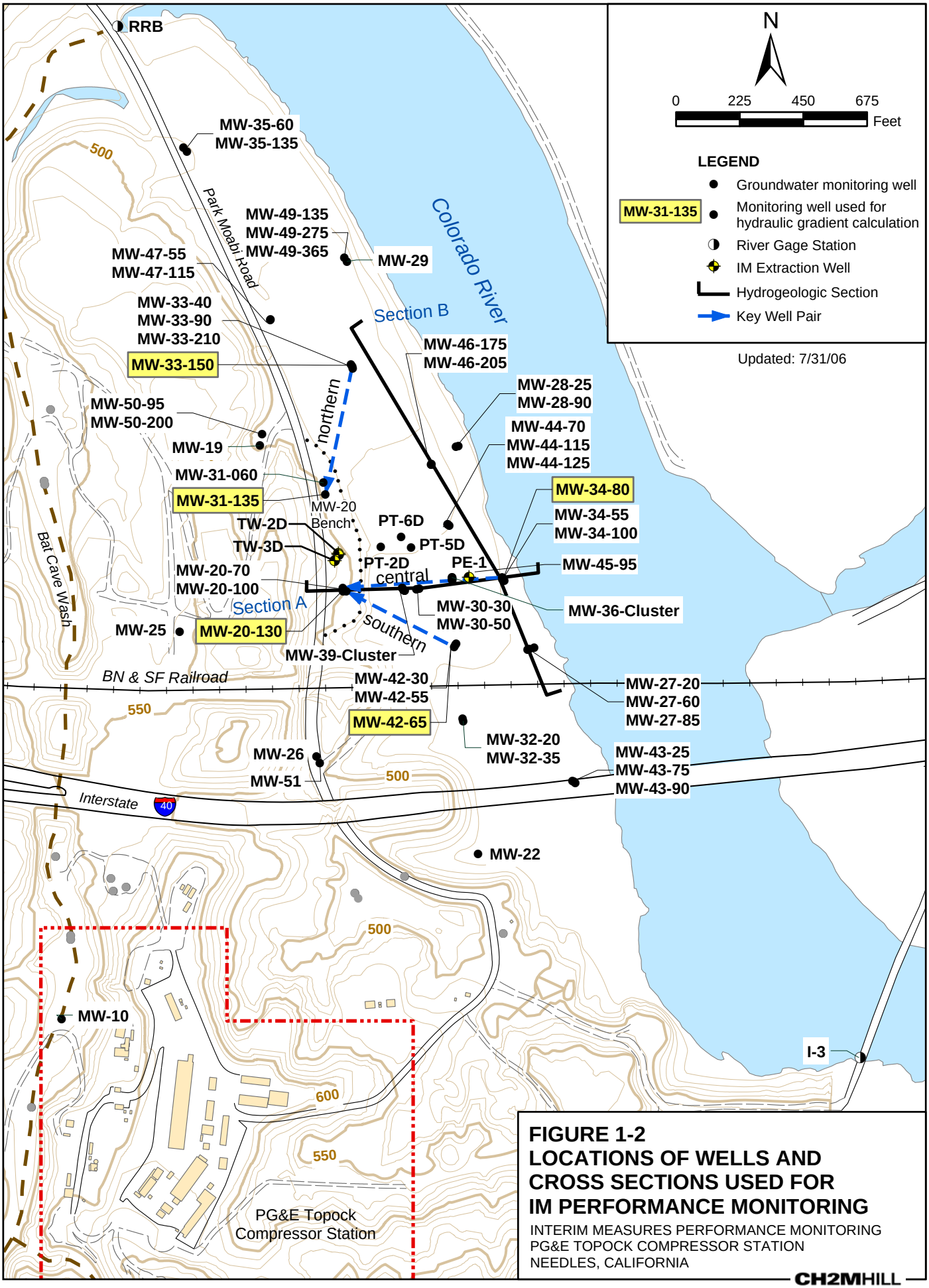

FIGURE 1-2
LOCATIONS OF WELLS AND CROSS SECTIONS USED FOR IM PERFORMANCE MONITORING

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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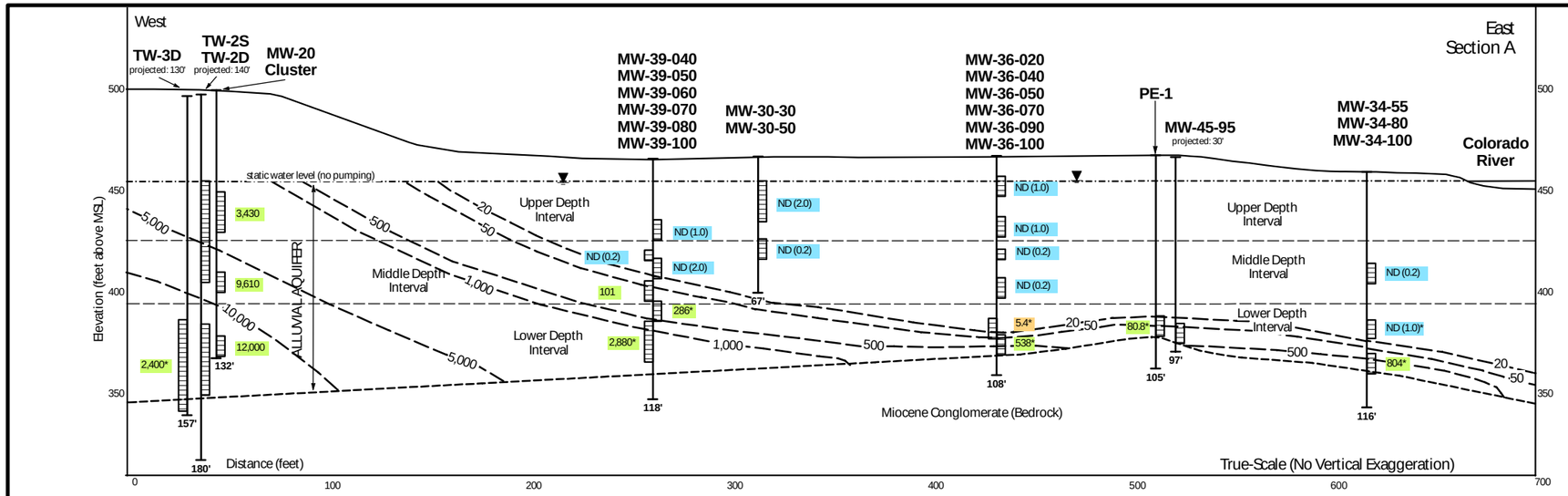

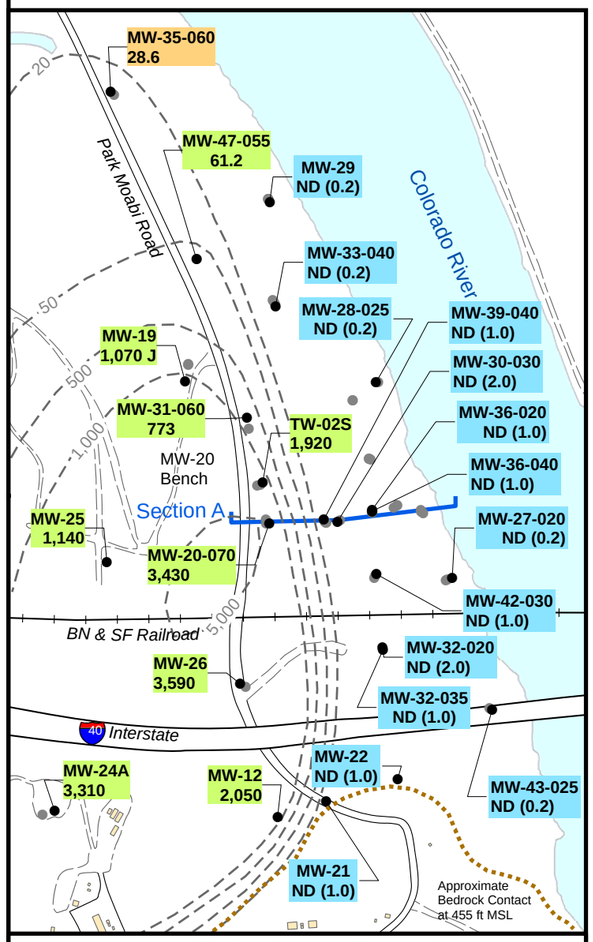

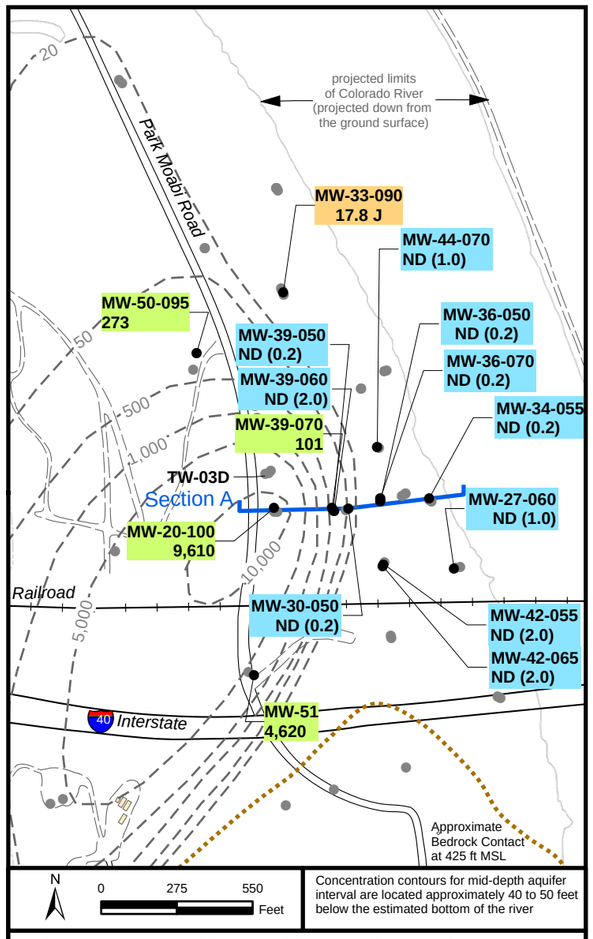

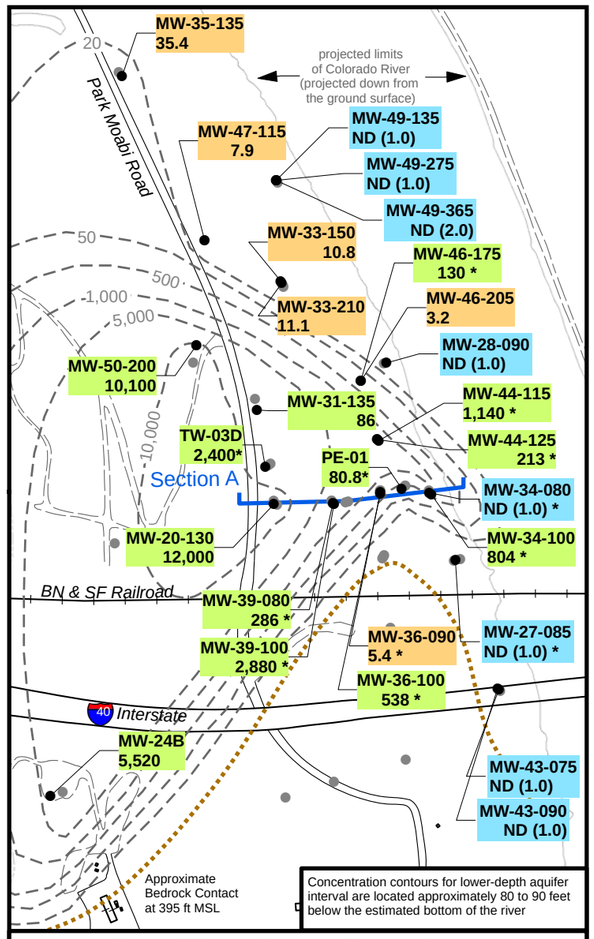

LEGEND

Maximum Hexavalent Chromium [Cr(VI)] Concentrations in Groundwater, February 2007 Monitoring

Concentrations in micrograms per liter (µg/L)
equivalent to parts per billon (ppb)

ND = not detected at listed reporting limit
J = Concentration estimated by laboratory or data validation

Samples with * are from February 2007 sampling, all other samples are from January 2007, or October and December 2006.

Results posted are maximum concentrations from primary and duplicate samples.
See Tables B-1 and B-2 for sampling data and other results.

- **ND (1)** — Not detected at listed reporting limit (ppb)
- **41** — Less than 50 ppb
- **3,810** — Greater than 50 ppb
- 50 — Inferred Cr(VI) concentration contour within aquifer depth interval

  Contours incorporate the maximum concentration from wells within each depth interval
- Hydrogeologic Section A (true-scale) showing aquifer depth intervals, well screens, and Cr(VI) sampling results.

NOTES ON CONTOUR MAPS

1. The Cr(VI) contour maps for 2006-2007 performance monitoring incorporate data from new wells and water quality data trends for the floodplain area. The contour maps provide additional interpretation of plume limits and do not reflect plume migration during performance monitoring

2. The locations of the Cr(VI) contours shown for depths 80-90 feet below the Colorado River (east and southeast of well clusters MW-34) are estimated based on hydrogeologic and geochemical conditions documented in site investigations 2004-2006. The actual locations of contours beyond well control points in these areas are not certain, but are inferred using available site investigation and monitoring data (bedrock structure, hydraulic gradients, observed distribution of geochemically reducing conditions and Cr(VI) concentration gradients). There are no data confirming the existence of Cr(VI) under the Colorado River.

FIGURE 3-1
MAXIMUM CR(VI) CONCENTRATIONS IN ALLUVIAL AQUIFER, FEBRUARY 2007

ANNUAL IM PERFORMANCE MONITORING REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

North

South
Section B

Cross-Section Parallel to the Colorado River

BN & SF Railroad

MW-33-40
MW-33-90
MW-33-150
MW-33-210

MW-46-175
MW-46-205

MW-28-25
MW-28-90
projected: 110'

MW-44-70
MW-44-115
MW-44-125

MW-34-55
MW-34-80
MW-34-100

MW-27-20
MW-27-60
MW-27-85

Elevation (feet above MSL)

700
600
500
400
300
200
100
0

water table (average 454' MSL)

ALLUVIAL AQUIFER

Oldest Alluvium

Fluvial Deposits

Upper Depth Interval

Middle Depth Interval

Lower Depth Interval

Approximate geologic contact between alluvial fan and fluvial deposits

ND (0.2)
17.8 J
10.8
11.1
ND (0.2)
ND (1.0)
130*
3.20
ND (1.0)
1,140*
213*
ND (0.2)
ND (1.0)*
804*
ND (0.2)
ND (1.0)
ND (1.0)*

20
50
500
1,000

237'
216'
134'
116'
107'

Miocene Conglomerate (Bedrock)

True-Scale (No Vertical Exaggeration)

-100 0 100 200 300 400 500 600 700 800 900 1,000 1,100 1,200 1,300 1,400
Distance (feet)

Notes:

Results marked * are maximum concentrations from primary and duplicate samples from February 2007 sampling.
Other results are from October 2006, December 2006, and January 2007 sampling events.
See Tables B-1 and B-2 for sampling data and other results.

J = Concentration estimated by laboratory or data validation.

water level
well screen
boring depth (feet) 103'

3,810 Hexavalent Chromium concentration in micrograms per liter (ug/L) equivalent to parts per billion (ppb)

-— — 50 -— — Inferred Hexavalent Chromium [Cr(VI)] concentration contour

ND (1)	Not detected at listed reporting limit (ppb)
42	Less than 50 ppb
3,810	Greater than 50 ppb

FIGURE 3-2
Cr(VI) CONCENTRATIONS
FLOODPLAIN CROSS-SECTION B
FEBRUARY 2007

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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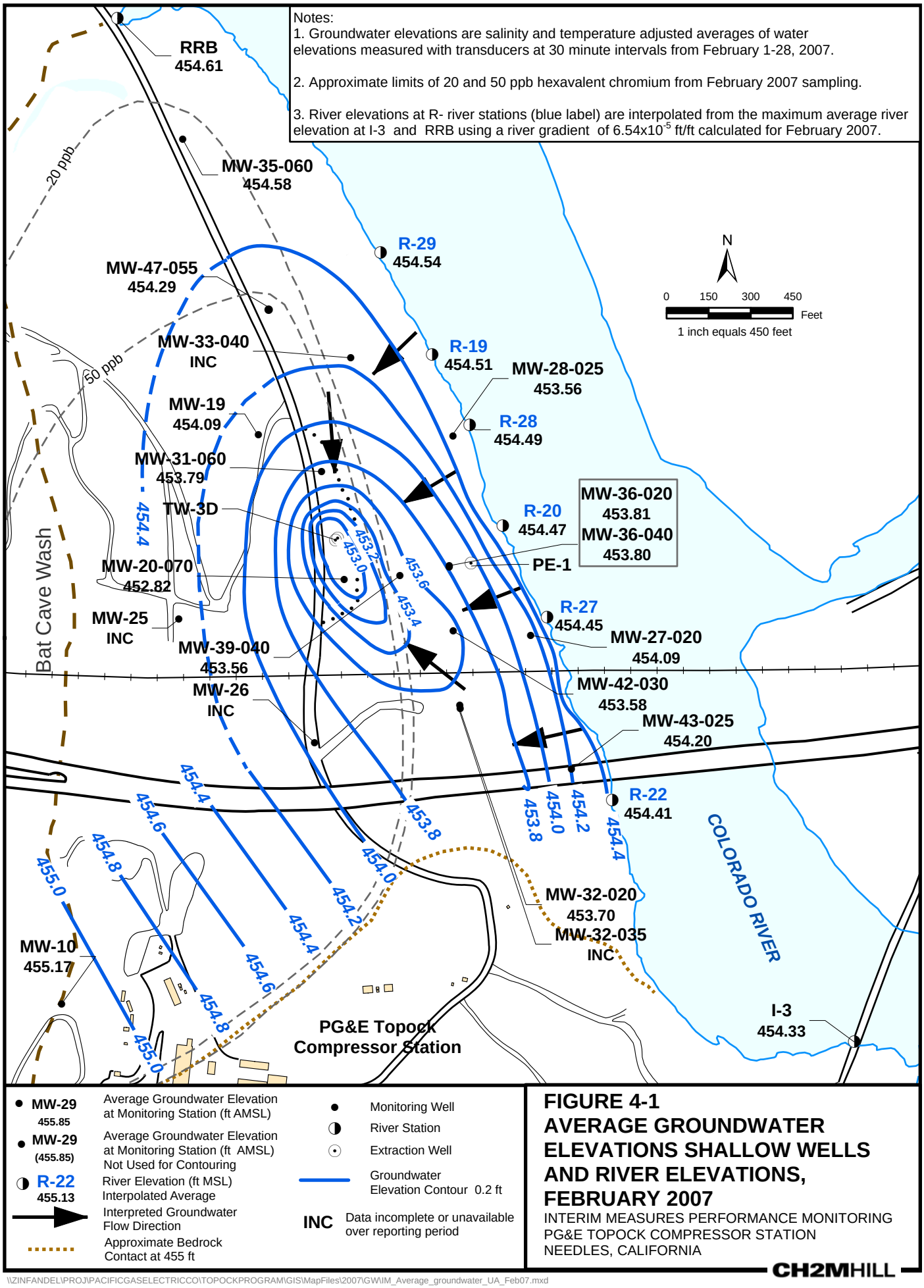

FIGURE 4-1
AVERAGE GROUNDWATER ELEVATIONS SHALLOW WELLS AND RIVER ELEVATIONS, FEBRUARY 2007

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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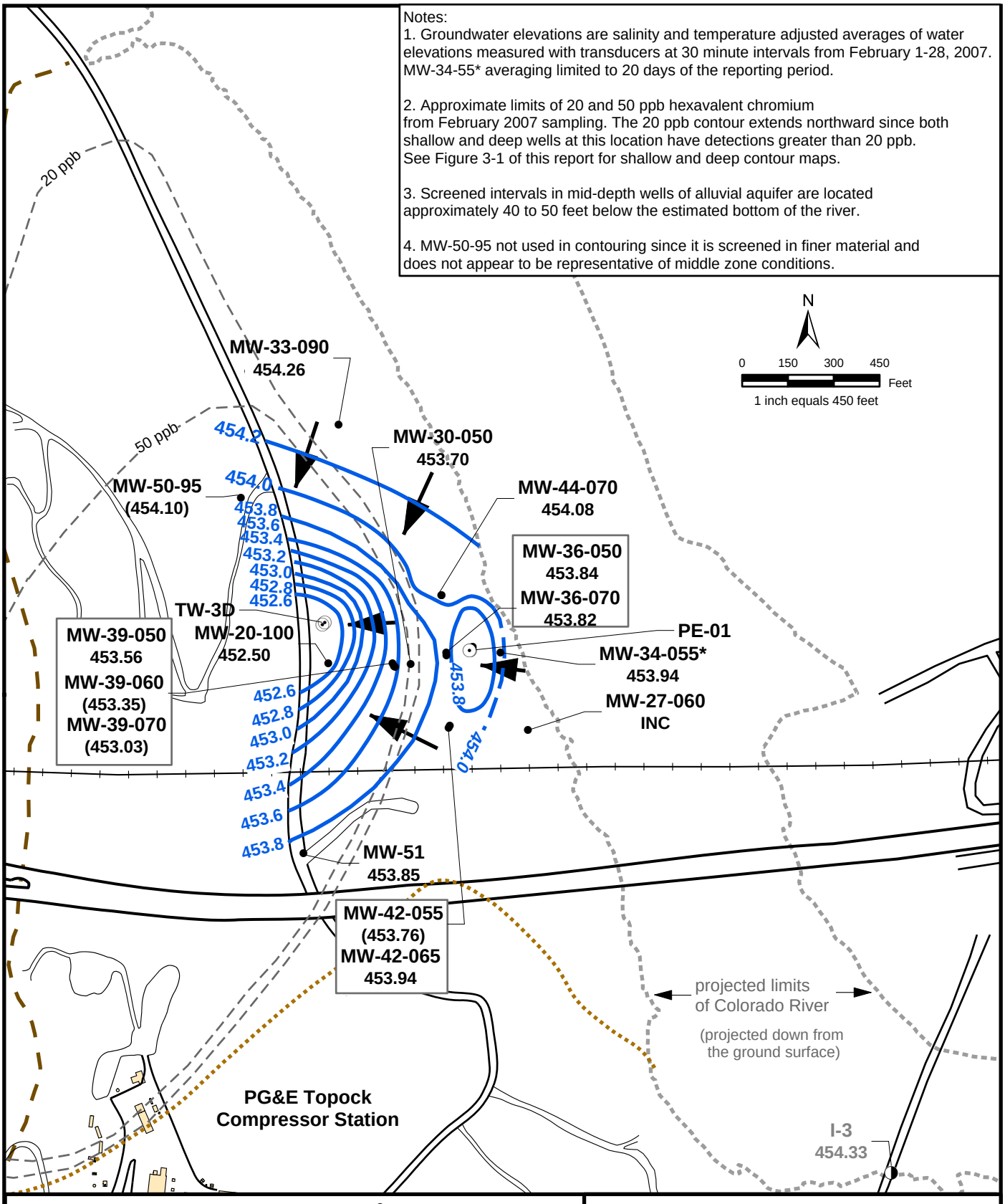

FIGURE 4-2
AVERAGE GROUNDWATER ELEVATIONS MID-DEPTH WELLS FEBRUARY 2007

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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SFO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MAPFILES\2007\GW\IM_AVERAGE_GROUNDWATER_MA_Feb07.MXD

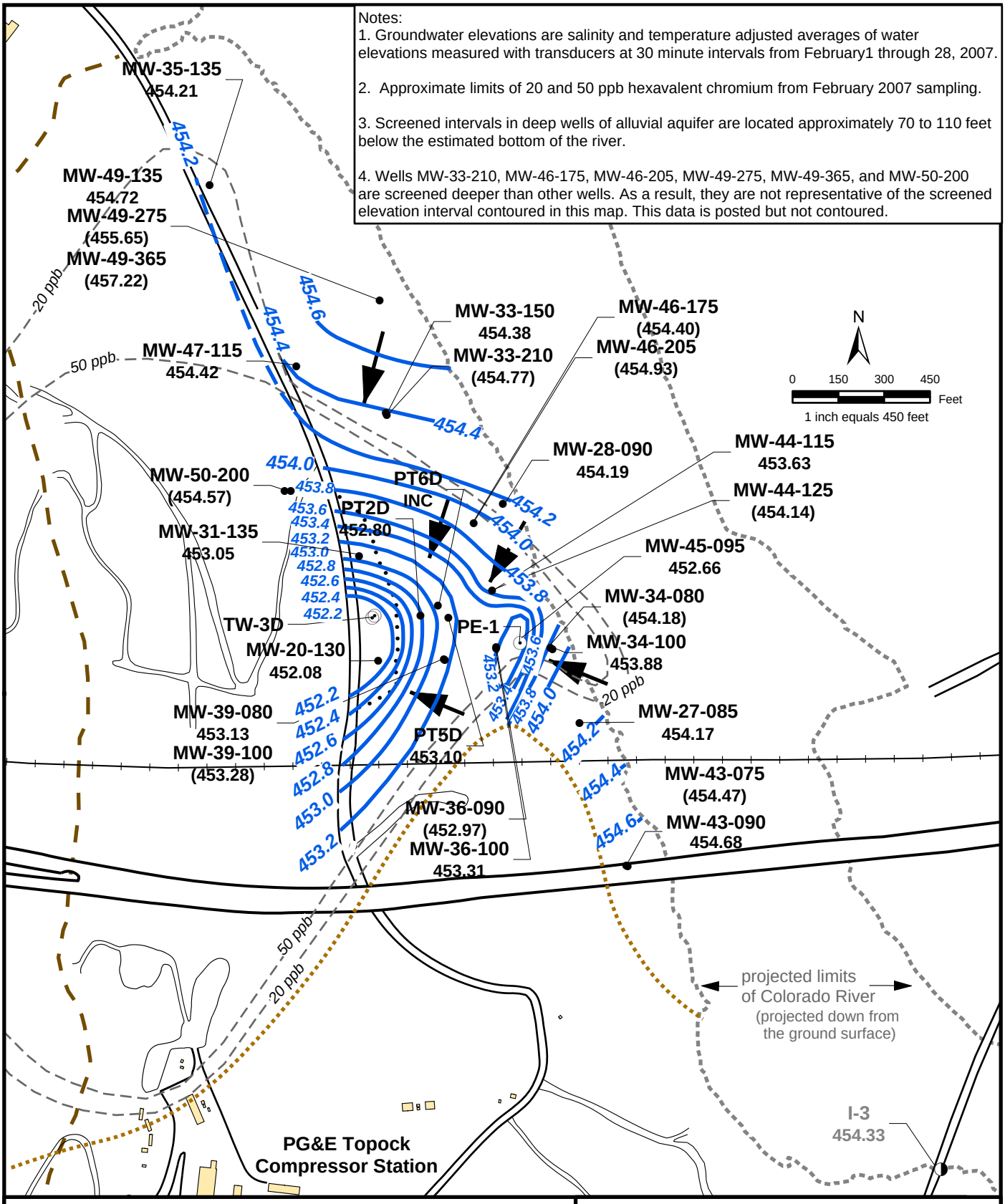

FIGURE 4-3
AVERAGE GROUNDWATER ELEVATIONS DEEP WELLS FEBRUARY 2007

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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West

East

Section A

TW-2S
TW-2D
projected: 140'

TW-3D
projected: 130'

MW-20-70
MW-20-100
MW-20-130

MW-39-40
MW-39-50
MW-39-60
MW-39-70
MW-39-80
MW-39-100

MW-30-30
MW-30-50

MW-36-20
MW-36-40
MW-36-50
MW-36-70
MW-36-90*
MW-36-100

PE-1

MW-45-95
projected:30'

MW-34-55
MW-34-80
MW-34-100

Colorado River
454.47

Elevation (feet above MSL)

550
500
450
400
350
300
250

452.8
452.6
452.4
452.2

452.82
452.50
452.08

453.0
453.2
453.4
453.6
453.8
454.0
454.2
454.4
50
20

453.56
453.56
453.35
453.03
453.13
453.28

453.70

453.81
453.80
453.84
453.82

452.97
453.31

452.66

454.18
453.88

INC

132'
157'
180'
118'
67'
108'
105'
97'
116'

Groundwater Divide

Miocene Conglomerate (Bedrock)

True-Scale (No Vertical Exaggeration)

0 Distance (feet) 100 200 300 400 500 600 700

Notes: Results show average groundwater elevations for February 1 through 28, 2007 measured with transducers at 30 minute intervals.
Groundwater elevations adjusted for salinity and temperature.

Well MW-36-90* excluded from contouring.

River elevation (R-20) is the calculated average river level based upon the river gradient between RRB and I-3.

Legend:

MW-30-50
Inferred water table
well screen
453.66
103 boring depth (feet)

20 Inferred hexavalent chromium contour (ppb) February 2007

Monthly average groundwater head (ft MSL)

453.5 Groundwater head contour

453.5 Inferred groundwater head contour

Interpreted groundwater flow direction

FIGURE 4-4
AVERAGE GROUNDWATER ELEVATIONS FOR WELLS ON FLOODPLAIN CROSS-SECTION A FEBRUARY 2007

INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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Appendix A
Extraction System Operations Log for Reporting Period

Appendix A
Extraction System Operations Log for February 2007
PG&E Topock Interim Measures Performance Monitoring Program

During February 2007, extraction wells TW-3D and PE-1 operated at a target pump rate of at 135 gallons per minute (gpm) excluding periods of planned and unplanned downtime. The operational run time for the IM groundwater extraction system (combined or individual pumping) was over 99 percent during the January 2007 reporting period.

The IM No. 3 facility also treated approximately 2,200 gallons of water generated from the groundwater monitoring program and 7,300 gallons of water generated from injection well re-development during February 2007. No container(s) of solids from the IM No. 3 facility were taken offsite during February 2007.

Periods of planned and unplanned extraction system down time (that together resulted in less than 1 percent downtime during February 2007) are summarized below. The times shown are in Pacific Standard Time (PST) to be consistent with other data collected (e.g. water level data) at the site.

- **February 15, 2007 (unplanned)**: The extraction well system was temporarily offline from 8:07 am until 8:08 am and 10:40 am until 10:46 am while switching to generator power and returning to Needles power as a result of a temporary Needles power outage. Extraction system downtime was 8 minutes.
- **February 21, 2007 (unplanned)**: The extraction well system was temporarily offline from 2:45 pm until 2:46 pm while completing programmable logic controller (PLC) maintenance. Extraction system downtime was 2 minutes.

Appendix B
Chromium Sampling Results for Monitoring Wells in Floodplain Area

TABLE B-1
Groundwater Sampling Results for Floodplain Monitoring Wells,September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Shallow Wells								
MW-27-020	03-Oct-06	ND (0.2)	ND (1.0)	-176	0.5	1,240	455.0	M
MW-28-025	11-Oct-06	ND (0.2)	ND (1.0)	-111	1.5	1,860	454.4	453.7
MW-29	13-Oct-06	ND (0.2)	ND (1.0)	-56	5.3	4,770	454.9	455.0
MW-30-030	10-Oct-06	ND (2.0)	ND (1.0)	-129	1.4	56,500	454.3	453.6
MW-32-020	02-Oct-06	ND (5.0)	ND (1.0)	-122	0.9	59,800	454.3	M
	11-Dec-06	ND (2.0)	ND (1.0)	-110	1.8	61,300	453.6	455.4
MW-32-035	02-Oct-06	ND (1.0)	ND (1.0)	-162	0.7	20,000	454.4	M
	11-Dec-06	ND (1.0)	ND (1.0)	-149	1.5	23,700	454.2	455.4
MW-33-040	06-Oct-06	ND (0.2)	ND (1.0)	167	---	6,710	455.2	455.0
	14-Dec-06	ND (0.2)	1.20	31	2.8	7,080	454.0	453.2
MW-36-020	02-Oct-06	ND (1.0)	ND (1.0)	-177	1.8	24,000	454.6	M
MW-36-040	05-Oct-06	ND (1.0)	ND (1.0)	-194	1.4	16,000	454.2	455.0
MW-39-040	05-Oct-06	ND (0.2)	ND (1.0)	-198	1.4	12,500	454.0	454.0
	14-Dec-06	ND (1.0)	ND (1.0)	-174	1.7	13,200	453.4	453.1
MW-42-030	03-Oct-06	ND (1.0)	ND (1.0)	-160	0.9	19,700	454.4	M
MW-43-025	02-Oct-06	ND (0.2)	ND (1.0)	-172	0.6	1,310	454.8	M
Middle-Depth Wells								
MW-27-060	03-Oct-06	ND (1.0)	ND (1.0)	-122	0.8	14,300	455.0	M
MW-30-050	11-Oct-06	ND (0.2)	ND (1.0)	-113	0.8	8,280	454.5	454.6
	11-Oct-06 FD	ND (0.2)	ND (1.0)	FD	FD	FD	FD	FD
MW-33-090	06-Oct-06	17.3	20.9	110	0.9	12,500	455.2	454.5
	15-Dec-06	17.8 J	13.8	110	1.7	14,600	453.8	453.6
	15-Dec-06 FD	2.30 R	13.5	FD	FD	FD	FD	FD
MW-34-055	04-Oct-06	ND (0.2)	ND (1.0)	-178	2.2	3,080	455.0	453.9
MW-36-050	05-Oct-06	ND (0.2)	ND (1.0)	-165	1.4	4,200	454.9	455.1
MW-36-070	07-Sep-06	ND (0.2)	ND (1.0)	-105	1.7	5,930	455.1	455.5
	02-Oct-06	ND (0.2)	ND (1.0)	-122	1.4	5,220	454.5	M
	14-Dec-06	ND (0.2)	ND (1.0) LF	-112	1.8	3,440	453.2	453.3
MW-39-050	05-Oct-06	ND (0.2)	ND (1.0)	-77	1.4	11,200	454.2	454.2
MW-39-060	05-Oct-06	ND (1.0)	ND (1.0)	-54	1.2	11,300	454.2	454.5
	05-Oct-06 FD	ND (2.0)	ND (1.0)	FD	FD	FD	FD	FD
MW-39-070	07-Sep-06	155	153	21	1.7	9,760	455.0	454.7
	05-Oct-06	112	103	-1	1.2	12,200	453.6	453.9
	14-Dec-06	101	94.0	2	1.8	8,190	453.8	453.2
MW-42-055	03-Oct-06	ND (1.0)	ND (1.0)	-126	0.8	19,100	454.4	M
	14-Dec-06	ND (2.0)	ND (1.0)	-132	0.5	16,500	453.6	453.3
MW-42-065	03-Oct-06	ND (1.0)	ND (1.0)	-50	0.7	20,400	454.5	M
	14-Dec-06	ND (2.0)	ND (1.0)	-42	0.6	18,300	453.8	453.4

Refer to table footnotes for data qualifier explanation.

TABLE B-1
Groundwater Sampling Results for Floodplain Monitoring Wells,September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Middle-Depth Wells								
MW-44-070	04-Oct-06	ND (1.0)	ND (1.0)	-181	2.3	8,910	454.0	453.8
	14-Dec-06	ND (1.0)	ND (1.0)	-129	1.7	6,730	453.7	453.6
Deep Wells								
MW-27-085	06-Sep-06	ND (1.0)	ND (1.0)	-87	2.4	23,200	454.7	454.4
	13-Oct-06	ND (1.0)	ND (1.0)	-78	1.1	24,100	454.0	454.2
	16-Nov-06	ND (1.0)	ND (1.0)	-87	1.2	23,400	453.1	452.8
	11-Dec-06	ND (1.0)	ND (1.0)	-82	1.3	26,700	454.9	455.8
	10-Jan-07	ND (1.0)	4.40	-61	0.3	18,640	453.6	453.7
	06-Feb-07	ND (1.0)	ND (1.0)	-47	0.1	23,100	453.5	453.5
MW-28-090	08-Sep-06	ND (0.2)	ND (1.0)	-133	3.2	7,830	454.1	454.1
	13-Oct-06	ND (0.2)	ND (1.0)	-156	1.0	9,700	454.9	454.9
	14-Dec-06	ND (1.0)	ND (1.0)	-160	0.3	7,590	453.7	453.7
MW-33-150	08-Sep-06	7.40	4.10	28	1.8	17,900	454.8	454.3
	06-Oct-06	7.70	5.70	15	0.9	20,500	454.9	454.0
	13-Dec-06	10.8	9.80	-5	0.4	17,500	454.1	453.8
MW-33-210	08-Sep-06	9.20	4.90	59	1.7	21,000	455.2	454.4
	06-Oct-06	10.2	10.0	28	0.9	24,000	455.3	454.2
	11-Dec-06	11.1	8.00	157	1.2	27,600	454.9	455.9
MW-34-080	06-Sep-06	ND (1.0)	ND (1.0)	-84	0.9	16,000	454.8	454.7
	04-Oct-06	ND (1.0)	ND (1.0)	-111	2.1	14,400	453.7	453.9
	16-Nov-06	ND (1.0)	ND (1.0)	-86	1.1	13,200	453.0	452.6
	12-Dec-06	ND (1.0)	ND (1.0)	-23	0.3	15,000	454.5	454.6
	09-Jan-07	ND (1.0)	3.20	-36	0.3	14,300	453.5	453.6
	05-Feb-07	ND (1.0)	ND (1.0)	-51	0.2	10,300	453.6	453.5
MW-34-100	06-Sep-06	844	963	117	1.9	22,500	454.8	454.9
	06-Sep-06 FD	797	907	FD	FD	FD	FD	FD
	20-Sep-06	872	984	181	1.5	19,600	454.3	M
	04-Oct-06	910	889	0	2.0	20,700	454.6	453.9
	18-Oct-06	815	920	52	0.8	21,700	454.0	453.9
	01-Nov-06	832	752	33	1.6	20,200	454.0	453.5
	16-Nov-06	777	801	146	1.4	20,500	453.0	453.0
	30-Nov-06	744	712	115	0.9	21,900	452.5	452.2
	12-Dec-06	851	625 J	-16	0.3	21,000	454.1	454.5
	28-Dec-06	723	603	115	---	16,760	453.3	452.7
	09-Jan-07	797	830	52	0.2	---	453.2	453.6
	24-Jan-07	832	817	129	0.3	17,700	453.4	453.3
	05-Feb-07	780	646	-28	0.2	26,800	453.1	453.5
	05-Feb-07 FD	764	634	FD	FD	FD	FD	FD
	21-Feb-07	804	895	37	0.2	39,100	454.5	454.6
MW-36-090	07-Sep-06	8.80	7.70	-55	1.7	8,400	454.9	455.4
	02-Oct-06	9.00	8.50	-20	1.0	8,270	453.6	M
	02-Oct-06 FD	8.90	10.8	FD	FD	FD	FD	FD

Refer to table footnotes for data qualifier explanation.

TABLE B-1
Groundwater Sampling Results for Floodplain Monitoring Wells,September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Deep Wells								
MW-36-090	15-Nov-06	ND (1.0)	2.40	-64	1.0	11,700	452.4	453.6
	14-Dec-06	3.80 J	5.80 J	-39	1.7	7,250	453.6	453.4
	14-Dec-06 FD	4.00	3.00 J	FD	FD	FD	FD	FD
	10-Jan-07	6.00	9.70	-83	0.2	7,743	452.4	453.7
	05-Feb-07	5.40	4.90	-28	0.2	10,100	452.4	453.5
MW-36-100	08-Sep-06	556	561	-10	2.6	16,200	453.4	454.0
	11-Oct-06	556	629	17	0.9	16,500	453.7	453.8
	14-Nov-06	657	764	13	1.0	17,900	452.5	453.1
	11-Dec-06	586	513	-64	1.1	21,700	453.8	455.7
	10-Jan-07	571	554	-55	0.3	20,300	452.8	453.7
	05-Feb-07	538	474	-66	0.2	23,800	452.7	453.5
MW-39-080	07-Sep-06	1160	1160	47	1.6	17,500	455.2	454.5
	05-Oct-06	580	594	76	1.2	19,500	454.2	454.3
	15-Nov-06	339	422	52	0.9	17,600	452.6	453.5
	14-Dec-06	326	272	44	1.7	17,300	453.8	453.2
	10-Jan-07	302	292	---	0.2	13,900	452.7	453.7
	08-Feb-07	286	247	105	0.3	24,600	452.0	452.3
MW-39-100	08-Sep-06	3290	3780	46	2.8	20,700	453.6	453.9
	11-Oct-06	3370	3500	87	1.2	23,100	454.4	454.4
	15-Nov-06	2850	3190	96	2.5	23,000	452.9	453.2
	15-Nov-06 FD	2960	3060	FD	FD	FD	FD	FD
	12-Dec-06	3820	3350	95	0.4	24,200	453.4	454.5
	10-Jan-07	2930	2560	75	0.5	19,570	452.9	453.7
	08-Feb-07	2880	2400	74	0.3	---	452.4	452.3
MW-43-075	02-Oct-06	ND (1.0)	ND (1.0)	-128	1.2	17,900	454.2	M
	12-Dec-06	ND (1.0)	ND (1.0)	-109	1.2	17,400	454.6	454.7
MW-43-090	02-Oct-06	ND (1.0)	ND (1.0)	-108	0.4	23,600	455.2	M
	12-Dec-06	ND (1.0)	ND (1.0)	-85	0.5	25,200	454.8	454.7
MW-44-115	07-Sep-06	1380	1340	139	1.7	15,600	454.7	455.5
	21-Sep-06	911	1180	57	2.7	14,600	454.4	M
	05-Oct-06	1300	1310	3	2.9	18,400	454.7	454.4
	18-Oct-06	1250	1380	23	0.8	18,300	454.1	454.5
	15-Nov-06	1210	1480	19	1.5	14,000	453.1	453.5
	12-Dec-06	1310	1090	116	0.6	18,300	453.7	454.4
	09-Jan-07	1140	1260	-34	0.2	20,400	453.1	453.6
	06-Feb-07	1140	1020	-53	0.2	25,200	453.1	453.5
MW-44-125	07-Sep-06	314	297	-39	4.1	14,600	454.6	455.2
	07-Sep-06 FD	311	275	FD	FD	FD	FD	FD
	20-Sep-06	224	262	-130	0.4	16,700	453.8	M
	20-Sep-06 FD	226	261	FD	FD	FD	FD	FD
	05-Oct-06	284	280	-97	2.6	18,000	455.1	454.5
	18-Oct-06	304	327	-112	0.8	18,900	454.7	454.6
	18-Oct-06 FD	308	272	FD	FD	FD	FD	FD

Refer to table footnotes for data qualifier explanation.

TABLE B-1
Groundwater Sampling Results for Floodplain Monitoring Wells,September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters			Groundwater and River Elevations at Sampling Time	
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm	Groundwater Elevation salinity-adjusted feet MSL	River Elevation Downstream I-3 Station
Deep Wells								
MW-44-125	15-Nov-06	320	363	-119	1.3	14,200	453.5	453.7
	13-Dec-06	300	321	-67	0.8	14,200	454.0	454.3
	09-Jan-07	285	285	-92	0.2	22,700	453.4	453.6
	09-Jan-07 FD	284	268	FD	FD	FD	FD	FD
	06-Feb-07	213	190	-85	0.2	12,900	453.2	453.5
MW-46-175	07-Sep-06	183	170	90	2.2	26,400	454.8	454.7
	21-Sep-06	190	244	43	2.3	18,300	455.4	M
	05-Oct-06	194	192	0	2.8	22,200	454.9	453.9
	05-Oct-06 FD	195	187	FD	FD	FD	FD	FD
	18-Oct-06	204	253	15	0.9	21,900	454.8	454.0
	15-Nov-06	163	147	-118	1.1	17,100	453.9	453.1
	13-Dec-06	187	174	-33	0.3	17,700	454.2	453.9
	10-Jan-07	138	133	-160	0.1	17,450	453.9	453.7
	08-Feb-07	130	108	-91	0.3	19,100	453.3	452.4
MW-46-205	07-Sep-06	2.00	2.30	-37	1.6	26,000	455.2	454.5
	05-Oct-06	2.10	2.30	-96	2.4	27,500	455.2	453.9
	13-Dec-06	3.20	3.00	10	1.0	21,000	454.5	454.0
MW-49-135	12-Oct-06	ND (1.0)	ND (1.0)	-200	1.9	21,200	455.3	453.9
	15-Dec-06	ND (1.0)	ND (1.0)	-157	0.3	27,700	454.5	453.3
MW-49-275	12-Oct-06	ND (1.0)	ND (1.0)	-252	1.8	31,100	455.9	453.5
	15-Dec-06	ND (1.0)	ND (1.0)	-213	1.7	30,000	454.9	453.4
MW-49-365	12-Oct-06	ND (2.0)	ND (1.0)	-275	1.4	47,700	457.3	453.0
	15-Dec-06	ND (2.0)	1.10	-172	1.7	44,400	456.2	453.2

Refer to table footnotes for data qualifier explanation.

TABLE B-1
Groundwater Sampling Results for Floodplain Monitoring Wells,September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

NOTES:

ND = not detected at listed reporting limit (RL)
FD = field duplicate
LF = lab filtered
J = concentration or RL estimated by laboratory or data validation
T = data from the downhole transducers to fill groundwater elevation data gaps at some locations
MSL = mean sea level
(---) = data not collected, available, rejected, or field instrumentation malfunctioned
µg/L= micrograms per liter
mV = oxidation-reduction potential (ORP)
µS/cm = microSiemens per centimeter
M = I-3 Transducer damaged
R = result exceeded analytical criteria for precision and accuracy; should not be used for project decision-making

Beginning in July 2005, samples analyzed for total chromium by EPA Method 6010B or 6020 were filtered and preserved in the field after sample collection, as per DTSC's June 30, 2005 letter.

The RLs for certain hexavalent chromium results from Method 7199 analyses have been elevated above the standard RL of 0.2 µg/L due to required sample dilution to accommodate matrix interferences.

Groundwater and river elevations in feet above mean sea level (MSL) rounded to 0.1 foot. River elevations from presssure transducer record at I-3.

TABLE B-2
Groundwater Sampling Results for Other Monitoring Wells in PMP Area, September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well ID	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters		
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm
Shallow Wells						
MW-12	04-Oct-06	1740	1790	128	5.22	---
	13-Dec-06	2050	1880	155	6.20	4660
MW-19	02-Oct-06	970	1300	44.0	---	2450
	15-Dec-06	1070 J	1090	76.0	6.64	2360
MW-20-070	03-Oct-06	3290	3390	117	7.47	3460
	03-Oct-06 FD	3410	3330	FD	FD	FD
	13-Dec-06	3430	3120	203	7.93	2890
MW-21	03-Oct-06	ND (1.0)	ND (1.0)	-67	6.90	15900
	13-Dec-06	ND (1.0)	ND (1.0)	-68	1.22	13000
MW-22	13-Oct-06	ND (1.0)	ND (1.0)	-105	0.97	42200
MW-24A	03-Oct-06	4300	4260	101	2.87	3910
	14-Dec-06	3310	4250	76.0	0.33	---
MW-25	03-Oct-06	1140	1150	81.0	6.88	1720
MW-26	03-Oct-06	3590	3850	104	---	4140
MW-31-060	05-Oct-06	773	849	82.0	7.77	3440
MW-35-060	12-Oct-06	28.6	29.1	112	1.26	12200
MW-47-055	10-Oct-06	56.9	56.8	6.00	2.83	5300
	14-Dec-06	61.2	82.0	28.0	2.19	3970
TW-02S	04-Oct-06	1920	2130	224	6.70	3470
Middle-Depth Wells						
MW-20-100	03-Oct-06	9520	10300	106	3.46	4340
	13-Dec-06	9610	9220 J	188	2.19	5200
	13-Dec-06 FD	9400	11500 J	FD	FD	FD
MW-50-095	10-Oct-06	278	277	24.0	2.85	7120
	12-Dec-06	273	262	112	2.40	4590
MW-51	06-Oct-06	4560	4590	119	3.79	13800
	12-Dec-06	4620	5360	129	3.07	10800
Deep Wells						
MW-20-130	18-Oct-06	11600	16400	78.0	2.68	19500
	13-Dec-06	12000	10500	181	0.80	---
	13-Dec-06 FD	11800	10700	FD	FD	FD
MW-24B	03-Oct-06	6120	5830	85.0	2.72	18700
	14-Dec-06	5520	5060	4.00	0.51	---
MW-31-135	05-Oct-06	85.7	81.7	65.0	2.91	13600
MW-35-135	12-Oct-06	35.4	34.6	113	1.20	14400
	12-Oct-06 FD	34.0	30.8	FD	FD	FD
MW-47-115	10-Oct-06	ND (3.5)	6.90	-80	1.13	16800
	14-Dec-06	7.90	6.10	-25	0.36	14800
MW-50-200	10-Oct-06	9660	11800	93.0	2.99	28100

TABLE B-2
Groundwater Sampling Results for Other Monitoring Wells in PMP Area, September 2006 through February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

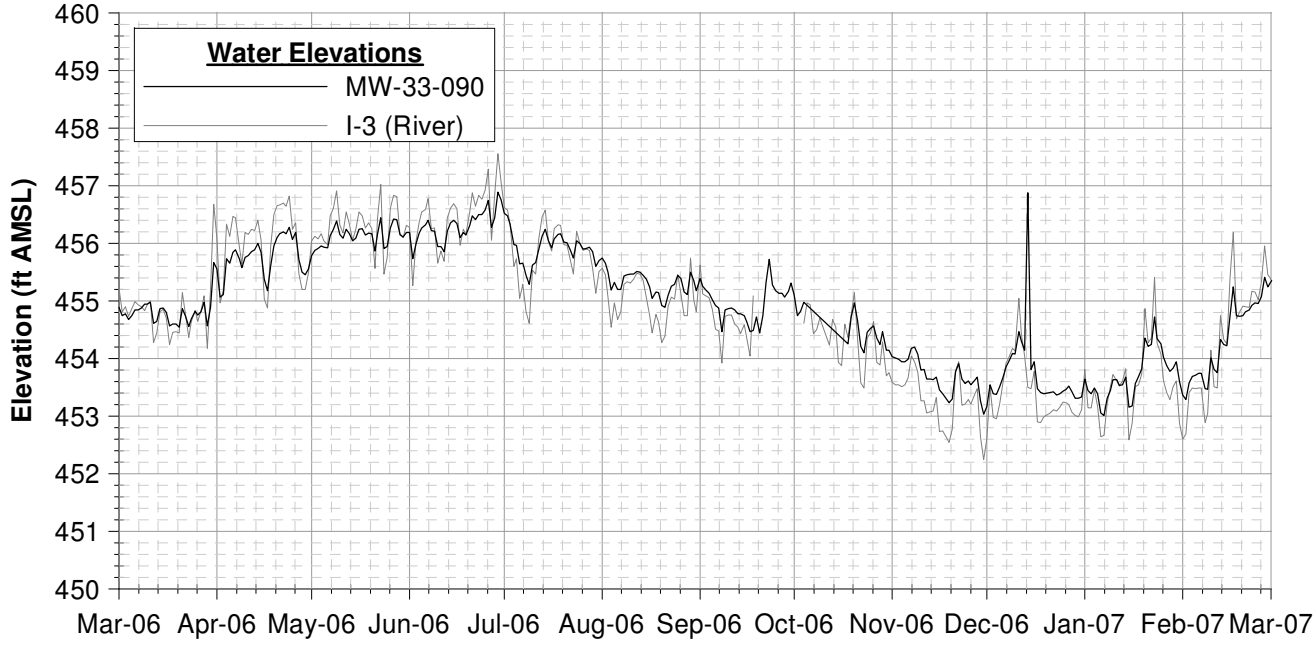
Well ID	Sample Date	Hexavalent Chromium µg/L	Dissolved Total Chromium µg/L	Selected Field Parameters		
				ORP mV	Dissolved Oxygen mg/L	Specific Conductance µS/cm
MW-50-200	12-Dec-06	10100	9250	123	3.17	20600
TW-02D	04-Oct-06	872	910	162	4.91	11900
TW-04	09-Oct-06	28.5	26.6	12.0	1.11	24700
TW-05	09-Oct-06	3.60	3.20	60.0	1.12	15800

NOTES:

Analytical results are validated.
ND = not detected at listed reporting limit (RL)
FD = field duplicate
LF = lab filtered
(---) = data not collected, available, or field instrumentation malfunctioned
µg/L= micrograms per liter
mg/L = milligrams per liter
mV = oxidation-reduction potential (ORP)
µS/cm = microSiemens per centimeter

PMP = Interim Measure Performance Monitoring Program

Samples analyzed for total chromium by EPA Method 6010B or 6020 were filtered and preserved in the field after sample collection, as per DTSC's June 30, 2005 letter.



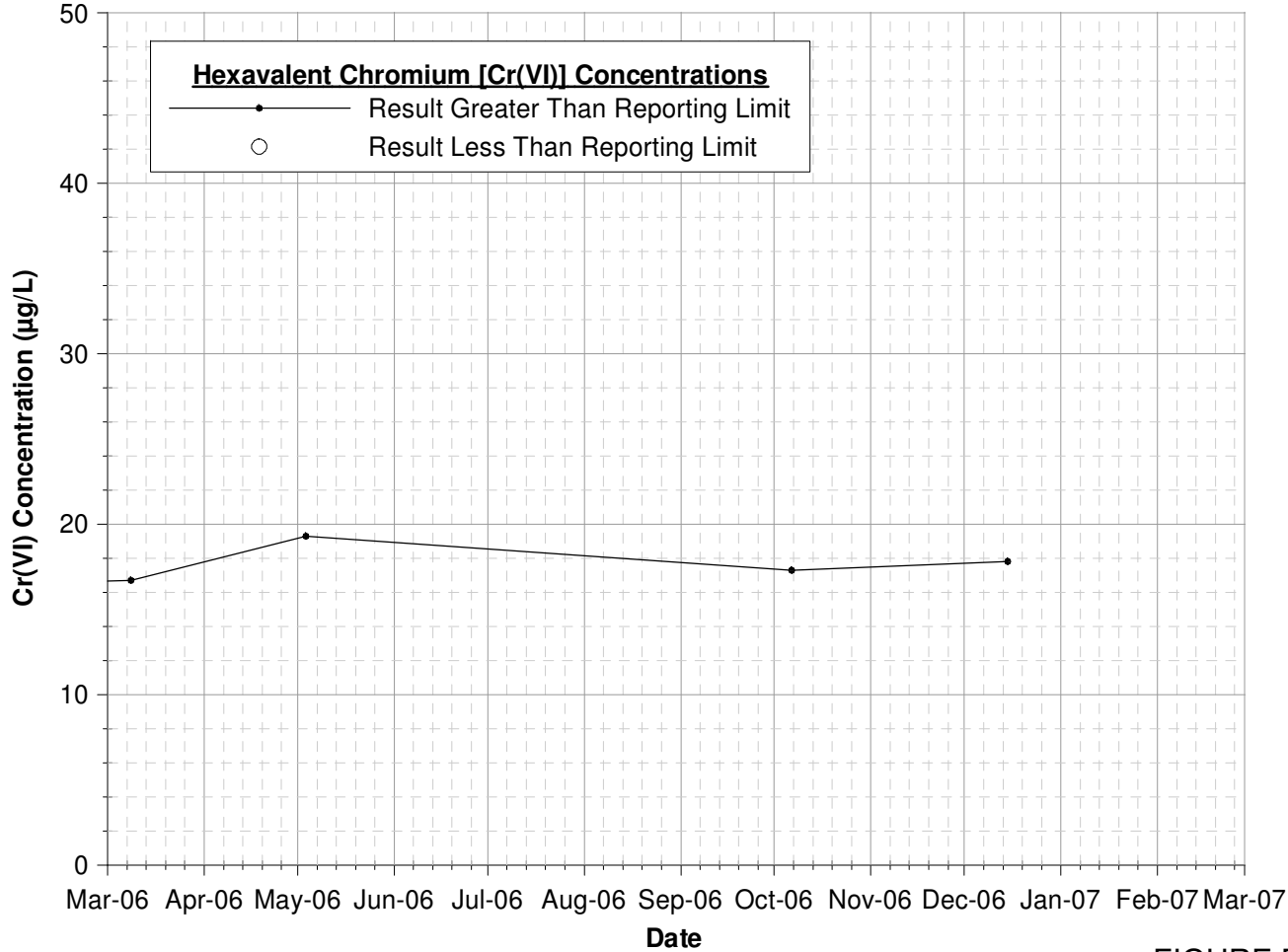


FIGURE B-1
MW-33-90 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 12/15/06
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Data subject to review.
3. Results plotted are maximum concentrations from primary and duplicate samples; see Table B-1 for complete results.
4. I-3 data is unavailable from 9/18/2006 through 10/4/2006.

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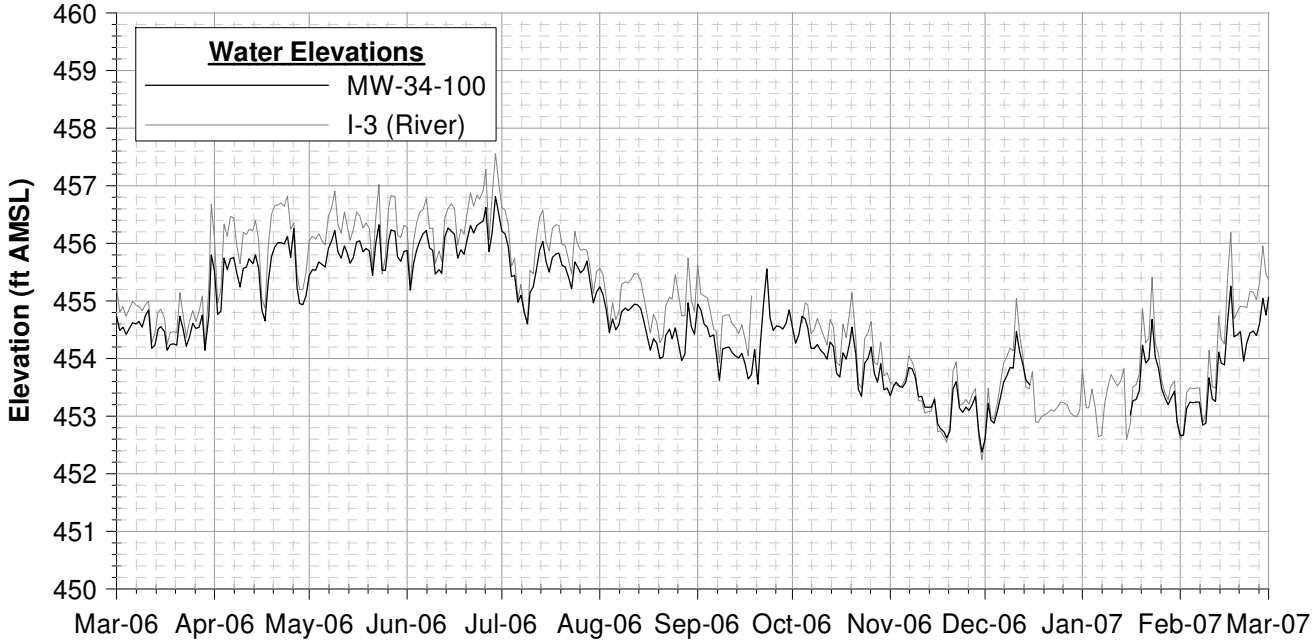

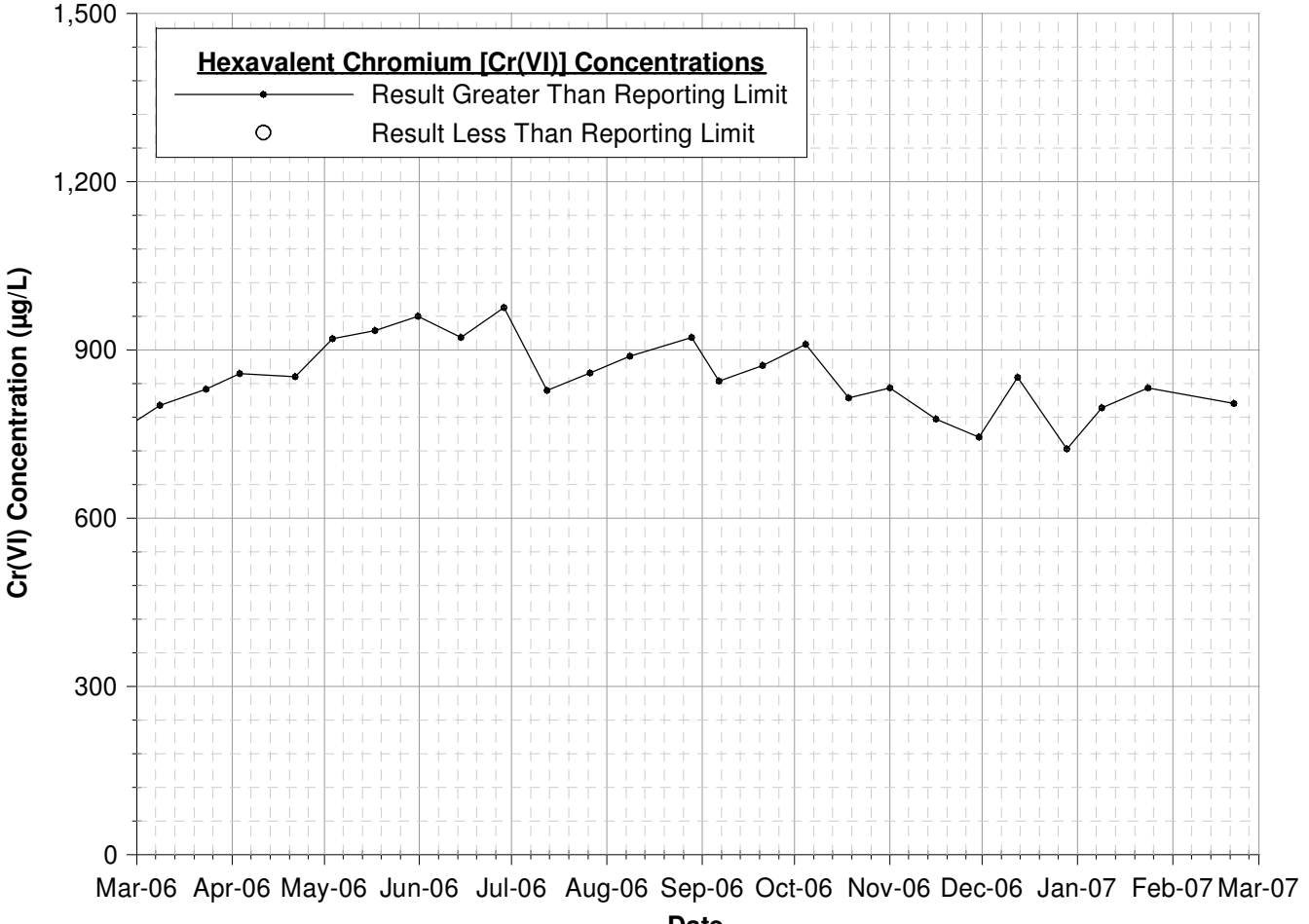

FIGURE B-2
MW-34-100 CR(VI) CONCENTRATION & HYDROGRAPH - THROUGH 2/21/2007
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. No groundwater elevation data available during May 2005 due to transducer malfunction.
3. Data subject to review.
4. Results plotted are maximum concentrations from primary and duplicate samples; see Table B-1 for complete results.
5. I-3 data is unavailable from 9/18/2006 through 10/4/2006.
6. MW-34-100 data is unavailable from January 1 through January 15, 2007.

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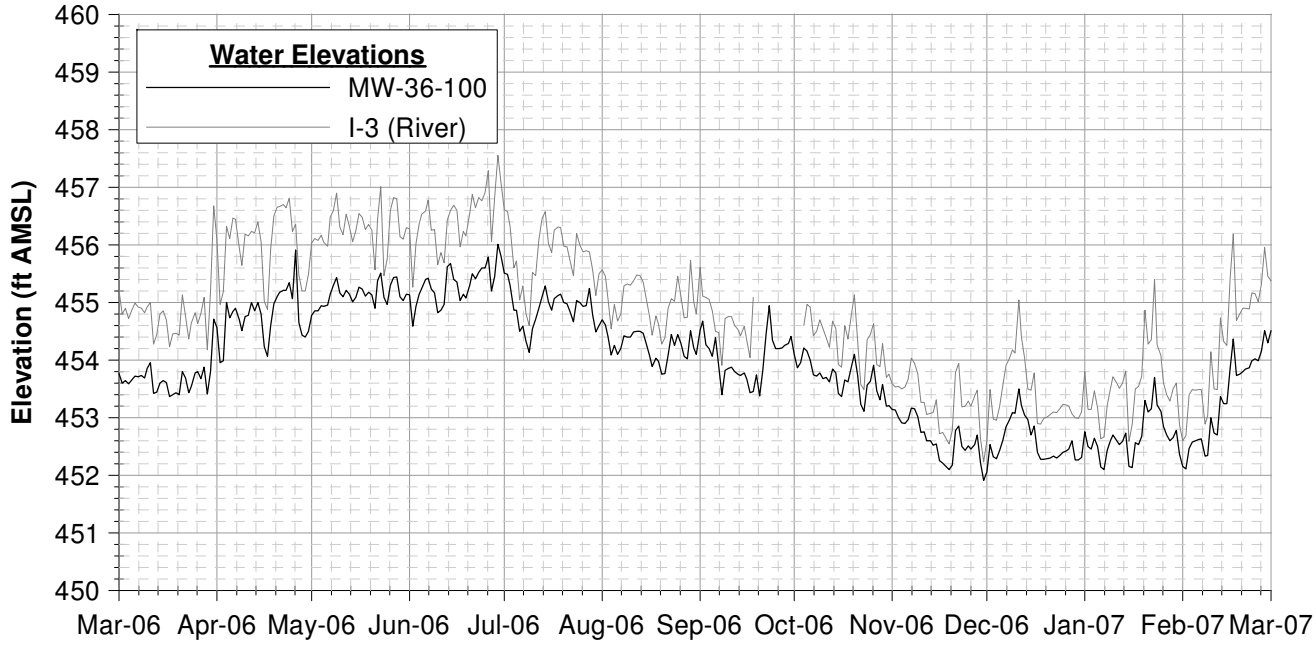

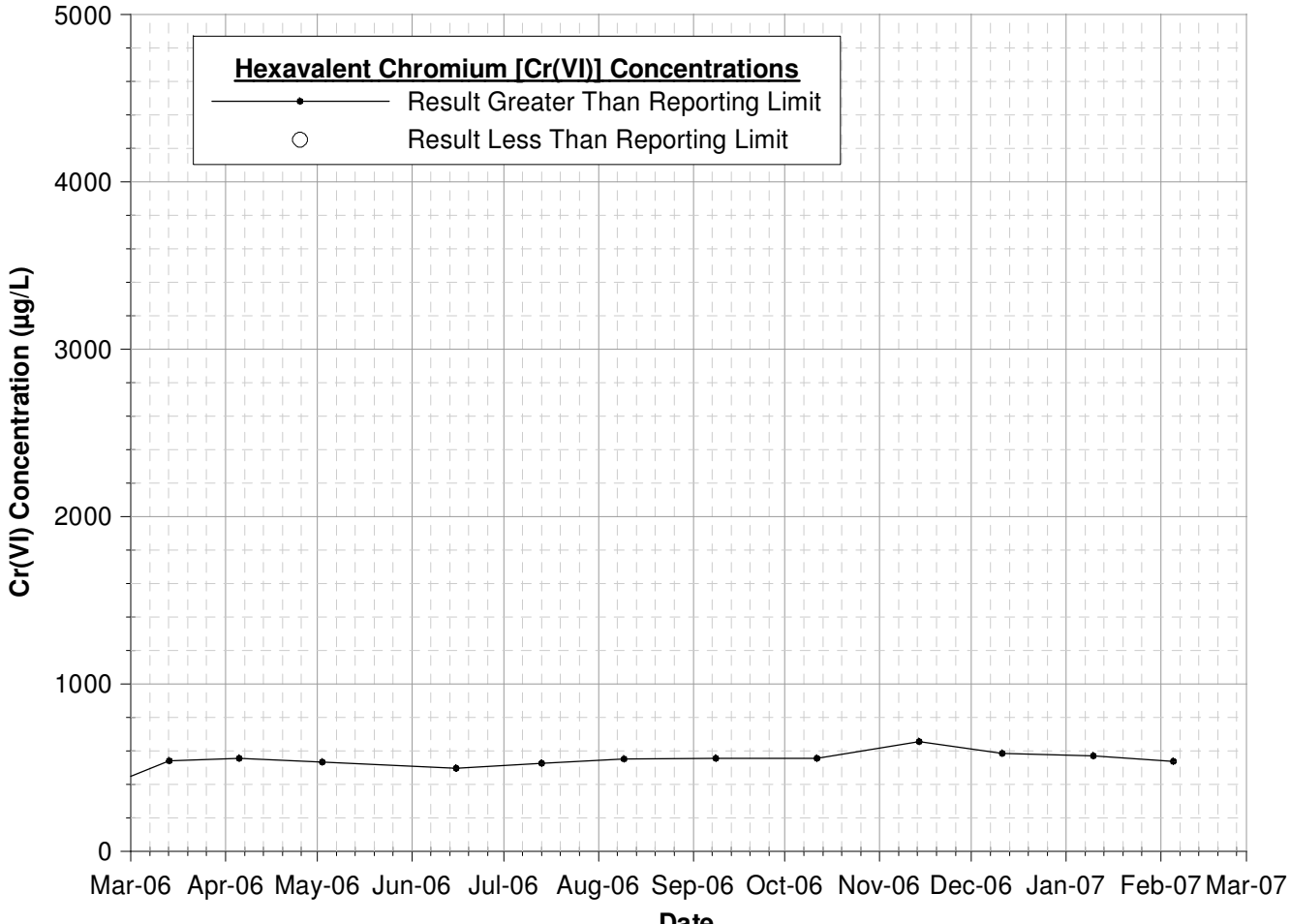

FIGURE B-3
MW-36-100 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 2/5/2007
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes
1. Chromium results in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
2. Data subject to review.
3. Results plotted are maximum concentrations from primary and duplicate samples; see Table B-1 for complete results.
4. I-3 data is unavailable from 9/18/2006 through 10/4/2006.

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Appendix C
Hydraulic Monitoring Data for Reporting Period

TABLE C-1
Monthly Average, Minimum, and Maximum Groundwater Elevations, February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well	Average (ft AMSL)	Minimum (ft AMSL)	Maximum (ft AMSL)	# of Days with recorded data	Aquifer Depth
I-3	454.33	453.70	454.97	28	River Station
MW-10	455.17	455.10	455.23	28	Shallow
MW-19	454.09	454.00	454.18	28	Shallow
MW-20-070	452.82	452.73	452.90	28	Shallow
MW-20-100	452.50	452.38	452.64	28	Mid-Depth
MW-20-130	452.08	451.95	452.26	28	Deep
MW-25	INC	INC	INC	0	Shallow
MW-26	453.87	453.81	453.92	2	Shallow
MW-27-020	454.09	453.87	454.27	28	Shallow
MW-27-060	453.18	453.07	453.33	2	Mid-Depth
MW-27-085	454.17	453.82	454.52	28	Deep
MW-28-025	454.21	453.91	454.50	28	Shallow
MW-28-090	454.19	453.78	454.62	28	Deep
MW-30-050	453.70	453.41	454.00	28	Mid-Depth
MW-31-060	453.79	453.68	453.88	28	Shallow
MW-31-135	453.05	452.90	453.22	28	Deep
MW-32-020	453.70	453.61	453.77	28	Shallow
MW-32-035	453.29	453.11	453.44	15	Shallow
MW-33-040	454.22	454.01	454.40	17	Shallow
MW-33-090	454.26	454.03	454.50	28	Mid-Depth
MW-33-150	454.38	454.16	454.62	28	Deep
MW-33-210	454.77	454.58	454.97	28	Deep
MW-34-055	453.94	453.55	454.34	20	Mid-Depth
MW-34-080	454.18	453.79	454.59	28	Deep
MW-34-100	453.88	453.28	454.29	28	Deep
MW-35-060	454.58	454.40	454.76	28	Shallow
MW-35-135	454.21	454.09	454.33	28	Deep
MW-36-020	453.81	453.53	454.08	28	Shallow
MW-36-040	453.80	453.35	453.98	28	Shallow
MW-36-050	453.84	453.51	454.18	28	Mid-Depth
MW-36-070	453.82	453.48	454.16	28	Mid-Depth
MW-36-090	452.97	452.69	453.28	28	Deep
MW-36-100	453.31	453.02	453.61	28	Deep
MW-39-040	453.56	453.29	453.84	28	Shallow
MW-39-050	453.56	453.29	453.83	28	Mid-Depth
MW-39-060	453.35	453.10	453.62	28	Mid-Depth
MW-39-070	453.03	452.82	453.27	28	Mid-Depth
MW-39-080	453.13	452.91	453.37	28	Deep
MW-39-100	453.28	453.06	453.52	28	Deep

TABLE C-1
Monthly Average, Minimum, and Maximum Groundwater Elevations, February 2007
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well	Average (ft AMSL)	Minimum (ft AMSL)	Maximum (ft AMSL)	# of Days with recorded data	Aquifer Depth
MW-42-030	453.58	453.36	453.80	28	Shallow
MW-42-055	453.76	453.52	453.99	28	Mid-Depth
MW-42-065	453.94	453.71	454.17	28	Mid-Depth
MW-43-025	454.20	453.86	454.54	28	Shallow
MW-43-075	454.47	454.10	454.83	28	Deep
MW-43-090	454.68	454.31	455.05	28	Deep
MW-44-070	454.08	453.69	454.47	28	Mid-Depth
MW-44-115	453.63	453.32	453.95	28	Deep
MW-44-125	454.14	453.45	454.50	28	Deep
MW-45-095	452.66	452.31	453.07	28	Deep
MW-46-175	454.40	454.13	454.68	28	Deep
MW-46-205	454.93	454.71	455.16	28	Deep
MW-47-055	454.29	454.16	454.40	28	Shallow
MW-47-115	454.42	454.29	454.55	28	Deep
MW-49-135	454.72	454.46	454.99	28	Deep
MW-49-275	455.65	455.50	455.82	28	Deep
MW-49-365	457.22	457.09	457.38	28	Deep
MW-50-095	454.10	454.01	454.19	28	Mid-Depth
MW-50-200	454.57	454.47	454.68	28	Deep
MW-51	453.85	453.78	453.91	28	Mid-Depth
PT2D	452.80	452.57	453.06	28	Deep
PT5D	453.10	452.85	453.38	28	Deep
PT6D	452.62	452.44	452.80	14	Deep
RRB	454.61	454.04	455.24	28	River Station

INC= Data incomplete over reporting period

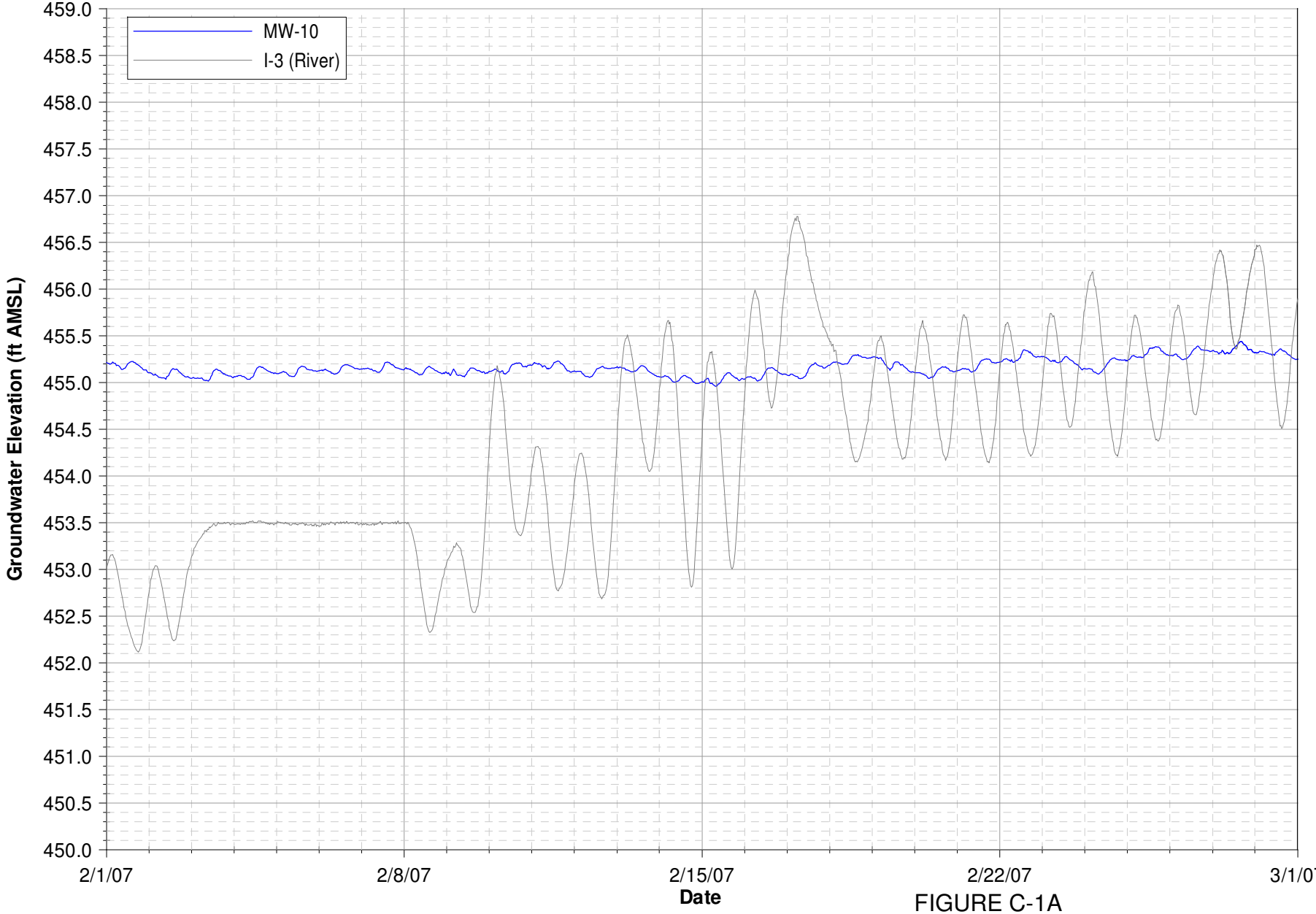

FIGURE C-1A
MW-10 HYDROGRAPH
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

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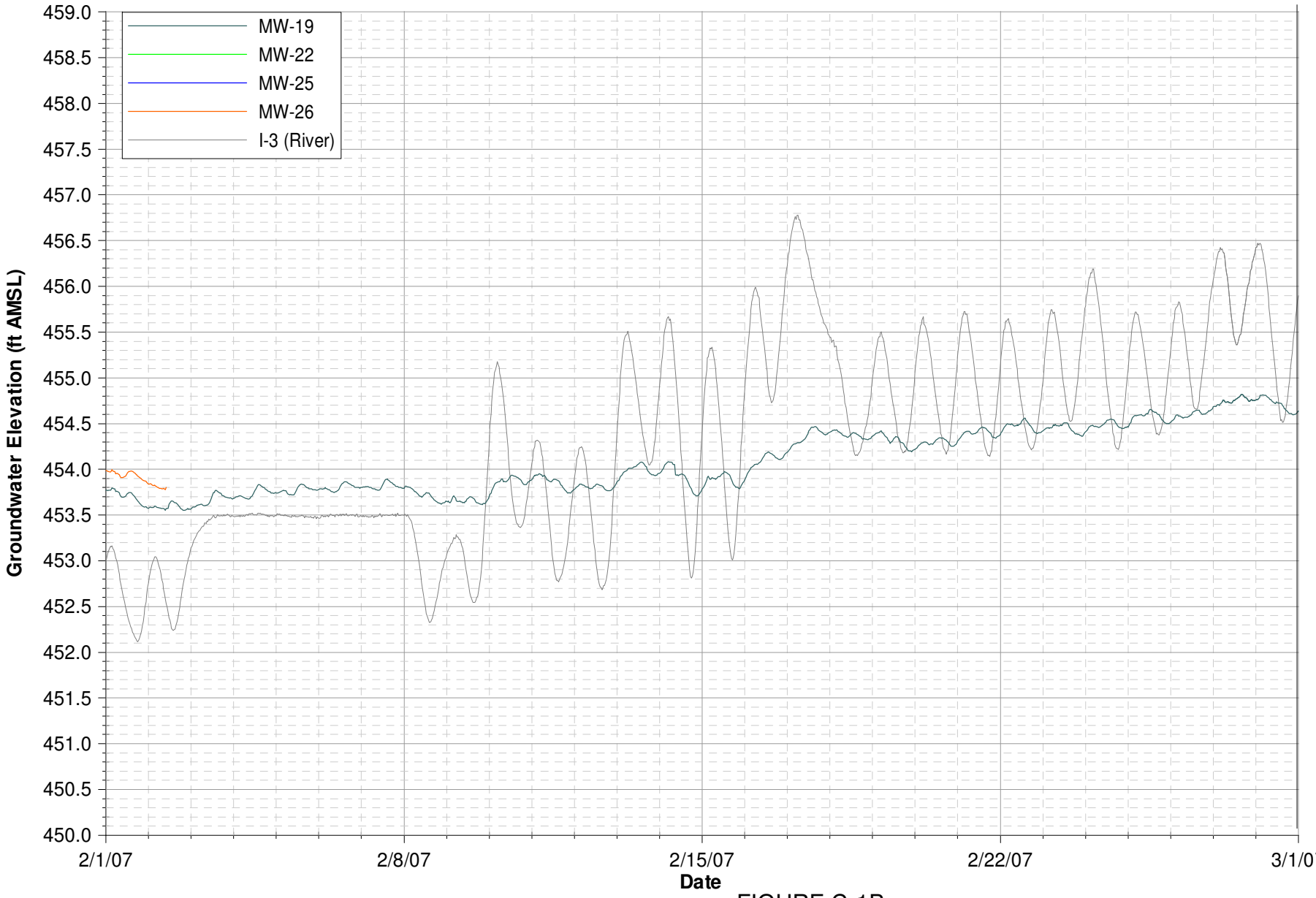

Notes:
Data subject to review.
MW-22 data unavailable after September 19, 2006.
MW-25 data unavailable through February 28, 2007.
MW-26 data unavailable after February 2, 2007.

FIGURE C-1B
MW-19, MW-22, MW-25, AND MW-26 HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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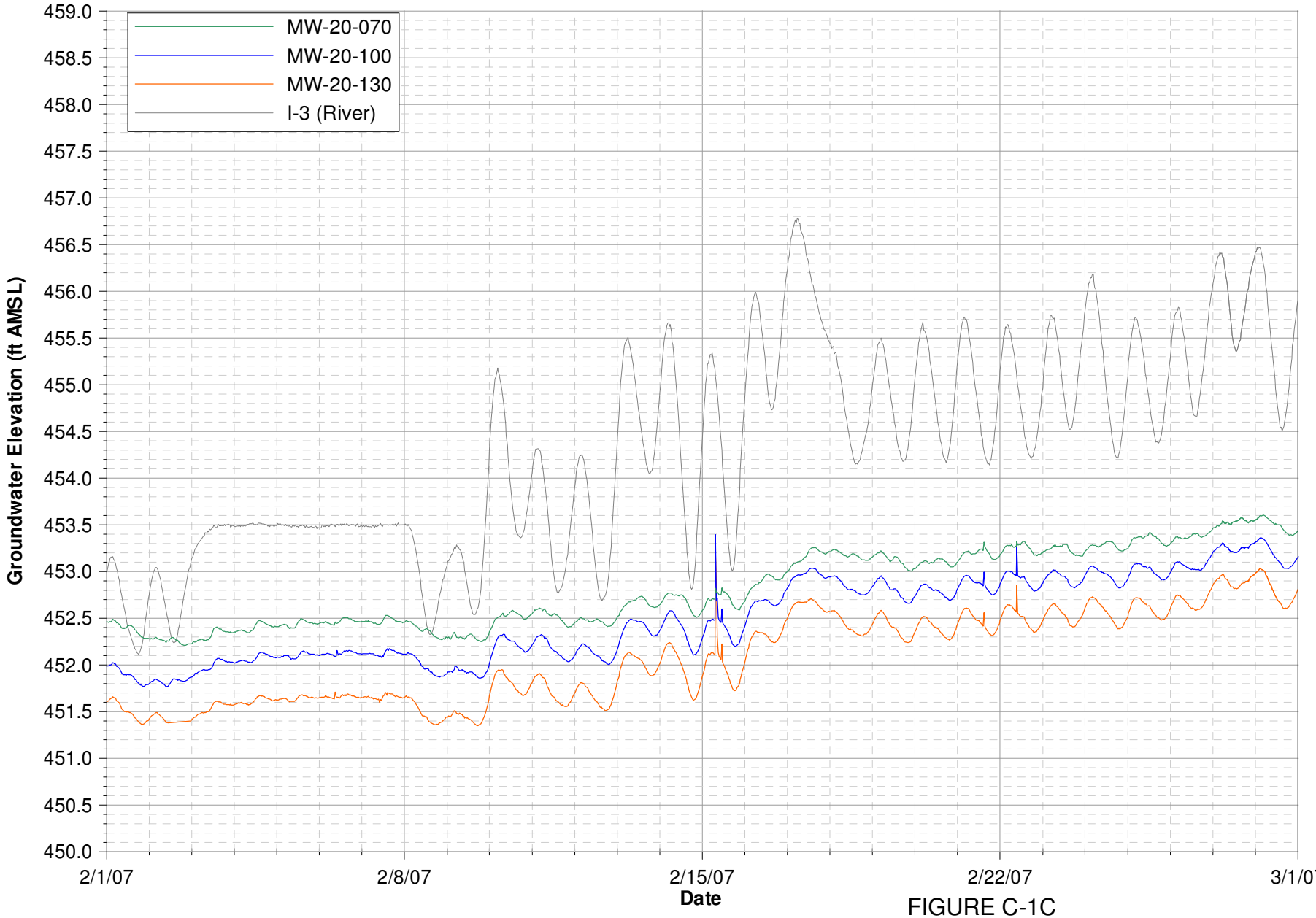

Notes:
Data subject to review.

FIGURE C-1C
MW-20 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG& E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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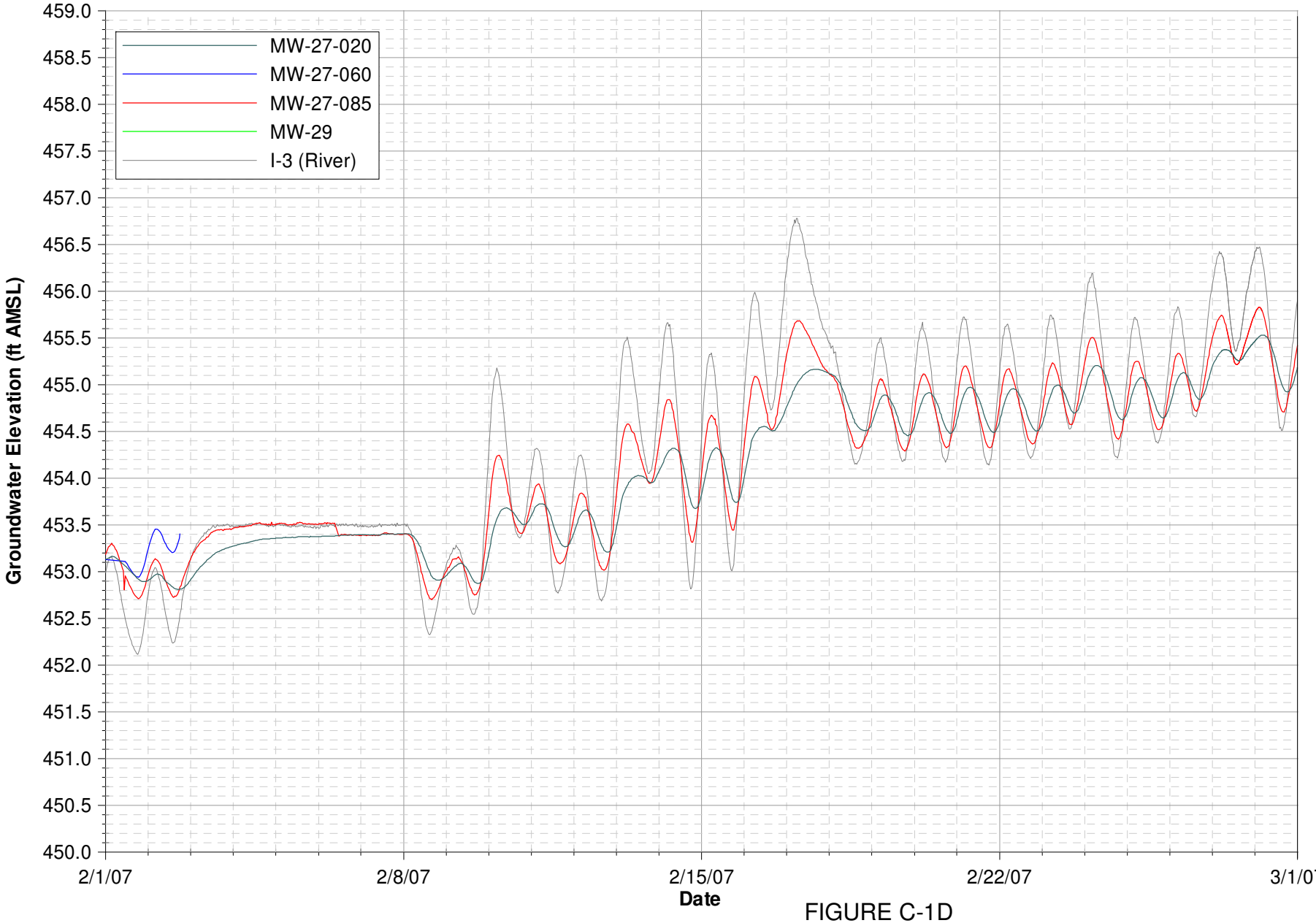

Notes:
Data subject to review.
MW-29 data unavailable after October 1, 2006.
MW-27-60 data unavailable after February 2, 2007.

FIGURE C-1D
MW-27 CLUSTER AND MW-29 HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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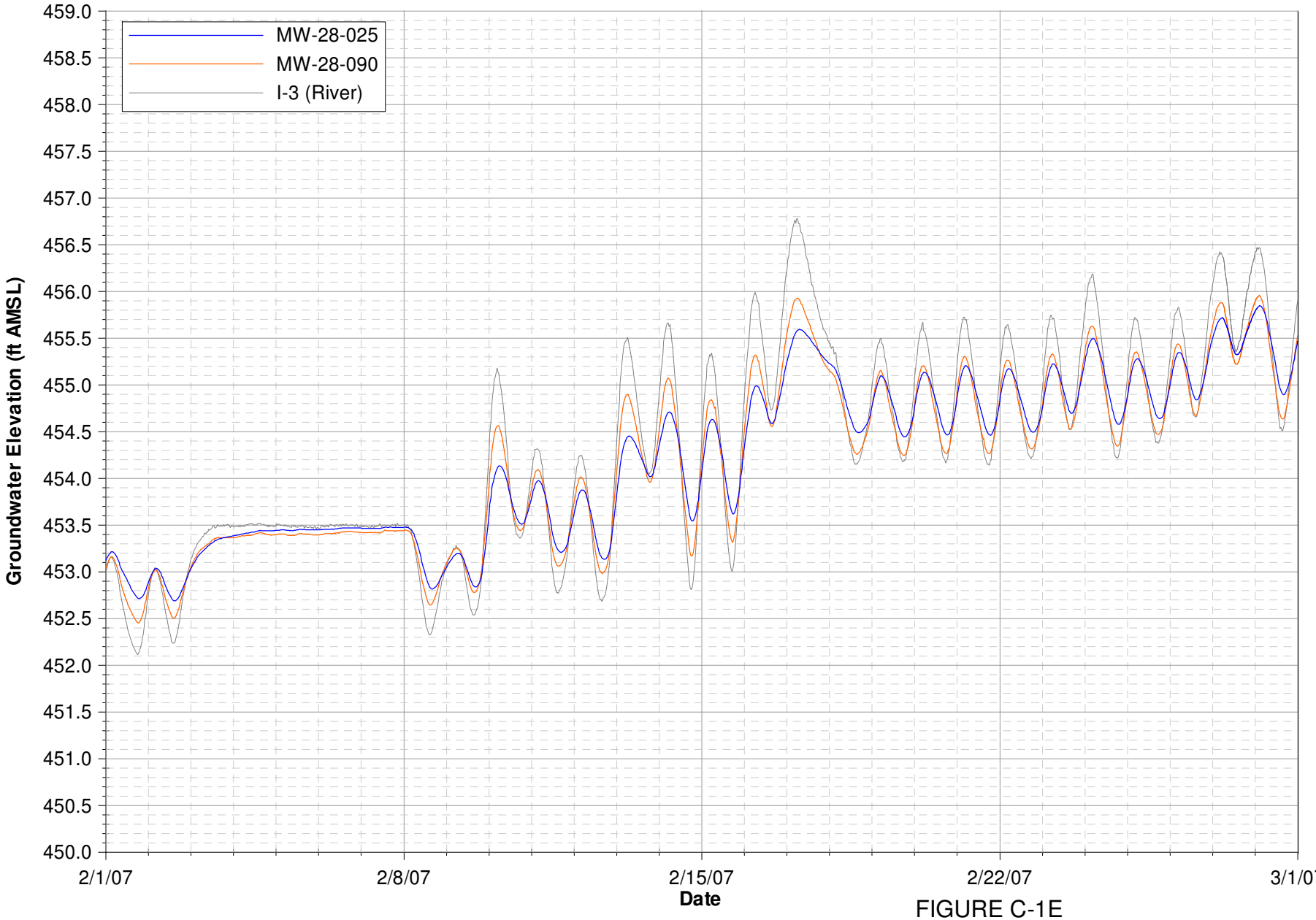

FIGURE C-1E
MW-28 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

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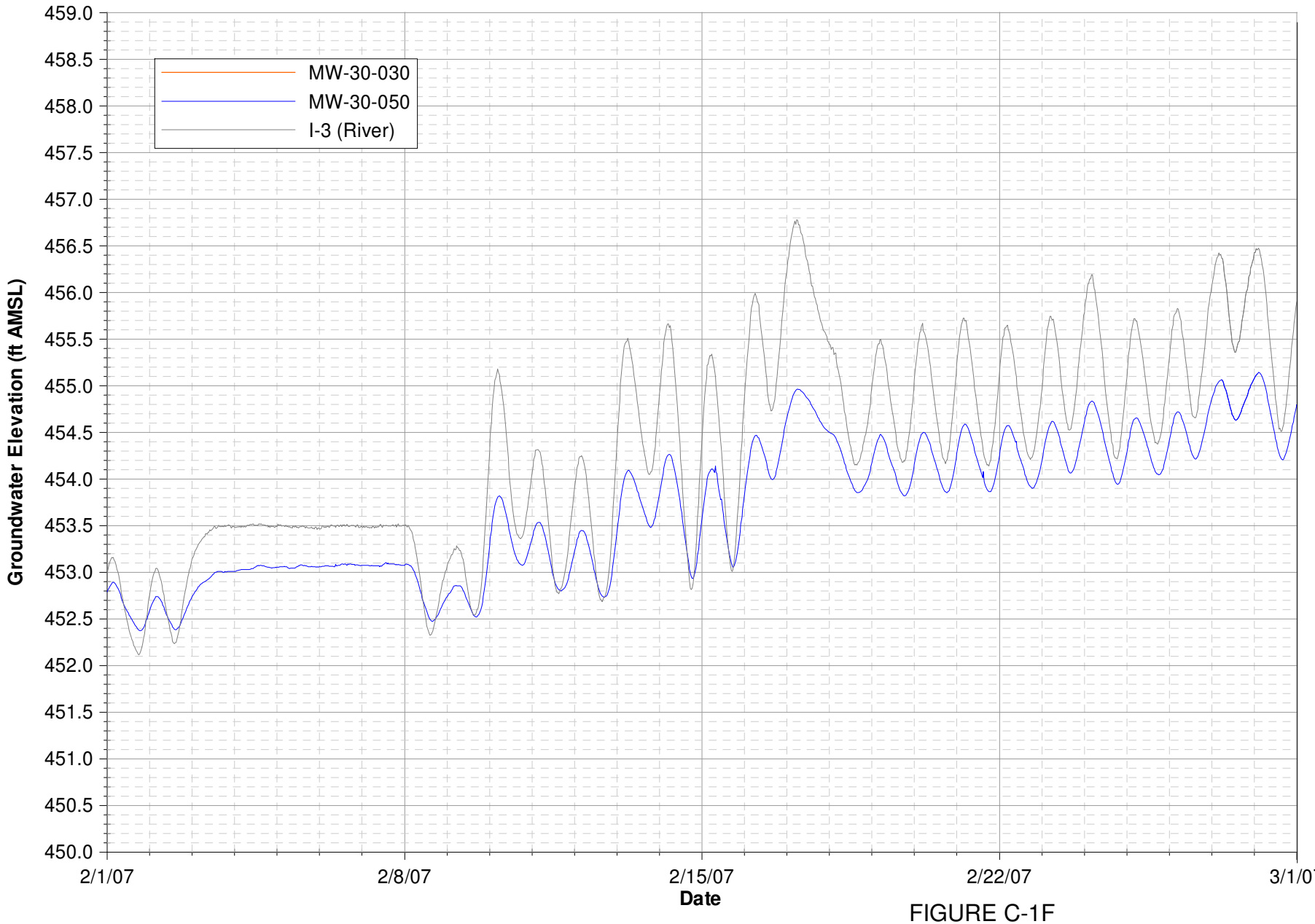

FIGURE C-1F
MW-30 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.
MW-30-30 data unavailable after October 31, 2006.

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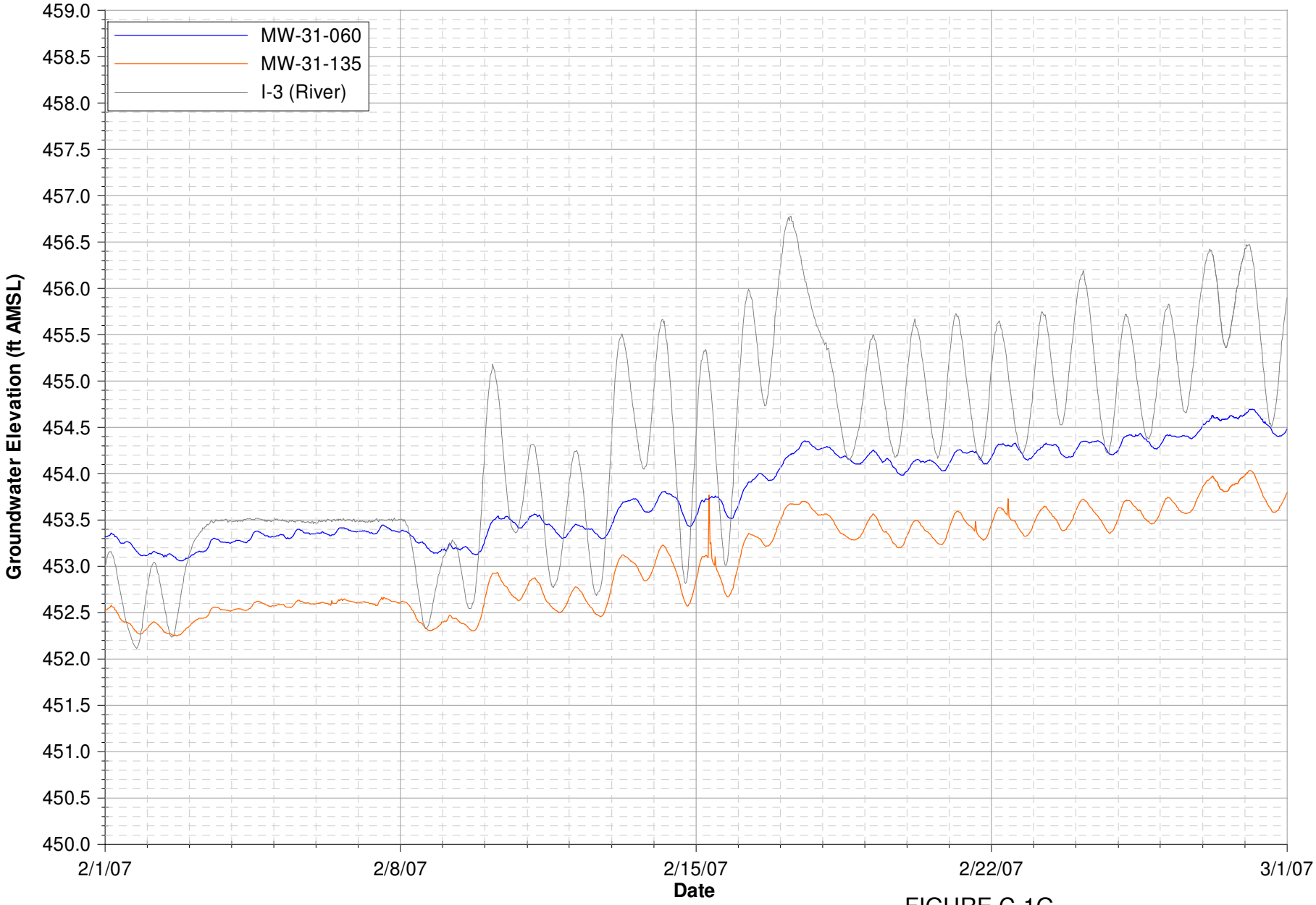

FIGURE C-1G
MW-31 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

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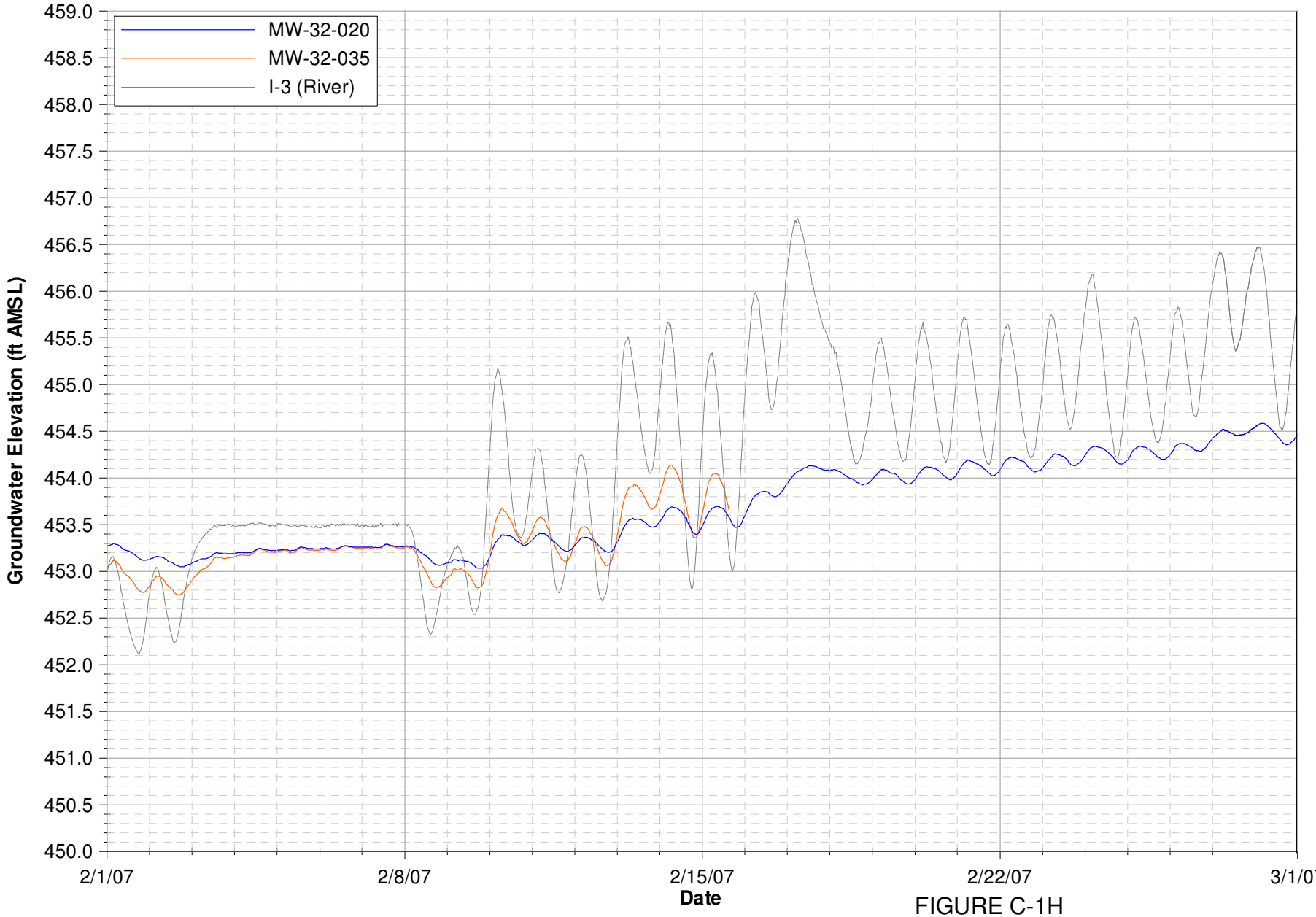

FIGURE C-1H
MW-32 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.
MW-32-035 data unavailable after February 15, 2007.

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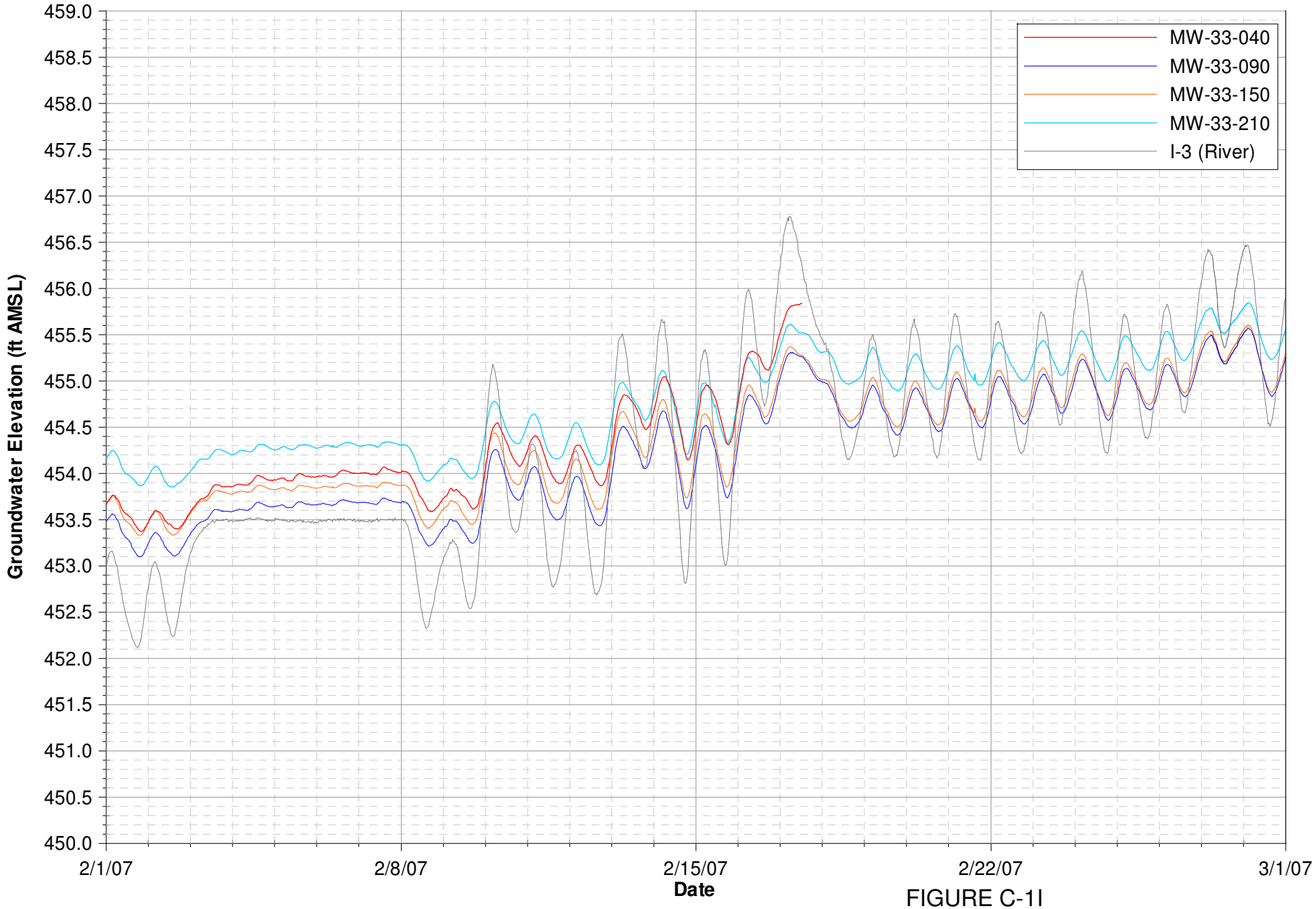

FIGURE C-1I
MW-33 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.
MW-33-40 data unavailable after February 17, 2007.

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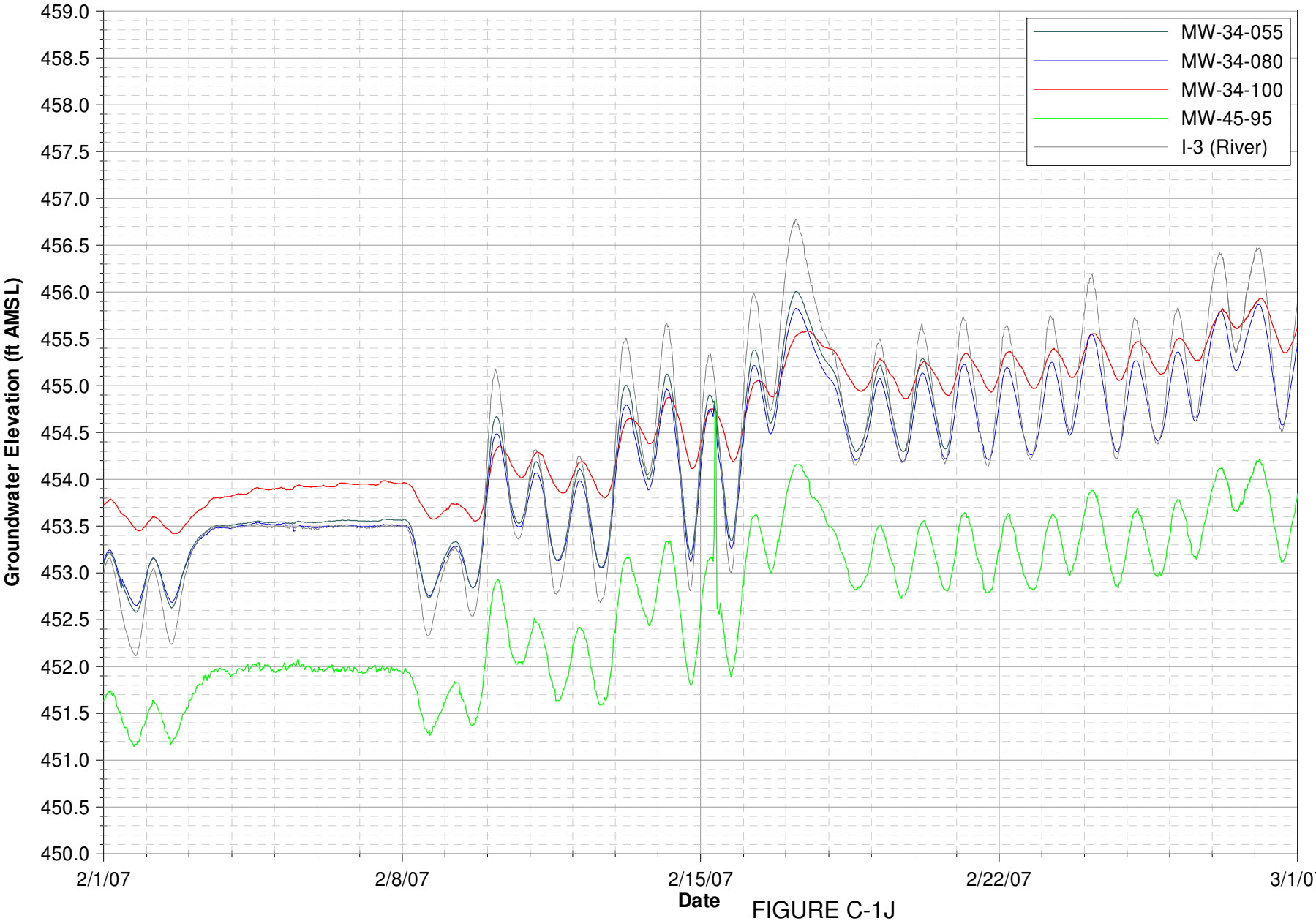

Notes:
Data subject to review.

FIGURE C-1J
MW-34 CLUSTER AND MW-45-95 HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

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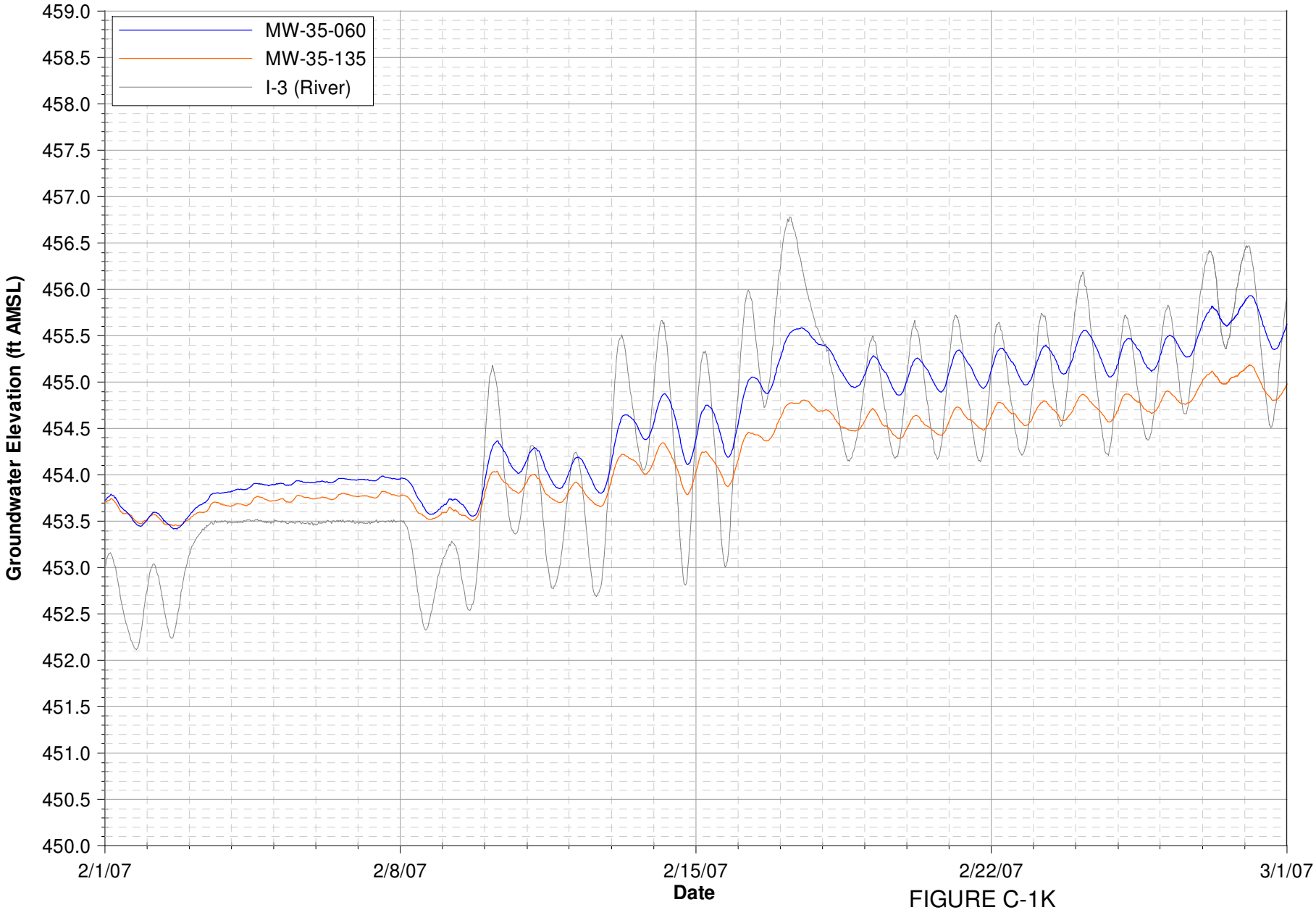

FIGURE C-1K
MW-35 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

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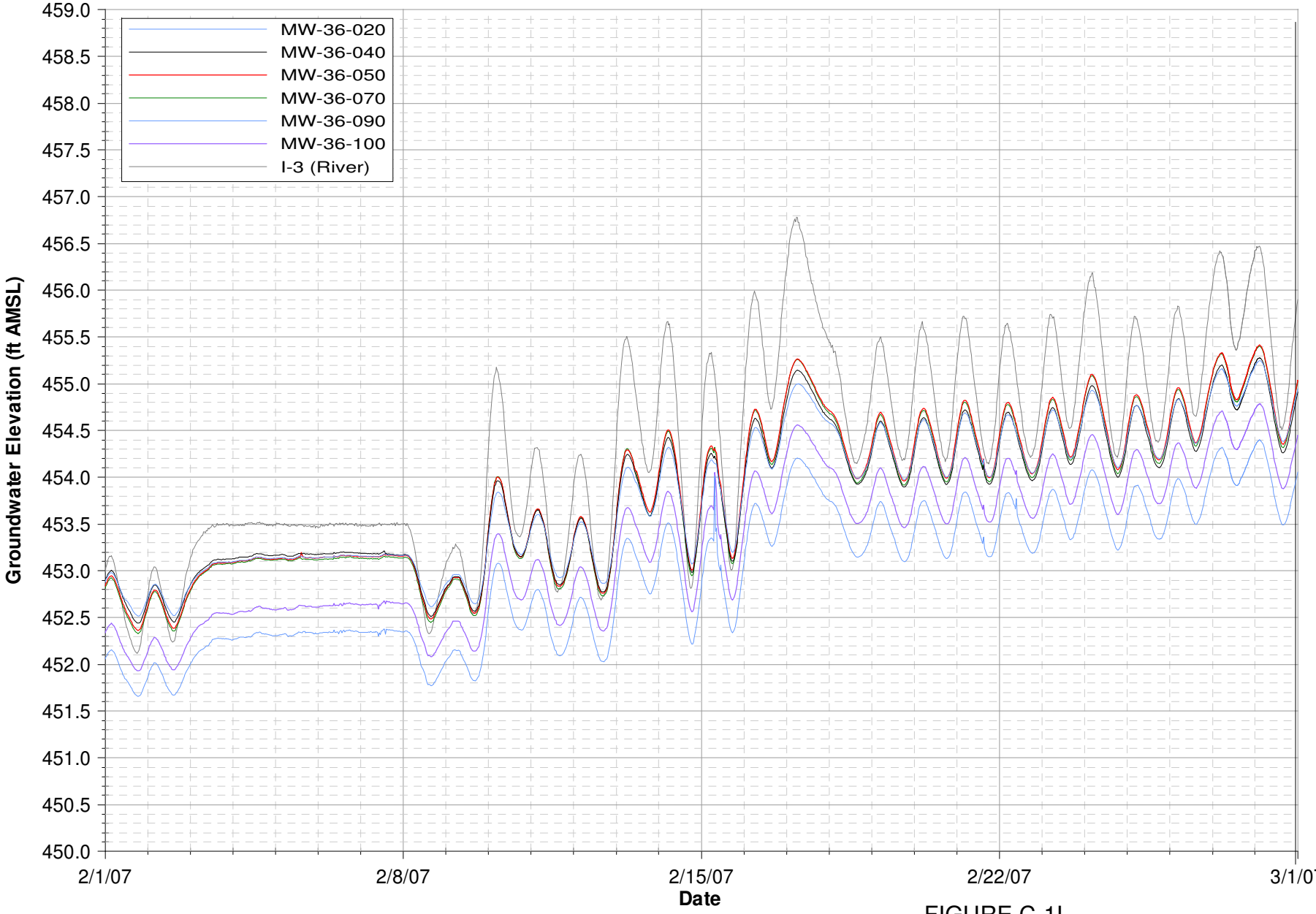

FIGURE C-1L
MW-36 CLUSTER
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

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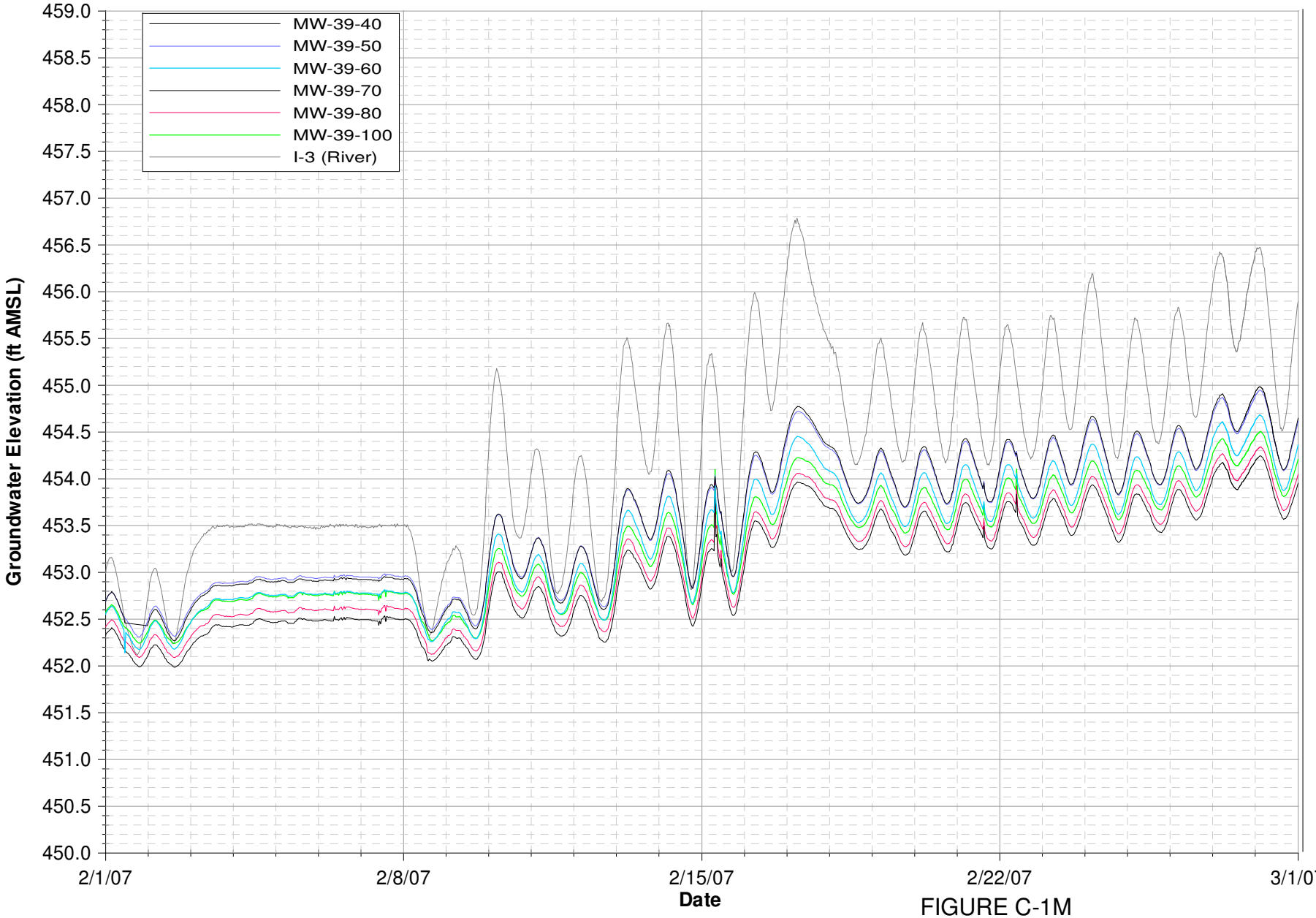


Notes:
Data subject to review.

FIGURE C-1M
MW-39 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

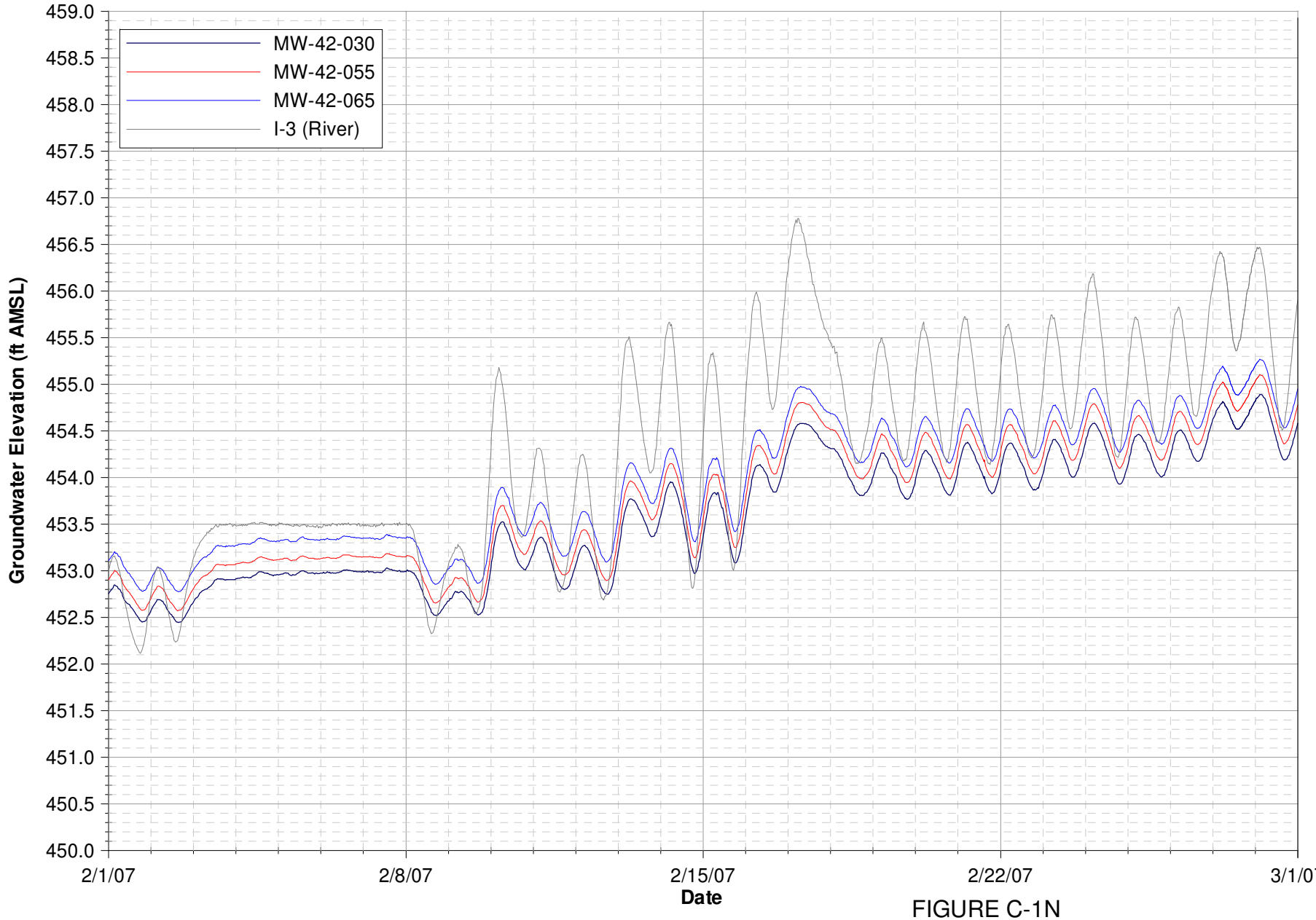


FIGURE C-1N
MW-42 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

CH2MHILL

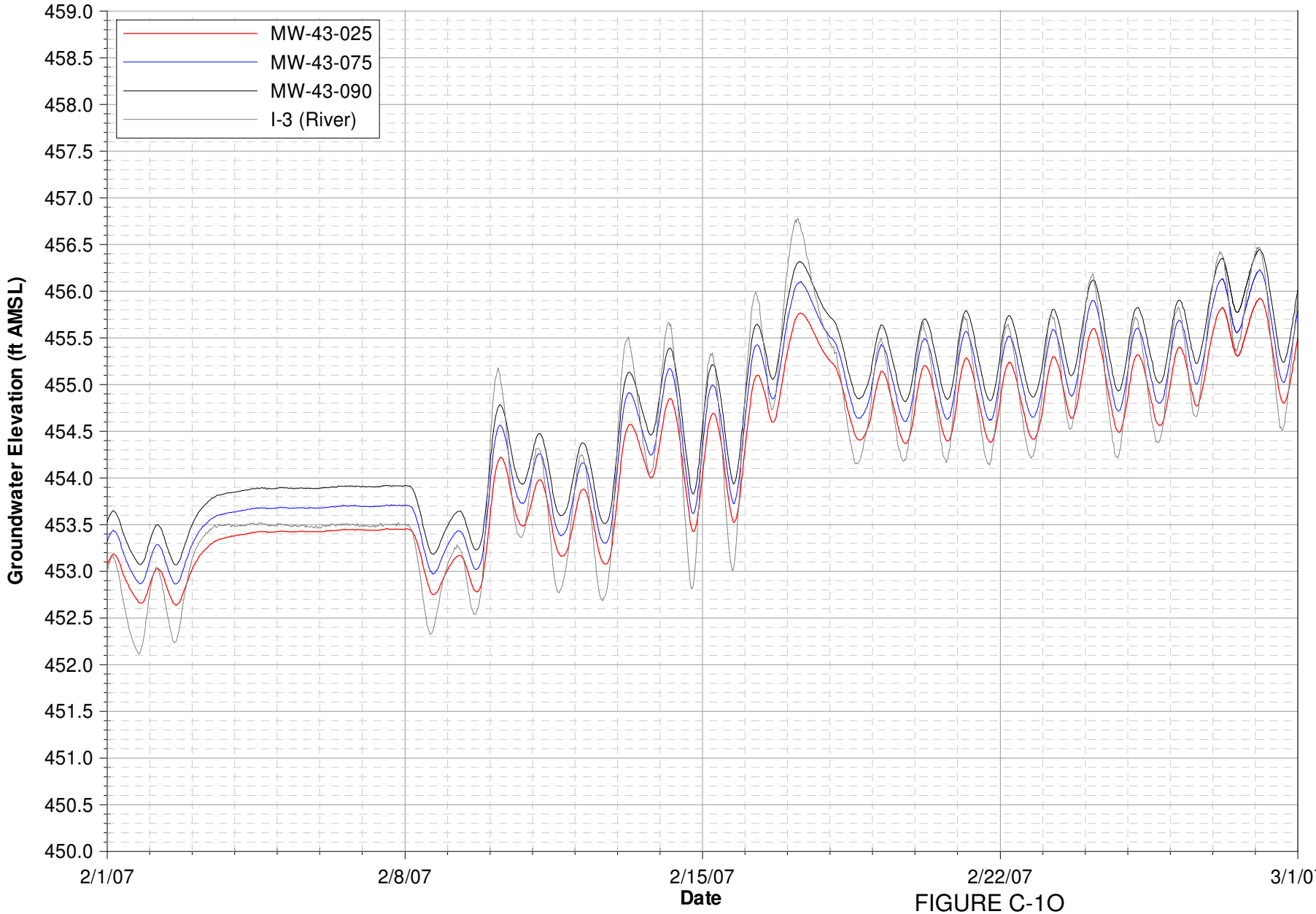


FIGURE C-1O
MW-43 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

CH2MHILL

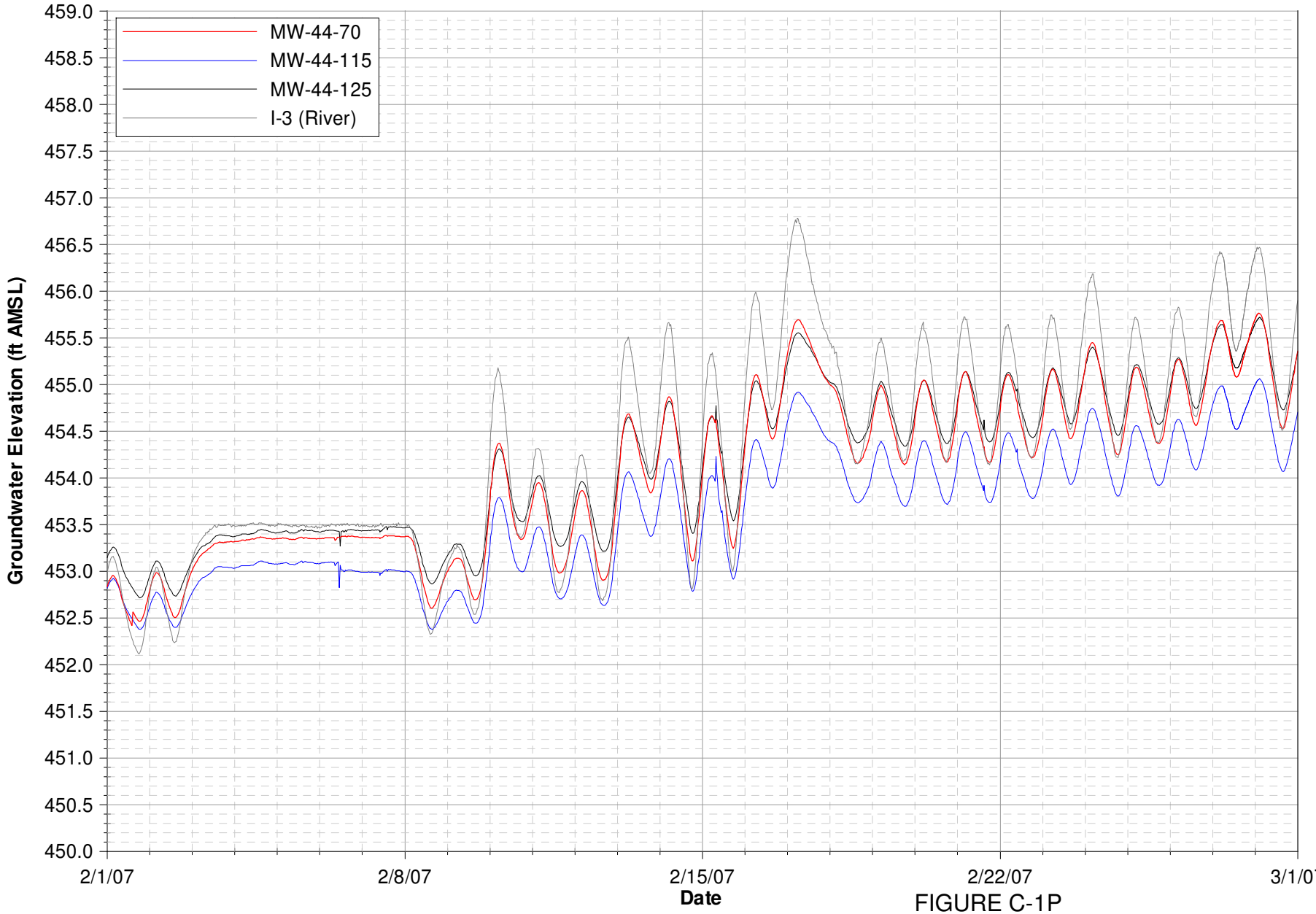


FIGURE C-1P
MW-44 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

CH2MHILL

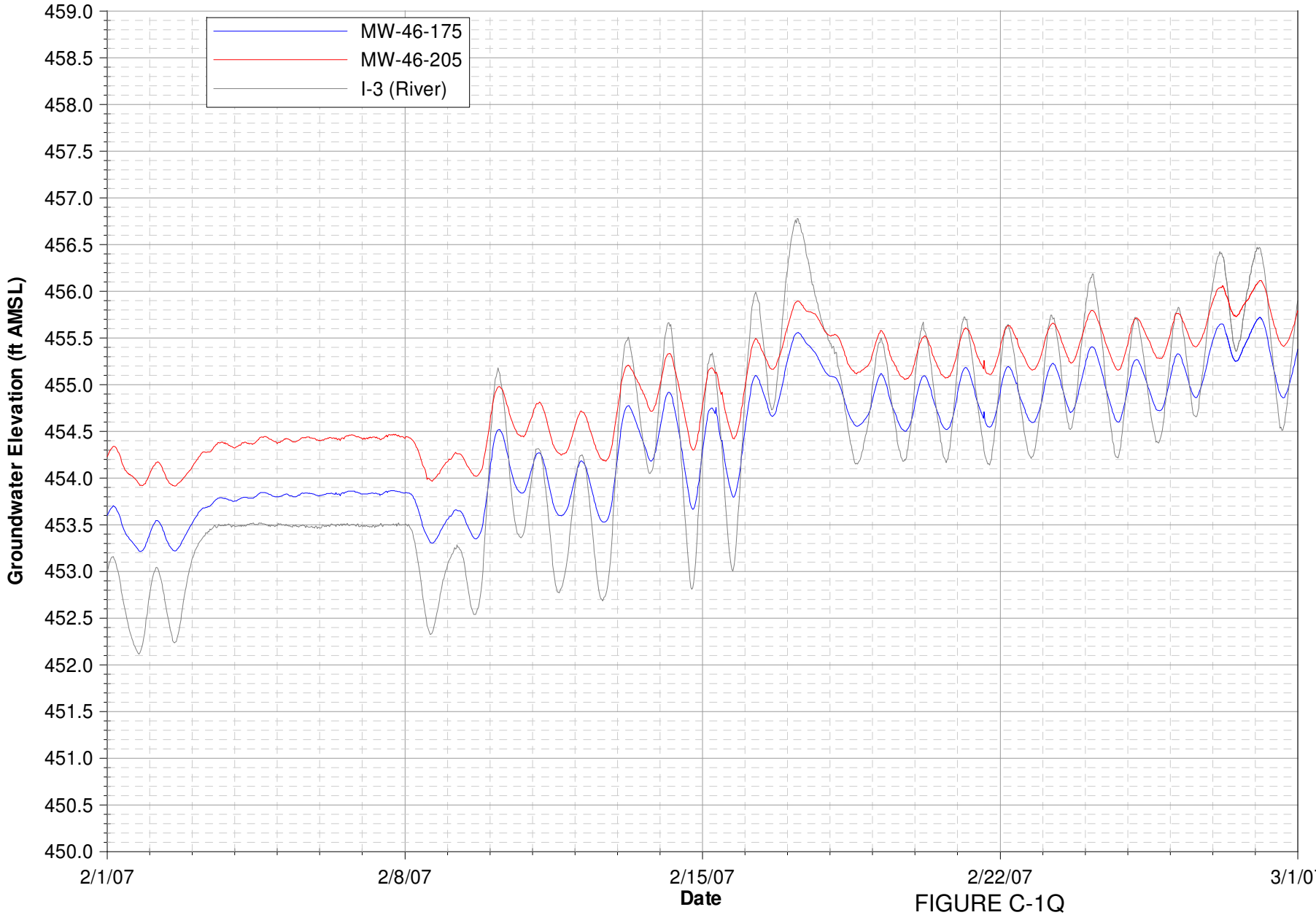


FIGURE C-1Q
MW-46 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

CH2MHILL

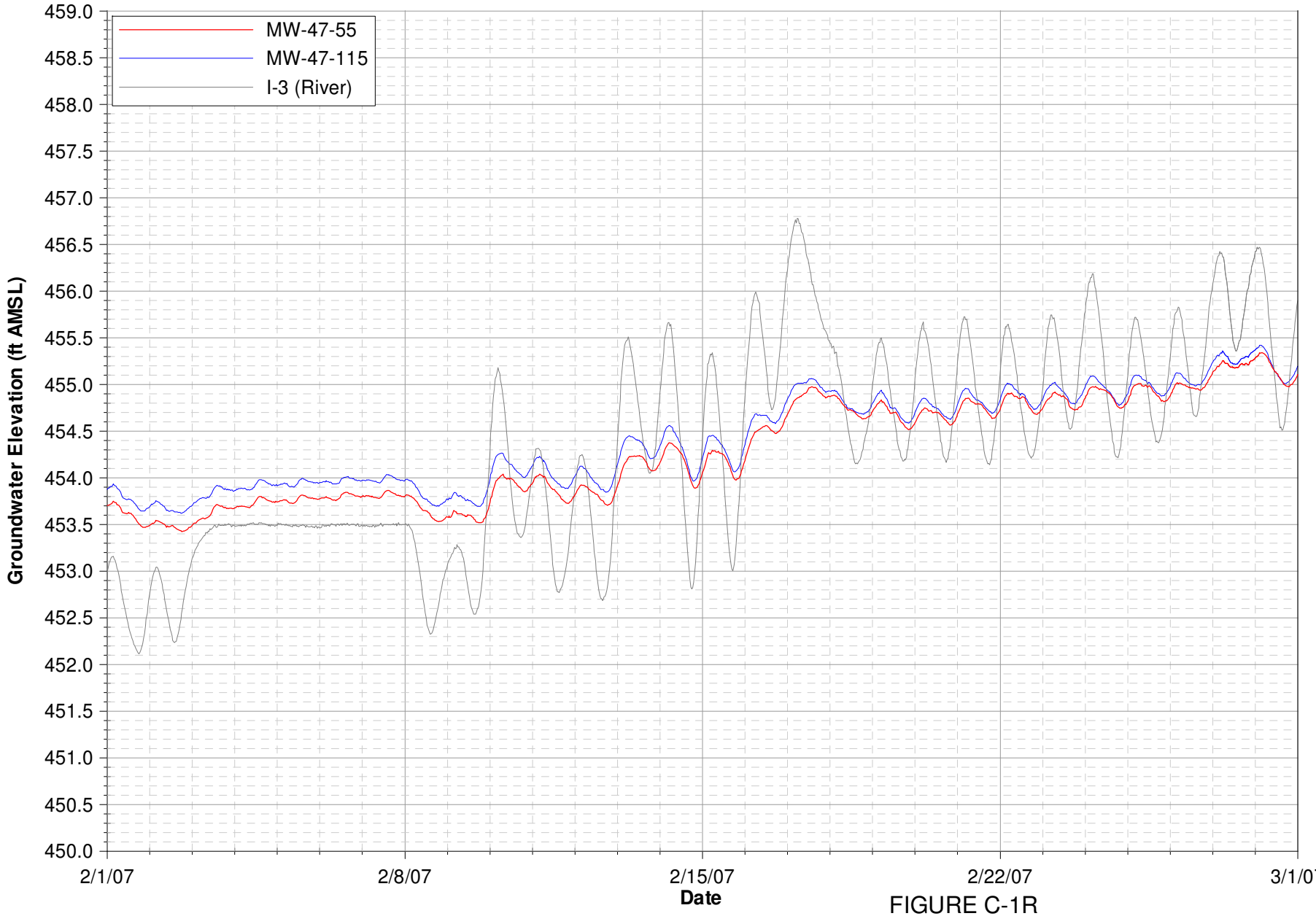
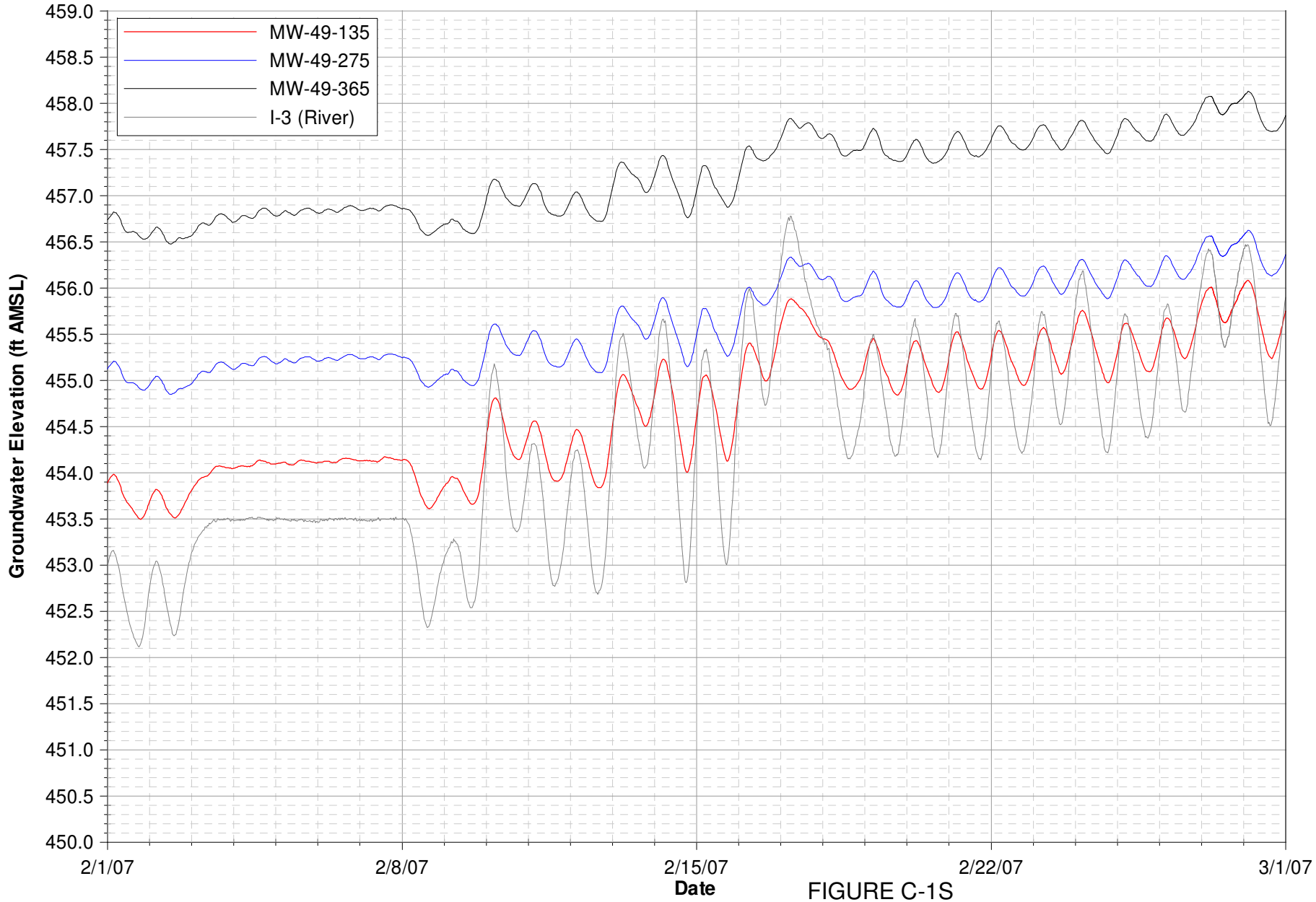


FIGURE C-1R
MW-47 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes:
Data subject to review.

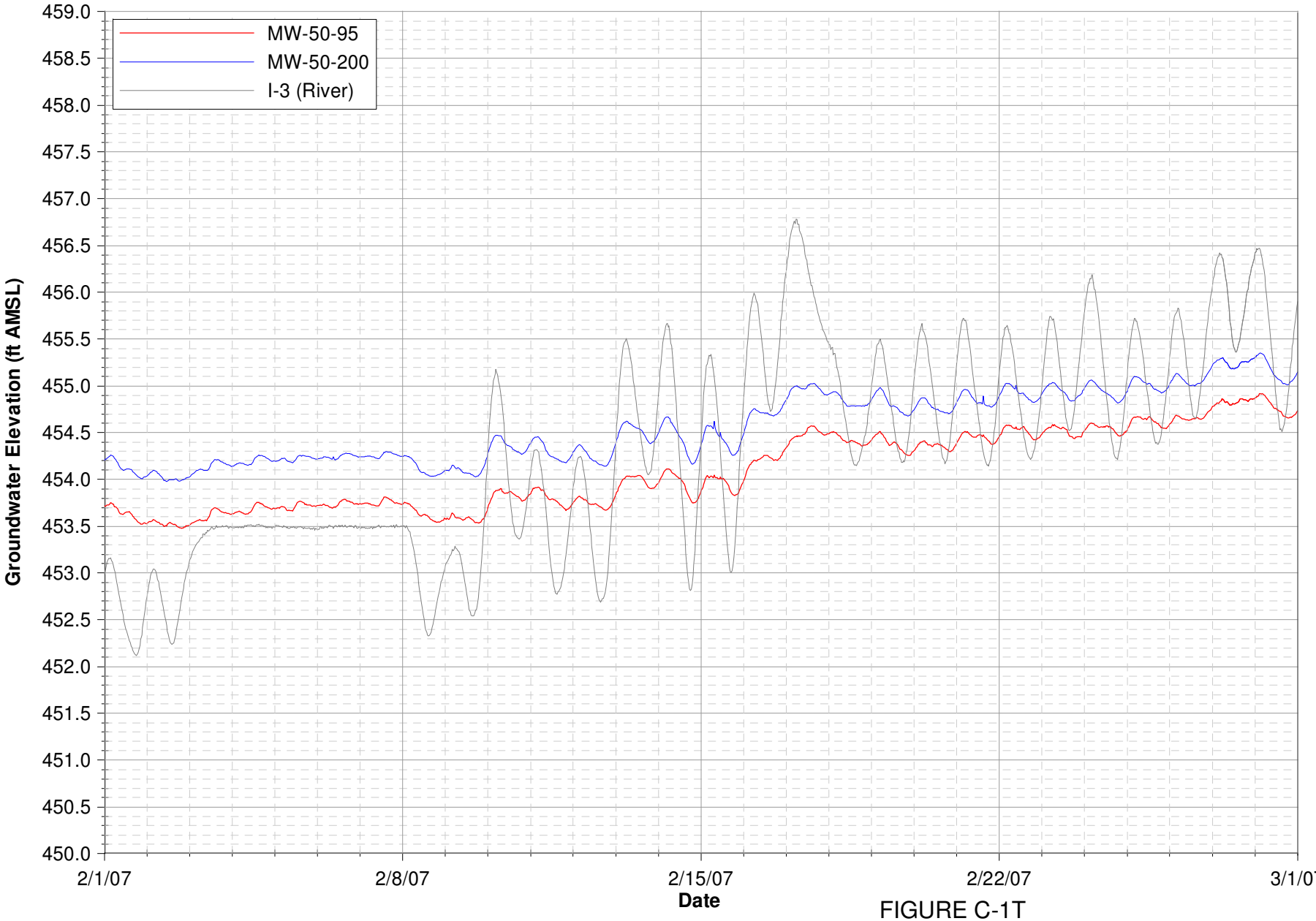
CH2MHILL



Notes:
Data subject to review.

FIGURE C-1S
MW-49 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

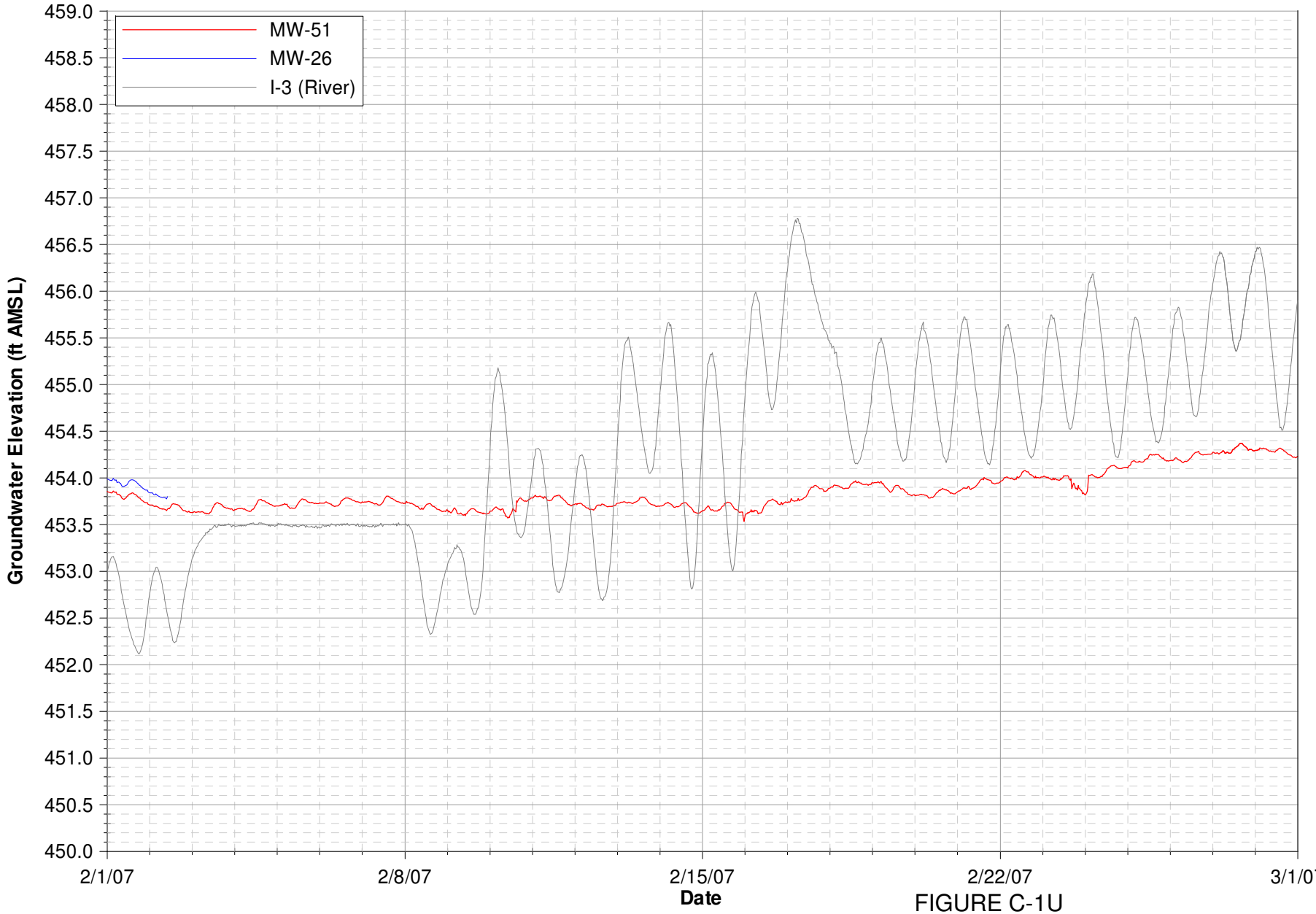
CH2MHILL



Notes:
Data subject to review.

FIGURE C-1T
MW-50 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

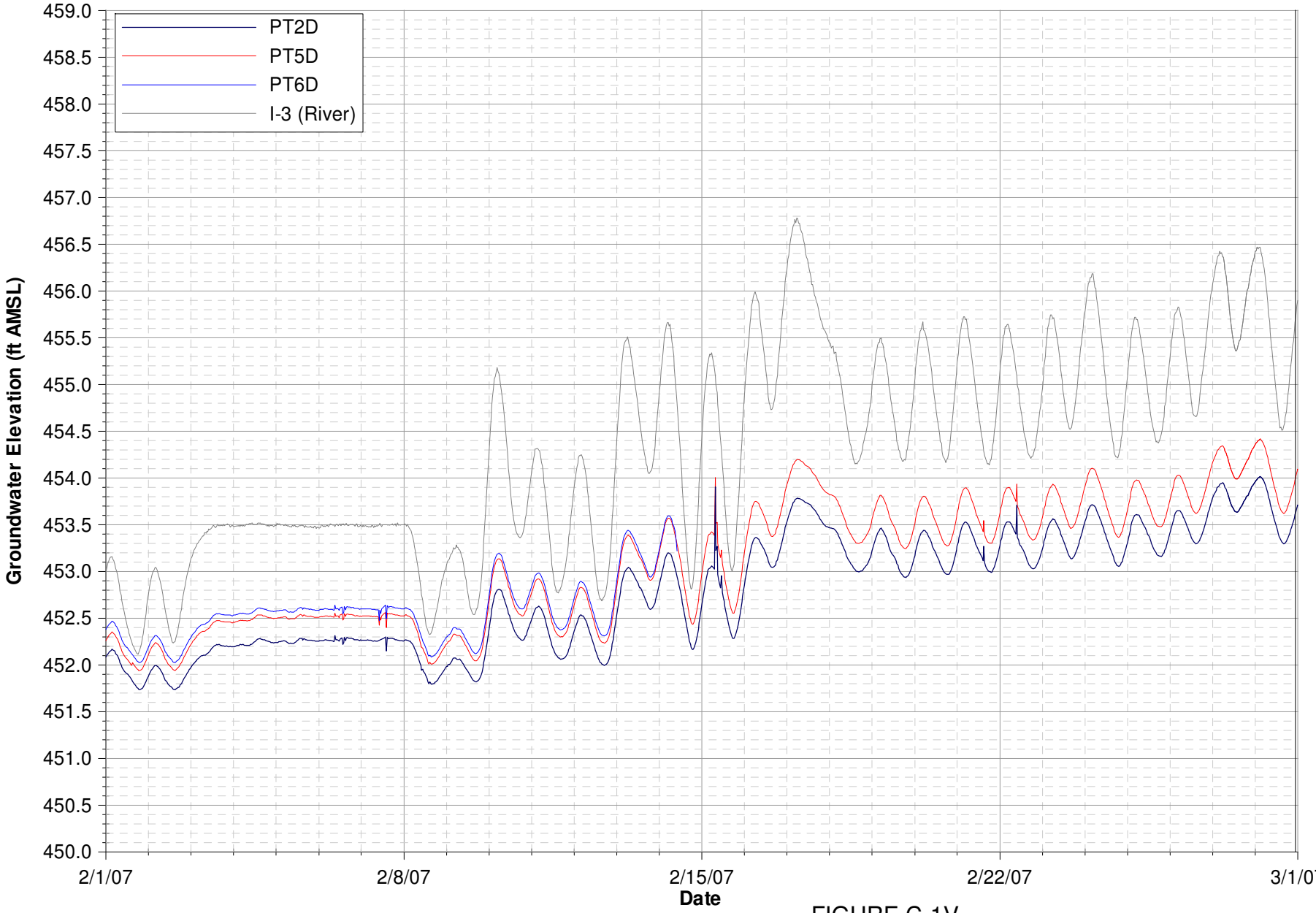
CH2MHILL



Notes:
Data subject to review.
MW-26 data unavailable after February 2, 2007.

FIGURE C-1U
MW-51& MW-26 HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



Note: Data subject to review.
PT6D data unavailable after February 14, 2007.

FIGURE C-1V
INSITU PILOT STUDY WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL