



**Pacific Gas and
Electric Company®**

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December 15, 2005

Norman Shopay
Project Manager
California Department of Toxic Substances Control
Geology and Corrective Action Branch
700 Heinz Avenue
Berkeley, California 94710

Subject: Performance Monitoring Report for November 2005
Interim Measures Performance Monitoring Program
PG&E Topock Compressor Station, Needles, California

Dear Mr. Shopay:

Enclosed is the *Performance Monitoring Report for November 2005* for the Interim Measure Performance Monitoring Program at the PG&E Topock Compressor Station. This monitoring report documents the performance monitoring results for November 1 through 30, 2005, 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,

for Yvonne Meeks

Enclosure

Performance Monitoring Report for November 2005

**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

December 15, 2005

CH2MHILL
155 Grand Avenue, Suite 1000
Oakland, California 94612

**Performance Monitoring Report
for November 2005**

Interim Measures Performance Monitoring Program

**PG&E Topock Compressor Station
Needles, California**

Prepared for
California Department of Toxic Substances Control

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Pacific Gas and Electric Company

December 15, 2005

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



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



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June 2005 – November 2005

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Acronyms and Abbreviations

cfs	cubic feet per second
Cr(T)	total chromium
Cr(VI)	hexavalent chromium
BLM	United States Bureau of Land Management
DTSC	Department of Toxic Substances Control
gpm	gallons per minute
IM	Interim Measure
IM-3	Interim Measure No. 3
PG&E	Pacific Gas and Electric Company
PMP	Performance Monitoring Program
µg/L	micrograms per liter (the same as parts per billion [ppb])
RCRA	Resource Conservation and Recovery Act
TDS	total dissolved solids
USBR	United States Bureau of Reclamation
WDR	Waste Discharge Requirements

1.0 Introduction

Pacific Gas and Electric Company (PG&E) is implementing an Interim Measure (IM) to address hexavalent chromium [Cr(VI)] concentrations in groundwater at the Topock Compressor Station near Needles, California. The IM consists of groundwater extraction for hydraulic control of the Cr(VI) plume in the Colorado River floodplain, and management of extracted groundwater. The groundwater extraction, treatment, and injection systems collectively are referred to as Interim Measure No. 3 (IM-3). Currently, the IM-3 facilities include a groundwater extraction system (two operational wells), 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-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” (Enclosure A, DTSC February 14, 2005 letter). 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* 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 (PMP) 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 November 1 through 30, 2005. The next monthly report for the December 2005 period will be submitted on January 14, 2006. The next quarterly report for the November, December, and January reporting period will be submitted in conjunction with the first annual report on March 15, 2006

Figure 1-2 shows the locations of wells used for the IM extraction, performance monitoring, and hydraulic gradient calculation. The performance monitoring wells are defined as:

- **Floodplain Wells** (monitoring wells on the Colorado River floodplain): MW-22, MW-27 cluster (3), MW-28 cluster (2), MW-29, MW-30 cluster (2), MW-32 cluster (2), MW-33 cluster (4), MW-34 cluster (3), MW-36 cluster (6), MW-39 cluster (6), MW-42 cluster (3), and MW-43 cluster (3).
- **Intermediate Wells** (monitoring wells located immediately north, west, and southwest of the floodplain): MW-12, MW-19, MW-20 cluster (3), MW-21, MW-26, MW-31 cluster (2), MW-35 cluster (2).
- **Interior Wells** (monitoring wells located upgradient of IM pumping): MW-10, MW-25.

The two currently operational extraction wells, TW-2S and TW-2D, are located on the MW-20 bench (Figure 1-1). Two new extraction wells, PE-1 and TW-3D, have been installed at the direction of DTSC to provide additional extraction system capacity. In March 2005, extraction well PE-1 was installed on the floodplain approximately 450 feet east of extraction well TW-2D (Figure 1-1). In late October 2005, extraction well TW-3D was installed approximately 15 feet west of well TW-2D to serve as a supplemental extraction well for the IM system with a well completion similar to TW-2D. Construction of the conveyance piping and power supply to PE-1 on the floodplain will begin after Bureau of Land Management approval of the work, anticipated in December 2005. Construction of piping and power supply to TW-3D commenced in November, and this well is scheduled to be brought into service in December 2005.

The wells screened in the unconsolidated alluvial fan and fluvial deposits, which 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 lithostratigraphic layers within the aquifer. The floodplain aquifer is considered to be hydraulically undivided, with no confining layers.

2.0 Extraction System Operations

Pumping data for the IM groundwater extraction system for the period November 1 through November 30, 2005 are shown in Table 2-1. The monthly average pumping rate was 80.1 gallons per minute (gpm). Extraction well TW-2D was the only extraction well in operation. A total of 3,945,002 gallons of groundwater were extracted and treated by the IM-3 treatment plant during November 2005.

During November 2005, TW-2D was operated at a target pump rate of at least 90 gpm. The operational run time for the IM extraction system was 83 percent. An operations log for the extraction system, including downtime, is included in Appendix A.

The concentrate (i.e., brine) from the reverse osmosis system was manifested as a Resource Conservation and Recovery Act (RCRA) non-hazardous waste, and transported to United States Filter Corporation in Los Angeles, California for additional treatment and disposal. No solids from the IM-3 facility were taken offsite for disposal in November 2005.

Daily inspections included general facility inspections, flow measurements, site security, and desert tortoise monitoring. Daily logs with documentation of inspections are maintained onsite.

Table 2-2 summarizes the analytical results of groundwater samples collected from extraction well TW-2D during the November reporting period and prior months. Future monitoring of the extraction well(s) water quality will be completed at the frequency required by the Waste Discharge Requirements that were issued for the IM-3 treatment facility.

3.0 Chromium Sampling Results

The groundwater monitoring wells in the floodplain area are currently sampled for Cr(VI), total chromium [Cr(T)], and field water quality parameters under quarterly, monthly, and biweekly schedules, in accordance with the approved groundwater monitoring plan and DTSC directives. On July 20, 2005, DTSC approved a modified sampling schedule for groundwater monitoring in the floodplain that specified monthly sampling of 12 selected monitoring wells, biweekly sampling of one well (MW-34-100), and quarterly sampling of the other monitoring wells in the PMP area. Table B-1 in Appendix B presents the groundwater sampling results for Cr(VI) and Cr(T), as well as groundwater elevation and field water quality parameters for monitoring wells in the floodplain area during November 2005 and previous months. Table B-2 in Appendix B presents the groundwater sampling data for the other wells monitored in the PMP area during the evaluation period.

Figure 3-1 presents the Cr(VI) results for November 2005 (in plan view) for the groundwater wells monitoring the upper, middle, and lower depth intervals of the Alluvial Aquifer in the floodplain area. Figure 3-1 also shows the approximate locations of the 20 µg/L and 50 µg/L Cr(VI) contour lines in groundwater within each depth interval. The California drinking water standard for Cr(T) is 50 µg/L.

The Cr(VI) sampling results from the November 2005 monthly sampling event are shown on Figure 3-2, a vertical cross-section extending east-west across the floodplain. Figure 3-3 presents the November 2005 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 vs. time graphs and hydrographs for key floodplain monitoring wells are presented in Appendix B, Figures B-1 (well MW-33-90), B-2 (MW-34-100), and B-3 (MW-36-100).

4.0 Hydraulic Gradient Results

During the reporting period, water levels were recorded at intervals of 30 minutes with pressure transducers in 48 wells and two river monitoring stations (I-3 and RRB). The data are typically continuous, with only short interruptions for sampling or maintenance. The locations of the monitored wells 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 November 1 to November 30, 2005, and are summarized in Appendix C, Table C-1. Reported groundwater elevations (or hydraulic heads) were adjusted for temperature and salinity differences between wells (i.e., adjusted to a common freshwater equivalent head), as described in the Performance Monitoring Plan. Groundwater elevation hydrographs (for November 2005) for all wells with transducers are included in Appendix C. The elevation of the Colorado River measured at the RRB monitoring station (inlet at Bat Cave Wash, Figure 1-2) is also shown on the hydrographs.

The November 2005 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 strongly landward hydraulic gradients underlying the floodplain in the upper, middle, and lower portions of the aquifer. To the west of the TW-2D pumping area, the hydraulic gradient in the upper depth interval is easterly, consistent with the regional gradient outside of the floodplain area. The average monthly groundwater elevations are also presented and contoured in cross-section on Figure 4-4 (the cross-section location is shown on Figure 1-2).

Table 4-1 summarizes the estimated and actual dam discharges and river elevations since April 2004. The actual Davis Dam November 2005 average discharge of 10,216 cubic feet per second (cfs) was slightly less than the United States Bureau of Reclamation (USBR) projected discharge (10,900 cfs). The actual Colorado River elevation at I-3 (monthly average) was the same as predicted by using the multiple regression method with USBR projections for the November reporting period.

Gradients were measured between the three designated well pairs (MW-20-130/MW-34-80, MW-20-130/MW-42-65, and MW-31-135/MW-33-150). As shown in Table 4-2, the average gradients in the three well pairs were landward at magnitudes 1.6 to 2.9 times greater than the target value of 0.0010 feet per foot (0.0026, 0.0029, and 0.0016, respectively).

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 status report will be a monthly performance monitoring report, to be submitted on January 14, 2006, covering the December 2005 reporting period. The first annual report, summarizing IM system operations and performance monitoring data and evaluation during the annual operations period February 2005 through January 2006, will be submitted on March 15, 2006.

Pumping from extraction well TW-2D at the target pumping rate is planned to continue into December 2005 until extraction well TW-3D is brought online. Following TW-3D commissioning, it is anticipated that the extraction system (well TW-3D operating alone or in combination with well TW-2D) will be operated in a manner to maintain a monthly average pumping rate goal of 125 gpm in accordance with the DTSC letter dated December 12, 2005 ("Requirement to increase pumping rate from extraction wells TW-2D and TW-3D"). Treated groundwater will be discharged into the IM-3 injection wells in accordance with Waste Discharge Requirements Order No. R7-2004-0103. Brine generated as a byproduct of the treatment process will be transported offsite to U.S. Filter Corporation in Los Angeles for treatment and disposal. No solids are anticipated to be shipped offsite during December 2005.

Current USBR projections show that the average Davis Dam release for December 2005 (6,900 cfs) will be less than in November 2005 (10,216 cfs). Based on October 6, 2005 USBR projections, it is anticipated that the Colorado River level at the I-3 gage location in December 2005 will decrease (0.5 feet) compared to levels in November 2005. Future adjustments in pump rates from TW-2D will be proposed based on expected river levels, observed groundwater gradients, potential system modifications, and other relevant factors.

Consultation with DTSC and the federal agencies for construction of conveyance piping and connection of the additional extraction well PE-1 to the IM-3 system is continuing. It is anticipated that agency approvals for piping construction and commissioning of PE-1 will be obtained by mid-December 2005. Construction of the conveyance piping and connection of PE-1 to the IM extraction system will commence following approval of the final design plan by DTSC and BLM.

TABLE 2-1

Pumping Rate and Extracted Volume for IM System through November 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Extraction Well	November 2005 Period ^a		Project To Date ^b
	Average Pumping Rate ^c (gpm)	Volume Pumped (gal)	Cumulative Volume Pumped (gal)
TW-2S ^a	0	0	994,438
TW-2D	80.1	3,945,002	47,990,540
Total	80.1	3,945,002	48,849,978
Volume Pumped from the MW-20 Well Cluster			1,527,724
Total Volume Pumped (gal)			50,512,702
Total Volume Pumped (ac-ft)			155.0

gpm: gallons per minute.

gal: gallons.

ac-ft: acre-feet.

^a Pumping results during the monthly period are based on readings collected between November 1, 2005 at 12:00 a.m. and November 30, 2005 at 11:59 p.m. (30 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 totalizer readings.

TABLE 2-2

Analytical Results for Extraction Wells, June 2005 through November 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

Well ID	Sample Date	Unfiltered Total Chromium mg/L	Dissolved Total Chromium mg/L	Hexavalent Chromium mg/L	Total Dissolved Solids mg/L
TW-02D	15-Jun-05	---	4.86	4.57	6420
SC-100B	08-Aug-05	4.06	---	4.27	5980 J
SC-100B	11-Aug-05	4.83	---	4.21 J	6060
SC-100B	16-Aug-05	4.75	---	4.22	6170
SC-100B	18-Aug-05	3.96	---	3.88	5950
SC-100B	22-Aug-05	4.11	---	4.10	6000
SC-100B	25-Aug-05	3.74	---	4.27	6200
SC-100B	16-Sep-05	3.91	---	3.92	6090 J
SC-100B	21-Sep-05	4.15	---	3.99	6360
SC-100B	28-Sep-05	5.57	---	4.02	6250
SC-100B	05-Oct-05	3.79	---	3.96	6040
SC-100B	12-Oct-05	4.24	---	3.60	5950
SC-100B	19-Oct-05	3.68	---	3.79	6080
SC-100B	25-Oct-05	3.27	---	3.90	5880
SC-100B	02-Nov-05	3.63	---	3.75 J	5950

Notes:

mg/L = concentration in milligrams per liter (mg/L)

FD = field duplicate sample

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

(---) = data not collected.

^ = Groundwater samples from IM extraction wells are analyzed by certified laboratory for operational monitoring purpose. Analytical data is reviewed for quality control but does not undergo full data validation; results flagged ^.

Analytical results from inactive extraction wells are presented in Table A-2.

The analytical results after August 1, 2005 were obtained from a sample point (SC-100B) on the influent conveyance system at the IM3 treatment system.

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

Month	Davis Dam Release			Colorado River Elevation at I-3		
	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	----	----	452.8	----	----

NOTES:

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

Projected Davis Dam Releases, updated monthly, are reported by the US Department of Interior, Bureau of Reclamation at <http://www.usbr.gov/lc/region/g4000/24mo.pdf>; listed projections for April 2004 through July 2004 are from April 2004, and the remainder were from the beginning of each respective month.

Colorado River levels at I-3 are predicted from a linear regression between historical dam releases and measured river levels at I-3 (updated monthly).

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

TABLE 4-2

Average Hydraulic Gradients Measured at Well Pairs, November 2005

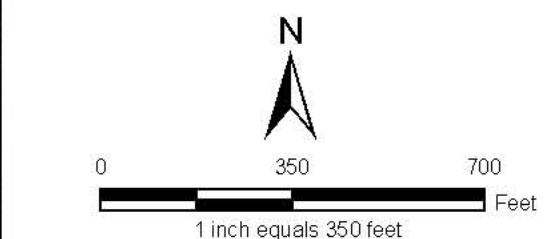
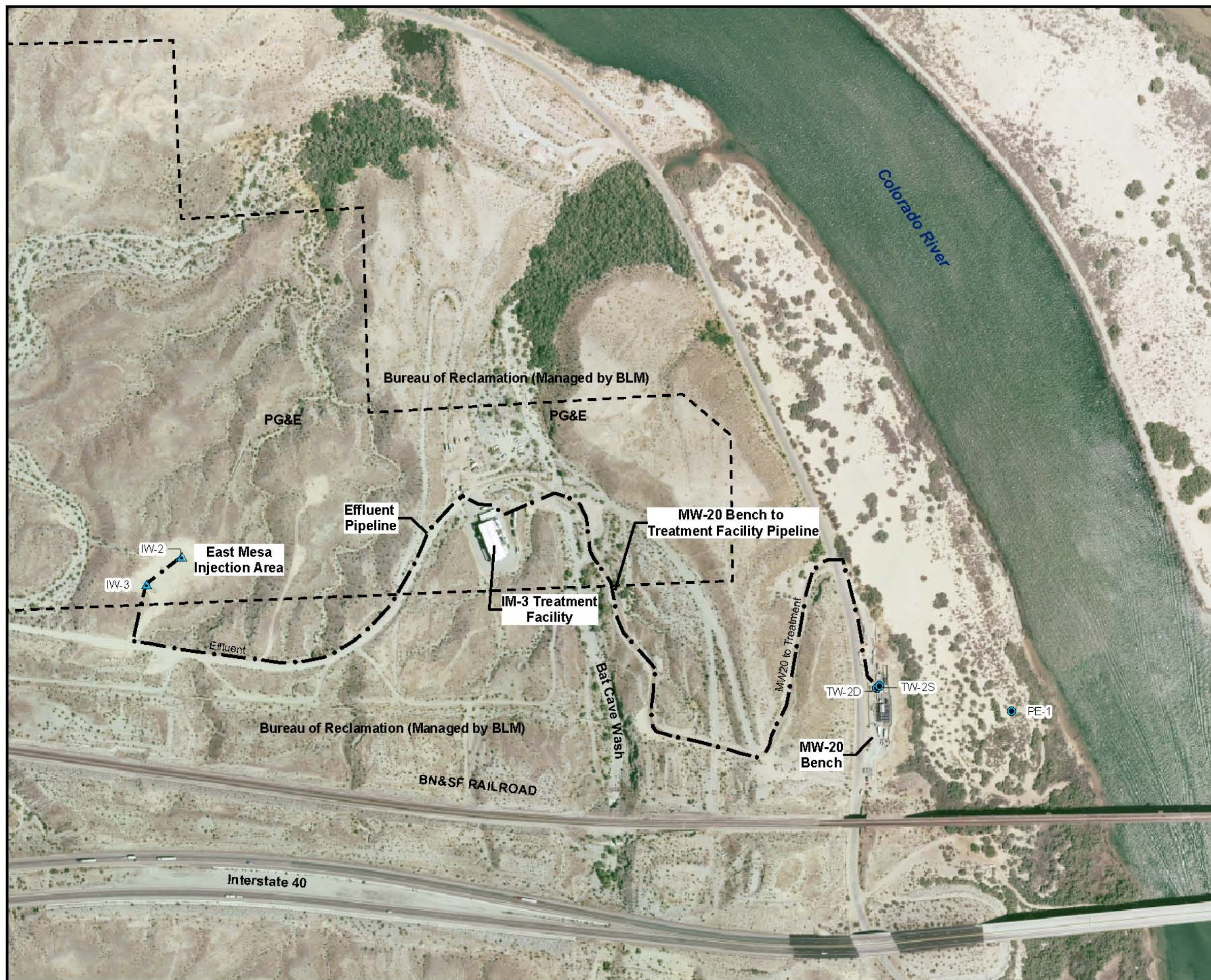
*Interim Measures Performance Monitoring**PG&E Topock Compressor Station*

Well Pair	Mean Landward Hydraulic Gradient (feet/foot)	Measurement Dates 2005
Northern Gradient Pair MW-31-135 / MW-33-150	0.0016	November-1 through November-30
Central Gradient Pair MW-20-130 / MW-34-80	0.0026	November-1 through November-30
Southern Gradient Pair MW-20-130 / MW-42-65	0.0029	November-1 through November-30

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

Figures



LEGEND




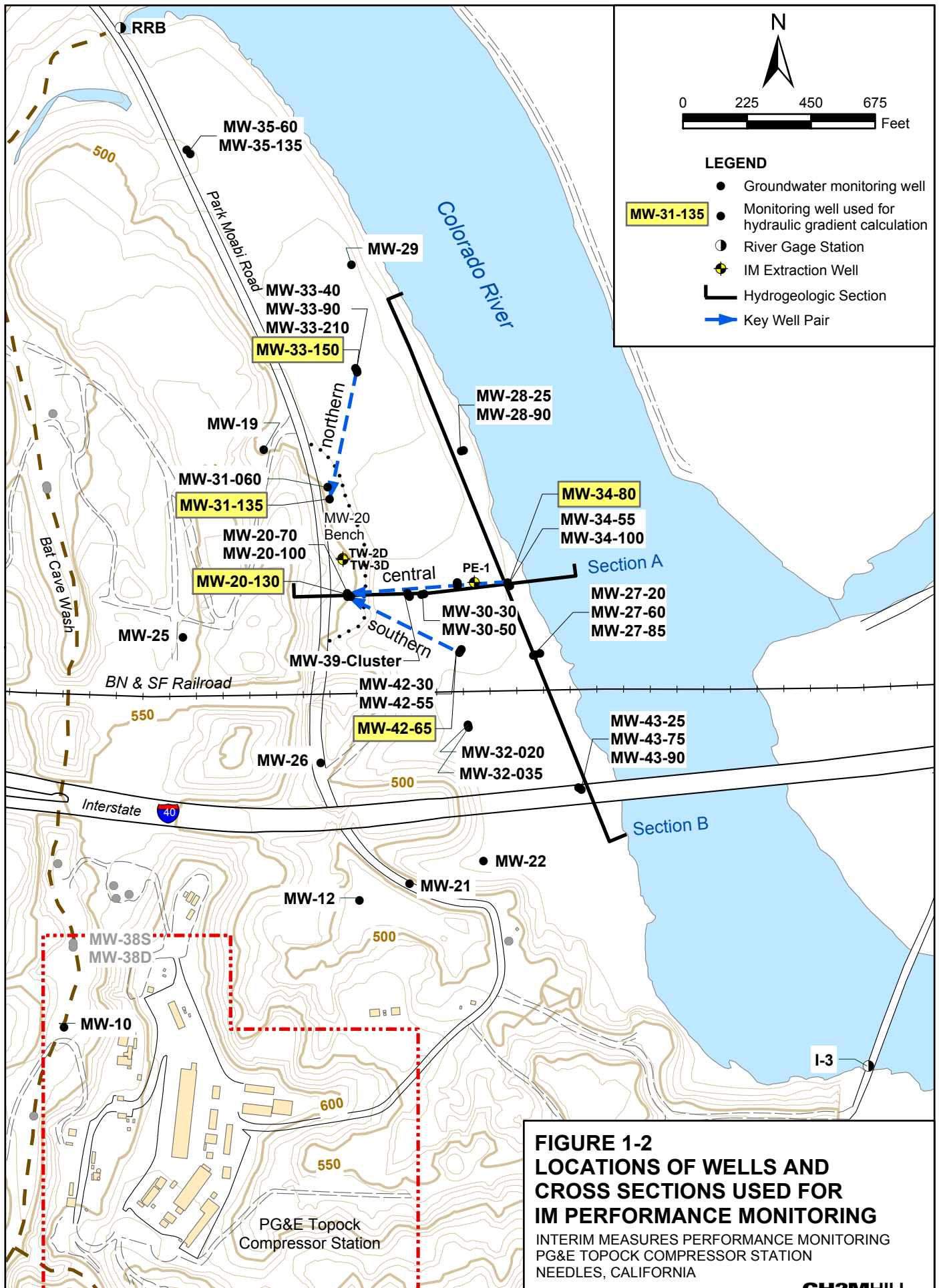
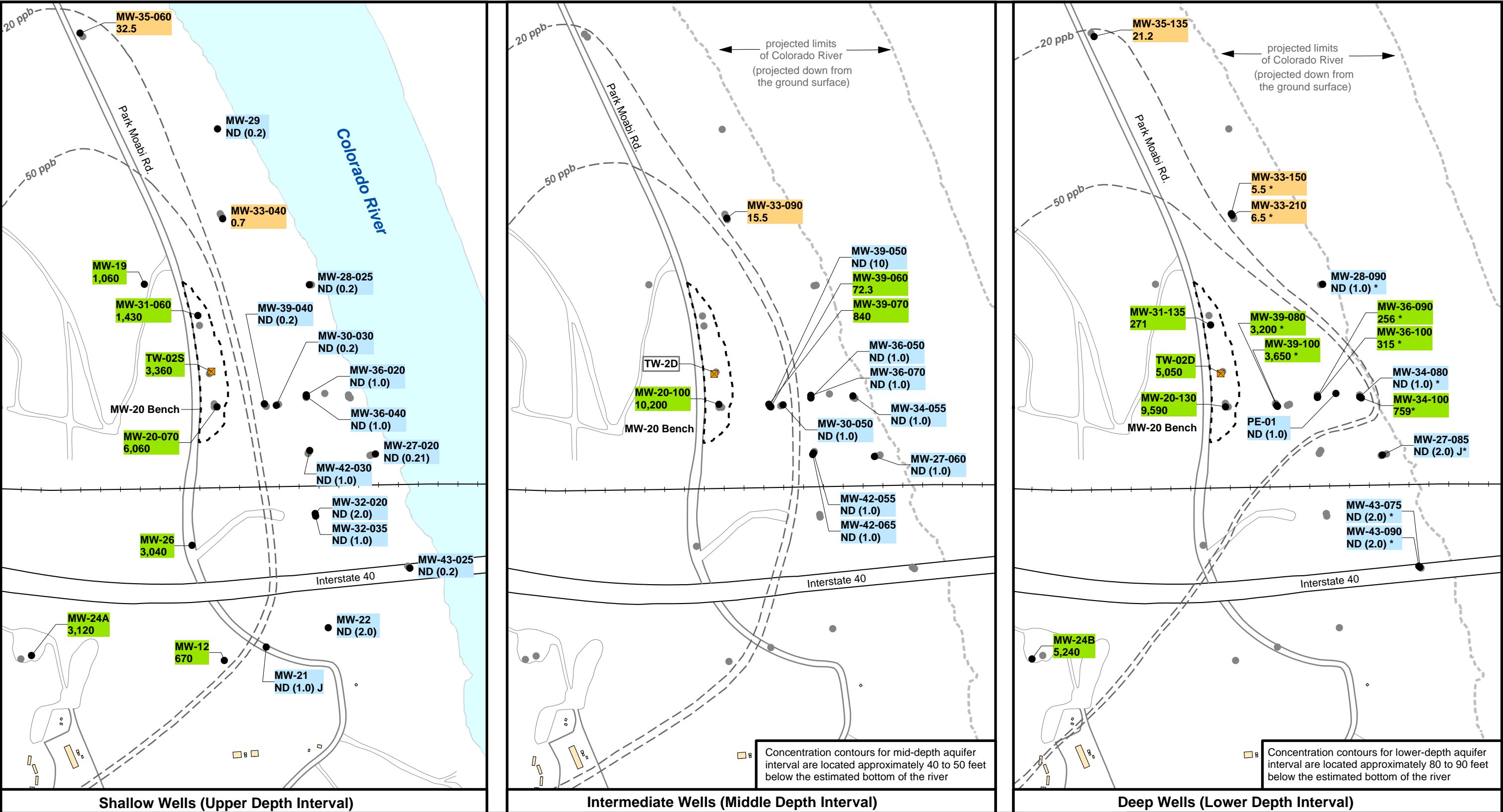
-  PG&E Property Line
-  Existing IM Extraction Well
-  Existing IM Injection Well

FIGURE 1-1
LOCATIONS OF IM-3 GROUNDWATER
EXTRACTION, CONVEYANCE, AND
TREATMENT FACILITIES

INTERIM MEASURES NO. 3
 PACIFIC GAS AND ELECTRIC COMPANY
 TOPOCK COMPRESSOR STATION





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

Notes:

Results marked * are from the November 2005 sampling event. MW-34-100 data from 11/16/05. All other results are from the October 2005 quarterly sampling event.

Results plotted are from primary samples for monitoring event. See tables B-1 and B-2 for data and dates of sampling.

Hexavalent Chromium Concentrations in Groundwater

November 2005 Sampling Event

Concentrations in micrograms per liter (µg/L)

equivalent to parts per billion (ppb)

ND = not detected at listed reporting limit.

N

0400800

Feet

1 inch equals 400 feet

FIGURE 3-1

CR(VI) CONCENTRATIONS

IN ALLUVIAL AQUIFER, NOVEMBER 2005

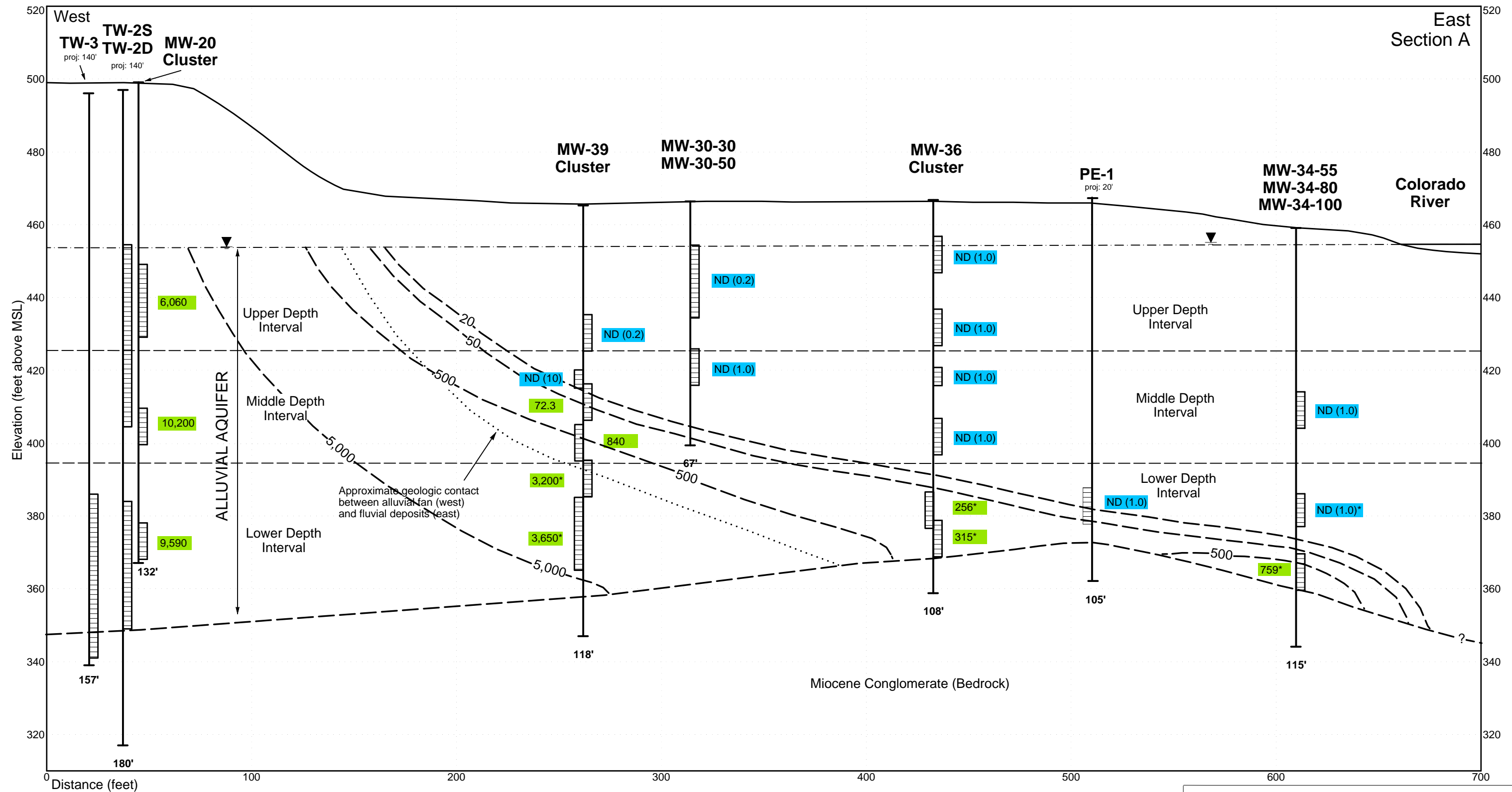
INTERIM MEASURES PERFORMANCE MONITORING

PG&E TOPOCK COMPRESSOR STATION

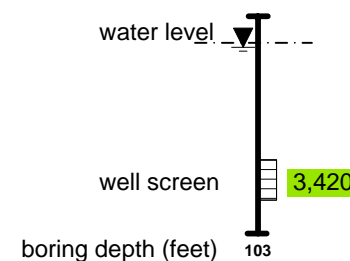
NEEDLES, CALIFORNIA

BAO \\ZINFANDEL\PROJ\PACIFICGASELECTRIC\CO\HINKLEYREMEDATIONPROJECT\GIS\MXDS\MP_MONITORINGPROGRAM\2005\PMR_CR6_CONCENTRATIONS_PPb_NOV05.MXD PMR_CR6_CONCENTRATIONS_PPb_NOV05.PDF 12/9/2005 13:24:52

CH2MHILL



Notes:
All results marked * are from the November monthly sampling event.
MW-34-100 data from 11/16/05.
All other results are from the October 2005 quarterly sampling event.
See Tables B-1 and B-2 for data and dates of sampling.



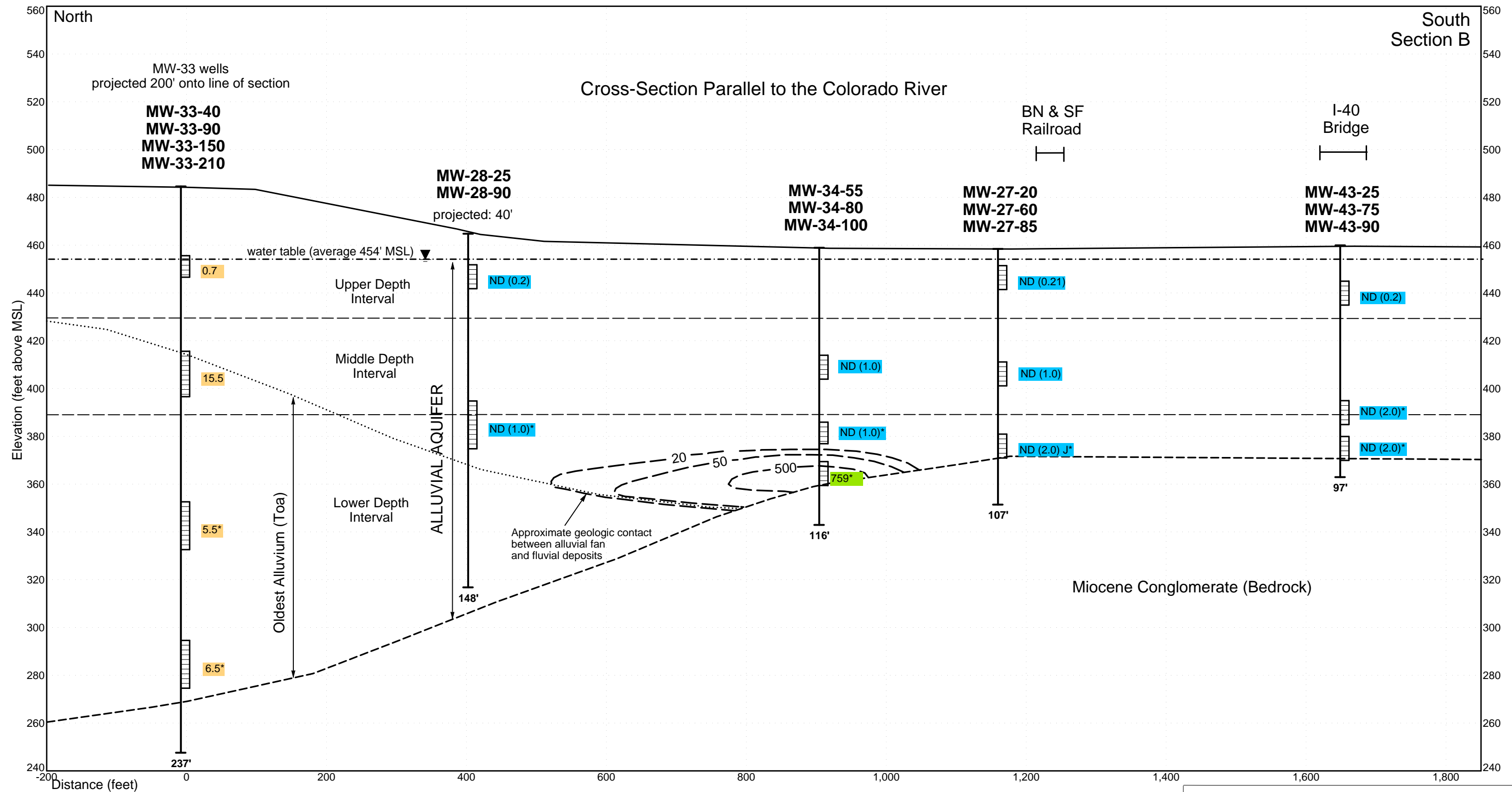
--- 50 ---
Inferred Hexavalent Chromium concentration contour

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

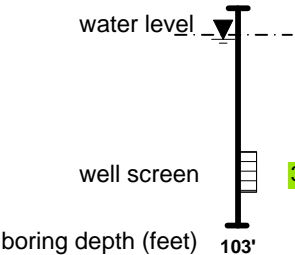
ND (1) Not detected at listed reporting limit (ppb)
42 Less than 50 ppb
3,810 Greater than 50 ppb

FIGURE 3-2
CR(VI) CONCENTRATIONS
FLOODPLAIN CROSS-SECTION A
NOVEMBER 2005

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



Notes:
 All results marked * are from the November 2005 monthly sampling event.
 MW-34-100 data from 11/16/05.
 All other results are from the October 2005 quarterly sampling event.
 See Tables B-1 and B-2 for data and dates of sampling.



--- 50 ---
 Inferred Hexavalent Chromium concentration contour

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

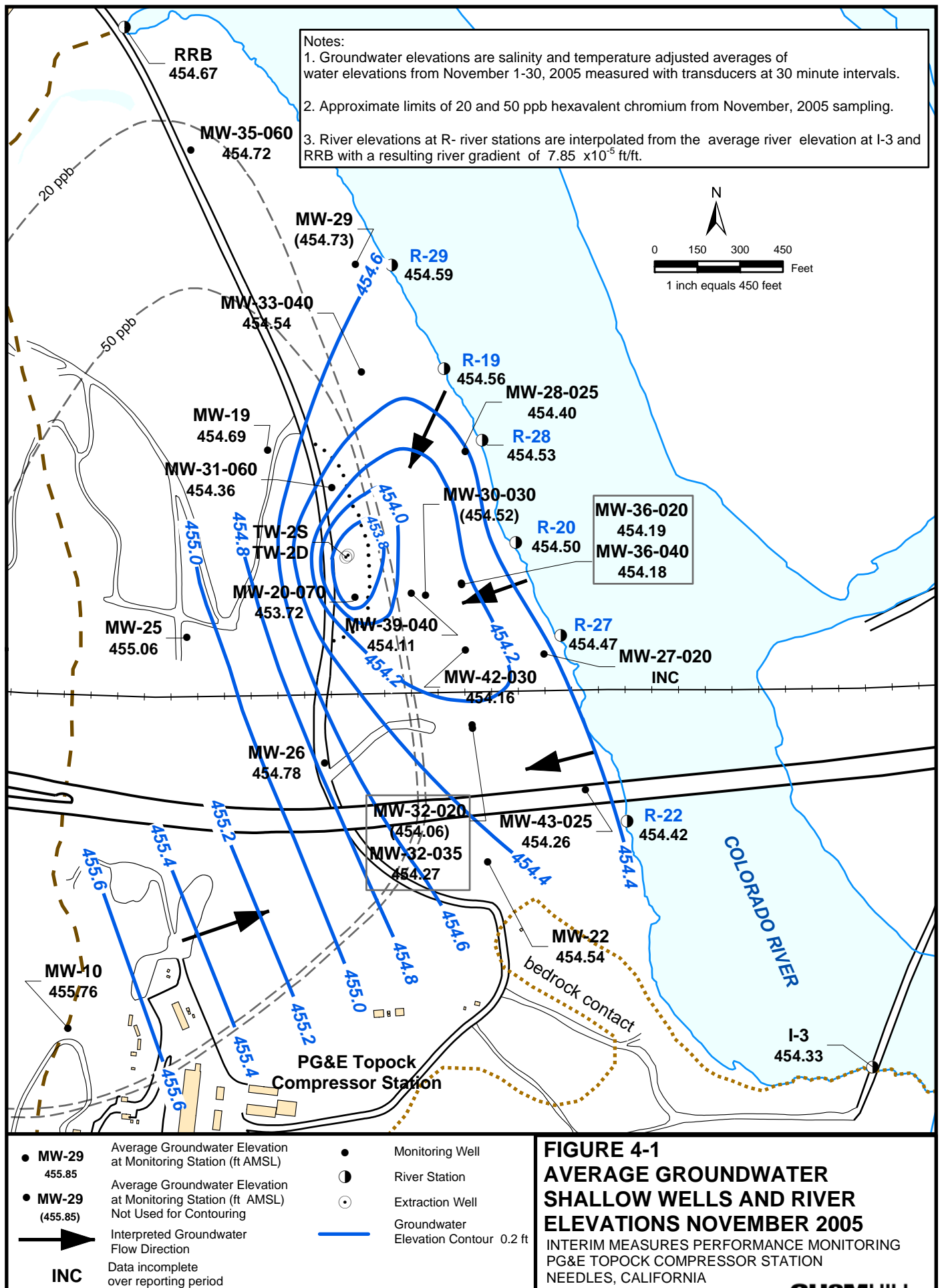
ND (1) Not detected at listed reporting limit (ppb)

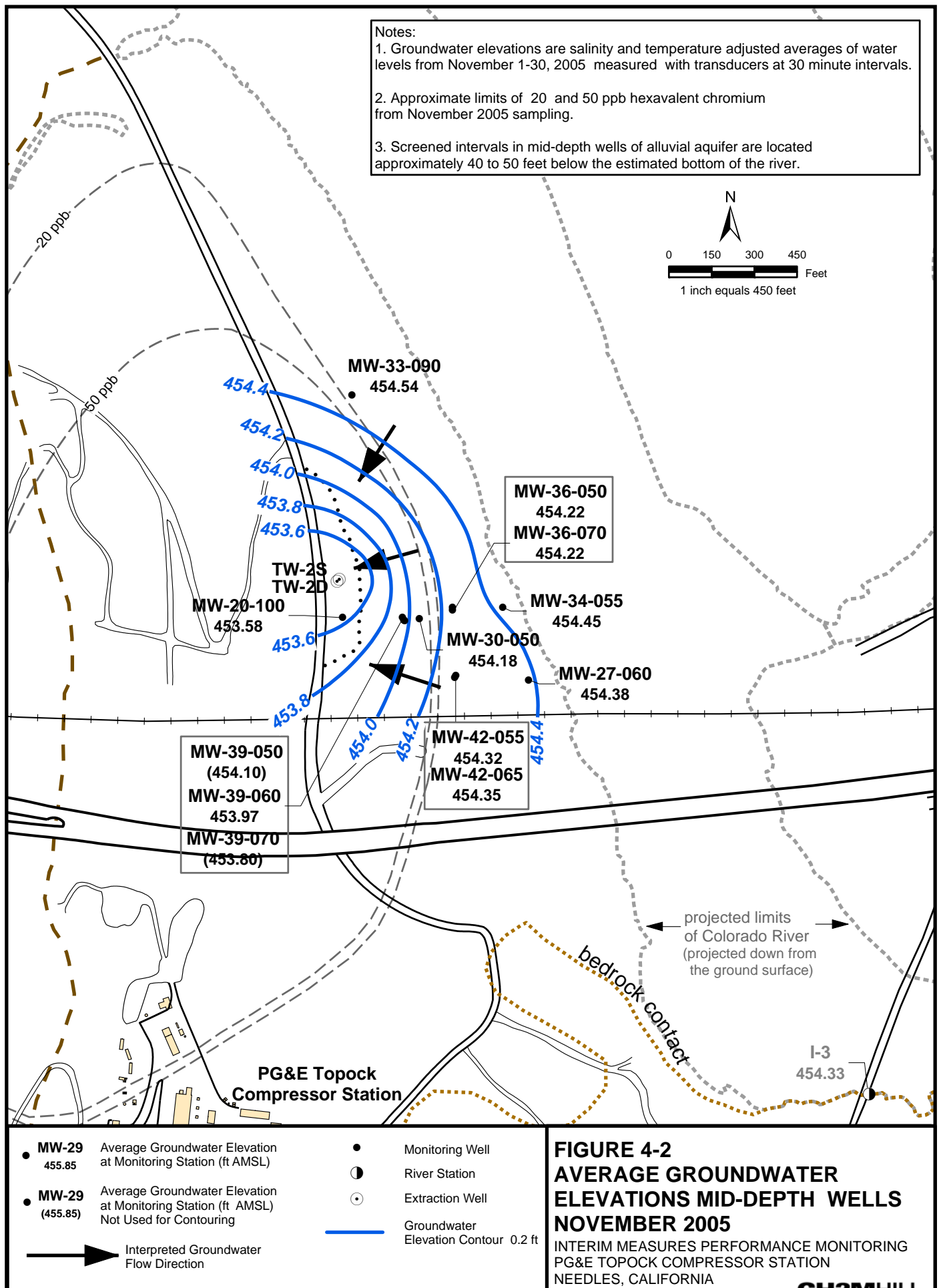
42 Less than 50 ppb

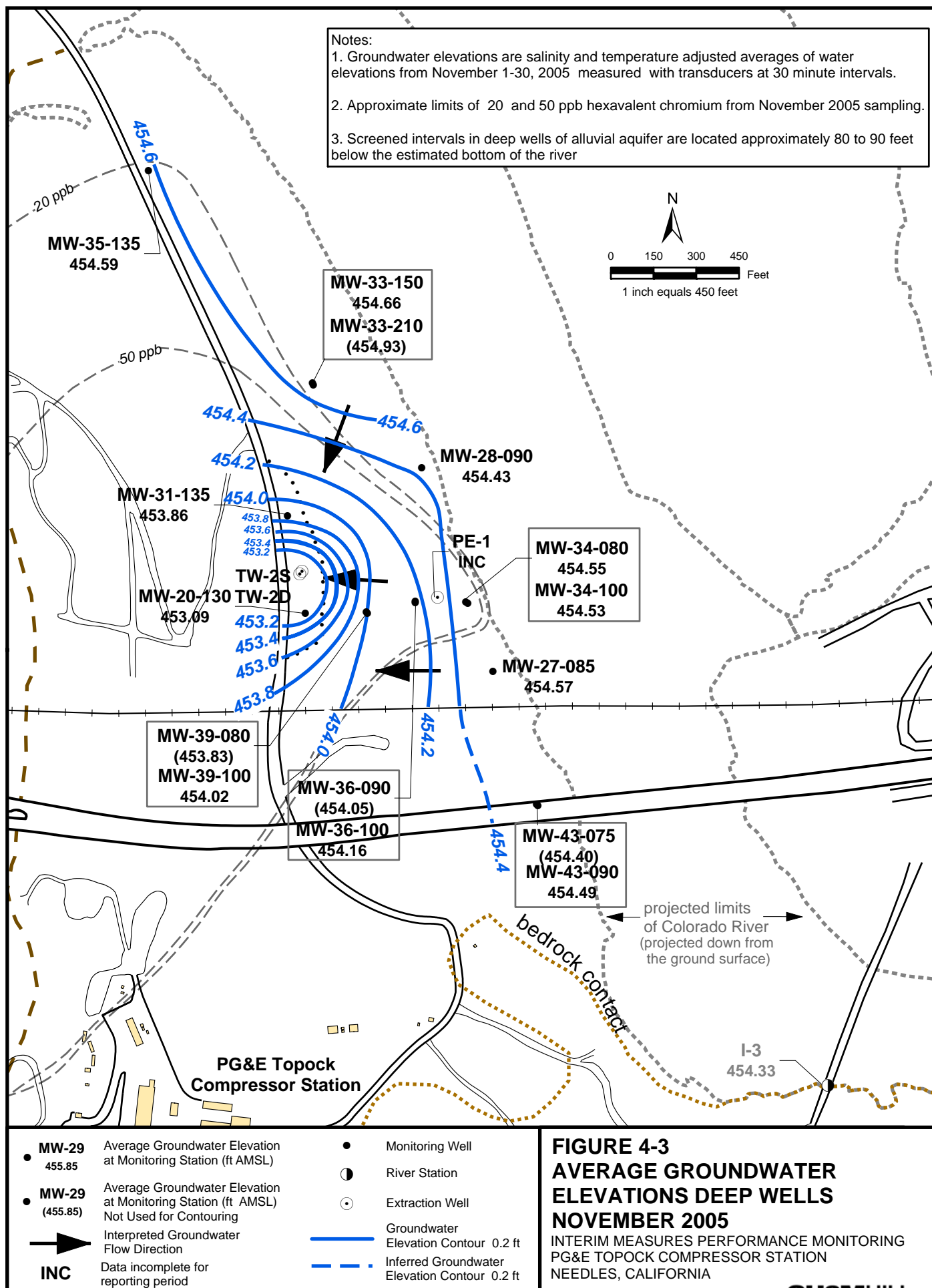
3,810 Greater than 50 ppb

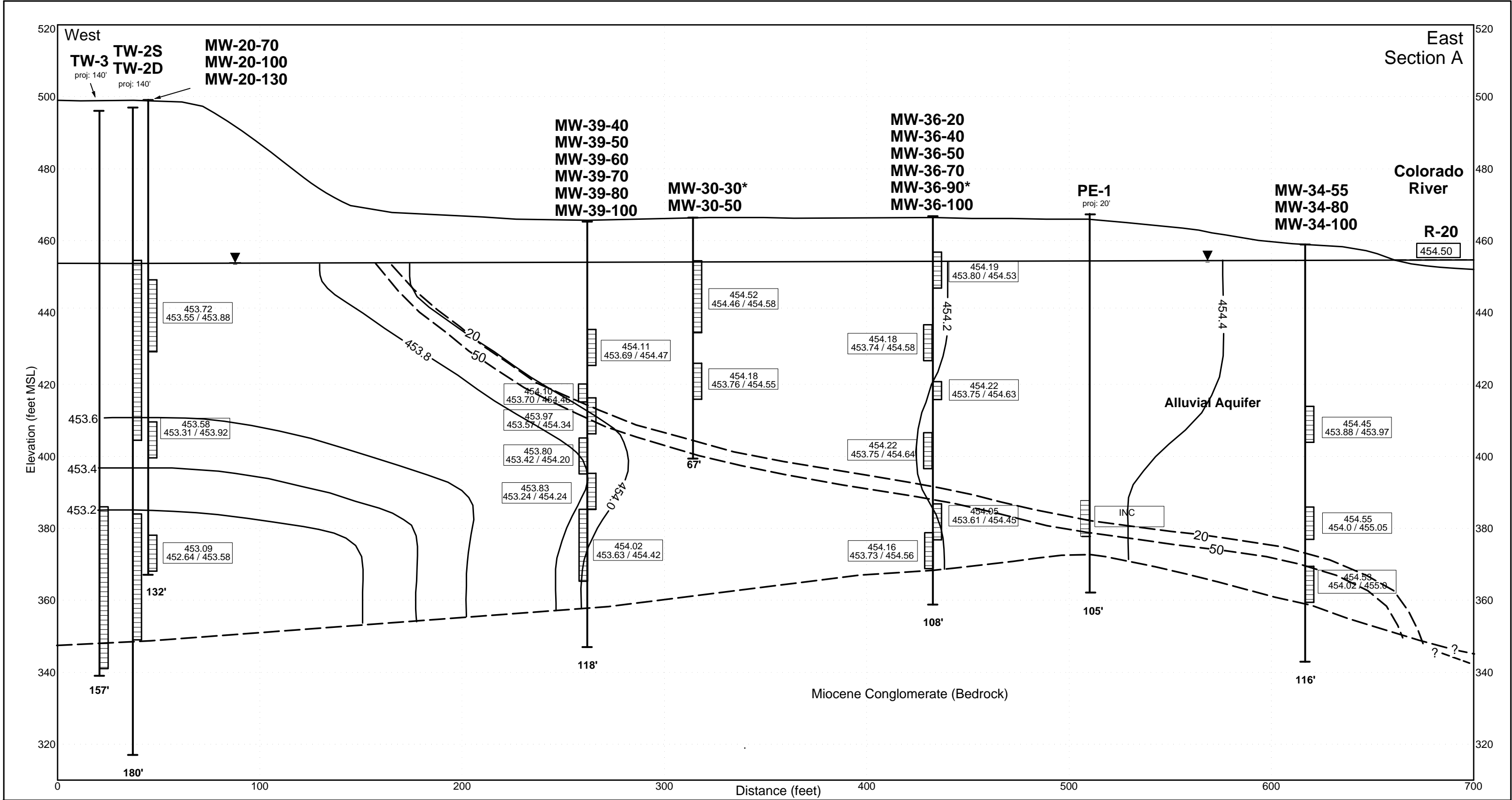
FIGURE 3-3
CR(VI) CONCENTRATIONS
FLOODPLAIN CROSS-SECTION B
NOVEMBER 2005

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









Notes:
Results show average groundwater elevations for November 1-30, 2005 measured with transducers at 30 minute intervals.
Groundwater elevations adjusted for salinity and temperature.

*Wells MW-30-30, and MW-36-90, excluded from contouring.
PE-1 data incomplete over reporting period.

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

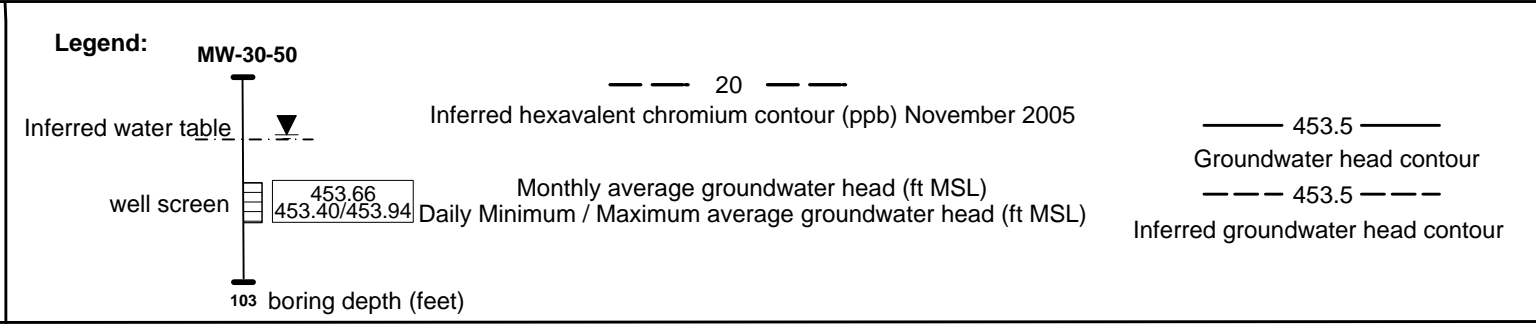


FIGURE 4-4
AVERAGE GROUNDWATER ELEVATIONS
FLOODPLAIN CROSS-SECTION A
NOVEMBER 2005
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

Appendix A
Extraction System Operations Log for
November 2005

Appendix A

Extraction System Operations Log for November 2005

PG&E Topock Interim Measures Performance Monitoring Program

During November 2005, the operational run time for the IM groundwater extraction system was 83 percent. Periods of extraction system downtime during November 2005 are summarized below. The majority of downtime was related to development and testing of newly installed extraction well TW-3D and chemical cleaning of the microfilter membranes. Multiple cleanings of the microfilter membranes were required to develop the appropriate site-specific procedure to effectively clean the membranes.

- **November 1, 2005:** Extraction well TW-2D were shut down to replace pump P-201. Extraction system downtime was 7 hours 5 minutes.
- **November 2 to 4, 2005:** Extraction well TW-2D and IM-3 treatment system were shut down to complete a chemical cleaning of the microfilter membranes and further development of extraction well TW-3D. Extraction system downtime was 48 hours 52 minutes.
- **November 5, 2005:** Extraction well TW-2D shut down to conduct a pump test from extraction well TW-3D. Extraction system downtime was 8 hours 2 minutes.
- **November 9, 2005:** Extraction well TW-2D was shut-down to remove an in-line static mixer. Extraction system downtime was 52 minutes.
- **November 11, 2005:** Extraction well TW-2D was shut-down due to power failure and transfer of operations to temporary generator power. Extraction system downtime was 29 minutes.
- **November 14 and 15, 2005:** Extraction well TW-2D and IM-3 treatment system were shut down to complete further development and testing of extraction well TW-3D. Extraction system downtime was 27 hours 1 minute.
- **November 22 to 24, 2005:** Extraction well TW-2D and IM-3 treatment system were shut down to complete a chemical cleaning of the microfilter membranes. Extraction system downtime was 32 hours.

Appendix B
Chromium Sampling Results for Monitoring
Wells in Floodplain Area

TABLE B-1

Groundwater Sampling Results for Floodplain Monitoring Wells, June 2005 through November 2005
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	18-Jul-05	ND (0.2)	ND (1.0) FF	-190	1.1	1,040	456.4	456.3
	05-Oct-05	ND (0.21)	ND (1.0) FF	-158	1.8	1,170	454.7	454.4
MW-28-025	15-Jun-05	ND (0.2)	ND (1.0)	-54	2.7	1,460	456.2	455.8
	13-Jul-05	ND (0.2)	ND (1.0) FF	19	4.9	1,690	456.6	456.4
	06-Oct-05	ND (0.2)	ND (1.0) FF	-35	2.0	1,300	454.9	454.6
MW-29	15-Jun-05	ND (0.2)	ND (1.0)	-108	3.1	6,580	456.1	456.0
	04-Oct-05	ND (0.2)	ND (1.0) FF	-110	3.2	5,240	455.1	452.9
MW-30-030	07-Oct-05	ND (0.2)	ND (1.0) FF	-146	2.5	45,000	453.7	454.2
MW-32-020	17-Jun-05	ND (1.0)	ND (1.0)	-188	2.4	15,500	455.6	455.2
	04-Oct-05	ND (2.0)	ND (1.0) J FF	-115	2.3	36,000	454.4	452.9
MW-32-035	17-Jun-05	ND (1.0)	ND (1.0)	-202	2.3	12,800	455.7	455.3
	04-Oct-05	ND (1.0)	ND (1.0) FF	-159	2.1	11,600	454.4	452.9
MW-33-040	17-Jun-05	ND (0.2)	ND (1.0)	-94	5.4	5,460	456.0	456.0
	07-Oct-05	0.68	ND (1.0) FF	---	---	---	454.9	454.1
MW-36-020	03-Oct-05	ND (1.0)	ND (1.0) FF	-165	3.0	13,000	454.3	M
MW-36-040	03-Oct-05	ND (1.0)	ND (1.0) FF	-162	3.8	10,800	454.6	M
MW-39-040	16-Jun-05	ND (0.2)	ND (1.0)	-202	2.1	9,600	456.0	455.5
	04-Oct-05	ND (0.2)	ND (1.0) FF	-203	2.9	5,640	454.5	452.9
MW-42-030	07-Oct-05	ND (1.0)	ND (1.0) FF	-139	2.9	16,700	454.6	454.7
MW-43-025	20-Jun-05	ND (0.2)	ND (1.0)	-174	1.9	1,800	456.3	455.8
	04-Oct-05	ND (0.2)	ND (1.0) FF	-159	2.0	1,220	454.6	452.9
Middle-Depth Wells								
MW-27-060	18-Jul-05	ND (1.0)	1.80 FF	-125	2.6	13,500	456.8	456.6
	05-Oct-05	ND (1.0)	ND (1.0) FF	-97	3.2	13,200	454.9	454.6
MW-30-050	07-Oct-05	ND (1.0)	ND (1.0) FF	-236	2.8	12,300	454.5	454.3
MW-33-090	01-Jun-05	17.8	14.0	-53	0.4	12,000	456.3	456.1
	01-Jun-05	FD	12.7	FD	FD	FD	FD	FD
	16-Jun-05	15.0	14.2	-209	2.1	9,500	455.9	455.2
	16-Jun-05	FD	13.4	FD	FD	FD	FD	FD
	20-Jul-05	16.1	17.3 FF	-23	0.6	8,440	456.5	456.0
	20-Jul-05	FD	17.3 FF	FD	FD	FD	FD	FD
	06-Oct-05	15.5	13.0 FF	-33	1.9	9,210	454.7	454.0
MW-34-055	15-Jul-05	ND (1.0)	ND (1.3) FF	-77	3.6	9,180	457.1	456.9
	05-Oct-05	ND (1.0)	ND (1.0) FF	-93	1.7	8,610	454.2	453.5
MW-36-050	03-Oct-05	ND (1.0)	ND (1.0) FF	-133	2.9	7,500	454.6	M
MW-36-070	03-Oct-05	ND (1.0)	ND (1.0) FF	-112	2.5	7,680	454.5	M
MW-39-050	16-Jun-05	66.2	55.4	-44	2.0	15,200	456.0	454.8
	04-Oct-05	ND (10)	4.70 FF	-78	2.6	13,600	454.2	452.9
MW-39-060	16-Jun-05	213	198	19	1.9	17,600	456.1	454.9

Refer to table footnotes for data qualifier explanation.

TABLE B-1

Groundwater Sampling Results for Floodplain Monitoring Wells, June 2005 through November 2005
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-39-060	04-Oct-05	72.3	79.6 J FF	-20	2.2	14,100	454.0	452.9
MW-39-070	16-Jun-05	799	576	22	1.8	16,000	456.1	455.2
	04-Oct-05	840	754 FF	31	2.7	13,800	454.0	452.9
MW-42-055	07-Oct-05	ND (1.0)	ND (1.0) FF	-126	5.6	18,100	454.8	454.7
MW-42-065	07-Oct-05	ND (1.0)	ND (1.0) FF	-121	2.8	17,300	454.9	455.0
Deep Wells								
MW-27-085	02-Jun-05	ND (1.0)	ND (1.0)	-100	0.9	19,500	456.2	455.5
	19-Jul-05	ND (1.0)	3.00 FF	-106	0.9	19,100	457.0	457.3
	16-Aug-05	ND (1.0)	ND (2.6) FF	-156	1.3	13,700	455.5	455.8
	08-Sep-05	ND (1.0)	ND (1.0) FF	-158	1.7	20,500	455.3	M
	05-Oct-05	ND (1.0)	ND (1.0) FF	-82	2.1	18,100	454.8	454.5
	03-Nov-05	ND (2.0) J	ND (1.0) FF	-150	1.1	23,100	454.5	454.2
MW-28-090	02-Jun-05	ND (1.0)	ND (1.0)	-141	1.0	---	456.2	456.0
	15-Jun-05	ND (1.0)	ND (1.0)	-205	2.5	9,410	455.8	455.4
	01-Jul-05	ND (1.0)	ND (1.0)	-174	1.8	12,700	456.4	456.1
	13-Jul-05	ND (1.0)	ND (1.0) FF	-142	4.3	8,850	456.3	456.0
	18-Aug-05	ND (1.0)	1.10 FF	-178	1.1	9,740	455.9	455.9
	09-Sep-05	ND (1.0)	ND (1.0) FF	-190	1.7	8,190	455.6	M
	06-Oct-05	ND (1.0)	ND (1.0) FF	-138	2.0	9,070	454.9	454.7
	02-Nov-05	ND (1.0)	ND (1.0) FF	-183	1.4	9,720	454.0	453.8
MW-33-150	17-Jun-05	3.10 J	6.40	-172	3.0	18,300	456.3	456.0
	20-Jul-05	5.20	5.60 FF	-59	0.7	16,100	456.5	456.6
	17-Aug-05	4.00	6.10 FF	-72	1.3	17,000	455.6	455.3
	09-Sep-05	3.90	2.80 FF	-108	1.7	17,000	455.7	M
	06-Oct-05	4.50	3.90 FF	-41	2.0	15,800	454.6	453.5
	06-Oct-05 FD	5.30	4.90 FF	FD	FD	FD	FD	FD
	02-Nov-05	5.50	4.70 FF	-81	1.4	20,800	454.4	453.8
MW-33-210	16-Jun-05	5.10 J	1.70 J	-216	2.0	22,400	456.2	454.9
	20-Jul-05	5.60	6.70 FF	-40	0.8	19,200	456.7	456.9
	17-Aug-05	2.50	8.00 FF	-88	1.2	19,900	456.0	455.5
	06-Sep-05	3.50	2.90 FF	-109	1.7	22,600	455.7	M
	06-Oct-05	4.00	4.20 FF	-30	1.8	18,800	454.8	453.8
	02-Nov-05	6.50	5.40 FF	-73	1.4	24,900	454.7	453.9
MW-34-080	01-Jun-05	ND (1.0)	ND (1.0)	-117	0.4	17,800	456.2	455.4
	30-Jun-05	ND (1.0)	ND (1.0)	-61	1.6	18,300	456.0	454.6
	14-Jul-05	ND (1.0)	2.00 FF	-104	1.2	17,900	456.9	455.9
	15-Aug-05	ND (1.0)	2.40 FF	-137	1.5	14,600	455.4	454.7
	07-Sep-05	ND (1.0)	ND (1.0) FF	-148	1.5	17,100	455.9	M
	05-Oct-05	ND (1.0)	ND (1.0) FF	-58	2.2	13,800	454.4	453.1
	03-Nov-05	ND (1.0)	ND (1.0) FF	-117	1.1	16,300	454.9	454.4
MW-34-100	01-Jun-05	527	609	-59	0.4	20,000	456.0	455.1
	08-Jun-05	552	583	-15	2.3	20,300	456.7	456.3

Refer to table footnotes for data qualifier explanation.

TABLE B-1

Groundwater Sampling Results for Floodplain Monitoring Wells, June 2005 through November 2005
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-34-100	21-Jun-05	560	477	-26	1.9	20,500	456.3	455.4
	21-Jun-05 FD	578	480	FD	FD	FD	FD	FD
	07-Jul-05	583	639	-88	3.8	18,800	456.5	455.7
	14-Jul-05	617	701 FF	-26	1.9	20,200	456.9	456.6
	27-Jul-05	597	504 FF	-2	1.1	17,800	456.1	456.5
	10-Aug-05	574	589 FF	-83	1.4	19,700	455.7	455.5
	10-Aug-05 FD	571	597 FF	FD	FD	FD	FD	FD
	15-Aug-05	633	660 FF	-17	1.2	16,600	455.3	455.0
	31-Aug-05	649	693 FF	-42	1.9	16,900	455.7	455.4
	31-Aug-05 FD	658	604 FF	FD	FD	FD	FD	FD
	07-Sep-05	673	868 FF	-60	1.5	19,500	455.5	M
	20-Sep-05	675	891 FF	-28	2.0	14,000	455.9	M
	05-Oct-05	732	732 FF	-13	1.9	15,900	454.6	453.8
	05-Oct-05 FD	708	703 FF	FD	FD	FD	FD	FD
	25-Oct-05	752	628 FF	-29	1.4	20,100	454.2	453.7
	25-Oct-05 FD	752	650 FF	FD	FD	FD	FD	FD
	03-Nov-05	748 J	897 FF	-49	1.1	19,900	454.8	454.3
	16-Nov-05	759	762 FF	-2	4.6	16,100	---	M
	16-Nov-05 FD	763	725 FF	FD	FD	FD	FD	FD
	30-Nov-05	791	797 FF	-55	2.6	19,900	454.3	454.0
	30-Nov-05 FD	802	721 FF	FD	FD	FD	FD	FD
MW-36-090	25-Jul-05	344	343 FF	129	1.1	18,400	455.8	455.7
	17-Aug-05	346	336 FF	152	1.3	16,600	455.3	455.7
	08-Sep-05	267	301 FF	49	1.6	17,500	455.3	M
	03-Oct-05	302	286 FF	174	3.4	12,700	460.7	M
	02-Nov-05	256	247 FF	69	1.4	19,300	453.8	454.0
MW-36-100	02-Jun-05	518	441	23	2.5	18,800	456.0	455.8
	19-Jul-05	398	635 FF	17	1.0	17,700	456.4	456.6
	15-Aug-05	391	410 FF	-15	1.6	16,800	455.2	454.6
	15-Aug-05 FD	390	392 FF	FD	FD	FD	FD	FD
	08-Sep-05	396 J	380 FF	21	1.7	18,300	455.4	M
	08-Sep-05 FD	397	454 FF	FD	FD	FD	FD	FD
	05-Oct-05	383	370 FF	4	2.8	16,500	454.7	454.2
	03-Nov-05	315	368 FF	-19	1.3	21,100	454.6	454.0
MW-39-080	16-Jun-05	2220	1930	52	2.0	16,800	456.2	454.6
	25-Jul-05	2060	1990 FF	169	1.2	17,400	455.6	456.1
	17-Aug-05	2370	2460 FF	164	1.3	15,600	454.9	455.8
	06-Sep-05	2990	4880 FF	149	2.0	17,700	454.8	M
	04-Oct-05	3000	2770 FF	76	2.7	15,900	454.0	452.9
	02-Nov-05	3200	3020 FF	148	1.4	17,600	453.7	454.4
MW-39-100	17-Jun-05	6980	6030	14	2.8	19,200	455.0	455.6
	19-Jul-05	5500	5490 FF	80	1.3	18,400	456.2	457.0
	19-Jul-05 FD	5450	5450 FF	FD	FD	FD	FD	FD
	17-Aug-05	4230	4050 FF	170	1.5	18,600	455.3	455.9

Refer to table footnotes for data qualifier explanation.

TABLE B-1

Groundwater Sampling Results for Floodplain Monitoring Wells, June 2005 through November 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

		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-39-100	06-Sep-05	4540	6480 FF	134	2.2	21,000	455.1	M
	04-Oct-05	4010	3950 FF	73	2.3	15,900	453.7	452.9
	02-Nov-05	3580	3480 FF	168	1.7	23,000	453.9	454.6
	02-Nov-05 FD	3650	3410 FF	FD	FD	FD	FD	FD
MW-43-075	20-Jun-05	ND (1.0)	ND (1.0)	-165	1.8	18,100	456.8	456.0
	26-Jul-05	ND (1.0)	ND (1.0) FF	-160	1.1	15,600	456.0	455.5
	16-Aug-05	ND (1.0)	5.40 FF	-168	1.3	13,800	455.6	455.5
	08-Sep-05	ND (1.0)	ND (1.0) FF	-176	1.7	16,400	455.0	M
	04-Oct-05	ND (1.0)	ND (1.0) J FF	-126	2.3	12,900	454.8	452.9
	03-Nov-05	ND (2.0)	ND (1.0) FF	-168	1.4	16,700	454.3	453.9
MW-43-090	20-Jun-05	ND (1.0)	ND (1.0)	-140	1.8	26,200	457.3	456.4
	20-Jun-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	26-Jul-05	ND (2.0)	ND (1.6) FF	-129	2.1	23,800	456.9	456.0
	16-Aug-05	ND (2.0)	ND (5.2) FF	-136	1.3	19,400	455.7	455.3
	08-Sep-05	ND (1.0)	ND (1.0) FF	-152	1.7	23,100	455.3	M
	04-Oct-05	ND (1.0)	ND (1.0) FF	-78	4.8	18,400	454.9	452.9
	03-Nov-05	ND (2.0)	ND (1.0) FF	-127	1.1	27,700	454.3	453.8

NOTES:

ND = not detected at listed reporting limit (RL)

FD = field duplicate

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, or field instrumentation malfunctioned

µg/L = micrograms per liter

mV = oxidation-reduction potential (ORP)

µS/cm = microSiemens per centimeter

M = I-3 Transducer damaged

FF = 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 pressure transducer record at I-3.

Refer to table footnotes for data qualifier explanation.

TABLE B-2

Groundwater Sampling Results for Other Monitoring Wells in PMP Area, June 2005 through November 2005
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	13-Jun-05	852	835	60.0	6.97	4060
	16-Sep-05	698	618 FF	-37	6.58	3290
	04-Oct-05	660	644 FF	55.0	6.13	3040
	04-Oct-05 FD	670	613 FF	FD	FD	FD
MW-19	14-Jun-05	1150	1140	65.0	6.80	2170
	04-Oct-05	1060	996 FF	30.0	6.87	2150
MW-20-070	15-Jun-05	6680	6450	152	6.85	3160
	15-Jun-05 FD	7000	7080	FD	FD	FD
	11-Oct-05	6060	5930 FF	151	6.90	3330
MW-21	14-Jun-05	ND (1.0)	ND (1.0)	81.0	6.80	12000
	05-Oct-05	ND (1.0) J	ND (1.0) J FF	-149	2.42	11400
MW-22	17-Jun-05	ND (1.0)	ND (1.0)	-57	3.23	33700
	04-Oct-05	ND (2.0)	ND (1.0) J FF	-86	2.51	35500
MW-24A	16-Jun-05	3280	2640	52.0	2.70	3470
	03-Oct-05	3120	2930 FF	157	3.26	3040
	03-Oct-05 FD	3040	2630 FF	FD	FD	FD
MW-26	13-Jun-05	3370	3140	119	9.16	3820
	04-Oct-05	3040	2990 FF	45.0	8.79	3380
MW-31-060	13-Jun-05	1790	1810	122	8.00	3060
	06-Oct-05	1430	1470 FF	54.0	6.36	2990
MW-35-060	13-Jun-05	33.6	34.1	-8.0	2.47	---
	07-Oct-05	32.5	28.0 FF	-1.0	1.90	7560
	07-Oct-05 FD	35.1 J	32.0 FF	FD	FD	FD
TW-02S	07-Oct-05	3360	3340 FF	204	8.57	3320
Middle-Depth Wells						
MW-20-100	15-Jun-05	9600	10100	136	3.44	3870
	11-Oct-05	10200	9430 FF	157	1.54	4140
Deep Wells						
MW-20-130	15-Jun-05	10800	10300	145	4.66	10600
	07-Oct-05	9590	10700 FF	53.0	2.46	12300
MW-24B	16-Jun-05	5640	5660	-4.0	2.20	13100
	03-Oct-05	5240	4930 FF	153	3.19	14000
MW-31-135	13-Jun-05	318	344	42.0	4.46	14600
	13-Jun-05 FD	318	338	FD	FD	FD
	06-Oct-05	271	251 FF	-4.0	2.02	10100
MW-35-135	13-Jun-05	17.6	17.6	-138	1.75	15000
	07-Oct-05	21.2	17.8 FF	-55	1.29	10800
PE-01	03-Oct-05	ND (1.0)	ND (1.0) FF	-202	0.77	11600

TABLE B-2

Groundwater Sampling Results for Other Monitoring Wells in PMP Area, June 2005 through November 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

NOTES:

Analytical results are validated.

ND = not detected at listed reporting limit (RL)

FD = field duplicate

J = concentration or RL estimated by laboratory or data validation

(---) = 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

FF = 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.

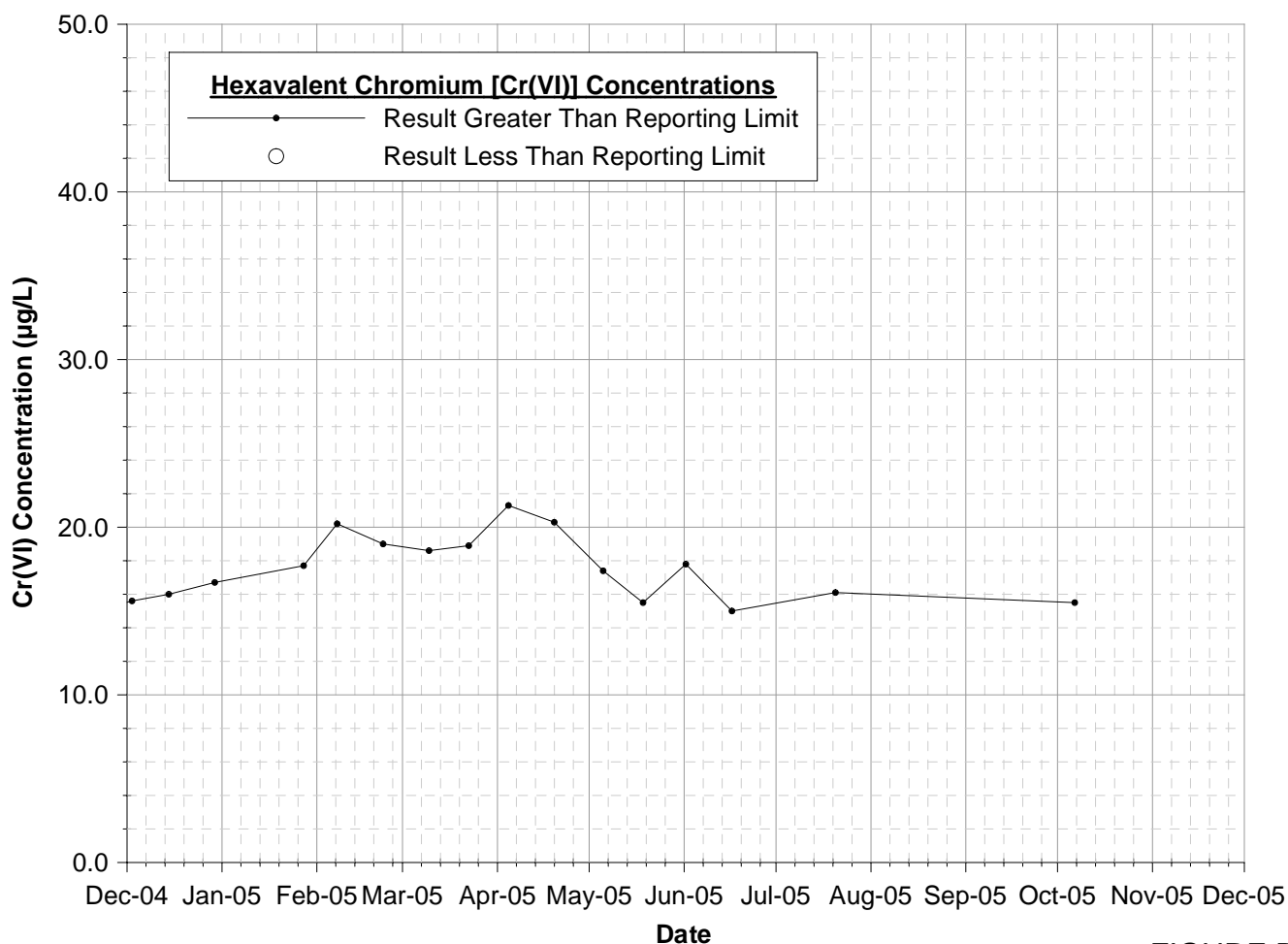
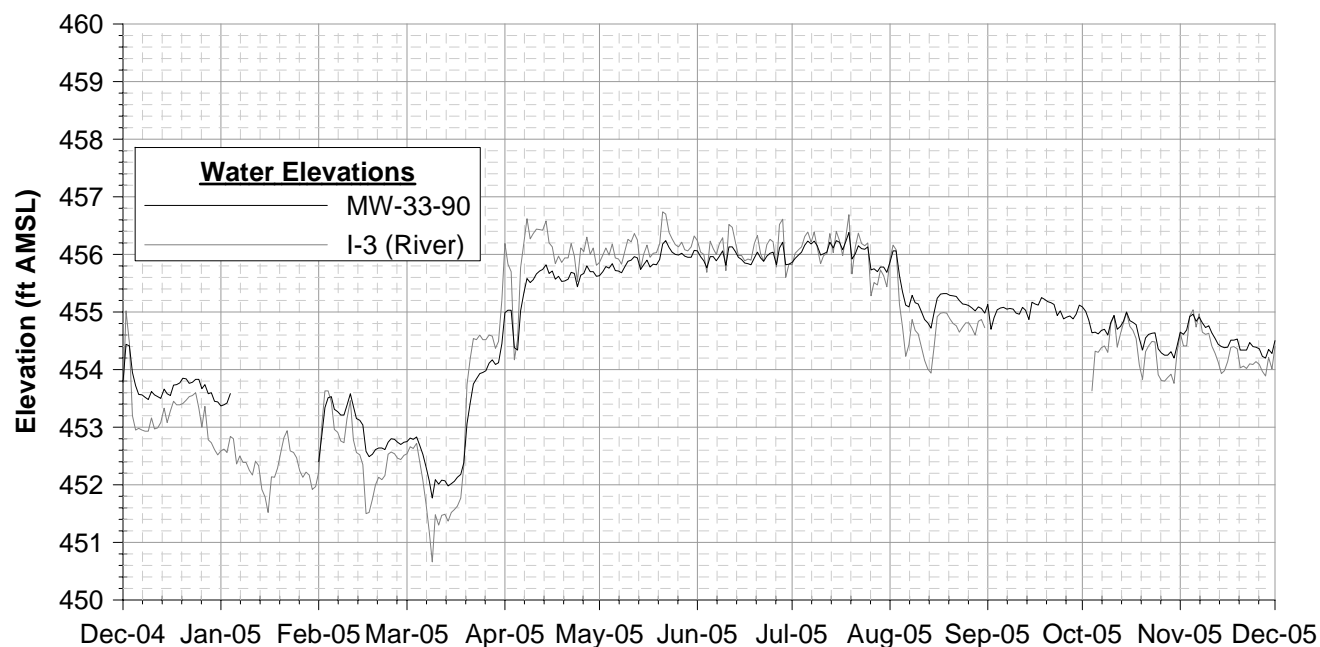


FIGURE B-1
MW-33-90 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 10/06/05
 INTERIM MEASURES PERFORMANCE MONITORING
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

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 from primary samples; see Table B-1 for complete results.
 4. I-3 data unavailable 9/1/05 through 10/4/05 due to river damage.

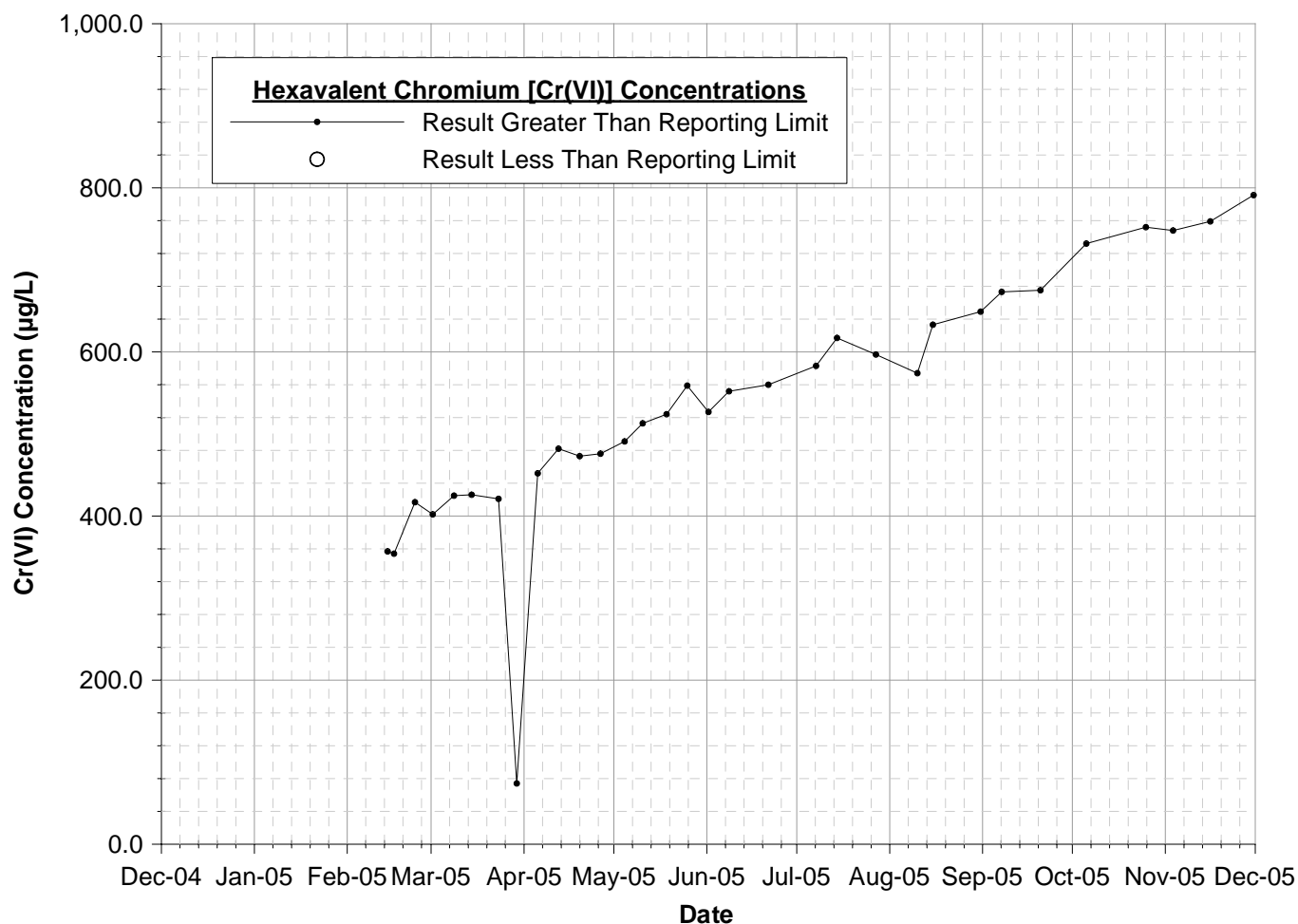
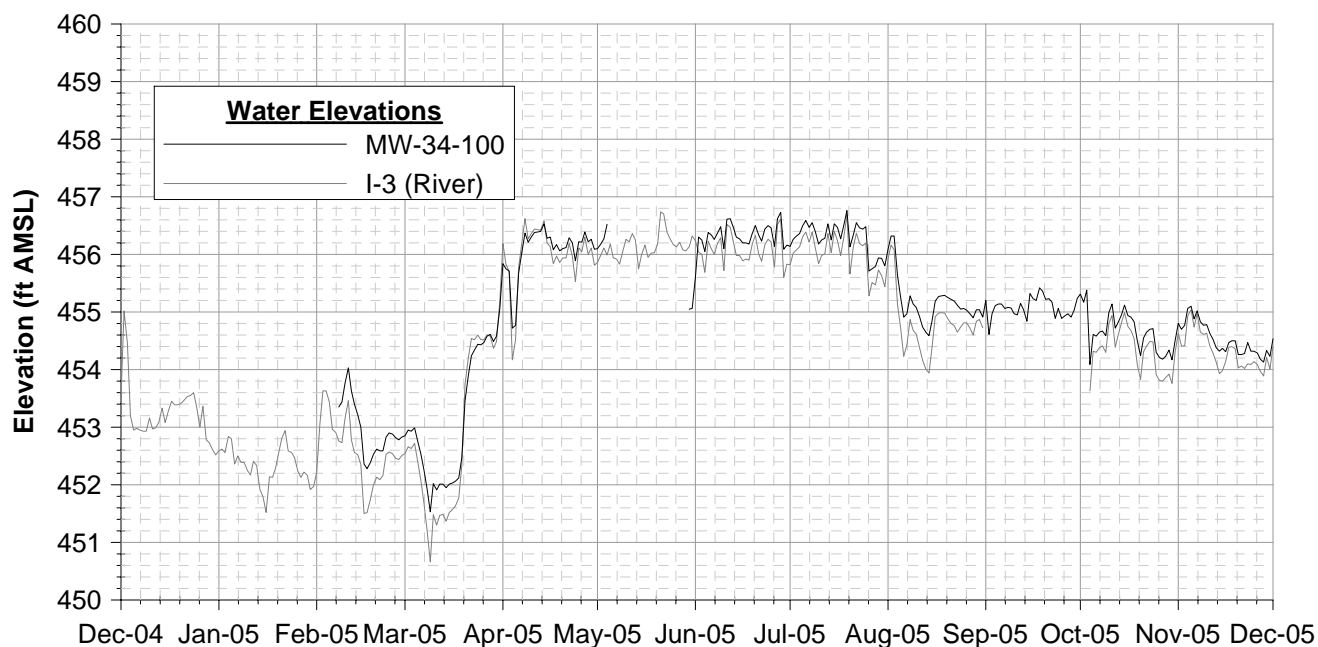


FIGURE B-2
MW-34-100 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 11/30/05
 INTERIM MEASURES PERFORMANCE MONITORING
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

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 from primary samples; see Table B-1 for complete results.
5. I-3 data unavailable 9/1/05 through 10/4/05 due to river damage.

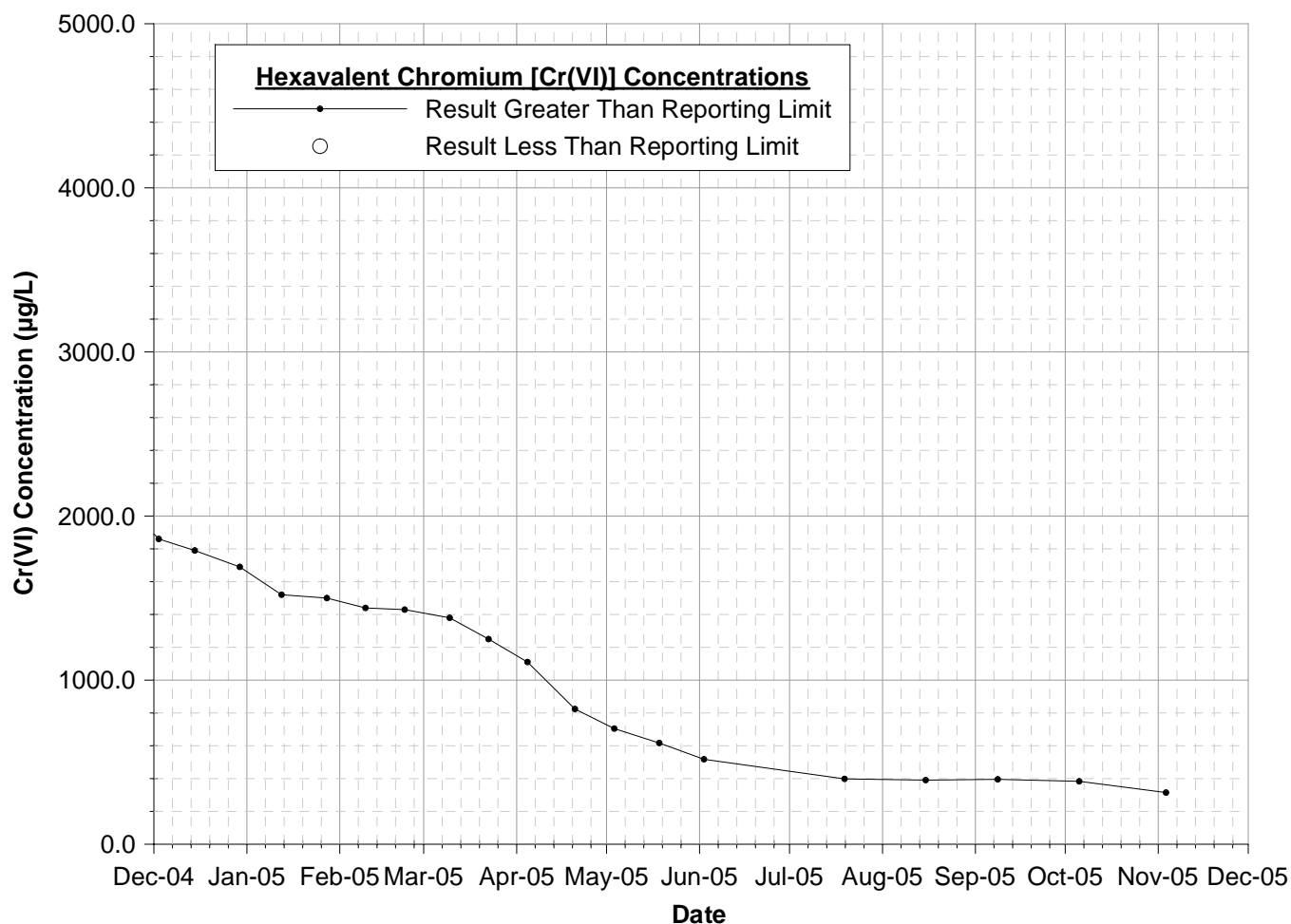
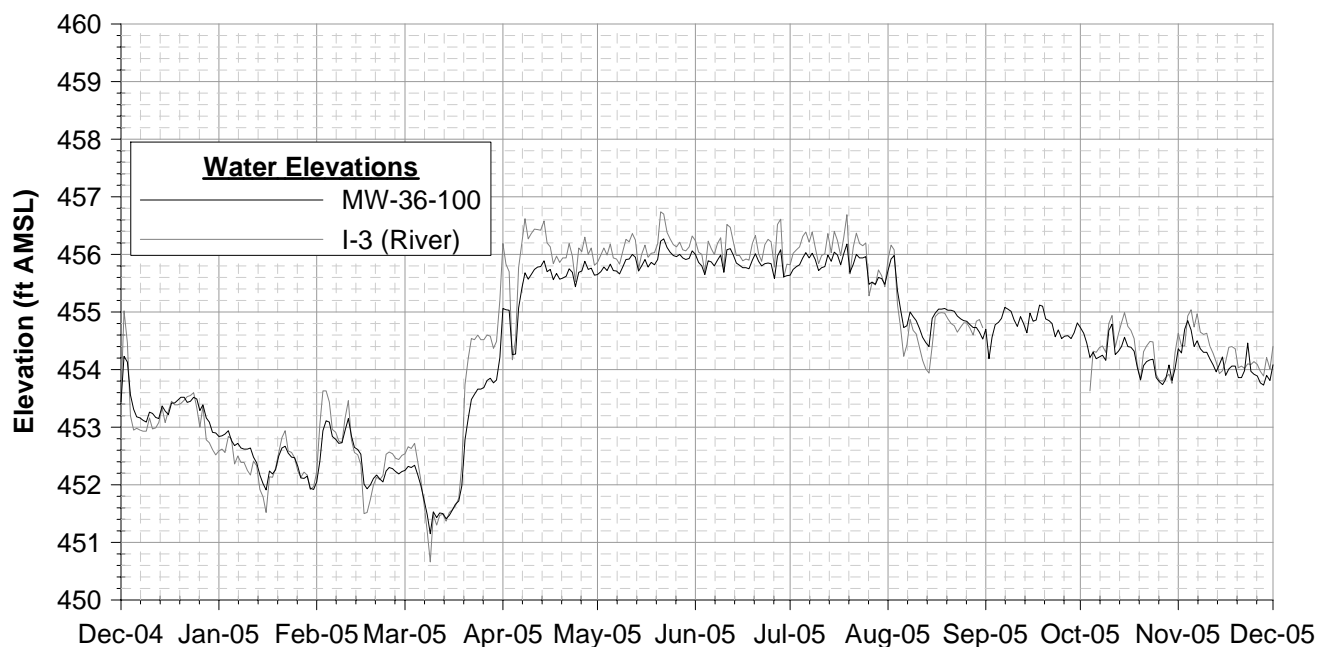


FIGURE B-3
MW-36-100 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 11/03/05
 INTERIM MEASURES PERFORMANCE MONITORING
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

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 from primary samples; see Table B-1 for complete results.
4. I-3 data unavailable 9/1/05 through 10/4/05 due to river damage.

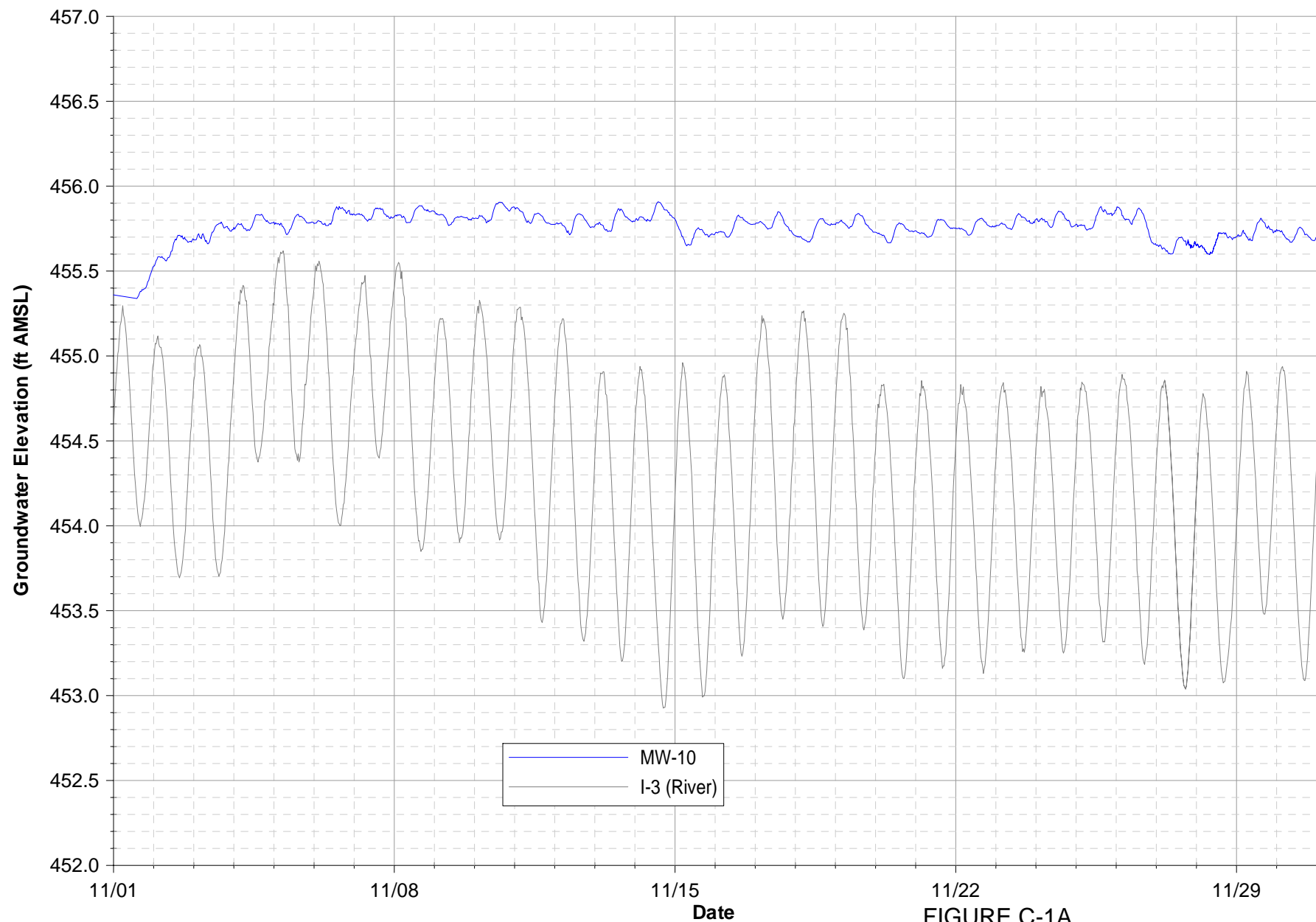
Appendix C
Hydraulic Monitoring Data for Reporting Period

TABLE C-1

Monthly Average, Minimum, and Maximum Groundwater Elevations, November 2005
Interim Measures Performance Monitoring
PG&E Topock Compressor Station

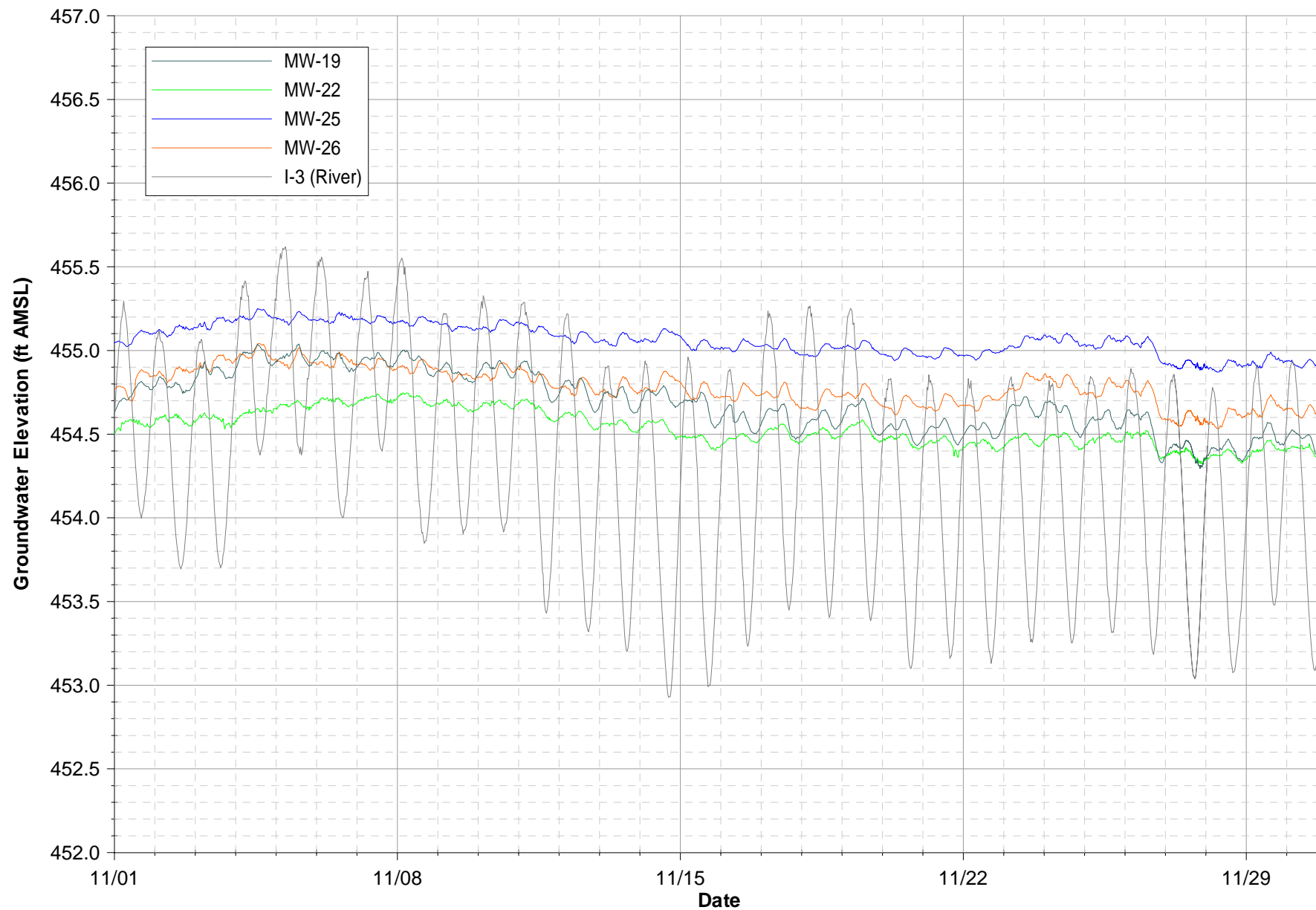
Well	Average (ft AMSL)	Minimum (ft AMSL)	Maximum (ft AMSL)	Aquifer Depth
I-3	454.33	453.49	455.10	River Station
RRB	454.67	453.79	455.48	River Station
MW-10	455.76	455.70	455.82	Upper
MW-19	454.69	454.60	454.76	Upper
MW-20-070	453.72	453.55	453.88	Upper
MW-20-100	453.58	453.31	453.92	Upper
MW-20-130	453.09	452.64	453.58	Upper
MW-22	454.54	454.48	454.58	Upper
MW-25	455.06	455.02	455.10	Upper
MW-26	454.78	454.72	454.84	Upper
MW-27-020	INC	INC	INC	Upper
MW-27-060	454.38	453.92	454.80	Upper
MW-27-085	454.57	454.13	454.99	Upper
MW-28-025	454.40	454.02	454.75	Upper
MW-28-090	454.43	453.86	454.95	Upper
MW-29	454.73	454.69	454.77	Upper
MW-30-030	454.52	454.46	454.58	Upper
MW-30-050	454.18	453.76	454.55	Upper
MW-31-060	454.36	454.22	454.46	Upper
MW-31-135	453.86	453.57	454.17	Upper
MW-32-020	454.06	453.96	454.15	Upper
MW-32-035	454.27	454.02	454.49	Upper
MW-33-040	454.54	454.27	454.78	Middle
MW-33-090	454.54	454.23	454.82	Middle
MW-33-150	454.66	454.35	454.95	Middle
MW-33-210	454.93	454.67	455.18	Middle
MW-34-055	454.45	453.88	454.97	Middle
MW-34-080	454.55	454.00	455.05	Middle
MW-34-100	454.53	454.02	455.00	Middle
MW-35-060	454.72	454.49	454.93	Middle
MW-35-135	454.59	454.44	454.73	Middle
MW-36-020	454.19	453.80	454.53	Middle
MW-36-040	454.18	453.74	454.58	Middle
MW-36-050	454.22	453.75	454.63	Middle
MW-36-070	454.22	453.75	454.64	Lower
MW-36-090	454.05	453.61	454.45	Lower
MW-36-100	454.16	453.73	454.56	Lower
MW-39-040	454.11	453.69	454.47	Lower
MW-39-050	454.10	453.70	454.46	Lower
MW-39-060	453.97	453.57	454.34	Lower
MW-39-070	453.80	453.42	454.20	Lower
MW-39-080	453.83	453.44	454.24	Lower
MW-39-100	454.02	453.63	454.42	Lower
MW-42-030	454.16	453.87	454.42	Lower
MW-42-055	454.32	454.01	454.60	Lower
MW-42-065	454.35	454.04	454.62	Lower
MW-43-025	454.26	453.81	454.68	Lower
MW-43-075	454.40	453.92	454.85	Lower
MW-43-090	454.49	454.01	454.94	Lower
PE-01	INC	INC	INC	Lower

Notes: INC = Incomplete for reporting period



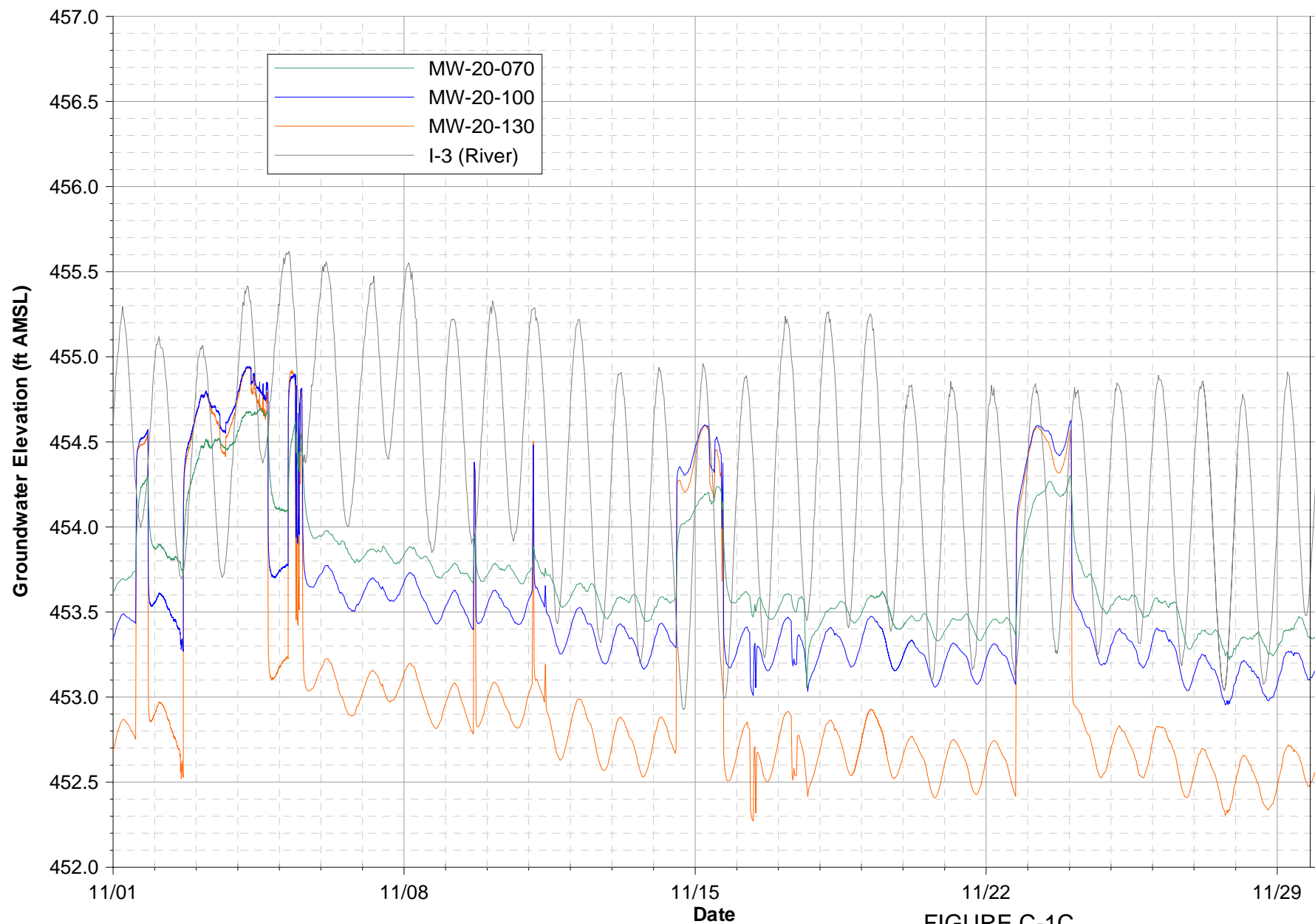
Note: Data subject to review.

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



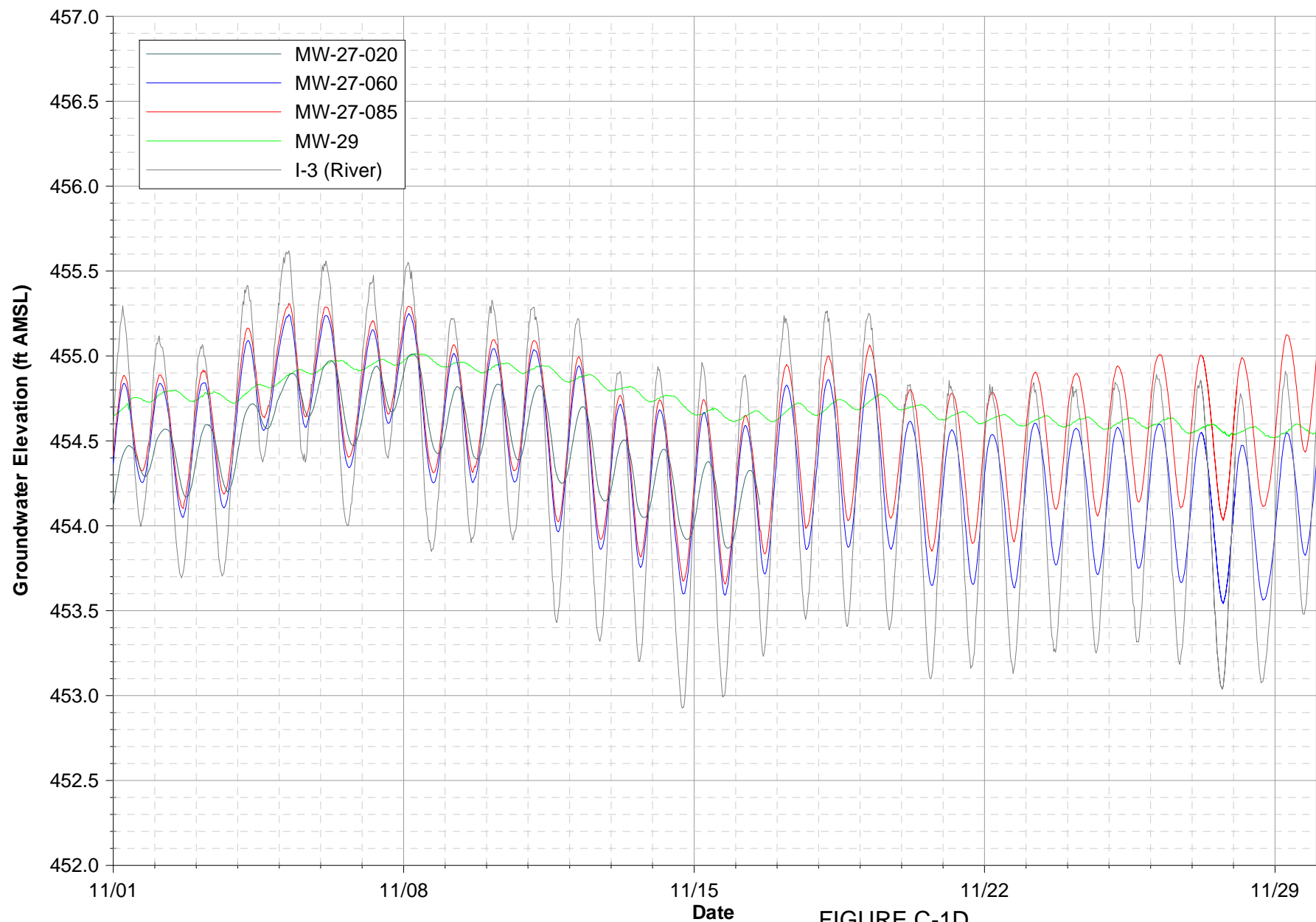
Note: Data subject to review.

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



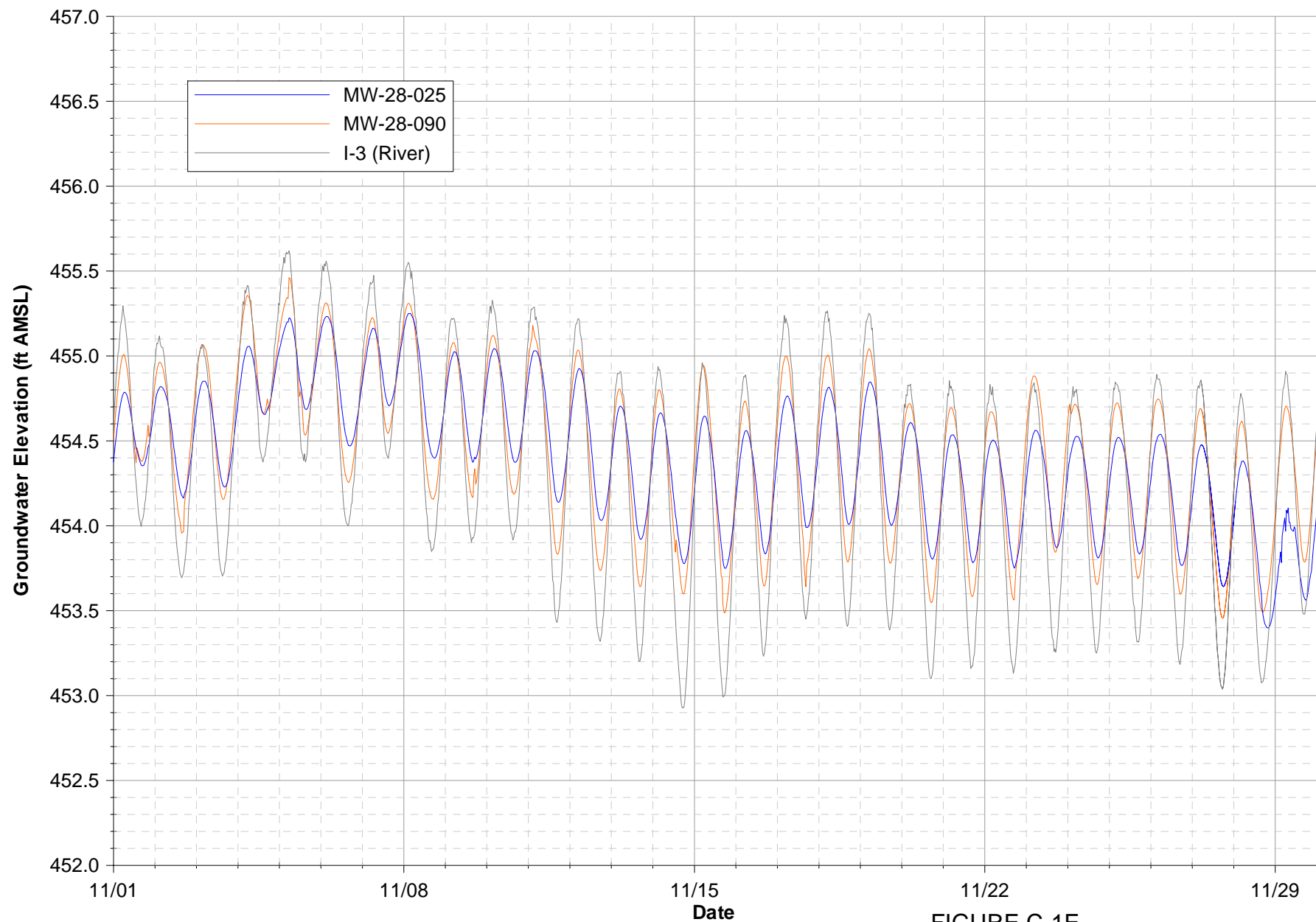
Note: Data subject to review.

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



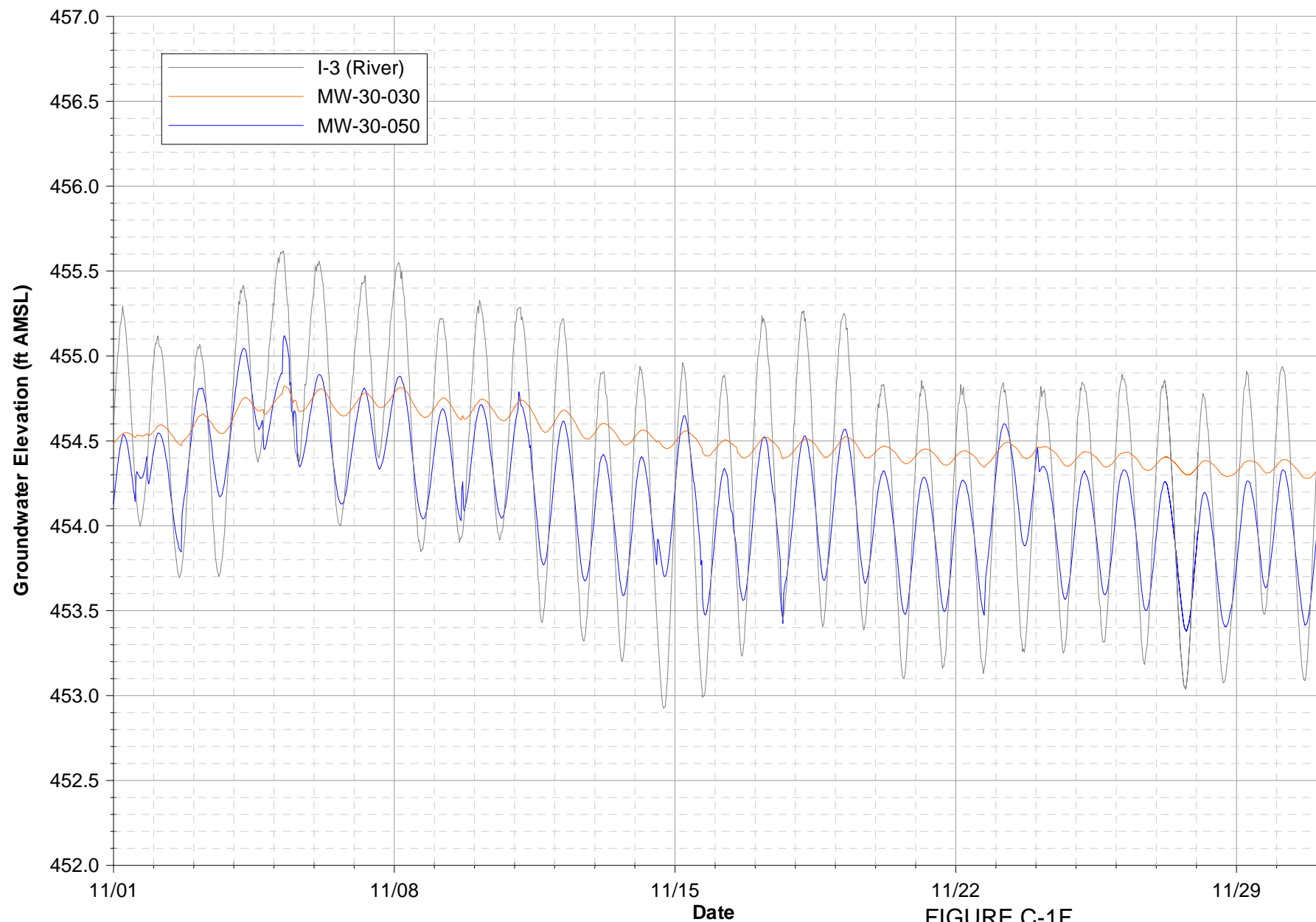
Note: Data subject to review..

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



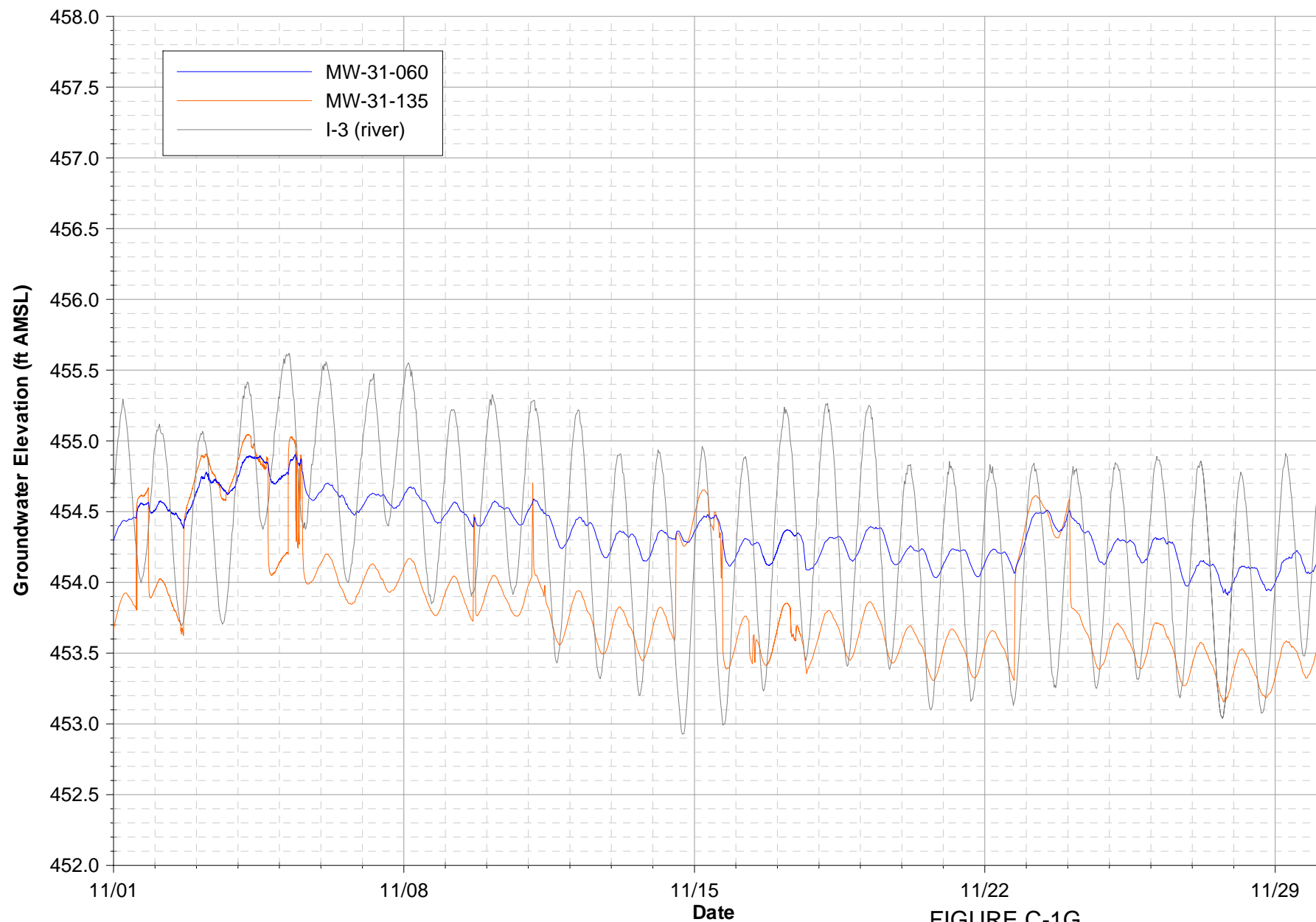
Note: Data subject to review.

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



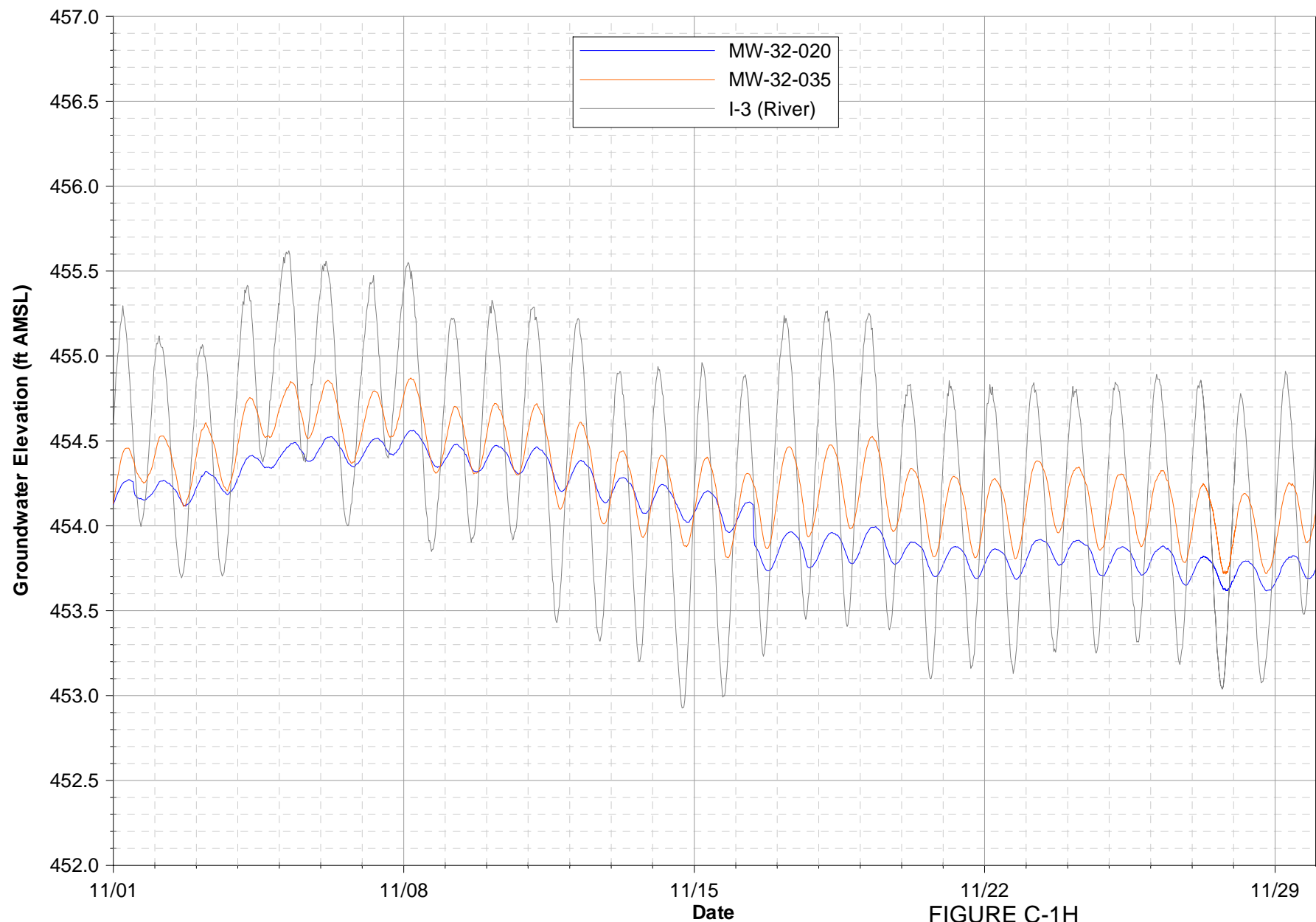
Note: Data subject to review.

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



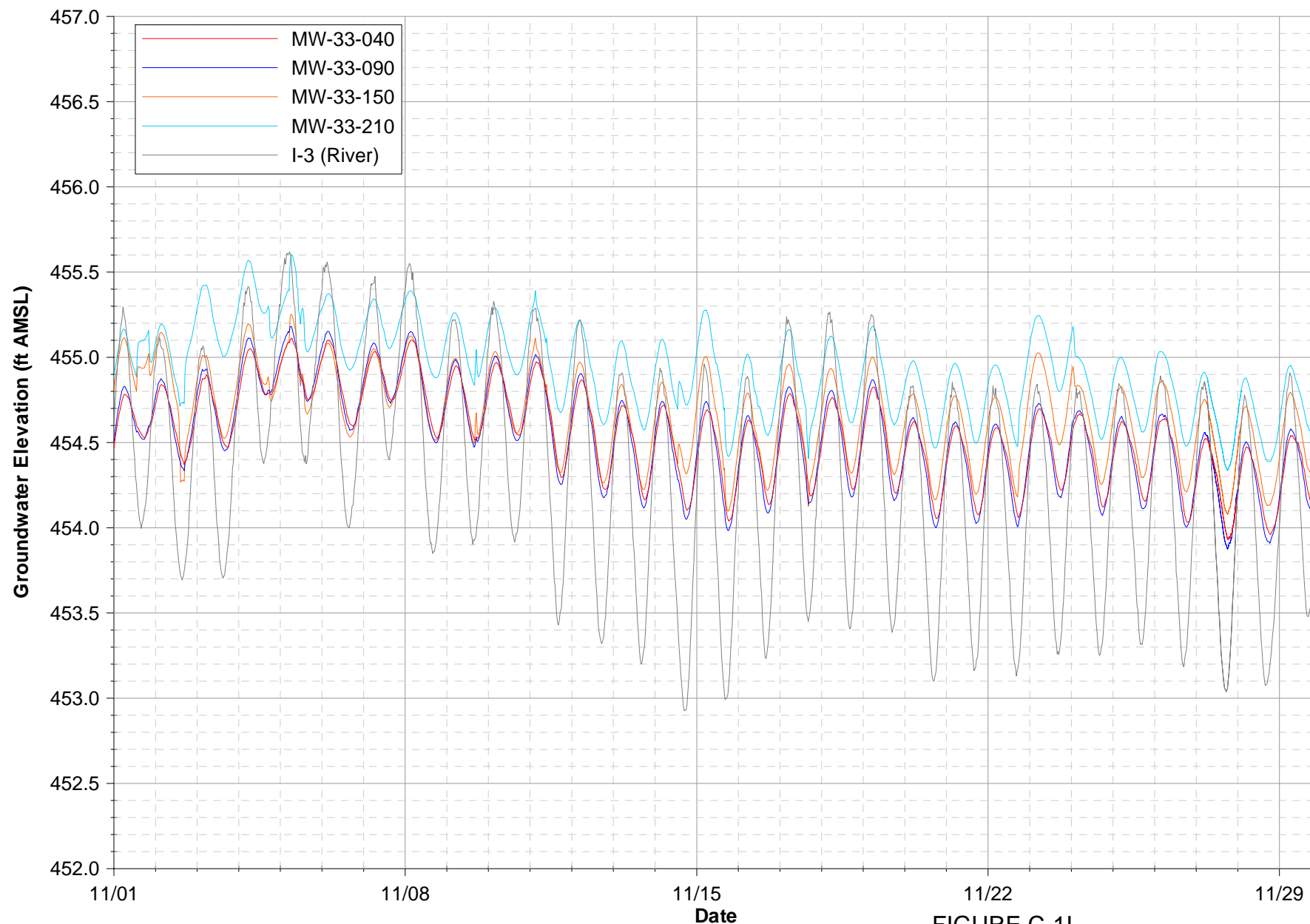
Note: Data subject to review.

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



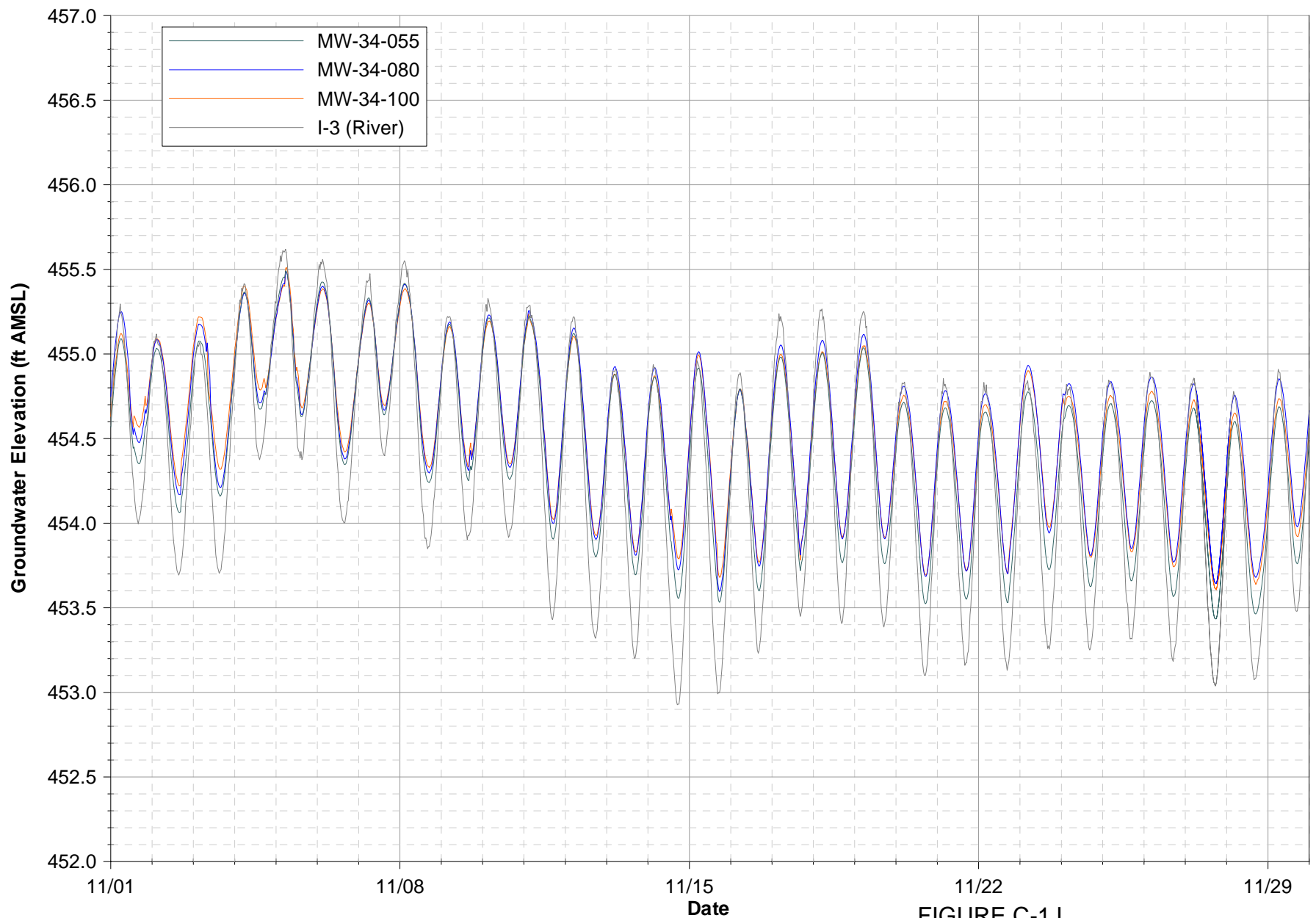
Note: Data subject to review.

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



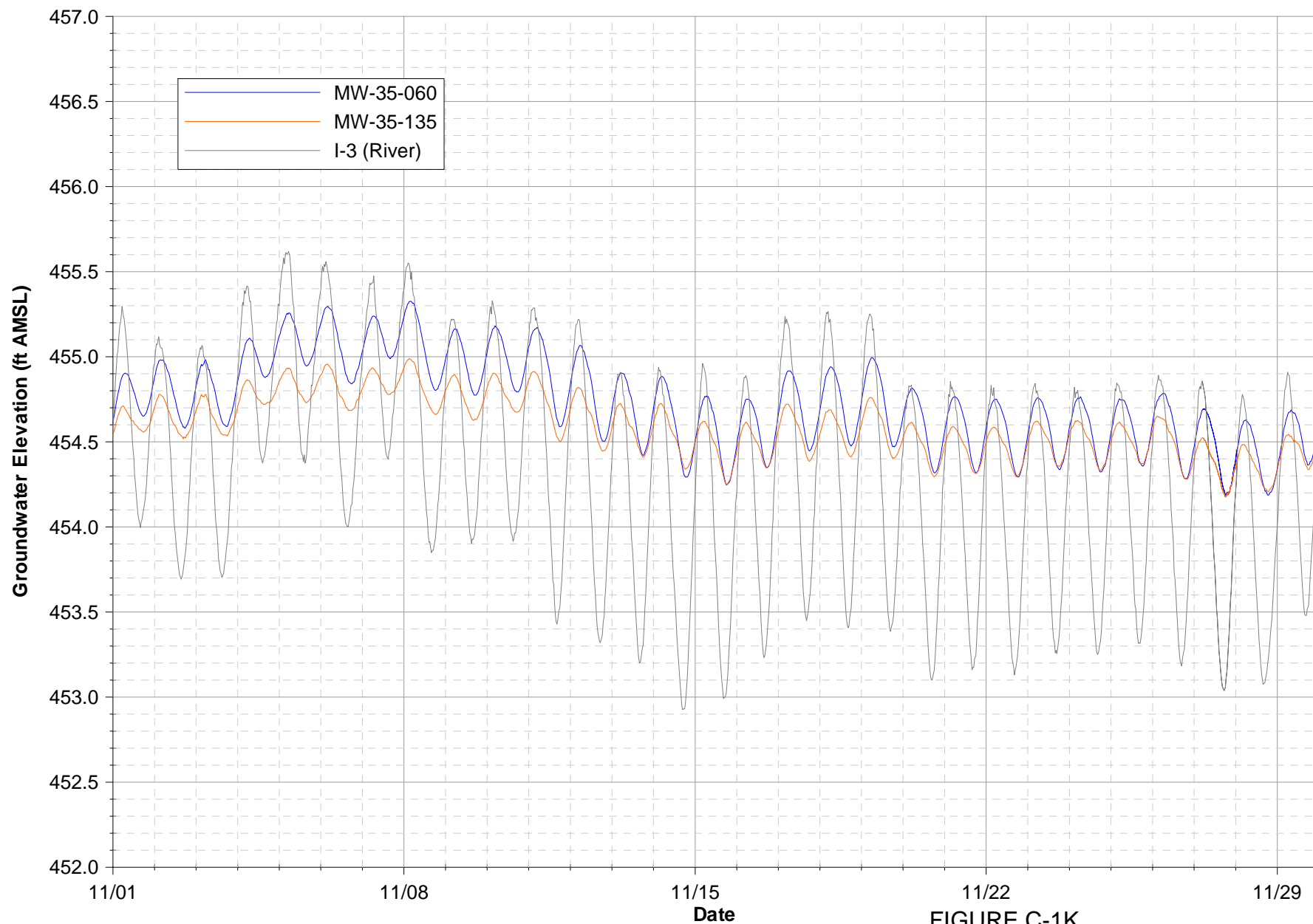
Note: Data subject to review.

FIGURE C-11
MW-33 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



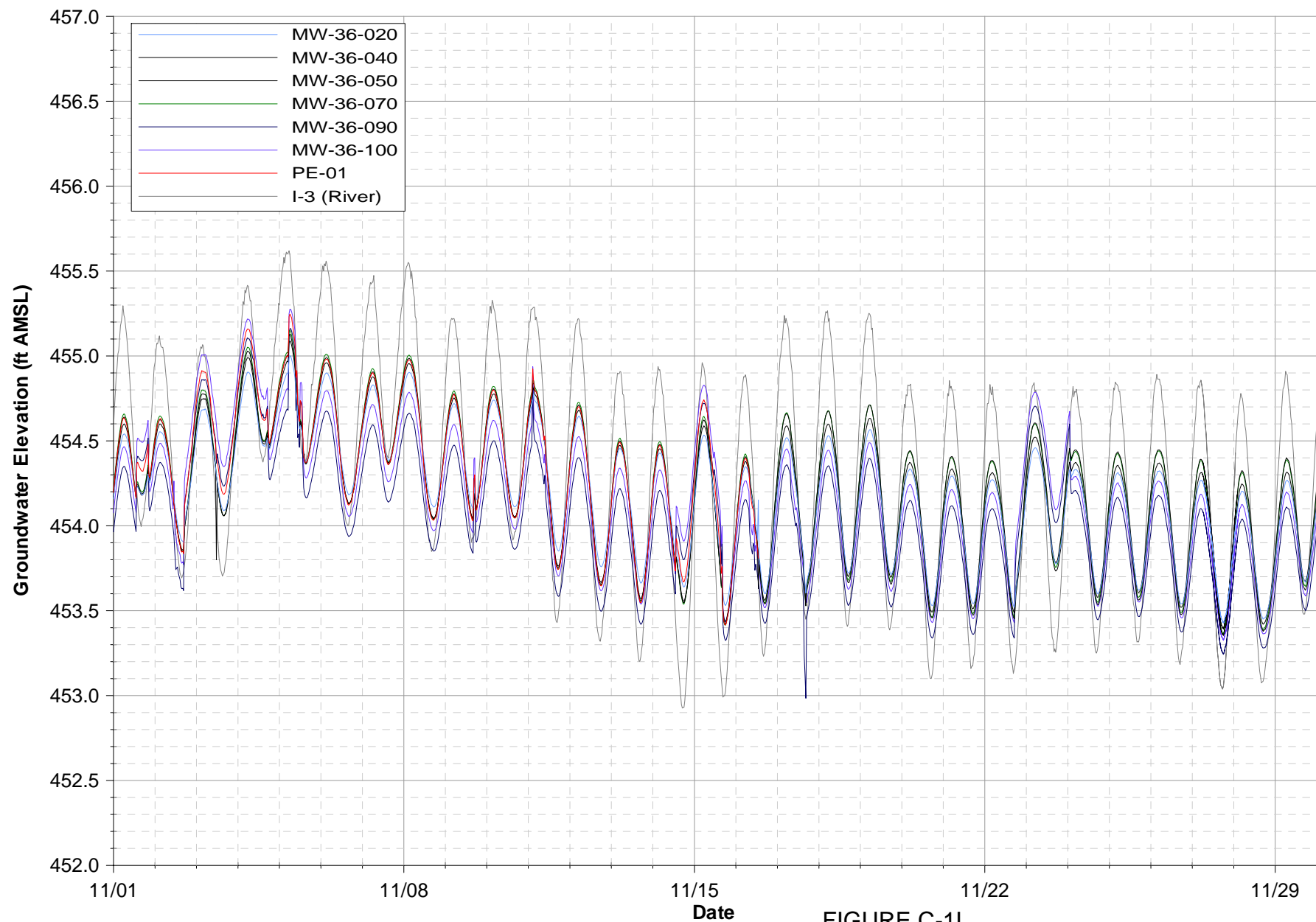
Note: Data subject to review.

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



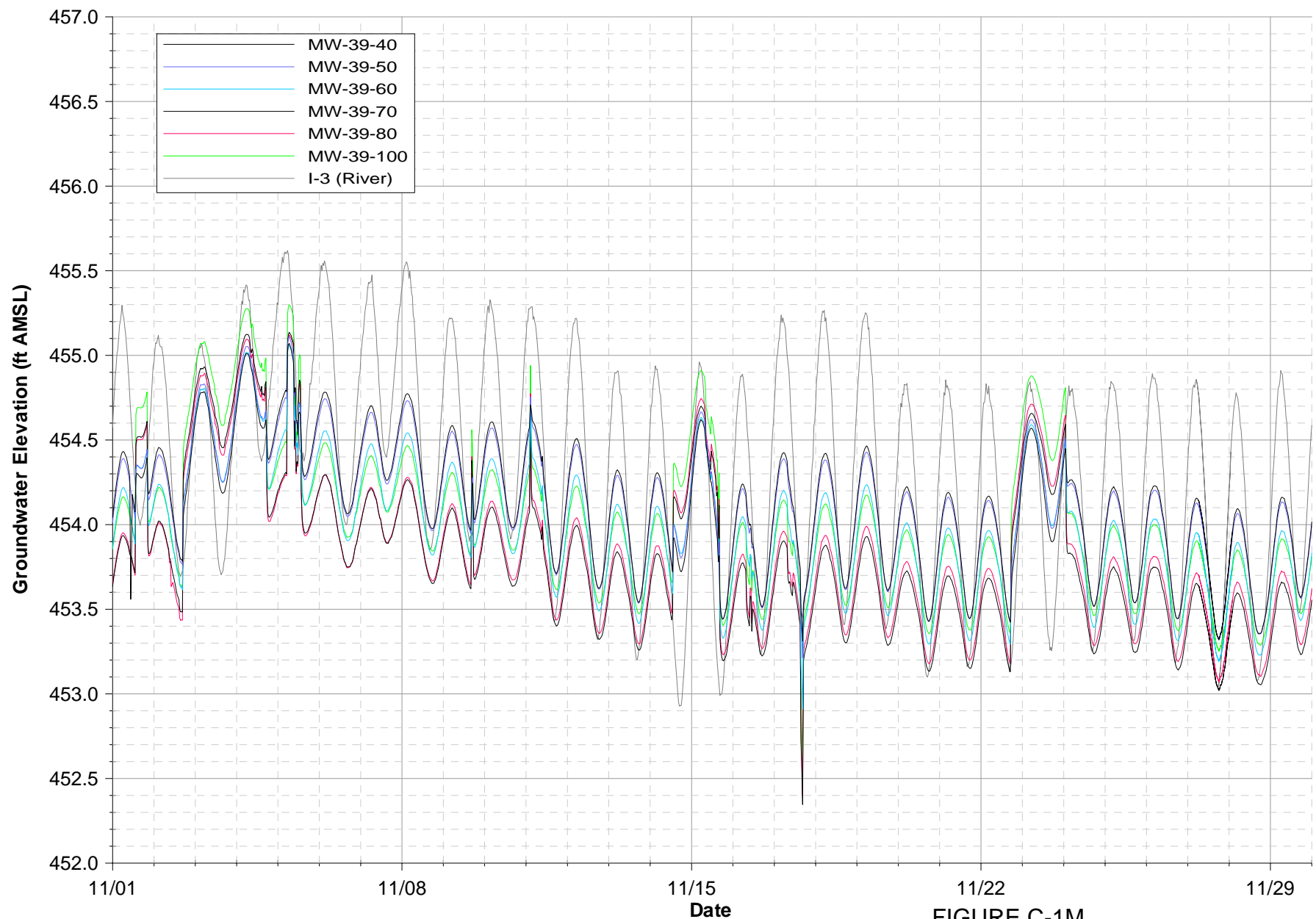
Note: Data subject to review.

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



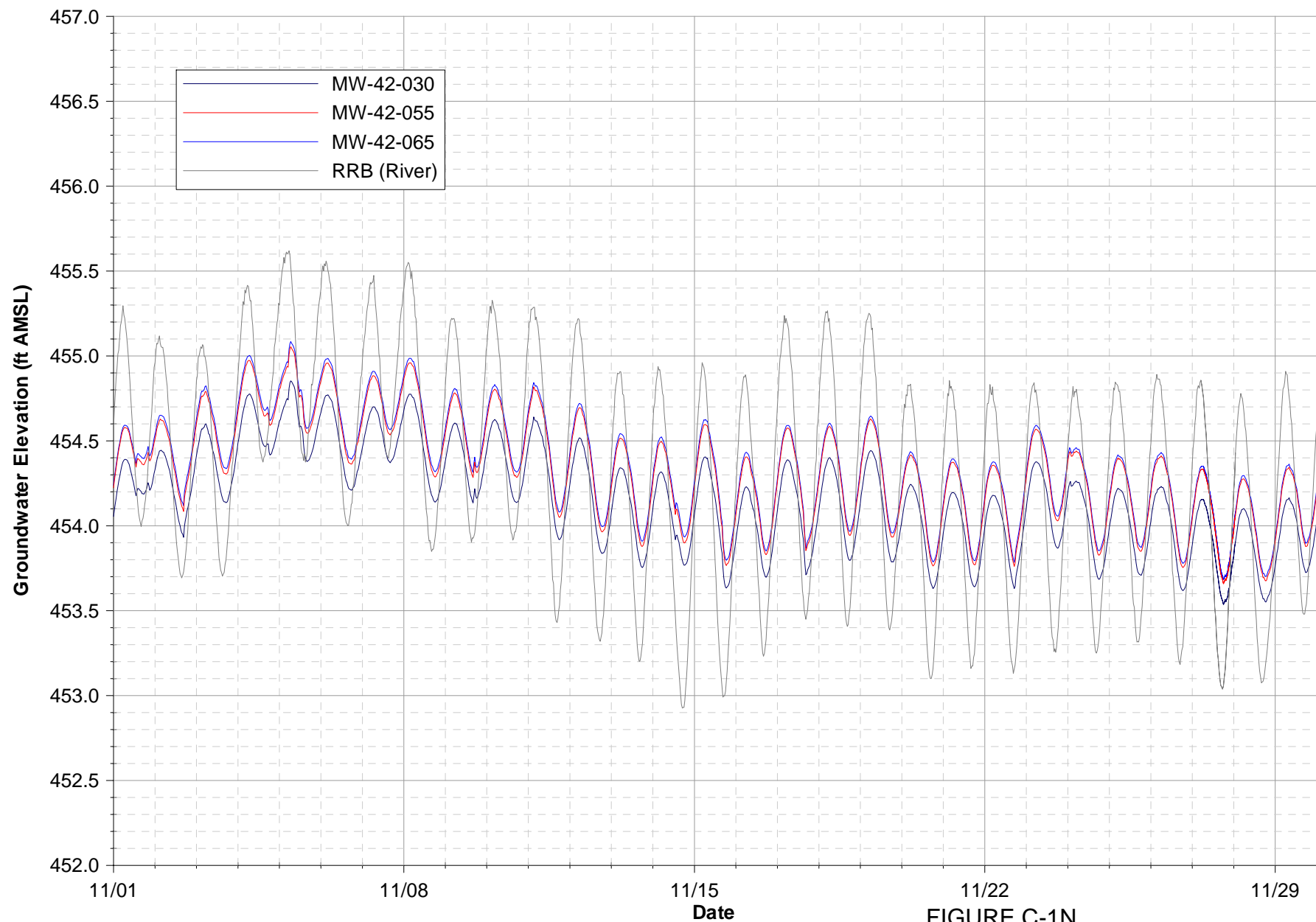
Note: Data subject to review.
PE-1 data unavailable 11/17/05 through 11/30/05

FIGURE C-1L
MW-36 CLUSTER AND PE-01 HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



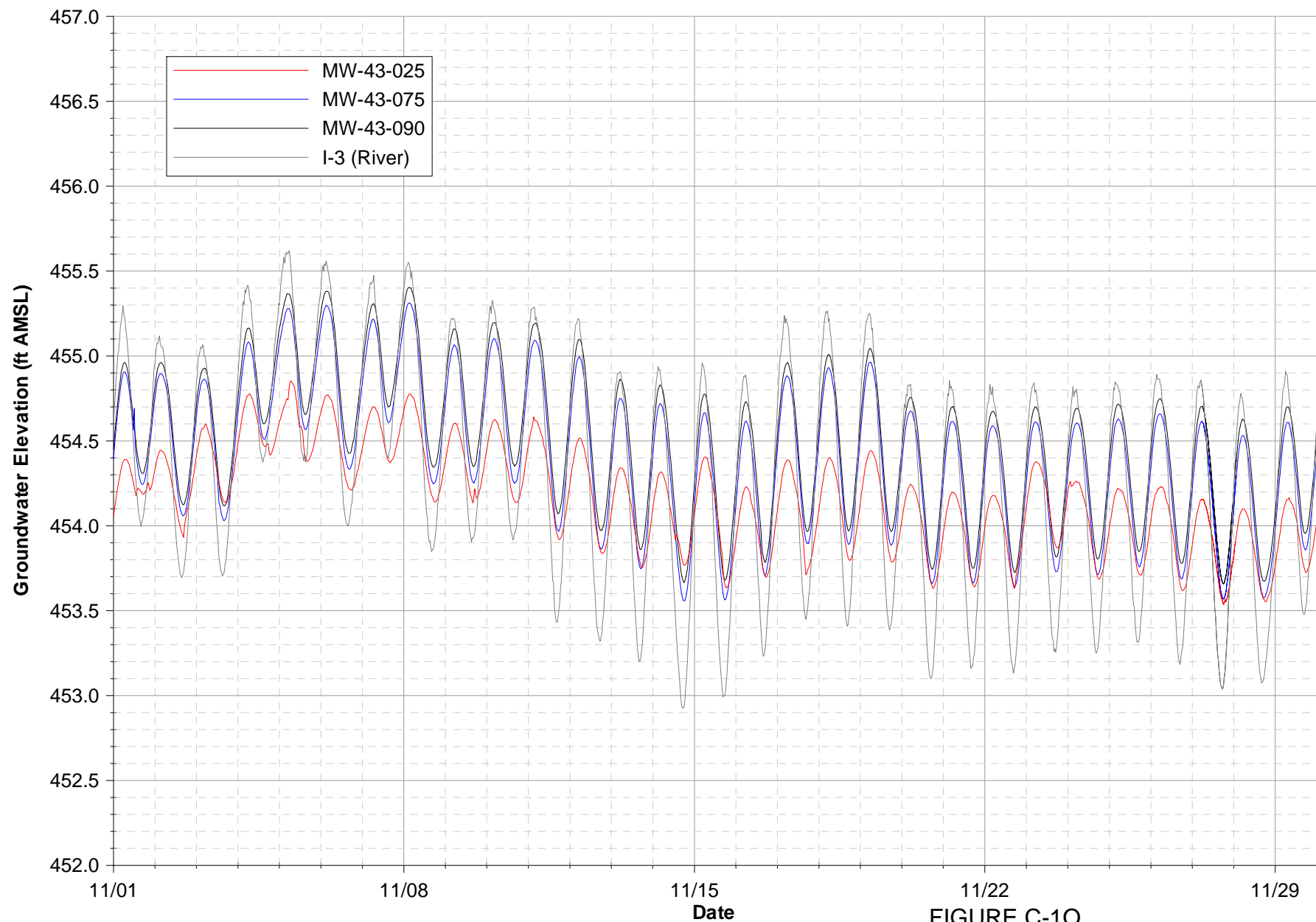
Note: Data subject to review.

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



Note: Data subject to review.

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



Note: Data subject to review.

FIGURE C-10
MW-43 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA