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September 15, 2005

Norman Shopay
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Geology and Corrective Action Branch
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Subject: Performance Monitoring Report for August 2005
Interim Measures Performance Monitoring Program
PG&E Topock Compressor Station, Needles, California

Dear Mr. Shopay:

Enclosed is the *Performance Monitoring Report for August 2005* for the Interim Measure Performance Monitoring Program at the PG&E Topock Compressor Station. This performance monitoring report documents the monthly performance monitoring results for August 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 report.

Sincerely,

Enclosure

Performance Monitoring Report for August 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

September 15, 2005

CH2MHILL
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Interim Measures Performance Monitoring Program

PG&E Topock Compressor Station Needles, California

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September 15, 2005

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

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Acronyms and Abbreviations

Cr(T)	total chromium
Cr(VI)	hexavalent chromium
DTSC	Department of Toxic Substances Control
gpm	gallons per minute
IM	Interim Measure
PG&E	Pacific Gas and Electric Company
PMP	Performance Monitoring Program
µg/L	micrograms per liter (similar to parts per billion [ppb])
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 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. The groundwater extraction, treatment, and injection systems collectively are referred to Interim Measure No. 3 (IM No. 3). Currently, the IM No. 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 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 concentrations at or greater than 20 micrograms per liter [$\mu\text{g/L}$] 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 August 1 through 31, 2005. The next monthly report for the September 2005 period will be submitted on October 15, 2005. The next quarterly performance report will be submitted on November 30, 2005.

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

- **Floodplain Wells:** 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:** MW-12, MW-19, MW-20 cluster (3), MW-21, MW-26, MW-31 cluster (2), MW-35 cluster (2), TW-2S, TW-2D.
- **Interior Wells:** MW-10, MW-25.

The two currently operational extraction wells, TW-2S and TW-2D, are located on the MW-20 bench (Figure 1-2). In March 2005, an additional extraction well, designated PE-1, was installed on the floodplain approximately 450 feet east of extraction well TW-2D. On

July 29, 2005, PG&E submitted the *Final Design Plan – Conveyance Piping and Power Supply for Extraction Well PE-1* to DTSC. Construction of the conveyance piping and connection of PE-1 to the IM extraction system will be completed following approval of the final design plan by DTSC and the Bureau of Land Management.

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.

2.0 Extraction System Operations

Pumping data for the IM groundwater extraction system for the period August 1 through August 31, 2005 are summarized in Table 2-1. An average pumping rate of approximately 72.9 gallons per minute (gpm) was maintained throughout August 2005. Extraction well TW-2D operated daily throughout August and extraction well TW-2S was operated from August 29 to August 31 during a performance test for the IM No. 3 treatment plant at a design maximum flow rate of 135 gpm. A total of 3,086,769 gallons of groundwater were extracted and treated during August 2005.

Fluctuations from the target pump rate during August 2005 were typically associated with outages in power service from the City of Needles during periods of thunderstorm activity. Shut-down periods were noted on August 3, 5, 9, 11, 12, 13, 15, 21, 23, and 24, 2005. The longest shutdown lasted about 16 hours (from approximately 2:00 am to 6:00 pm), and occurred on August 15. This shutdown was required to troubleshoot and physically inspect the pipeline due a leak detection system alarm that occurred while re-starting the plant after a power failure. The alarm condition was determined to an electrical malfunction within the control panel (not a leak), which was fully corrected in late August by the vendor. A back-up rental generator is onsite to provide back-up power during outages.

During August 2005, the treated groundwater from the IM system was discharged into injection well IW-2, in accordance with Waste Discharge Requirements (WDR) Order No. R7-2004-0103 issued by the Colorado River Basin Regional Water Quality Control Board. The concentrate (brine) from the treatment process was transported to the United States Filter Corporation facility in Los Angeles, California for additional treatment and disposal. No shipments of accumulated solids from the clarifier were taken off-site during this reporting period.

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

During August 2005, groundwater from extraction well TW-2D was sampled at a collection point on the influent pipeline the IM No. 3 treatment plant. The analytical results of the influent groundwater samples are reported in PG&E's self-monitoring report for IM No. 3 treatment plant, as required by the WDRs. Table 2-2 summarizes the analytical data from extraction well TW-2D from March through June 2005 and presents analytical results from the extraction system WDR sampling conducted during August 2005.

3.0 Chromium Sampling Results

The groundwater monitoring wells in the floodplain area are currently sampled for hexavalent chromium [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 A-1 in Appendix A 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 August 2005 and the previous months. Table A-2 in Appendix A 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 distribution for August 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 August 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 August 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 the August 2005 monthly performance evaluation, Cr(VI) concentration trend graphs and hydrographs for key floodplain monitoring wells are presented in Appendix A, Figures A-1 (well MW-33-90), A-2 (MW-34-100), and A-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 location of the wells monitored are shown on Figure 1-2 and listed in Section 1.0.

The average and the minimum and maximum daily average groundwater and river elevations have been calculated from the pressure transducer data for the August reporting period (August 1 to August 31, 2005) and are summarized in Appendix B, Table B-1. Reported groundwater elevations (or hydraulic heads) are adjusted for temperature and for salinity differences between wells (i.e., adjusted to a common freshwater equivalent), as described in the Performance Monitoring Plan. Groundwater elevation hydrographs (for August 2005) for all wells with transducers are included in Appendix B. The Colorado River elevation (I-3 gage station) during August 2005 is also shown on the hydrographs.

The August 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 along the floodplain. To the west of the pumping area, the hydraulic gradient in the upper depth interval is easterly and consistent with the regional gradient outside of the floodplain area. The landward gradients measured during August 2005 lessened somewhat from those of previous months due to declining river levels over the period. The average monthly groundwater elevations are also presented and contoured in cross-section on Figure 4-4 (location of cross-section 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 August 2005 average discharge of 11,544 cubic feet per second was slightly less than the United States Bureau of Reclamation (USBR) projected discharge for the August reporting period (11,700 cubic feet per second). The actual Colorado River elevation at I-3 (monthly average) was 0.2 foot greater than that calculated using the multiple regression method with USBR projections for the August 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) during August 2005. As shown in Table 4-2, the average gradients in the three well pairs were landward at magnitudes that were between 2.5 and 1.3 times greater than the target value of 0.0010 feet per foot (0.0025, 0.0025, and 0.0013, respectively). These gradients were similar to the average gradients measured in June and July.

During August 2005, hydraulic data from well MW-34-80 were available from August 1 through 15, but the data were not obtained for the period August 15 through 31 due to transducer malfunction. However, continuous transducer data from the deeper well at the MW-34 cluster (MW-34-100) were collected and used to calculate a full-month average gradient of 0.0025 feet/foot between wells MW-20-130 and MW-34-100 during August. This

is considered representative of the average gradient between MW-20-130 and MW-34-80 as the hydraulic heads at both MW-34-80 and MW-34-100 were similar during the first two weeks of August. On the September 1 data download, transducer operation and data collection in well MW-34-80 were confirmed.

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 submitted on October 15, 2005 and will cover activities from September 1 through September 30, 2005.

Pumping from extraction well TW-2D will continue in September 2005. Extracted groundwater will continue to be treated at the IM No. 3 treatment plant. After completing the plant performance testing in mid-September 2005, PG&E will increase the pump rate from TW-2D to the maximum pump rate (estimated 90 gpm) in accordance with DTSC's August 5, 2005 letter. Consultation with DTSC and the federal agencies on the design and alignment of the piping to new extraction well PE-1 is ongoing (installation of the piping is to commence after receiving agency approval).

Based on current USBR projections, it is anticipated that the Colorado River level at the I-3 gage location in September 2005 will stay relatively the same as levels in August 2005. Future adjustments in pumping rates from the IM extraction system will be proposed based on expected river levels, observed groundwater gradients, potential system modifications, and other relevant factors.

Tables

TABLE 2-1

Pumping Rate and Extracted Volume for IM System through August 2005

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

Extraction Well	August 2005 Period ^b		Project To Date ^d
	Average Pumping Rate ^c (gpm)	Volume Pumped (gal)	Cumulative Volume Pumped (gal)
TW-2S ^a	39.6	147,455	741,813
TW-2D	69.4	2,939,314 ^e	37,400,898
Total	72.9	3,086,769	38,142,711
Volume Pumped from the MW-20 Well Cluster			1,527,724
Total Volume Pumped (gal)			39,670,435
Total Volume Pumped (ac-ft)			121.8

gal: gallons

gpm: gallons per minute

^a Extraction well TW-2S was operated with well TW-2D during August 29-31, 2005 as part of an IM No. 3 plant performance test at a design maximum flow rate of 135 gpm.

^b Pumping results during the monthly period from August 1 at 12:01 am through August 31, 2005 at 11:59 pm.

^c The "Average Pumping Rate" is the overall average during the reporting period, including system downtime based on flow meter totalizer readings.

^d ³ Interim Measure groundwater extraction at the Topock site was initiated in March 2004.

^eThe total flow for TW-2D does not include flow data that was not recorded between August 14, 2005 at 10:50 am and August 15, 2005 at 8:30 am when the data archiving system was offline. The influent flow during this time was estimated to be about 63,000 gallons while pumping at about 66 gpm.

TABLE 2-2

Analytical Results for Extraction Wells, March 2005 through August 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	02-Mar-05	---	5.44 ^ 1	---	5880 J
TW-02D	09-Mar-05	---	5.54 ^ 1	5.82 J	4560 J
TW-02D	06-Apr-05	---	5.70 ^ 1	5.44	6140
TW-02D	19-Apr-05	---	5.77 ^ 1	5.47	6580
TW-02D	05-May-05	---	5.49 ^	---	6470
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

Notes:

¹ Samples field filtered. All other dissolved total chromium is lab filtered.

[^] 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 [^].

The analytical results for August 2005 were obtained from a sample point on the influent conveyance system at the IM3 treatment system.

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.

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	--	--	454.7	--	--

NOTES:

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, August 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	0.0013	August-1 through August-31
Central Gradient Pair		
MW-20-130 / MW-34-80	0.0025	August-1 through August-15
Southern Gradient Pair		
MW-20-130 / MW-42-65	0.0025	August-1 through August-31

Notes:

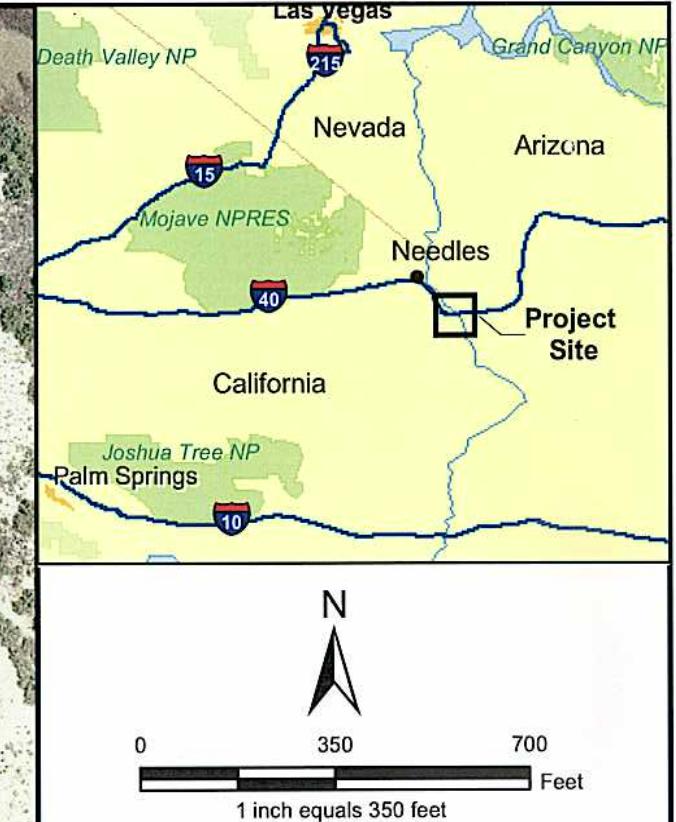
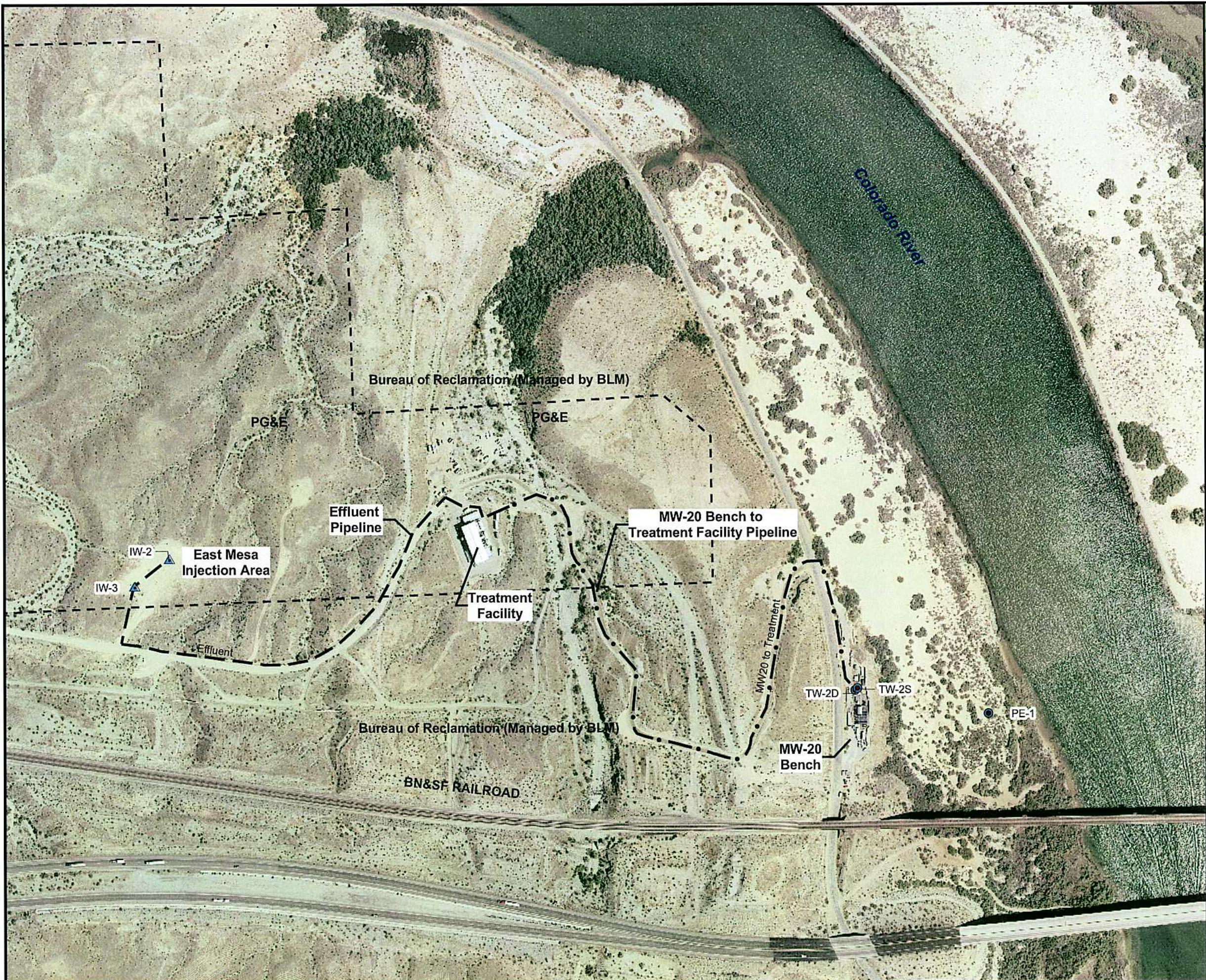
Refer to Figure 1-2 for location of well pairs

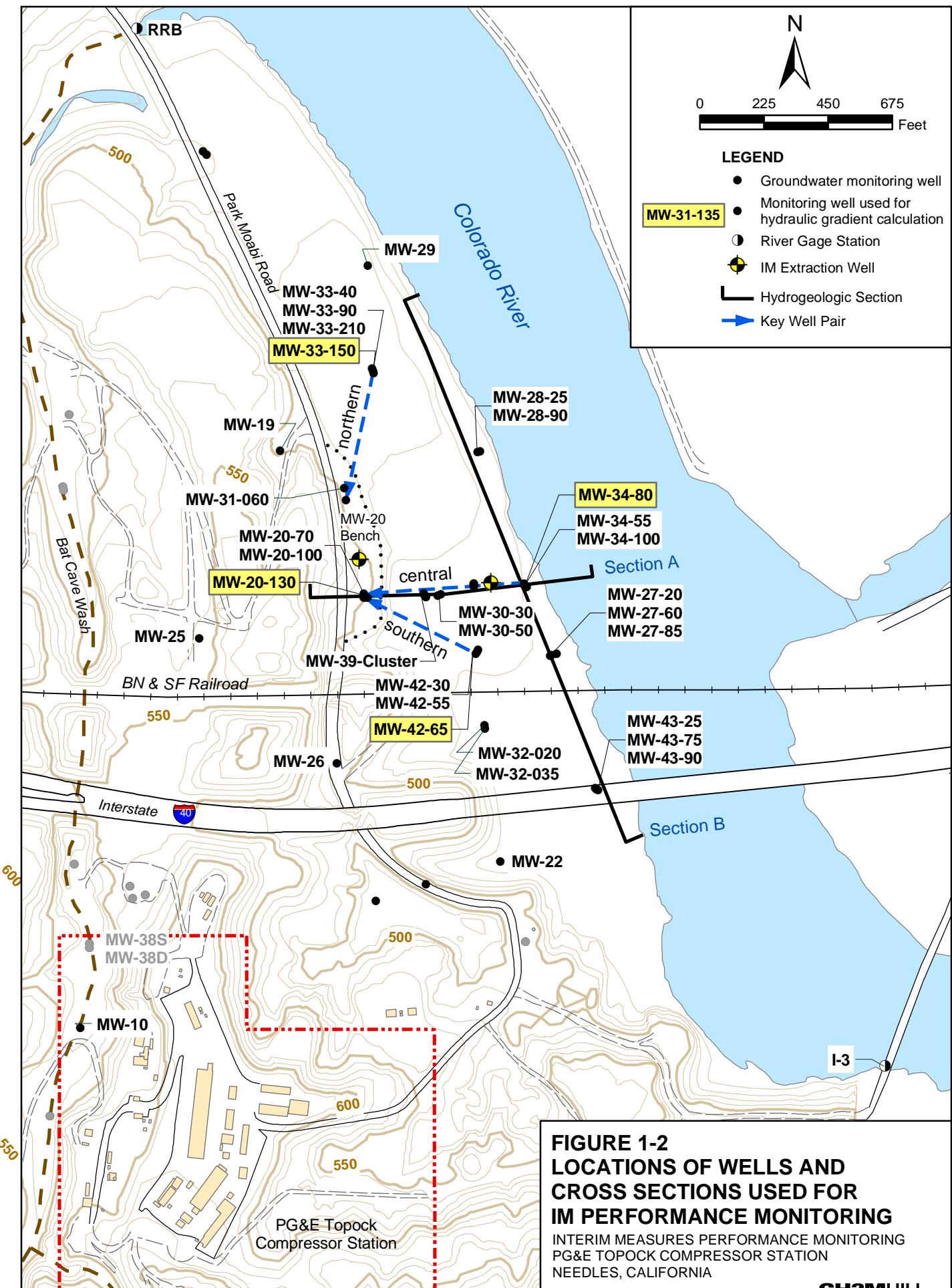
For IM pumping, the target landward gradient for the selected well pairs is 0.001 feet/foot

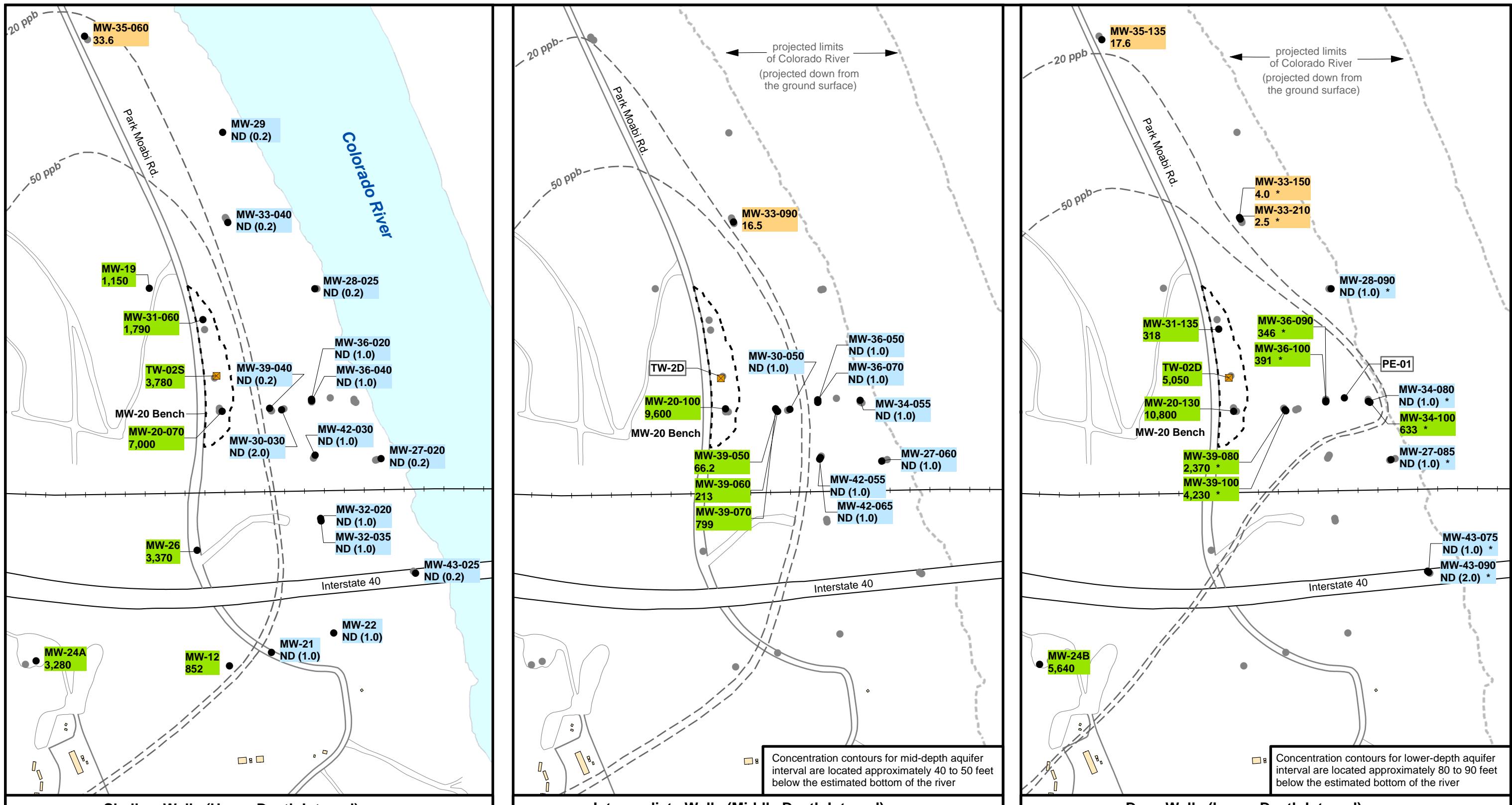
MW-34-80 transducer data unavailable from August 15-31, 2005 due to transducer failure

To verify the full-month average gradient at the central well pair, the average gradient was also calculated using transducer data from MW-20-130 and MW-34-100 (the deeper well in the MW-34 cluster). The average gradient between MW-20-130 and MW-34-100 from August 1 through August 31 was 0.0025 feet/foot.

Figures







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 August 2005
all others are from March, May, June or
July sampling events.

See tables A-1 and A-2 for data and
dates of sampling.

Hexavalent Chromium Concentrations in Groundwater August 2005 Monthly Sampling Event

Concentrations in micrograms per liter ($\mu\text{g/L}$)
equivalent to parts per billion (ppb)
ND = not detected at listed reporting limit.



FIGURE 3-1
CR(VI) CONCENTRATIONS
IN ALLUVIAL AQUIFER, AUGUST 2005

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

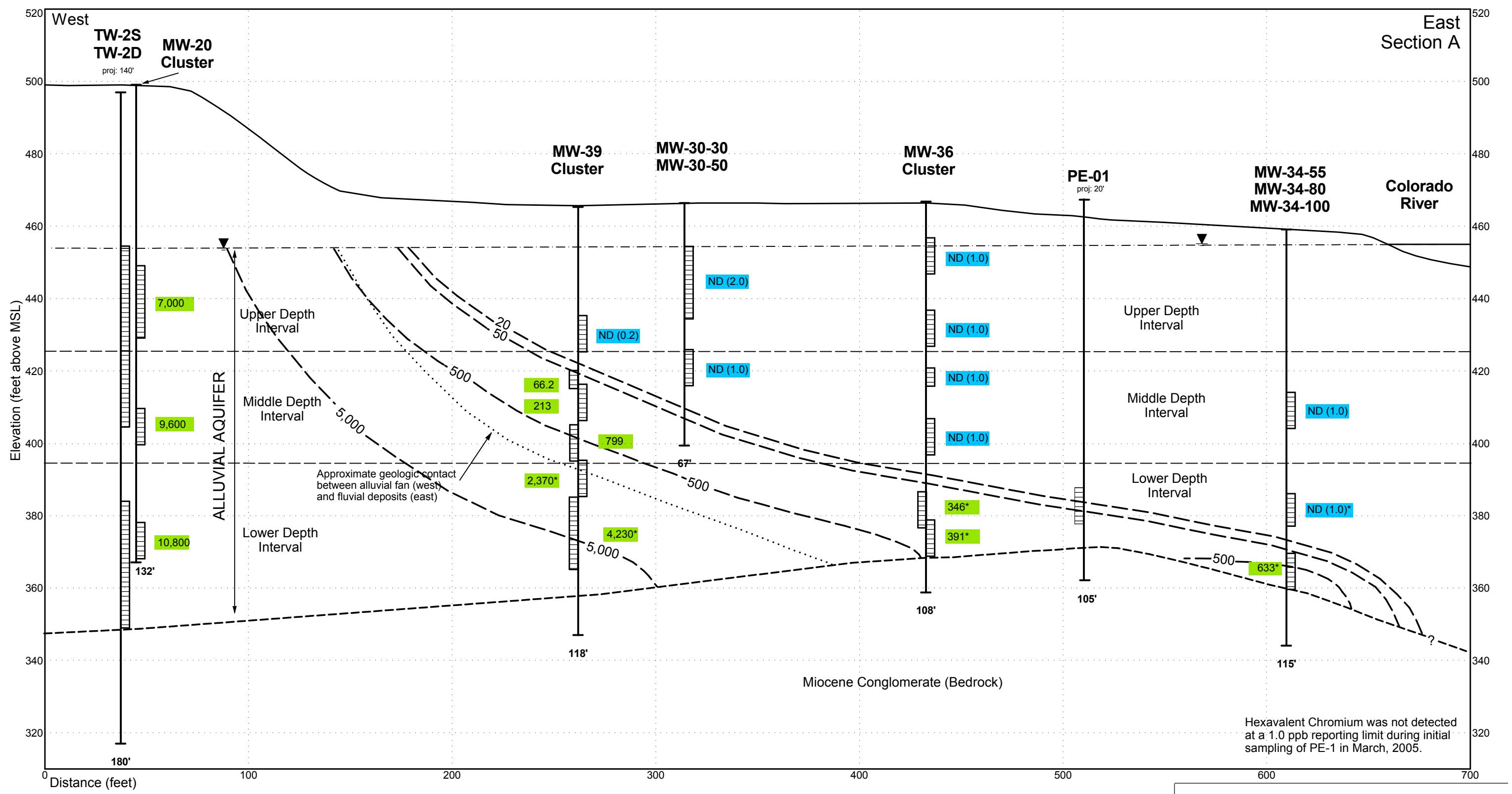
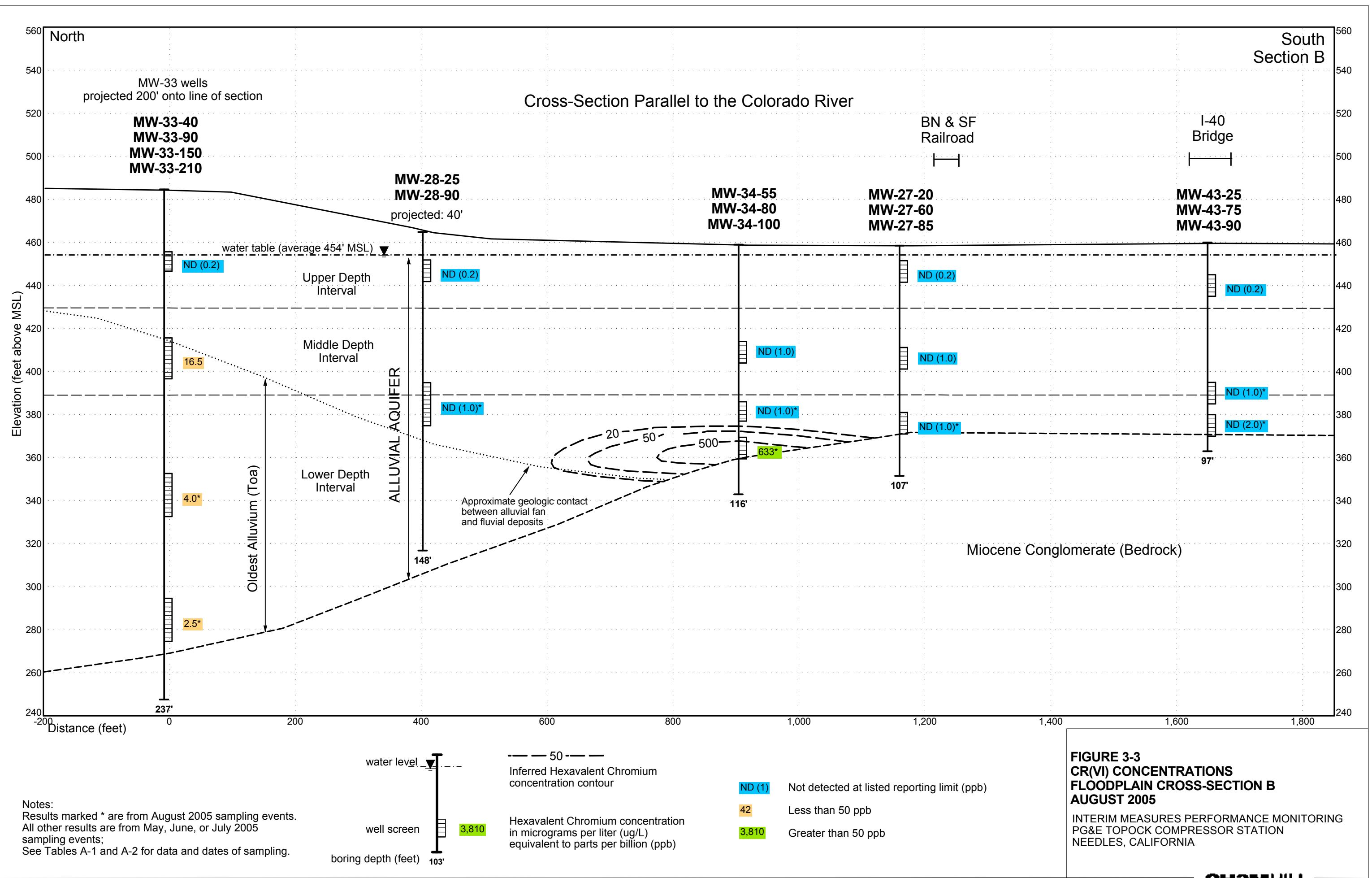
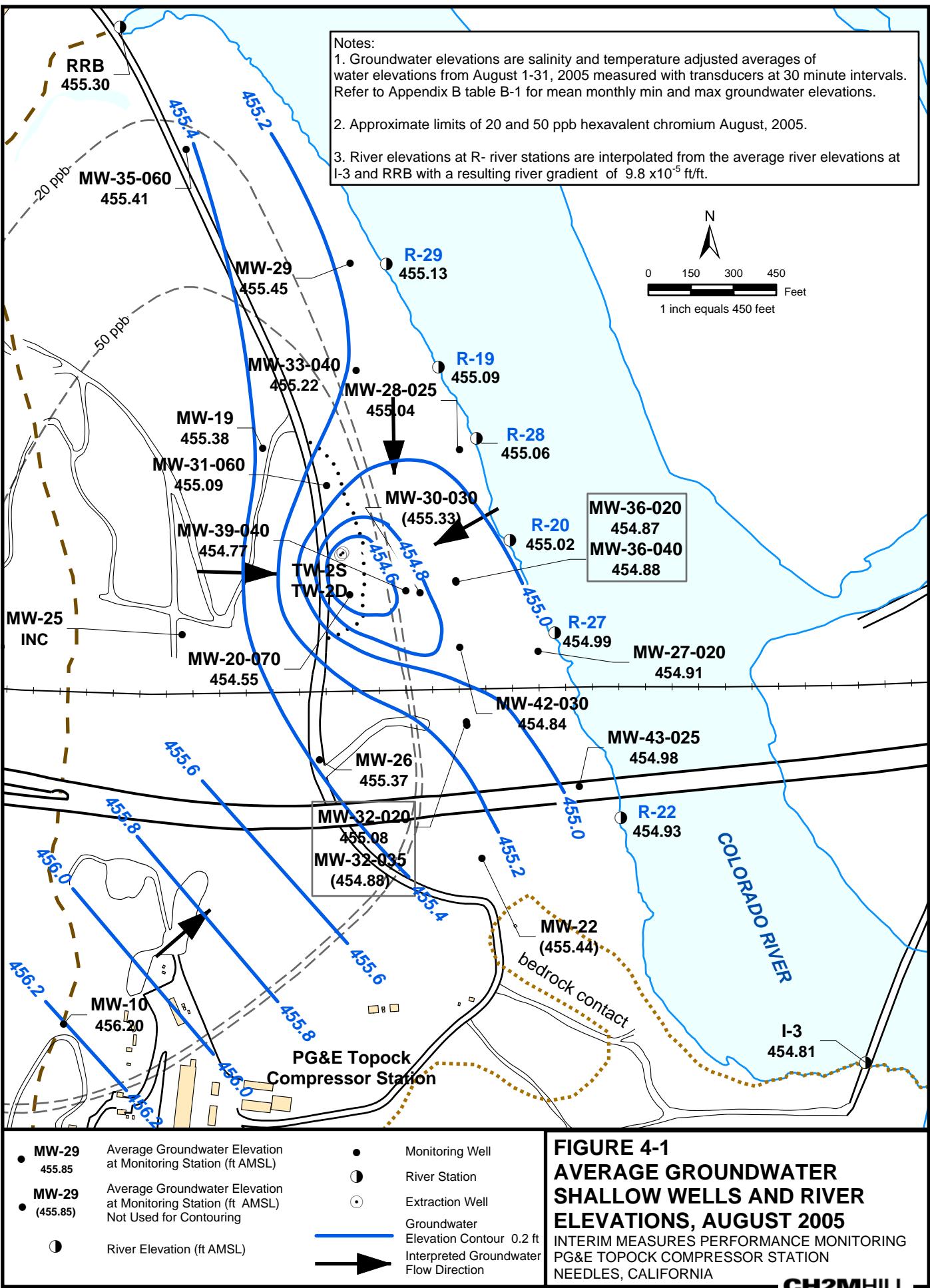


FIGURE 3-2
CR(VI) CONCENTRATIONS
FLOODPLAIN CROSS-SECTION A
AUGUST 2005

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





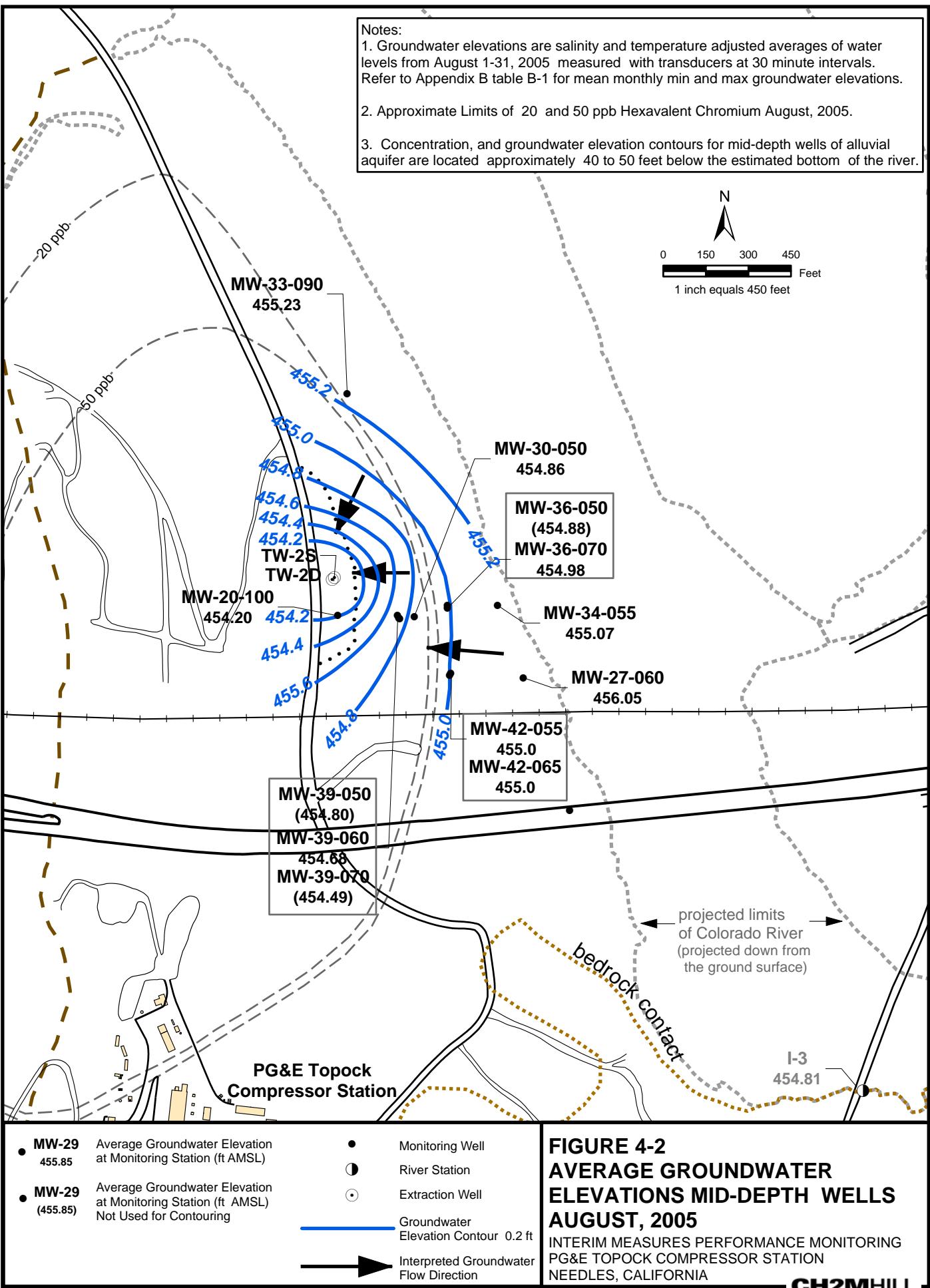
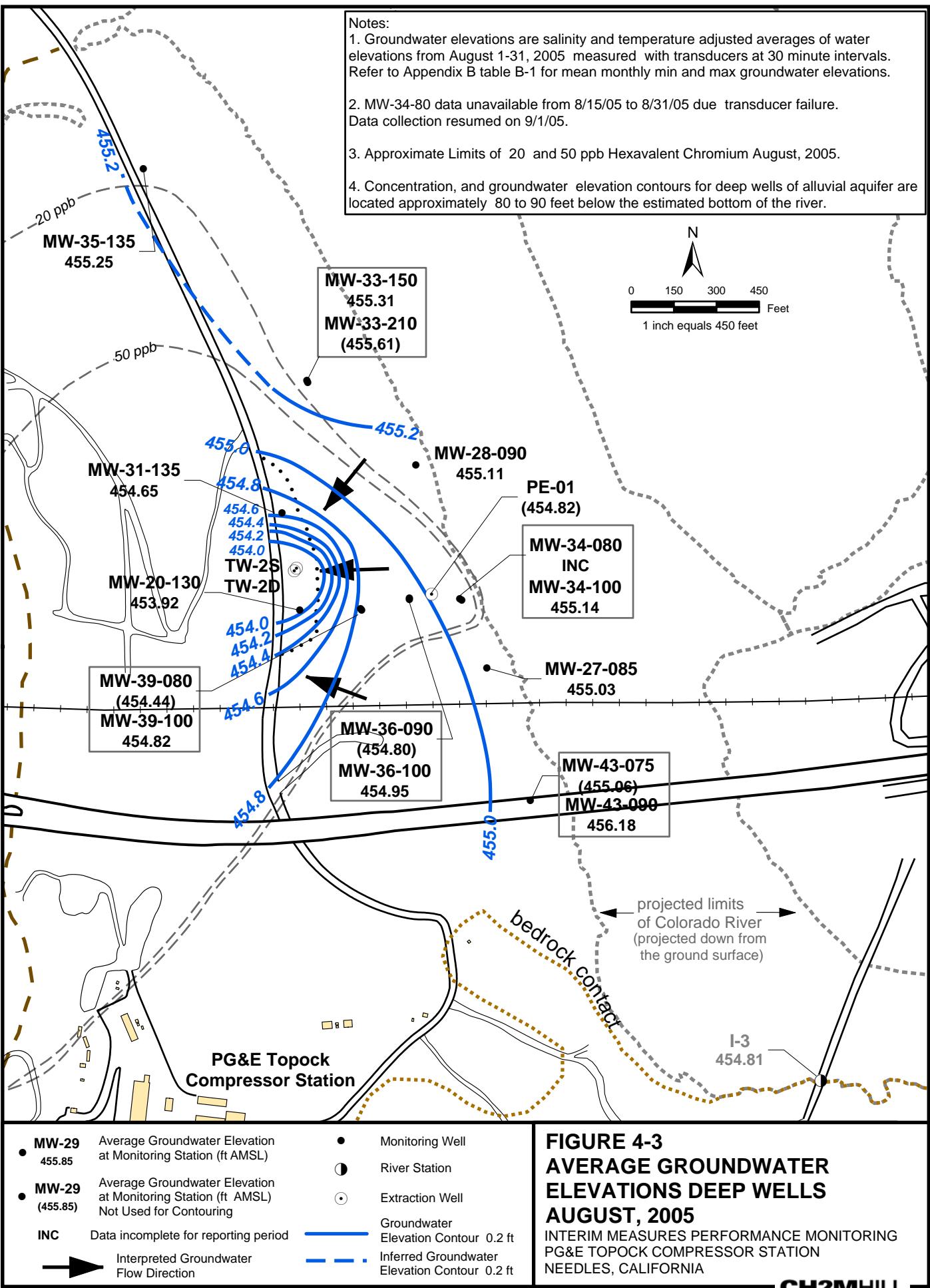
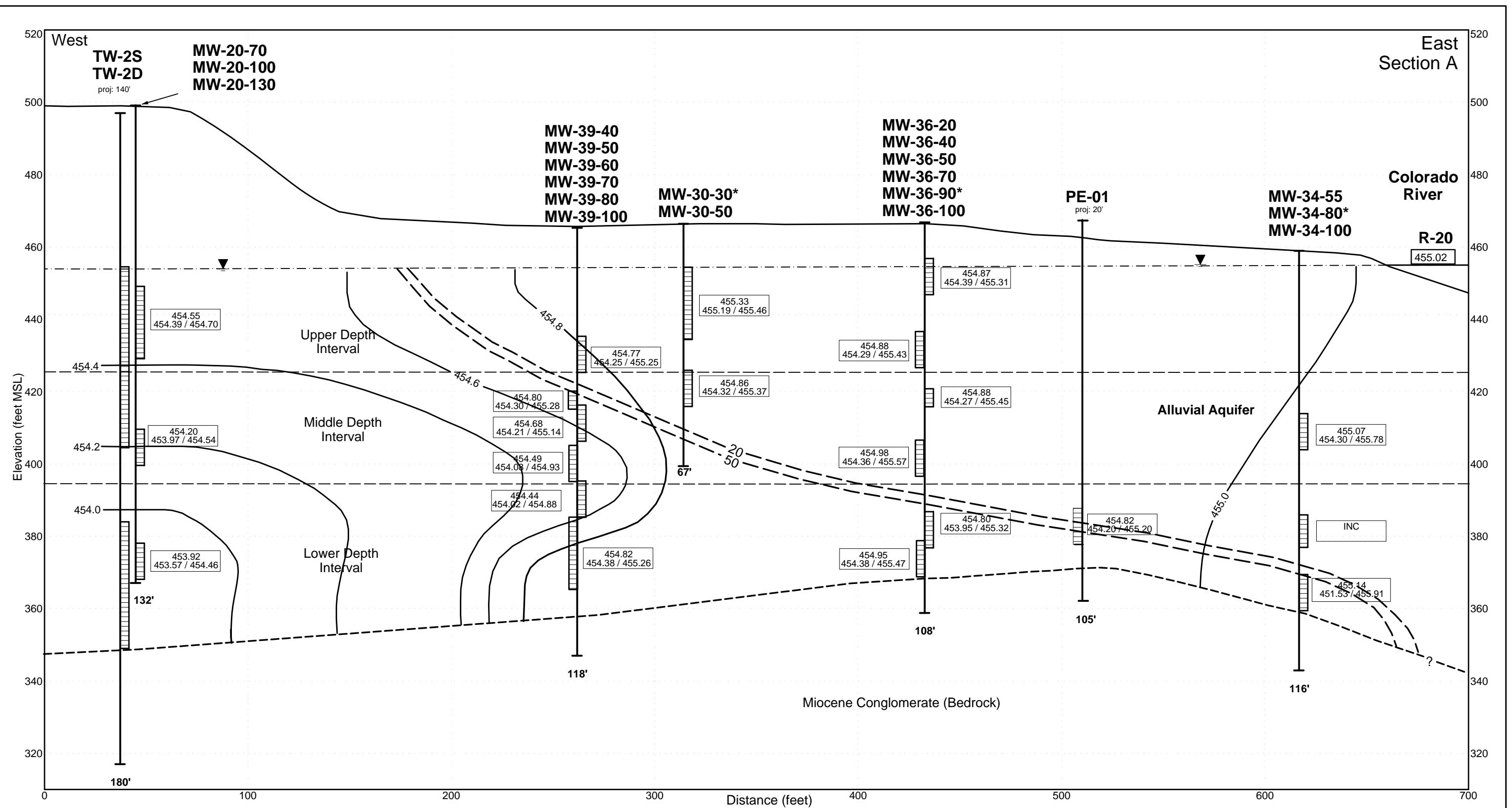


FIGURE 4-2
AVERAGE GROUNDWATER
ELEVATIONS MID-DEPTH WELLS
AUGUST, 2005

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

CH2MHILL





Notes:
Results show average groundwater elevations for August 1-31, 2005 measured with transducers at 30 minute intervals.
Groundwater elevations adjusted for salinity and temperature.

*Wells MW-30-30, MW-36-90, and MW-34-80 excluded from contouring.
MW-34-80 data unavailable from 8/15/05 to 8/31/05.

Average river elevation interpolated between I-3 and RRB using mean river gradients from August 1-31, 2005.
Data subject to review.

Legend: MW-30-50

inferred water table

well screen

453.66
453.40/453.94

Monthly average groundwater head (ft MSL)
Daily Minimum / Maximum average groundwater head (ft MSL)

103 boring depth (feet)

— — — 453.5 — — —
Groundwater head contour
— — — 453.5 — — —
Inferred groundwater head contour

**FIGURE 4-4
AVERAGE GROUNDWATER ELEVATIONS
FLOODPLAIN CROSS-SECTION A
AUGUST 2005**

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

Appendix A

**Chromium Sampling Results for Monitoring
Wells in Floodplain Area**

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, March 2005 through August 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	08-Mar-05	ND (0.2)	ND (1.0)	-178	0.0	2,180	451.9	451.3
	04-Apr-05	ND (0.2)	ND (1.0)	-194	0.0	2,580	454.7	453.6
	04-May-05	ND (0.2)	ND (1.0)	-176	0.4	1,280	456.1	455.7
	18-Jul-05	ND (0.2)	ND (1.0) FF	-190	1.1	1,040	456.4	456.3
MW-28-025	10-Mar-05	ND (0.2)	ND (1.0)	60	5.6	1,400	451.9	451.8
	04-Apr-05	ND (0.2)	ND (1.0)	-108	0.1	1,590	454.9	454.2
	03-May-05	ND (0.2)	ND (1.0)	-59	0.4	1,280	456.4	456.2
	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
MW-29	09-Mar-05	ND (2.0)	ND (1.0)	-127	1.7	32,900	452.8	450.5
	06-Apr-05	ND (1.0)	ND (1.0)	-128	2.0	22,700	454.5	455.4
	05-May-05	ND (0.2)	ND (1.0)	-142	0.1	---	455.9	456.1
	15-Jun-05	ND (0.2)	ND (1.0)	-108	3.1	6,580	456.1	456.0
MW-30-030	10-Mar-05	ND (5.0)	ND (1.0)	-84	4.1	65,900	452.7	451.7
	06-Apr-05	ND (2.0)	ND (1.0)	-143	0.3	38,000	454.4	455.1
	09-May-05	ND (2.0)	ND (1.0)	-131	0.3	47,700	455.4	455.2
MW-32-020	09-Mar-05	ND (2.0)	ND (1.0)	-161	0.0	29,900	452.3	450.4
	04-Apr-05	ND (1.0)	ND (1.0)	-178	0.0	26,000	453.9	453.7
	09-May-05	ND (1.0)	ND (1.0)	-121	0.2	20,600	455.4	454.9
	17-Jun-05	ND (1.0)	ND (1.0)	-188	2.4	15,500	455.6	455.2
MW-32-035	09-Mar-05	ND (1.0)	ND (1.0)	-183	0.1	12,400	451.6	450.4
	04-Apr-05	ND (1.0)	ND (1.0)	-197	0.1	9,800	454.2	453.7
	09-May-05	ND (1.0)	ND (1.0)	-164	0.2	13,600	455.5	455.0
	17-Jun-05	ND (1.0)	ND (1.0)	-202	2.3	12,800	455.7	455.3
MW-33-040	09-Mar-05	ND (1.0)	ND (1.0)	-125	3.3	7,050	451.9	450.5
	04-Apr-05	ND (0.2)	ND (1.0)	-160	0.7	9,900	454.4	453.9
	05-May-05	ND (0.2)	ND (1.0)	-90	0.6	5,760	455.8	455.6
	17-Jun-05	ND (0.2)	ND (1.0)	-94	5.4	5,460	456.0	456.0
MW-36-020	09-Mar-05	ND (2.0)	ND (1.0)	-88	7.6	22,600	451.3	450.6
	05-Apr-05	ND (1.0)	ND (1.0)	-92	5.3	20,000	---	453.8
	03-May-05	ND (1.0)	ND (1.0)	-180	3.5	10,200	456.0	456.2
MW-36-040	08-Mar-05	ND (1.0)	ND (1.0)	-194	5.5	9,000	451.7	451.1
	05-Apr-05	ND (1.0)	ND (1.0)	-162	5.3	11,200	---	453.9
	05-May-05	ND (1.0)	ND (1.0)	-180	2.7	10,300	455.5	455.4
MW-39-040	09-Mar-05	ND (1.0)	ND (1.0)	-177	5.0	8,290	451.3	450.5
	05-Apr-05	ND (1.0)	ND (1.0)	-179	5.4	6,200	---	454.3
	05-May-05	ND (0.2)	ND (1.0)	-179	1.8	6,070	455.7	456.1
	16-Jun-05	ND (0.2)	ND (1.0)	-202	2.1	9,600	456.0	455.5
MW-42-030	16-Mar-05	ND (1.0)	ND (1.0)	-136	1.2	17,800	451.8	451.6
MW-43-025	07-Mar-05	ND (0.2)	ND (1.0)	-161	6.1	1,690	451.9	451.7
	15-Mar-05	ND (0.2)	ND (1.0)	-177	4.6	1,660	451.8	451.8

Refer to table footnotes for data qualifier explanation.

TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, March 2005 through August 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-43-025	20-Jun-05	ND (0.2)	ND (1.0)	-174	1.9	1,800	456.3	455.8
Middle-Depth Wells								
MW-27-060	01-Mar-05	ND (1.0)	ND (1.0) J	-143	5.1	13,400	452.8	452.5
	08-Mar-05	ND (1.0)	ND (1.0)	-144	1.1	18,000	451.9	451.4
	14-Mar-05	ND (1.0)	ND (1.0)	-158	0.8	20,300	---	451.5
	23-Mar-05	ND (1.0)	ND (1.0)	-124	1.7	12,700	454.2	454.4
	29-Mar-05	ND (1.0)	ND (1.0)	-154	0.3	16,800	454.3	454.1
	05-Apr-05	ND (1.0)	ND (1.0)	-157	0.1	16,700	454.3	453.8
	12-Apr-05	ND (1.0)	ND (1.0)	-146	0.2	13,800	456.6	456.6
	19-Apr-05	ND (1.0)	ND (1.0)	---	---	---	456.3	456.1
	26-Apr-05	ND (1.0)	ND (1.0)	-111	7.0	22,100	456.6	456.1
	04-May-05	ND (1.0)	ND (1.0)	-114	0.4	14,400	456.2	455.9
MW-30-050	18-Jul-05	ND (1.0)	1.80 FF	-125	2.6	13,500	456.8	456.6
	10-Mar-05	ND (1.0)	ND (1.0)	-230	4.7	9,000	451.7	451.6
	06-Apr-05	18.5	15.5	-252	0.5	14,000	454.8	455.2
	06-Apr-05 FD	17.1 J	13.0	FD	FD	FD	FD	FD
	09-May-05	ND (1.0)	ND (1.0)	-100	0.3	14,200	455.4	455.4
MW-33-090	09-May-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	09-Mar-05	18.6	18.2	-101	0.7	---	451.8	450.5
	22-Mar-05	18.9	19.2	-92	4.7	14,600	453.7	454.2
	04-Apr-05	21.3	17.2	-98	0.3	13,300	454.4	453.9
	19-Apr-05	20.3	17.9	---	4.0	8,830	455.5	455.1
	19-Apr-05 FD	20.0	18.2	FD	FD	FD	FD	FD
	05-May-05	17.4	16.8	-244	0.3	8,250	455.7	455.3
	18-May-05	15.5	16.3	-141	1.6	---	455.8	454.9
	01-Jun-05	17.8	14.0	-53	0.4	12,000	456.3	456.1
	01-Jun-05 FD	16.0	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	15.7 J	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	16.5	17.3 FF	FD	FD	FD	FD	FD
MW-34-055	10-Mar-05	ND (1.0)	ND (1.0)	-191	5.1	9,000	451.7	451.4
	05-Apr-05	ND (1.0)	ND (1.0)	-110	0.7	12,400	454.1	453.8
	05-May-05	ND (1.0)	ND (1.0)	-99	0.1	8,860	455.5	455.0
	15-Jul-05	ND (1.0)	ND (1.3) FF	-77	3.6	9,180	457.1	456.9
MW-36-050	08-Mar-05	ND (1.0)	ND (1.0)	-168	5.5	8,800	451.7	451.1
	05-Apr-05	ND (1.0)	ND (1.0)	-129	5.6	9,320	---	453.9
	05-May-05	ND (1.0)	ND (1.0)	-137	2.1	9,330	455.5	455.2
MW-36-070	08-Mar-05	ND (1.0)	ND (1.0)	-115	5.2	11,300	451.7	451.2
	05-Apr-05	ND (1.0)	ND (1.0)	-48	5.6	9,990	---	453.8
	03-May-05	ND (1.0)	ND (1.0)	-103	0.0	12,300	455.9	455.8
MW-39-050	09-Mar-05	422	372	11	5.0	14,400	451.3	450.5

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TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, March 2005 through August 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-39-050	06-Apr-05	282 J	237	81	4.4	12,400	454.8	455.6
	03-May-05	206	204	56	0.0	14,300	454.2	455.1
	16-Jun-05	66.2	55.4	-44	2.0	15,200	456.0	454.8
MW-39-060	09-Mar-05	1450	1300	65	4.9	15,200	451.1	450.5
	06-Apr-05	914	1080	84	4.3	12,600	---	455.3
	06-Apr-05 FD	914	907	FD	FD	FD	FD	FD
	05-May-05	450	455	43	2.0	14,600	455.4	455.8
	05-May-05 FD	460	509	FD	FD	FD	FD	FD
	16-Jun-05	213	198	19	1.9	17,600	456.1	454.9
MW-39-070	09-Mar-05	4310	4010 J	71	5.3	13,800	451.0	450.5
	09-Mar-05 FD	4340	5310 J	FD	FD	FD	FD	FD
	05-Apr-05	2280	2080	61	5.8	11,500	---	454.3
	05-May-05	1320	1270	98	1.9	12,500	455.2	456.3
	16-Jun-05	799	576	22	1.8	16,000	456.1	455.2
MW-42-055	16-Mar-05	ND (1.0)	ND (1.0)	-191	0.5	17,100	451.9	451.6
MW-42-065	16-Mar-05	ND (1.0)	ND (1.0)	-126	0.6	21,400	452.0	451.5
Deep Wells								
MW-27-085	01-Mar-05	ND (1.0)	ND (1.0) J	-155	4.9	18,600	452.9	452.5
	08-Mar-05	ND (2.0)	ND (1.0)	-152	0.2	22,000	452.1	451.3
	14-Mar-05	ND (1.0)	ND (1.0)	-153	0.9	27,000	452.2	451.6
	23-Mar-05	ND (1.0)	ND (1.0)	-145	1.0	16,100	454.3	454.3
	29-Mar-05	ND (1.0)	ND (1.0)	-167	0.5	19,700	454.5	454.1
	05-Apr-05	ND (1.0)	ND (1.0)	-134	2.0	19,700	454.5	453.9
	12-Apr-05	ND (1.0)	ND (1.0)	-134	0.1	16,900	456.6	456.4
	19-Apr-05	ND (1.0)	ND (1.0)	---	---	---	456.5	456.3
	26-Apr-05	ND (1.0)	ND (1.0)	-138	5.7	18,100	456.1	455.8
	04-May-05	ND (1.0)	ND (1.0)	-128	0.4	18,500	456.5	456.2
	19-May-05	ND (1.0)	ND (1.0)	-131	1.0	19,600	456.5	456.2
	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
MW-28-090	07-Mar-05	ND (1.0)	ND (1.0)	-190	0.1	12,300	451.8	451.6
	22-Mar-05	ND (1.0)	ND (1.0)	-203	0.2	12,200	453.9	454.1
	04-Apr-05	ND (1.0)	ND (1.0)	-172	0.4	12,600	454.4	454.2
	20-Apr-05	ND (1.0)	ND (1.0)	-93	3.9	9,990	456.4	456.5
	03-May-05	ND (1.0)	ND (1.0)	-208	0.4	10,600	456.1	455.6
	19-May-05	ND (1.0)	ND (1.0)	-147	0.8	9,110	456.4	456.5
	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

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TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, March 2005 through August 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-33-150	02-Mar-05	ND (1.0)	ND (1.0)	-120	4.6	15,900	453.4	452.7
	02-Mar-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	16-Mar-05	ND (1.0)	ND (1.0)	-175	1.6	21,600	452.9	452.0
	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
MW-33-210	16-Mar-05	1.40	ND (1.0)	-103	0.6	25,300	453.0	451.8
	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
MW-34-080	01-Mar-05	ND (1.0)	ND (1.0) J	-127	5.1	13,300	452.7	452.5
	08-Mar-05	ND (1.0) J	ND (1.0)	-84	0.0	17,600	451.4	451.1
	15-Mar-05	ND (1.0)	ND (1.0)	-121	0.6	15,200	---	451.9
	22-Mar-05	ND (1.0)	ND (1.0)	-83	0.2	15,200	453.8	454.3
	29-Mar-05	ND (1.0)	ND (1.0)	-214	0.0	16,800	454.2	454.4
	05-Apr-05	ND (1.0)	ND (1.0)	-207	0.0	17,200	454.2	454.0
	12-Apr-05	ND (1.0)	ND (1.0)	-86	0.1	14,200	455.9	455.6
	19-Apr-05	ND (1.0)	ND (1.0)	4	5.1	13,800	456.1	455.5
	26-Apr-05	ND (1.0)	ND (1.0)	-94	3.5	13,700	455.7	455.0
	04-May-05	ND (1.0)	ND (1.0)	-241	0.3	15,900	455.9	455.0
	18-May-05	ND (1.0)	ND (1.0)	-138	1.3	16,000	456.3	455.7
	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
MW-34-100	01-Mar-05	402	374	-86	5.0	15,700	452.8	452.5
	01-Mar-05 FD	411	332	FD	FD	FD	FD	FD
	08-Mar-05	425 J	490	-60	0.4	19,900	452.0	451.2
	14-Mar-05	426	474	-55	0.7	23,700	452.0	451.2
	23-Mar-05	421	548	-98	0.8	14,600	454.2	454.2
	29-Mar-05	73.9 J	110	-96	0.5	18,100	454.5	454.3
	29-Mar-05 FD	56.7 J	106	FD	FD	FD	FD	FD
	05-Apr-05	452	488	-115	0.3	20,000	454.6	454.3
	05-Apr-05 FD	455	454	FD	FD	FD	FD	FD
	12-Apr-05	482	502	-61	0.2	15,500	456.4	456.0
	12-Apr-05 FD	499	562	FD	FD	FD	FD	FD
	19-Apr-05	473	599	8	6.0	16,200	456.2	455.8
	26-Apr-05	476	573	-45	4.1	21,000	456.1	455.4
	26-Apr-05 FD	480	602	FD	FD	FD	FD	FD
	04-May-05	491	530	-98	0.6	18,700	455.7	454.8
	10-May-05	513	492	21	3.0	15,800	456.8	456.7
	10-May-05 FD	501	552	FD	FD	FD	FD	FD
	18-May-05	524	564	50	3.0	19,000	456.4	456.1

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TABLE A-1

Groundwater Sampling Results for Floodplain Monitoring Wells, March 2005 through August 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	25-May-05	559	478	-93	1.2	18,700	456.6	456.1
	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
	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
MW-36-090	09-Mar-05	1480	1380	49	5.1	18,100	451.5	450.5
	05-Apr-05	1040	946	64	5.3	15,100	---	453.8
	03-May-05	705	623	55	0.0	17,600	455.5	455.5
	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
MW-36-100	09-Mar-05	1380	1200	-20	0.3	22,600	451.1	450.5
	22-Mar-05	1250	1180	-16	0.2	19,900	453.4	454.1
	22-Mar-05 FD	1230	1160	FD	FD	FD	FD	FD
	04-Apr-05	1110	981	-20	0.1	19,600	454.1	453.9
	20-Apr-05	825	844	2	3.1	17,500	455.9	456.4
	03-May-05	705	679	4	0.4	18,700	455.4	455.1
	18-May-05	617	796 J	12	1.5	34,800	455.3	454.7
	18-May-05 FD	620	624 J	FD	FD	FD	FD	FD
	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
MW-39-080	09-Mar-05	7460	7240	82	5.0	16,800	451.1	450.5
	06-Apr-05	4820	4570	88	4.7	13,800	---	455.5
	03-May-05	3430	3510	106	0.4	14,900	454.8	455.0
	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
MW-39-100	10-Mar-05	8940	8160	28	5.1	24,500	451.5	451.2
	06-Apr-05	8220	8230	54	1.5	---	454.5	455.0
	09-May-05	7980	8490	159	1.8	20,400	455.5	455.7
	09-May-05 FD	7720	8250	FD	FD	FD	FD	FD
	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

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 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-39-100	17-Aug-05	4230	4050 FF	170	1.5	18,600	455.3	455.9
MW-43-075	07-Mar-05	ND (1.0)	ND (1.0)	-150	5.6	15,200	452.2	451.6
	15-Mar-05	ND (1.0)	ND (1.0)	-178	0.5	14,900	452.7	451.7
	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
MW-43-090	07-Mar-05	ND (1.0)	ND (1.0)	-185	0.2	21,500	452.5	451.6
	15-Mar-05	ND (1.0)	ND (1.0)	-153	0.5	22,000	452.3	451.6
	15-Mar-05 FD	ND (1.0)	ND (1.0)	FD	FD	FD	FD	FD
	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

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

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 28, 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 A-2

Groundwater Sampling Results for Other Monitoring Wells in PMP Area, March 2005 through August 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	10-Mar-05	925	883	34.0	7.04	---
	10-Mar-05 FD	925	841	FD	FD	FD
	06-Apr-05	810	871	56.0	6.34	---
	06-Apr-05 FD	810	868	FD	FD	FD
	13-Jun-05	852	835	60.0	6.97	4060
MW-19	07-Mar-05	1080	1010	100	6.67	2200
	14-Jun-05	1150	1140	65.0	6.80	2170
MW-20-070	10-Mar-05	8280	8630	151	8.77	---
	07-Apr-05	8740	9020	92.0	6.63	---
	15-Jun-05	6680	6450	152	6.85	3160
	15-Jun-05 FD	7000	7080	FD	FD	FD
MW-21	08-Mar-05	ND (1.0)	ND (1.0)	-86	6.00	11300
	14-Jun-05	ND (1.0)	ND (1.0)	81.0	6.80	12000
MW-22	10-Mar-05	ND (2.0)	ND (1.0)	-150	4.74	46300
	17-Jun-05	ND (1.0)	ND (1.0)	-57	3.23	33700
MW-24A	07-Mar-05	3390	3180	49.0	3.09	3460
	07-Mar-05 FD	3360	3290	FD	FD	FD
	16-Jun-05	3280	2640	52.0	2.70	3470
MW-26	08-Mar-05	2990	3160	123	10.0	3450
	08-Mar-05 FD	2990	3050	FD	FD	FD
	13-Jun-05	3370	3140	119	9.16	3820
MW-31-060	09-Mar-05	2700	2550	192	6.87	2860
	07-Apr-05	1910	2030	102	5.25	---
	13-Jun-05	1790	1810	122	8.00	3060
MW-35-060	15-Mar-05	33.8	37.5	-18	2.22	6510
	13-Jun-05	33.6	34.1	-8.0	2.47	---
TW-02S	11-Mar-05	4400	4240	90.0	4.83	---
	16-Jun-05	3780	4180	129	7.90	4140
Middle-Depth Wells						
MW-20-100	10-Mar-05	8440	7770	110	0.40	7100
	15-Jun-05	9600	10100	136	3.44	3870
Deep Wells						
MW-20-130	09-Mar-05	8730	8900	126	0.02	12800
	09-Mar-05 FD	8810	8170	FD	FD	FD
	07-Apr-05	8980	8870	99.0	4.89	11000
	15-Jun-05	10800	10300	145	4.66	10600
MW-24B	07-Mar-05	5320	4950	-2.0	1.70	14300
	16-Jun-05	5640	5660	-4.0	2.20	13100
MW-31-135	10-Mar-05	422	403	42.0	1.49	12500
	13-Jun-05	318	344	42.0	4.46	14600
	13-Jun-05 FD	318	338	FD	FD	FD
MW-35-135	15-Mar-05	23.0	21.4	-108	2.11	10800
	13-Jun-05	17.6	17.6	-138	1.75	15000
PE-01	01-Mar-05	---	---	-89	---	9050

TABLE A-2

Groundwater Sampling Results for Other Monitoring Wells in PMP Area, March 2005 through August 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
PE-01	05-Mar-05	---	293	---	---	---
	21-Mar-05	ND (1.0)	ND (1.0)	-194	0.19	15200
TW-02D	09-Mar-05	5800	5620	---	---	---
	05-May-05	---	5490	---	---	---
	15-Jun-05	5050	4780	147	4.96	9400

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 28, 2005 letter.

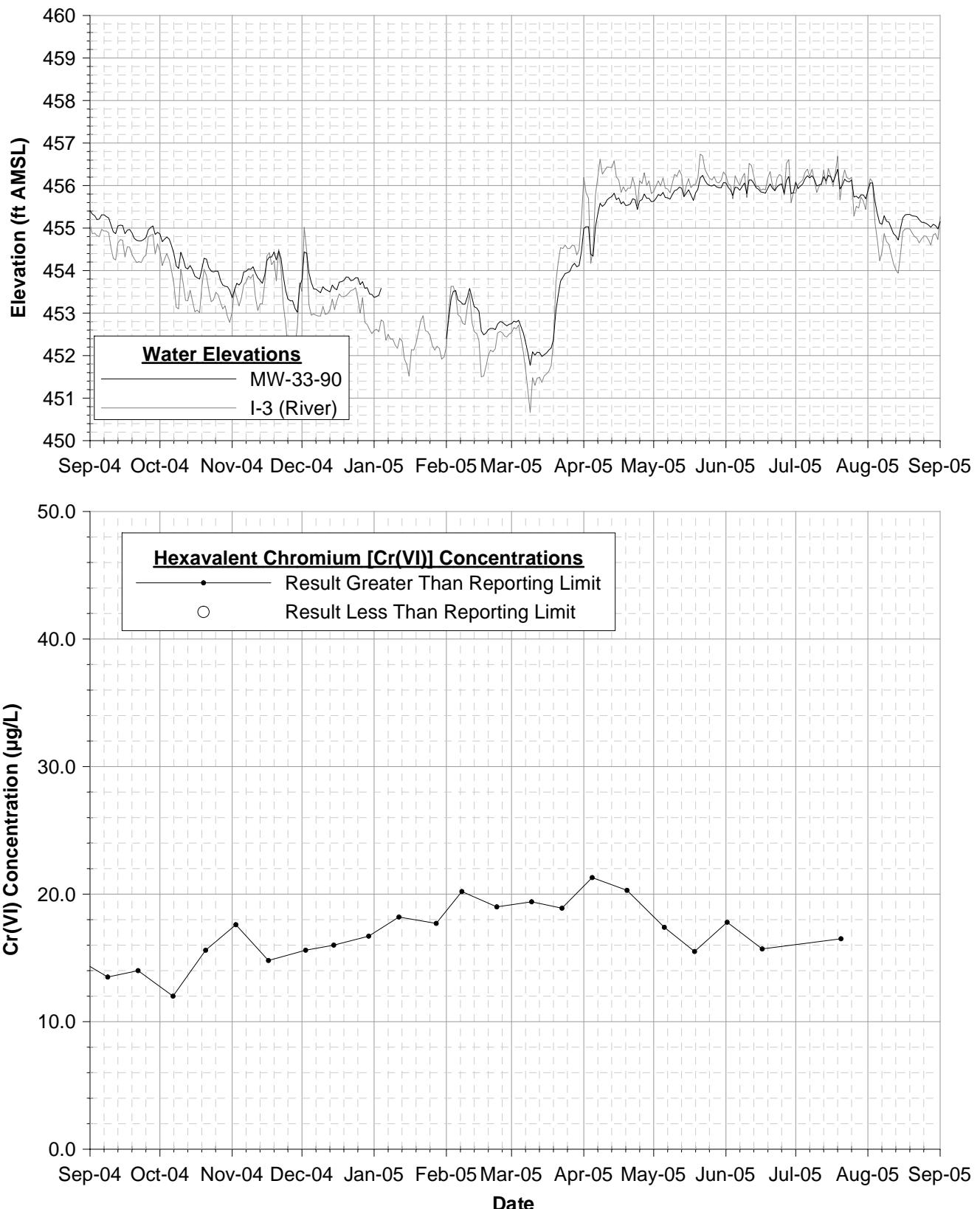


FIGURE A-1
MW-33-90 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 07/20/05
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes

1. Chromium results in micrograms per liter ($\mu\text{g/L}$), equivalent to parts per billion (ppb).
2. Data subject to review.

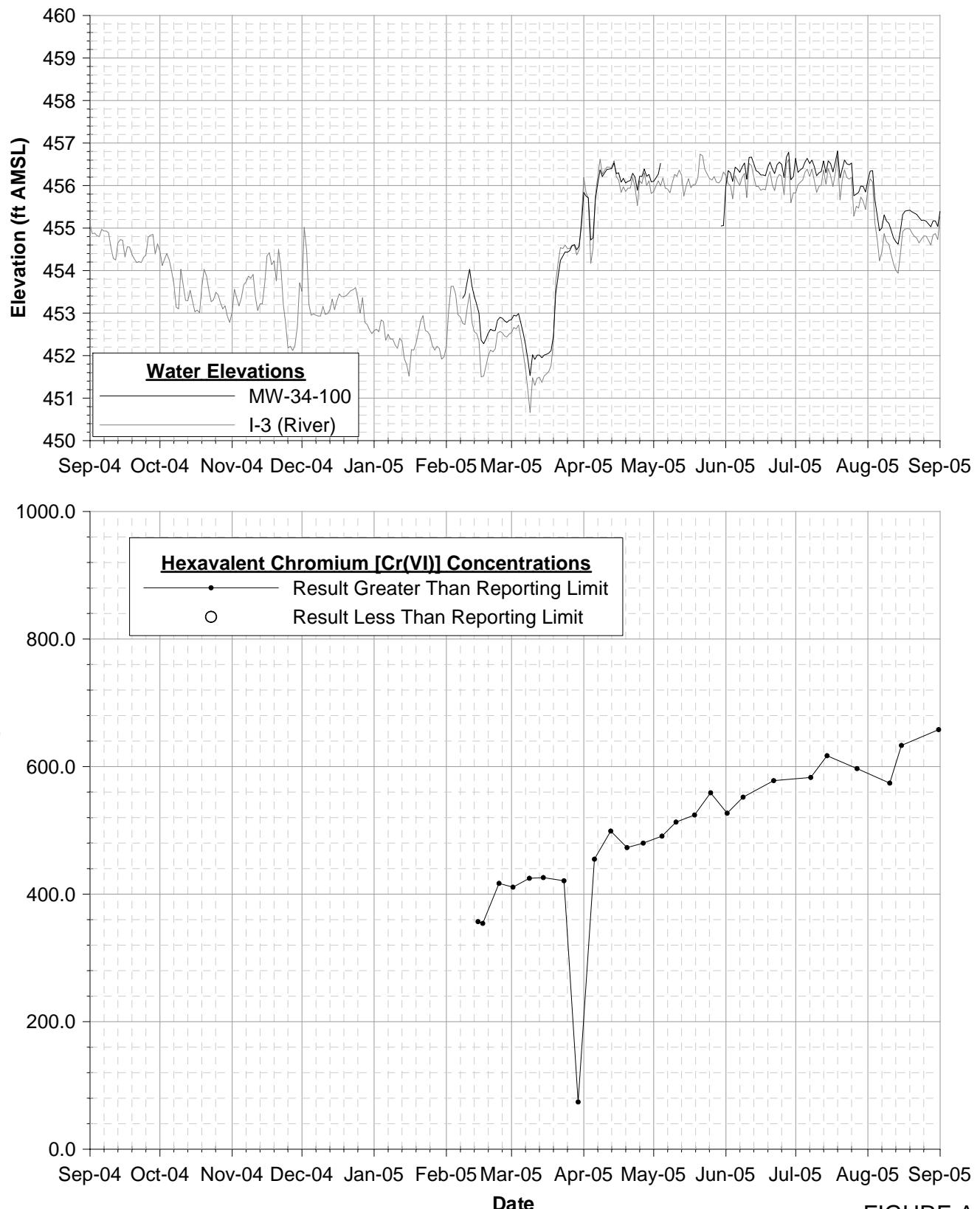


FIGURE A-2
MW-34-100 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 8/31/05
INTERIM MEASURES PERFORMANCE MONITORING
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Notes

1. Chromium results in micrograms per liter ($\mu\text{g/L}$), equivalent to parts per billion (ppb).
2. No groundwater elevation data available during May 2005 due to transducer malfunction.
3. Data subject to review.

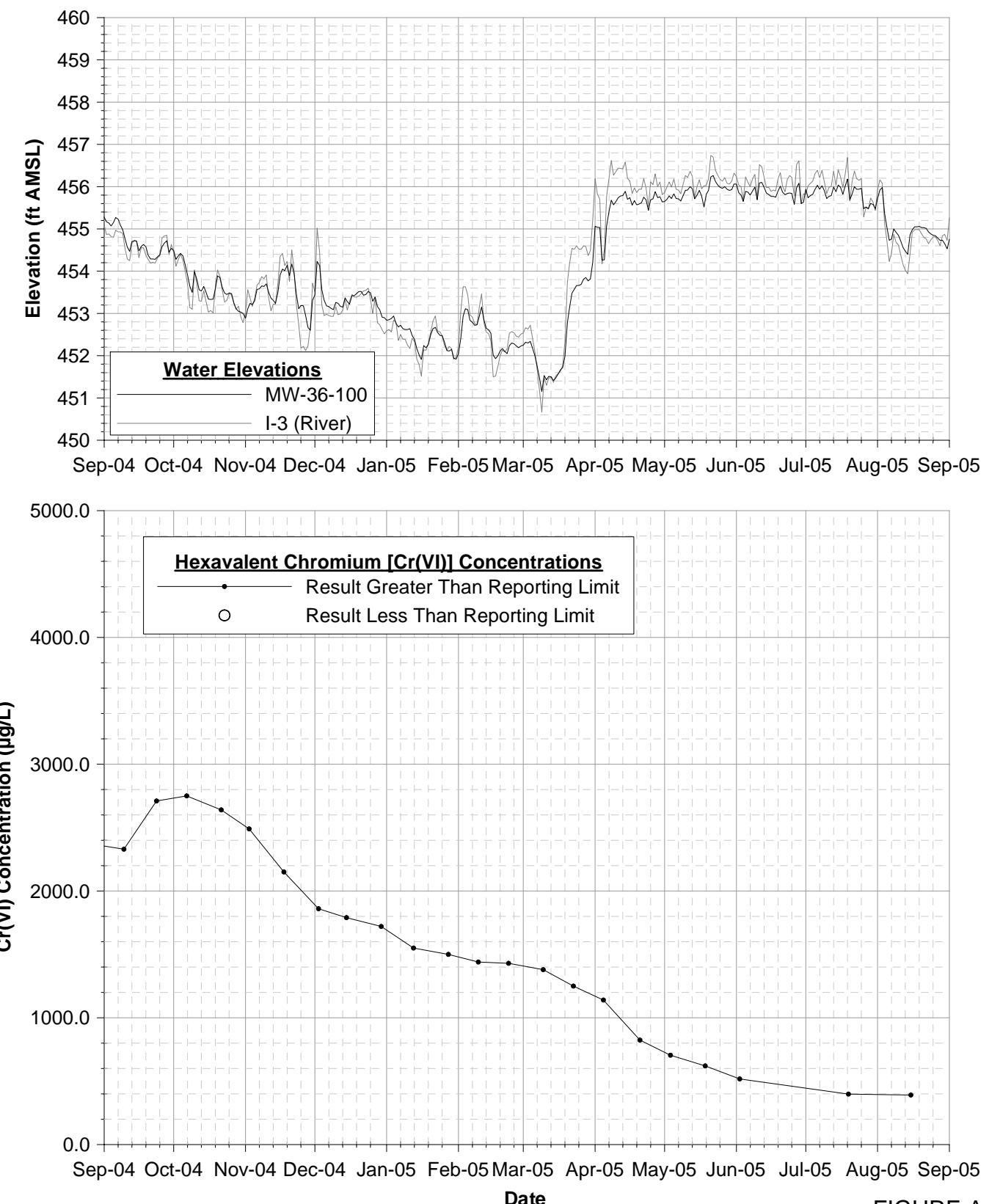


FIGURE A-3
MW-36-100 CR(VI) CONCENTRATION &
HYDROGRAPH - THROUGH 08/15/05
 INTERIM MEASURES PERFORMANCE MONITORING
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

Notes

1. Chromium results in micrograms per liter ($\mu\text{g/L}$), equivalent to parts per billion (ppb).
2. Data subject to review.

Appendix B

Hydraulic Monitoring Data for Reporting Period

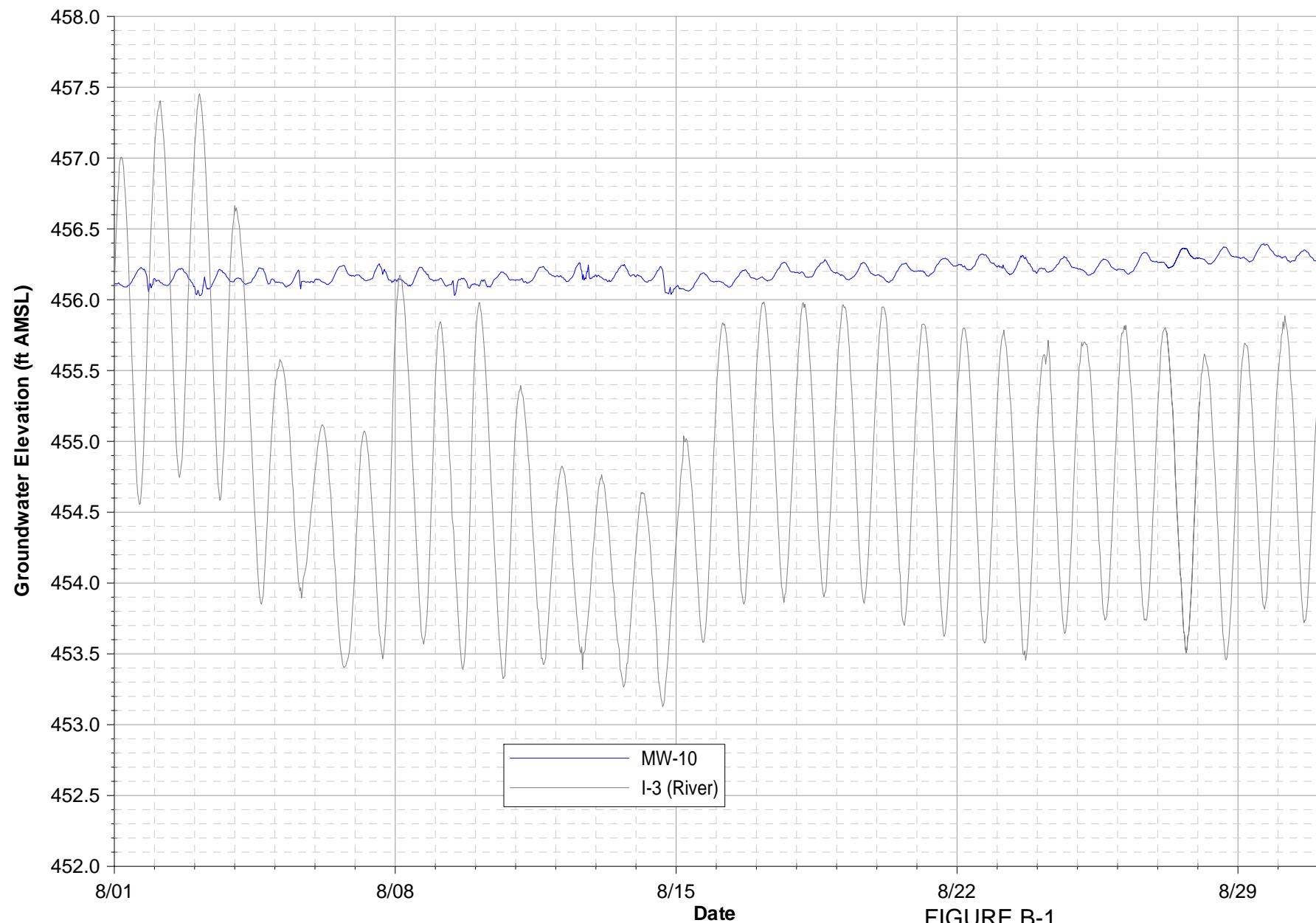
TABLE B-1

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

Well	Average (ft AMSL)	Minimum (ft AMSL)	Maximum (ft AMSL)	Aquifer Depth
I-3	454.81	453.69	455.84	River Station
RRB	455.30	454.12	456.40	River Station
MW-10	456.20	456.14	456.27	Upper
MW-19	455.38	455.26	455.46	Upper
MW-20-070	454.55	454.39	454.70	Upper
MW-20-100	454.20	453.97	454.54	Upper
MW-20-130	453.92	453.57	454.46	Upper
MW-22	455.44	455.30	455.57	Upper
MW-25	455.74	455.69	455.79	Upper
MW-26	455.37	454.93	455.74	Upper
MW-27-020	454.91	454.60	455.19	Upper
MW-27-060	455.05	454.43	455.63	Upper
MW-27-085	455.03	454.41	455.61	Upper
MW-28-025	455.04	454.57	455.48	Upper
MW-28-090	455.11	454.35	455.82	Upper
MW-29	455.45	455.40	455.49	Upper
MW-30-030	455.33	455.19	455.46	Upper
MW-30-050	454.86	454.32	455.37	Upper
MW-31-060	455.09	454.91	455.22	Upper
MW-31-135	454.65	454.37	454.99	Upper
MW-32-020	455.08	454.92	455.22	Upper
MW-32-035	454.88	454.54	455.19	Upper
MW-33-040	455.22	454.87	455.54	Middle
MW-33-090	455.23	454.82	455.61	Middle
MW-33-150	455.31	454.93	455.70	Middle
MW-33-210	455.61	455.29	455.94	Middle
MW-34-055	455.07	454.30	455.78	Middle
MW-34-080	455.38	454.68	456.05	Middle
MW-34-100	455.14	451.53	455.91	Middle
MW-35-060	455.41	455.07	455.73	Middle
MW-35-135	455.25	455.05	455.44	Middle
MW-36-020	454.87	454.39	455.31	Middle
MW-36-040	454.88	454.29	455.43	Middle
MW-36-050	454.88	454.27	455.45	Middle
MW-36-070	454.98	454.36	455.57	Lower
MW-36-090	454.80	453.95	455.32	Lower
MW-36-100	454.95	454.38	455.47	Lower
MW-39-040	454.77	454.25	455.25	Lower
MW-39-050	454.80	454.30	455.28	Lower
MW-39-060	454.68	454.21	455.14	Lower
MW-39-070	454.49	454.08	454.93	Lower
MW-39-080	454.44	454.02	454.88	Lower
MW-39-100	454.82	454.38	455.26	Lower
MW-42-030	454.84	454.45	455.20	Lower
MW-42-055	455.00	454.58	455.38	Lower
MW-42-065	455.00	454.58	455.40	Lower
MW-43-025	454.89	454.28	455.48	Lower
MW-43-075	455.06	454.40	455.69	Lower
MW-43-090	455.18	454.30	455.81	Lower
PE-01	454.82	454.20	455.40	Lower

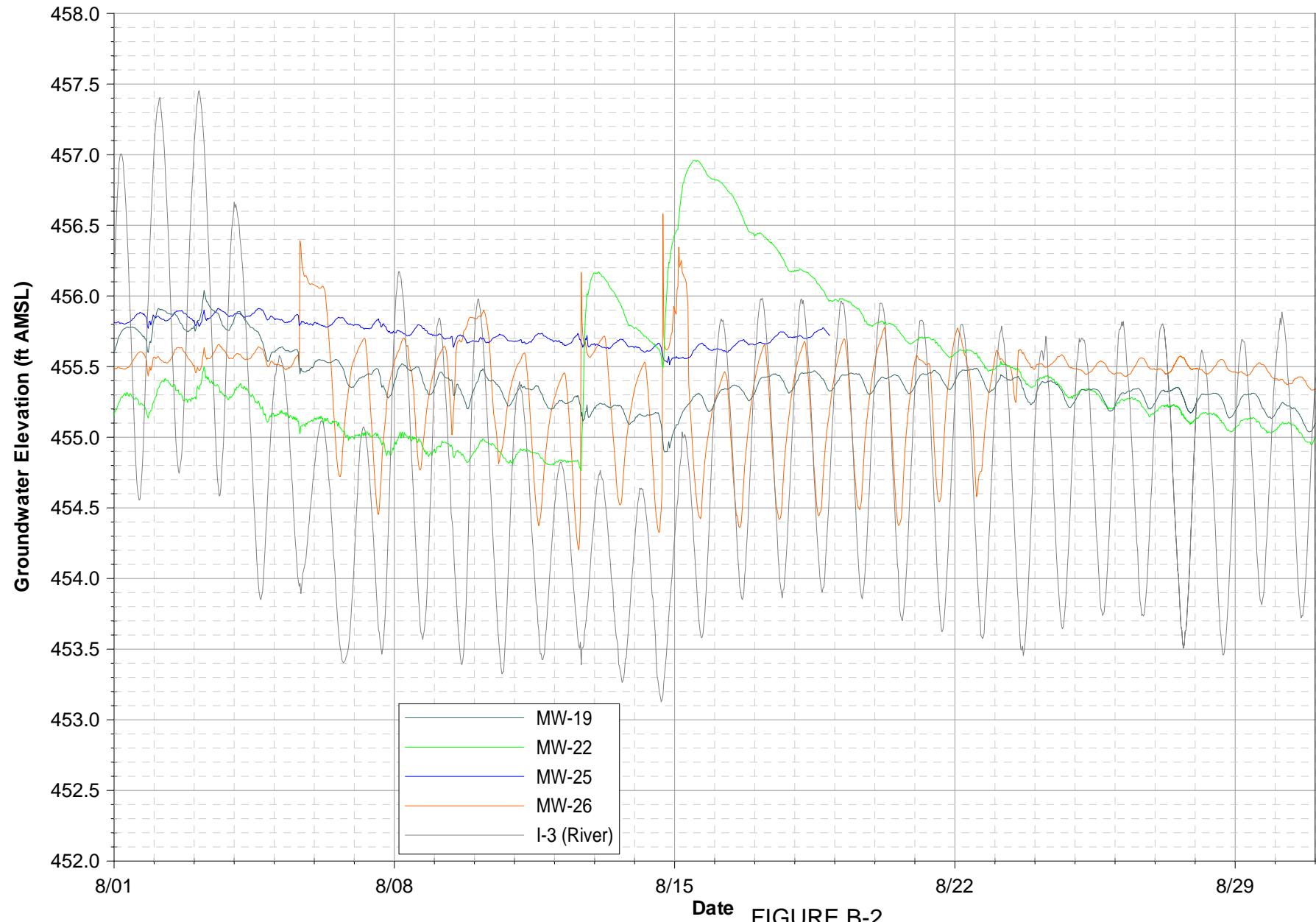
Notes:

Data from MW-25 is the mean of 8/1/05 though 8/15/05.
Data from MW-34-80 is the mean of 8/1/05 though 8/15/05.



Note: Data subject to review.

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



Note: Data subject to review.

FIGURE B-2
MW-19, MW-22, MW-25, AND MW-26 HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

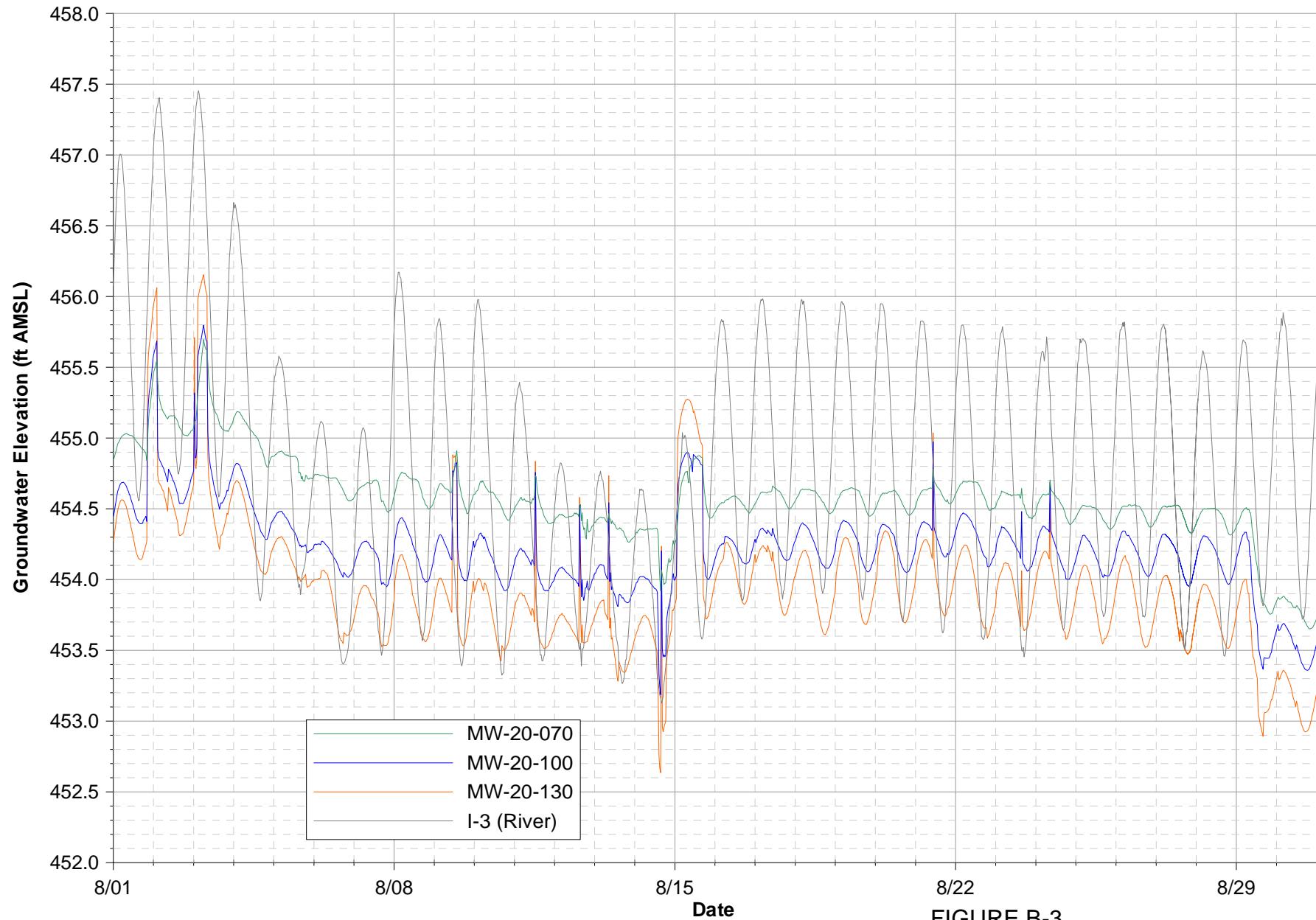


FIGURE B-3
MW-20 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

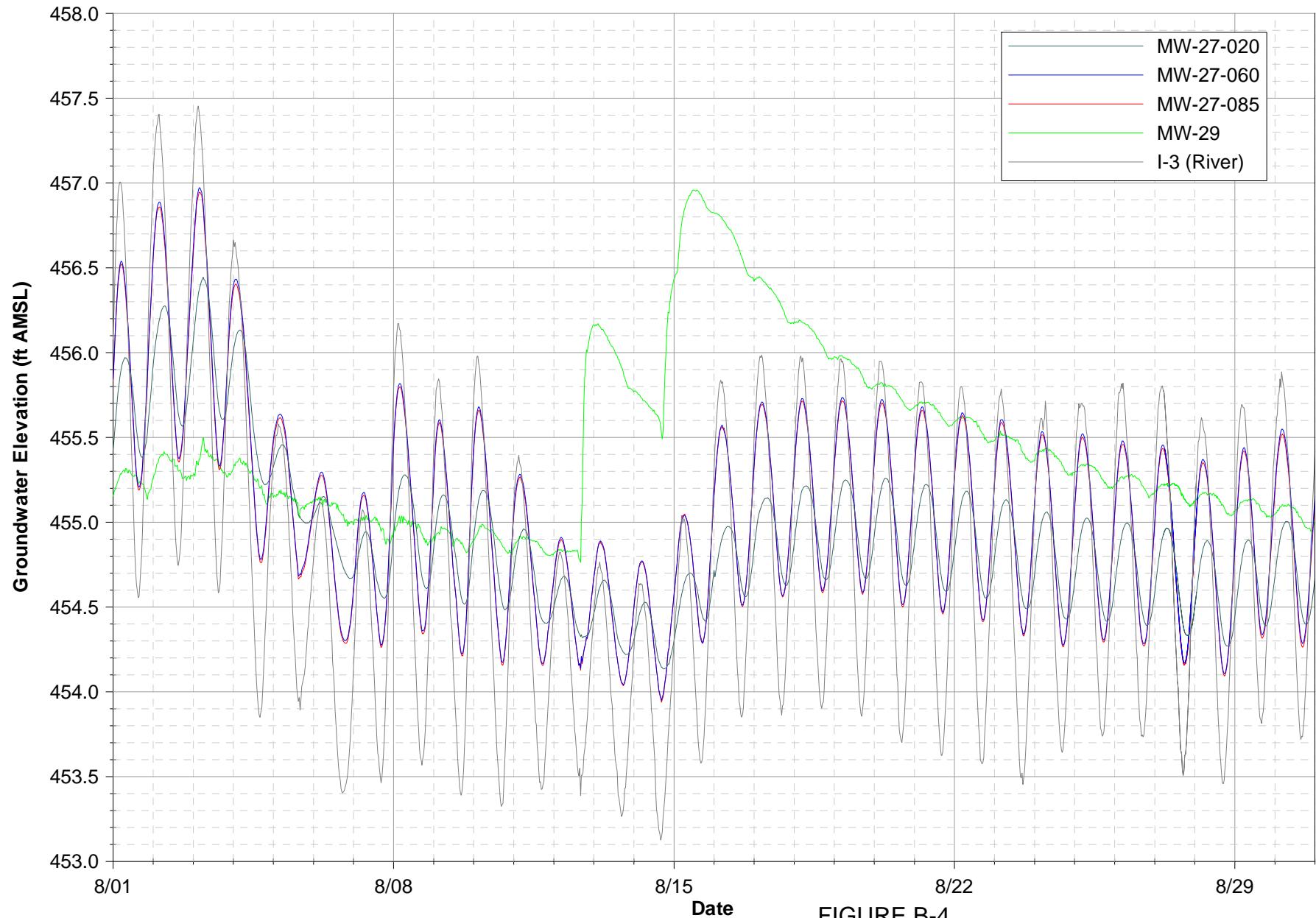
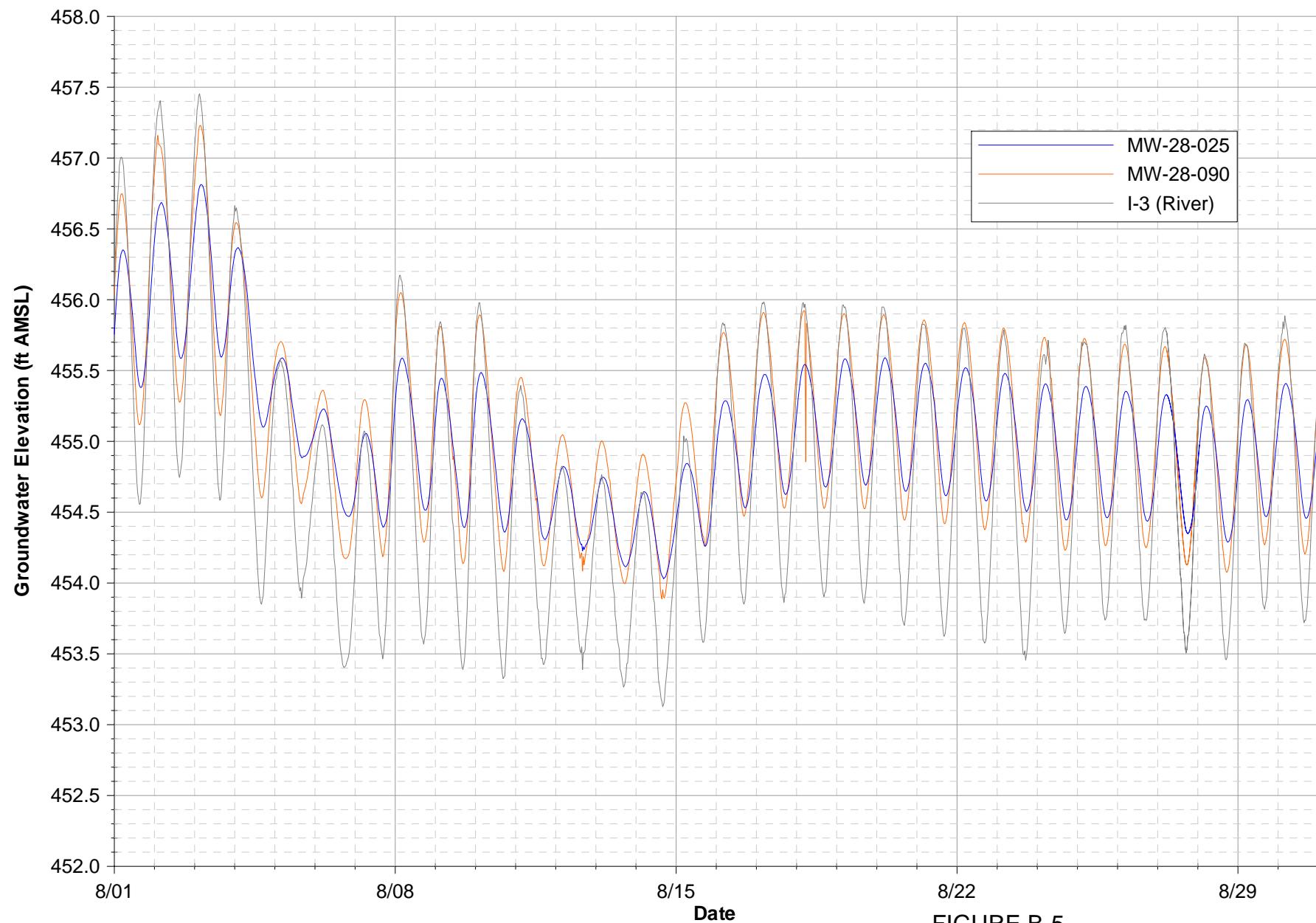


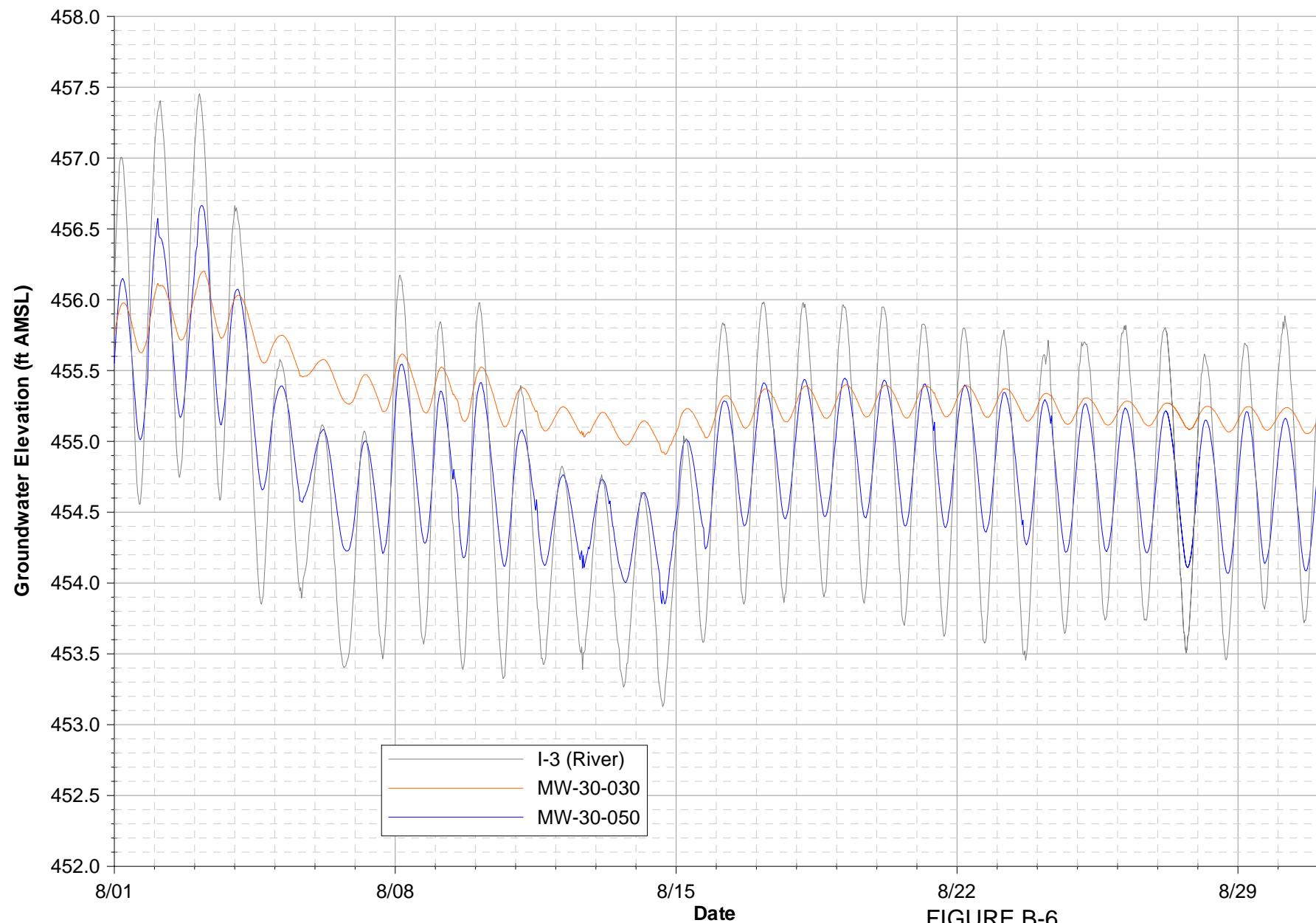
FIGURE B-4
MW-27 CLUSTER AND MW-29 HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

Note: Data subject to review.



Note: Data subject to review.

FIGURE B-5
MW-28 WELL HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



Note: Data subject to review.

FIGURE B-6
MW-30 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

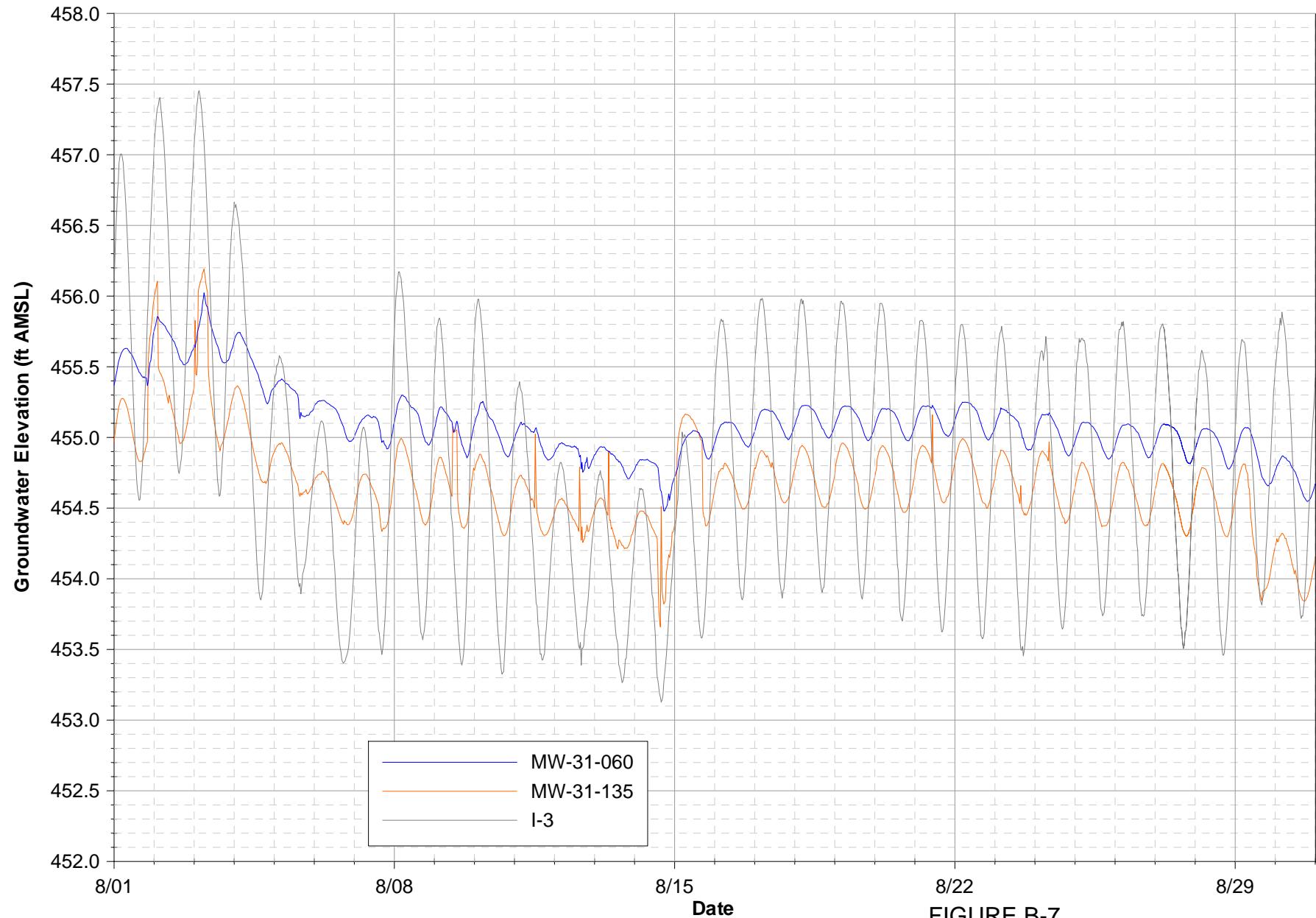
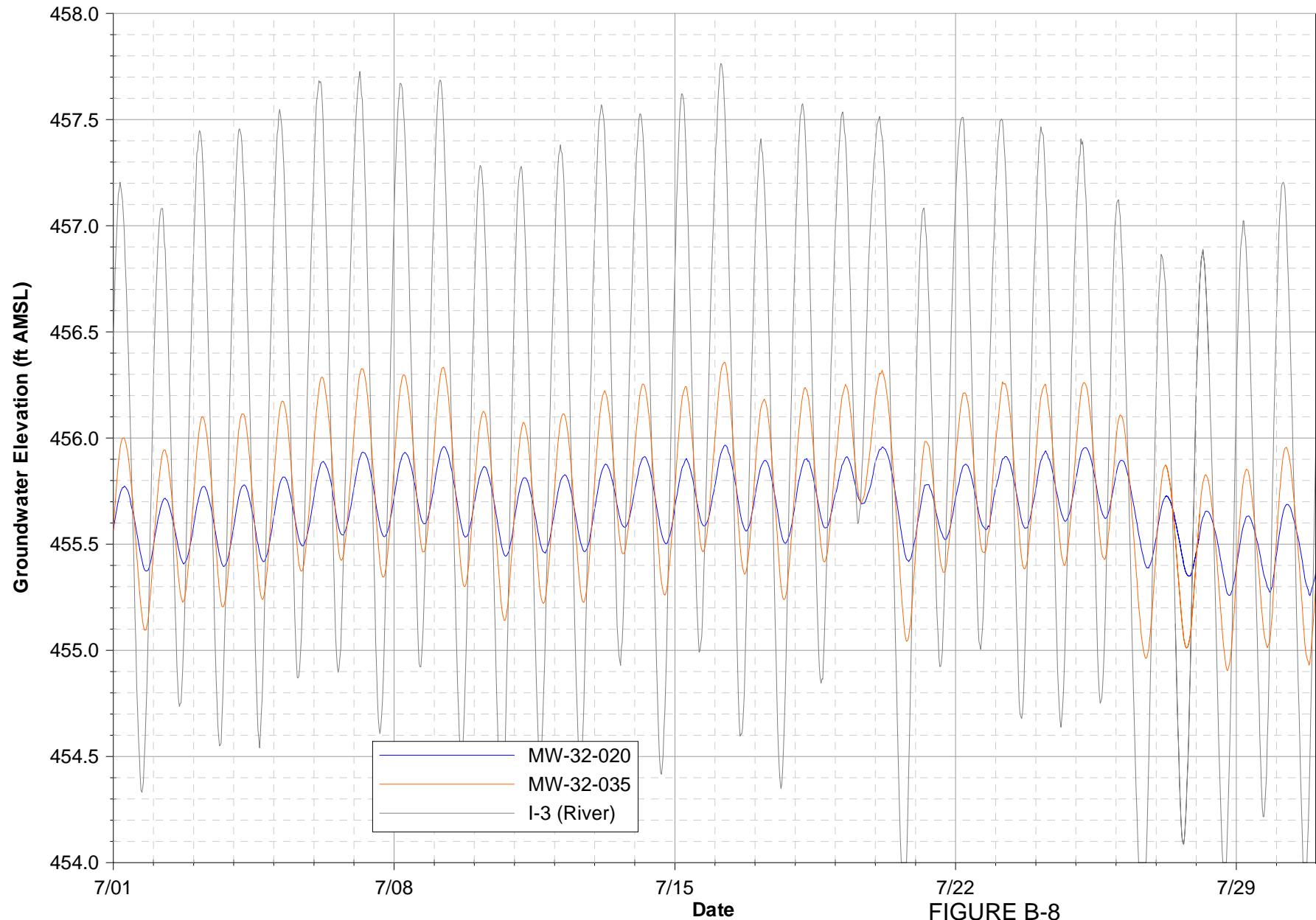


FIGURE B-7
MW-31 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

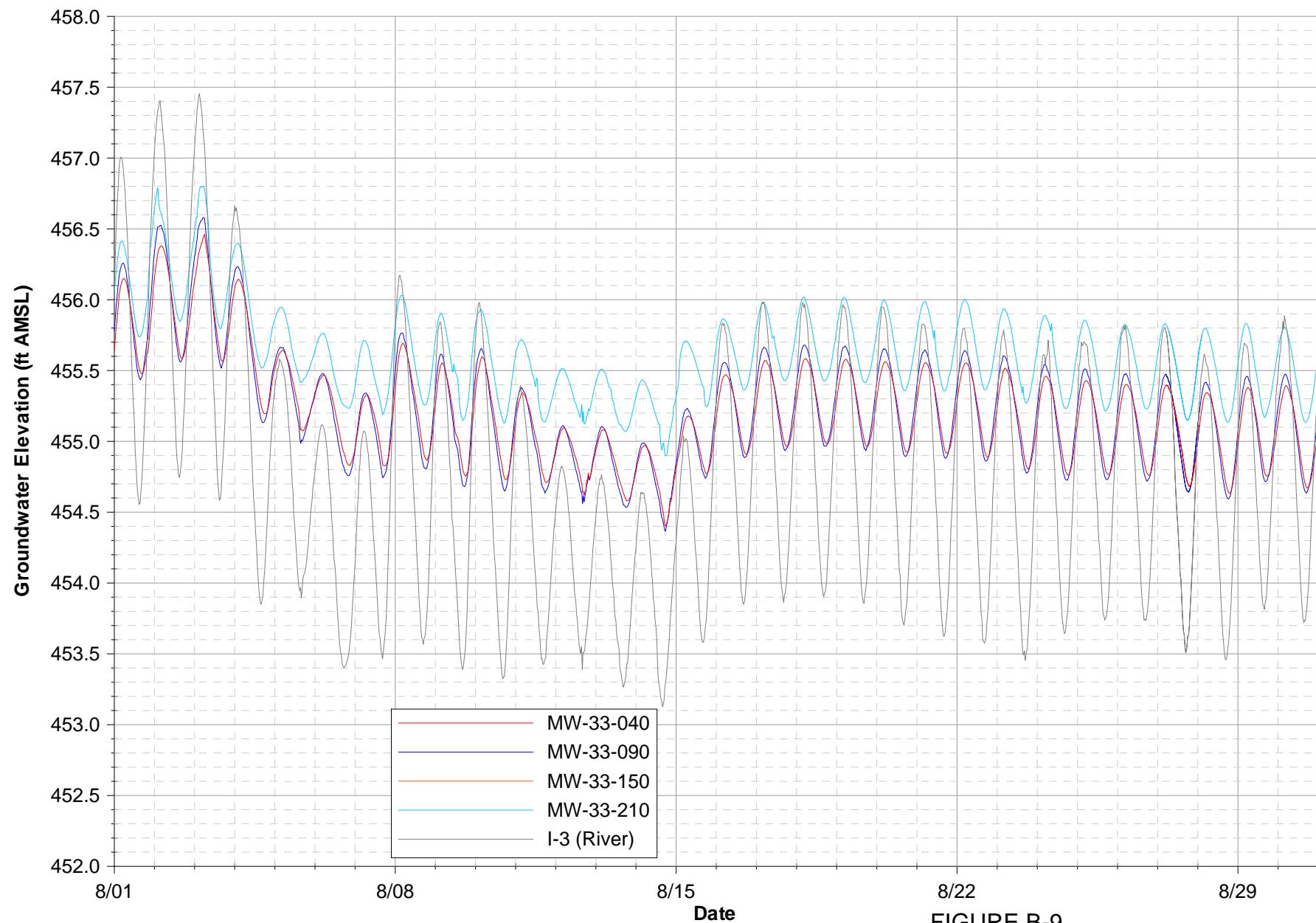
Note: Data subject to review.



Note: Data subject to review.

FIGURE B-8
MW-32 WELL HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



Note: Data subject to review.
MW-33-150 transducers failed twice during July, no data is available.

FIGURE B-9
MW-33 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

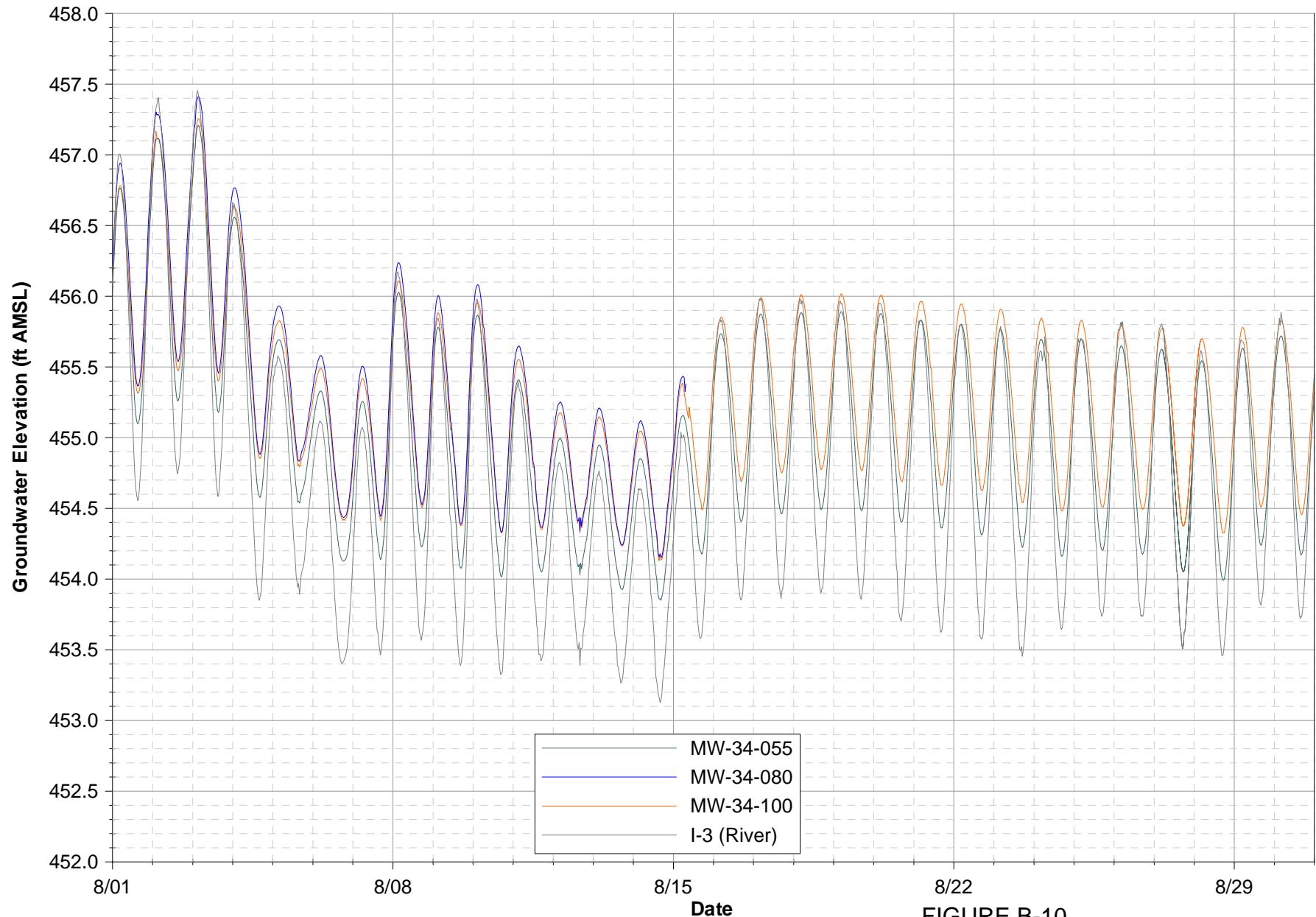
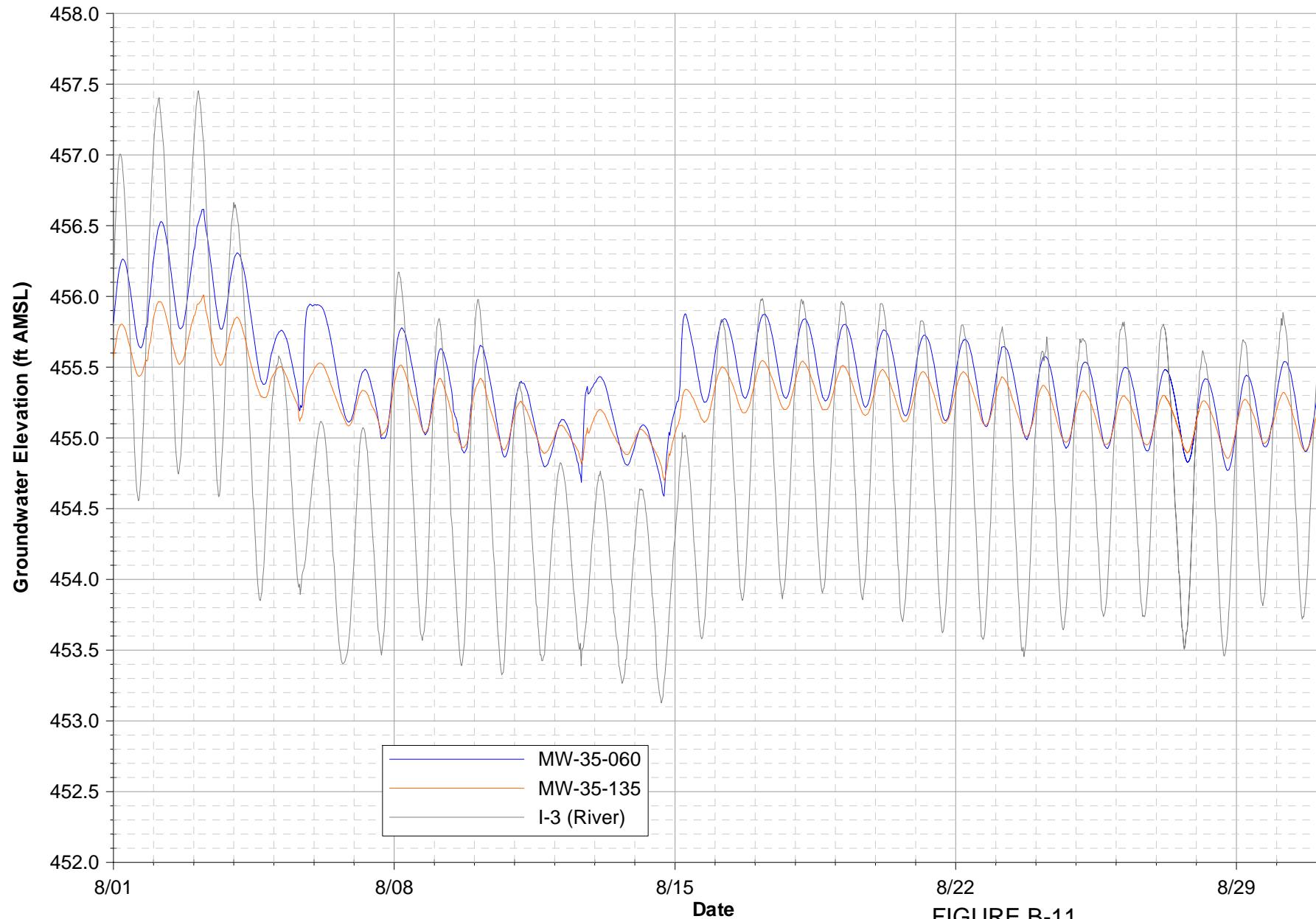


FIGURE B-10
MW-34 CLUSTER HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



Note: Data subject to review.

FIGURE B-11
MW-35 WELL HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

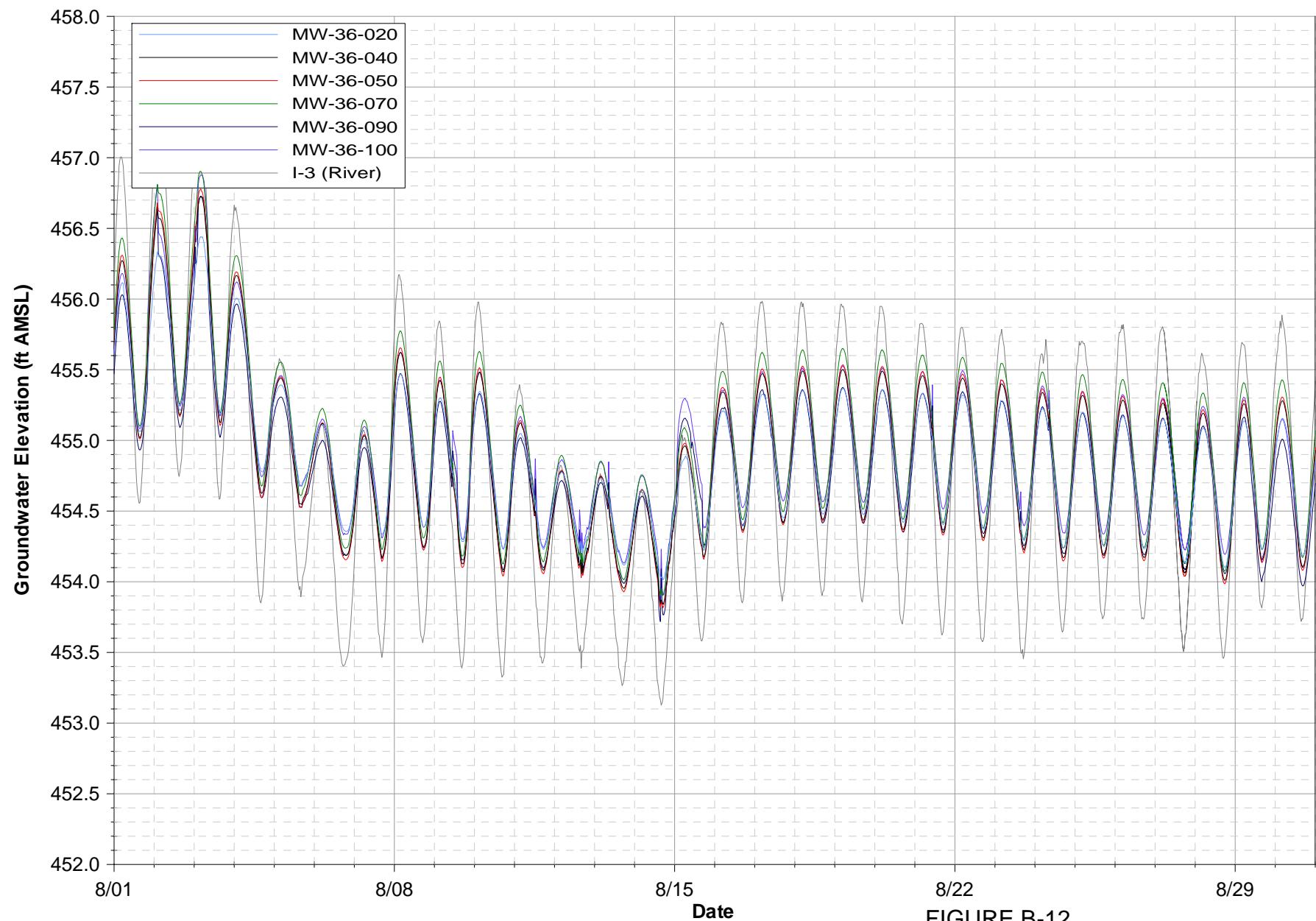
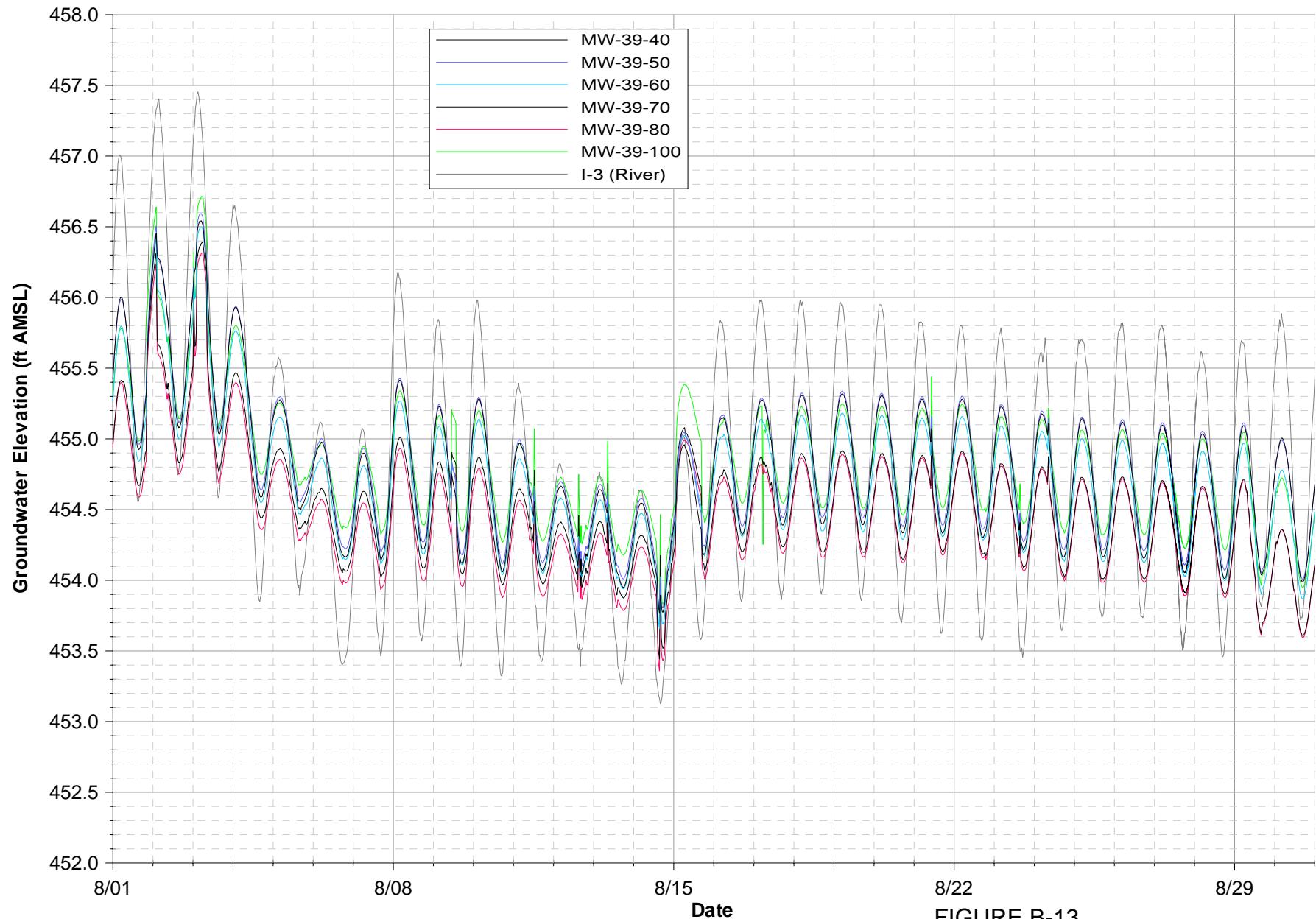


FIGURE B-12
MW-36 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

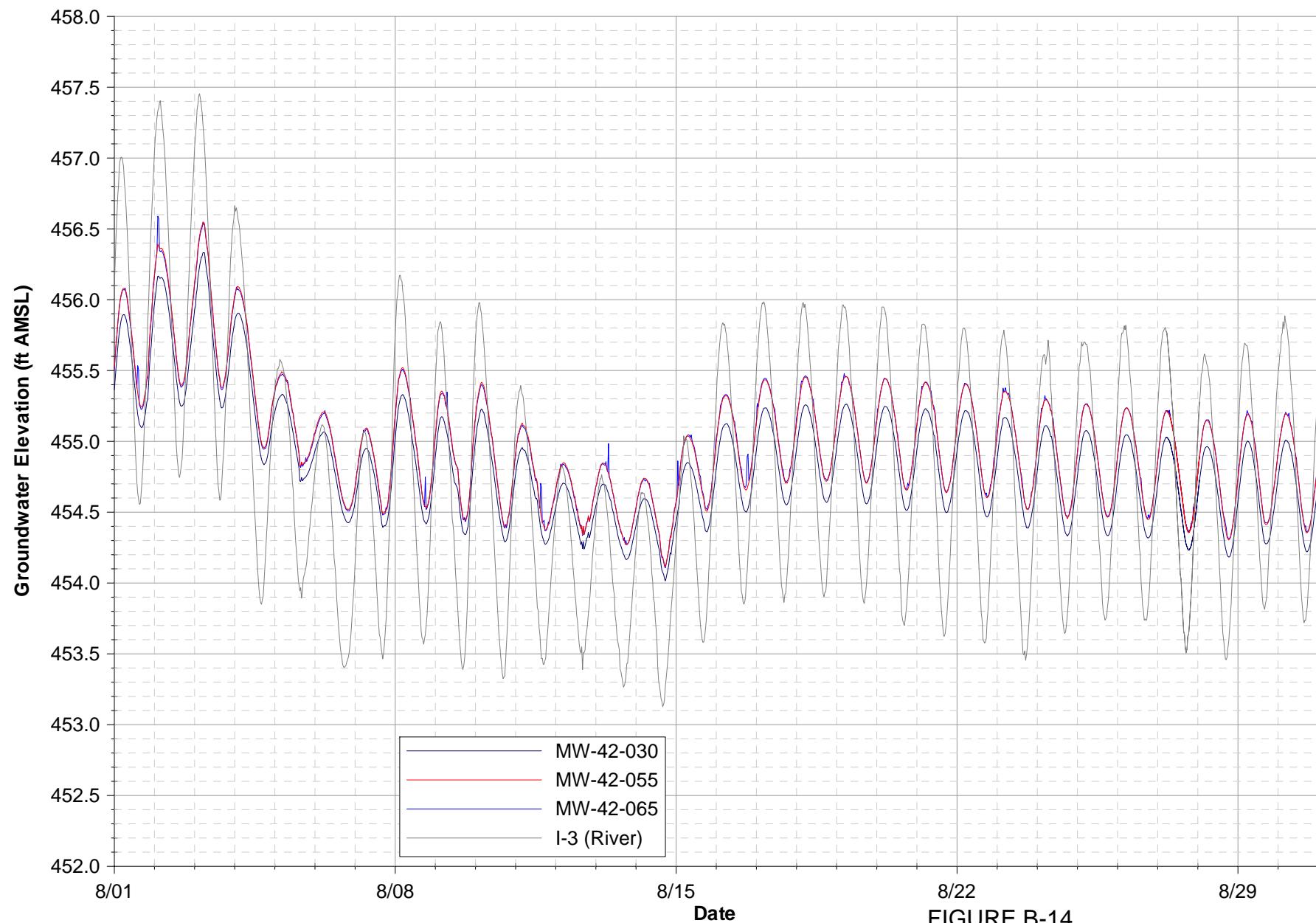
Note: Data subject to review.

CH2MHILL



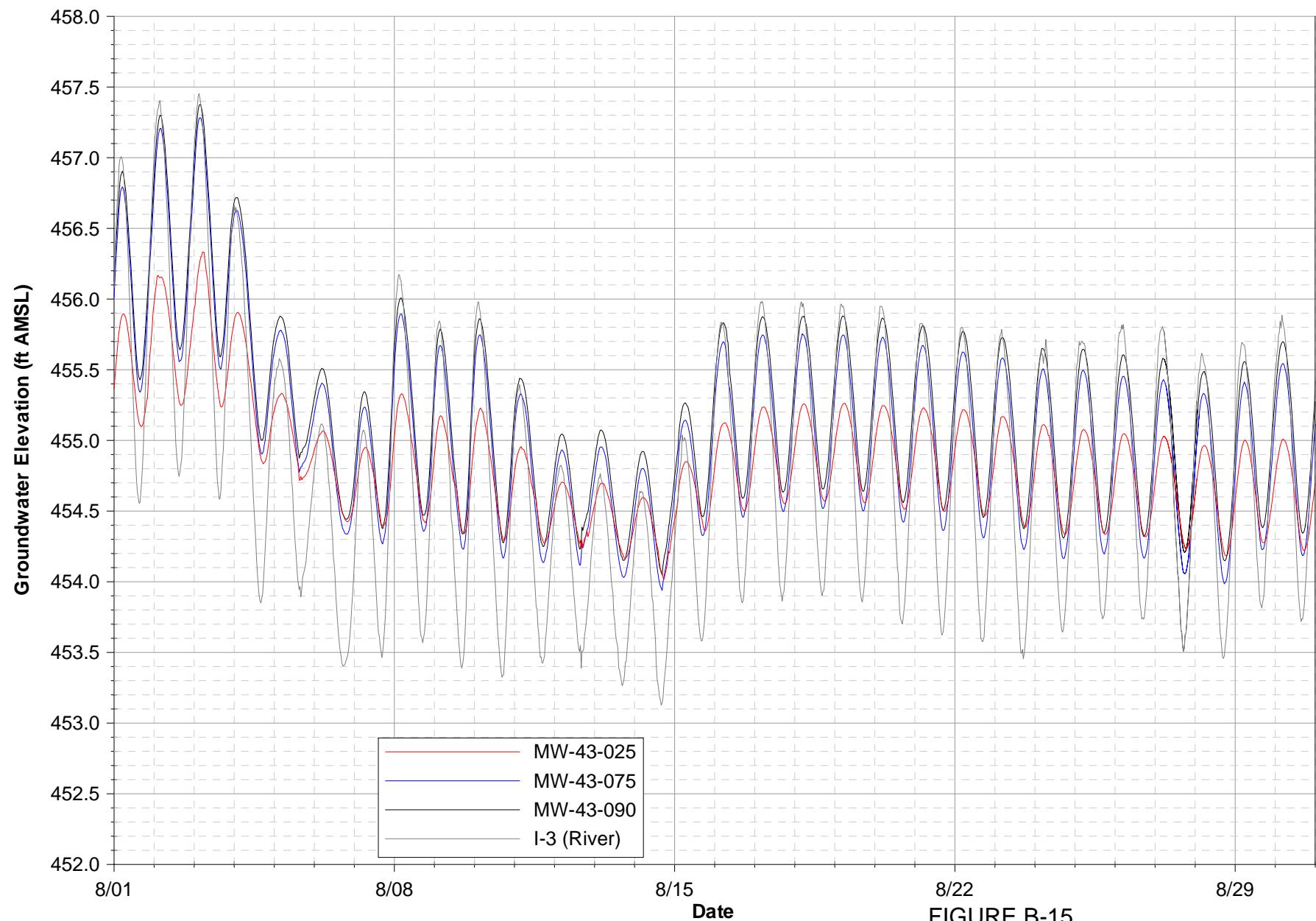
Note: Data subject to review.

FIGURE B-13
MW-39 CLUSTER HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



Note: Data subject to review.

FIGURE B-14
MW-42 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



Note: Data subject to review.

FIGURE B-15
MW-43 CLUSTER HYDROGRAPHS
INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA