

Attachment 8

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

CLEANUP AND ABATEMENT ORDER
NO. R6V-2015-~~DRAFT~~PROPOSED
WDID NO. 6B369107001

REQUIRING PACIFIC GAS AND ELECTRIC COMPANY
TO CLEAN UP AND ABATE WASTE DISCHARGES
OF TOTAL AND HEXAVALENT CHROMIUM TO THE
GROUNDWATERS OF THE MOJAVE HYDROLOGIC UNIT

Groundwater Monitoring and Reporting Program

San Bernardino County

California Water Code section 13267 authorizes the Regional Water Quality Control Board (Water Board) to require technical and monitoring reports. This Monitoring and Reporting Program (MRP) establishes requirements consistent with the California Water Code. Pursuant to Water California Water Code section 13223, this MRP may be amended by the Water Board Executive Officer.

This MRP requires Pacific Gas & Electric Company (hereinafter referred to as either "PG&E" or "Discharger") to collect water samples, conduct monitoring actions, and submit technical reports to evaluate compliance with the terms and conditions of this Order, and to assure protection of waters of the state and restoration of beneficial uses. Consistent with Water Code section 13267, this Order requires implementation of a MRP that is intended to verify the effectiveness of remediation, track progress toward meeting remediation targets, and evaluate threats to and monitor water quality in private supply wells.

As cleanup progresses and conditions change, it may be necessary to modify the requirements ~~in order~~ to best ~~effectuate these goals~~ accommodate changing conditions. The Water Board's Executive Officer has the ability to modify the requirements of this Order, as necessary.

I. GROUNDWATER MONITORING REQUIREMENTS

- A. **Beginning ~~first~~ 1st Quarter 2016, and every quarter (three months) thereafter**, PG&E shall implement a site-wide monitoring well and domestic well sampling and monitoring program. Monitoring well and domestic/community well sampling shall be conducted at the frequency and using the criteria prescribed in this "Groundwater Monitoring and Reporting Program."

B. PG&E shall:

1. Collect groundwater elevation data to the nearest 0.01 foot from all monitoring wells required for that quarter.
2. Collect groundwater samples from monitoring wells and active domestic/community wells required for that quarter. Active is defined as any water supply well used during that quarter or planned for use within the next six months. Active wells include those wells on PG&E-owned property and used that quarter for any purpose. Inactive wells are defined as any water supply well not used that quarter or not planned for use within the next six months.
3. Water samples shall be analyzed for Cr(VI) using [Environmental Protection Agency \(EPA\) Method 218.6](#) with a reporting limit of 0.2 parts per billion (ppb) and Cr(T) using EPA Method 6020A or 6010B with a reporting limit of 1 ppb.

C. Southern Plume Area, including "Western Finger" and Lower Aquifer

This area is defined as the southern plume area connected to the source area at the Facility, shown in CAO Attachment 2. Within this area, the Discharger shall conduct sampling to meet the following objectives:

1. To track remediation effectiveness, sampling will be conducted in accordance with the monitoring and reporting programs specified for the [Agricultural Treatment Units \(ATUs\)](#) and In-Situ Reactive Zones (IRZs) in the permits for those systems, as summarized in Attachment A to this MRP. The ATU monitoring program is currently established in the ATU WDRs ([Order No. R6V-2014-0023, discussed in Finding 254](#)) and associated documents. The IRZ program was proposed by the Water Board staff in a letter dated February 19, 2014 and will be included in a revised IRZ monitoring program that will be circulated for public comment along with revised/combined Notice of Applicability for the general Waste Discharge Requirements for In-situ Activities ([Order No. R6V-2008-0014, discussed in Finding 24](#)).
2. To track the chromium plume, to protect domestic wells, and for general monitoring, sampling will be conducted according to the chromium monitoring program listed in MRP Attachment A.

Once every year in the Annual Cleanup Status and Effectiveness Reports, the monitoring frequency of monitoring wells used to contour the plume boundary will be reviewed to determine whether the sampling frequency for an individual well should be changed. The decision tree shown in Figure 8.1 (MRP Attachment B) will be used to determine if a change in monitoring frequency is warranted.

- Quarterly Branch: For quarterly monitoring wells, if the Cr(VI) concentration is less than 3.1 µg/L for a period of four consecutive sampling events, the monitoring frequency will be reduced to semi-annual. If there are 12 consecutive sampling events of data in which the Cr(VI) concentrations are less than 10 µg/L then the sampling frequency will be changed to semiannual if either of the two following conditions are met: 1) Cr(VI) concentration is greater than 3.1 µg/L and there is a decreasing Mann-Kendall statistical trend based on 12 consecutive sampling events of data or 2) no trend based on 12 consecutive sampling events of data. If these conditions are not met, the sampling frequency will remain quarterly.
- Semi-Annual Branch: For semiannual monitoring wells, if the Cr(VI) concentration is greater than or equal to 3.1 µg/L for four consecutive sampling events and there is an increasing Mann-Kendall trend, then the sampling frequency will be changed to quarterly. If the Cr(VI) concentration is less than 3.1 µg/L for four consecutive sampling events, then the frequency will stay at semi- annual. If the Cr(VI) concentration is greater than 3.1 µg/L and there is not an increasing Mann Kendall statistical trend, then the sampling frequency will stay semi- annual.
- The few wells that are monitored on an annual sampling frequency, as specified in MRP Attachment A will continue on an annual sampling frequency. If changes to sampling frequency for these wells are needed, the evaluation will occur separately.
- This process will not apply to ATU and IRZ program wells which are under separate monitoring programs.

MRP Attachment A presents the initial sampling program. This program will be updated in the Annual Cleanup Status and Effectiveness Reports ([Required in section II.B, below](#)) each year to reflect any changes made in the annual program evaluation or other changes made during the year.

D. **Northern ~~Uncertain-Disputed~~ Plumes Area**

This area is defined as north of Thompson Road and into the Harper Dry Lake Valley, shown on CAO Attachment 2. The Discharger shall conduct the following sampling:

1. Quarterly sampling at all **single** monitoring wells and at **multi-depth** monitoring wells showing the **highest** hexavalent or total chromium detections greater than the interim maximum background levels as of ~~fourth~~ 4th Q quarter 2014. If four consecutive or four out of five samples in different sampling periods detect chromium in monitoring wells at decreasing concentrations that puts the well into one of the below categories, the Discharger may decrease- the sampling frequency accordingly. In this instance, the new well showing the highest chromium concentrations greater

than the interim maximum background levels is then moved to a quarterly sampling frequency.

2. Semi-annual sampling in the second and fourth quarter of each year at **multi-depth** monitoring wells showing the **second highest** hexavalent or total chromium detections as of ~~fourth~~ 4th Q quarter 2014.
3. Annual sampling in the ~~fourth~~ 4th Q quarter of each year for all **multi-depth** monitoring wells showing the third highest hexavalent or total chromium detections as of ~~fourth~~ 4th Q quarter 2014.
4. Once every year in the Annual Cleanup Status and Effectiveness Reports, the sampling frequency of monitoring wells used to draw the location of the chromium isoconcentration contour lines~~contour the plume boundary~~ will be reviewed to determine whether the sampling frequency for an individual well should be changed. The decision tree shown in Figure 8.2 (MRP Attachment C) will be used to determine changes to the monitoring frequencies.

- a) Quarterly Branch: For quarterly monitoring wells, if the Cr(VI) concentration is less than 3.1 µg/Lppb for a period of four consecutive sampling events, the monitoring frequency will be reduced to semi-annual. If the Cr(VI) concentration is greater than 3.1 µg/Lppb and there is a decreasing Mann-Kendall statistical trend based on 12 consecutive quarters of data and there are 12 consecutive quarters of data in which the Cr(VI) concentrations are less than 10 µg/Lppb or no trend based on 12 consecutive quarters of data and there are 12 consecutive quarters of data in which the Cr(VI) concentrations are less than 10 µg/Lppb, then the sampling frequency will be changed to semiannual. -For the remaining quarterly wells, the sampling frequency will remain quarterly.
- b) Semi-Annual Branch: For semiannual monitoring wells, if the Cr(VI) concentration is greater than or equal to 3.1 µg/Lppb for four consecutive sampling events and there is an increasing Mann-Kendall trend, then the sampling frequency will be changed to quarterly. If the Cr(VI) concentration is less than 3.1 µg/Lppb for four consecutive sampling events, then the frequency will be changed to annual. If the Cr(VI) concentration is greater than 3.1 µg/Lppb and there isa not an increasing Mann Kendall statistical trend, then the sampling frequency will be decreased to annual. If all of the wells in the cluster meet the criteria for annual sampling, the well with the highest Cr(VI) concentration will be retained for semi-annual sampling.
- c) Annual Branch: For annual monitoring wells, if the Cr(VI) concentration is non-detect for four consecutive sampling events, the sampling frequency will be reduced to biennial. If the Cr(VI) concentration is detected within four consecutive sampling events and there is an increasing Mann-Kendall statistical trend, then the sampling frequency will be increased to semi-

annual. If the Cr(VI) concentration is detected within four consecutive sampling events and there is not an increasing Mann-Kendall statistical trend, then the sampling frequency will remain annual.

E. **Domestic/Community Water Supply Wells, Northern ~~Disputed Uncertain~~ Plume¹**

For the northern area where the plume is ~~disputed uncertain~~, the following sampling requirements apply to all active drinking water supply wells one-half mile downgradient and cross gradient of any northern area monitoring well showing detections of total or hexavalent chromium above the maximum contaminant levels established for drinking water.

1. Quarterly sampling at all domestic and community wells having hexavalent or total chromium detections at or above drinking water standards following any sampling event.
2. Semi-annual sampling in the second and fourth quarter of each year at all domestic and community wells having hexavalent or total chromium detections at or above the interim maximum background levels.
3. Requests to modify the quarterly or semi-annual sampling frequency must follow the decision tree process specified in Attachment C of this MRP.

F. **~~G.~~ No Monitoring or Domestic Well Sampling is Required for the Following Locations:**

1. Southwest (i.e., upgradient) of the Lockhart Fault
2. On or east of Dixie Road
3. Redundant monitoring wells (defined as being less than 200 feet from other monitoring wells except those screened across different depths) having the lower of chromium detections compared to the other nearby well may be removed from all sampling events.

II. REPORTING TYPES

A. Quarterly Groundwater Monitoring Reports

Quarterly groundwater monitoring reports for site-wide monitoring well and domestic/community well monitoring are due every quarter (three months) on ~~January-February 130th, April-May 130th, July-August 130th, and October November 130th~~ of each year. The quarterly reports shall include required information for maps and reports as described below in Requirements III.B.1., B.2., and B.3. ~~Chromium plume maps and Geotracker submittals shall be~~

¹ Domestic supply well monitoring in the southern plume area is required as part of Board Order R6V-2014-0023 (Waste Discharge Requirements for Agricultural Treatment Units).

~~implemented according to the due dates described in Requirements III.C. and III.D.~~

B. Annual Cleanup Status and Effectiveness Reports, and Operational Plans

Beginning February 28, 2016, submit annual cleanup effectiveness reports to reach target concentrations listed in CAO Requirement VI. The reports shall describe all clean up actions planned and/or implemented during the previous calendar year. PG&E shall explain why any planned cleanup actions were not implemented. Each report shall discuss the actual effectiveness of the final cleanup remedy compared to the prior year's data and expected effectiveness showing the fourth quarter chromium plume boundary for the year before versus that year's fourth quarter chromium plume boundary map on the same figure. Provide a calculation for chromium mass removed over the year and the cumulative mass removed since initial remedial actions were implemented in 1992. If current actions are not achieving expected reductions in chromium concentrations, the report shall propose recommendations and an implementation schedule to increase effectiveness. **Within 30 days of the annual report due date**, implement the recommended actions that do not require Water Board approval.

Each annual report shall also include operational plans for the upcoming year. Operational plans shall be specific to each remediation system (e.g., ATUs, IRZs, and freshwater injection areas), and shall describe minimum planned flow rates, injection rates, reagent volumes, or other pertinent measures of operational effort to maintain plume capture, and demonstrate progress toward meeting remediation goals. Subsequent annual status reports shall be submitted by February 28 of each calendar year, starting with the year 2017. In the fourth year, the annual report shall be replaced by a four-year Comprehensive Cleanup Status and Effectiveness Report, as described in the next section.

C. Four-Year Comprehensive Cleanup Status and Effectiveness Reports

Beginning March 30, 2020, and every four years thereafter in lieu of the annual report, submit a report containing a comprehensive evaluation of chromium cleanup actions to reach target concentrations listed in CAO Requirement VI. These four-year comprehensive reports shall summarize the information listed above in the annual reports, II.B, during the previous four years of remedial action. Each report shall contain a figure showing the fourth quarter chromium plume boundary map for each of the four years. Using this figure and other information, each report shall compare the fourth year data to data from the previous three years to discuss remediation effectiveness. The fourth year data shall also be compared to data from the year this Order is issued, and all intermittent four-year reports. Data collected over the four-year period shall be used to update groundwater models for predicting chromium cleanup to target concentrations. The report shall also provide

research of best available technologies that may be available to remediate chromium in groundwater sooner than target deadlines in this Order. Using the groundwater model results, evaluate the progress to reach target chromium concentrations by the associated deadlines. Describe whether current actions are or are not achieving expected reductions in chromium concentrations. If cleanup actions are not achieving expected reductions, submit a workplan **within 30 days of the date of the 4-year report due date** proposing recommendations and an implementation schedule to increase effectiveness. If best available technology is not recommended, the report and workplan shall state why and provide supporting information. The ~~four~~4-year reports can consider, evaluate, and include corrective actions previously approved by the Water Board. Subsequent four-year comprehensive reports shall be submitted by March 30 every four years, starting with the year 2024.

III. GROUNDWATER MONITORING REPORTS

- A. Quarterly groundwater monitoring reports shall include all monitoring data, laboratory reports, related maps, tables of historical data, calculations, statistical test results for that quarter, and recommendations, such as locations for the installation of additional monitoring wells, as required by section IV.B of the Order to provide subsurface information for sufficient resolution of the chromium isoconcentration contour lines in the areas identified in IV.A.2.
- B. Using data from the monitoring wells, quarterly reports shall define the full lateral and vertical extent of chromium in groundwater, based on the monitoring information gathered pursuant to the MRP, for hexavalent and total chromium to at least the interim maximum background levels of 3.1 ppb and 3.2 ppb, respectively, in the upper aquifer, and to 0.02 ppb Cr(VI) -non-detect concentrations ~~in~~ the lower aquifer, and determine the direction of groundwater flow. At a minimum, quarterly monitoring reports shall contain the information listed below.

1. Map Types

- a. Show the concentrations of ~~extent of~~ total and hexavalent chromium in groundwater in the upper and lower aquifers. Each quarterly report shall contain two maps:
- i. A map showing the concentrations of total and hexavalent chromium maximum plume boundary throughout the uppermost saturated zone as isoconcentration contour lines identifying the maximum extent of 3.1 Cr (VI)/ 3.2 Cr (T). Chromium concentrations shall be shown next to each monitoring well sampled. Include the location of domestic wells sampled; however, data from domestic wells shall not be used to draw the ~~plume~~

- ~~boundary chromium isoconcentration contour lines, except in the northern area where no monitoring well is located within one-half mile of domestic wells. For those areas where insufficient monitoring wells exist to define the chromium isoconcentration contour lines in the northern area, data from the domestic wells must be considered and the differences between monitoring wells and supply wells must be factored into a technical explanation of the data.~~
- ii. A separate map showing the maximum extent of concentrations of total and hexavalent chromium at 3.1 Cr (VI)/3.2 Cr (T)~~maximum plume boundary~~ that quarter compared to ~~the plume boundary in~~ the prior quarter.
- b. Potentiometric map for the upper aquifer showing the groundwater flow directions, estimated flow velocity, and calculated gradients, along the length of the ~~map mapped chromium plume~~ and areas where PG&E collected water table data. ~~Do not include the approximate limit of saturated alluvium in upper aquifer.~~
- c. Potentiometric map for the lower aquifer showing the groundwater flow directions, estimated flow velocity, and calculated gradients, along the length of the ~~map mapped chromium plume~~ where water table data exist. ~~Include the approximate limit of saturated alluvium in upper aquifer.~~
- d. Map showing all active and inactive domestic/community supply wells, including those wells on PG&E-owned property and used that quarter for any purpose. Chromium concentrations shall be shown next to each water supply well sampled.
- e. ~~Maps of c~~Chromium isoconcentrations plume maps shall be submitted to the Water Board in digitized form (such as a pdf document). At least one of the submitted maps shall contain monitoring data and plume chromium isoconcentration contour lines and be print~~able~~ by the public on 8-1/2 inch by 11 inch and 11 inch by 17 inch paper. Another submitted map shall contain only plume chromium isoconcentration contour lines and be print~~able~~ by the public on 8-1/2 inch by 11 inch paper.

2. Map Content

- a. Map contents shall be consistent between each map, including data, color, symbols, etc.
- b. Text font size on maps shall be 9 points or greater.
- c. Street names shall be shown in black color to be easily legible.
- d. Location of all active supply wells used for remedial actions and the compressor station operations.
- e. Approximate location of the Lockhart Fault.

- f. Chromium ~~boundary~~isoconcentration contour lines on ~~plume~~-maps shall reflect the groundwater physical and chemical characteristics as interpreted from data reported in monitoring wells and extraction wells at all locations for that quarter. Chromium ~~plume boundary~~isoconcentration contour lines shall show monitoring and extraction well concentration contours representing the maximum extent of the following: 1,000 ppb Cr(VI) or Cr(T), 50 ppb Cr(T), 10 ppb Cr(VI), 3.1 ppb Cr(VI) or 3.2 ppb Cr(T).
 - g. ~~Plume boundary~~Chromium isoconcentration contour lines shall be drawn by a California licensed Professional Geologist or Civil Engineer by evaluating and reporting the site specific conditions using best professional judgment ~~of~~considering the following factors, at a minimum:
 - i. Geology – pertinent subsurface features such as location and depth to bedrock, influences of structure (e.g. folding and faulting), and stratigraphy.
 - ii. Hydrogeology – location and hydraulic properties of the hydrostratigraphic units including, as appropriate, hydraulic conductivity, hydraulic gradients (e.g. horizontal and vertical, regional and localized due to groundwater extraction or injection), saturated aquifer thickness, groundwater flow velocities and directions, characteristics of confined, unconfined, and vadose zones.
 - iii. Geochemistry – nature and extent of ~~chromium concentration~~se~~contamination~~, pertinent groundwater chemistry, historical data from monitoring wells, and appropriate trend analyses.
 - iii.iv. USGS background study – written technical information such as the preliminary results report, or final report or other technical documentation containing analysis, interpretations and conclusions of concentrations and sources of chromium.
- ~~—Identify all areas within one-mile outside of the plume boundary where data points in excess of 3.1 ppb Cr(VI) or 3.2 Cr(T) are located more than 1,320 feet apart, submit a narrative statement explaining the technical rationale relied upon to make the conclusion of either connecting or not connecting those data points when drawing the plume boundary.~~
- ~~i.h.~~ The dashed line representing the inferred chromium ~~boundary~~ isoconcentration contour line of 3.1 ppb Cr(VI) or 3.2 ppb Cr(T) shall be a dark color so as to stand out in contrast to other markings on the map.
 - i. Domestic wells having chromium concentrations exceeding interim maximum background levels and which become inactive in the prior quarter can be removed from maps only if a monitoring well exists and is monitored within one-quarter mile distance of that domestic well.

3. Report Content

- a. Describe depth to groundwater, changes from prior quarter, and calculated gradients and flow direction.
- b. Table of groundwater elevation data for all monitoring and remediation wells sampled over prior 12 months,
- c. Potentiometric map showing the groundwater flow direction and the calculated flow gradient,
- d. Laboratory results:
 - i. If sample results show a relative percent difference of ~~25% percent~~ or greater between Cr(VI) and Cr(T) concentrations and if both concentrations are ~~greater than 4 ppb~~ less than 10 ppb and Cr(VI) is greater than 3.1 ppb and Cr(T) is greater than 3.2 ppb, then the samples must be re-analyzed within the same quarter and the ensuing results described. In addition, if sample results have Cr(VI)/Cr(T) difference greater than 1.0 ppb at concentrations below 4 ppb, then the sample must be re-analyzed within the same quarter and the ensuing results described.
 - ii. Tabulate laboratory results for monitoring wells, remediation wells, domestic/community supply wells, and include data over the prior 12-months of sampling for each well.
- e. Describe all required monitoring wells or water supply wells not sampled during quarter and provide an explanation why.
- f. Interpret chromium ~~isoconcentration contour lines plume boundary~~ in the upper and lower aquifers compared to ~~contour boundary~~ lines in prior quarter. State if this quarter's ~~contour boundary~~ lines are stable or have migrated. If migration occurred, explain why it migrated (if due to PG&E's actions, natural groundwater movement, or actions by others).
- g. Describe methods and actions for installing wells, as needed.
- h. The domestic well sampling and monitoring requirements shall be included in the main body of the report (not as an appendix) and include:
 - i. Total number and sampling results for wells that quarter, including number of wells exceeding interim maximum background levels and chromium ~~MCLs~~ drinking water standards.
 - ii. An analysis of whether any domestic well within the domestic well sampling area contains Cr(VI) exhibiting an increasing trend, indicating likely future exceedances of the Cr(VI) ~~MCL~~ drinking water standards within one year.
 - iii. Required water supply wells not sampled that quarter with an explanation of why not.
 - iv. Map showing all active domestic wells in sampling program and detected chromium concentrations for each monitoring event.

v. Table of inactive water supply wells.

- i. Include appendices for boring logs and well designs for any wells installed during the quarter.
- j. Include appendix with description explaining the difference between monitoring well labels, such as A, B, C versus S and D, etc.
- k. Include appendix of Standard Operating Procedures for sampling procedures of monitoring wells and domestic wells.
- l. Include appendix of laboratory reports and field notes.
- m. Discuss calculated groundwater flow direction and velocity based on groundwater elevation data and not surface topography.

C. **Submittal of Maps of Isoconcentration Contour Lines Plume Map Submittals**

Maps of Chromium isoconcentration contour lines plume maps shall be submitted to the Water Board in digitized form (such as a pdf document) within **one** business day of the report due date. At least one of the submitted maps shall contain monitoring data and isoconcentration contour plume-lines and be print~~able~~ by the public on 8-1/2 inch by 11 inch and 11 inch by 17 inch paper. Another submitted map shall contain only plume isoconcentration contour lines and be print~~able~~ by the public on 8-1/2 inch by 11 inch paper.

D. **Geotracker Submittals**

Reports shall be uploaded to the State Water Resources Control Board's Geotracker database, within **one** business day of the report due date, so that reports can be viewed by the public at the link: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL0607111288. If report appendices are uploaded as separate files, the appendix number or letter shall be included in the file name.

E. **Other Monitoring Requirements Not Superseded**

Requirements for site-wide groundwater monitoring and domestic well sampling and monitoring do not supersede sampling requirements in Water Board orders R6V-2008-0014 and R6V-2014-0023 and related Notices of Applicability.

III.IV. MONITORING FOR COMPLIANCE WITH CAO CLEANUP REQUIREMENTS FOR SOUTHERN PLUME

The monitoring and remediation wells listed in Table 8.1 shall be evaluated in four-year comprehensive reports required above by Requirement II.C. All wells in Table 8.1 shall be monitored at the frequency specified in MRP Attachment A for total and hexavalent chromium to assess progress toward and compliance with cleanup requirements specified in CAO Requirement VI.B. The concentrations of chromium listed in Table 8.1 are of third quarter 2014.

Table 8.1. Monitoring Wells for Evaluating Compliance with CAO Cleanup Requirements for Southern Plume.

Compliance MWs for 50 ppb Target	Cr(VI) (ppb)	CrT (ppb)	Compliance MWs for 10 ppb Target	Cr(VI) (ppb)	CrT (ppb)
CA-MW-107D	150		PMW-01	42	
CA-MW-108S	76		CA-MW-204D	29	
CA-MW302D	99	99	CA-MW-312D	28	29
CA-MW-315D	75	76	CA-MW-402S	40	39
CA-MW-405D	74	75	CA-MW-404S	19	19
PMW-03	320	360	CA-MW-411S	25	25
MW-01	550	610	CA-MW-412D	28	29
MW-11B	1400	1400	CA-MW-506D	13	14
MW-15	1700	1800	CA-MW-508D	32	32
MW-17	110	99	EX-02	20	18
MW-178D	290		EX-15	11	11
MW-178S	220		EX-20	13	13
MW-18	53		EX-26	22	
MW-180RD	95		EX-30	41	43
MW-180RS	92		EX-34	21	
			IW-01	26	28
MW-20	700	720	IW-02	15	17
MW-36	84	87	MW-03	13	12
PT2-MW-10	510		MW-04	33	34
SA-MW-01S	400	450	MW-10	22	23
SA-MW-02D	150	160	MW-108D	35	35
SA-MW-04S	220	250	MW-108S	41	39
SA-MW-05D	3900	4100	MW-109	13	12
SA-MW-06S	520	570	MW-12B	12	13
SA-MW-07D	880		MW-13	22	23
SA-MW-09S	470		MW-14B	35	32
SA-MW-10D	400	430	MW-14S	29	29
SA-MW-11S	430				

Compliance MWs for 50 ppb Target	Cr(VI) (ppb)	CrT (ppb)	Compliance MWs for 10 ppb Target	Cr(VI) (ppb)	CrT (ppb)
SA-MW-11D	120		MW-179D	26	
SA-MW-15D	90		MW-182D	39	
SA-MW-16S	340	390	MW-182S	30	
SA-MW-17S	190	210	MW-183D	22	
SA-MW-18D	64	69	MW-183S	33	
SA-MW-20D	830	910	MW-22B	29	29
SA-MW-26S	360	380	MW-23B	44	47
SA-SM-01S	740		MW-27A	12	11
SA-SM-02D	1800		MW-28B	14	15
SA-SM-08D	290	310	MW-30B2	12	13
SA-SM-11D	95	100	MW-38B	28	27
SC-MW-03D	320	350	MW-39D	23	
SC-MW-12S	330	340	MW-41S	11	14
SC-MW-13S	110	120	MW-42B1	33	33
SC-MW-21S	440		MW-42B2	45	48
SC-MW-26D	1000		MW-43	10	11
SC-MW-38D	55	52	MW-50S	14	14
# OF WELLS	44		MW-68D	12	11
90 % OF TOTAL (compliance target)	40		SA-SM-10D	22	
Minimum Cr value (3Q 2014, ppb)	52		X-16	15	
Maximum Cr value (3Q 2014, ppb)	4100		Y-01	12	
			Y-03	11	
			# OF WELLS	49	
			80% OF TOTAL (compliance target)	39	
			Minimum Cr value (3Q 2014, ppb)	10	
			Maximum Cr value (3Q 2014, ppb)	48	

IV. CRITERIA FOR REMOVAL OR ABANDONMENT OF PG&E-OWNED INACTIVE DOMESTIC WELLS FROM SAMPLING PROGRAM

- A. The Discharger may remove inactive wells from the domestic well sampling requirements specified above in Requirement I.B.2, if such wells meet the following criteria:

1. The domestic well is located within 2,000 feet of a multi-depth monitoring well, or
 2. The domestic well does not contain hexavalent or total chromium concentrations of 2.0 ~~µg/L~~ppb or greater since September 2011.
 3. Prior to removing domestic wells from the sampling program, the Discharger shall provide the Water Board with a list of inactive domestic wells and the rationale for removal from the sampling program within each quarterly report.
 4. Domestic wells removed from the sampling program shall be left in place and secured (capped in place) until they become active or a decision is made to abandon them under IV.B, below.
- B. The Discharger may abandon inactive domestic wells, for example, those which are screened across both the upper and lower aquifers.
1. Prior to abandonment, the Discharger will provide the Water Board with a list of inactive domestic wells proposed for abandonment at least 14 days before initiating abandonment actions.
 2. Upon Water Board ~~staff's~~ acceptance of the list, the Discharger will abandon inactive domestic wells in accordance with state Well Standards and county ordinances.

Attachments:

Attachment A: Southern Plume Area Monitoring Program

Attachment B: Figure 8.1, Decision Tree for Monitoring Frequency, Southern Plume Area

Attachment C: Figure 8.2, Decision Tree for Monitoring Frequency, Northern Area Disputed Plume Area