ARCADIS

Design & Consultancy for natural and built assets

16N-01
3.9/3.7

Fossil Bed Rd

Orchard Rd

21N-05
3.5/3.5
MW-18451
6.9/2.7
MW-18452
6.3/3.7
MW-18453
4.7/5.5

21N-04
4.2/4.7

21N-02
3.1/5.1

21N-03
4.0/3.8

Grass Hopper

Bn Ranch Rd

Harpers Way

Hinkley Rd

MW-205S1
3.9/4.0
MW-205S2
3.5/4.1
MW-205S3
4.0/3.9

MW-196S1
3.8/3.7
MW-196S2
3.9/3.5
MW-196S3
ND/ND

MW-185S1
5.2/5.3
MW-185S2
4.1/4.5
MW-185S3
3.9/3.9

Halsted Rd

28N-05
3.6/3.5

28N-04
3.9/3.6

MW-194S1
5.2/5.5
MW-194S2
0.14/ND
MW-194S3
0.085/ND

27N-01
2.2/2.1

MW-186S1
4.7/4.0
MW-186S2
3.1/4.3
MW-186S3
3.3/4.3

American Ave

Friends Rd

MW-195S1
5.2/4.9
MW-195S2
4.4/4.1
MW-195S3
2.3/2.3

Northern Disputed Plume Area

Sunset Rd

MW-188S1
6.7/7.7
MW-188S2
3.2/4.1
MW-188S3
4.6/5.9

American Ave

Plymouth Rd

MW-193S1
4.4/4.5
MW-193S2
4.0/3.8
MW-193S3
8.0/11.0

33N-01
1.9/2.0

Holstead Rd

Roy Rd

Holstead Rd

Mountain General Rd

MW-162S
4.2/3.9
MW-162S2
0.25/ND
MW-162S3
0.28/ND

The 3.1/3.2-µg/L contour is shown as "-?-?" where inferred and cannot be fully delineated by Fourth Quarter 2015 monitoring data.

MW-161S1
3.5/3.2
MW-161S2
3.4/2.9
MW-161S3
1.5/1.4

04N-04
2.8/2.8

MW-174S1
3.3/3.2
MW-174S2
2.3/2.3
MW-174S3
2.6/2.7

MW-212S1
3.5/3.3
MW-212S2
2.8/3.5

MW-133S1
3.6/3.7
MW-133S2
2.9/3.7

Fossil Bed Rd

Burnt Tree Rd

Burnt Tree Rd

02N-02
0.17/ND

MW-166S1
0.2/ND
MW-166S2
0.17/ND

MW-197S1
1.0/ND
MW-197S2
0.14/ND
MW-197S3
ND/ND

Coon Canyon Rd

MW-133S1
7.8/8.4
MW-133S2
0.093/ND

MW-154S1
11.0/10.0
MW-154S2
1.8/1.6

MW-131S1
2.4/2.5

03-04
0.081/ND

MW-136S1
3.6/3.7
MW-136S2
0.077/ND

MW-135S1
4.0/3.7
MW-135S2
2.9/3.9

Mountain View Rd

MW-207S1
9.0/8.6
MW-207S2
2.8/2.8

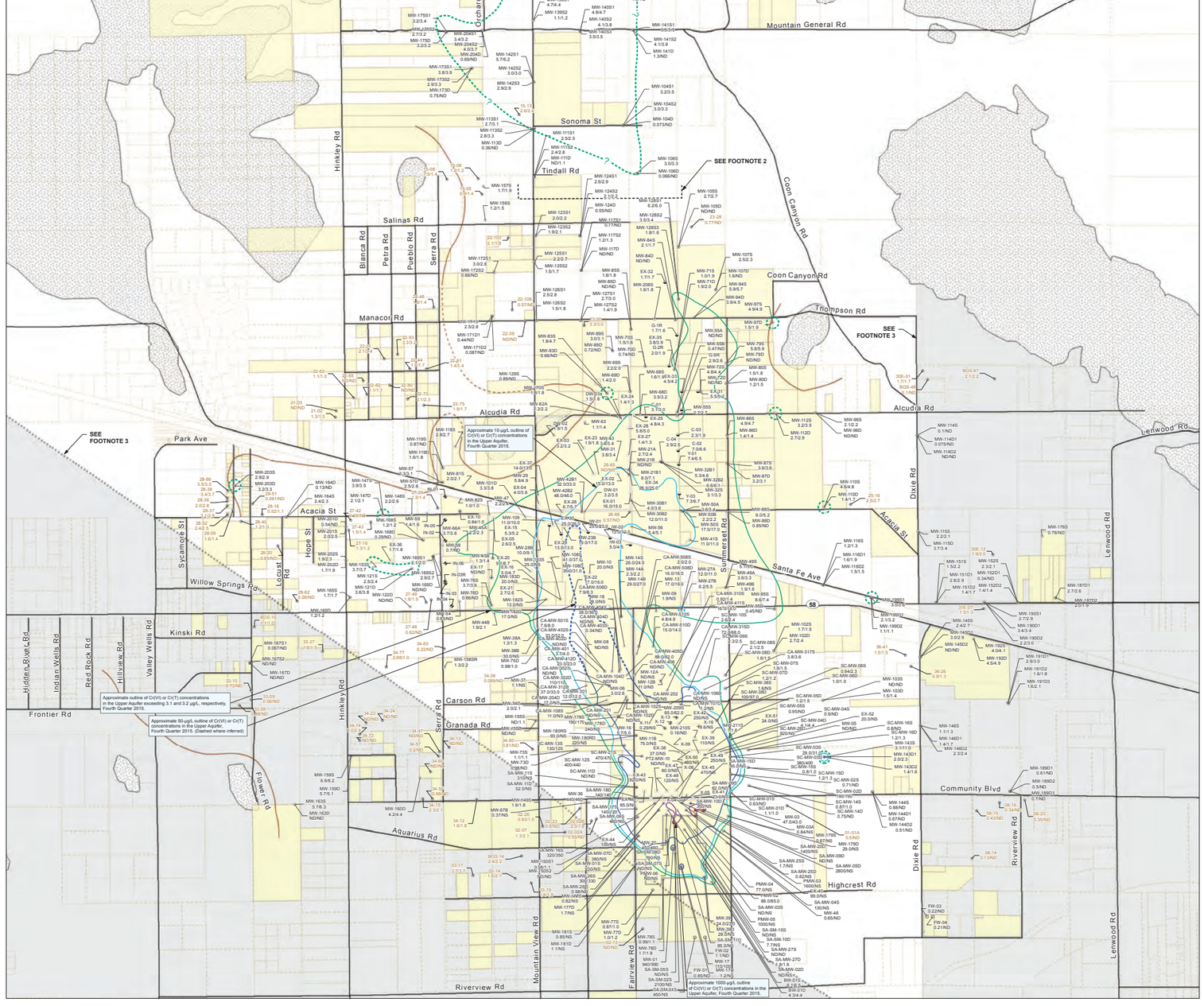
Northern Disputed Plume Area

MW-137S1
4.6/5.0
MW-137S2
4.6/4.7
MW-137S3
4.1/4.5

MW-138S1
5.1/4.7
MW-138S2
4.6/4.9

MW-200S1
1.4/1.4
MW-200S2
ND/ND
MW-200S3
0.49/ND

Mountain View Rd



LEGEND:

- Groundwater Monitoring Well
- Agricultural Supply Well
- Domestic Supply Well
- Other Supply Well
- Groundwater Extraction Well (Active)
- Multiuse Test Well, or Inactive
- Extraction/Injection Well
- Freshwater Injection Well
- PG&E-Owned Property
- PG&E Compressor Station
- County Parcel
- Transmission Line
- Approximate Limit of Saturated Alluvium Upper Aquifer
- Approximate Location of Lockhart Fault; Fault Trace is Inferred, and There is No Surface Expression (Stamos et al., 2001)
- Bedrock Exposed at Ground Surface

MW-77S Well ID
0.88ND Cr(VI)/Cr(T) concentrations in ug/L; maximum of primary and duplicate samples during Fourth Quarter 2015 sampling.

ABBREVIATIONS:

µg/L	micrograms per liter
Cr(VI)	hexavalent chromium
Cr(T)	total dissolved chromium
IRZ	In Situ Reactive Zone
ND	not detected
NS	not sampled

Groundwater Cr(VI) concentrations in monitoring wells:

- More than 1,000 µg/L
- 100 to 1,000 µg/L
- 50 to 100 µg/L
- 10 to 50 µg/L
- 3.1 to 10 µg/L
- Less than 3.1 µg/L or ND

NOTES:

1. Chromium results are shown for Site-wide Groundwater Monitoring Program and domestic wells sampled in the Fourth Quarter (October through December) 2015 monitoring period. For wells sampled multiple times during the reporting period, the most recent results are shown.
2. The concentration contours are based on Fourth Quarter 2015 chromium results for the groundwater monitoring and extraction wells that are completed in the shallow zone and deep zone of the Upper Aquifer as noted on Figures 5-1 and 5-2. Results for domestic wells (brown-colored labels) were not used for chromium plume contouring except for those in the northern area, pursuant to the Lahonton Regional Water Quality Control Board's Cleanup and Abatement Order dated November 4, 2015.
3. Pursuant to the Lahontan Regional Water Quality Control Board's letter Review of Chromium Plume Maps, Third Quarter 2013 Groundwater Monitoring Report and Agreement with Northern Investigation Concept dated December 12, 2013, groundwater monitoring wells are not used for chromium contouring if they are located in the areas southwest of the Lockhart Fault and on or east of Dixie Road.
4. Chromium plume contours for concentrations of 10, 50 and 1000 µg/L south of Highway 58 were developed using the more robust dataset presented in the January 15, 2016 Fourth Quarter 2015 Monitoring Report for the In Situ Reactive Zone and Northwest Freshwater Injection Projects (Arcadis 2016) and represent a composite of the shallow and deep zone contours presented therein. Select wells from that program are shown here for reference.

WORKS CITED:

Stamos, C.L., P. Martin, T. Nishikawa, and B.F. Cox. 2001. *Simulation of Ground-Water Flow in the Mojave River Basin, California*. U.S. Geological Survey Water-Resources Investigations Report 01-4002, Version 3. Prepared in cooperation with the Mojave Water Agency.

N

0 1,000 2,000 Feet

FIGURE 5-5
CHROMIUM RESULTS FOR FOURTH QUARTER 2015 GROUNDWATER GROUNDWATER MONITORING AND DOMESTIC WELL SAMPLING AND MAXIMUM COMPOSITE PLUME OUTLINE IN UPPER AQUIFER

FOURTH QUARTER 2015 GROUNDWATER MONITORING REPORT AND DOMESTIC WELL RESULTS
SITE-WIDE GROUNDWATER MONITORING PROGRAM

PACIFIC GAS AND ELECTRIC COMPANY
HINKLEY COMPRESSOR STATION
HINKLEY, CALIFORNIA

CRITIGEN

R:\PGE\HINKLEY\2000035\MAPFILES\2015GMPQ4FIG5-5_PLUMEMAP_UA.MXD 1/28/2016