

*Prepared for*

**Baldwin Park Operable Unit  
Cooperating Respondents**

# **2014 ANNUAL PERFORMANCE EVALUATION REPORT – VOLUME 2**

**BALDWIN PARK OPERABLE UNIT OF THE  
SAN GABRIEL VALLEY SUPERFUND SITES  
LOS ANGELES COUNTY, CALIFORNIA**

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# **APPENDIX A**

GROUNDWATER PLUME MAPS AND CHEMICAL CROSS SECTIONS



**APPENDIX A  
GROUNDWATER PLUME MAPS AND CHEMICAL CROSS SECTIONS**

**TABLE OF CONTENTS**

1.	INTRODUCTION .....	1-1
2.	WATER QUALITY DATA.....	2-1
3.	THREE-DIMENSIONAL INTERPRETATION .....	3-1
3.1	Earthvision <sup>®</sup> Gridding Technique .....	3-1
3.2	Non-Detect Values Gridding .....	3-3
4.	LIMITATIONS .....	4-1
5.	RESULTS.....	5-1
6.	REFERENCES .....	6-1



## LIST OF TABLES

**Table A-1: Water Quality Monitoring Data for Plume Modeling**

## LIST OF FIGURES

- Figure A-1: Well Location Map**
- Figure A-2: Distribution of 1,4-Dioxane above -200 Feet, 2014**
- Figure A-3: Distribution of 1,4-Dioxane between -200 and -500 Feet, 2014**
- Figure A-4: Distribution of 1,4-Dioxane below -500 Feet, 2014**
- Figure A-5: Vertical Distribution of 1,4-Dioxane, 2014, Cross Section A – A'**
- Figure A-6: Vertical Distribution of 1,4-Dioxane, 2014, Cross Section B – B'**
- Figure A-7: Vertical Distribution of 1,4-Dioxane, 2014, Cross Section C – C'**
- Figure A-8: Vertical Distribution of 1,4-Dioxane, 2014, Cross Section D – D'**
- Figure A-9: Distribution of Carbon Tetrachloride above -200 Feet, 2014**
- Figure A-10: Distribution of Carbon Tetrachloride between -200 and -500 Feet, 2014**
- Figure A-11: Distribution of Carbon Tetrachloride below -500 Feet, 2014**
- Figure A-12: Vertical Distribution of Carbon Tetrachloride, 2014, Cross Section A – A'**
- Figure A-13: Vertical Distribution of Carbon Tetrachloride, 2014, Cross Section B – B'**
- Figure A-14: Vertical Distribution of Carbon Tetrachloride, 2014, Cross Section C – C'**
- Figure A-15: Vertical Distribution of Carbon Tetrachloride, 2014, Cross Section D – D'**
- Figure A-16: Distribution of N-Nitrosodimethylamine above -200 Feet, 2014**
- Figure A-17: Distribution of N-Nitrosodimethylamine between -200 and -500 Feet, 2014**
- Figure A-18: Distribution of N-Nitrosodimethylamine below -500 Feet, 2014**
- Figure A-19: Vertical Distribution of N-Nitrosodimethylamine, 2014, Cross Section A – A'**
- Figure A-20: Vertical Distribution of N-Nitrosodimethylamine, 2014, Cross Section B – B'**



- Figure A-21: Vertical Distribution of N-Nitrosodimethylamine, 2014, Cross Section C – C'**
- Figure A-22: Vertical Distribution of N-Nitrosodimethylamine, 2014, Cross Section D – D'**
- Figure A-23: Distribution of Perchlorate above -200 Feet, 2014**
- Figure A-24: Distribution of Perchlorate between -200 and -500 Feet, 2014**
- Figure A-25: Distribution of Perchlorate below -500 Feet, 2014**
- Figure A-26: Vertical Distribution of Perchlorate, 2014, Cross Section A – A'**
- Figure A-27: Vertical Distribution of Perchlorate, 2014, Cross Section B – B'**
- Figure A-28: Vertical Distribution of Perchlorate, 2014, Cross Section C – C'**
- Figure A-29: Vertical Distribution of Perchlorate, 2014, Cross Section D – D'**
- Figure A-30: Distribution of Tetrachloroethene above -200 Feet, 2014**
- Figure A-31: Distribution of Tetrachloroethene between -200 and -500 Feet, 2014**
- Figure A-32: Distribution of Tetrachloroethene below -500 Feet, 2014**
- Figure A-33: Vertical Distribution of Tetrachloroethene, 2014, Cross Section A – A'**
- Figure A-34: Vertical Distribution of Tetrachloroethene, 2014, Cross Section B – B'**
- Figure A-35: Vertical Distribution of Tetrachloroethene, 2014, Cross Section C – C'**
- Figure A-36: Vertical Distribution of Tetrachloroethene, 2014, Cross Section D – D'**
- Figure A-37: Distribution of Trichloroethene above -200 Feet, 2014**
- Figure A-38: Distribution of Trichloroethene between -200 and -500 Feet, 2014**
- Figure A-39: Distribution of Trichloroethene below -500 Feet, 2014**
- Figure A-40: Vertical Distribution of Trichloroethene, 2014, Cross Section A – A'**
- Figure A-41: Vertical Distribution of Trichloroethene, 2014, Cross Section B – B'**
- Figure A-42: Vertical Distribution of Trichloroethene, 2014, Cross Section C – C'**



**Figure A-43: Vertical Distribution of Trichloroethene, 2014, Cross Section D – D'**

### LIST OF APPENDICES

**Appendix A: Groundwater Plume Maps and Chemical Cross Sections**



## 1. INTRODUCTION

Plume maps and chemical cross sections were prepared to present the approximate distribution of select chemicals of concern (COCs) in groundwater in the Baldwin Park Operable Unit (BPOU) in 2014 in accordance with the requirements of Section 5.4 of the Performance Standards Evaluation Plan (PSEP) (AMEC Environment & Infrastructure, [AMEC], 2013) and the recommendations made in the technical memorandum, Response to Requested Modification #3 to the Revised Final Performance Standards Evaluation Plan, dated February 17, 2004 (Geomatrix, 2004). The technical memorandum recommended that future interpretations of the spatial distribution and temporal trends of COCs in groundwater focus on seven selected COCs: 1,2-dichloroethane (1,2-DCA); 1,4-dioxane; carbon tetrachloride; N-nitrosodimethylamine (NDMA); perchlorate; tetrachloroethene (PCE); and trichloroethene (TCE). These seven COCs were selected because they meet one or more of the following criteria:

- Observed levels of the compounds meet or exceed either California Maximum Contaminant Levels (MCLs) or, if no MCL has been established, the California Drinking Water Notification Level (NLs), as applicable.
- They occur relatively frequently in the BPOU.
- They may be a controlling compound relative to effectiveness of treatment processes used in BPOU Treatment Plants.

According to comment #11 in the letter, EPA Comments to the 2013 Annual Performance Evaluation Report, dated October 30, 2014 (EPA, 2014), figures depicting the extent of 1,2-DCA contamination do not need to be included in future annual reports. Therefore, plume maps were not developed for 1,2-DCA in 2014 and will be omitted from future performance evaluation reports.

The plume maps and chemical cross sections presented herein were created by developing a three-dimensional (3D) representation of chemical distribution using a grid-based interpolation technique and then slicing the 3D grids at specific elevation intervals and along specific transects. The water quality monitoring data, gridding technique, limitations, and results are discussed in the following sections.



As discussed in Section 4.0 below, while every effort has been made to achieve an accurate depiction of the distribution of these COCs at various elevation intervals, there are substantial limitations in depicting multi-dimensional images of a dynamic and complex plume. The plume maps and chemical cross sections should be viewed as best approximations based upon available data.



## 2. WATER QUALITY DATA

Plume maps and chemical cross sections for each COC were generated using water quality data primarily collected for the PSEP water quality monitoring program and supplemented with additional data collected for California State Water Resources Control Board, Division of Drinking Water [DDW; formerly the Department of Health Services (DHS)] and Regional Water Quality Control Board – Los Angeles Region (RWQCB) monitoring requirements. Water quality monitoring data used for these interpretations consist of sample results from 64 wells and 155 discrete sample locations, including 18 multiport wells with 3 to 13 depth-discrete sampling ports and three inactive production wells where dedicated low-flow sampling is used to sample from two discrete sample depths. Results from all sample locations in the PSEP water quality monitoring program were included in the dataset, with the exception of extraction well SA1-2, production well CC E Durbin, the LACO Key Well and the AJMW-4 monitoring well. Water quality monitoring data used to generate the plume maps and chemical cross sections are summarized in Table A-1. Sample locations are shown on Figure A-1.

Water quality monitoring data are from the annual sampling event for the multiport monitoring wells that was conducted in May and June 2014. Several multiport monitoring wells are sampled on a semi-annual basis; accordingly, these wells were sampled a second time in October or November 2014. The second set of results for those multiport monitoring wells that are sampled semi-annually were not included in the plume modeling. A review of the data included in Table 5-3 of Volume 1 indicates that the plume depictions would be similar using the second set of data compared to the first set. Ninety-six percent of the data used for the plume maps and chemical cross sections are from water quality samples that were collected in the months of April, May, and June 2014. If data from various wells were not available within this date range, then data from the next closest date were used to create the plume maps. Data utilized from outside the two-month period (April-June 2014) are limited to data from six monitoring wells.

Data validation and data quality assessment for plume modeling are discussed in Section 5.2.2 of Volume 1.



### **3. THREE-DIMENSIONAL INTERPRETATION**

Water quality monitoring data for each COC were interpolated on a 3D grid using the geospatial software program, EarthVision<sup>®</sup>. The 3D grid developed for the plume maps is 8,400 meters wide, 19,100 meters long, and 570 meters thick. The grid was divided into cells that are 100 meters wide, 250 meters long, and 10 meters thick. The grid was rotated 38 degrees to orient it parallel to the primary groundwater flow direction (northeast-southwest) across the BPOU. The model used a vertical influence factor of 0.1 (dimensionless).

#### **3.1 Earthvision<sup>®</sup> Gridding Technique**

The 3D Grid Calculations program in EarthVision<sup>®</sup> was used to interpolate chemical concentrations that varied continuously in 3D space using the two-stage 3D minimum tension gridding technique. The minimum tension gridding algorithm calculates a smooth surface that closely fits the input data values using biharmonic cubic spline techniques. This procedure produces a 3D grid depicting the interpolated distribution of chemical concentrations throughout the defined volume. The technique is designed to smoothly interpolate between known data points and to extrapolate where there are no data using a splining technique to develop a smooth surface with minimum curvature.

The 3D Grid Calculations program creates a 3D grid from X, Y, Z, and property (P) input data where X, Y, and Z define the location of each point and P is the concentration value of the chemical at that point. Water quality monitoring data are input at the exact geographic coordinates (X, Y) of the respective well and either at the mid-screen elevation of the respective well screened interval (Z) or at the exact elevation of a discrete water quality sample collected using low-flow sampling methods. The mid-screen elevations for production wells with multiple screened intervals are represented using the mid-screen elevation of the composite screened interval.

The interpolated results are rectangular grids containing nodes at regularly spaced intervals in each dimension. The chemical concentrations being interpolated are stored for each grid node location and used for subsequent display and analysis. Once a 3D grid is calculated, it is used to create a faces file representing 3D isoconcentration shells.

The primary goals of the gridding technique are to represent the input data as accurately as possible and to calculate a reasonable interpolated value at grid nodes that are not on or



adjacent to input data points. Estimation of interpolated values at grid nodes uses a finite-difference solution approach.

The two stages of minimum tension gridding include the initial estimate and cubic function iterations with scattered data feedback. The initial grid estimation process calculates a P-value for every grid node in an extremely coarse 3D grid that is used in the initial stages of gridding. All of the scattered data points are used as input to an inverse-distance weighted average function that calculates a P-value at each of the 64 initial node positions.

Once the starting P-values are estimated for the initial coarse grid, iterations begin. Each iteration consists of calculation of a new P-value for each grid node (one by one) with neighboring grid nodes providing input values to a cubic function that determines the new value. Once the new value is calculated for any one node, the scattered data are used for the feedback process described below. Minimum tension is the distribution of tension (the second derivative or curvature of the property variation) among the nodes such that the sum of the squares of the second derivatives is minimized. The cubic function is fitted to the grid nodes in these iterations rather than to the input scattered data points. Since the input points are not used in this tension relaxation, it is possible that the property distributions represented by these grid nodes may deviate from the scattered data P-values as iterations progress.

To prevent this, a scattered data feedback step follows each re-evaluation of each grid node. If no scattered data points exist within a grid cell, the P-value calculated in the previous step for the neighboring grid node is assigned. All of the scattered data points falling within the one cell zone around the grid node in question are evaluated. P-value(s) are calculated at the X, Y, Z location(s) of the scattered data point(s) within the zone based on the current grid node values, and these P-value(s) are compared to the input P-value(s) for the scattered data. The difference between these two values should decrease between iterations as the gridding progresses. As long as this difference (deviation) is decreasing, the program accepts the new, function-derived grid node value, and proceeds to recalculate the next grid node. If the deviation increases, the node is reset to a value that more closely agrees with the scattered data point. When a neighboring node is re-evaluated, this corrected node is one of the points input to the cubic function for the neighboring node. The iterative re-evaluation cycle distributes the correction away from the corrected node to surrounding nodes that do not have scattered data in their immediate vicinity. Through this process, the scattered data feedback keeps grid nodes tied to neighboring scattered data while allowing the cubic function to distribute tension in a reasonable fashion.



### **3.2 Non-Detect Values Gridding**

Non-detect flags are used as input for the plume interpretations at locations where groundwater samples were collected but chemical concentrations were below the Method Detection Limit (DL) or Reporting Limit (RL). Non-detect flags were set to -999. The edge of the contaminant plume should not necessarily pass through every scattered data point that has a non-detect P-value. If the data are randomly distributed, most if not all of the scattered data points with non-detect P-values should fall outside of the plume, and not define the exact edge of the plume. In the first gridding pass, scattered data points with the non-detect P-value are ignored. This first calculation is done using the standard minimum tension gridding technique. Using the grid from the first pass, a back-interpolated value is calculated at all unclipped non-detect points; the P-values at those points are then reset to the negative of the absolute of that calculated value. The second gridding pass uses these reset values along with the original data points used in the first pass to generate the final output grid.



#### 4. LIMITATIONS

The depictions of plume geometry presented in Figures A-2 through A-43 represent the current estimate of the distribution of the COCs in the BPOU in 2014. However, as with any approach used to interpolate data, there are uncertainties and limitations to the approach that may result in alternative interpretations of the distribution of COCs in groundwater. These uncertainties and limitations are as follows:

- For clarity, and as requested by EPA, we have depicted the six principal COCs in separate plume maps at three elevations as described in Section 5.2.3 of Volume 1. Plumes for the various COCs overlap (and/or diverge) at various depths throughout the impacted areas.
- The plume maps and chemical cross sections attempt to depict the temporally changing 3D distribution of COCs in groundwater with static 2D images, and they represent interpolated approximations of the distribution of COCs in groundwater based on available data. The exact subsurface distribution of the COCs cannot be completely ascertained given temporal changes in groundwater flow directions and COC concentrations, as well as the data gaps and other limitations described herein. The spatial and temporal spread of the chemical data may not encompass the entire distribution of chemicals in the groundwater. Additional assumptions are necessary as to chemical concentrations in areas that may not be completely represented by data from project wells. As such, control data were used to refine the shape of the isoconcentration contours using professional judgment. Control data were added to the input dataset for each COC to ensure that the position of the discrete and composite isoconcentration contours shown on the plume maps and chemical cross sections is consistent with the posted chemical data. However, given the use of these control data in the model, results of the interpolation should be carefully evaluated in areas where available data are limited or concentrations change significantly over short distances.
- Alternative interpretations of the distribution of the COC plumes are possible and may differ from the plumes depicted herein. For example, plume maps and chemical cross sections for certain COCs portray discontinuous plumes in areas where the plumes may in fact be continuous.



- As described in Section 2.0 above, the plume interpretations generally incorporate water quality data for the period from April through June 2014. Where data were not available for that time period, data from the next closest date during the January through December 2014 time period were utilized to represent the plumes as accurately as possible. Considering this, there are gaps in the existing data set that limit our ability to define the distribution of COCs in groundwater completely. The EarthVision<sup>®</sup> software used to create the plume maps and chemical cross sections utilizes certain algorithms to interpolate or “fill in” data gaps in order to provide a more comprehensive picture of the distribution of COCs. Although the EarthVision<sup>®</sup> software objectively applies the selected interpolation scheme, other software and other interpolation schemes may be applied that may generate reasonable, yet differing, results. This is not a unique limitation of the EarthVision<sup>®</sup> software, but simply a limitation of any methodology applied to a limited data set. Consequently, the interpretation may result in differences between actual and interpreted concentrations at any given point in the Project area.
- The Duarte Fault is represented as a diffuse zone of faulting on the plume maps and chemical cross sections. However, no faulting was explicitly represented in the 3D grid used to interpolate the plumes. The diffuse fault zone is considered to be a reasonable representation of the uncertainty in the fault’s location as it has several fault splays concealed beneath alluvial deposits.
- The northern-most limits of some COCs depicted on the plume maps are uncertain due to the limited amount of data available to the CR group from other EPA-named PRPs, including the Mobil/Lockheed/Valspar group, as well as other entities that may be PRPs in the northern portions of the BPOU. In consideration of the lack of recent available groundwater data from several PRP facilities and historical detections of several COCs such as TCE and PCE in the area north of the Duarte Fault zone, isoconcentration contours for TCE and PCE are truncated at the downgradient (southern) extent of the Duarte Fault zone.

Various contours created by the EarthVision<sup>®</sup> software differ from contours that individual Cooperating Respondents (CRs) might have depicted based upon their own professional analyses and judgments. These maps reflect our operation of the EarthVision<sup>®</sup> software and should not be taken as an admission by any CR for any purpose, and specifically they should



not be taken as an admission by any CR that they accurately reflect such CR's views as to actual conditions in the BPOU area. Even with these limitations, the plume maps, chemical cross sections, and isoconcentration shells provide useful information on general chemical distributions, if one appreciates the inherent limitations.



## 5. RESULTS

Final grid values were contoured at the respective applicable regulatory contaminant level, either the MCL or, if no MCL has been established, the NL, and were visualized as 3D isoconcentration shells that can be rotated and viewed from any perspective.

The lateral distribution of the selected COCs is shown in plan view at three specific elevation intervals. The three elevation intervals are as follows:

- Elevations between the water table (or potentiometric surface) and -200 feet msl;
- Elevations between -200 feet and -500 feet msl; and
- Elevations below -500 feet msl.

The plume maps illustrate isoconcentration contours for “composite” elevation intervals for three elevation intervals between the water table and -200 feet msl, between -200 and -500 feet msl, and below -500 feet msl. Chemical cross sections showing the vertical distribution of selected COCs along four transects are also presented. The locations of these cross sections are shown on Figure A-1. Cross section A-A’ represents a north-south transect that is aligned generally with the longitudinal axis of the COC plumes. Cross Sections B-B’, C-C’, and D-D’ represent west-east or northwest-southeast transects that are aligned generally perpendicular to the dominant groundwater flow direction in the BPOU. Cross sections B-B’, C-C’, and D-D’ show the distribution of the COC plumes in the upgradient, mid-plume, and downgradient areas of the BPOU, respectively, and include various production wells that are vulnerable to lateral migration of the COC plumes toward the west or east.

The reader is encouraged to consider the 3D visualization that is inset in the corner of each figure when reviewing the 2D plume maps and chemical cross sections. This will provide the appropriate context to review the isoconcentration contours in each elevation interval and along each transect. It should be noted that the water quality data used to create the 3D plume interpretations are posted on the plume maps according to the composite elevation intervals described above.

Isoconcentration shells, plume maps, and chemical cross sections for six COCs are shown in Figures A-2 through A-43. The isoconcentration shells visualized in 3D perspective represent views of the COC plumes looking toward the north and represent the interpreted 3D extent of



each COC at concentrations meeting or exceeding the respective applicable MCL or NL. The bottom of the isoconcentration shells is bounded by the underlying bedrock surface at the base of the aquifer. The bedrock surface was obtained in a Geographic Information System (GIS) layer from the EPA/CH2M-Hill San Gabriel Basin Database website. The top of the isoconcentration shells is bounded by a generalized potentiometric surface developed using water level data collected from shallow wells in the BPOU in 2014.

Generalized distributions of each chemical are also shown on Figures 5-8 through 5-13, included in Volume 1. The isoconcentration contours shown on these figures represent the composite lateral extent of each chemical for every elevation within the 3D grid. General observations and apparent changes in the spatial distribution of COCs in the BPOU compared to the previous year are discussed in Section 5.2.3 of Volume 1.

The apparent changes in the interpreted spatial distribution of a particular COC plume from year to year should be considered with due caution. Historical variations in chemical concentrations have been observed seasonally and from year to year as basin water levels vary. In some instances, observed COC concentrations have fluctuated above and below MCLs (or NLs) and RLs (or DLs) during the span of one or two years or even from one sampling event to the next. These changes in water quality results from one sampling event to the next may significantly alter the interpreted spatial extents of the COC plumes that are depicted on the plume maps and chemical cross sections. Therefore, while the apparent short-term changes in the interpreted plume extents may be representative of seasonal or annual changes, the apparent short-term changes should not be considered as representative of longer-term (multi-year) trends until such observations can be confirmed over several years. This is particularly important for wells located along the perimeter of the plumes.

Subject to the foregoing limitations, the plume maps and chemical cross sections provide a reasonable approximation of the distribution of chemical concentrations across most of the BPOU within the time frame analyzed, although the precise extent of the COC plumes in certain areas may be subject to additional interpretation.

We have attempted to use a comprehensive and approximately contemporaneous dataset for the development of 3D interpretations of plume maps and chemical cross sections for individual COCs. The use of any water quality data from a particular well or series of wells, however, does not necessarily indicate that such well is impacted by contaminants originating from a source identified by EPA as a PRP in the BPOU.



## **6. REFERENCES**

AMEC Environment & Infrastructure, Inc. (AMEC), 2013, Performance Standards Evaluation Plan, Rev.4, 18 April 2013.

Geomatrix, 2004, Technical Memorandum – Response to Requested Modification #3 to the Revised Final Performance Standards Evaluation Plan, 17 February 2004.

EPA, 2014, EPA Comments on the 2013 Annual Performance Evaluation Report, Baldwin Park Operable Unit, San Gabriel Valley Area 2 Superfund Site, 30 October 2014.

## **TABLES**

**TABLE A-1**  
**WATER QUALITY MONITORING DATA FOR PLUME MODELING**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

Well Name	Site ID	Port <sup>a</sup>	Sample Date	1,4-Dioxane (µg/L)	Carbon Tetrachloride (µg/L)	NDMA (ng/L)	Perchlorate (µg/L)	Tetrachloroethene (µg/L)	Trichloroethene (µg/L)
<b>Federal or California State MCL (NL) [SMCL] <sup>b</sup></b>				<b>(1)</b>	<b>0.5</b>	<b>(10)</b>	<b>6</b>	<b>5</b>	<b>5</b>
AJ MW-2R	W11AJMW2R		5/29/2014	<b>6.1</b>	0.5 U	<b>830</b>	<b>25</b>	2.2	<b>28</b>
AJ MW-4			DRY	--	--	--	--	--	--
AJ MW-6	W11AJMW6		5/29/2014	1.4	<b>0.58</b>	2 U	<b>33</b>	<b>17</b>	<b>77</b>
ALR MW-1R	W11AZW1R		4/23/2014	0.90 J	0.50 U	2 U	1.1 J	0.72	<b>14</b>
ALR MW-2R			4/23/2014	1.0 U	0.50 U	2 U	1.9 J	0.50 U	0.50 U
ALR MW-3			4/24/2014	<b>1.6</b>	<b>1.1</b>	5.8	<b>230</b>	<b>34</b>	<b>87</b>
ALR MW-8	W11AZW08		4/23/2014	1.0 U	0.50 U	2 U	1.9 J	0.50 U	0.28 J
ALR MW-9	W11AZW09		4/24/2014	0.74 J	0.50 U	<b>1200</b>	<b>15</b>	<b>26</b>	4.4
ALR MW-10R			4/23/2014	1.0 U	0.50 U	2 U	1.9 J	2	<b>6.1</b>
CDWC 2			6/22/2014	--	0.50 U	2,000 U	3.4	1.6	1.4
CDWC 3	01903057		6/2/2014	--	<b>1.7</b>	<b>14</b>	<b>11</b>	<b>32</b>	<b>37</b>
CDWC 5A			6/2/2014	--	0.50 U	2,000 U	2 U	8.4	7.6
CDWC 6			6/2/2014	--	0.50 U	2,000 U	5.2	28	<b>24</b>
CDWC 8			6/2/2014	--	0.50 U	2,000 U	2 U	1.4	0.50 U
CDWC 14	08000174		6/2/2014	--	0.50 U	<b>3.6</b>	<b>16</b>	<b>6.8</b>	<b>7.3</b>
CIC BALDWIN 1	01900885		5/9/2014	--	0.5 U	--	2 U	1 U	1 U
COI 5	08000097		5/5/2014	0.50 U	0.50 U	2 U	4.2	<b>8.3</b>	3.2
EPA MW 5-01	EPAW51	Port 13	5/9/2014	0.5 U	0.5 U	2 U	4.2	1 U	1 U
		Port 12	5/9/2014	0.5 U	0.5 U	2 U	2 U	1 U	1 U
		Port 11	5/9/2014	0.5 U	0.5 U	2 U	2 U	1 U	1 U
		Port 10	5/9/2014	0.5 U	0.5 U	2 U	2 U	1 U	0.50 J
		Port 9	5/9/2014	0.5 U	0.5 U	2 U	1.6 J	1 U	1.5
		Port 8	5/9/2014	--	0.5 U	2 UJ	<b>7.3</b>	1 U	0.78 J
		Port 7	5/9/2014	--	0.5 U	2.0 UJ	5.9	1 U	1.4
		Port 6	5/8/2014	--	0.5 U	2 U	<b>6.2</b>	1 U	1 U
		Port 5	5/8/2014	--	0.5 U	2 U	<b>13</b>	1 U	1 U
		Port 4	5/8/2014	--	0.5 U	2 U	2 U	1 U	1.1
		Port 3	5/8/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 2	5/9/2014	--	0.5 U	2.8 UJ	2 U	1 U	1 U
		Port 1	5/8/2014	--	0.5 U	2 U	2 U	1 U	1 U
HARTWELL MW-1	V10ACMW1		5/30/2014	--	--	--	--	2.4	0.72 J
HUFFY MW-1	W10BDMW1		--	--	--	--	--	--	--
HUFFY MW-2 <sup>c</sup>	W10BDMW2		6/27/2014	--	--	--	--	--	--
LACO KEY <sup>d</sup>	Z1000006		--	--	--	--	--	--	--
LACO SANTA FE	08000070		5/7/2014	0.5 U	0.5 U	2 U	2 U	1 U	1 U
LPVCWD 2	01901460		5/22/2014	<b>1.5</b>	<b>3.2</b>	<b>140</b>	<b>51</b>	3.2	<b>67</b>
LPVCWD 3	01902859		5/22/2014	0.50 U	0.50 U	2 U	<b>9</b>	0.50 U	1.4
LPVCWD 5	08000209		6/10/2014	0.56	<b>0.78</b>	<b>43</b>	<b>21</b>	1.6	<b>16</b>
MW 5-03	BPW503	Port 10	DRY	--	--	--	--	--	--
		Port 9	5/27/2014	<b>14</b>	0.5 U	2 U	2 U	1.1	<b>5.7</b>
		Port 8	5/27/2014	0.5 U	0.5 U	2 U	1.7 J	0.95 J	4.6
		Port 7	5/27/2014	0.5 U	0.5 U	2 U	2.5	1.6	1.1
		Port 6	5/27/2014	0.5 U	0.5 U	2 U	3.4	1.9	1 U
		Port 5	5/27/2014	--	0.5 U	2 U	<b>10</b>	1.1	1 U

**TABLE A-1**  
**WATER QUALITY MONITORING DATA FOR PLUME MODELING**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

Well Name	Site ID	Port <sup>a</sup>	Sample Date	1,4-Dioxane (µg/L)	Carbon Tetrachloride (µg/L)	NDMA (ng/L)	Perchlorate (µg/L)	Tetrachloroethene (µg/L)	Trichloroethene (µg/L)
<b>Federal or California State MCL (NL) [SMCL] <sup>b</sup></b>				<b>(1)</b>	<b>0.5</b>	<b>(10)</b>	<b>6</b>	<b>5</b>	<b>5</b>
MW 5-03	BPW503	Port 4	5/27/2014	--	0.5 U	2.5 U	<b>8.2</b>	1 U	1 U
		Port 3	5/27/2014	--	0.5 U	2 U	<b>13</b>	1 U	1 U
		Port 2	5/27/2014	--	0.5 U	2 U	1.2 J	0.50 J	1 U
		Port 1	5/27/2014	--	0.5 U	2 U	2 U	1 U	0.84 J
MW 5-05	BPW505	Port 4	4/29/2014	<b>1.2</b>	0.5 U	2 U	<b>15</b>	<b>14</b>	<b>36</b>
		Port 3	4/29/2014	<b>13</b>	<b>1.9</b>	<b>92</b>	<b>65</b>	<b>190</b>	<b>220</b>
		Port 2	4/29/2014	<b>14</b>	<b>3.4</b>	<b>300</b>	<b>87</b>	<b>410</b>	<b>340</b>
		Port 1	4/29/2014	<b>8</b>	<b>9.8</b>	<b>740</b>	<b>230</b>	<b>97</b>	<b>360</b>
MW 5-08	BPW508	Port 4	4/28/2014	<b>3.1</b>	0.5 U	1.7 J	<b>20</b>	<b>99</b>	<b>160</b>
		Port 3	4/28/2014	0.5 U	<b>1</b>	2 UJ	<b>13</b>	<b>7.8</b>	<b>7.8</b>
		Port 2	4/28/2014	0.5 U	<b>0.98</b>	2.1 J	<b>9.8</b>	<b>6.6</b>	<b>5.9</b>
		Port 1	4/28/2014	--	0.5 U	2 U	<b>56</b>	0.80 J	0.61 J
MW 5-11	BPW511	Port 3	4/29/2014	<b>6.2</b>	0.5 U	2 U	<b>25</b>	<b>7.6</b>	<b>13</b>
		Port 2	4/29/2014	0.15 J	0.5 U	0.79 J	2.6	<b>53</b>	<b>34</b>
		Port 1	4/29/2014	0.28 J	0.5 U	2 U	4.4	<b>18</b>	3.1
MW 5-13	BPW513	Port 3	4/29/2014	<b>7</b>	0.5 U	2 U	5.3	1.8	1.3
		Port 2	4/29/2014	0.37 J	0.5 U	4	3.8	<b>45</b>	<b>47</b>
		Port 1	4/29/2014	0.16 J	0.5 U	0.68 J	3.2	<b>5.3</b>	1.4
MW 5-15	BPW515	Port 3	4/30/2014	0.96	0.5 U	2 U	<b>15</b>	2.5	<b>5.6</b>
		Port 2	4/30/2014	<b>6.3</b>	0.5 U	7	<b>11</b>	<b>29</b>	<b>32</b>
		Port 1	4/30/2014	<b>1.9</b>	<b>1.6</b>	<b>81</b>	<b>45</b>	<b>9</b>	<b>72</b>
MW 5-17	BPW517	Port 3	DRY	--	--	--	--	--	--
		Port 2	4/30/2014	0.33 J	0.5 U	2 U	1.5 J	<b>25</b>	<b>33</b>
		Port 1	4/30/2014	0.5 U	0.5 U	2 U	5.2	3.3	1.1
MW 5-18	BPW518	Port 3	4/30/2014	0.5 U	0.5 U	2 U	2.2	2.5	3.6
		Port 2	4/30/2014	0.5 U	0.5 U	0.73 J	3.6	1.7	1 U
		Port 1	4/30/2014	--	0.5 U	2 U	4	1.1	1 U
MW 5-19	BPW519	Port 6	5/1/2014	0.22 J	0.5 U	2 U	3.4	1 U	1 U
		Port 5	5/1/2014	0.43 J	0.5 U	5.2	<b>19</b>	2.6	3.9
		Port 4	5/1/2014	<b>1.5</b>	<b>1.9</b>	<b>150</b>	<b>36</b>	<b>13</b>	<b>34</b>
		Port 3	5/1/2014	--	<b>9</b>	11	<b>11</b>	<b>8.9</b>	<b>24</b>
		Port 2	5/1/2014	--	0.46 J	2 U	<b>2 U</b>	1 U	1 U
		Port 1	5/1/2014	--	0.5 U	2 U	<b>2 U</b>	1 U	1 U
MW 5-20	BPW520	Port 7	5/2/2014	--	0.5 U	2 U	<b>9</b>	3.1	<b>5.9</b>
		Port 6	5/2/2014	--	0.5 U	2 U	<b>14</b>	0.56 J	1
		Port 5	5/2/2014	0.67	<b>0.61</b>	<b>180</b>	<b>22</b>	0.74 J	<b>13</b>
		Port 4	5/2/2014	<b>3.1</b>	<b>1.7</b>	<b>420</b>	<b>68</b>	<b>5.4</b>	<b>59</b>
		Port 3	5/2/2014	<b>5.1</b>	<b>6.9</b>	<b>440</b>	<b>140</b>	<b>19</b>	<b>170</b>
		Port 2	5/1/2014	0.37 J	<b>2.4</b>	<b>33</b>	<b>12</b>	1.4	<b>8.9</b>
		Port 1	5/1/2014	--	<b>6.9</b>	<b>25</b>	<b>39</b>	1 U	<b>30</b>
MW 5-22	BPW522	Port 6	5/29/2014	--	0.5 U	2 U	3.9	2.2	1.2
		Port 5	5/29/2014	--	0.5 U	2 U	5.5	1 U	0.49 J
		Port 4	5/29/2014	--	0.5 U	1.7 J	3.2	1 U	2
		Port 3	5/29/2014	--	<b>5.3</b>	<b>660 J</b>	<b>110</b>	<b>9.2</b>	<b>75</b>
		Port 2	5/28/2014	--	<b>4.4</b>	1.6 J	<b>6.8</b>	0.77 J	4.6

**TABLE A-1**  
**WATER QUALITY MONITORING DATA FOR PLUME MODELING**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

Well Name	Site ID	Port <sup>a</sup>	Sample Date	1,4-Dioxane (µg/L)	Carbon Tetrachloride (µg/L)	NDMA (ng/L)	Perchlorate (µg/L)	Tetrachloroethene (µg/L)	Trichloroethene (µg/L)
<b>Federal or California State MCL (NL) [SMCL] <sup>b</sup></b>				<b>(1)</b>	<b>0.5</b>	<b>(10)</b>	<b>6</b>	<b>5</b>	<b>5</b>
MW 5-22	BPW522	Port 1	5/28/2014	--	<b>1.2</b>	2 U	2 U	1 U	1 U
MW 5-23	BPW523	Port 6	5/13/2014	--	0.5 U	2 UJ	2 U	1 U	1 U
		Port 5	5/13/2014	0.12 J	0.5 U	2 UJ	<b>15</b>	3.3	2.8
		Port 4	5/13/2014	<b>2.0 J</b>	<b>2</b>	<b>750 J</b>	<b>56</b>	2.1	<b>31</b>
		Port 3	5/13/2014	<b>4.7 J</b>	<b>2.4</b>	<b>540 J</b>	<b>110</b>	<b>18</b>	<b>100</b>
		Port 2	5/13/2014	0.5 UJ	<b>7</b>	2.3 U	4	1.3	4.9
		Port 1	5/13/2014	--	<b>6.2</b>	8.8 U	<b>8.8</b>	2.8	<b>11</b>
MW 5-24	BPW524	Port 7	5/12/2014	<b>4</b>	0.5 U	2 U	<b>10</b>	<b>46</b>	<b>23</b>
		Port 6	5/12/2014	<b>1.8</b>	<b>2.5</b>	23 U	<b>24</b>	<b>290</b>	<b>160</b>
		Port 5	5/12/2014	0.63	<b>0.76</b>	2.9 U	<b>8.2</b>	<b>410</b>	<b>200</b>
		Port 4	5/12/2014	0.65	<b>1.1</b>	2 U	2.7	<b>130</b>	<b>190</b>
		Port 3	5/12/2014	0.19 J	0.45 J	2 U	0.98 J	<b>6.2</b>	<b>11</b>
		Port 2	5/12/2014	<b>9.2</b>	0.5 U	2 U	2 U	1 U	1 U
		Port 1	5/12/2014	<b>10</b>	<b>0.62</b>	2 U	2 U	1 U	1 U
MW 5-25	BPW525	Port 7	5/13/2014	0.5 UJ	0.5 U	2 U	2.3	1 U	1 U
		Port 6	5/13/2014	0.5 UJ	0.5 U	4.3	2.3	1 U	1 U
		Port 5	5/13/2014	0.5 UJ	0.5 U	2 U	<b>14</b>	0.96 J	1 U
		Port 4	5/13/2014	0.5 UJ	0.5 U	2 U	<b>21</b>	2.5	0.58 J
		Port 3	5/13/2014	0.5 U	0.5 U	2 U	<b>21</b>	2.2	1 U
		Port 2	5/12/2014	0.5 U	<b>0.76</b>	2 U	<b>5.9</b>	1 U	1 U
		Port 1	5/12/2014	0.5 U	<b>2.2</b>	2 U	1.4 J	1.9	0.70 J
MW 5-26	BPW526	Port 7	5/28/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 6	5/28/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 5	5/28/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 4	5/28/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 3	5/28/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 2	5/28/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 1	5/28/2014	--	0.5 U	2 U	2 U	1 U	1 U
MW 5-27	BPW527	Port 7	5/22/2014	--	0.5 U	2 U	1.8 J	1 U	1 U
		Port 6	5/22/2014	--	0.5 U	2 U	1.3 J	0.51 J	1 U
		Port 5	5/22/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 4	5/22/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 3	5/22/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 2	5/22/2014	--	0.5 U	2 U	2 U	1 U	1 U
		Port 1	5/22/2014	--	0.5 U	2 U	2 U	1 U	1 U
MW 5-28D	BPW528D		5/6/2014	0.5 U	0.5 U	2 U	2 U	1 U	1 U
MW 5-28I	BPW528I		5/6/2014	0.5 U	0.5 U	2 U	2.5	1 U	1 U
MW 5-28S	BPW528S		5/6/2014	0.5 U	0.5 U	2 U	<b>9.7</b>	1 U	1 U
SA1-1	08000185		10/24/2014	0.50 U	0.50 U	2 U	<b>8.7</b>	1.2	0.50 U
SA1-2 <sup>e</sup>	08000186		--	--	--	--	--	--	--
SA1-3 (LANTE)	08000060		6/11/2014	<b>2</b>	0.50 U	2.5	<b>8.7</b>	<b>72</b>	<b>27</b>
SGVWC B25A	08000187		9/5/2014	<b>1.7</b>	<b>1.5</b>	<b>61</b>	<b>38</b>	<b>26</b>	<b>46</b>
SGVWC B25B	08000188		9/5/2014	0.75	<b>5.8</b>	<b>12</b>	<b>12</b>	<b>6.6</b>	<b>23</b>

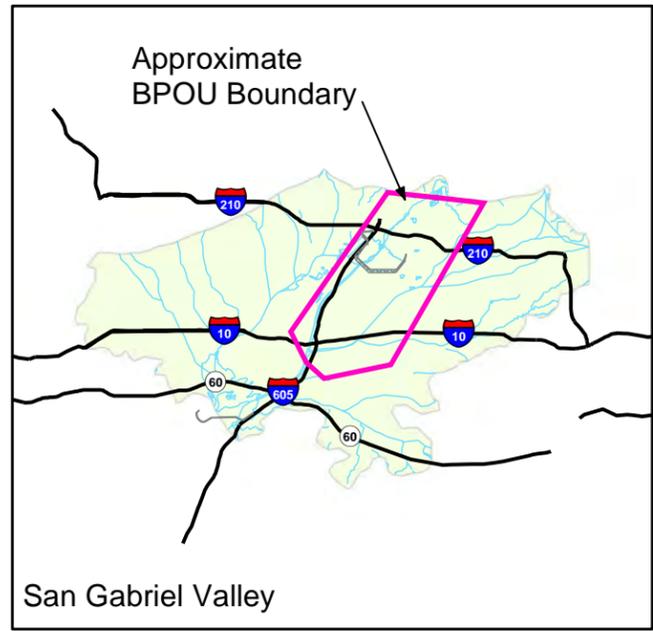
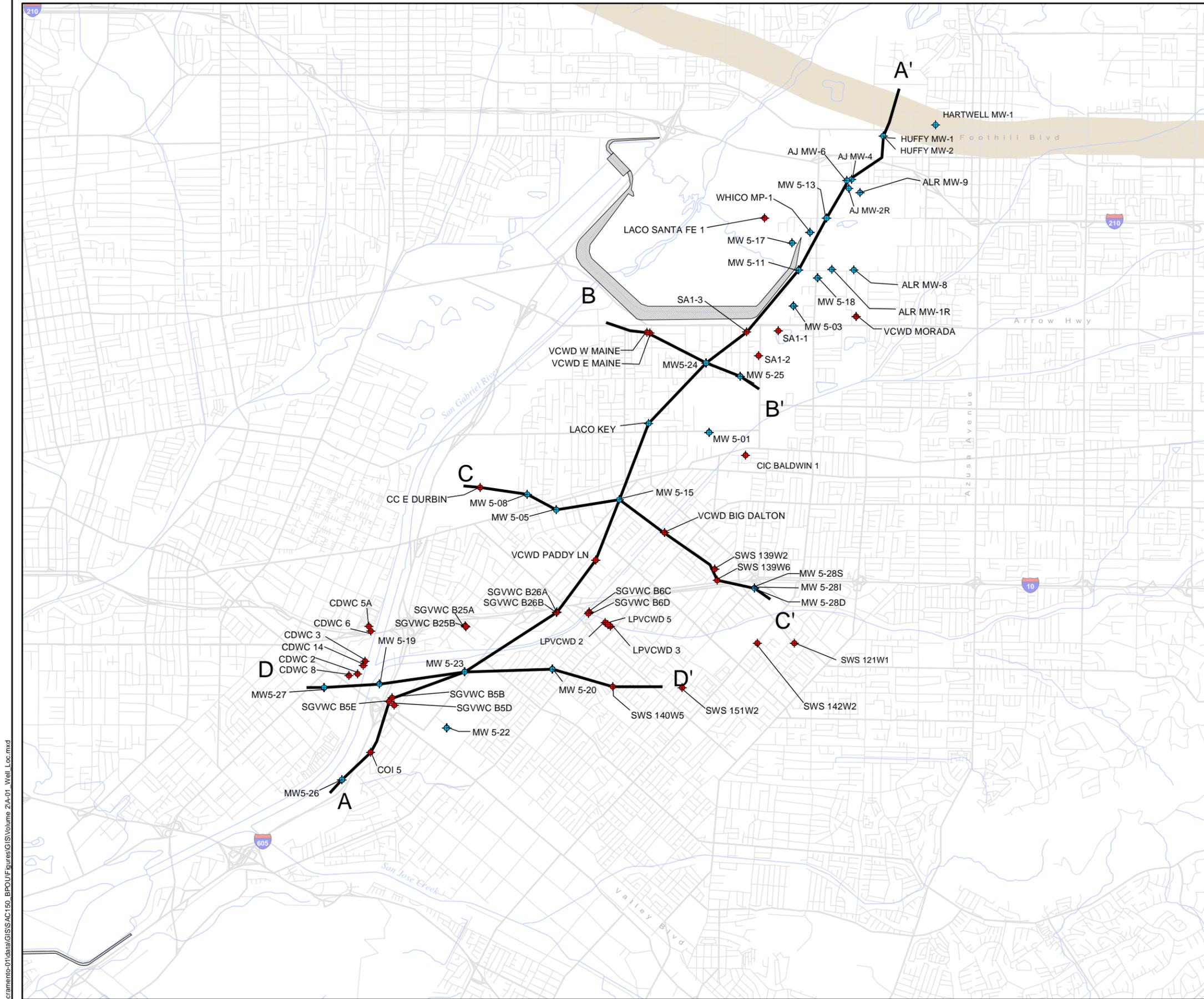
**TABLE A-1**  
**WATER QUALITY MONITORING DATA FOR PLUME MODELING**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

Well Name	Site ID	Port <sup>a</sup>	Sample Date	1,4-Dioxane (µg/L)	Carbon Tetrachloride (µg/L)	NDMA (ng/L)	Perchlorate (µg/L)	Tetrachloroethene (µg/L)	Trichloroethene (µg/L)
<b>Federal or California State MCL (NL) [SMCL] <sup>b</sup></b>				<b>(1)</b>	<b>0.5</b>	<b>(10)</b>	<b>6</b>	<b>5</b>	<b>5</b>
SGVWC B26A	08000189		9/5/2014	<b>1</b>	<b>0.91</b>	<b>80</b>	<b>36</b>	1.9	<b>19</b>
SGVWC B26B	08000190		9/5/2014	<b>2.5</b>	<b>11</b>	<b>83</b>	<b>57</b>	1.6	<b>58</b>
SGVWC B5B	61900719		6/2/2014	0.50 U	0.21 J	<b>10</b>	<b>9.2</b>	2.4	2.8
SGVWC B5D	1910039		6/2/2014	0.50 U	<b>0.68</b>	2 U	2 U	0.5 U	0.5 U
SGVWC B5E	08000205		6/2/2014	0.50 U	<b>2</b>	<b>100</b>	<b>17</b>	3.2	<b>15</b>
SGVWC B6C			8/14/2014	0.50 U	0.50 U	9.3	<b>23</b>	0.50 U	2.1
SGVWC B6D	78000098		5/9/2014	<b>2</b>	<b>2.5</b>	<b>150 J</b>	<b>61</b>	<b>7</b>	<b>77</b>
SWS 121W1			6/9/2014	--	0.50 U	2 U	3.9	0.50 U	0.50 U
SWS 139W2	01901599	285	5/6/2014	--	0.5 U	2 U	<b>25</b>	1 U	1 U
		370	5/6/2014	--	0.5 U	2 U	<b>25</b>	1 U	1 U
SWS 139W6	08000152		5/6/2014	--	0.5 U	2 U	5.4	1 U	1 U
SWS 140W5			6/2/2014	--	--	--	11	--	7.7
			6/9/2014	--	0.50 U	14	10	0.50 U	--
			6/16/2014	--	--	--	11	--	--
			6/23/2014	--	--	--	11	--	--
SWS 142W2			6/9/2014	--	0.50 U	2 U	2.9	0.50 U	0.50 U
SWS 151W2			6/9/2014	--	0.50 U	2 U	2.5	0.50 U	1.2
VCWD BIG DALTON	01900035	275	5/7/2014	0.11 J	0.5 U	3.6	<b>15</b>	1 U	1 U
		410	5/7/2014	0.5 U	0.5 U	<b>2</b>	<b>16</b>	1 U	1 U
VCWD E MAINE	01900027		5/9/2014	--	0.5 U	2 U	2 U	0.69 J	1 U
VCWD MORADA	01900029	430	5/7/2014	0.5 U	0.5 U	2 U	<b>8</b>	0.95 J	1 U
		510	5/7/2014	0.5 U	0.5 U	2 U	<b>8.1</b>	1	1 U
VCWD PADDY LN	01900031	340	5/7/2014	<b>2.1</b>	<b>0.6</b>	<b>72</b>	<b>44</b>	2	<b>18</b>
		460	5/7/2014	<b>1.5</b>	0.47 J	<b>170</b>	<b>36</b>	1.5	<b>13</b>
VCWD W MAINE	01900028		5/9/2014	--	0.5 U	2 U	2 U	1.6	0.86 J
WHICO MP-1	W10WHMP1	Port 6	DRY	--	--	--	--	--	--
		Port 5	5/30/2014	0.43 J	0.5 U	2 U	2.9	<b>11</b>	3.6
		Port 4	5/30/2014	<b>1.7</b>	0.5 U	<b>13</b>	3.1	<b>200</b>	<b>110</b>
		Port 3	5/30/2014	0.19 J	0.5 U	2 U	2 U	<b>36</b>	<b>35</b>
		Port 2	5/30/2014	0.5 U	0.5 U	2 U	1.1 J	<b>6.5</b>	<b>14</b>
		Port 1	5/30/2014	0.16 J	0.5 U	2 U	2 U	<b>6.6</b>	1.7

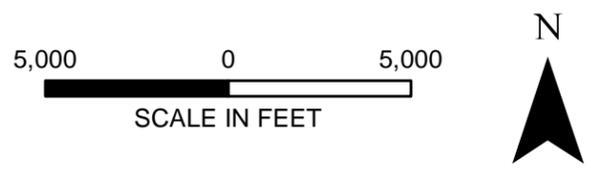
**Notes:**

- a. For inactive production wells, elevation in feet above mean sea level of discrete low-flow samples.
  - b. Federal or California State Maximum Contaminant Level (MCL).
  - c. Polyethylene Diffusion Bag (PDB) empty no sample collected.
  - d. Well not sampled in 2014.
  - e. Well inoperable in 2014.
  - Sample result unavailable.
  - U - Analyte not detected at the reported quantitation limit shown in the result.
  - J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
  - UJ - Analyte not detected at the reported quantitation limit shown in the result; the reported quantitation limit is estimated.
- Results in bold indicate MCL, NL, or SMCL exceeded.

## **FIGURES**



- EXPLANATION**
- A - A'** Cross section
  - ◆ Production well
  - ◆ Monitoring or multiport well
  - Duarte Fault Zone

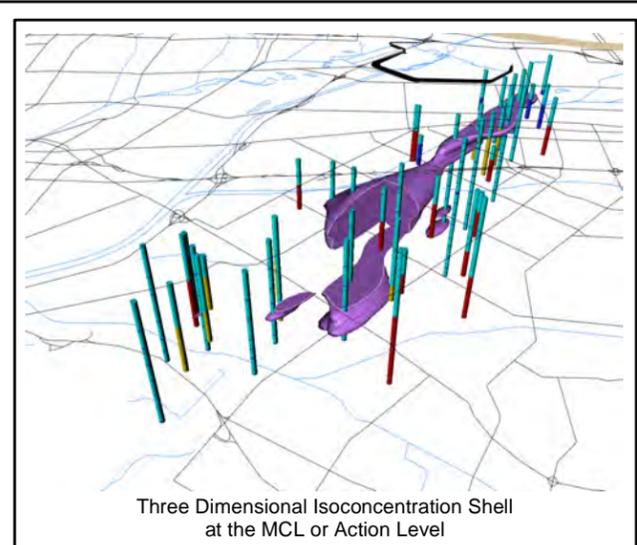
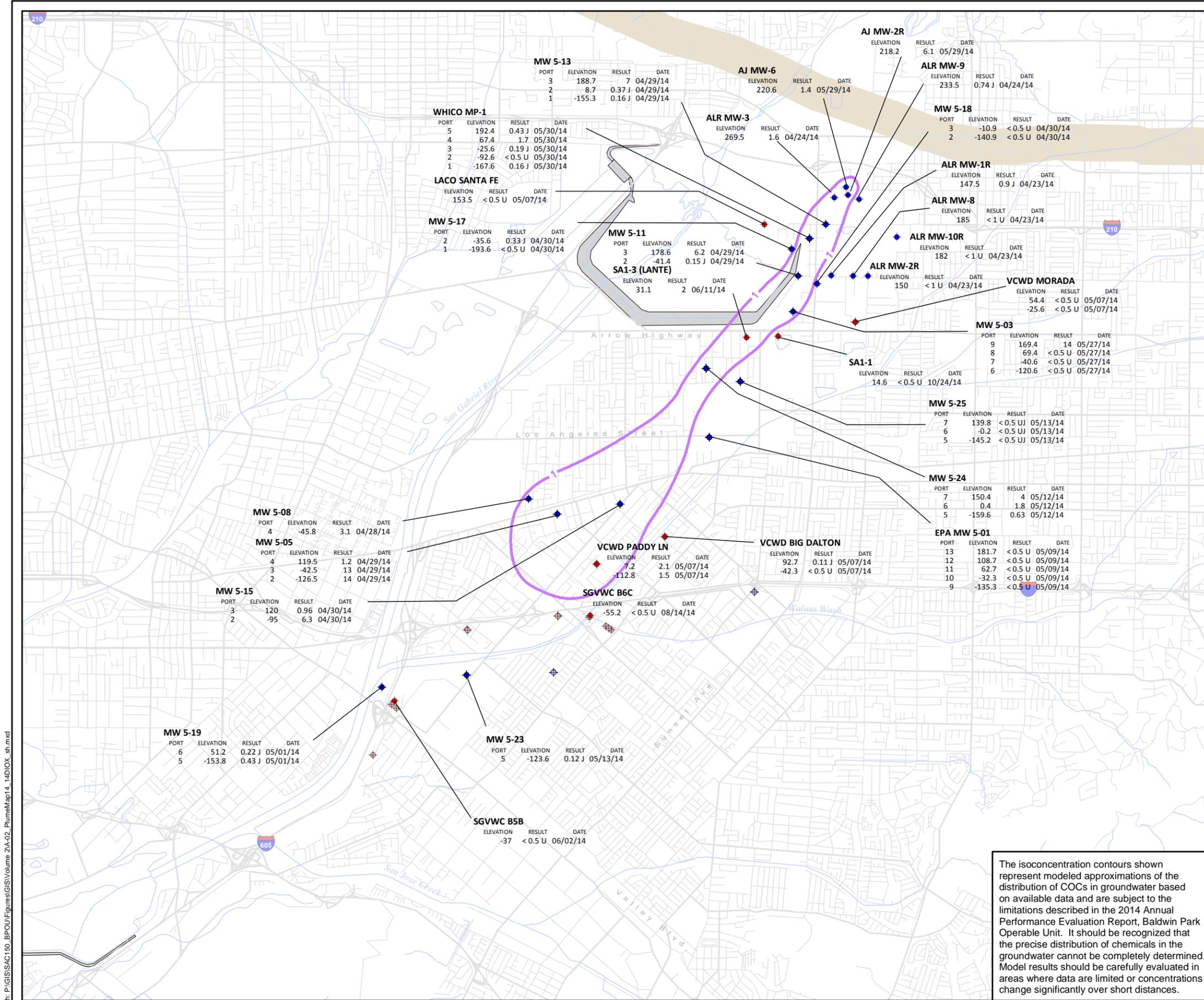


**WELL LOCATION MAP**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

Project No.: SAC150  
Figure **A-1**

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- EXPLANATION**
- ◆ Conventional monitoring or multiport well
  - ◆ Conventional monitoring or multiport well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multiport well
  - ◆ Monitoring and multiport well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - <UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - 1,4-Dioxane composite isoconcentration contour for the elevation interval above -200 feet (1 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.

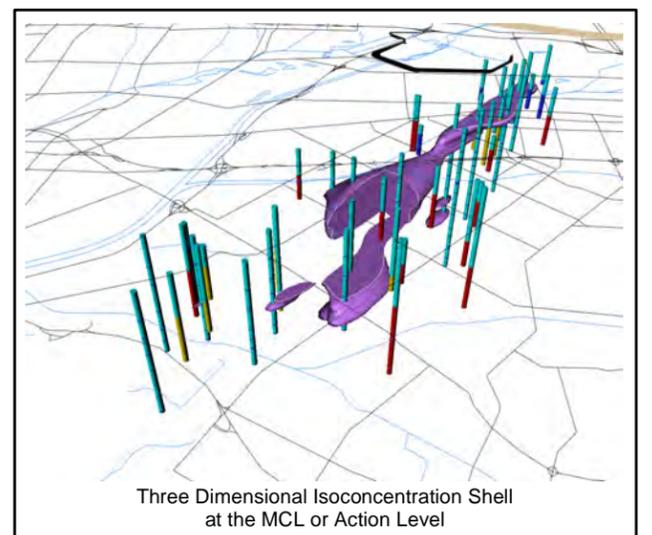
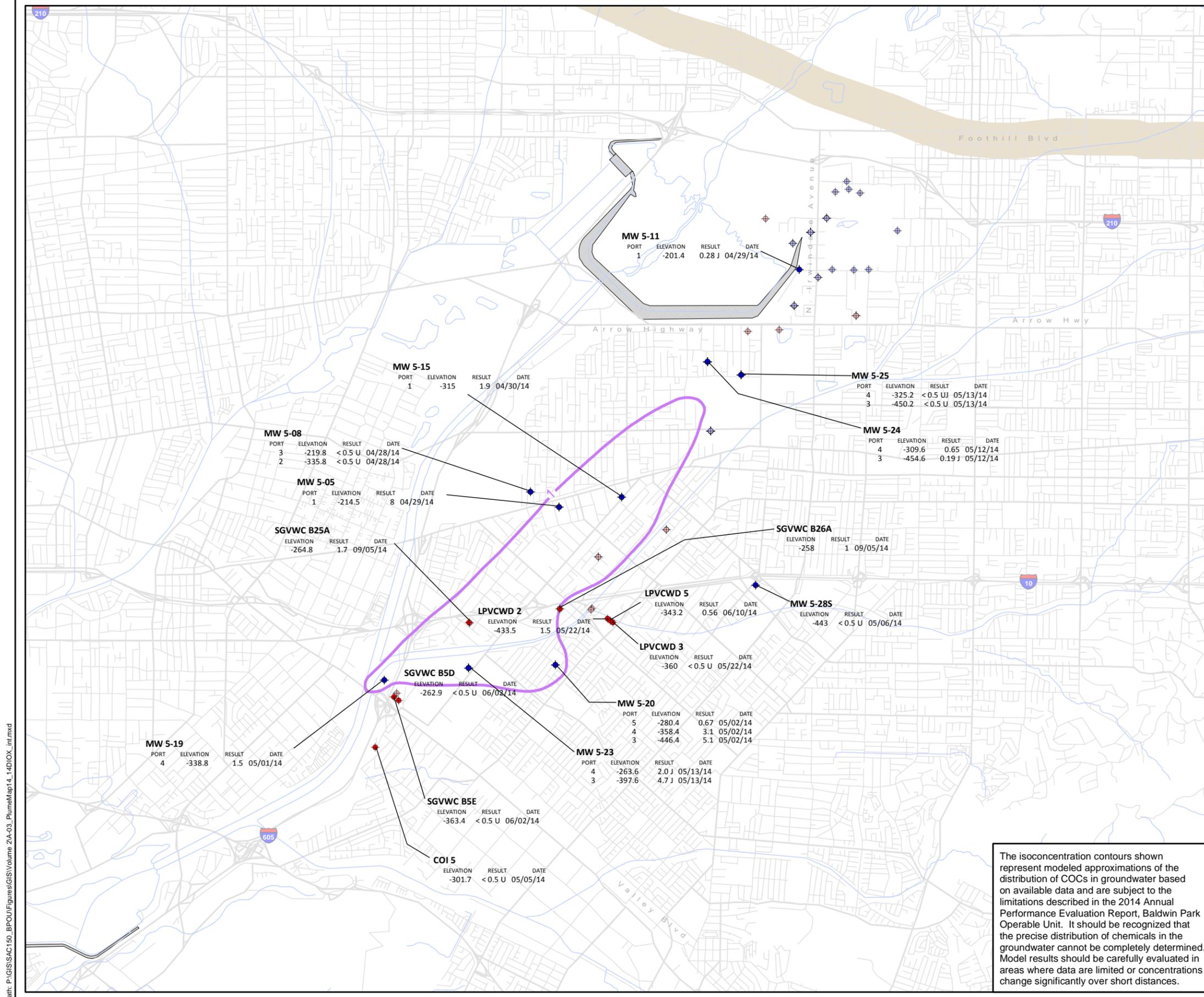


The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF 1,4-DIOXANE  
ABOVE -200 FEET MSL, 2014**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

Project No.: SAC150  
Figure **A-2**



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - >UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - 1,4-Dioxane composite isoconcentration contour for the elevation interval between -200 and -500 feet (1 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.

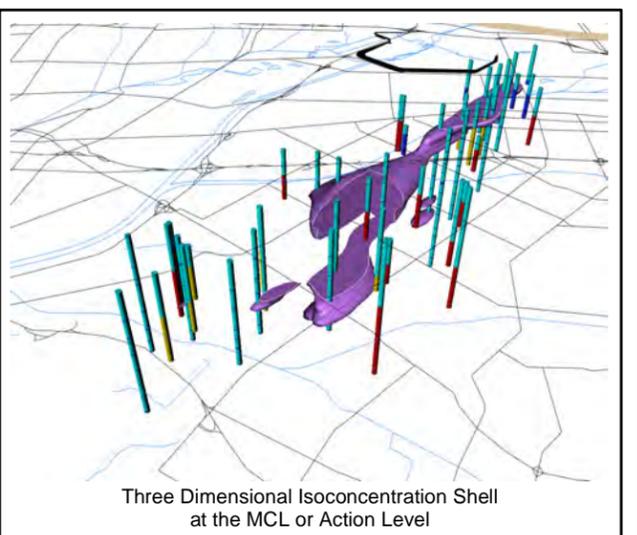
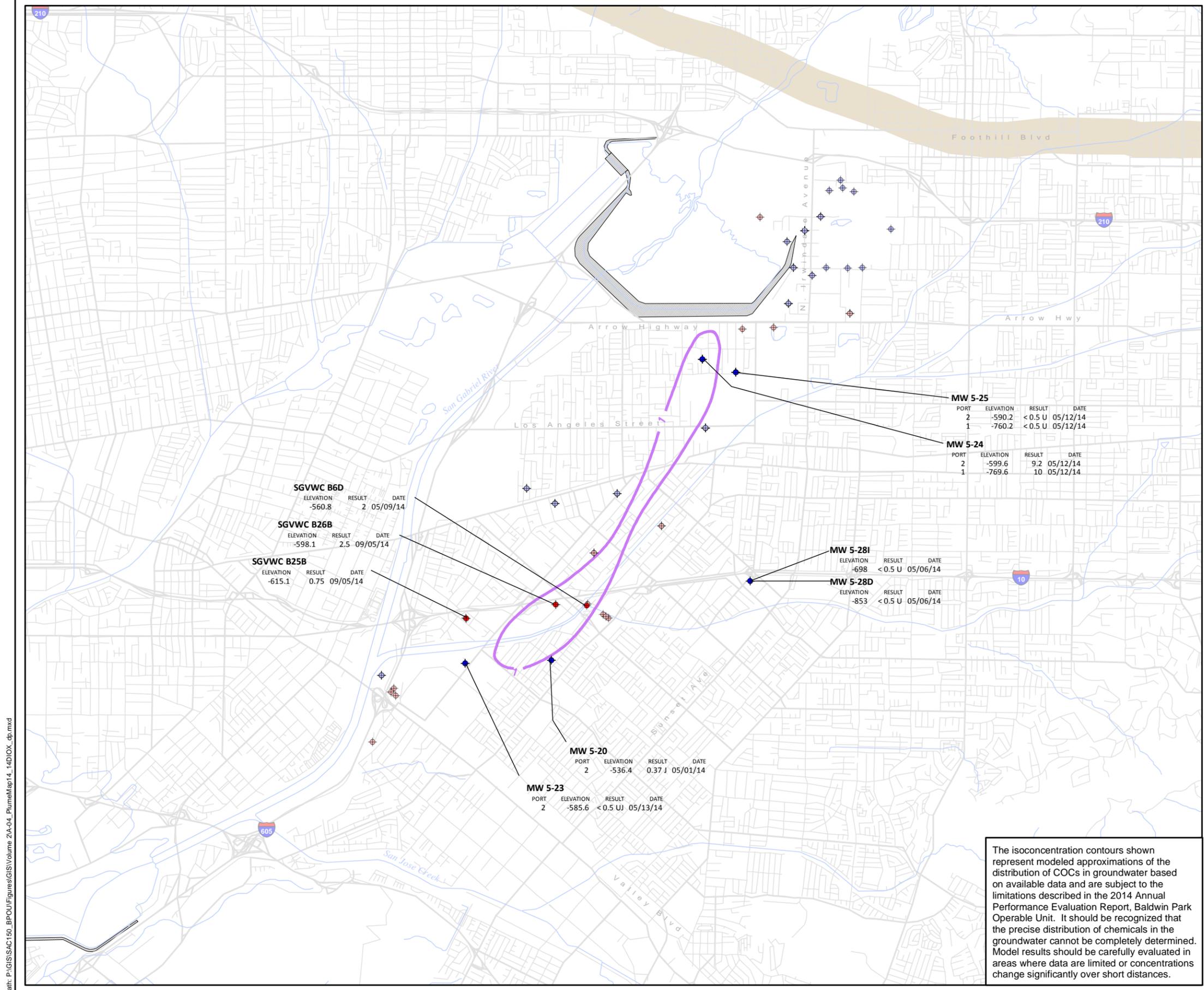


The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF 1,4-DIOXANE  
BETWEEN -200 AND -500 FEET MSL, 2014**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

Project No.: SAC150  
Figure **A-3**



**EXPLANATION**

- ◆ Conventional monitoring or multiport well
- ◆ Conventional monitoring or multiport well (no data within elevation range, refer to Note 3)
- ◆ Monitoring and multiport well
- ◆ Monitoring and multiport well (no data within elevation range, refer to Note 3)
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- > UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- 1,4-Dioxane composite isoconcentration contour for the elevation interval below -500 feet (1 ug/L)
- Duarte Fault Zone

**NOTES:**

1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
3. Posted data represent chemical results for the specified elevation range.
4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

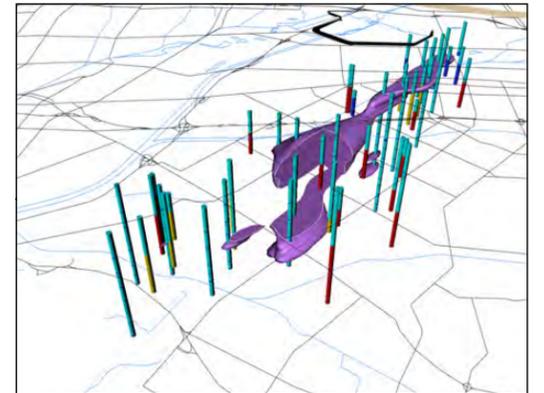
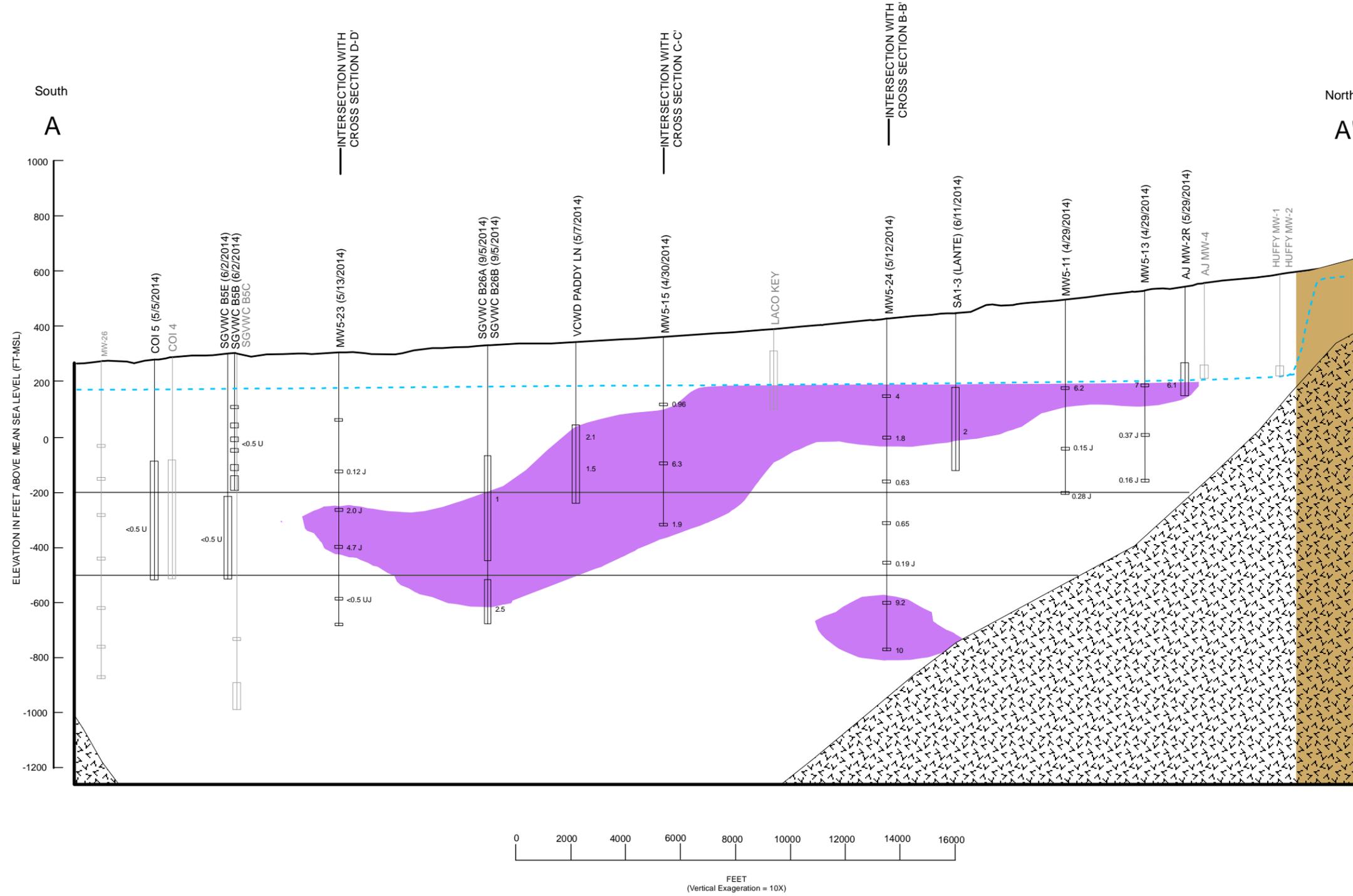
**DISTRIBUTION OF 1,4-DIOXANE BELOW -500 FEET MSL, 2014**

Baldwin Park Operable Unit  
San Gabriel Valley, California



Project No.: SAC150  
Figure **A-4**

\\sacramento-c01\data\GIS\SAC150\_BPOU\Figures\GIS\Volume 2\A-05\_A\_CrossSection14\_14DIOX.mxd



Three Dimensional Isoconcentration Shell at the MCL or Action Level

**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- > 1 ug/L
- Interval elevation boundary (-200 and -500 ft amsl)
- Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various sources
- Duarte Fault Zone

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

Note:

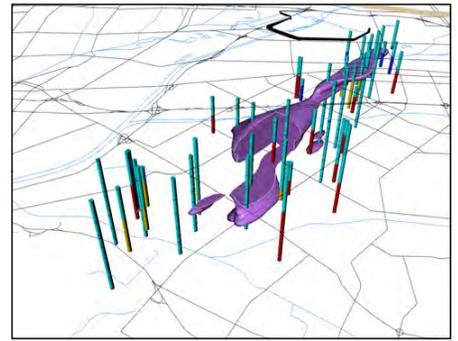
1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

**VERTICAL DISTRIBUTION OF  
1,4-DIOXANE, 2014  
CROSS SECTION A-A'**

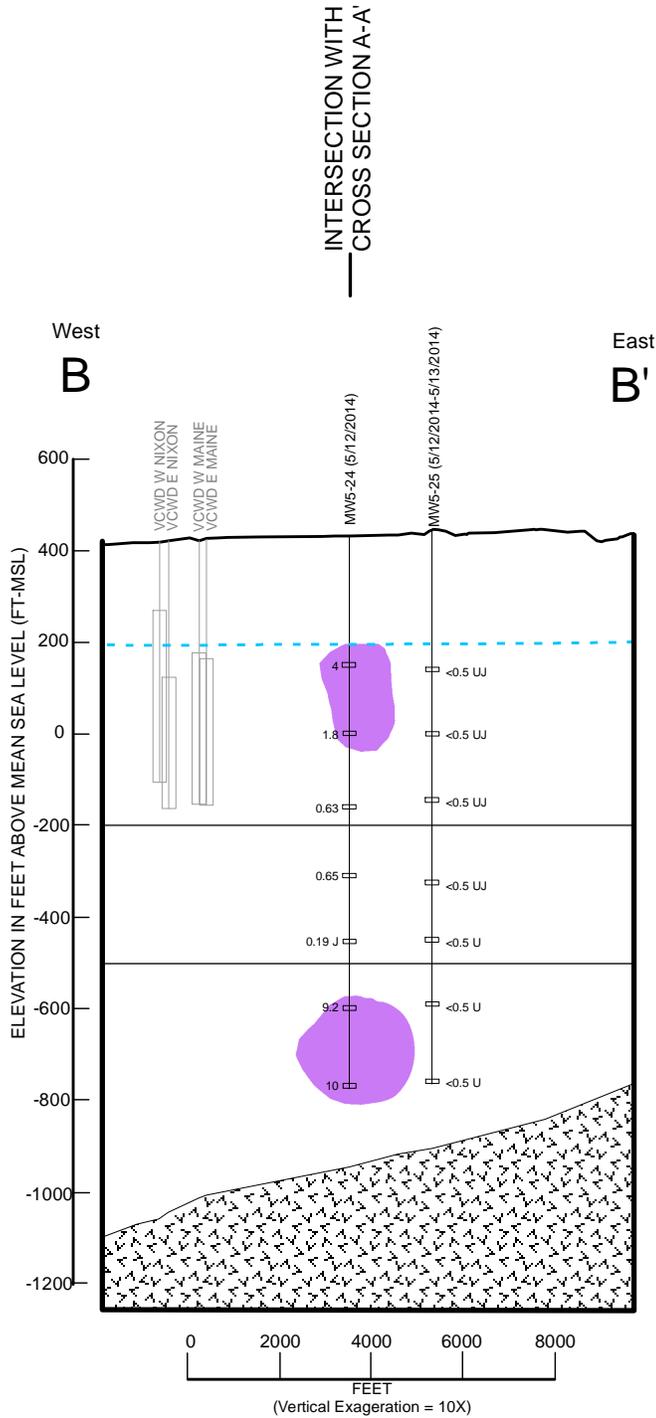
Baldwin Park Operable Unit  
San Gabriel Valley, California

Project No.: SAC150

Figure **A-5**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >1 ug/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-msl)
- - - Generalized potentiometric surface
- ▨ Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

**VERTICAL DISTRIBUTION OF 1,4-DIOXANE, 2014 CROSS SECTION B-B'**

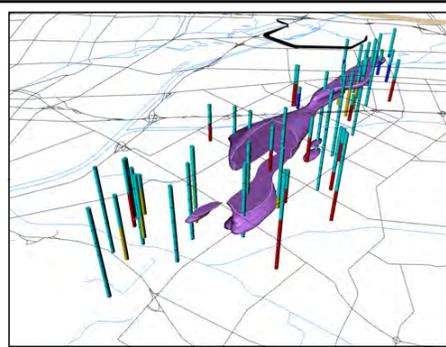
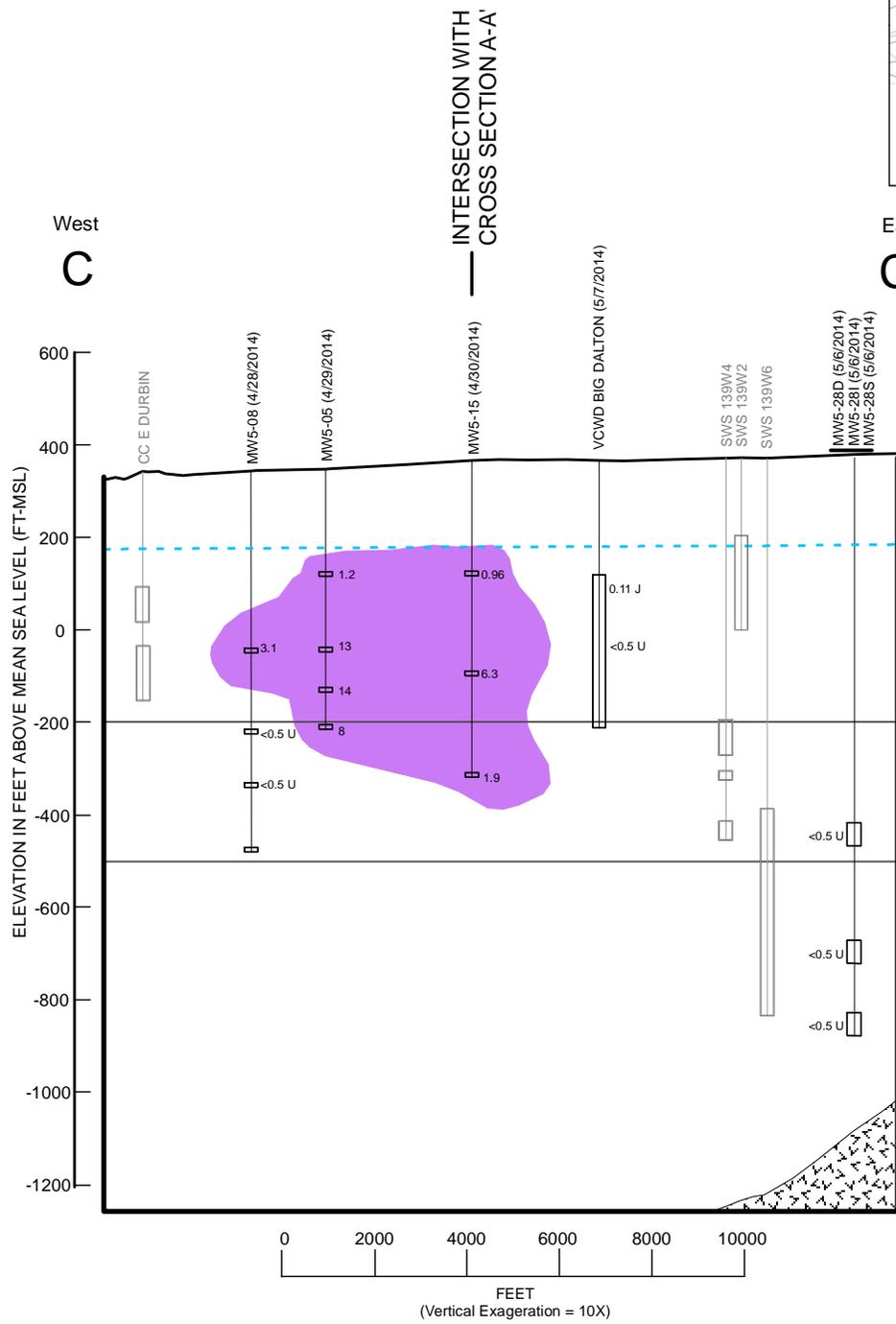
Baldwin Park Operable Unit  
San Gabriel Valley, California



Project No.: SAC150

Figure **A-6**

Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2\A-07\_C\_CrossSection14\_14DIOX.mxd



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >1 ug/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-msl)
- Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

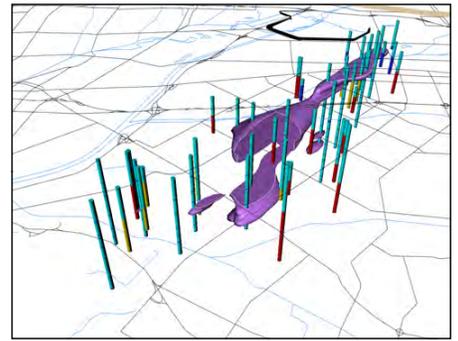
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

- Note:
1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

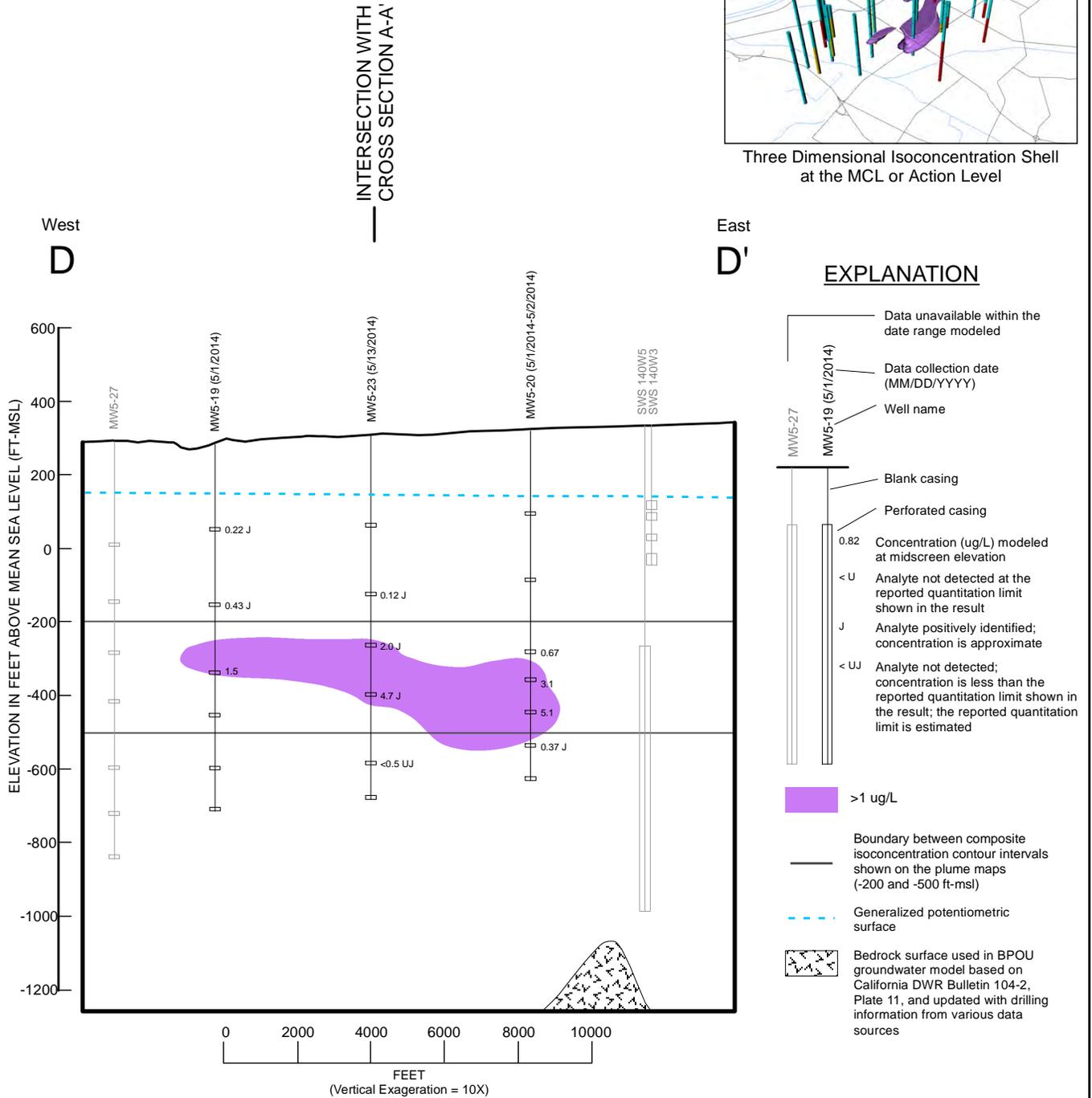
**VERTICAL DISTRIBUTION OF 1,4-DIOXANE, 2014 CROSS SECTION C-C'**  
Baldwin Park Operable Unit  
San Gabriel Valley, California



Project No.: SAC150  
Figure **A-7**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

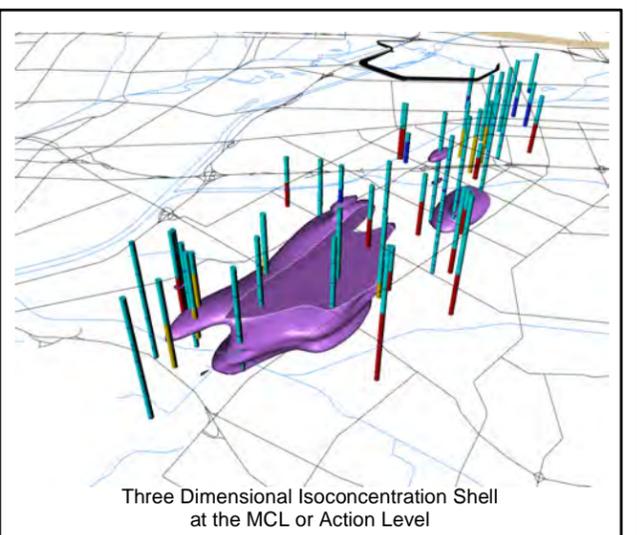
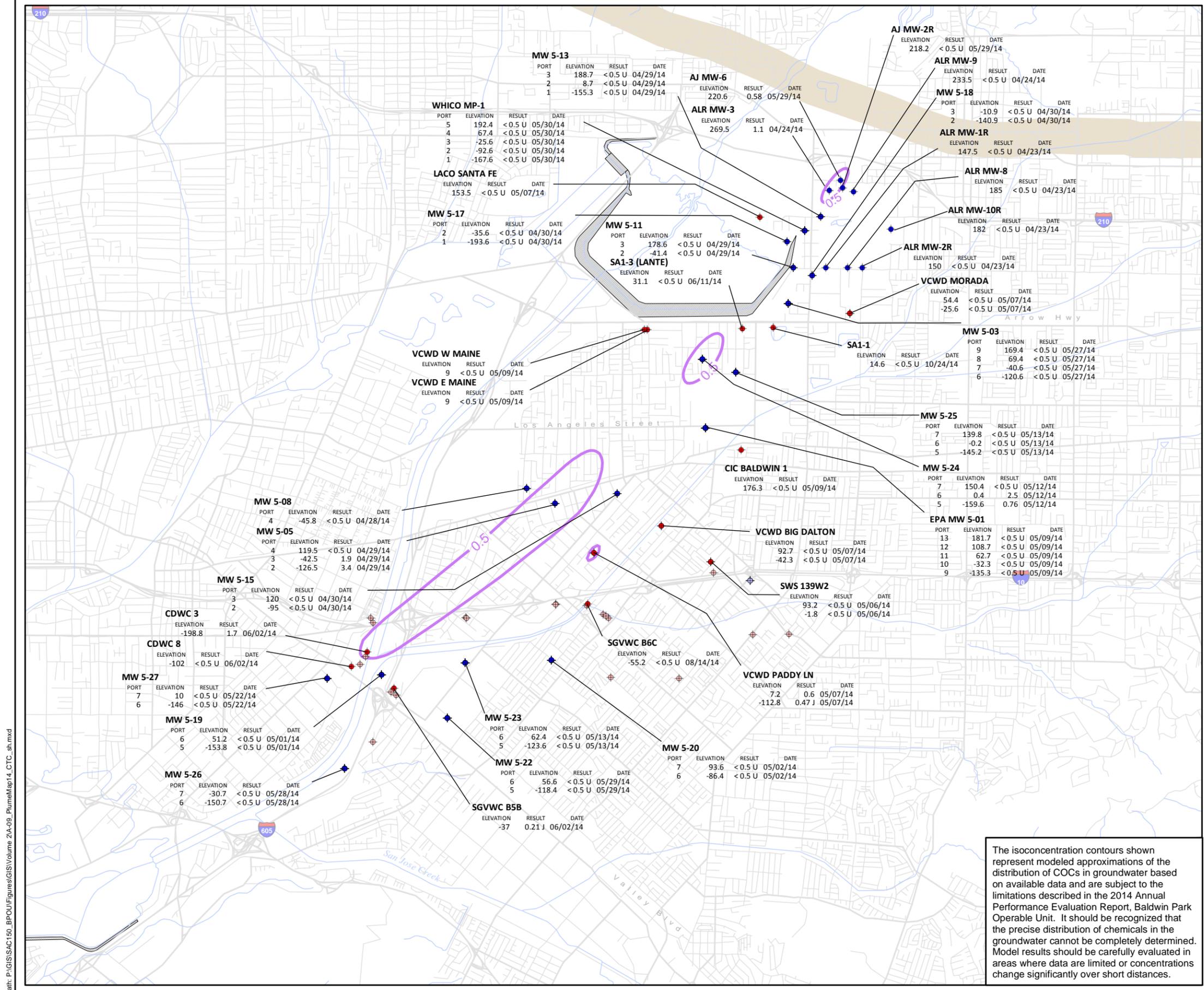
## VERTICAL DISTRIBUTION OF 1,4-DIOXANE, 2014 CROSS SECTION D-D'

Baldwin Park Operable Unit  
San Gabriel Valley, California



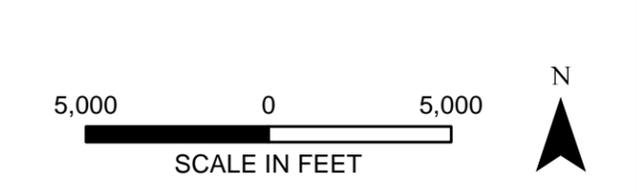
Project No.: SAC150

Figure **A-8**



- EXPLANATION**
- ◆ Conventional monitoring or multiport well
  - ⊕ Conventional monitoring or multiport well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multiport well
  - ⊕ Monitoring and multiport well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - > UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Carbon Tetrachloride composite isoconcentration contour for the elevation interval above -200 feet (0.5 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision<sup>®</sup>.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision<sup>®</sup>, as described in the Annual Report.

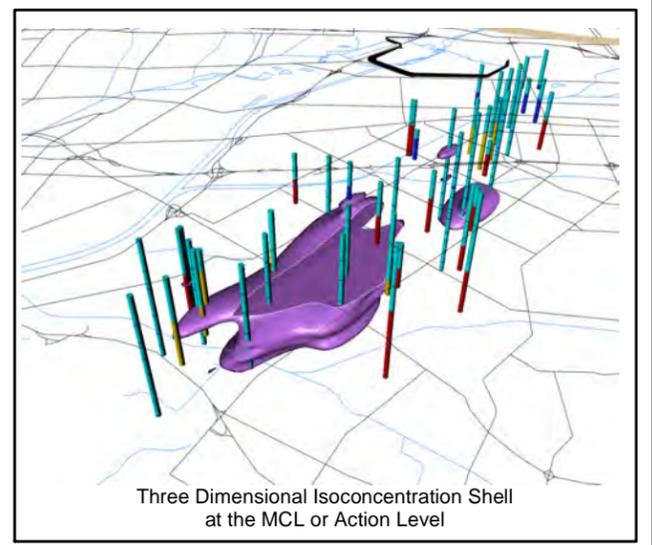
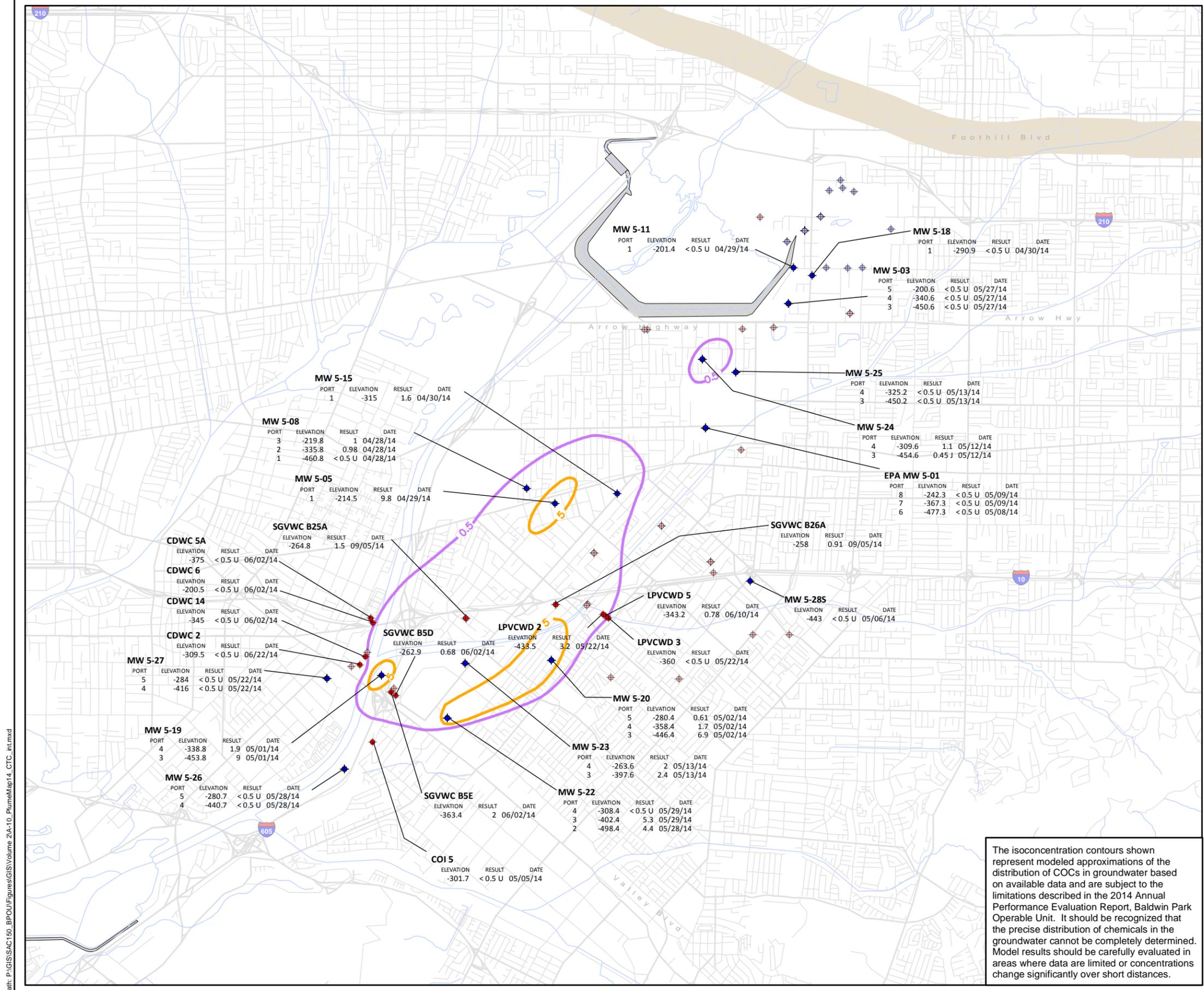


The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF CARBON TETRACHLOIDE ABOVE -200 FEET MSL, 2014**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

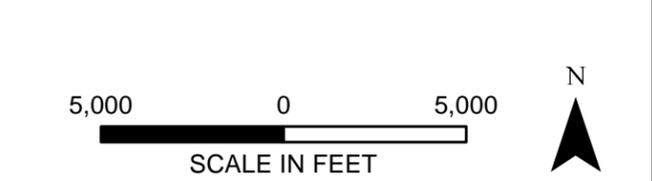
**Geosyntec**  
 consultants

Project No.: SAC150  
 Figure **A-9**



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - > UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Carbon Tetrachloride composite isoconcentration contour for the elevation interval between -200 and -500 feet (0.5 ug/L)
  - Carbon Tetrachloride composite isoconcentration contour for the elevation interval between -200 and -500 feet (5 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.

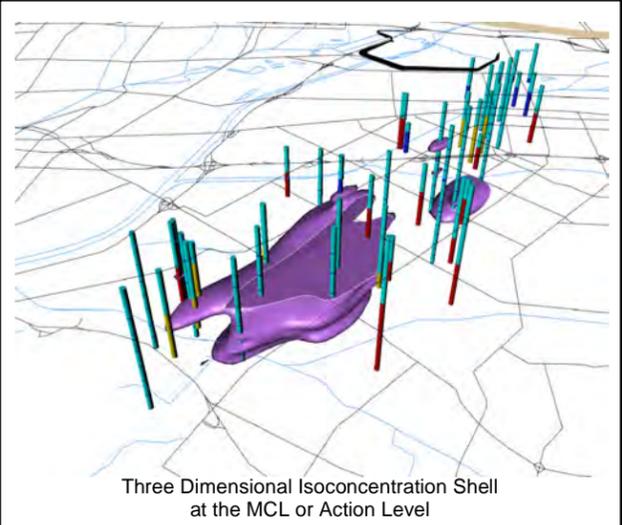
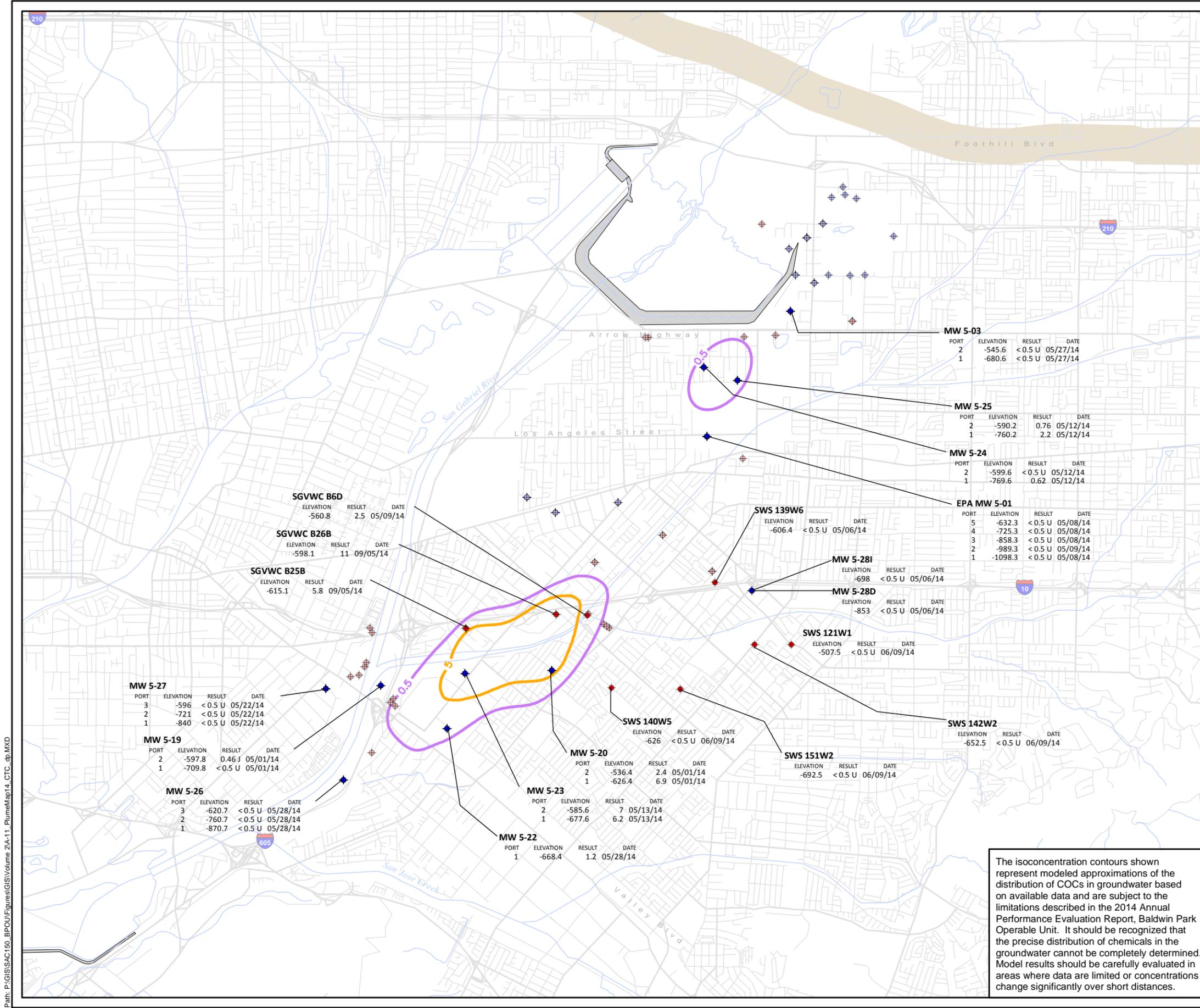


The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF CARBON TETRACHLORIDE BETWEEN -200 AND -500 FEET MSL, 2014**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

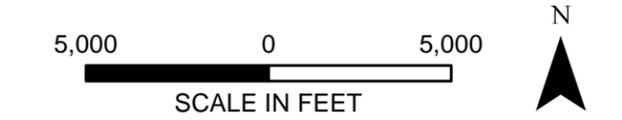
**Geosyntec**  
consultants

Project No.: SAC150  
Figure **A-10**



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified, concentration is approximate
  - > UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Carbon Tetrachloride composite isoconcentration contour for the elevation interval below -500 feet (0.5 ug/L)
  - Carbon Tetrachloride composite isoconcentration contour for the elevation interval below -500 feet (5 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.

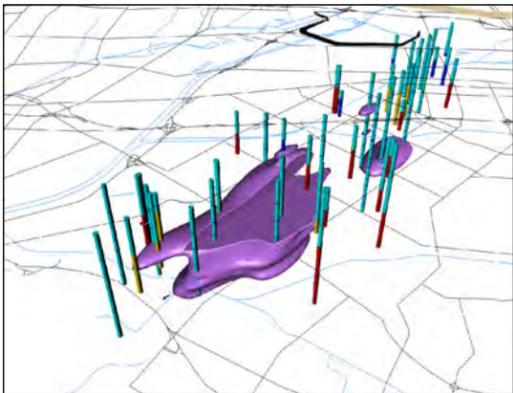


The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF CARBON TETRACHLORIDE BELOW -500 FEET MSL, 2014**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

**Geosyntec**  
 consultants

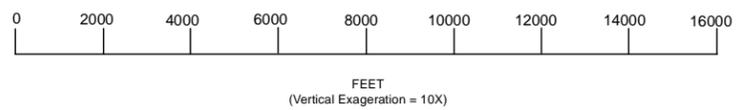
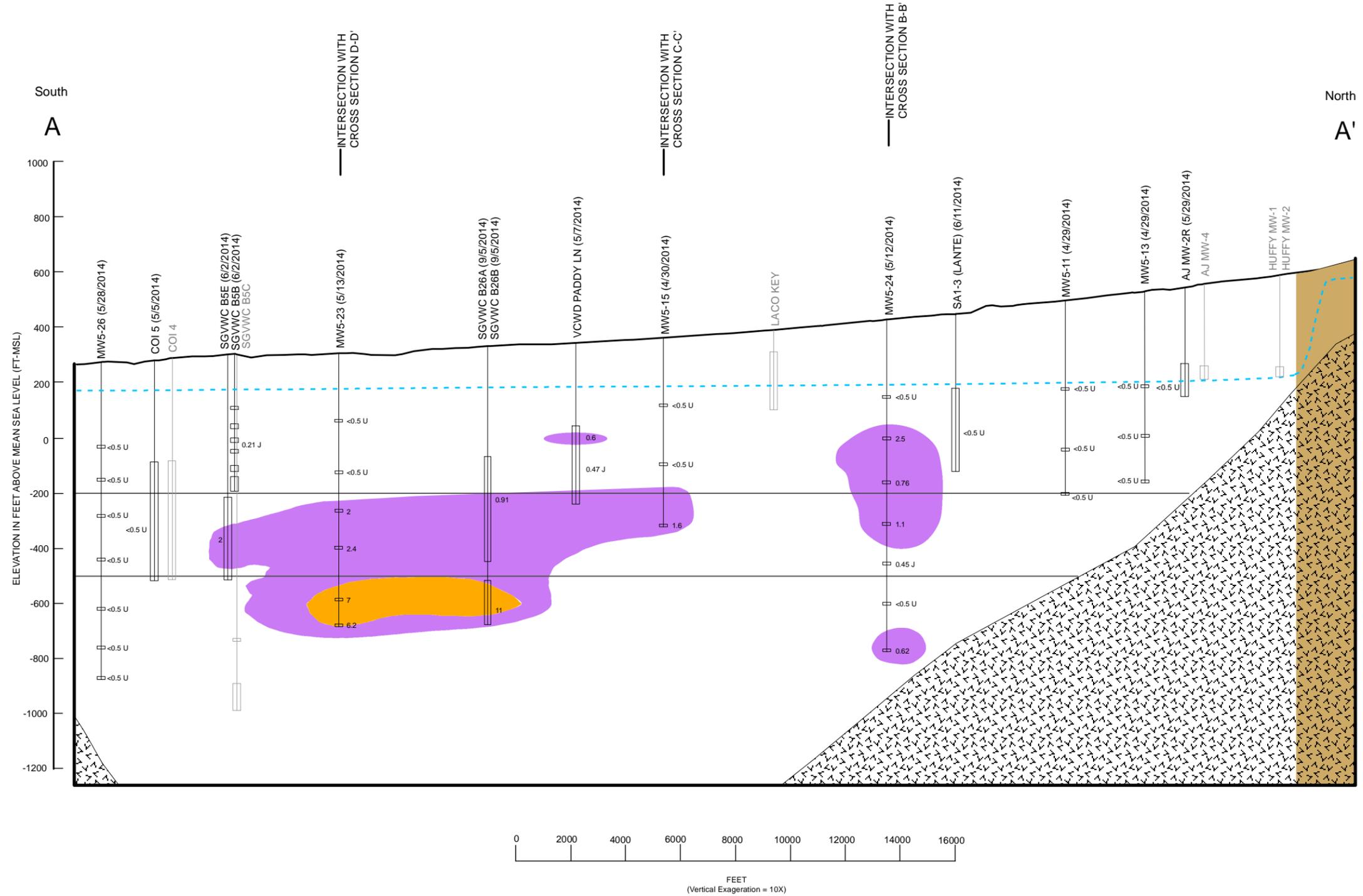
Project No.: SAC150  
 Figure **A-11**



Three Dimensional Isoconcentration Shell at the MCL or Action Level

**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.6 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >0.5 ug/L
- >5 ug/L
- Interval elevation boundary (-200 and -500 ft amsl)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various sources
- Duarte Fault Zone



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

Note:

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

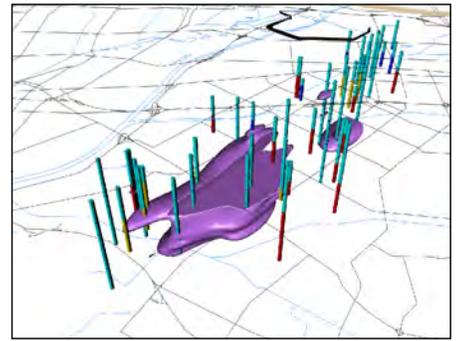
**VERTICAL DISTRIBUTION OF  
CARBON TETRACHLORIDE, 2014  
CROSS SECTION A-A'**

Baldwin Park Operable Unit  
San Gabriel Valley, California

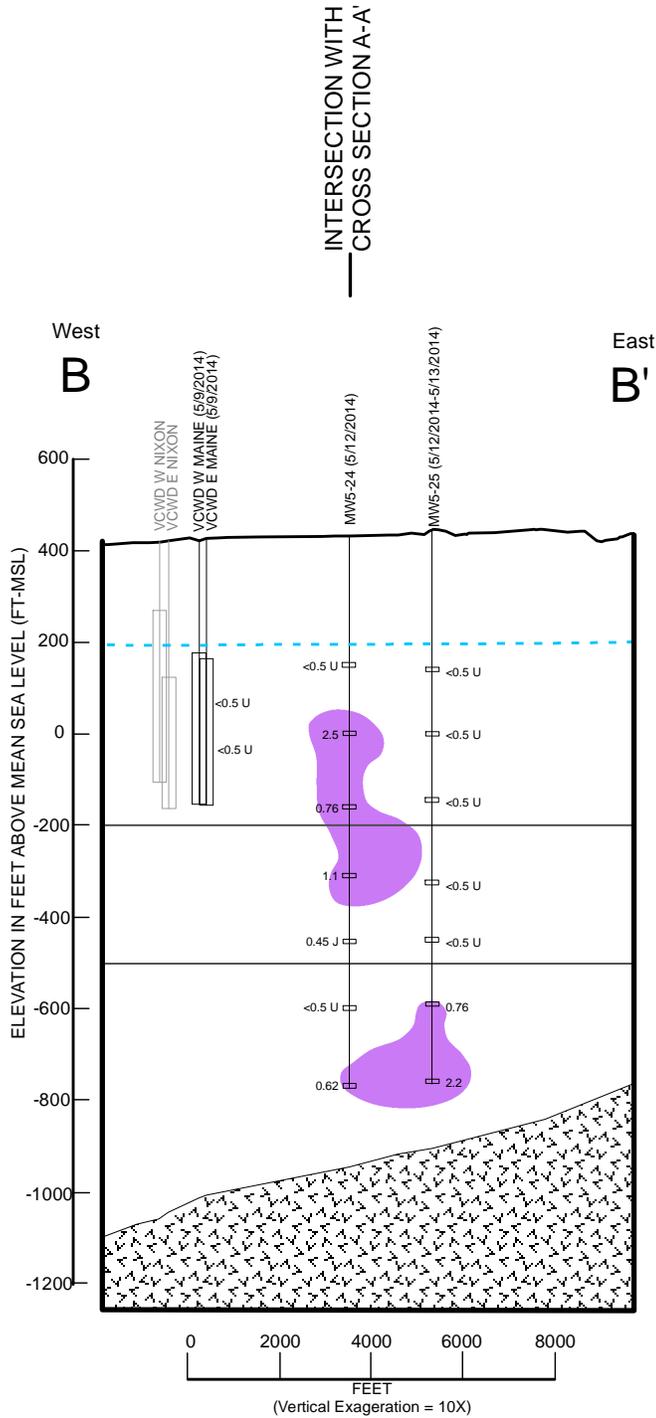
Project No.: SAC150

Figure **A-12**

Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-12\_A\_CrossSection14\_CTC.mxd



Three Dimensional Isoconcentration Shell at the MCL or Action Level



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UU Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >0.5 ug/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-msl)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

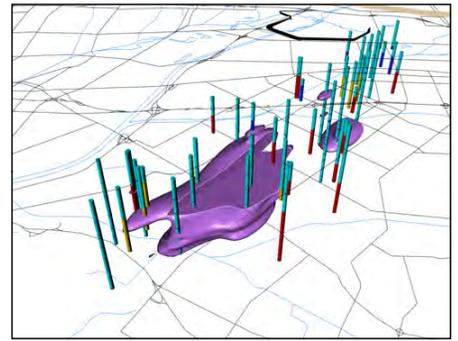
**VERTICAL DISTRIBUTION OF  
CARBON TETRACHLORIDE, 2014  
CROSS SECTION B-B'**

Baldwin Park Operable Unit  
San Gabriel Valley, California

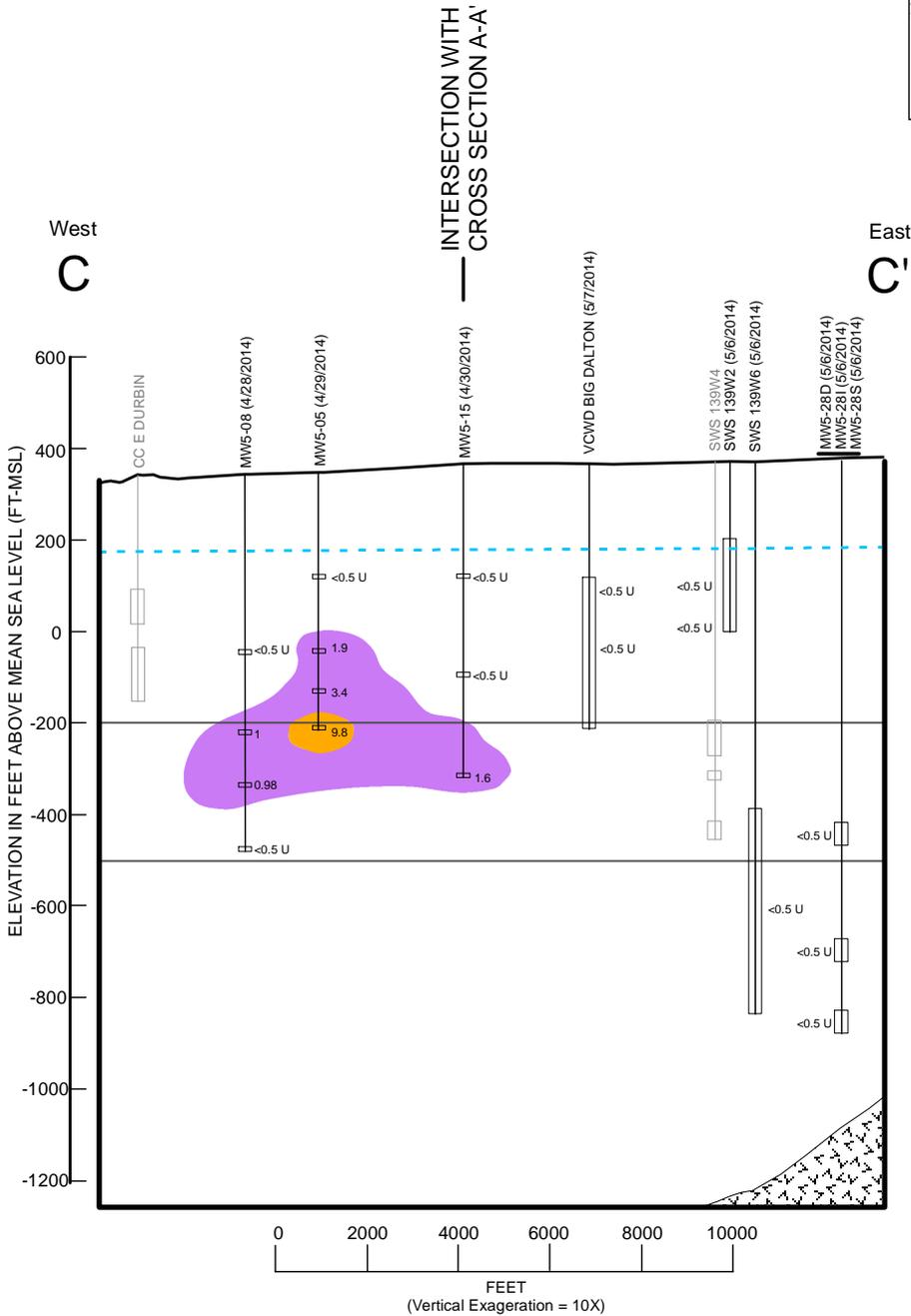


Project No.: SAC150

Figure **A-13**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UU Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >0.5 ug/L
- >5 ug/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-msl)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

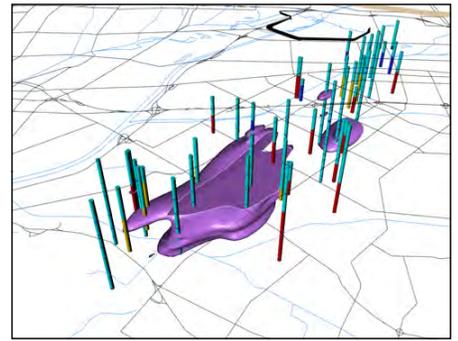
**VERTICAL DISTRIBUTION OF CARBON TETRACHLORIDE, 2014 CROSS SECTION C-C'**

Baldwin Park Operable Unit  
San Gabriel Valley, California

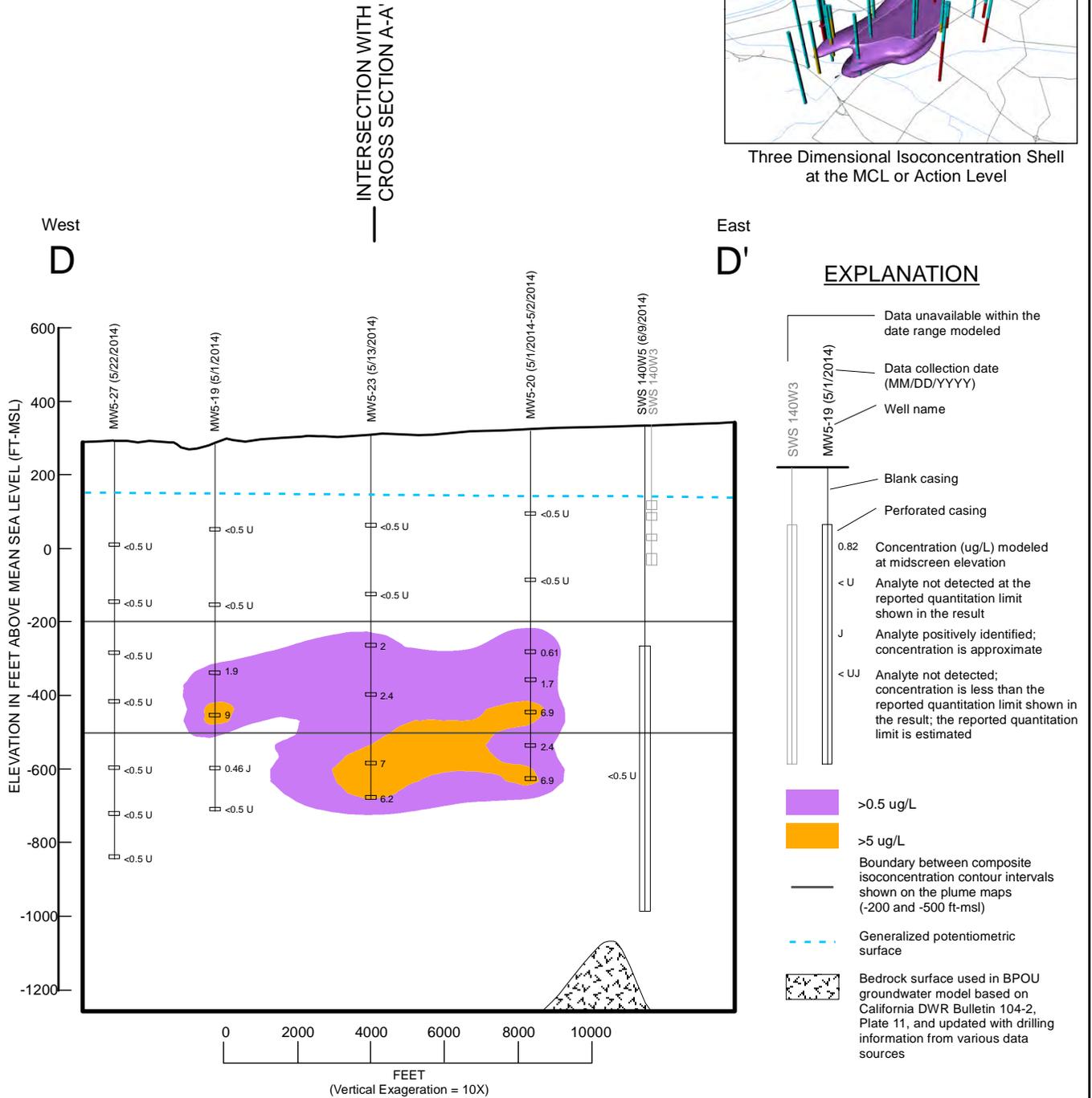


Project No.: SAC150

Figure **A-14**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

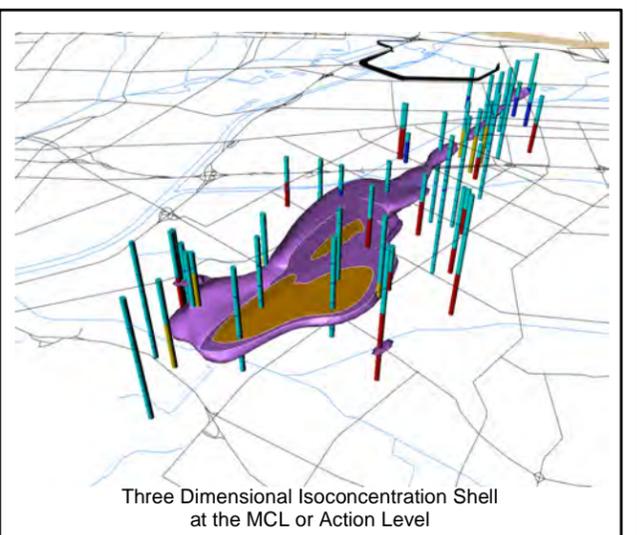
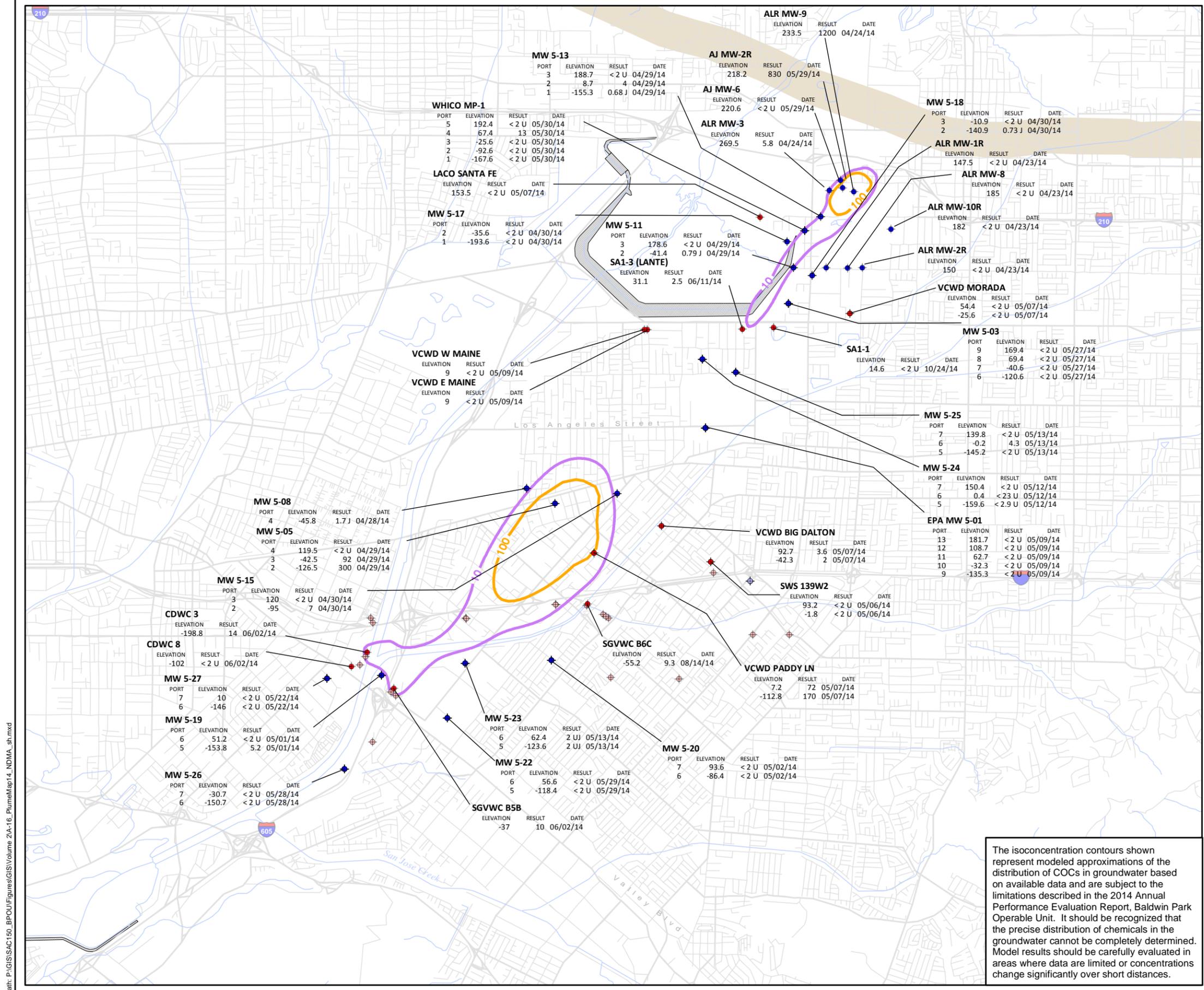
## VERTICAL DISTRIBUTION OF CARBON TETRACHLORIDE, 2014 CROSS SECTION D-D'

Baldwin Park Operable Unit  
San Gabriel Valley, California



Project No.: SAC150

Figure **A-15**

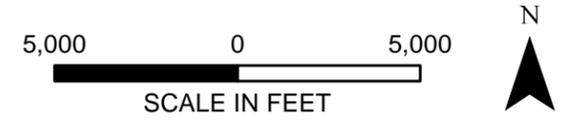


**EXPLANATION**

- ◆ Conventional monitoring or multipoint well
- ⊕ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
- ◆ Monitoring and multipoint well
- ⊕ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- UJ Analyte not detected at the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- H Sample was prepped or analyzed beyond the specified holding time
- N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval above -200 feet (10 ng/L)
- N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval above -200 feet (100 ng/L)
- Duarte Fault Zone

**NOTES:**

1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
3. Posted data represent chemical results for the specified elevation range.
4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



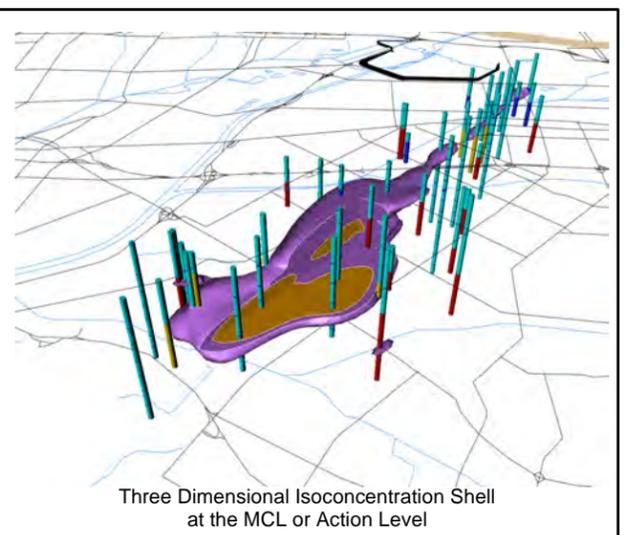
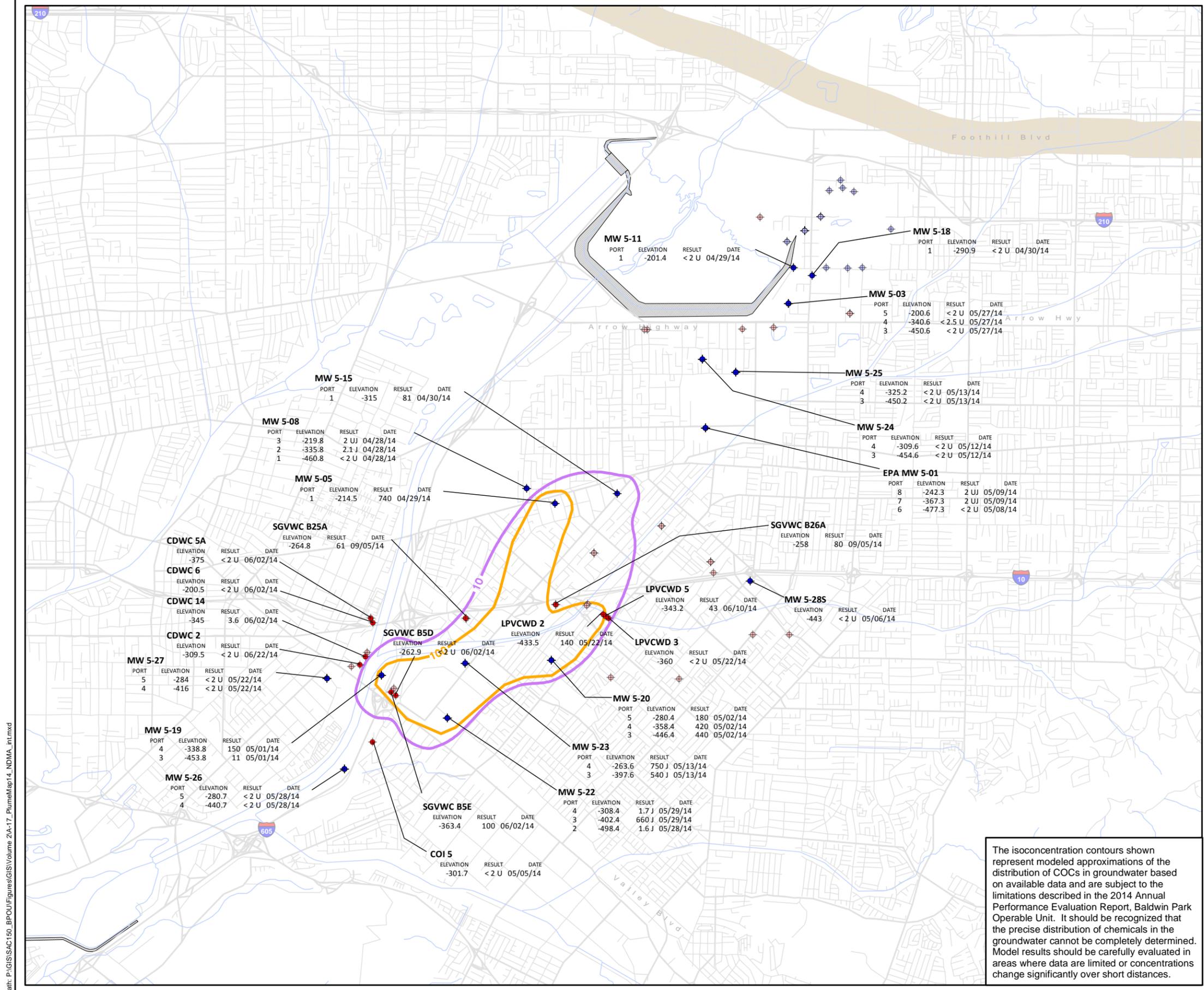
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF  
N-NITROSODIMETHYLAMINE  
ABOVE -200 FEET MSL, 2014**

Baldwin Park Operable Unit  
San Gabriel Valley, California

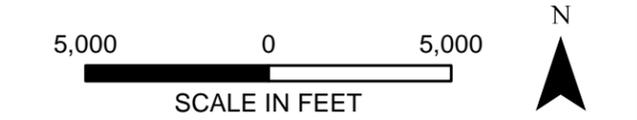
Project No.: SAC150  
Figure **A-16**

Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-16\_Plumemap14\_NDMA\_sh.mxd



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified, concentration is approximate
  - UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval between -200 and -500 feet (10 ng/L)
  - N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ng/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

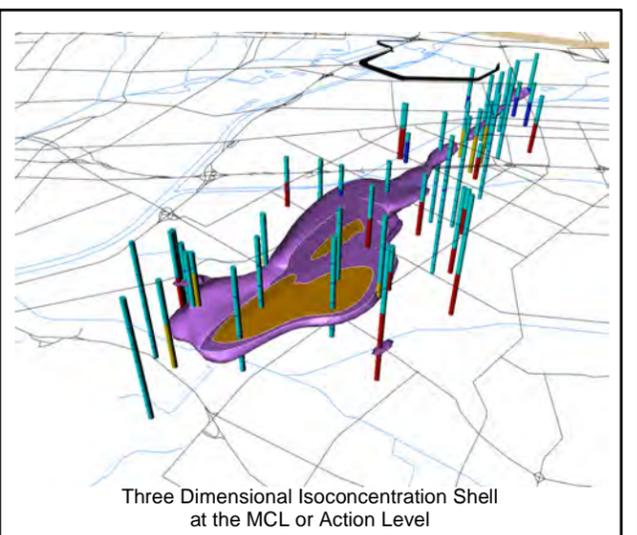
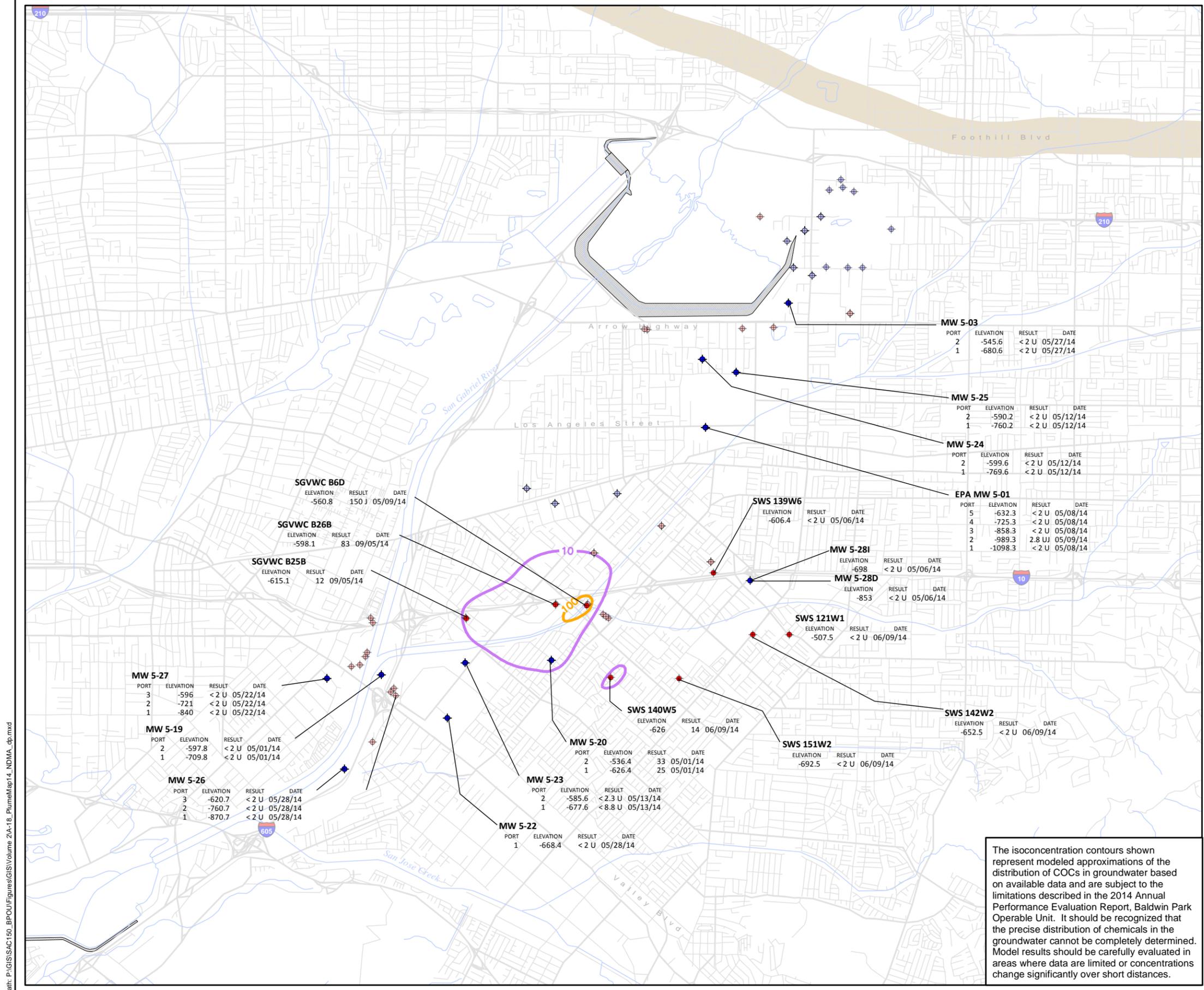
**DISTRIBUTION OF  
N-NITROSODIMETHYLAMINE  
BETWEEN -200 AND -500 FEET MSL, 2014**

Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

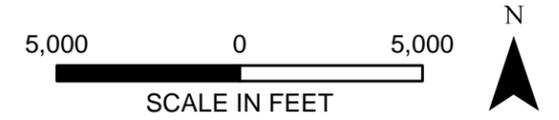
Project No.: SAC150  
Figure **A-17**

Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-17\_PlumeMap14\_NDMA\_inl.mxd



- EXPLANATION**
- ◆ Conventional monitoring or multiport well
  - ◆ Conventional monitoring or multiport well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multiport well
  - ◆ Monitoring and multiport well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - >UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval below -500 feet (10 ng/L)
  - N-Nitrosodimethylamine composite isoconcentration contour for the elevation interval below -500 feet (100 ng/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

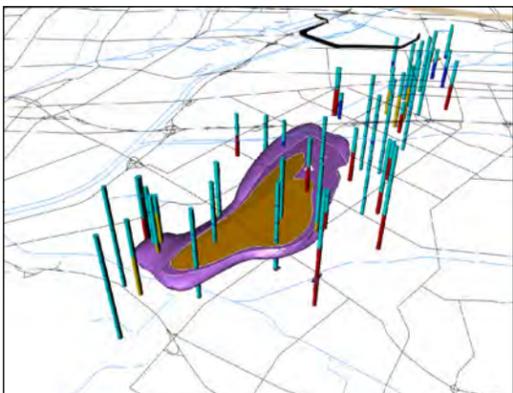
**DISTRIBUTION OF  
N-NITROSODIMETHYLAMINE  
BELOW -500 FEET MSL, 2014**

Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

Project No.: SAC150  
Figure **A-18**

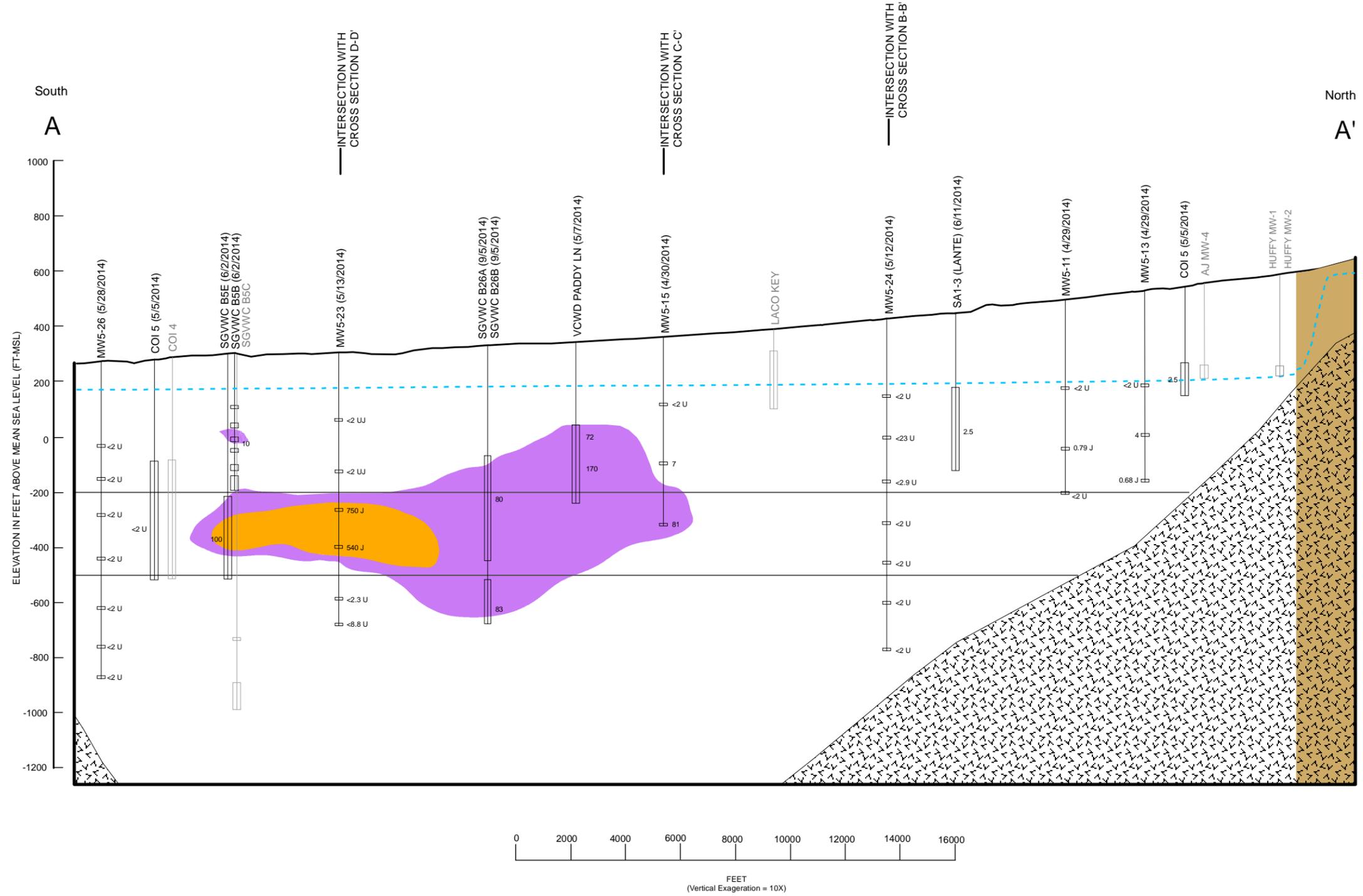
Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-18\_PlumeMap14\_NDMA\_dp.mxd



Three Dimensional Isoconcentration Shell at the MCL or Action Level

**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ng/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UU Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >10 ng/L
- >100 ng/L
- Interval elevation boundary (-200 and -500 ft amsl)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various sources
- Duarte Fault Zone



Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-19\_A\_CrossSection14\_NDMA.mxd

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

Note:  
 1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

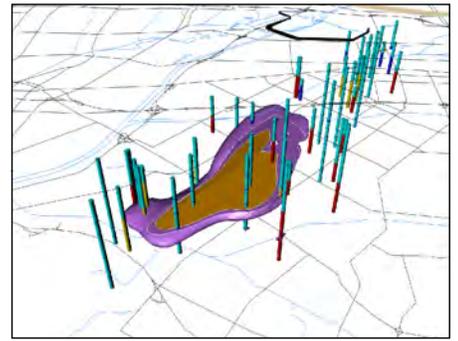
**VERTICAL DISTRIBUTION OF  
 N-NITROSODIMETHYLAMINE, 2014  
 CROSS SECTION A-A'**

Baldwin Park Operable Unit  
 San Gabriel Valley, California

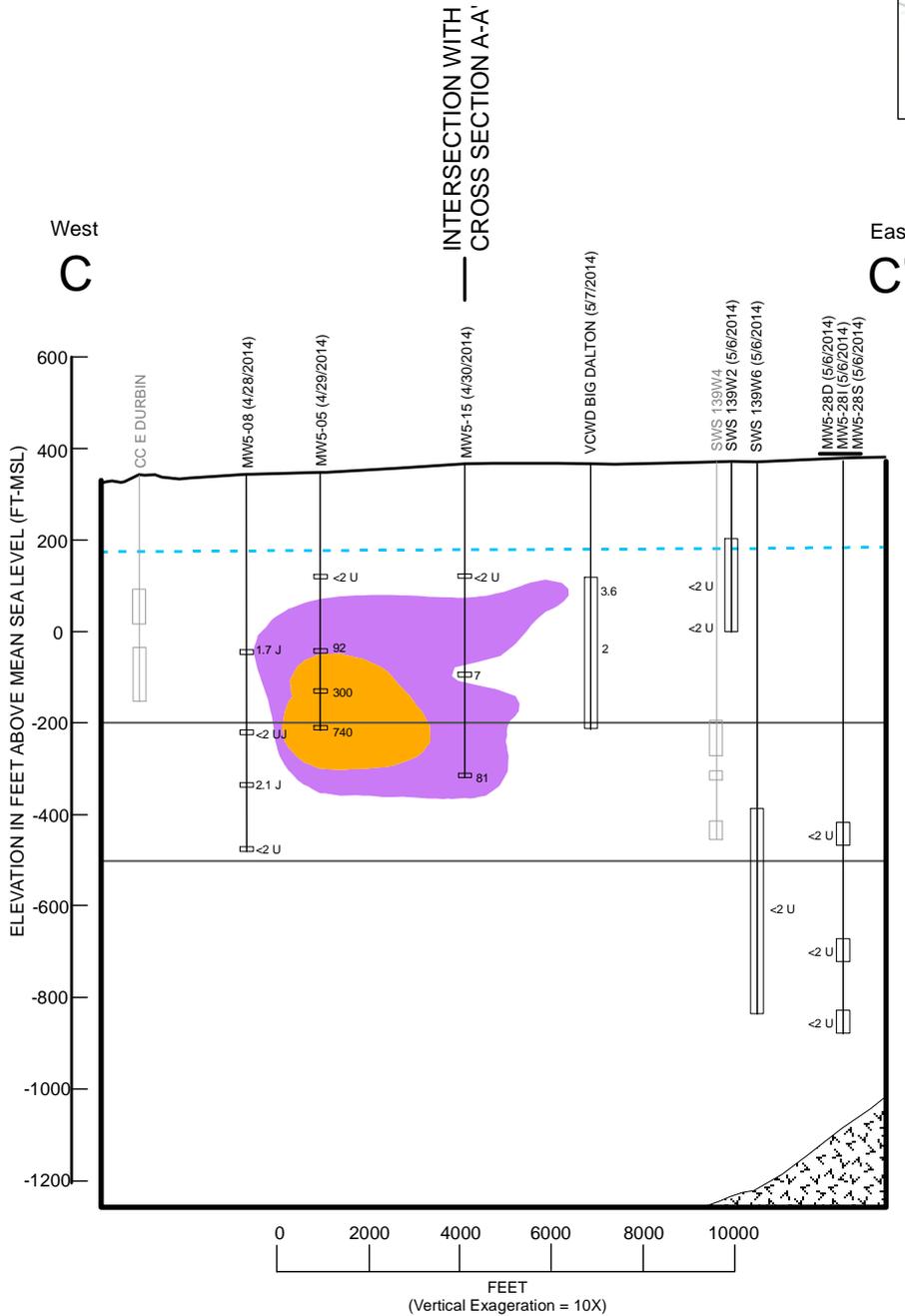
Project No.: SAC150

Figure **A-19**





Three Dimensional Isoconcentration Shell at the MCL or Action Level



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ng/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >10 ng/L
- >100 ng/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-msl)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

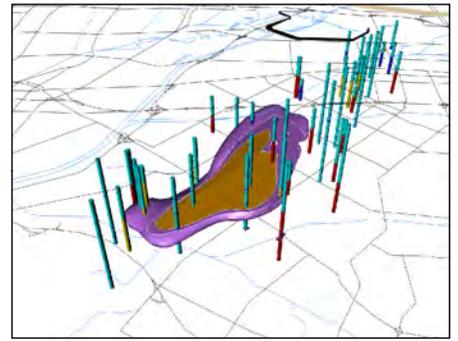
**VERTICAL DISTRIBUTION OF  
N-NITROSODIMETHYLAMINE, 2014  
CROSS SECTION C-C'**

Baldwin Park Operable Unit  
San Gabriel Valley, California

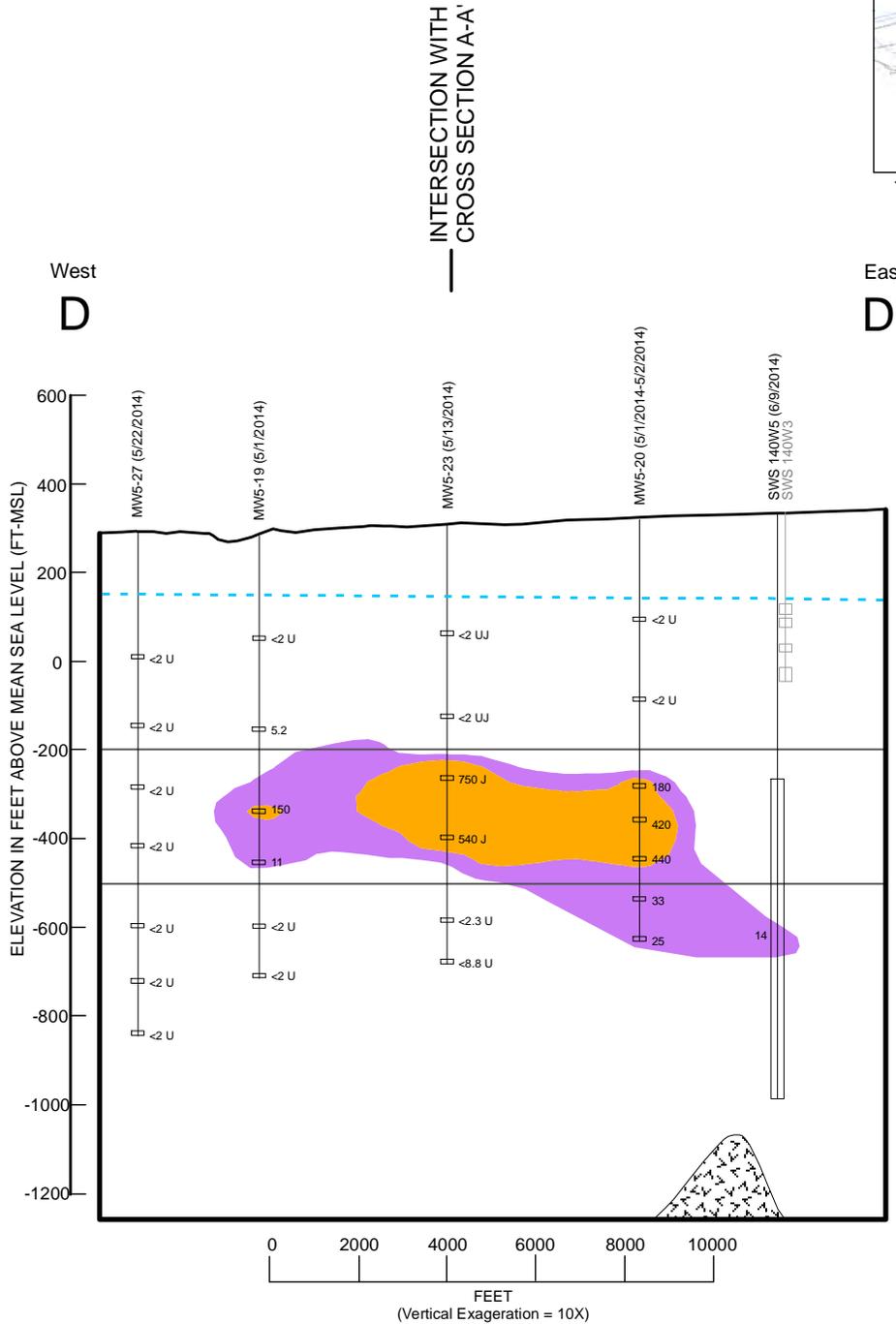


Project No.: SAC150

Figure **A-21**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



### EXPLANATION

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 5.2 Concentration (ng/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result.
- J Analyte positively identified; concentration is approximate.
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated.
- >10 ng/L
- >100 ng/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-msl)
- - - Generalized potentiometric surface
- ▨ Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

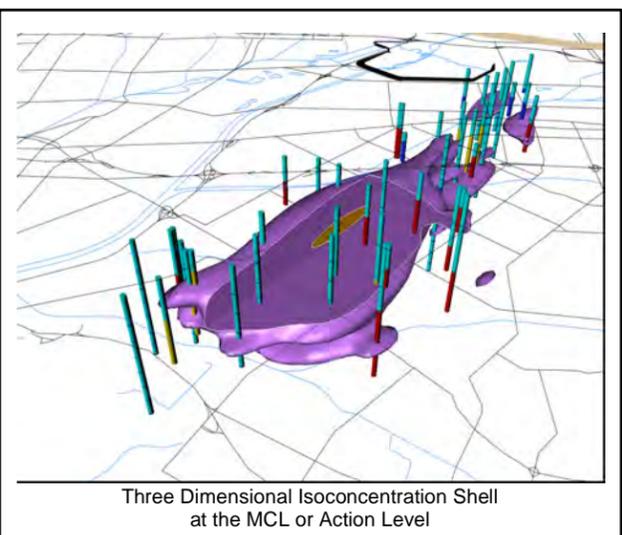
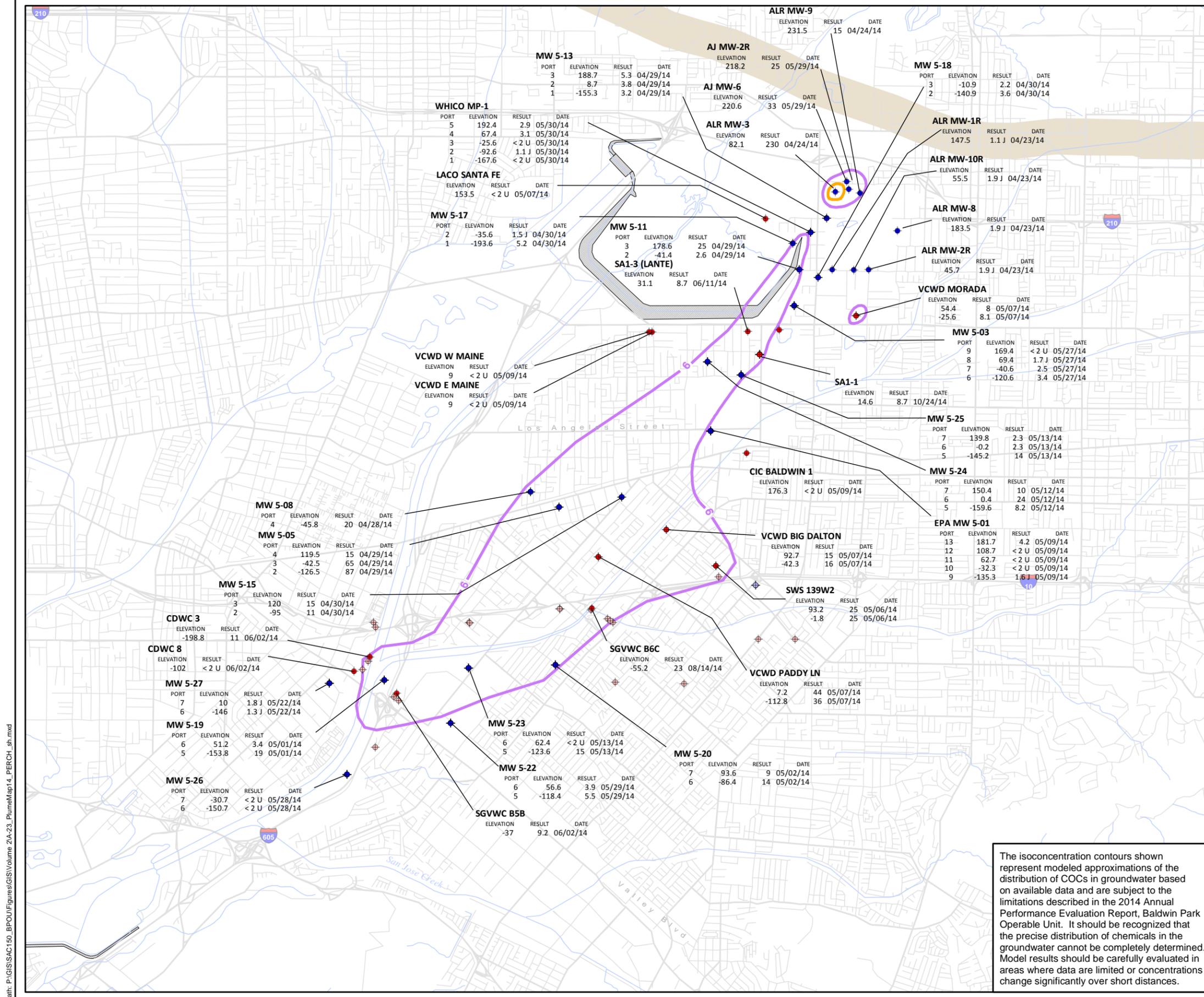
## VERTICAL DISTRIBUTION OF N-NITROSODIMETHYLAMINE, 2014 CROSS SECTION D-D'

Baldwin Park Operable Unit  
San Gabriel Valley, California



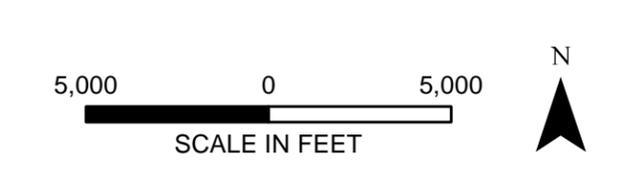
Project No.: SAC150

Figure **A-22**



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - > UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Perchlorate composite isoconcentration contour for the elevation interval above -200 feet (6 ug/L)
  - Perchlorate composite isoconcentration contour for the elevation interval above -200 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



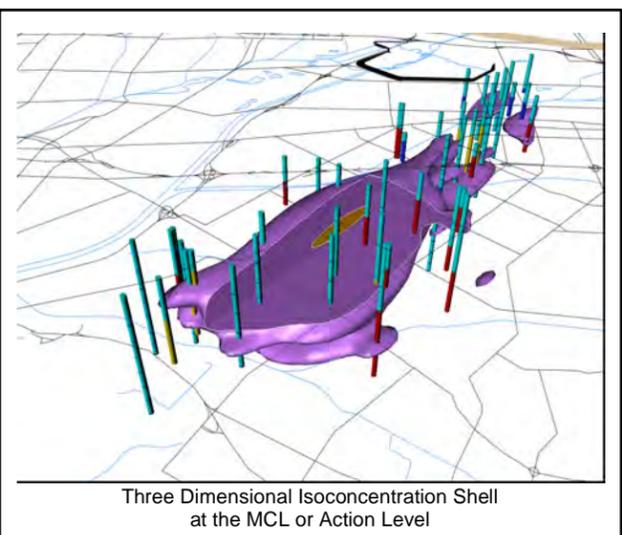
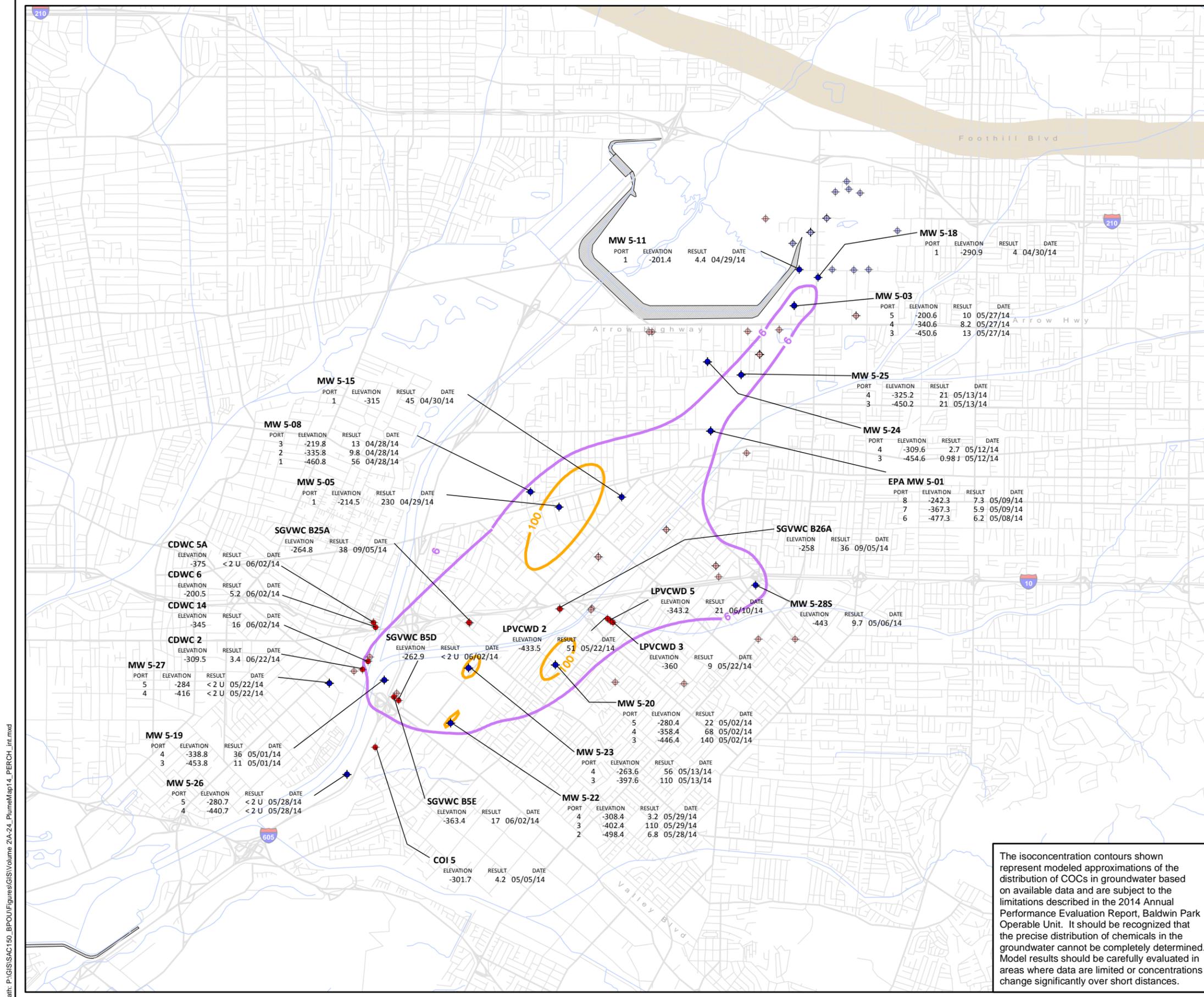
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF PERCHLORATE ABOVE -200 FEET MSL, 2014**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

**Geosyntec**  
 consultants

Project No.: SAC150  
 Figure **A-23**

Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A\23\_Plumemap14\_PERCH\_sh.mxd



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - >UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Perchlorate composite isoconcentration contour for the elevation interval between -200 and -500 feet (6 ug/L)
  - Perchlorate composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

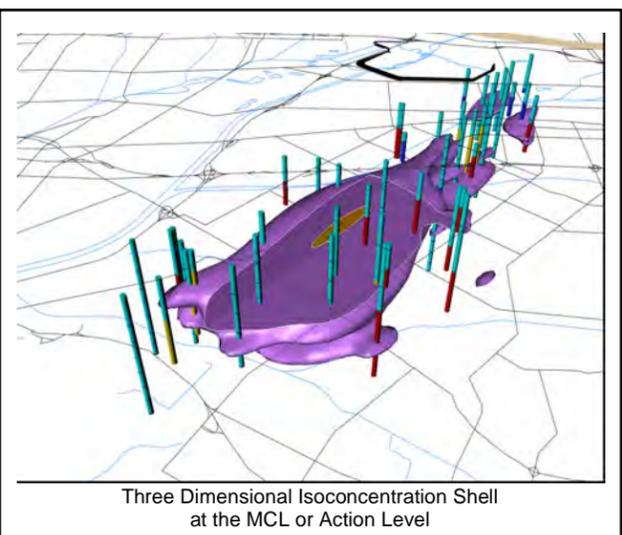
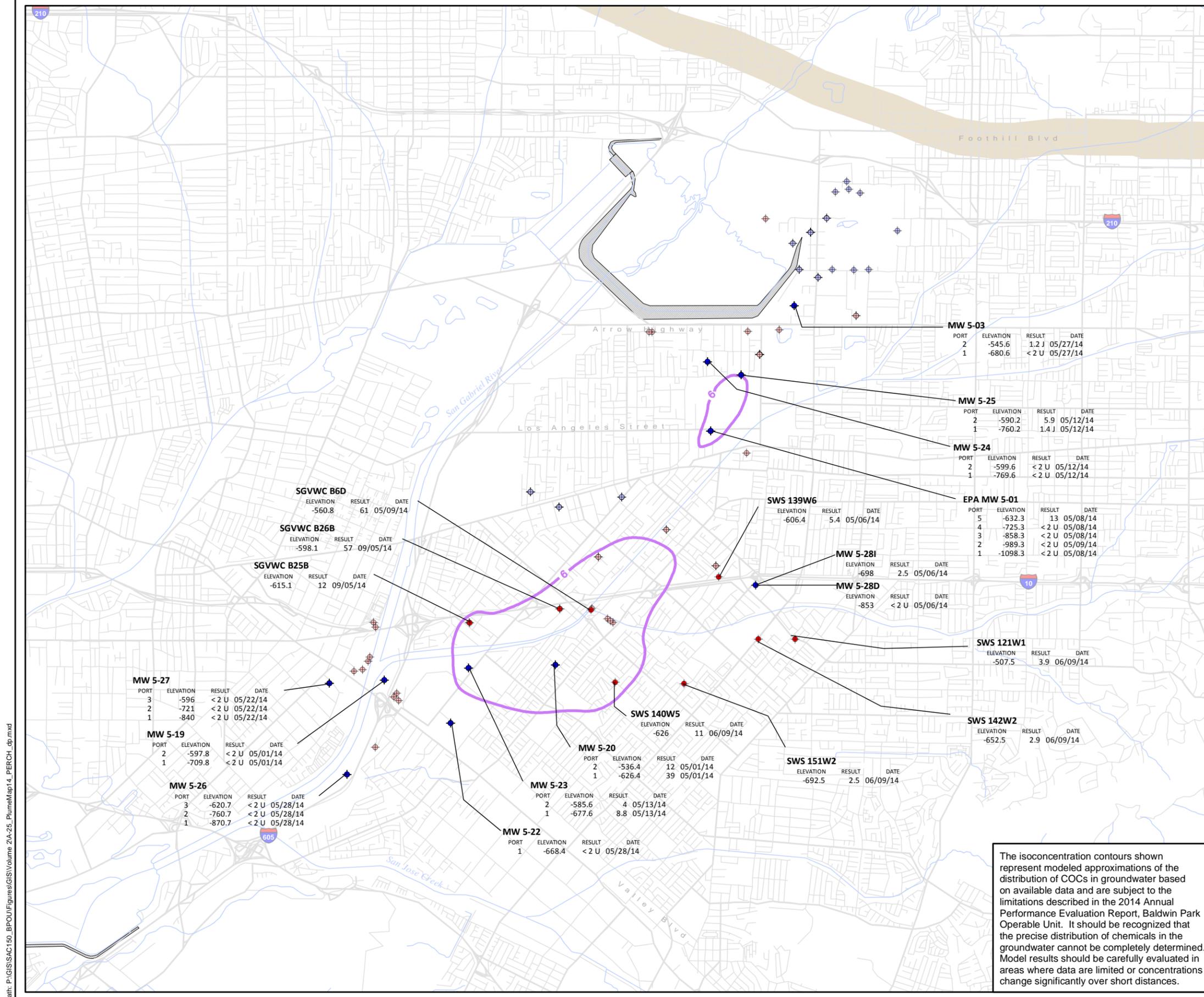
**DISTRIBUTION OF PERCHLORATE  
BETWEEN -200 AND -500 FEET MSL, 2014**

Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

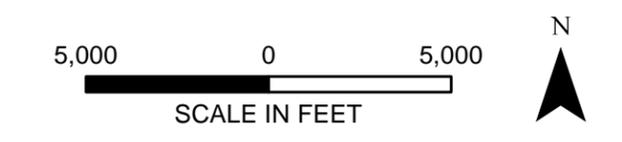
Project No.: SAC150  
Figure **A-24**

Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-24\_PlumeMap14\_PERCH\_int.mxd



- EXPLANATION**
- ◆ Conventional monitoring or multiport well
  - ◆ Conventional monitoring or multiport well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multiport well
  - ◆ Monitoring and multiport well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - >UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Perchlorate composite isoconcentration contour for the elevation interval below -500 feet (6 ug/L)
  - Perchlorate composite isoconcentration contour for the elevation interval below -500 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision™.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision™, as described in the Annual Report.

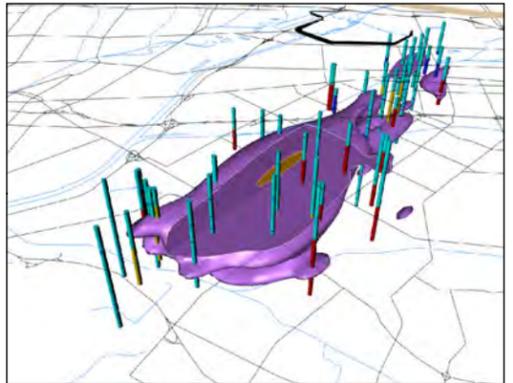


The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF PERCHLORATE  
BELOW -500 FEET MSL, 2014**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

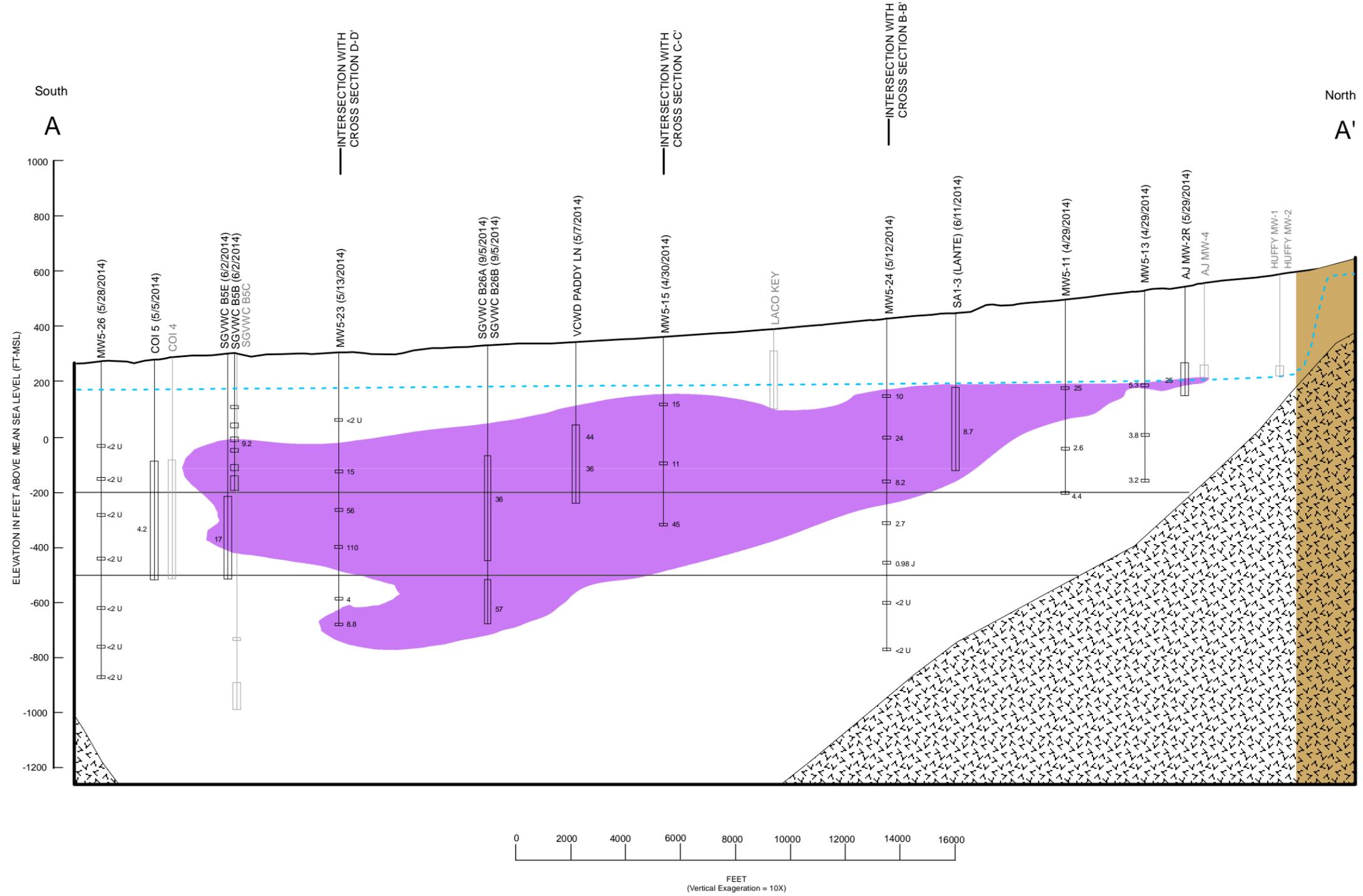
Project No.: SAC150  
Figure **A-25**



Three Dimensional Isoconcentration Shell at the MCL or Action Level

**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >6 ug/L
- Interval elevation boundary (-200 and -500 ft amsl)
- Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various sources
- Duarte Fault Zone



Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2\A-26\_A\_CrossSection14\_PERCH.mxd

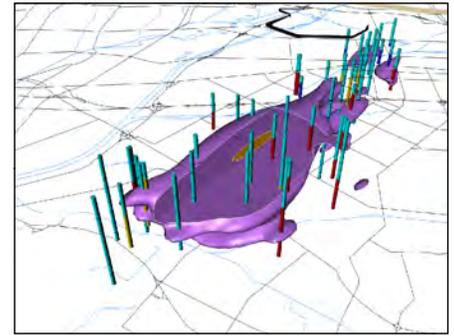
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

Note:  
 1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

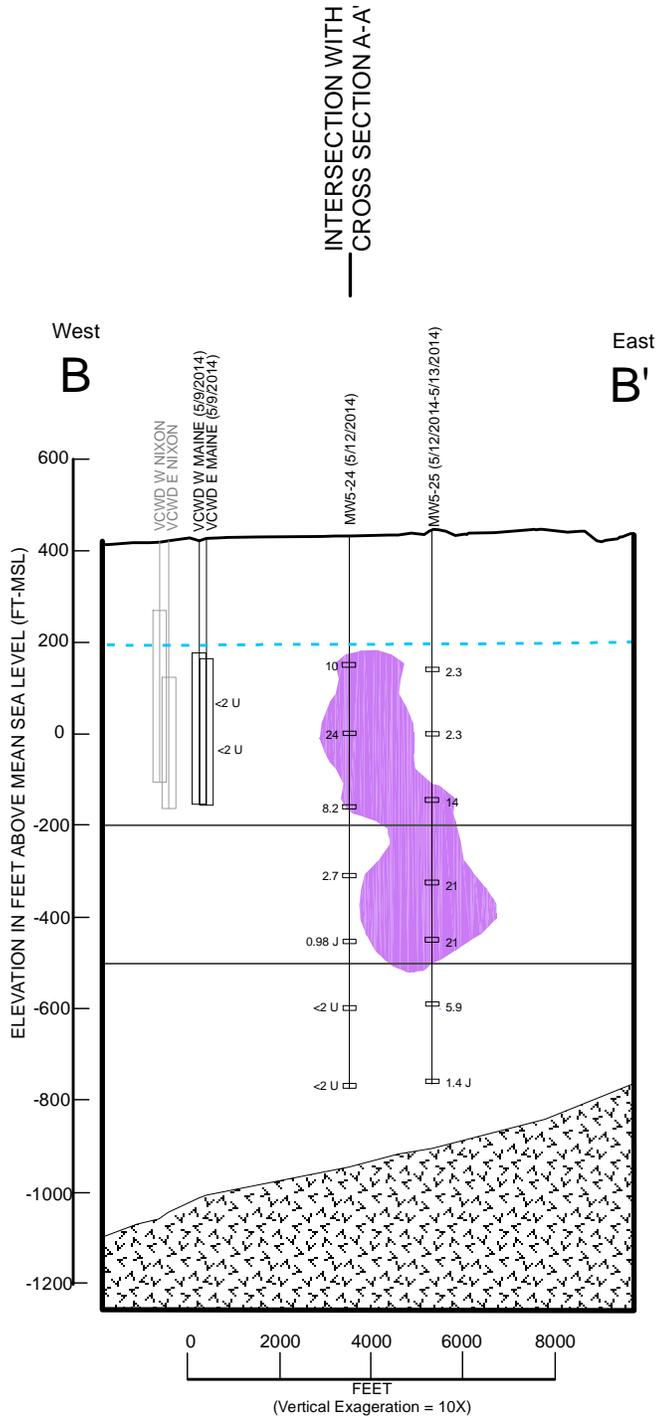
**VERTICAL DISTRIBUTION OF PERCHLORATE, 2014**  
**CROSS SECTION A-A'**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.: SAC150

Figure **A-26**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UU Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >6 ug/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-MSL)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

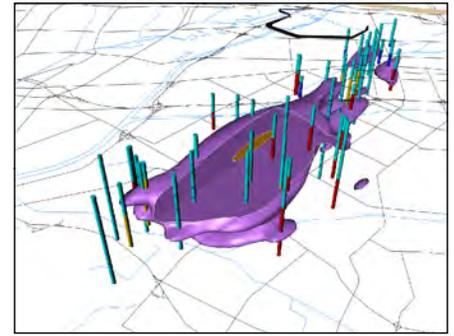
**VERTICAL DISTRIBUTION OF PERCHLORATE 2014 CROSS SECTION B-B'**

Baldwin Park Operable Unit  
San Gabriel Valley, California

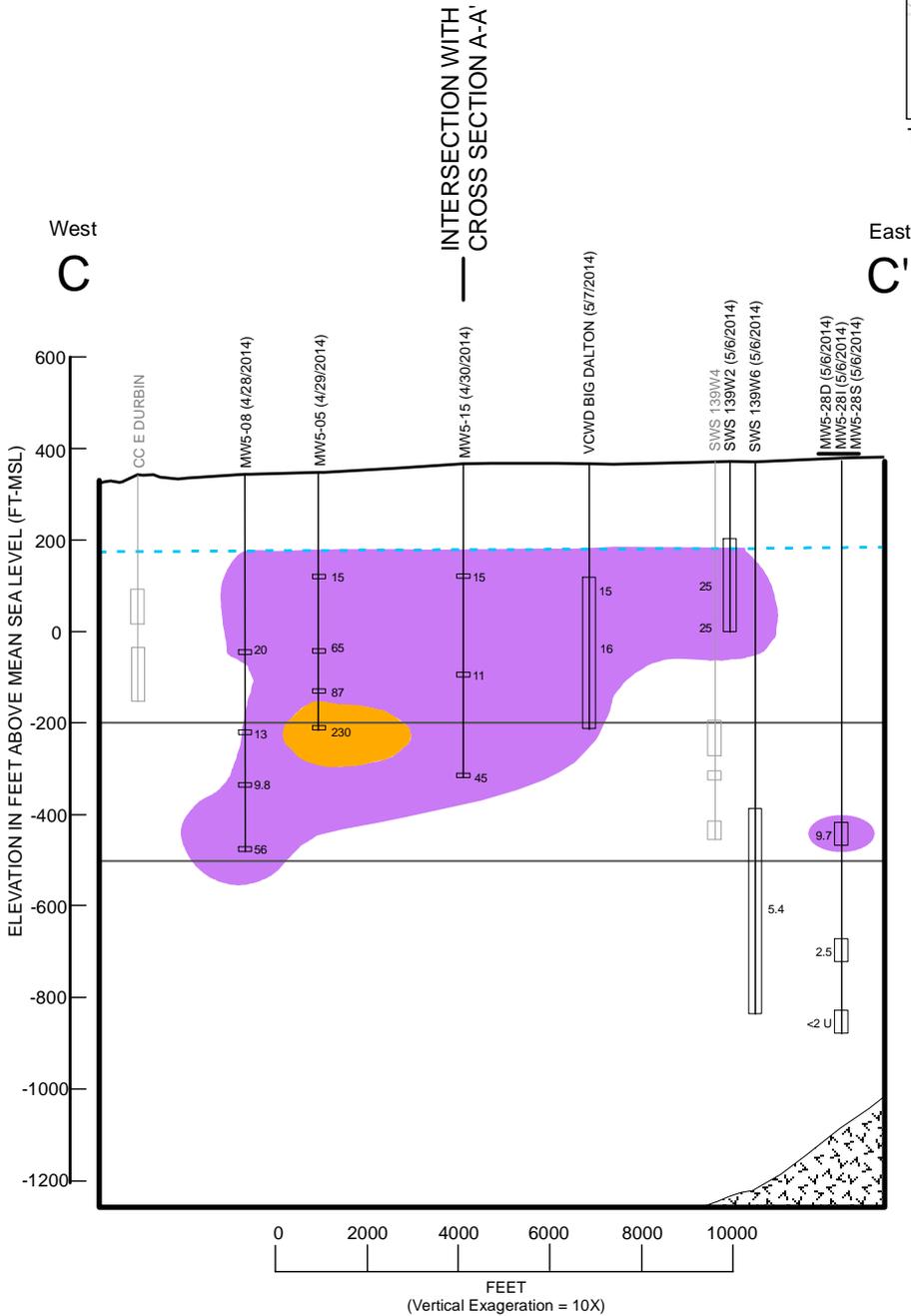


Project No.: SAC150

Figure **A-27**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >6 ug/L
- >100 ug/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-MSL)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

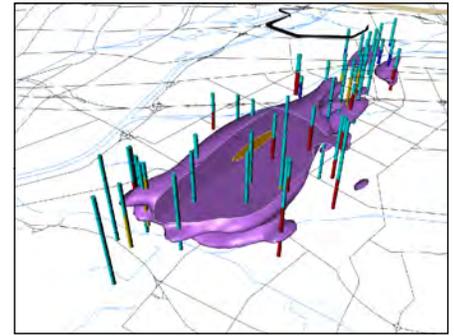
**VERTICAL DISTRIBUTION OF PERCHLORATE, 2014 CROSS SECTION C-C'**

Baldwin Park Operable Unit  
San Gabriel Valley, California

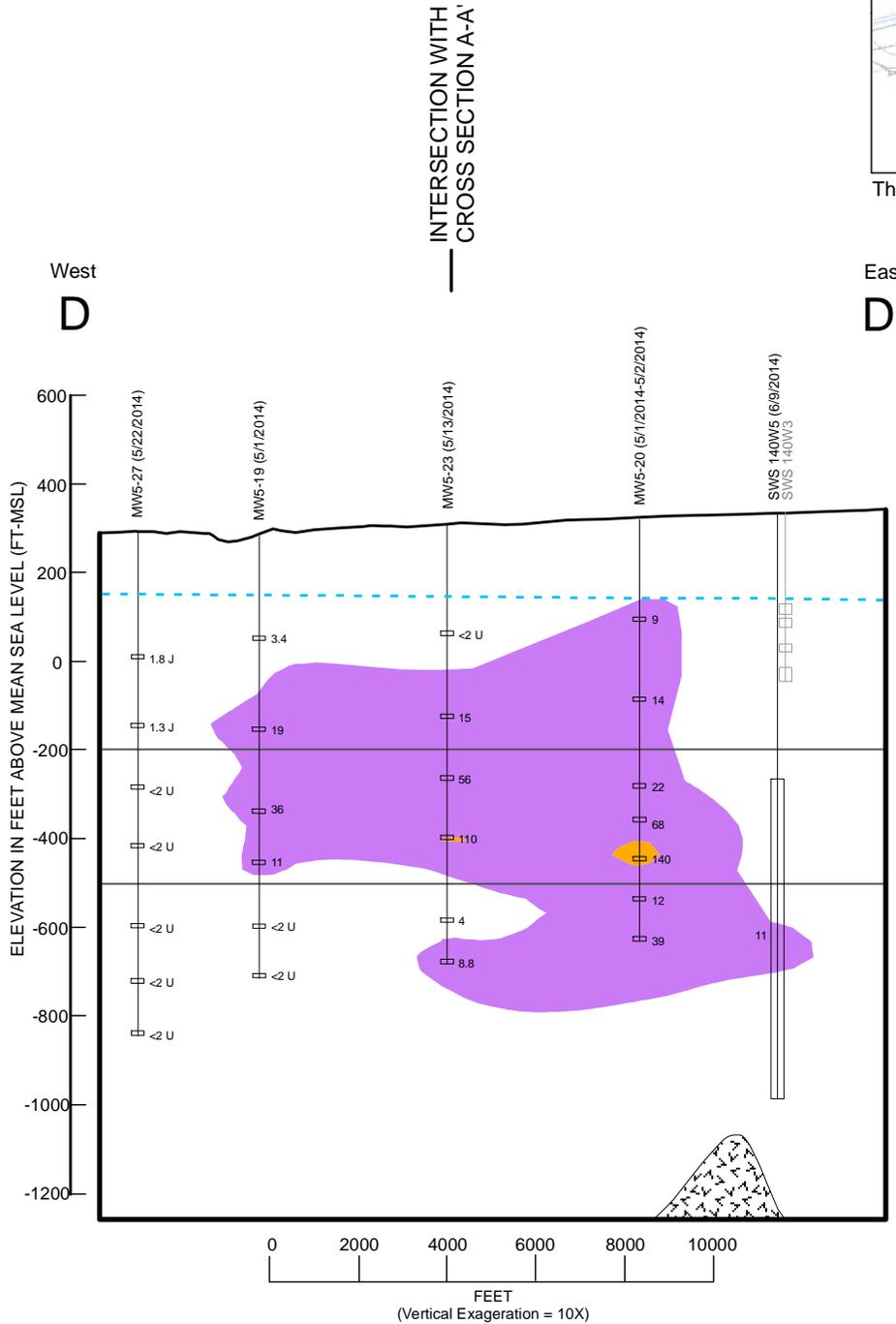


Project No.: SAC150

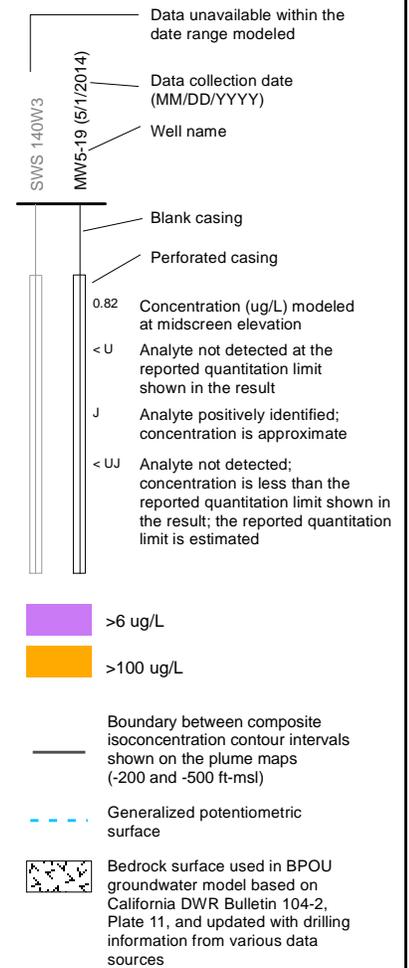
Figure **A-28**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



### EXPLANATION



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

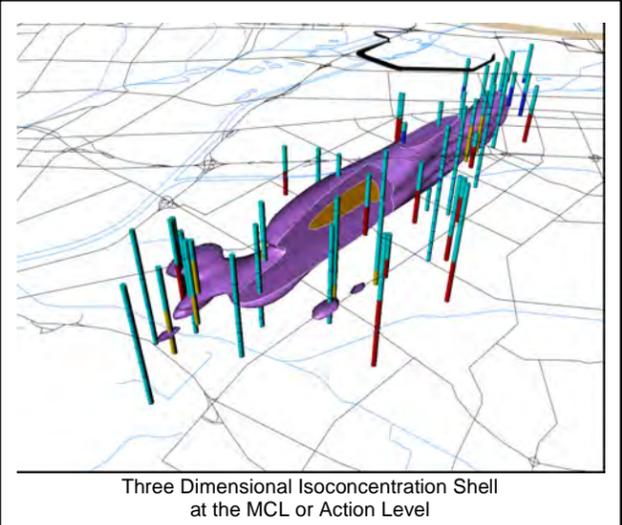
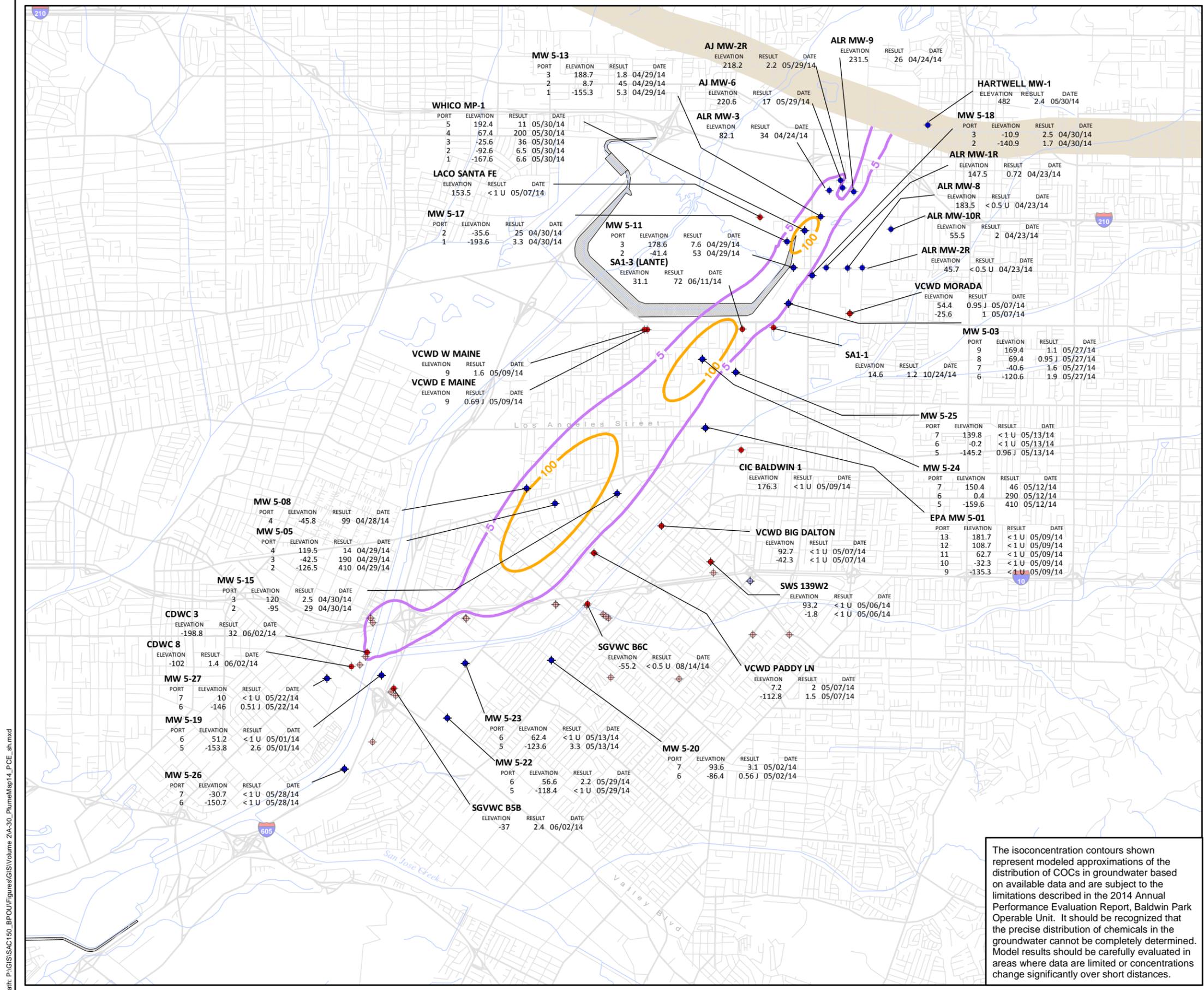
## VERTICAL DISTRIBUTION OF PERCHLORATE, 2014 CROSS SECTION D-D'

Baldwin Park Operable Unit  
San Gabriel Valley, California



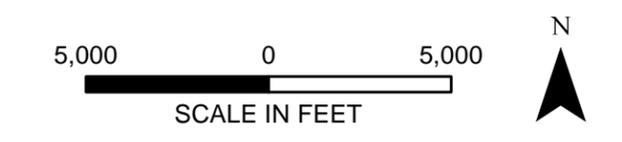
Project No.: SAC150

Figure **A-29**



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Tetrachloroethene composite isoconcentration contour for the elevation interval above -200 feet (5 ug/L)
  - Tetrachloroethene composite isoconcentration contour for the elevation interval above -200 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision<sup>®</sup>.
  3. Posted data represent chemical results for the specified elevation interval.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision<sup>®</sup>, as described in the Annual Report.



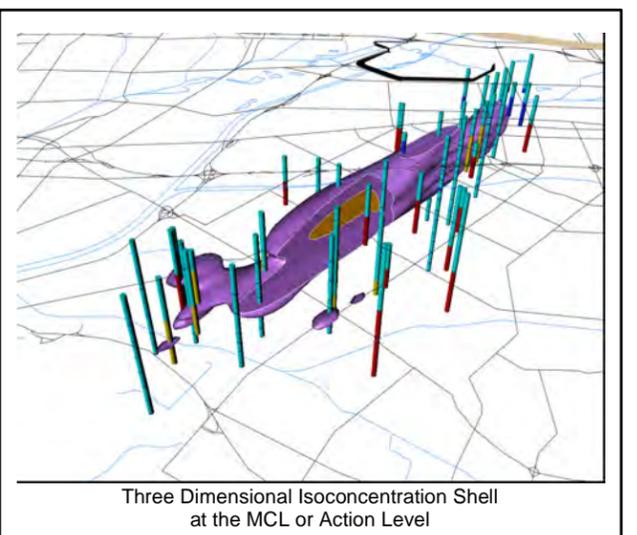
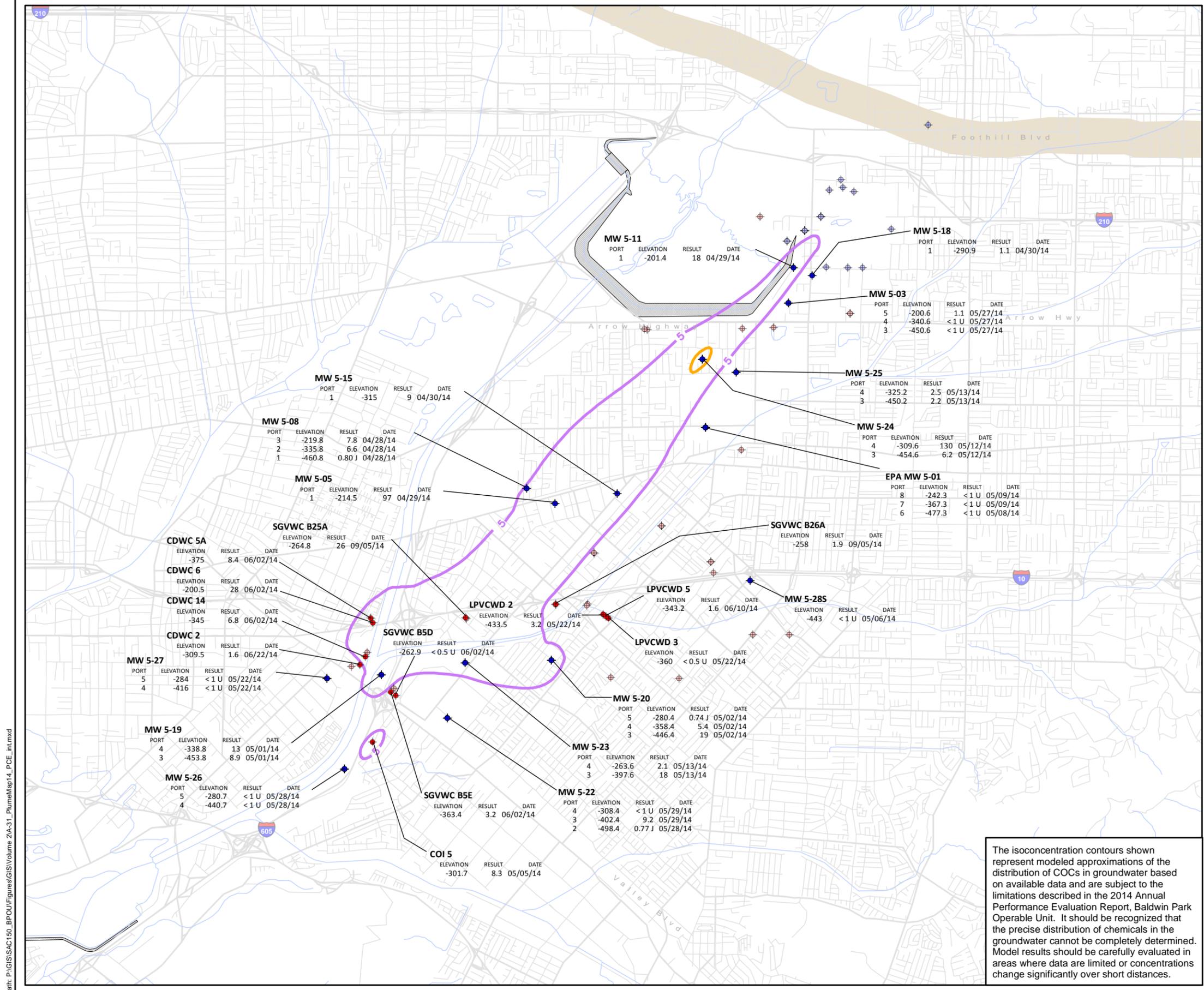
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF TETRACHLOROETHENE ABOVE -200 FEET MSL, 2014**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

**Geosyntec**  
 consultants

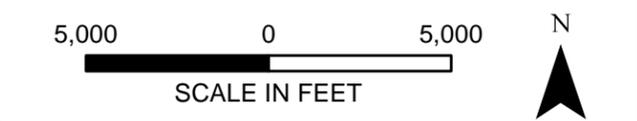
Project No.: SAC150  
 Figure **A-30**

Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-30\_PlumeMap14\_PCE\_shtm



- EXPLANATION**
- ◆ Conventional monitoring or multiport well
  - ◆ Conventional monitoring or multiport well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multiport well
  - ◆ Monitoring and multiport well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - >UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Tetrachloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (5 ug/L)
  - Tetrachloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



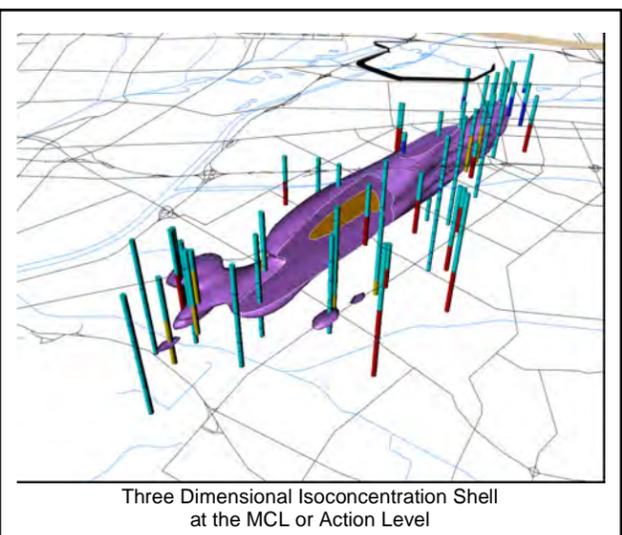
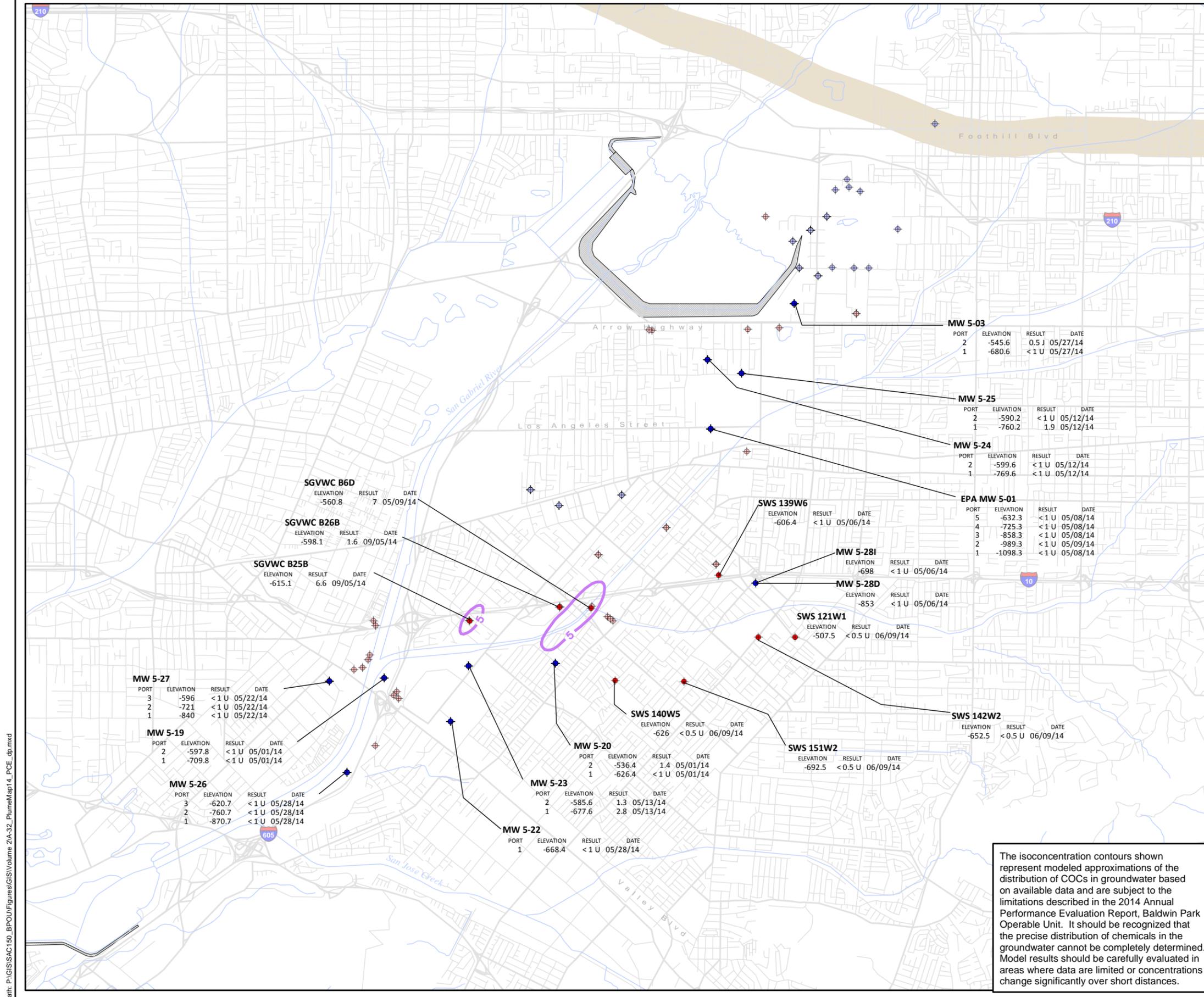
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF TETRACHLOROETHENE BETWEEN -200 AND -500 FEET MSL, 2014**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

**Geosyntec**  
 consultants

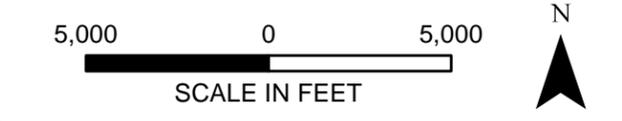
Project No.: SAC150  
 Figure **A-31**

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- EXPLANATION**
- ◆ Conventional monitoring or multiport well
  - ◆ Conventional monitoring or multiport well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multiport well
  - ◆ Monitoring and multiport well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - >UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Tetrachloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (5 ug/L)
  - Tetrachloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.

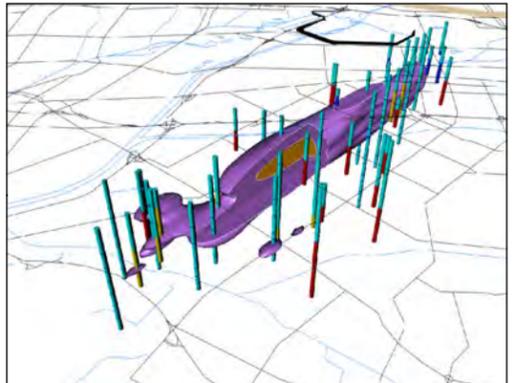


The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF TETRACHLOROETHENE BELOW -500 FEET MSL, 2014**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

**Geosyntec** consultants

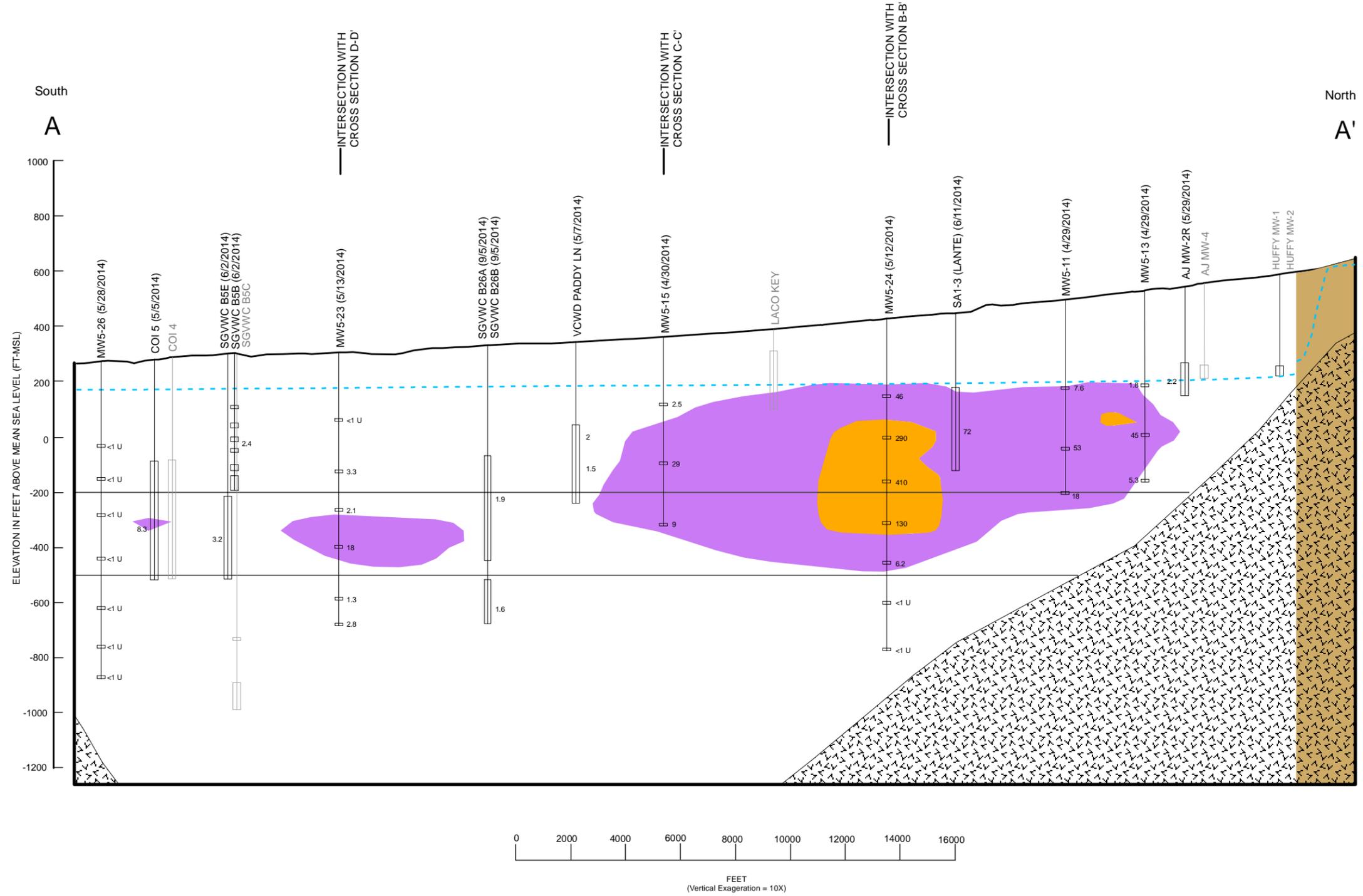
Project No.: SAC150  
 Figure **A-32**



Three Dimensional Isoconcentration Shell at the MCL or Action Level

**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.62 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >5 ug/L
- >100 ug/L
- Interval elevation boundary (-200 and -500 ft amsl)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various sources
- Duarte Fault Zone



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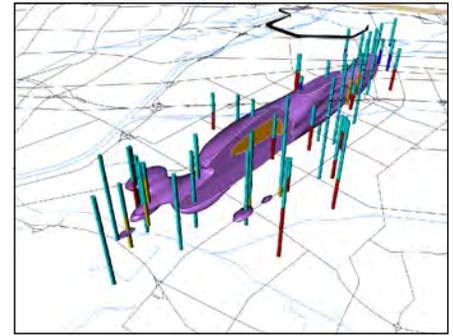
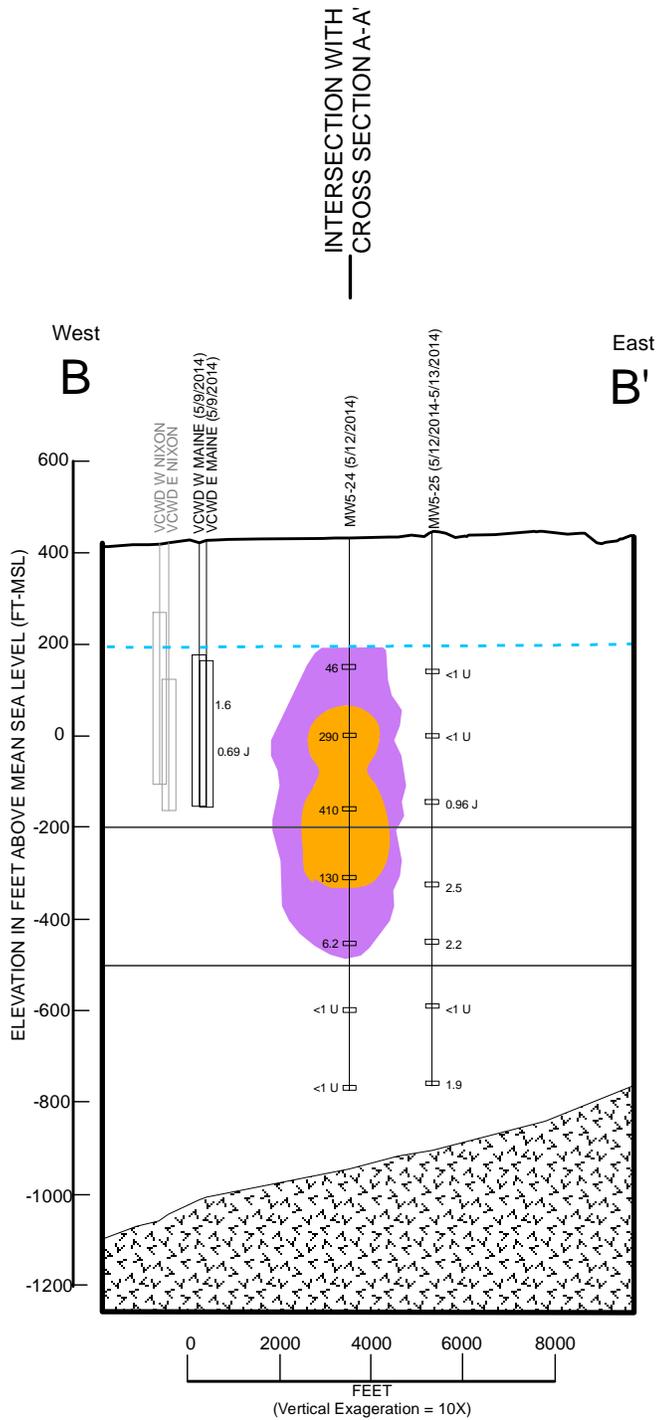
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

Note:  
 1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

**VERTICAL DISTRIBUTION OF TETRACHLOROETHENE, 2014 CROSS SECTION A-A'**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

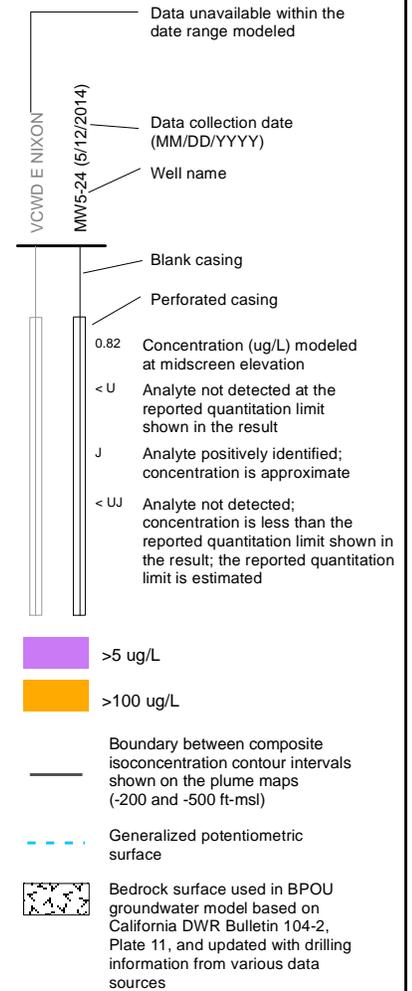
	Project No.: SAC150 Figure <b>A-33</b>
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Three Dimensional Isoconcentration Shell at the MCL or Action Level

**EXPLANATION**



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

**VERTICAL DISTRIBUTION OF TETRACHLOROETHENE, 2014 CROSS SECTION B-B'**

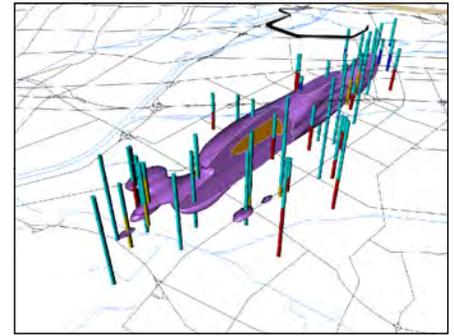
Baldwin Park Operable Unit  
San Gabriel Valley, California



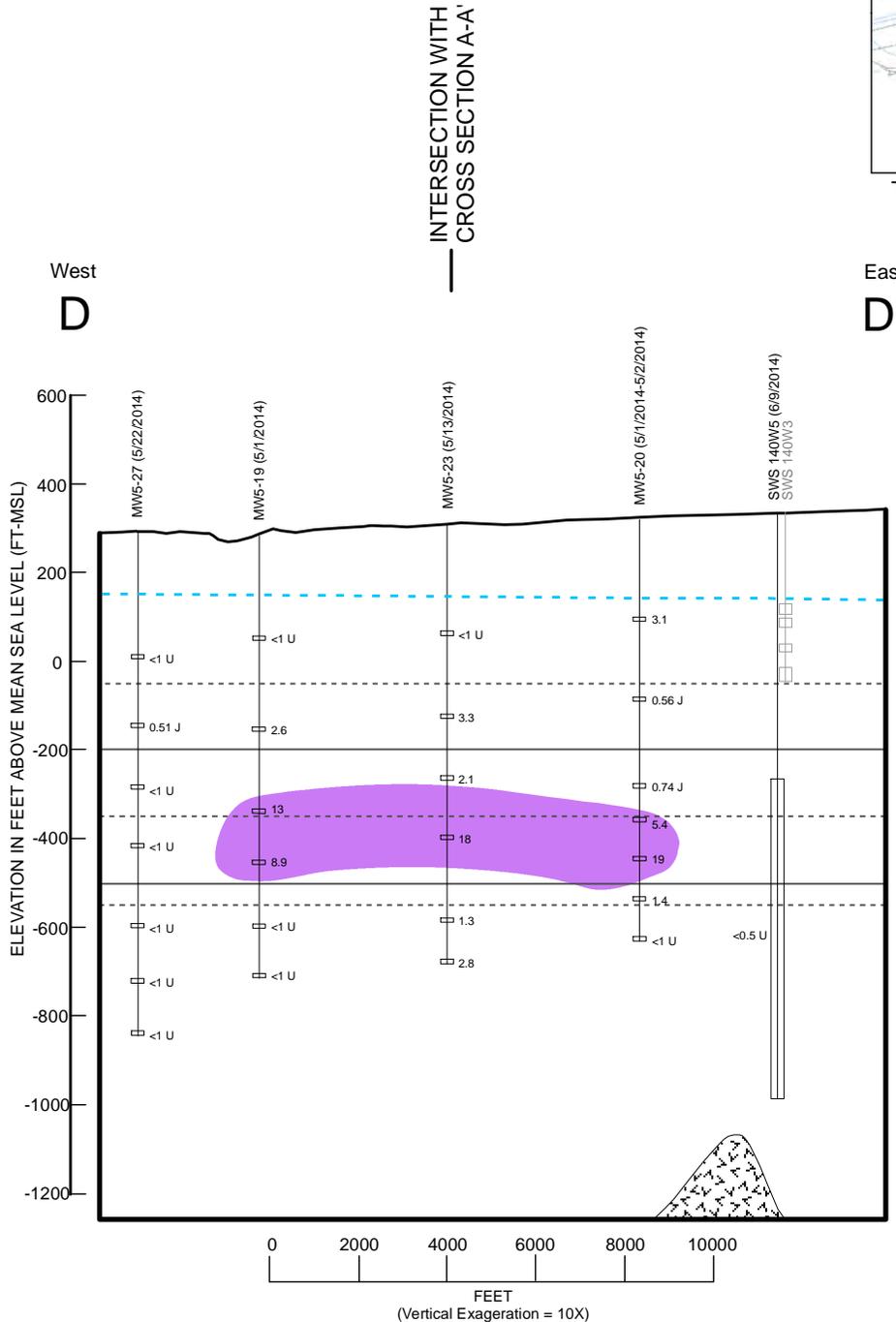
Project No.: SAC150

Figure **A-34**





Three Dimensional Isoconcentration Shell at the MCL or Action Level



**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >5 ug/L
- Boundary between composite isoconcentration contour intervals shown on the plume maps (-200 and -500 ft-msl)
- - - Generalized potentiometric surface
- ▨ Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various data sources

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

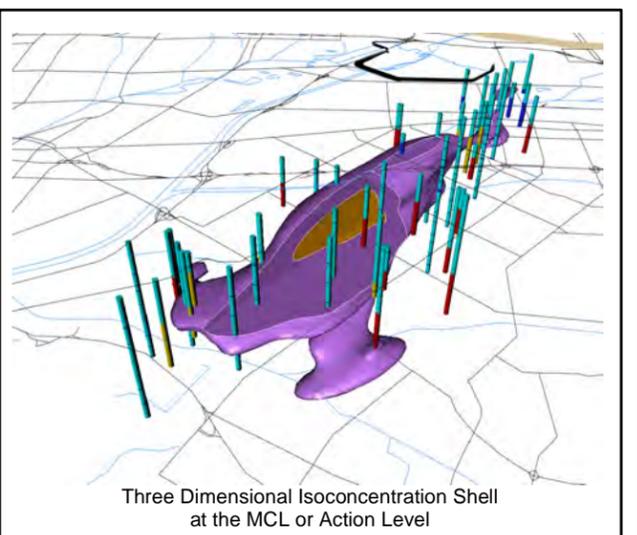
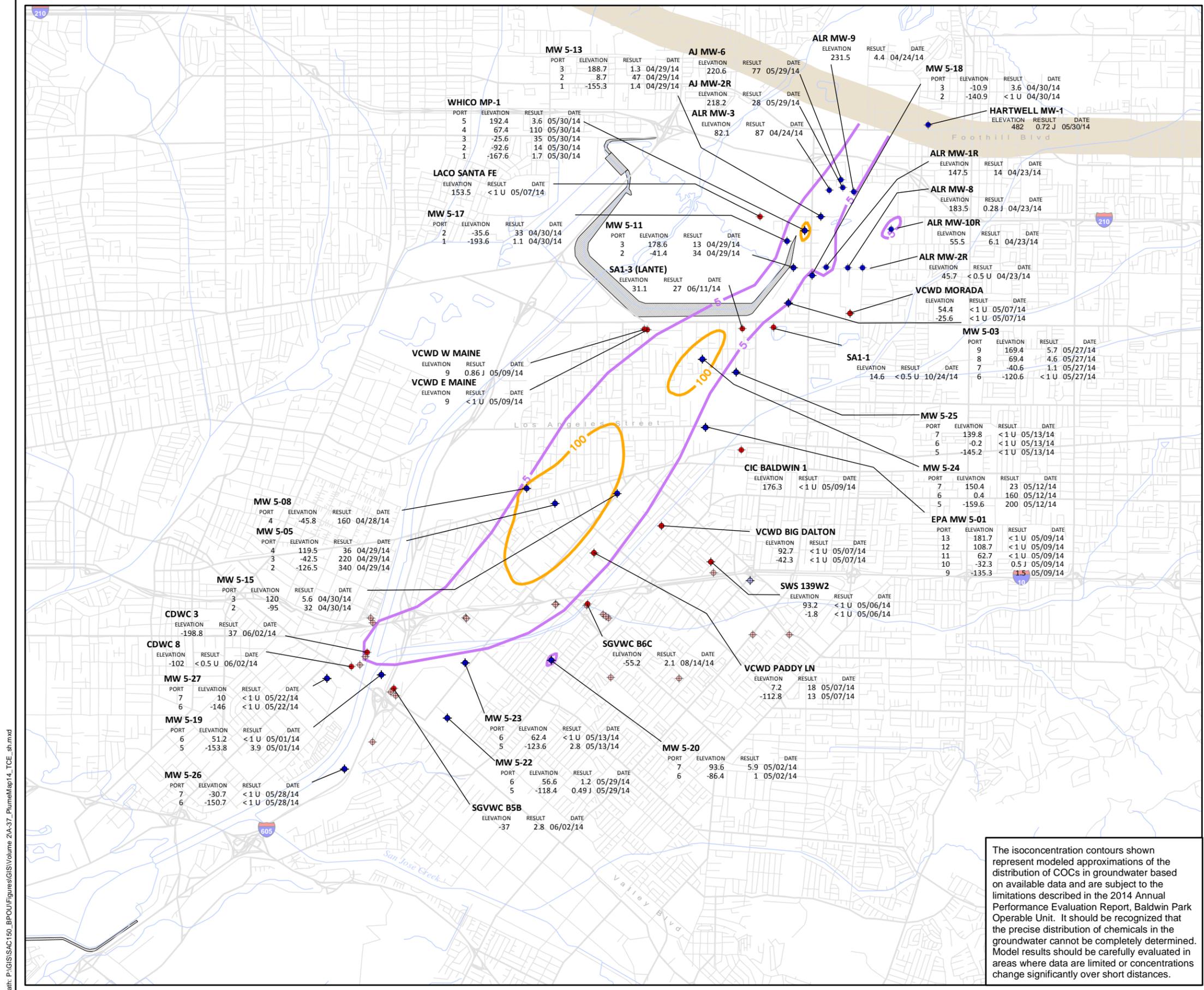
**VERTICAL DISTRIBUTION OF TETRACHLOROETHENE 2014 CROSS SECTION D-D'**

Baldwin Park Operable Unit  
San Gabriel Valley, California



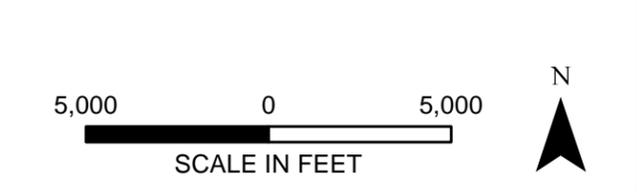
Project No.: SAC150

Figure **A-36**



- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - > UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Trichloroethene composite isoconcentration contour for the elevation interval above -200 feet (5 ug/L)
  - Trichloroethene composite isoconcentration contour for the elevation interval above -200 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



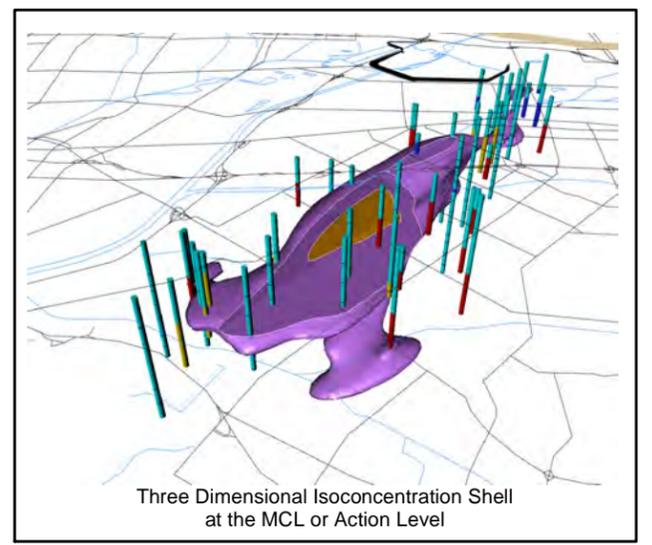
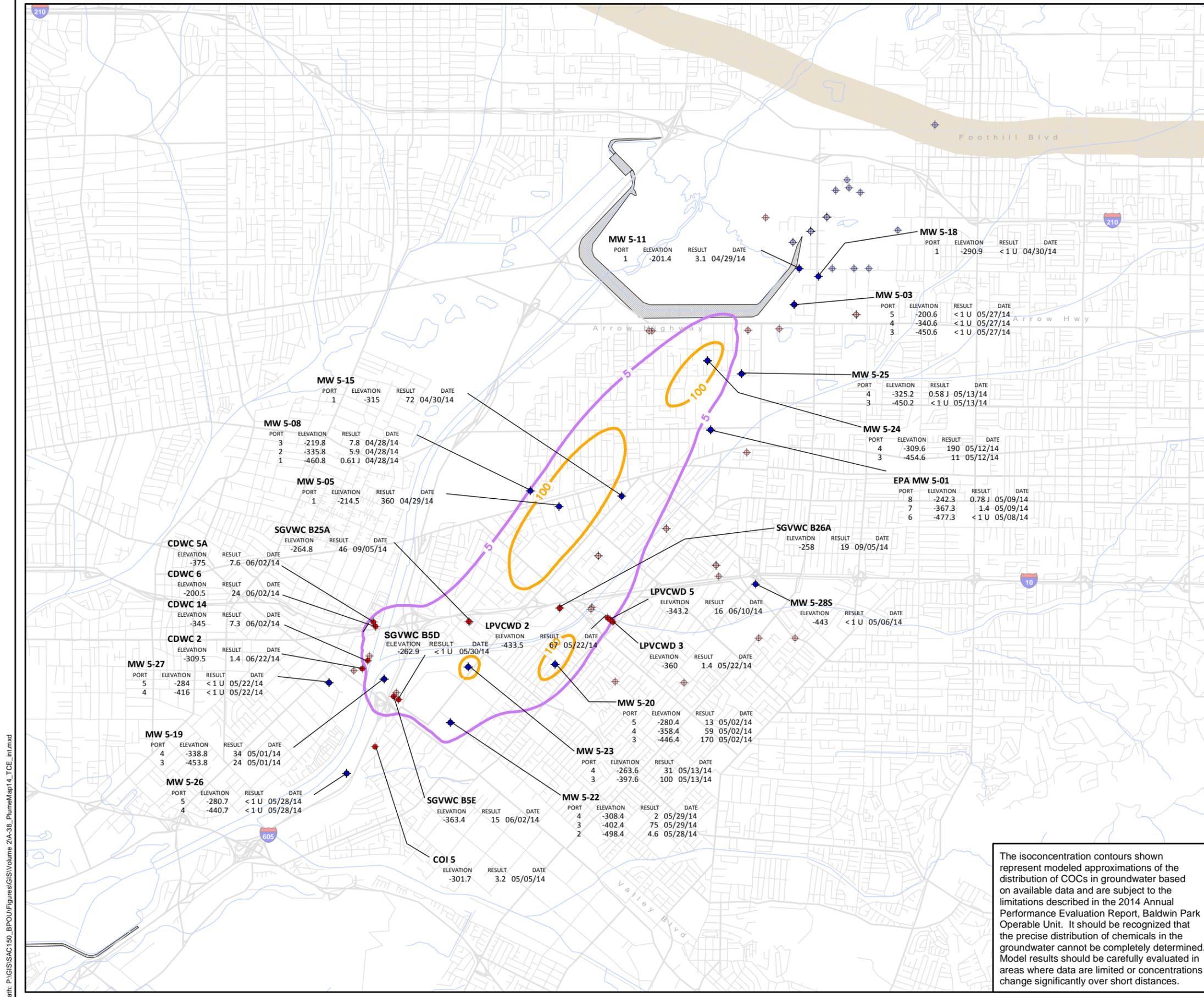
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF TRICHLOROETHENE ABOVE -200 FEET MSL, 2014**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

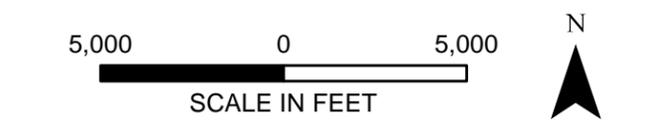
Project No.: SAC150  
Figure **A-37**

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- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - >UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Trichloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (5 ug/L)
  - Trichloroethene composite isoconcentration contour for the elevation interval between -200 and -500 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



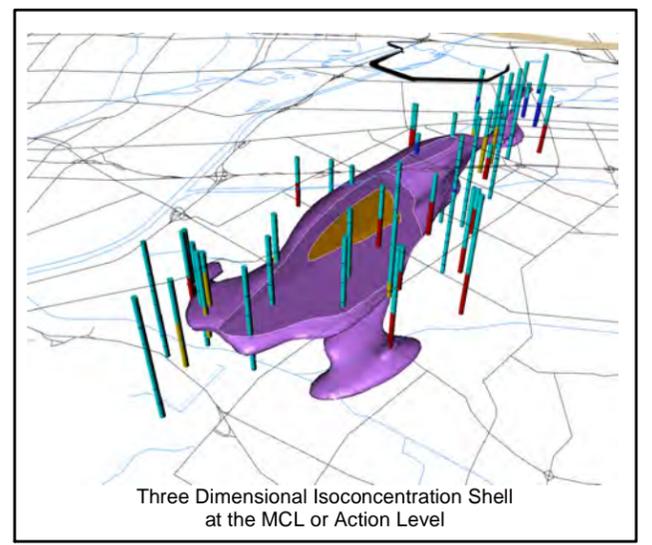
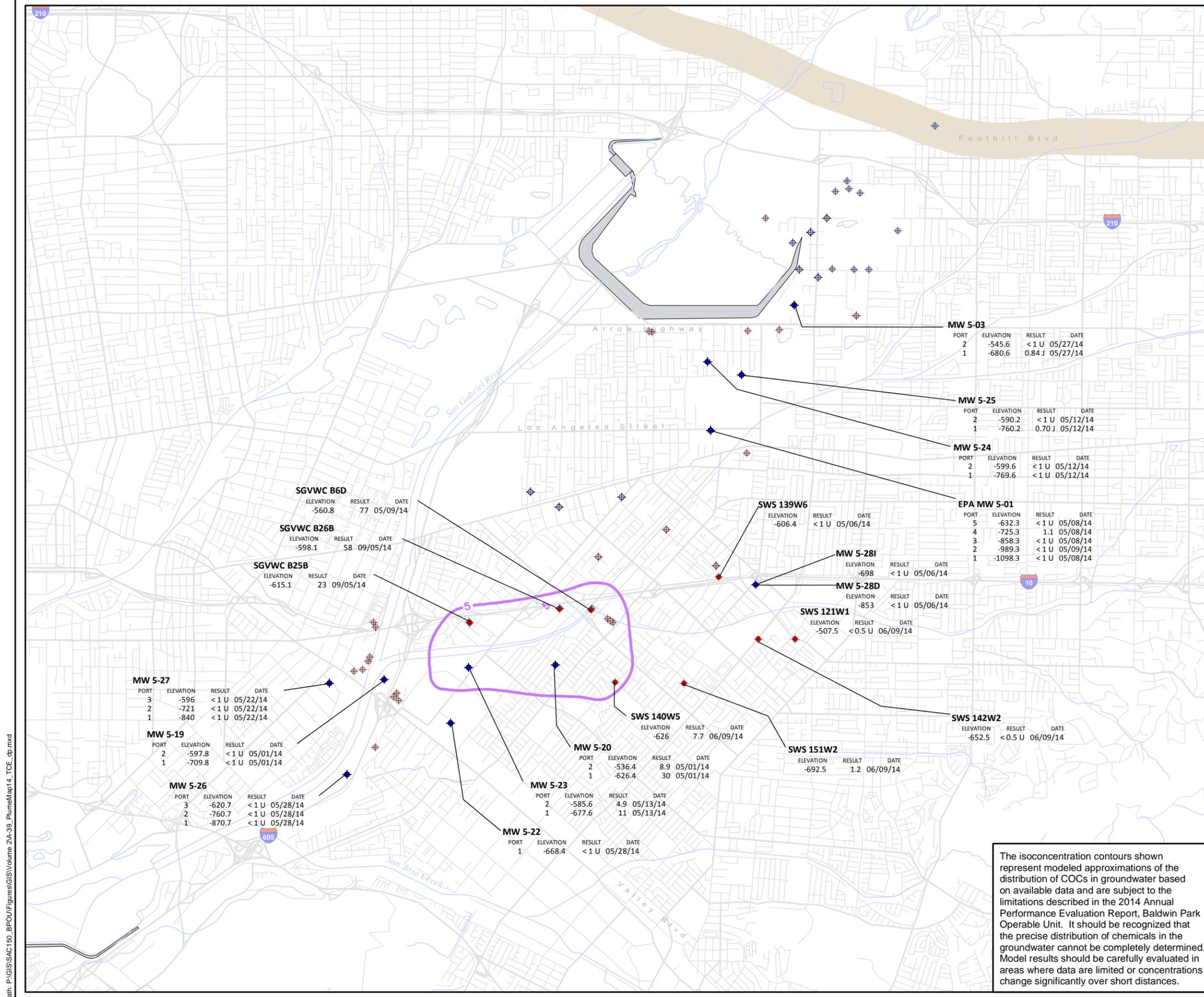
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF TRICHLOROETHENE BETWEEN -200 AND -500 FEET MSL, 2014**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

**Geosyntec**  
 consultants

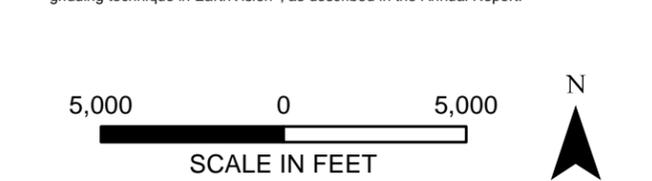
Project No.: SAC150  
 Figure **A-38**

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- EXPLANATION**
- ◆ Conventional monitoring or multipoint well
  - ◆ Conventional monitoring or multipoint well (no data within elevation range, refer to Note 3)
  - ◆ Monitoring and multipoint well
  - ◆ Monitoring and multipoint well (no data within elevation range, refer to Note 3)
  - < U Analyte not detected at the reported quantitation limit shown in the result
  - J Analyte positively identified; concentration is approximate
  - > UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
  - Trichloroethene composite isoconcentration contour for the elevation interval below -500 feet (5 ug/L)
  - Trichloroethene composite isoconcentration contour for the elevation interval below -500 feet (100 ug/L)
  - Duarte Fault Zone

- NOTES:**
1. Data from the period modeled were used to create a three-dimensional isoconcentration shell of the contaminant. The dashed lines represent discrete contours of equal concentration created by slicing the isoconcentration shell at the specified elevation. The solid lines represent the maximum estimated extent of contours of equal concentration for the specified elevation interval.
  2. The isoconcentration contours were generated using the three-dimensional geospatial modeling software, EarthVision®.
  3. Posted data represent chemical results for the specified elevation range.
  4. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision®, as described in the Annual Report.



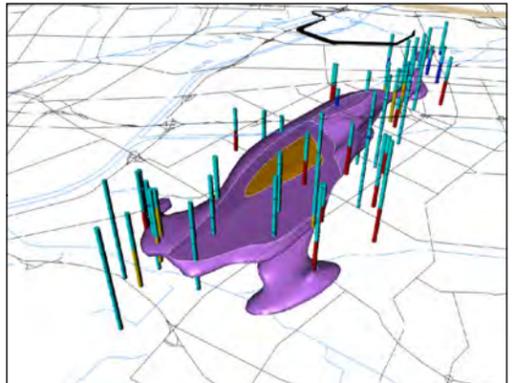
The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**DISTRIBUTION OF TRICHLOROETHENE  
BELOW -500 FEET MSL, 2014**  
Baldwin Park Operable Unit  
San Gabriel Valley, California

**Geosyntec**  
consultants

Project No.: SAC150  
Figure **A-39**

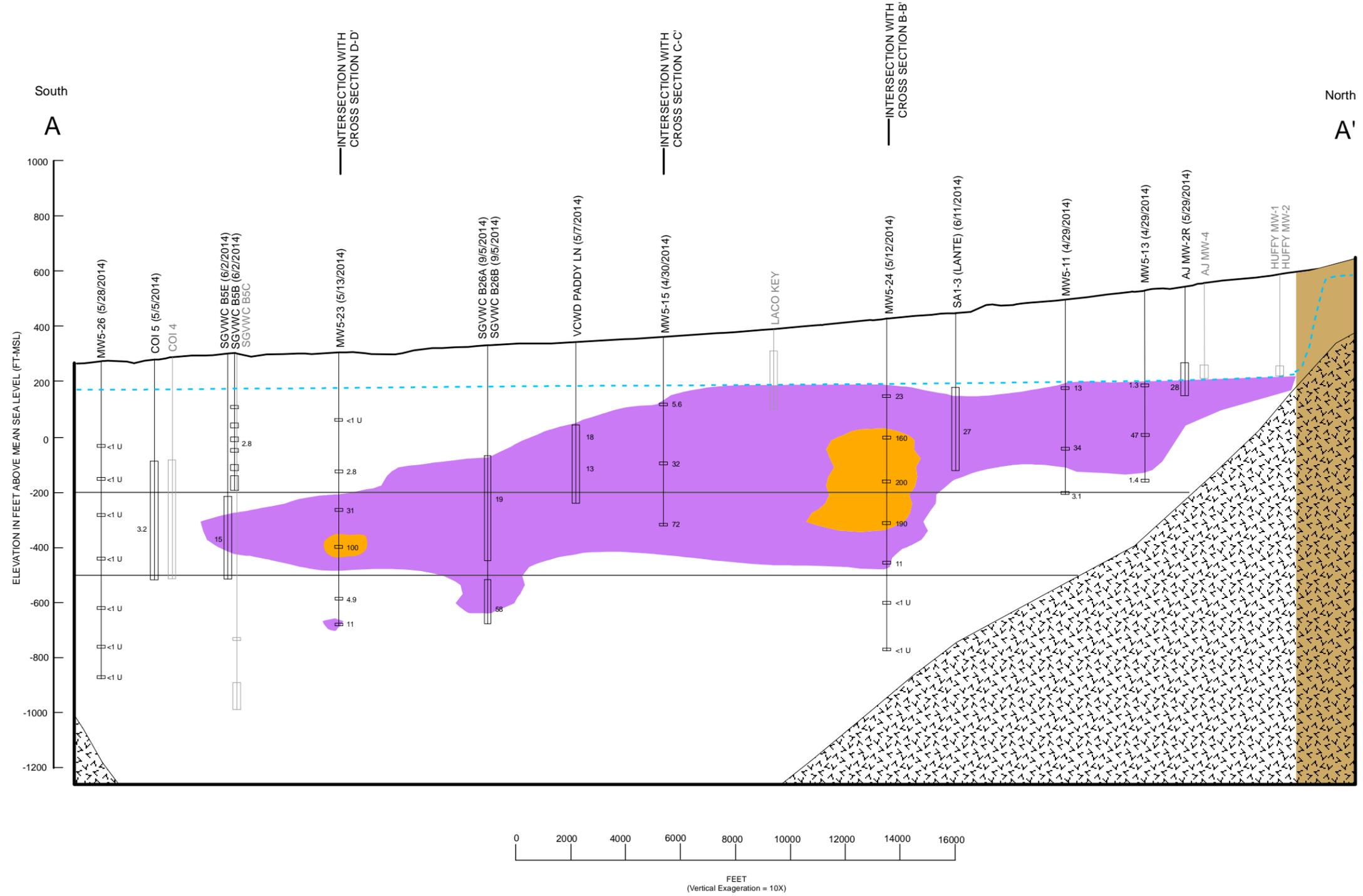
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Three Dimensional Isoconcentration Shell at the MCL or Action Level

**EXPLANATION**

- Data unavailable within the date range modeled
- Data collection date (MM/DD/YYYY)
- Well name
- Blank casing
- Perforated casing
- 0.82 Concentration (ug/L) modeled at midscreen elevation
- < U Analyte not detected at the reported quantitation limit shown in the result
- J Analyte positively identified; concentration is approximate
- < UJ Analyte not detected; concentration is less than the reported quantitation limit shown in the result; the reported quantitation limit is estimated
- >5 ug/L
- >100 ug/L
- Interval elevation boundary (-200 and -500 ft amsl)
- - - Generalized potentiometric surface
- Bedrock surface used in BPOU groundwater model based on California DWR Bulletin 104-2, Plate 11, and updated with drilling information from various sources
- Duarte Fault Zone



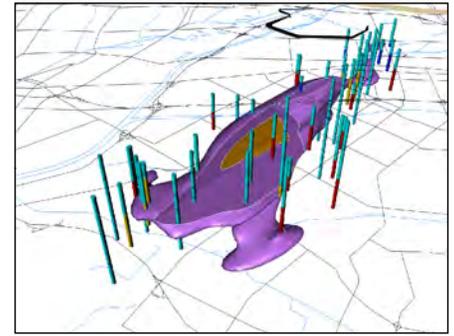
Path: P:\GIS\SAC150\_BPOU\Figures\GIS\Volume 2A-40\_A\_CrossSection14\_TCE.mxd

The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

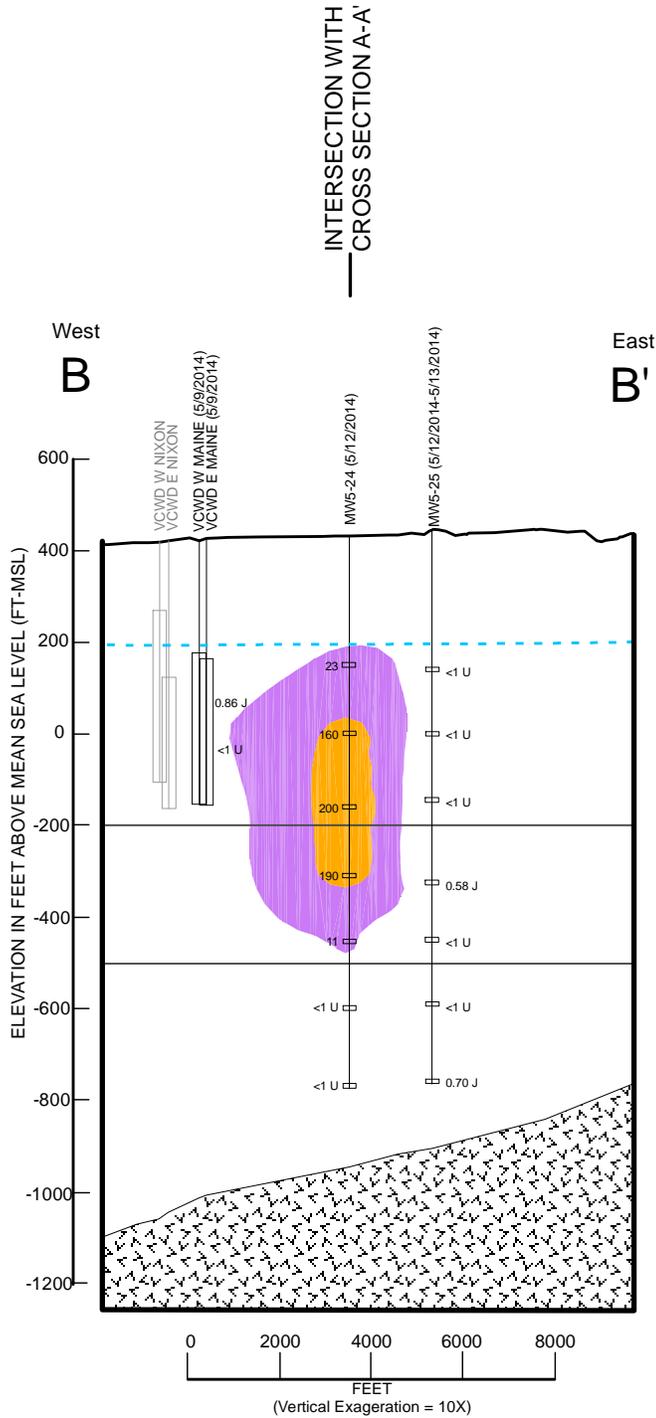
Note:  
 1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

**VERTICAL DISTRIBUTION OF TRICHLOROETHENE, 2014 CROSS SECTION A-A'**  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

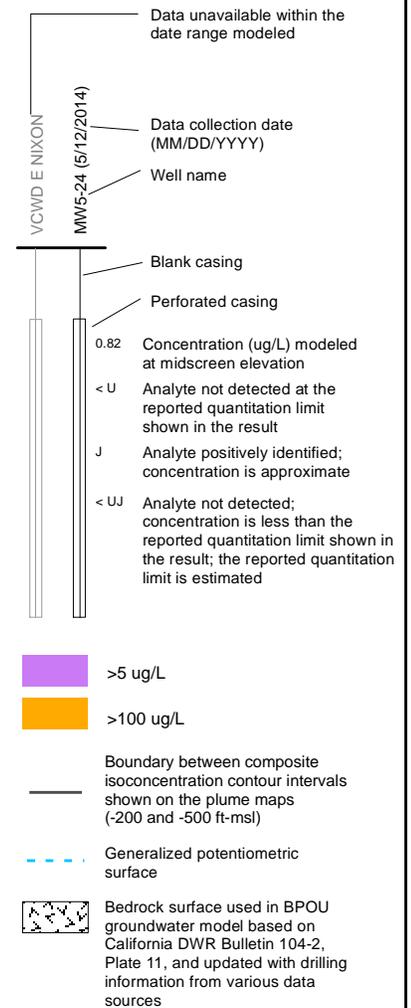
Project No.: SAC150  
Figure **A-40**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



### EXPLANATION



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

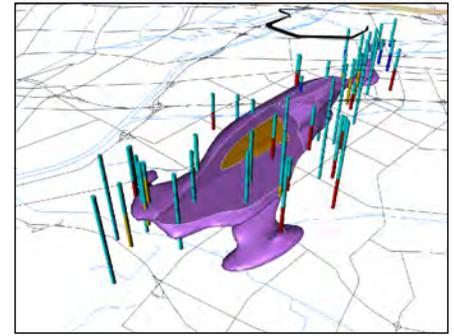
## VERTICAL DISTRIBUTION OF TRICHLOROETHENE, 2014 CROSS SECTION B-B'

Baldwin Park Operable Unit  
San Gabriel Valley, California

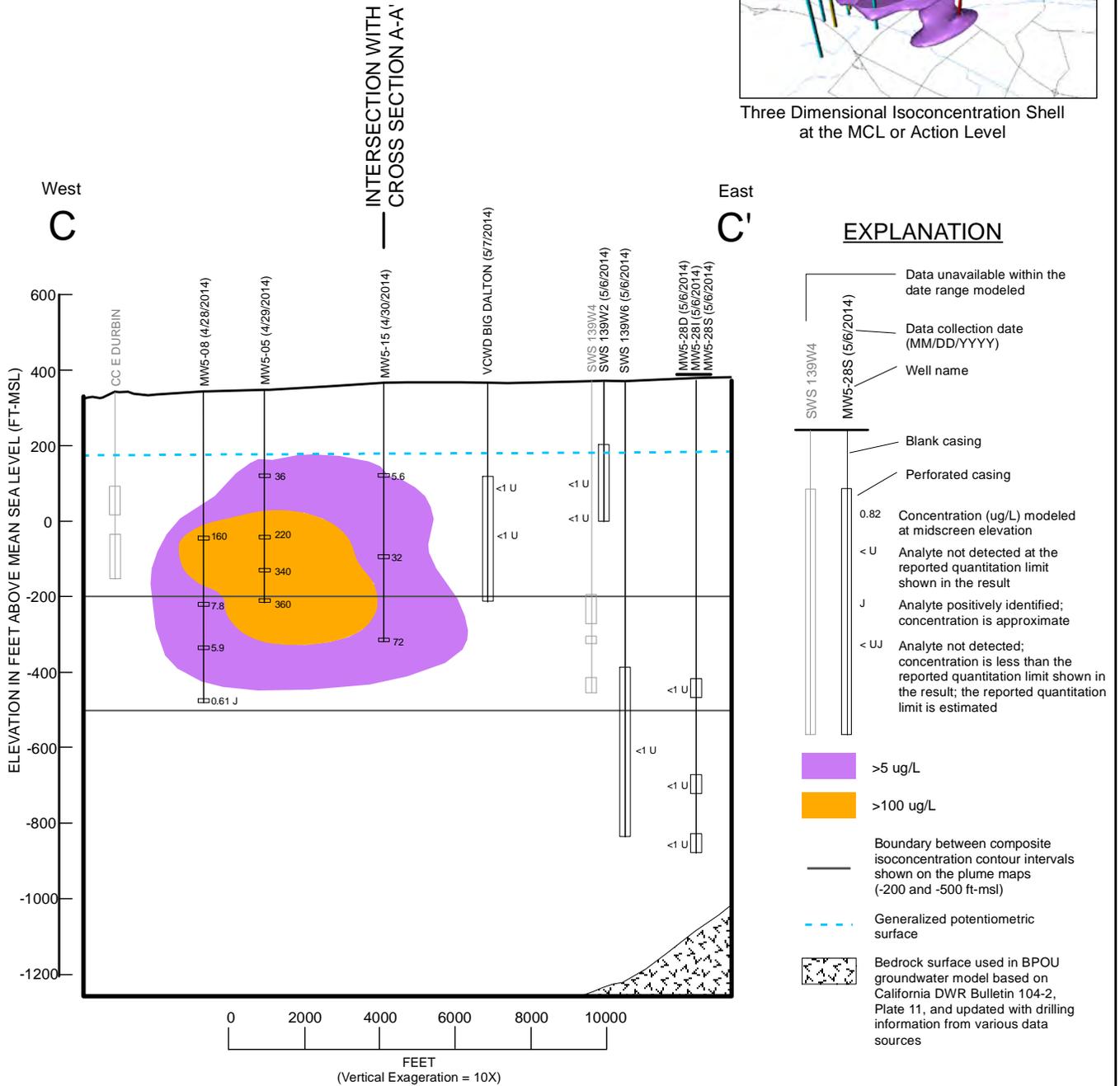


Project No.: SAC150

Figure **A-41**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

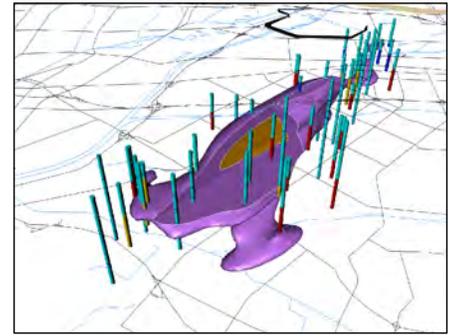
**VERTICAL DISTRIBUTION OF TRICHLOROETHENE, 2014  
CROSS SECTION C-C'**

Baldwin Park Operable Unit  
San Gabriel Valley, California

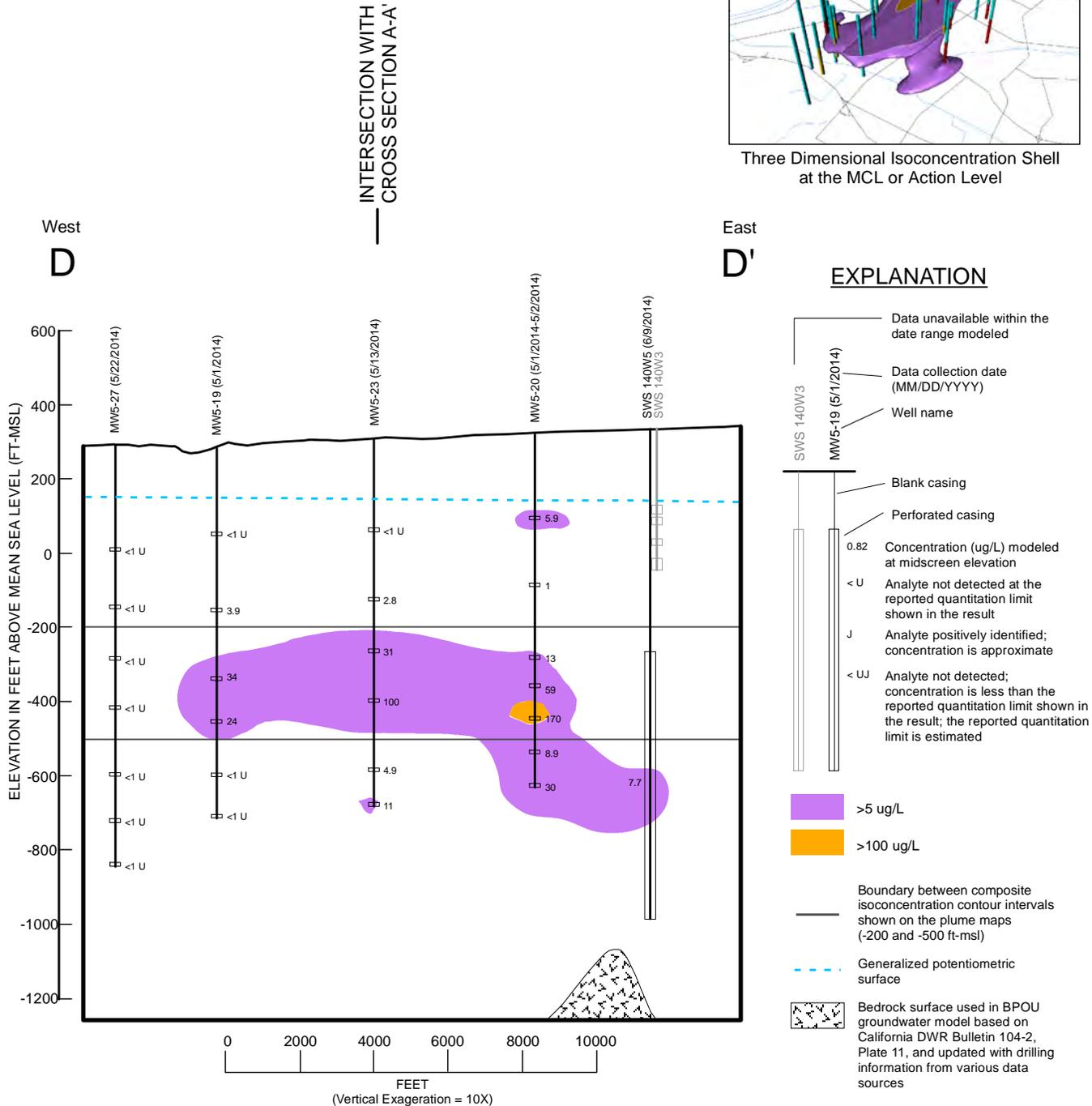


Project No.: SAC150

Figure **A-42**



Three Dimensional Isoconcentration Shell at the MCL or Action Level



The isoconcentration contours shown represent modeled approximations of the distribution of COCs in groundwater based on available data and are subject to the limitations described in the 2014 Annual Performance Evaluation Report, Baldwin Park Operable Unit. It should be recognized that the precise distribution of chemicals in the groundwater cannot be completely determined. Model results should be carefully evaluated in areas where data are limited or concentrations change significantly over short distances.

**Note:**

1. Data posted as non-detect at the sample quantitation limit were not modeled using explicit input values. Instead, non-detects were modeled using the non-detect values gridding technique in EarthVision, as described in the Annual Report.

## VERTICAL DISTRIBUTION OF TRICHLOROETHENE, 2014 CROSS SECTION D-D'

Baldwin Park Operable Unit  
San Gabriel Valley, California



Project No.: SAC150

Figure **A-43**

## **APPENDIX B**

TIME-CONCENTRATION GRAPHS FOR PROJECT EXTRACTION WELLS



**APPENDIX B**  
**TIME-CONCENTRATION GRAPHS FOR PROJECT EXTRACTION WELLS**

**LIST OF FIGURES**

- Figure B-1** 1,2-DCA Concentrations, Raw Water, Valley County Water District Lante Treatment Plant (2008 – 2014)
- Figure B-2** 1,4-Dioxane Concentrations, Raw Water, Valley County Water District Lante Treatment Plant (2008 – 2014)
- Figure B-3** Tetrachloroethene Concentrations, Raw Water, Valley County Water District Lante Treatment Plant (2008 – 2014)
- Figure B-4** Perchlorate Concentrations, Raw Water, Valley County Water District Lante Treatment Plant (2008 – 2014)
- Figure B-5** Carbon Tetrachloride Concentrations, Raw Water, Valley County Water District Lante Treatment Plant (2008 – 2014)
- Figure B-6** N-Nitrosodimethylamine Concentrations, Raw Water, Valley County Water District Lante Treatment Plant (2008 – 2014)
- Figure B-7** Trichloroethene Concentrations, Raw Water, Valley County Water District Lante Treatment Plant (2008 – 2014)
- Figure B-8** 1,2-DCA Concentrations, Raw Water, La Puente Valley County Water District Treatment Plant (2008 – 2014)
- Figure B-9** 1,4-Dioxane Concentrations, Raw Water, La Puente Valley County Water District Treatment Plant (2008 – 2014)
- Figure B-10** Tetrachloroethene Concentrations, Raw Water, La Puente Valley County Water District Treatment Plant (2008 – 2014)
- Figure B-11** Perchlorate Concentrations, Raw Water, La Puente Valley County Water District Treatment Plant (2008 – 2014)
- Figure B-12** Carbon Tetrachloride Concentrations, Raw Water, La Puente Valley County Water District Treatment Plant (2008 – 2014)



**LIST OF FIGURES (Continued)**

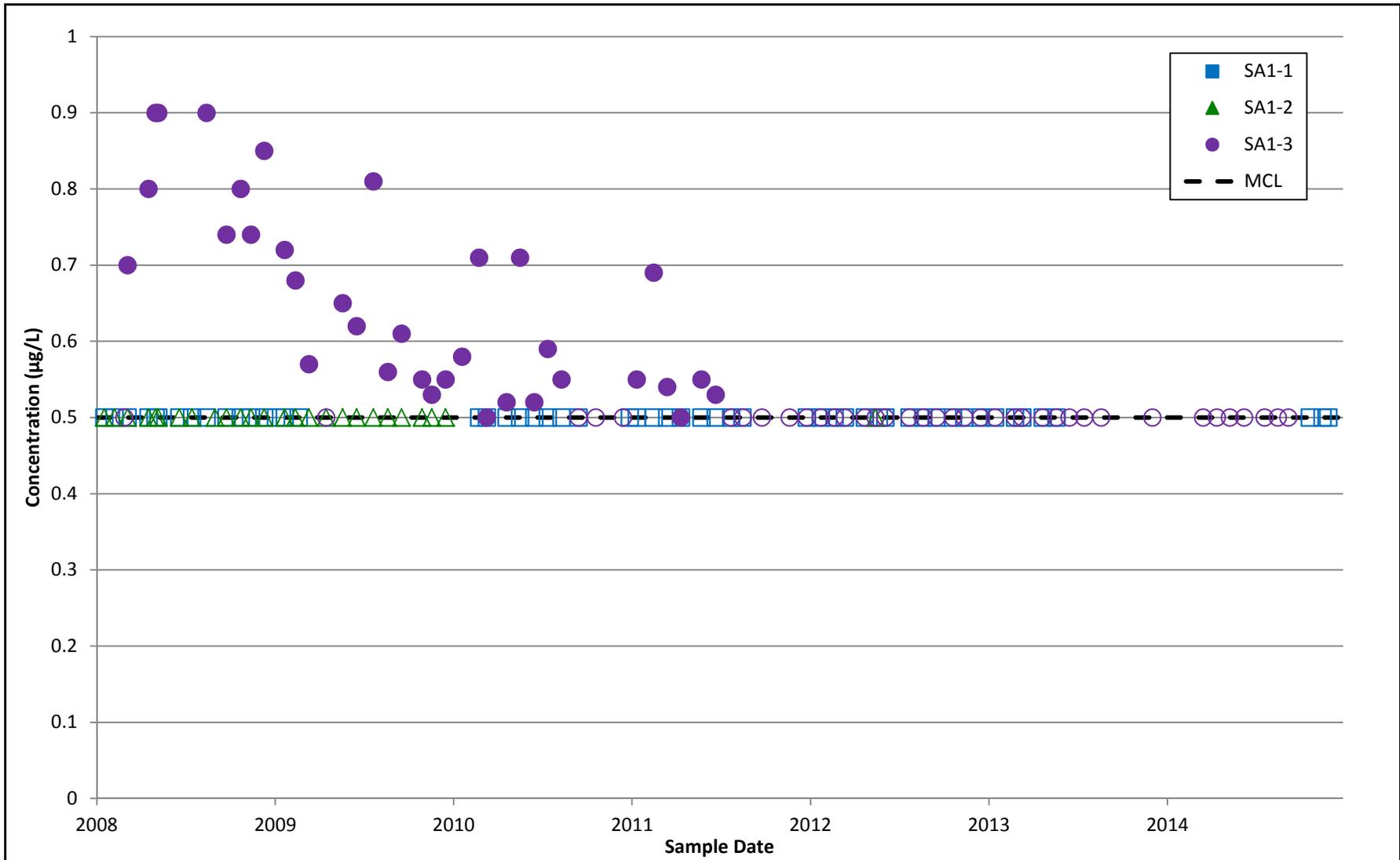
- Figure B-13** N-Nitrosodimethylamine Concentrations, Raw Water, La Puente Valley County Water District Treatment Plant (2008 – 2014)
- Figure B-14** Trichloroethene Concentrations, Raw Water, La Puente Valley County Water District Treatment Plant (2008 – 2014)
- Figure B-15** 1,2-DCA Concentrations, Raw Water, San Gabriel Valley Water Company Plant B6 (2008 – 2014)
- Figure B-16** 1,4-Dioxane Concentrations, Raw Water, San Gabriel Valley Water Company Plant B6 (2008 – 2014)
- Figure B-17** Tetrachloroethene Concentrations, Raw Water, San Gabriel Valley Water Company Plant B6 (2008 – 2014)
- Figure B-18** Perchlorate Concentrations, Raw Water, San Gabriel Valley Water Company Plant B6 (2008 – 2014)
- Figure B-19** Carbon Tetrachloride Concentrations, Raw Water, San Gabriel Valley Water Company Plant B6 (2008 – 2014)
- Figure B-20** N-Nitrosodimethylamine Concentrations, Raw Water, San Gabriel Valley Water Company Plant B6 (2008 – 2014)
- Figure B-21** Trichloroethene Concentrations, Raw Water, San Gabriel Valley Water Company Plant B6 (2008 – 2014)
- Figure B-22** 1,2-DCA Concentrations, Raw Water, San Gabriel Valley Water Company Plant B5 (2008 – 2014)
- Figure B-23** 1,4-Dioxane Concentrations, Raw Water, San Gabriel Valley Water Company Plant B5 (2008 – 2014)
- Figure B-24** Tetrachloroethene Concentrations, Raw Water, San Gabriel Valley Water Company Plant B5 (2008 – 2014)
- Figure B-25** Perchlorate Concentrations, Raw Water, San Gabriel Valley Water Company Plant B5 (2008 – 2014)
- Figure B-26** Carbon Tetrachloride Concentrations, Raw Water, San Gabriel Valley Water Company Plant B5 (2008 – 2014)



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consultants

**Figure B-27 N-Nitrosodimethylamine Concentrations, Raw Water, San Gabriel Valley Water Company Plant B5 (2008 – 2014)**

**Figure B-28 Trichloroethene Concentrations, Raw Water, San Gabriel Valley Water Company Plant B5 (2008 – 2014)**



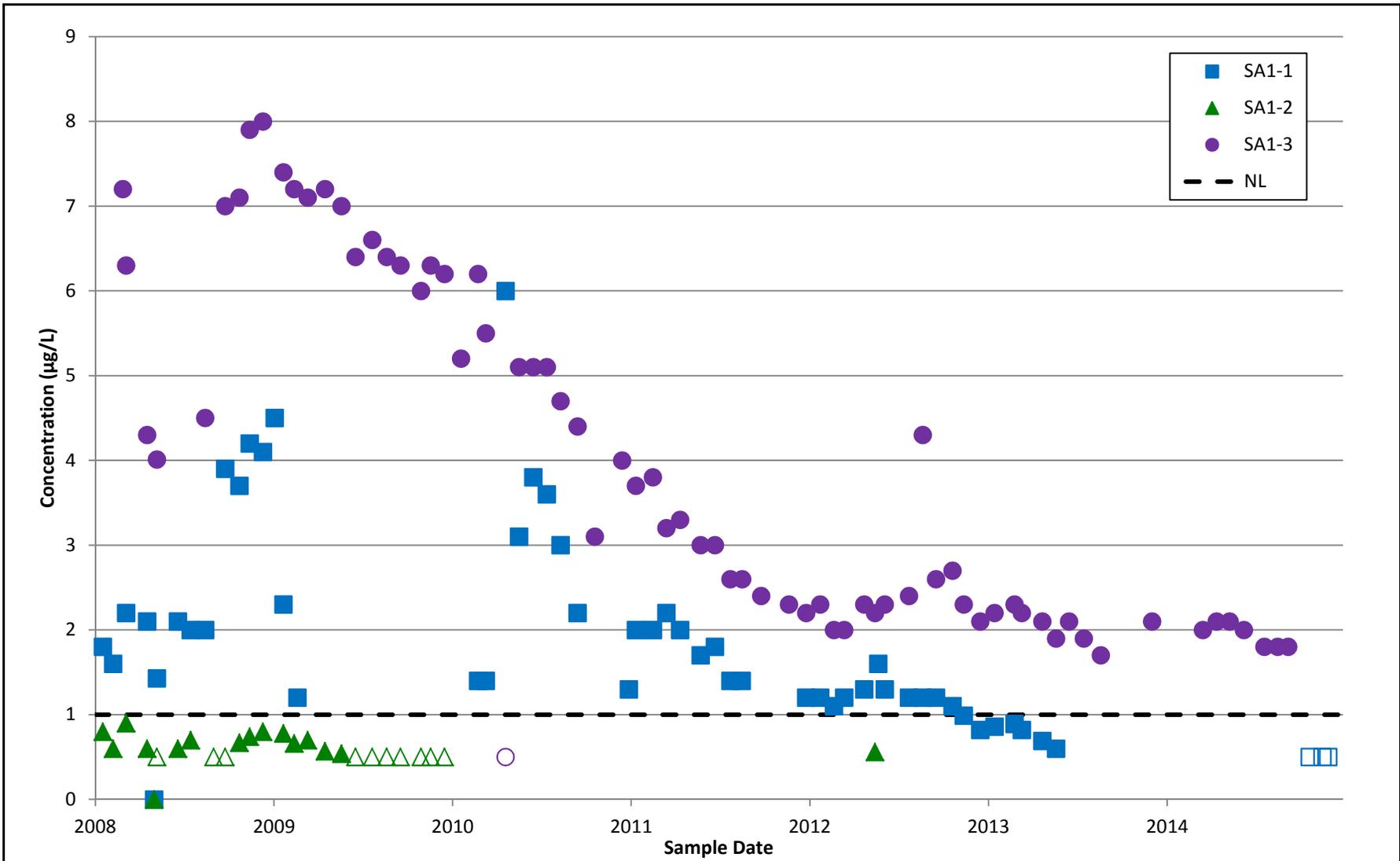
Note: Open symbols signify non-detects.



1,2-DCA CONCENTRATIONS, RAW WATER FOR  
 VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-1**



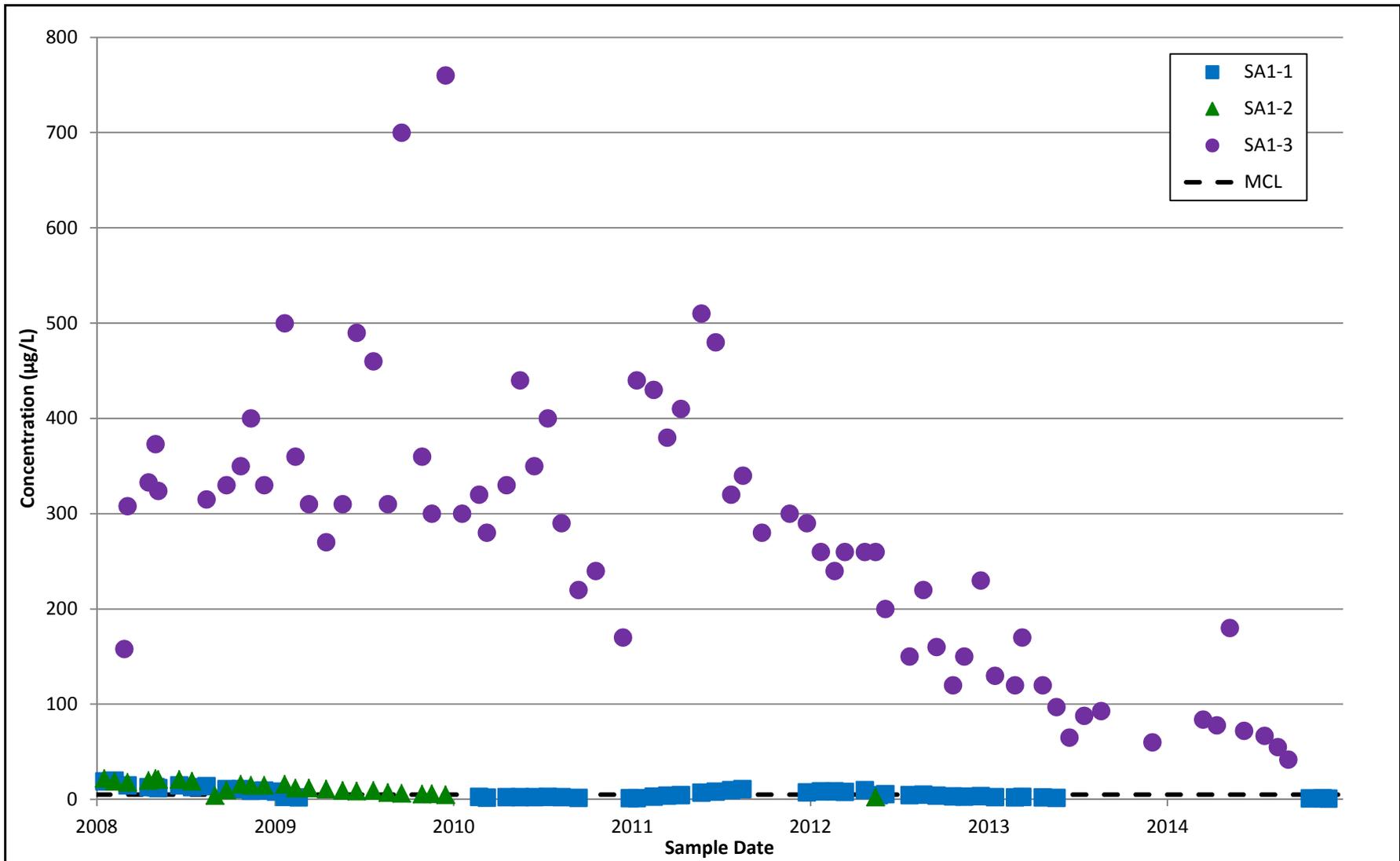
Note: Open symbols signify non-detects.



1,4-DIOXANE CONCENTRATIONS, RAW WATER FOR  
 VALLEY COUNTY WATER DISTRICT LANTÉ TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-2**



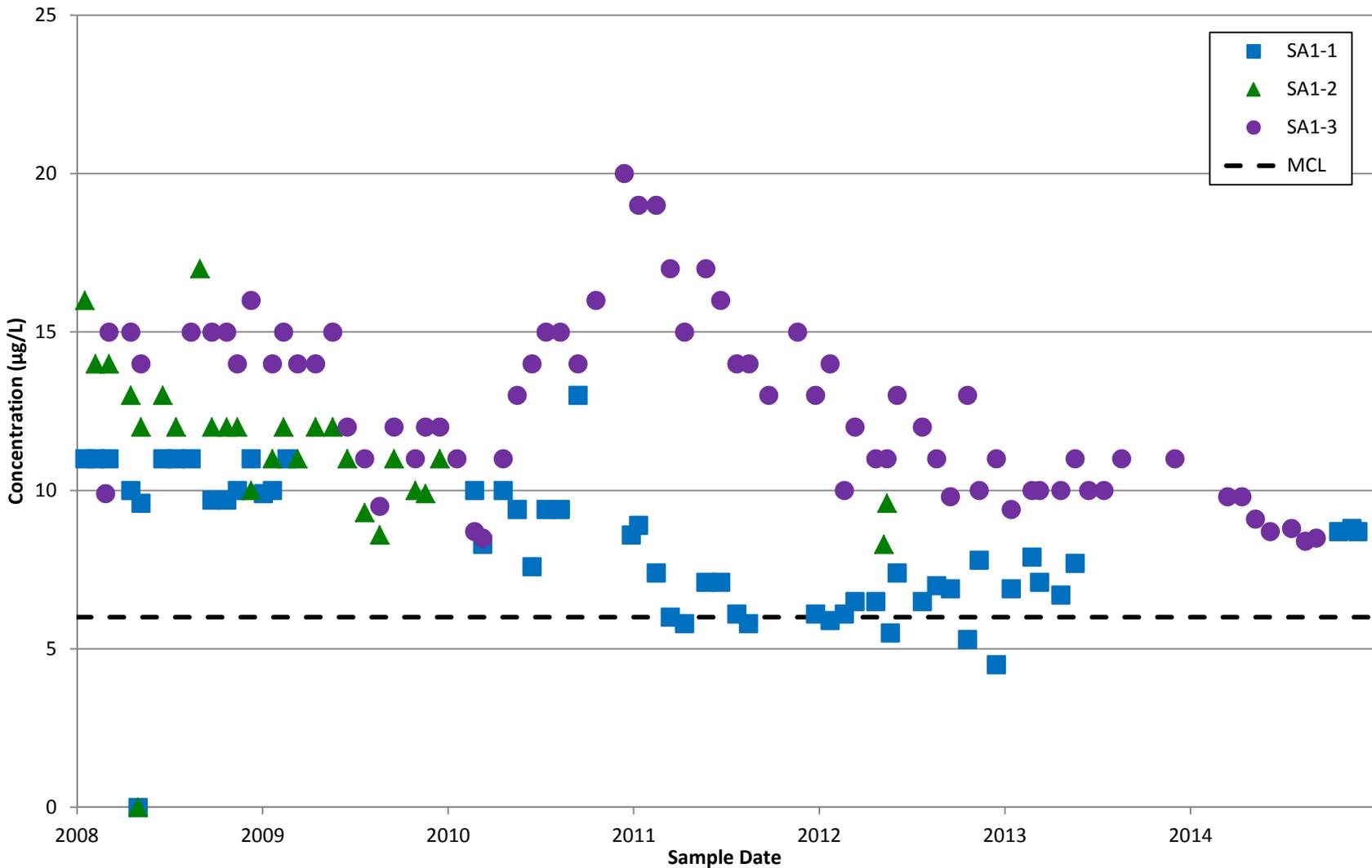
Note: Open symbols signify non-detects.



TETRACHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-3**



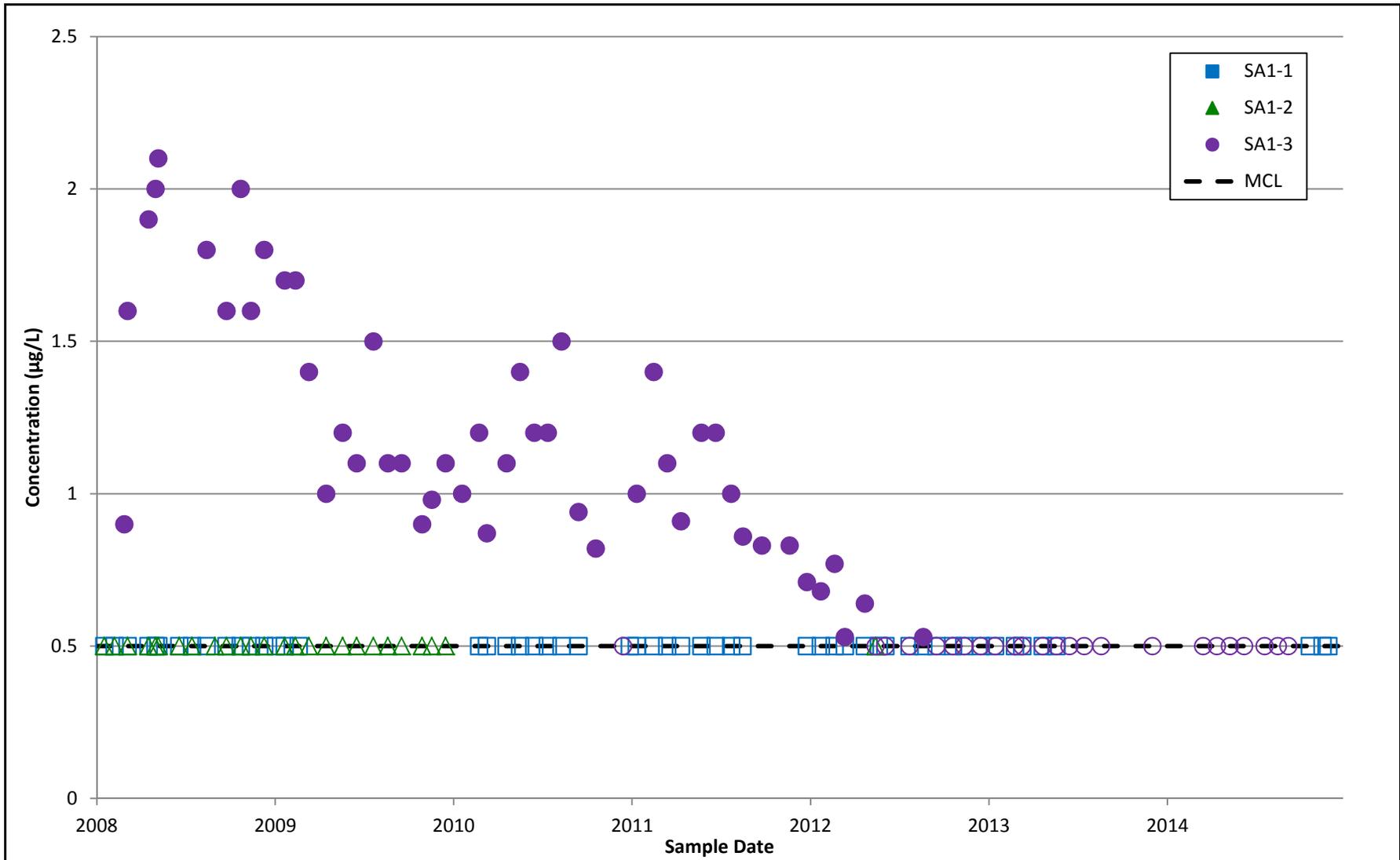
Note: Open symbols signify non-detects.



PERCHLORATE CONCENTRATIONS, RAW WATER FOR  
 VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-4**



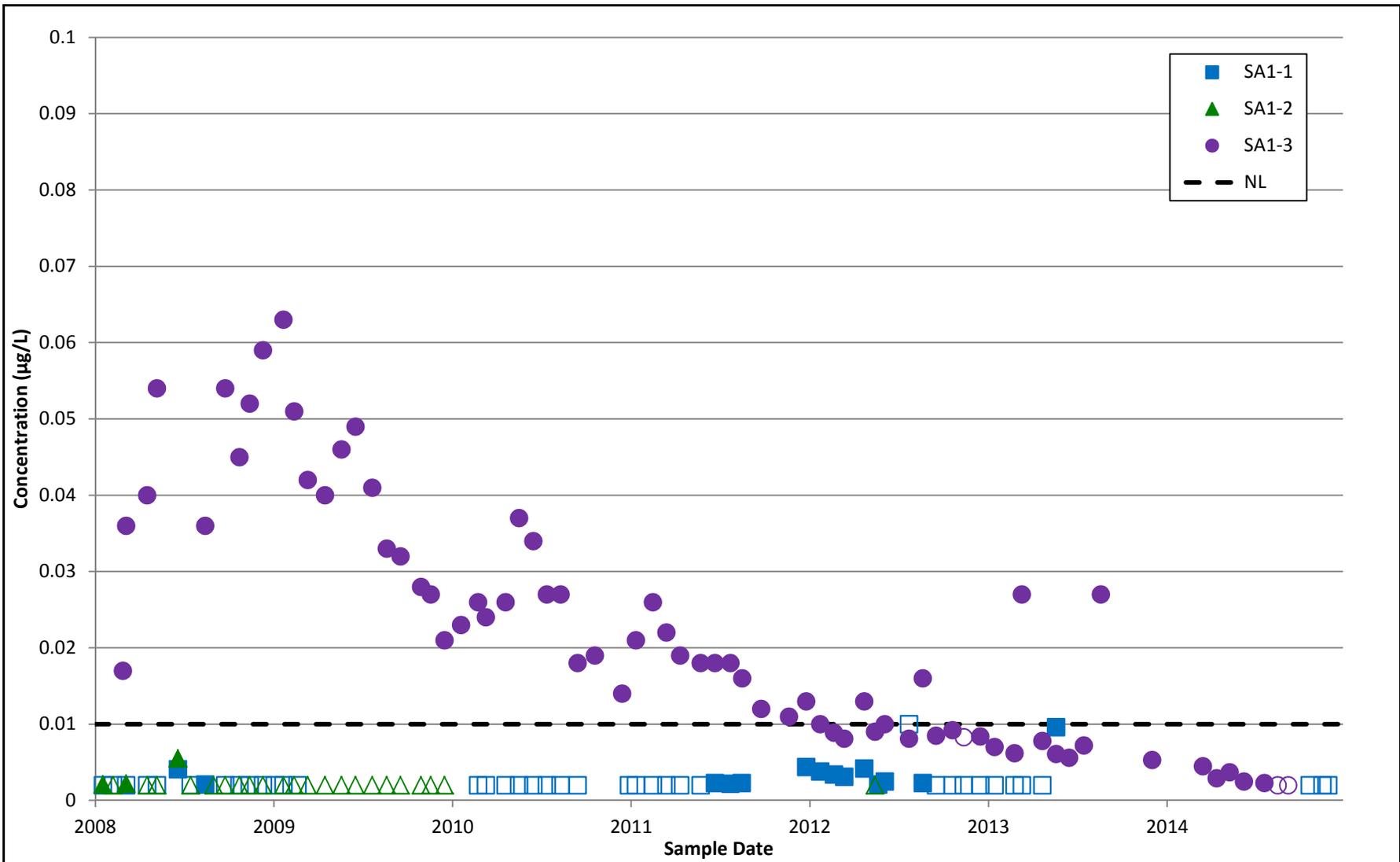
Note: Open symbols signify non-detects.



CARBON TETRACHLORIDE CONCENTRATIONS, RAW WATER FOR  
 VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-5**



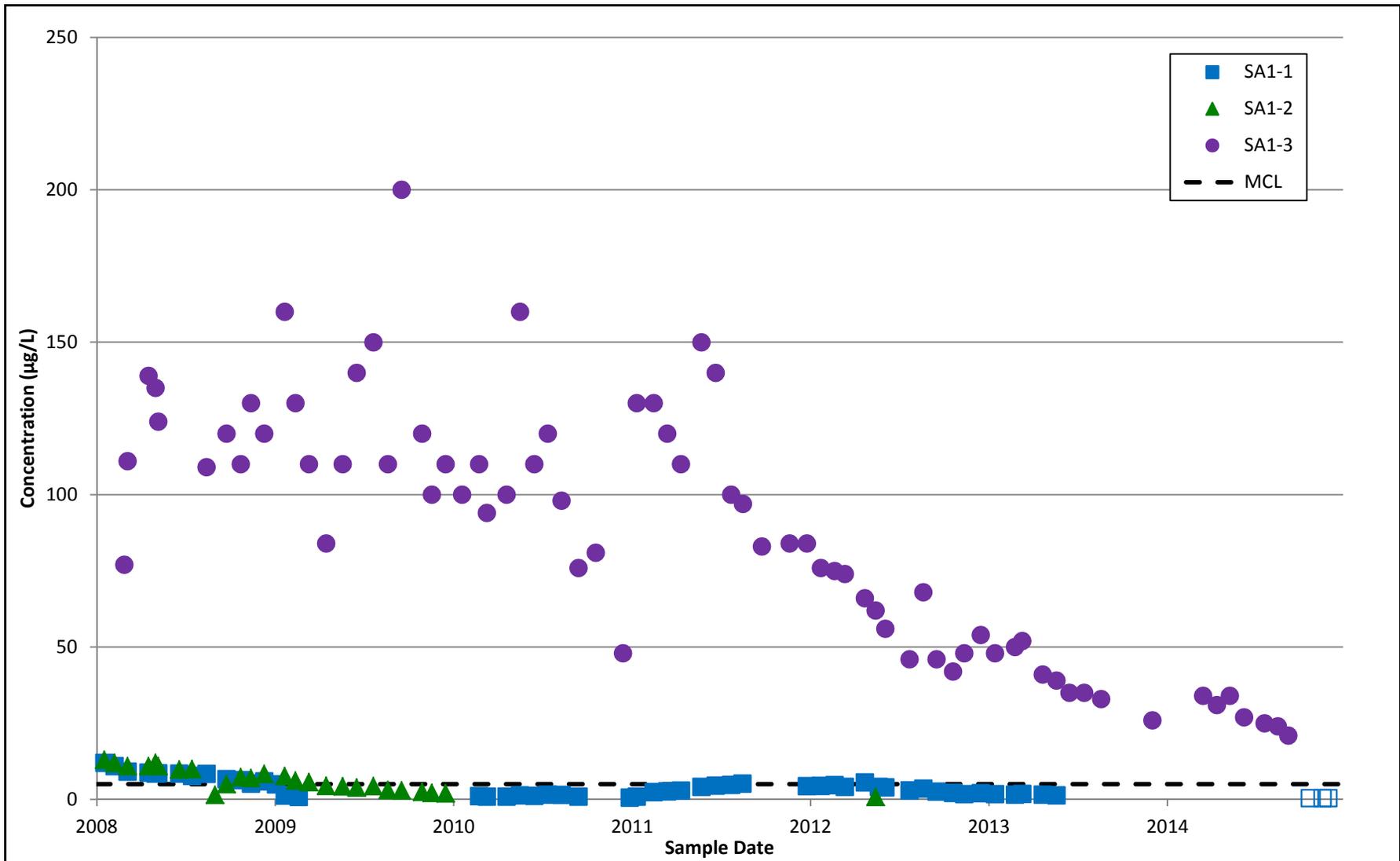
Note: Open symbols signify non-detects.



N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW WATER FOR  
 VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-6**



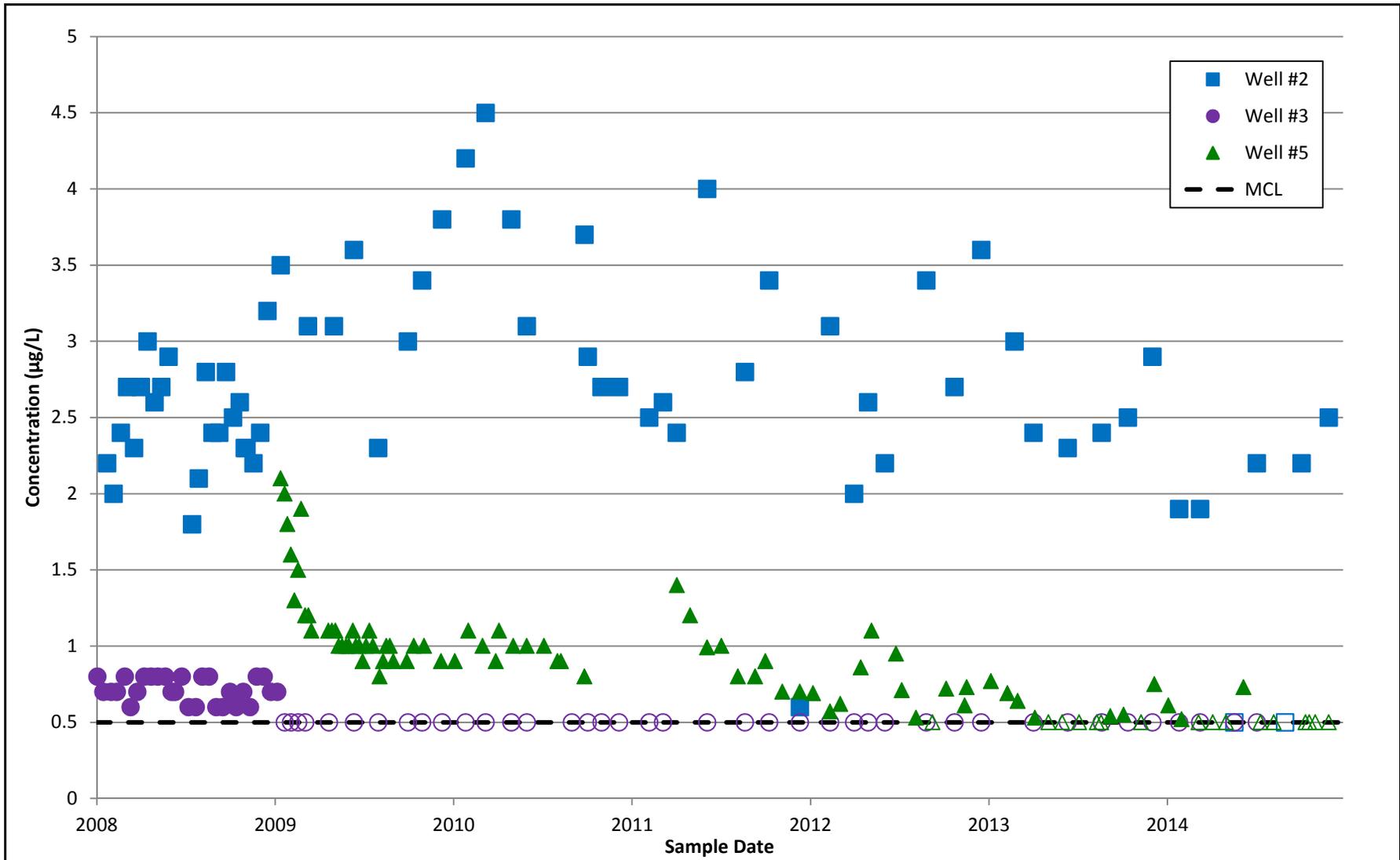
Note: Open symbols signify non-detects.



TRICHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 VALLEY COUNTY WATER DISTRICT LANTE TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-7**



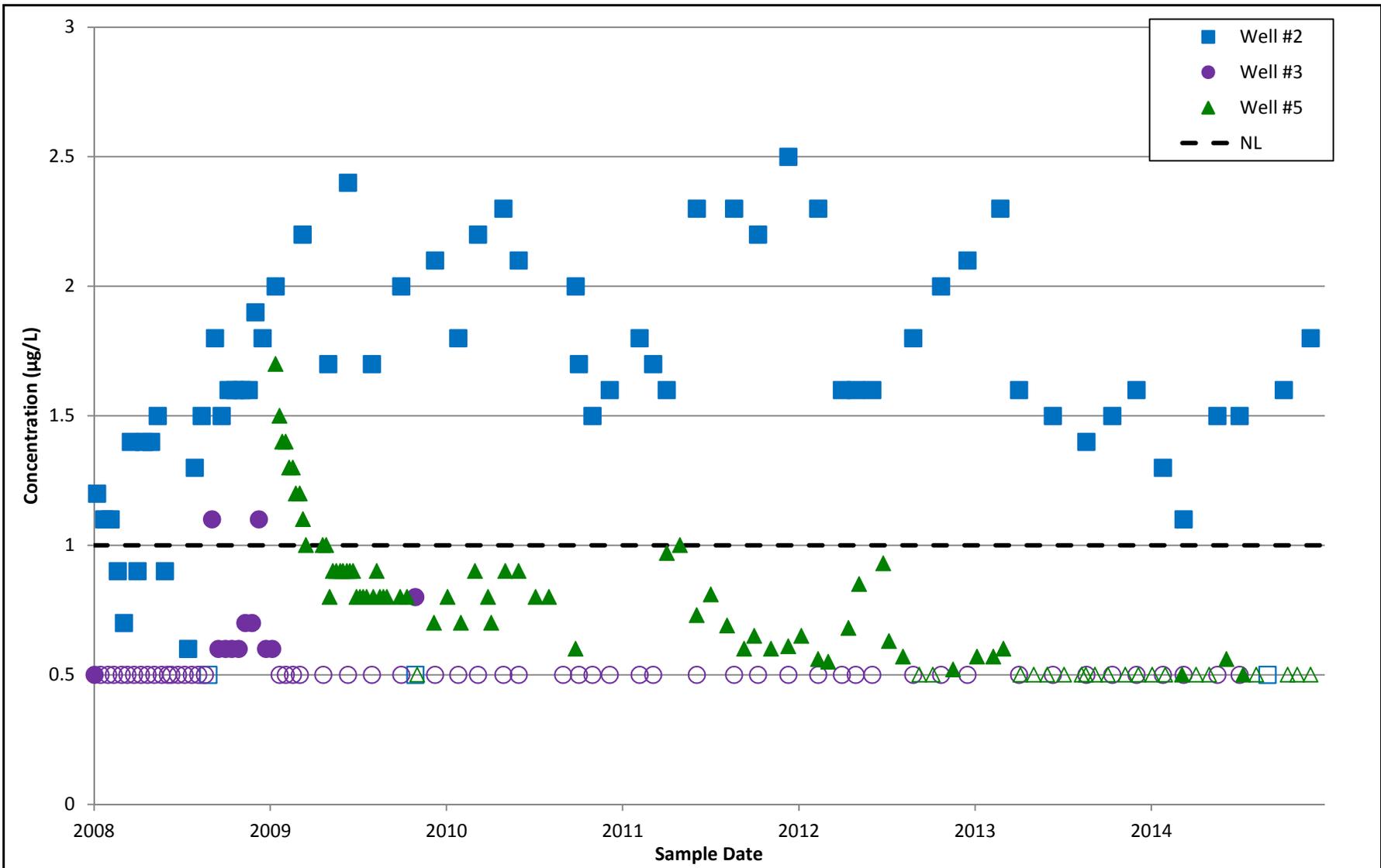
Note: Open symbols signify non-detects.



1,2-DCA CONCENTRATIONS, RAW WATER FOR  
LA PUENTE VALLEY COUNTY WATER DISTRICT TREATMENT PLANT (2008 - 2014)  
Baldwin Park Operable Unit  
San Gabriel Valley, California

Project No.  
32710118

Figure  
**B-8**



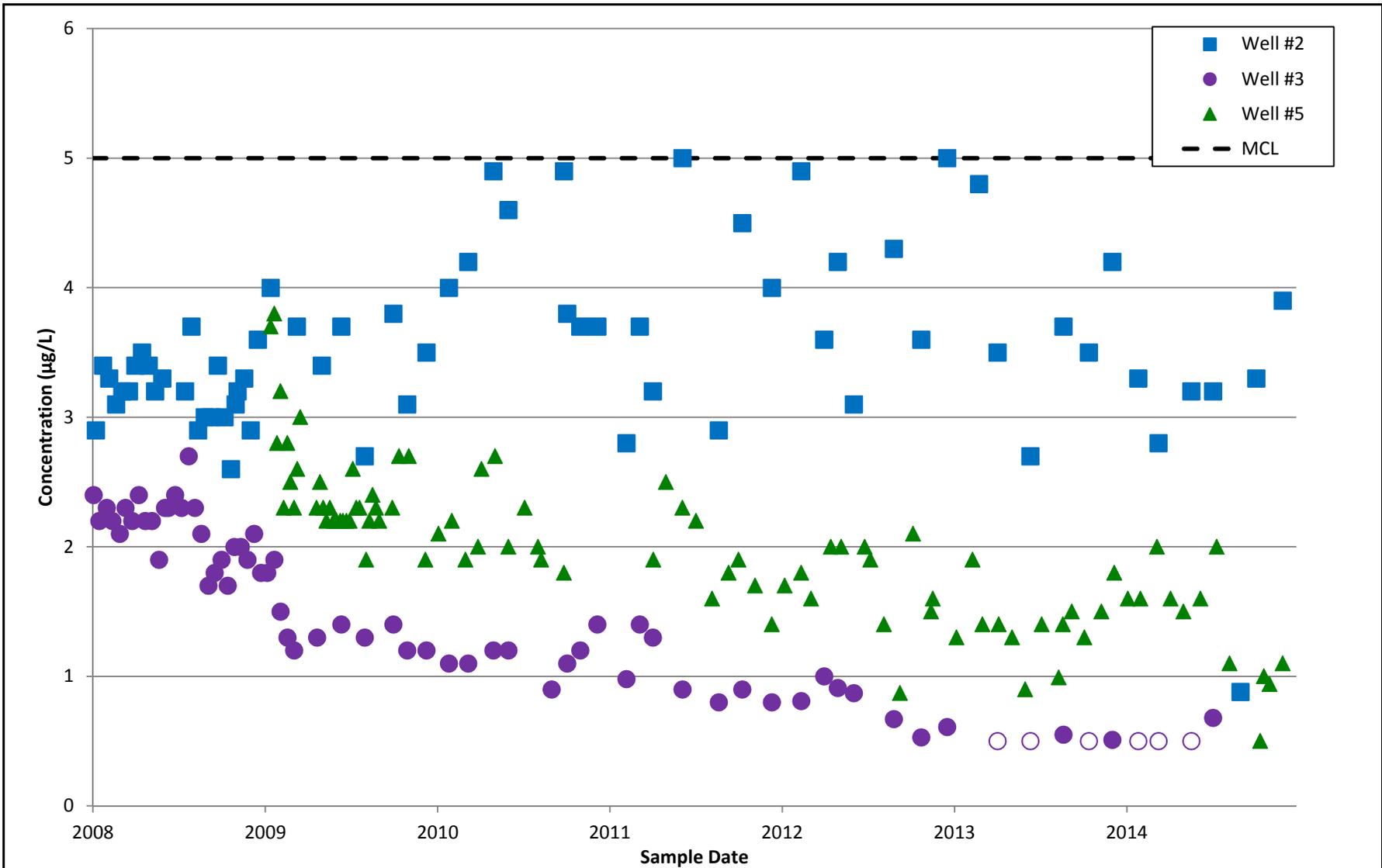
Note: Open symbols signify non-detects.



1,4-DIOXANE CONCENTRATIONS, RAW WATER FOR  
 LA PUENTE VALLEY COUNTY WATER DISTRICT TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-9**



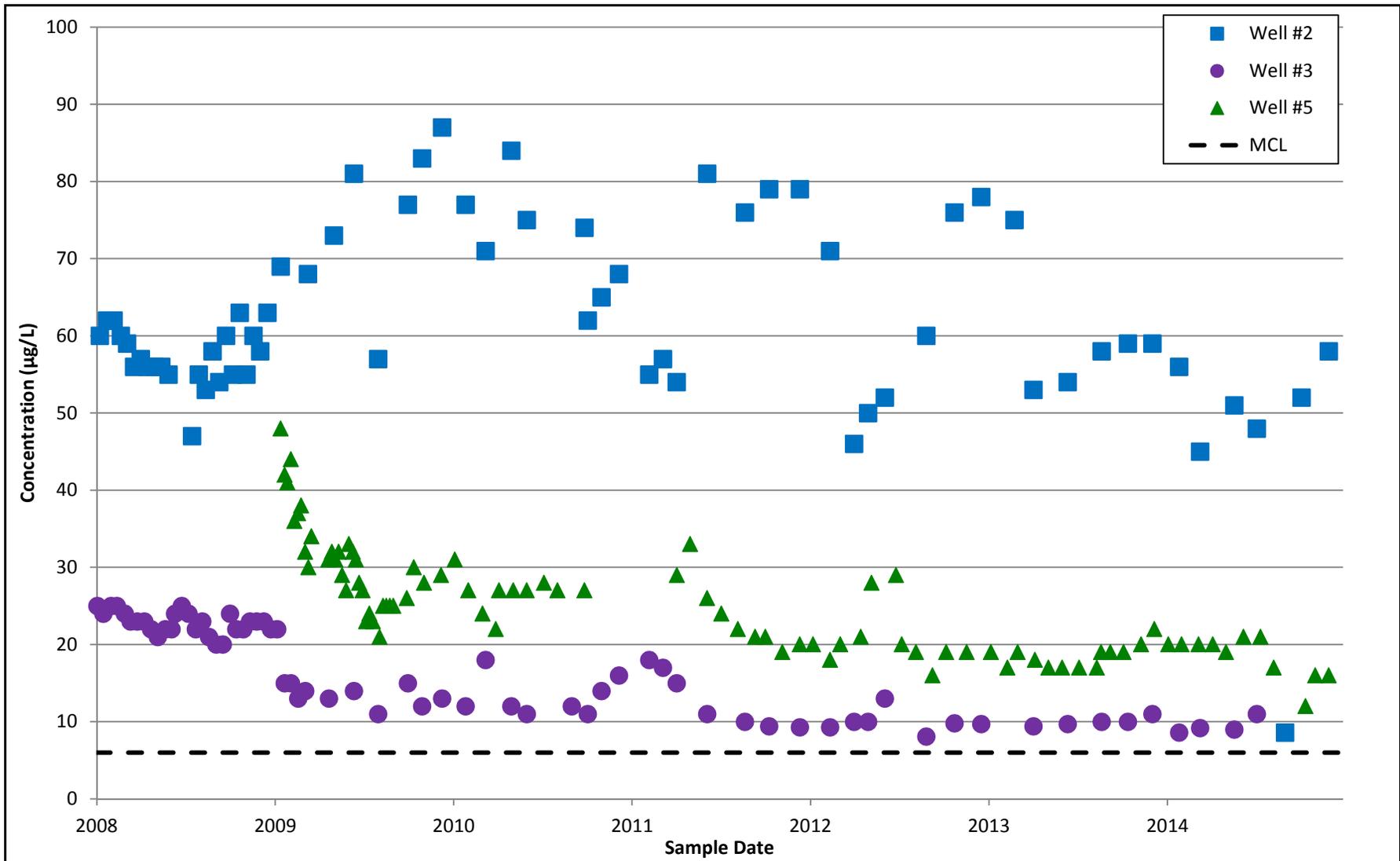
Note: Open symbols signify non-detects.



TETRACHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 LA PUENTE VALLEY COUNTY WATER DISTRICT TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-10**



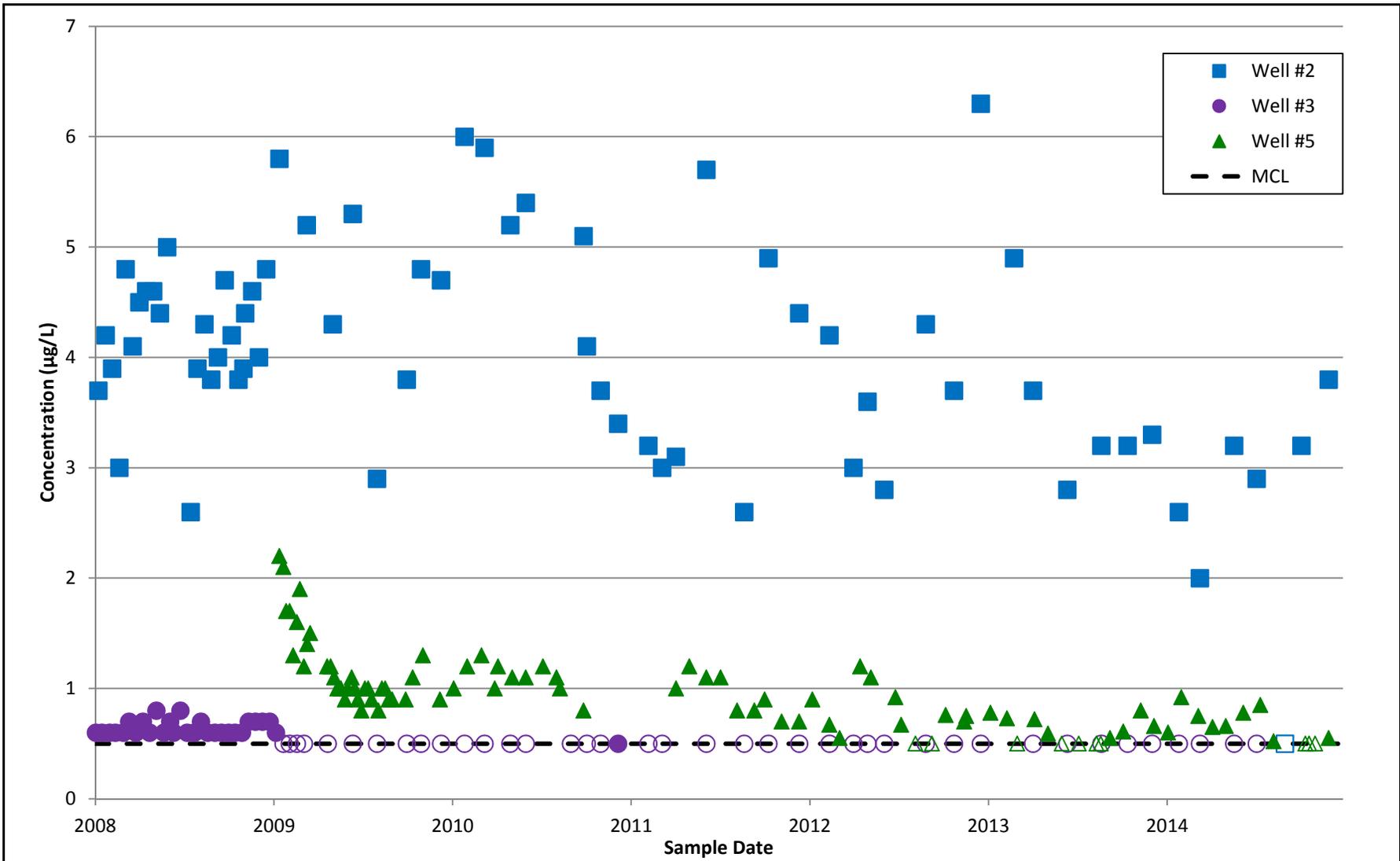
Note: Open symbols signify non-detects.



PERCHLORATE CONCENTRATIONS, RAW WATER FOR  
LA PUENTE VALLEY COUNTY WATER DISTRICT TREATMENT PLANT (2008 - 2014)  
Baldwin Park Operable Unit  
San Gabriel Valley, California

Project No.  
32710118

Figure  
**B-11**



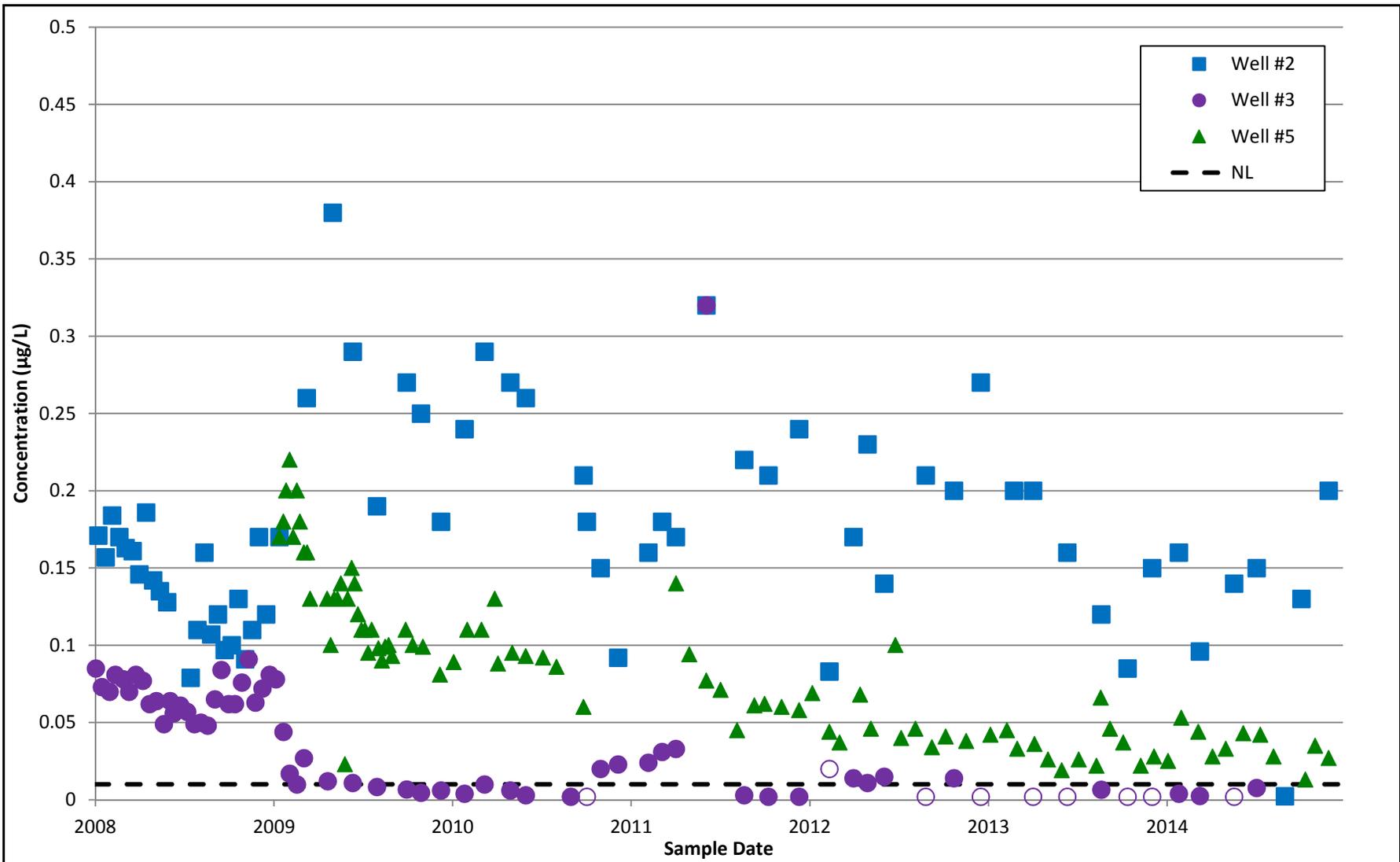
Note: Open symbols signify non-detects.



CARBON TETRACHLORIDE CONCENTRATIONS, RAW WATER FOR  
LA PUENTE VALLEY COUNTY WATER DISTRICT TREATMENT PLANT (2008 - 2014)  
Baldwin Park Operable Unit  
San Gabriel Valley, California

Project No.  
32710118

Figure  
**B-12**



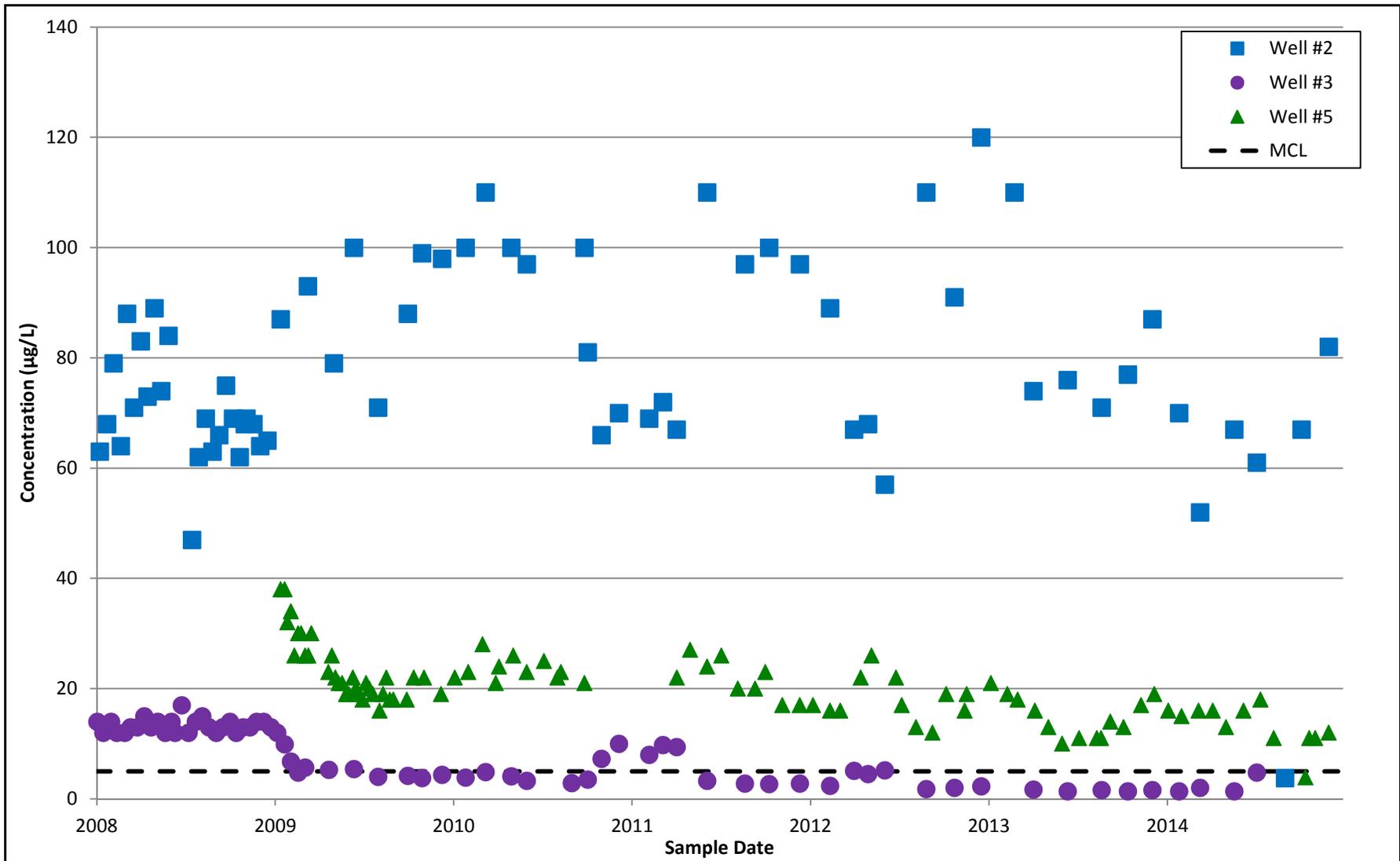
Note: Open symbols signify non-detects.



N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW WATER FOR  
 LA PUENTE VALLEY COUNTY WATER DISTRICT TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-13**



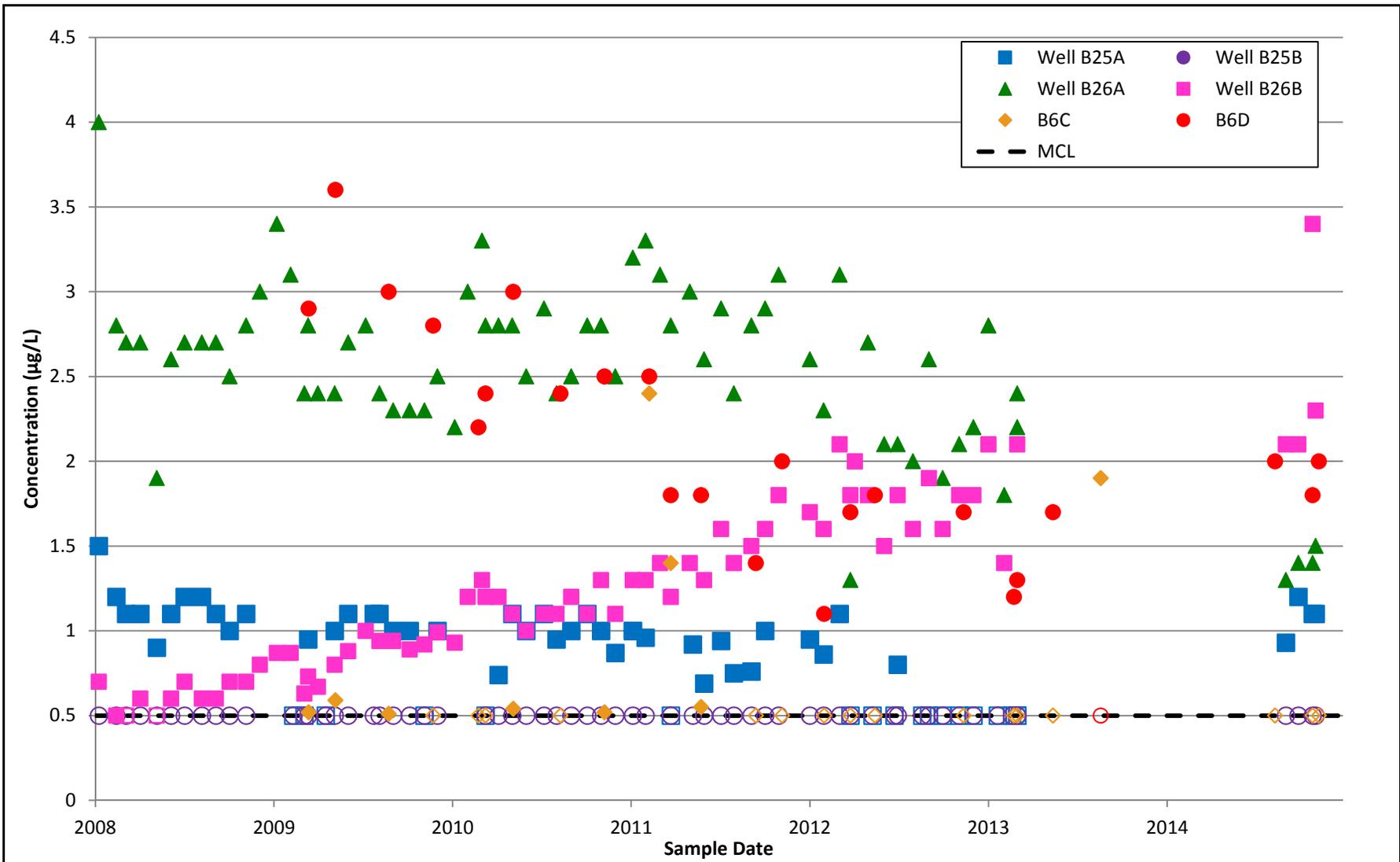
Note: Open symbols signify non-detects.



TRICHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 LA PUENTE VALLEY COUNTY WATER DISTRICT TREATMENT PLANT (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-14**



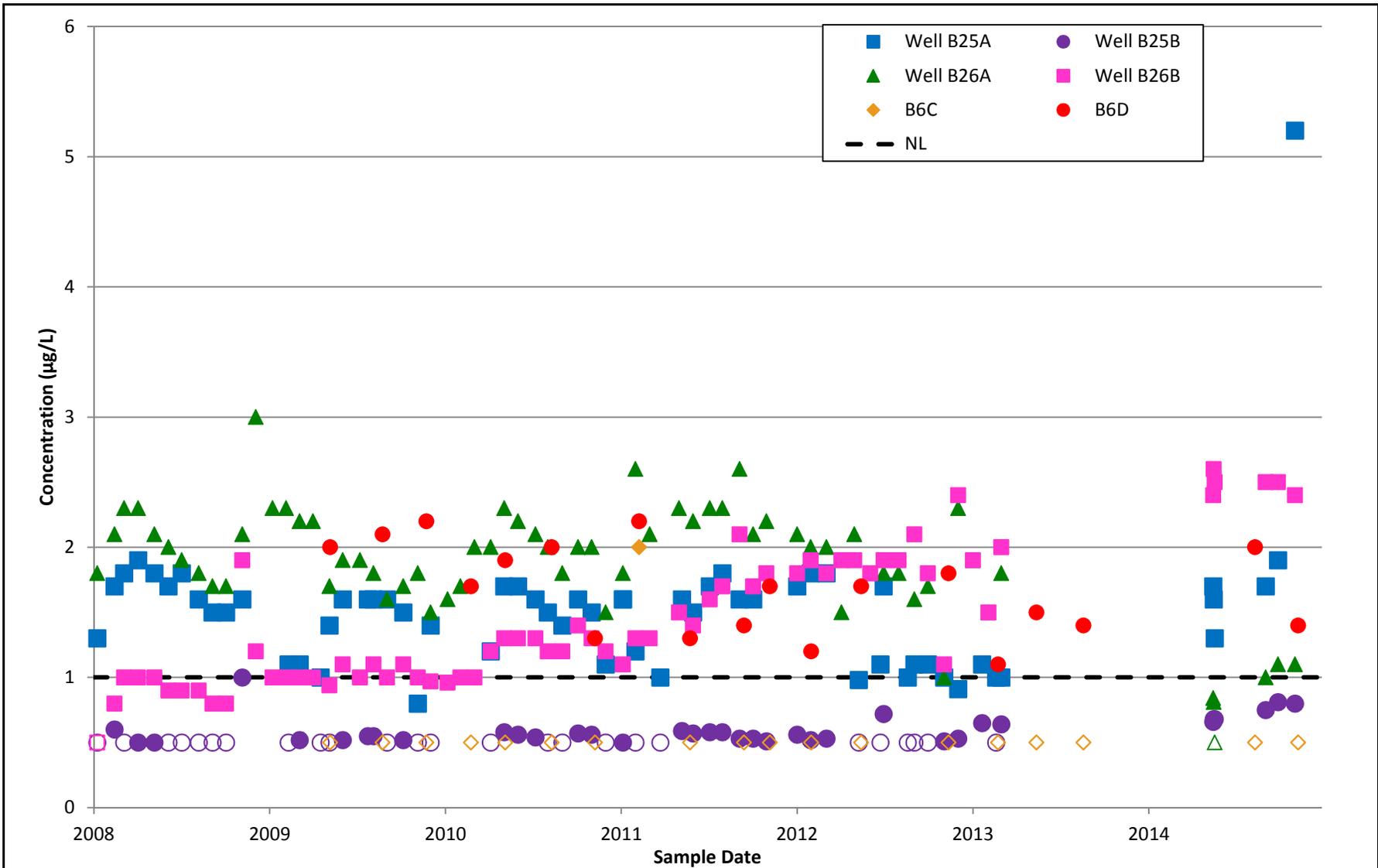
Note: Open symbols signify non-detects.



1,2-DCA CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B6 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-15**



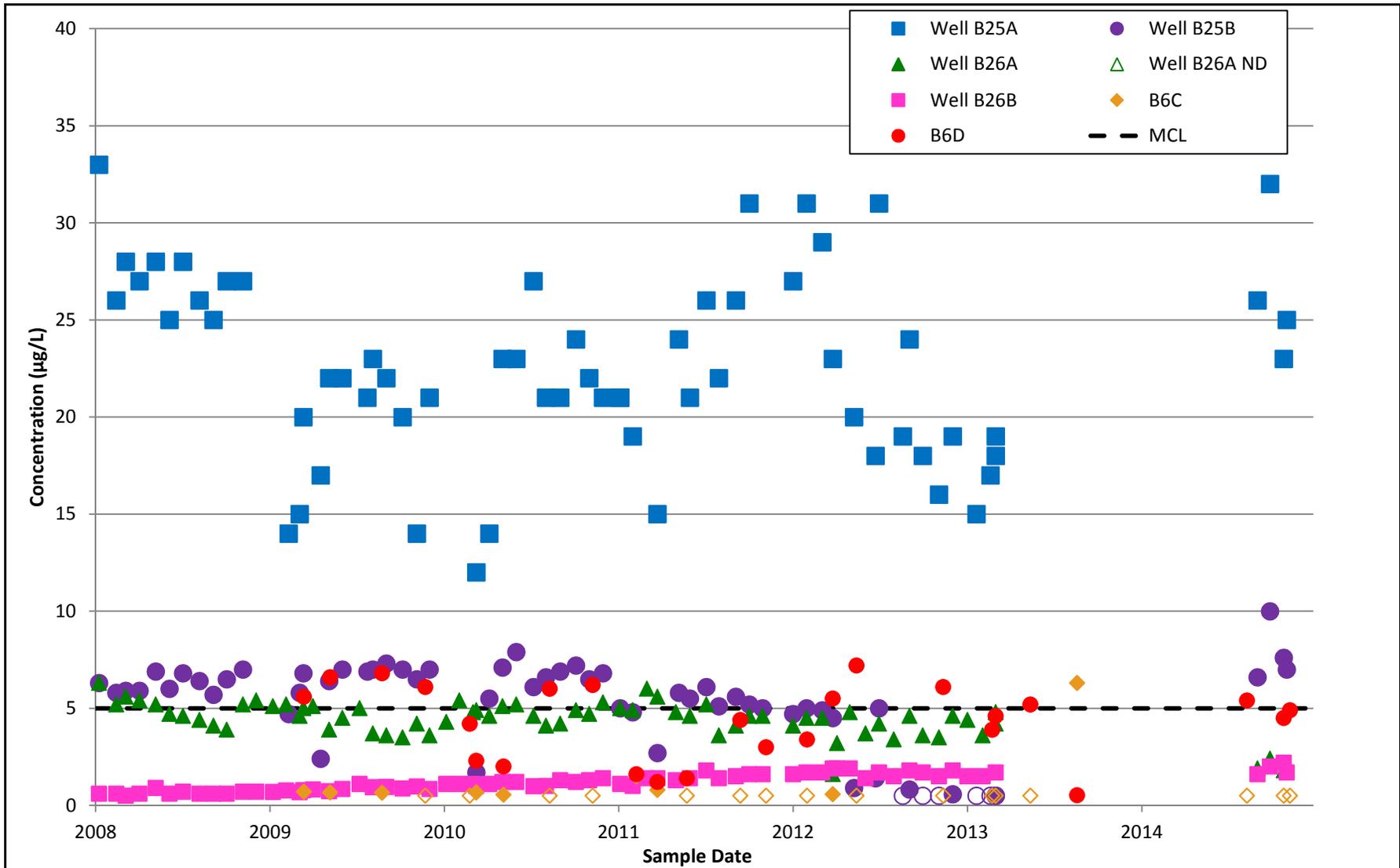
Note: Open symbols signify non-detects.



1,4-DIOXANE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B6 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-16**



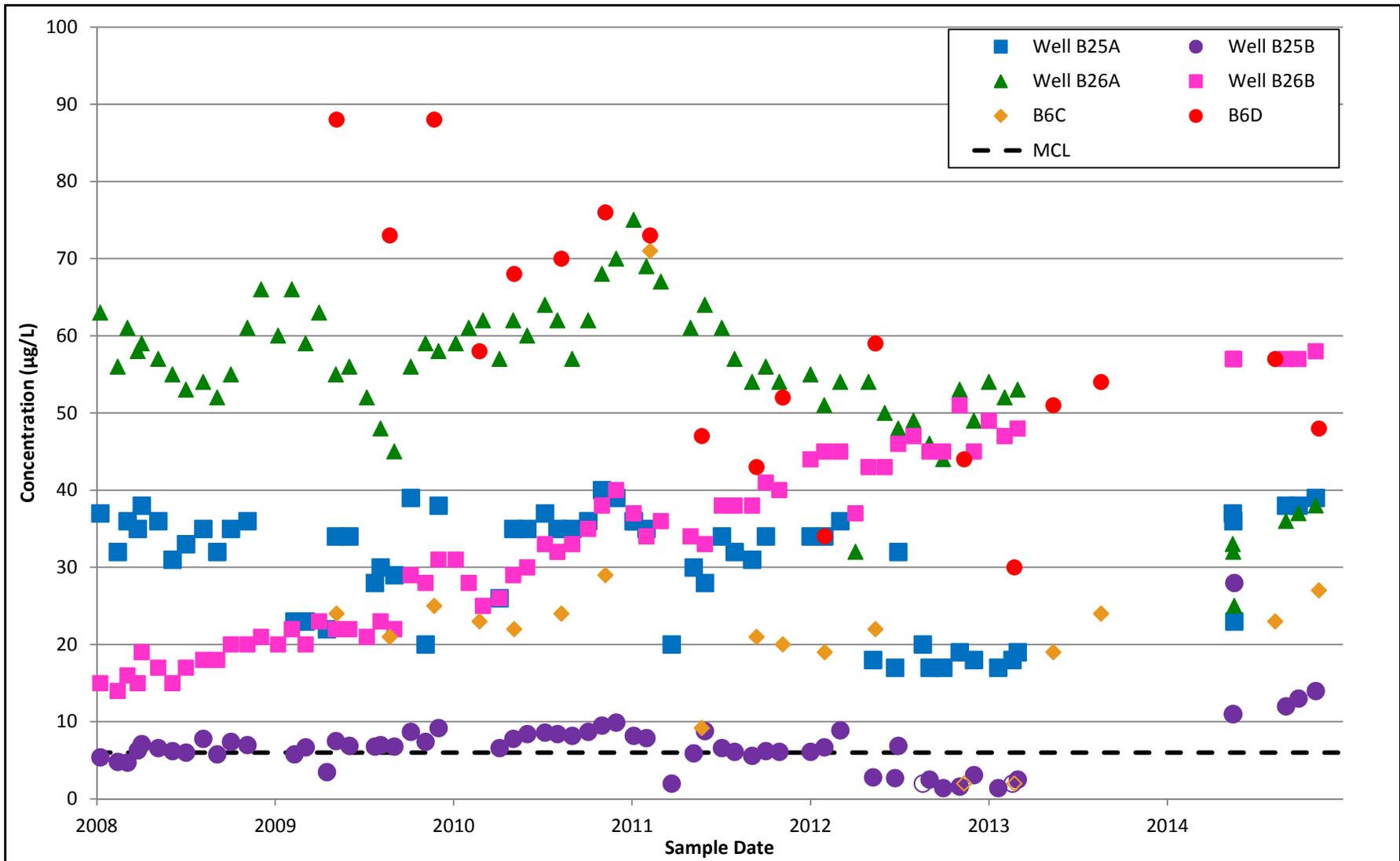
Note: Open symbols signify non-detects.



TETRACHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B6 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-17**



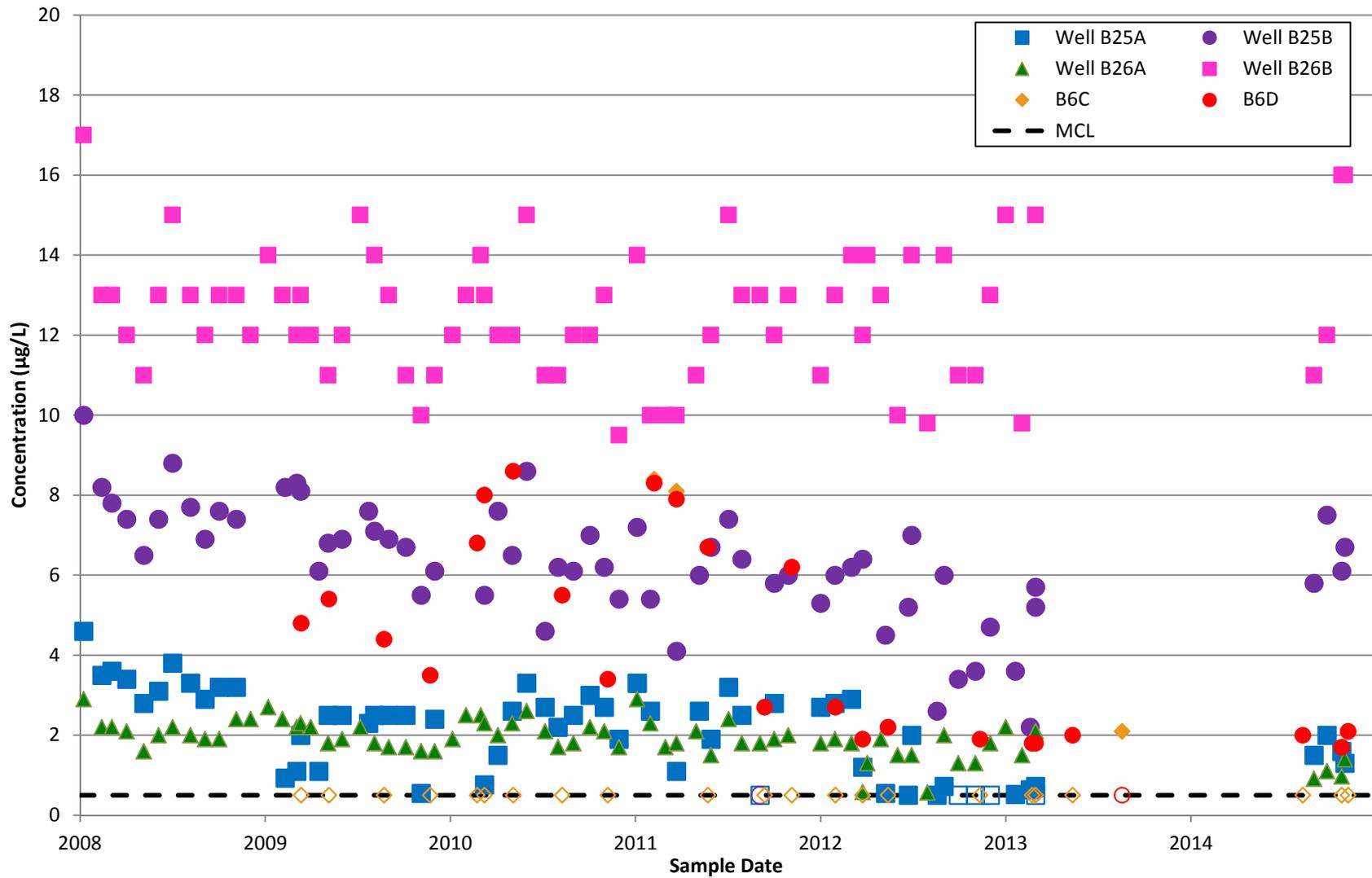
Note: Open symbols signify non-detects.



PERCHLORATE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B6 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-18**



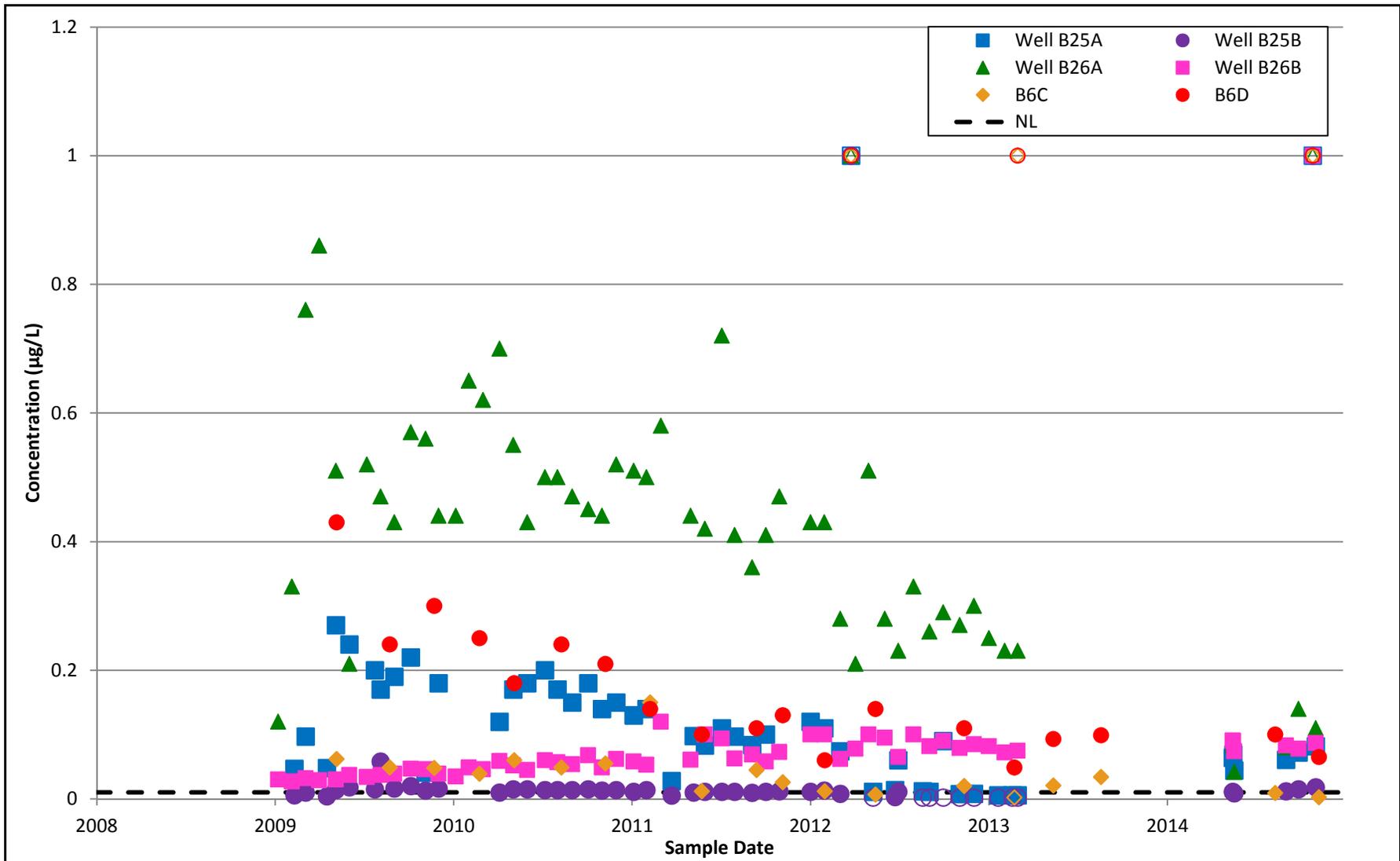
Note: Open symbols signify non-detects.



CARBON TETRACHLORIDE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B6 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-19**



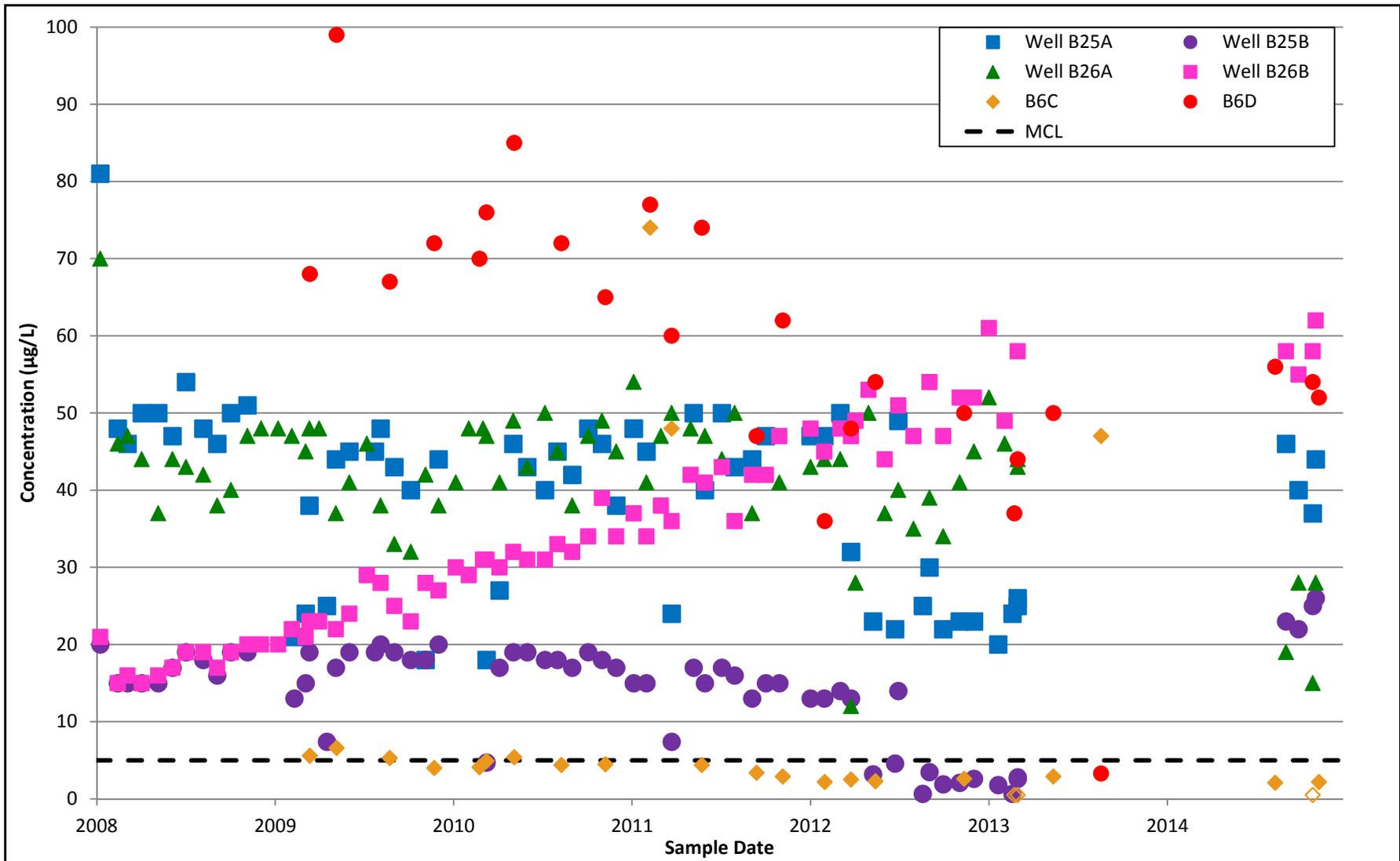
Note: Open symbols signify non-detects.



N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B6 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-20**



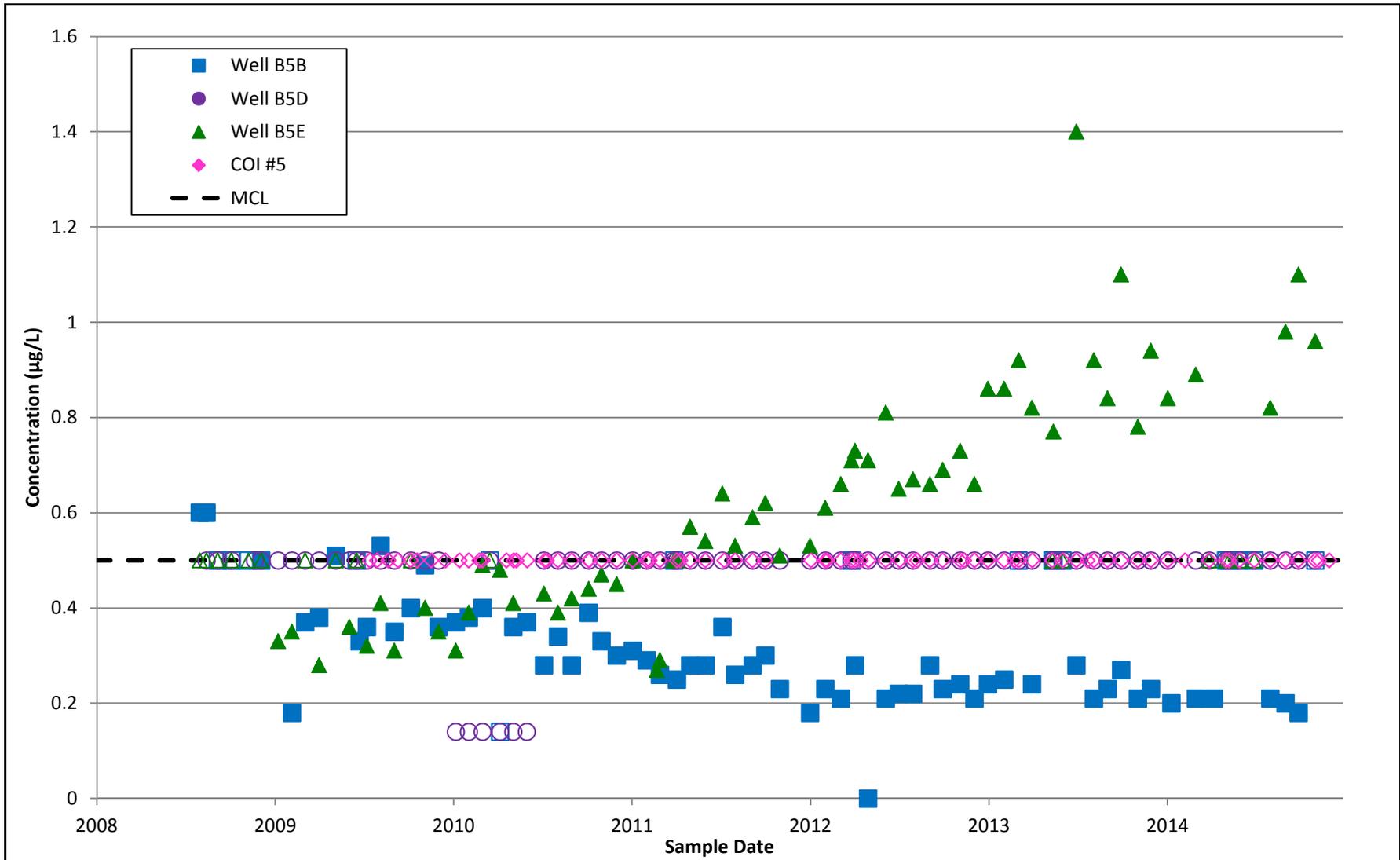
Note: Open symbols signify non-detects.



TRICHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B6 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-21**



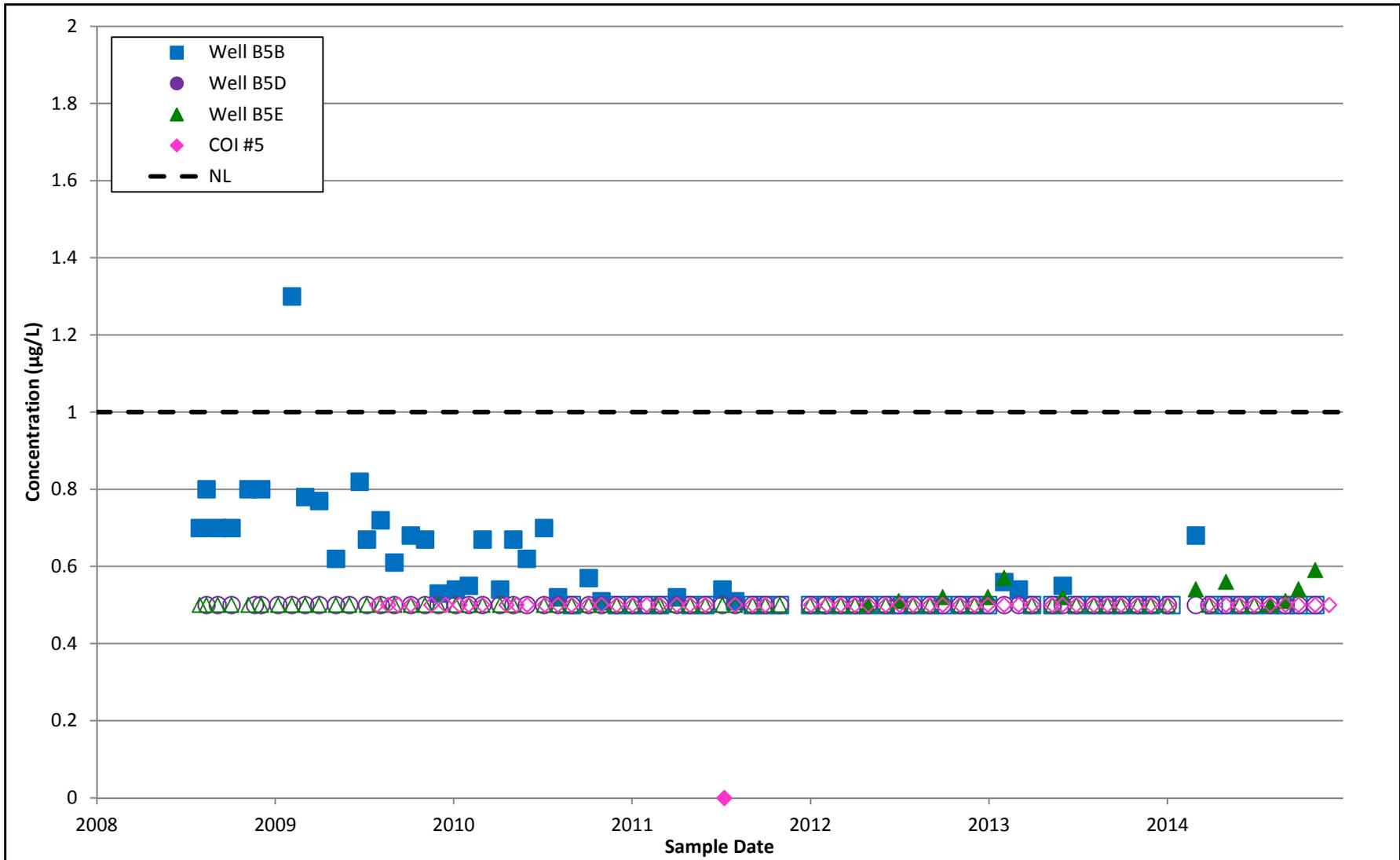
Note: Open symbols signify non-detects.



1,2-DCA CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B5 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-22**



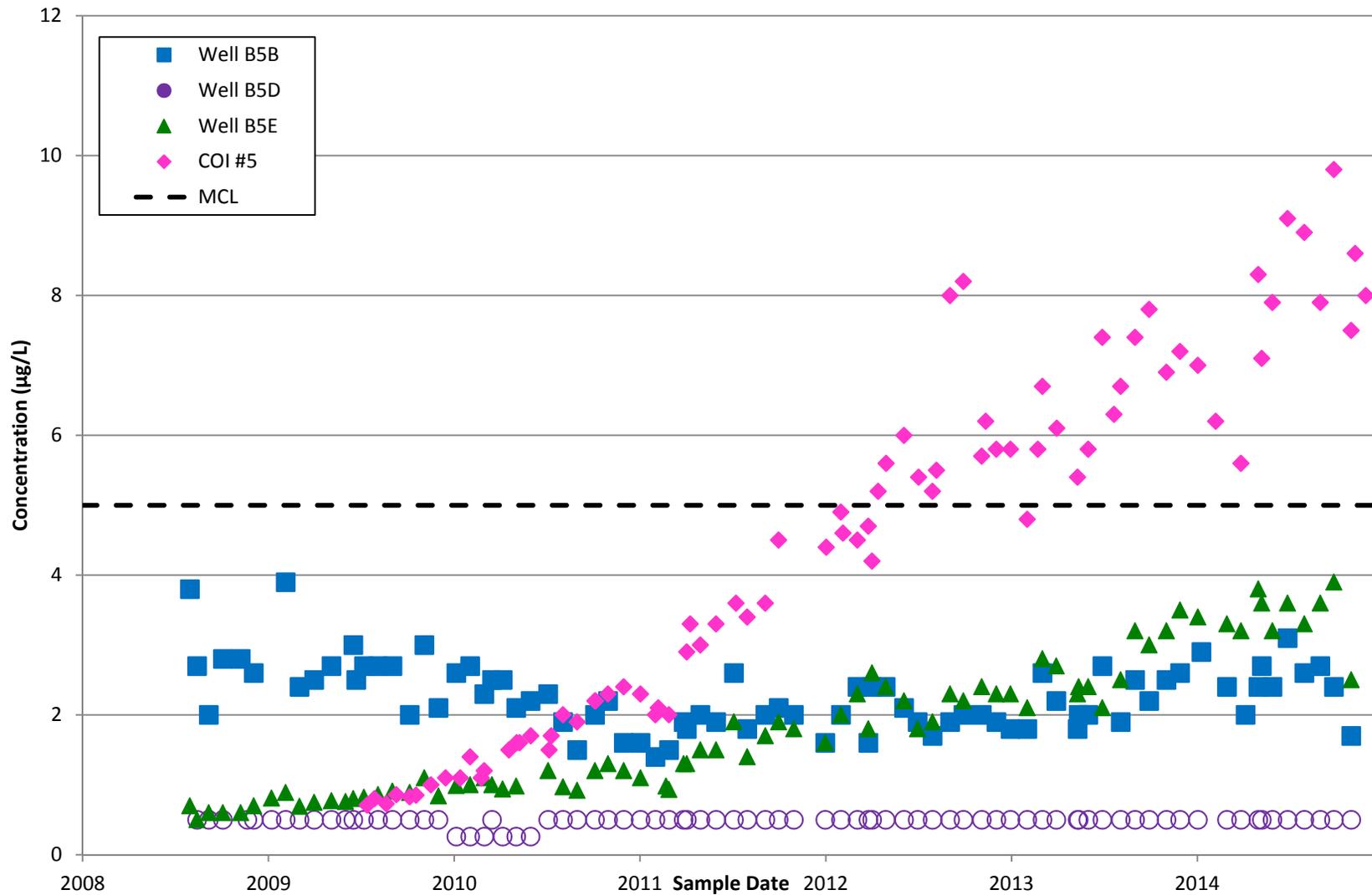
Note: Open symbols signify non-detects.



1,4-DIOXANE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B5 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-23**



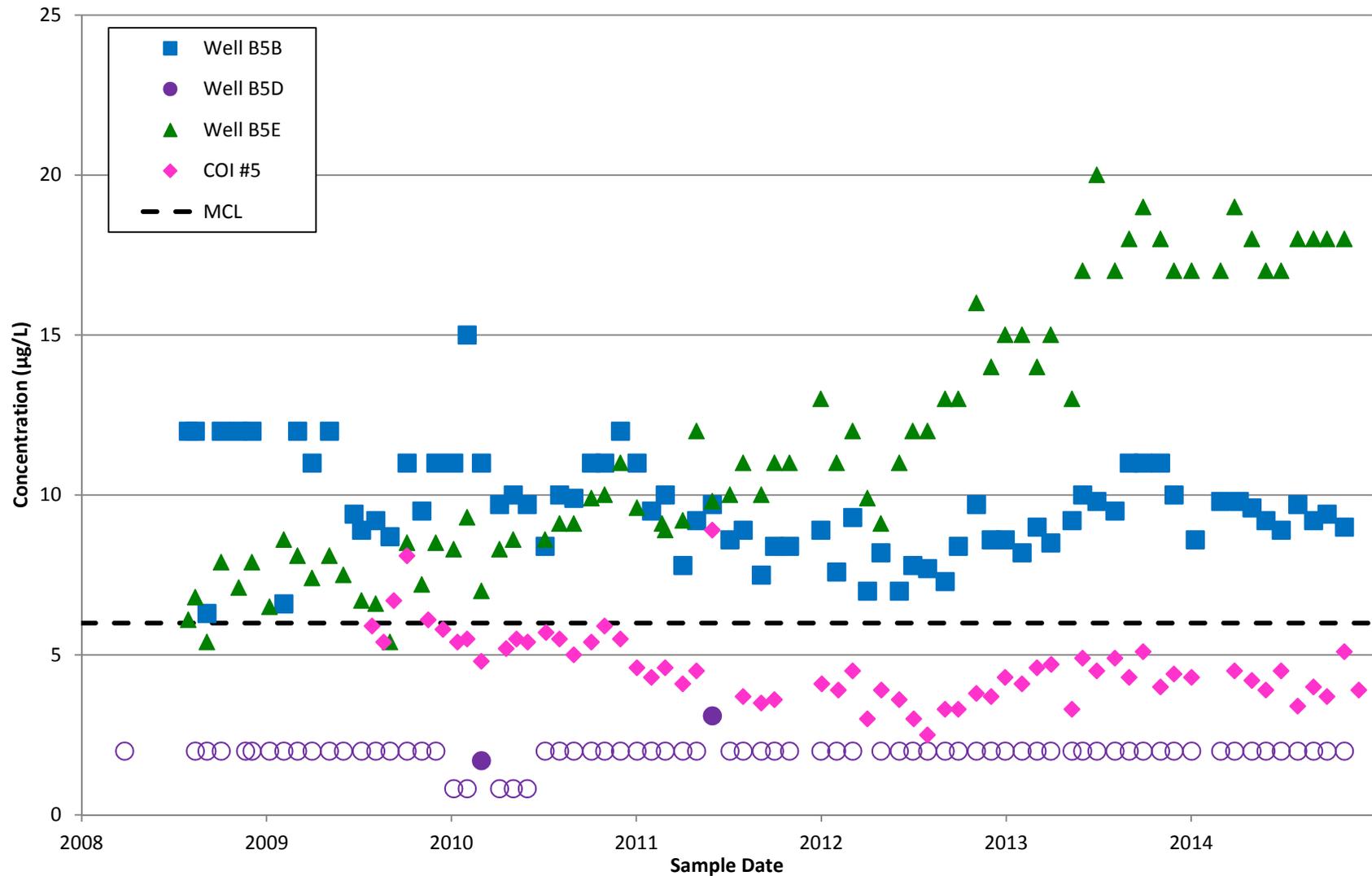
Note: Open symbols signify non-detects.



TETRACHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B5 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-24**



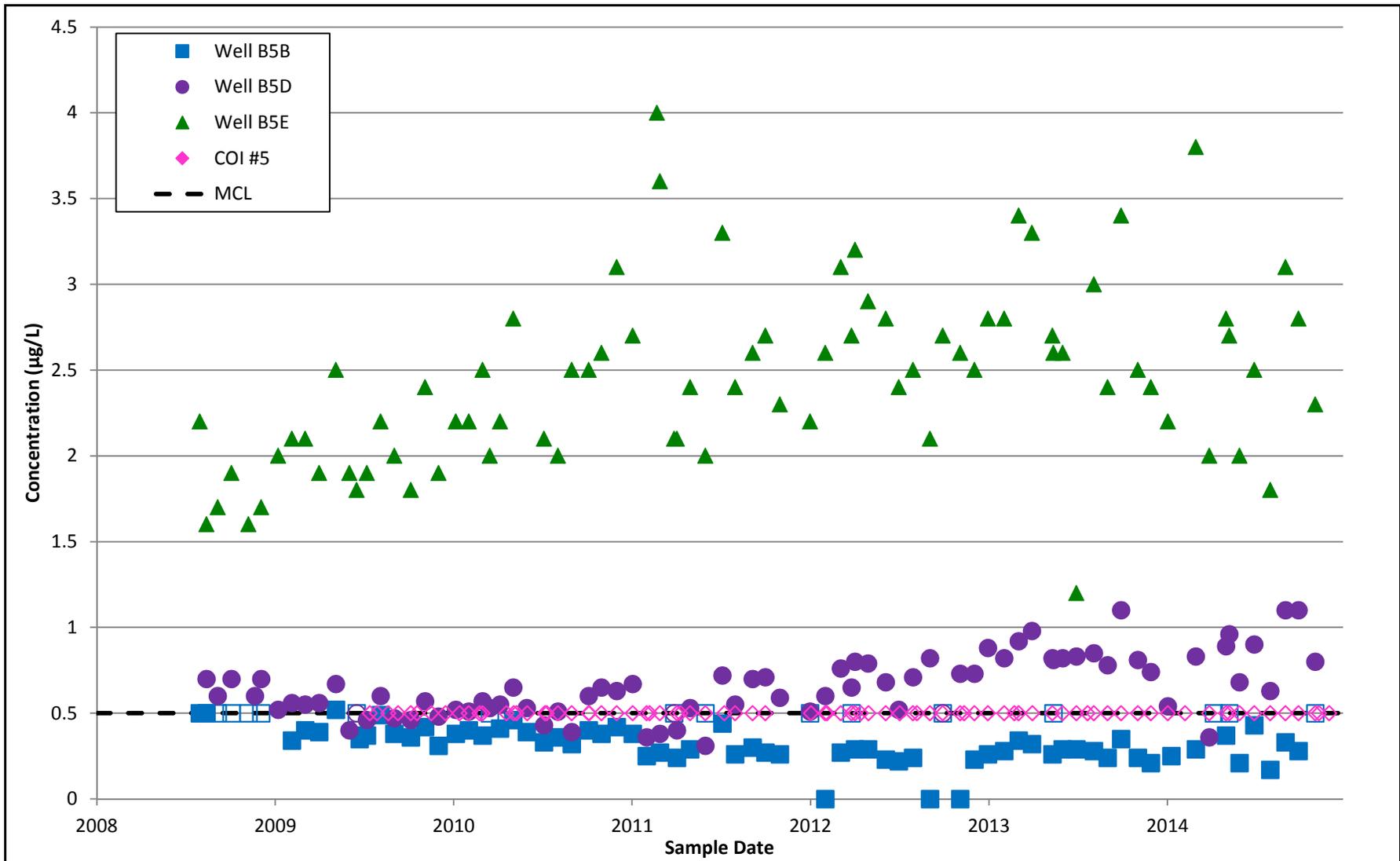
Note: Open symbols signify non-detects.



PERCHLORATE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B5 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-25**



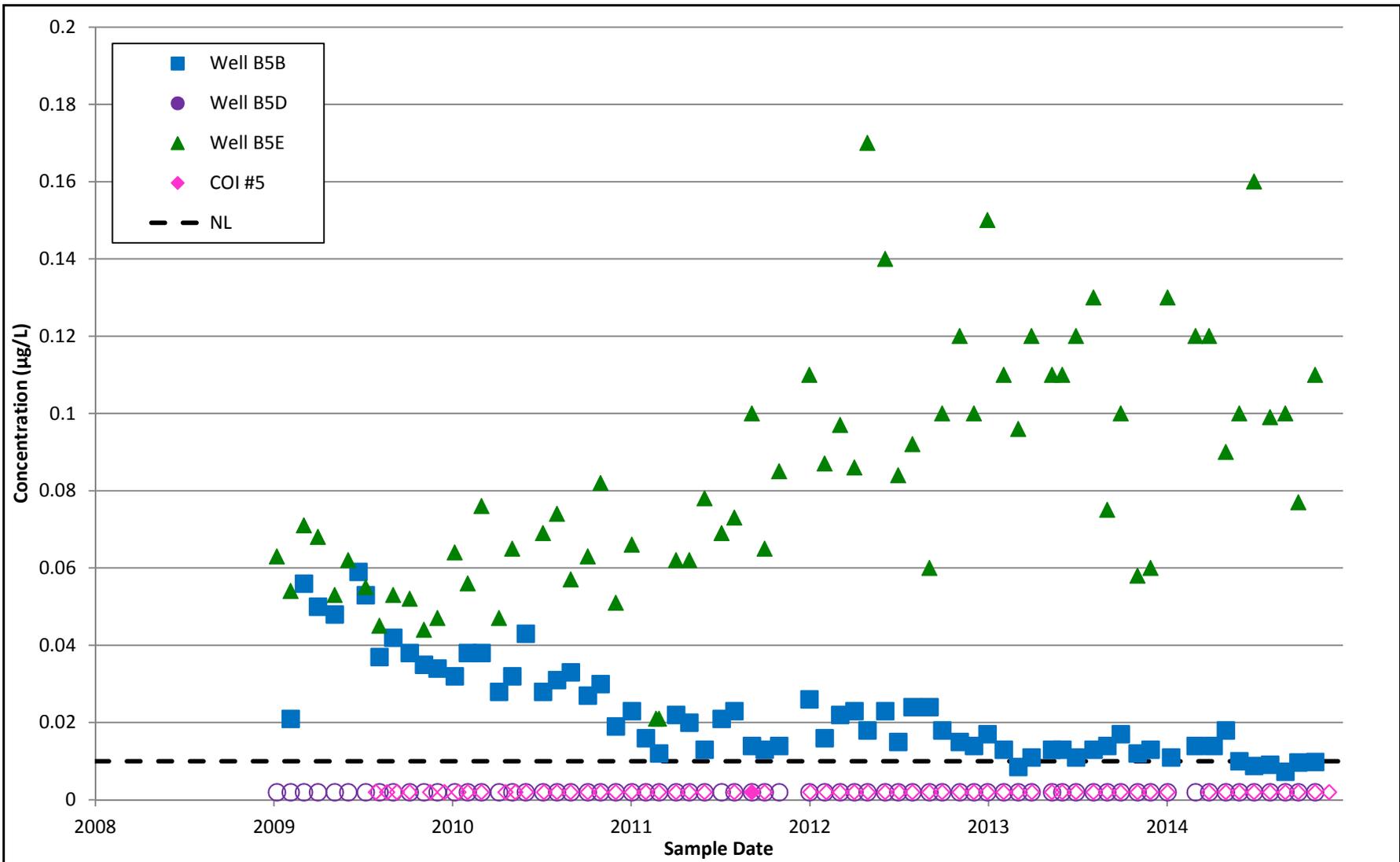
Note: Open symbols signify non-detects.



CARBON TETRACHLORIDE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B5 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-26**



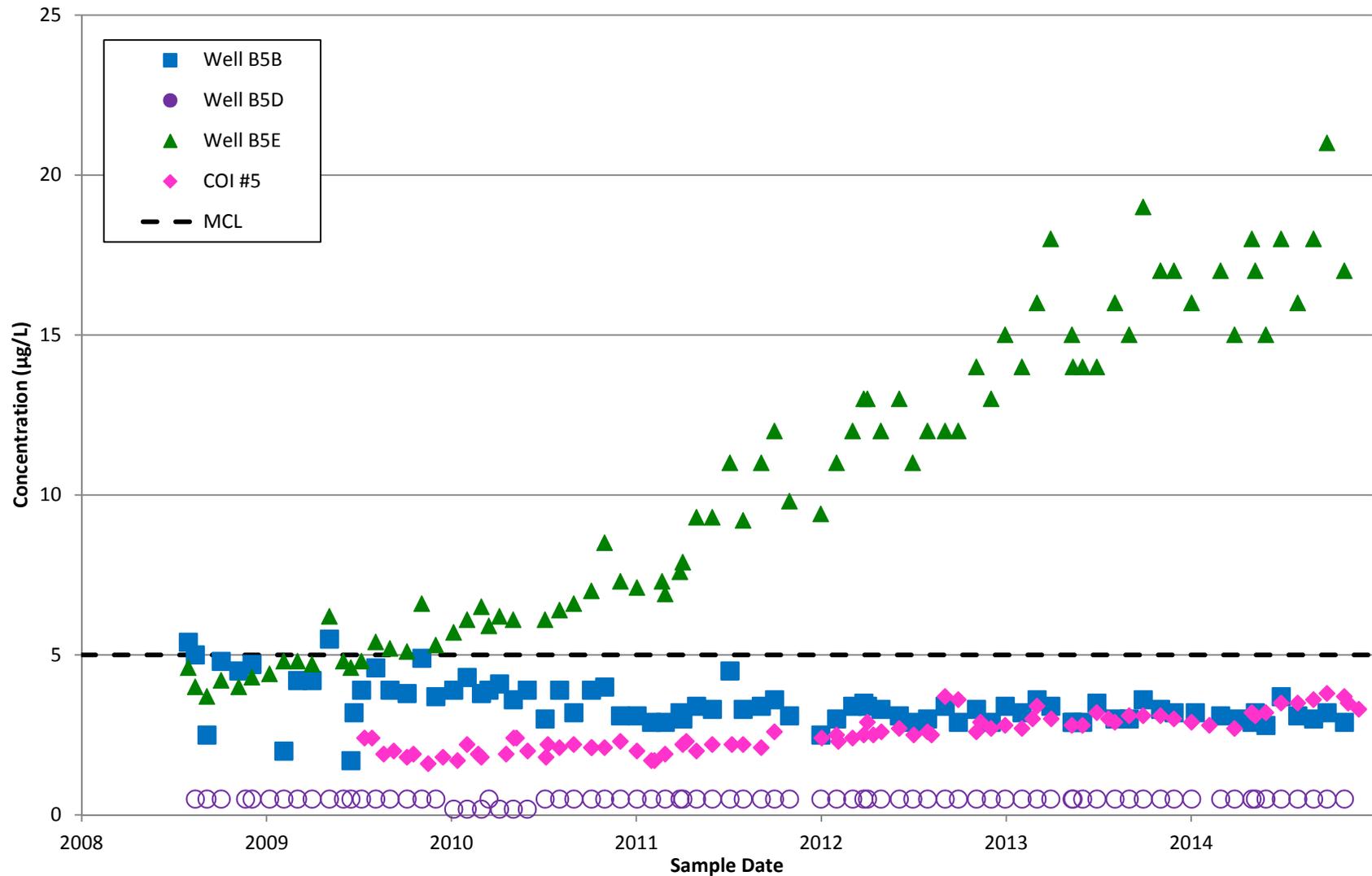
Note: Open symbols signify non-detects.



N-NITROSODIMETHYLAMINE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B5 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-27**



Note: Open symbols signify non-detects.



TRICHLOROETHENE CONCENTRATIONS, RAW WATER FOR  
 SAN GABRIEL VALLEY WATER COMPANY PLANT B5 (2008 - 2014)  
 Baldwin Park Operable Unit  
 San Gabriel Valley, California

Project No.  
 32710118

Figure  
**B-28**