ERM

Geosyntec consultants

APPENDIX C
MANN-KENDALL TREND ANALYSIS FOR PSEP WELLS (2004-2015)

LIST OF TABLES

Table C-1: Mann-Kendall Statistical Analysis Results for 1,4-Dioxane (2004-2015)

Table C-2: Mann-Kendall Statistical Analysis Results for Carbon Tetrachloride (2004-2015)

Table C-3: Mann-Kendall Statistical Analysis Results for N-Nitrosodimethylamine (2004-2015)

Table C-4: Mann-Kendall Statistical Analysis Results for Perchlorate (2004-2015)

Table C-5: Mann-Kendall Statistical Analysis Results for Tetrachloroethene (2004-2015)

Table C-6: Mann-Kendall Statistical Analysis Results for Trichloroethene (2004-2015)

LIST OF CHARTS

Charts C1-1 to C1-13 1,4-Dioxane Mann-Kendall Analysis Results, Subareas 1, 2, and 3

Charts C2-1 to C2-13 Carbon Tetrachloride Mann-Kendall Analysis Results, Subareas 1, 2, and 3

Charts C3-1 to C3-13 N-Nitrosodimethylamine Mann-Kendall Analysis Results, Subareas 1, 2, and 3

Charts C4-1 to C4-13 Perchlorate Mann-Kendall Analysis Results, Subareas 1, 2, and 3

Charts C5-1 to C5-13 Tetrachloroethene Mann-Kendall Analysis Results, Subareas 1, 2, and 3

Charts C6-1 to C6-13 Trichloroethene Mann-Kendall Analysis Results, Subareas 1, 2, and 3

APPENDIX C

MANN-KENDALL TREND EVALUATION

The following is a description of the Mann-Kendall analysis. The Mann-Kendall analysis is a rank based, non-parametric test used to detect trends in time series data. Given that the Mann-Kendall test is non-parametric, it does not require data to conform to any specific probability distribution, thus no distributional tests were performed.

The Mann-Kendall test calculates a statistic that represents the difference between the number of observations that are increasing or decreasing relative to earlier observations when arranged in a temporal order. The difference between one observation and an earlier observation is computed and assigned a value of 1 if the difference is positive, -1 if the difference is negative, and zero if there is no difference. The sum of these differences is the statistic S. If S is a sufficiently large, positive sum, the Mann-Kendall analysis indicates an increasing trend. Alternatively, if S is a sufficiently large, negative sum, then a decreasing trend is indicated.

In equation form the Mann-Kendall statistic (S) is represented by:

$$S = \sum_{k=1}^{n-1} \sum_{i=k+1}^{n} sign(x_i - x_k) \tag{1}$$

where: $x_1, x_2, \ldots x_n$ represent n data points where x_i represents the data point at time i

$\text{sign}(x_i - x_k) = 1$ if $x_i - x_k > 0$

$\text{sign}(x_i - x_k) = 0$ if $x_i - x_k = 0$

$\text{sign}(x_i - x_k) = -1$ if $x_i - x_k < 0$

The Mann-Kendall test is based on the critical ranges of the S statistic, which are calculated under stationary conditions, i.e., no trend or S = 0. If the absolute value of the calculated test statistic S (i.e., the observed S statistic calculated from the sample) is larger than the S critical point, then there is strong evidence of a real increasing or decreasing trend.

When the sample size n becomes large, exact critical values for the S statistic are not readily available. Therefore, a normal approximation to S is used in which a standardized Z-statistic is calculated and then compared to the critical values of a standard normal distribution. The Z-statistic is computed as follows:

$$Z = (|S| - 1)/SD\ (S) \tag{2}$$

The standard deviation of the observed S statistic is computed as:

$$SD(S) = \sqrt{\frac{1}{18}n(n-1)(2n+5) - \sum_{j=1}^{g} t_j(t_{j-1})(2t_j+5)} \quad (3)$$

where n is the sample size, g is the number of groups of ties in the data set (if any), and t_j is the number of ties in the jth group of ties.

Once the observed S test statistic is calculated from the data, the probability of observing a test statistic at least as extreme as the one actually observed is calculated. This probability is called the p-value and is computed from the S probability mass function (for n ≤ 10) or the standard normal probability distribution function (for n > 10). The confidence in the test statistic is then calculated as 1-p-value.

The following decision matrix was used to make conclusions based on the confidence of the S test statistic:

Mann-Kendall Statistic (S)	**Confidence in Trend**	**Concentration Trend**
S>0	>95%	Increasing
S>0	90% - 95%	Probably Increasing
S>0	<90%	No Trend
S≤0	<90% and COV≥1	No Trend
S≤0	<90% and COV<1	Stable
S<0	90% - 95%	Probably Decreasing
S<0	95%	Decreasing

Technical Notes:

1. Data sets that consisted of a large number of non-detect values, i.e., < 50% detection frequency, or data sets that consisted of < 4 observations, were not analyzed using the Mann-Kendall test.
2. For sample sizes of n ≤ 10, exact p-values from the S distribution were obtained from Table A-12b (EPA, 2009). However, only a subset of the exact p-values from the S distribution are available, i.e., for certain combinations of S and n. If an exact p-value was not available, then the p-value is reported as a range, i.e., upper and lower limit to the p-value, for example, (0.07, 0.15), based on $|S| - 1$ and $|S| + 1$. For samples sizes of n > 10, the p-values were obtained from the standard normal distribution based on the standardized Z-statistic calculated as per Equation 2.

3. The coefficient of variation (COV) is defined as the ratio of the sample standard deviation (sd) to the sample mean (m), i.e., sd/m.

Some limitations to the Mann-Kendall test include:

1. A result that shows "No Trend" does not imply the absence of a trend. It simply means that the Mann-Kendall test could not discern either an upward or downward trend for the given data set.
2. Although the Mann-Kendall test can be used for samples sizes $n \geq 4$, it is recommended that there are at least 6 data points to conduct the test. For these smaller sample sizes, the effect of one fluctuation from the overall increasing/decreasing trend in a time series results in "No Trend".
3. The Mann-Kendall test does not account for the magnitude of the data. The Mann-Kendall uses a rank-based method for the calculation of the S statistic. As such, the greater the actual numbers, the less sensitive the test is to changes in the magnitude of numbers, resulting in misleading conclusions.

References:

(1) U.S. Environmental Protection Agency, Region 9, (2011). Third Five-Year Review Report for Hassayampa Landfill Superfund Site, Maricopa County, Arizona; Appendix A – Data Review for Soil Vapor and Groundwater, June 2011. September.
(2) U.S. Environmental Protection Agency, (2009), Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance.

TABLES

TABLE C-1
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR 1,4-DIOXANE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
VCWD E MAINE	1	250	1,4-Dioxane	3/12/2008	2.8 U	3/10/2008	3 U	31	13	--	--	--	--	--	NA
VCWD W MAINE	1	250	1,4-Dioxane	3/18/2008	3 U	3/18/2008	3 U	32	12	--	--	--	--	--	NA
VCWD MORADA	1	275	1,4-Dioxane	11/29/2005	0.47 U	2/24/2004	0.5 U	2	ND	--	--	--	--	--	NA
VCWD MORADA	1	430	1,4-Dioxane	4/30/2015	0.5 U	10/12/2009	2.9 U	8	25	--	--	--	--	--	NA
VCWD MORADA	1	510	1,4-Dioxane	4/30/2015	0.5 U	10/12/2009	2.8 U	8	25	--	--	--	--	--	NA
SA1-3 (LANTE)	1	275	1,4-Dioxane	12/14/2015	1.6	10/28/2004	18.6	90	92	-2211	-7.71	0.67	0	1	Decreasing
LACO SANTA FE 1	1	290	1,4-Dioxane	4/30/2015	0.5 U	3/21/2006	3 U	11	ND	--	--	--	--	--	NA
VCWD SA1-1	1	248	1,4-Dioxane	4/22/2015	0.5 U	4/20/2010	6	40	68	-4	-0.04	0.72	0.97	0.03	Stable
VCWD SA1-2	1	258	1,4-Dioxane	12/16/2009	0.5 U	7/3/2006	3 U	36	61	-342	-4.7	0.7	0	1	Decreasing
MW 5-03	1	1	1,4-Dioxane	12/16/2015	0.5 U	4/10/2006	3 U	13	31	--	--	--	--	--	NA
MW 5-03	1	10	1,4-Dioxane	11/2/2011	5.7	6/30/2005	7.6	6	100	-9	--	0.34	0.07	0.93	Probably Decreasing
MW 5-03	1	2	1,4-Dioxane	12/16/2015	0.5 U	4/10/2006	3 U	13	23	--	--	--	--	--	NA
MW 5-03	1	3	1,4-Dioxane	12/16/2015	0.5 U	4/10/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-03	1	4	1,4-Dioxane	12/17/2015	0.5 U	10/18/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-03	1	5	1,4-Dioxane	12/17/2015	0.5 U	4/11/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-03	1	6	1,4-Dioxane	12/17/2015	0.5 U	4/11/2006	3 U	22	5	--	--	--	--	--	NA
MW 5-03	1	7	1,4-Dioxane	12/17/2015	0.5 U	4/3/2008	3 U	22	9	--	--	--	--	--	NA
MW 5-03	1	8	1,4-Dioxane	12/18/2015	0.5 U	4/30/2009	3 U	22	32	--	--	--	--	--	NA
MW 5-03	1	9	1,4-Dioxane	12/18/2015	6.5	4/3/2008	43 J	22	95	26	0.71	0.96	0.48	0.52	No Trend
MW 5-11	1	1	1,4-Dioxane	12/18/2015	0.5 U	4/14/2006	3 U	18	28	--	--	--	--	--	NA
MW 5-11	1	2	1,4-Dioxane	12/22/2015	0.5 U	4/14/2006	4.7	19	58	-73	-2.63	1.34	0.01	0.99	Decreasing
MW 5-11	1	3	1,4-Dioxane	12/21/2015	4.5	5/12/2004	19	18	89	20	0.72	1.03	0.47	0.53	No Trend
MW 5-13	1	1	1,4-Dioxane	12/21/2015	0.9	3/12/2008	5	18	39	--	--	--	--	--	NA
MW 5-13	1	2	1,4-Dioxane	4/27/2015	0.5 U	10/5/2007	3 U	17	53	-53	-2.16	0.67	0.03	0.97	Decreasing
MW 5-13	1	3	1,4-Dioxane	4/29/2014	7	12/16/2013	7.4	16	62	51	2.26	0.85	0.02	0.98	Increasing
MW 5-17	1	1	1,4-Dioxane	12/22/2015	0.5 U	3/3/2006	3 U	17	ND	--	--	--	--	--	NA
MW 5-17	1	2	1,4-Dioxane	12/23/2015	0.53	11/8/2004	13	17	29	--	--	--	--	--	NA
MW 5-17	1	3	1,4-Dioxane	12/13/2013	1.3	5/25/2004	9.5	12	92	-13	-0.83	0.82	0.41	0.59	Stable
MW 5-18	1	1	1,4-Dioxane	12/23/2015	0.5 U	4/13/2006	3 U	12	ND	--	--	--	--	--	NA
MW 5-18	1	2	1,4-Dioxane	12/28/2015	0.5 U	10/20/2006	5.9 U	18	6	--	--	--	--	--	NA
MW 5-18	1	3	1,4-Dioxane	12/28/2015	0.5 U	5/1/2009	3 U	18	ND	--	--	--	--	--	NA
WHICO MP-1	1	1	1,4-Dioxane	5/21/2015	0.5 U	10/3/2006	3 U	14	50	-28	-1.5	0.76	0.13	0.87	Stable
WHICO MP-1	1	2	1,4-Dioxane	5/21/2015	0.5 U	10/3/2006	3 U	15	40	--	--	--	--	--	NA
WHICO MP-1	1	3	1,4-Dioxane	5/21/2015	0.5 U	5/2/2006	3 U	15	20	--	--	--	--	--	NA
WHICO MP-1	1	4	1,4-Dioxane	5/21/2015	0.5 U	12/13/2004	7	15	53	-36	-1.74	1.07	0.08	0.92	Probably Decreasing
WHICO MP-1	1	5	1,4-Dioxane	5/30/2014	0.43 J	12/13/2004	17	14	79	-19	-0.99	1.65	0.32	0.68	No Trend
WHICO MP-1	1	6	1,4-Dioxane	5/30/2012	1.8	5/2/2006	3 U	7	43	--	--	--	--	--	NA
AJ MW-2R	1	274.4	1,4-Dioxane	10/9/2015	5.3	12/10/2014	8.5	8	100	-6	--	0.27	0.27	0.73	Stable
AJ MW-4	1	293	1,4-Dioxane	11/23/2010	U	4/7/2004	4.8	22	59	-56	-1.58	1.09	0.11	0.89	No Trend
AJ MW-6	1	274.6	1,4-Dioxane	10/9/2015	1	8/6/2015	2.3	8	75	7	--	0.5	--	--	No Trend
ALR MW-8	1	195	1,4-Dioxane	10/15/2015	1 U	8/30/2005	69	14	71	-26	-1.37	2.23	0.17	0.83	No Trend
ALR MW-9	1	195	1,4-Dioxane	10/15/2015	1 U	8/6/2007	3.7	9	56	-6	--	0.65	0.31	0.69	Stable
ALR MW-1R	1	258	1,4-Dioxane	10/30/2015	0.33 J	11/4/2004	17	14	86	-2	-0.05	1.4	0.96	0.04	No Trend
MW 5-15	2	1	1,4-Dioxane	4/24/2015	0.5 U	6/17/2004	11	16	94	-90	-4.03	0.55	0	1	Decreasing
MW 5-15	2	2	1,4-Dioxane	4/24/2015	0.5 U	10/10/2007	15 J	16	94	36	1.58	0.58	0.12	0.88	No Trend
MW 5-15	2	3	1,4-Dioxane	4/24/2015	0.5 U	4/7/2006	3 U	16	81	-70	-3.14	0.34	0	1	Decreasing
VCWD PADDY LN	2	300	1,4-Dioxane	2/24/2004	3.2	2/24/2004	3.2	1	ND	--	--	--	--	--	NA
VCWD PADDY LN	2	340	1,4-Dioxane	4/30/2015	1.7	12/1/2005	3.7	10	100	-10	--	0.32	--	--	Stable
VCWD PADDY LN	2	460	1,4-Dioxane	4/30/2015	1.5	8/24/2009	2.7 J	10	100	-11	--	0.24	0.19	0.81	Stable
VCWD BIG DALTON	2	250	1,4-Dioxane	2/24/2004	0.5 U	2/24/2004	0.5 U	1	ND	--	--	--	--	--	NA
VCWD BIG DALTON	2	275	1,4-Dioxane	4/30/2015	0.5 U	5/19/2006	2 U	9	44	--	--	--	--	--	NA
VCWD BIG DALTON	2	410	1,4-Dioxane	4/30/2015	0.5 U	10/14/2009	3.2 U	10	10	--	--	--	--	--	NA
CIC BALDWIN 1	2	120	1,4-Dioxane	10/28/2009	2.8 U	10/28/2009	2.8 U	4	ND	--	--	--	--	--	NA
CC E DURBIN	2	238	1,4-Dioxane	10/4/2007	2.8 U	10/4/2007	2.8 U	4	25	--	--	--	--	--	NA
MW 5-05	2	1	1,4-Dioxane	4/24/2015	7.4	4/29/2014	8	16	100	87	3.89	0.39	0	1	Increasing

TABLE C-1
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR 1,4-DIOXANE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-05	2	2	1,4-Dioxane	4/24/2015	13	5/15/2012	15	16	100	75	3.34	0.65	0	1	Increasing
MW 5-05	2	3	1,4-Dioxane	4/24/2015	7.3	5/8/2013	15	16	100	52	2.31	0.3	0.02	0.98	Increasing
MW 5-05	2	4	1,4-Dioxane	4/24/2015	0.5 U	12/16/2005	3 U	16	81	29	1.27	0.4	0.2	0.8	No Trend
MW 5-08	2	1	1,4-Dioxane	8/10/2015	0.5 U	4/28/2006	3 U	12	ND	--	--	--	--	--	NA
MW 5-08	2	2	1,4-Dioxane	4/20/2015	0.5 U	10/27/2006	3 U	16	ND	--	--	--	--	--	NA
MW 5-08	2	3	1,4-Dioxane	4/20/2015	0.5 U	10/29/2007	3 U	16	ND	--	--	--	--	--	NA
MW 5-08	2	4	1,4-Dioxane	4/20/2015	2.4	5/14/2012	5.9	16	94	13	0.54	0.48	0.59	0.41	No Trend
MW 5-24	2	1	1,4-Dioxane	11/20/2015	7.7	5/12/2014	10	26	100	213	4.68	0.36	0	1	Increasing
MW 5-24	2	2	1,4-Dioxane	11/20/2015	6.3	4/6/2009	13 J	26	96	68	1.48	0.31	0.14	0.86	No Trend
MW 5-24	2	3	1,4-Dioxane	11/20/2015	0.5 U	7/20/2004	6.6	26	77	-278	-6.12	1.03	0	1	Decreasing
MW 5-24	2	4	1,4-Dioxane	11/23/2015	0.5 U	6/19/2006	3 U	26	73	-173	-3.8	0.55	0	1	Decreasing
MW 5-24	2	5	1,4-Dioxane	11/23/2015	0.5 U	7/21/2004	6.1	26	85	-256	-5.63	0.89	0	1	Decreasing
MW 5-24	2	6	1,4-Dioxane	11/23/2015	1.2	12/10/2004	15	25	84	-77	-1.78	1.09	0.07	0.93	Probably Decreasing
MW 5-24	2	7	1,4-Dioxane	11/23/2015	3.2	3/3/2005	28	25	100	-176	-4.09	0.79	0	1	Decreasing
MW 5-25	2	1	1,4-Dioxane	11/19/2015	0.5 U	3/6/2008	3 U	26	ND	--	--	--	--	--	NA
MW 5-25	2	2	1,4-Dioxane	11/19/2015	0.5 U	9/6/2006	3 U	26	4	--	--	--	--	--	NA
MW 5-25	2	3	1,4-Dioxane	11/19/2015	0.5 U	9/6/2006	3 U	26	ND	--	--	--	--	--	NA
MW 5-25	2	4	1,4-Dioxane	11/19/2015	0.5 U	12/7/2006	3.1 U	26	4	--	--	--	--	--	NA
MW 5-25	2	5	1,4-Dioxane	11/19/2015	0.5 U	3/7/2008	3 U	26	12	--	--	--	--	--	NA
MW 5-25	2	6	1,4-Dioxane	5/8/2015	0.5 U	3/7/2008	3 U	15	27	--	--	--	--	--	NA
MW 5-25	2	7	1,4-Dioxane	5/8/2015	0.5 U	3/7/2006	4	15	60	-8	-0.35	0.83	0.72	0.28	Stable
EPA MW 5-01	2	1	1,4-Dioxane	3/24/2008	2.9 U	4/3/2006	3 U	9	ND	--	--	--	--	--	NA
EPA MW 5-01	2	10	1,4-Dioxane	5/5/2015	0.5 U	4/23/2009	3 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	11	1,4-Dioxane	5/5/2015	0.5 U	4/6/2006	4.6	15	53	-28	-1.39	0.93	0.17	0.83	Stable
EPA MW 5-01	2	12	1,4-Dioxane	5/5/2015	0.5 U	5/5/2015	0.5 U	2	ND	--	--	--	--	--	NA
EPA MW 5-01	2	13	1,4-Dioxane	5/9/2014	0.5 U	4/6/2006	3 U	14	29	--	--	--	--	--	NA
EPA MW 5-01	2	2	1,4-Dioxane	3/24/2008	2.9 U	4/3/2006	3 U	9	ND	--	--	--	--	--	NA
EPA MW 5-01	2	3	1,4-Dioxane	3/25/2008	2.8 U	4/3/2006	3 U	8	ND	--	--	--	--	--	NA
EPA MW 5-01	2	4	1,4-Dioxane	3/25/2008	0.44 J	4/4/2006	3 U	9	11	--	--	--	--	--	NA
EPA MW 5-01	2	5	1,4-Dioxane	3/26/2008	2.8 U	4/4/2006	3 U	9	ND	--	--	--	--	--	NA
EPA MW 5-01	2	6	1,4-Dioxane	3/26/2008	2.8 U	4/4/2006	3 U	9	ND	--	--	--	--	--	NA
EPA MW 5-01	2	7	1,4-Dioxane	3/26/2008	3 U	3/26/2008	3 U	9	ND	--	--	--	--	--	NA
EPA MW 5-01	2	8	1,4-Dioxane	3/27/2008	3 U	3/27/2008	3 U	9	ND	--	--	--	--	--	NA
EPA MW 5-01	2	9	1,4-Dioxane	5/5/2015	0.5 U	3/27/2008	3.1 U	15	7	--	--	--	--	--	NA
LACO KEY	2	75	1,4-Dioxane	5/30/2012	26	5/30/2012	26	12	100	35	2.34	0.5	0.02	0.98	Increasing
SWS 139W2	3	167	1,4-Dioxane	--	--	--	--	0	ND	--	--	--	--	--	NA
SWS 139W2	3	285	1,4-Dioxane	--	--	--	--	0	ND	--	--	--	--	--	NA
SWS 139W2	3	370	1,4-Dioxane	8/30/2007	2.9 U	8/30/2007	2.9 U	2	ND	--	--	--	--	--	NA
CDWC 3	3	197	1,4-Dioxane	10/7/2009	0.62 J	10/2/2007	2.9 U	5	20	--	--	--	--	--	NA
COI 5	3	370	1,4-Dioxane	12/22/2015	0.5 U	7/13/2006	3 U	75	1	--	--	--	--	--	NA
SWS 140W5	3	600	1,4-Dioxane	12/18/2007	2.9 U	12/21/2005	3 U	4	ND	--	--	--	--	--	NA
SWS 139W6	3	750	1,4-Dioxane	--	--	--	--	0	ND	--	--	--	--	--	NA
SGVWC B25A	3	380	1,4-Dioxane	12/1/2015	1.8	11/5/2014	5.2	90	96	1375	4.82	0.36	0	1	Increasing
SGVWC B25B	3	850	1,4-Dioxane	12/1/2015	0.93	7/3/2006	3 U	79	61	846	3.62	0.66	0	1	Increasing
SGVWC B26A	3	400	1,4-Dioxane	12/1/2015	1.2	12/3/2008	3	97	91	-980	-3.06	0.32	0	1	Decreasing
SGVWC B26B	3	850	1,4-Dioxane	12/1/2015	2.3	9/2/2015	3.3	115	83	4307	10.44	0.58	0	1	Increasing
SGVWC B5E	3	500	1,4-Dioxane	12/2/2015	0.56	6/4/2007	2.9 U	83	25	--	--	--	--	--	NA
LPVCWD 5	3	590	1,4-Dioxane	12/8/2015	0.5 U	2/2/2009	1.4	53	68	-693	-5.4	0.47	0	1	Decreasing
SGVWC B5B	3	172	1,4-Dioxane	12/2/2015	0.5 U	7/2/2008	2.9 U	80	50	-1441	-6.37	0.57	0	1	Decreasing
SGVWC B6D	3	760	1,4-Dioxane	11/12/2015	2.2	4/19/2006	3 U	34	88	161	2.38	0.4	0.02	0.98	Increasing
MW 5-19	3	1	1,4-Dioxane	4/14/2008	3.3 U	4/14/2008	3.3 U	9	11	--	--	--	--	--	NA
MW 5-19	3	2	1,4-Dioxane	4/14/2008	3.3 U	4/14/2008	3.3 U	9	11	--	--	--	--	--	NA
MW 5-19	3	3	1,4-Dioxane	4/14/2008	3 U	4/14/2008	3 U	9	ND	--	--	--	--	--	NA
MW 5-19	3	4	1,4-Dioxane	12/4/2015	0.48 J	10/26/2007	3 U	21	48	--	--	--	--	--	NA
MW 5-19	3	5	1,4-Dioxane	12/4/2015	0.27 J	4/25/2006	3 U	21	71	-113	-3.39	0.66	0	1	Decreasing

TABLE C-1
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR 1,4-DIOXANE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-19	3	6	1,4-Dioxane	4/29/2015	0.29 J	10/26/2007	3 U	15	27	--	--	--	--	--	NA
MW 5-20	3	1	1,4-Dioxane	4/21/2008	2.9 U	4/26/2006	3 U	9	ND	--	--	--	--	--	NA
MW 5-20	3	2	1,4-Dioxane	4/28/2015	0.5 U	4/26/2006	3 U	15	7	--	--	--	--	--	NA
MW 5-20	3	3	1,4-Dioxane	4/28/2015	4.4	5/2/2014	5.1	15	80	88	4.31	0.57	0	1	Increasing
MW 5-20	3	4	1,4-Dioxane	4/28/2015	2.8	5/18/2012	5.1	15	87	26	1.25	0.41	0.21	0.79	No Trend
MW 5-20	3	5	1,4-Dioxane	4/29/2015	0.91	5/21/2009	3 U	15	40	--	--	--	--	--	NA
MW 5-20	3	6	1,4-Dioxane	5/21/2009	2.9 U	4/17/2007	3 U	10	10	--	--	--	--	--	NA
MW 5-20	3	7	1,4-Dioxane	4/23/2008	3 U	4/23/2008	3 U	9	ND	--	--	--	--	--	NA
MW 5-22	3	1	1,4-Dioxane	12/16/2015	0.5 U	10/5/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-22	3	2	1,4-Dioxane	12/16/2015	0.5 U	10/5/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-22	3	3	1,4-Dioxane	12/16/2015	3	9/24/2014	3.4	13	54	42	2.52	0.9	0.01	0.99	Increasing
MW 5-22	3	4	1,4-Dioxane	12/15/2015	0.5 U	4/18/2008	3 U	13	ND	--	--	--	--	--	NA
MW 5-22	3	5	1,4-Dioxane	12/15/2015	0.5 U	4/18/2008	3 U	13	ND	--	--	--	--	--	NA
MW 5-22	3	6	1,4-Dioxane	12/15/2015	0.68	10/6/2006	3 U	13	38	--	--	--	--	--	NA
MW 5-23	3	1	1,4-Dioxane	4/10/2008	3 U	4/10/2008	3 U	9	ND	--	--	--	--	--	NA
MW 5-23	3	2	1,4-Dioxane	5/8/2015	0.5 U	4/10/2008	3 U	16	6	--	--	--	--	--	NA
MW 5-23	3	3	1,4-Dioxane	5/8/2015	4.8	5/8/2015	4.8	16	81	97	4.33	0.64	0	1	Increasing
MW 5-23	3	4	1,4-Dioxane	5/8/2015	1.8	5/18/2009	3.1 U	16	81	41	1.81	0.25	0.07	0.93	Probably Increasing
MW 5-23	3	5	1,4-Dioxane	5/8/2015	0.5 U	10/10/2006	3.2 U	16	44	--	--	--	--	--	NA
MW 5-23	3	6	1,4-Dioxane	4/11/2008	3 U	4/11/2008	3 U	9	22	--	--	--	--	--	NA
MW 5-26	3	1	1,4-Dioxane	3/13/2008	2.8 U	9/12/2006	3 U	9	ND	--	--	--	--	--	NA
MW 5-26	3	2	1,4-Dioxane	3/13/2008	2.9 U	9/12/2006	3 U	9	ND	--	--	--	--	--	NA
MW 5-26	3	3	1,4-Dioxane	3/13/2008	2.9 U	9/12/2006	3 U	9	ND	--	--	--	--	--	NA
MW 5-26	3	4	1,4-Dioxane	3/14/2008	2.8 U	9/13/2006	3 U	9	ND	--	--	--	--	--	NA
MW 5-26	3	5	1,4-Dioxane	3/14/2008	2.9 U	9/13/2006	3 U	9	ND	--	--	--	--	--	NA
MW 5-26	3	6	1,4-Dioxane	3/14/2008	2.9 U	9/13/2006	3 U	9	ND	--	--	--	--	--	NA
MW 5-26	3	7	1,4-Dioxane	3/14/2008	3 U	12/14/2006	3.2 U	9	ND	--	--	--	--	--	NA
MW 5-27	3	1	1,4-Dioxane	3/18/2008	2.8 U	9/8/2006	3 U	12	ND	--	--	--	--	--	NA
MW 5-27	3	2	1,4-Dioxane	3/18/2008	2.8 U	12/8/2006	3.3 U	13	ND	--	--	--	--	--	NA
MW 5-27	3	3	1,4-Dioxane	3/18/2008	2.8 U	9/8/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-27	3	4	1,4-Dioxane	3/19/2008	2.9 U	9/11/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-27	3	5	1,4-Dioxane	3/19/2008	2.8 U	12/11/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-27	3	6	1,4-Dioxane	3/19/2008	2.9 U	12/11/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-27	3	7	1,4-Dioxane	3/19/2008	2.9 U	12/11/2006	3 U	13	ND	--	--	--	--	--	NA
MW 5-28D	3	1200	1,4-Dioxane	11/23/2015	0.5 U	9/11/2006	3 U	50	ND	--	--	--	--	--	NA
MW 5-28I	3	1045	1,4-Dioxane	11/23/2015	0.5 U	9/11/2006	3 U	52	ND	--	--	--	--	--	NA
MW 5-28S	3	790	1,4-Dioxane	11/23/2015	0.5 U	9/12/2006	3 U	52	ND	--	--	--	--	--	NA

Notes:
COV - coefficient of variation calculated as the ratio of sample standard deviation to the sample mean.
Confidence in Trend is calculated as 1 - Probability.
Mann-Kendall (S) = Mann-Kendall test statistic.
N = sample size.
NA = not analyzed due to < 50% detection frequency.
p-value = the probability of observing a Mann-Kendall test statistic as extreme as the one actually observed.
-- = not calculated due to < 50% detection frequency.

TABLE C-2
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR CARBON TETRACHLORIDE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
VCWD E MAINE	1	250	Carbon Tetrachloride	4/29/2015	0.5 U	4/29/2015	0.5 U	55	ND	--	--	--	--	--	NA
VCWD W MAINE	1	250	Carbon Tetrachloride	4/29/2015	0.5 U	4/29/2015	0.5 U	55	ND	--	--	--	--	--	NA
VCWD MORADA	1	275	Carbon Tetrachloride	11/29/2005	0.5 U	11/29/2005	0.5 U	2	ND	--	--	--	--	--	NA
VCWD MORADA	1	430	Carbon Tetrachloride	4/30/2015	0.5 U	4/30/2015	0.5 U	9	ND	--	--	--	--	--	NA
VCWD MORADA	1	510	Carbon Tetrachloride	4/30/2015	0.5 U	4/30/2015	0.5 U	9	ND	--	--	--	--	--	NA
SA1-3 (LANTE)	1	275	Carbon Tetrachloride	12/14/2015	0.5 U	10/2/2007	4.5	84	63	-1934	-7.65	0.8	0	1	Decreasing
LACO SANTA FE 1	1	290	Carbon Tetrachloride	4/30/2015	0.5 U	4/30/2015	0.5 U	11	ND	--	--	--	--	--	NA
VCWD SA1-1	1	248	Carbon Tetrachloride	4/22/2015	0.5 U	4/22/2015	0.5 U	40	ND	--	--	--	--	--	NA
VCWD SA1-2	1	258	Carbon Tetrachloride	12/16/2009	0.5 U	12/16/2009	0.5 U	36	3	--	--	--	--	--	NA
MW 5-03	1	1	Carbon Tetrachloride	12/16/2015	0.5 U	12/16/2015	0.5 U	20	ND	--	--	--	--	--	NA
MW 5-03	1	10	Carbon Tetrachloride	11/2/2011	0.5 U	6/30/2005	1.6	6	33	--	--	--	--	--	NA
MW 5-03	1	2	Carbon Tetrachloride	12/16/2015	0.5 U	12/16/2015	0.5 U	20	5	--	--	--	--	--	NA
MW 5-03	1	3	Carbon Tetrachloride	12/16/2015	0.5 U	10/17/2006	0.72	20	15	--	--	--	--	--	NA
MW 5-03	1	4	Carbon Tetrachloride	12/17/2015	0.5 U	12/17/2015	0.5 U	20	ND	--	--	--	--	--	NA
MW 5-03	1	5	Carbon Tetrachloride	12/17/2015	0.5 U	9/26/2007	2.2	26	4	--	--	--	--	--	NA
MW 5-03	1	6	Carbon Tetrachloride	12/17/2015	0.5 U	12/17/2015	0.5 U	26	8	--	--	--	--	--	NA
MW 5-03	1	7	Carbon Tetrachloride	12/17/2015	0.5 U	4/11/2007	3.7	27	4	--	--	--	--	--	NA
MW 5-03	1	8	Carbon Tetrachloride	12/18/2015	0.5 U	4/12/2006	3.6	28	4	--	--	--	--	--	NA
MW 5-03	1	9	Carbon Tetrachloride	12/18/2015	0.5 U	4/12/2006	0.93	26	12	--	--	--	--	--	NA
MW 5-11	1	1	Carbon Tetrachloride	12/18/2015	0.5 U	3/19/2007	3.2	22	9	--	--	--	--	--	NA
MW 5-11	1	2	Carbon Tetrachloride	12/22/2015	0.5 U	1/3/2006	1.4	23	26	--	--	--	--	--	NA
MW 5-11	1	3	Carbon Tetrachloride	12/21/2015	0.5 U	3/19/2007	1.8	21	43	--	--	--	--	--	NA
MW 5-13	1	1	Carbon Tetrachloride	12/21/2015	0.5 U	12/21/2015	0.5 U	19	11	--	--	--	--	--	NA
MW 5-13	1	2	Carbon Tetrachloride	4/27/2015	0.5 U	6/25/2004	1.2	18	22	--	--	--	--	--	NA
MW 5-13	1	3	Carbon Tetrachloride	4/29/2014	0.5 U	7/5/2005	4.1	16	56	-45	-2.08	1.04	0.04	0.96	Decreasing
MW 5-17	1	1	Carbon Tetrachloride	12/22/2015	0.5 U	12/22/2015	0.5 U	19	11	--	--	--	--	--	NA
MW 5-17	1	2	Carbon Tetrachloride	12/23/2015	0.5 U	5/25/2004	4	19	26	--	--	--	--	--	NA
MW 5-17	1	3	Carbon Tetrachloride	12/13/2013	0.5 U	3/21/2008	1.1	12	33	--	--	--	--	--	NA
MW 5-18	1	1	Carbon Tetrachloride	12/23/2015	0.5 U	10/11/2007	3.3	20	5	--	--	--	--	--	NA
MW 5-18	1	2	Carbon Tetrachloride	12/28/2015	0.5 U	12/28/2015	0.5 U	21	5	--	--	--	--	--	NA
MW 5-18	1	3	Carbon Tetrachloride	12/28/2015	0.5 U	12/28/2015	0.5 U	21	ND	--	--	--	--	--	NA
WHICO MP-1	1	1	Carbon Tetrachloride	5/21/2015	0.5 U	5/21/2015	0.5 U	15	ND	--	--	--	--	--	NA
WHICO MP-1	1	2	Carbon Tetrachloride	5/21/2015	0.5 U	5/21/2015	0.5 U	15	13	--	--	--	--	--	NA
WHICO MP-1	1	3	Carbon Tetrachloride	5/21/2015	0.5 U	5/2/2006	2.5 U	15	ND	--	--	--	--	--	NA
WHICO MP-1	1	4	Carbon Tetrachloride	5/21/2015	0.5 U	5/8/2009	5 U	15	13	--	--	--	--	--	NA
WHICO MP-1	1	5	Carbon Tetrachloride	5/30/2014	0.5 U	5/2/2006	5 U	14	57	-15	-0.78	1.03	0.44	0.56	No Trend
WHICO MP-1	1	6	Carbon Tetrachloride	5/30/2012	0.5 U	5/2/2006	1.1	7	71	-8	--	0.51	--	--	Stable
AJ MW-2R	1	274.4	Carbon Tetrachloride	10/9/2015	0.5 U	2/26/2014	0.74	8	25	--	--	--	--	--	NA
AJ MW-4	1	293	Carbon Tetrachloride	11/23/2010	0.42 J	7/6/2004	120 U	22	86	-70	-1.95	1.54	0.05	0.95	Probably Decreasing
AJ MW-6	1	274.6	Carbon Tetrachloride	10/9/2015	0.5 U	5/29/2014	0.55	8	38	--	--	--	--	--	NA
ALR MW-8	1	195	Carbon Tetrachloride	10/15/2015	0.5 U	8/27/2008	5 U	14	ND	--	--	--	--	--	NA
ALR MW-9	1	195	Carbon Tetrachloride	10/15/2015	0.5 U	8/27/2008	5 U	9	22	--	--	--	--	--	NA
ALR MW-1R	1	258	Carbon Tetrachloride	10/30/2015	0.5 U	8/27/2008	5 U	15	7	--	--	--	--	--	NA
MW 5-15	2	1	Carbon Tetrachloride	8/6/2015	0.51	6/17/2004	14	20	100	-131	-4.22	0.75	0	1	Decreasing
MW 5-15	2	2	Carbon Tetrachloride	8/6/2015	0.5 U	10/30/2006	4.8	20	55	-89	-3.01	1.12	0	1	Decreasing
MW 5-15	2	3	Carbon Tetrachloride	8/6/2015	0.5 U	8/6/2015	0.5 U	20	15	--	--	--	--	--	NA
VCWD PADDY LN	2	300	Carbon Tetrachloride	2/24/2004	2.4	2/24/2004	2.4	1	ND	--	--	--	--	--	NA
VCWD PADDY LN	2	340	Carbon Tetrachloride	4/30/2015	0.5 U	5/20/2010	2	13	85	-23	-1.34	0.62	0.18	0.82	Stable
VCWD PADDY LN	2	460	Carbon Tetrachloride	4/30/2015	0.5 U	9/5/2007	1.6	12	83	-27	-1.79	0.51	0.07	0.93	Probably Decreasing
VCWD BIG DALTON	2	250	Carbon Tetrachloride	2/24/2004	0.5 U	2/24/2004	0.5 U	1	ND	--	--	--	--	--	NA
VCWD BIG DALTON	2	275	Carbon Tetrachloride	9/2/2015	0.5 U	9/2/2015	0.5 U	12	8	--	--	--	--	--	NA
VCWD BIG DALTON	2	410	Carbon Tetrachloride	4/30/2015	0.5 U	4/30/2015	0.5 U	11	ND	--	--	--	--	--	NA
CIC BALDWIN 1	2	120	Carbon Tetrachloride	5/9/2014	0.5 U	5/9/2014	0.5 U	7	ND	--	--	--	--	--	NA
CC E DURBIN	2	238	Carbon Tetrachloride	10/1/2008	0.5 U	10/1/2008	0.5 U	5	ND	--	--	--	--	--	NA
MW 5-05	2	1	Carbon Tetrachloride	8/5/2015	6.6	12/12/2004	13	22	95	10	0.25	0.47	0.8	0.2	No Trend
MW 5-05	2	2	Carbon Tetrachloride	8/5/2015	2.9	4/24/2015	3.8	22	95	73	2.03	0.53	0.04	0.96	Increasing
MW 5-05	2	3	Carbon Tetrachloride	8/5/2015	1.4	10/12/2007	17	22	95	-32	-0.88	1.48	0.38	0.62	No Trend
MW 5-05	2	4	Carbon Tetrachloride	8/5/2015	0.5 U	8/5/2015	0.5 U	22	9	--	--	--	--	--	NA

TABLE C-2
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR CARBON TETRACHLORIDE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-08	2	1	Carbon Tetrachloride	8/10/2015	0.5 U	8/10/2015	0.5 U	20	25	--	--	--	--	--	NA
MW 5-08	2	2	Carbon Tetrachloride	8/10/2015	0.94	4/7/2008	2.4	19	100	-58	-2	0.43	0.05	0.95	Decreasing
MW 5-08	2	3	Carbon Tetrachloride	8/10/2015	0.79	6/21/2004	6.8	19	95	-117	-4.06	0.8	0	1	Decreasing
MW 5-08	2	4	Carbon Tetrachloride	8/10/2015	0.5 U	5/11/2011	1	19	47	--	--	--	--	--	NA
MW 5-24	2	1	Carbon Tetrachloride	11/20/2015	0.91	12/9/2004	1.1	28	75	-59	-1.16	0.47	0.25	0.75	Stable
MW 5-24	2	2	Carbon Tetrachloride	11/20/2015	0.88	7/20/2004	4.2	28	75	-219	-4.34	1.01	0	1	Decreasing
MW 5-24	2	3	Carbon Tetrachloride	11/20/2015	0.63	12/9/2004	1.1	28	36	--	--	--	--	--	NA
MW 5-24	2	4	Carbon Tetrachloride	11/23/2015	0.59	3/1/2005	2.1	28	89	-176	-3.47	0.53	0	1	Decreasing
MW 5-24	2	5	Carbon Tetrachloride	11/23/2015	0.68	10/21/2008	5 U	28	86	-276	-5.44	0.66	0	1	Decreasing
MW 5-24	2	6	Carbon Tetrachloride	11/23/2015	0.55	10/27/2010	4.9	28	96	-70	-1.36	0.46	0.17	0.83	Stable
MW 5-24	2	7	Carbon Tetrachloride	11/23/2015	0.5 U	6/20/2006	2	28	46	--	--	--	--	--	NA
MW 5-25	2	1	Carbon Tetrachloride	11/19/2015	1.5	3/6/2006	7.8	28	100	-207	-4.07	0.45	0	1	Decreasing
MW 5-25	2	2	Carbon Tetrachloride	11/19/2015	0.5 U	10/22/2008	1.2	28	39	--	--	--	--	--	NA
MW 5-25	2	3	Carbon Tetrachloride	11/19/2015	0.5 U	6/8/2006	3.3	28	68	-251	-5.03	0.83	0	1	Decreasing
MW 5-25	2	4	Carbon Tetrachloride	11/19/2015	0.5 U	6/9/2006	2.4	28	71	-149	-2.96	0.69	0	1	Decreasing
MW 5-25	2	5	Carbon Tetrachloride	11/19/2015	0.5 U	11/19/2015	0.5 U	28	ND	--	--	--	--	--	NA
MW 5-25	2	6	Carbon Tetrachloride	11/20/2015	0.5 U	11/20/2015	0.5 U	28	ND	--	--	--	--	--	NA
MW 5-25	2	7	Carbon Tetrachloride	11/20/2015	0.5 U	11/20/2015	0.5 U	28	ND	--	--	--	--	--	NA
EPA MW 5-01	2	1	Carbon Tetrachloride	5/4/2015	0.5 U	5/4/2015	0.5 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	10	Carbon Tetrachloride	5/5/2015	0.5 U	5/5/2015	0.5 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	11	Carbon Tetrachloride	5/5/2015	0.5 U	5/5/2015	0.5 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	12	Carbon Tetrachloride	5/5/2015	0.5 U	5/5/2015	0.5 U	2	ND	--	--	--	--	--	NA
EPA MW 5-01	2	13	Carbon Tetrachloride	5/9/2014	0.5 U	5/9/2014	0.5 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	2	Carbon Tetrachloride	5/4/2015	0.5 U	5/4/2015	0.5 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	3	Carbon Tetrachloride	5/4/2015	0.5 U	5/4/2015	0.5 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	4	Carbon Tetrachloride	5/4/2015	0.5 U	5/4/2015	0.5 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	5	Carbon Tetrachloride	5/4/2015	0.5 U	10/17/2007	3.6	15	60	-41	-2.05	1.46	0.04	0.96	Decreasing
EPA MW 5-01	2	6	Carbon Tetrachloride	5/5/2015	0.5 U	10/17/2007	4	15	67	-71	-3.54	1.04	0	1	Decreasing
EPA MW 5-01	2	7	Carbon Tetrachloride	5/5/2015	0.5 U	12/7/2005	1	16	44	--	--	--	--	--	NA
EPA MW 5-01	2	8	Carbon Tetrachloride	5/5/2015	0.5 U	5/5/2015	0.5 U	15	7	--	--	--	--	--	NA
EPA MW 5-01	2	9	Carbon Tetrachloride	5/5/2015	0.5 U	5/5/2015	0.5 U	16	12	--	--	--	--	--	NA
LACO KEY	2	75	Carbon Tetrachloride	5/30/2012	0.5 U	12/18/2006	10 U	12	50	-2	-0.07	1.5	0.94	0.06	No Trend
SWS 139W2	3	167	Carbon Tetrachloride	6/1/2012	0.5 U	6/1/2012	0.5 U	6	ND	--	--	--	--	--	NA
SWS 139W2	3	285	Carbon Tetrachloride	5/1/2015	0.5 U	5/1/2015	0.5 U	2	ND	--	--	--	--	--	NA
SWS 139W2	3	370	Carbon Tetrachloride	5/1/2015	0.5 U	5/1/2015	0.5 U	6	ND	--	--	--	--	--	NA
CDWC 3	3	197	Carbon Tetrachloride	6/1/2015	1.7	5/2/2005	3.6	67	84	-36	-0.19	0.5	0.85	0.15	Stable
COI 5	3	370	Carbon Tetrachloride	12/22/2015	0.5 U	12/22/2015	0.5 U	100	ND	--	--	--	--	--	NA
SWS 140W5	3	600	Carbon Tetrachloride	11/2/2015	0.5	10/9/2012	0.5 U	103	6	--	--	--	--	--	NA
SWS 139W6	3	750	Carbon Tetrachloride	5/1/2015	0.5 U	5/1/2015	0.5 U	2	ND	--	--	--	--	--	NA
SGVWC B25A	3	380	Carbon Tetrachloride	12/1/2015	1.9	10/3/2007	5.9	88	97	-1262	-4.55	0.48	0	1	Decreasing
SGVWC B25B	3	850	Carbon Tetrachloride	12/1/2015	4.6	10/5/2004	10	77	99	-1126	-4.95	0.25	0	1	Decreasing
SGVWC B26A	3	400	Carbon Tetrachloride	12/1/2015	1.3	10/3/2007	4.5	95	100	-1970	-6.35	0.3	0	1	Decreasing
SGVWC B26B	3	850	Carbon Tetrachloride	12/1/2015	8.9	7/1/2008	17	114	100	693	1.71	0.23	0.09	0.91	Probably Increasing
SGVWC B5E	3	500	Carbon Tetrachloride	12/2/2015	1.7	5/31/2007	5.2	90	99	750	2.62	0.29	0.01	0.99	Increasing
LPVCWD 5	3	590	Carbon Tetrachloride	12/8/2015	0.67	2/2/2009	1.7	54	87	-713	-5.32	0.41	0	1	Decreasing
SGVWC B5B	3	172	Carbon Tetrachloride	12/2/2015	0.21 J	3/5/2008	0.62	92	82	-1844	-6.28	0.3	0	1	Decreasing
SGVWC B6D	3	760	Carbon Tetrachloride	11/12/2015	6.5	5/10/2011	14	49	98	-328	-2.82	0.5	0	1	Decreasing
MW 5-19	3	1	Carbon Tetrachloride	4/29/2015	0.5 U	4/14/2008	0.57	16	25	--	--	--	--	--	NA
MW 5-19	3	2	Carbon Tetrachloride	4/29/2015	0.49 J	5/16/2013	0.5 U	16	38	--	--	--	--	--	NA
MW 5-19	3	3	Carbon Tetrachloride	12/4/2015	1.7	10/28/2010	10	24	100	-69	-1.69	0.4	0.09	0.91	Probably Decreasing
MW 5-19	3	4	Carbon Tetrachloride	12/4/2015	1	4/15/2008	3.9	23	100	-138	-3.62	0.66	0	1	Decreasing
MW 5-19	3	5	Carbon Tetrachloride	12/4/2015	0.5 U	10/29/2008	1.4	23	52	-100	-2.78	0.66	0.01	0.99	Decreasing
MW 5-19	3	6	Carbon Tetrachloride	4/29/2015	0.5 U	4/29/2015	0.5 U	16	6	--	--	--	--	--	NA
MW 5-20	3	1	Carbon Tetrachloride	4/28/2015	6.7	1/4/2006	9.4	15	100	13	0.59	0.24	0.55	0.45	No Trend
MW 5-20	3	2	Carbon Tetrachloride	4/28/2015	3.8	4/28/2015	3.8	15	100	32	1.54	0.51	0.12	0.88	No Trend
MW 5-20	3	3	Carbon Tetrachloride	4/28/2015	4	1/4/2006	17	15	100	-61	-2.97	0.47	0	1	Decreasing
MW 5-20	3	4	Carbon Tetrachloride	4/28/2015	2	6/23/2004	9.6	16	100	-93	-4.15	0.48	0	1	Decreasing
MW 5-20	3	5	Carbon Tetrachloride	4/29/2015	0.74	1/5/2006	1.1	15	80	-23	-1.09	0.48	0.27	0.73	Stable

TABLE C-2
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR CARBON TETRACHLORIDE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-20	3	6	Carbon Tetrachloride	4/29/2015	0.5 U	4/29/2015	0.5 U	15	13	--	--	--	--	--	NA
MW 5-20	3	7	Carbon Tetrachloride	4/29/2015	0.5 U	4/29/2015	0.5 U	15	7	--	--	--	--	--	NA
MW 5-22	3	1	Carbon Tetrachloride	12/16/2015	2.2	1/9/2006	4.7	20	95	-7	-0.2	0.47	0.84	0.16	Stable
MW 5-22	3	2	Carbon Tetrachloride	12/16/2015	5.3	9/24/2014	5.6	20	65	147	4.85	1.19	0	1	Increasing
MW 5-22	3	3	Carbon Tetrachloride	12/16/2015	5.2	1/9/2006	7.7	20	95	-1	0	0.33	1	0	Stable
MW 5-22	3	4	Carbon Tetrachloride	12/15/2015	1	5/19/2011	2.6 J	20	35	--	--	--	--	--	NA
MW 5-22	3	5	Carbon Tetrachloride	12/15/2015	0.5 U	12/15/2015	0.5 U	20	ND	--	--	--	--	--	NA
MW 5-22	3	6	Carbon Tetrachloride	12/15/2015	0.5 U	6/29/2004	0.7	20	15	--	--	--	--	--	NA
MW 5-23	3	1	Carbon Tetrachloride	5/8/2015	4.1	3/27/2006	13	16	100	-19	-0.81	0.38	0.42	0.58	Stable
MW 5-23	3	2	Carbon Tetrachloride	5/8/2015	6.1	3/27/2006	15	16	100	-64	-2.85	0.36	0	1	Decreasing
MW 5-23	3	3	Carbon Tetrachloride	5/8/2015	2.3	6/22/2004	9.7	15	100	-66	-3.22	0.55	0	1	Decreasing
MW 5-23	3	4	Carbon Tetrachloride	5/8/2015	1.5	4/11/2008	5.5	16	100	-61	-2.71	0.48	0.01	0.99	Decreasing
MW 5-23	3	5	Carbon Tetrachloride	5/8/2015	0.5 U	5/8/2015	0.5 U	16	19	--	--	--	--	--	NA
MW 5-23	3	6	Carbon Tetrachloride	5/8/2015	0.5 U	5/8/2015	0.5 U	16	ND	--	--	--	--	--	NA
MW 5-26	3	1	Carbon Tetrachloride	11/30/2015	0.5 U	11/30/2015	0.5 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	2	Carbon Tetrachloride	12/4/2015	0.5 U	12/4/2015	0.5 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	3	Carbon Tetrachloride	12/4/2015	0.5 U	12/4/2015	0.5 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	4	Carbon Tetrachloride	12/1/2015	0.5 U	12/1/2015	0.5 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	5	Carbon Tetrachloride	12/1/2015	0.5 U	12/1/2015	0.5 U	25	ND	--	--	--	--	--	NA
MW 5-26	3	6	Carbon Tetrachloride	5/6/2015	0.5 U	10/28/2008	1	23	17	--	--	--	--	--	NA
MW 5-26	3	7	Carbon Tetrachloride	12/1/2015	0.5 U	12/1/2015	0.5 U	24	ND	--	--	--	--	--	NA
MW 5-27	3	1	Carbon Tetrachloride	12/3/2015	0.5 U	12/3/2015	0.5 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	2	Carbon Tetrachloride	12/3/2015	0.5 U	12/3/2015	0.5 U	29	ND	--	--	--	--	--	NA
MW 5-27	3	3	Carbon Tetrachloride	12/3/2015	0.5 U	12/3/2015	0.5 U	29	ND	--	--	--	--	--	NA
MW 5-27	3	4	Carbon Tetrachloride	12/3/2015	0.5 U	3/19/2008	0.66	28	4	--	--	--	--	--	NA
MW 5-27	3	5	Carbon Tetrachloride	12/3/2015	0.5 U	12/3/2015	0.5 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	6	Carbon Tetrachloride	12/3/2015	0.5 U	3/19/2008	0.69	28	4	--	--	--	--	--	NA
MW 5-27	3	7	Carbon Tetrachloride	12/3/2015	0.5 U	12/3/2015	0.5 U	28	ND	--	--	--	--	--	NA
MW 5-28D	3	1200	Carbon Tetrachloride	11/23/2015	0.5 U	11/23/2015	0.5 U	56	ND	--	--	--	--	--	NA
MW 5-28I	3	1045	Carbon Tetrachloride	11/23/2015	0.5 U	10/30/2007	0.73	56	2	--	--	--	--	--	NA
MW 5-28S	3	790	Carbon Tetrachloride	11/23/2015	0.5 U	11/23/2015	0.5 U	56	ND	--	--	--	--	--	NA

Notes:
COV - coefficient of variation calculated as the ratio of sample standard deviation to the sample mean.
Confidence in Trend is calculated as 1 - Probability.
Mann-Kendall (S) = Mann-Kendall test statistic.
N = sample size.
NA = not analyzed due to < 50% detection frequency.
p-value = the probability of observing a Mann-Kendall test statistic as extreme as the one actually observed.
-- = not calculated due to < 50% detection frequency.

TABLE C-3
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR N-NITROSODIMETHYLAMINE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
VCWD E MAINE	1	250	N-Nitrosodimethylamine	4/29/2015	2 U	4/29/2015	2 U	34	ND	--	--	--	--	--	NA
VCWD W MAINE	1	250	N-Nitrosodimethylamine	4/29/2015	2 U	5/31/2012	7.5	35	3	--	--	--	--	--	NA
VCWD MORADA	1	275	N-Nitrosodimethylamine	11/29/2005	1.9 U	2/24/2004	2 U	2	ND	--	--	--	--	--	NA
VCWD MORADA	1	430	N-Nitrosodimethylamine	4/30/2015	2 U	4/30/2015	2 U	9	22	--	--	--	--	--	NA
VCWD MORADA	1	510	N-Nitrosodimethylamine	4/30/2015	2 U	4/30/2015	2 U	9	22	--	--	--	--	--	NA
SA1-3 (LANTE)	1	275	N-Nitrosodimethylamine	12/14/2015	2 U	2/23/2010	5000 U	85	82	-2513	-9.55	3.6	0	1	Decreasing
LACO SANTA FE 1	1	290	N-Nitrosodimethylamine	4/30/2015	2 U	3/1/2004	8.8	11	18	--	--	--	--	--	NA
VCWD SA1-1	1	248	N-Nitrosodimethylamine	4/22/2015	2 U	2/23/2010	5000 U	40	25	--	--	--	--	--	NA
VCWD SA1-2	1	258	N-Nitrosodimethylamine	12/16/2009	2 U	7/26/2005	13	36	33	--	--	--	--	--	NA
MW 5-03	1	1	N-Nitrosodimethylamine	12/16/2015	2 U	12/16/2015	2 U	18	17	--	--	--	--	--	NA
MW 5-03	1	10	N-Nitrosodimethylamine	11/2/2011	2 U	1/25/2006	4.8 U	6	33	--	--	--	--	--	NA
MW 5-03	1	2	N-Nitrosodimethylamine	12/16/2015	2 U	12/16/2015	2 U	18	28	--	--	--	--	--	NA
MW 5-03	1	3	N-Nitrosodimethylamine	12/16/2015	2 U	12/16/2015	2 U	18	17	--	--	--	--	--	NA
MW 5-03	1	4	N-Nitrosodimethylamine	12/17/2015	2 U	12/17/2015	2 U	19	53	62	2.18	2.28	0.03	0.97	Increasing
MW 5-03	1	5	N-Nitrosodimethylamine	12/17/2015	2 U	12/17/2015	2 U	25	40	--	--	--	--	--	NA
MW 5-03	1	6	N-Nitrosodimethylamine	12/17/2015	2 U	12/17/2015	2 U	25	32	--	--	--	--	--	NA
MW 5-03	1	7	N-Nitrosodimethylamine	12/17/2015	2 U	12/17/2015	2 U	25	16	--	--	--	--	--	NA
MW 5-03	1	8	N-Nitrosodimethylamine	12/18/2015	2 U	12/18/2015	2 U	26	27	--	--	--	--	--	NA
MW 5-03	1	9	N-Nitrosodimethylamine	12/18/2015	2 U	12/18/2015	2 U	27	44	--	--	--	--	--	NA
MW 5-11	1	1	N-Nitrosodimethylamine	12/18/2015	2 U	12/7/2010	5000 U	21	19	--	--	--	--	--	NA
MW 5-11	1	2	N-Nitrosodimethylamine	12/22/2015	2 U	12/7/2010	5000 U	22	32	--	--	--	--	--	NA
MW 5-11	1	3	N-Nitrosodimethylamine	12/21/2015	2 U	12/21/2015	2 U	22	50	36	1	1.92	0.32	0.68	No Trend
MW 5-13	1	1	N-Nitrosodimethylamine	12/21/2015	3.5 J	12/21/2015	3.5 J	18	33	--	--	--	--	--	NA
MW 5-13	1	2	N-Nitrosodimethylamine	4/27/2015	2 U	12/13/2013	2	17	59	5	0.17	3.29	0.87	0.13	No Trend
MW 5-13	1	3	N-Nitrosodimethylamine	4/29/2014	2 U	10/8/2008	1700	18	72	-7	-0.23	1.64	0.82	0.18	No Trend
MW 5-17	1	1	N-Nitrosodimethylamine	12/22/2015	2 U	12/22/2015	2 U	17	24	--	--	--	--	--	NA
MW 5-17	1	2	N-Nitrosodimethylamine	12/23/2015	2 U	12/23/2015	2 U	19	37	--	--	--	--	--	NA
MW 5-17	1	3	N-Nitrosodimethylamine	12/13/2013	2 U	12/13/2013	2 U	12	50	14	0.91	3.1	0.36	0.64	No Trend
MW 5-18	1	1	N-Nitrosodimethylamine	12/23/2015	2 U	12/23/2015	2 U	19	16	--	--	--	--	--	NA
MW 5-18	1	2	N-Nitrosodimethylamine	12/28/2015	2 U	12/28/2015	2 U	21	38	--	--	--	--	--	NA
MW 5-18	1	3	N-Nitrosodimethylamine	12/28/2015	2 U	12/14/2010	5000 U	20	20	--	--	--	--	--	NA
WHICO MP-1	1	1	N-Nitrosodimethylamine	5/21/2015	2 U	7/25/2005	7.9	15	27	--	--	--	--	--	NA
WHICO MP-1	1	2	N-Nitrosodimethylamine	5/21/2015	2 U	12/13/2004	3.6	15	27	--	--	--	--	--	NA
WHICO MP-1	1	3	N-Nitrosodimethylamine	5/21/2015	2 U	6/14/2004	34	15	47	--	--	--	--	--	NA
WHICO MP-1	1	4	N-Nitrosodimethylamine	5/21/2015	48	5/24/2010	280	15	80	24	1.14	2.03	0.25	0.75	No Trend
WHICO MP-1	1	5	N-Nitrosodimethylamine	5/30/2014	2 U	5/24/2010	210	14	71	8	0.39	1.23	0.7	0.3	No Trend
WHICO MP-1	1	6	N-Nitrosodimethylamine	5/30/2012	2 U	7/26/2005	13	7	57	-18	--	1.22	--	--	Decreasing
AJ MW-2R	1	274.4	N-Nitrosodimethylamine	10/9/2015	330	5/29/2014	830	8	100	-10	--	0.82	0.14	0.86	Stable
AJ MW-4	1	293	N-Nitrosodimethylamine	11/23/2010	U	8/10/2005	310 J	20	85	-123	-3.97	1.78	0	1	Decreasing
AJ MW-6	1	274.6	N-Nitrosodimethylamine	10/9/2015	9.6 U	8/6/2015	10 U	8	12	--	--	--	--	--	NA
ALR MW-8	1	195	N-Nitrosodimethylamine	10/15/2015	2 U	11/10/2005	10000 U	14	21	--	--	--	--	--	NA
ALR MW-9	1	195	N-Nitrosodimethylamine	10/15/2015	6.9	8/27/2008	3600	9	100	-16	--	1.15	0.06	0.94	Probably Decreasing
ALR MW-1R	1	258	N-Nitrosodimethylamine	10/30/2015	2 U	11/10/2005	10000 U	15	33	--	--	--	--	--	NA
MW 5-15	2	1	N-Nitrosodimethylamine	8/6/2015	1000 U	6/17/2004	2300 J	18	89	-117	-4.4	0.79	0	1	Decreasing
MW 5-15	2	2	N-Nitrosodimethylamine	8/6/2015	1000 U	8/6/2015	1000 U	18	83	-64	-2.39	0.93	0.02	0.98	Decreasing
MW 5-15	2	3	N-Nitrosodimethylamine	8/6/2015	1000 U	8/6/2015	1000 U	18	28	--	--	--	--	--	NA
VCWD PADDY LN	2	300	N-Nitrosodimethylamine	2/24/2004	1800	2/24/2004	1800	1	ND	--	--	--	--	--	NA
VCWD PADDY LN	2	340	N-Nitrosodimethylamine	4/30/2015	35	3/26/2012	1000 U	11	91	-16	-1.17	0.9	0.24	0.76	Stable
VCWD PADDY LN	2	460	N-Nitrosodimethylamine	4/30/2015	15	10/12/2009	650	10	100	-15	--	0.86	0.11	0.89	Stable
VCWD BIG DALTON	2	250	N-Nitrosodimethylamine	2/24/2004	23	2/24/2004	23	1	ND	--	--	--	--	--	NA
VCWD BIG DALTON	2	275	N-Nitrosodimethylamine	9/2/2015	1000 U	5/19/2006	24000 U	11	64	-23	-1.71	2.52	0.09	0.91	Probably Decreasing
VCWD BIG DALTON	2	410	N-Nitrosodimethylamine	4/30/2015	0.54 J	5/19/2006	24000 U	10	70	-34	--	3.15	--	--	Decreasing
CIC BALDWIN 1	2	120	N-Nitrosodimethylamine	5/9/2014	2 U	5/9/2014	2 U	7	ND	--	--	--	--	--	NA
CC E DURBIN	2	238	N-Nitrosodimethylamine	10/1/2008	1.9 U	10/19/2005	2 U	5	20	--	--	--	--	--	NA
MW 5-05	2	1	N-Nitrosodimethylamine	8/5/2015	1000 U	8/5/2015	1000 U	18	83	111	4.18	1.08	0	1	Increasing
MW 5-05	2	2	N-Nitrosodimethylamine	8/5/2015	1000 U	8/5/2015	1000 U	19	84	141	4.91	1.12	0	1	Increasing
MW 5-05	2	3	N-Nitrosodimethylamine	8/5/2015	1000 U	8/5/2015	1000 U	19	84	-29	-0.99	0.82	0.32	0.68	Stable
MW 5-05	2	4	N-Nitrosodimethylamine	8/5/2015	1000 U	8/5/2015	1000 U	19	16	--	--	--	--	--	NA
MW 5-08	2	1	N-Nitrosodimethylamine	8/10/2015	1000 U	8/10/2015	1000 U	18	11	--	--	--	--	--	NA
MW 5-08	2	2	N-Nitrosodimethylamine	8/10/2015	1000 U	8/10/2015	1000 U	18	6	--	--	--	--	--	NA

TABLE C-3
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR N-NITROSODIMETHYLAMINE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-08	2	3	N-Nitrosodimethylamine	8/10/2015	1000 U	8/10/2015	1000 U	18	6	--	--	--	--	--	NA
MW 5-08	2	4	N-Nitrosodimethylamine	8/10/2015	1000 U	8/10/2015	1000 U	17	65	-15	-0.58	2.67	0.56	0.44	No Trend
MW 5-24	2	1	N-Nitrosodimethylamine	11/20/2015	0.82 J	9/10/2007	6	28	43	--	--	--	--	--	NA
MW 5-24	2	2	N-Nitrosodimethylamine	11/20/2015	0.94 J	10/23/2012	2 U	28	32	--	--	--	--	--	NA
MW 5-24	2	3	N-Nitrosodimethylamine	11/20/2015	2 U	5/13/2013	3.8	28	11	--	--	--	--	--	NA
MW 5-24	2	4	N-Nitrosodimethylamine	11/23/2015	1.5 J	12/10/2004	52	28	64	-182	-3.62	1.78	0	1	Decreasing
MW 5-24	2	5	N-Nitrosodimethylamine	11/23/2015	2.2	6/13/2005	2600	28	89	-323	-6.37	1.44	0	1	Decreasing
MW 5-24	2	6	N-Nitrosodimethylamine	11/23/2015	0.68 J	3/3/2005	820	28	93	-117	-2.29	1.62	0.02	0.98	Decreasing
MW 5-24	2	7	N-Nitrosodimethylamine	11/23/2015	2 U	6/13/2005	47	28	54	-141	-2.86	1.86	0	1	Decreasing
MW 5-25	2	1	N-Nitrosodimethylamine	11/19/2015	1.1 J	3/4/2005	87 J	28	32	--	--	--	--	--	NA
MW 5-25	2	2	N-Nitrosodimethylamine	11/19/2015	1.6 J	12/14/2004	3.3	28	25	--	--	--	--	--	NA
MW 5-25	2	3	N-Nitrosodimethylamine	11/19/2015	2 U	12/14/2004	3.7	28	14	--	--	--	--	--	NA
MW 5-25	2	4	N-Nitrosodimethylamine	11/19/2015	2 U	9/7/2005	4.5	28	18	--	--	--	--	--	NA
MW 5-25	2	5	N-Nitrosodimethylamine	11/19/2015	2 U	10/26/2012	2 U	28	11	--	--	--	--	--	NA
MW 5-25	2	6	N-Nitrosodimethylamine	11/20/2015	2 U	6/9/2006	7.2	28	25	--	--	--	--	--	NA
MW 5-25	2	7	N-Nitrosodimethylamine	11/20/2015	2 U	6/9/2006	5.9	28	11	--	--	--	--	--	NA
EPA MW 5-01	2	1	N-Nitrosodimethylamine	5/4/2015	2 U	4/30/2004	2.2	15	20	--	--	--	--	--	NA
EPA MW 5-01	2	10	N-Nitrosodimethylamine	5/5/2015	2 U	4/6/2006	2 U	15	67	-17	-0.81	0.6	0.42	0.58	Stable
EPA MW 5-01	2	11	N-Nitrosodimethylamine	5/5/2015	2 U	4/6/2006	2 U	15	40	--	--	--	--	--	NA
EPA MW 5-01	2	12	N-Nitrosodimethylamine	5/5/2015	2 U	5/5/2015	2 U	2	ND	--	--	--	--	--	NA
EPA MW 5-01	2	13	N-Nitrosodimethylamine	5/9/2014	2 U	4/6/2006	2 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	2	N-Nitrosodimethylamine	5/4/2015	2 U	5/12/2010	15	15	40	--	--	--	--	--	NA
EPA MW 5-01	2	3	N-Nitrosodimethylamine	5/4/2015	2 U	9/25/2006	1.9 U	15	40	--	--	--	--	--	NA
EPA MW 5-01	2	4	N-Nitrosodimethylamine	5/4/2015	2 U	5/4/2015	2 U	15	33	--	--	--	--	--	NA
EPA MW 5-01	2	5	N-Nitrosodimethylamine	5/4/2015	2 U	5/4/2015	2 U	15	27	--	--	--	--	--	NA
EPA MW 5-01	2	6	N-Nitrosodimethylamine	5/5/2015	2 U	5/7/2004	7.8	15	47	--	--	--	--	--	NA
EPA MW 5-01	2	7	N-Nitrosodimethylamine	5/5/2015	2 U	6/24/2005	15	15	47	--	--	--	--	--	NA
EPA MW 5-01	2	8	N-Nitrosodimethylamine	5/5/2015	2 U	10/27/2004	3.4	15	33	--	--	--	--	--	NA
EPA MW 5-01	2	9	N-Nitrosodimethylamine	5/5/2015	2 U	6/24/2005	38	15	67	-54	-2.68	1.46	0.01	0.99	Decreasing
LACO KEY	2	75	N-Nitrosodimethylamine	5/30/2012	3.3	12/14/2005	101	12	100	-35	-2.34	1	0.02	0.98	Decreasing
SWS 139W2	3	167	N-Nitrosodimethylamine	6/1/2012	2 U	10/13/2009	2.1 U	6	33	--	--	--	--	--	NA
SWS 139W2	3	285	N-Nitrosodimethylamine	5/1/2015	2 U	5/1/2015	2 U	2	ND	--	--	--	--	--	NA
SWS 139W2	3	370	N-Nitrosodimethylamine	5/1/2015	0.55 J	5/6/2014	2 U	6	33	--	--	--	--	--	NA
CDWC 3	3	197	N-Nitrosodimethylamine	12/7/2015	14	6/1/2012	57	138	85	-927	-1.71	0.58	0.09	0.91	Probably Decreasing
COI 5	3	370	N-Nitrosodimethylamine	12/22/2015	2 U	4/12/2011	5000 U	96	9	--	--	--	--	--	NA
SWS 140W5	3	600	N-Nitrosodimethylamine	11/2/2015	12	10/9/2012	2 U	90	83	1027	3.58	0.8	0	1	Increasing
SWS 139W6	3	750	N-Nitrosodimethylamine	5/1/2015	2 U	5/1/2015	2 U	2	ND	--	--	--	--	--	NA
SGVWC B25A	3	380	N-Nitrosodimethylamine	12/1/2015	89	3/25/2011	5000 U	96	95	-1266	-4.01	2.23	0	1	Decreasing
SGVWC B25B	3	850	N-Nitrosodimethylamine	12/1/2015	28	3/25/2011	5000 U	84	80	960	3.72	4.19	0	1	Increasing
SGVWC B26A	3	400	N-Nitrosodimethylamine	12/1/2015	130	3/25/2011	5000 U	102	94	-1796	-5.19	1.05	0	1	Decreasing
SGVWC B26B	3	850	N-Nitrosodimethylamine	12/1/2015	110	3/25/2011	5000 U	121	89	4708	10.55	3.32	0	1	Increasing
SGVWC B5E	3	500	N-Nitrosodimethylamine	12/2/2015	120	3/17/2010	5000 U	90	96	2237	7.8	2.35	0	1	Increasing
LPVCWD 5	3	590	N-Nitrosodimethylamine	12/8/2015	25	10/23/2014	1000 U	54	98	-901	-6.72	1.02	0	1	Decreasing
SGVWC B5B	3	172	N-Nitrosodimethylamine	12/2/2015	4	3/30/2011	5000 U	87	93	-2323	-8.52	3.81	0	1	Decreasing
SGVWC B6D	3	760	N-Nitrosodimethylamine	11/12/2015	100	3/25/2011	5000 U	41	88	-20	-0.21	1.96	0.83	0.17	No Trend
MW 5-19	3	1	N-Nitrosodimethylamine	4/29/2015	2 U	4/14/2008	2.2 U	16	12	--	--	--	--	--	NA
MW 5-19	3	2	N-Nitrosodimethylamine	4/29/2015	2 U	4/14/2008	2.2 U	16	12	--	--	--	--	--	NA
MW 5-19	3	3	N-Nitrosodimethylamine	12/4/2015	3.5	5/17/2012	23	24	46	--	--	--	--	--	NA
MW 5-19	3	4	N-Nitrosodimethylamine	12/4/2015	25	10/29/2014	210	23	70	176	4.65	1.34	0	1	Increasing
MW 5-19	3	5	N-Nitrosodimethylamine	12/4/2015	1.6 J	6/30/2004	190	23	96	-211	-5.55	1.1	0	1	Decreasing
MW 5-19	3	6	N-Nitrosodimethylamine	4/29/2015	2 U	4/29/2015	2 U	15	ND	--	--	--	--	--	NA
MW 5-20	3	1	N-Nitrosodimethylamine	4/28/2015	58 J	4/28/2015	58 J	15	27	--	--	--	--	--	NA
MW 5-20	3	2	N-Nitrosodimethylamine	4/28/2015	2 U	5/1/2014	33	15	67	9	0.4	1	0.69	0.31	No Trend
MW 5-20	3	3	N-Nitrosodimethylamine	4/28/2015	390 J	5/18/2012	1000	15	100	62	3.02	0.67	0	1	Increasing
MW 5-20	3	4	N-Nitrosodimethylamine	4/28/2015	310 J	10/31/2007	1000	15	100	-15	-0.69	0.28	0.49	0.51	Stable
MW 5-20	3	5	N-Nitrosodimethylamine	4/29/2015	250 J	4/29/2015	250 J	15	100	44	2.13	0.57	0.03	0.97	Increasing
MW 5-20	3	6	N-Nitrosodimethylamine	4/29/2015	2 U	11/18/2004	140	15	73	-71	-3.5	2.22	0	1	Decreasing
MW 5-20	3	7	N-Nitrosodimethylamine	4/29/2015	2 U	5/18/2012	4.4	15	13	--	--	--	--	--	NA
MW 5-22	3	1	N-Nitrosodimethylamine	12/16/2015	1000 U	12/16/2015	1000 U	18	6	--	--	--	--	--	NA
MW 5-22	3	2	N-Nitrosodimethylamine	12/16/2015	1000 U	12/16/2015	1000 U	18	28	--	--	--	--	--	NA

TABLE C-3
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR N-NITROSODIMETHYLAMINE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-22	3	3	N-Nitrosodimethylamine	12/16/2015	1000 U	12/16/2015	1000 U	18	50	114	4.34	1.16	0	1	Increasing
MW 5-22	3	4	N-Nitrosodimethylamine	12/15/2015	1000 U	12/15/2015	1000 U	18	22	--	--	--	--	--	NA
MW 5-22	3	5	N-Nitrosodimethylamine	12/15/2015	1000 U	12/15/2015	1000 U	18	39	--	--	--	--	--	NA
MW 5-22	3	6	N-Nitrosodimethylamine	12/15/2015	1000 U	12/15/2015	1000 U	18	6	--	--	--	--	--	NA
MW 5-23	3	1	N-Nitrosodimethylamine	5/8/2015	4.2	6/22/2004	27	16	38	--	--	--	--	--	NA
MW 5-23	3	2	N-Nitrosodimethylamine	5/8/2015	9.3	5/8/2015	9.3	16	38	--	--	--	--	--	NA
MW 5-23	3	3	N-Nitrosodimethylamine	5/8/2015	610 J	5/25/2012	650	16	100	96	4.28	0.61	0	1	Increasing
MW 5-23	3	4	N-Nitrosodimethylamine	5/8/2015	22	5/25/2012	1500	16	94	22	0.95	0.58	0.34	0.66	No Trend
MW 5-23	3	5	N-Nitrosodimethylamine	5/8/2015	2 U	10/10/2006	72	16	62	-62	-2.83	1.37	0	1	Decreasing
MW 5-23	3	6	N-Nitrosodimethylamine	5/8/2015	2 U	5/8/2015	2 U	16	6	--	--	--	--	--	NA
MW 5-26	3	1	N-Nitrosodimethylamine	11/30/2015	5.3	11/30/2015	5.3	24	17	--	--	--	--	--	NA
MW 5-26	3	2	N-Nitrosodimethylamine	12/4/2015	2 U	11/1/2011	4.4	24	12	--	--	--	--	--	NA
MW 5-26	3	3	N-Nitrosodimethylamine	12/4/2015	2 U	12/4/2015	2 U	24	12	--	--	--	--	--	NA
MW 5-26	3	4	N-Nitrosodimethylamine	12/1/2015	2 U	12/1/2015	2 U	24	12	--	--	--	--	--	NA
MW 5-26	3	5	N-Nitrosodimethylamine	12/1/2015	2 U	12/1/2015	2 U	25	4	--	--	--	--	--	NA
MW 5-26	3	6	N-Nitrosodimethylamine	5/6/2015	0.71 J	11/7/2013	3.1 J	23	22	--	--	--	--	--	NA
MW 5-26	3	7	N-Nitrosodimethylamine	12/1/2015	2 U	12/1/2015	2 U	24	8	--	--	--	--	--	NA
MW 5-27	3	1	N-Nitrosodimethylamine	12/3/2015	0.81 J	7/15/2004	2.8	27	30	--	--	--	--	--	NA
MW 5-27	3	2	N-Nitrosodimethylamine	12/3/2015	2 U	12/8/2006	2.2 U	28	11	--	--	--	--	--	NA
MW 5-27	3	3	N-Nitrosodimethylamine	12/3/2015	2 U	12/3/2015	2 U	28	11	--	--	--	--	--	NA
MW 5-27	3	4	N-Nitrosodimethylamine	12/3/2015	0.63 J	3/19/2008	16	28	14	--	--	--	--	--	NA
MW 5-27	3	5	N-Nitrosodimethylamine	12/3/2015	2 U	12/3/2015	2 U	28	14	--	--	--	--	--	NA
MW 5-27	3	6	N-Nitrosodimethylamine	12/3/2015	0.53 J	9/12/2005	10	28	18	--	--	--	--	--	NA
MW 5-27	3	7	N-Nitrosodimethylamine	12/3/2015	0.74 J	11/5/2014	2 U	28	18	--	--	--	--	--	NA
MW 5-28D	3	1200	N-Nitrosodimethylamine	11/23/2015	2 U	11/23/2015	2 U	55	5	--	--	--	--	--	NA
MW 5-28I	3	1045	N-Nitrosodimethylamine	11/23/2015	2 U	10/31/2012	2 U	55	7	--	--	--	--	--	NA
MW 5-28S	3	790	N-Nitrosodimethylamine	11/23/2015	2 U	2/18/2014	47	55	4	--	--	--	--	--	NA

Notes:
COV - coefficient of variation calculated as the ratio of sample standard deviation to the sample mean.
Confidence in Trend is calculated as 1 - Probability.
Mann-Kendall (S) = Mann-Kendall test statistic.
N = sample size.
NA = not analyzed due to < 50% detection frequency.
p-value = the probability of observing a Mann-Kendall test statistic as extreme as the one actually observed.
-- = not calculated due to < 50% detection frequency.

TABLE C-4
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR PERCHLORATE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
VCWD E MAINE	1	250	Perchlorate (ClO4)	4/29/2015	2 U	10/26/2004	7.8	37	14	--	--	--	--	--	NA
VCWD W MAINE	1	250	Perchlorate (ClO4)	4/29/2015	2 U	10/26/2004	6.3	39	15	--	--	--	--	--	NA
VCWD MORADA	1	275	Perchlorate (ClO4)	11/29/2005	7.7	2/24/2004	21	2	ND	--	--	--	--	--	NA
VCWD MORADA	1	430	Perchlorate (ClO4)	4/30/2015	12	5/20/2010	16	9	100	16	--	0.43	0.06	0.94	Probably Increasing
VCWD MORADA	1	510	Perchlorate (ClO4)	4/30/2015	8.5	5/20/2010	15	9	100	6	--	0.37	0.31	0.69	No Trend
SA1-3 (LANTE)	1	275	Perchlorate (ClO4)	12/14/2015	5.6	4/24/2007	300	88	100	-1686	-6.09	2.18	0	1	Decreasing
LACO SANTA FE 1	1	290	Perchlorate (ClO4)	4/30/2015	1.3 J	3/2/2009	4 U	11	9	--	--	--	--	--	NA
VCWD SA1-1	1	248	Perchlorate (ClO4)	4/22/2015	7.6	5/9/2005	16	40	100	-176	-2.05	0.21	0.04	0.96	Decreasing
VCWD SA1-2	1	258	Perchlorate (ClO4)	5/10/2012	8.3	4/1/2008	16	37	100	-141	-1.88	0.19	0.06	0.94	Probably Decreasing
MW 5-03	1	1	Perchlorate (ClO4)	12/16/2015	2 U	4/28/2009	4 U	17	6	--	--	--	--	--	NA
MW 5-03	1	10	Perchlorate (ClO4)	11/2/2011	9.8	5/16/2011	30	6	100	1	--	0.51	0.5	0.5	No Trend
MW 5-03	1	2	Perchlorate (ClO4)	12/16/2015	8	12/16/2015	8	17	29	--	--	--	--	--	NA
MW 5-03	1	3	Perchlorate (ClO4)	12/16/2015	13	4/30/2015	14	17	59	102	4.22	0.74	0	1	Increasing
MW 5-03	1	4	Perchlorate (ClO4)	12/17/2015	8.4	5/18/2010	12	17	88	58	2.35	0.37	0.02	0.98	Increasing
MW 5-03	1	5	Perchlorate (ClO4)	12/17/2015	7.7	10/25/2010	17	24	100	-25	-0.6	0.24	0.55	0.45	Stable
MW 5-03	1	6	Perchlorate (ClO4)	12/17/2015	3.6	11/2/2004	14	24	100	-110	-2.71	0.54	0.01	0.99	Decreasing
MW 5-03	1	7	Perchlorate (ClO4)	12/17/2015	3.7	11/3/2004	15	24	100	-138	-3.4	0.68	0	1	Decreasing
MW 5-03	1	8	Perchlorate (ClO4)	12/18/2015	3.2	5/18/2004	6.9	24	96	-97	-2.38	0.45	0.02	0.98	Decreasing
MW 5-03	1	9	Perchlorate (ClO4)	12/18/2015	2 U	5/16/2011	31	25	44	--	--	--	--	--	NA
MW 5-11	1	1	Perchlorate (ClO4)	12/18/2015	2 U	5/12/2004	4.7	18	78	-75	-2.81	0.46	0.01	0.99	Decreasing
MW 5-11	1	2	Perchlorate (ClO4)	12/22/2015	2 U	4/14/2006	13	19	68	-111	-3.92	0.93	0	1	Decreasing
MW 5-11	1	3	Perchlorate (ClO4)	12/21/2015	2.5	5/19/2010	56	18	89	32	1.18	0.7	0.24	0.76	No Trend
MW 5-13	1	1	Perchlorate (ClO4)	12/21/2015	2.9	3/12/2008	4 U	18	39	--	--	--	--	--	NA
MW 5-13	1	2	Perchlorate (ClO4)	4/27/2015	2 U	6/25/2004	14	17	41	--	--	--	--	--	NA
MW 5-13	1	3	Perchlorate (ClO4)	4/29/2014	5.3	10/5/2007	380	16	88	0	-0.23	1.97	1	0	No Trend
MW 5-17	1	1	Perchlorate (ClO4)	12/22/2015	2 U	4/30/2014	5.2	17	47	--	--	--	--	--	NA
MW 5-17	1	2	Perchlorate (ClO4)	12/23/2015	2.3	5/25/2004	37	17	71	-51	-2.07	1.82	0.04	0.96	Decreasing
MW 5-17	1	3	Perchlorate (ClO4)	12/13/2013	16	4/27/2009	130	12	58	8	0.48	1.73	0.63	0.37	No Trend
MW 5-18	1	1	Perchlorate (ClO4)	12/23/2015	3	12/3/2004	12	18	100	-111	-4.17	0.41	0	1	Decreasing
MW 5-18	1	2	Perchlorate (ClO4)	12/28/2015	2.5	12/3/2004	11	18	94	-77	-2.88	0.53	0	1	Decreasing
MW 5-18	1	3	Perchlorate (ClO4)	12/28/2015	2 U	12/3/2004	7.3	18	61	-49	-1.84	0.65	0.07	0.93	Probably Decreasing
WHICO MP-1	1	1	Perchlorate (ClO4)	5/21/2015	2 U	5/7/2009	4 U	15	ND	--	--	--	--	--	NA
WHICO MP-1	1	2	Perchlorate (ClO4)	5/21/2015	1.2 J	5/1/2006	61	15	93	-62	-3.03	2.38	0	1	Decreasing
WHICO MP-1	1	3	Perchlorate (ClO4)	5/21/2015	2 U	5/7/2009	4 U	15	ND	--	--	--	--	--	NA
WHICO MP-1	1	4	Perchlorate (ClO4)	5/21/2015	2.4	5/24/2010	16	15	67	15	0.7	1.21	0.49	0.51	No Trend
WHICO MP-1	1	5	Perchlorate (ClO4)	5/30/2014	2.9	10/4/2007	340	14	100	19	0.99	1.6	0.32	0.68	No Trend
WHICO MP-1	1	6	Perchlorate (ClO4)	5/30/2012	18	4/10/2007	67	7	100	2	--	0.78	--	--	No Trend
AJ MW-2R	1	274.4	Perchlorate (ClO4)	10/9/2015	3.7	5/29/2014	25	8	100	-19	--	0.92	--	--	Decreasing
AJ MW-4	1	293	Perchlorate (ClO4)	11/23/2010	36	8/10/2005	2200	22	100	-42	-1.16	1.95	0.25	0.75	No Trend
AJ MW-6	1	274.6	Perchlorate (ClO4)	10/9/2015	6.7	2/26/2014	46	8	75	-11	--	1.21	--	--	No Trend
ALR MW-8	1	195	Perchlorate (ClO4)	10/15/2015	4 U	2/10/2005	4.6	14	71	-47	-2.55	0.41	0.01	0.99	Decreasing
ALR MW-9	1	195	Perchlorate (ClO4)	10/15/2015	4 U	8/27/2008	36	9	78	-21	--	0.72	--	--	Decreasing
ALR MW-1R	1	258	Perchlorate (ClO4)	10/30/2015	4 U	2/10/2005	6.3	15	60	-34	-1.7	0.51	0.09	0.91	Probably Decreasing
MW 5-15	2	1	Perchlorate (ClO4)	4/24/2015	27	7/7/2005	510	16	100	-107	-4.78	0.72	0	1	Decreasing
MW 5-15	2	2	Perchlorate (ClO4)	4/24/2015	6.7	10/30/2006	73	16	100	-81	-3.61	0.57	0	1	Decreasing
MW 5-15	2	3	Perchlorate (ClO4)	4/24/2015	9.2	7/8/2005	45	16	100	-83	-3.7	0.48	0	1	Decreasing
VCWD PADDY LN	2	300	Perchlorate (ClO4)	2/24/2004	94	2/24/2004	94	1	ND	--	--	--	--	--	NA
VCWD PADDY LN	2	340	Perchlorate (ClO4)	4/30/2015	31	5/20/2010	78	10	100	-30	--	0.29	--	--	Decreasing
VCWD PADDY LN	2	460	Perchlorate (ClO4)	4/30/2015	33	8/29/2007	61	10	100	-27	--	0.25	0.01	0.99	Decreasing
VCWD BIG DALTON	2	250	Perchlorate (ClO4)	2/24/2004	8.3	2/24/2004	8.3	1	ND	--	--	--	--	--	NA
VCWD BIG DALTON	2	275	Perchlorate (ClO4)	4/30/2015	15	10/14/2009	20	9	100	-5	--	0.3	--	--	Stable
VCWD BIG DALTON	2	410	Perchlorate (ClO4)	4/30/2015	14	5/7/2014	16	10	90	16	--	0.41	--	--	No Trend
CIC BALDWIN 1	2	120	Perchlorate (ClO4)	5/9/2014	2 U	11/15/2004	3 U	7	29	--	--	--	--	--	NA
CC E DURBIN	2	238	Perchlorate (ClO4)	10/1/2008	4 U	10/1/2008	4 U	5	ND	--	--	--	--	--	NA
MW 5-05	2	1	Perchlorate (ClO4)	4/24/2015	150	4/29/2014	230	16	100	78	3.49	0.51	0	1	Increasing
MW 5-05	2	2	Perchlorate (ClO4)	4/24/2015	81	4/29/2014	87	16	100	108	4.82	0.43	0	1	Increasing
MW 5-05	2	3	Perchlorate (ClO4)	4/24/2015	47	6/21/2004	90	16	100	-59	-2.61	0.16	0.01	0.99	Decreasing

TABLE C-4
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR PERCHLORATE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-05	2	4	Perchlorate (ClO4)	4/24/2015	11	5/11/2011	24 J	16	100	42	1.9	0.32	0.06	0.94	Probably Increasing
MW 5-08	2	1	Perchlorate (ClO4)	4/20/2015	2 U	4/28/2014	56	16	6	--	--	--	--	--	NA
MW 5-08	2	2	Perchlorate (ClO4)	4/20/2015	2 U	4/28/2014	9.8	16	12	--	--	--	--	--	NA
MW 5-08	2	3	Perchlorate (ClO4)	4/20/2015	2 U	4/28/2014	13	16	12	--	--	--	--	--	NA
MW 5-08	2	4	Perchlorate (ClO4)	4/20/2015	10	4/28/2014	20	16	100	-7	-0.28	0.28	0.78	0.22	Stable
MW 5-24	2	1	Perchlorate (ClO4)	11/20/2015	2 U	10/27/2010	4.3	28	4	--	--	--	--	--	NA
MW 5-24	2	2	Perchlorate (ClO4)	11/20/2015	1.2 J	9/1/2006	7.5	28	18	--	--	--	--	--	NA
MW 5-24	2	3	Perchlorate (ClO4)	11/20/2015	2.4	9/28/2009	4 U	28	25	--	--	--	--	--	NA
MW 5-24	2	4	Perchlorate (ClO4)	11/23/2015	2.7	7/21/2004	7.1	28	86	-84	-1.64	0.42	0.1	0.9	Stable
MW 5-24	2	5	Perchlorate (ClO4)	11/23/2015	8	6/13/2005	42	28	96	-286	-5.64	0.52	0	1	Decreasing
MW 5-24	2	6	Perchlorate (ClO4)	11/23/2015	7.7	3/2/2006	150	28	96	-195	-3.84	0.59	0	1	Decreasing
MW 5-24	2	7	Perchlorate (ClO4)	11/23/2015	13	6/13/2005	76	28	96	-211	-4.16	0.73	0	1	Decreasing
MW 5-25	2	1	Perchlorate (ClO4)	11/19/2015	2.4	9/22/2004	5	28	29	--	--	--	--	--	NA
MW 5-25	2	2	Perchlorate (ClO4)	11/19/2015	3.7	10/31/2014	6.1	28	50	195	3.91	0.57	0	1	Increasing
MW 5-25	2	3	Perchlorate (ClO4)	11/19/2015	19	11/6/2013	23	28	100	214	4.22	0.41	0	1	Increasing
MW 5-25	2	4	Perchlorate (ClO4)	11/19/2015	18	11/6/2013	23	28	100	174	3.45	0.18	0	1	Increasing
MW 5-25	2	5	Perchlorate (ClO4)	11/19/2015	9.9	4/9/2009	20	28	93	103	2.03	0.34	0.04	0.96	Increasing
MW 5-25	2	6	Perchlorate (ClO4)	11/20/2015	1.2 J	9/7/2006	9.6	28	86	-135	-2.66	0.68	0.01	0.99	Decreasing
MW 5-25	2	7	Perchlorate (ClO4)	11/20/2015	6.1	9/17/2007	11	28	89	-77	-1.5	0.51	0.13	0.87	Stable
EPA MW 5-01	2	1	Perchlorate (ClO4)	5/4/2015	2 U	4/20/2009	4 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	10	Perchlorate (ClO4)	5/5/2015	2 U	3/27/2008	4 U	15	33	--	--	--	--	--	NA
EPA MW 5-01	2	11	Perchlorate (ClO4)	5/5/2015	2 U	10/19/2007	6.4	15	60	-14	-0.65	0.63	0.52	0.48	Stable
EPA MW 5-01	2	12	Perchlorate (ClO4)	5/5/2015	2 U	5/5/2015	2 U	2	ND	--	--	--	--	--	NA
EPA MW 5-01	2	13	Perchlorate (ClO4)	5/9/2014	4.2	5/23/2012	5.3	14	43	--	--	--	--	--	NA
EPA MW 5-01	2	2	Perchlorate (ClO4)	5/4/2015	2 U	4/20/2009	4 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	3	Perchlorate (ClO4)	5/4/2015	1.9 J	4/21/2009	4 U	15	7	--	--	--	--	--	NA
EPA MW 5-01	2	4	Perchlorate (ClO4)	5/4/2015	2	4/21/2009	4 U	15	7	--	--	--	--	--	NA
EPA MW 5-01	2	5	Perchlorate (ClO4)	5/4/2015	14	5/4/2015	14	15	67	95	4.68	0.83	0	1	Increasing
EPA MW 5-01	2	6	Perchlorate (ClO4)	5/5/2015	6.2	10/17/2007	15	15	100	-52	-2.57	0.24	0.01	0.99	Decreasing
EPA MW 5-01	2	7	Perchlorate (ClO4)	5/5/2015	8	4/5/2006	17	15	100	-68	-3.34	0.47	0	1	Decreasing
EPA MW 5-01	2	8	Perchlorate (ClO4)	5/5/2015	3.2	5/22/2012	17	15	87	44	2.14	0.55	0.03	0.97	Increasing
EPA MW 5-01	2	9	Perchlorate (ClO4)	5/5/2015	1.5 J	3/29/2007	3.7 J	15	87	-25	-1.19	0.73	0.23	0.77	Stable
LACO KEY	2	75	Perchlorate (ClO4)	5/30/2012	22	5/20/2010	36	12	100	-8	-0.48	0.18	0.63	0.37	Stable
SWS 139W2	3	167	Perchlorate (ClO4)	6/1/2012	21	10/13/2009	33	6	100	-2	--	0.37	--	--	Stable
SWS 139W2	3	285	Perchlorate (ClO4)	5/1/2015	29	5/1/2015	29	2	ND	--	--	--	--	--	NA
SWS 139W2	3	370	Perchlorate (ClO4)	5/1/2015	29	10/15/2008	34	6	100	3	--	0.37	0.36	0.64	No Trend
CDWC 3	3	197	Perchlorate (ClO4)	12/7/2015	11	11/3/2014	13	146	99	5035	8.53	0.29	0	1	Increasing
COI 5	3	370	Perchlorate (ClO4)	12/22/2015	3	4/9/2004	11	75	100	-1834	-8.39	0.4	0	1	Decreasing
SWS 140W5	3	600	Perchlorate (ClO4)	12/8/2015	8.3	11/18/2013	13	301	97	15972	9.17	0.31	0	1	Increasing
SWS 139W6	3	750	Perchlorate (ClO4)	5/1/2015	8.8	5/1/2015	8.8	2	ND	--	--	--	--	--	NA
SGVWC B25A	3	380	Perchlorate (ClO4)	12/1/2015	38	5/5/2015	40	92	100	824	2.79	0.21	0.01	0.99	Increasing
SGVWC B25B	3	850	Perchlorate (ClO4)	12/1/2015	16	5/22/2014	28	79	89	1972	8.35	0.6	0	1	Increasing
SGVWC B26A	3	400	Perchlorate (ClO4)	12/1/2015	36	7/3/2006	87	98	100	-2202	-6.76	0.25	0	1	Decreasing
SGVWC B26B	3	850	Perchlorate (ClO4)	12/1/2015	57	11/3/2015	58	117	99	5189	12.23	0.64	0	1	Increasing
SGVWC B5E	3	500	Perchlorate (ClO4)	12/2/2015	14	4/1/2014	19	86	97	2533	9.45	0.45	0	1	Increasing
LPVCWD 5	3	590	Perchlorate (ClO4)	12/8/2015	15	2/2/2009	44	53	100	-810	-6.24	0.26	0	1	Decreasing
SGVWC B5B	3	172	Perchlorate (ClO4)	12/2/2015	6.9	2/2/2010	15	82	100	-1238	-4.97	0.23	0	1	Decreasing
SGVWC B6D	3	760	Perchlorate (ClO4)	11/12/2015	64	11/2/2005	390	45	100	99	0.96	0.89	0.34	0.66	No Trend
MW 5-19	3	1	Perchlorate (ClO4)	4/29/2015	2 U	5/11/2009	4 U	16	ND	--	--	--	--	--	NA
MW 5-19	3	2	Perchlorate (ClO4)	4/29/2015	2 U	5/11/2009	4 U	16	ND	--	--	--	--	--	NA
MW 5-19	3	3	Perchlorate (ClO4)	12/4/2015	3.9	11/5/2013	12	24	71	167	4.14	0.73	0	1	Increasing
MW 5-19	3	4	Perchlorate (ClO4)	12/4/2015	5.7	10/29/2014	39	23	78	192	5.05	1	0	1	Increasing
MW 5-19	3	5	Perchlorate (ClO4)	12/4/2015	11	5/12/2009	24	23	100	-93	-2.46	0.21	0.01	0.99	Decreasing
MW 5-19	3	6	Perchlorate (ClO4)	4/29/2015	2.6	6/30/2004	4.3	15	80	13	0.6	0.31	0.55	0.45	No Trend
MW 5-20	3	1	Perchlorate (ClO4)	4/28/2015	64	4/28/2015	64	15	60	14	0.65	1.6	0.51	0.49	No Trend
MW 5-20	3	2	Perchlorate (ClO4)	4/28/2015	1.8 J	5/1/2014	12	15	73	26	1.24	0.71	0.22	0.78	No Trend
MW 5-20	3	3	Perchlorate (ClO4)	4/28/2015	140	5/18/2012	160	15	100	85	4.24	0.41	0	1	Increasing

TABLE C-4
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR PERCHLORATE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-20	3	4	Perchlorate (ClO4)	4/28/2015	74	4/22/2008	160	15	100	-38	-1.88	0.21	0.06	0.94	Probably Decreasing
MW 5-20	3	5	Perchlorate (ClO4)	4/29/2015	27	4/29/2015	27	15	100	33	1.59	0.47	0.11	0.89	No Trend
MW 5-20	3	6	Perchlorate (ClO4)	4/29/2015	20	6/24/2004	21	15	100	-15	-0.7	0.13	0.48	0.52	Stable
MW 5-20	3	7	Perchlorate (ClO4)	4/29/2015	5.4	4/23/2008	10	15	100	-30	-1.44	0.19	0.15	0.85	Stable
MW 5-22	3	1	Perchlorate (ClO4)	5/1/2015	2 U	5/22/2009	4 U	15	ND	--	--	--	--	--	NA
MW 5-22	3	2	Perchlorate (ClO4)	5/1/2015	9.5	5/1/2015	9.5	15	20	--	--	--	--	--	NA
MW 5-22	3	3	Perchlorate (ClO4)	5/1/2015	100	5/29/2014	110	16	100	112	5	1.01	0	1	Increasing
MW 5-22	3	4	Perchlorate (ClO4)	5/1/2015	6.9	5/1/2015	6.9	15	40	--	--	--	--	--	NA
MW 5-22	3	5	Perchlorate (ClO4)	5/1/2015	4	6/28/2004	10	15	100	-52	-2.53	0.3	0.01	0.99	Decreasing
MW 5-22	3	6	Perchlorate (ClO4)	5/1/2015	3.4	4/18/2008	5.5	15	93	-33	-1.59	0.23	0.11	0.89	Stable
MW 5-23	3	1	Perchlorate (ClO4)	5/8/2015	4.9	5/13/2014	8.8	16	62	41	1.82	0.67	0.07	0.93	Probably Increasing
MW 5-23	3	2	Perchlorate (ClO4)	5/8/2015	8.9	5/8/2015	8.9	16	81	35	1.54	0.44	0.12	0.88	No Trend
MW 5-23	3	3	Perchlorate (ClO4)	5/8/2015	110	5/15/2013	120	16	100	108	4.83	0.66	0	1	Increasing
MW 5-23	3	4	Perchlorate (ClO4)	5/8/2015	47	3/28/2006	80	16	100	-35	-1.54	0.15	0.12	0.88	Stable
MW 5-23	3	5	Perchlorate (ClO4)	5/8/2015	9.7	10/10/2006	22	16	100	-57	-2.55	0.22	0.01	0.99	Decreasing
MW 5-23	3	6	Perchlorate (ClO4)	5/8/2015	2 U	6/23/2004	4.1	16	12	--	--	--	--	--	NA
MW 5-26	3	1	Perchlorate (ClO4)	11/30/2015	2 U	9/30/2009	4 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	2	Perchlorate (ClO4)	12/4/2015	2 U	9/30/2009	4 U	24	4	--	--	--	--	--	NA
MW 5-26	3	3	Perchlorate (ClO4)	12/4/2015	2 U	9/30/2009	4 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	4	Perchlorate (ClO4)	12/1/2015	2 U	10/1/2009	4 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	5	Perchlorate (ClO4)	12/1/2015	2 U	4/15/2009	4 U	25	4	--	--	--	--	--	NA
MW 5-26	3	6	Perchlorate (ClO4)	5/6/2015	2 U	9/13/2006	13	23	57	-148	-4.06	0.92	0	1	Decreasing
MW 5-26	3	7	Perchlorate (ClO4)	12/1/2015	2 U	4/17/2009	4 U	24	8	--	--	--	--	--	NA
MW 5-27	3	1	Perchlorate (ClO4)	12/3/2015	2 U	10/6/2009	4 U	27	ND	--	--	--	--	--	NA
MW 5-27	3	2	Perchlorate (ClO4)	12/3/2015	2 U	10/6/2009	4 U	28	4	--	--	--	--	--	NA
MW 5-27	3	3	Perchlorate (ClO4)	12/3/2015	2 U	10/6/2009	4 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	4	Perchlorate (ClO4)	12/3/2015	2 U	10/31/2008	4 U	28	11	--	--	--	--	--	NA
MW 5-27	3	5	Perchlorate (ClO4)	12/3/2015	2 U	10/7/2009	4 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	6	Perchlorate (ClO4)	12/3/2015	1.1 J	9/11/2006	4.6	28	54	-162	-3.21	0.49	0	1	Decreasing
MW 5-27	3	7	Perchlorate (ClO4)	12/3/2015	2 U	10/7/2009	4 U	28	7	--	--	--	--	--	NA
MW 5-28D	3	1200	Perchlorate (ClO4)	11/23/2015	2 U	10/8/2009	4 U	56	ND	--	--	--	--	--	NA
MW 5-28I	3	1045	Perchlorate (ClO4)	11/23/2015	3.6	9/11/2006	4.4	56	64	192	1.36	0.36	0.17	0.83	No Trend
MW 5-28S	3	790	Perchlorate (ClO4)	11/23/2015	11	11/23/2015	11	56	98	990	7	0.33	0	1	Increasing

Notes:
COV - coefficient of variation calculated as the ratio of sample standard deviation to the sample mean.
Confidence in Trend is calculated as 1 - Probability.
Mann-Kendall (S) = Mann-Kendall test statistic.
N = sample size.
NA = not analyzed due to < 50% detection frequency.
p-value = the probability of observing a Mann-Kendall test statistic as extreme as the one actually observed.
-- = not calculated due to < 50% detection frequency.

TABLE C-5
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR TETRACHLOROETHENE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
VCWD E MAINE	1	250	Tetrachloroethene	4/29/2015	2.4	10/26/2004	110	59	56	329	2.21	2.72	0.03	0.97	Increasing
VCWD W MAINE	1	250	Tetrachloroethene	4/29/2015	4.4	10/26/2004	94	60	57	417	2.73	2.66	0.01	0.99	Increasing
VCWD MORADA	1	275	Tetrachloroethene	11/29/2005	6.7	11/29/2005	6.7	2	ND	--	--	--	--	--	NA
VCWD MORADA	1	430	Tetrachloroethene	4/30/2015	1.6	8/29/2007	3.3	9	100	-15	--	0.44	--	--	Probably Decreasing
VCWD MORADA	1	510	Tetrachloroethene	4/30/2015	1.4	8/29/2007	3.4	9	100	-13	--	0.46	--	--	Stable
SA1-3 (LANTE)	1	275	Tetrachloroethene	12/14/2015	38	12/16/2009	760	84	99	-1231	-4.75	0.66	0	1	Decreasing
LACO SANTA FE 1	1	290	Tetrachloroethene	4/30/2015	1 U	4/30/2015	1 U	11	18	--	--	--	--	--	NA
VCWD SA1-1	1	248	Tetrachloroethene	4/22/2015	1.3	7/3/2006	54	40	100	-474	-5.51	1.22	0	1	Decreasing
VCWD SA1-2	1	258	Tetrachloroethene	12/16/2009	4.8	7/3/2006	49	36	100	-223	-3.03	0.71	0	1	Decreasing
MW 5-03	1	1	Tetrachloroethene	12/16/2015	0.5 U	4/30/2015	1 U	20	25	--	--	--	--	--	NA
MW 5-03	1	10	Tetrachloroethene	11/2/2011	5.4	10/18/2006	8.8	6	100	1	--	0.45	0.5	0.5	No Trend
MW 5-03	1	2	Tetrachloroethene	12/16/2015	0.5 U	5/13/2004	1.2	20	35	--	--	--	--	--	NA
MW 5-03	1	3	Tetrachloroethene	12/16/2015	0.5 U	9/24/2007	1.3	20	10	--	--	--	--	--	NA
MW 5-03	1	4	Tetrachloroethene	12/17/2015	0.5 U	4/30/2015	1 U	20	60	-83	-2.74	0.33	0.01	0.99	Decreasing
MW 5-03	1	5	Tetrachloroethene	12/17/2015	0.68	9/25/2007	12	26	100	-193	-4.24	0.97	0	1	Decreasing
MW 5-03	1	6	Tetrachloroethene	12/17/2015	0.91	1/24/2006	200	26	100	-183	-4.02	1.87	0	1	Decreasing
MW 5-03	1	7	Tetrachloroethene	12/17/2015	0.5 U	10/18/2006	73	27	96	-135	-2.79	2.08	0.01	0.99	Decreasing
MW 5-03	1	8	Tetrachloroethene	12/18/2015	0.5 U	1/25/2006	19	28	89	-231	-4.55	1.3	0	1	Decreasing
MW 5-03	1	9	Tetrachloroethene	12/18/2015	0.5 U	10/18/2006	280	26	92	-142	-3.11	2.18	0	1	Decreasing
MW 5-11	1	1	Tetrachloroethene	12/18/2015	2.4	5/12/2004	95	22	100	-128	-3.58	0.99	0	1	Decreasing
MW 5-11	1	2	Tetrachloroethene	12/22/2015	12	4/14/2006	1000	23	100	-127	-3.33	1.5	0	1	Decreasing
MW 5-11	1	3	Tetrachloroethene	12/21/2015	1.2	3/19/2007	430	21	100	-109	-3.27	1.29	0	1	Decreasing
MW 5-13	1	1	Tetrachloroethene	12/21/2015	2	9/8/2009	16.7	19	100	-44	-1.51	0.7	0.13	0.87	Stable
MW 5-13	1	2	Tetrachloroethene	4/27/2015	38	6/25/2004	700	18	100	-73	-2.73	1.28	0.01	0.99	Decreasing
MW 5-13	1	3	Tetrachloroethene	4/29/2014	1.8	3/10/2006	1000	17	100	-70	-2.84	1.16	0	1	Decreasing
MW 5-17	1	1	Tetrachloroethene	12/22/2015	1.3	11/8/2004	50	19	100	-109	-3.78	1.15	0	1	Decreasing
MW 5-17	1	2	Tetrachloroethene	12/23/2015	38	5/25/2004	1900	19	100	-72	-2.49	2.13	0.01	0.99	Decreasing
MW 5-17	1	3	Tetrachloroethene	12/13/2013	60	3/21/2008	300	12	100	2	0.07	1.39	0.95	0.05	No Trend
MW 5-18	1	1	Tetrachloroethene	12/23/2015	1.2	12/23/2015	1.2	20	55	122	4	0.52	0	1	Increasing
MW 5-18	1	2	Tetrachloroethene	12/28/2015	2.4	7/6/2005	23	21	95	-63	-1.87	1.38	0.06	0.94	Probably Decreasing
MW 5-18	1	3	Tetrachloroethene	12/28/2015	1.1	4/13/2006	37	21	100	-90	-2.69	1.41	0.01	0.99	Decreasing
WHICO MP-1	1	1	Tetrachloroethene	5/21/2015	5.3	12/13/2004	33	15	100	-59	-2.88	0.58	0	1	Decreasing
WHICO MP-1	1	2	Tetrachloroethene	5/21/2015	7.3	6/14/2004	580	15	100	-93	-4.55	1.75	0	1	Decreasing
WHICO MP-1	1	3	Tetrachloroethene	5/21/2015	30	6/14/2004	780	15	100	-94	-4.61	1.07	0	1	Decreasing
WHICO MP-1	1	4	Tetrachloroethene	5/21/2015	120	7/26/2005	1120	15	100	-6	-0.25	0.9	0.8	0.2	Stable
WHICO MP-1	1	5	Tetrachloroethene	5/30/2014	11	5/2/2006	560 J	14	100	-15	-0.77	0.9	0.44	0.56	Stable
WHICO MP-1	1	6	Tetrachloroethene	5/30/2012	22	4/10/2007	110	7	100	-9	--	0.58	0.12	0.88	Stable
AJ MW-2R	1	274.4	Tetrachloroethene	10/9/2015	73	10/9/2015	73	8	100	13	--	0.74	--	--	Probably Increasing
AJ MW-4	1	293	Tetrachloroethene	11/23/2010	56	4/7/2004	2700	22	100	-57	-1.58	1.33	0.11	0.89	No Trend
AJ MW-6	1	274.6	Tetrachloroethene	10/9/2015	69	10/9/2015	69	8	100	17	--	0.97	--	--	Increasing
ALR MW-8	1	195	Tetrachloroethene	10/15/2015	0.56	10/16/2012	0.5 U	14	93	-19	-0.99	0.66	0.32	0.68	Stable
ALR MW-9	1	195	Tetrachloroethene	10/15/2015	7.4	10/25/2011	620	9	100	-4	--	1.35	0.38	0.62	No Trend
ALR MW-1R	1	258	Tetrachloroethene	10/30/2015	1.1	11/8/2006	13	15	100	-25	-1.19	0.86	0.23	0.77	Stable
MW 5-15	2	1	Tetrachloroethene	8/6/2015	2	3/20/2007	57	20	100	-27	-0.84	0.87	0.4	0.6	Stable
MW 5-15	2	2	Tetrachloroethene	8/6/2015	5.7	3/20/2007	210	20	100	-86	-2.76	0.95	0.01	0.99	Decreasing
MW 5-15	2	3	Tetrachloroethene	8/6/2015	2.2	3/20/2007	13	20	100	-106	-3.41	0.54	0	1	Decreasing
VCWD PADDY LN	2	300	Tetrachloroethene	2/24/2004	3.6	2/24/2004	3.6	1	ND	--	--	--	--	--	NA
VCWD PADDY LN	2	340	Tetrachloroethene	4/30/2015	1.6	9/12/2007	4.8	13	100	-51	-3.07	0.28	0	1	Decreasing
VCWD PADDY LN	2	460	Tetrachloroethene	4/30/2015	1.1	10/19/2006	5	12	100	-40	-2.69	0.42	0.01	0.99	Decreasing
VCWD BIG DALTON	2	250	Tetrachloroethene	2/24/2004	0.78	2/24/2004	0.78	1	ND	--	--	--	--	--	NA
VCWD BIG DALTON	2	275	Tetrachloroethene	9/2/2015	0.5 U	11/30/2005	2	12	33	--	--	--	--	--	NA
VCWD BIG DALTON	2	410	Tetrachloroethene	4/30/2015	1 U	11/30/2005	2.8	11	27	--	--	--	--	--	NA
CIC BALDWIN 1	2	120	Tetrachloroethene	5/9/2014	1 U	5/9/2014	1 U	7	ND	--	--	--	--	--	NA
CC E DURBIN	2	238	Tetrachloroethene	10/1/2008	4.2	11/15/2004	27	5	100	-10	--	0.5	0.01	0.99	Decreasing
MW 5-05	2	1	Tetrachloroethene	8/5/2015	98	8/5/2015	98	22	100	132	3.7	0.72	0	1	Increasing
MW 5-05	2	2	Tetrachloroethene	8/5/2015	240	5/11/2011	680	22	100	102	2.86	0.47	0	1	Increasing
MW 5-05	2	3	Tetrachloroethene	8/5/2015	82	4/12/2007	91 NJ	22	100	-58	-1.61	0.44	0.11	0.89	Stable
MW 5-05	2	4	Tetrachloroethene	8/5/2015	8	3/22/2012	31	22	100	69	1.92	0.58	0.05	0.95	Probably Increasing
MW 5-08	2	1	Tetrachloroethene	8/10/2015	1.2	8/10/2015	1.2	20	20	--	--	--	--	--	NA

TABLE C-5
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR TETRACHLOROETHENE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-08	2	2	Tetrachloroethene	8/10/2015	4.1	3/21/2012	13	19	89	72	2.49	0.9	0.01	0.99	Increasing
MW 5-08	2	3	Tetrachloroethene	8/10/2015	12	8/10/2015	12	19	84	38	1.3	1.06	0.2	0.8	No Trend
MW 5-08	2	4	Tetrachloroethene	8/10/2015	49	5/11/2011	370	19	100	-24	-0.81	0.79	0.42	0.58	Stable
MW 5-24	2	1	Tetrachloroethene	11/20/2015	1 U	7/19/2004	1.8	28	43	--	--	--	--	--	NA
MW 5-24	2	2	Tetrachloroethene	11/20/2015	1 U	7/20/2004	2.4	28	7	--	--	--	--	--	NA
MW 5-24	2	3	Tetrachloroethene	11/20/2015	3.6	10/27/2010	16	28	100	121	2.37	0.69	0.02	0.98	Increasing
MW 5-24	2	4	Tetrachloroethene	11/23/2015	64	3/1/2005	490	28	100	-179	-3.52	0.49	0	1	Decreasing
MW 5-24	2	5	Tetrachloroethene	11/23/2015	220	10/21/2011	570	28	100	-30	-0.57	0.25	0.57	0.43	Stable
MW 5-24	2	6	Tetrachloroethene	11/23/2015	25	5/27/2011	360	28	100	100	1.96	0.44	0.05	0.95	Increasing
MW 5-24	2	7	Tetrachloroethene	11/23/2015	8	6/20/2006	320	28	100	-180	-3.54	0.79	0	1	Decreasing
MW 5-25	2	1	Tetrachloroethene	11/19/2015	1 U	5/12/2014	1.9	28	21	--	--	--	--	--	NA
MW 5-25	2	2	Tetrachloroethene	11/19/2015	1 U	11/19/2015	1 U	28	4	--	--	--	--	--	NA
MW 5-25	2	3	Tetrachloroethene	11/19/2015	2.1	5/13/2014	2.2	28	50	291	5.86	0.78	0	1	Increasing
MW 5-25	2	4	Tetrachloroethene	11/19/2015	1.2	5/13/2014	2.5	28	93	43	0.83	0.38	0.4	0.6	No Trend
MW 5-25	2	5	Tetrachloroethene	11/19/2015	1 U	6/9/2006	8.4	28	79	-140	-2.75	1.01	0.01	0.99	Decreasing
MW 5-25	2	6	Tetrachloroethene	11/20/2015	1 U	6/9/2006	5.6	28	43	--	--	--	--	--	NA
MW 5-25	2	7	Tetrachloroethene	11/20/2015	1 U	6/9/2006	27	28	54	-149	-3.02	1.47	0	1	Decreasing
EPA MW 5-01	2	1	Tetrachloroethene	5/4/2015	1 U	5/4/2015	1 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	10	Tetrachloroethene	5/5/2015	1 U	5/5/2015	1 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	11	Tetrachloroethene	5/5/2015	1 U	3/30/2007	21	15	53	-6	-0.25	1.15	0.8	0.2	No Trend
EPA MW 5-01	2	12	Tetrachloroethene	5/5/2015	1 U	5/5/2015	1 U	2	ND	--	--	--	--	--	NA
EPA MW 5-01	2	13	Tetrachloroethene	5/9/2014	1 U	5/9/2014	1 U	14	21	--	--	--	--	--	NA
EPA MW 5-01	2	2	Tetrachloroethene	5/4/2015	1 U	5/4/2015	1 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	3	Tetrachloroethene	5/4/2015	1 U	5/4/2015	1 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	4	Tetrachloroethene	5/4/2015	1 U	5/4/2015	1 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	5	Tetrachloroethene	5/4/2015	1 U	5/4/2015	1 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	6	Tetrachloroethene	5/5/2015	1 U	5/5/2015	1 U	15	27	--	--	--	--	--	NA
EPA MW 5-01	2	7	Tetrachloroethene	5/5/2015	1 U	5/5/2015	1 U	16	38	--	--	--	--	--	NA
EPA MW 5-01	2	8	Tetrachloroethene	5/5/2015	1 U	9/27/2006	5.2	15	67	-10	-0.45	1.04	0.65	0.35	No Trend
EPA MW 5-01	2	9	Tetrachloroethene	5/5/2015	1 U	5/5/2015	1 U	16	25	--	--	--	--	--	NA
LACO KEY	2	75	Tetrachloroethene	5/30/2012	52	12/18/2006	280	12	100	-8	-0.48	0.7	0.63	0.37	Stable
SWS 139W2	3	167	Tetrachloroethene	6/1/2012	1 U	6/1/2012	1 U	6	ND	--	--	--	--	--	NA
SWS 139W2	3	285	Tetrachloroethene	5/1/2015	1 U	5/1/2015	1 U	2	ND	--	--	--	--	--	NA
SWS 139W2	3	370	Tetrachloroethene	5/1/2015	1 U	5/1/2015	1 U	6	17	--	--	--	--	--	NA
CDWC 3	3	197	Tetrachloroethene	6/1/2015	20	6/2/2014	32	67	100	1407	7.61	0.71	0	1	Increasing
COI 5	3	370	Tetrachloroethene	12/22/2015	11	12/18/2015	16	100	87	4157	12.38	0.77	0	1	Increasing
SWS 140W5	3	600	Tetrachloroethene	11/2/2015	0.67	6/16/2005	2	103	9	--	--	--	--	--	NA
SWS 139W6	3	750	Tetrachloroethene	5/1/2015	1 U	5/1/2015	1 U	2	ND	--	--	--	--	--	NA
SGVWC B25A	3	380	Tetrachloroethene	12/1/2015	26	1/8/2008	33	88	100	811	2.93	0.25	0	1	Increasing
SGVWC B25B	3	850	Tetrachloroethene	12/1/2015	8.6	10/1/2014	10	77	91	1084	4.77	0.51	0	1	Increasing
SGVWC B26A	3	400	Tetrachloroethene	12/1/2015	2.4	1/8/2008	6.3	95	100	-1472	-4.74	0.3	0	1	Decreasing
SGVWC B26B	3	850	Tetrachloroethene	12/1/2015	1.8	6/2/2009	7	114	91	2687	6.58	1.02	0	1	Increasing
SGVWC B5E	3	500	Tetrachloroethene	12/2/2015	2.5	10/1/2014	3.9	90	96	3215	11.21	0.65	0	1	Increasing
LPVCWD 5	3	590	Tetrachloroethene	12/8/2015	1.3	2/2/2009	3.2	54	100	-929	-6.95	0.33	0	1	Decreasing
SGVWC B5B	3	172	Tetrachloroethene	12/2/2015	1.9	7/2/2008	4.3	92	99	-194	-0.65	0.3	0.51	0.49	Stable
SGVWC B6D	3	760	Tetrachloroethene	11/12/2015	3.9	5/16/2012	7.2	49	100	347	2.98	0.6	0	1	Increasing
MW 5-19	3	1	Tetrachloroethene	4/29/2015	1 U	4/29/2015	1 U	16	ND	--	--	--	--	--	NA
MW 5-19	3	2	Tetrachloroethene	4/29/2015	1 U	4/29/2015	1 U	16	ND	--	--	--	--	--	NA
MW 5-19	3	3	Tetrachloroethene	12/4/2015	1.9	5/1/2014	8.9	24	54	175	4.41	1.11	0	1	Increasing
MW 5-19	3	4	Tetrachloroethene	12/4/2015	7.2	10/29/2014	38	23	65	206	5.47	1.63	0	1	Increasing
MW 5-19	3	5	Tetrachloroethene	12/4/2015	1.3	5/16/2013	6.4	23	96	41	1.06	0.47	0.29	0.71	No Trend
MW 5-19	3	6	Tetrachloroethene	4/29/2015	1 U	5/12/2009	3.8	16	6	--	--	--	--	--	NA
MW 5-20	3	1	Tetrachloroethene	4/28/2015	0.76 J	5/1/2014	1 U	15	13	--	--	--	--	--	NA
MW 5-20	3	2	Tetrachloroethene	4/28/2015	1 U	5/19/2009	2.1	15	67	16	0.75	0.61	0.45	0.55	No Trend
MW 5-20	3	3	Tetrachloroethene	4/28/2015	10	5/2/2014	19	15	100	63	3.08	0.4	0	1	Increasing
MW 5-20	3	4	Tetrachloroethene	4/28/2015	6.2	1/5/2006	15	16	100	-62	-2.75	0.3	0.01	0.99	Decreasing
MW 5-20	3	5	Tetrachloroethene	4/29/2015	0.9 J	5/17/2010	1 U	15	53	47	2.34	0.36	0.02	0.98	Increasing
MW 5-20	3	6	Tetrachloroethene	4/29/2015	0.89 J	6/24/2004	2	15	87	-74	-3.62	0.46	0	1	Decreasing
MW 5-20	3	7	Tetrachloroethene	4/29/2015	3.7	4/29/2015	3.7	15	93	54	2.63	0.96	0.01	0.99	Increasing

TABLE C-5
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR TETRACHLOROETHENE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-22	3	1	Tetrachloroethene	12/16/2015	0.5 U	5/1/2015	1 U	20	ND	--	--	--	--	--	NA
MW 5-22	3	2	Tetrachloroethene	12/16/2015	1.4	12/16/2015	1.4	20	20	--	--	--	--	--	NA
MW 5-22	3	3	Tetrachloroethene	12/16/2015	8.5	9/24/2014	11	20	85	171	5.53	1.02	0	1	Increasing
MW 5-22	3	4	Tetrachloroethene	12/15/2015	0.5 U	5/1/2015	1 U	20	ND	--	--	--	--	--	NA
MW 5-22	3	5	Tetrachloroethene	12/15/2015	0.5 U	10/6/2006	1.2	20	45	--	--	--	--	--	NA
MW 5-22	3	6	Tetrachloroethene	12/15/2015	2.7	9/23/2014	4.2	20	100	102	3.29	0.4	0	1	Increasing
MW 5-23	3	1	Tetrachloroethene	5/8/2015	1.2	5/13/2014	2.8	16	75	80	3.57	0.78	0	1	Increasing
MW 5-23	3	2	Tetrachloroethene	5/8/2015	2	5/8/2015	2	16	75	61	2.71	0.54	0.01	0.99	Increasing
MW 5-23	3	3	Tetrachloroethene	5/8/2015	18	5/25/2012	20	15	100	88	4.31	0.67	0	1	Increasing
MW 5-23	3	4	Tetrachloroethene	5/8/2015	1.6	7/29/2005	2.8	16	100	-29	-1.27	0.25	0.2	0.8	Stable
MW 5-23	3	5	Tetrachloroethene	5/8/2015	1.7	12/28/2005	5.1 J	16	94	-54	-2.39	0.44	0.02	0.98	Decreasing
MW 5-23	3	6	Tetrachloroethene	5/8/2015	1 U	5/8/2015	1 U	16	ND	--	--	--	--	--	NA
MW 5-26	3	1	Tetrachloroethene	11/30/2015	1 U	11/30/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	2	Tetrachloroethene	12/4/2015	1 U	12/4/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	3	Tetrachloroethene	12/4/2015	1 U	12/4/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	4	Tetrachloroethene	12/1/2015	1 U	12/1/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	5	Tetrachloroethene	12/1/2015	1 U	12/1/2015	1 U	25	ND	--	--	--	--	--	NA
MW 5-26	3	6	Tetrachloroethene	5/6/2015	0.68 J	10/29/2010	1.8	23	74	32	0.83	0.53	0.41	0.59	No Trend
MW 5-26	3	7	Tetrachloroethene	12/1/2015	1 U	12/1/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-27	3	1	Tetrachloroethene	12/3/2015	1 U	12/3/2015	1 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	2	Tetrachloroethene	12/3/2015	1 U	12/3/2015	1 U	29	ND	--	--	--	--	--	NA
MW 5-27	3	3	Tetrachloroethene	12/3/2015	1 U	12/3/2015	1 U	29	ND	--	--	--	--	--	NA
MW 5-27	3	4	Tetrachloroethene	12/3/2015	1 U	12/3/2015	1 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	5	Tetrachloroethene	12/3/2015	1 U	12/3/2015	1 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	6	Tetrachloroethene	12/3/2015	1 U	12/3/2015	1 U	28	7	--	--	--	--	--	NA
MW 5-27	3	7	Tetrachloroethene	12/3/2015	0.53 J	5/6/2015	1 U	28	4	--	--	--	--	--	NA
MW 5-28D	3	1200	Tetrachloroethene	11/23/2015	1 U	11/23/2015	1 U	56	2	--	--	--	--	--	NA
MW 5-28I	3	1045	Tetrachloroethene	11/23/2015	1 U	11/23/2015	1 U	56	ND	--	--	--	--	--	NA
MW 5-28S	3	790	Tetrachloroethene	11/23/2015	1 U	11/23/2015	1 U	56	2	--	--	--	--	--	NA

Notes:
COV - coefficient of variation calculated as the ratio of sample standard deviation to the sample mean.
Confidence in Trend is calculated as 1 - Probability.
Mann-Kendall (S) = Mann-Kendall test statistic.
N = sample size.
NA = not analyzed due to < 50% detection frequency.
p-value = the probability of observing a Mann-Kendall test statistic as extreme as the one actually observed.
-- = not calculated due to < 50% detection frequency.

TABLE C-6
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR TRICHLOROETHENE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
VCWD E MAINE	1	250	Trichloroethene	4/29/2015	1	10/26/2004	36	59	27	--	--	--	--	--	NA
VCWD W MAINE	1	250	Trichloroethene	4/29/2015	2.2	10/26/2004	42	60	35	--	--	--	--	--	NA
VCWD MORADA	1	275	Trichloroethene	11/29/2005	3.3	11/29/2005	3.3	2	ND	--	--	--	--	--	NA
VCWD MORADA	1	430	Trichloroethene	4/30/2015	1 U	8/29/2007	2.4	9	56	-14	--	0.85	0.09	0.91	Probably Decreasing
VCWD MORADA	1	510	Trichloroethene	4/30/2015	1 U	8/29/2007	2	9	67	-15	--	0.78	--	--	Probably Decreasing
SA1-3 (LANTE)	1	275	Trichloroethene	12/14/2015	15	5/4/2006	218	84	99	-1895	-7.33	0.58	0	1	Decreasing
LACO SANTA FE 1	1	290	Trichloroethene	4/30/2015	1 U	5/31/2012	1.9	11	36	--	--	--	--	--	NA
VCWD SA1-1	1	248	Trichloroethene	4/22/2015	0.5 U	7/3/2006	40	40	82	-530	-6.18	1.22	0	1	Decreasing
VCWD SA1-2	1	258	Trichloroethene	12/16/2009	2	7/3/2006	33	36	100	-305	-4.14	0.84	0	1	Decreasing
MW 5-03	1	1	Trichloroethene	12/16/2015	0.6	4/30/2015	1.2	20	80	136	4.4	0.51	0	1	Increasing
MW 5-03	1	10	Trichloroethene	11/2/2011	4.2	1/25/2006	12	6	100	-7	--	0.51	0.14	0.86	Stable
MW 5-03	1	2	Trichloroethene	12/16/2015	0.5 U	9/24/2007	2.1	20	60	-117	-3.8	0.63	0	1	Decreasing
MW 5-03	1	3	Trichloroethene	12/16/2015	0.5 U	9/24/2007	3.6	20	30	--	--	--	--	--	NA
MW 5-03	1	4	Trichloroethene	12/17/2015	0.5 U	3/22/2007	1.3	20	45	--	--	--	--	--	NA
MW 5-03	1	5	Trichloroethene	12/17/2015	0.5 U	10/18/2006	8.8	26	69	-233	-5.14	1.11	0	1	Decreasing
MW 5-03	1	6	Trichloroethene	12/17/2015	0.5 U	1/24/2006	49	26	69	-201	-4.43	1.81	0	1	Decreasing
MW 5-03	1	7	Trichloroethene	12/17/2015	0.5 U	4/11/2006	36	27	89	-168	-3.48	1.8	0	1	Decreasing
MW 5-03	1	8	Trichloroethene	12/18/2015	0.69	4/12/2006	120	28	96	-184	-3.62	1.5	0	1	Decreasing
MW 5-03	1	9	Trichloroethene	12/18/2015	0.5 U	10/18/2006	110	26	92	-128	-2.8	1.53	0.01	0.99	Decreasing
MW 5-11	1	1	Trichloroethene	12/18/2015	0.5 U	5/12/2004	53	22	95	-179	-5.02	1.12	0	1	Decreasing
MW 5-11	1	2	Trichloroethene	12/22/2015	8.7	1/3/2006	190	23	100	-70	-1.83	1.08	0.07	0.93	Probably Decreasing
MW 5-11	1	3	Trichloroethene	12/21/2015	9.2	3/19/2007	150	21	100	-49	-1.45	0.98	0.15	0.85	Stable
MW 5-13	1	1	Trichloroethene	12/21/2015	3.9	6/25/2004	13	19	95	-99	-3.44	1.02	0	1	Decreasing
MW 5-13	1	2	Trichloroethene	4/27/2015	19	4/10/2009	120	18	100	-17	-0.61	0.49	0.54	0.46	Stable
MW 5-13	1	3	Trichloroethene	4/29/2014	1.3	3/10/2006	360	16	100	-62	-2.75	1.12	0.01	0.99	Decreasing
MW 5-17	1	1	Trichloroethene	12/22/2015	0.79	11/8/2004	43	19	100	-120	-4.17	1.15	0	1	Decreasing
MW 5-17	1	2	Trichloroethene	12/23/2015	40	5/25/2004	480	19	100	-33	-1.12	1.46	0.26	0.74	No Trend
MW 5-17	1	3	Trichloroethene	12/13/2013	26	3/21/2008	100	12	100	-8	-0.48	1.24	0.63	0.37	No Trend
MW 5-18	1	1	Trichloroethene	12/23/2015	1.6	12/23/2015	1.6	20	40	--	--	--	--	--	NA
MW 5-18	1	2	Trichloroethene	12/28/2015	0.5 U	7/6/2005	7.6	21	52	-129	-3.96	1.34	0	1	Decreasing
MW 5-18	1	3	Trichloroethene	12/28/2015	1.4	7/7/2005	11	21	100	-39	-1.15	0.85	0.25	0.75	Stable
WHICO MP-1	1	1	Trichloroethene	5/21/2015	1.5	12/13/2004	33	15	100	-102	-5	0.95	0	1	Decreasing
WHICO MP-1	1	2	Trichloroethene	5/21/2015	16	6/14/2004	130	15	100	-67	-3.28	1.01	0	1	Decreasing
WHICO MP-1	1	3	Trichloroethene	5/21/2015	32	6/14/2004	130	15	100	-55	-2.68	0.64	0.01	0.99	Decreasing
WHICO MP-1	1	4	Trichloroethene	5/21/2015	37	7/26/2005	323	15	100	-4	-0.15	0.71	0.88	0.12	Stable
WHICO MP-1	1	5	Trichloroethene	5/30/2014	3.6	5/2/2006	190	14	100	-13	-0.66	0.8	0.51	0.49	Stable
WHICO MP-1	1	6	Trichloroethene	5/30/2012	17	4/10/2007	52	7	100	-6	--	0.48	--	--	Stable
AJ MW-2R	1	274.4	Trichloroethene	10/9/2015	31	2/26/2014	91	8	100	-4	--	0.54	0.36	0.64	Stable
AJ MW-4	1	293	Trichloroethene	11/23/2010	120	7/6/2004	850	22	100	-63	-1.75	0.64	0.08	0.92	Probably Decreasing
AJ MW-6	1	274.6	Trichloroethene	10/9/2015	54	5/29/2014	77	8	100	8	--	0.42	0.2	0.8	No Trend
ALR MW-8	1	195	Trichloroethene	10/15/2015	0.45 J	10/16/2012	0.5 U	14	93	13	0.66	1.44	0.51	0.49	No Trend
ALR MW-9	1	195	Trichloroethene	10/15/2015	5.1	10/25/2011	160	9	100	-3	--	1.4	--	--	No Trend
ALR MW-1R	1	258	Trichloroethene	10/30/2015	2.4	10/17/2012	0.5 U	15	100	-14	-0.65	1.04	0.52	0.48	No Trend
MW 5-15	2	1	Trichloroethene	8/6/2015	20	3/20/2007	440	20	100	-144	-4.64	0.6	0	1	Decreasing
MW 5-15	2	2	Trichloroethene	8/6/2015	7.4	3/20/2007	380	20	100	-111	-3.57	0.89	0	1	Decreasing
MW 5-15	2	3	Trichloroethene	8/6/2015	2.5	3/20/2007	48	20	100	-119	-3.83	0.67	0	1	Decreasing
VCWD PADDY LN	2	300	Trichloroethene	2/24/2004	45	2/24/2004	45	1	ND	--	--	--	--	--	NA
VCWD PADDY LN	2	340	Trichloroethene	4/30/2015	14	5/20/2010	53	13	100	-36	-2.14	0.37	0.03	0.97	Decreasing
VCWD PADDY LN	2	460	Trichloroethene	4/30/2015	10	10/13/2008	35	12	100	-45	-3.04	0.3	0	1	Decreasing
VCWD BIG DALTON	2	250	Trichloroethene	2/24/2004	0.98	2/24/2004	0.98	1	ND	--	--	--	--	--	NA
VCWD BIG DALTON	2	275	Trichloroethene	9/2/2015	0.5 U	9/6/2007	6.8	12	67	-45	-3.04	0.88	0	1	Decreasing
VCWD BIG DALTON	2	410	Trichloroethene	4/30/2015	1 U	11/30/2005	1.4	11	55	-16	-1.2	0.53	0.23	0.77	Stable
CIC BALDWIN 1	2	120	Trichloroethene	5/9/2014	1 U	5/9/2014	1 U	7	ND	--	--	--	--	--	NA
CC E DURBIN	2	238	Trichloroethene	10/1/2008	2.2	11/15/2004	32	5	100	-10	--	0.62	0.01	0.99	Decreasing
MW 5-05	2	1	Trichloroethene	8/5/2015	240	4/29/2014	360	22	100	128	3.59	0.64	0	1	Increasing

TABLE C-6
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR TRICHLOROETHENE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

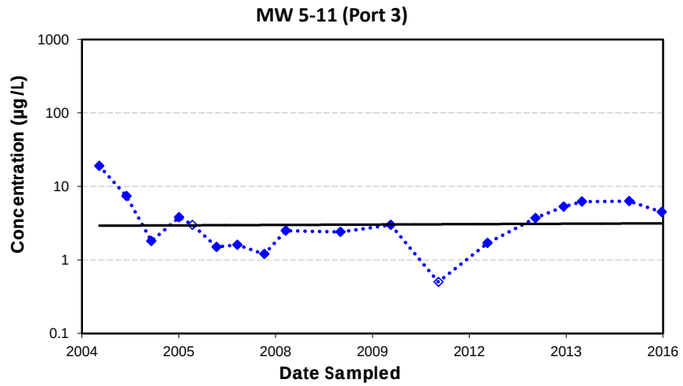
Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-05	2	2	Trichloroethene	8/5/2015	230	5/11/2011	490	22	100	93	2.61	0.28	0.01	0.99	Increasing
MW 5-05	2	3	Trichloroethene	8/5/2015	150	5/11/2011	540	22	100	-88	-2.46	0.34	0.01	0.99	Decreasing
MW 5-05	2	4	Trichloroethene	8/5/2015	20	5/11/2011	72	22	100	122	3.42	0.69	0	1	Increasing
MW 5-08	2	1	Trichloroethene	8/10/2015	1.1	8/10/2015	1.1	20	20	--	--	--	--	--	NA
MW 5-08	2	2	Trichloroethene	8/10/2015	3.5	3/21/2012	10	19	100	66	2.28	0.75	0.02	0.98	Increasing
MW 5-08	2	3	Trichloroethene	8/10/2015	12	8/10/2015	12	19	89	37	1.26	1.03	0.21	0.79	No Trend
MW 5-08	2	4	Trichloroethene	8/10/2015	76	5/11/2011	310	19	100	-34	-1.16	0.55	0.25	0.75	Stable
MW 5-24	2	1	Trichloroethene	11/20/2015	1 U	11/20/2015	1 U	28	4	--	--	--	--	--	NA
MW 5-24	2	2	Trichloroethene	11/20/2015	1 U	7/20/2004	1.5	28	4	--	--	--	--	--	NA
MW 5-24	2	3	Trichloroethene	11/20/2015	7.8	10/27/2010	32	28	100	107	2.1	0.71	0.04	0.96	Increasing
MW 5-24	2	4	Trichloroethene	11/23/2015	91	3/1/2005	610	28	100	-173	-3.4	0.5	0	1	Decreasing
MW 5-24	2	5	Trichloroethene	11/23/2015	140	7/21/2004	780	28	100	-280	-5.52	0.49	0	1	Decreasing
MW 5-24	2	6	Trichloroethene	11/23/2015	13	10/27/2010	270	28	100	-92	-1.81	0.36	0.07	0.93	Probably Decreasing
MW 5-24	2	7	Trichloroethene	11/23/2015	4.9	6/13/2005	141	28	100	-261	-5.14	0.69	0	1	Decreasing
MW 5-25	2	1	Trichloroethene	11/19/2015	1 U	11/19/2015	1 U	28	4	--	--	--	--	--	NA
MW 5-25	2	2	Trichloroethene	11/19/2015	1 U	11/19/2015	1 U	28	ND	--	--	--	--	--	NA
MW 5-25	2	3	Trichloroethene	11/19/2015	1 U	11/19/2015	1 U	28	25	--	--	--	--	--	NA
MW 5-25	2	4	Trichloroethene	11/19/2015	1 U	9/7/2005	5.7	28	89	-285	-5.62	0.75	0	1	Decreasing
MW 5-25	2	5	Trichloroethene	11/19/2015	1 U	9/15/2006	11	28	71	-222	-4.43	1.16	0	1	Decreasing
MW 5-25	2	6	Trichloroethene	11/20/2015	1 U	6/9/2006	17	28	57	-111	-2.25	1.51	0.02	0.98	Decreasing
MW 5-25	2	7	Trichloroethene	11/20/2015	1 U	6/9/2006	30	28	54	-123	-2.49	1.61	0.01	0.99	Decreasing
EPA MW 5-01	2	1	Trichloroethene	5/4/2015	1 U	5/4/2015	1 U	14	ND	--	--	--	--	--	NA
EPA MW 5-01	2	10	Trichloroethene	5/5/2015	1 U	3/29/2007	3.3	15	87	-60	-2.93	0.58	0	1	Decreasing
EPA MW 5-01	2	11	Trichloroethene	5/5/2015	1 U	3/30/2007	29	15	67	-14	-0.65	1.14	0.52	0.48	No Trend
EPA MW 5-01	2	12	Trichloroethene	5/5/2015	1 U	5/5/2015	1 U	2	ND	--	--	--	--	--	NA
EPA MW 5-01	2	13	Trichloroethene	5/9/2014	1 U	12/8/2005	1.4	14	36	--	--	--	--	--	NA
EPA MW 5-01	2	2	Trichloroethene	5/4/2015	1 U	5/4/2015	1 U	14	21	--	--	--	--	--	NA
EPA MW 5-01	2	3	Trichloroethene	5/4/2015	1 U	5/13/2010	1.2	15	13	--	--	--	--	--	NA
EPA MW 5-01	2	4	Trichloroethene	5/4/2015	1 U	4/21/2009	2.1	15	27	--	--	--	--	--	NA
EPA MW 5-01	2	5	Trichloroethene	5/4/2015	1 U	5/4/2015	1 U	15	ND	--	--	--	--	--	NA
EPA MW 5-01	2	6	Trichloroethene	5/5/2015	1 U	5/7/2004	9.6	15	67	-64	-3.19	1.38	0	1	Decreasing
EPA MW 5-01	2	7	Trichloroethene	5/5/2015	0.99 J	12/7/2005	11	16	100	-111	-4.96	0.7	0	1	Decreasing
EPA MW 5-01	2	8	Trichloroethene	5/5/2015	1 U	9/27/2006	7.7	15	87	-61	-2.98	0.82	0	1	Decreasing
EPA MW 5-01	2	9	Trichloroethene	5/5/2015	1.1	5/10/2004	13	16	100	-80	-3.56	0.73	0	1	Decreasing
LACO KEY	2	75	Trichloroethene	5/30/2012	64	5/20/2010	280	12	100	-8	-0.48	0.53	0.63	0.37	Stable
SWS 139W2	3	167	Trichloroethene	6/1/2012	1 U	6/1/2012	1 U	6	ND	--	--	--	--	--	NA
SWS 139W2	3	285	Trichloroethene	5/1/2015	1 U	5/1/2015	1 U	2	ND	--	--	--	--	--	NA
SWS 139W2	3	370	Trichloroethene	5/1/2015	1 U	5/1/2015	1 U	6	ND	--	--	--	--	--	NA
CDWC 3	3	197	Trichloroethene	6/1/2015	25	2/3/2014	43	67	100	1283	6.94	0.66	0	1	Increasing
COI 5	3	370	Trichloroethene	12/22/2015	3.6	12/18/2015	4.5	100	100	1384	4.13	0.23	0	1	Increasing
SWS 140W5	3	600	Trichloroethene	11/2/2015	7.9	10/9/2012	0.5 U	103	82	1487	4.25	1.12	0	1	Increasing
SWS 139W6	3	750	Trichloroethene	5/1/2015	1 U	5/1/2015	1 U	2	ND	--	--	--	--	--	NA
SGVWC B25A	3	380	Trichloroethene	12/1/2015	47	1/8/2008	81	88	100	117	0.42	0.28	0.68	0.32	No Trend
SGVWC B25B	3	850	Trichloroethene	12/1/2015	28	6/1/2015	31	77	97	1284	5.65	0.54	0	1	Increasing
SGVWC B26A	3	400	Trichloroethene	12/1/2015	34	1/8/2008	70	95	100	-1159	-3.73	0.22	0	1	Decreasing
SGVWC B26B	3	850	Trichloroethene	12/1/2015	69	3/3/2015	70	114	99	5252	12.87	0.59	0	1	Increasing
SGVWC B5E	3	500	Trichloroethene	12/2/2015	14	10/1/2014	21	90	100	3254	11.35	0.57	0	1	Increasing
LPVCWD 5	3	590	Trichloroethene	12/8/2015	15	2/2/2009	34	54	100	-743	-5.56	0.3	0	1	Decreasing
SGVWC B5B	3	172	Trichloroethene	12/2/2015	2.4	3/5/2008	5.9	92	98	-2062	-6.96	0.28	0	1	Decreasing
SGVWC B6D	3	760	Trichloroethene	11/12/2015	100	5/12/2010	110	49	98	393	3.38	0.43	0	1	Increasing
MW 5-19	3	1	Trichloroethene	4/29/2015	1 U	4/29/2015	1 U	16	ND	--	--	--	--	--	NA
MW 5-19	3	2	Trichloroethene	4/29/2015	1 U	4/29/2015	1 U	16	ND	--	--	--	--	--	NA
MW 5-19	3	3	Trichloroethene	12/4/2015	6	5/1/2014	24	24	92	201	4.97	1.08	0	1	Increasing
MW 5-19	3	4	Trichloroethene	12/4/2015	17	10/29/2014	93	23	91	209	5.5	1.37	0	1	Increasing
MW 5-19	3	5	Trichloroethene	12/4/2015	2.4	5/16/2013	13	23	96	-113	-2.96	0.44	0	1	Decreasing

TABLE C-6
MANN-KENDALL STATISTICAL ANALYSIS RESULTS FOR TRICHLOROETHENE (2004-2015)
Baldwin Park Operable Unit
San Gabriel Valley, California

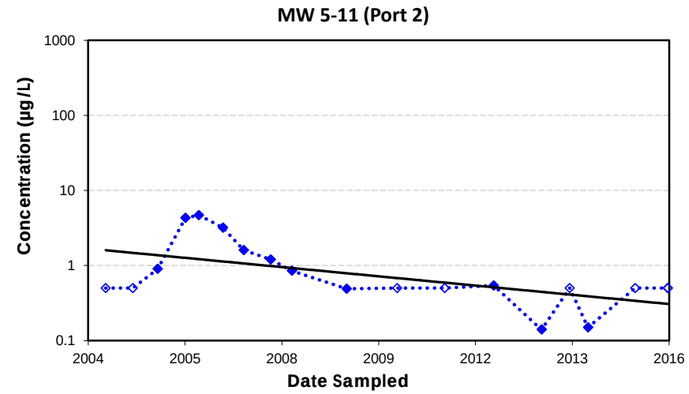
Location	Subarea	Sample Depth	Analyte	Most Recent Sample Date	Most Result Sample Result	Peak Value Sample Date	Peak Value Sample Result	N	Detection Frequency	Mann-Kendall (S)	Z Statistic	COV	Probability	Confidence In Trend	Concentration Trend
MW 5-19	3	6	Trichloroethene	4/29/2015	1 U	5/12/2009	7.5	16	6	--	--	--	--	--	NA
MW 5-20	3	1	Trichloroethene	4/28/2015	63	4/28/2015	63	15	93	10	0.45	1.84	0.66	0.34	No Trend
MW 5-20	3	2	Trichloroethene	4/28/2015	1.7	5/19/2009	11	15	80	12	0.55	0.85	0.58	0.42	No Trend
MW 5-20	3	3	Trichloroethene	4/28/2015	110	5/2/2014	170	15	100	89	4.4	0.51	0	1	Increasing
MW 5-20	3	4	Trichloroethene	4/28/2015	69	1/5/2006	120	16	100	-30	-1.31	0.19	0.19	0.81	Stable
MW 5-20	3	5	Trichloroethene	4/29/2015	16	4/29/2015	16	15	100	25	1.19	0.42	0.23	0.77	No Trend
MW 5-20	3	6	Trichloroethene	4/29/2015	1.3	11/18/2004	7.5	15	100	-92	-4.51	0.65	0	1	Decreasing
MW 5-20	3	7	Trichloroethene	4/29/2015	6.9	4/29/2015	6.9	15	100	49	2.38	0.97	0.02	0.98	Increasing
MW 5-22	3	1	Trichloroethene	12/16/2015	0.5 U	5/1/2015	1 U	20	ND	--	--	--	--	--	NA
MW 5-22	3	2	Trichloroethene	12/16/2015	8.9	12/16/2015	8.9	20	30	--	--	--	--	--	NA
MW 5-22	3	3	Trichloroethene	12/16/2015	66	5/29/2014	75	20	100	177	5.71	0.92	0	1	Increasing
MW 5-22	3	4	Trichloroethene	12/15/2015	3.6	5/1/2015	4.6	20	40	--	--	--	--	--	NA
MW 5-22	3	5	Trichloroethene	12/15/2015	0.5 U	6/28/2004	3.3	20	60	-150	-4.88	0.8	0	1	Decreasing
MW 5-22	3	6	Trichloroethene	12/15/2015	0.99	5/19/2011	1.9	20	95	-5	-0.13	0.29	0.9	0.1	Stable
MW 5-23	3	1	Trichloroethene	5/8/2015	4.4	5/13/2014	11	16	88	98	4.38	0.85	0	1	Increasing
MW 5-23	3	2	Trichloroethene	5/8/2015	7.5	5/8/2015	7.5	16	100	61	2.71	0.39	0.01	0.99	Increasing
MW 5-23	3	3	Trichloroethene	5/8/2015	95	5/25/2012	130	15	100	85	4.16	0.67	0	1	Increasing
MW 5-23	3	4	Trichloroethene	5/8/2015	23	4/11/2008	61	16	100	-25	-1.08	0.2	0.28	0.72	Stable
MW 5-23	3	5	Trichloroethene	5/8/2015	2.3	4/3/2007	5.8	16	100	-35	-1.53	0.51	0.13	0.87	Stable
MW 5-23	3	6	Trichloroethene	5/8/2015	1 U	5/8/2015	1 U	16	ND	--	--	--	--	--	NA
MW 5-26	3	1	Trichloroethene	11/30/2015	1 U	11/30/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	2	Trichloroethene	12/4/2015	1 U	12/4/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	3	Trichloroethene	12/4/2015	1 U	12/4/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	4	Trichloroethene	12/1/2015	1 U	12/1/2015	1 U	24	ND	--	--	--	--	--	NA
MW 5-26	3	5	Trichloroethene	12/1/2015	1 U	12/1/2015	1 U	25	ND	--	--	--	--	--	NA
MW 5-26	3	6	Trichloroethene	5/6/2015	1 U	6/22/2006	7.5	23	61	-152	-4.12	1	0	1	Decreasing
MW 5-26	3	7	Trichloroethene	12/1/2015	1 U	12/1/2015	1 U	24	29	--	--	--	--	--	NA
MW 5-27	3	1	Trichloroethene	12/3/2015	1 U	12/3/2015	1 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	2	Trichloroethene	12/3/2015	1 U	12/3/2015	1 U	29	ND	--	--	--	--	--	NA
MW 5-27	3	3	Trichloroethene	12/3/2015	1 U	12/3/2015	1 U	29	ND	--	--	--	--	--	NA
MW 5-27	3	4	Trichloroethene	12/3/2015	0.85 J	5/11/2010	2.3	28	39	--	--	--	--	--	NA
MW 5-27	3	5	Trichloroethene	12/3/2015	1 U	12/3/2015	1 U	28	ND	--	--	--	--	--	NA
MW 5-27	3	6	Trichloroethene	12/3/2015	0.53 J	3/24/2006	1.5	28	46	--	--	--	--	--	NA
MW 5-27	3	7	Trichloroethene	12/3/2015	0.45 J	6/27/2006	1.4	28	7	--	--	--	--	--	NA
MW 5-28D	3	1200	Trichloroethene	11/23/2015	1 U	11/23/2015	1 U	56	2	--	--	--	--	--	NA
MW 5-28I	3	1045	Trichloroethene	11/23/2015	1 U	11/23/2015	1 U	56	2	--	--	--	--	--	NA
MW 5-28S	3	790	Trichloroethene	11/23/2015	1 U	11/23/2015	1 U	56	ND	--	--	--	--	--	NA

Notes:
COV - coefficient of variation calculated as the ratio of sample standard deviation to the sample mean.
Confidence in Trend is calculated as 1 - Probability.
Mann-Kendall (S) = Mann-Kendall test statistic.
N = sample size.
NA = not analyzed due to < 50% detection frequency.
p-value = the probability of observing a Mann-Kendall test statistic as extreme as the one actually observed.
-- = not calculated due to < 50% detection frequency.

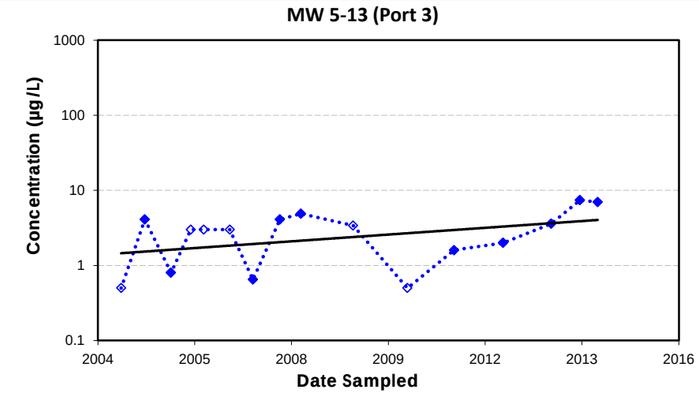
CHARTS



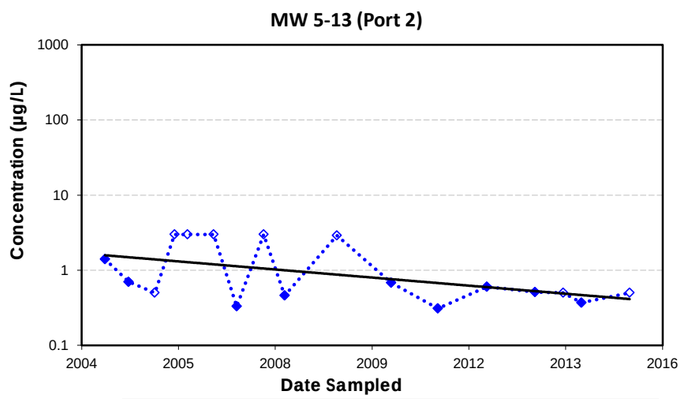
MW 5-11 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	18	20	No Trend



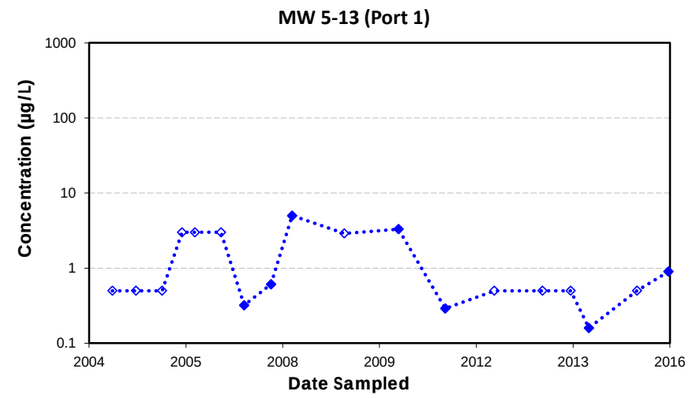
MW 5-11 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	19	-73	Decreasing



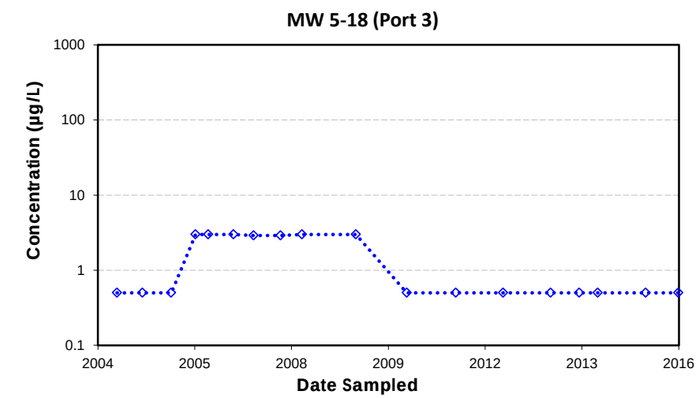
MW 5-13 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	51	Increasing



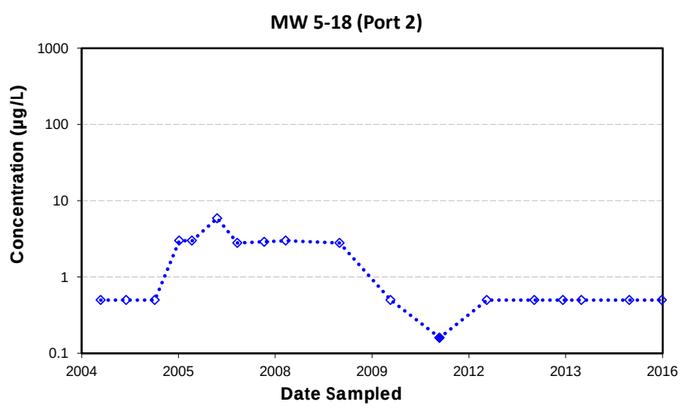
MW 5-13 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	17	-53	Decreasing



MW 5-13 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-18 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-18 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

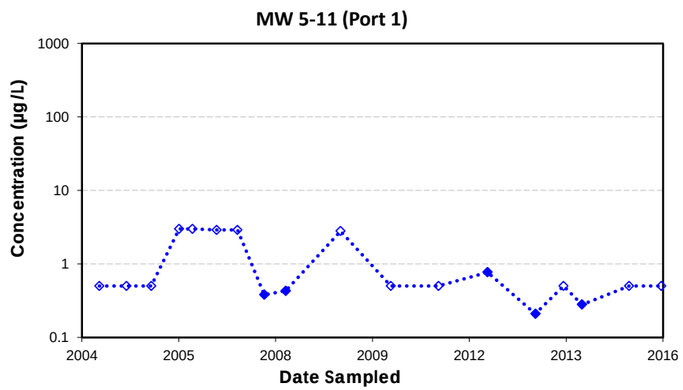
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 1, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

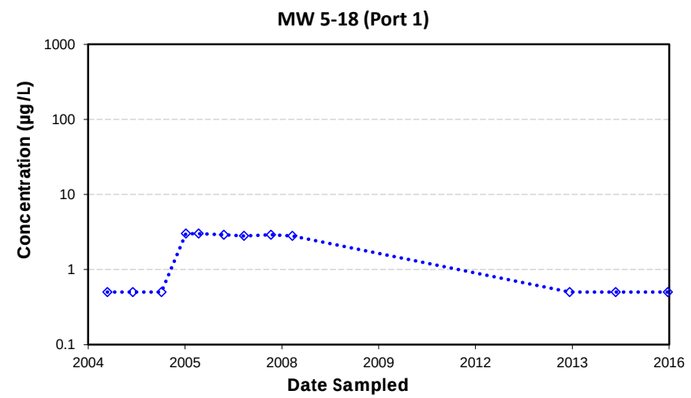
Project No.: SAC150

Chart **C1-1**

\\sdcsrvnw-nb-01\Data\GIS\SAC150_BPOU\database\output\shp\mann-kendall\Charts\BPOU_MK_1-4D_Charts.xlsm\plot_C1-1



MW 5-11 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-18 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	12	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

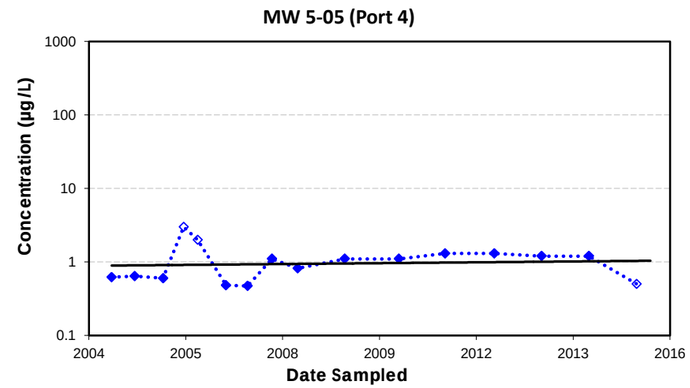
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 1, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

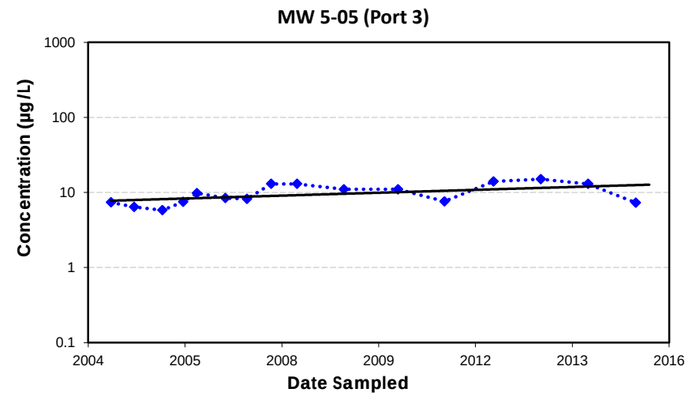
Project No.: SAC150

Chart **C1-2**

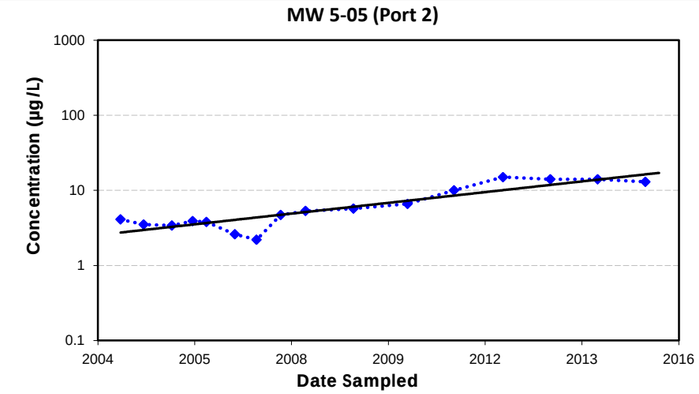
\\sacramento-01\Data\GIS\SAC150_BPOU\database\shp\shs\mann-kendall\Charts\BPOU_MK_14D_Charts.aprx\gis_C1-1



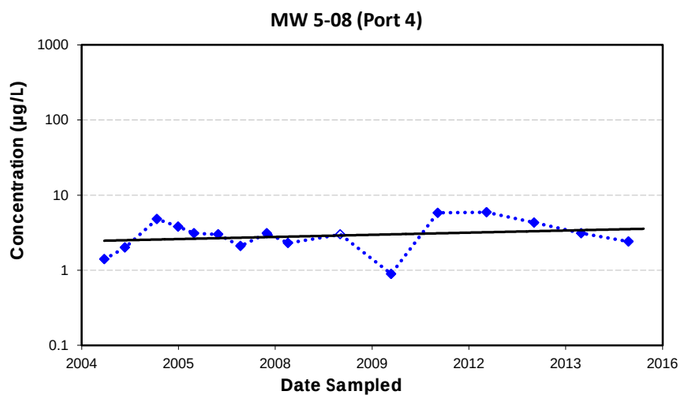
MW 5-05 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	29	No Trend



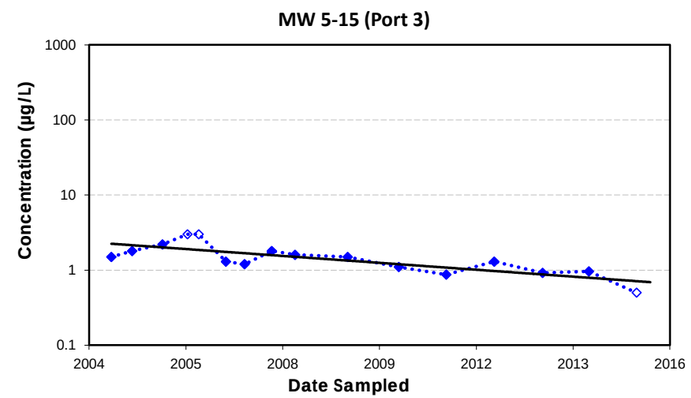
MW 5-05 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	52	Increasing



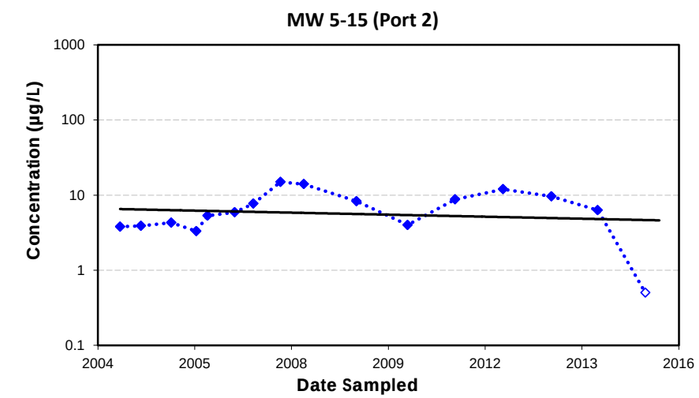
MW 5-05 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	75	Increasing



MW 5-08 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	13	No Trend



MW 5-15 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	-70	Decreasing



MW 5-15 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	36	No Trend

1,4-Dioxane

Trendline (2004-2015)

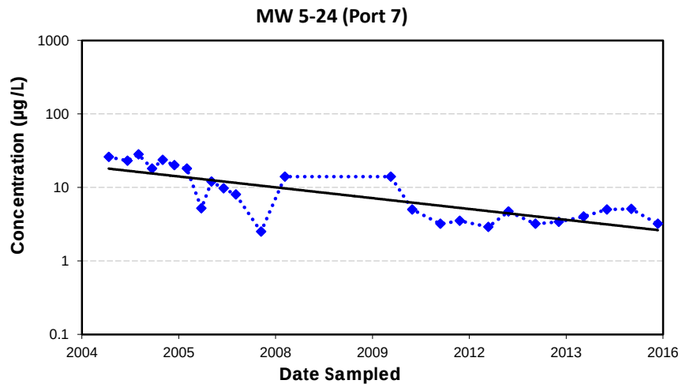
Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

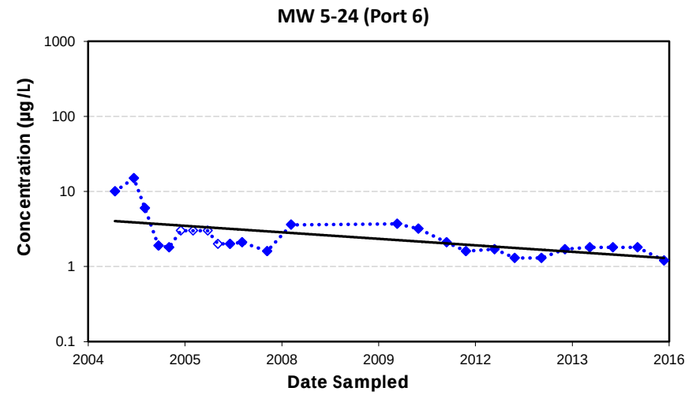
Geosyntec consultants

Project No.: SAC150

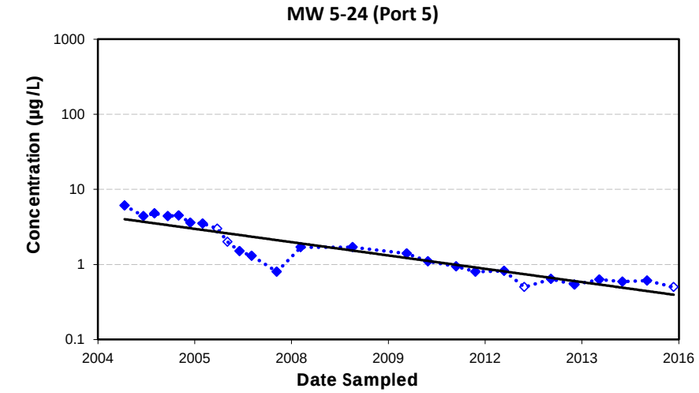
Chart **C1-3**



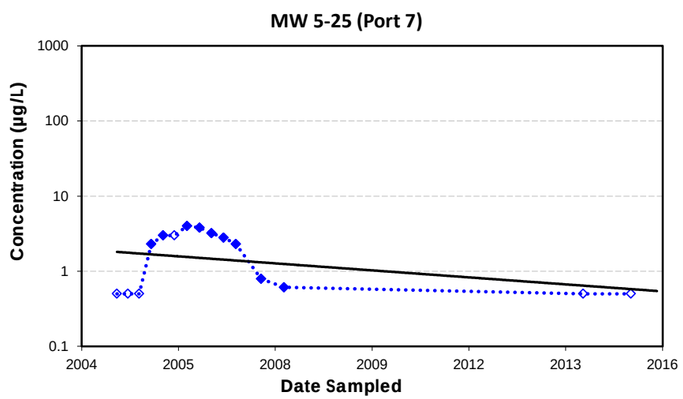
MW 5-24 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	25	-176	Decreasing



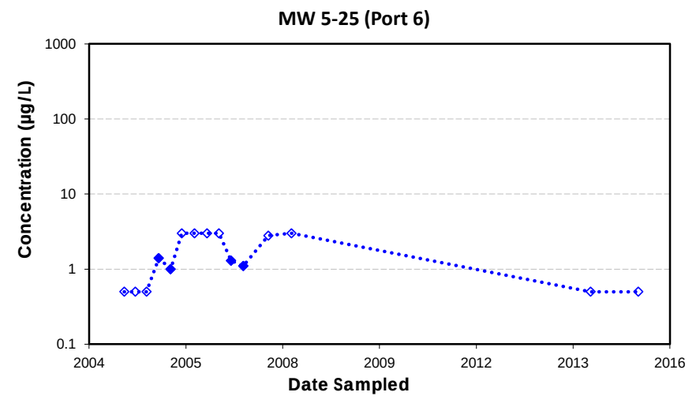
MW 5-24 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	25	-77	Probably Decreasing



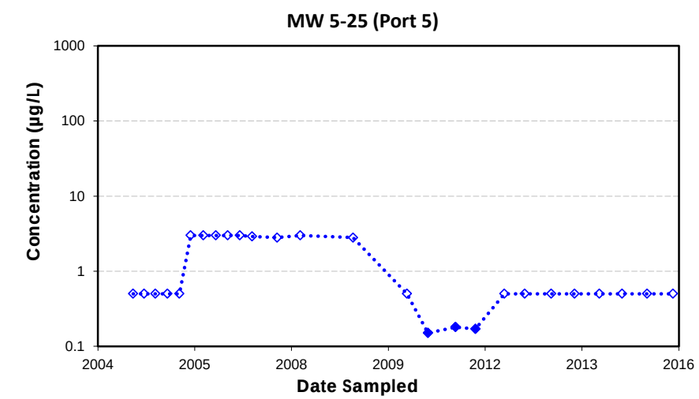
MW 5-24 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	26	-256	Decreasing



MW 5-25 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	15	-8	Stable



MW 5-25 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	15	--	NA



MW 5-25 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	26	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

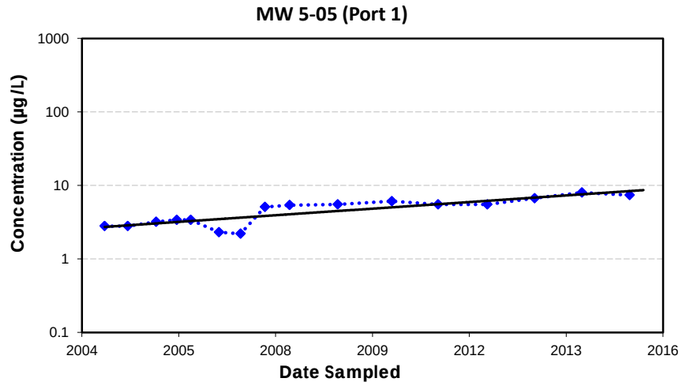
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

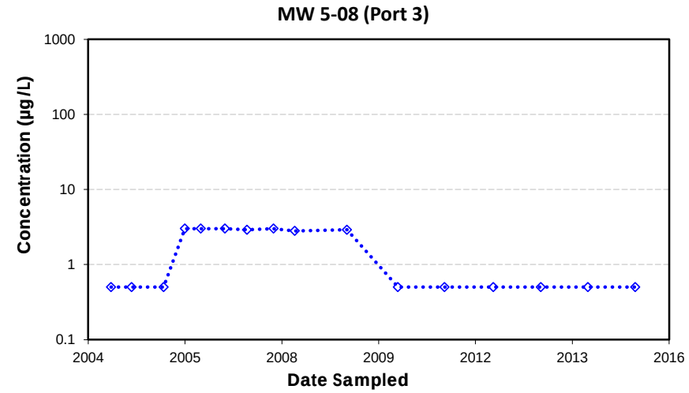
Project No.: SAC150

Chart **C1-4**

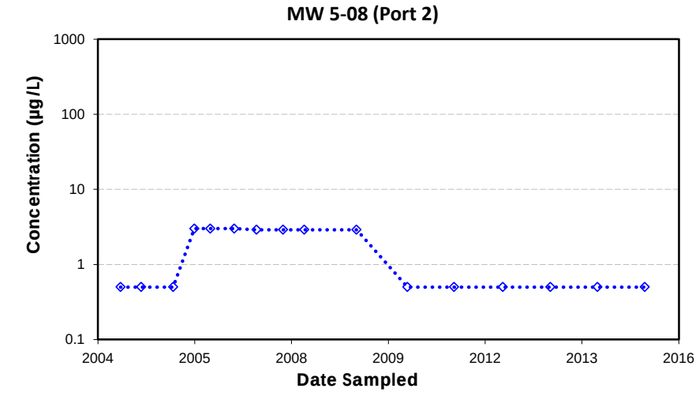
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_14D_Charts.xlsm]pick_C1-1



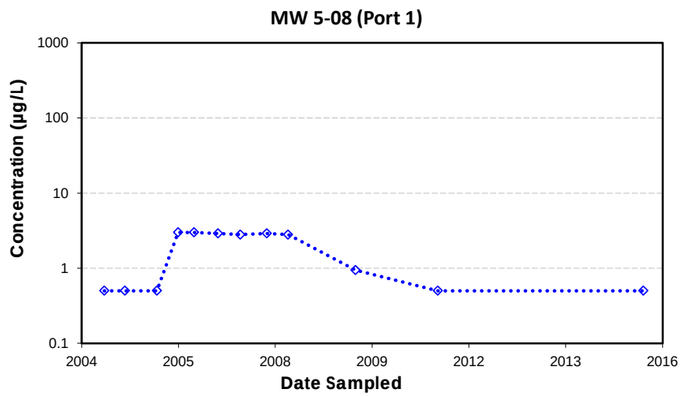
MW 5-05 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	87	Increasing



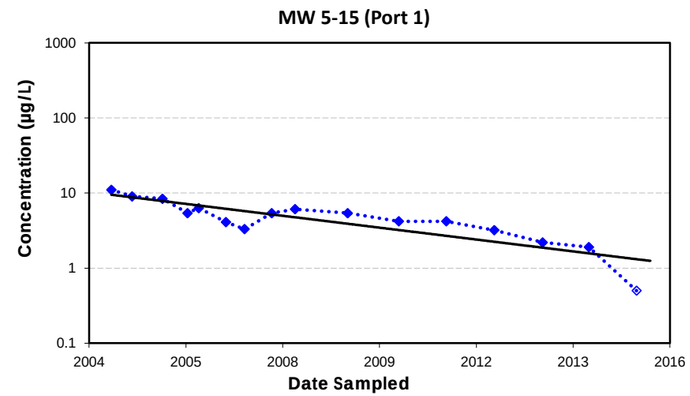
MW 5-08 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-08 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-08 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	12	--	NA



MW 5-15 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	-90	Decreasing

1,4-Dioxane

Trendline (2004-2015)

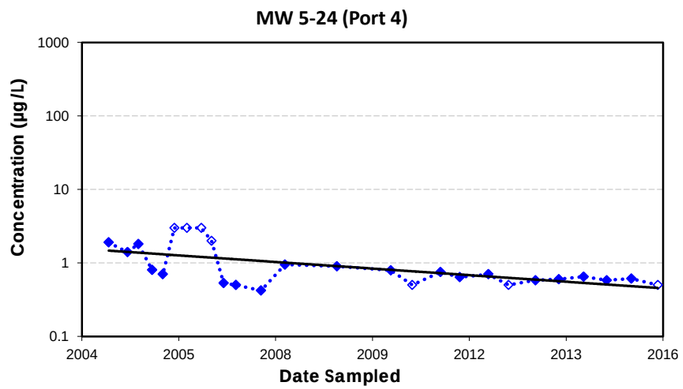
Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

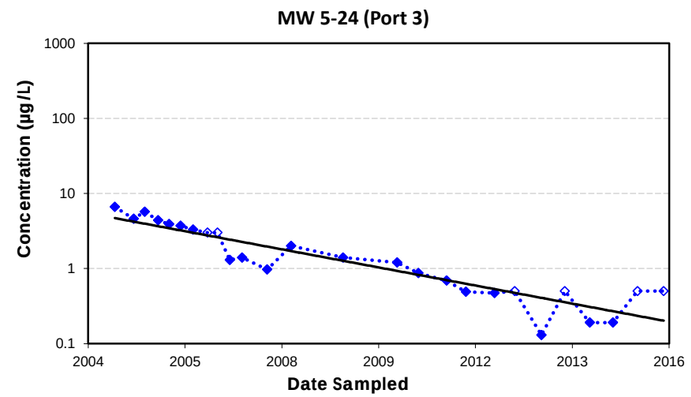
Geosyntec consultants

Project No.: SAC150

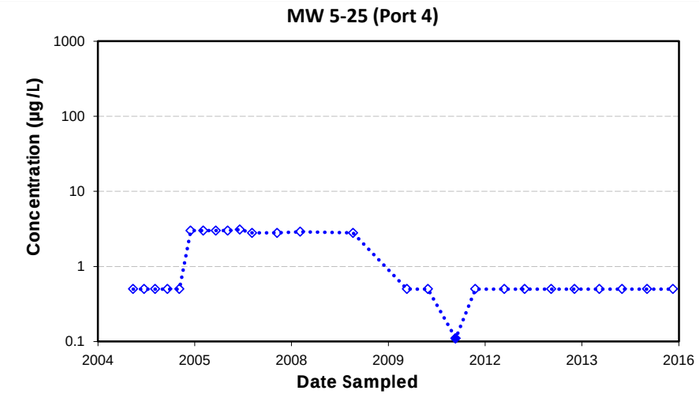
Chart **C1-5**



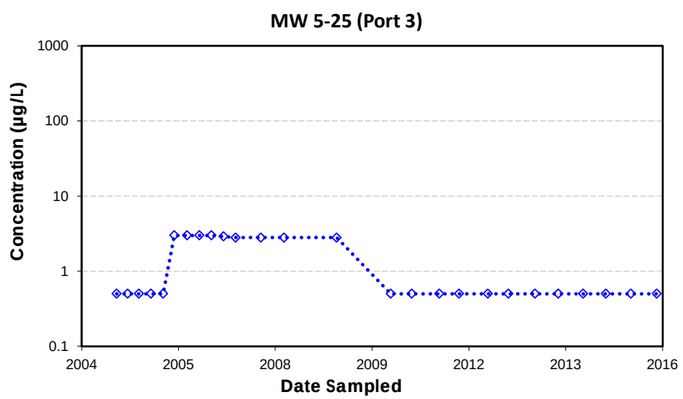
MW 5-24 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	26	-173	Decreasing



MW 5-24 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	26	-278	Decreasing



MW 5-25 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	26	--	NA



MW 5-25 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	26	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

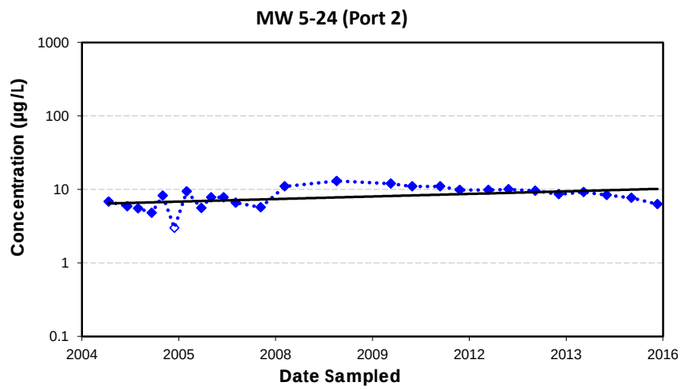
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

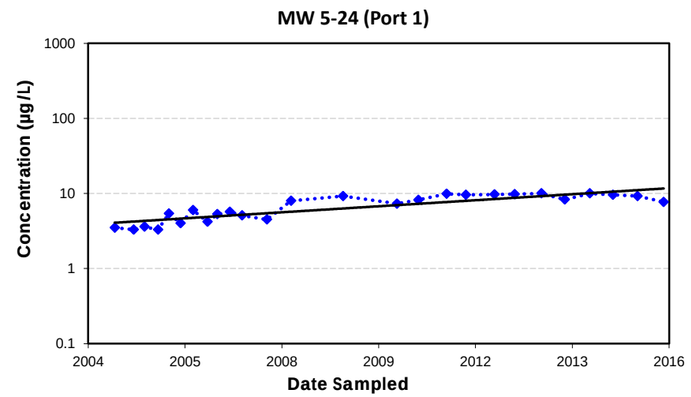
Project No.: SAC150

Chart **C1-6**

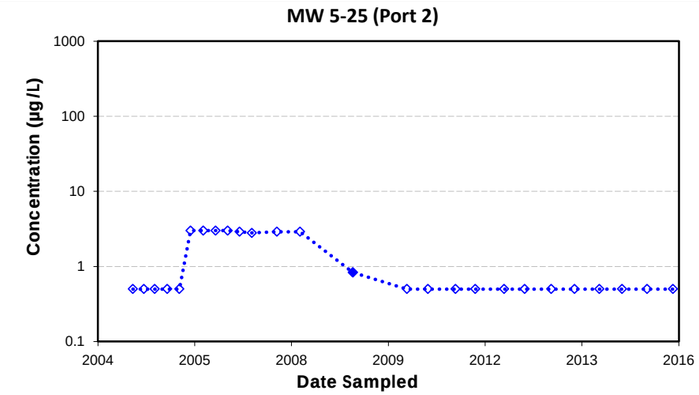
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_14D_Charts.xlsm]pick_C1-1



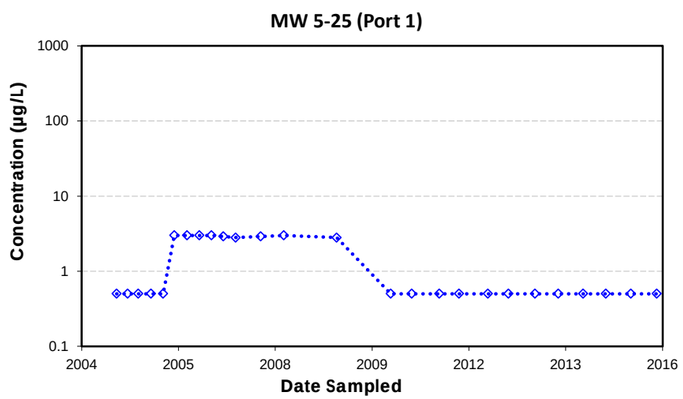
MW 5-24 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	26	68	No Trend



MW 5-24 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	26	213	Increasing



MW 5-25 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	26	--	NA



MW 5-25 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	26	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

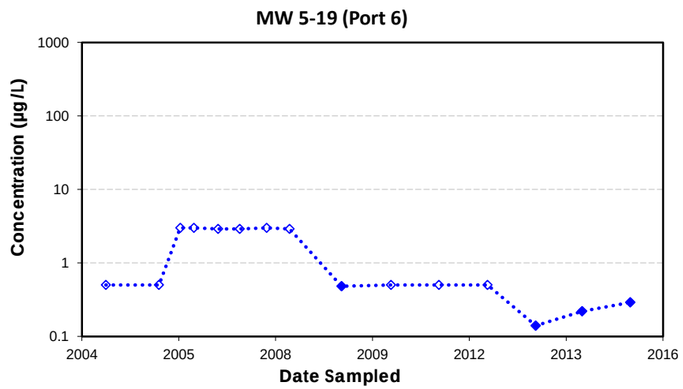
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

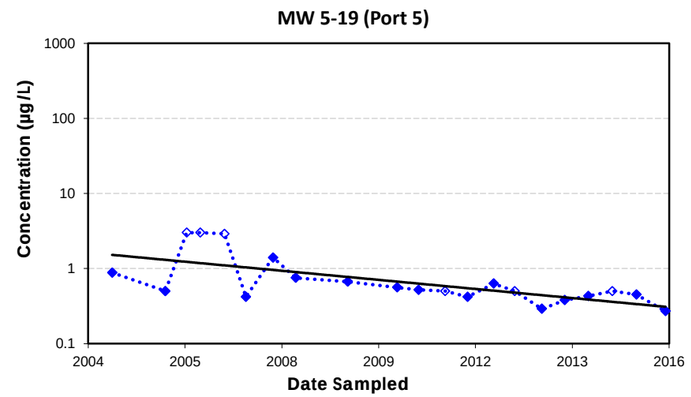
Project No.: SAC150

Chart **C1-7**

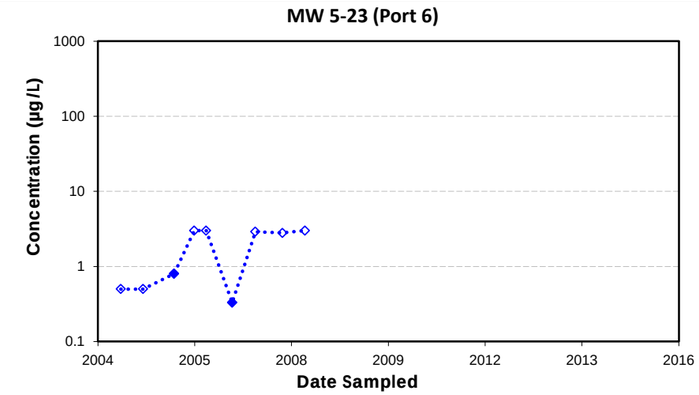
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_14D_Charts.xlsm]pick_C1-1



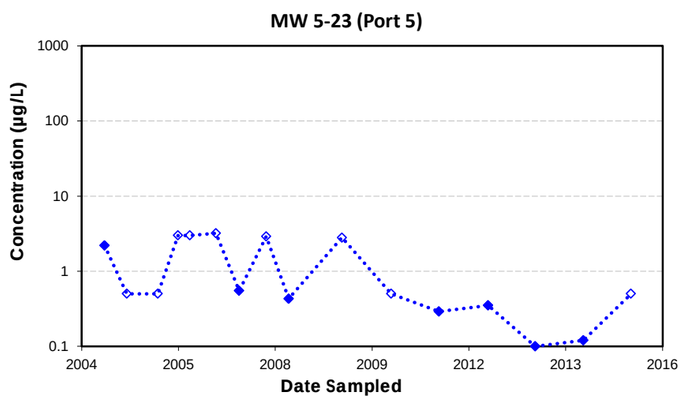
MW 5-19 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	15	--	NA



MW 5-19 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	21	-113	Decreasing



MW 5-23 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-23 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

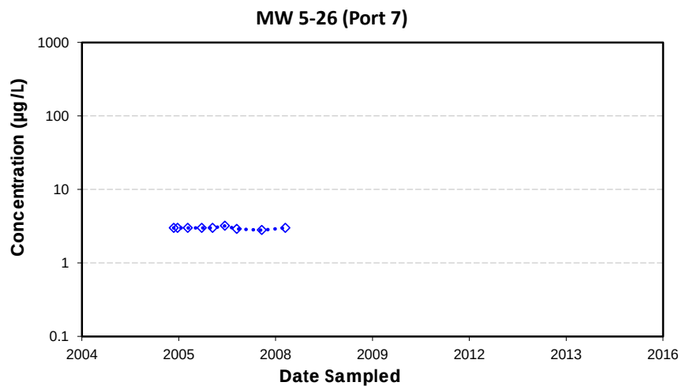
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

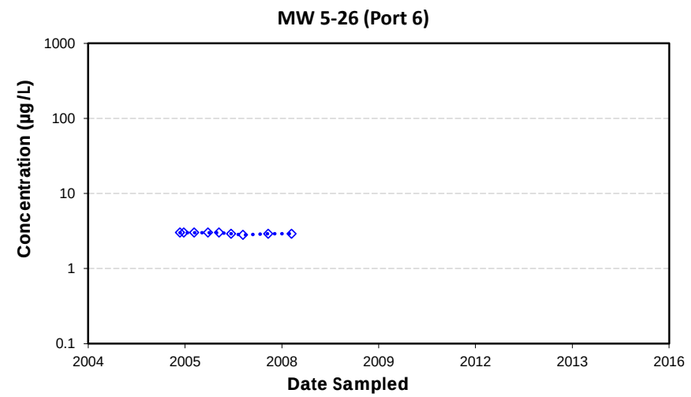
Project No.: SAC150

Chart **C1-8**

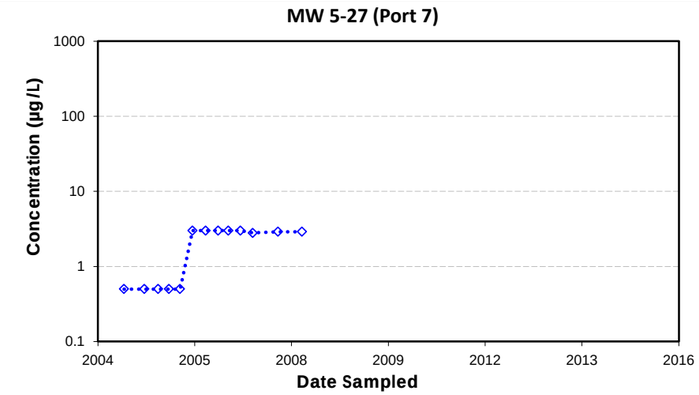
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_1-4D_Charts.xlsm]pick_C1-1



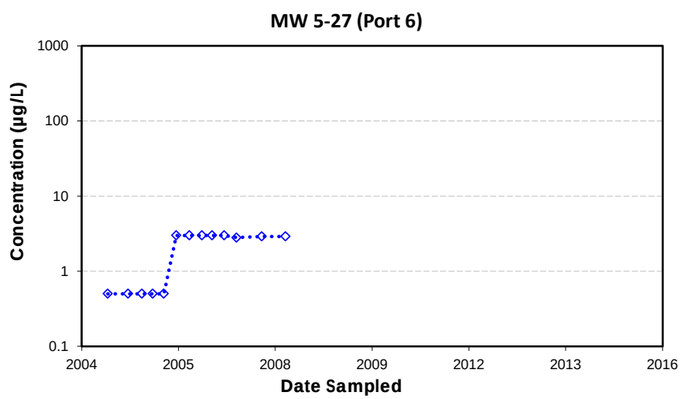
MW 5-26 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-26 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-27 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	13	--	NA



MW 5-27 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	13	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

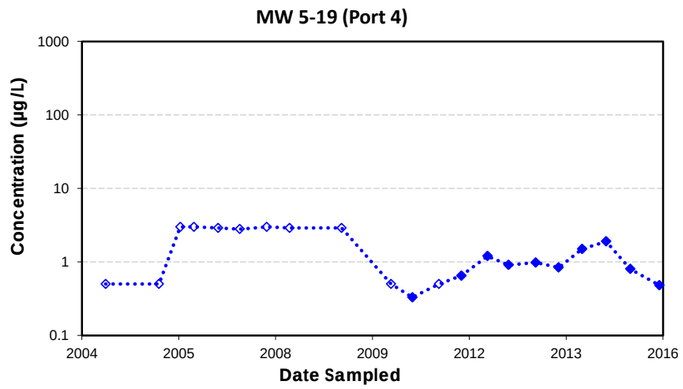
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

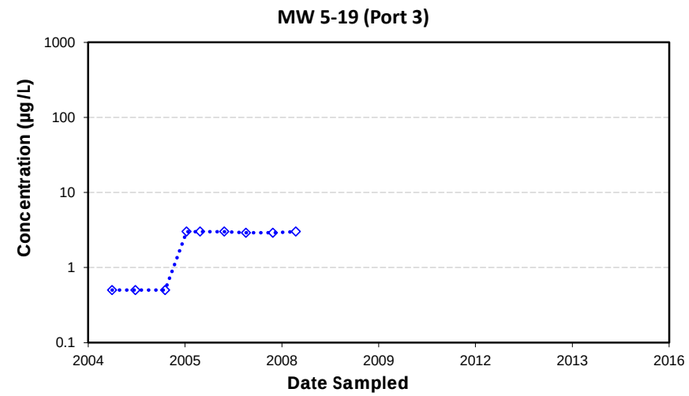
Project No.: SAC150

Chart **C1-9**

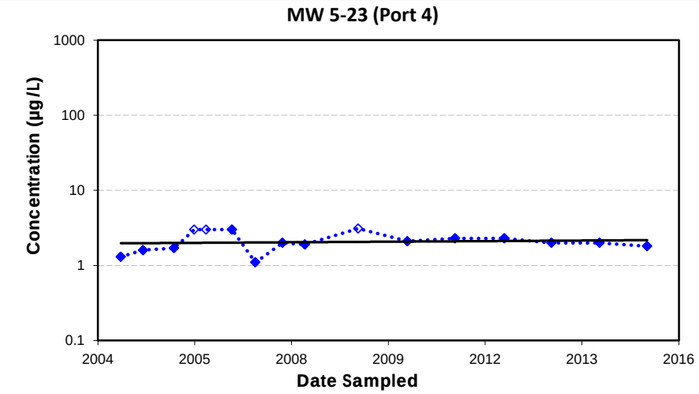
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_14D_Charts.xlsm]pick_C1-1



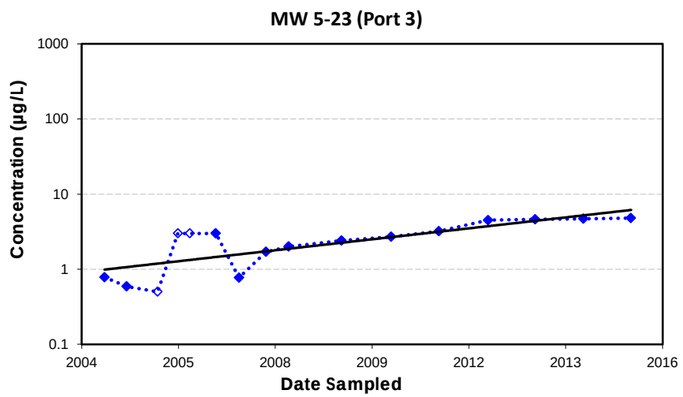
MW 5-19 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	21	--	NA



MW 5-19 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-23 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	41	Probably Increasing



MW 5-23 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	97	Increasing

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

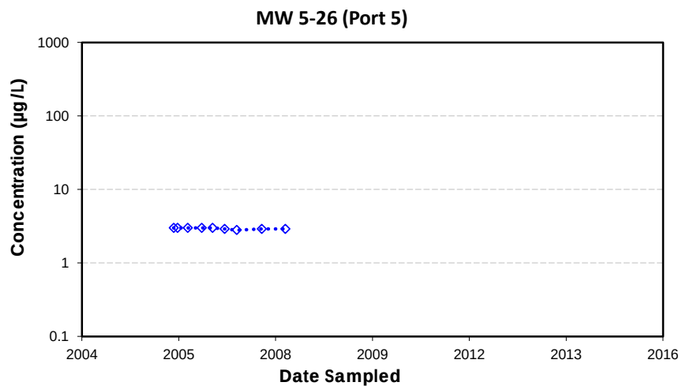
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

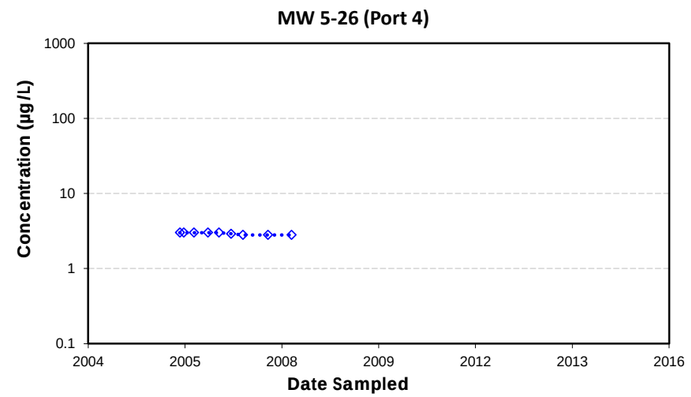
Project No.: SAC150

Chart **C1-10**

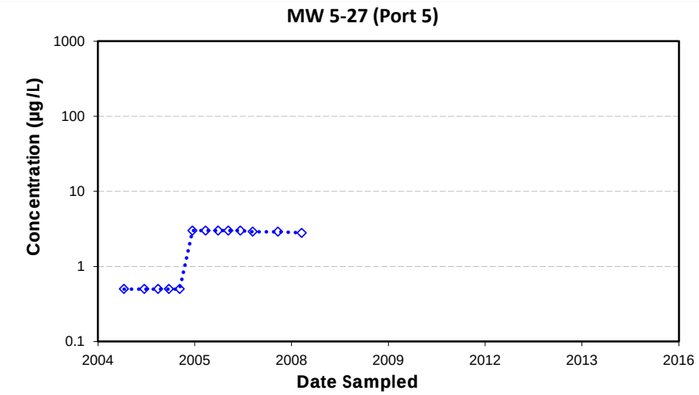
fl:\sacramento-011\data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_140_Charts.xlsm]plot_C1-1



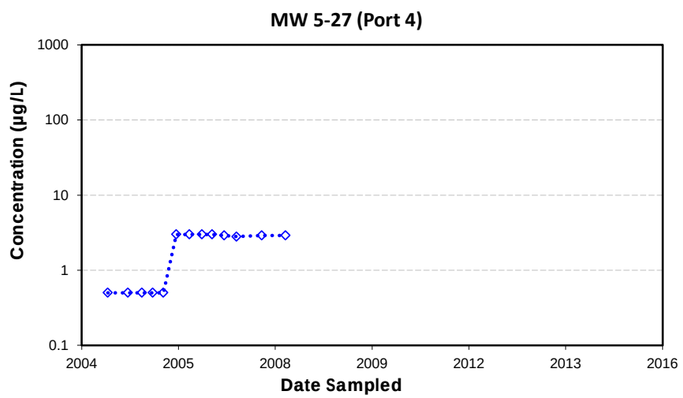
MW 5-26 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-26 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-27 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	13	--	NA



MW 5-27 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	13	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

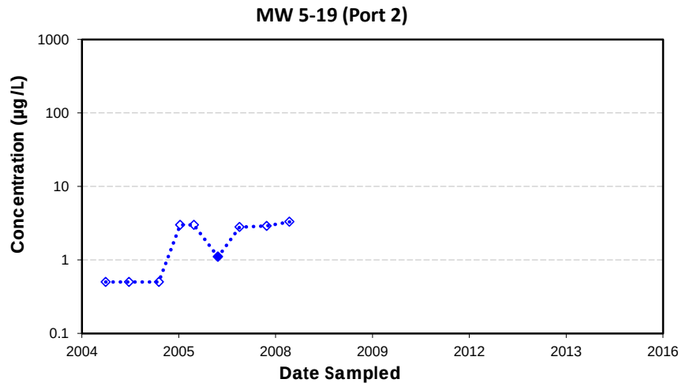
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

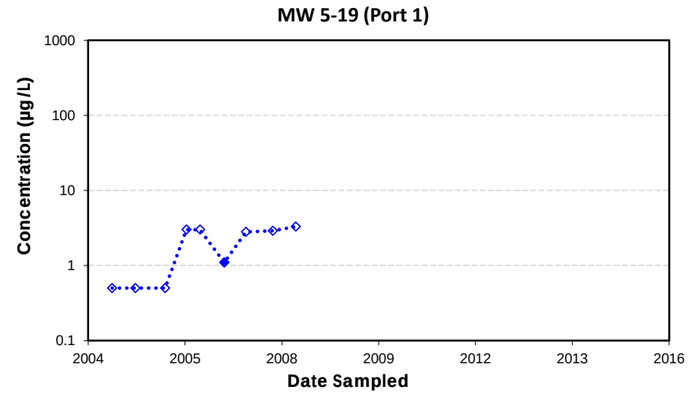
Project No.: SAC150

Chart **C1-11**

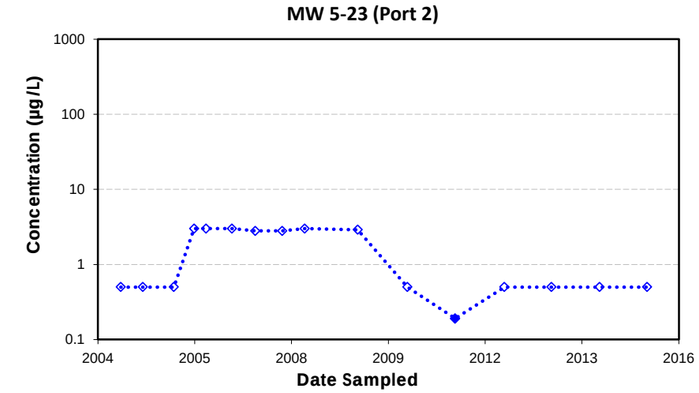
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_140_Charts.xlsm]pick_C1-1



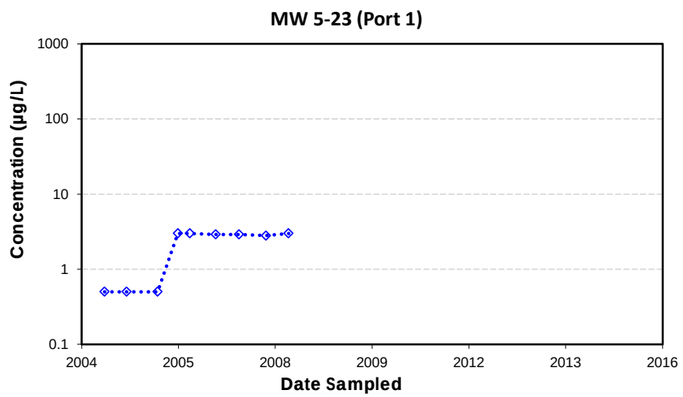
MW 5-19 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



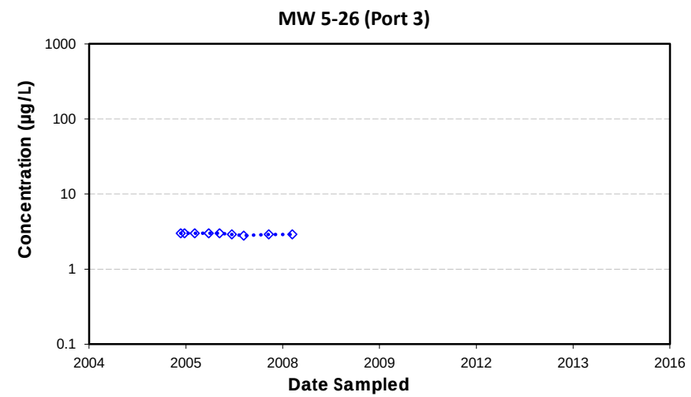
MW 5-19 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



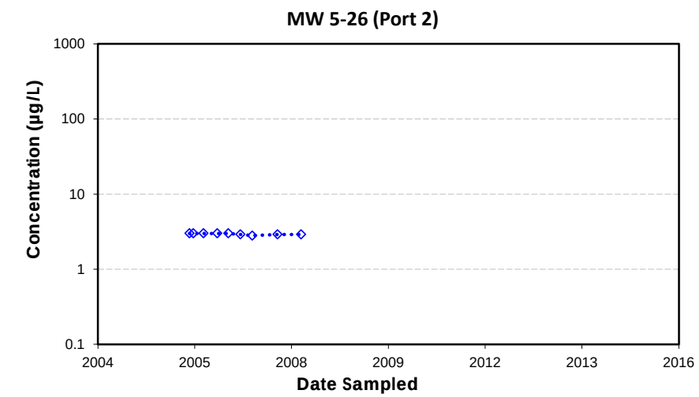
MW 5-23 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



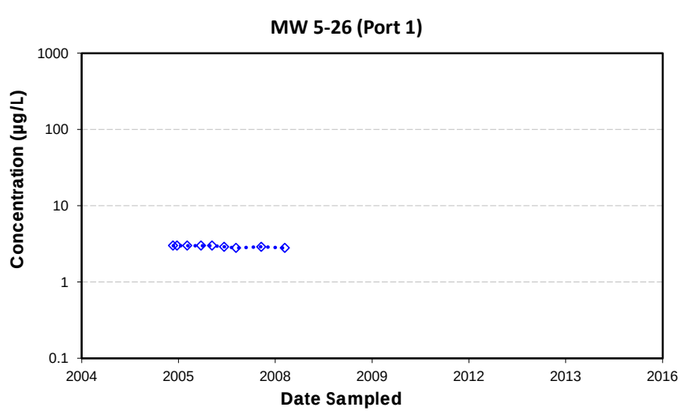
MW 5-23 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-26 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-26 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA



MW 5-26 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	9	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

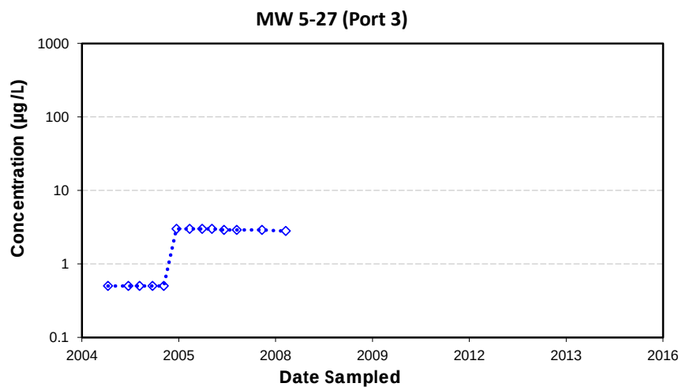
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

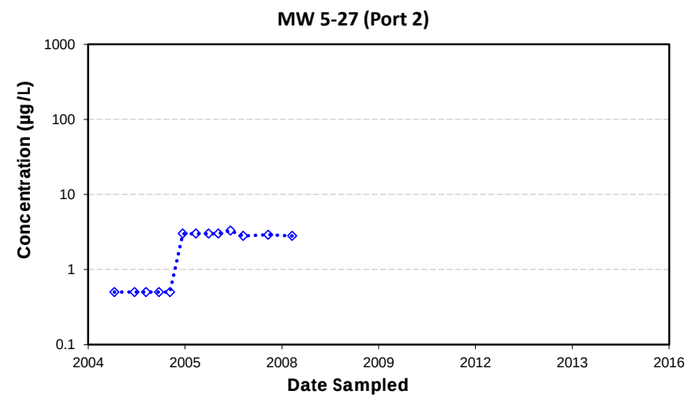
Project No.: SAC150

Chart **C1-12**

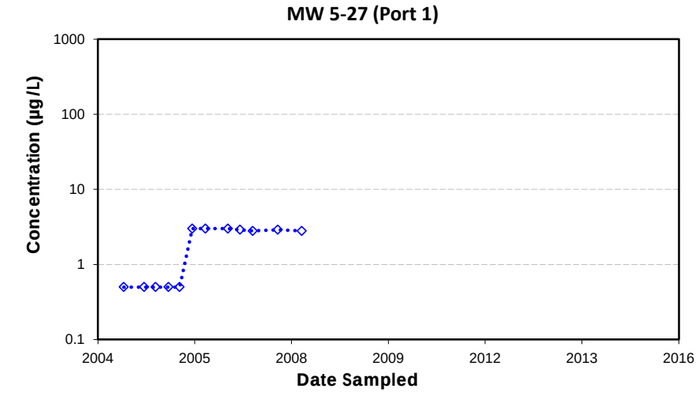
\\sdcsrvnetap-01\Data\GIS\SAC150_BPOU\database\output\shmann-kendall\Charts-xlsm\plot_C1-1



MW 5-27 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	13	--	NA



MW 5-27 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	13	--	NA



MW 5-27 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	12	--	NA

1,4-Dioxane

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

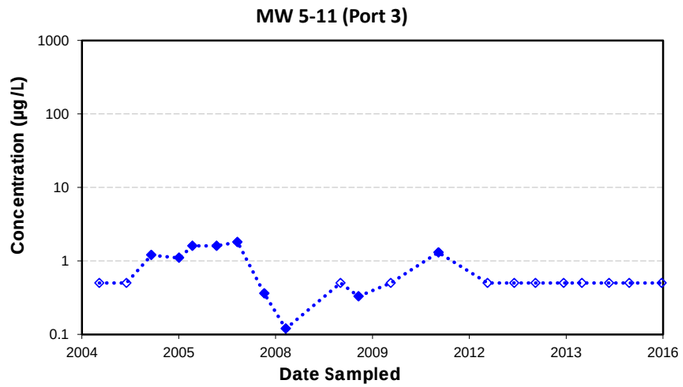
1,4-DIOXANE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

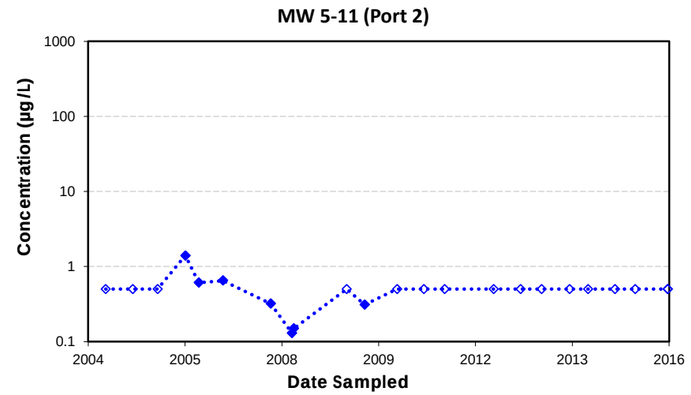
Project No.: SAC150

Chart **C1-13**

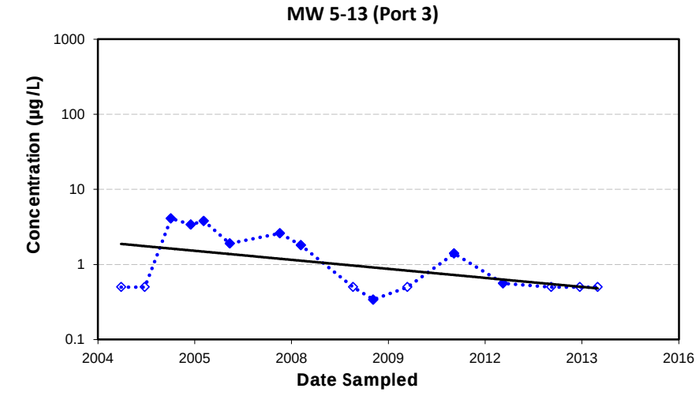
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\BPOU_MK_14D_Charts.aspx\pix_C1-1



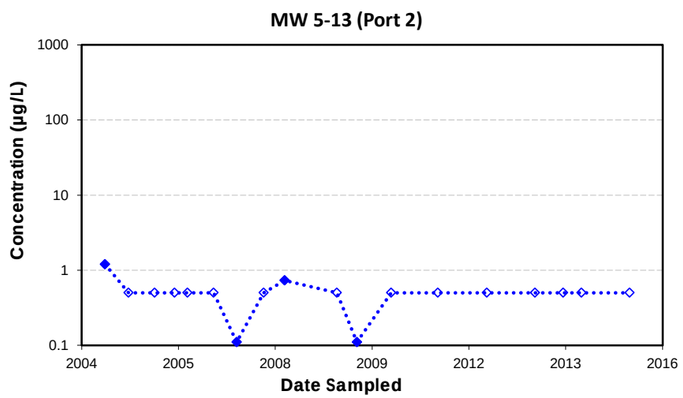
MW 5-11 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	21	--	NA



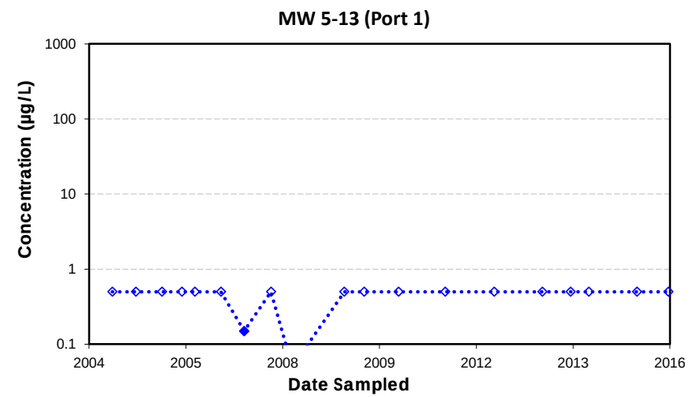
MW 5-11 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	23	--	NA



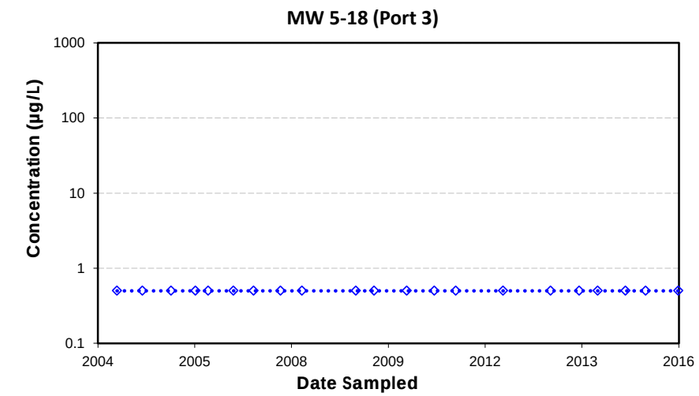
MW 5-13 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	-45	Decreasing



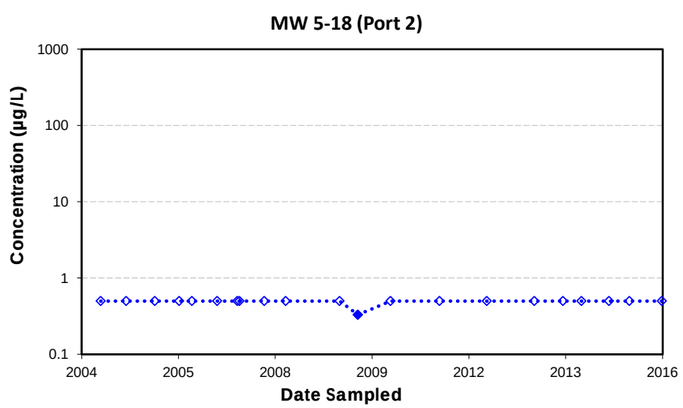
MW 5-13 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-13 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	19	--	NA



MW 5-18 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	21	--	NA



MW 5-18 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	21	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

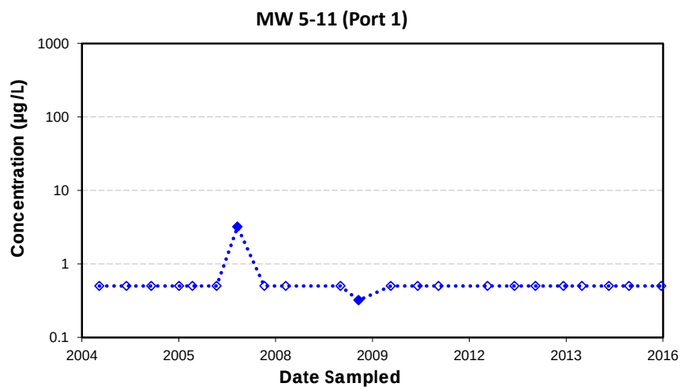
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 1, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

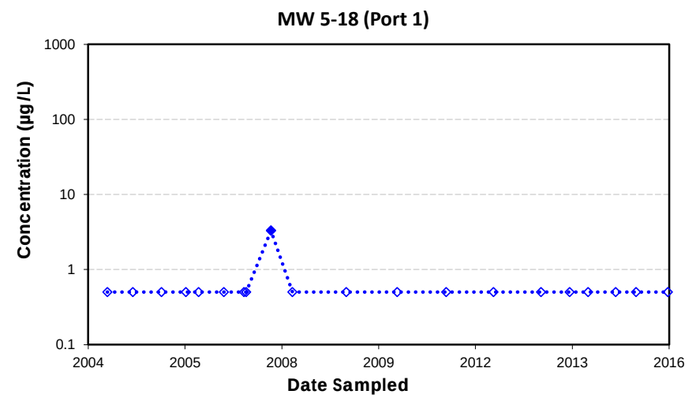
Project No.: SAC150

Chart **C2-1**

\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\trend\MCharts\[BPOU_MK_CT_Charts.xlsm]plot_C2-1



MW 5-11 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	22	--	NA



MW 5-18 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

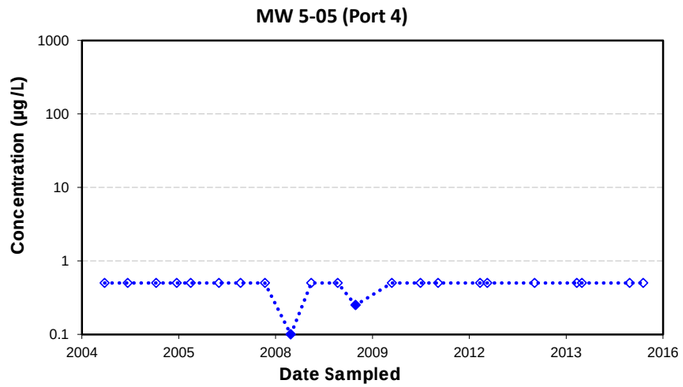
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 1, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

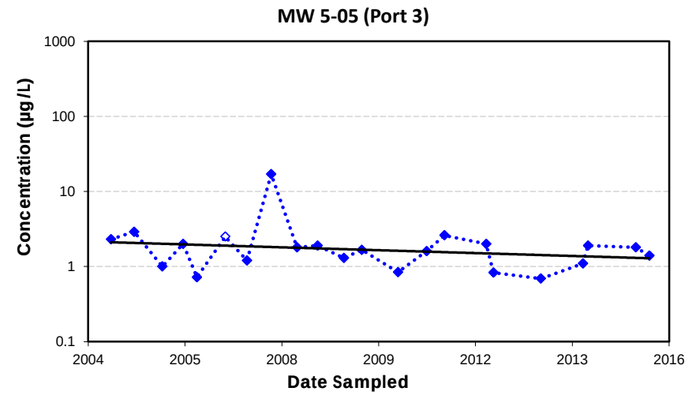
Project No.: SAC150

Chart **C2-2**

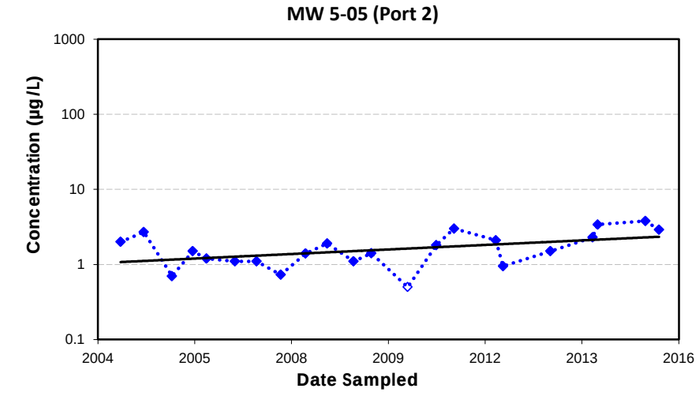
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\BPOU_MK_CT_Charts.xlsm\plot_C2-1



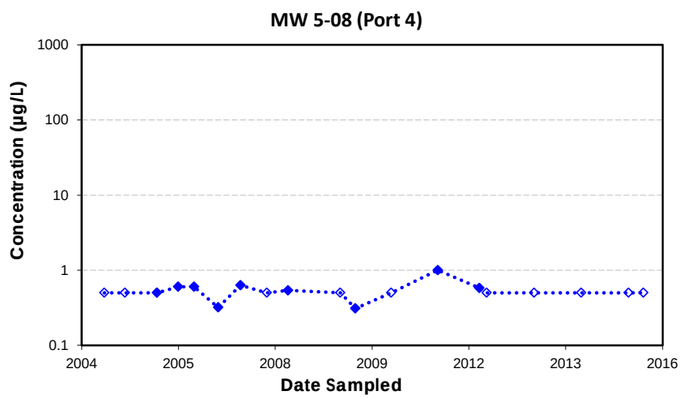
MW 5-05 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	22	--	NA



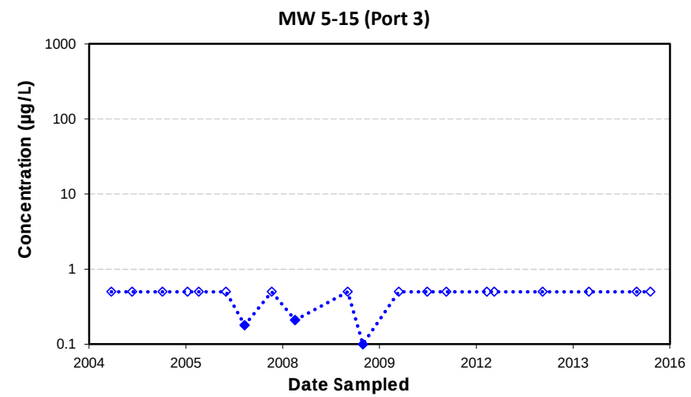
MW 5-05 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	22	-32	No Trend



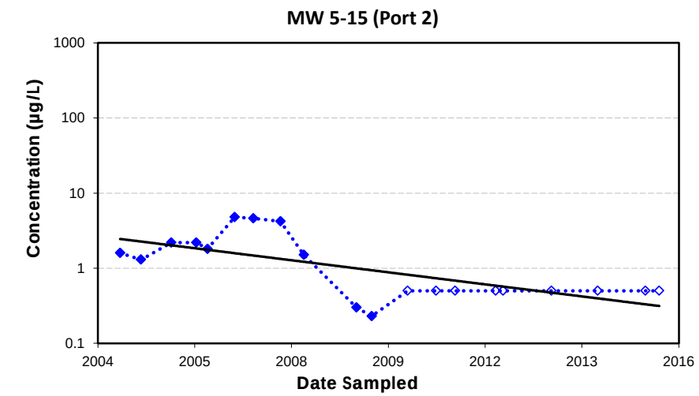
MW 5-05 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	22	73	Increasing



MW 5-08 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	19	--	NA



MW 5-15 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	20	--	NA



MW 5-15 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	20	-89	Decreasing

Carbon Tetrachloride

Trendline (2004-2015)

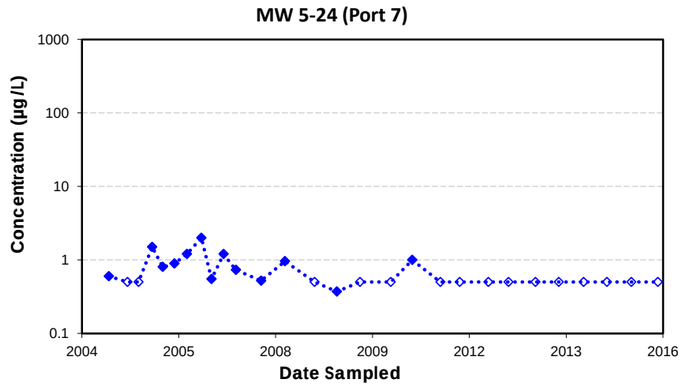
Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

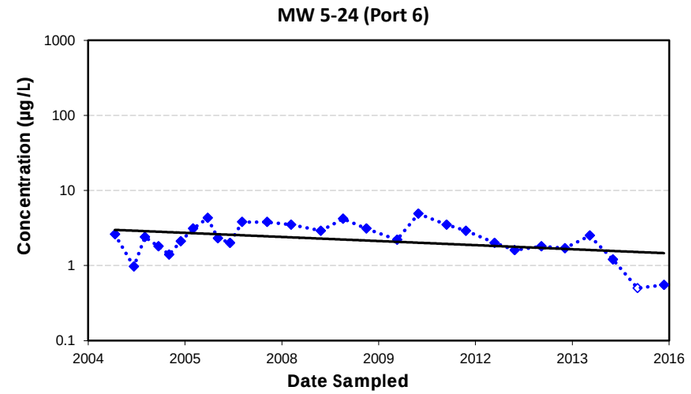
Geosyntec consultants

Project No.: SAC150

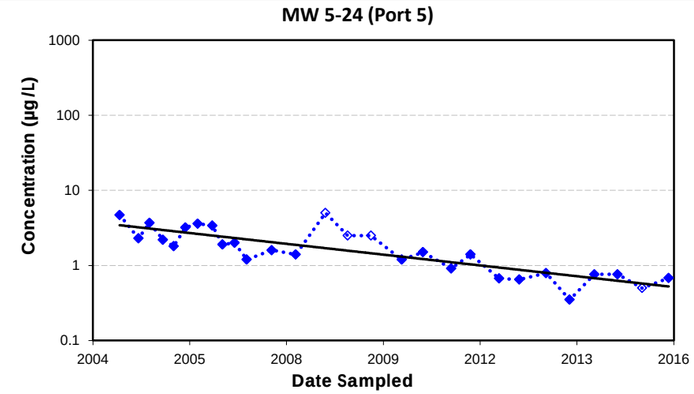
Chart **C2-3**



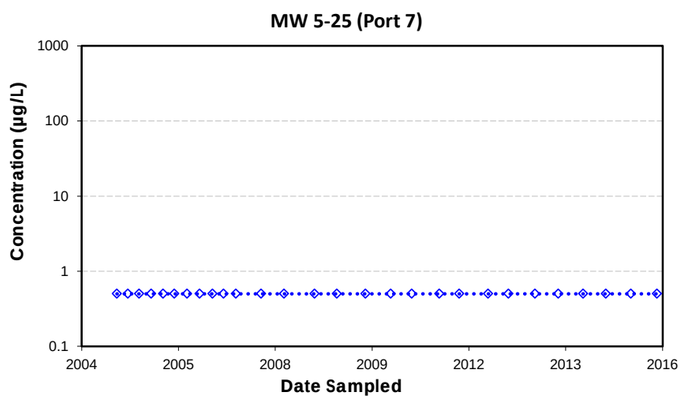
MW 5-24 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



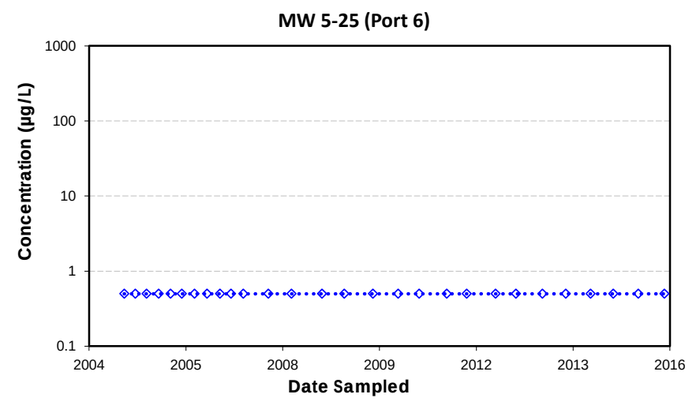
MW 5-24 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	-70	Stable



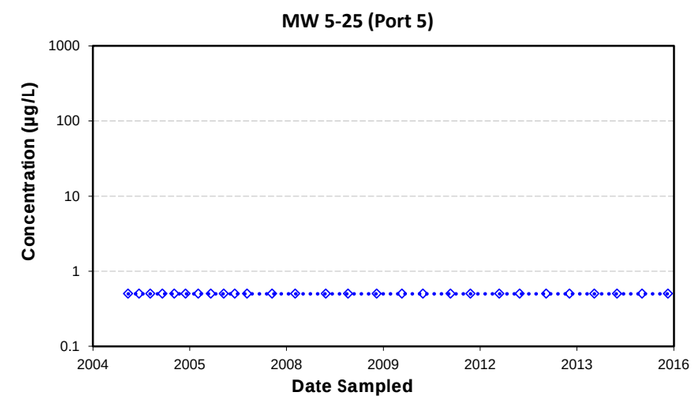
MW 5-24 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	-276	Decreasing



MW 5-25 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

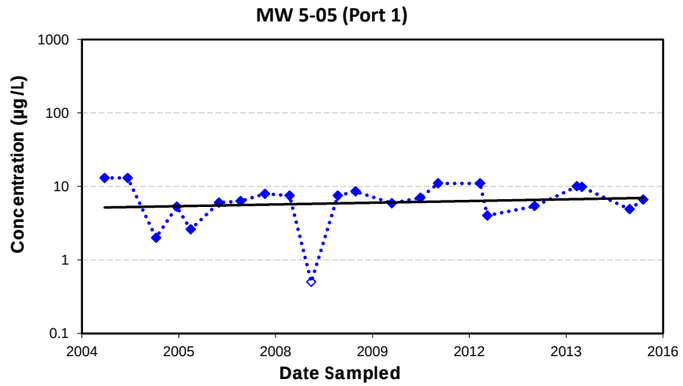
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

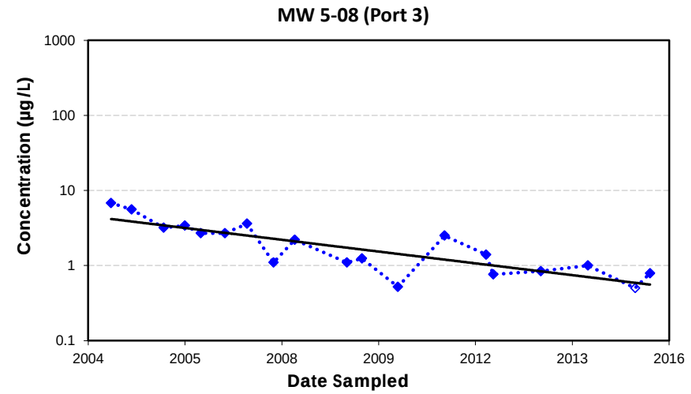
Project No.: SAC150

Chart **C2-4**

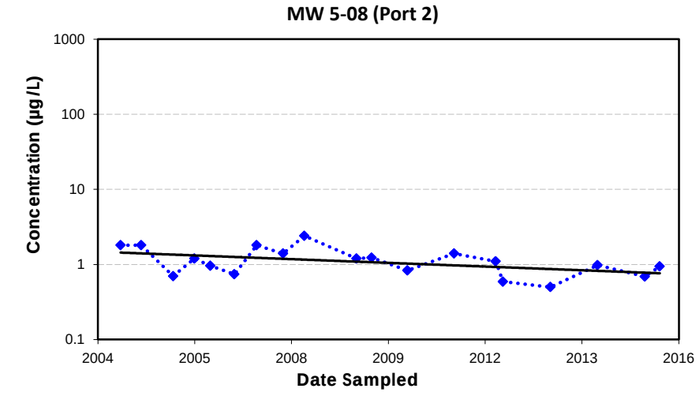
\\sacramento-01\Data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_CT_Charts.xlsm]plot_C2-1



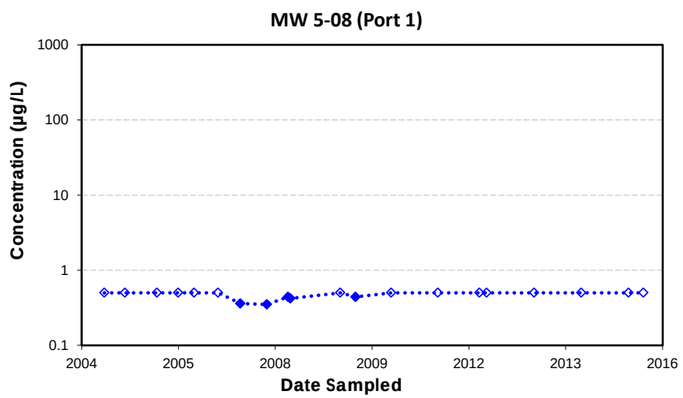
MW 5-05 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	22	10	No Trend



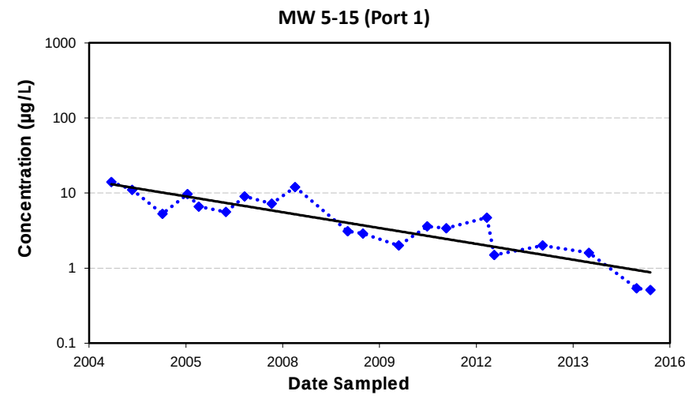
MW 5-08 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	19	-117	Decreasing



MW 5-08 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	19	-58	Decreasing



MW 5-08 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	--	NA



MW 5-15 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	-131	Decreasing

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

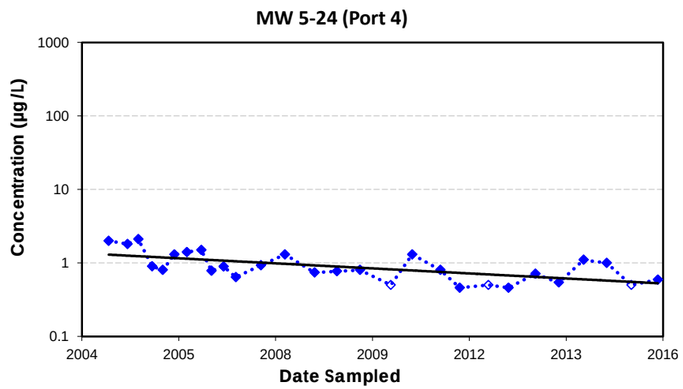
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

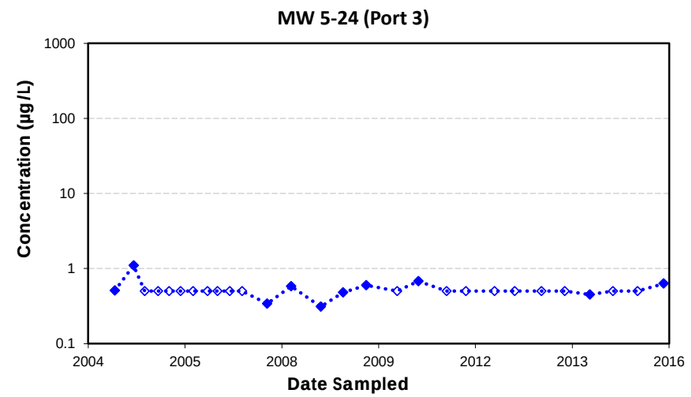
Project No.: SAC150

Chart **C2-5**

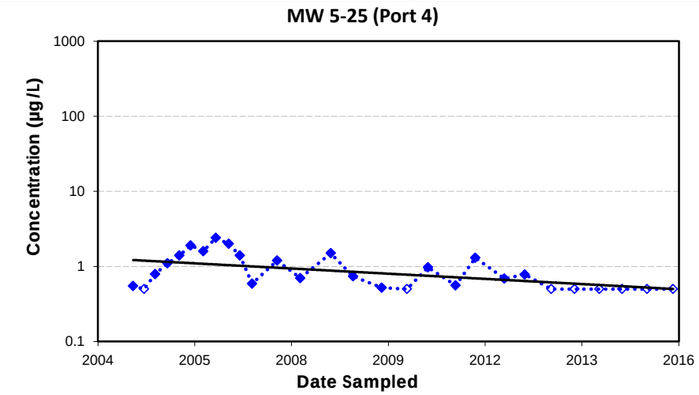
\\sacname-nb-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_CT_Charts.xlsm]pivot_C2-1



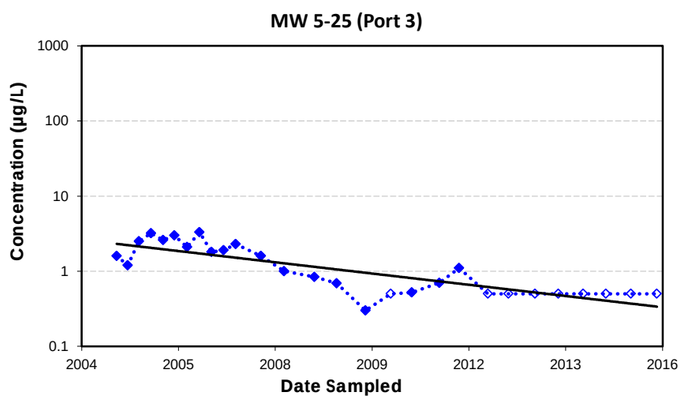
MW 5-24 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	-176	Decreasing



MW 5-24 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	-149	Decreasing



MW 5-25 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	-251	Decreasing

Carbon Tetrachloride

Trendline (2004-2015)

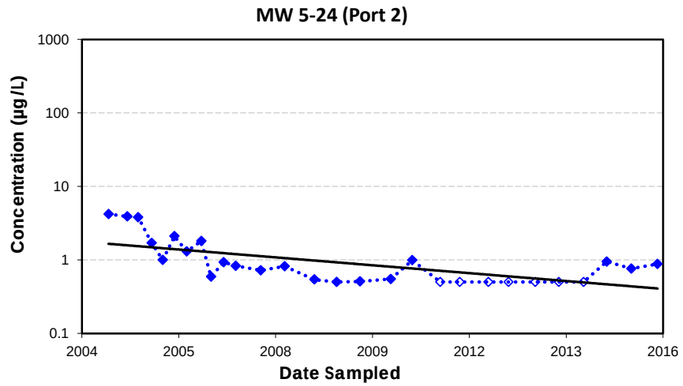
Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

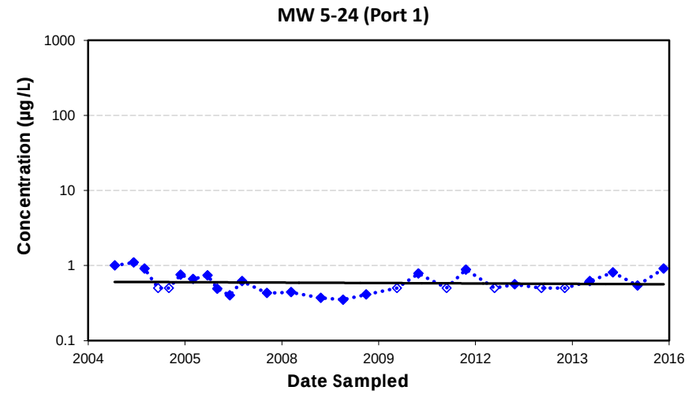
Geosyntec consultants

Project No.: SAC150

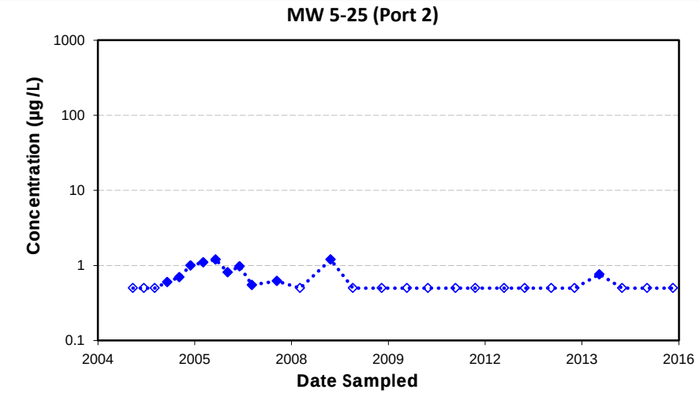
Chart **C2-6**



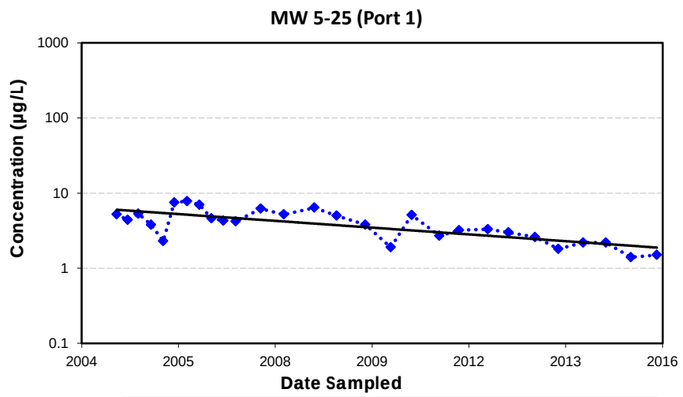
MW 5-24 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	-219	Decreasing



MW 5-24 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	-59	Stable



MW 5-25 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	-207	Decreasing

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

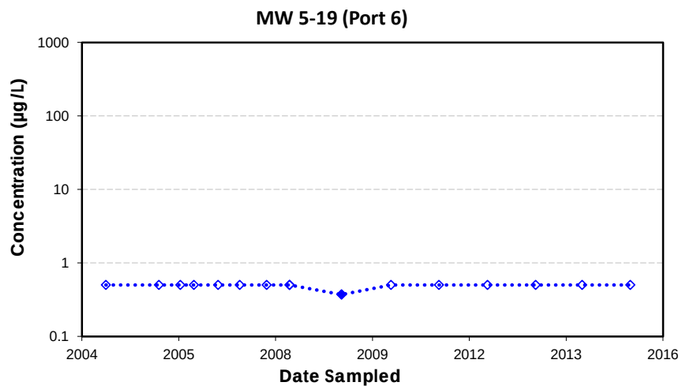
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 2, ABOVE -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

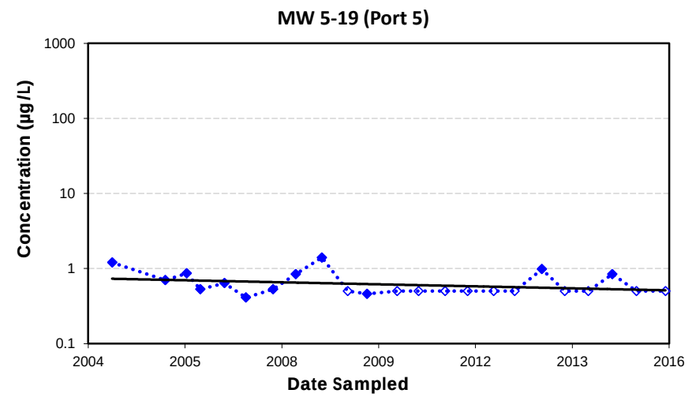
Project No.: SAC150

Chart **C2-7**

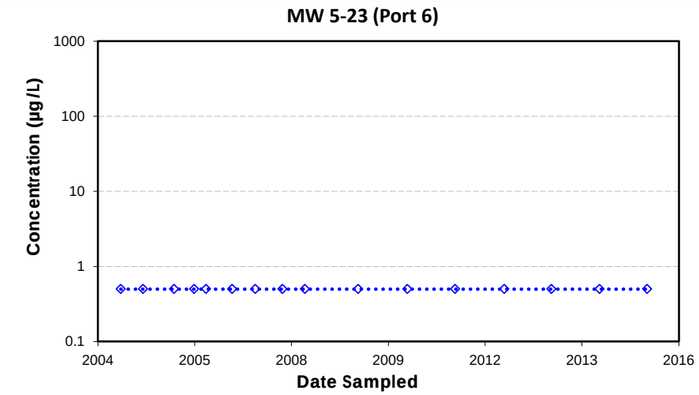
\\sacramento-01\Data\GIS\SAC150_BPOU\Database\Outputs\mann-kendall\Charts\BPOU_MK_CT_Charts.xlsm\jlee_C2-1



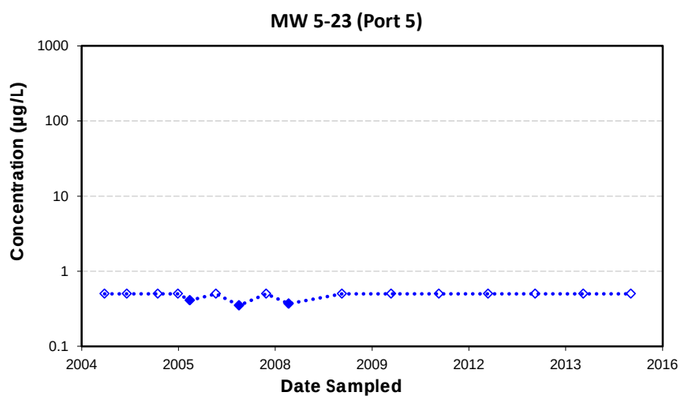
MW 5-19 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-19 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	23	-100	Decreasing



MW 5-23 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-23 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

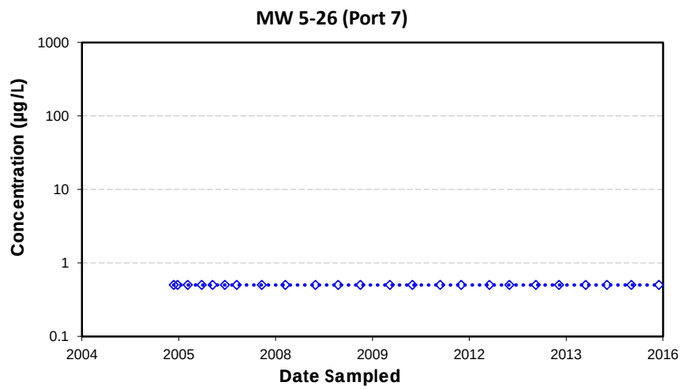
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

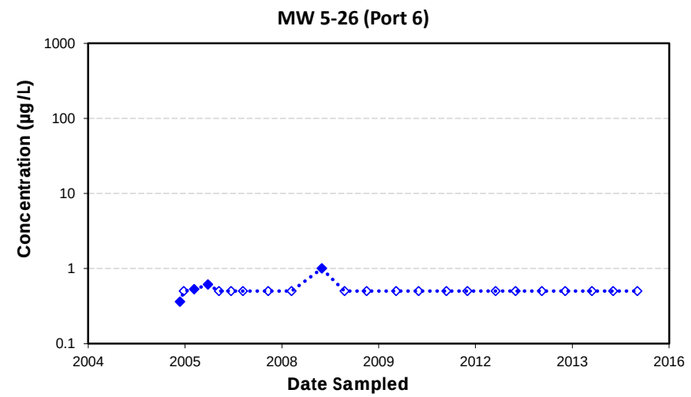
Project No.: SAC150

Chart **C2-8**

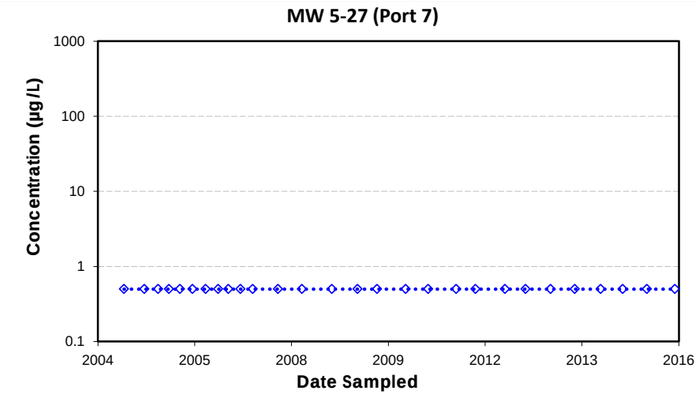
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_CT_Charts.xlsx]plot_C2-3



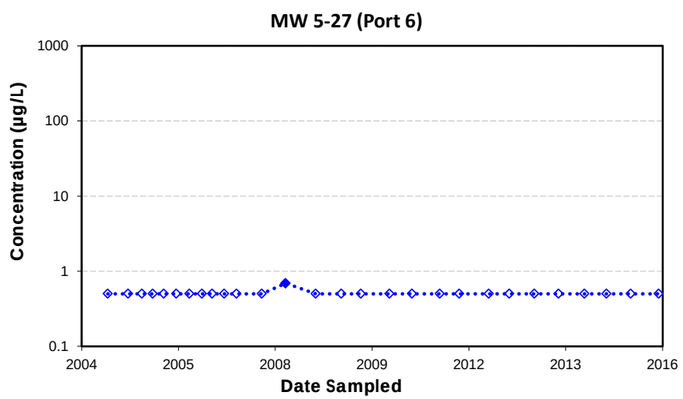
MW 5-26 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	23	--	NA



MW 5-27 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

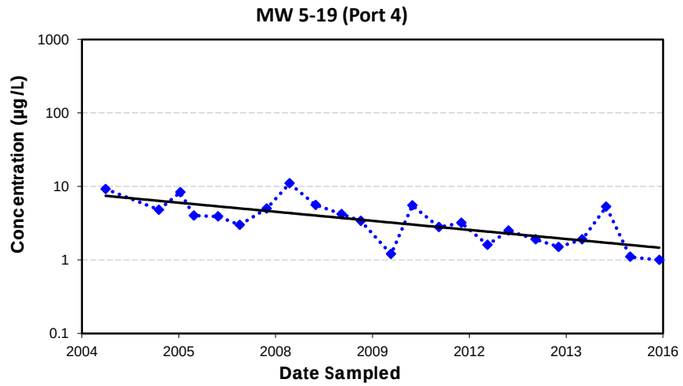
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

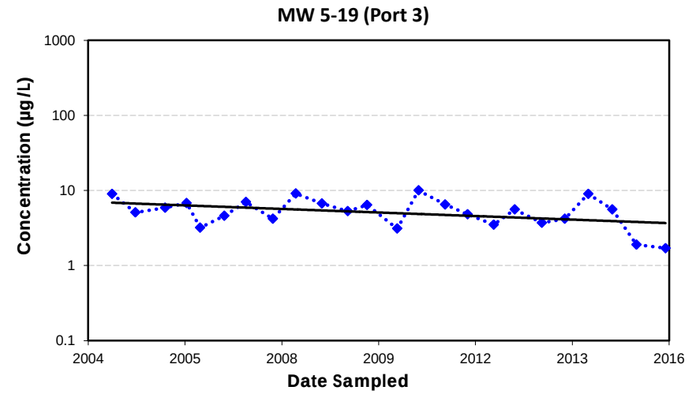
Project No.: SAC150

Chart **C2-9**

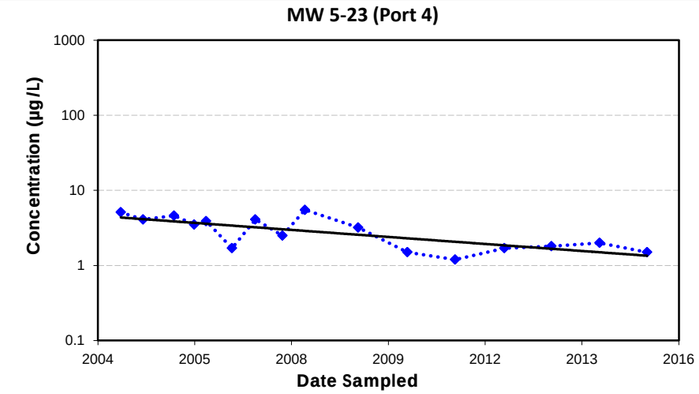
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_CT_Charts.xlsx]plot_C2-1



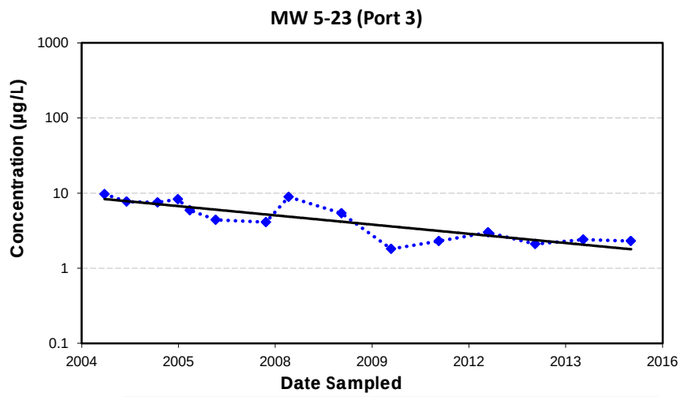
MW 5-19 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	23	-138	Decreasing



MW 5-19 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	-69	Probably Decreasing



MW 5-23 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	-61	Decreasing



MW 5-23 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	15	-66	Decreasing

Carbon Tetrachloride

Trendline (2004-2015)

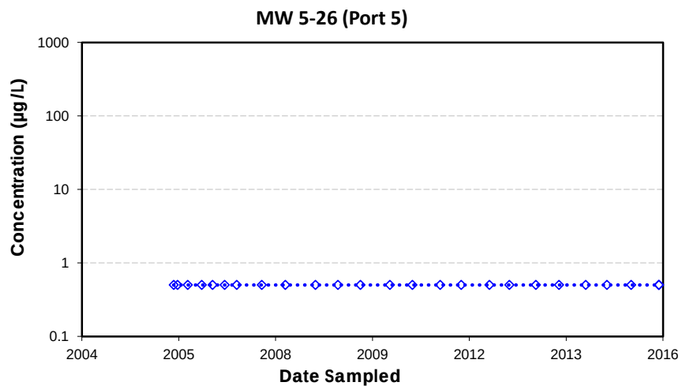
Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

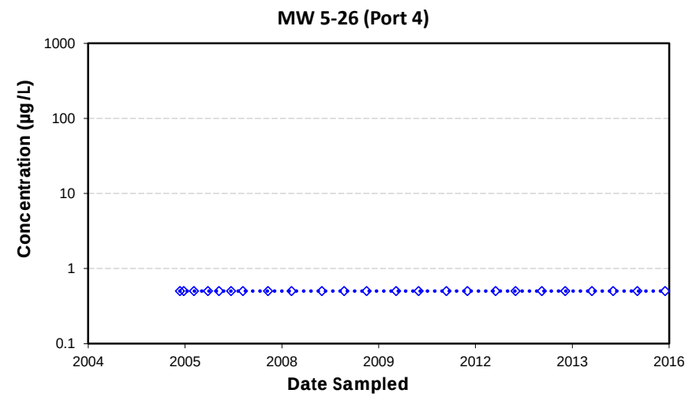
Geosyntec consultants

Project No.: SAC150

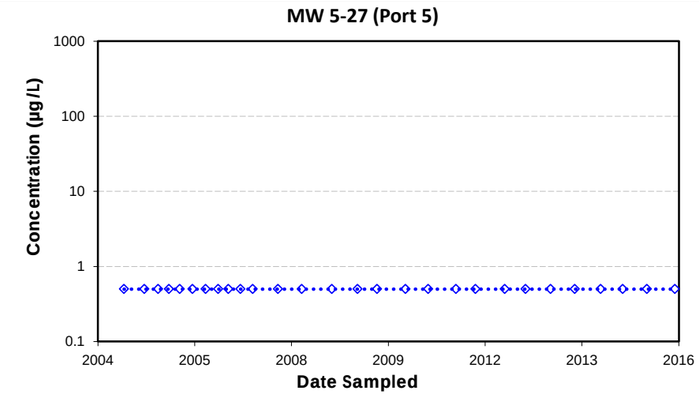
Chart **C2-10**



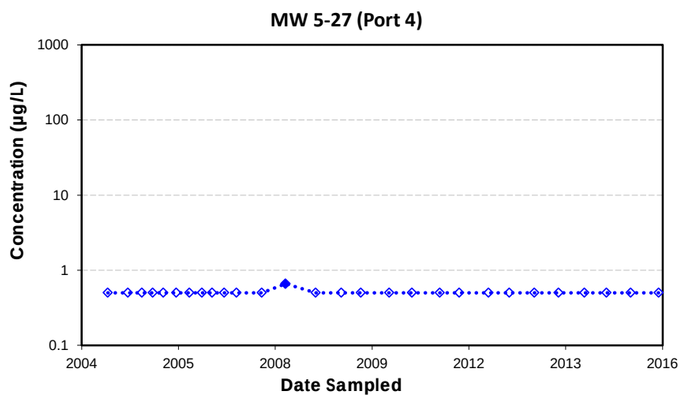
MW 5-26 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	25	--	NA



MW 5-26 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-27 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

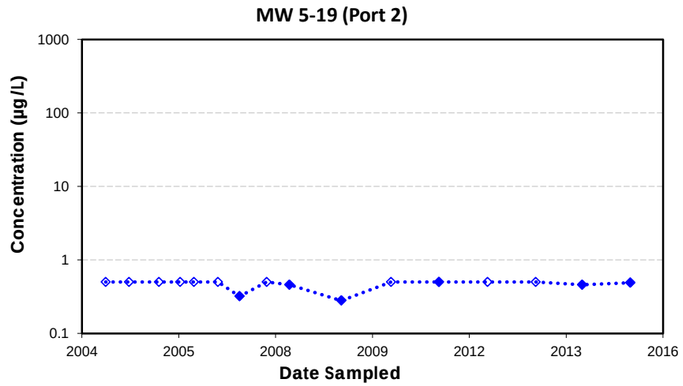
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

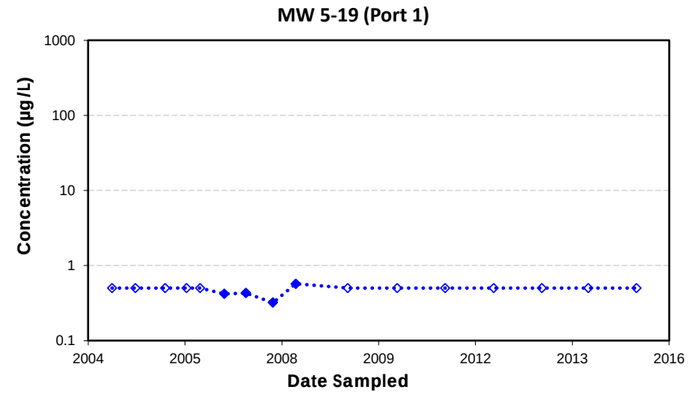
Project No.: SAC150

Chart **C2-11**

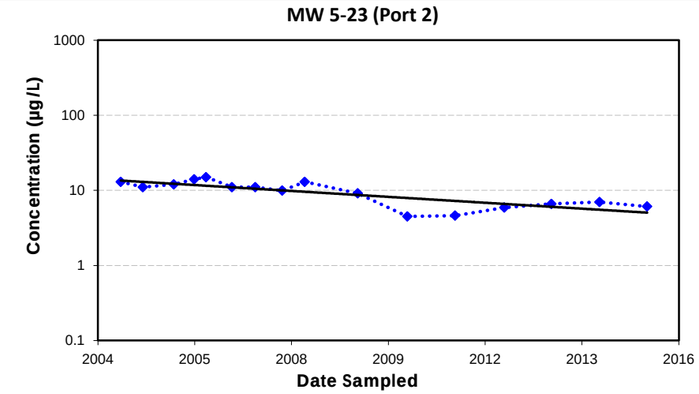
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_CT_Charts.xlsx]plot_C2-1



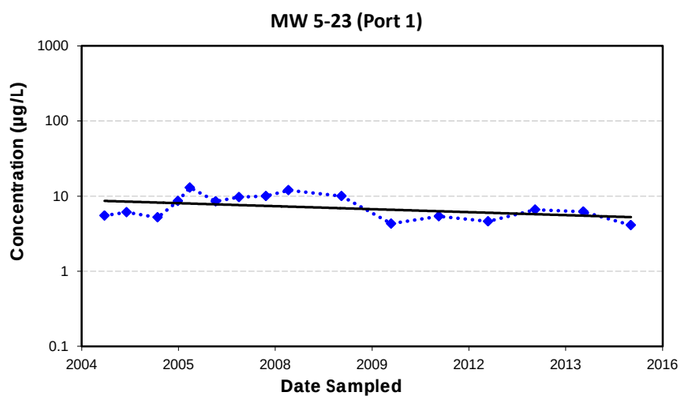
MW 5-19 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



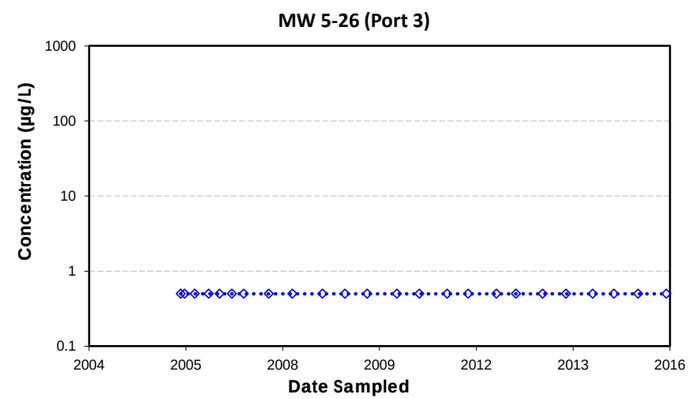
MW 5-19 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



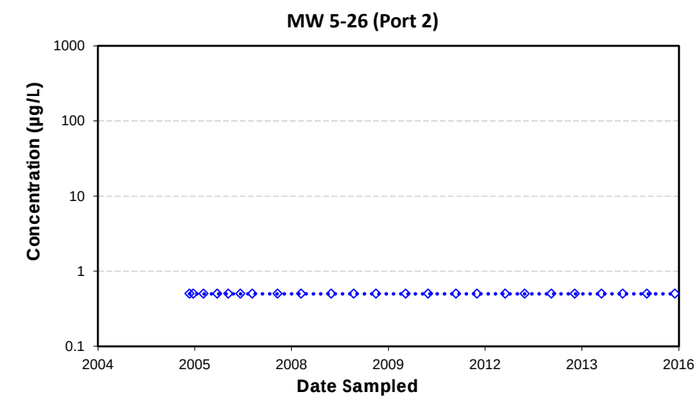
MW 5-23 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	-64	Decreasing



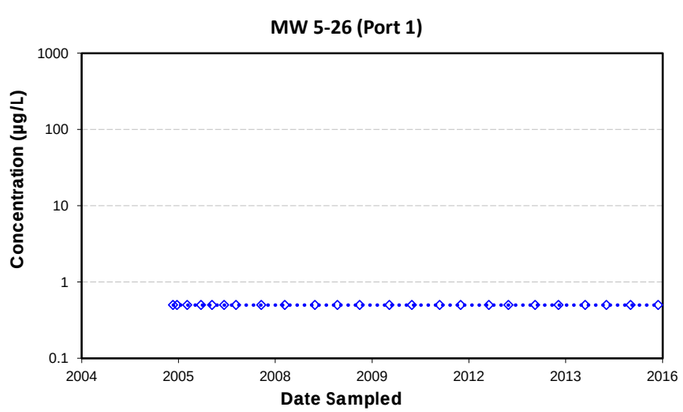
MW 5-23 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	-19	Stable



MW 5-26 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

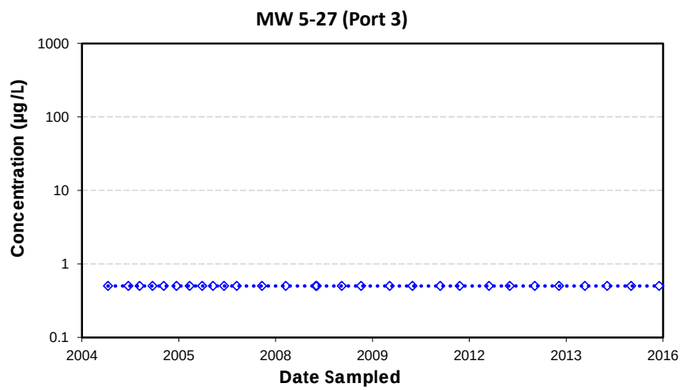
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

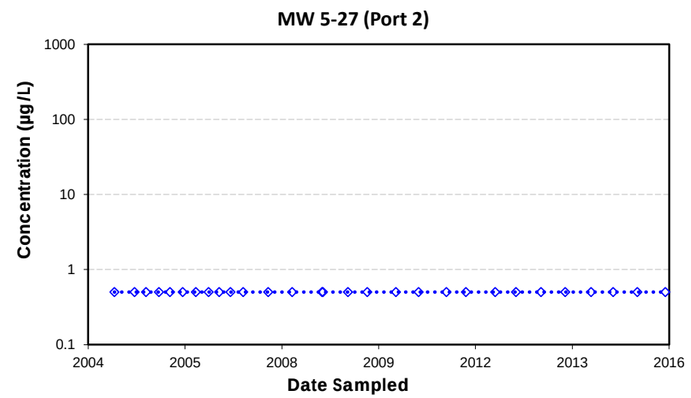
Project No.: SAC150

Chart **C2-12**

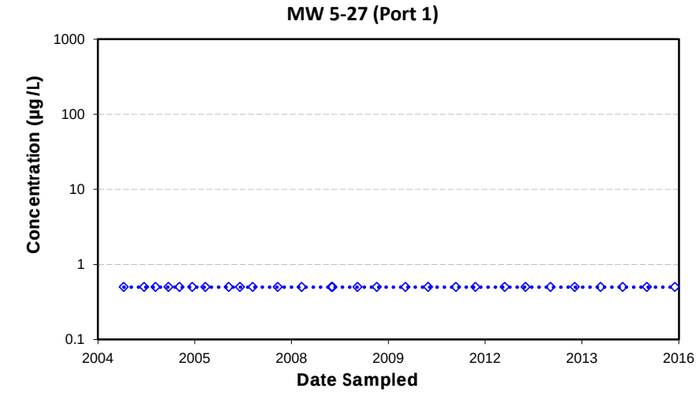
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\shp\mann-kendall\Charts\[BPOU_MK_CT_Charts.xlsm]plot_C2-1



MW 5-27 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	29	--	NA



MW 5-27 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	29	--	NA



MW 5-27 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Carbon Tetrachloride

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

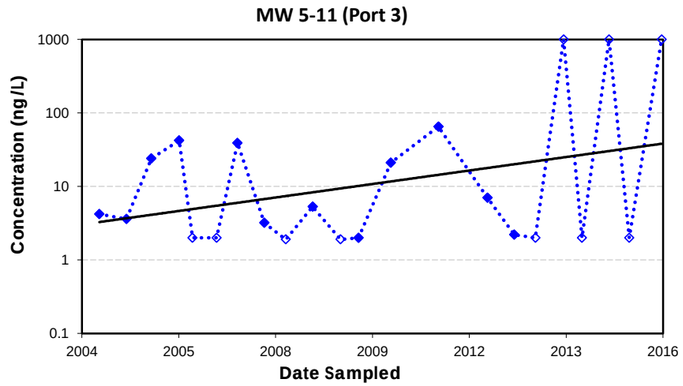
CARBON TETRACHLORIDE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

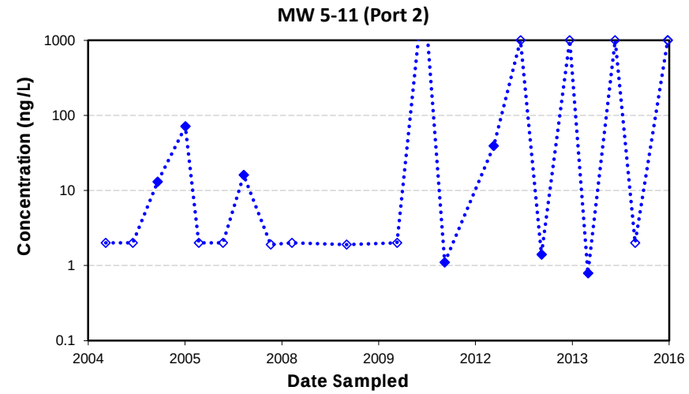
Project No.: SAC150

Chart **C2-13**

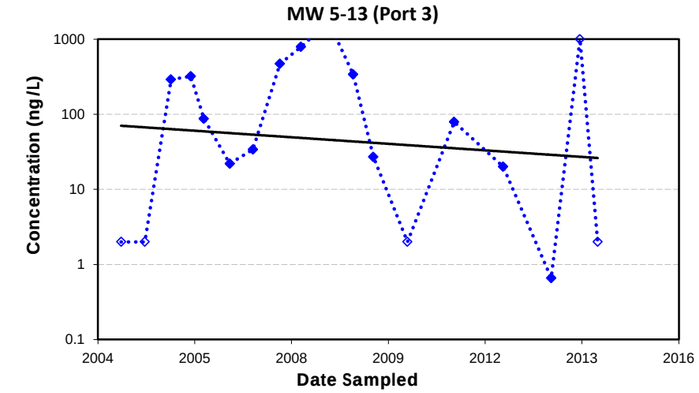
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\BPOU_MK_CT_Charts.xlsm\plot_C2-1



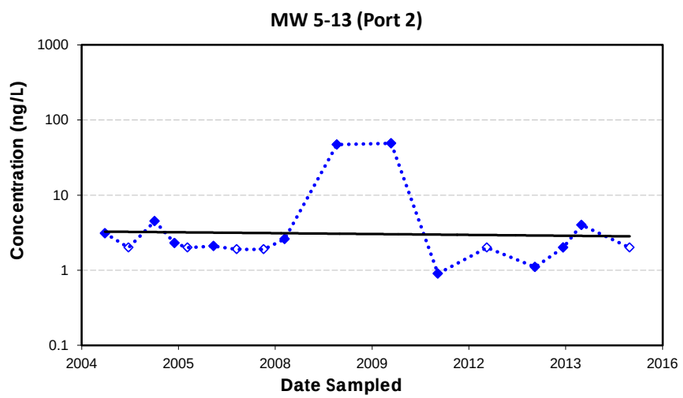
MW 5-11 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	22	36	No Trend



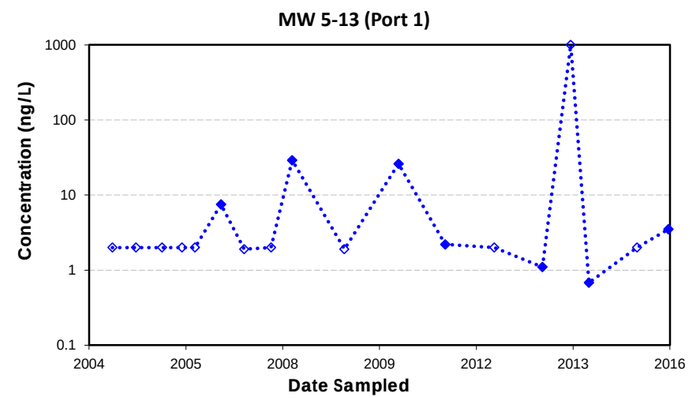
MW 5-11 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	22	--	NA



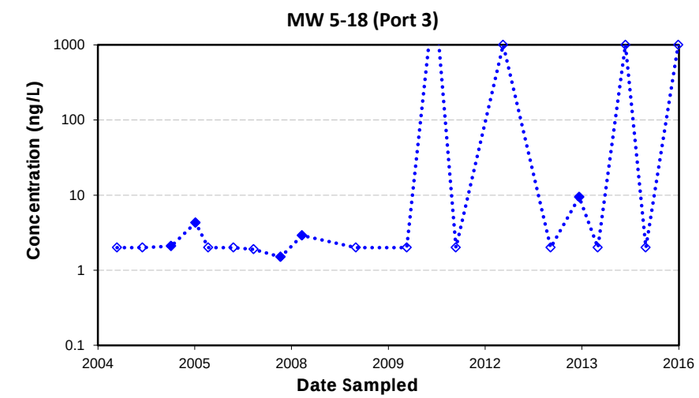
MW 5-13 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	18	-7	No Trend



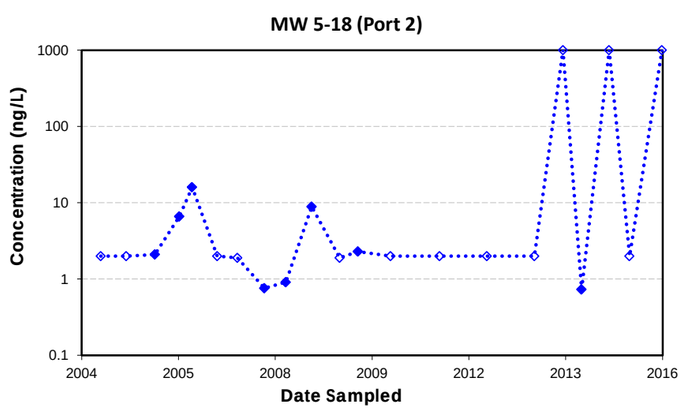
MW 5-13 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	17	5	No Trend



MW 5-13 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-18 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	20	--	NA



MW 5-18 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	21	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

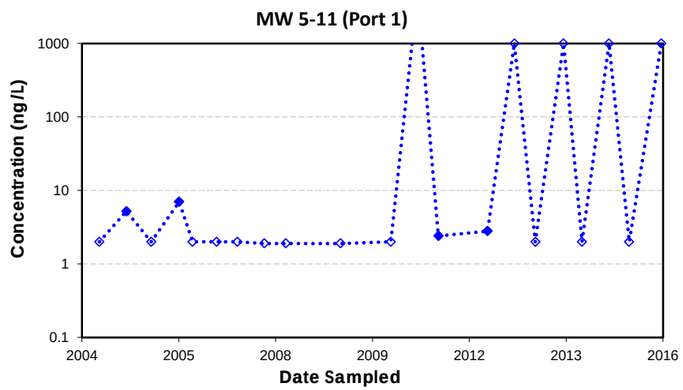
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 1, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

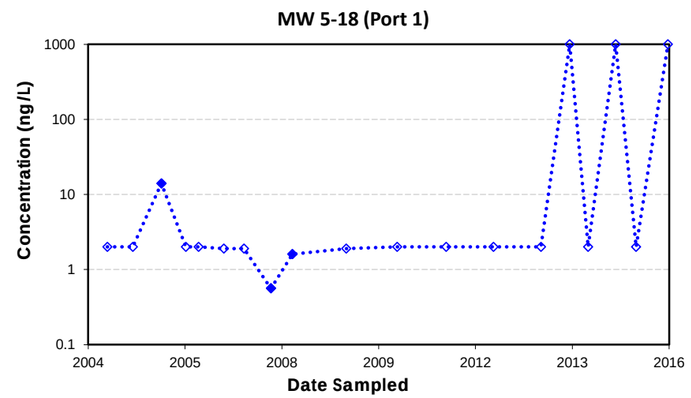
Project No.: SAC150

Chart **C3-1**

\\sacname-ntp-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_N0MA_Charts.xlsm]pl04_C3-1



MW 5-11 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	21	--	NA



MW 5-18 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	19	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

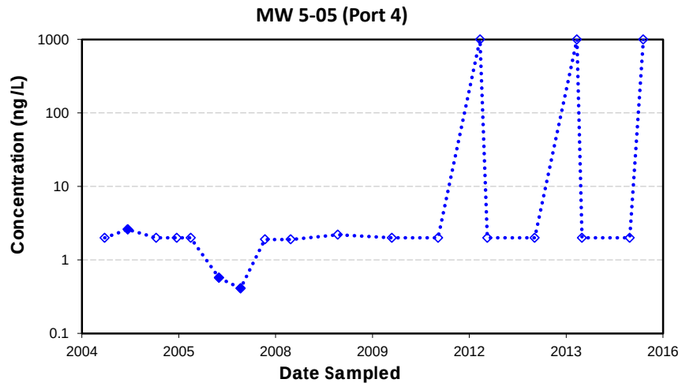
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 1, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

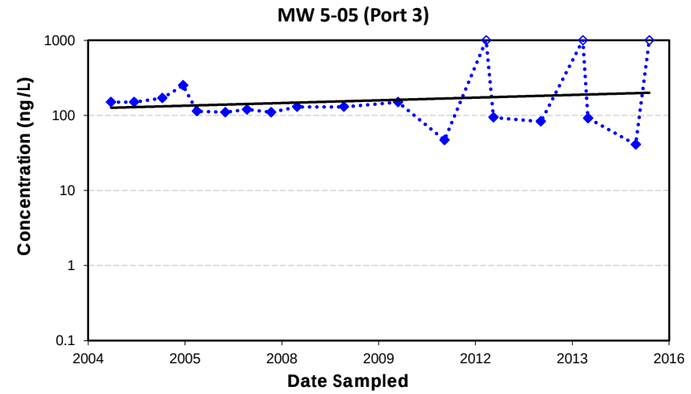
Project No.: SAC150

Chart **C3-2**

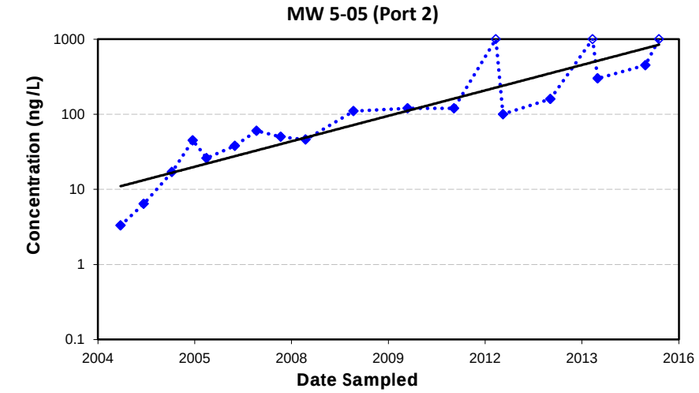
\\sacramento-01\Data\GIS\SAC150_BPOU\database\scripts\mann-kendall\Charts\BPOU_MK_NDMA_Charts.xlsm]jack_C3-1



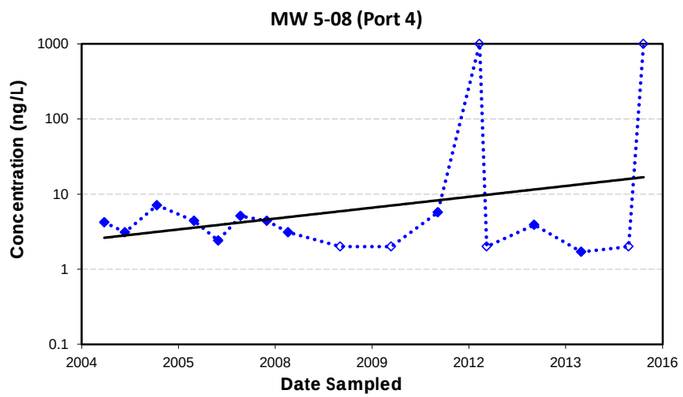
MW 5-05 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	19	--	NA



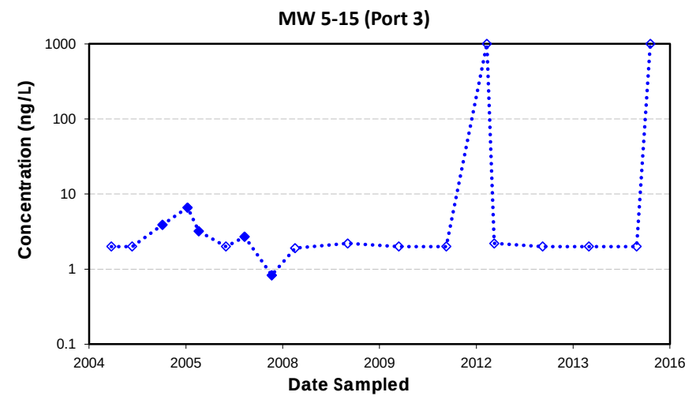
MW 5-05 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	19	-29	Stable



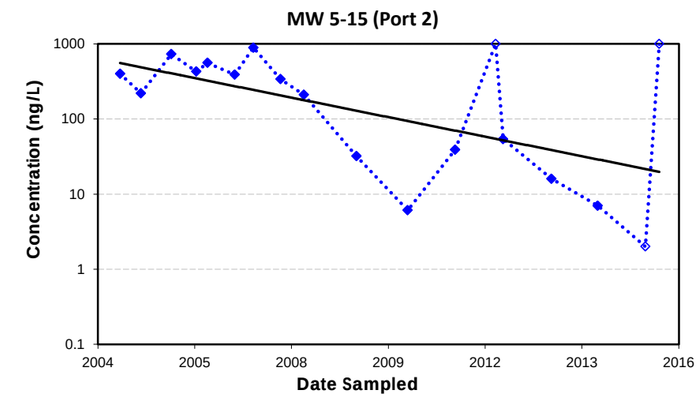
MW 5-05 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	19	141	Increasing



MW 5-08 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	17	-15	No Trend



MW 5-15 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-15 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	18	-64	Decreasing

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

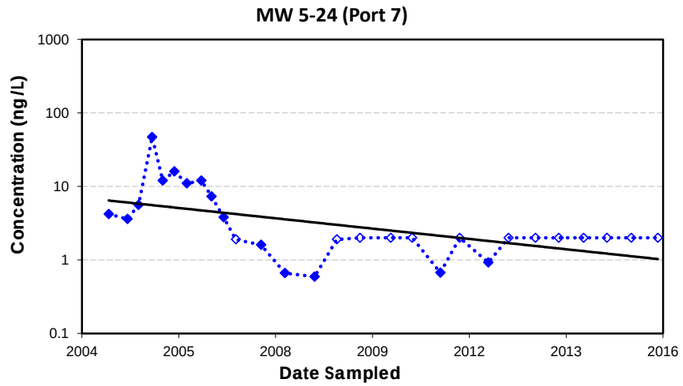
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

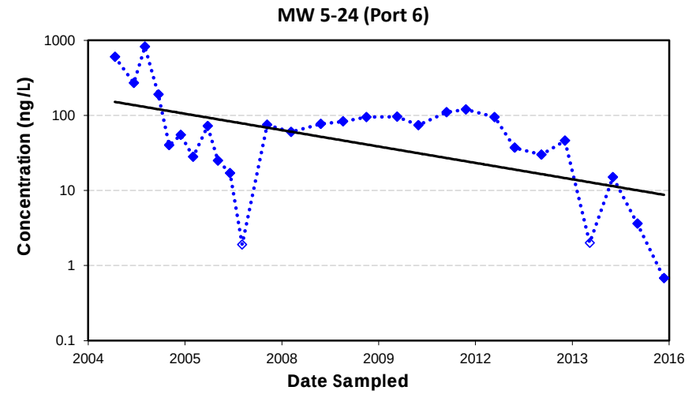
Project No.: SAC150

Chart **C3-3**

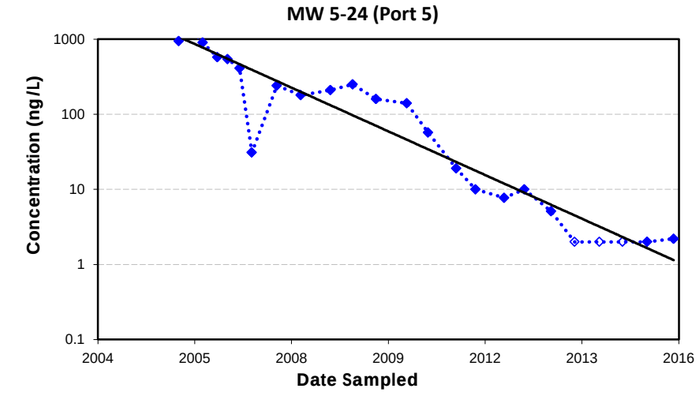
\\sdcsrvnetap-01\Data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\BPOU_MK_NDMA_Charts.xlsm]pos_C3-1



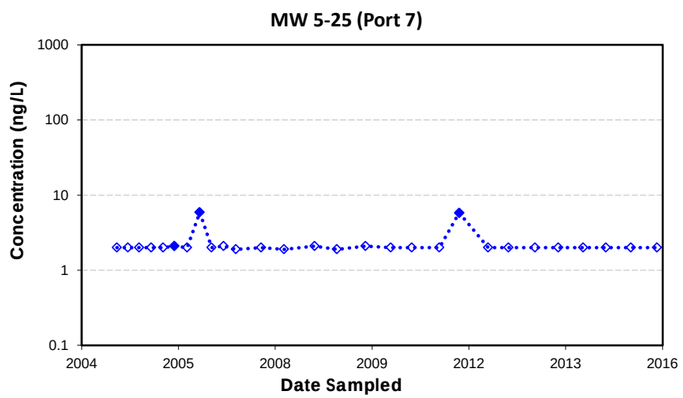
MW 5-24 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	-141	Decreasing



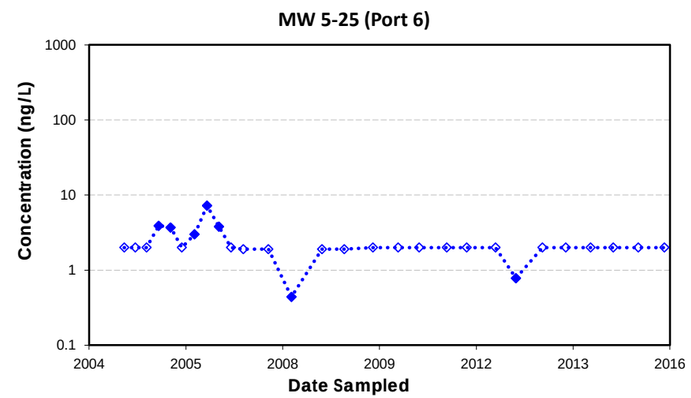
MW 5-24 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	-117	Decreasing



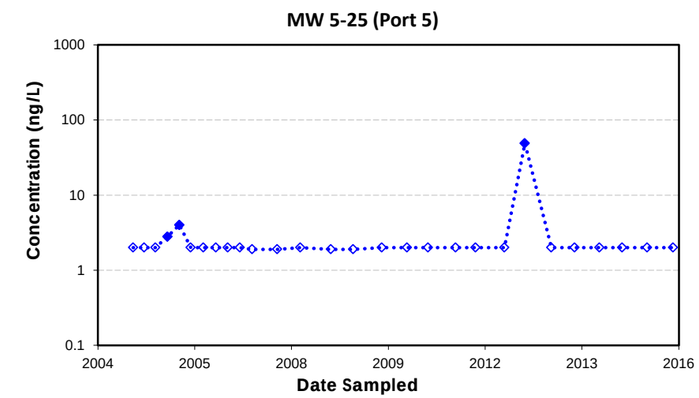
MW 5-24 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	-323	Decreasing



MW 5-25 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

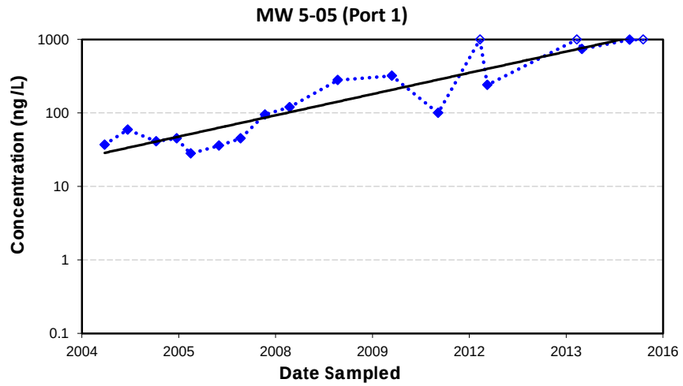
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

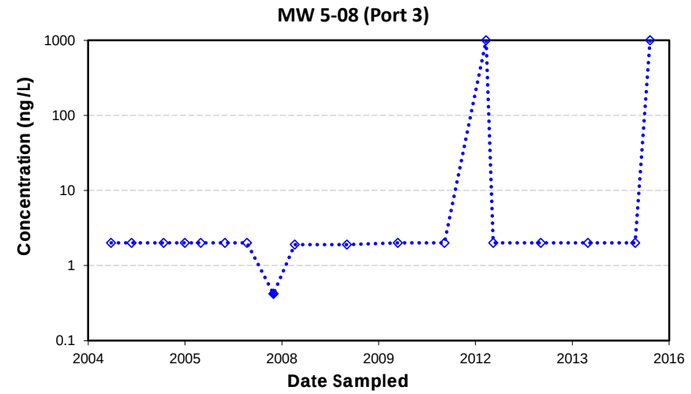
Project No.: SAC150

Chart **C3-4**

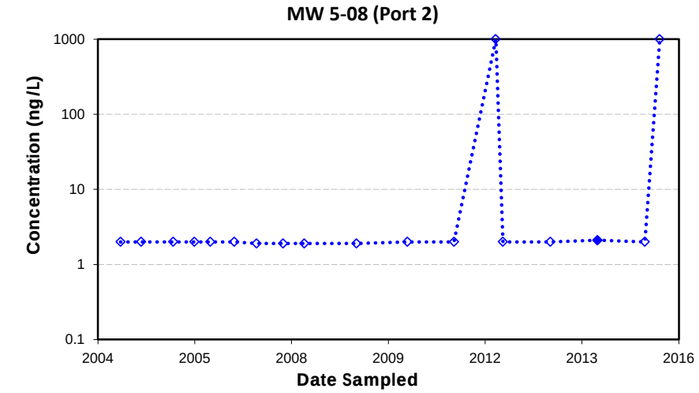
\\sacramento-01\Data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts.xlsm]pl04_C3-1



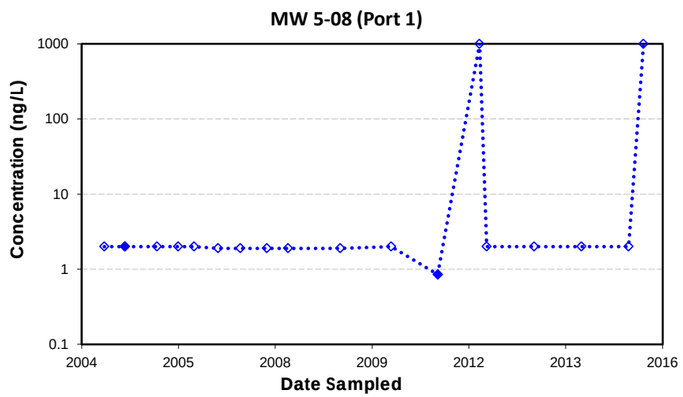
MW 5-05 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	111	Increasing



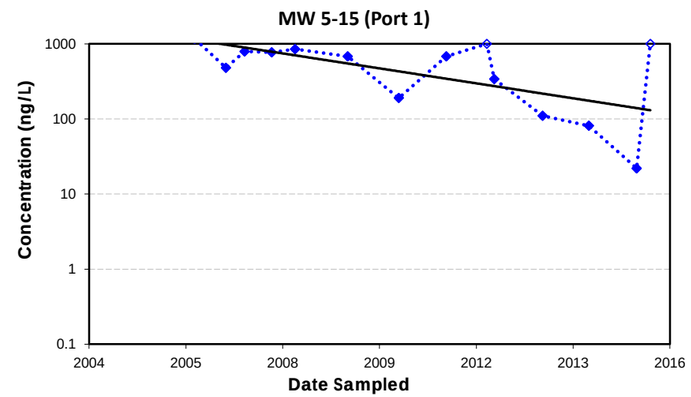
MW 5-08 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-08 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-08 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-15 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	-117	Decreasing

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

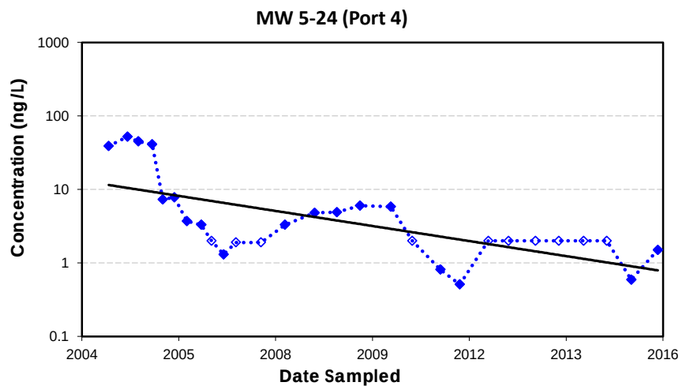
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

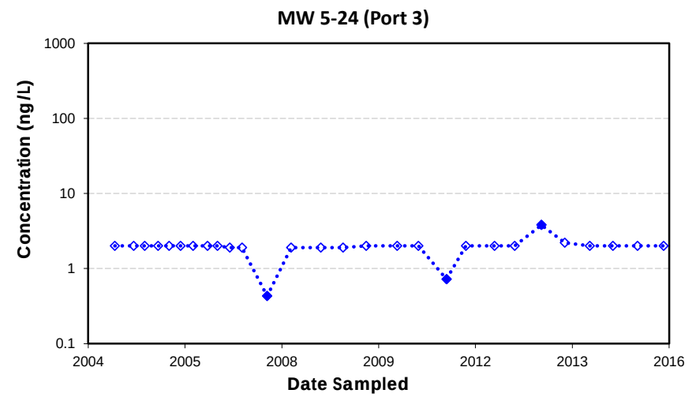
Project No.: SAC150

Chart **C3-5**

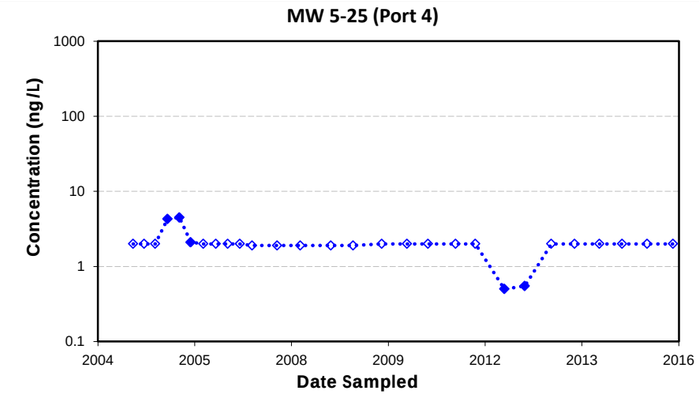
\\sdcsrvnetap-01\Data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\BPOU_MK_NDMA_Charts.xlsm]pos_C3-1



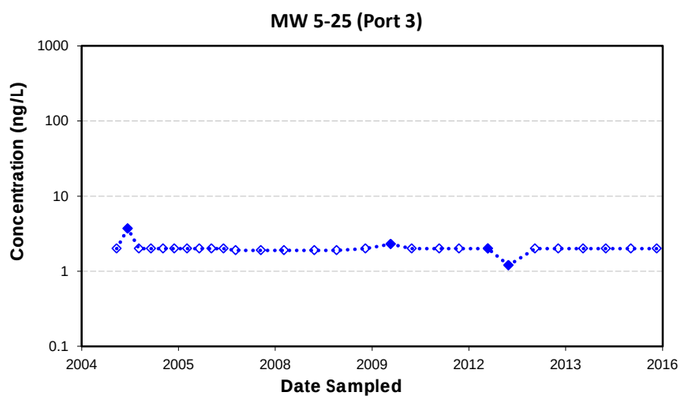
MW 5-24 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	-182	Decreasing



MW 5-24 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

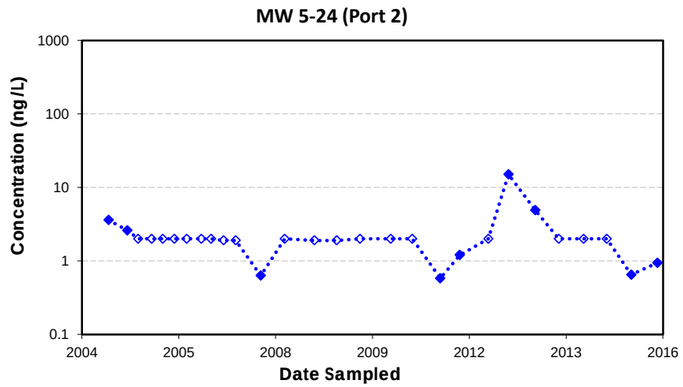
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

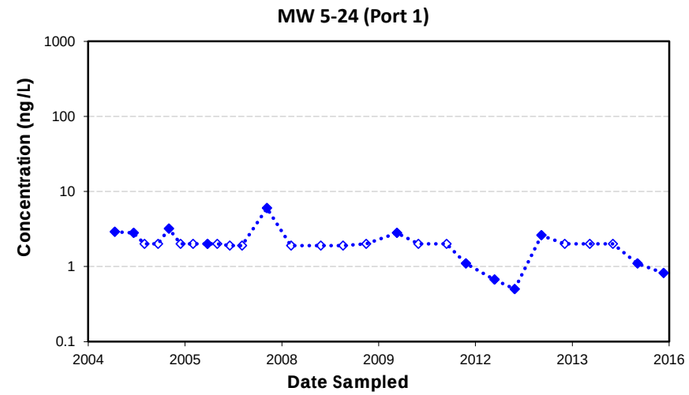
Project No.: SAC150

Chart **C3-6**

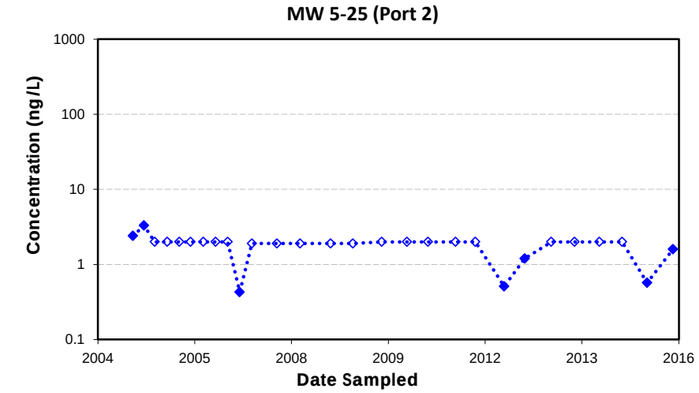
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_NDMA_Charts.xlsm]pkt_C3-1



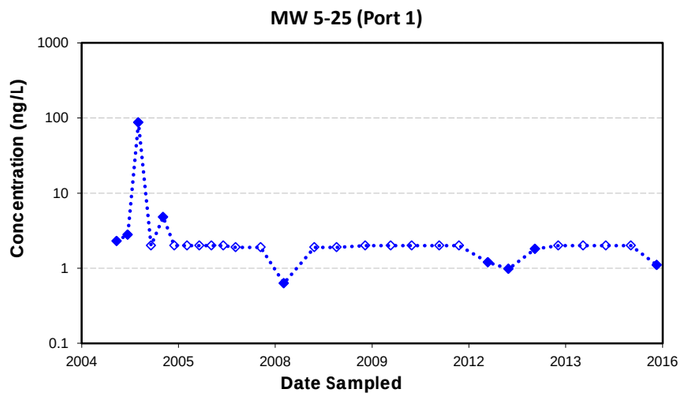
MW 5-24 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-24 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

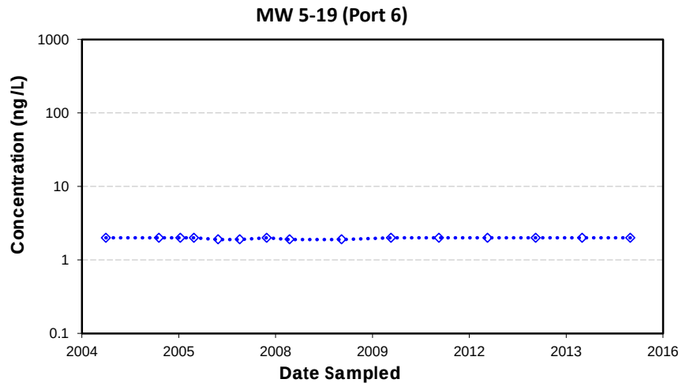
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

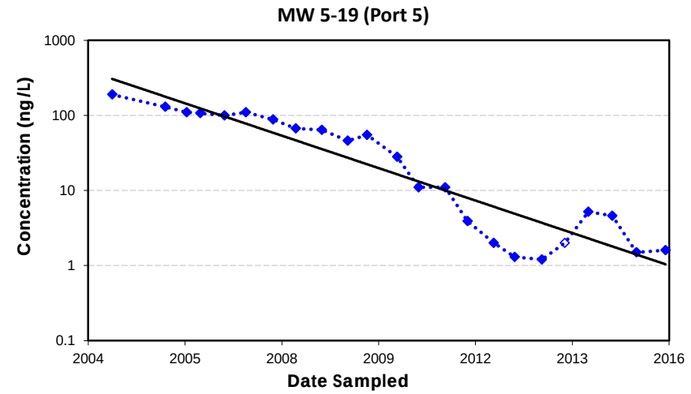
Project No.: SAC150

Chart **C3-7**

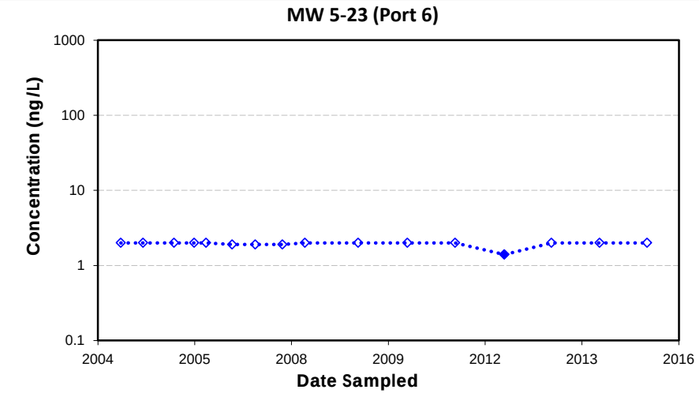
\\sacramento-01\Data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_NDMA_Charts.xlsm]plot_C3-1



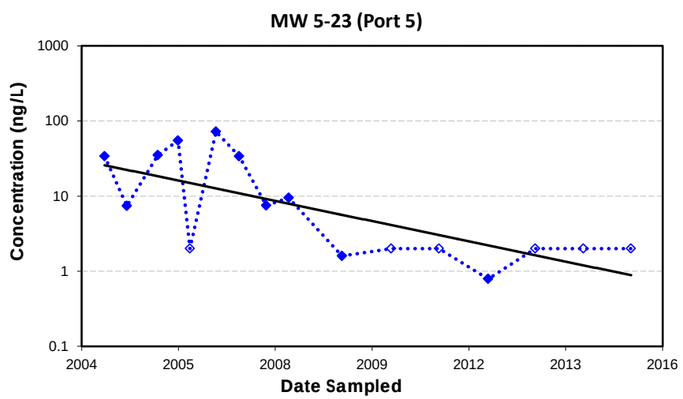
MW 5-19 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	15	--	NA



MW 5-19 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	23	-211	Decreasing



MW 5-23 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-23 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	16	-62	Decreasing

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

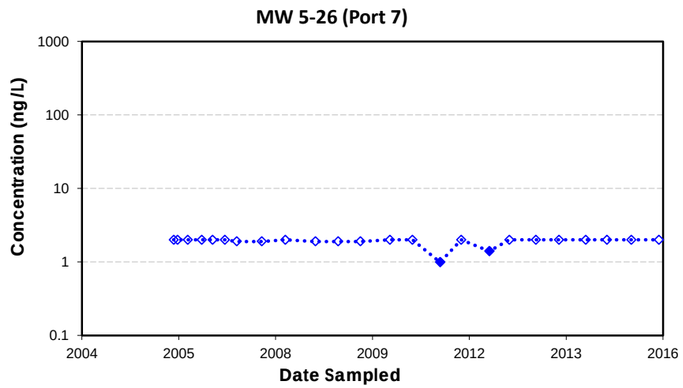
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

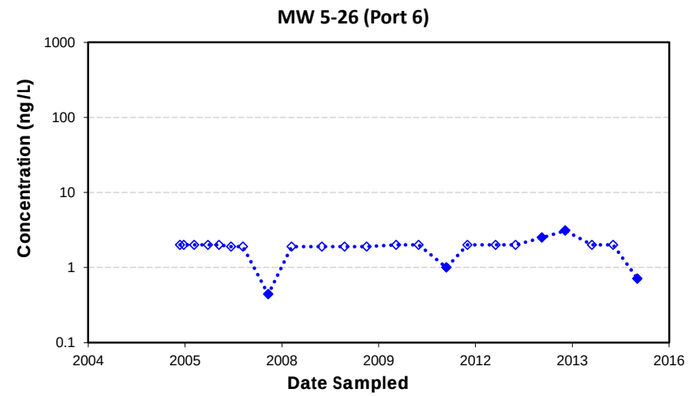
Project No.: SAC150

Chart **C3-8**

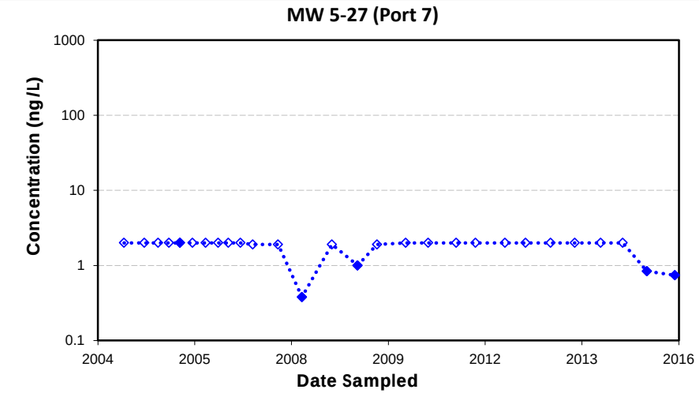
\\duscramento-01\Data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_NDMA_Charts.xlsm]plot_C3-1



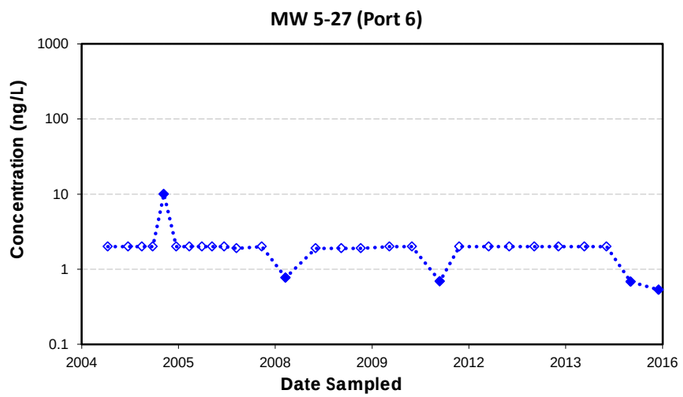
MW 5-26 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	23	--	NA



MW 5-27 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

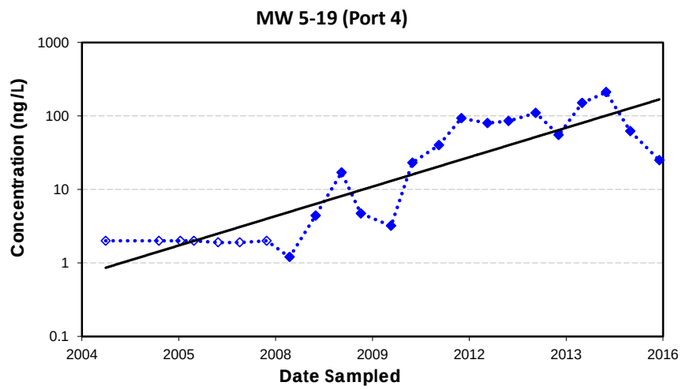
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

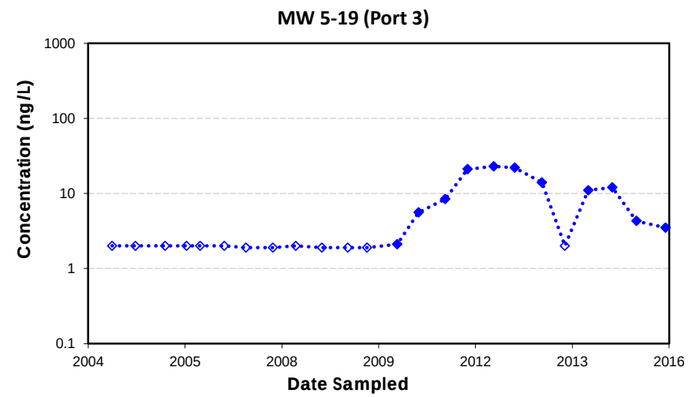
Project No.: SAC150

Chart **C3-9**

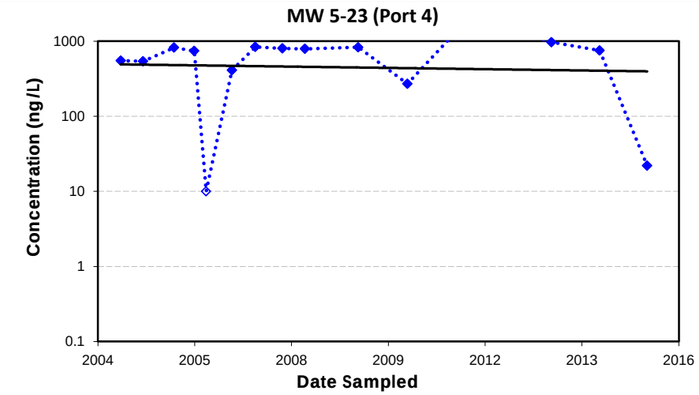
f:\sacramento-01\data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_NDMA_Charts.xlsm]pot_C3-1



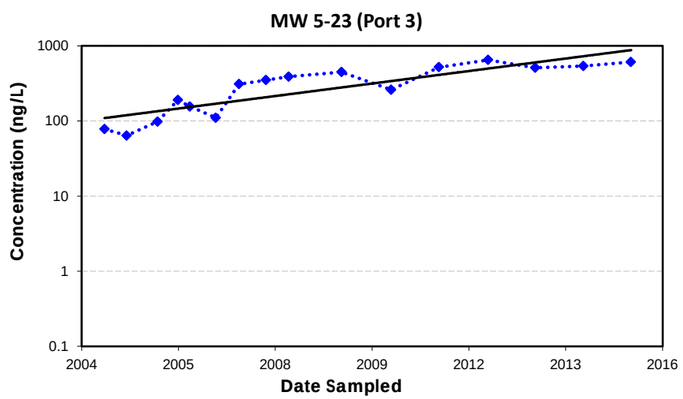
MW 5-19 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	23	176	Increasing



MW 5-19 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-23 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	22	No Trend



MW 5-23 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	96	Increasing

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

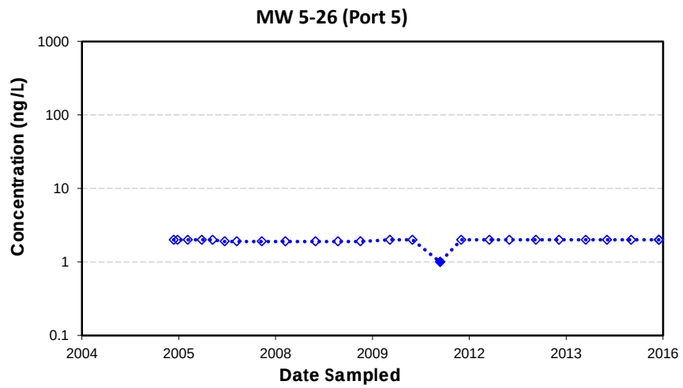
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

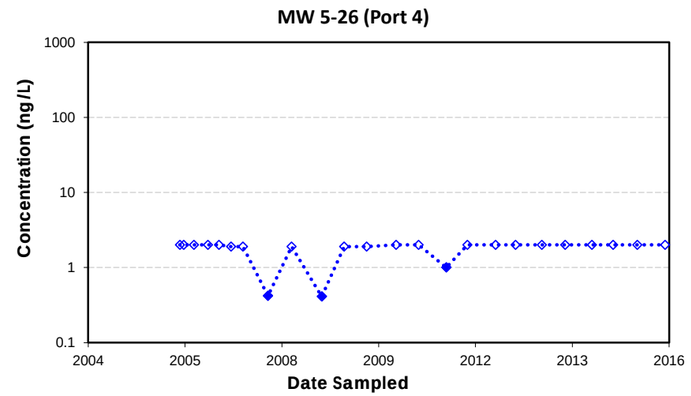
Project No.: SAC150

Chart **C3-10**

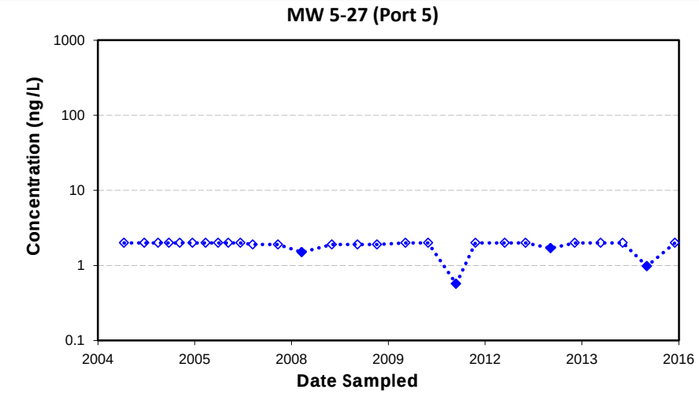
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_NDMA_Charts.xlsm]pkt_C3-1



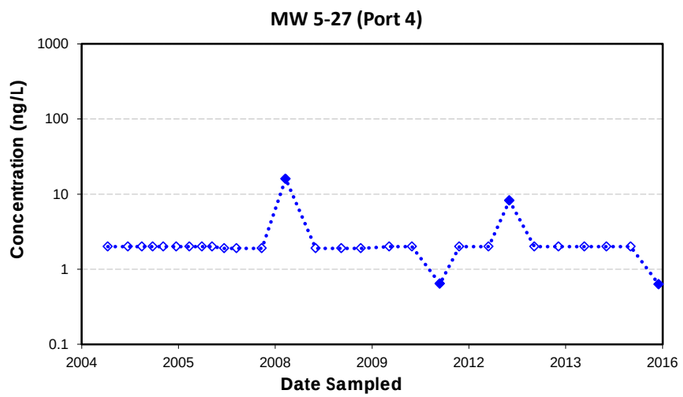
MW 5-26 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	25	--	NA



MW 5-26 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-27 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

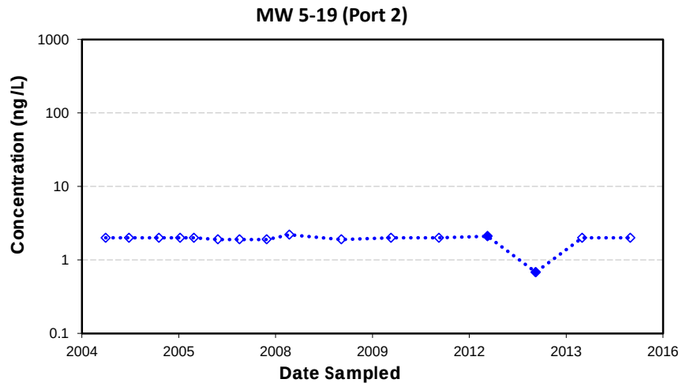
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

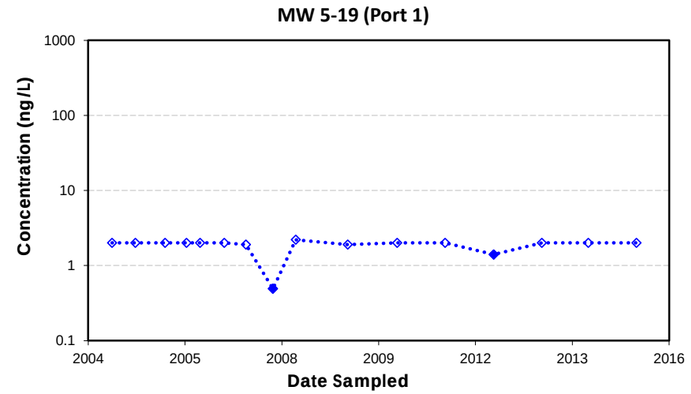
Project No.: SAC150

Chart **C3-11**

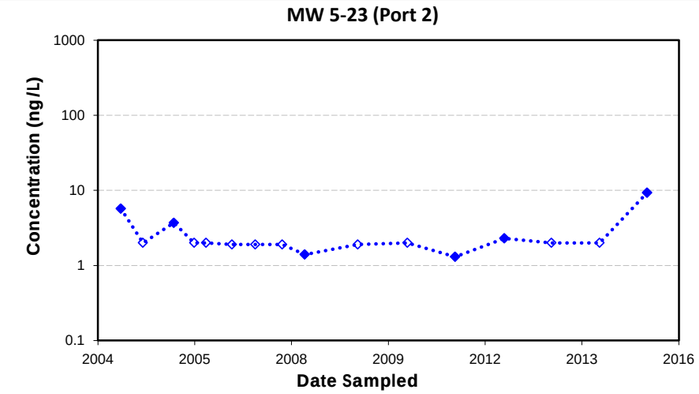
\\sacramento-01\Data\GIS\SAC150_BPOU\Database\output\mann-kendall\Charts\[BPOU_MK_NDMA_Charts.xlsm]plot_C3-1



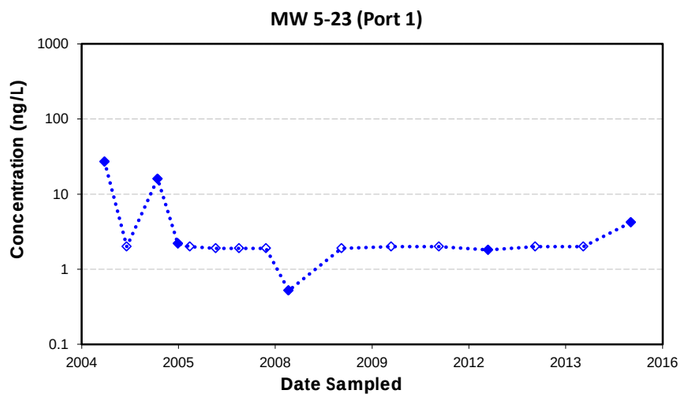
MW 5-19 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



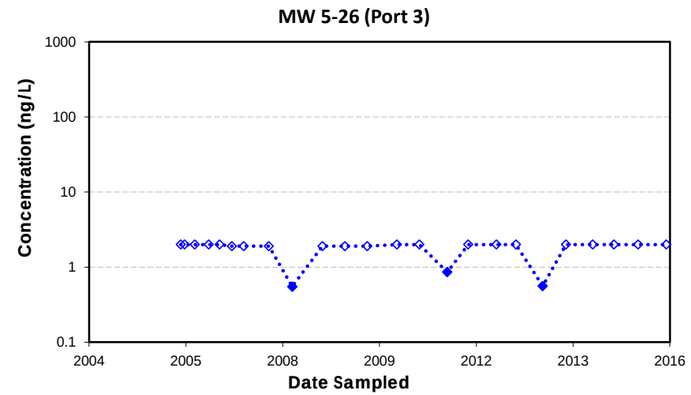
MW 5-19 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



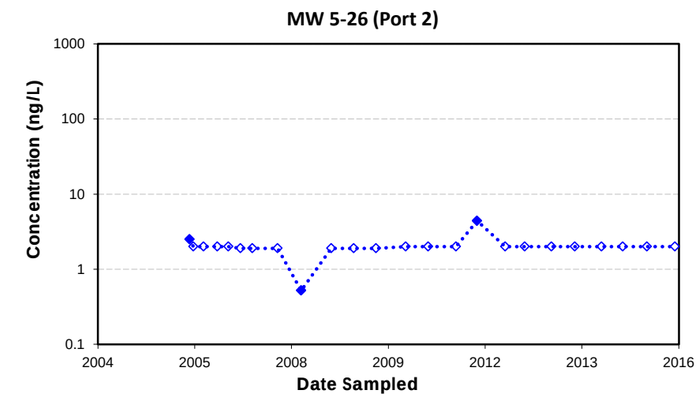
MW 5-23 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



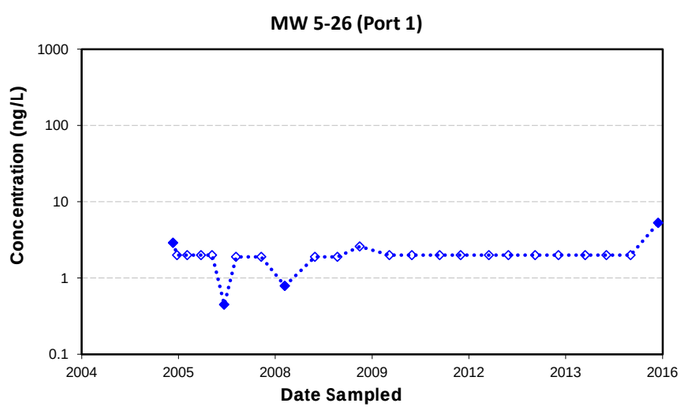
MW 5-23 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-26 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

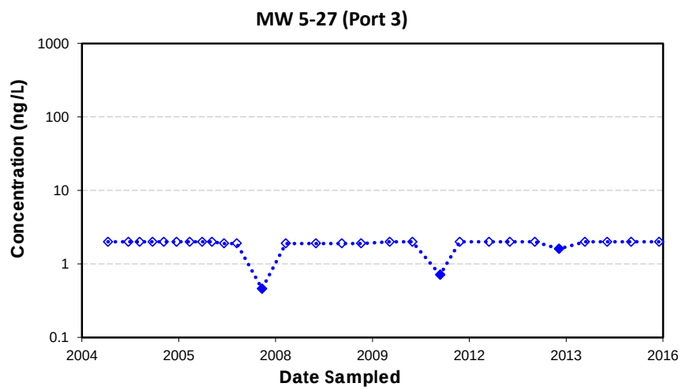
Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS
RESULTS, SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

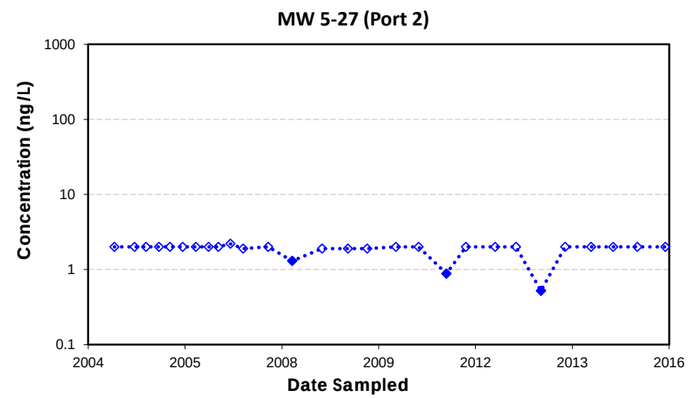
Geosyntec consultants

Project No.: SAC150

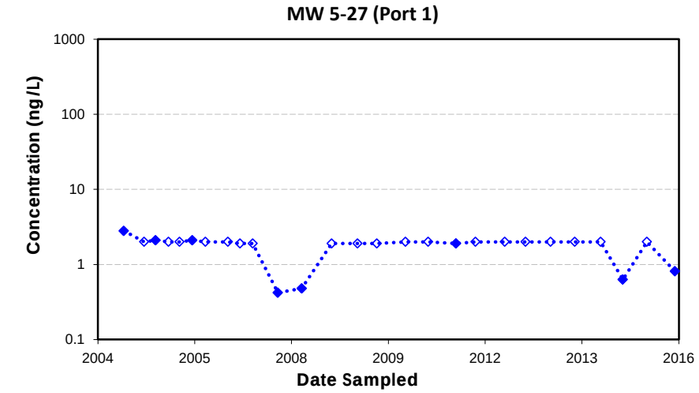
Chart **C3-12**



MW 5-27 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	27	--	NA

N-Nitrosodimethylamine

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
ng/L - nanograms per liter

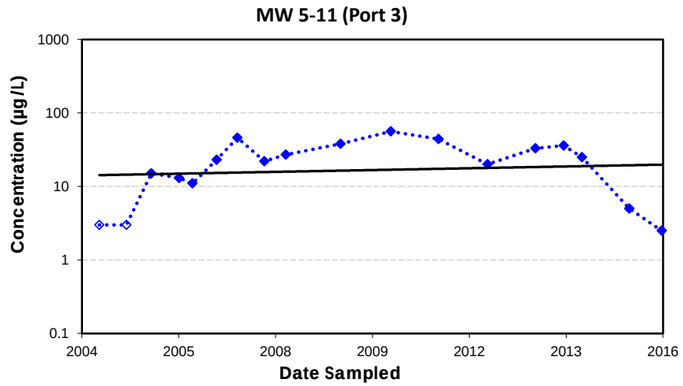
N-NITROSODIMETHYLAMINE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

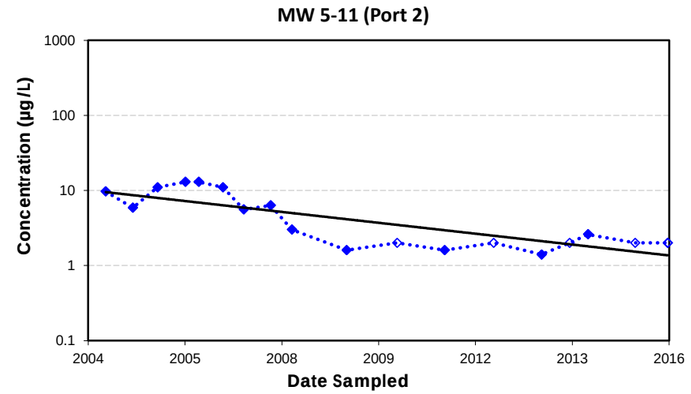
Project No.: SAC150

Chart **C3-13**

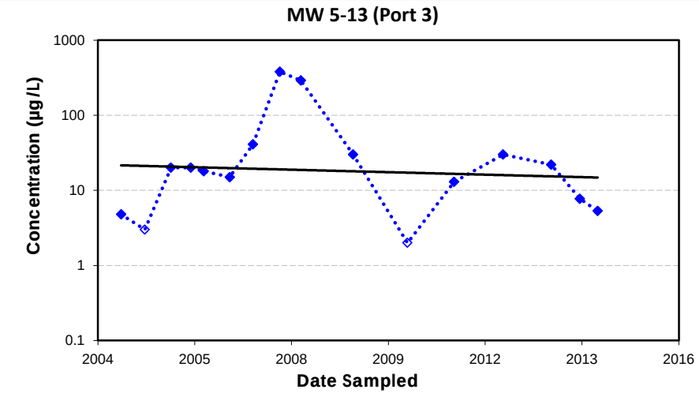
\\sacramento-01\Data\GIS\SAC150_BPOU\database\ncdgs\b\mann-kendall\Charts\[BPOU_MK_NDMA_Charts.xlsm]pick_C3-1



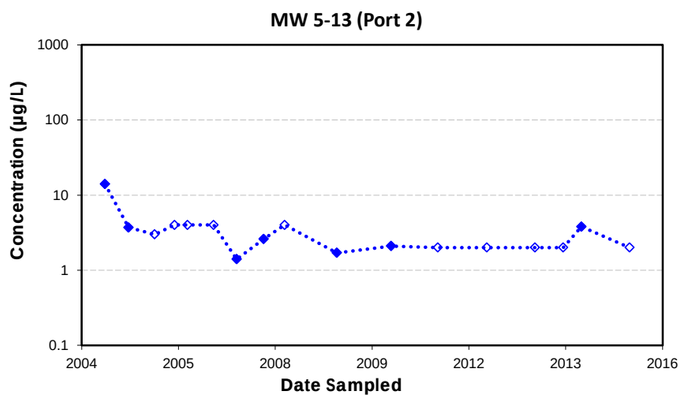
MW 5-11 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	18	32	No Trend



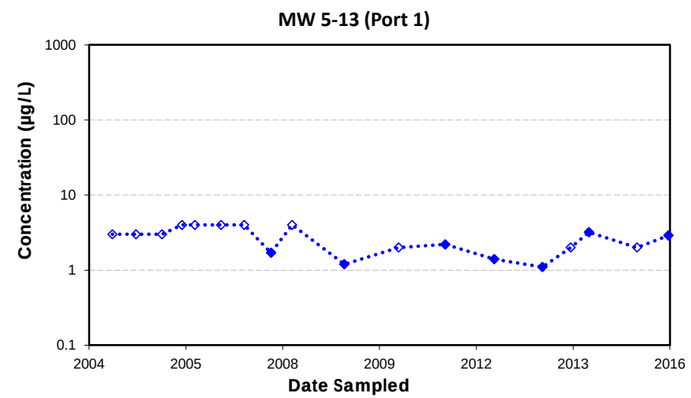
MW 5-11 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	19	-111	Decreasing



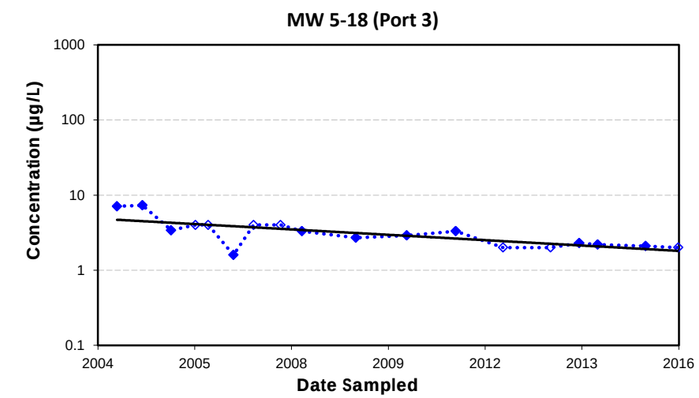
MW 5-13 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	0	No Trend



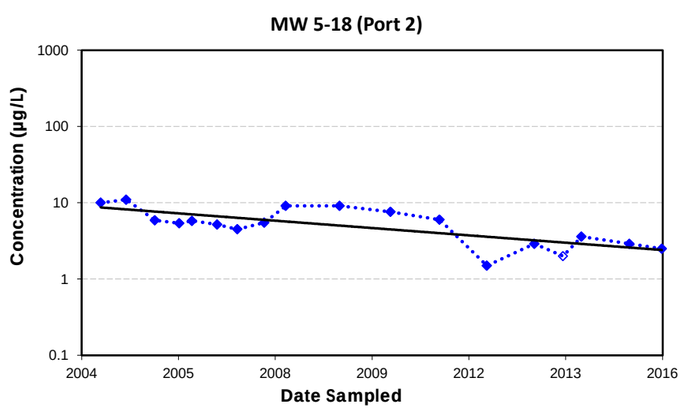
MW 5-13 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	17	--	NA



MW 5-13 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	--	NA



MW 5-18 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	18	-49	Probably Decreasing



MW 5-18 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	18	-77	Decreasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

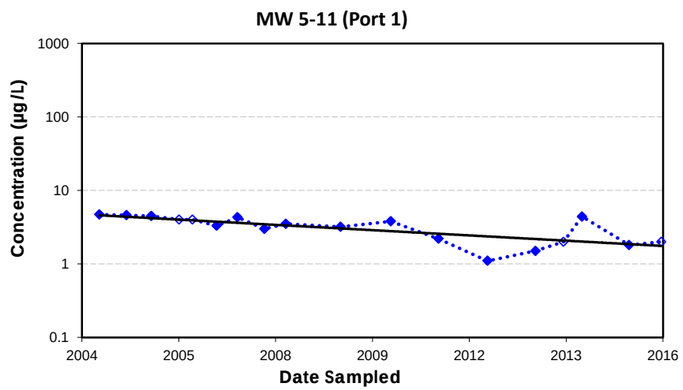
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 1, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

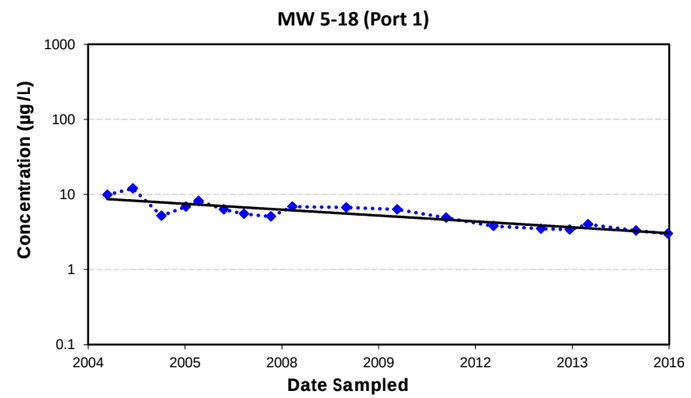
Project No.: SAC150

Chart **C4-1**

\\sacname-ntp-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



MW 5-11 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	-75	Decreasing



MW 5-18 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	18	-111	Decreasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

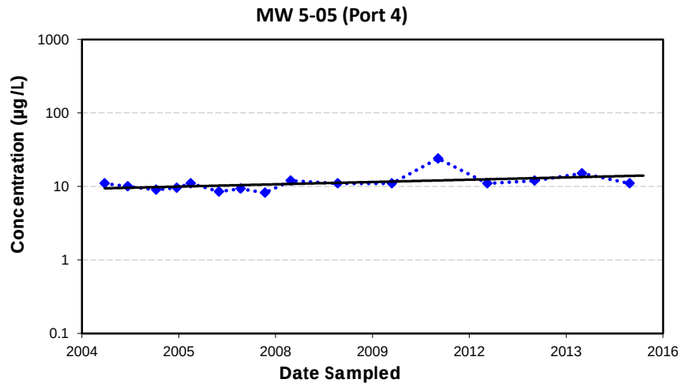
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 1, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

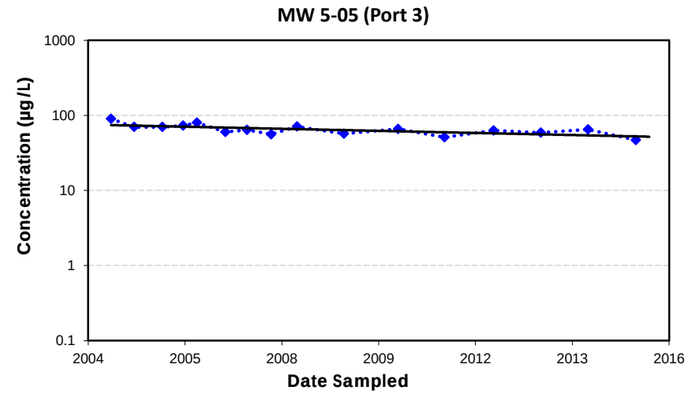
Project No.: SAC150

Chart **C4-2**

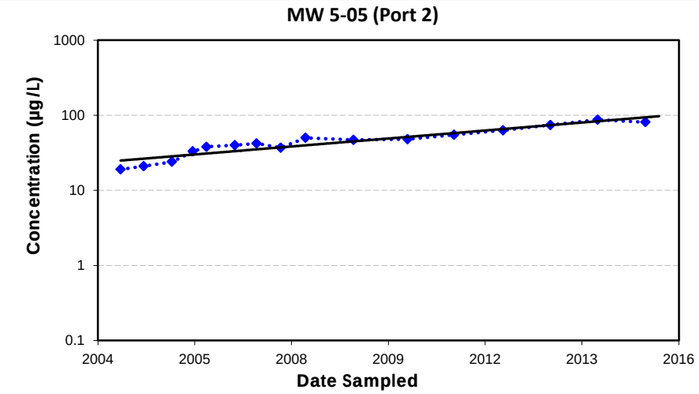
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



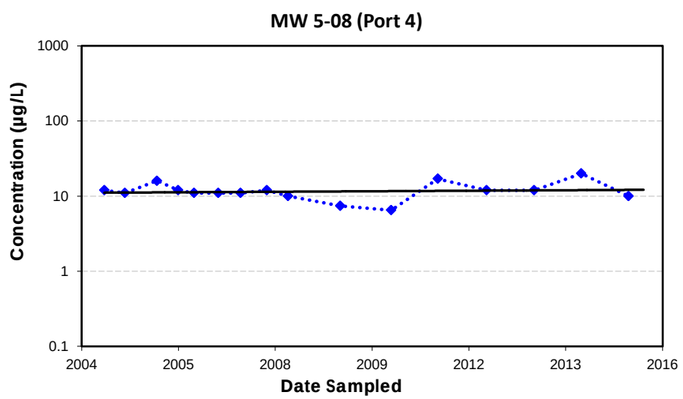
MW 5-05 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	42	Probably Increasing



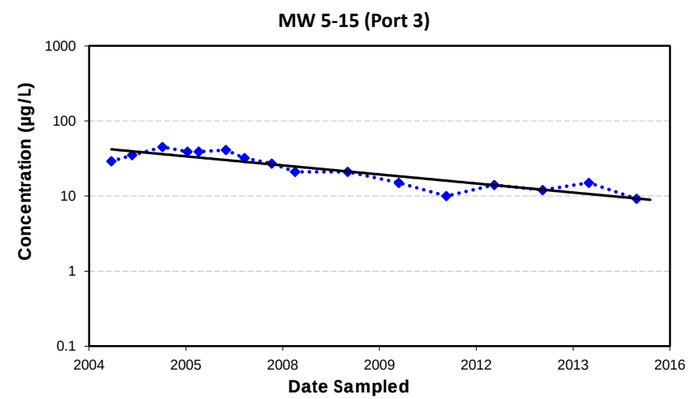
MW 5-05 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	-59	Decreasing



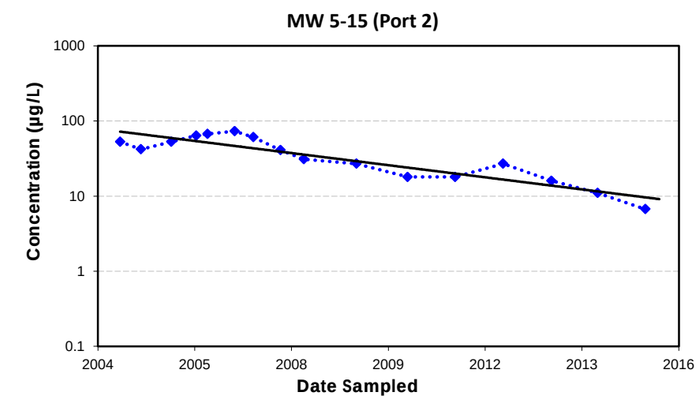
MW 5-05 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	108	Increasing



MW 5-08 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	-7	Stable



MW 5-15 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	-83	Decreasing



MW 5-15 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	-81	Decreasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

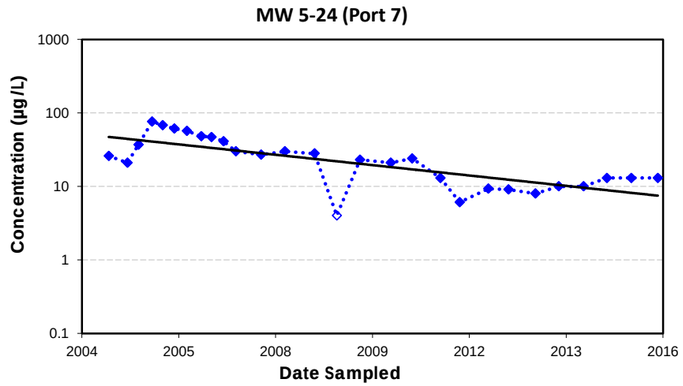
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

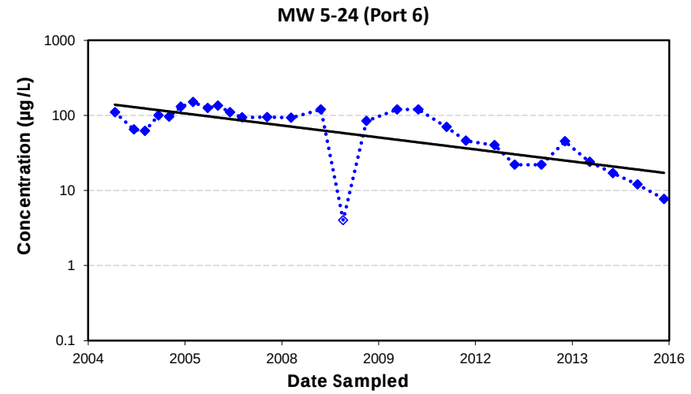
Project No.: SAC150

Chart **C4-3**

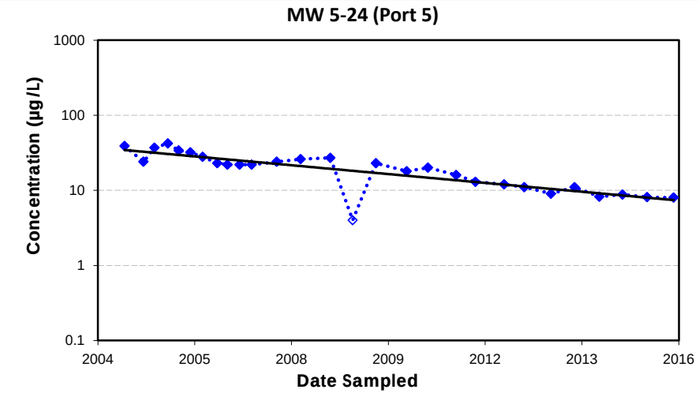
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]\jack_C4-1



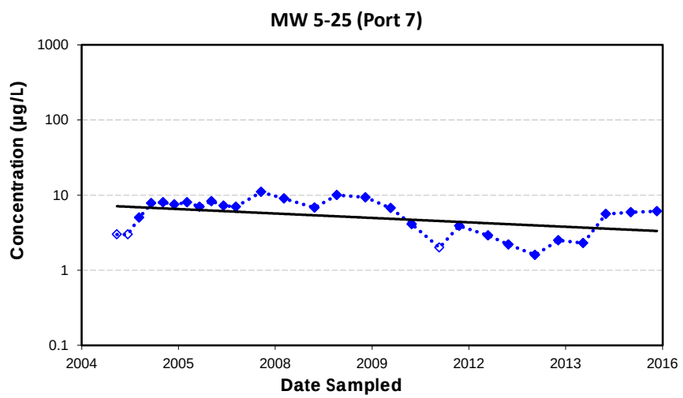
MW 5-24 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	-211	Decreasing



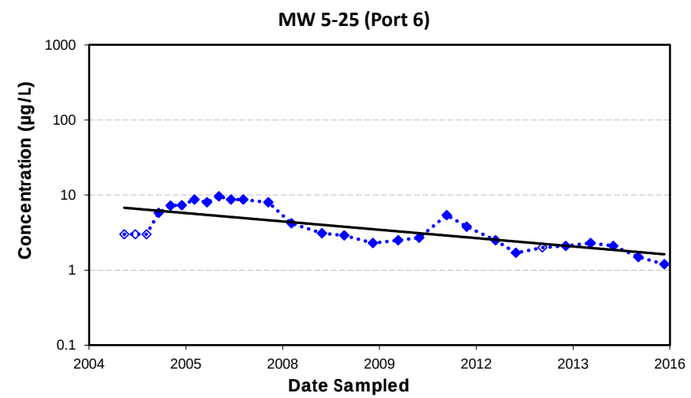
MW 5-24 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	-195	Decreasing



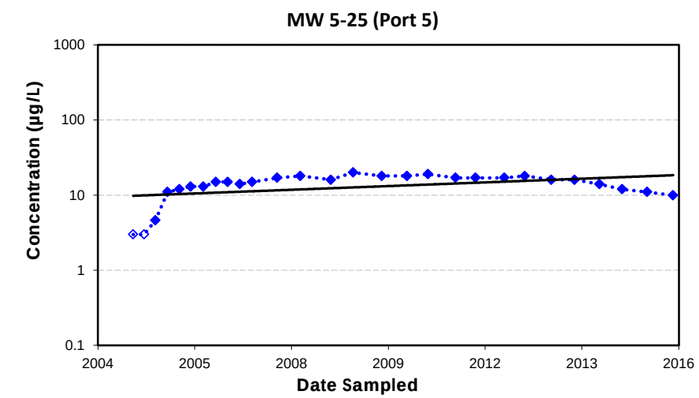
MW 5-24 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	-286	Decreasing



MW 5-25 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	-77	Stable



MW 5-25 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	-135	Decreasing



MW 5-25 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	103	Increasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

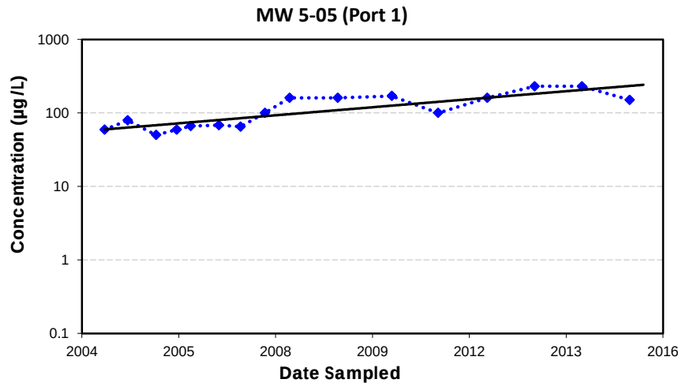
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

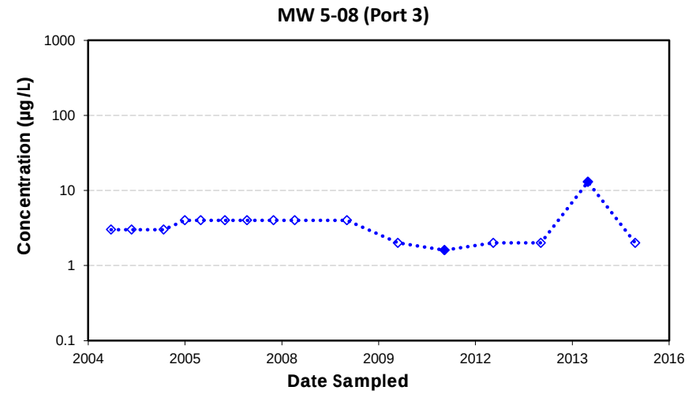
Project No.: SAC150

Chart **C4-4**

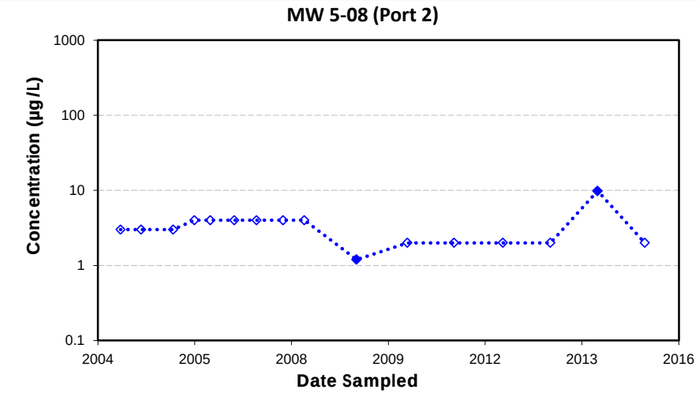
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]jack_C4-1



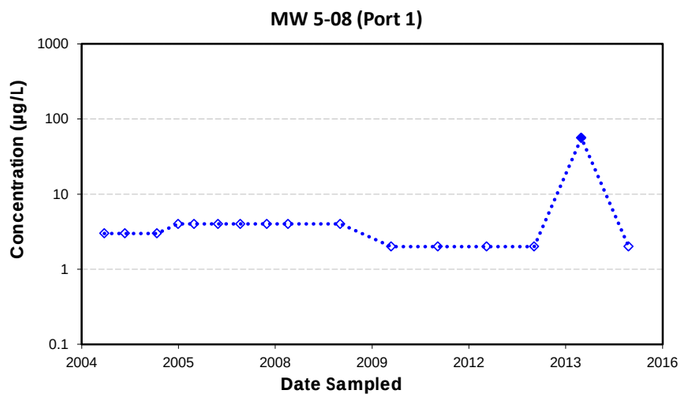
MW 5-05 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	78	Increasing



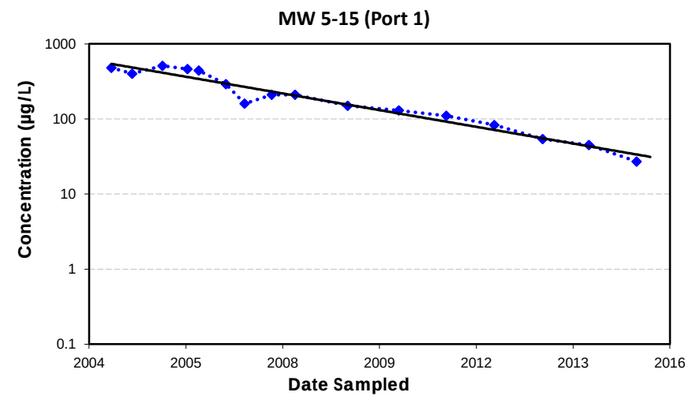
MW 5-08 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-08 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-08 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-15 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	-107	Decreasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

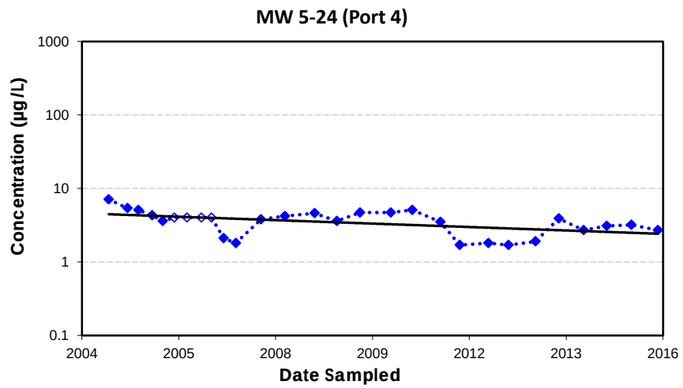
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

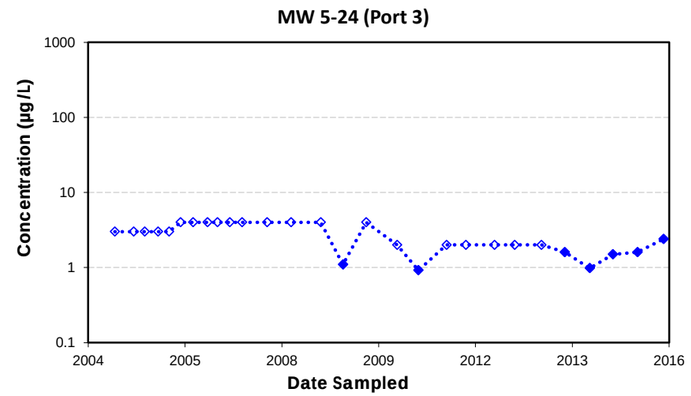
Project No.: SAC150

Chart **C4-5**

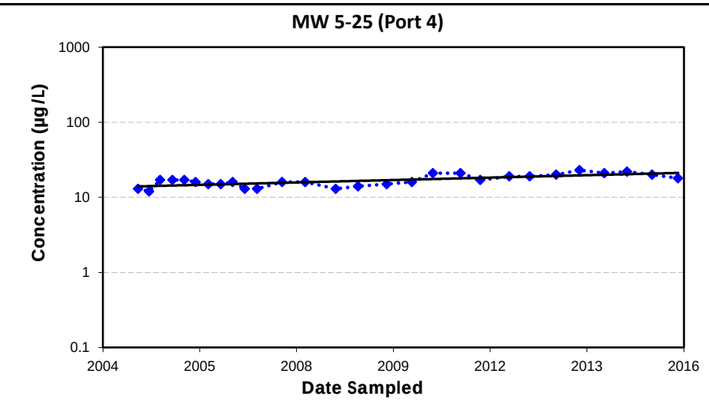
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\trends\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]Jack_C4-1



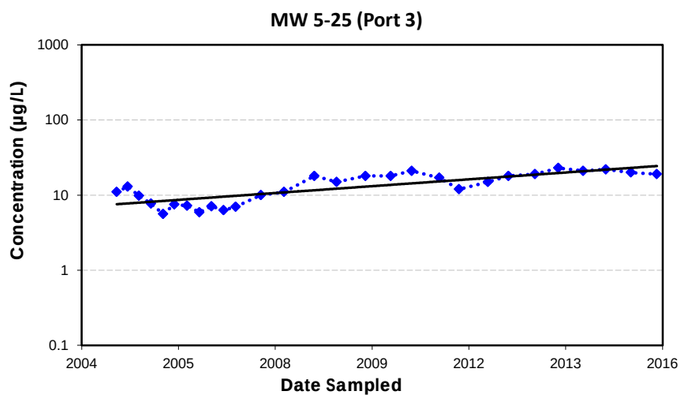
MW 5-24 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	-84	Stable



MW 5-24 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	174	Increasing



MW 5-25 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	214	Increasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

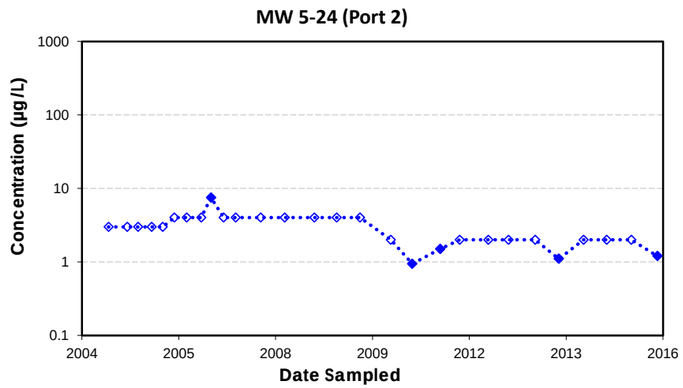
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

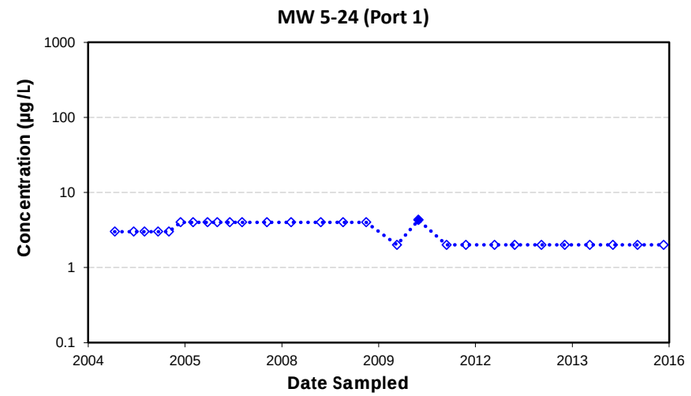
Project No.: SAC150

Chart **C4-6**

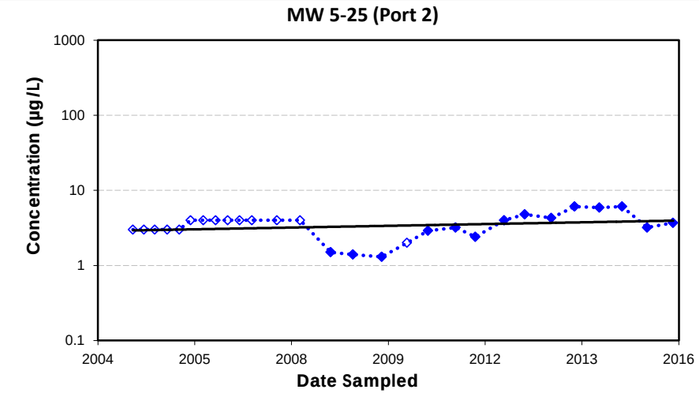
fs:\arcmr-nto-01\Data\GIS\SAC150_BPOU\database\objs\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



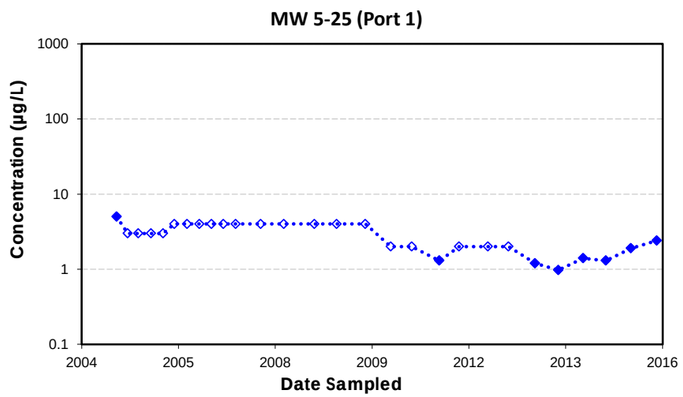
MW 5-24 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-24 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	195	Increasing



MW 5-25 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

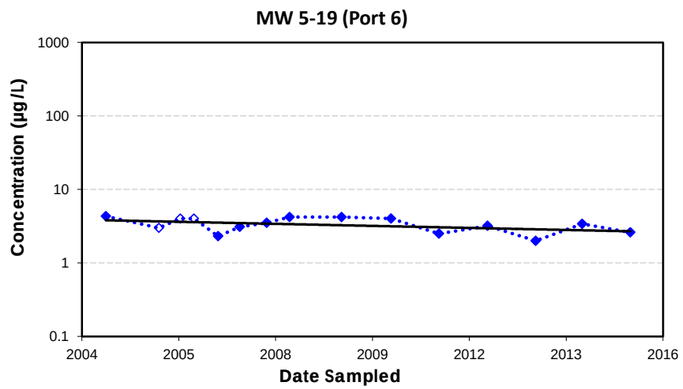
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, ABOVE -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

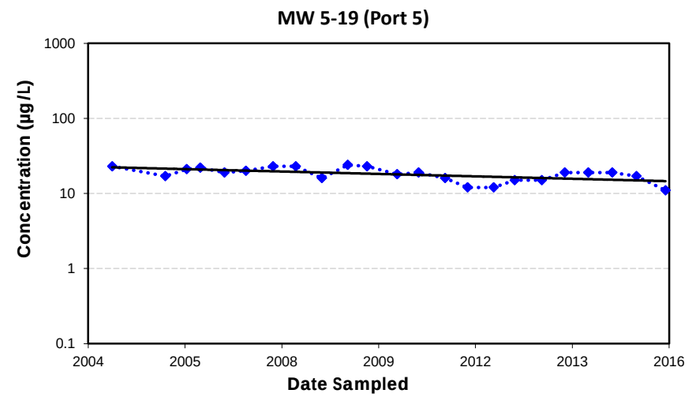
Project No.: SAC150

Chart **C4-7**

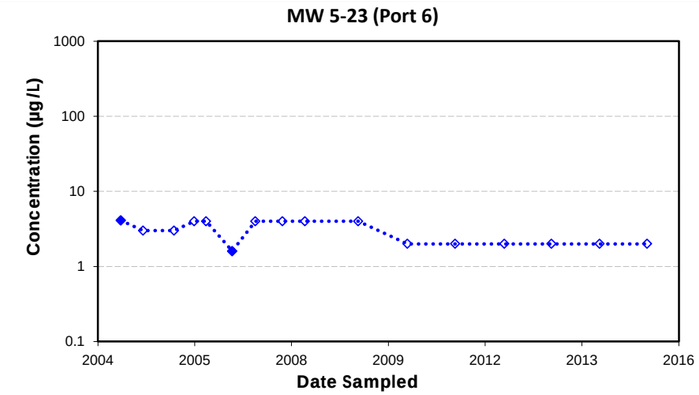
fs:\sacramento-01\data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]pos_C4-1



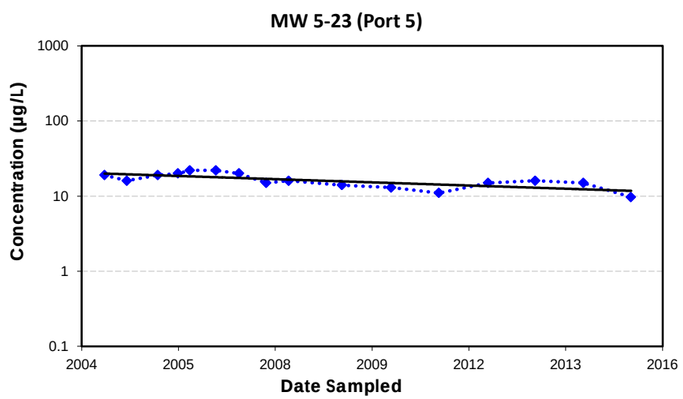
MW 5-19 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	15	13	No Trend



MW 5-19 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	23	-93	Decreasing



MW 5-23 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-23 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	16	-57	Decreasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

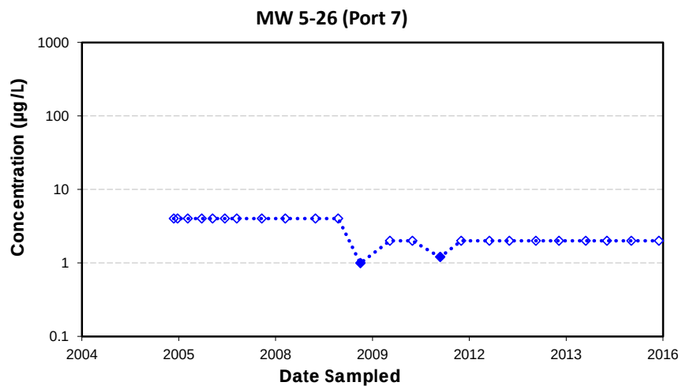
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

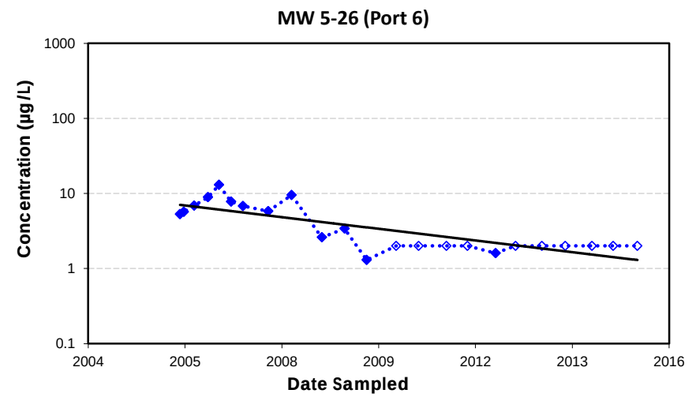
Project No.: SAC150

Chart **C4-8**

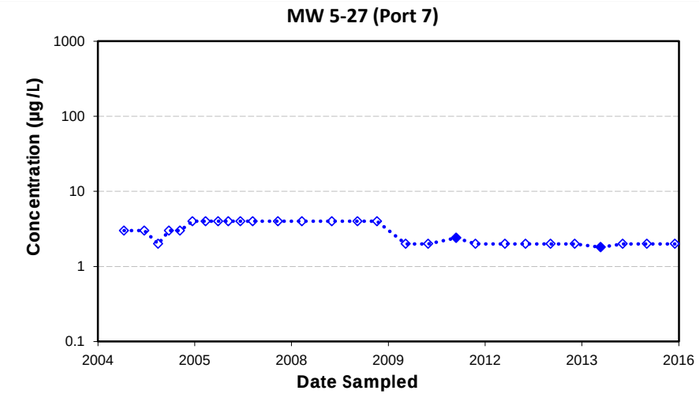
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



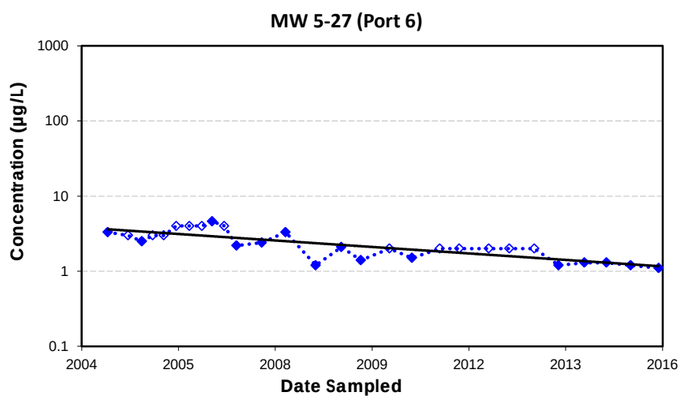
MW 5-26 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	23	-148	Decreasing



MW 5-27 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	-162	Decreasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

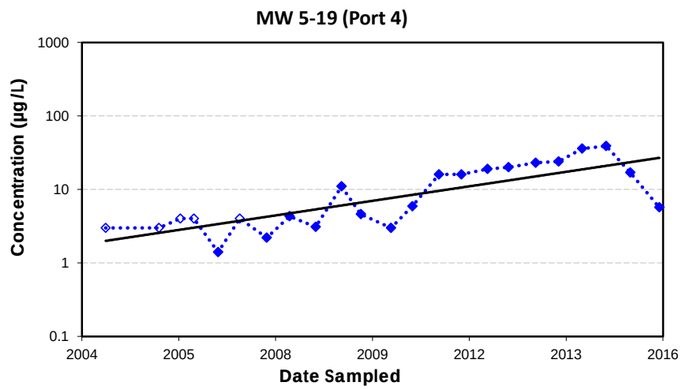
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

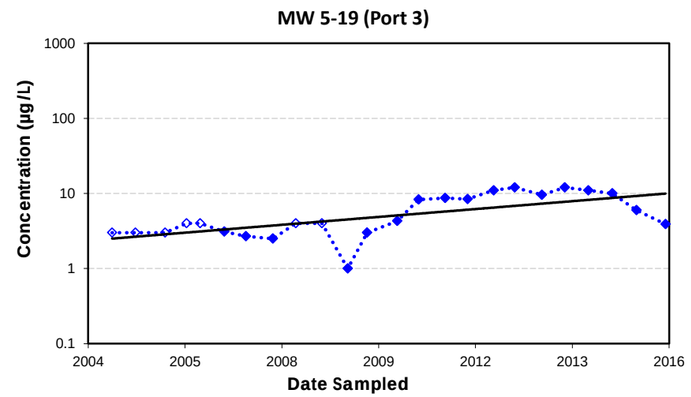
Project No.: SAC150

Chart **C4-9**

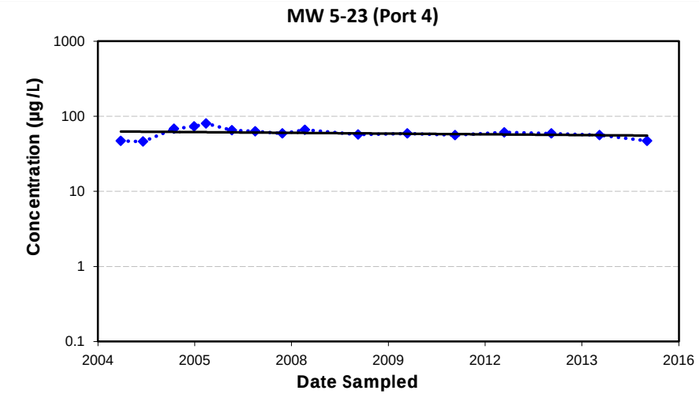
\\sacramento-01\Data\GIS\SAC150_BPOU\data\shp\shp\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



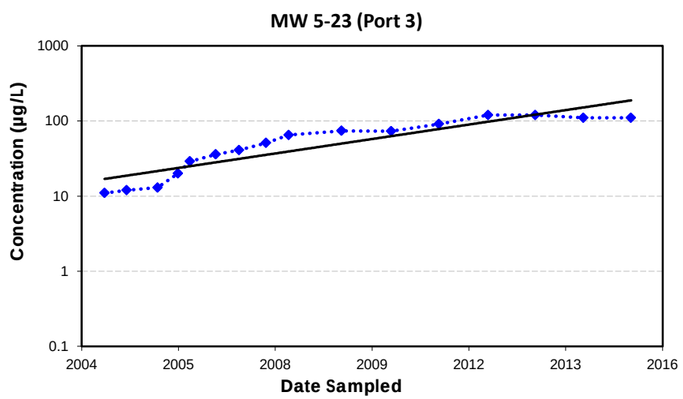
MW 5-19 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	23	192	Increasing



MW 5-19 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	167	Increasing



MW 5-23 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	-35	Stable



MW 5-23 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	108	Increasing

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

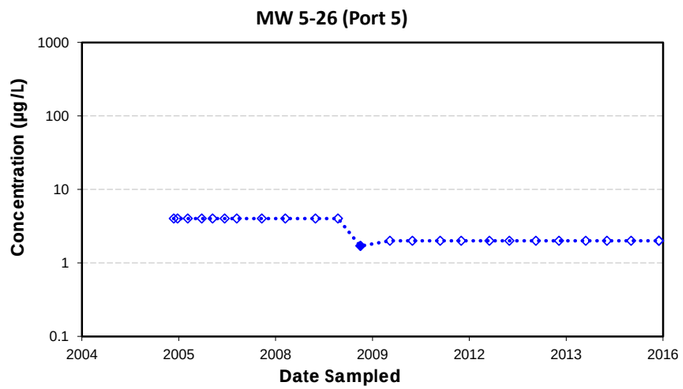
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

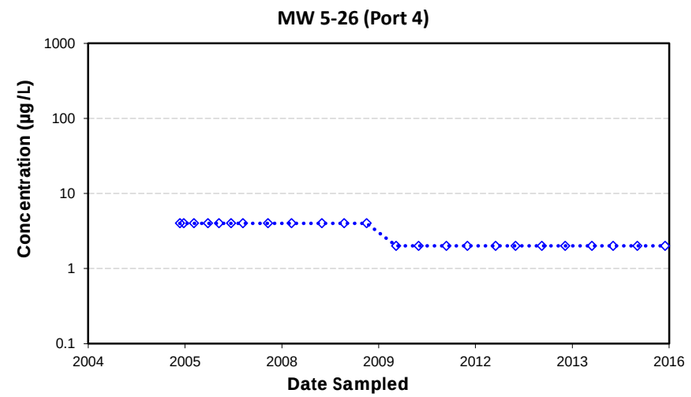
Project No.: SAC150

Chart **C4-10**

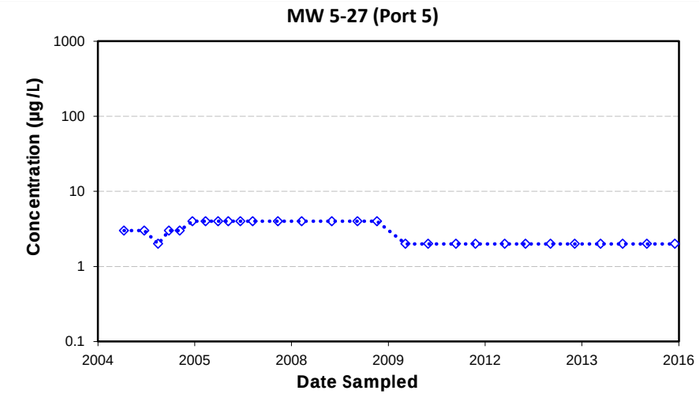
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



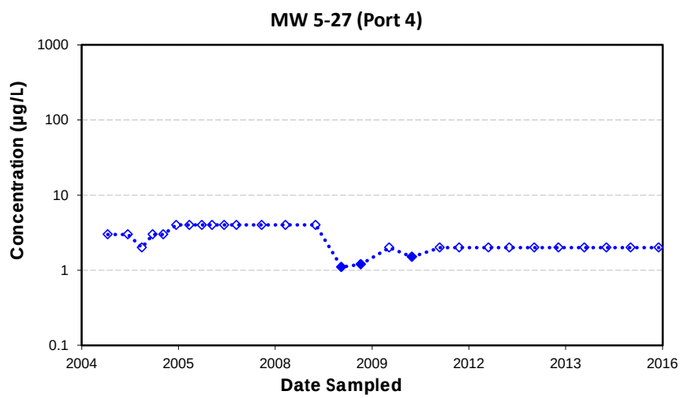
MW 5-26 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	25	--	NA



MW 5-26 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-27 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

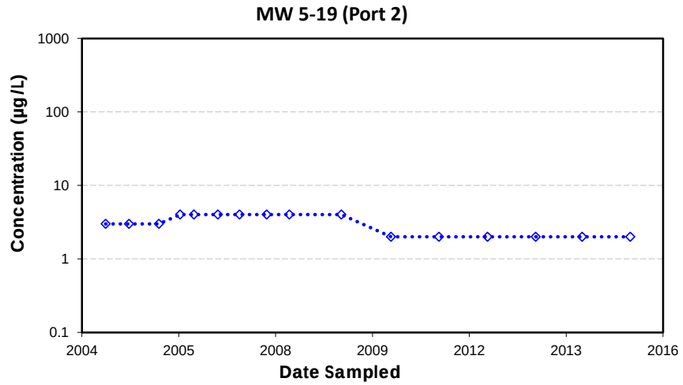
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

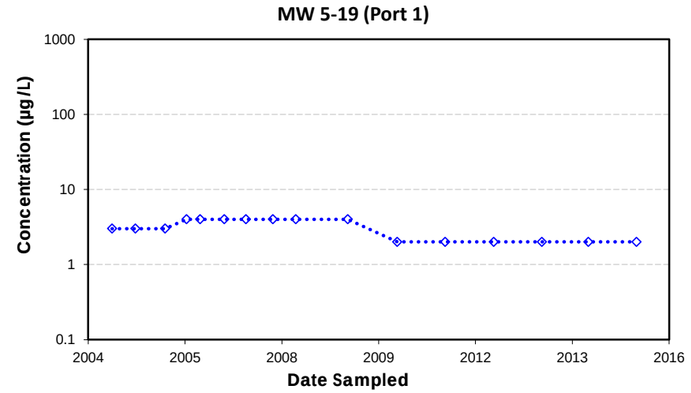
Project No.: SAC150

Chart **C4-11**

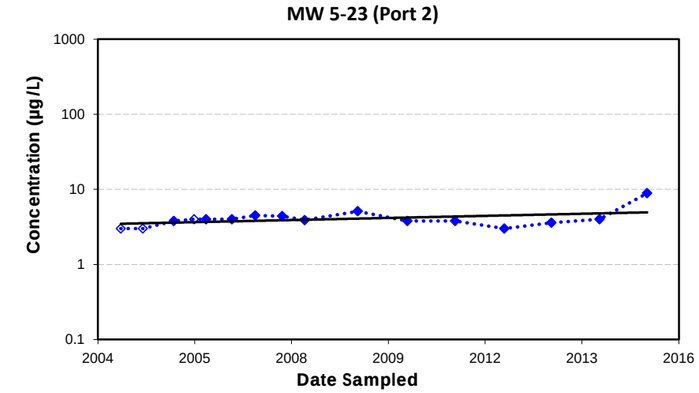
\\sacramento-01\Data\GIS\SAC150_BPOU\database\output\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



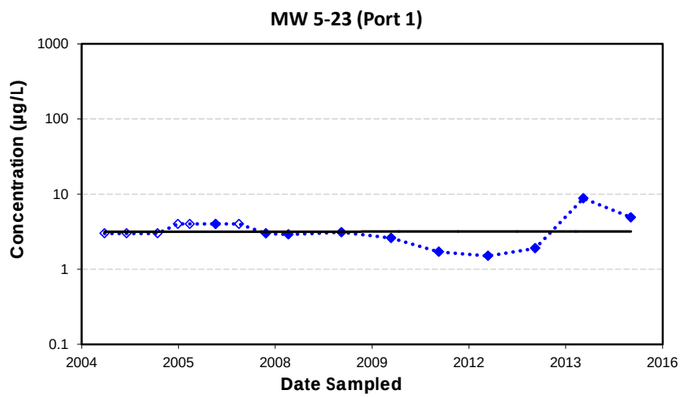
MW 5-19 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



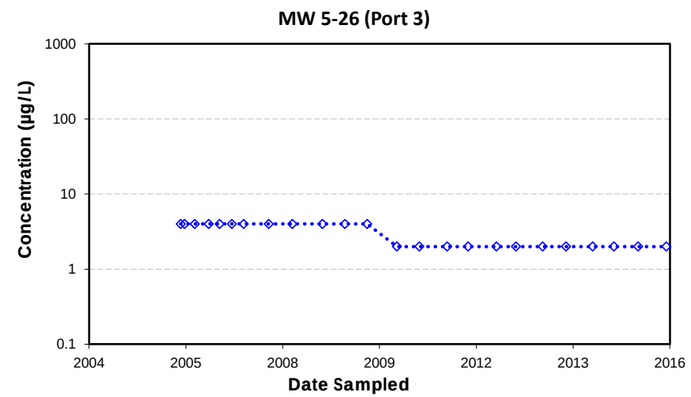
MW 5-19 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



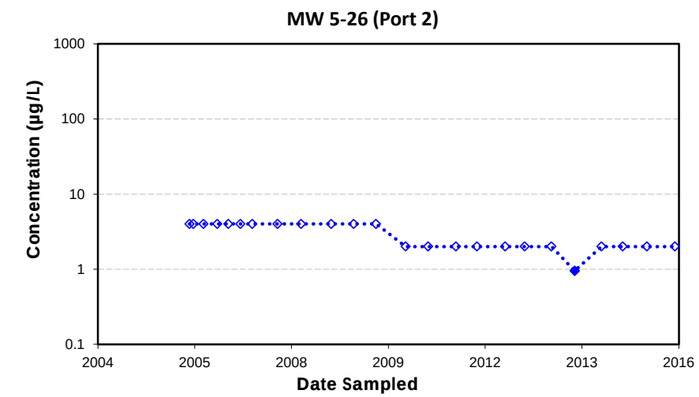
MW 5-23 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	35	No Trend



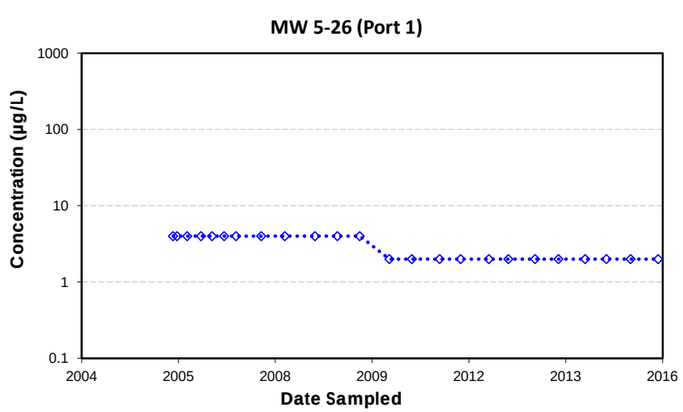
MW 5-23 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	41	Probably Increasing



MW 5-26 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

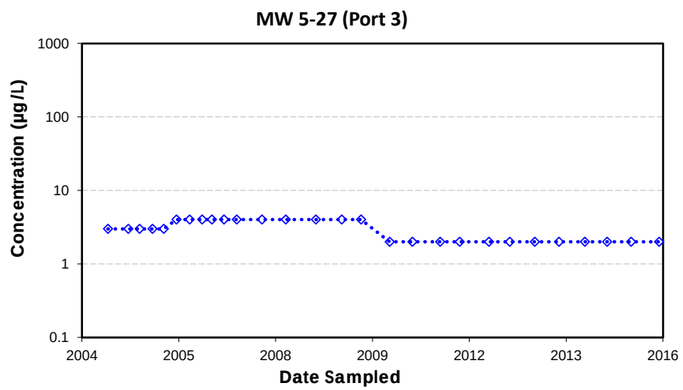
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

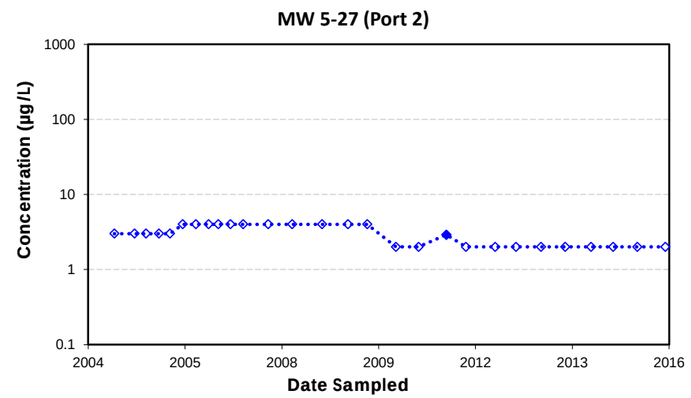
Project No.: SAC150

Chart **C4-12**

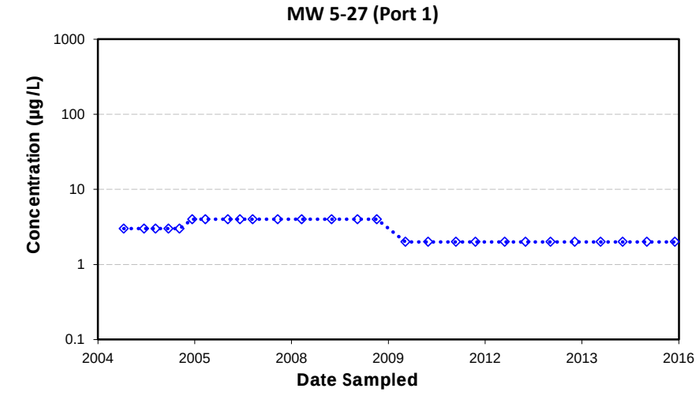
\\duscrame-nb-01\Data\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]pkd_C4-1



MW 5-27 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	27	--	NA

Perchlorate (ClO4)

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

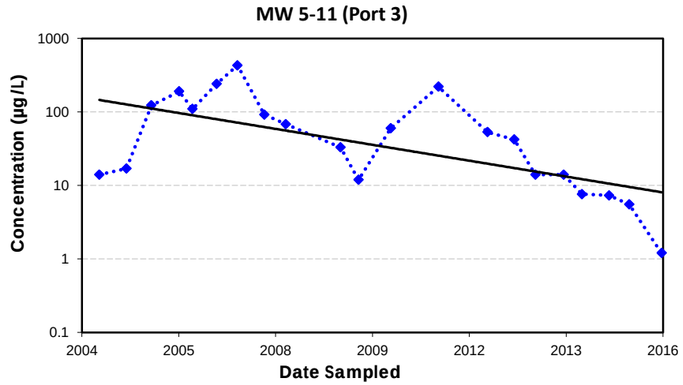
PERCHLORATE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

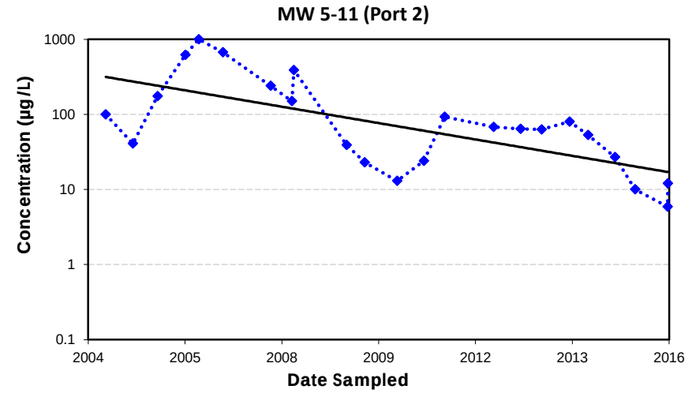
Project No.: SAC150

Chart **C4-13**

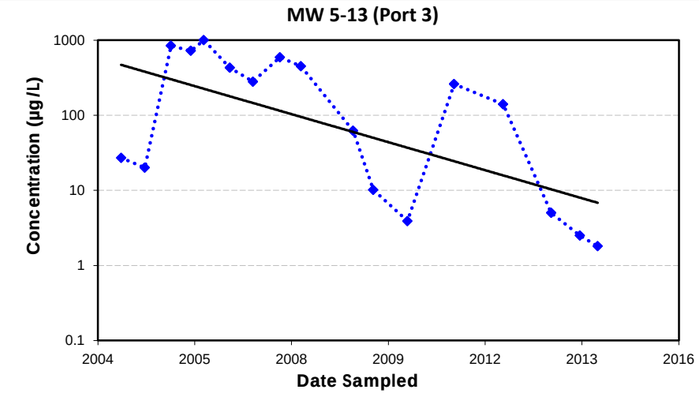
\\sacramento-01\Data\GIS\SAC150_BPOU\database\shp\gis\mann-kendall\Charts\[BPOU_MK_Per_Charts.xlsm]plot_C4-1



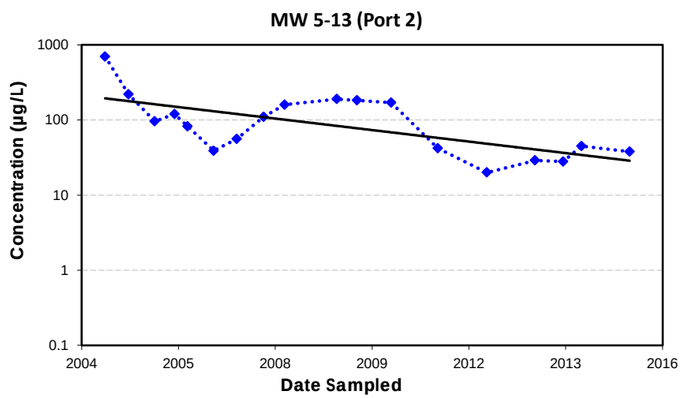
MW 5-11 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	21	-109	Decreasing



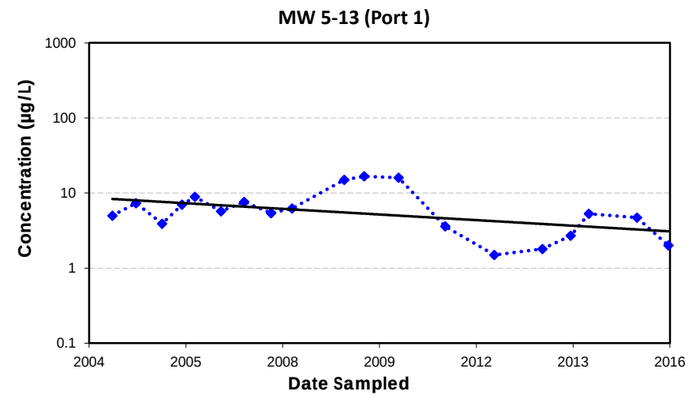
MW 5-11 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	23	-127	Decreasing



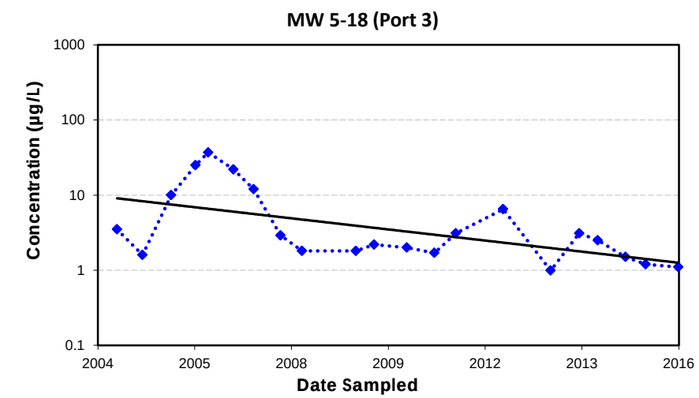
MW 5-13 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	17	-70	Decreasing



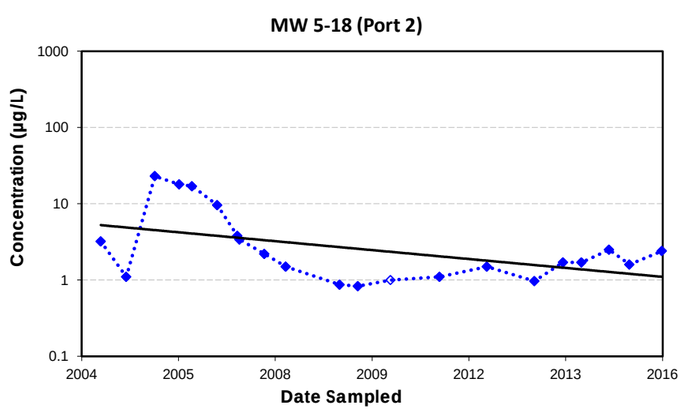
MW 5-13 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	18	-73	Decreasing



MW 5-13 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	19	-44	Stable



MW 5-18 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	21	-90	Decreasing



MW 5-18 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	21	-63	Probably Decreasing

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

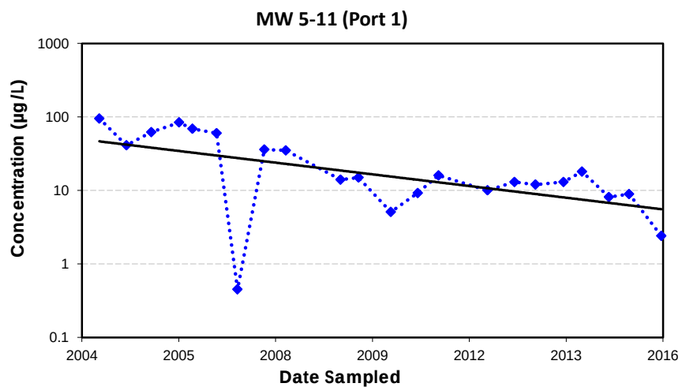
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 1, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

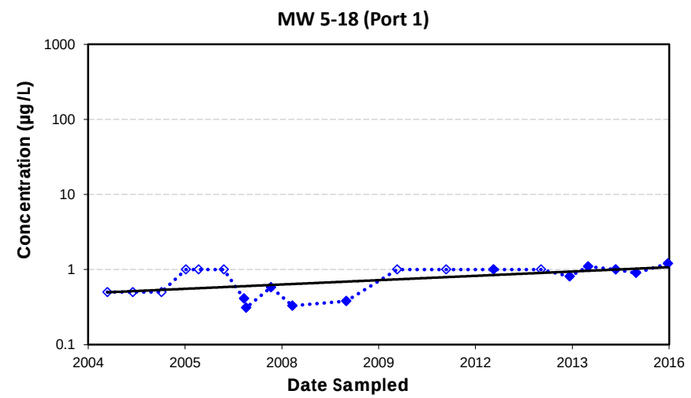
Project No.: SAC150

Chart **C5-1**

P:\GISSA C1\0_BPOU\data\ser\output\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]plot_C5-11



MW 5-11 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	22	-128	Decreasing



MW 5-18 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	122	Increasing

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

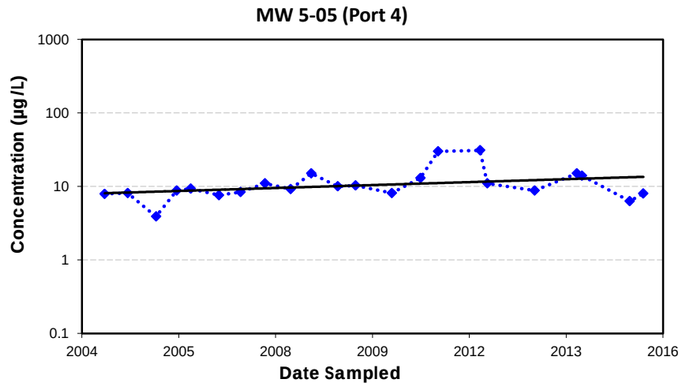
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 1, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

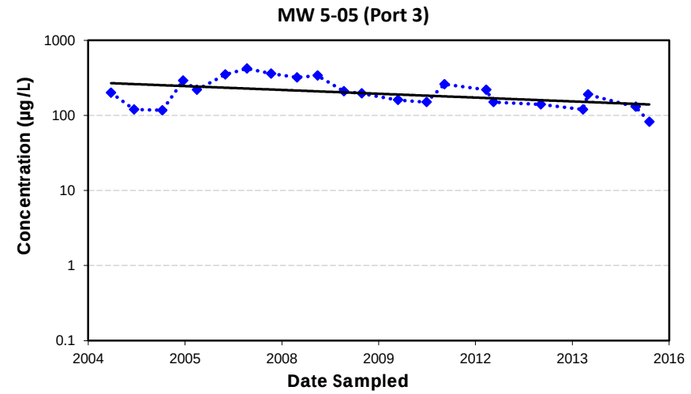
Project No.: SAC150

Chart **C5-2**

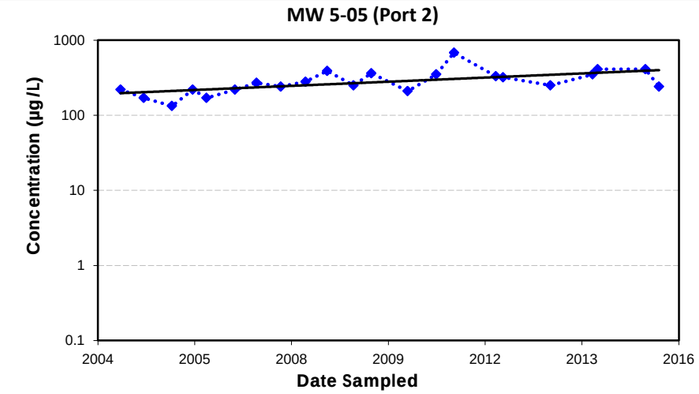
P:\GI\SSA\C150_BPOU\data\saw\output\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]pk4_C5-11



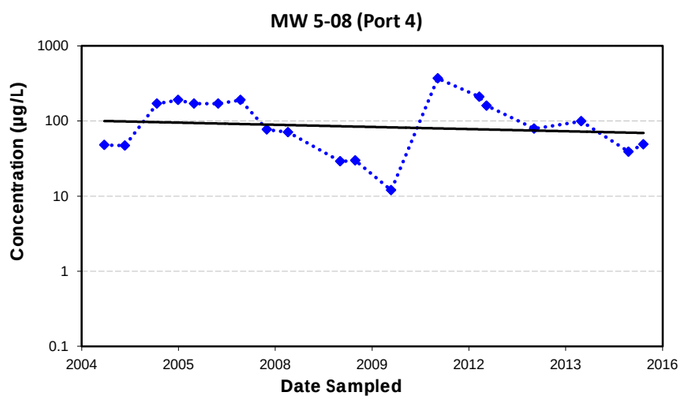
MW 5-05 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	22	69	Probably Increasing



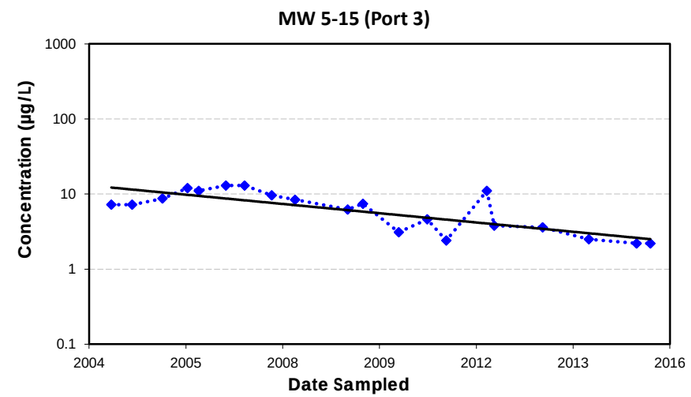
MW 5-05 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	22	-58	Stable



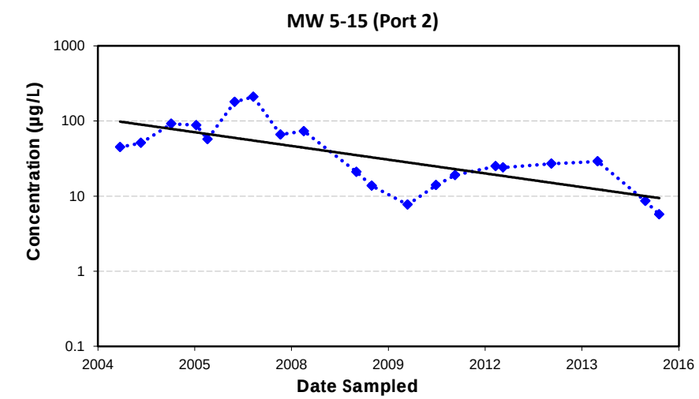
MW 5-05 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	22	102	Increasing



MW 5-08 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	19	-24	Stable



MW 5-15 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	20	-106	Decreasing



MW 5-15 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	20	-86	Decreasing

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

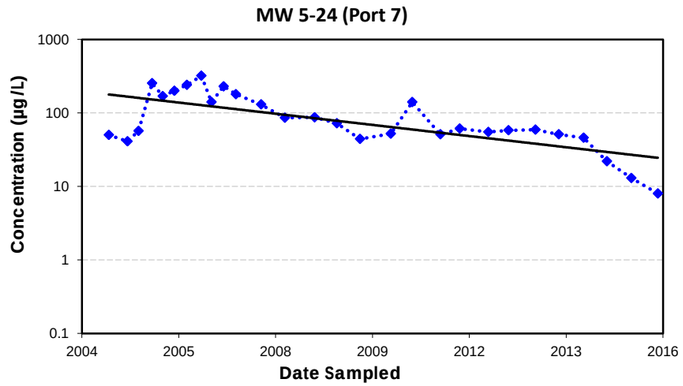
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

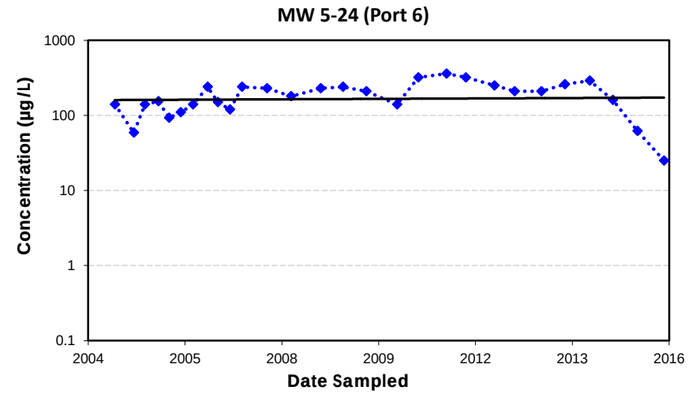
Project No.: SAC150

Chart **C5-3**

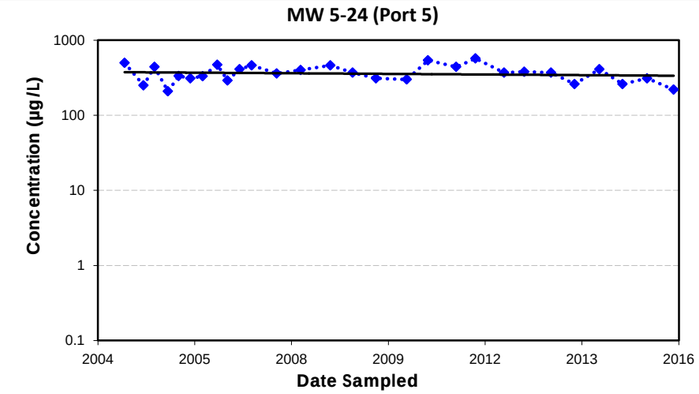
P:\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]plot_C5-11



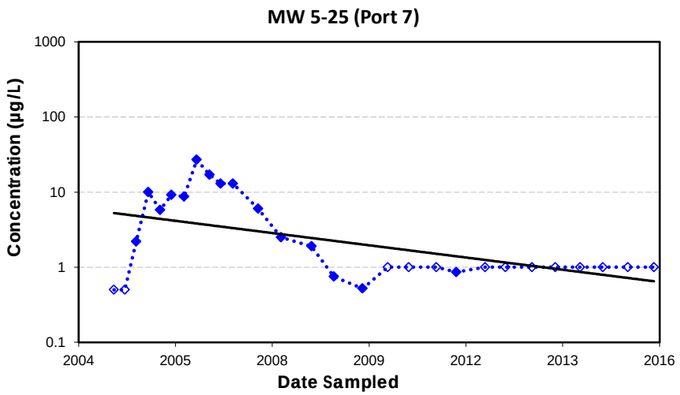
MW 5-24 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	-180	Decreasing



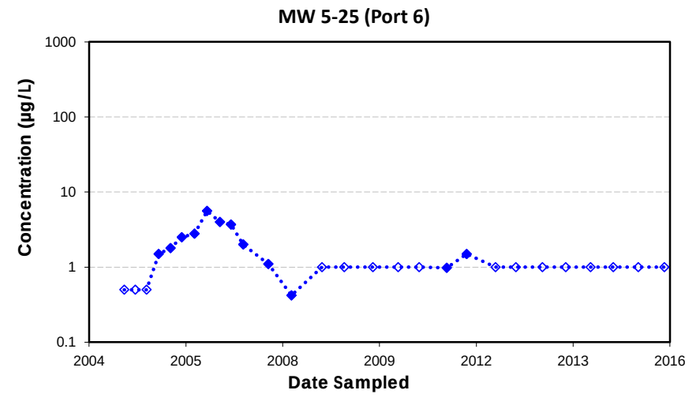
MW 5-24 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	100	Increasing



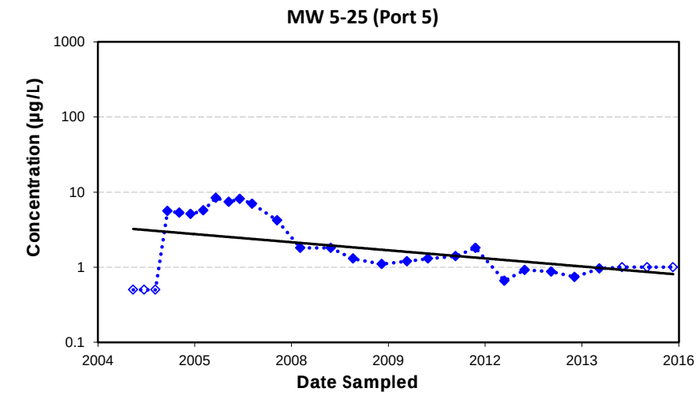
MW 5-24 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	-30	Stable



MW 5-25 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	-149	Decreasing



MW 5-25 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	-140	Decreasing

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

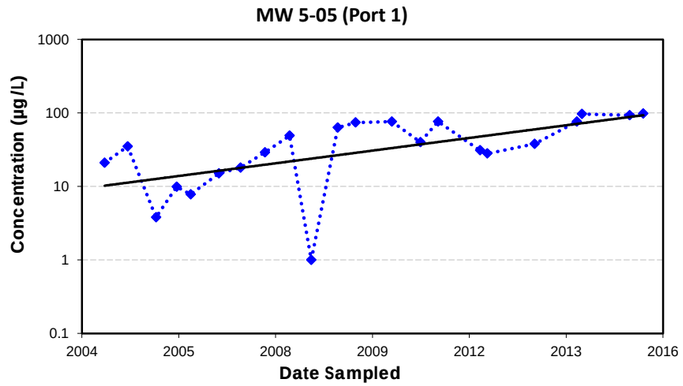
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

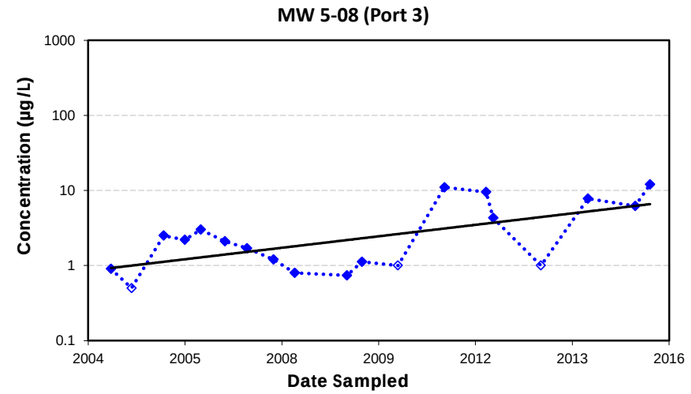
Project No.: SAC150

Chart **C5-4**

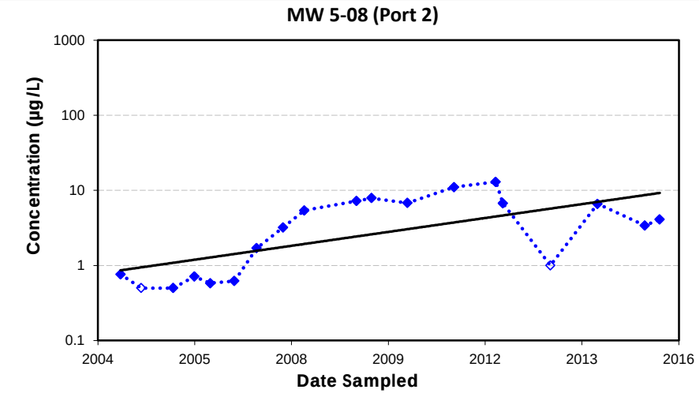
P:\GISSA C150_BPOU\data\spatial\output\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]\pk4_C5-11



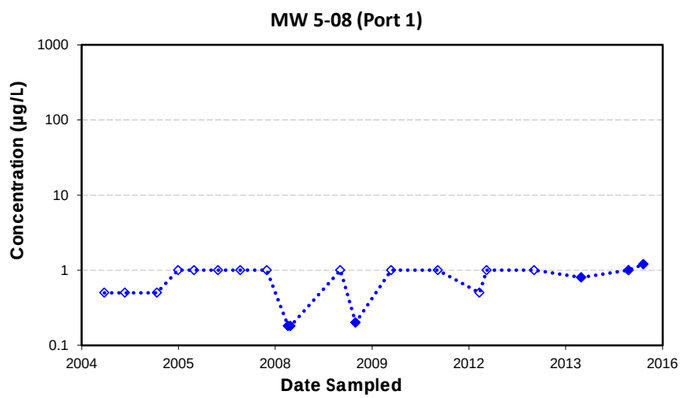
MW 5-05 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	22	132	Increasing



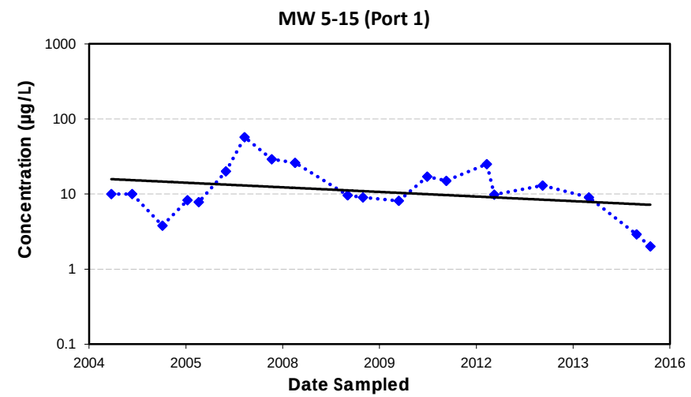
MW 5-08 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	19	38	No Trend



MW 5-08 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	19	72	Increasing



MW 5-08 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	--	NA



MW 5-15 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	-27	Stable

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

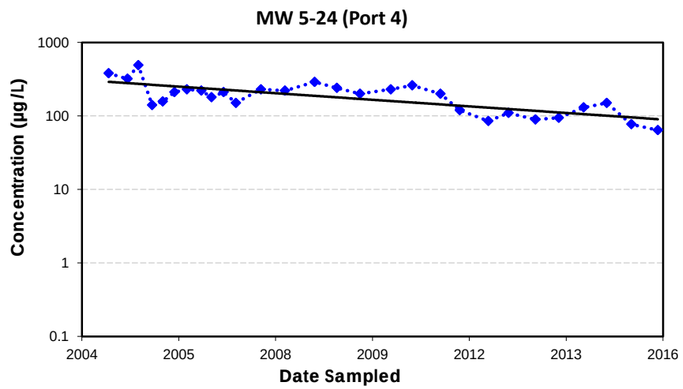
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

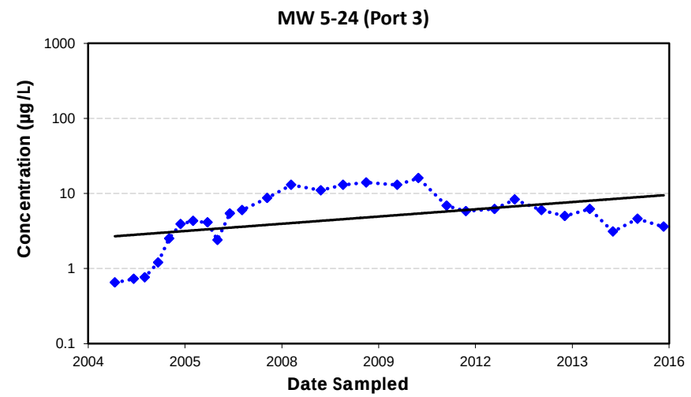
Project No.: SAC150

Chart **C5-5**

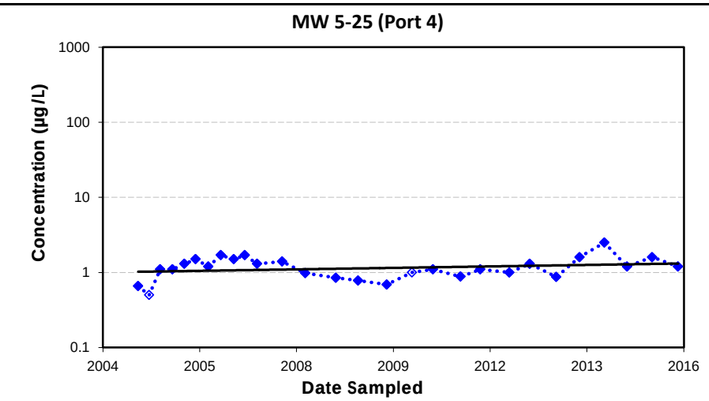
P:\GISSA C150_BPOU\data\spatial\output\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]pl24_C5-11



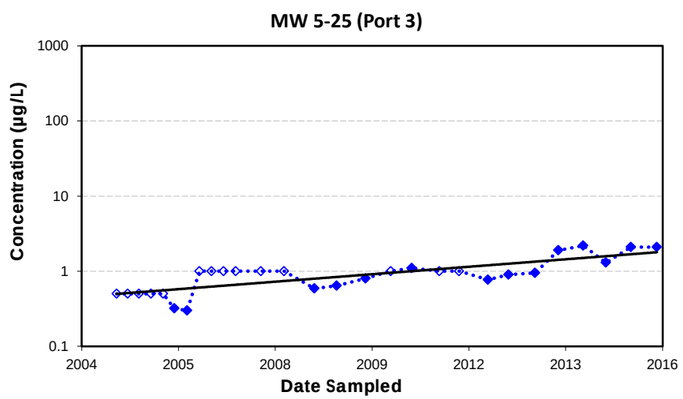
MW 5-24 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	-179	Decreasing



MW 5-24 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	121	Increasing



MW 5-25 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	43	No Trend



MW 5-25 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	291	Increasing

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

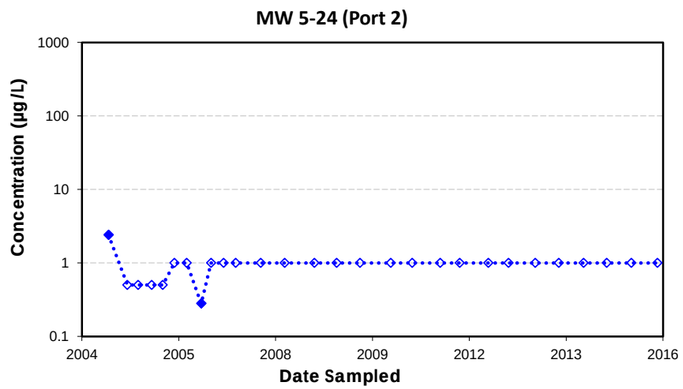
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

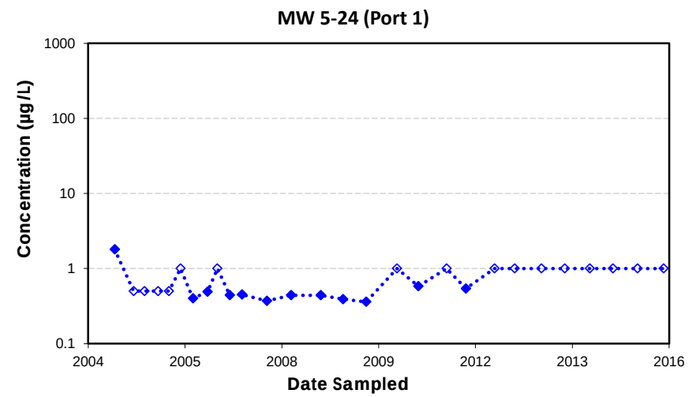
Project No.: SAC150

Chart **C5-6**

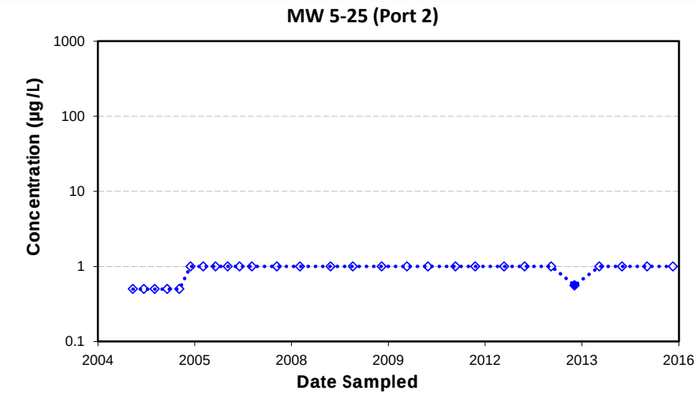
P:\GISSA C150_BP OU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]plot_C5-11



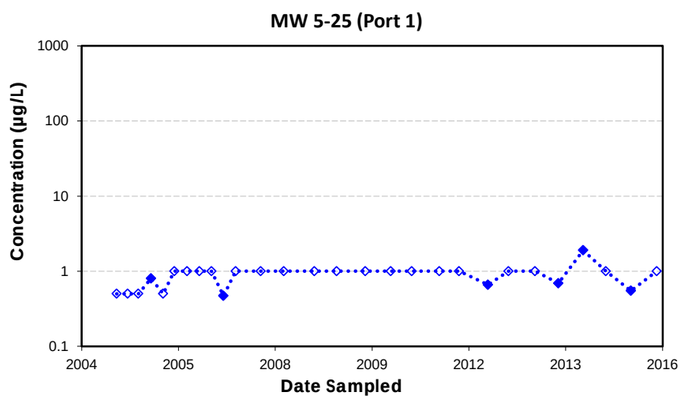
MW 5-24 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-24 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

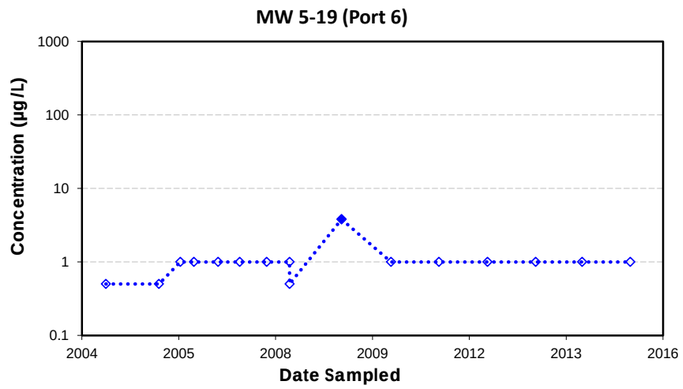
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, ABOVE -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

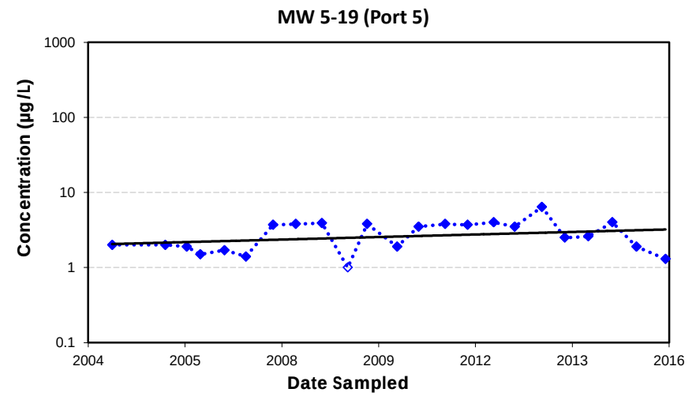
Project No.: SAC150

Chart **C5-7**

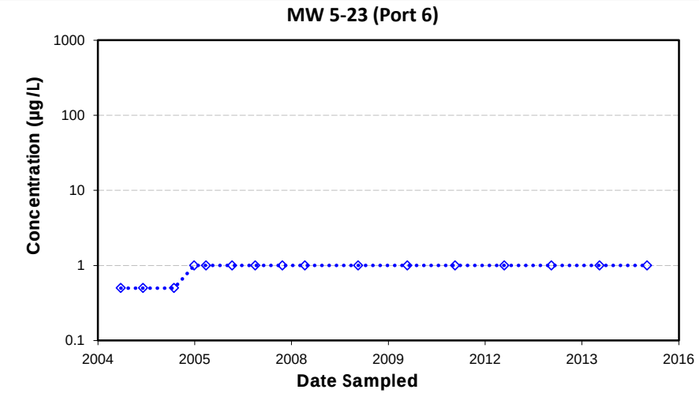
P:\GISSA C150_BP OU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]plot_C5-11



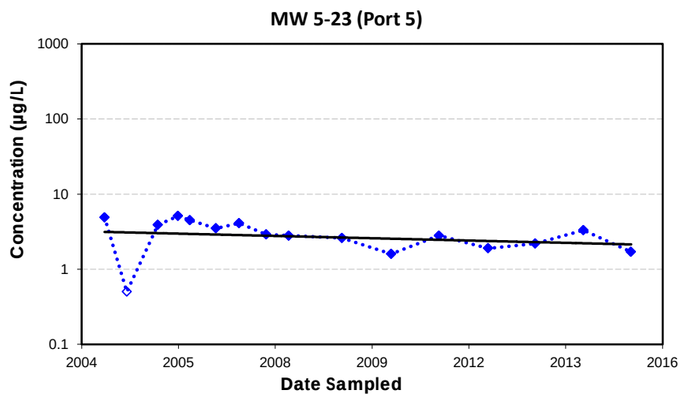
MW 5-19 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-19 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	23	41	No Trend



MW 5-23 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-23 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	16	-54	Decreasing

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

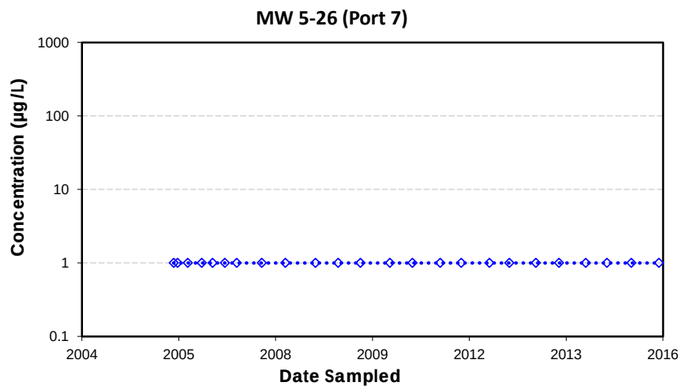
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

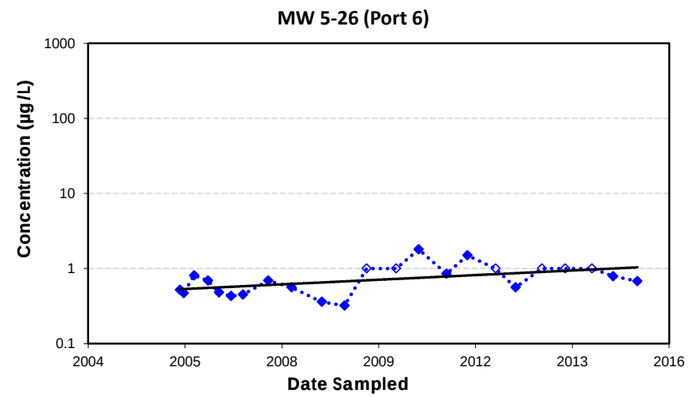
Project No.: SAC150

Chart **C5-8**

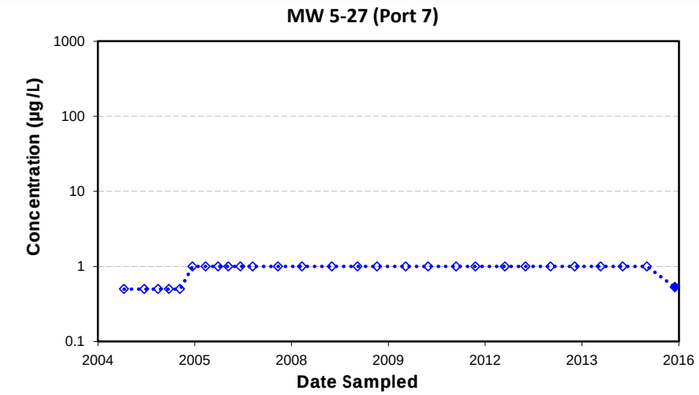
P:\GISSA C150_BPOU\data\spatial\projects\mann-kendall\Charts\BPOU_MK_PCE_Charts.mxd\jpg\C5_C5-11



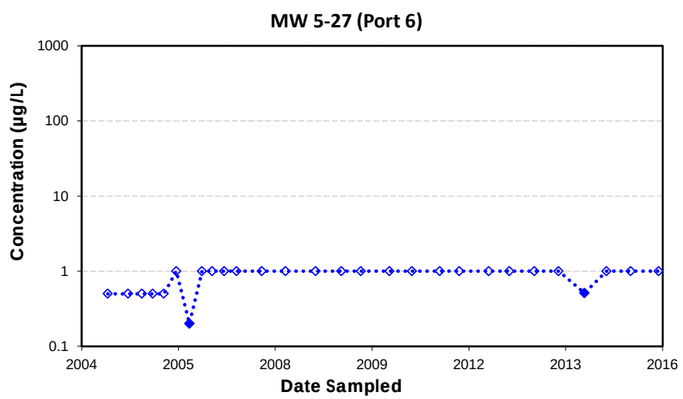
MW 5-26 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	23	32	No Trend



MW 5-27 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

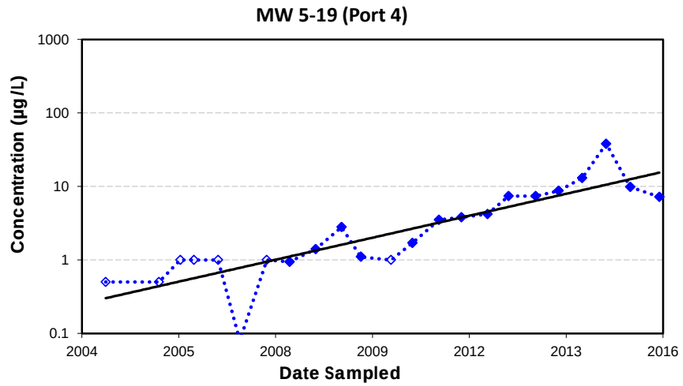
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

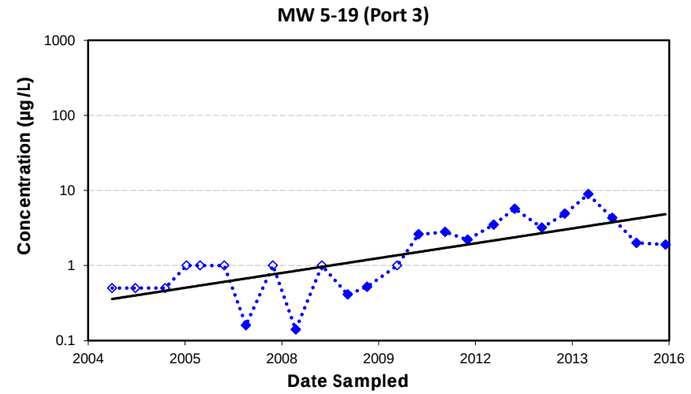
Project No.: SAC150

Chart **C5-9**

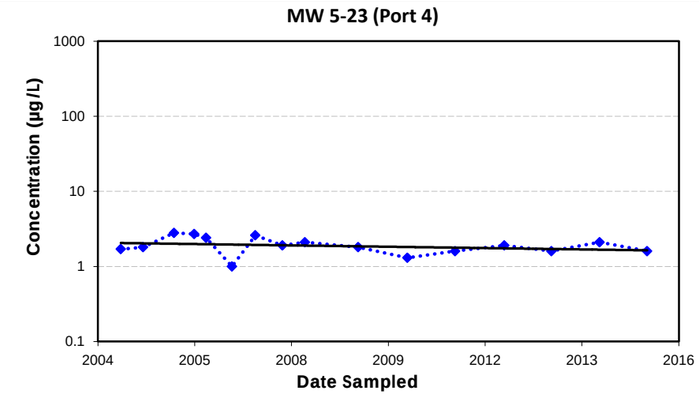
P:\GISSA C150_BP OU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]plot_C5-11



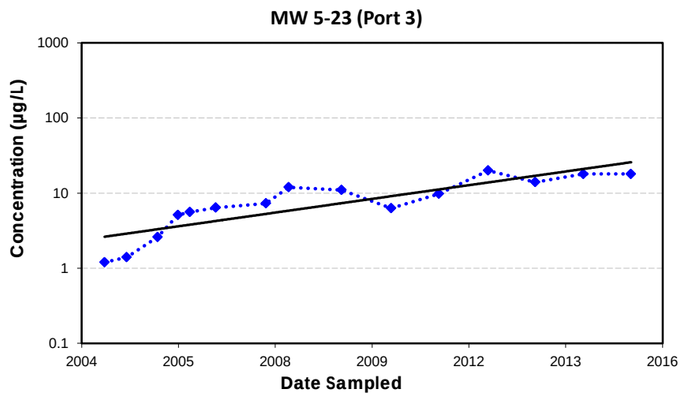
MW 5-19 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	23	206	Increasing



MW 5-19 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	175	Increasing



MW 5-23 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	-29	Stable



MW 5-23 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	15	88	Increasing

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

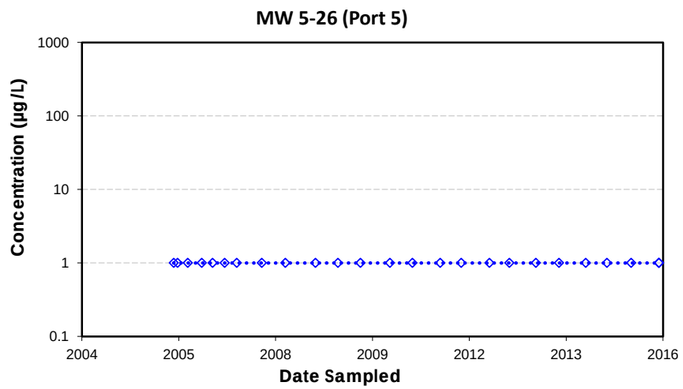
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

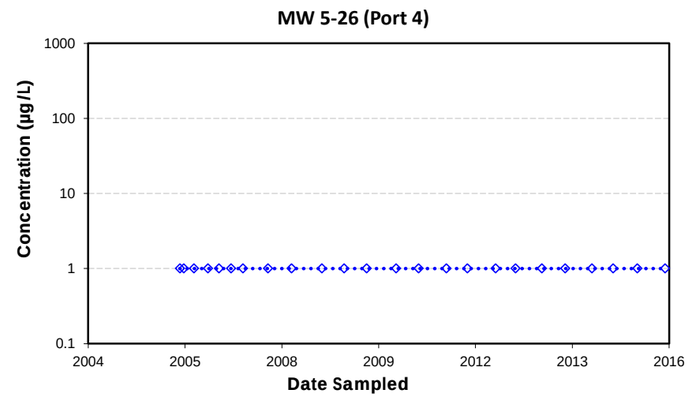
Project No.: SAC150

Chart **C5-10**

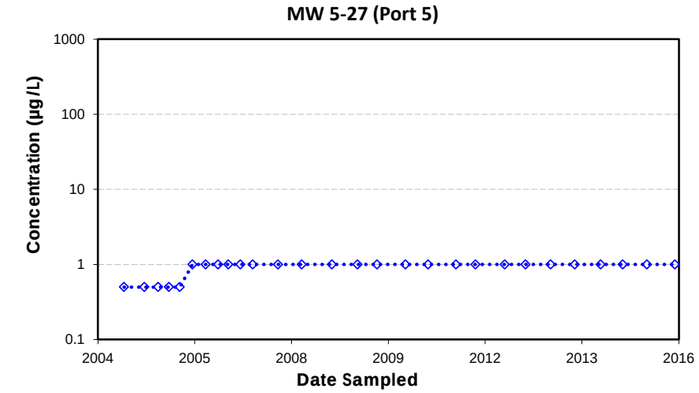
P:\GISSA\C150_BPOU\data\sar\output\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xsm]plot_C5-11



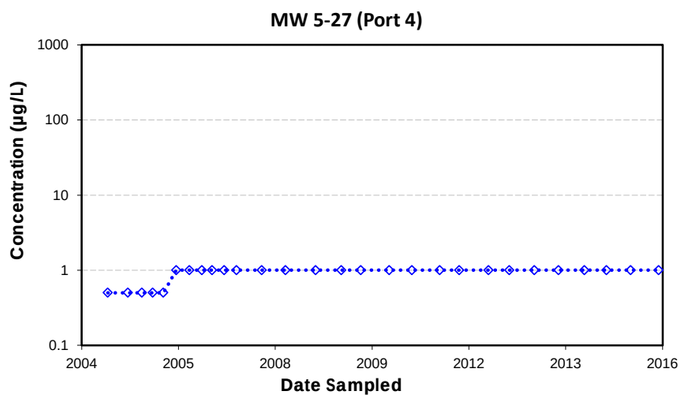
MW 5-26 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	25	--	NA



MW 5-26 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-27 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

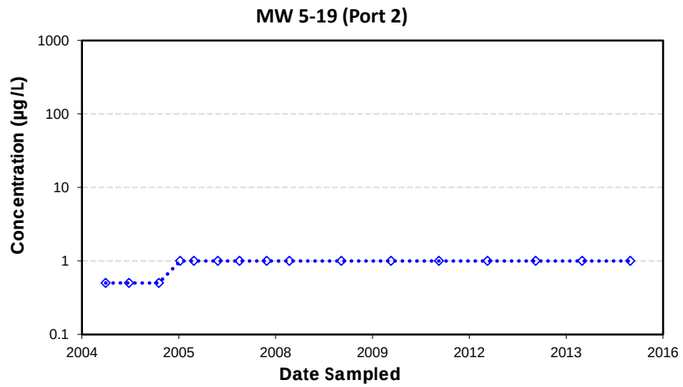
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

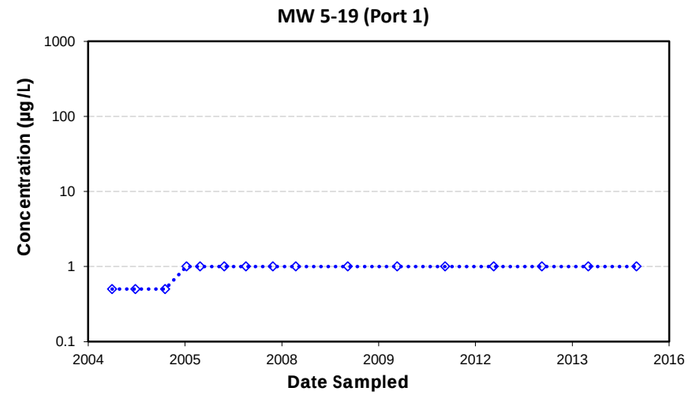
Project No.: SAC150

Chart **C5-11**

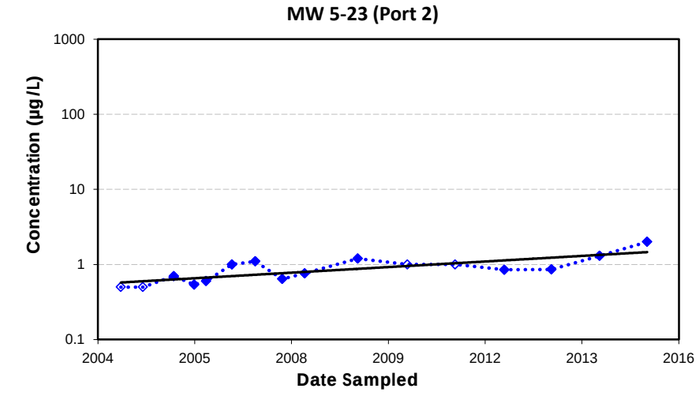
P:\GISSA C150_BP OU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]plot_C5-11



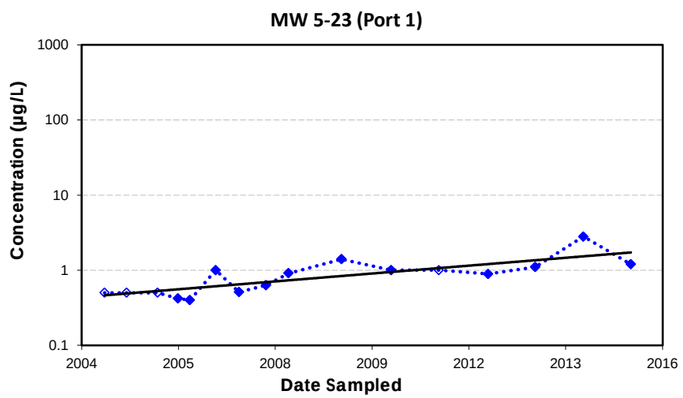
MW 5-19 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



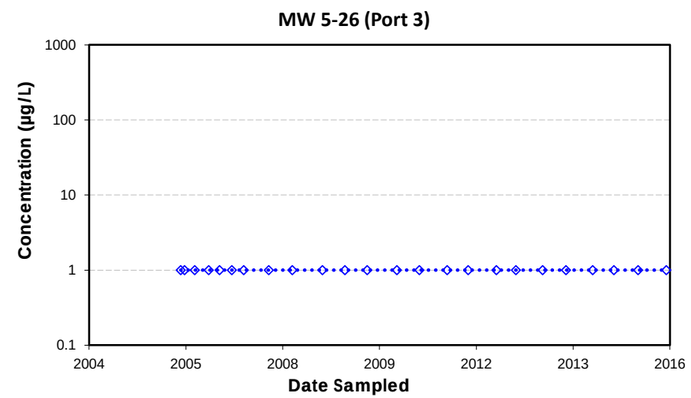
MW 5-19 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



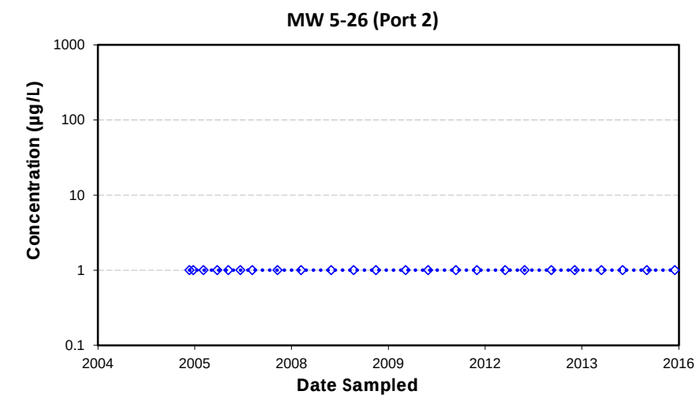
MW 5-23 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	61	Increasing



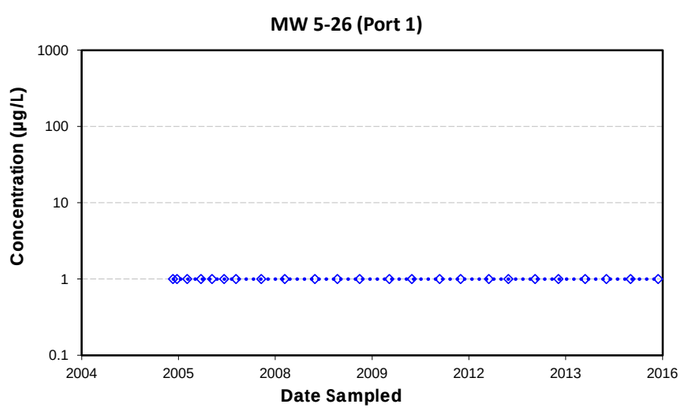
MW 5-23 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	80	Increasing



MW 5-26 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

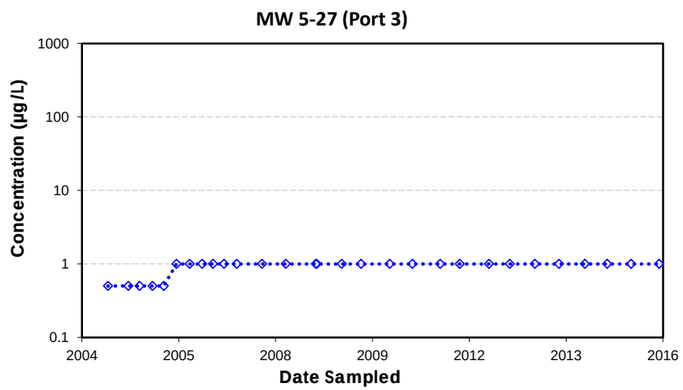
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

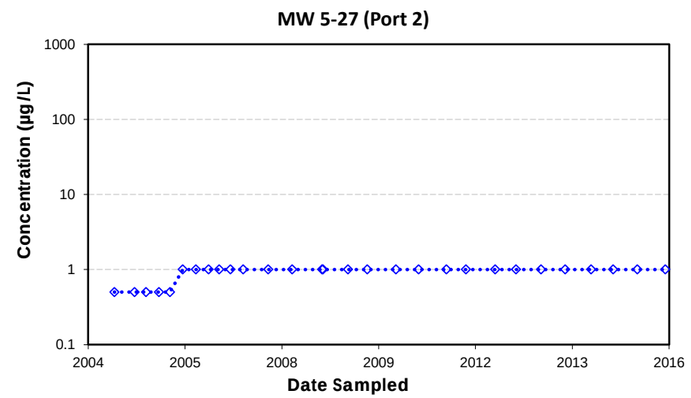
Project No.: SAC150

Chart **C5-12**

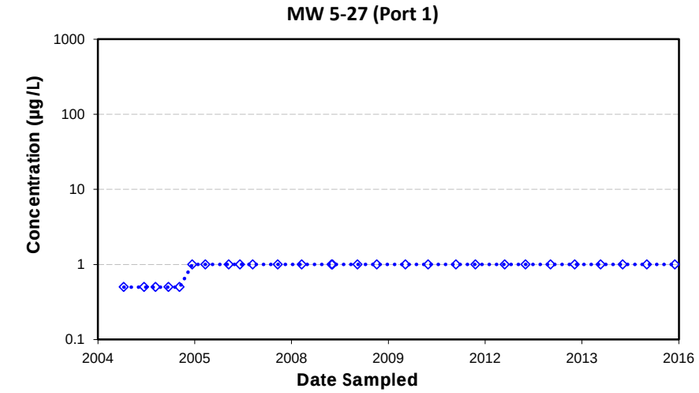
P:\GISSA C150_BPOU\data\se\outputs\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]plot_C5-11



MW 5-27 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	29	--	NA



MW 5-27 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	29	--	NA



MW 5-27 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Tetrachloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

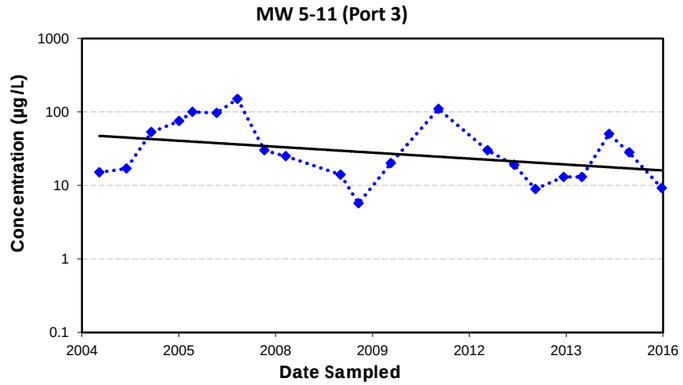
TETRACHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

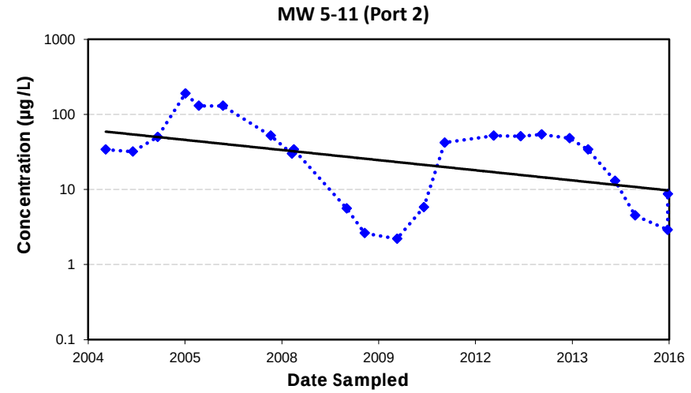
Project No.: SAC150

Chart **C5-13**

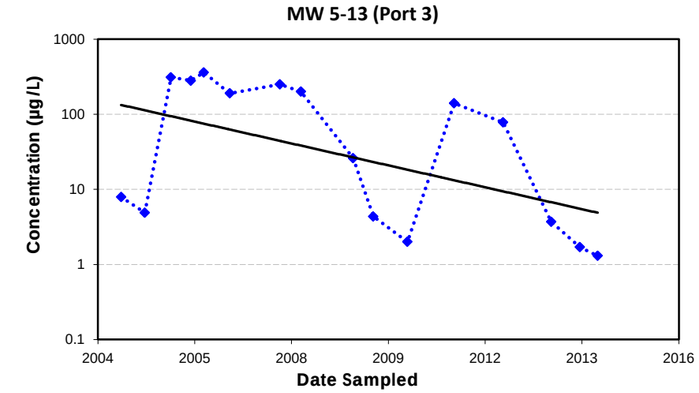
P:\GISSA\C150_BPOU\data\saer\outputs\mann-kendall\Charts\[BPOU_MK_PCE_Charts.xlsm]pa4_C5-11



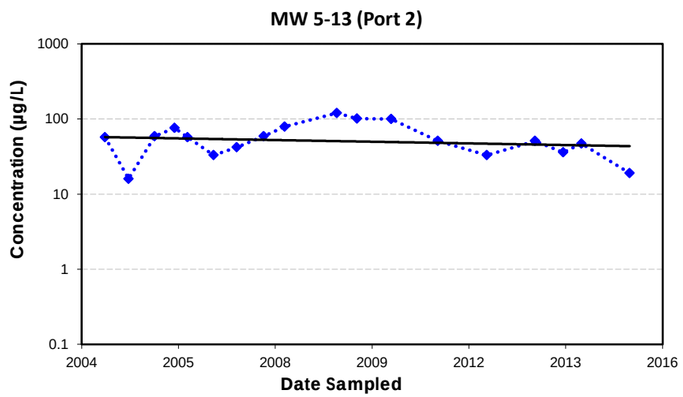
MW 5-11 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	21	-49	Stable



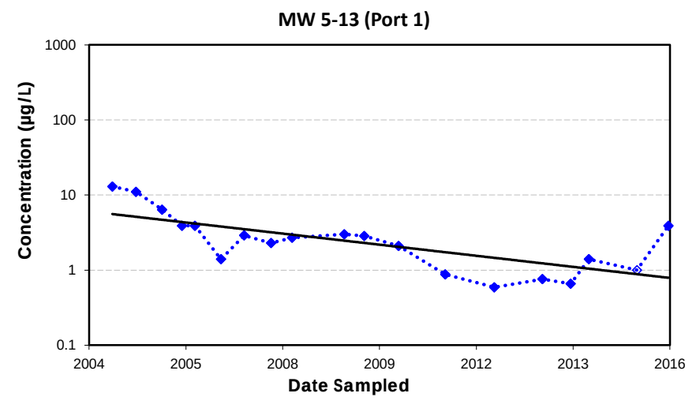
MW 5-11 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	23	-70	Probably Decreasing



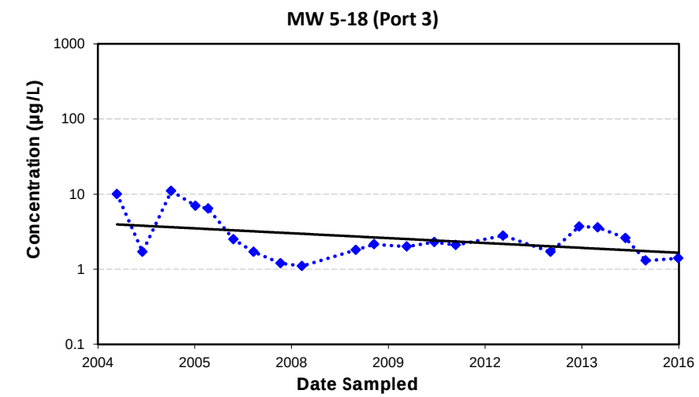
MW 5-13 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	16	-62	Decreasing



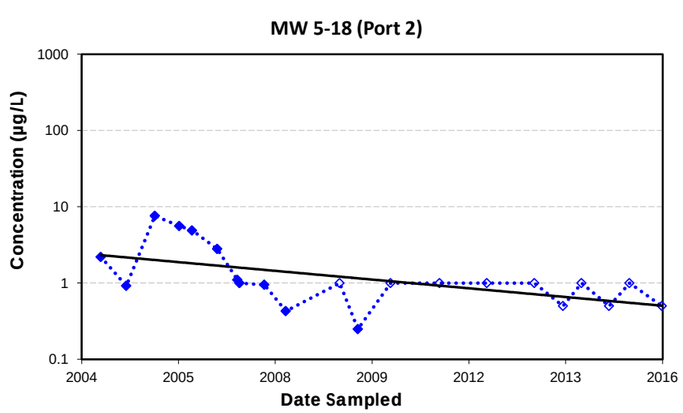
MW 5-13 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	18	-17	Stable



MW 5-13 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	19	-99	Decreasing



MW 5-18 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	21	-39	Stable



MW 5-18 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	21	-129	Decreasing

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

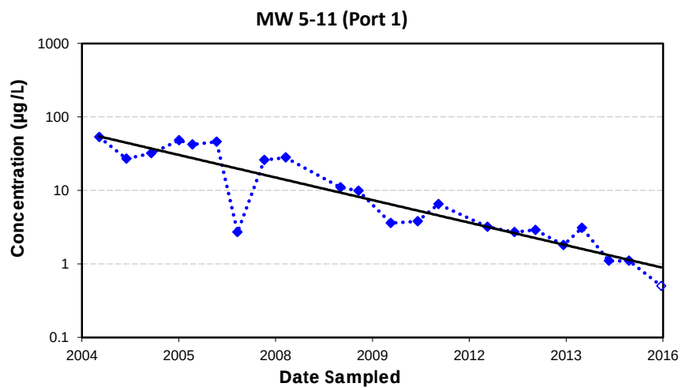
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 1, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

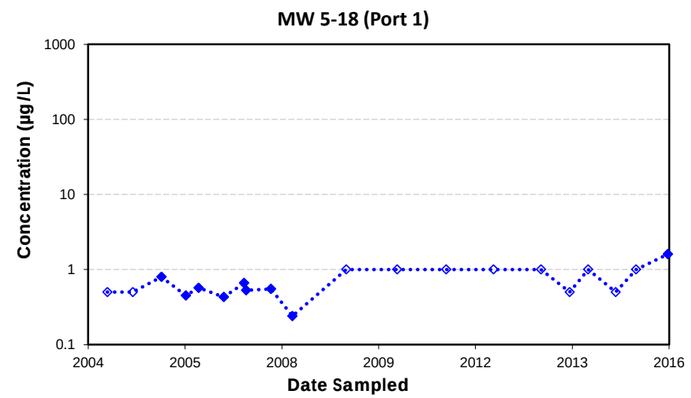
Project No.: SAC150

Chart **C6-1**

P:\GISSAC150_BPOU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11



MW 5-11 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	22	-179	Decreasing



MW 5-18 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	--	NA

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

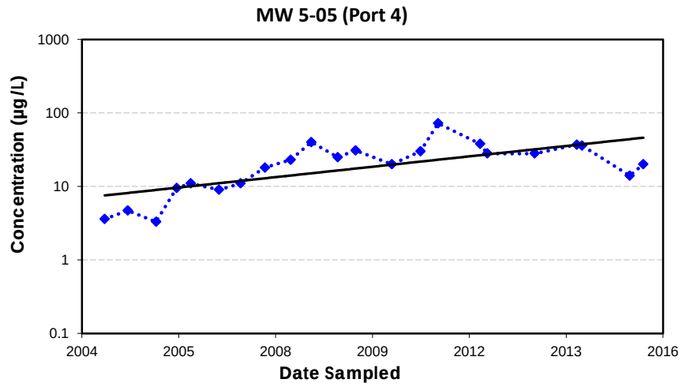
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 1, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

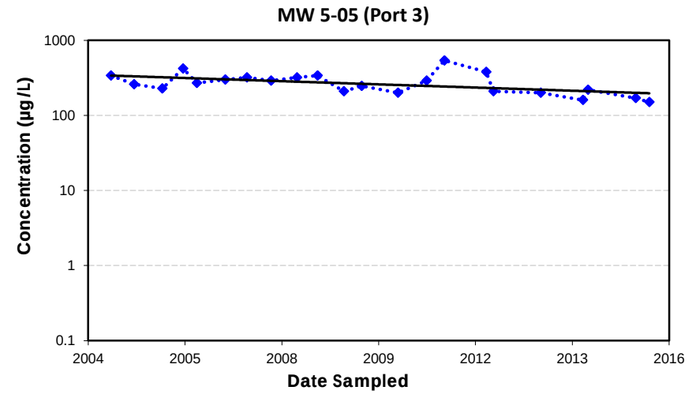
Project No.: SAC150

Chart **C6-2**

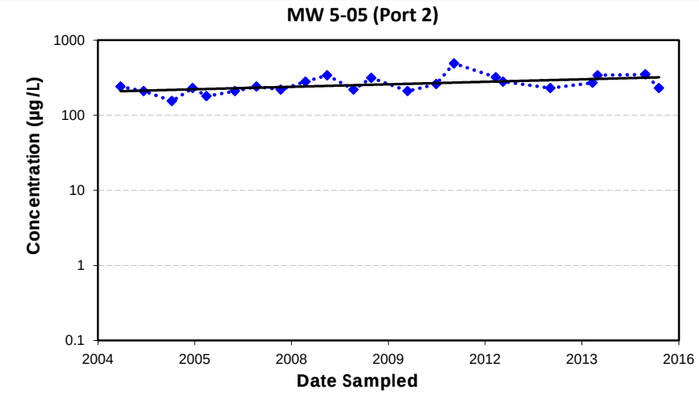
P:\GISSA\C150_BPOU\data\saer\output\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11



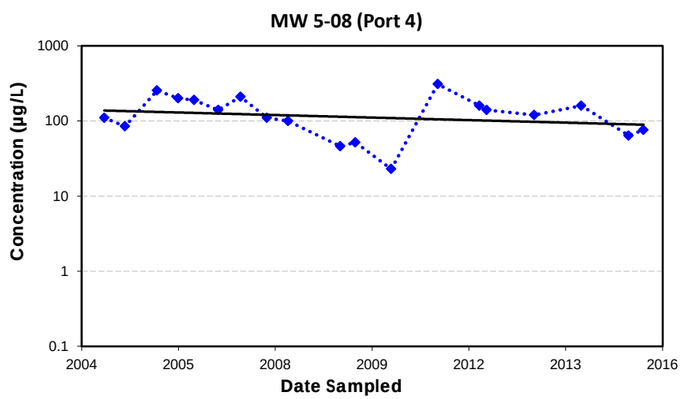
MW 5-05 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	22	122	Increasing



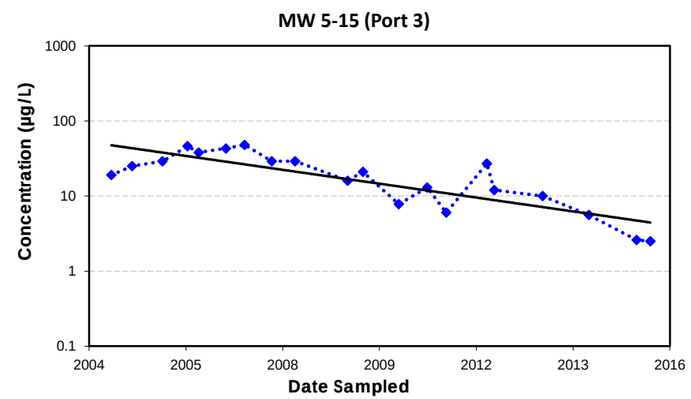
MW 5-05 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	22	-88	Decreasing



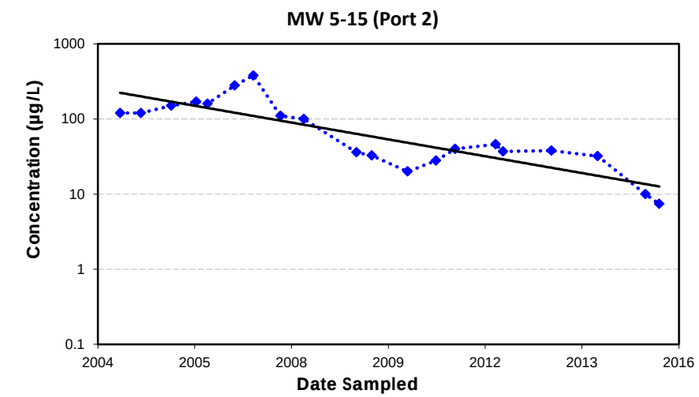
MW 5-05 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	22	93	Increasing



MW 5-08 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	19	-34	Stable



MW 5-15 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	20	-119	Decreasing



MW 5-15 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	20	-111	Decreasing

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

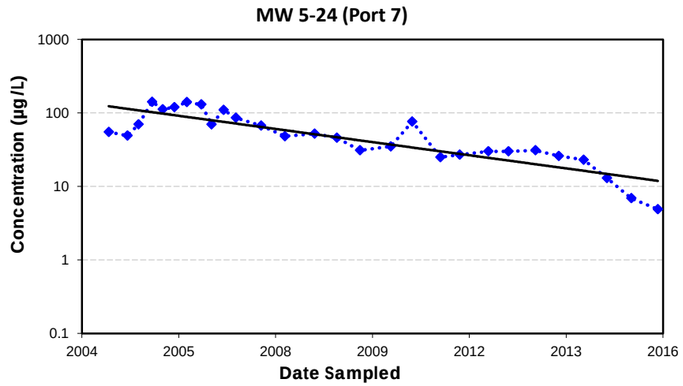
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

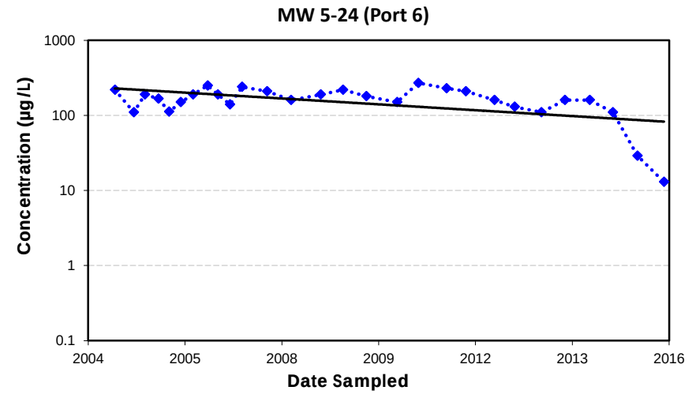
Project No.: SAC150

Chart **C6-3**

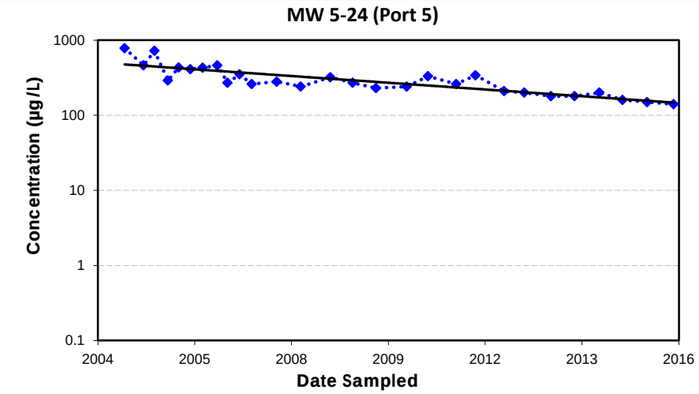
P:\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]MW_C6-11



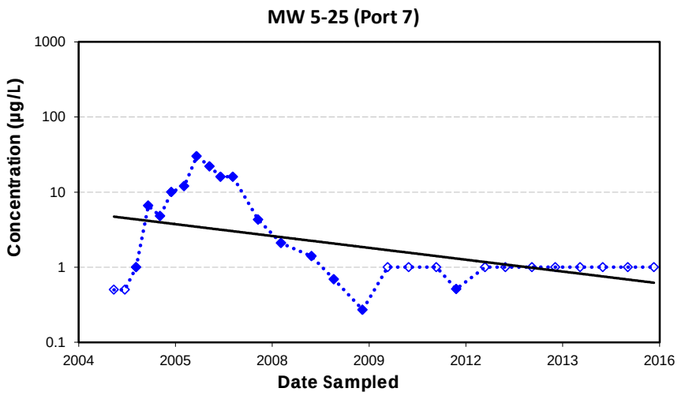
MW 5-24 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	-261	Decreasing



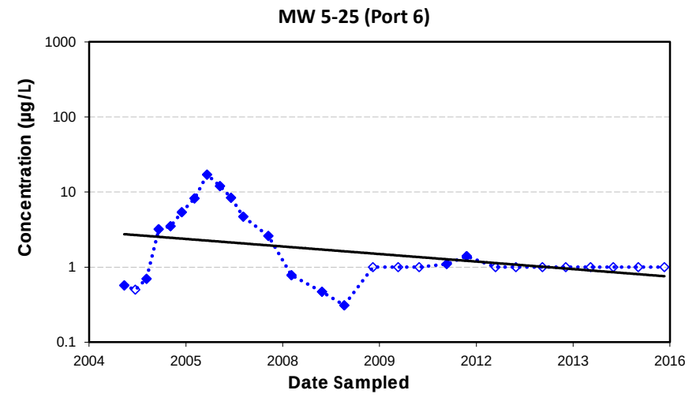
MW 5-24 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	-92	Probably Decreasing



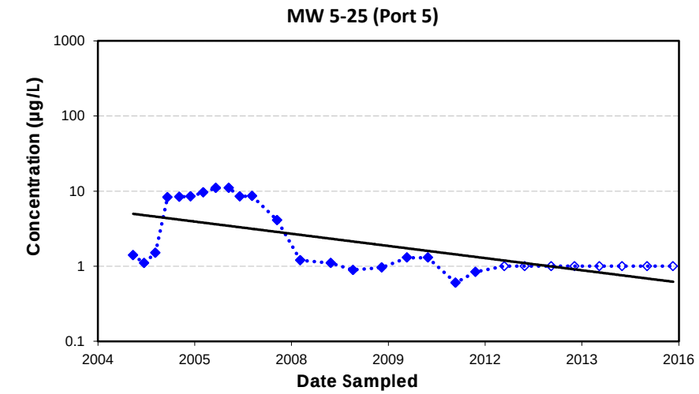
MW 5-24 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	-280	Decreasing



MW 5-25 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	-123	Decreasing



MW 5-25 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	-111	Decreasing



MW 5-25 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	-222	Decreasing

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

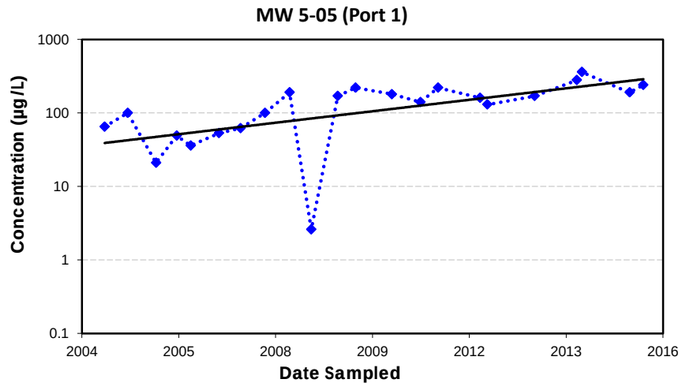
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

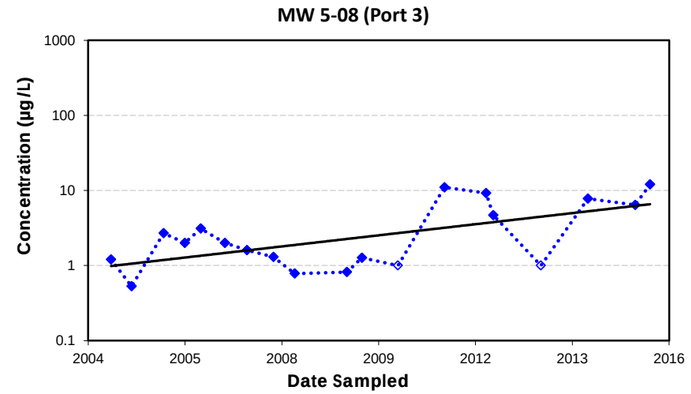
Project No.: SAC150

Chart **C6-4**

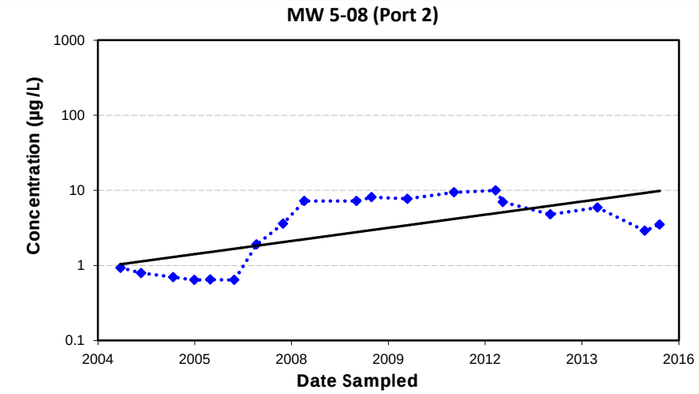
P:\GISSA\C150_BPOU\data\spatial\output\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]\Kd_C6-11



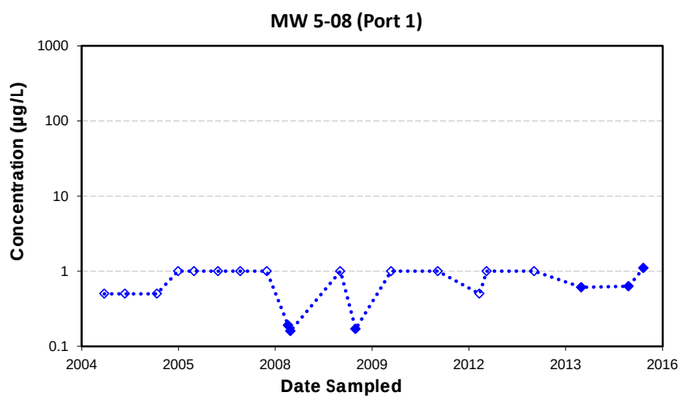
MW 5-05 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	22	128	Increasing



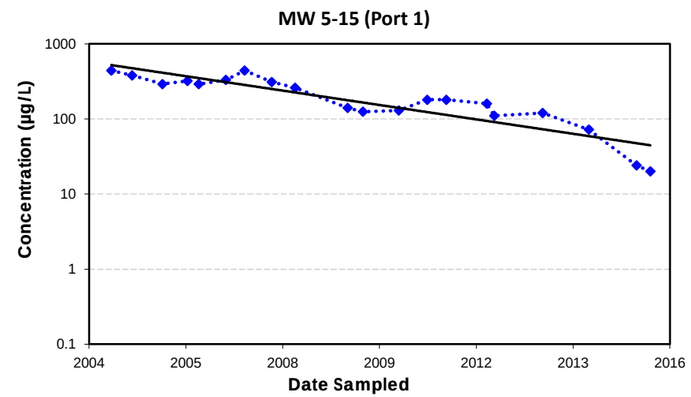
MW 5-08 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	19	37	No Trend



MW 5-08 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	19	66	Increasing



MW 5-08 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	--	NA



MW 5-15 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	20	-144	Decreasing

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

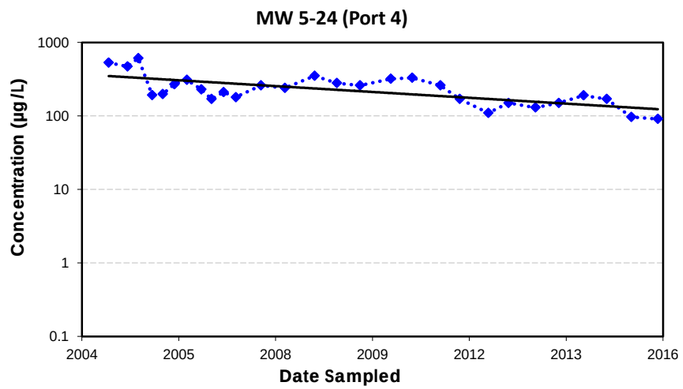
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

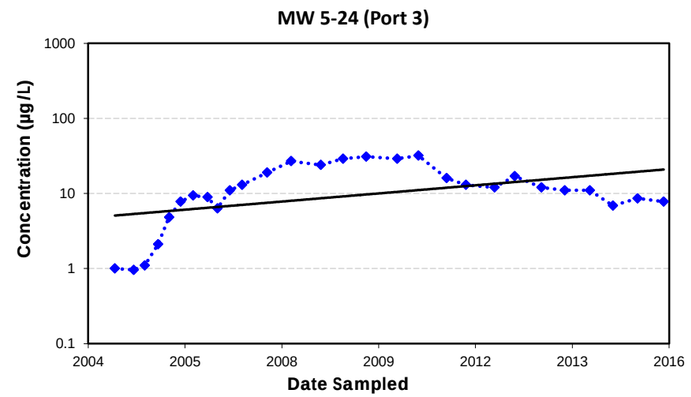
Project No.: SAC150

Chart **C6-5**

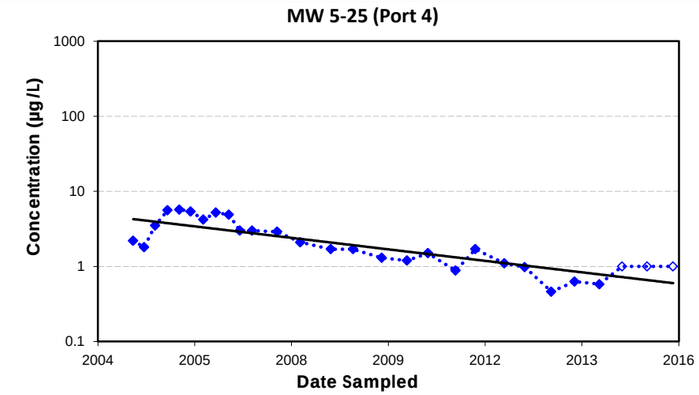
P:\GIS\SAC150_BPOU\database\outputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]MW_C6-11



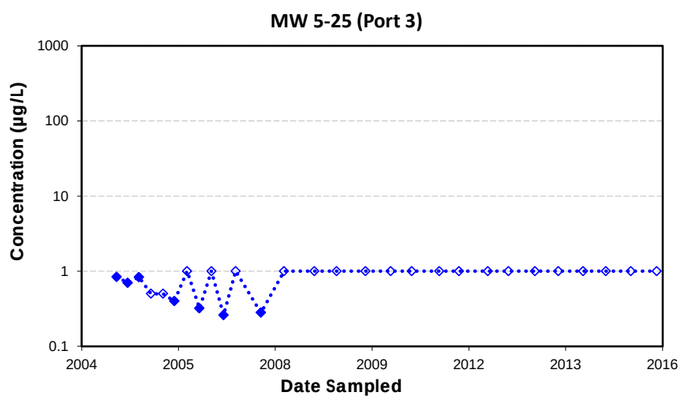
MW 5-24 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	-173	Decreasing



MW 5-24 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	107	Increasing



MW 5-25 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	-285	Decreasing



MW 5-25 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

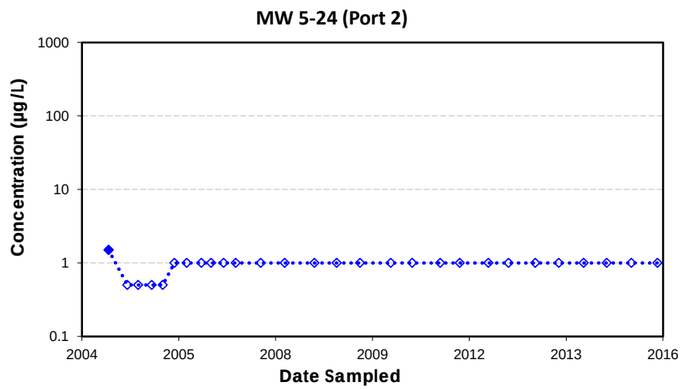
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS, SUBAREA 2, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

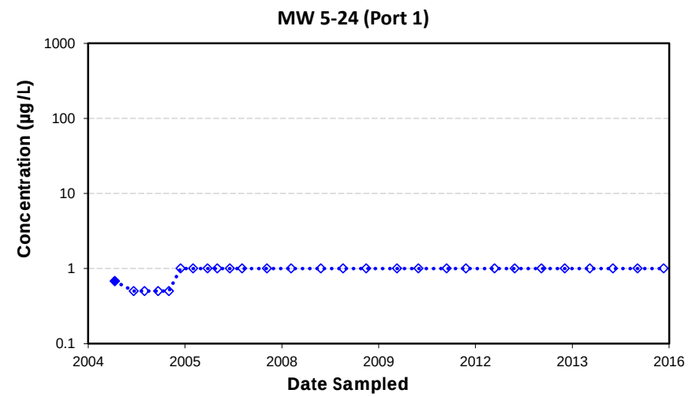
Project No.: SAC150

Chart **C6-6**

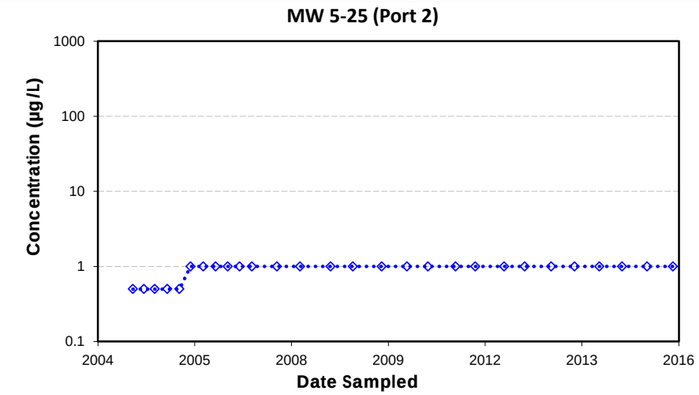
P:\GISSA C150_BP OU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11



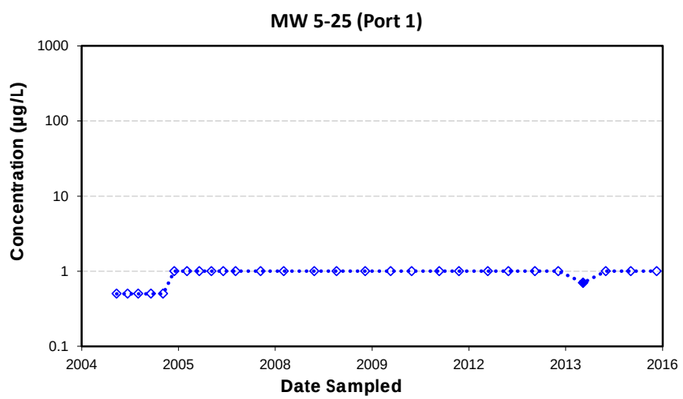
MW 5-24 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-24 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-25 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

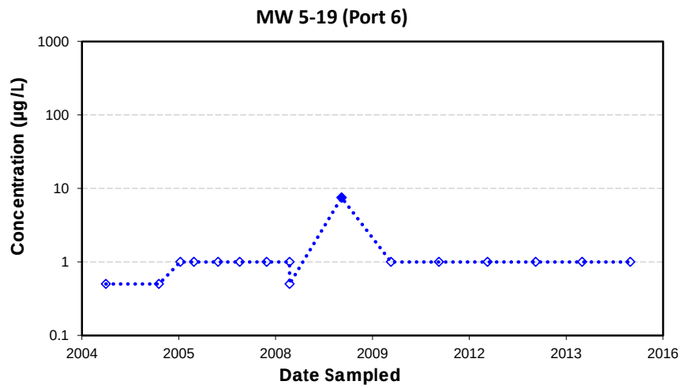
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 2, ABOVE -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

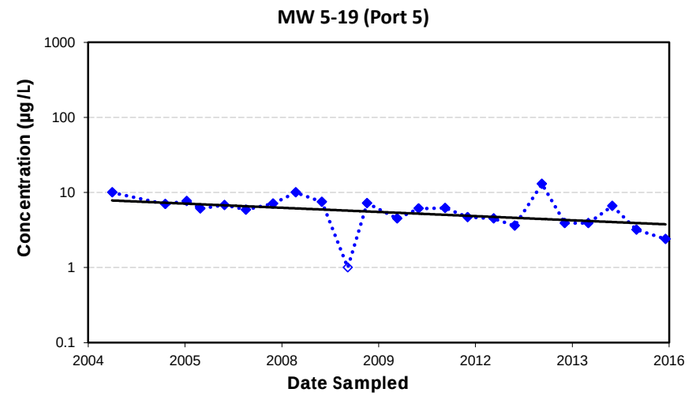
Project No.: SAC150

Chart **C6-7**

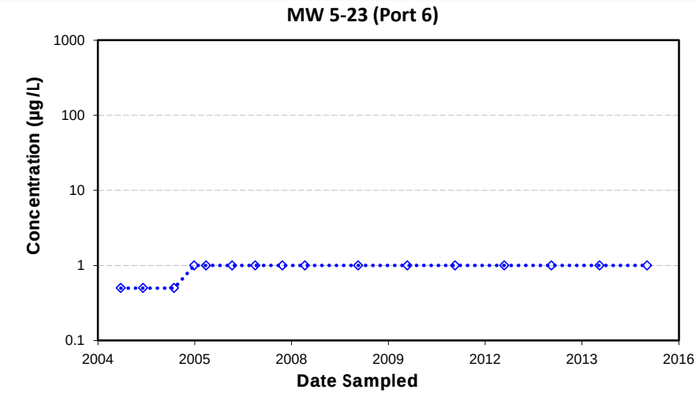
P:\GISSA C150_BP OU\data\arcs\outputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11



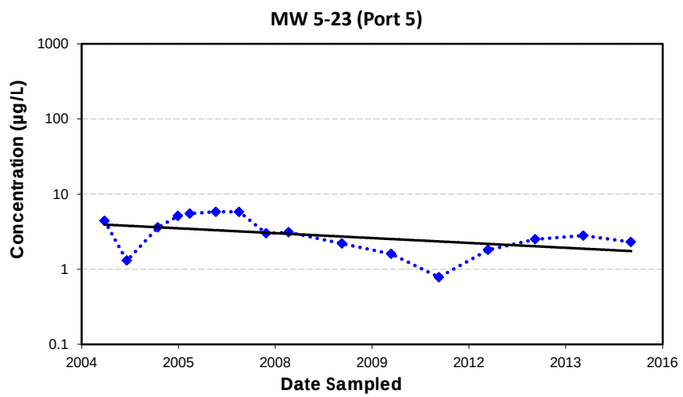
MW 5-19 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-19 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	23	-113	Decreasing



MW 5-23 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



MW 5-23 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	16	-35	Stable

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

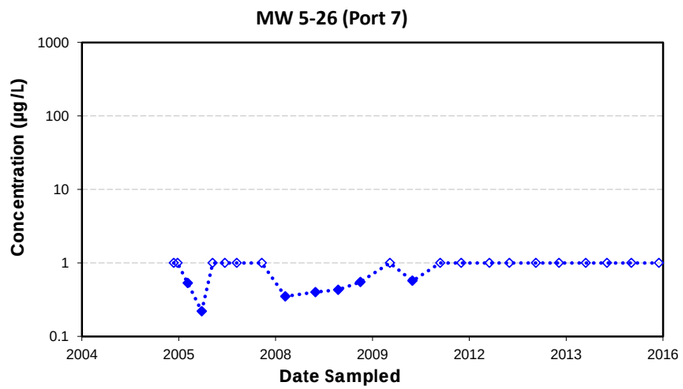
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

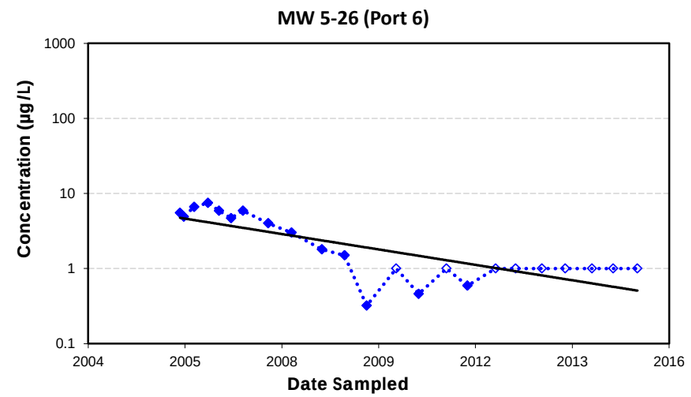
Project No.: SAC150

Chart **C6-8**

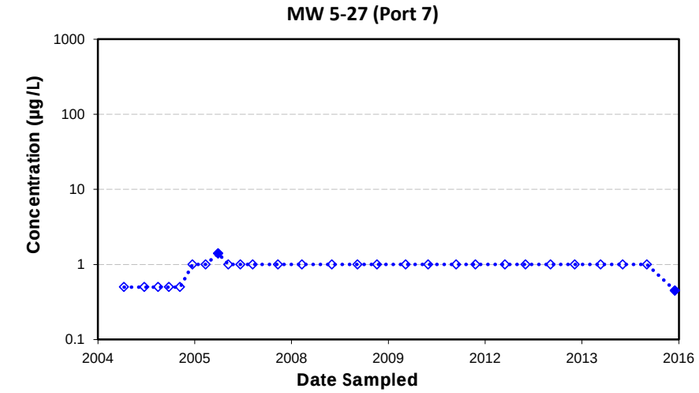
P:\GISSAC150_BPOU\data\spatial\gis\mann-kendall\Charts\BPOU_MK_TCE_Charts.mxm\jpg\C6_C6-11



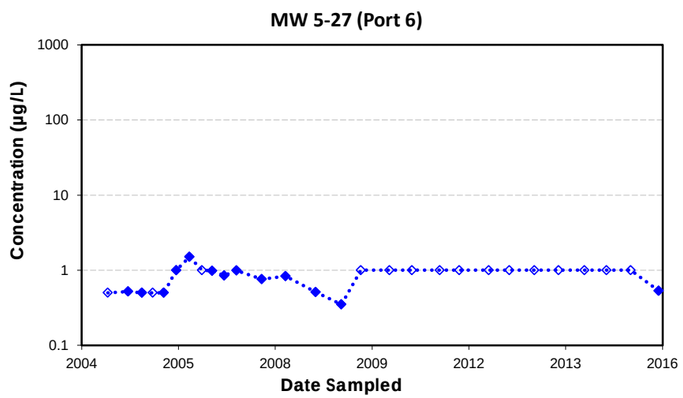
MW 5-26 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	23	-152	Decreasing



MW 5-27 (Port 7)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 6)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

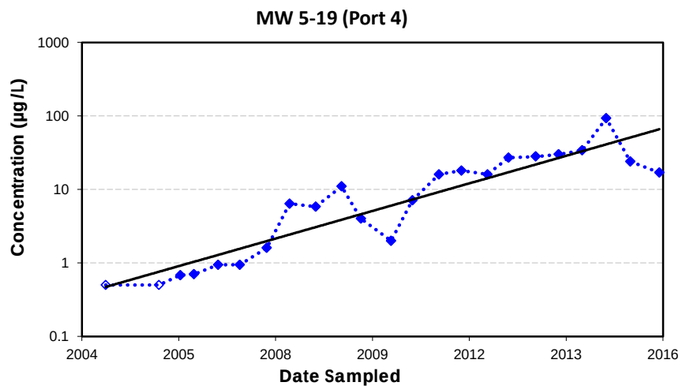
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, ABOVE -200 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

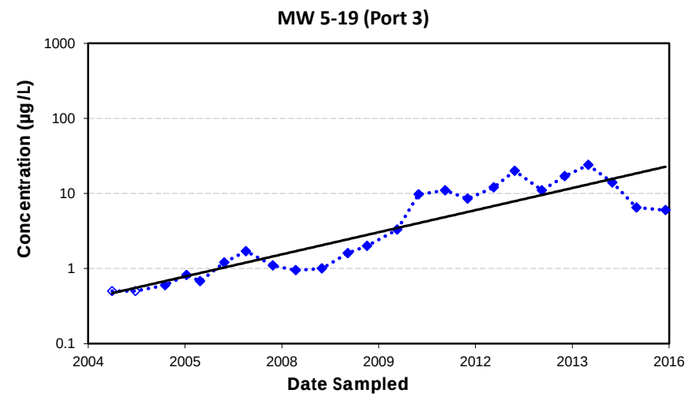
Project No.: SAC150

Chart **C6-9**

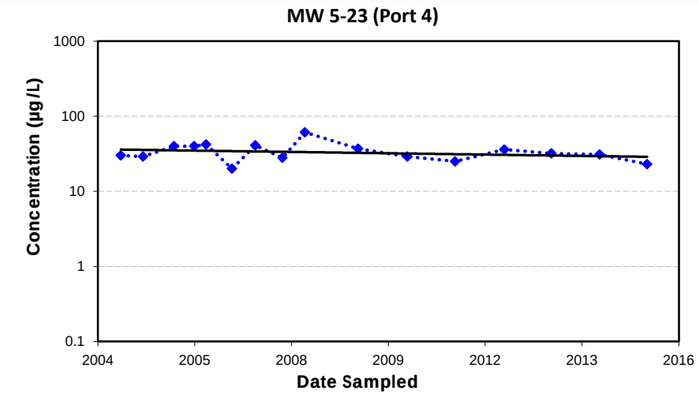
P:\GISSA C150_BP OU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11



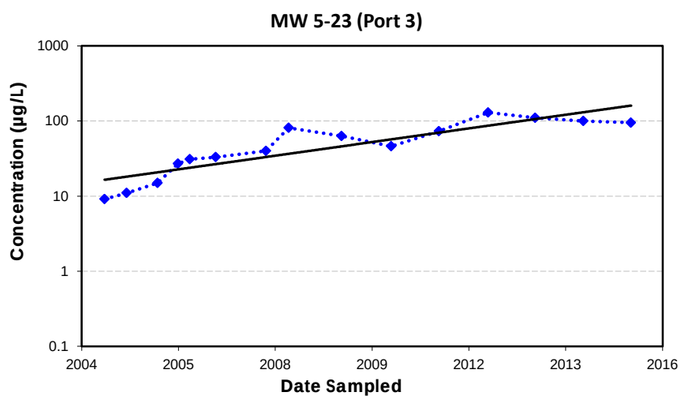
MW 5-19 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	23	209	Increasing



MW 5-19 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	201	Increasing



MW 5-23 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	16	-25	Stable



MW 5-23 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	15	85	Increasing

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

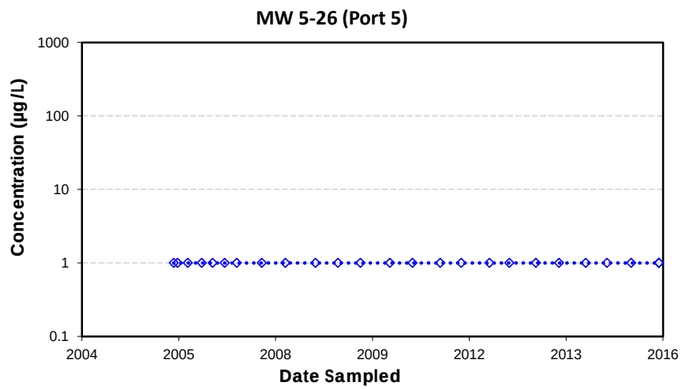
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

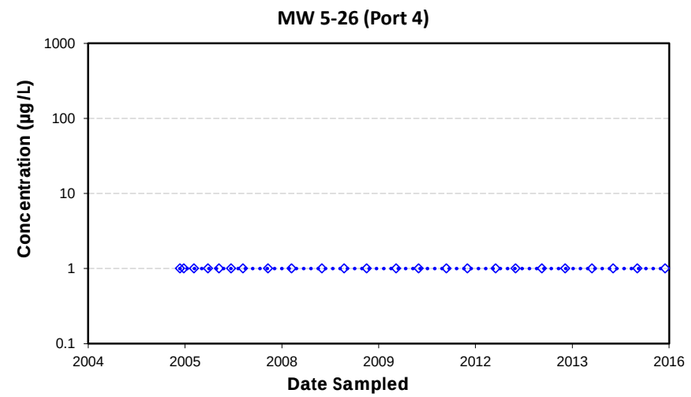
Project No.: SAC150

Chart **C6-10**

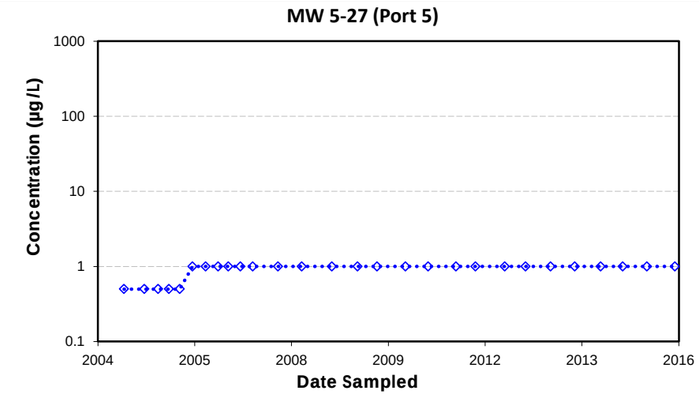
P:\GISSA C150_BP OU\data\arsel\outputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11



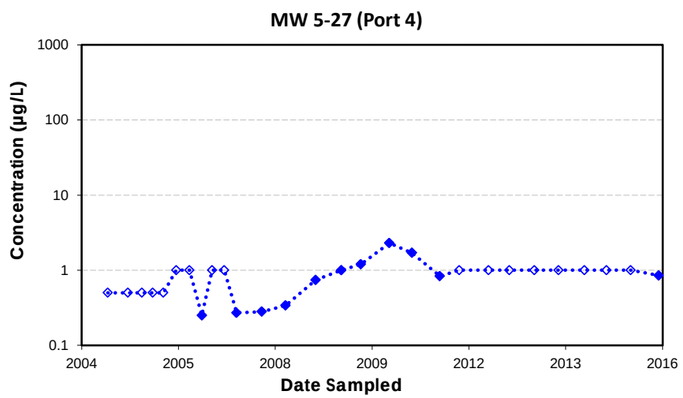
MW 5-26 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	25	--	NA



MW 5-26 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-27 (Port 5)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA



MW 5-27 (Port 4)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

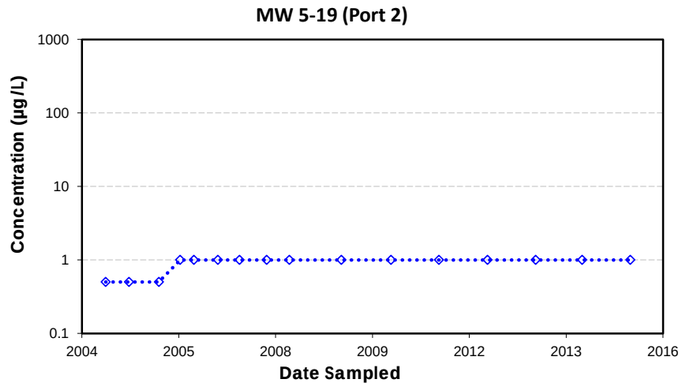
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BETWEEN -200 AND -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

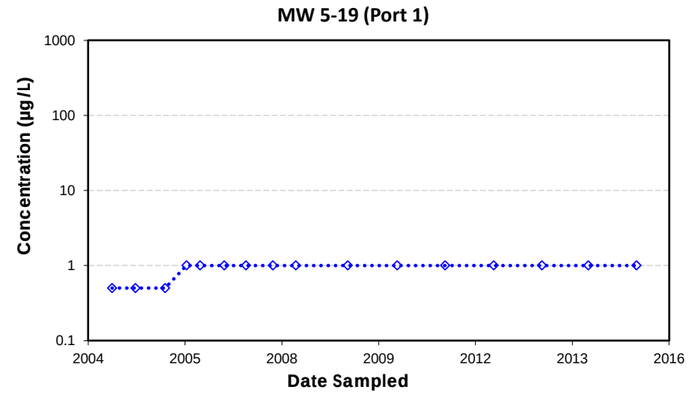
Project No.: SAC150

Chart **C6-11**

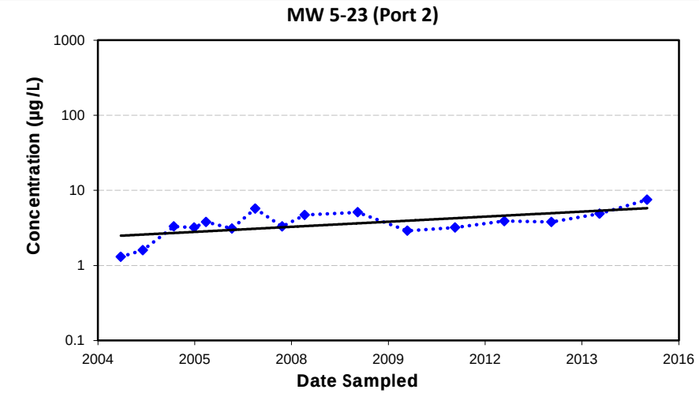
P:\GISSA C150_BP OU\data\arcoutputs\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11



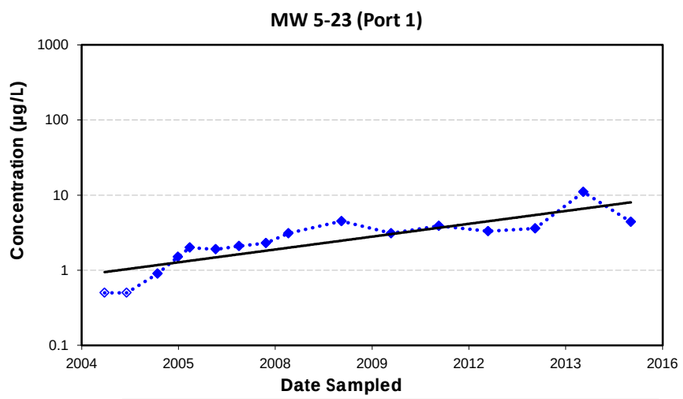
MW 5-19 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



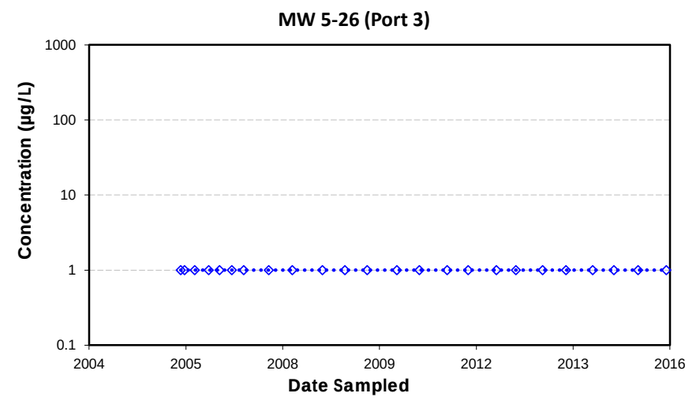
MW 5-19 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	--	NA



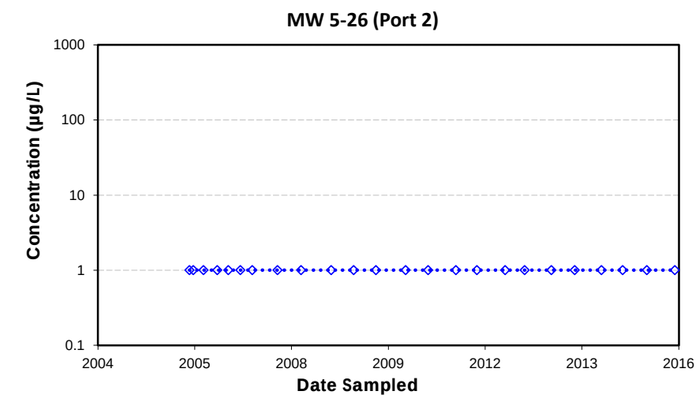
MW 5-23 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	16	61	Increasing



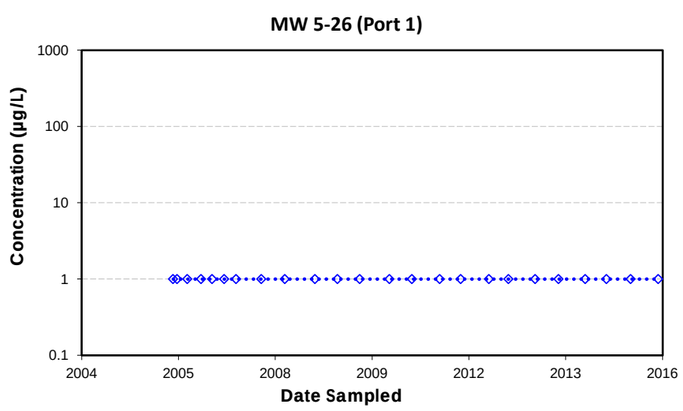
MW 5-23 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	16	98	Increasing



MW 5-26 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA



MW 5-26 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	24	--	NA

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

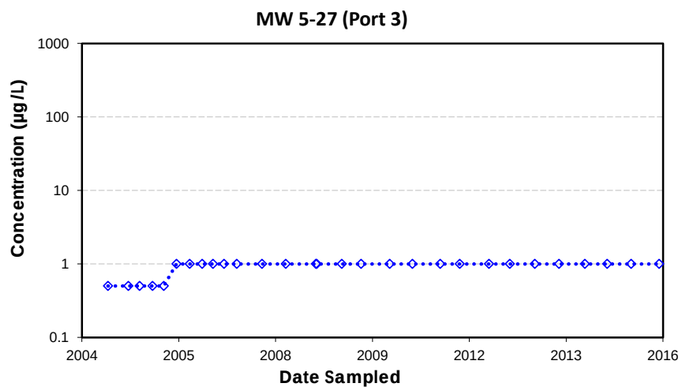
TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

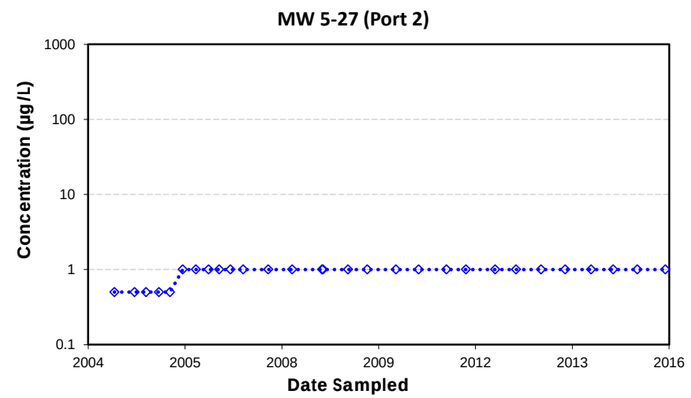
Project No.: SAC150

Chart **C6-12**

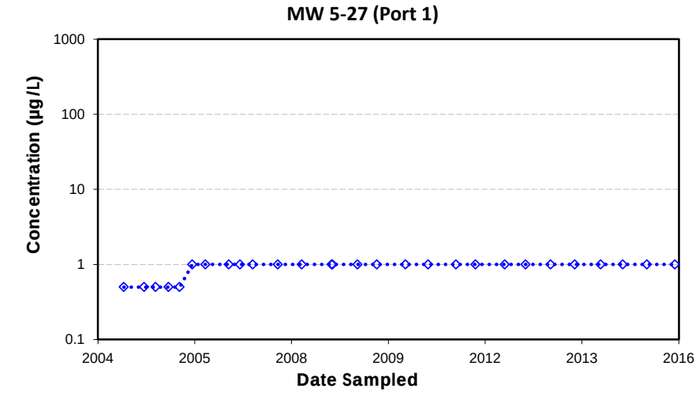
P:\GI\SAC150_BPOU\data\sw\output\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]jack_C6-11



MW 5-27 (Port 3)	n	S	Trend Evaluation
Overall (2004-2015)	29	--	NA



MW 5-27 (Port 2)	n	S	Trend Evaluation
Overall (2004-2015)	29	--	NA



MW 5-27 (Port 1)	n	S	Trend Evaluation
Overall (2004-2015)	28	--	NA

Trichloroethene

Trendline (2004-2015)

Notes:
Open symbols represent non-detects, presented at the limit of quantification.
Only data since 2004 are presented.
Trendlines are not presented for time series with less than 50% detection frequency, i.e, Mann-Kendall tests could not be conducted (NA).
n - sample size
S - Mann-Kendall statistic
µg/L - micrograms per liter

TRICHLOROETHENE MANN-KENDALL ANALYSIS RESULTS,
SUBAREA 3, BELOW -500 FT MSL
Baldwin Park Operable Unit
San Gabriel Valley, California

Geosyntec consultants

Project No.: SAC150

Chart **C6-13**

P:\GISSA\C150_BPOU\data\raw\output\mann-kendall\Charts\[BPOU_MK_TCE_Charts.xlsm]plot_C6-11