



605-01 (Rock Springs) 2014 Monitoring Summary





3/10/2015

1.0 Location:

OXY USA WTP LP (Operator # 66571)
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

605-01 (Location ID 323903)
T6S, R97W, S5, SWNW
Garfield County, Colorado

2.0 Overview:

This report summarizes the 2014 quarterly monitoring event for the release at OXY USA WTP LP's (OXY) Cascade Creek 605-01 well pad; refer to Colorado Oil and Gas Conservation Commission (COGCC) Document #200220428 and Remediation project #4622. The well pad is situated adjacent to an unnamed tributary of Crystal Creek. The release extended from the production pit to springs west of the pad (locally known as Rock Springs) which feeds the tributary. The well pad and the area upon which the release occurred and surfaced are located on property owned by OXY.

The 605-01 vicinity water sources have been monitored monthly or more frequent from June 2008 through October 2011 when water and access was available. Sampling frequency was modified to a quarterly sampling regime beginning in 2012.

Sampling Point #42 exceeded the maximum concentration level (MCL) for benzene (5.0 µg/L) during all quarterly sampling events. No other exceedances of the respective MCLs for benzene, toluene, ethylbenzene, or xylene (BTEX), or total dissolved solids (TDS) were identified during the 2014 sampling events.

3.0 Water Monitoring and Results:

Quarterly sampling events were conducted during 2014 on the following dates at sample locations 40, 42, 43, and 44:

- March 25, 2014
- May 22, 2014
- August 27, 2014
- October 21, 2014

Sampling was conducted at four of the approved sampling locations; North Spring (sampling point #40), South Spring (sampling point #42), Downstream (sampling point #43), and the Lower Pit (sampling point #44). The Upstream sample location (sampling point #41) was dry during all sample events in 2014.

A summary of analytical results during the last five quarters of the four sampling points are shown in Table 1. A summary by location for the history of the release are presented in the attached Comprehensive Laboratory Data Summary by Location table and attached to this report. Graphical summaries of BTEX concentrations for sampling locations 40, 42, 43, and 44 are summarized and attached to this report. The four sample locations and the historical upstream sample location are identified on the attached figure.



Table 1. Summary of 605-01 Monitoring Results from 4 th Quarter 2013 through 4 th Quarter 2014						
Location / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)	Ethylbenzene (MCL= 700 µg/L)*	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L = Detection)	TDS (MCL = 750 ppm)**
N. Spring (#40)						
10/18/2013 Q4	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014 Q1	Water Unavailable for Sample Collection					
5/22/2014 Q2	<1.0	<5.0	<1.0	<3.0	<0.10	637
5/22/2014 Q2 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
5/22/2014 Q2 S	<1.0	<1.0	<1.0	<1.0	<0.10	NA
8/27/2014 Q3	Water Unavailable for Sample Collection					
10/21/2014 Q4	Water Unavailable for Sample Collection					
Upstream (#41)						
10/18/2013	Water Unavailable for Sample Collection					
3/25/2014	Water Unavailable for Sample Collection					
5/22/2014	Water Unavailable for Sample Collection					
8/27/2014	Water Unavailable for Sample Collection					
10/21/2014 Q4	Water Unavailable for Sample Collection					
S. Spring (#42)						
10/18/2013 Q4	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 S	1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014 Q1	24	<5.0	1.6	21	0.20	NA
3/25/2014 Q1 D	24	<5.0	1.4	19	0.18	NA
3/25/2014 Q1 S	31	1.6	<1.0	21	0.18	NA
5/22/2014 Q2	33	<5.0	5.8	52	0.36	618
5/22/2014 Q2 D	32	<5.0	5.6	51	0.37	NA
5/22/2014 Q2 S	35	<1.0	6.7	61	0.49	NA
8/27/2014 Q3	28	<5.0	<1.0	14	0.31	500
8/27/2014 Q3 D	20	<5.0	1.1	14	0.30	NA
8/27/2014 Q3 S	29	<1.0	1.2	17	0.21	NA
10/21/2014 Q4	22	<5.0	<1.0	8.6	0.17	585
10/21/2014 Q4 D	24	<5.0	<1.0	9.2	0.18	NA
10/21/2014 Q4 S	30	<1.0	<1.0	11	0.27	NA
Downstream (#43)						
10/18/2013 Q4	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014 Q1	<1.0	<5.0	<1.0	<3.0	<0.10	NA
3/25/2014 Q1 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
3/25/2014 Q1 S	<1.0	<1.0	<1.0	<1.0	<0.10	NA
5/22/2014 Q2	<1.0	<5.0	<1.0	<3.0	<0.10	585
5/22/2014 Q2 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
5/22/2014 Q2 S	<1.0	<1.0	<1.0	<1.0	<0.10	NA
8/27/2014 Q3	<1.0	<5.0	<1.0	<3.0	<0.10	560
8/27/2014 Q3 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
8/27/2014 Q3 S	<1.0	<1.0	<1.0	<1.0	<0.10	NA
10/21/2014 Q4	<1.0	<5.0	<1.0	<3.0	<0.10	539
10/21/2014 Q4 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA



Table 1. Summary of 605-01 Monitoring Results from 4 th Quarter 2013 through 4 th Quarter 2014, Cont'd						
Location / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)	Ethylbenzene (MCL= 700 µg/L)*	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L = Detection)	TDS (MCL = 750 ppm)**
Lower Pit (#44)						
10/18/2013 Q4	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
10/18/2013 Q4 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014 Q1	<1.0	<5.0	<1.0	<3.0	<0.10	NA
3/25/2014 Q1 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
5/22/2014 Q2	<1.0	<5.0	<1.0	<3.0	<0.10	559
5/22/2014 Q2 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
5/22/2014 Q2 S	<1.0	<1.0	<1.0	0.45 ¹	0.01 ¹	NA
8/27/2014 Q3	<1.0	<5.0	<1.0	<3.0	<0.10	450
8/27/2014 Q3 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA
8/27/2014 Q3 S	<1.0	<1.0	<1.0	<1.0	<0.10	NA
10/21/2014 Q4	<1.0	<5.0	<1.0	<3.0	<0.10	440
10/21/2014 Q4 D	<1.0	<5.0	<1.0	<3.0	<0.10	NA

Notes:

µg/L – micrograms per liter

mg/L – milligrams per liter

ppm – parts per million

* – the highest number within the range is the MCL

Q1/Q2/Q3/Q4 – indicates quarterly sample period

NA – not analyzed/measured

¹ – estimated value (result less than the reporting limit but greater than the laboratory method detection limit)

GRO – gasoline range organics

TDS – total dissolved solids

MCL – maximum concentration level (µg/L)

** – 1.25 × 600 ppm (750 ppm) detected at location #41 on 6/24/2008

D – indicates duplicate sample analyzed by primary laboratory

S – indicates duplicate sample analyzed by secondary laboratory

Bold – indicates analyte exceeds COGCC Table 910-1 MCL4.0 Quality Control:

A formal sampling and analyses plan has not been prepared for this event. OXY has collected duplicate samples, split samples, and a trip blank for quality control (QC) purposes to determine the adequacy of field and laboratory methods. Duplicate and split samples have been collected at sampling points #40, #42, #43 and #44 during 2014.

Duplicate samples collected at sample location #42 were within 0 to 28% of the quarterly sample results for benzene in 2014. Split samples for the same location were within 3 to 36% of the quarterly sample results for benzene in 2014. The second quarter 2014 split sample results for xylene and GRO at sample location #44 were detected by the laboratory, but at values less than the method reporting limit. All other QC samples collected at locations #40, #43, and #44 were “non detect”.

5.0 Conclusions:

2014 sample collection identified exceedances of the benzene standard at the South Spring (#42) location during the four 2014 quarterly sampling events. No other exceedances of BTEX constituents were identified during the 2014 sampling events. The COGCC has not established a numerical MCL for GRO; however, the GRO results are used as a comparative indicator for the presence of low-fraction petroleum hydrocarbons and of remediation progress. GRO was detected in the South Spring location during the four 2014 sampling events. The sample's GRO concentration was identified to be at low concentrations. All other analytes during the 2014 sampling events were below analytical detection limits.



Separate graphs of analytical results from the past year (five sampling events) and BTEX source graphs for the life of the remediation project are attached to this report. Analytical detection limits denoted with a less-than sign (<) in Table 1 are below allowable MCLs and appear to show an upward trend. Decreased laboratory sensitivity in analytical methods has been noted to contribute to the upward graphical trend, but is unlikely to be indicative of an increased trend of BTEX constituents at the sample locations during this reporting period.

5.0 Attachments

Rock Springs Sampling Locations Summary Map – All Locations

BTEX Analyte Graphs: by location June 2008 to December 2014

BTEX Graphs, 4th Quarter 2013 to 4th Quarter 2014

Comprehensive Laboratory Data Summary by Location – June 2008 to December 2014

Comprehensive Field Parameter Summary by Location – June 2008 to December 2014



OXY USA WTP LP
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

Sampling Location Summary Rock Springs – Benzene Results

Revised: 04/08/2015

Garfield County, Colorado

0 100 200 300 400
Feet

2014	µg/L
Q1	DRY
Q2	DRY
Q3	DRY
Q4	DRY

Upstream
#41

2014	µg/L
Q1	DRY
Q2	ND
Q3	DRY
Q4	DRY

North Spring
#40

2014	µg/L
Q1	ND
Q2	ND
Q3	ND
Q4	ND

Downstream
#43

Lower Pit
#44

2014	µg/L
Q1	ND
Q2	ND
Q3	ND
Q4	ND

South Spring
#42

2014	µg/L
Q1	24
Q2	33
Q3	28
Q4	22

CC 605-1

6S 97W

Section 05

Legend Sample Location 2014 Results

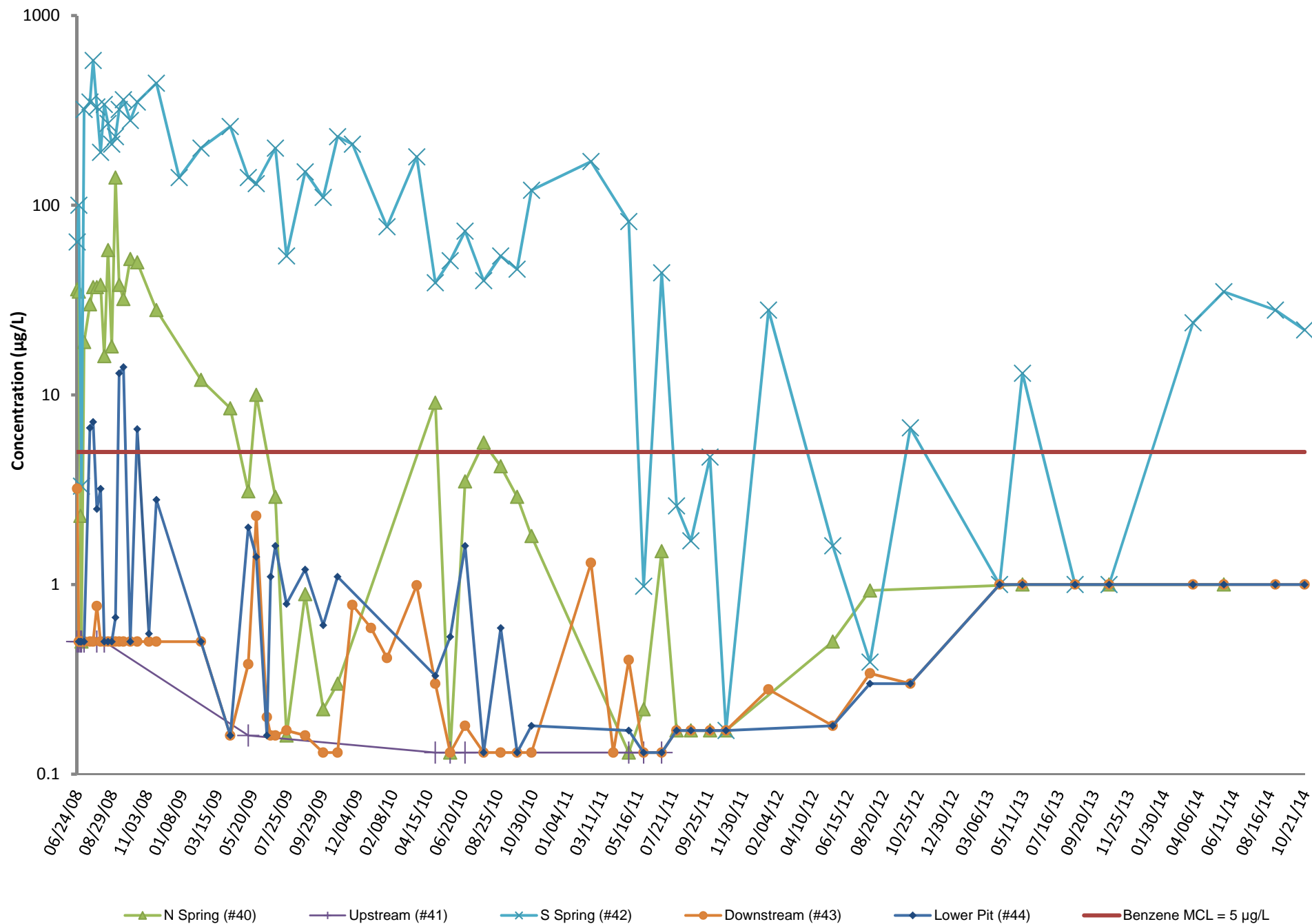
● Detection above MCL

● No Detection

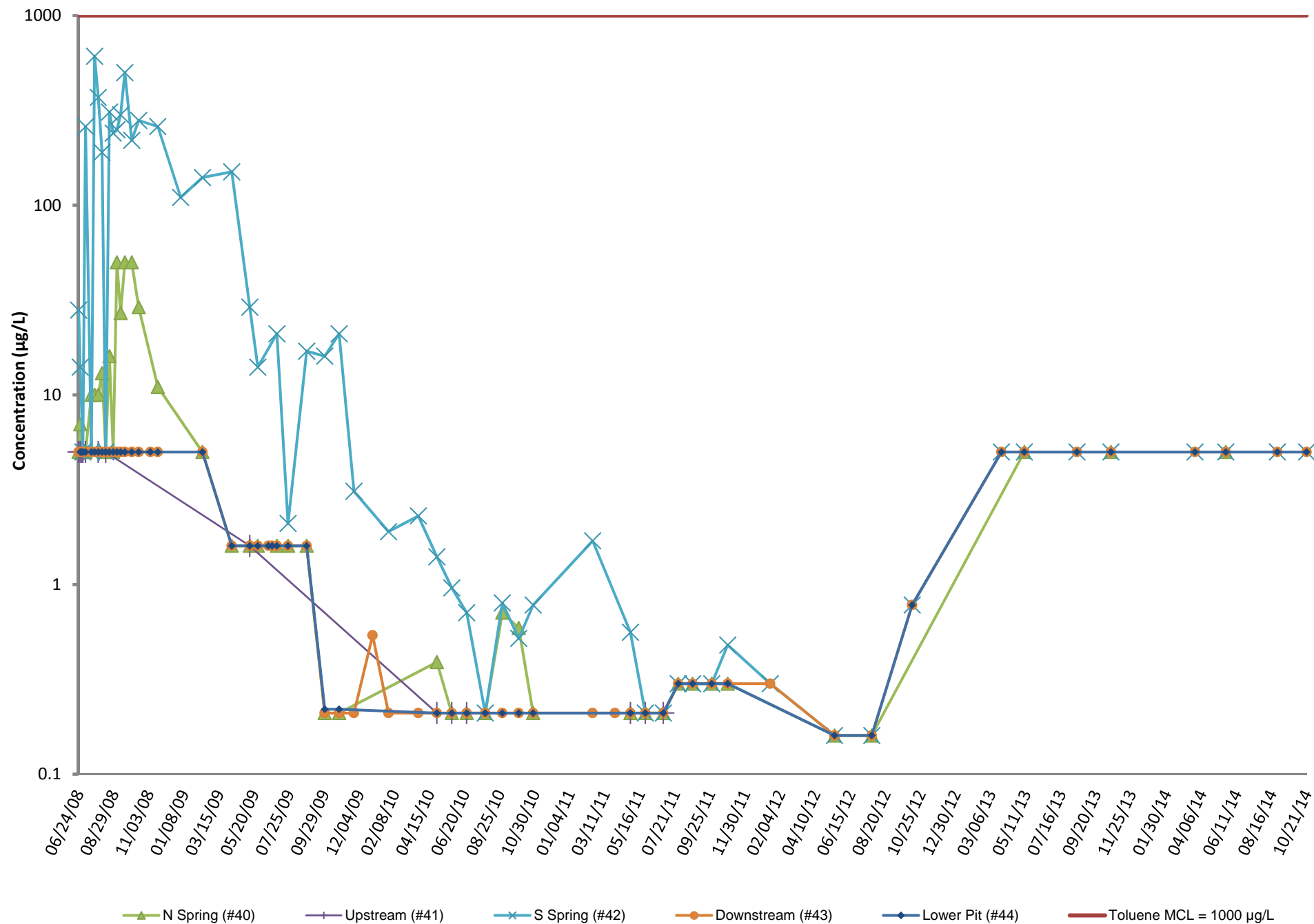
□ Well Pad

— Road

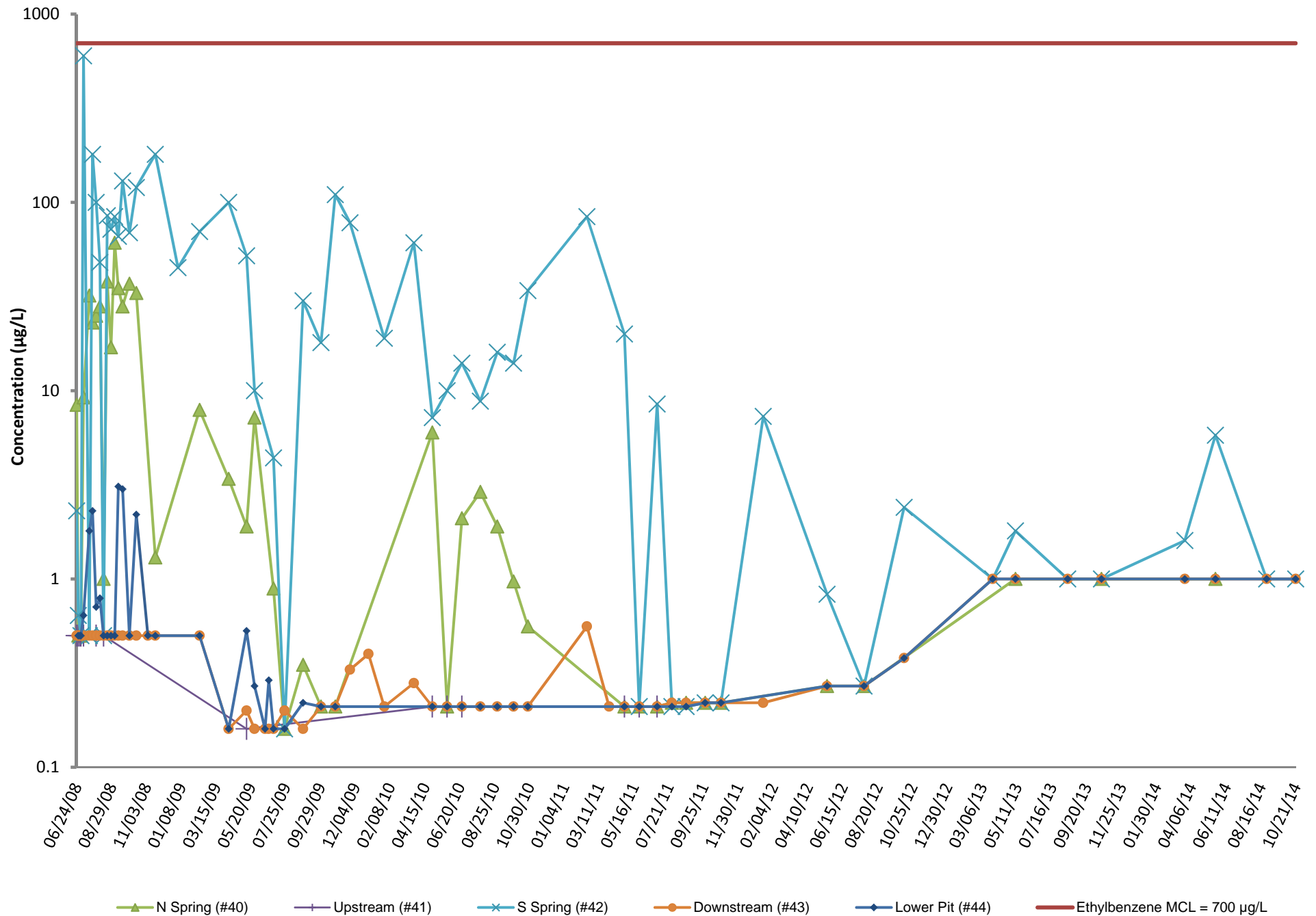
Source Area Benzene Results - Through Q4 2014 (Log Based Scale)



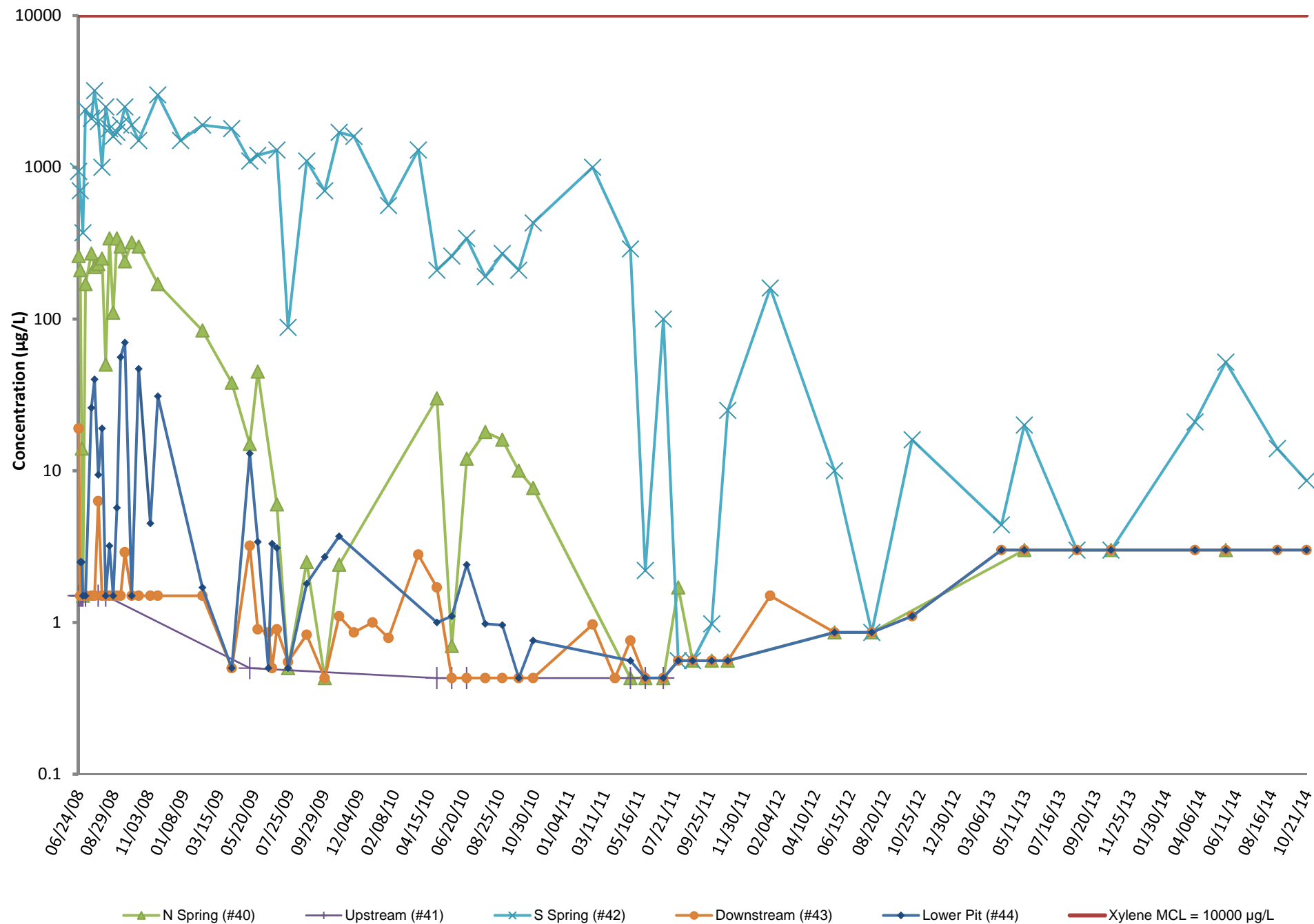
Source Area Toluene Results - Through Q4 2014 (Log Based Scale)



Source Area Ethylbenzene Results - Through Q4 2014 (Log Based Scale)



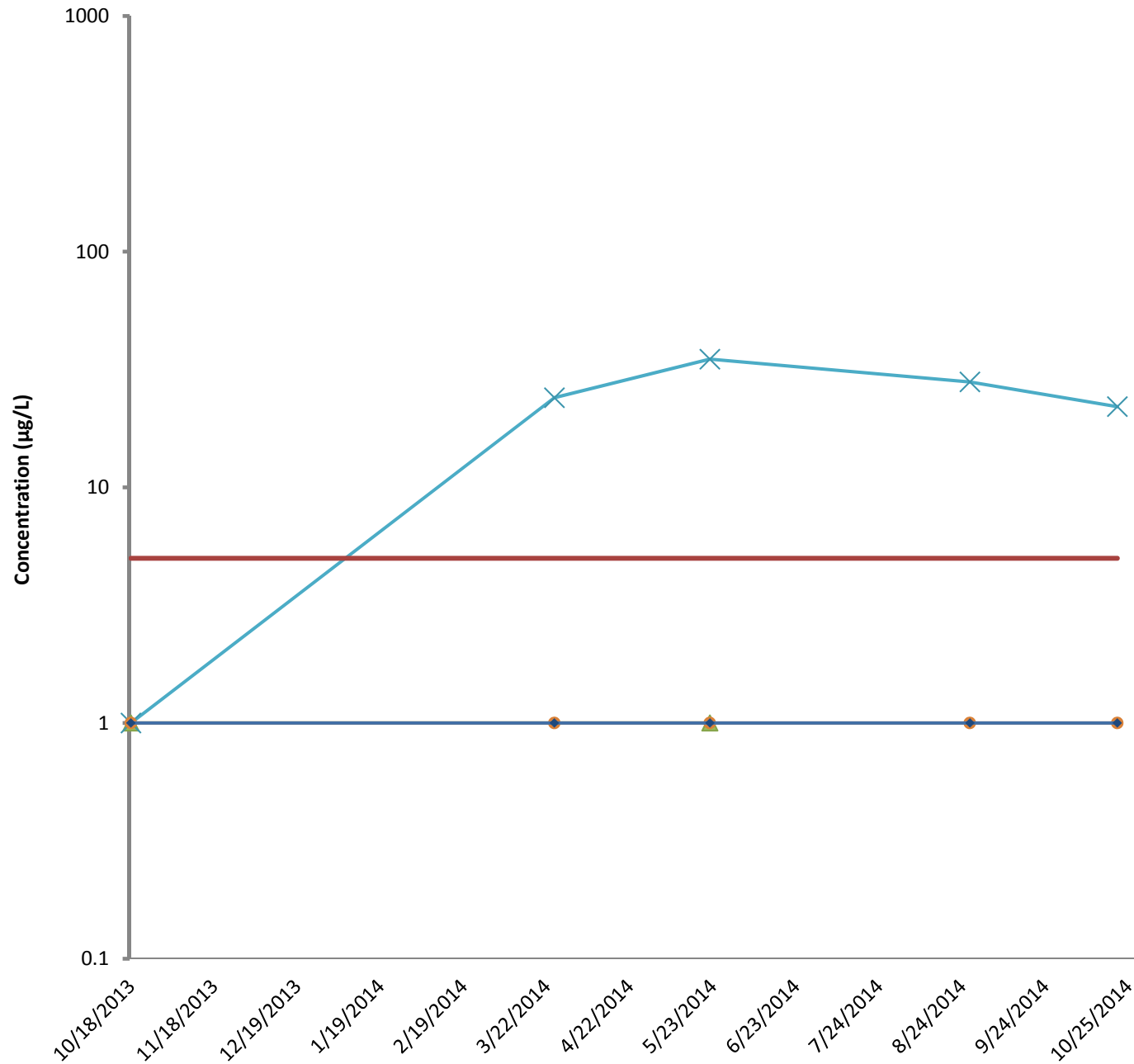
Source Area Xylene Results - Through Q4 2014 (Log Based Scale)



Source Area Benzene Results

Q4 2013 Through Q4 2014

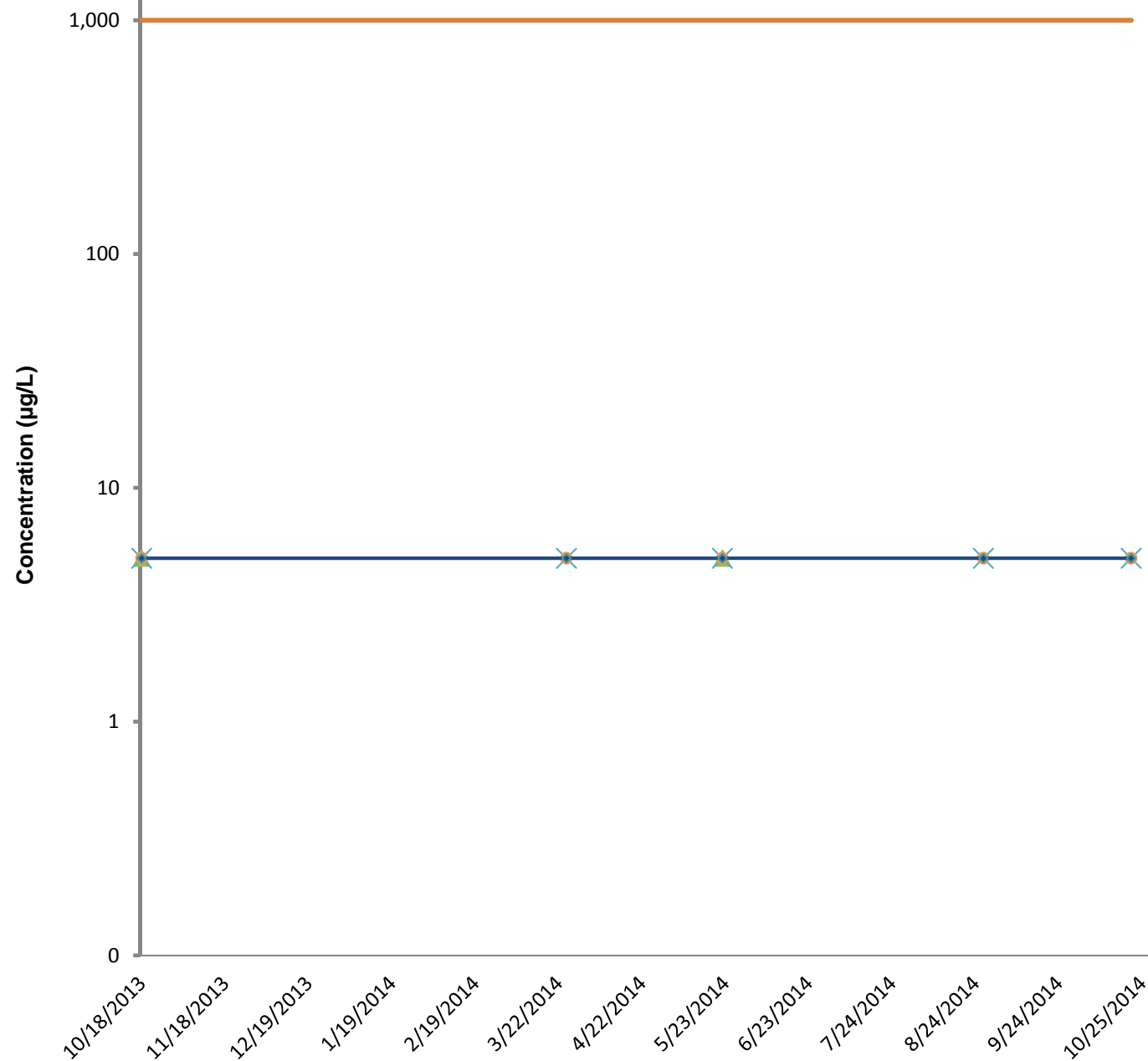
- N Spring (#40)
- Upstream (#41)
- S Spring (#42)
- Downstream (#43)
- Lower Pit (#44)
- Benzene MCL = 5 µg/L



Source Area Toluene Results

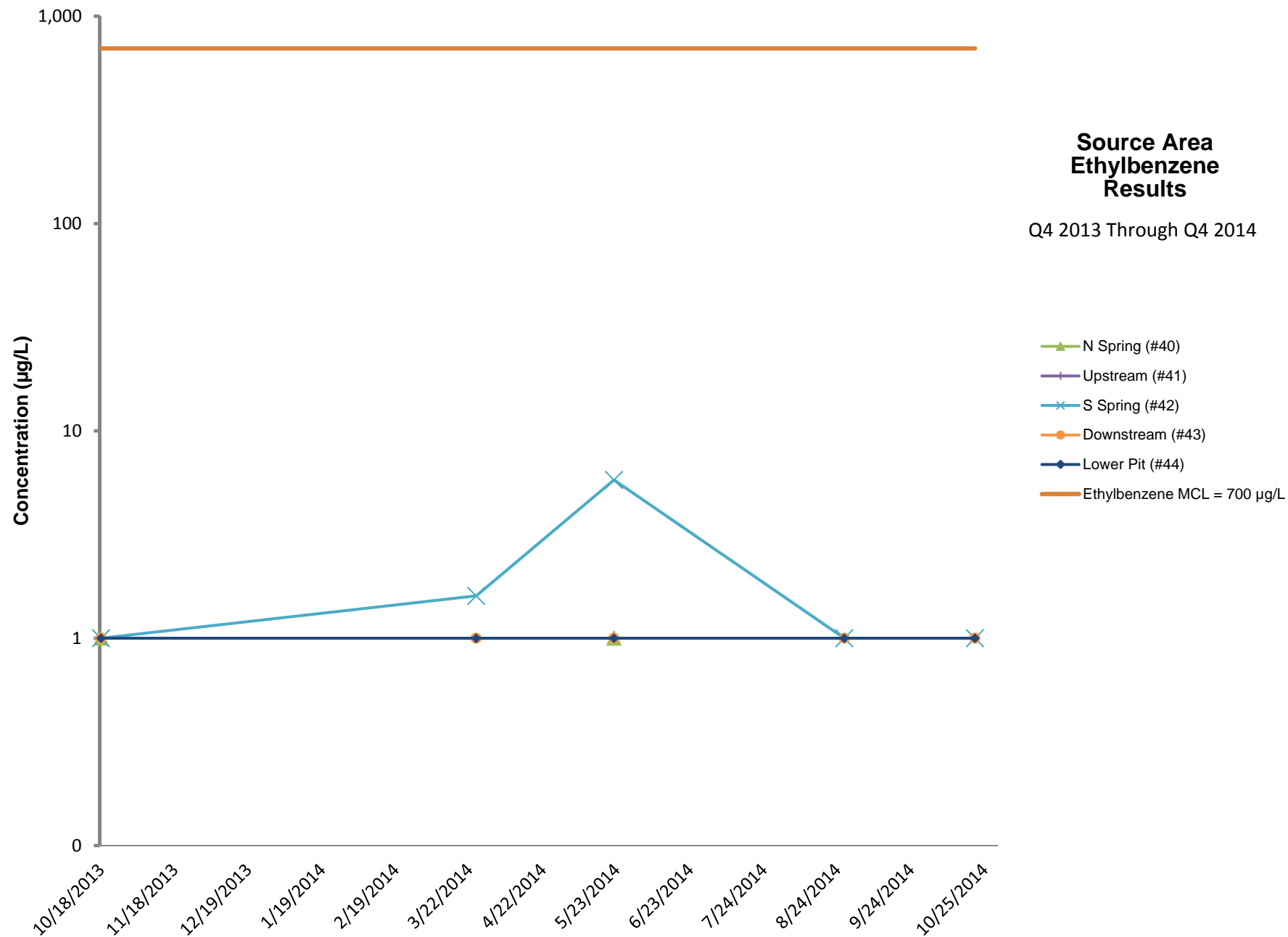
Q4 2013 Through Q4 2014

- N Spring (#40)
- Upstream (#41)
- S Spring (#42)
- Downstream (#43)
- Lower Pit (#44)
- Toluene MCL = 1000 µg/L



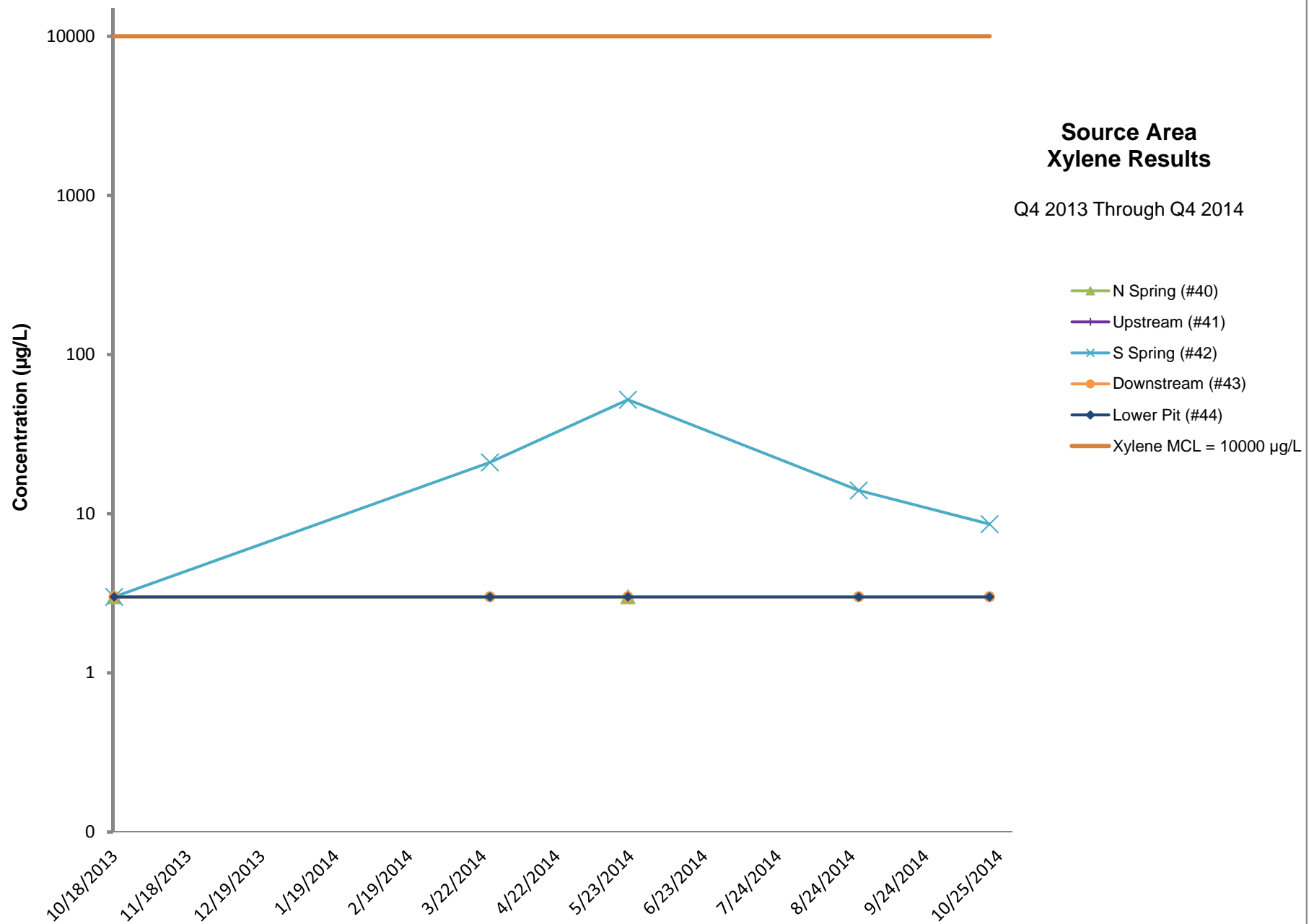
Source Area Ethylbenzene Results

Q4 2013 Through Q4 2014



Source Area Xylene Results

Q4 2013 Through Q4 2014



Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
N. Spring (#40)						
6/24/2008	36	<5.0	8.4	260	2.0	570
6/27/2008	35	7.0	<0.5	210	1.3	580
6/30/2008	2.3	<5.0	<0.5	14	0.24	580
7/2/2008	<0.5	<5.0	<0.5	<1.5	0.39	NA
7/7/2008	19	<5.0	9.2	170	1.1	NA
7/18/2008	30	10	32	270	NA	600
7/24/2008	37	10	23	220	1.2	NA
7/31/2008	37	10	25	230	1.3	NA
8/7/2008	38	13	28	250	1.4	NA
8/14/2008	16	<5.0	1.0	50	0.9	NA
8/21/2008	58	16	38	340	1.8	NA
8/28/2008	18	<5.0	17	110	0.83	NA
9/4/2008	140	<50	61	340	2.0	NA
9/11/2008	38	27	35	300	1.8	NA
9/19/2008	32	<50	28	240	1.2	NA
10/2/2008	52	<50	37	320	2.3	NA
10/15/2008	50	29	33	300	1.7	NA
11/6/2008	Water Unavailable for Sample Collection					
11/20/2008	28	11	1.3	170	0.87	NA
1/2/2009	Water Unavailable for Sample Collection					
2/12/2009	12	<5.0	7.9	84	0.32	520
4/8/2009	8.5	1.6	3.4	38	0.11	360
5/12/2009	3.1	<1.6	1.9	15	0.15	NA
5/27/2009	10	<1.6	7.2	45	0.42	NA
6/16/2009	Water Unavailable for Sample Collection					
6/23/2009	Water Unavailable for Sample Collection					
7/2/2009	2.9	<1.6	0.89	6.0	0.25	560
7/23/2009	<0.16	<1.6	<0.16	<0.5	<0.03	NA
8/27/2009	0.89	<1.6	0.35	2.5	<0.03	NA
9/30/2009	0.22	<0.21	<0.21	0.43	<0.03	NA
10/27/2009	0.3	<0.21	<0.21	2.4	<0.04	NA
11/24/2009	Water Unavailable for Sample Collection					
12/29/2009	Water Unavailable for Sample Collection					
1/28/2010	Water Unavailable for Sample Collection					
3/25/2010	Water Unavailable for Sample Collection					
4/28/2010	9.1	0.39	6.0	30	0.4	NA
5/27/2010	<0.13	<0.21	<0.21	0.7	<0.04	500
6/24/2010	3.5	<0.21	2.1	12	0.07	NA
7/29/2010	5.6	<0.21	2.9	18	0.31	NA
8/30/2010	4.2	0.71	1.9	16	<0.04	NA
9/30/2010	2.9	0.59	0.97	10	<0.04	NA
10/27/2010	1.8	<0.21	0.56	7.7	<0.04	NA
2/16/2011	Water Unavailable for Sample Collection					
3/30/2011	Water Unavailable for Sample Collection					
4/28/2011	<0.13	<0.21	<0.21	<0.43	<0.04	NA

Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
5/26/2011	0.22	<0.21	<0.21	<0.43	<0.04	NA
6/29/2011	1.5	<0.21	<0.21	<0.43	<0.04	NA
7/27/2011	<0.17	<0.3	<0.22	1.7	0.05	NA
8/23/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
9/28/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
10/28/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
1/16/2012	Water Unavailable for Sample Collection					
5/16/2012	0.5	<0.16	<0.27	<0.86	0.1	NA
7/25/2012	0.93	<0.16	<0.27	<0.86	<0.04	NA
10/9/2012	Water Unavailable for Sample Collection					
3/26/2013	Water Unavailable for Sample Collection					
5/8/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013	Water Unavailable for Sample Collection					
10/18/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014	Water Unavailable for Sample Collection					
5/22/2014	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/22/2014 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/22/2014 S	<1.0	<1.0	<1.0	<1.0	<0.1	NA
8/27/2014	Water Unavailable for Sample Collection					
10/21/2014	Water Unavailable for Sample Collection					
Upstream (#41)						
6/24/2008	<0.5	<5.0	<0.5	<1.5	<0.1	600
6/27/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
6/30/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
7/2/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
7/7/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
7/18/2008	Water Unavailable for Sample Collection					
7/24/2008	Water Unavailable for Sample Collection					
7/31/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
8/7/2008	Water Unavailable for Sample Collection					
8/14/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
8/21/2008	Water Unavailable for Sample Collection					
8/28/2008	Water Unavailable for Sample Collection					
9/4/2008	Water Unavailable for Sample Collection					
9/11/2008	Water Unavailable for Sample Collection					
9/19/2008	Water Unavailable for Sample Collection					
10/2/2008	Water Unavailable for Sample Collection					
10/15/2008	Water Unavailable for Sample Collection					
11/6/2008	Water Unavailable for Sample Collection					
11/20/2008	Water Unavailable for Sample Collection					
1/2/2009	Water Unavailable for Sample Collection					
2/12/2009	Water Unavailable for Sample Collection					
4/8/2009	Water Unavailable for Sample Collection					
5/12/2009	<0.16	<1.6	<0.16	<0.5	<0.033	408
5/27/2009	Water Unavailable for Sample Collection					

Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
6/16/2009	Water Unavailable for Sample Collection					
6/23/2009	Water Unavailable for Sample Collection					
7/2/2009	Water Unavailable for Sample Collection					
7/23/2009	Water Unavailable for Sample Collection					
8/27/2009	Water Unavailable for Sample Collection					
9/30/2009	Water Unavailable for Sample Collection					
10/27/2009	Water Unavailable for Sample Collection					
11/24/2009	Water Unavailable for Sample Collection					
12/29/2009	Water Unavailable for Sample Collection					
1/28/2010	Water Unavailable for Sample Collection					
3/25/2010	Water Unavailable for Sample Collection					
4/28/2010	<0.13	<0.21	<0.21	<0.43	<0.04	420
5/27/2010	<0.13	<0.21	<0.21	<0.43	<0.04	403
6/24/2010	<0.13	<0.21	<0.21	<0.43	<0.04	422
7/29/2010	Water Unavailable for Sample Collection					
8/30/2010	Water Unavailable for Sample Collection					
9/30/2010	Water Unavailable for Sample Collection					
10/27/2010	Water Unavailable for Sample Collection					
2/16/2011	Water Unavailable for Sample Collection					
3/30/2011	Water Unavailable for Sample Collection					
4/28/2011	<0.13	<0.21	<0.21	<0.43	<0.04	295
5/26/2011	<0.13	<0.21	<0.21	<0.43	<0.04	347
6/29/2011	<0.13	<0.21	<0.21	<0.43	<0.04	368
7/27/2011	Water Unavailable for Sample Collection					
8/23/2011	Water Unavailable for Sample Collection					
9/28/2011	Water Unavailable for Sample Collection					
10/28/2011	Water Unavailable for Sample Collection					
1/16/2012	Water Unavailable for Sample Collection					
5/16/2012	Water Unavailable for Sample Collection					
7/25/2012	Water Unavailable for Sample Collection					
10/9/2012	Water Unavailable for Sample Collection					
3/26/2012	Water Unavailable for Sample Collection					
5/8/2013	Water Unavailable for Sample Collection					
8/15/2013	Water Unavailable for Sample Collection					
10/18/2013	Water Unavailable for Sample Collection					
3/25/2014	Water Unavailable for Sample Collection					
5/22/2014	Water Unavailable for Sample Collection					
8/27/2014	Water Unavailable for Sample Collection					
10/21/2014	Water Unavailable for Sample Collection					
S. Spring (#42)						
6/24/2008	64	28	2.3	940	2.8	690
6/27/2008	100	14	0.64	700	4.8	860
6/30/2008	NA	NA	NA	NA	NA	1000
7/2/2008	3.3	<5.0	<0.5	370	2.2	NA
7/7/2008	320	260	600	2400	8.2	NA
7/18/2008	350	<5.0	<0.5	2100	NA	1000
7/24/2008	580	610	180	3200	11	NA

Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
7/31/2008	330	370	100	2000	6.1	NA
8/7/2008	190	190	48	1000	3.3	NA
8/14/2008	340	<5.0	<0.5	2500	<0.1	NA
8/21/2008	270	310	85	1800	4.7	NA
8/28/2008	210	240	72	1600	4.6	NA
9/4/2008	230	250	84	1700	5.7	NA
9/11/2008	320	300	66	1900	6.2	NA
9/19/2008	360	<500	130	2500	<10	NA
10/2/2008	280	220	69	1900	5.8	NA
10/15/2008	350	280	120	1500	5.9	NA
11/6/2004	Water Unavailable for Sample Collection					
11/20/2008	440	260	180	3000	9.2	NA
1/2/2009	140	110	45	1500	18	NA
2/12/2009	200	140	70	1900	39	670
4/8/2009	260	150	100	1800	5.6	800
5/12/2009	140	29	52	1100	4.7	NA
5/27/2009	130	14	10	1200	3.5	NA
6/16/2009	Water Unavailable for Sample Collection					
6/23/2009	Water Unavailable for Sample Collection					
7/2/2009	200	21	4.4	1300	4.1	560
7/23/2009	54	2.1	<0.16	88	1.7	NA
8/27/2009	150	17	30	1100	3.5	NA
9/30/2009	110	16	18	700	2.8	NA
10/27/2009	230	21	110	1700	6.0	NA
11/24/2009	210	3.1	78	1600	6.2	NA
12/29/2009	Water Unavailable for Sample Collection					
1/28/2010	77	1.9	19	560	2.4	NA
3/25/2010	180	2.3	61	1300	3.6	NA
4/29/2010	39	1.4	7.2	210	1.2	NA
5/27/2010	51	0.96	10	260	1.5	630
6/24/2010	73	0.71	14	340	2.1	NA
7/29/2010	40	<0.21	8.8	190	1.4	NA
8/30/2010	54	0.8	16	270	1.3	NA
9/30/2010	46	0.52	14	210	1.1	NA
10/27/2010	120	0.78	34	430	3.3	NA
2/16/2011	170	1.7	84	1000	8.2	NA
3/30/2011	Water Unavailable for Sample Collection					
4/28/2011	82	0.56	20	290	1.7	NA
5/26/2011	0.98	<0.21	<0.21	2.2	0.06	NA
6/29/2011	44	<0.21	8.5	100	0.5	NA
7/27/2011	2.6	<0.3	<0.22	<0.56	0.28	NA
8/23/2011	1.7	<0.3	<0.22	<0.56	<0.04	NA
9/28/2011	4.7	<0.3	<0.22	0.98	0.2	NA
10/28/2011	<0.17	0.48	<0.22	25	0.61	NA
1/16/2012	28	<0.3	7.3	160	0.74	NA
5/16/2012	1.6	<0.16	0.83	10	0.08	NA

Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
7/25/2012	0.39	<0.16	<0.27	<0.86	<0.04	NA
10/9/2012	6.7	<0.78	2.4	16	0.10	NA
3/26/2012	<1.0	<5.0	<1.0	4.4	<0.1	NA
5/8/2013	13	<5.0	1.8	20	0.2	NA
8/15/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013 S	1.0	<1.0	<1.0	<3.0	<0.05	NA
10/18/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 S	1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014	24	<5.0	1.6	21	0.2	NA
3/25/2014 D	24	<5.0	1.4	19	0.18	NA
3/25/2014 S	31	1.6	<1.0	21	0.18	NA
5/22/2014	33	<5.0	5.8	52	0.36	NA
5/22/2014 D	32	<5.0	5.6	51	0.37	NA
5/22/2014 S	35	<1.0	6.7	61	0.49	NA
8/27/2014	28	<5.0	<1.0	14	0.31	500
8/27/2014 D	20	<5.0	1.1	14	0.3	NA
8/27/2014 S	29	<1.0	1.2	17	0.21	NA
10/21/2014	22	<5.0	<1.0	8.6	170	585
10/21/2014 D	24	<5.0	<1.0	9.2	180	NA
10/21/2014 S	30	<1.0	<1.0	11	0.27	NA
Downstream #43						
6/24/2008	3.2	<5.0	<0.5	19	0.23	720
6/27/2008	<0.5	<5.0	<0.5	<1.5	<0.1	670
6/30/2008	<0.5	<5.0	<0.5	<1.5	<0.1	610
7/2/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
7/7/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
7/18/2008	<0.5	<5.0	<0.5	<1.5	<0.1	790
7/24/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
7/31/2008	0.77	<5.0	<0.5	6.3	<0.1	NA
8/7/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
8/14/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
8/21/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
8/28/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
9/4/2008	<0.5	<5.0	<0.5	1.5	<0.1	NA
9/11/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
9/19/2008	<0.5	<5.0	<0.5	2.9	<0.1	NA
10/2/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
10/15/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
11/6/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
11/20/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
1/2/2009	Water Unavailable for Sample Collection					
2/12/2009	<0.5	<5.0	<0.5	<1.5	<0.1	670
4/8/2009	<0.16	<1.6	<0.16	<0.5	<0.03	590
5/12/2009	0.38	<1.6	0.2	3.2	<0.03	NA
5/27/2009	2.3	<1.6	<0.16	0.9	<0.03	NA
6/16/2009	0.2	<1.6	<0.16	0.86	<0.03	AN
6/23/2009	<0.16	<1.6	<0.16	<0.5	<0.03	610
7/2/2009	<0.16	<1.6	<0.16	0.9	<0.03	47000

Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
7/23/2009	0.17	<1.6	0.2	0.55	<0.03	NA
8/27/2009	<0.16	<1.6	<0.16	0.83	<0.03	NA
9/30/2009	<0.13	<0.21	<0.21	<0.43	<0.03	NA
10/27/2009	<0.13	<0.21	<0.21	1.1	<0.04	NA
11/24/2009	0.78	<0.21	0.33	0.86	<0.04	NA
12/29/2009	0.59	0.54	0.4	1.0	<0.04	NA
1/28/2010	0.41	<0.21	<0.21	0.79	<0.04	NA
3/25/2010	0.99	<0.21	0.28	2.8	<0.04	NA
4/29/2010	0.3	<0.21	<0.21	1.7	<0.04	NA
5/27/2010	<0.13	<0.21	<0.21	<0.43	<0.04	520
6/24/2010	0.18	<0.21	<0.21	<0.43	<0.04	NA
7/29/2010	<0.13	<0.21	<0.21	<0.43	<0.04	NA
8/30/2010	<0.13	<0.21	<0.21	<0.43	<0.04	NA
9/30/2010	<0.13	<0.21	<0.21	<0.43	<0.04	NA
10/27/2010	<0.13	<0.21	<0.21	<0.43	<0.04	NA
2/16/2011	1.3	<0.21	0.56	0.97	<0.04	NA
3/30/2011	<0.13	<0.21	<0.21	<0.43	<0.04	NA
4/28/2011	0.4	<0.21	<0.21	0.76	<0.04	NA
5/26/2011	<0.13	<0.21	<0.21	<0.43	<0.04	NA
6/29/2011	<0.13	<0.21	<0.21	<0.43	<0.04	NA
7/27/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
8/23/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
9/28/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
10/28/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
1/16/2012	0.28	<0.3	<0.22	<0.56	<0.04	NA
5/16/2012	<0.18	<0.16	<0.27	<0.86	<0.04	NA
7/25/2012	0.34	<0.16	<0.27	<0.86	<0.04	NA
10/9/2012	<0.3	<0.78	<0.38	<1.1	<0.031	NA
3/26/2012	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/8/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
10/18/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014	<1.0	<5.0	<1.0	<3.0	<0.1	NA
3/25/2014 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
3/25/2014 S	<1.0	<1.0	<1.0	<1.0	<0.1	NA
5/22/2014	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/22/2014 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/22/2014 S	<1.0	<1.0	<1.0	<1.0	<0.1	NA
8/27/2014	<1.0	<5.0	<1.0	<3.0	<0.1	560
8/27/2014 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/27/2014 S	<1.0	<1.0	<1.0	<1.0	<0.1	NA
10/21/2014	<1.0	<5.0	<1.0	<3.0	<100	539
10/21/2014 D	<1.0	<5.0	<1.0	<3.0	<100	NA
Lower Pit #44						
6/27/2008	<0.5	<5.0	<0.5	2.5	<0.1	580
6/30/2008	<0.5	<5.0	<0.5	<1.5	<0.1	710
7/2/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA

Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
7/7/2008	<0.5	<5.0	0.64	<1.5	<0.1	NA
7/18/2008	6.7	<5.0	1.8	26	0.11	NA
7/24/2008	7.2	<5.0	2.3	40	0.16	NA
7/31/2008	2.5	<5.0	0.71	9.4	<0.1	NA
8/7/2008	3.2	<5.0	0.79	19	0.12	NA
8/14/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
8/21/2008	<0.5	<5.0	<0.5	3.2	<0.1	NA
8/28/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
9/4/2008	0.67	<5.0	<0.5	5.7	<0.1	NA
9/11/2008	13	<5.0	3.1	56	0.19	NA
9/19/2008	14	<5.0	3.0	70	0.25	NA
10/2/2008	<0.5	<5.0	<0.5	<1.5	<0.1	NA
10/15/2008	6.6	<5.0	2.2	47	0.13	NA
11/6/2008	0.55	<5.0	<0.5	4.5	<0.1	NA
11/20/2008	2.8	<5.0	<0.5	31	0.1	NA
1/2/2009	Water Unavailable for Sample Collection					
2/12/2009	<0.5	<5.0	<0.5	1.7	<0.1	570
4/8/2009	<0.16	<1.6	<0.16	<0.5	<0.03	440
5/12/2009	2.0	<1.6	0.53	13	0.12	NA
5/27/2009	1.4	<1.6	0.27	3.4	<0.03	NA
6/16/2009	<0.16	<1.6	<0.16	<0.5	<0.03	NA
6/23/2009	1.1	<1.6	0.29	3.3	0.051	570
7/2/2009	1.6	<1.6	<0.16	3.1	0.046	520
7/23/2009	0.79	<1.6	<0.16	<0.5	<0.03	NA
8/27/2009	1.2	<1.6	0.22	1.8	<0.03	NA
9/30/2009	0.61	0.22	<0.21	2.7	0.042	NA
10/27/2009	1.1	0.22	<0.21	3.7	<0.04	NA
11/24/2009	Water Unavailable for Sample Collection					
12/29/2009	Water Unavailable for Sample Collection					
1/28/2010	Water Unavailable for Sample Collection					
3/25/2010	Water Unavailable for Sample Collection					
4/29/2010	0.33	<0.21	<0.21	1.0	<0.04	NA
5/27/2010	0.53	<0.21	<0.21	1.1	<0.04	530
6/24/2010	1.6	<0.21	<0.21	2.4	<0.04	NA
7/29/2010	<0.13	<0.21	<0.21	0.98	<0.04	NA
8/30/2010	0.59	<0.21	<0.21	0.96	<0.04	NA
9/30/2010	<0.13	<0.21	<0.21	<0.43	<0.04	NA
10/27/2010	0.18	<0.21	<0.21	0.76	<0.04	NA
2/16/2011	Water Unavailable for Sample Collection					
3/30/2011	Water Unavailable for Sample Collection					
4/28/2011	0.17	<0.21	<0.21	0.56	<0.04	NA
5/26/2011	<0.13	<0.21	<0.21	<0.43	<0.04	NA
6/29/2011	<0.13	<0.21	<0.21	<0.43	<0.04	NA
7/27/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
8/23/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
9/28/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
10/28/2011	<0.17	<0.3	<0.22	<0.56	<0.04	NA
1/16/2012	Water Unavailable for Sample Collection					
5/16/2012	<0.18	<0.16	<0.27	<0.86	<0.04	NA

Comprehensive Laboratory Data Summary by Location (June 2008 - December 2014)

Location # / Date	Benzene (MCL= 5.0 µg/L)	Toluene (MCL= 560 to 1000 µg/L)*	Ethylbenzene (MCL= 700 µg/L)	Xylenes (MCL= 1400 to 10000 µg/L)*	GRO (mg/L, No MCL)	TDS (750 ppm)**
7/25/2012	0.3	<0.16	<0.27	<0.86	<0.04	NA
10/9/2012	<0.3	<0.78	<0.38	<1.1	<0.031	NA
3/26/2012	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/8/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/15/2013 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
10/18/2013	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
10/18/2013 S	<1.0	<1.0	<1.0	<3.0	<0.05	NA
3/25/2014	<1.0	<5.0	<1.0	<3.0	<0.1	NA
3/25/2014 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/22/2014	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/22/2014 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
5/22/2014 S	<1.0	<1.0	<1.0	0.45	0.01	NA
8/27/2014	<1.0	<5.0	<1.0	<3.0	<0.1	450
8/27/2014 D	<1.0	<5.0	<1.0	<3.0	<0.1	NA
8/27/2014 S	<1.0	<1.0	<1.0	<1.0	<0.1	NA
10/21/2014	<1.0	<5.0	<1.0	<3.0	<100	441
10/21/2014 D	<1.0	<5.0	<1.0	<3.0	<100	NA

Notes:

µg/L - micrograms per liter

mg/L - milligrams per liter

MCL - maximum contaminant level

GRO - gasoline range organics

TDS - total dissolved solids

ppm - parts per million

*- the highest number within the range is the MCL

** - 1.25 x background measurement from Upstream location on 6/24/08 (600 ppm)

D - indicates duplicate sample

S - indicates split sample

Bold - indicates analytical result is above COGCC Table 910-1 MCL

Comprehensive Field Parameters Summary by Location (May 2009 - December 2014)

Location # / Date	pH	EC (mmho/cm)	Temp (°F)	TDS (ppm)	DO (mg/L)	ORP (mV)
N. Spring (#40)						
5/12/2009	8.30	0.805	58.8	410		
5/27/2009	8.12	0.795	51.3	110	3.78	60
6/16/2009	Water Unavailable for Parameter Reading					
6/23/2009	NA	NA	NA	NA	NA	NA
7/2/2009					3.11	125
7/23/2009	7.63	1.056	77.4	527	5.34	
8/27/2009	7.77	0.953	54.9	482		
9/30/2009	8.10	0.430	56.8	219	5.60	
10/27/2009	7.12	0.382	37.7	192		
11/24/2009	Water Unavailable for Parameter Reading					
12/29/2009	Water Unavailable for Parameter Reading					
1/28/2010	Water Unavailable for Parameter Reading					
2/22/2010	Water Unavailable for Parameter Reading					
3/25/2010	Water Unavailable for Parameter Reading					
4/29/2010	8.34	0.857	50.9	428		
5/27/2010	8.09	0.754	59.2	391		
6/24/2010	7.67	0.786	50.8	392		
7/29/2010	Water Unavailable for Parameter Reading					
8/30/2010	7.01	0.864	51.1	431		
9/30/2010	7.89	0.880	52.6	440		
10/27/2010	7.76	0.746	41.3	324		
2/16/2011	Water Unavailable for Parameter Reading					
3/30/2011	Water Unavailable for Parameter Reading					
4/28/2011	6.71	0.688	46.8	342		
5/26/2011	7.76	0.716	47.4	358		
6/29/2011	7.89	0.738	46.1	368		
7/27/2011	8.21	0.777	48.0	386		
8/23/2011	7.86	1.124	50.4	558		
9/28/2011	7.94	0.802	51.8	403		
10/28/2011	8.04	0.842	37.8	423		
1/16/2012	Water Unavailable for Parameter Reading					
5/16/2012	7.35	0.838	54.1	418		
7/25/2012	8.12	0.875	56.7	426		
10/9/2012	Water Unavailable for Parameter Reading					
3/26/2013	Water Unavailable for Parameter Reading					
5/8/2013	7.57	0.862	43.0	400		
8/15/2013	Water Unavailable for Parameter Reading					
10/18/2013	8.52	1.130	37.8	500	2.99	
3/25/2014	Water Unavailable for Parameter Reading					
5/22/2014	8.29	0.974	61.2	637	8.73	
8/27/2014	Water Unavailable for Parameter Reading					
10/21/2014	Water Unavailable for Parameter Reading					
Up Stream (#41)						
5/12/2009	8.14	0.817	64.2	408		
5/27/2009	Water Unavailable for Parameter Reading					
6/16/2009	Water Unavailable for Parameter Reading					

Comprehensive Field Parameters Summary by Location (May 2009 - December 2014)

Location # / Date	pH	EC (mmho/cm)	Temp (°F)	TDS (ppm)	DO (mg/L)	ORP (mV)
6/23/2009	Water Unavailable for Parameter Reading					
7/2/2009	Water Unavailable for Parameter Reading					
7/23/2009	Water Unavailable for Parameter Reading					
8/27/2009	Water Unavailable for Parameter Reading					
9/30/2009	Water Unavailable for Parameter Reading					
10/27/2009	Water Unavailable for Parameter Reading					
11/24/2009	Water Unavailable for Parameter Reading					
12/29/2009	Water Unavailable for Parameter Reading					
1/28/2010	Water Unavailable for Parameter Reading					
2/22/2010	Water Unavailable for Parameter Reading					
3/25/2010	Water Unavailable for Parameter Reading					
4/29/2010	8.01	0.840	49.7	420		
5/27/2010	8.22	0.810	57.1	403		
6/24/2010	7.53	0.842	51.6	422		
7/29/2010	Water Unavailable for Parameter Reading					
8/30/2010	Water Unavailable for Parameter Reading					
9/30/2010	Water Unavailable for Parameter Reading					
10/27/2010	Water Unavailable for Parameter Reading					
2/16/2011	Water Unavailable for Parameter Reading					
3/30/2011	Water Unavailable for Parameter Reading					
4/28/2011	6.90	0.631	46.5	295		
5/26/2011	7.65	0.692	46.5	347		
6/29/2011	7.76	0.738	46.1	368		
7/27/2011	Water Unavailable for Parameter Reading					
8/23/2011	Water Unavailable for Parameter Reading					
9/28/2011	Water Unavailable for Parameter Reading					
10/28/2011	Water Unavailable for Parameter Reading					
1/16/2012	Water Unavailable for Parameter Reading					
5/16/2012	Water Unavailable for Parameter Reading					
7/25/2012	Water Unavailable for Parameter Reading					
10/9/2012	Water Unavailable for Parameter Reading					
3/26/2013	Water Unavailable for Parameter Reading					
5/8/2013	Water Unavailable for Parameter Reading					
8/15/2013	Water Unavailable for Parameter Reading					
10/18/2013	Water Unavailable for Parameter Reading					
3/25/2014	Water Unavailable for Parameter Reading					
5/22/2014	Water Unavailable for Parameter Reading					
8/27/2014	Water Unavailable for Parameter Reading					
10/21/2014	Water Unavailable for Parameter Reading					
S. Spring (#42)						
5/12/2009	8.30	1.080	55.5	533		
5/27/2009	7.36	1.009	51.8	504	1.35	81
6/16/2009						
6/23/2009						
7/2/2009					2.25	125
7/23/2009	7.97	0.437	76.1	220	4.23	
8/27/2009	7.75	1.193	52.2	594		

Comprehensive Field Parameters Summary by Location (May 2009 - December 2014)

Location # / Date	pH	EC (mmho/cm)	Temp (°F)	TDS (ppm)	DO (mg/L)	ORP (mV)
9/30/2009	7.91	1.071	51.4	538	1.50	
10/27/2009	7.49	1.036	36.6			
11/24/2009	7.76	1.195	41.3	596	1.25	
12/29/2009	Water Unavailable for Parameter Reading					
1/28/2010	7.16	0.942	43.5	472		
3/26/2010	7.74	1.105	38.4	551		
4/29/2010	7.52	1.123	50.4	559		
5/27/2010	7.64	1.031	58.6	511		
6/24/2010	7.63	1.105	51.8	552		
7/29/2010	NA	1.095	66.4	540		
8/30/2010	7.46	1.152	50.8	575		
9/30/2010	7.91	1.079	64.9	540		
10/27/2010	7.44	1.077	43.3	537		
11/29/2010	Water Unavailable for Parameter Reading					
2/16/2011	7.53	0.927	41.4	464		
3/30/2011	Water Unavailable for Parameter Reading					
4/28/2011	6.58	0.929	43.0	463		
5/26/2011	7.59	0.641	46.7	318		
6/29/2011	7.42	0.860	50.1	430		
7/27/2011	7.43	0.899	47.7	450		
8/23/2011	7.55	1.108	48.8	544		
9/28/2011	7.41	0.887	52.9	442		
10/28/2011	7.32	0.884	38.3	439		
1/16/2012	8.45	NA	37.6	NA		
5/16/2012	7.56	0.884	58.5	440		
7/25/2012	7.26	0.853	48.7	426		
10/9/2012	6.68	0.851	53.8	441		
3/26/2013	6.30	0.909	47.3	425		
5/8/2013	7.91	0.846	43.0	400		
8/15/2013	8.38	0.756	71.0	600	7.06	
10/18/2013	8.34	0.885	40.1	600	6.62	
3/25/2014	8.48	1.043	44.8		1.26	
5/22/2014	7.84	0.956	46.2	618	1.45	
8/27/2014	7.78	1.006	46.6	390	6.19	
10/27/2014	7.78	0.900	45.9	585	2.51	73.5
Downstream #43						
5/12/2009	8.14	0.817	64.2	408		
6/16/2009	NA	1.382	NA	707	0.47	-95
7/23/2009	7.84	0.244	62.3	481	5.43	
7/29/2009					4.15	142
8/27/2009	7.84	1.069	53.8	534		
9/30/2009	7.79	1.014	51.0	507	4.18	
10/27/2009	7.91	1.034	51.1	517		
11/24/2009	8.01	1.040	36.1	520	7.83	
12/29/2009	8.19	0.877	33.2	436		
1/28/2010	8.04	1.071	34.6	536		
2/22/2010	Water Unavailable for Parameter Reading					

Comprehensive Field Parameters Summary by Location (May 2009 - December 2014)

Location # / Date	pH	EC (mmho/cm)	Temp (°F)	TDS (ppm)	DO (mg/L)	ORP (mV)
3/26/2010	8.00	0.317	34.7	157		
4/29/2010	8.10	0.885	45.8	441		
5/27/2010	8.27	0.873	55.8	436		
6/24/2010	8.03	0.926	53.7	463		
7/29/2010	7.75	0.875	61.1	436		
8/30/2010	7.01	0.945	53.2	472		
9/30/2010	7.01	0.930	54.2	458		
10/27/2010	7.89	0.941	41.0	470		
2/16/2011	7.79	0.894	34.9	448		
3/30/2011	7.41	0.864	36.2	433		
4/28/2011	7.81	0.770	42.1	386		
5/26/2011	7.70	0.706	45.4	353		
6/29/2011	7.83	0.770	51.9	383		
7/27/2011	8.04	0.811	53.9	404		
8/23/2011	8.24	0.824	55.4	412		
9/28/2011	8.02	0.803	51.8	401		
10/28/2011	7.96	0.851	37.9	422		
1/16/2012	NA	NA	NA	NA	NA	NA
5/16/2012	7.90	0.866	59.5	435		
7/25/2012	7.83	0.796	59.4	399		
10/9/2012	7.71	0.904	51.1	460		
3/26/2013	7.94	0.799	33.8	400		
5/8/2013	8.17	0.798	44.1	400		
8/15/2013	8.56	0.791	63.9	600	4.06	
10/18/2013	8.33	0.779	38.7	600		
3/25/2014	8.66	0.985	37.5		3.45	
5/21/2014	8.42	0.893	54.1	585	6.86	
8/27/2014	8.12	0.810	52.2	527	6.90	
10/21/2014	7.95	0.830	48.6	539	5.99	196
Lower Pit #44						
5/12/2009	7.00	1.080	55.5	453		
5/27/2009	7.86	0.765	54.7	389	3.54	76
6/16/2009	NA	1.650	NA	823	0.61	-11
6/23/2009					0.91	-11
7/2/2009					2.25	125
7/23/2009	7.99	1.090	74.9	545	2.42	
8/27/2009	7.75	1.193	59.7	521		
9/30/2009	8.08	0.981	50.2	491	4.86	
10/27/2009	7.12	1.069	33.6	534		
11/24/2009	Water Unavailable for Parameter Reading					
12/29/2009	Water Unavailable for Parameter Reading					
1/28/2010	Water Unavailable for Parameter Reading					
2/22/2010	Water Unavailable for Parameter Reading					
3/25/2010	Water Unavailable for Parameter Reading					
4/29/2010	7.97	0.905	48.0	452		
5/27/2010	8.15	0.869	58.4	434		
6/24/2010	8.05	0.929	58.2	464		

Comprehensive Field Parameters Summary by Location (May 2009 - December 2014)

Location # / Date	pH	EC (mmho/cm)	Temp (°F)	TDS (ppm)	DO (mg/L)	ORP (mV)
7/29/2010	7.80	0.749	68.3	374		
8/30/2010	7.01	0.894	56.0	447		
9/30/2010	8.09	0.975	72.7	487		
10/27/2010	8.07	0.925	37.0	463		
2/16/2011	Water Unavailable for Parameter Reading					
3/30/2011	Water Unavailable for Parameter Reading					
4/28/2011	7.52	0.744	44.2	373		
5/26/2011	7.88	0.697	46.6	347		
6/29/2011	7.45	0.799	53.0	399		
7/27/2011	8.18	0.796	55.3	399		
8/23/2011	8.05	0.953	59.4	486		
9/28/2011	8.39	0.763	54.5	396		
10/28/2011	8.21	0.829	33.9	415		
1/16/2012	Water Unavailable for Parameter Reading					
5/16/2012	7.96	0.836	57.4	417		
7/25/2012	7.62	0.677	65.5	337		
10/9/2012	8.15	0.857	47.3	426		
3/26/2013	8.03	0.664	35.4	329		
5/8/2013	7.92	0.755	46.8	407		
8/15/2013	8.59	0.615	64.4	400	3.77	
10/18/2013	7.51	0.545	38.7	400		
3/25/2014	8.45	1.001	37.5		2.48	
5/21/2014	8.75	0.860	59.7	559	13.61	
8/27/2014	8.83	0.605	56.1	394	9.74	
10/21/2014	7.85	0.682	46.0	441	5.31	165.9

Note S:

EC - electroconductivity

mmhos/cm - millimhos per centimeter

TDS - total dissolved solids

ppm - parts per million

DO - dissolved oxygen

mg/L - milligrams per liter

ORP - Oxidation reduction potential

mV - millivolts

NA - Indicates field instrument malfunction

Blank - Indicates no readings were taken

D - Duplicate Sample

S - Split Sample

Bold - indicates parameter exceeds COGCC threshold value