PROGRESS REPORT
ON
GROUND WATER REMEDIATION

at
Asko Processing, Inc.
434 N 35th Street
Seattle, Washington 98103

Prepared for

ASKO PROCESSING, INC.
434 N 35th Street
Seattle, Washington 98103

August 2015

Prepared by

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EXECUTIVE SUMMARY

Asko Processing, Inc. (ASKO) has operated a plating facility at 434 N 35th Street, Seattle, Washington for a number of years. In 1992, a construction project at the facility revealed a chromium leak into soil and ground water. The investigation and remediation associated with that leak was documented in a 1992 report. Subsequently, monitoring of ground water for various metals in four monitoring wells (MW-1, MW-2, MW-3 and MW-4) and pumping of ground water from MW-2 and MW-3 were conducted. These activities and results were documented and reported to the Washington Department of Ecology (WDOE) periodically by Environmental Engineering & Consulting, Inc. (EEC).

An overflow of chromium-containing water from a containment area at the facility occurred August 3, 1997. A report describing the events and actions arising from that overflow was prepared and submitted to WDOE on April 22, 1998. Ground water pumping and quarterly monitoring have been continued since that time and reported to WDOE. Ground water recovered from wells MW-2 and MW-3 is treated in the facility's effluent treatment system before discharge to the local sanitary sewer.

The latest four quarterly ground water samples were collected September 11, 2014, December 12, 2014, March 12, 2015 and June 10, 2015. These monitoring results have been reviewed and are presented in this report.

A fire at the facility on September 30, 2014 destroyed ASKO's warehouse located to the east of the main plant. A large amount of fire suppression water was applied and it was felt that this might have affected ground water associated with the main plant. Ground water samples were collected 10 days later (October 10, 2014) from downgradient wells MW-2 and MW-3 to help assess impact from the fire. Results from these additional samples are also presented in this report.

Substantial progress has been made in reducing chromium levels below the applicable WDOE Model Toxics Control Act (MTCA) regulations Method B ground water cleanup level for hexavalent chromium in downgradient wells MW-2 and MW-3. ASKO was advised by WDOE in April 2002 that it could reduce sampling frequency at wells MW-1 and MW-3 to annually from quarterly and at MW-2 to annually from quarterly for chromium. Chromium monitoring had been discontinued as recommended in the September 2009 annual report, but MW-2 samples in October 2014 and June 2015 were analyzed for chromium. Quarterly sampling and testing for cadmium at MW-2 continues. Annual sampling and testing for cadmium at MW-1 also continues.

Monitoring in downgradient wells MW-2 and MW-3 shows:

- Cadmium in MW-2 has been above the applicable MTCA Method B ground water cleanup level in all except three quarterly samples. Cadmium in MW-2 (at 0.0066 mg/L) was below the 0.008 mg/L MTCA Method B level in the September 11, 2014 sample and was only slightly above (0.0082 mg/L) that level in the June 10, 2015 sample. However, the three samples immediately after the fire were above the MTCA Method B level before receding to only slightly above the Method B level in the June 10, 2015 sample. Cadmium in MW-2 has been below the Method C level in most of the samples in the last 10 years.

- Cadmium results in MW-3 since June 2001 through June 2009 were less than the applicable MTCA Method B ground water cleanup level. Testing for cadmium at MW-3 was suspended after June 2009 until all wells were tested in June 2014, when it was detected below MTCA Method B level. MW-3 was sampled and tested again once after the fire but cadmium was not detected.

Based on the results to date, it is recommended that:

1. Monitoring of groundwater for chromium should remain suspended until confirmational monitoring (as defined in WAC 173-340-410) except for testing every five years as noted in item 3 below. Cadmium monitoring should be continued quarterly at MW-2 and annually at MW-1 until results have achieved the Method B ground water cleanup level for four quarters.

2. Four consecutive quarters of performance monitoring should be conducted at MW-1 through MW-3 for cadmium and chromium when cadmium monitoring at MW-2 has achieved the Method B ground water cleanup level for four quarters. Confirmational monitoring at all four monitoring wells can then be conducted.

3. All existing monitoring wells should be maintained in good condition for future confirmational monitoring and progress reports to WDOE on this project should continue once per year. Pumping and treatment of groundwater from MW-2, MW-3 should be continuous through the end of confirmational monitoring. Pumping and treatment of groundwater from the chrome bay sump should be continuous through the end of confirmational monitoring. Since 2009 all wells are being sampled and tested every five years for cadmium and chromium. This will continue until no longer required.

As recommended in item 3 above (testing all wells on a five year frequency), all wells were sampled and tested in June 2014.

Asko Processing, Inc. withdrew from the WDOE's voluntary cleanup program (VCP) on July 23, 2009 at the request of Mr. Dale Myers, WDOE Northwest Regional Office.

The format of this report has been modified since the 2009 report. The revised format provides information in the form of tables and figures except for the limited text of this section. Note that the numbering of tables and figures does not begin with the number 1 or are not in numerical or alphabetical sequence because Table 1 (Dates of Ground Water Monitoring Events Since April 22, 1998 Report), Table 3 (Relevant MTCA Cleanup Levels), Figure 1 (Site Plan and Vicinity Map) and Figure 2 (Treatment System Schematic) from the 2009 report are not included in this tabular format. Those tables and figures remain relevant to this project.

Table A (Monitoring Activity and Results), Table B (Current Recommendations by EEC/ASKO), Table C (Actions by WDOE) and Table D (Actions by ASKO and References) are new to the annual report starting in 2010. The revised format beginning in 2010 is intended to reduce the expense of preparing these annual progress reports.

Tables and Figures

Table A. Monitoring Activity and Results - ASKO Processing, Inc.
Monitoring Events, 11-Sep-2014 through 10-Jun-2015 [a]

	MW-1	MW-2	MW-3	MW-4	
Well Installed	1992	1992	1992	1997-1998	
Well Reinstalled	NA	1997-1998	1997-1998	NA	
Since 1992					
Number of Ground Water Monitoring events	88 [a]				
Since 1997/1998 well reinstallation					
Number of Quarterly Ground Water Monitoring events (≥ 4-Mar-1998)	71 [a]				

Last 4 Quarters (Sep-2014 through Jun-2015) [a]

	All Wells	MW-1	MW-2	MW-3	MW-4	MW-1 Equipment Blank [c]
Number of Samples	12	1	10 [b]	1		
Chromium vs. Method B	NA	< Method B	< Method B	< Method B	NT	NT
Cadmium vs. Method B	NA	ND	1 < Method B; 4 > Method B	< Method B	NT	NT

Note:
[a] Including October 10, 2014 samples
[b] Includes duplicate samples collected and tested for this well. Duplicate sample results are not included in the Table 4 and Figures 3 through 6.
[c] An equipment blank was not collected at MW-1 during the June 2015 sample event. A disposable bailer was used for this sampling. If annual MW-1 samples continue to have no detectable cadmium or chromium then equipment blanks would not be necessary.

Trends Since 1997

Table A. Monitoring Activity and Results - ASKO Processing, Inc.
Monitoring Events, 11-Sep-2014 through 10-Jun-2015 [a]

Parameter	All Wells	MW-1	MW-2	MW-3	MW-4	MW-1 Equipment Blanks
Chromium	NA	• Mostly ND or NT • None > Method B	• Down trend > 1992 • ≤ Method B 12/2000 through 6/2008 • NT 9/2008 to 3/2014; • < Method B 6/2014,	• Up to 32 ppm in 1997 • < Method B since Jun-2000 • NT since 6/2008 until < Method B 10/2014	• ND first 5 monitoring events since MW-4 installed • ND 6/2009 • < Method B 6/2014	NA
Cadmium	NA	• ND ≥ 9/2006 • Consist-ently found at low levels < 9/2006	• > Method B; 2 2014-2015 samples ≤ Method B • Down trend > 1992	• Down trend since 3/2002 • < Method B or NT since 4/2007	• < Method B first 5 monitoring events • ND 6/2009 & 6/2014	NA
Most Recent Cadmium Tests at Each Well						
		MW-1	**MW-2**	**MW-3**	**MW-4**	**MW-1 Equipment Blank**
Cadmium: Date	NA	6/2015	6/2015	10/2014	6/2014	6/2014
Cadmium: Result	NA	ND	0.0082 ppm	ND	ND	< Method B
Most Recent Chromium Tests at Each Well						
Parameter	**All Wells**	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-1 Equipment Blank**
Chromium: Date	NA	6/2015	6/2015	10/2014	6/2014	6/2014
Chromium: Result	NA	< Method B	< Method B	< Method B	< Method B	ND
EIM Reporting	Site information and monitoring results submitted for quarterly results to WDOE EIM system beginning June 2007					

Table A. Monitoring Activity and Results - ASKO Processing, Inc.
Monitoring Events, 11-Sep-2014 through 10-Jun-2015 [a]

Applicable MTCA Method B Levels	
Cadmium, mg/L	0.008
Chromium (Cr VI), mg/L	0.08
Planned 5-year test	June 2019
Acronyms or Symbols:	
>	Greater than (value or date)
≥	Greater than or equal to (value or date)
<	Less than (value or date)
≤	Less than or equal to (value or date)
EIM	Environmental Information Management (WDOE)
EEC	Environmental Engineering & Consulting, Inc.
mg/L	Milligrams per liter (equivalent to parts per million)
MTCA	Model Toxics Control Act
ND	Not detected
NT	Not tested
ppm	parts per million
WDOE	Washington Department of Ecology

Table B. Current Recommendations by EEC/ASKO

1. Suspend monitoring of groundwater for chromium until confirmational monitoring (confirmational monitoring as defined in WAC 173-340-410). If occasional monitoring is conducted prior to final confirmational monitoring, reporting of such monitoring to WDOE will not be required.

2. Continue cadmium monitoring quarterly at MW-2 and annually at MW-1 until results have achieved the Method B ground water cleanup level for four quarters. Discontinue testing for cadmium at MW-3.

3. Maintain all existing monitoring wells in good condition for future confirmational monitoring.

4. Continue progress reports to WDOE on this project once per year.

5. Conduct four consecutive quarters of performance monitoring at MW-1 through MW-3 for cadmium and chromium when cadmium monitoring at MW-2 has achieved the Method B ground water cleanup level for four quarters.

6. Conduct confirmational monitoring after recommendation 5 and report results to WDOE.

7. Pumping and treatment of groundwater from MW-2, MW-3 will be continuous through the end of confirmational monitoring. Pumping and treatment of groundwater from the chrome bay sump will be continuous through the end of confirmational monitoring.

8. Sample all monitoring wells (including MW-4) at least every 5 years continuing in June 2019 as shown in Table A to assess their condition and determine ground water quality for chromium and cadmium.

Table C. Actions by WDOE

1. 1999: WDOE concurred with monitoring discontinuation at MW-4. May 20, 1999, Personal communication between Judy Aitken, WDOE and Patrick H. Wicks, EEC.
2. 2001: Certain changes to WDOE's WAC 173-340 MTCA cleanup levels became effective in August 2001. 2001 Changes to MTCA Method B and other cleanup levels are not specifically noted here.
3. 2002: ASKO was advised in written and electronic communications from WDOE (Attachment 4) that it could reduce sampling frequency at wells MW-1 and MW-3 to annually from quarterly and at MW-2 to annually from quarterly for chromium, while continuing quarterly sampling for cadmium at this well. September 6, 2002, WDOE Letter to EEC; June 3, 2002, E-mail communications from WDOE.
4. 2006: WDOE suggested that ASKO could conduct four consecutive quarters of groundwater monitoring for chromium. July 11, 2006 email.
5. 2007: WDOE requested EIM Reporting.

Table D. Actions by ASKO and References

1. 1992: ASKO began quarterly groundwater monitoring for chromium, cadmium and other metals in 1992 at MW 1, MW-2 and MW 3. Limited monitoring was later conducted at MW-4.
2. 1997: ASKO began groundwater pumping from MW-2 and MW 3 into the facility's effluent treatment system for chromium and cadmium in 1997/1998.
3. 2006: ASKO began four consecutive quarters of groundwater monitoring for chromium at MW 1, MW-2 and MW 3 in September 2006. The results of this monitoring showed that groundwater at MW-2 and MW-3 was below the MTCA Method B ground water chromium cleanup level in all four consecutive quarters (September 20, 2006, December 19, 2006, March 21, 2007 and June 12, 2007).
4. 2009: Asko Processing, Inc. withdrew from the WDOE's voluntary cleanup program (VCP); July 23, 2009 letter mailed to Mr. Myers, WDOE.
5. As of the December 2012 monitoring event, trip blanks will no longer be used since they are not relevant to the non-volatile analytes of interest at Asko Processing, Inc.
6. Reports submitted to WDOE:
    a. Environmental Engineering & Consulting, Inc., November 1992. Soil, Ground Water Investigation & Initial Remediation at Asko Processing, Inc.
    b. Environmental Engineering & Consulting, Inc., April 22, 1998. Ground Water Remediation, Asko Processing, Inc., 434 N 35th Street, Seattle, Washington.
    c. Progress reports as listed in Table 2.

Other References:
Permit for discharge of treated effluent to King County sewer.

Table 2. Prior Progress Reports Submitted to WDOE

Progress Reports submitted to WDOE since April 22, 1998 report	Ground water monitoring events covered by Progress Reports
December 15, 1998	June 3, 1998 and October 7, 1998
May 13, 1999	December 10, 1998 and March 19, 1999
November 4, 1999	June 23, 1999 and September 9, 1999
May 1, 2000	December 10, 1999 and March 7, 2000
November 17, 2000	June 20, 2000 and September 12, 2000
May 16, 2001	December 6, 2000 and March 13, 2001
February 13, 2002	June 7, 2001, September 5, 2001 and December 14, 2001
April 25, 2003	March 14, 2002, June 11, 2002, September 19, 2002, December 9, 2002 and March 11, 2003
May 28, 2004	June 10, 2003, September 18, 2002, December 4, 2003 and March 17, 2004
August 12, 2005	June 9, 2004, September 1, 2004, December 8, 2004 and April 6, 2005
June 30, 2006	June 22, 2005, September 21, 2005, December 19, 2005 and March 30, 2006
September 17, 2007	June 7, 2006, September 20, 2006, December 19, 2006, March 21, 2007 and June 12, 2007
October 1, 2008	September 21, 2007, December 21, 2007, March 21, 2008 and June 12, 2008
September 2009	September 17, 2008, December 10, 2008, March 12, 2009 and June 16, 2009
October 2010	September 11, 2009, December 10, 2009, March 16, 2010 and June 24, 2010
September 2011	September 27, 2010, December 6, 2010, March 10, 2011 and June 16, 2011
September 2012	September 12, 2011, December 12, 2011, March 15, 2012 and June 15, 2012
August 2013	September 13, 2012, December 17, 2012, March 13, 2013 and June 19, 2013
September 2014	September 9, 2013, December 12, 2013, March 17, 2014 and June 13, 2014

Table 4. Results of Ground Water Testing, February 1997 through June 2015.

Concentration in Ground Water, mg/L (ppm)

	MW-1		MW-2		MW-3		MW-4			
Sample Date	Chromium, total	Cadmium	Chromium, total	Cadmium	Chromium, total	Cadmium	Chromium, total	Cadmium	Laboratory (1)	Sample Collection From
2/5/97	<0.05	<0.002	0.2714	0.637	0.0619	<0.002	NT	NT		Bailer
5/22/97	<0.05	0.001	0.1851	0.057	<0.05	0.0005	NT	NT		Bailer
8/14/97	<0.05	0.0012	0.4742	0.018	1.998	0.001	NT	NT		Bailer
9/2/97	NT	NT	NT	NT	31.7	NT	NT	NT	OSI	Pump
9/8/97	NT	NT	NT	NT	10.6	NT	NT	NT	OSI	Pump
9/11/97	NT	NT	NT	NT	12	NT	NT	NT	OSI	Pump
9/17/97	NT	NT	NT	NT	5.96	NT	NT	NT	OSI	Pump
9/19/97	NT	NT	NT	NT	7.54	NT	NT	NT	OSI	Pump
9/24/97	NT	NT	NT	NT	6.77	NT	NT	NT	OSI	Pump
9/30/97	NT	NT	NT	NT	4.19	NT	NT	NT	OSI	Pump
10/8/97	NT	NT	NT	NT	5.9	NT	NT	NT	OSI	Pump
10/10/97	NT	NT	NT	NT	9.13	NT	NT	NT	OSI	Pump
10/17/97	NT	NT	NT	NT	6.51	NT	NT	NT	OSI	Pump
10/23/97	NT	NT	NT	NT	3.56	NT	NT	NT	OSI	Pump
10/29/97	NT	NT	NT	NT	1.86	NT	NT	NT	OSI	Pump
11/5/97	NT	NT	NT	NT	4.55	0.0003	NT	NT	OSI, ARI	Pump
11/13/97	NT	NT	NT	NT	5.02	NT	NT	NT	OSI	Pump
11/21/97	NT	NT	NT	NT	2.76	NT	NT	NT	OSI	Pump
12/2/97	NT	NT	NT	NT	4.59	NT	NT	NT	OSI	Pump
3/4/98	<0.05	0.0009	0.0892	0.016	0.754	0.0012	<0.05	0.0018	OSI, ARI	(2)
6/3/98	<0.05	0.0003	0.068	0.018	<0.05	0.0025	<0.05	0.0008	OSI, ARI	(2)
10/7/98	<0.05	0.0015	0.183	0.012	<0.05	0.007	<0.05	0.0023	OSI, ARI	(2)
12/10/98	<0.05	0.006	0.0894	0.0022	0.545	0.0017	<0.05	0.0005	OSI, ARI	(2)
3/19/99	0.053	0.003	0.142	0.042	0.268	0.0016	<0.05	0.0003	OSI, ARI	(2)
6/23/99	<0.05	0.0006	0.105	0.026	<0.05	0.003	NT	NT	OSI, ARI	(2)
9/9/99	<0.05	0.0008	0.083	0.017	<0.05	0.0011	NT	NT	OSI, ARI	(2)
12/10/99	<0.05	0.0018	0.122	0.04	0.138	0.001	NT	NT	OSI, ARI	(2)
3/7/00	<0.05	0.0017	0.14	0.05	0.109	0.0033	NT	NT	OSI, ARI	(2)
6/20/00	<0.05	0.0013	0.106	0.022	<0.05	0.0012	NT	NT	OSI, ARI	(2)
9/12/00	<0.05	0.001	<0.05	0.015	<0.05	0.0021	NT	NT	OSI, ARI	(2)
12/6/00	<0.05	NT	0.058	NT	<0.05	NT	NT	NT	OSI	(2)
3/13/01	<0.05	0.0009	0.08	0.022	<0.05	0.01	NT	NT	OSI, ARI	(2)
6/7/01	<0.001	0.002	0.071	0.018	0.003	0.0011	NT	NT	ARI	(2)
9/5/01	<0.0005	0.0009	0.0652	0.025	0.0026	0.0021	NT	NT	ARI	(2)
12/14/01	0.0015	0.0008	0.0797	0.06	0.0283	0.0028	NT	NT	ARI	(2)
3/14/02	0.0012	0.007	0.0654	0.06	0.0106	0.002	NT	NT	ARI	(2)
6/11/02	NT	NT	NT	0.034	NT	NT	NT	NT	ARI	(2)
9/19/02	NT	NT	NT	0.027	NT	NT	NT	NT	ARI	(2)
12/9/02	NT	NT	NT	0.018	NT	NT	NT	NT	ARI	(2)
3/11/03	0.002	0.0017	0.0396	0.022	0.0073	0.007	NT	NT	ARI	(2)
6/10/03	NT	NT	0.0536	0.019	NT	NT	NT	NT	ARI	(2)
9/18/03	NT	NT	NT	0.014	NT	NT	NT	NT	ARI	(2)
12/4/03	NT	NT	NT	0.022	NT	NT	NT	NT	ARI	(2)
3/17/04	0.0024	0.004	0.0484	0.016	0.0028	0.0009	NT	NT	ARI	(2)
6/9/04	NT	NT	0.0403	0.0133	NT	NT	NT	NT	ARI	(2)
9/1/04	NT	NT	0.041	0.0153	NT	NT	NT	NT	ARI	(2)
12/8/04	NT	NT	0.039	0.0121	NT	NT	NT	NT	ARI	(2)
4/6/05	<0.0005	0.0015	0.0372	0.0188	0.0024	0.0009	NT	NT	ARI	(2)
6/22/05	NT	NT	0.0501	0.0102	NT	NT	NT	NT	ARI	(2)
9/21/05	NT	NT	0.0538	0.0119	NT	NT	NT	NT	ARI	(2)
12/19/05	NT	NT	0.0344	0.011	NT	NT	NT	NT	ARI	(2)
3/30/06	<0.001	0.0004	0.042	0.0163	0.004	0.0002	NT	NT	ARI	(2)
6/7/06	NT	NT	0.0356	0.0167	NT	NT	NT	NT	ARI	(2)
9/20/06	<0.001	<0.0002	0.041	0.0106	<0.001	<0.0002	NT	NT	ARI	(2)
12/19/06	<0.0005	<0.0002	0.044	0.0183	0.0068	<0.0002	NT	NT	ARI	(2)
3/21/07	<0.0005	<0.0002					NT	NT	ARI	(2)

Table 4
Results of Ground Water Testing, February 1997 through June 2015
Concentration in Ground Water, mg/L (ppm)

	MW-1		MW-2		MW-3		MW-4			
Sample Date	Chromium, total	Cadmium	Chromium, total	Cadmium	Chromium, total	Cadmium	Chromium, total	Cadmium	Laboratory (1)	Sample Collection From
4/11/07			0.0309	0.0165	0.0018	<0.0002	NT	NT	ARI	(2)
6/12/07	<0.0005	<0.0002	0.0478	0.0125	0.0018	<0.0002	NT	NT	ARI	(2)
9/21/07	<0.0005	<0.0002	0.038	0.009	0.0008	<0.0002	NT	NT	ARI	(2)
12/21/07	<0.001	<0.0002	0.026	0.0288	0.002	0.0005	NT	NT	ARI	(2)
3/21/08	<0.0005	<0.0002	0.032	0.0134	0.001	<0.0002	NT	NT	ARI	(2)
6/12/08	<0.002	<0.0002	0.0383	0.0108	0.0013	<0.0002	NT	NT	ARI	(2)
9/17/08	NT	NT	NT	0.0098	NT	NT	NT	NT	ARI	(2)
12/10/08	NT	NT	NT	0.01	NT	NT	NT	NT	ARI	(2)
3/12/09	NT	NT	NT	0.0182	NT	NT	NT	NT	ARI	(2)
6/16/09	NT	<0.0002	NT	0.0206	NT	<0.0002	<0.0005	<0.0002	ARI	(2)
9/11/09	NT	NT	NT	0.0117	NT	NT	NT	NT	ARI	(2)
12/10/09	NT	NT	NT	0.0182	NT	NT	NT	NT	ARI	(2)
3/16/10	NT	NT	NT	0.0166	NT	NT	NT	NT	ARI	(2)
6/24/10	NT	<0.0002	NT	0.0179	NT	NT	NT	NT	ARI	(2)
9/27/10	NT	NT	NT	0.0114	NT	NT	NT	NT	ARI	(2)
12/6/10	NT	NT	NT	0.0167	NT	NT	NT	NT	ARI	(2)
3/10/11	NT	NT	NT	0.0189	NT	NT	NT	NT	ARI	(2)
6/16/11	NT	<0.0001	NT	0.0153	NT	NT	NT	NT	ARI	(2)
9/12/11	NT	NT	NT	0.012	NT	NT	NT	NT	ARI	(2)
12/12/11	NT	NT	NT	0.0156	NT	NT	NT	NT	ARI	(2)
3/15/12	NT	NT	NT	0.0202	NT	NT	NT	NT	ARI	(2)
6/15/12	NT	<0.0001	NT	0.0267	NT	NT	NT	NT	ARI	(2)
9/13/12	NT	NT	NT	0.016	NT	NT	NT	NT	ARI	(2)
12/17/12	NT	NT	NT	0.0401	NT	NT	NT	NT	ARI	(2)
3/13/13	NT	NT	NT	0.0184	NT	NT	NT	NT	ARI	(2)
6/19/13	NT	<0.0001	NT	0.0149	NT	NT	NT	NT	ARI	(2)
9/9/13	NT	NT	NT	0.0099	NT	NT	NT	NT	ARI	(2)
12/12/13	NT	NT	NT	0.0094	NT	NT	NT	NT	ARI	(2)
3/17/14	NT	NT	NT	0.0342	NT	NT	NT	NT	ARI	(2)
6/13/14	0.0005	<0.0001	0.0382	0.0106	0.0009	0.0001	0.006	<0.0001	ARI	(2)
9/11/14	NT	NT	NT	0.0066	NT	NT	NT	NT	ARI	(2)
10/10/14	NT	NT	0.0295	0.0106	0.002	<0.0001	NT	NT	ARI	(2)
12/12/14	NT	NT	NT	0.0482	NT	NT	NT	NT	ARI	(2)
3/12/15	NT	NT	NT	0.0314	NT	NT	NT	NT	ARI	(2)
6/10/15	<0.001	<0.0001	0.049	0.0082	NT	NT	NT	NT	ARI	(2)

Footnotes:
(1) OSI (Olympic Scientific Inc.) tested for chromium in all cases, ARI (Analytical Resources, Inc.) tested for cadmium on dates shown and for both chromiuim and cadmium during last three monitoring events of 2001.
(2) Pump discharge for MW-2; if collected, pump discharge for MW-3, bailer for MW-1, MW-4.
NT = Not tested

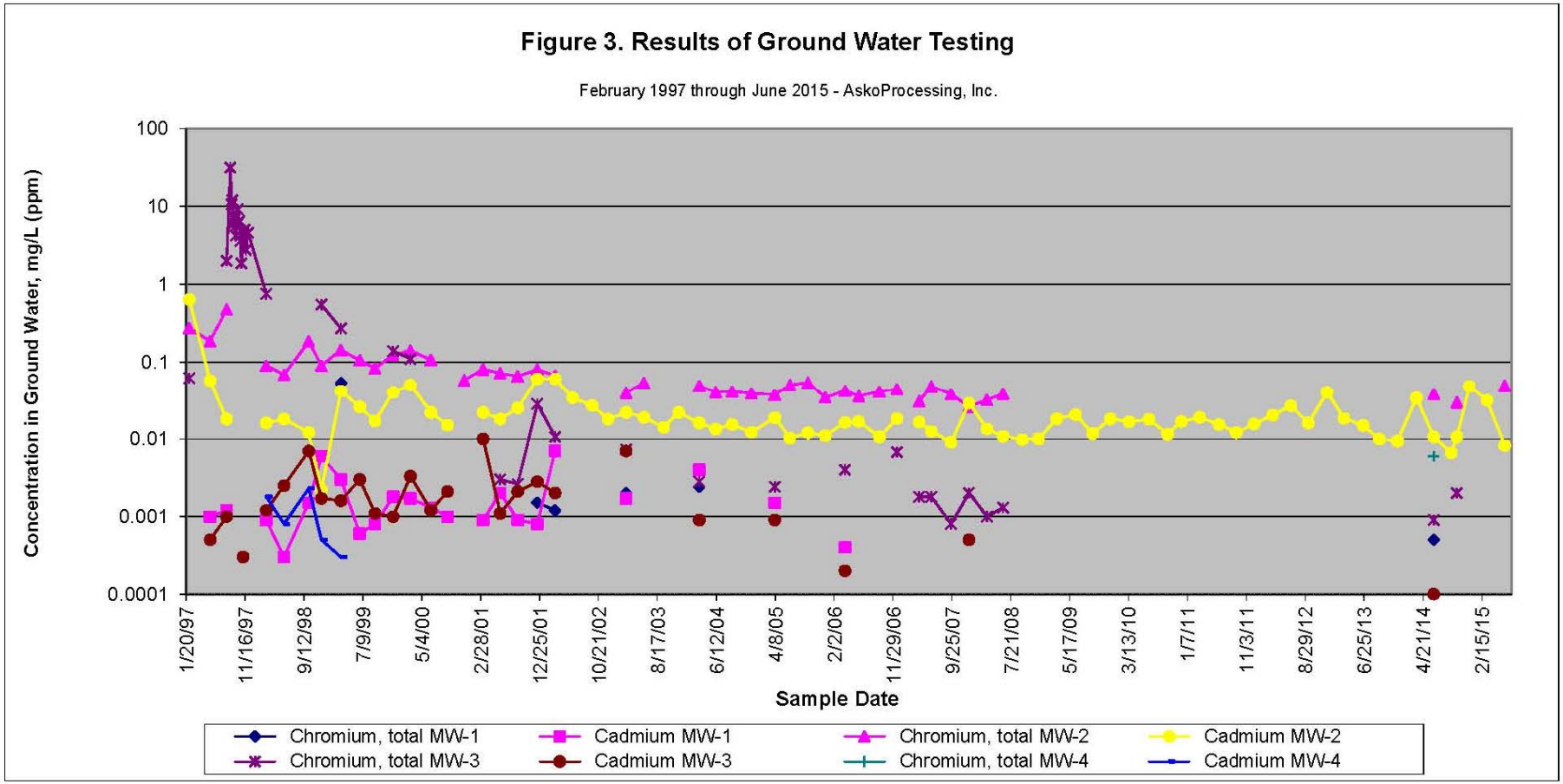


Figure 3. Results of Ground Water Testing
February 1997 through June 2015 - AskoProcessing, Inc.
Concentration in Ground Water, mg/L (ppm)
100
10
1
0.1
0.01
0.001
0.0001
1/20/97
11/16/97
9/12/98
7/9/99
5/4/00
2/28/01
12/25/01
10/21/02
8/17/03
6/12/04
4/8/05
2/2/06
11/29/06
9/25/07
7/21/08
5/17/09
3/13/10
1/7/11
11/3/11
8/29/12
6/25/13
4/21/14
2/15/15
Sample Date
Chromium, total MW-1
Cadmium MW-1
Chromium, total MW-2
Cadmium MW-2
Chromium, total MW-3
Cadmium MW-3
Chromium, total MW-4
Cadmium MW-4

Figure 4. MW-2 Monitoring Well Results (Downgradient)

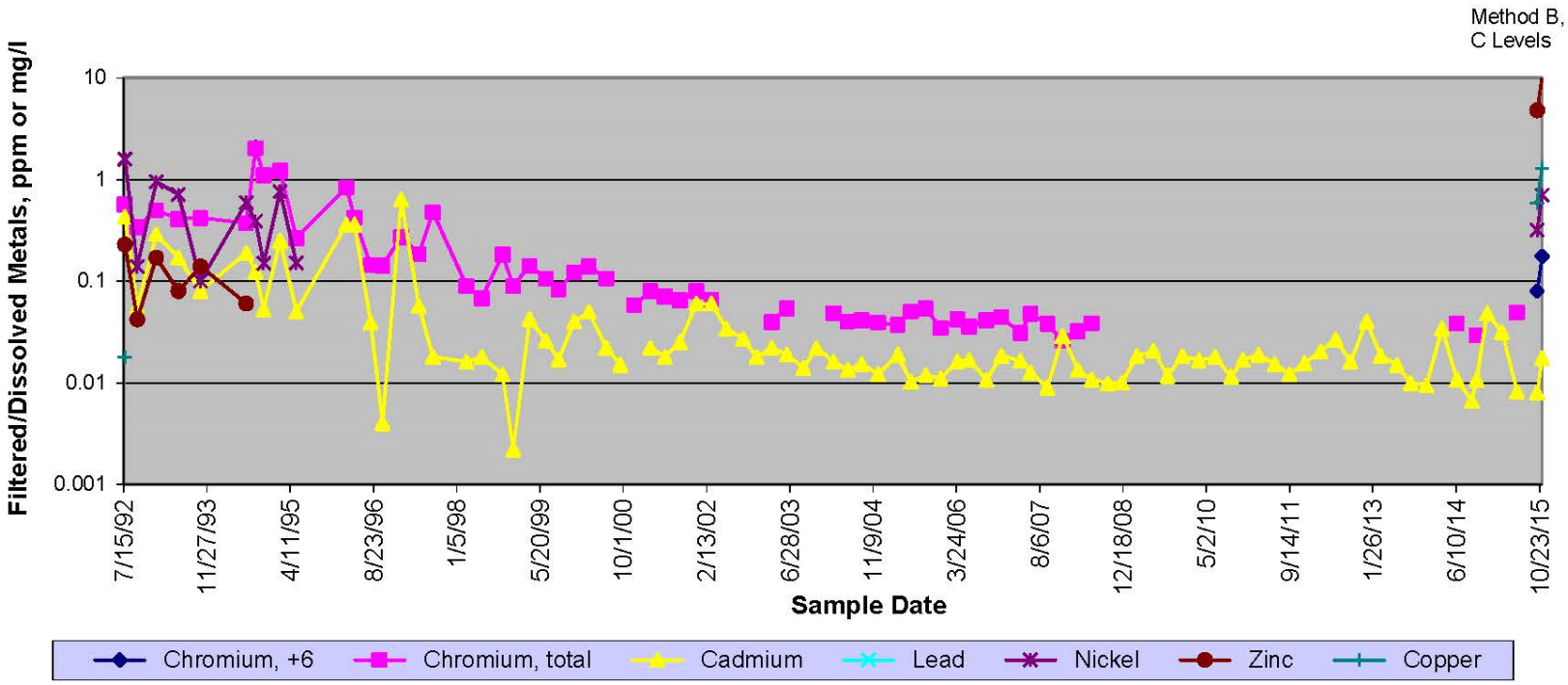
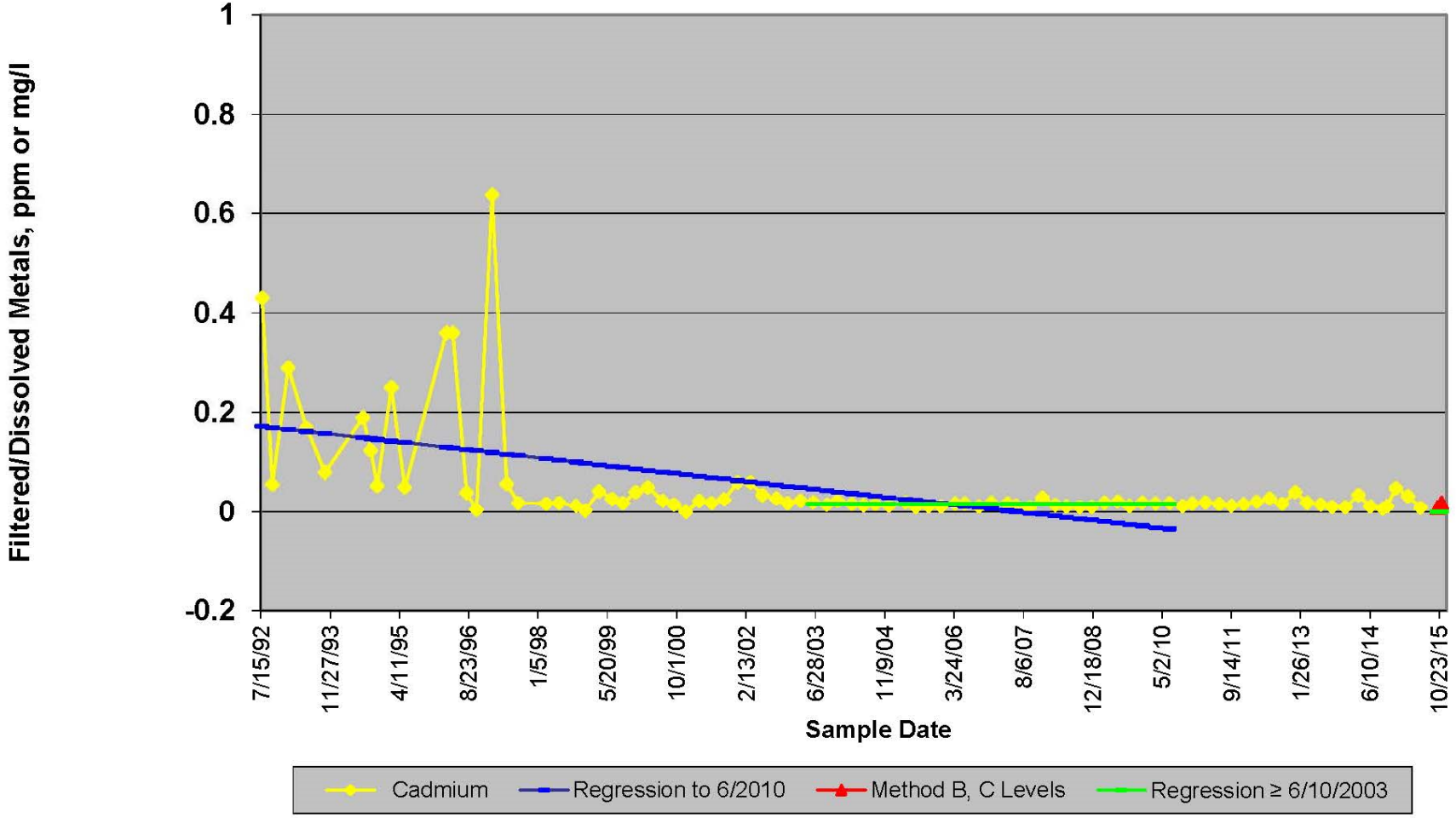


Figure 5. Cadmium in Monitoring Well MW-2



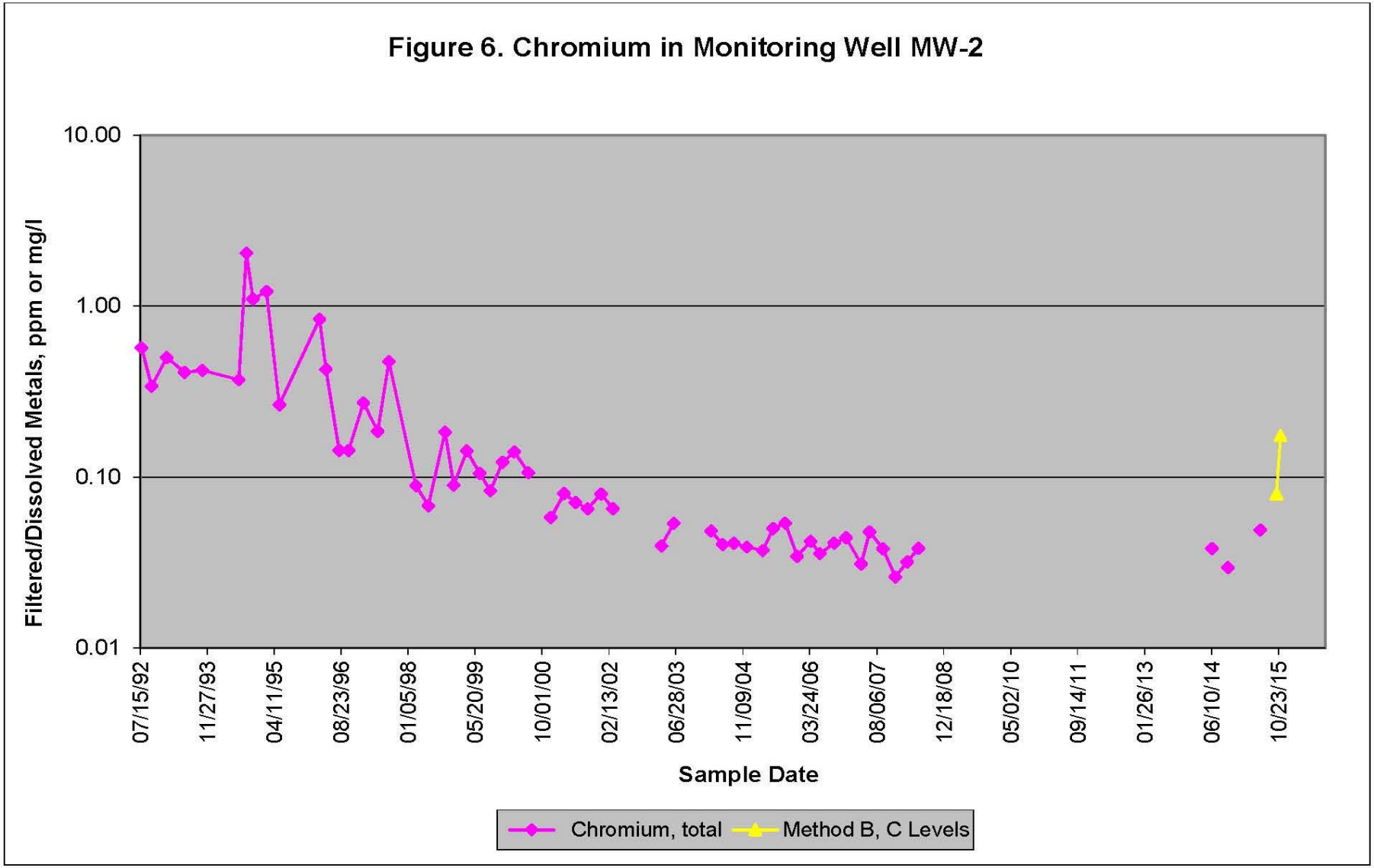
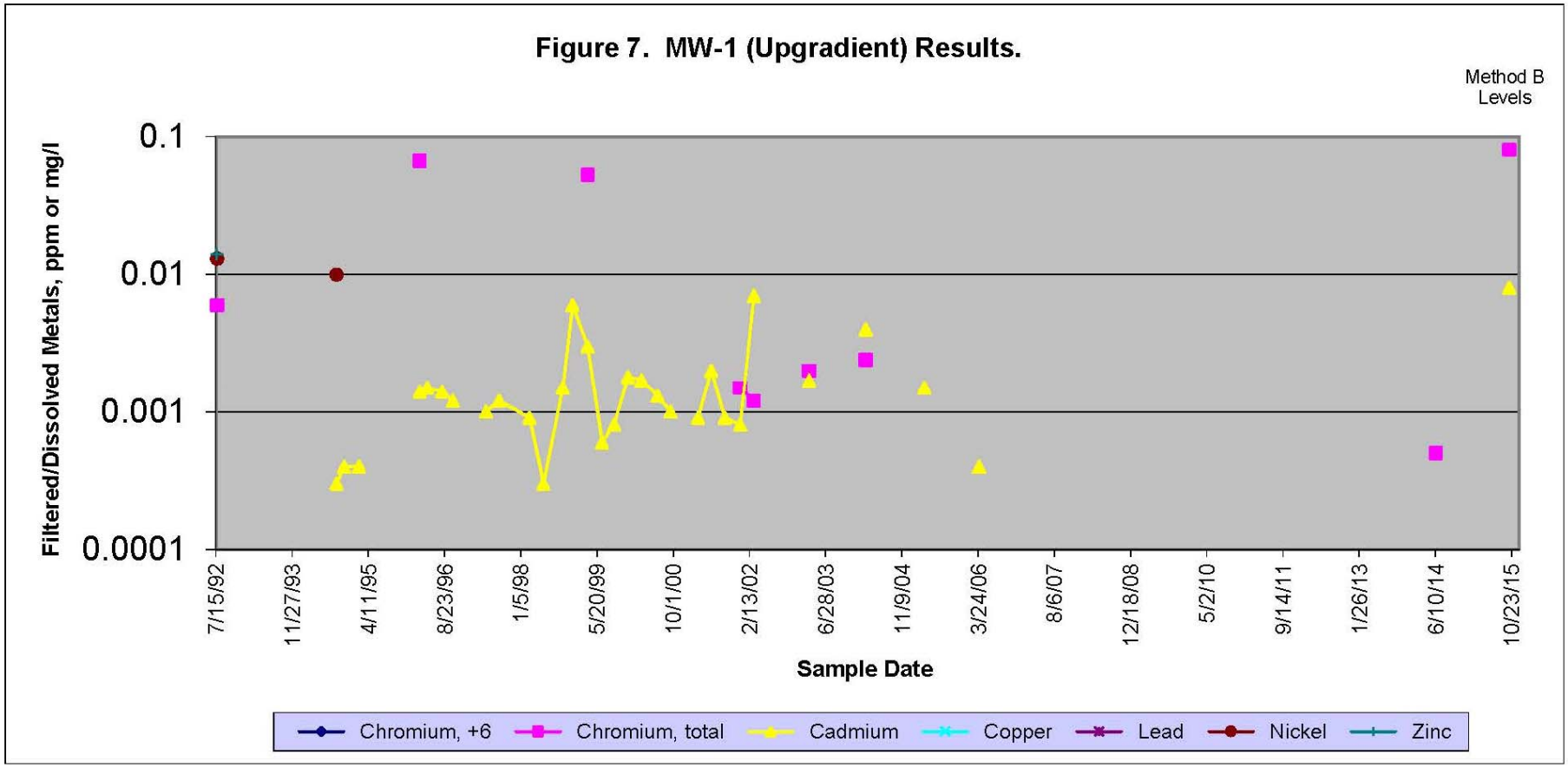


Figure 6. Chromium in Monitoring Well MW-2
Filtered/Dissolved Metals, ppm or mg/l
10.00
1.00
0.10
0.01
07/15/92
11/27/93
04/11/95
08/23/96
01/05/98
05/20/99
10/01/00
02/13/02
06/28/03
11/09/04
03/24/06
08/06/07
12/18/08
05/02/10
09/14/11
01/26/13
06/10/14
10/23/15
Sample Date
Chromium, total
Method B, C Levels

Figure 7. MW-1 (Upgradient) Results.



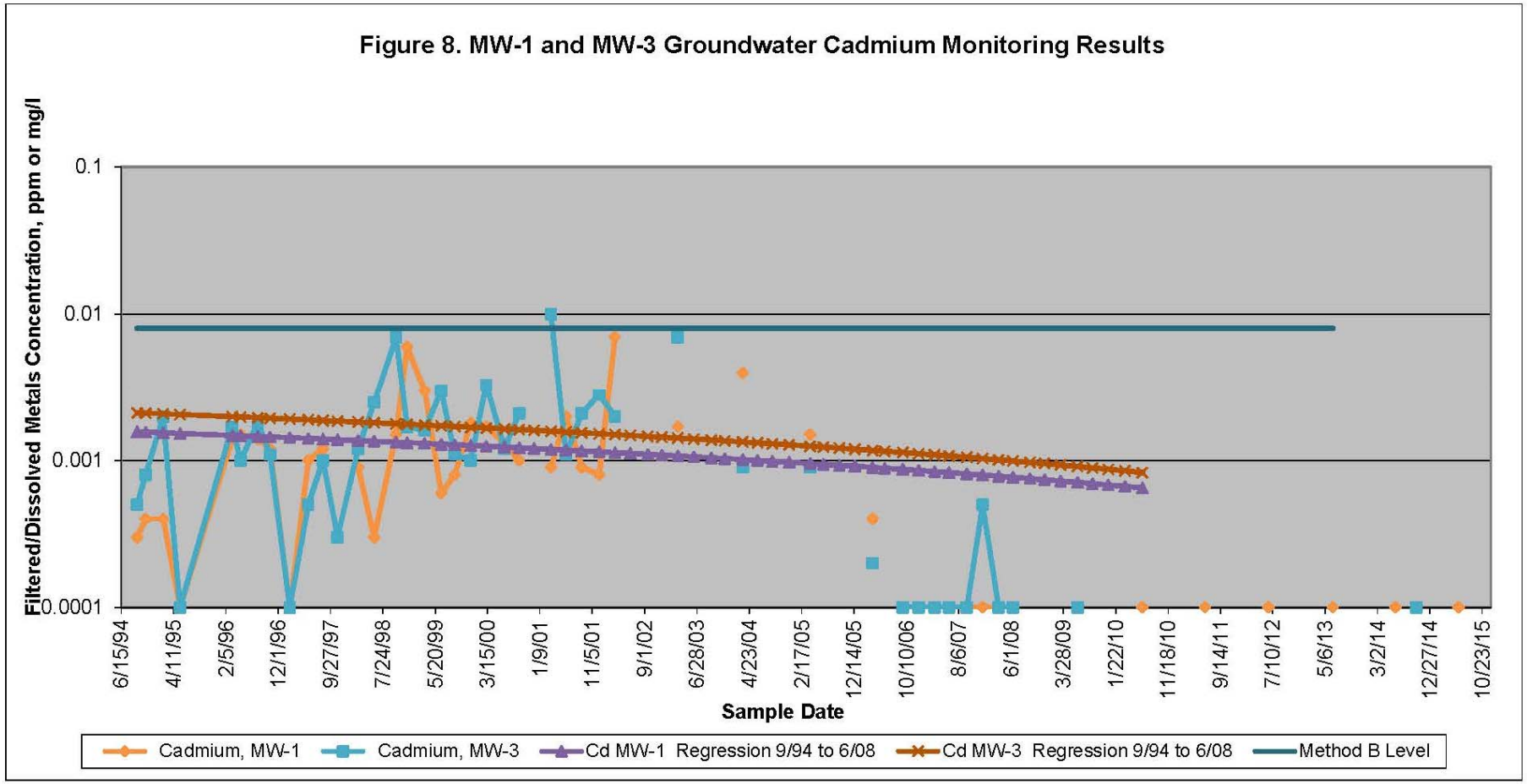
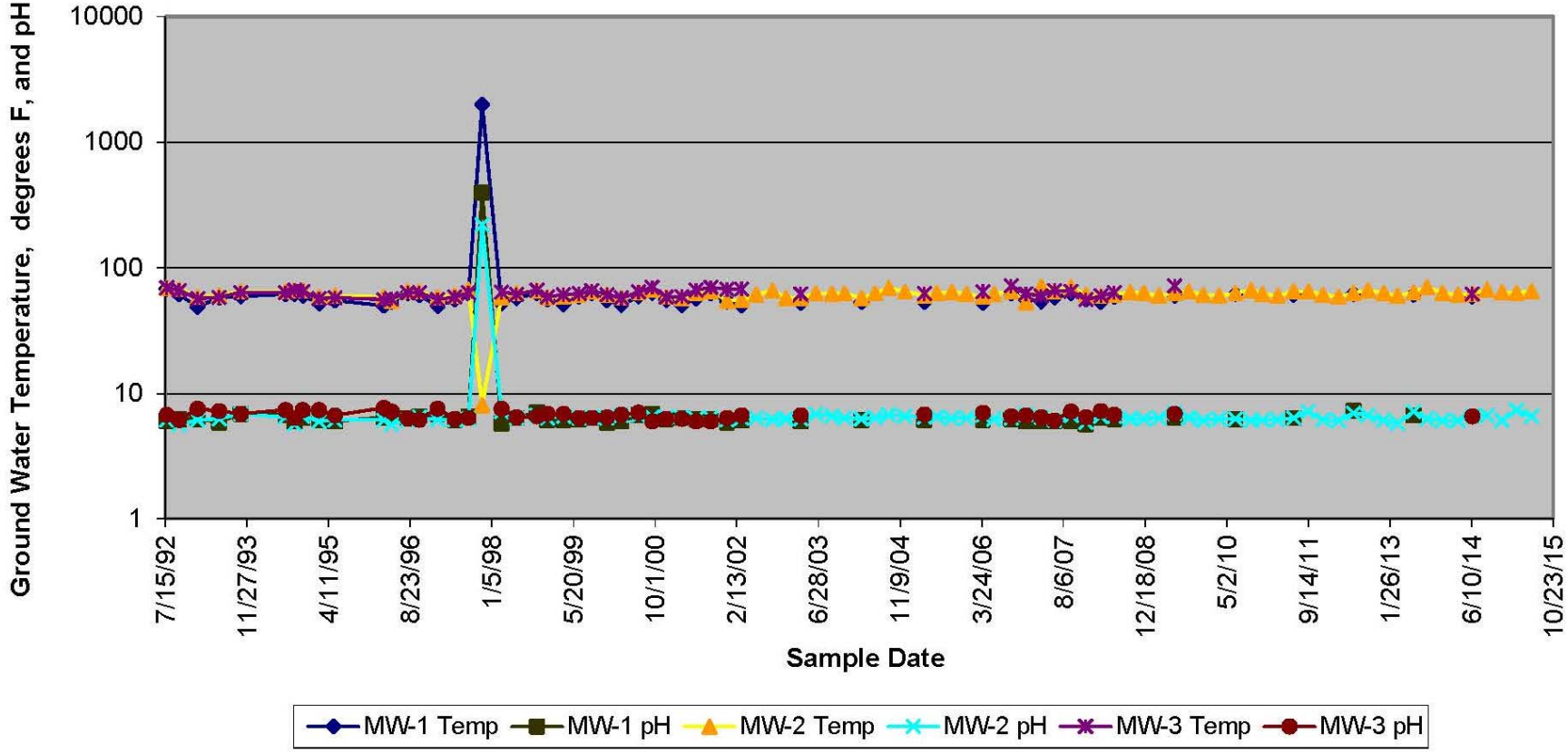


Figure 8. MW-1 and MW-3 Groundwater Cadmium Monitoring Results
Filtered/Dissolved Metals Concentration, ppm or mg/l
0.1
0.01
0.001
0.0001
6/15/94
4/11/95
2/5/96
12/1/96
9/27/97
7/24/98
5/20/99
3/15/00
1/9/01
11/5/01
9/1/02
6/28/03
4/23/04
2/17/05
12/14/05
10/10/06
8/6/07
6/1/08
3/28/09
1/22/10
11/18/10
9/14/11
7/10/12
5/6/13
3/2/14
12/27/14
10/23/15
Sample Date
Cadmium, MW-1
Cadmium, MW-3
Cd MW-1 Regression 9/94 to 6/08
Cd MW-3 Regression 9/94 to 6/08
Method B Level

Figure 10. Ground Water Temperature and pH



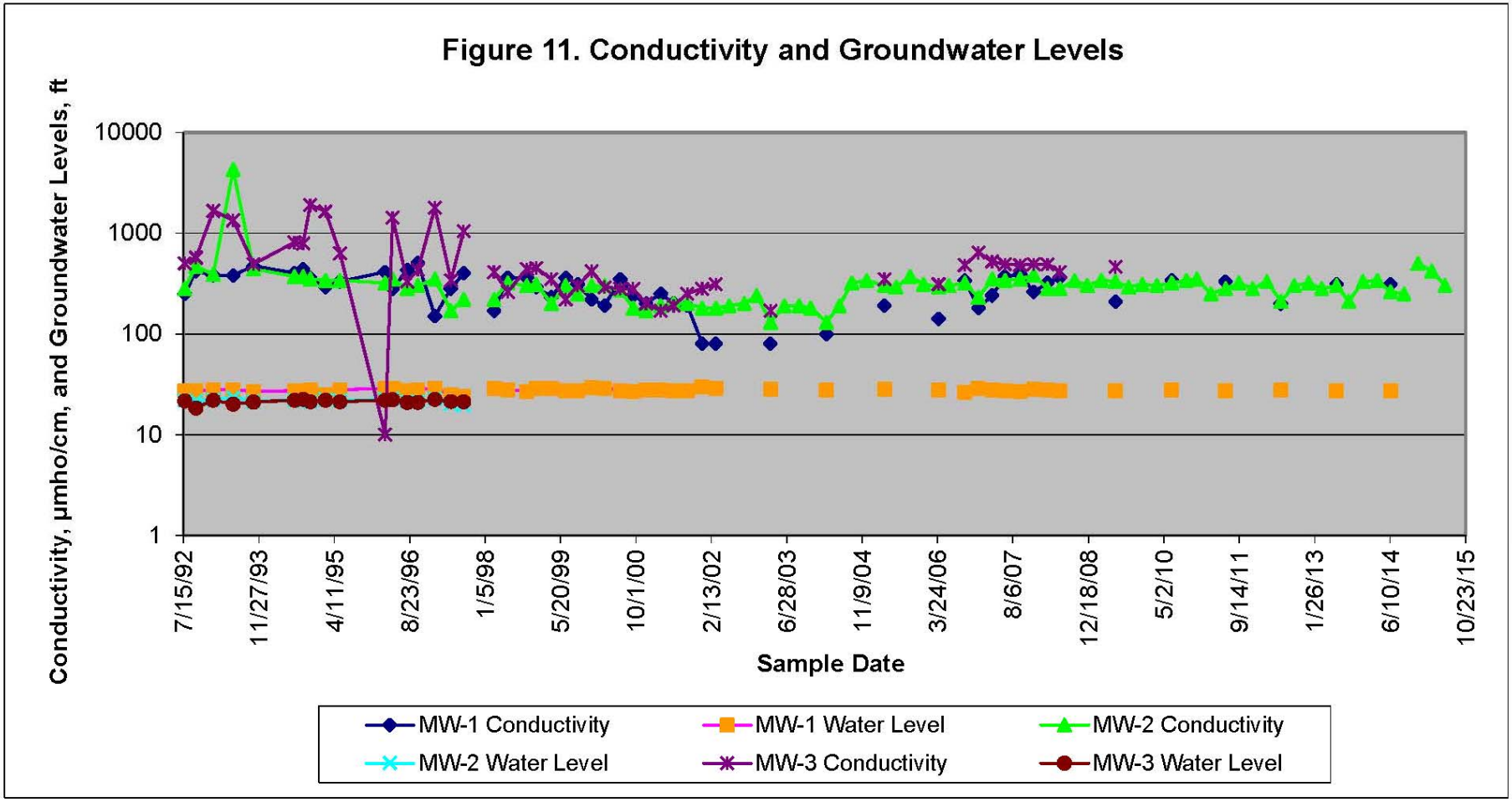


Figure 11. Conductivity and Groundwater Levels
Conductivity, µmho/cm, and Groundwater Levels, ft
10000
1000
100
10
1
7/15/92
11/27/93
4/11/95
8/23/96
1/5/98
5/20/99
10/1/00
2/13/02
6/28/03
11/9/04
3/24/06
8/6/07
12/18/08
5/2/10
9/14/11
1/26/13
6/10/14
10/23/15
Sample Date
MW-1 Conductivity
MW-1 Water Level
MW-2 Conductivity
MW-2 Water Level
MW-3 Conductivity
MW-3 Water Level