FIGURES

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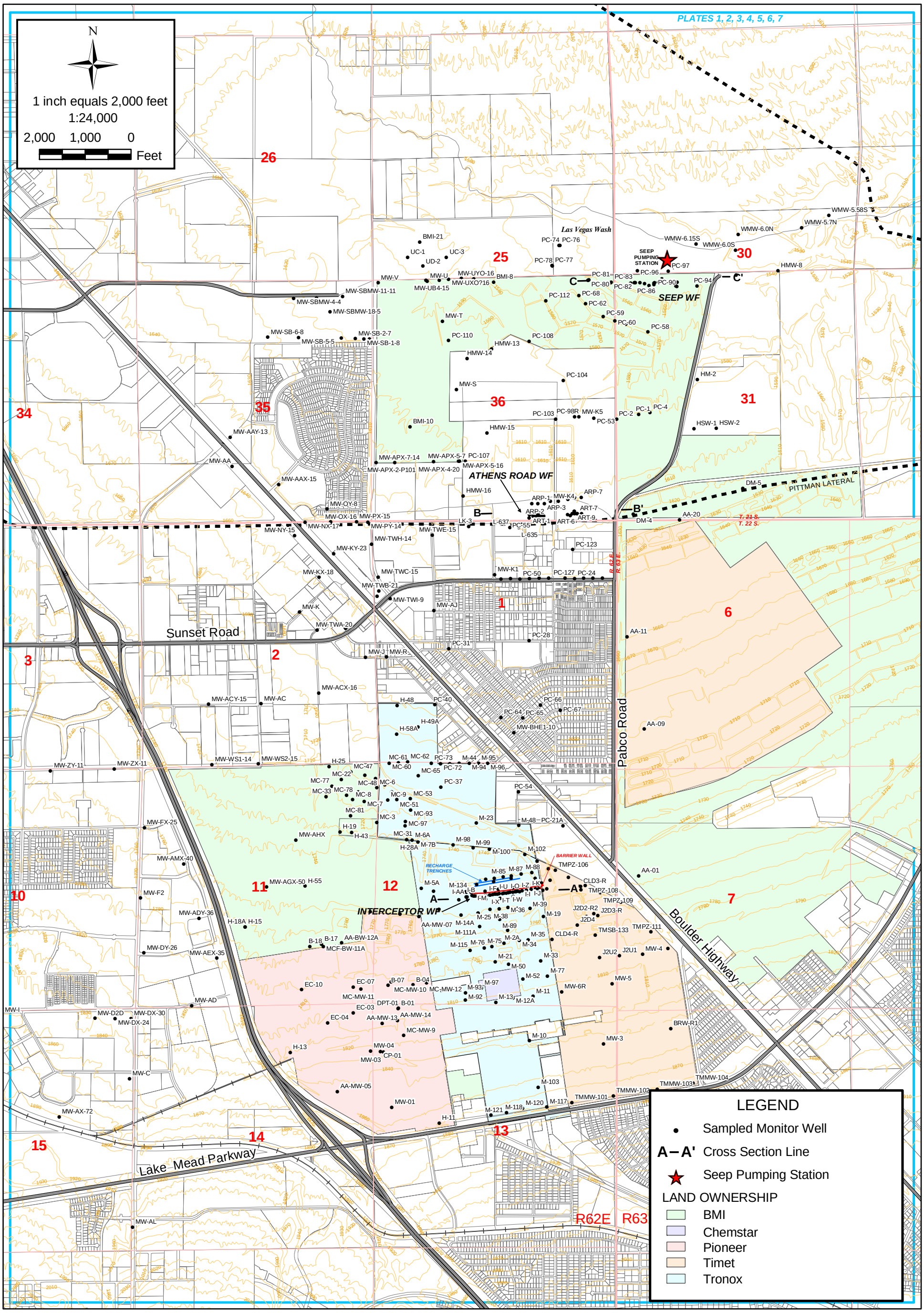

SHEET NUMBER:	FIGURE NUMBER:
1	1

LOCATION MAP

Annual Performance Report
Tronox Facility
Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
1" = 2,000'	7/31/2008	04020-023-110

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ENSR CORPORATION
1220 AVENIDA ACASO
CAMARILLO, CALIFORNIA 93012
PHONE: (805) 388-3775
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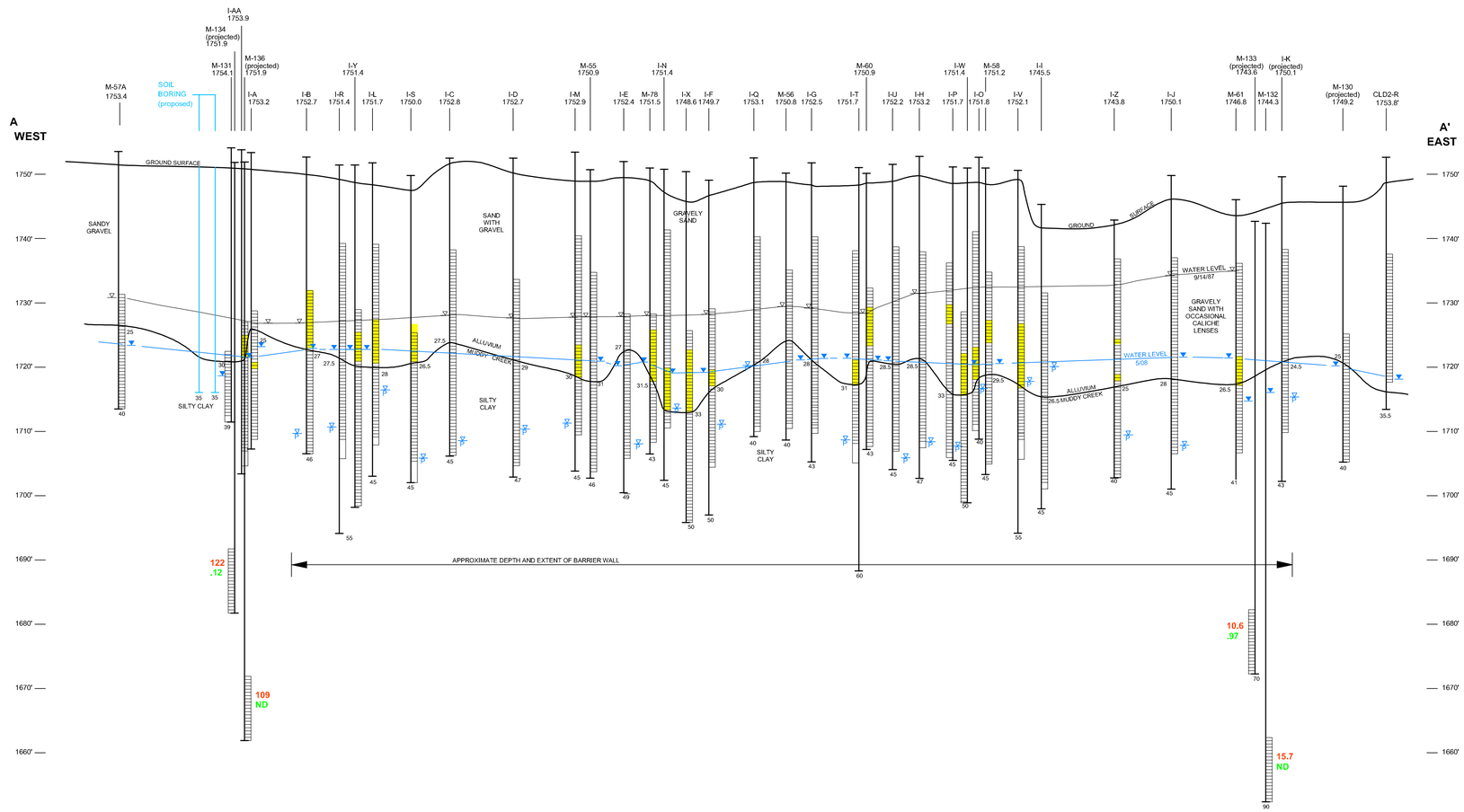
DESIGNED BY:	REVISIONS:			
E. Krish	NO:	DESCRIPTION:	DATE:	BY:
DRAWN BY:				
M. Scop				
CHECKED BY:				
E. Krish				
APPROVED BY:				
S. Bilodeau				



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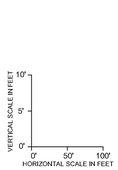

1750.0' TOP OF CASING ELEVATION

SCREENED INTERVAL
(D) DEEP
(M) MIDDLE
(S) SHALLOW

CALICHIFIED ZONE

BLANK CASING

40' ALLUVIUM-MUDDY CREEK FM CONTACT (FT BGS)

57 TOTAL DEPTH (FT BGS)

CAPTURE EVALUATION REPORT (AUGUST 2008) PROPOSED SOIL BROING

35

57 STATIC WATER LEVEL PRIOR TO INITIAL PUMPING

GROUNDWATER LEVELS MEASURED MAY 2008

57 P PUMPING WELL (AND WELL NAME-ATHENS ROAD WELLFIELD ONLY) MAY 2008

1.9 PERCHLORATE CONCENTRATION AS OF MAY 2008 (mg/L) ND <0.004 mg/L

1.9 TOTAL CHROMIUM CONCENTRATION AS OF MAY 2008 (mg/L) ND <0.01 mg/L

REVISIONS

NO:	DESCRIPTION:	DATE:	BY:

DESIGNED BY: E. Krish
DRAWN BY: M. Scop
CHECKED BY: E. Krish
APPROVED BY: M. Flack

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WEST - EAST HYDROGEOLOGIC CROSS SECTION A-A' INTERCEPTOR WELL FIELD MAY 2008

Annual Performance Report
Tronox Facility, Henderson, Nevada

SCALE: as noted
DATE: 8/11/2008
PROJECT NUMBER: 04020-023-110

FIGURE NUMBER:
2

SHEET NUMBER:
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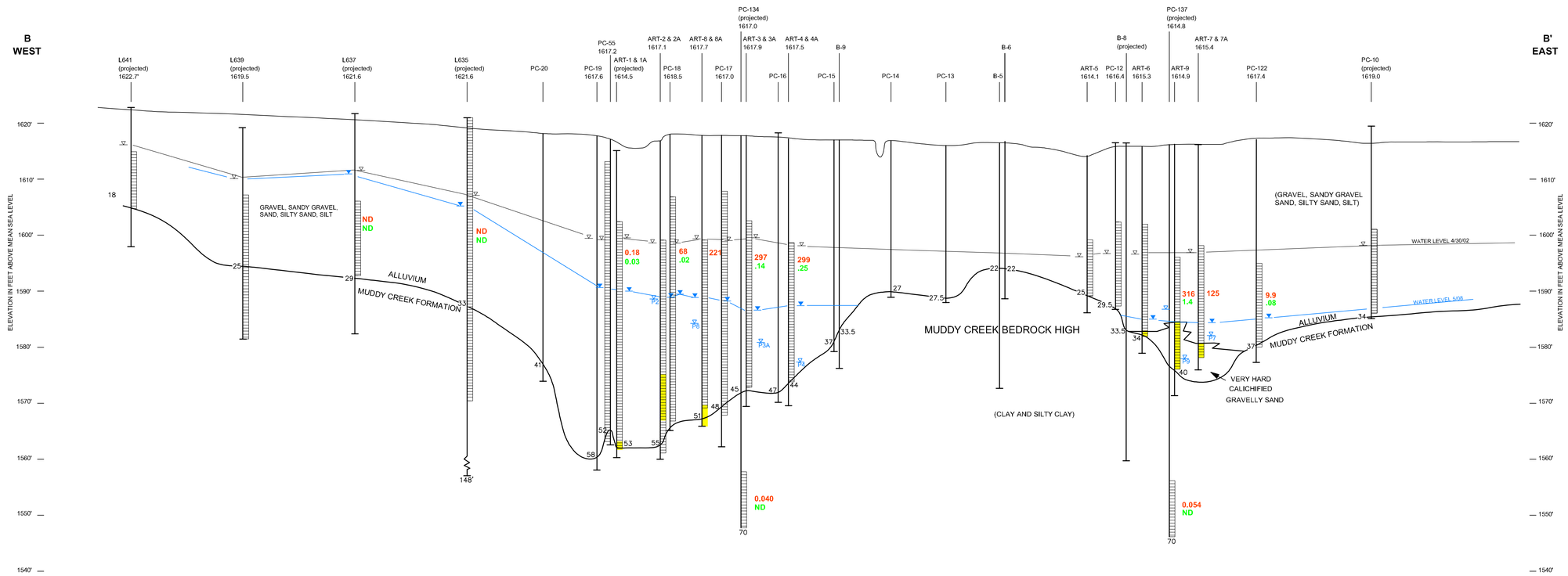

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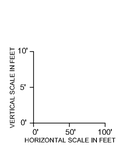

- 1750.0' — TOP OF CASING ELEVATION
- SCREENED INTERVAL (D) DEEP (M) MIDDLE (S) SHALLOW
- CALICHIFIED ZONE
- BLANK CASING
- 40' — ALLUVIUM-MUDDY CREEK FM CONTACT (FT BGS)
- 57 — TOTAL DEPTH (FT BGS)
- STATIC WATER LEVEL PRIOR TO INITIAL PUMPING
- GROUNDWATER LEVELS MEASURED MAY 2008
- PUMPING WELL (AND WELL NAME- ATHENS ROAD WELLFIELD ONLY) MAY 2008
- 1.9 — PERCHLORATE CONCENTRATION AS OF MAY 2008 (mg/L) ND <0.004 mg/L
- 1.9 — TOTAL CHROMIUM CONCENTRATION AS OF MAY 2008 (mg/L) ND <0.01 mg/L

FILENAME: J:\2008_Projects\04020- Tronox\023-HendersonNV\110 - Groundwater Monitoring\figures\GW Cross Sections.dwg

REVISIONS			
NO:	DESCRIPTION:	DATE:	BY:

DESIGNED BY:	E. Krish
DRAWN BY:	M. Scop
CHECKED BY:	E. Krish
APPROVED BY:	M. Flack

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ENSR CORPORATION
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WEST - EAST HYDROGEOLOGIC CROSS SECTION B-B' ATHENS ROAD WELL FIELD MAY 2008

Annual Performance Report
Tronox Facility, Henderson, Nevada

SCALE:	DATE:	PROJECT NUMBER:
as noted	8/11/2008	04020-023-110

FIGURE NUMBER:

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SHEET NUMBER:

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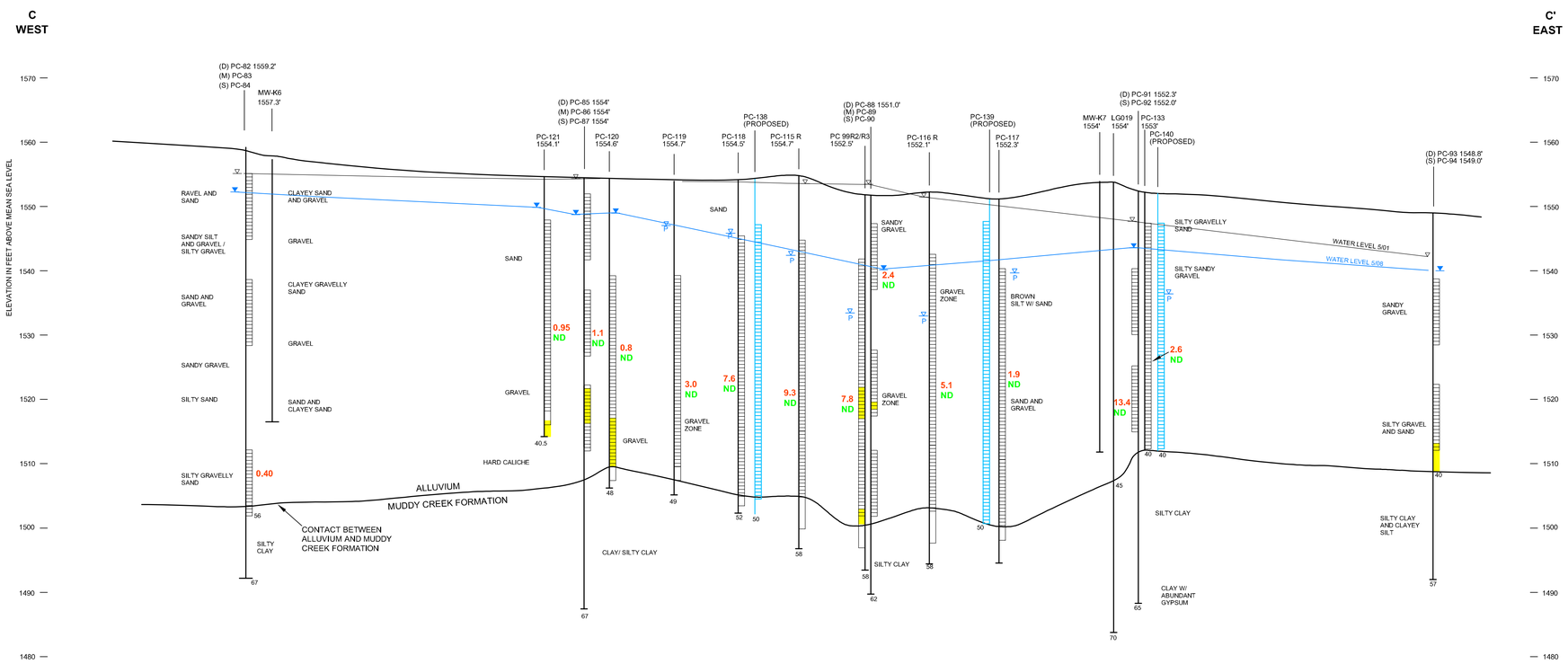

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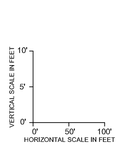

1750.0' TOP OF CASING ELEVATION

SCREENED INTERVAL
(D) DEEP
(M) MIDDLE
(S) SHALLOW

CALICHIFIED ZONE

BLANK CASING

40' ALLUVIUM-MUDDY CREEK FM CONTACT (FT BGS)

57 TOTAL DEPTH (FT BGS)

50 CAPTURE WORK PLAN (AUGUST 2007) PROPOSED MONITORING WELL

STATIC WATER LEVEL PRIOR TO INITIAL PUMPING

GROUNDWATER LEVELS MEASURED MAY 2008

P PUMPING WELL (AND WELL NAME-ATHENS ROAD WELLFIELD ONLY) MAY 2008

1.9 PERCHLORATE CONCENTRATION AS OF MAY 2008 (mg/L) ND <0.004 mg/L

1.9 TOTAL CHROMIUM CONCENTRATION AS OF MAY 2008 (mg/L) ND <0.01 mg/L

REVISIONS			
NO.:	DESCRIPTION:	DATE:	BY:

DESIGNED BY: E. Krish
DRAWN BY: M. Scop
CHECKED BY: E. Krish
APPROVED BY: M. Flack

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WEST - EAST HYDROGEOLOGIC CROSS SECTION C-C' SEEP WELL FIELD MAY 2008

Annual Performance Report
Tronox Facility, Henderson, Nevada

SCALE: as noted
DATE: 8/11/2008
PROJECT NUMBER: 04020-023-110

FIGURE NUMBER:
4

SHEET NUMBER:
X

FILENAME: J:\2008_Projects\04020- Tronox\023-HendersonNV\110 - Groundwater Monitoring\figures\GW Cross Sections.dwg

Figure 5: Athens Road Well Field Drawdown

Tronox LLC, Henderson, Nevada

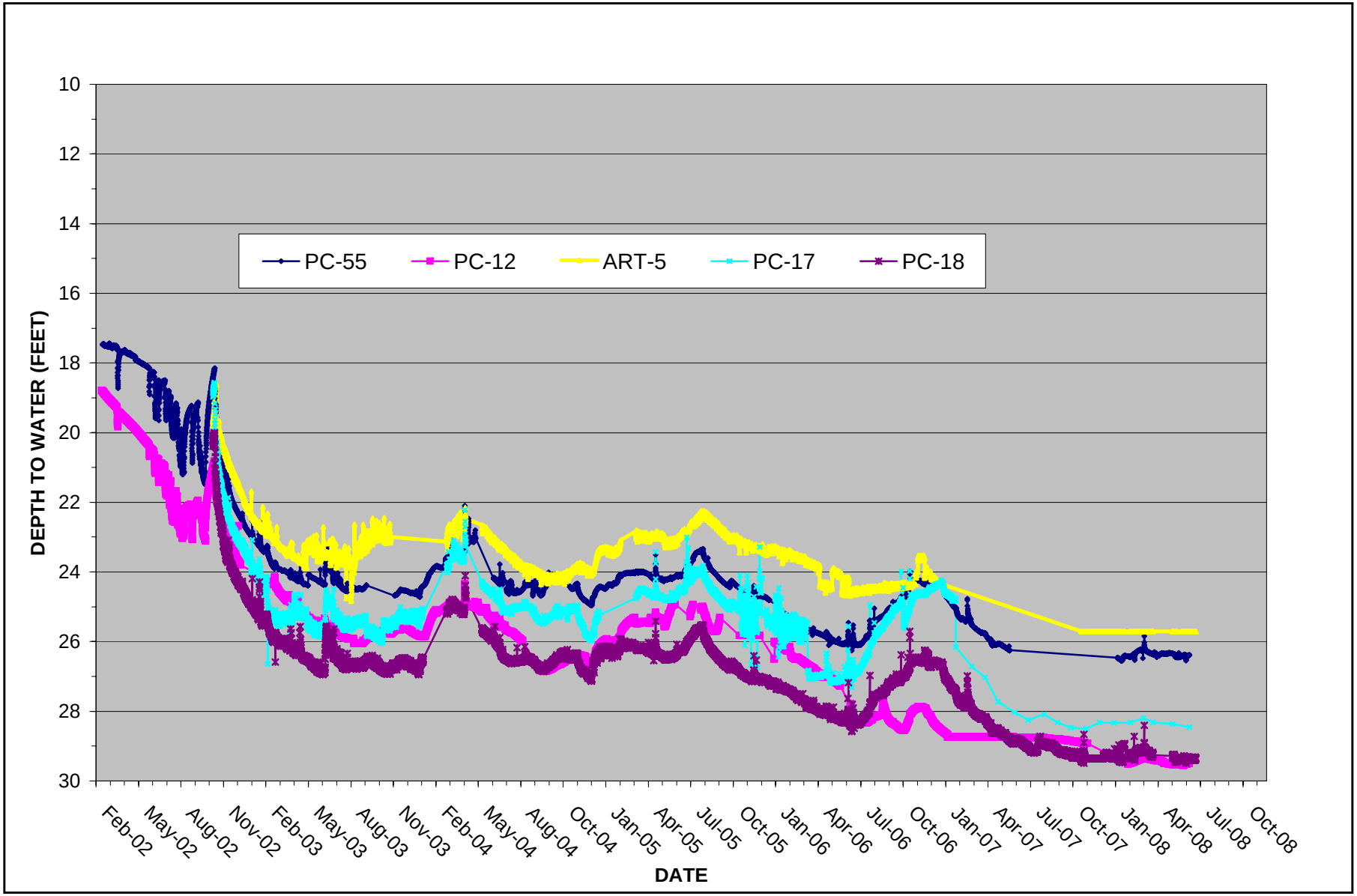


Figure 6: Athens Road Well Field Subsidence - 2002 to 2008

Tronox LLC, Henderson, Nevada

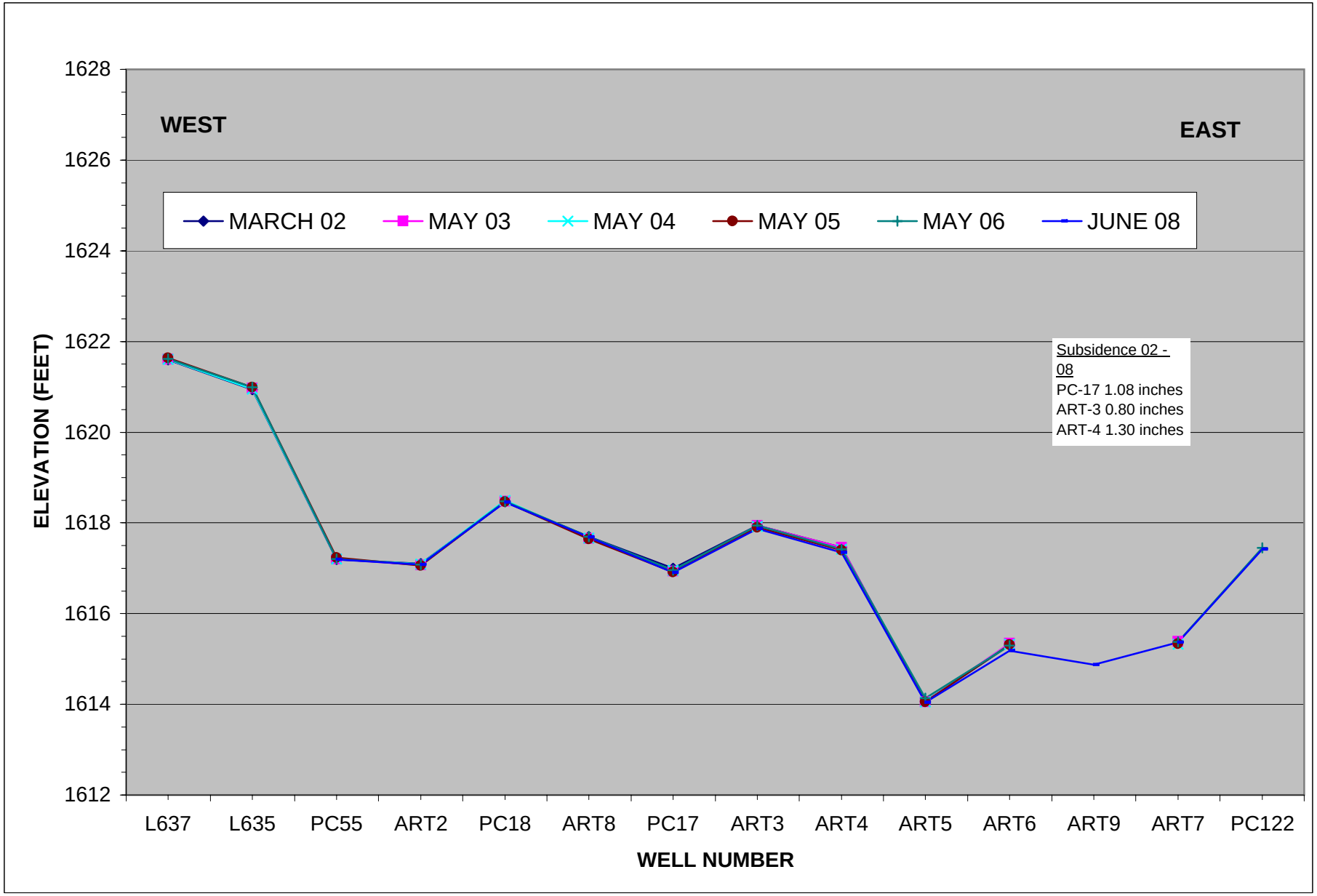


Figure 7: Interceptor Well Field Total Chromium Section Graph

Tronox LLC, Henderson, Nevada

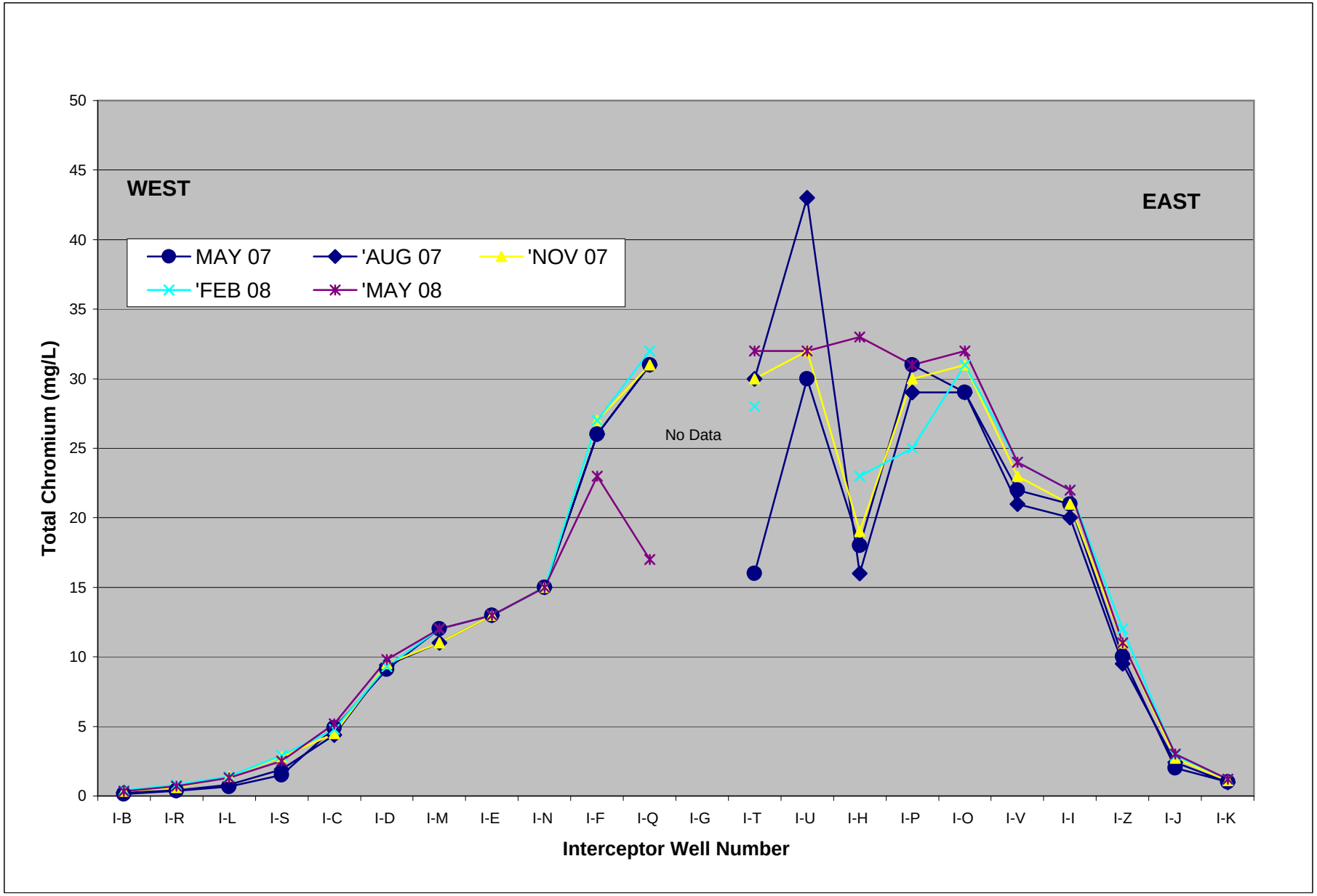


FIGURE 8: Consent Order Appendix J Wells Total Chromium Concentration Trend Graph

Tronox LLC, Henderson, Nevada

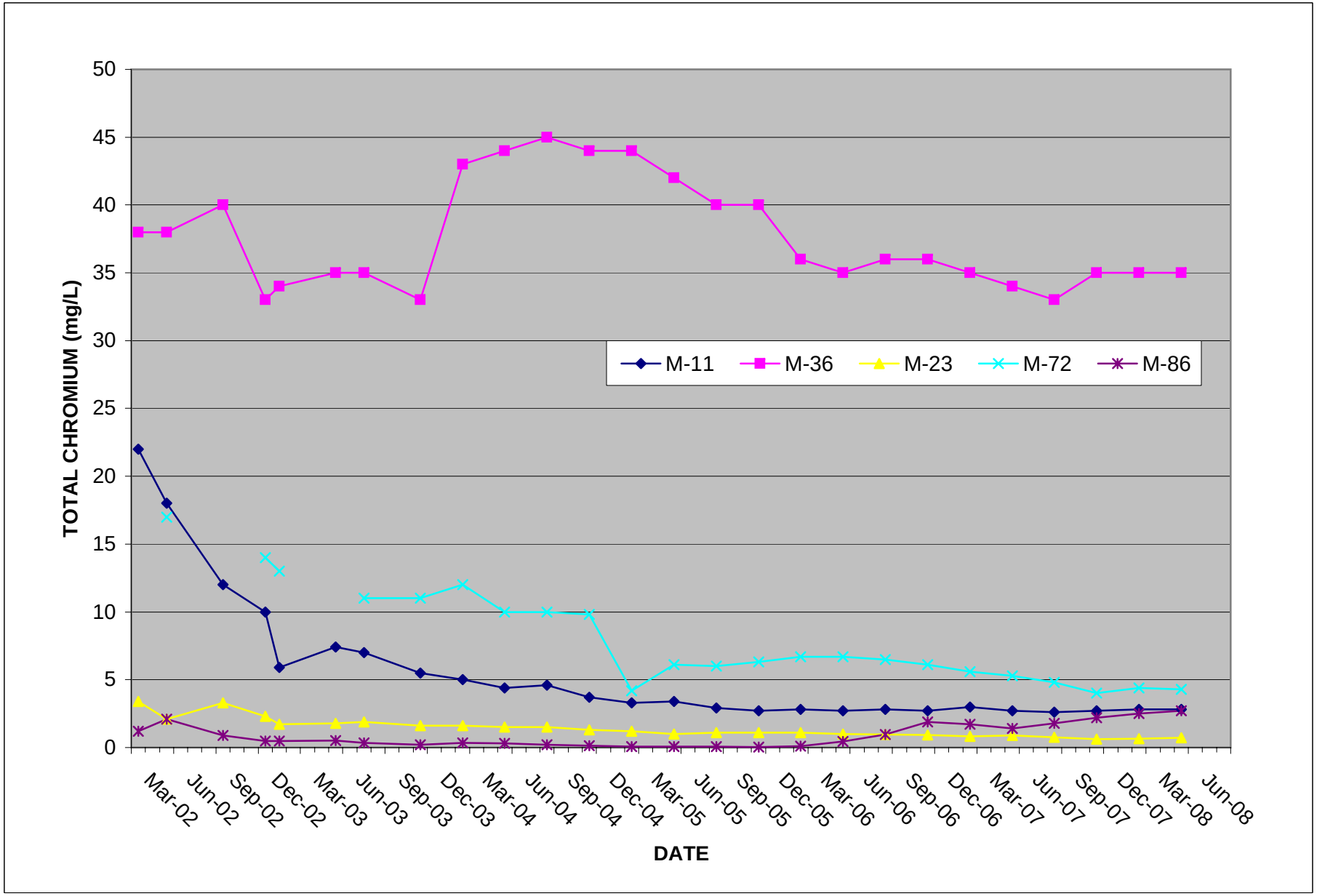


Figure 9: Athens Road WF Total Chromium Section Graph

Tronox LLC, Henderson, Nevada

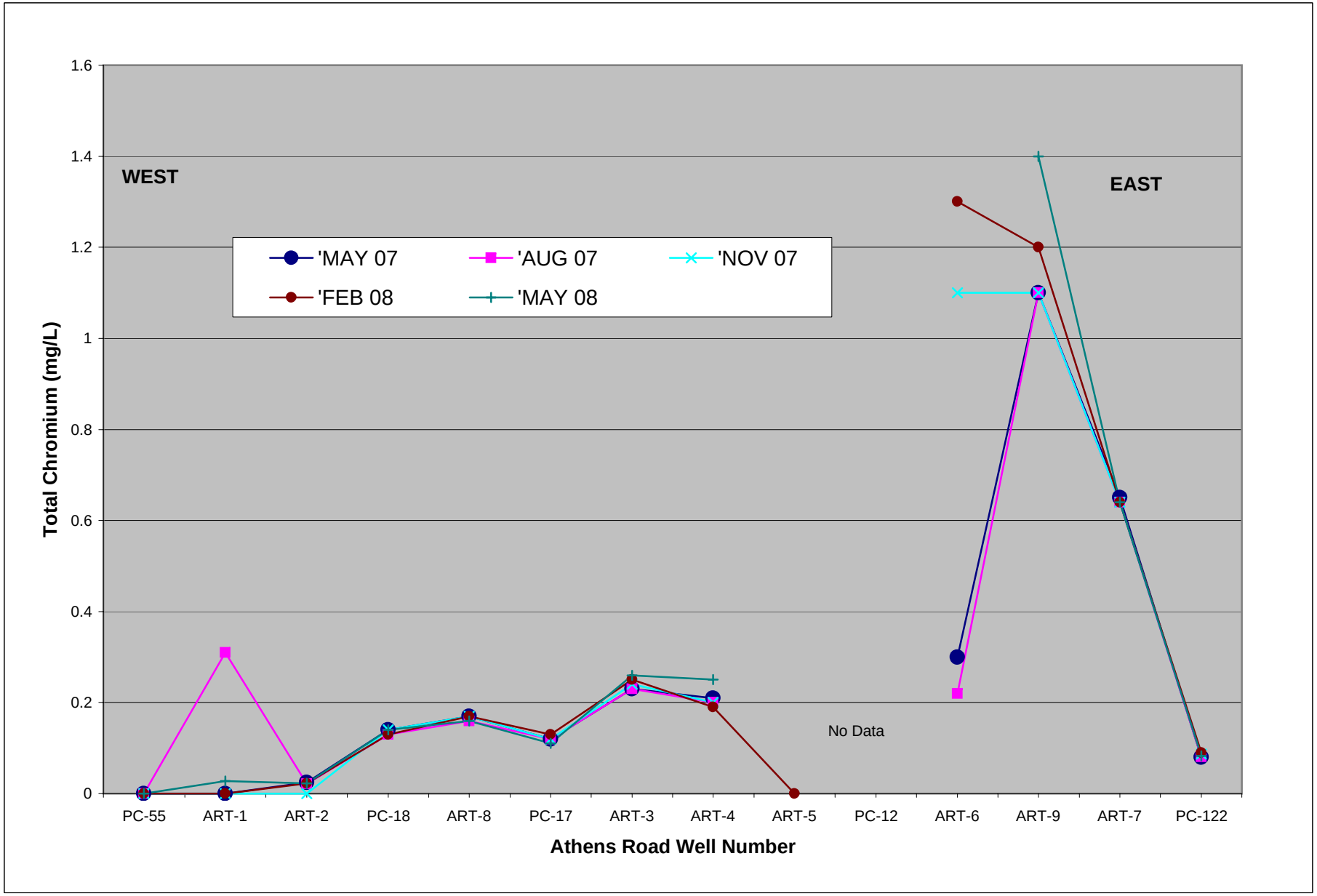


Figure 10: Tronox Henderson Groundwater Treatment Flow Diagram
Henderson, Nevada

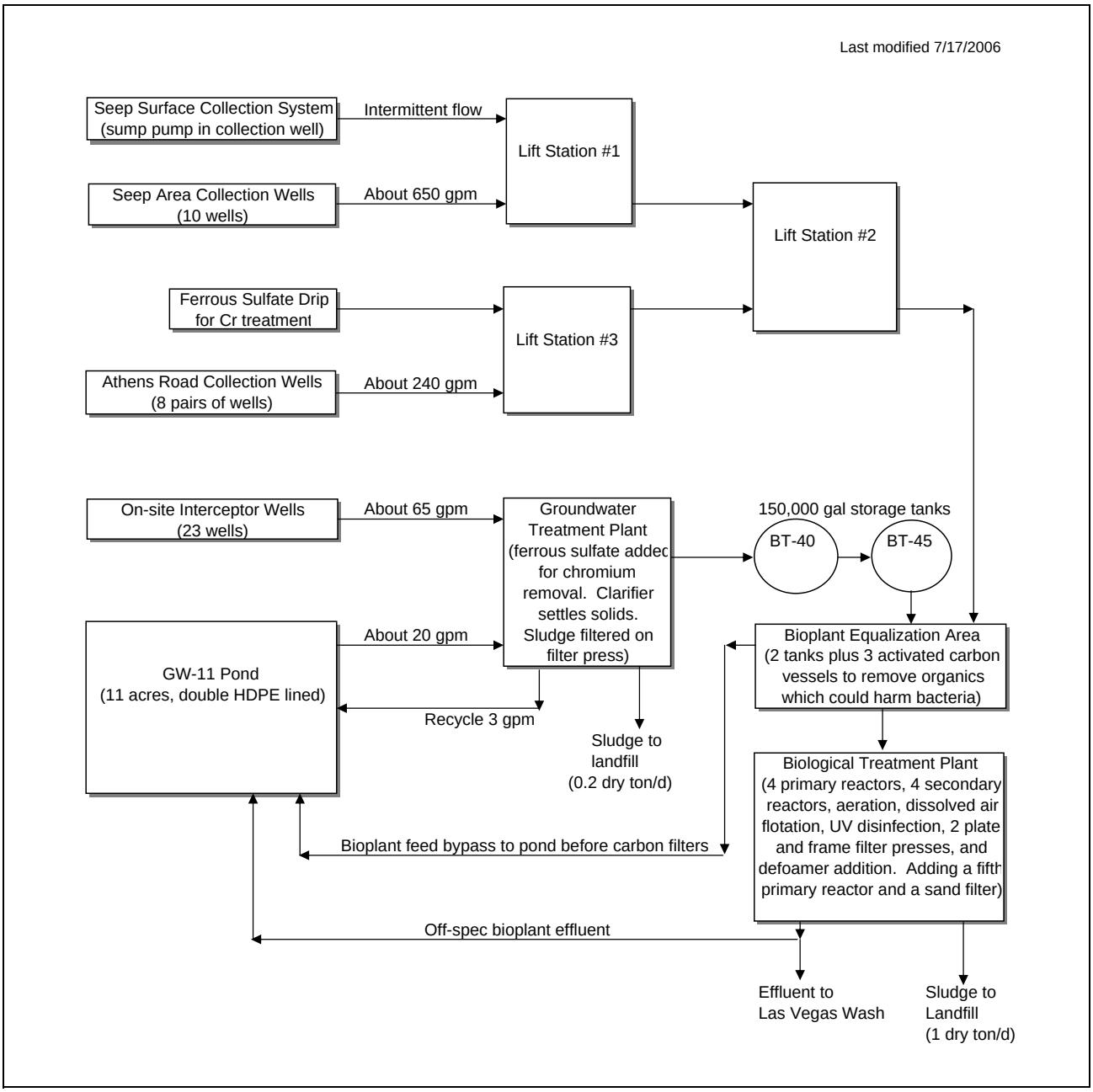


Figure 11: Perchlorate Removed from the Environment January - June 2008

Tronox LLC, Henderson, Nevada

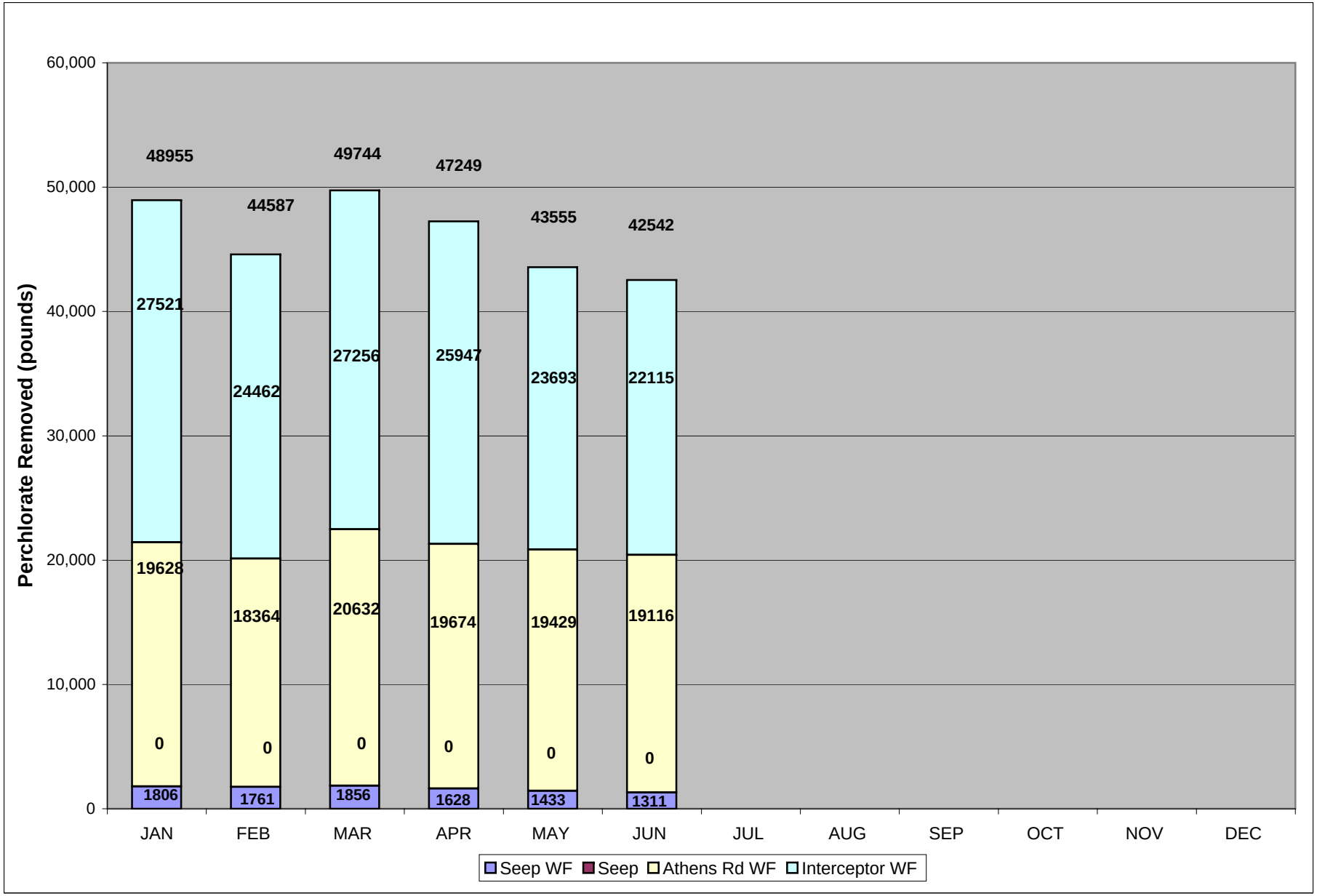


Figure 12: Interceptor Well Field Perchlorate Concentration Section Graph

Tronox LLC, Henderson, Nevada

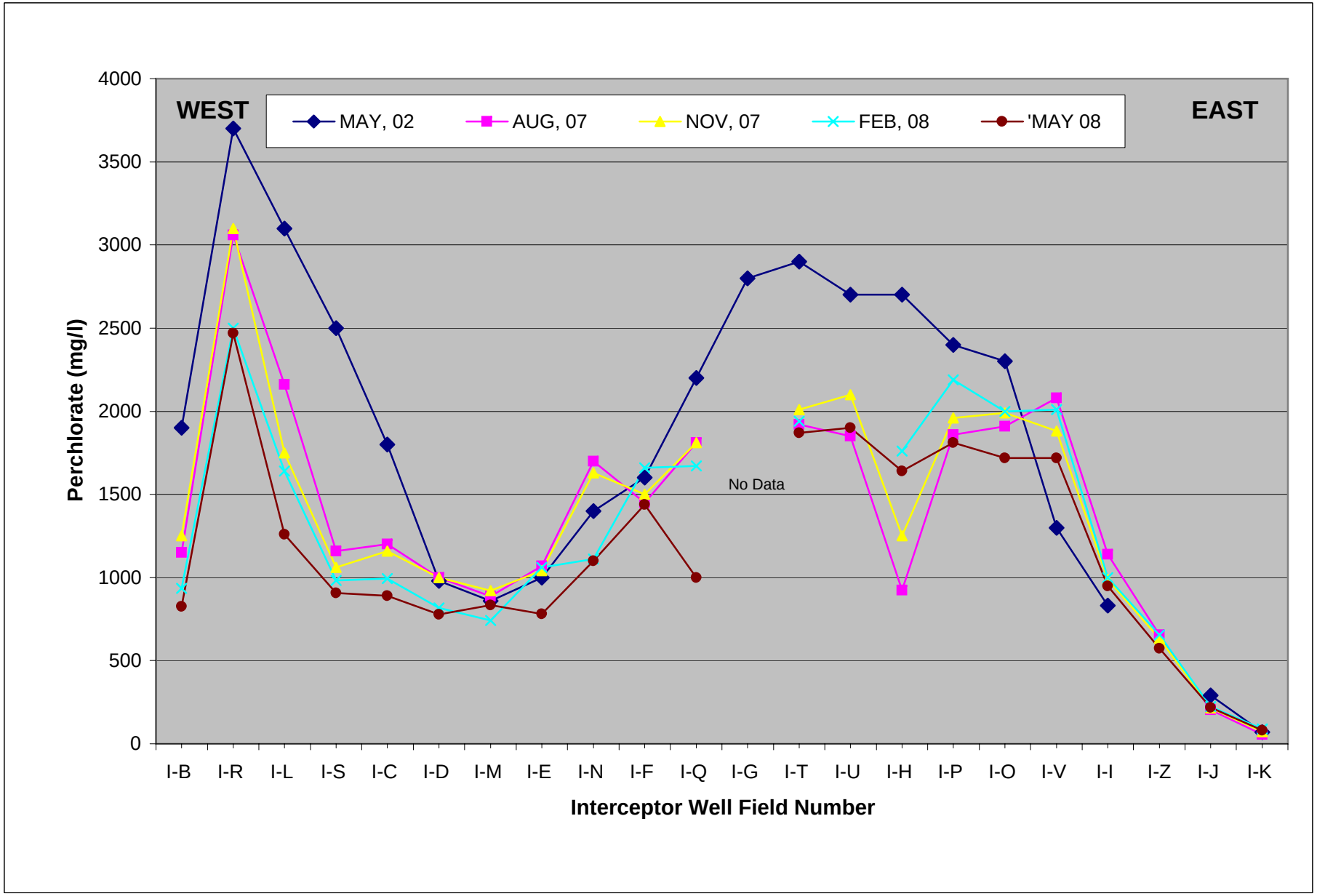


Figure 13: Interceptor Well Field Perchlorate Concentration Trend Graph

Tronox LLC, Henderson, Nevada

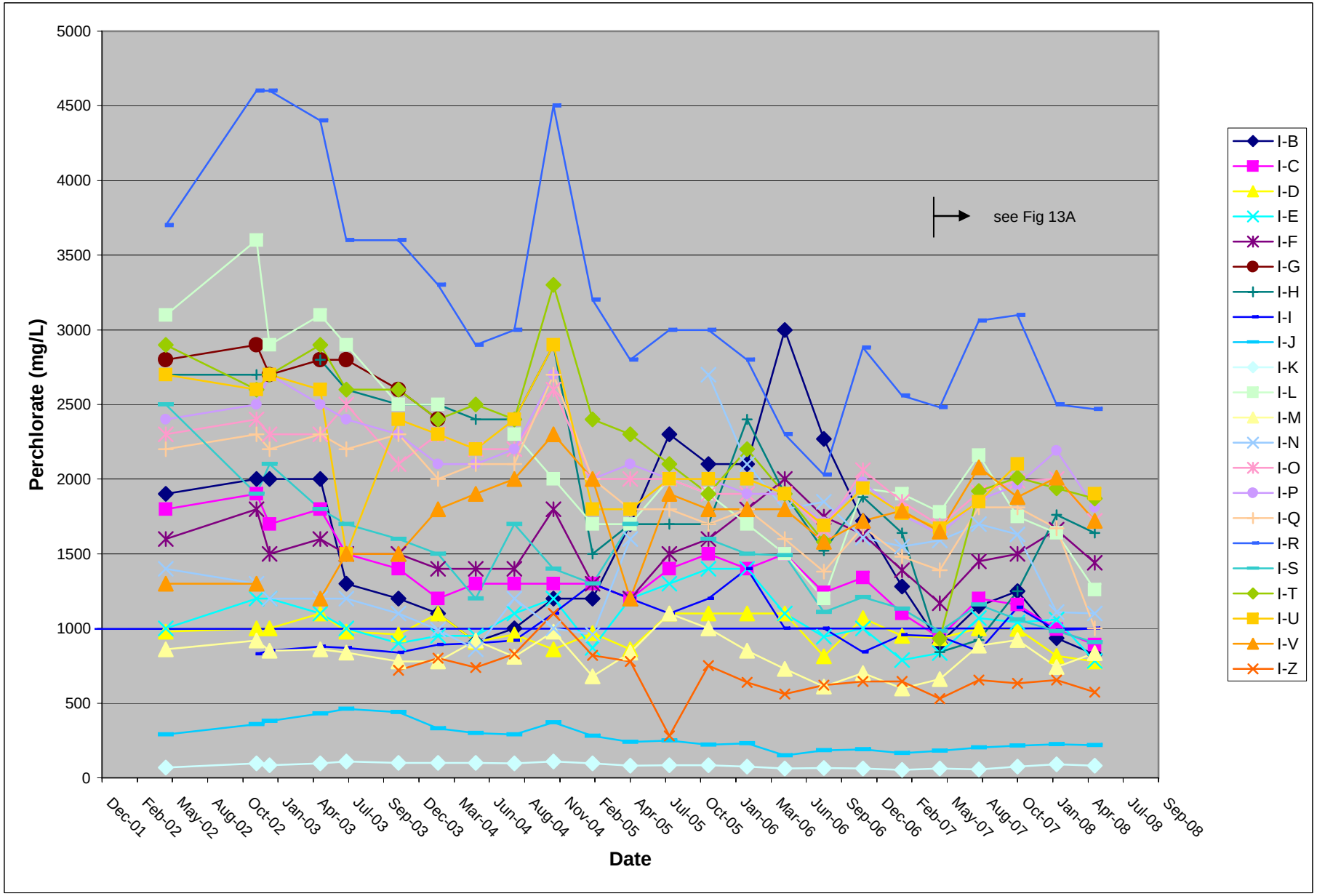


Figure 14: Interceptor WF Total Dissolved Solids Section Graph

Tronox LLC, Henderson, Nevada

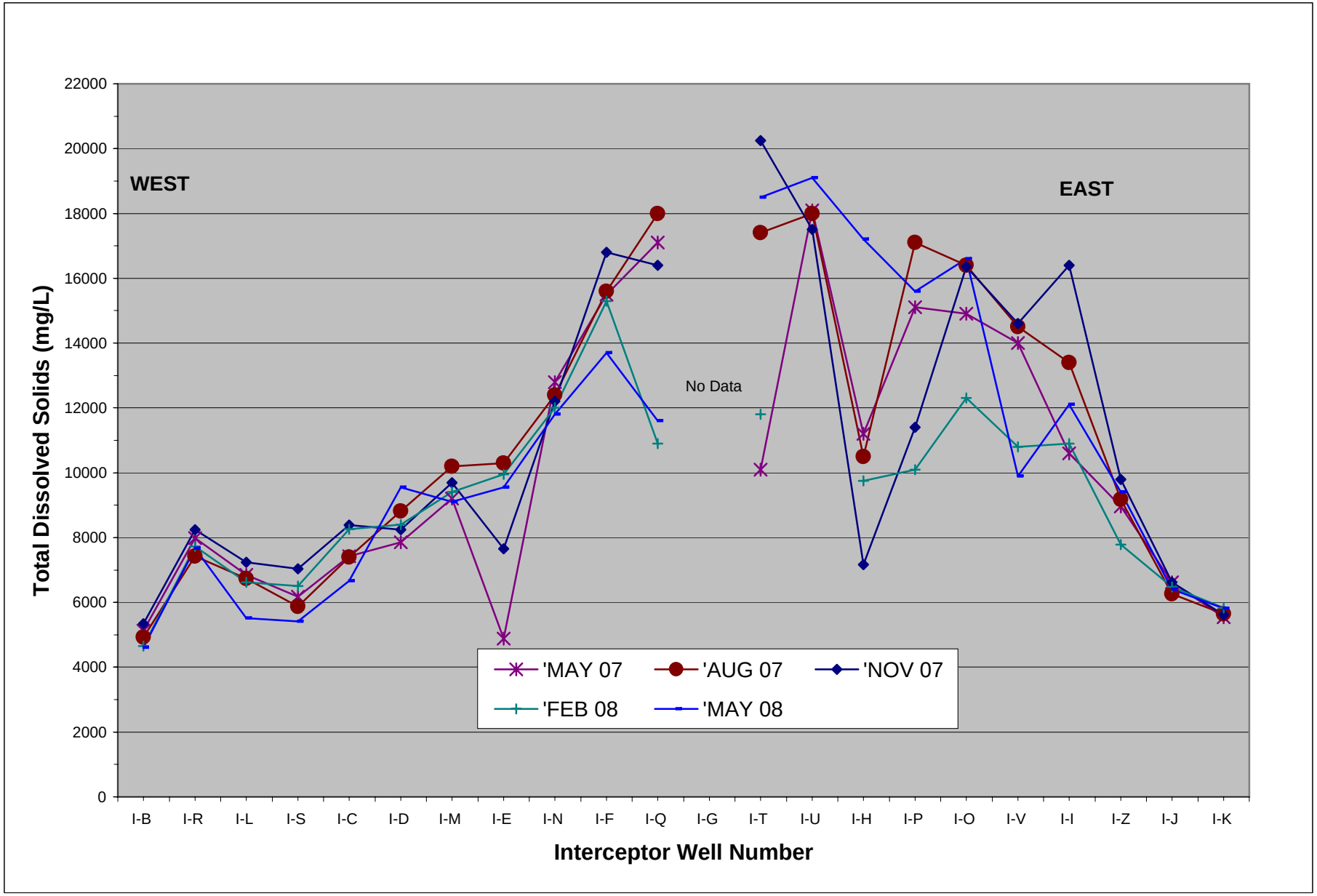


Figure 15: Interceptor Well Field Average Perchlorate Concentration and Mass Removed

Tronox LLC, Henderson, Nevada

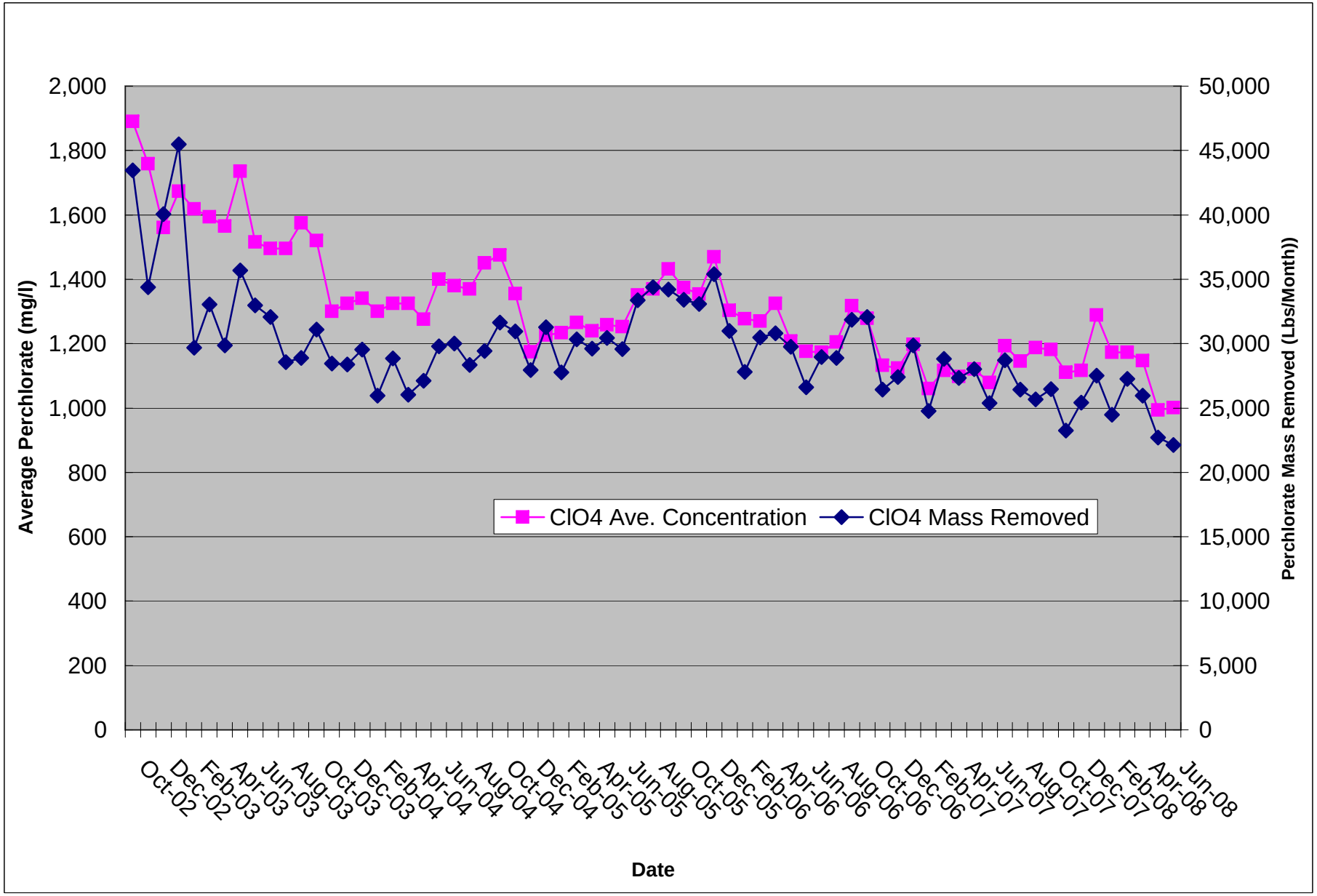


Figure 16: Well M-100 Perchlorate Concentration vs. Water Elevation Trend Graph

Tronox LLC, Henderson, Nevada

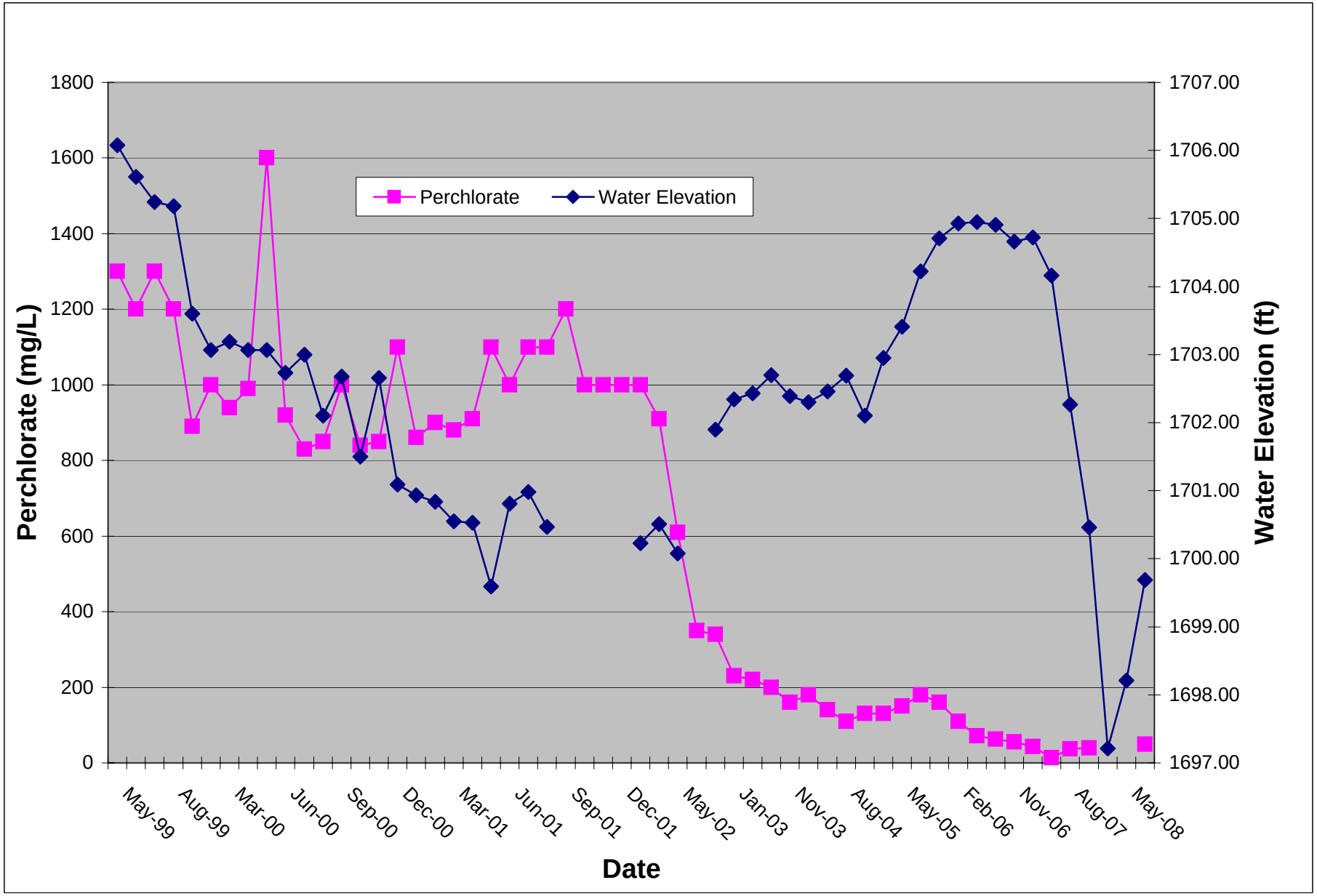


Figure 17: Athens Road Well Field Perchlorate Concentration Trend Graph

Tronox LLC, Henderson, Nevada

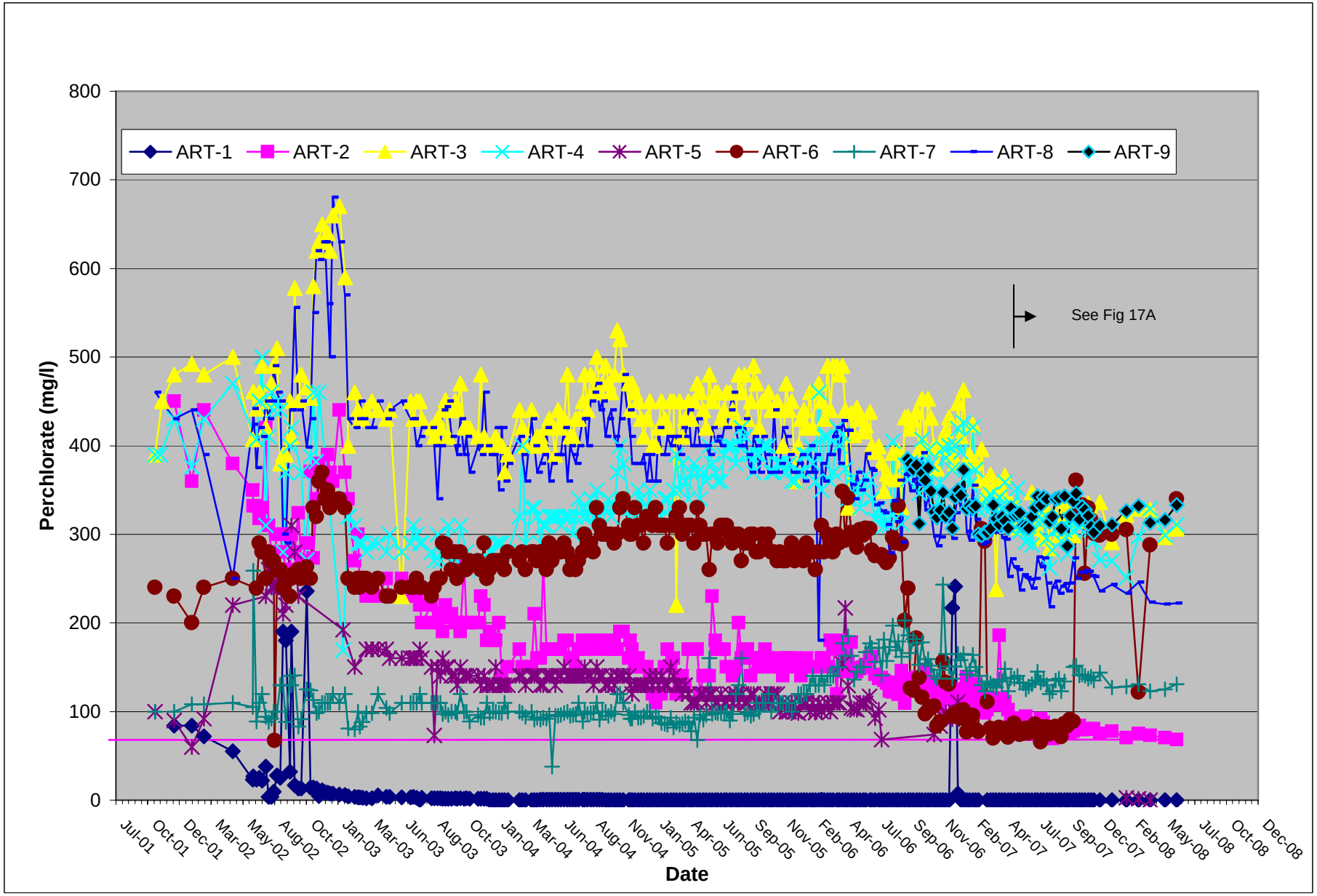


Figure 17A: Athens Road Well Field Perchlorate Concentration Trend Graph, April 2007- June 2008

Tronox LLC, Henderson, Nevada

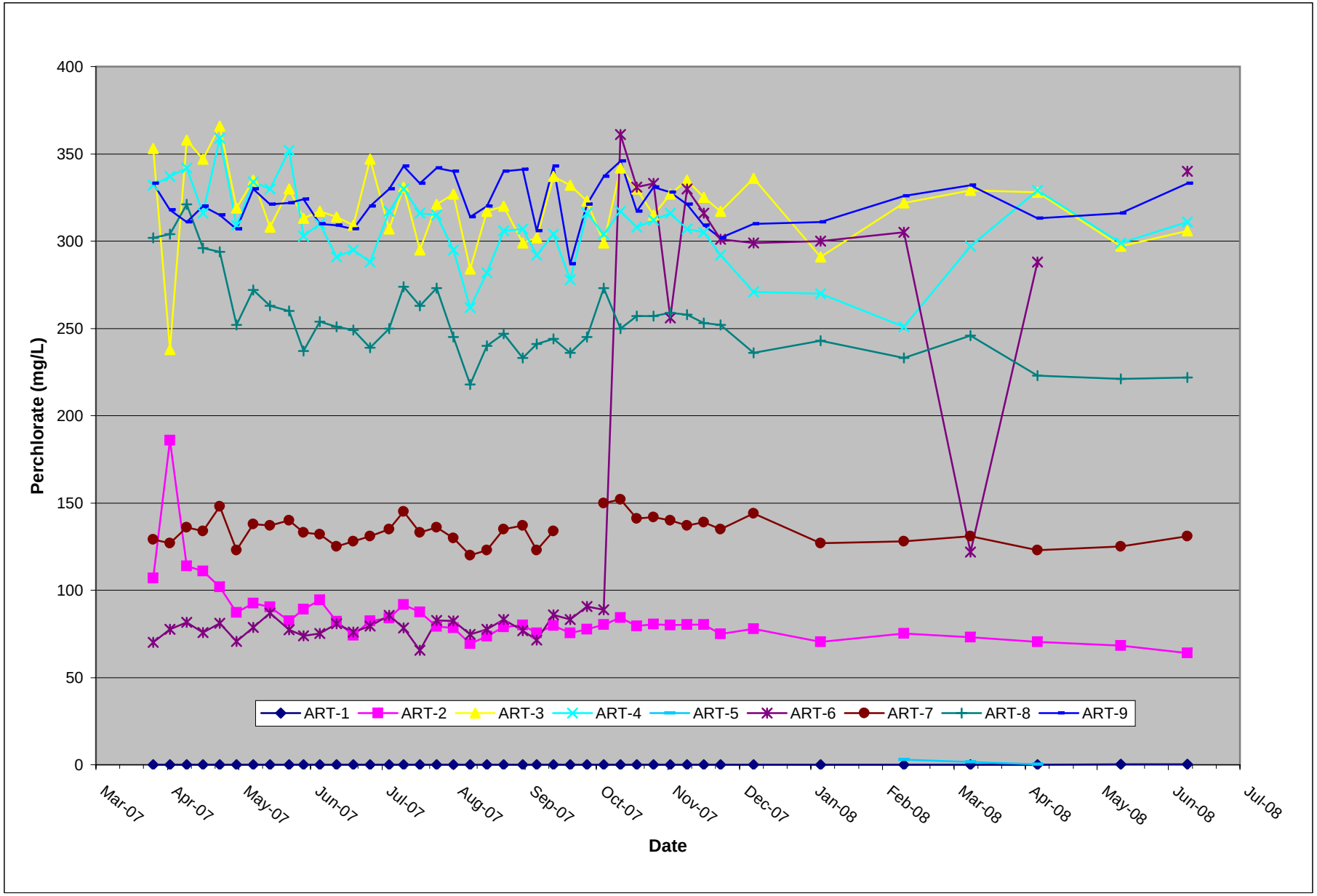


Figure 18: Athens Road Well Field Perchlorate Concentration Section Graph

Tronox LLC, Henderson, Nevada

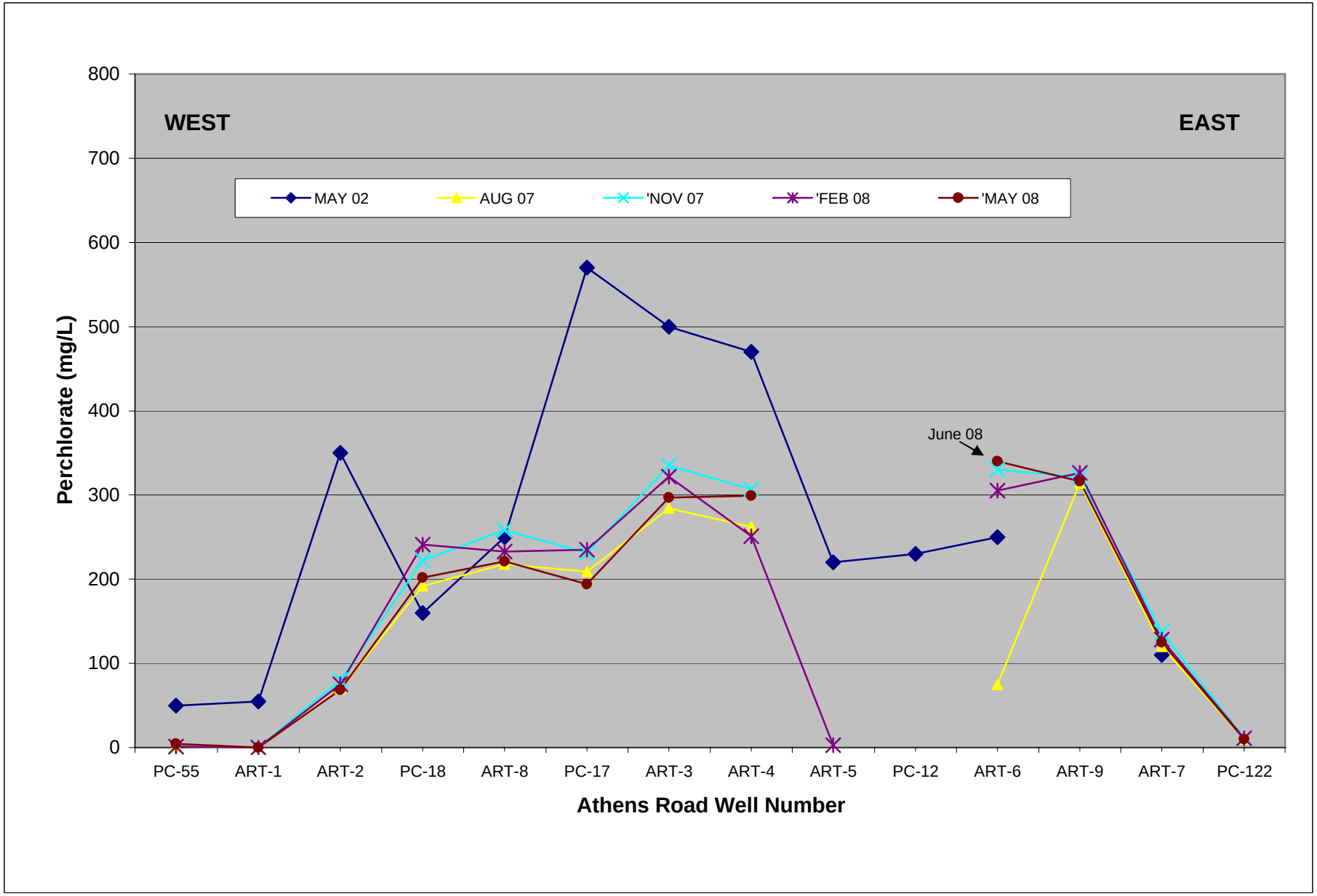


Figure 19: Athens Road Well Field Average Perchlorate Concentration in ART-8 and Mass Removed

Tronox LLC, Henderson, Nevada

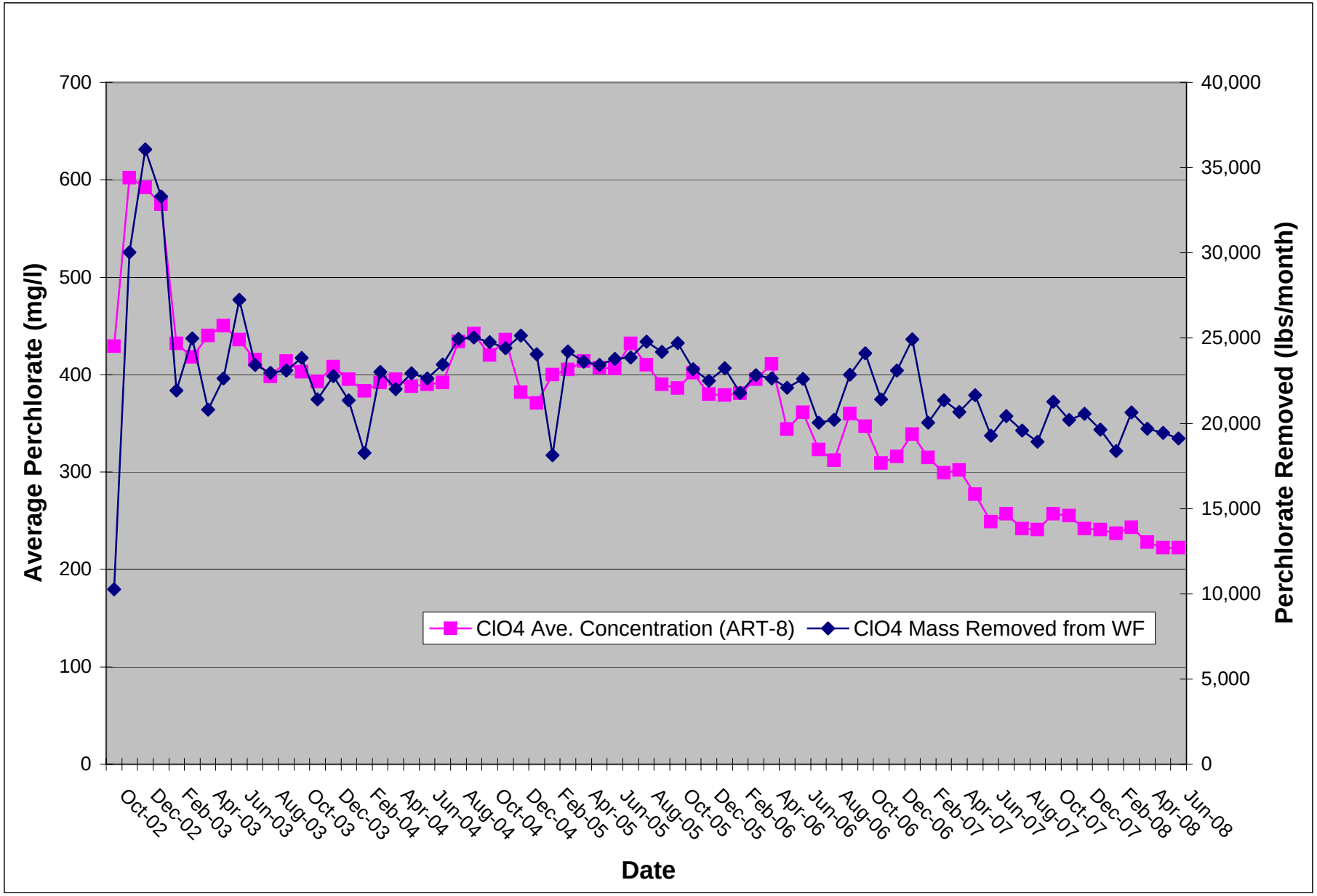


Figure 20: Athens Road WF Total Dissolved Solids Section Graph

Tronox LLC, Henderson, Nevada

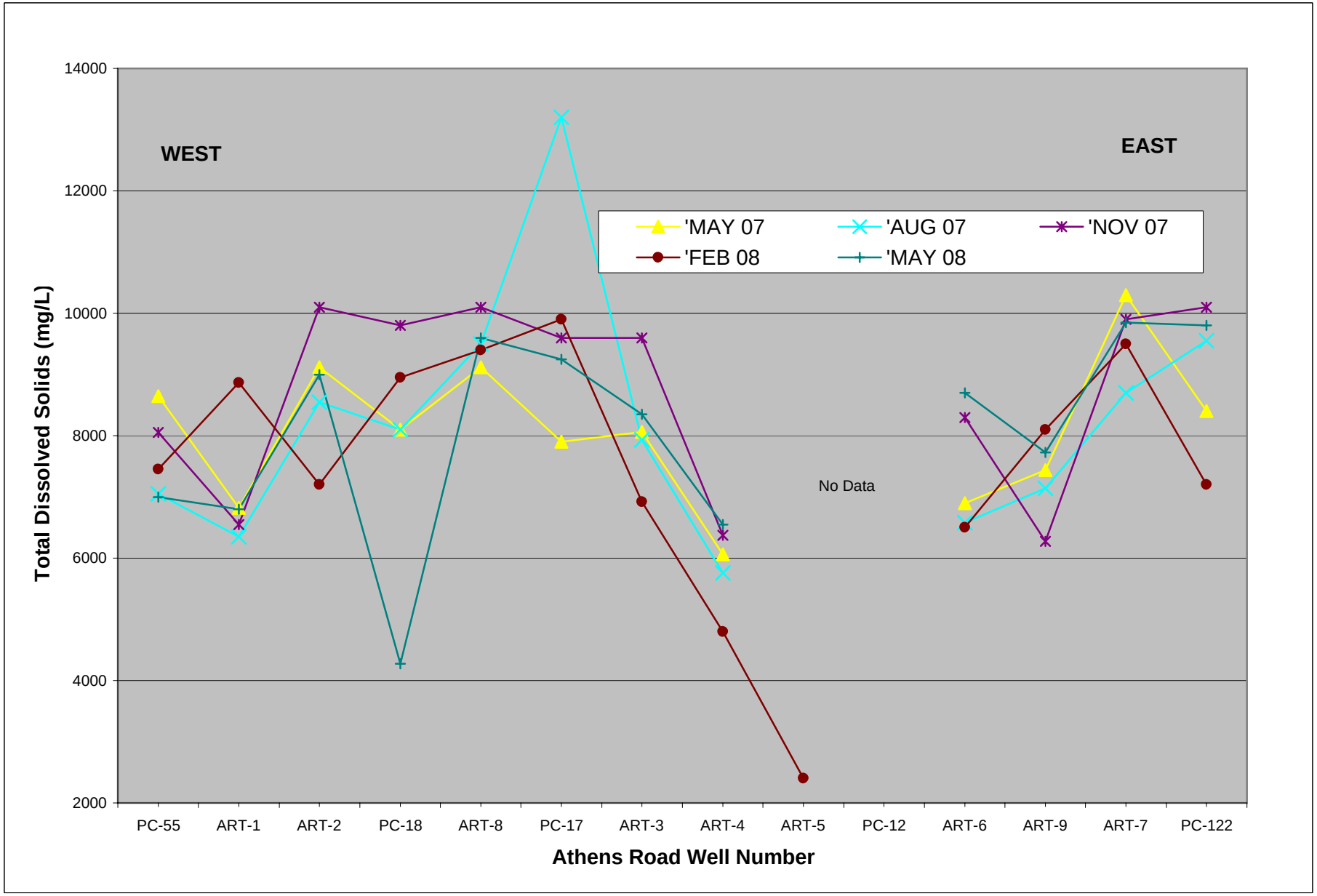


Figure 21: Athens Road Piezometer Well Line Perchlorate Concentration Trend Graph

Tronox LLC, Henderson, Nevada

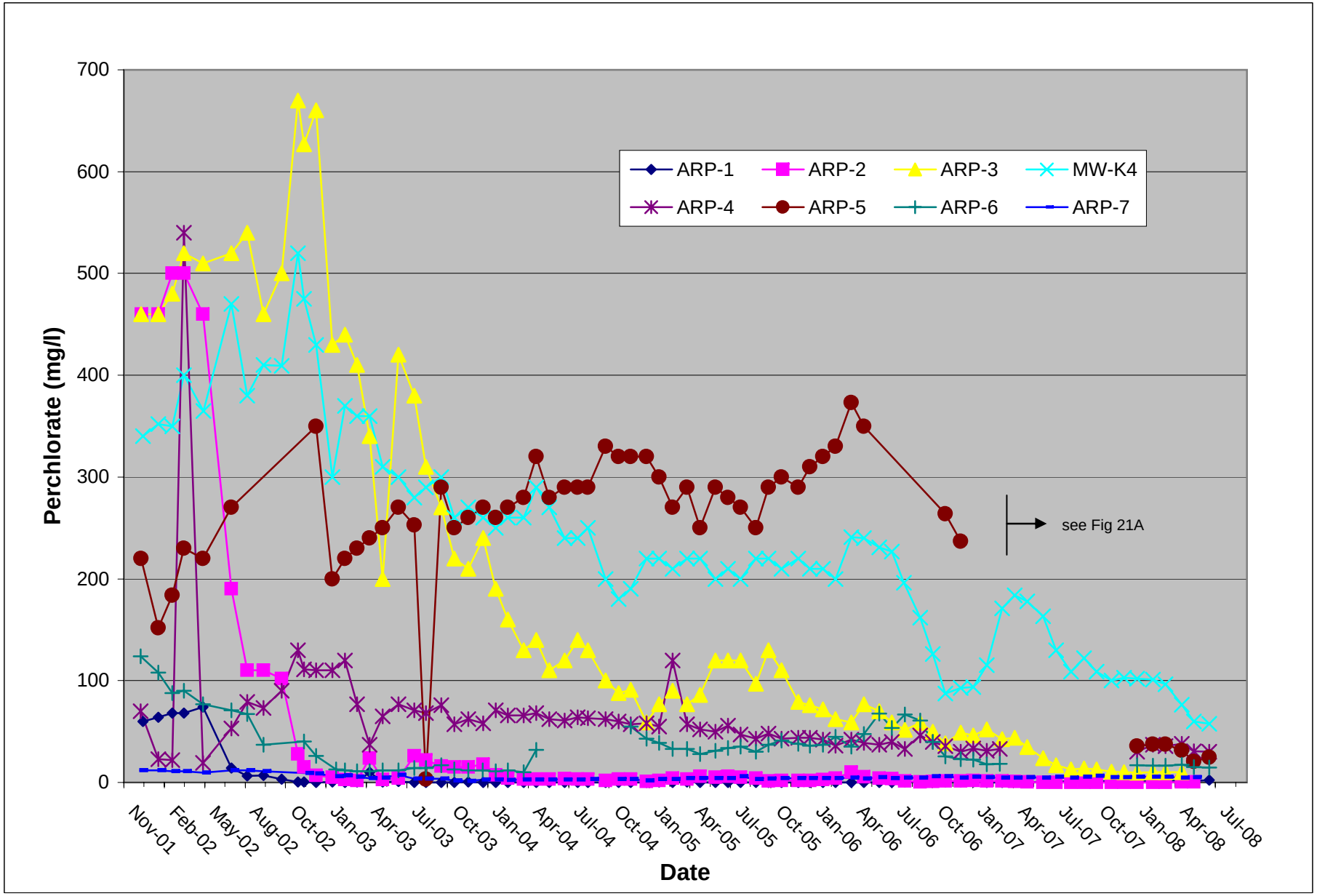


Figure 22: Athens Road Piezometer Well Line Perchlorate Section Graph

Tronox LLC, Henderson, Nevada

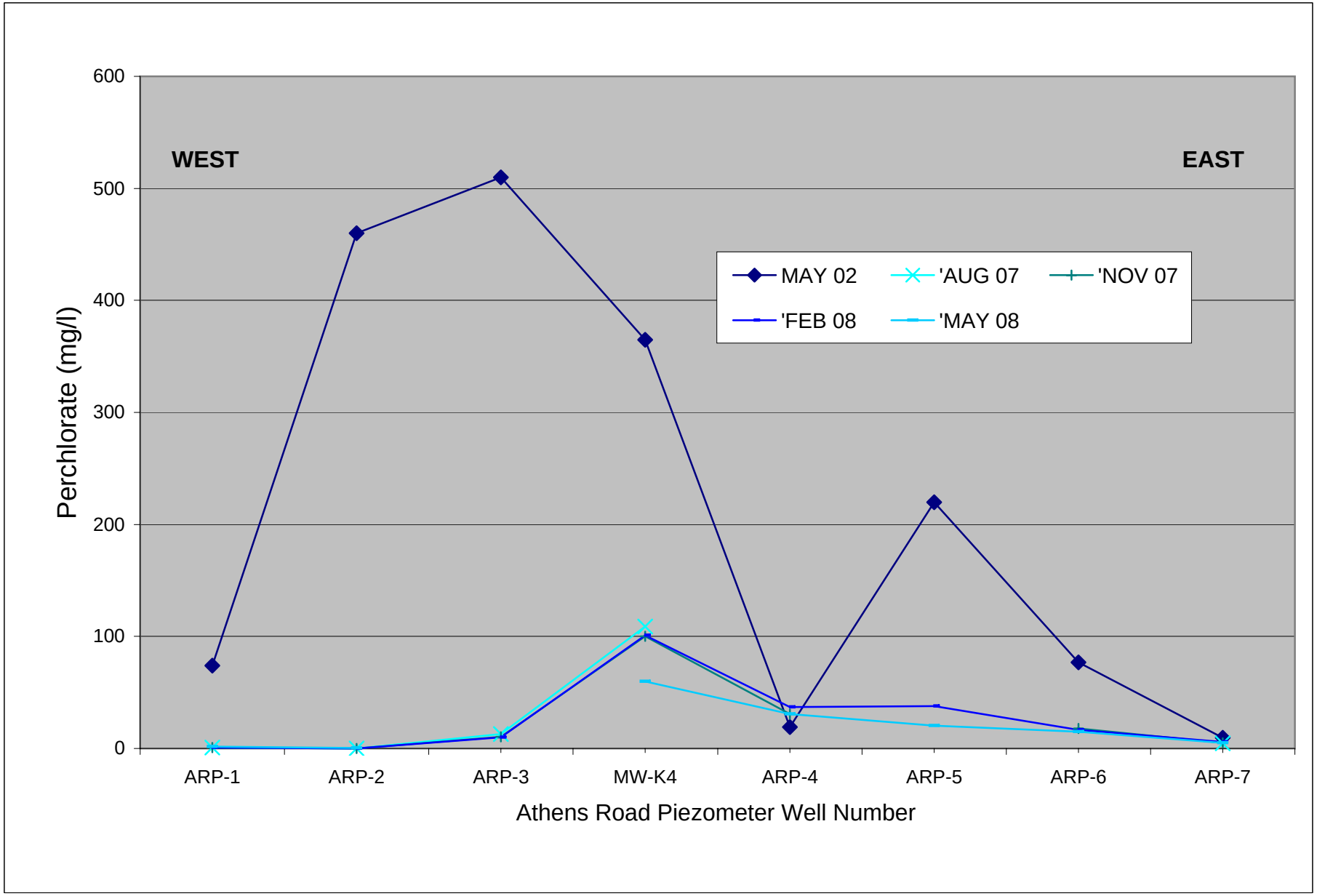


Figure 23: Athens Road Piezometer ARP-3 Perchlorate vs. Water Elevation Trend Graph

Tronox LLC, Henderson, Nevada

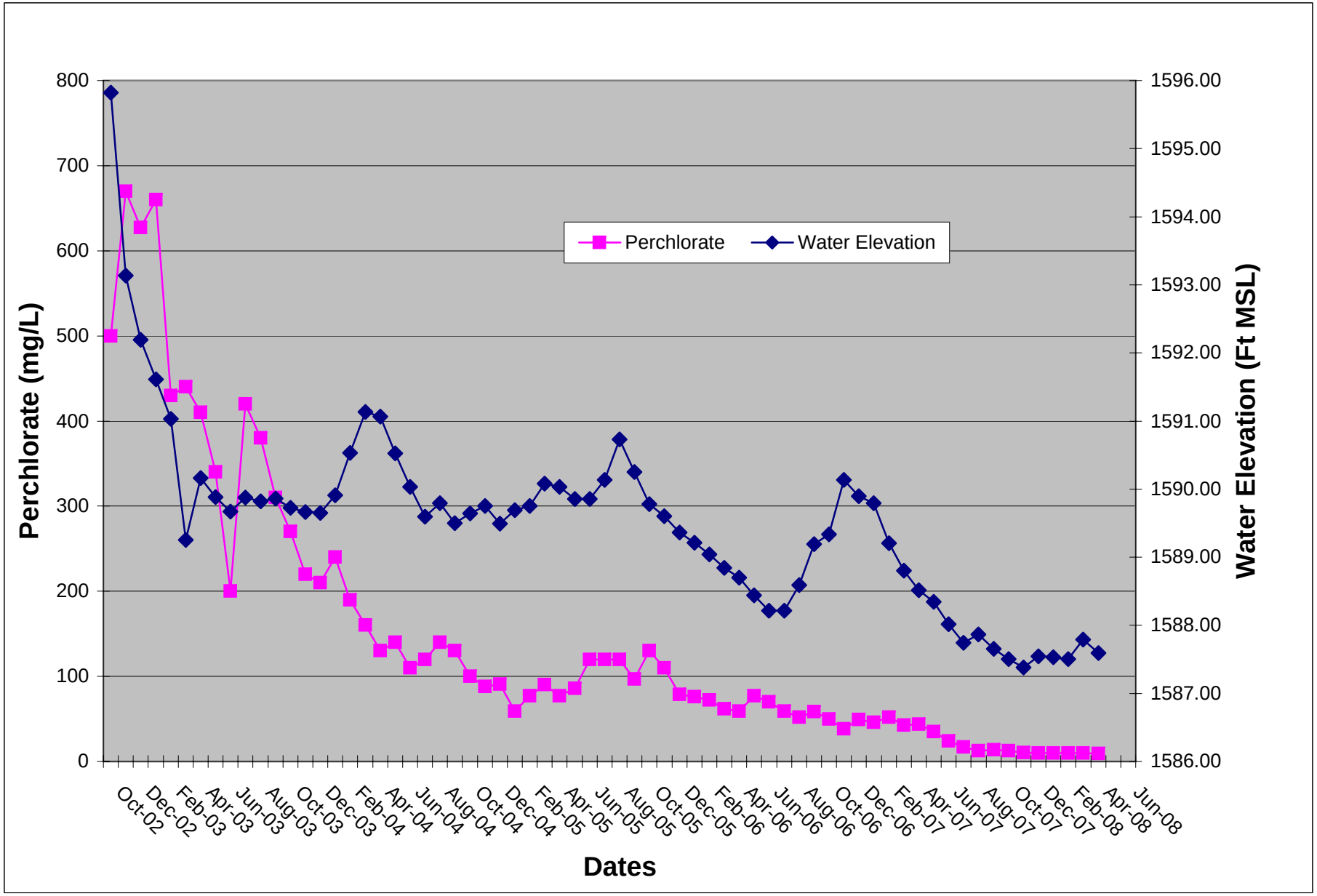


Figure 24: City of Henderson WRF Well Line Perchlorate Concentration Trend Graph

Tronox LLC, Henderson, Nevada

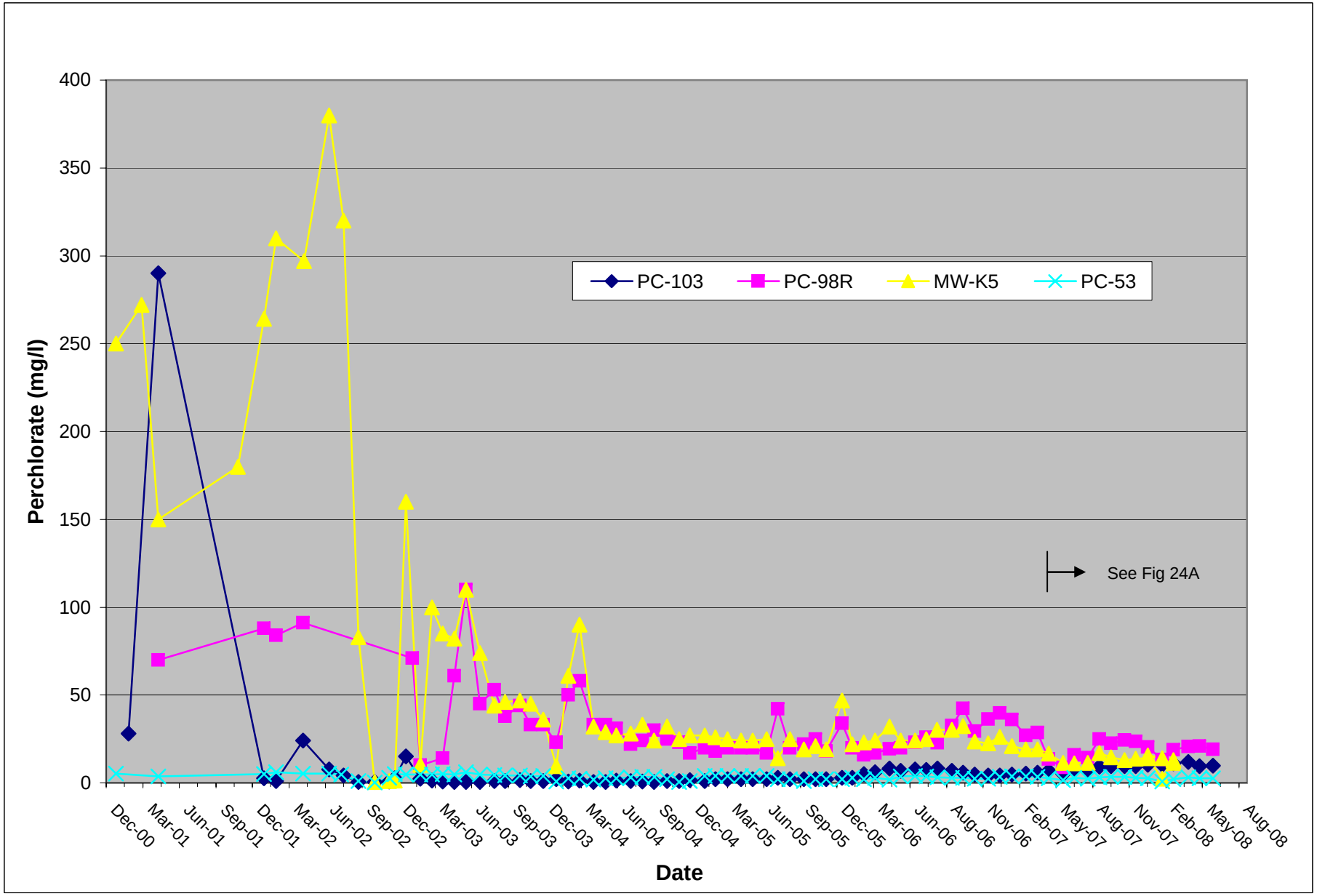


Figure 24A: COH WRF Well Line Perchlorate Concentration Graph, April 2007 - June 2008

Tronox LLC, Henderson, Nevada

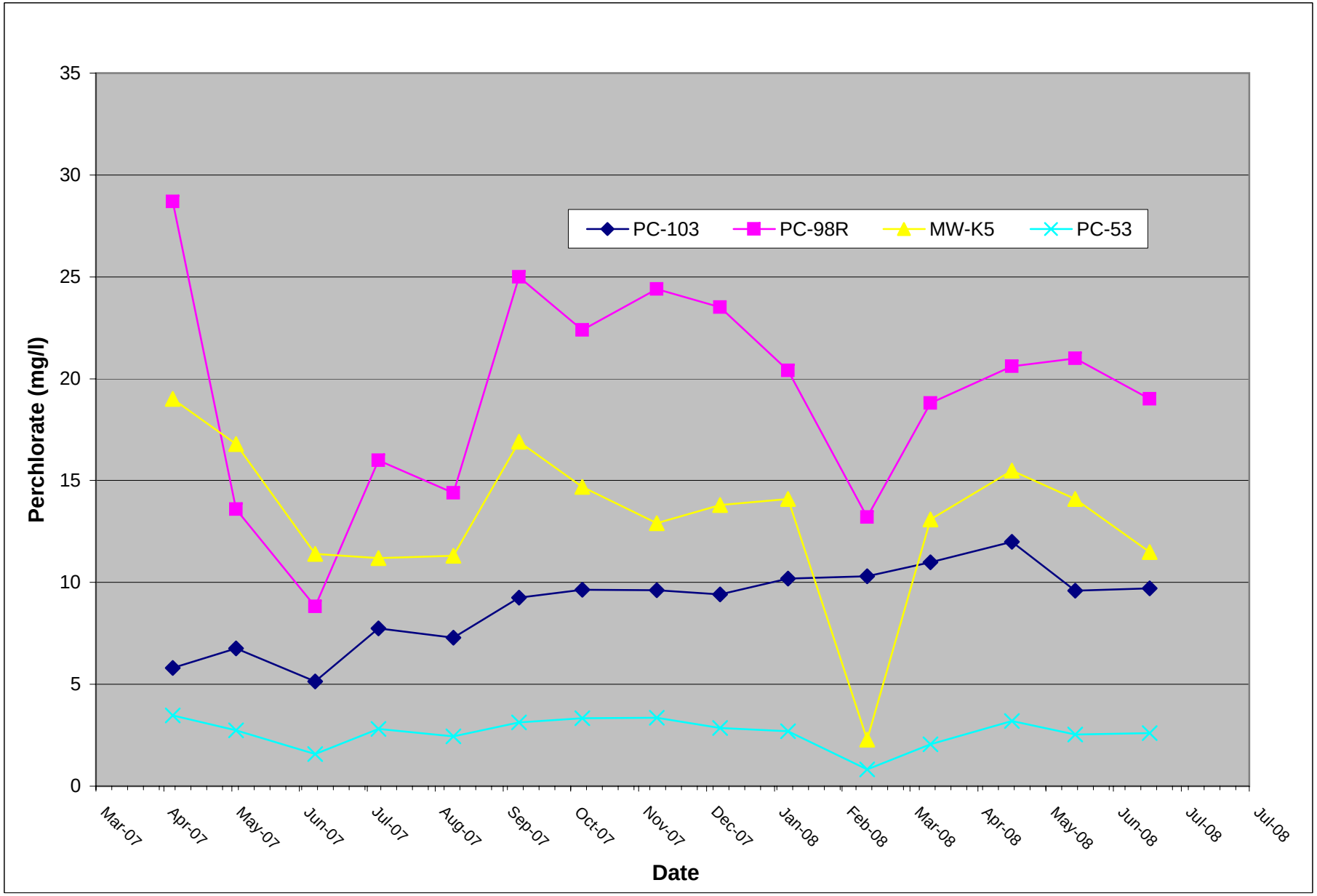


Figure 25: City of Henderson WRF Perchlorate Concentration Section Graph

Tronox LLC, Henderson, Nevada

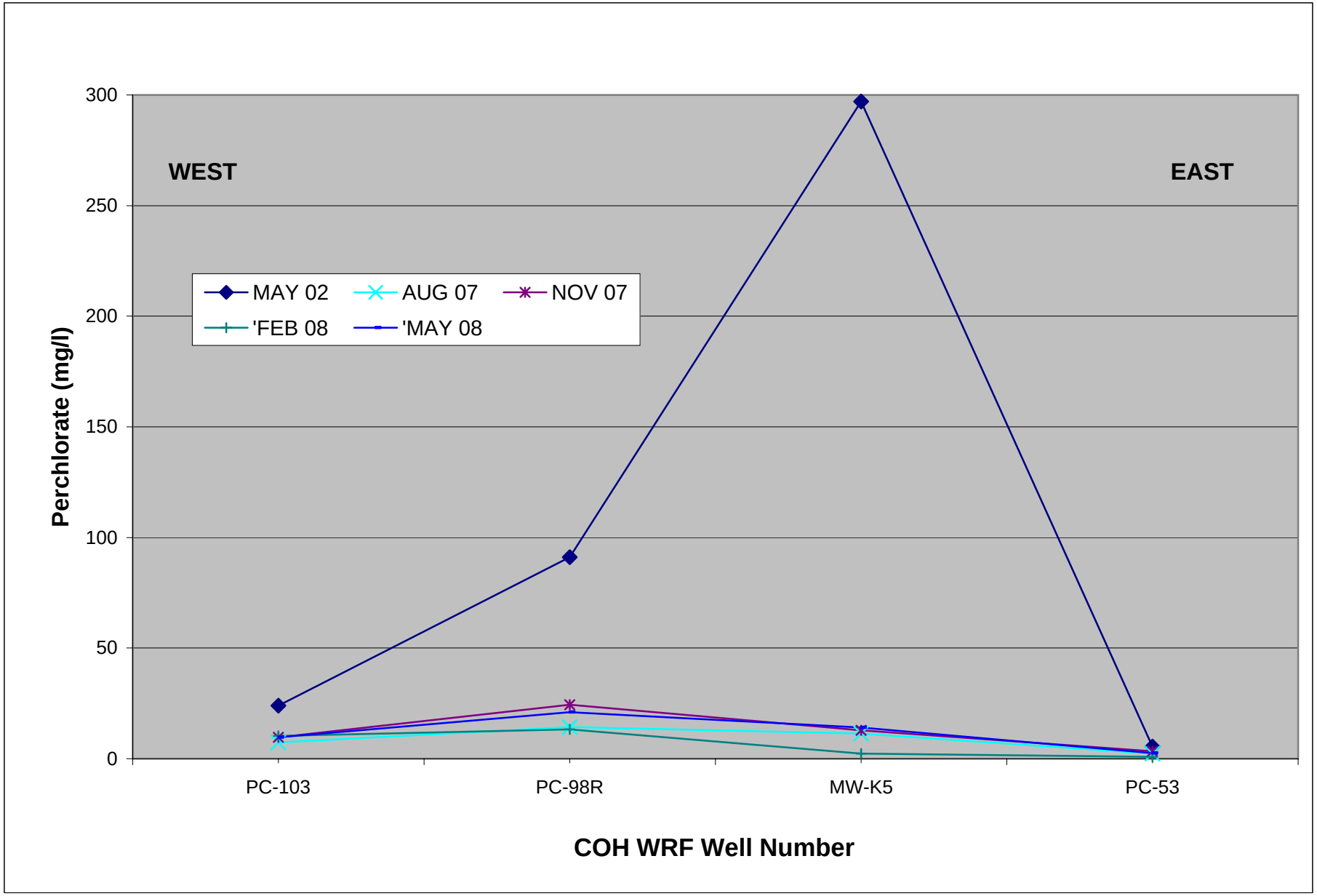


Figure 26: Well PC-98R Perchlorate Concentration vs. Water Elevation Trend Graph

Tronox LLC, Henderson, Nevada

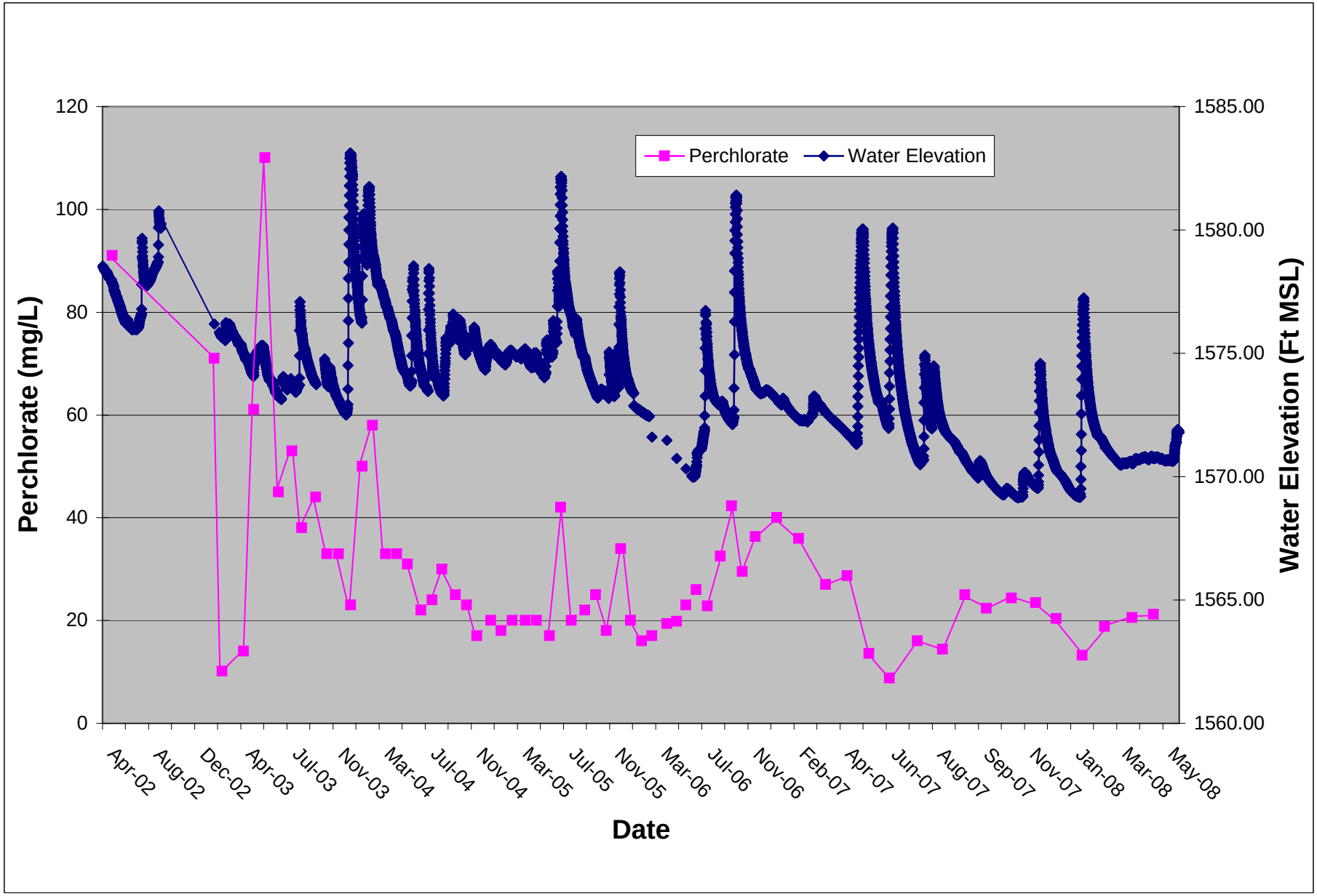


Figure 27: Lower Ponds Well Line Perchlorate Concentration Trend Graph

Tronox LLC, Henderson, Nevada

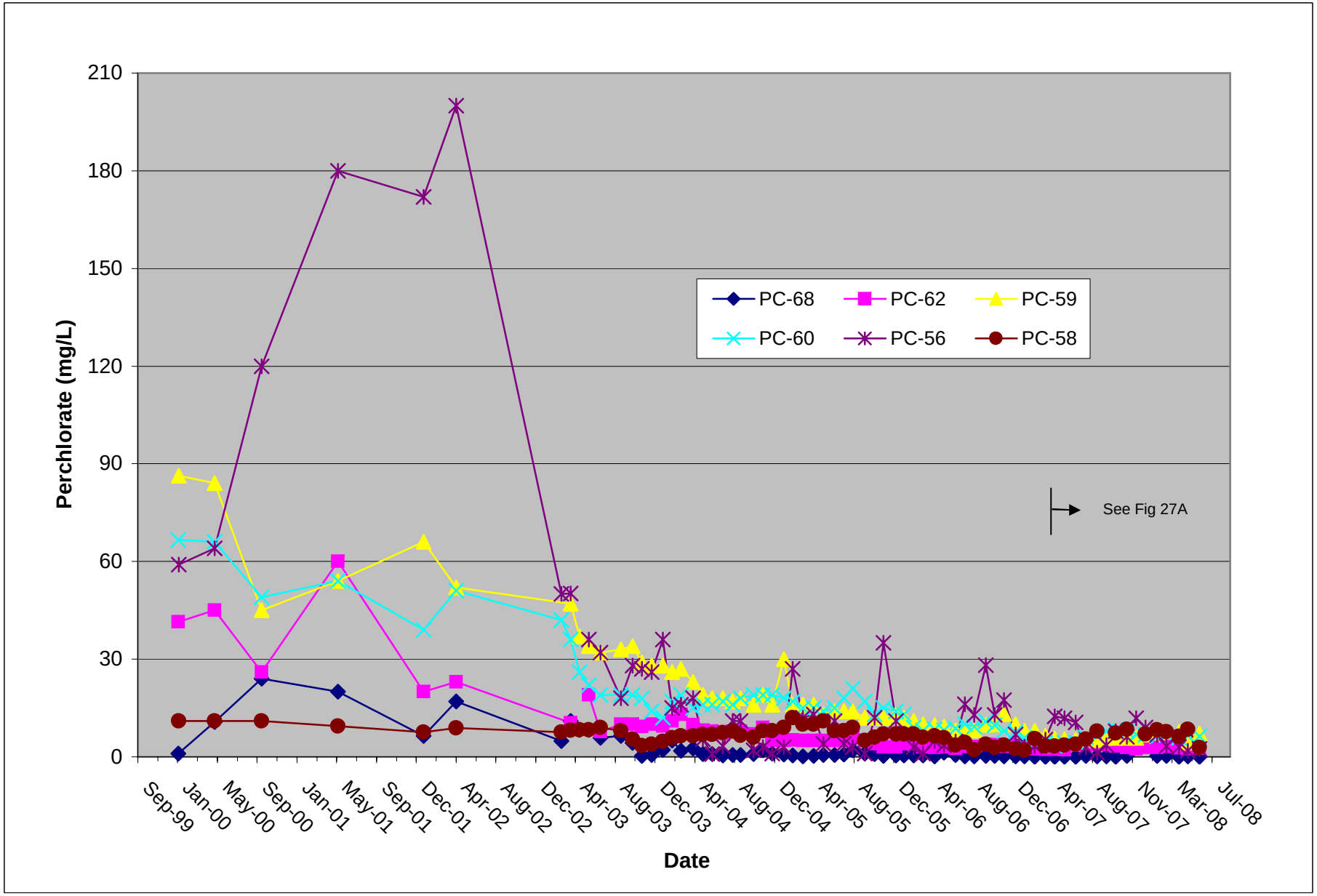


Figure 27A: Lower Ponds Well Line Perchlorate Concentration Trend Graph, April 2007 - June 2008

Tronox LLC, Henderson, Nevada

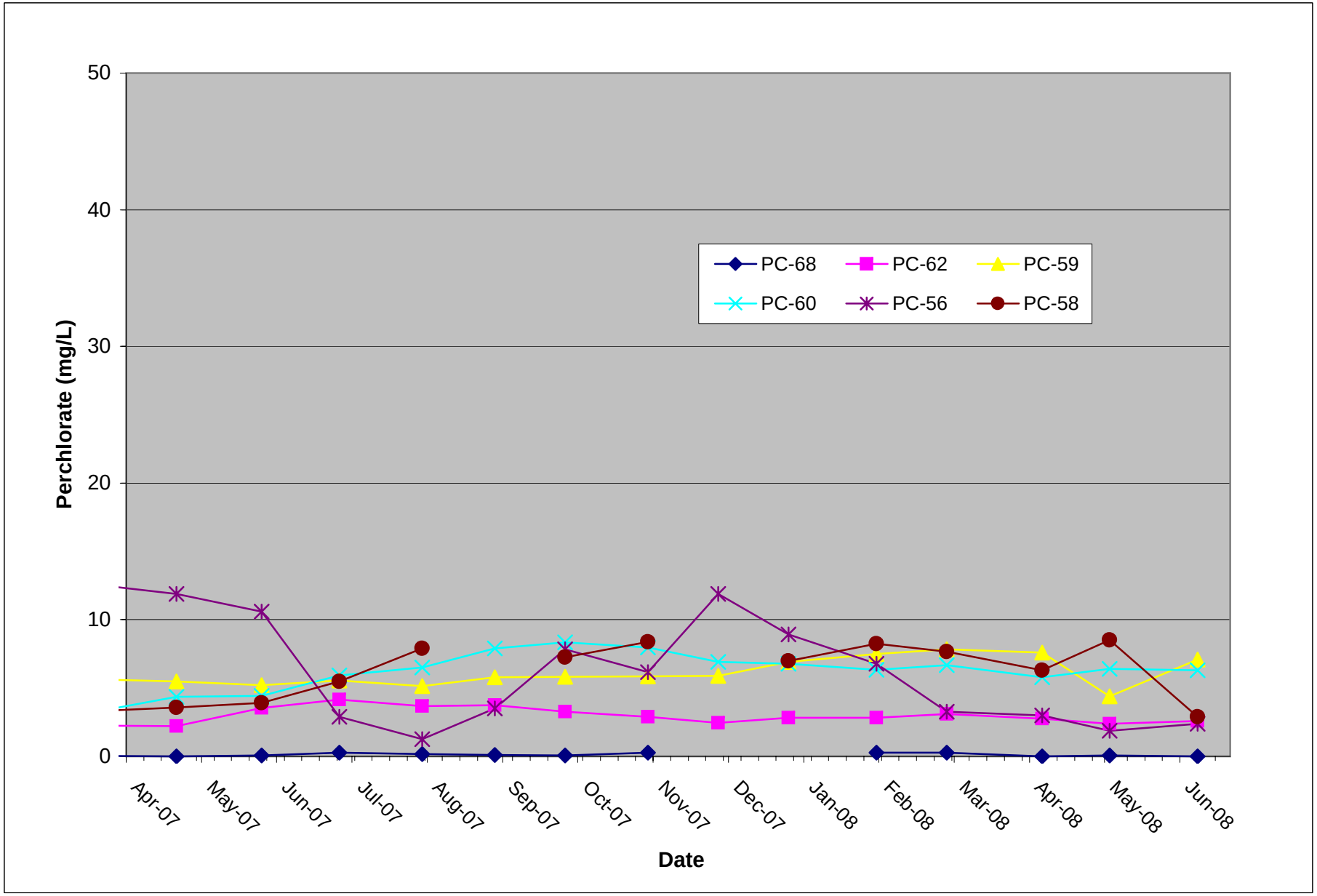


Figure 28: Lower Ponds Well Line Perchlorate Concentration Section Graph

Tronox LLC, Henderson, Nevada

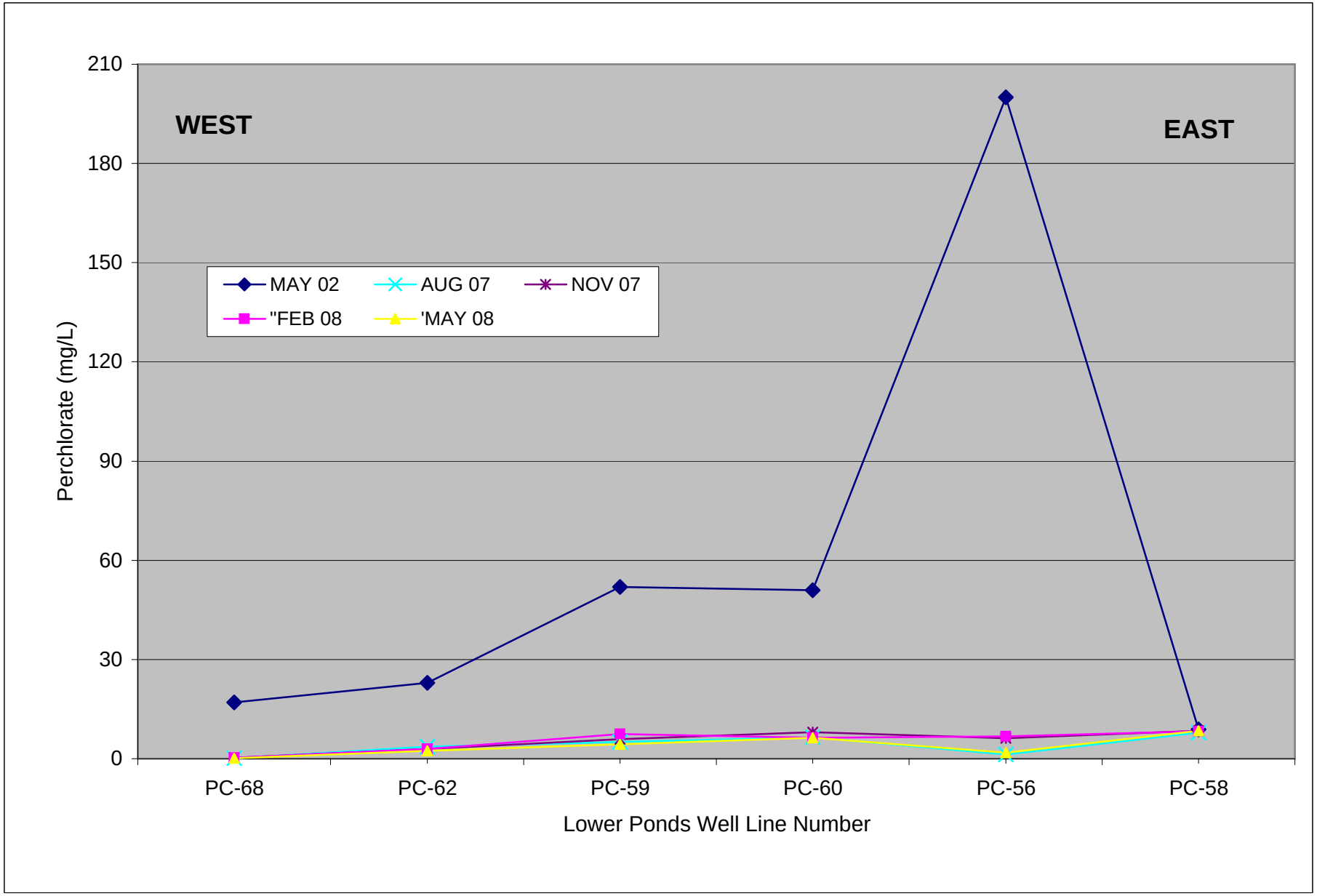


Figure 29: Seep Well Field Perchlorate Concentration Trend Graph

Tronox LLC, Henderson, Nevada

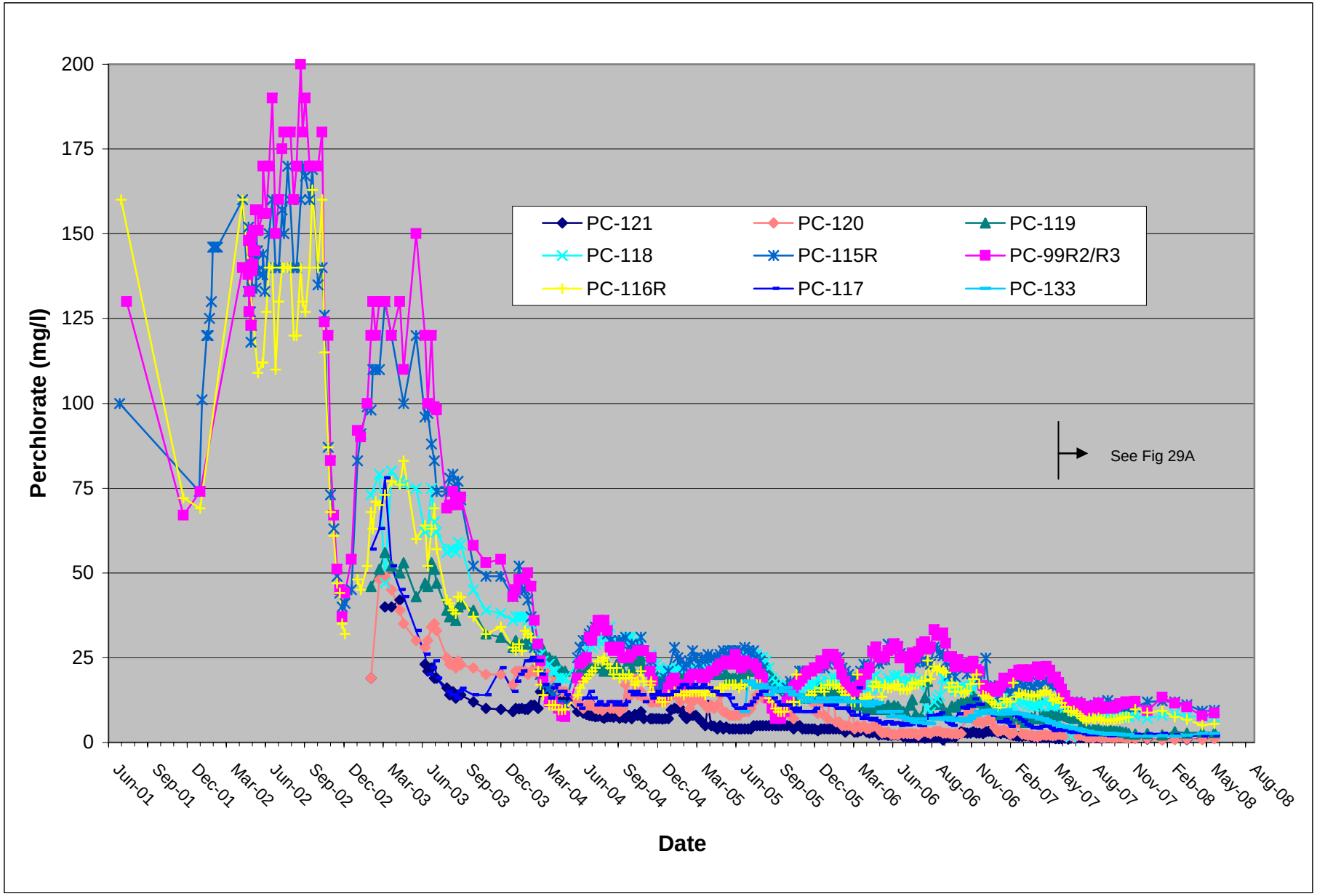


Figure 29A: Seep Well Field Perchlorate Concentration Trend Graph, April 2007 - June 2008

Tronox LLC, Henderson, Nevada

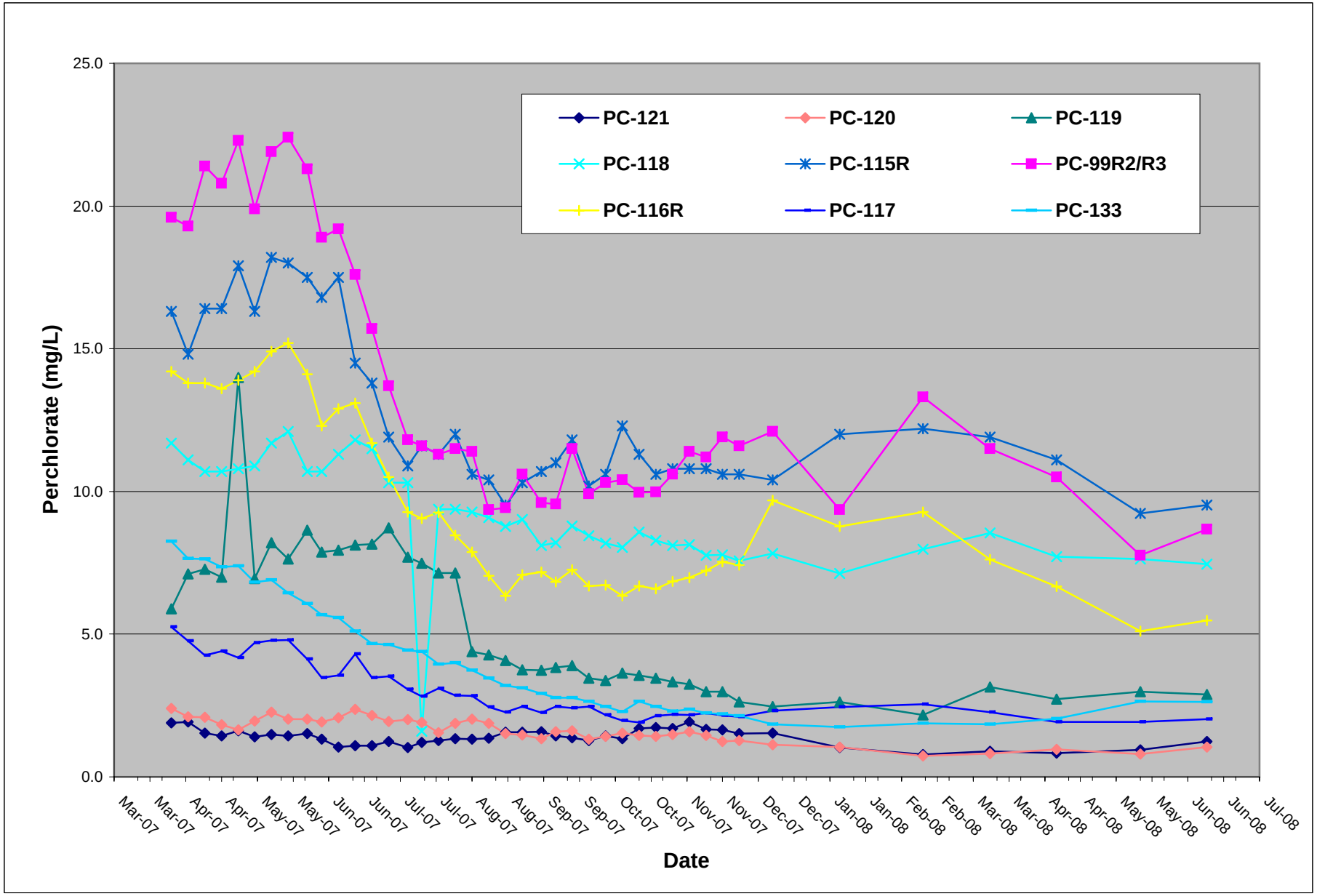


Figure 30: Well PC-97 Perchlorate vs. Water Elevation Trend Graph

Tronox LLC, Henderson, Nevada

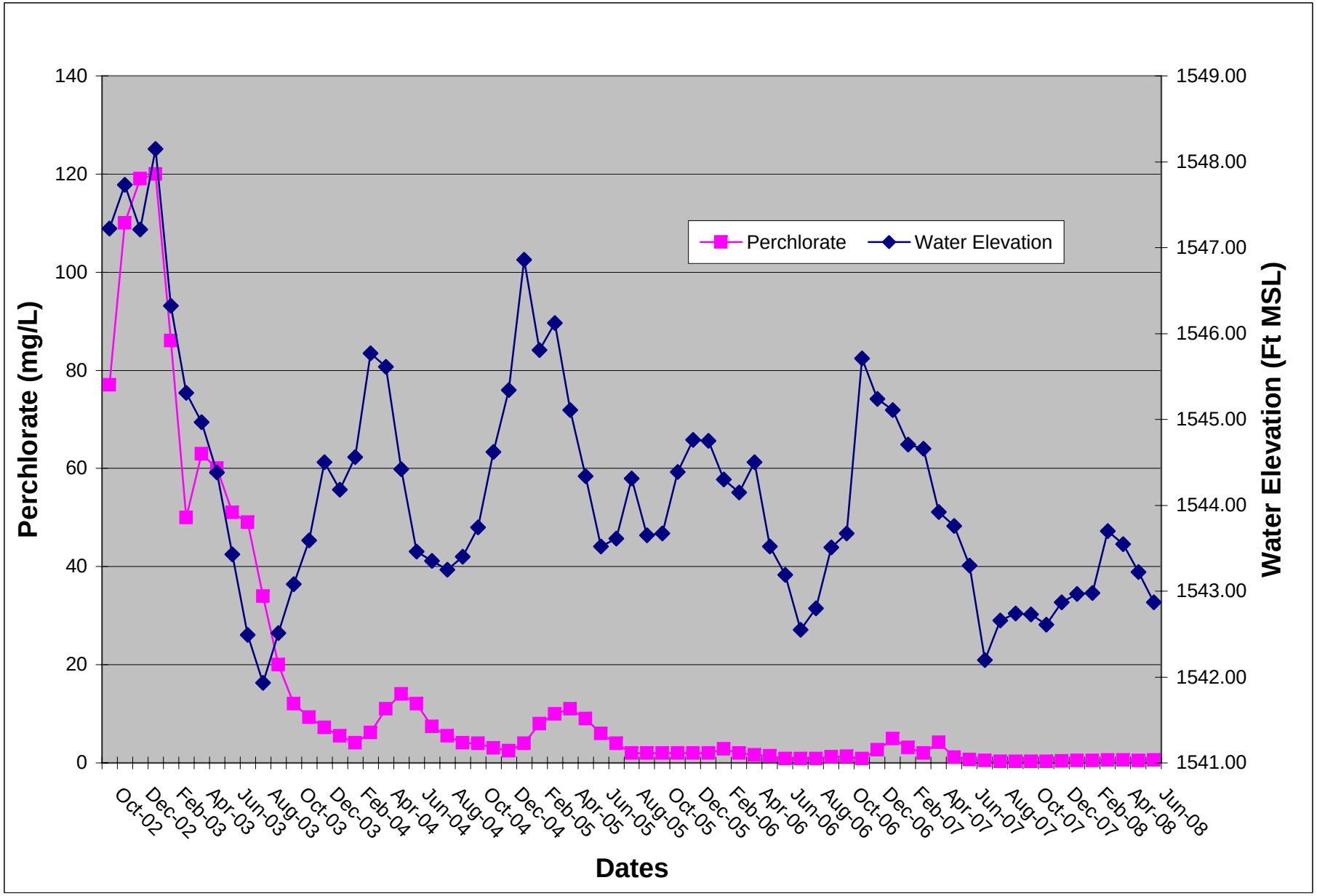


Figure 31: Seep WF Perchlorate Section Graph

Tronox LLC, Henderson, Nevada

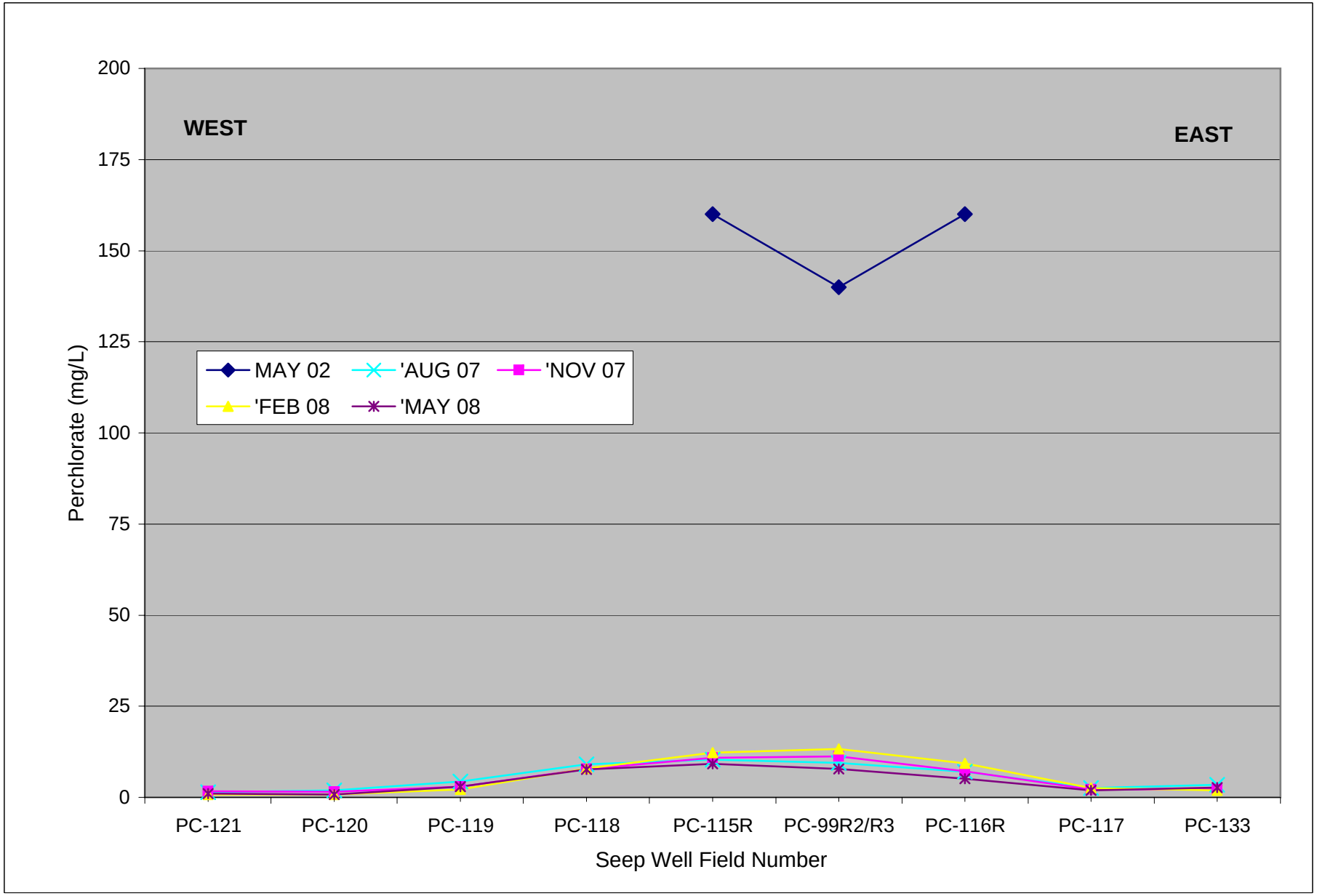


Figure 32: Seep WF Total Dissolved Solids Section Graph

Tronox LLC, Henderson, Nevada

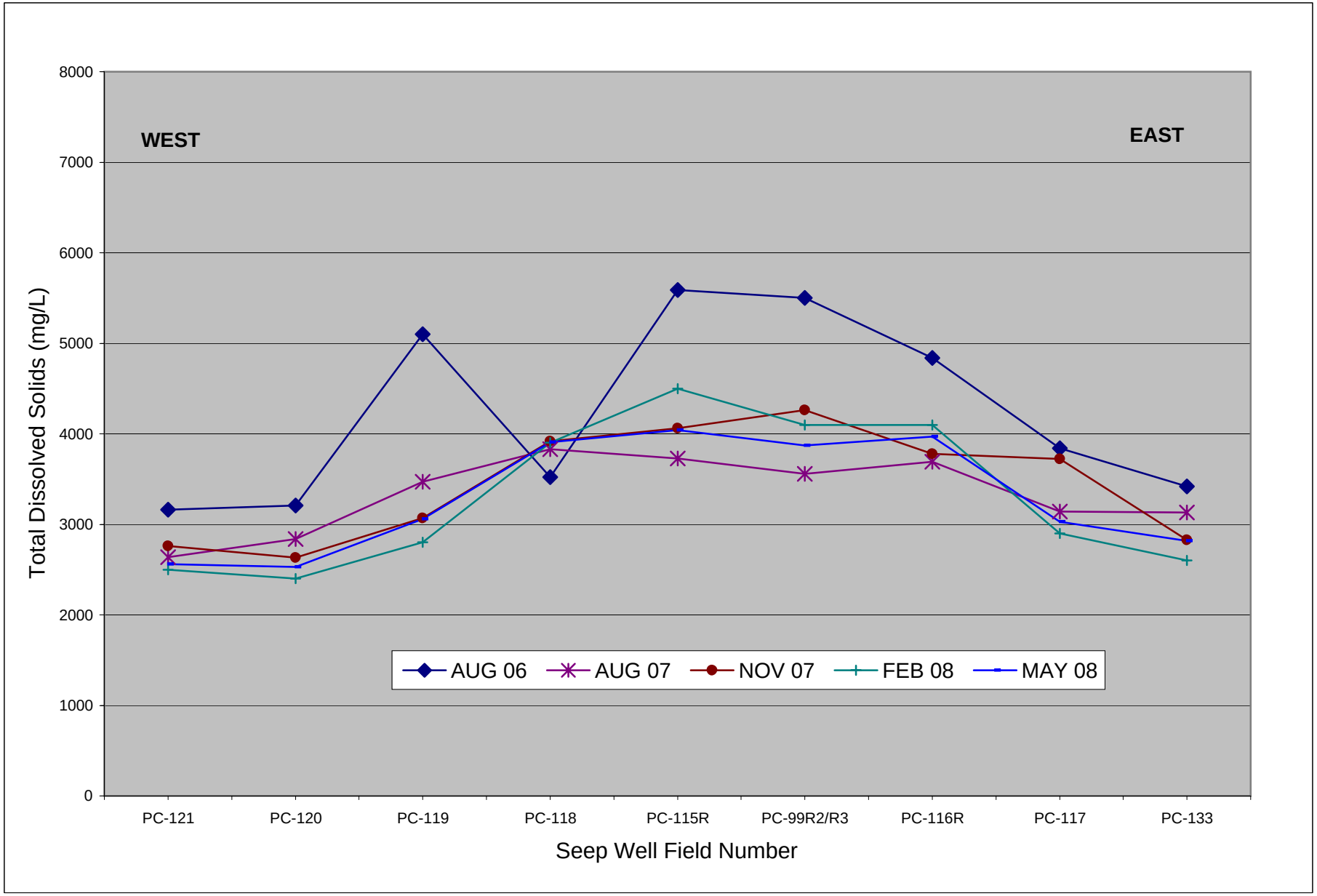


Figure 33: Seep Area Average Perchlorate Concentration and Mass Removed

Tronox LLC, Henderson,Nevada

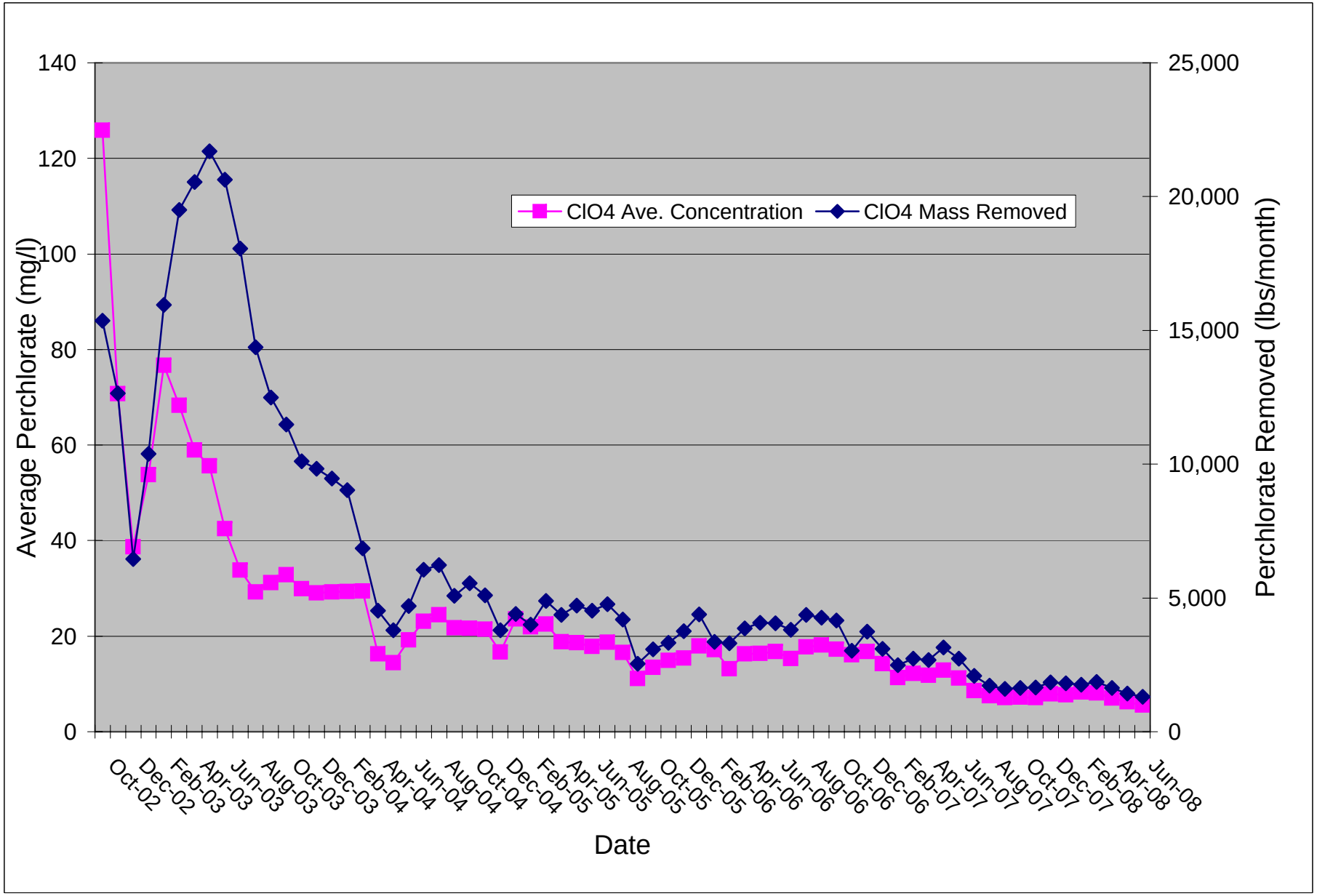
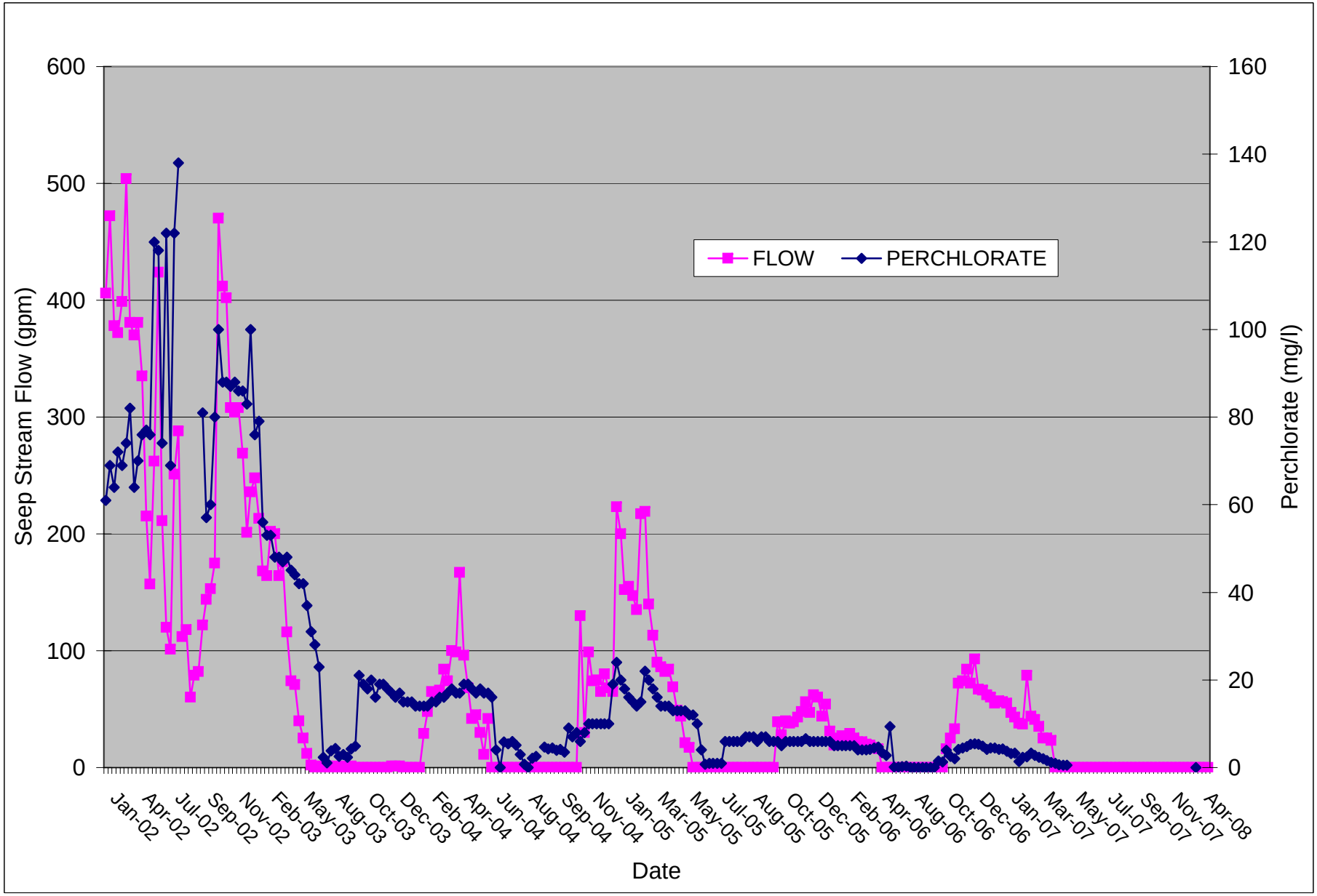


Figure 34: Seep Stream Flow vs. Perchlorate Concentration Trend Graph

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