













**Appendix D: Surface Water Quality Data Summary Tables**  
(all Values are dissolved (mg/L) unless otherwise indicated)

Chinde Downstream (CD-2)	Dates	n	Range	Median	MAD	Average	Standard Deviation	Percent Relative Standard Deviation	Q3	95 <sup>th</sup> Percentile	Exceedance of Criteria											
											Livestock		Aquatic & Wildlife Acute		Aquatic & Wildlife Chronic		Secondary Human Contact		Fish Consumption		Baseline Median + 2MAD	
											n	%	n	%	n	%	n	%	n	%	n	%
<b>Aluminum</b>																						
<b>Arsenic</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.0005-0.012)	<b>0.0008</b>	0.0003	<b>0.0015</b>	0.0014	<b>89</b>	0.003	<b>0.0025</b>											84	<b>50</b>
<b>Barium</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.04-1.)	<b>0.5</b>	0.25	<b>0.36</b>	0.20	<b>57</b>	0.5	<b>0.5</b>											6	<b>4</b>
<b>Boron</b>	(05/13/1986-05/23/1997)	<b>167</b>	(0.005-5.4)	<b>0.12</b>	0.06	<b>0.213</b>	0.451	<b>212</b>	0.2	<b>0.561</b>	1	<b>0.6</b>									21	<b>13</b>
<b>Cadmium</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.0005-0.005)	<b>0.0025</b>	0.0015	<b>0.0018</b>	0.0011	<b>61</b>	0.003	<b>0.0025</b>											7	<b>4</b>
<b>Chloride</b>	(05/13/1986-05/23/1997)	<b>168</b>	(5.-6150.)	<b>50</b>	27.5	<b>217</b>	765	<b>353</b>	122.3	<b>651.55</b>	10	<b>6</b>									59	<b>35</b>
<b>Chromium</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.001-0.025)	<b>0.01</b>	0	<b>0.009</b>	0.004	<b>44</b>	0.01	<b>0.01</b>			168	<b>100</b>	5	<b>3</b>					5	<b>3</b>
<b>Copper</b>																						
<b>Fluoride</b>																						
<b>Lead</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.0005-0.09)	<b>0.01</b>	0.0015	<b>0.0084</b>	0.0100	<b>120</b>	0.01	<b>0.0107</b>							<b>4</b>				9	<b>5</b>
<b>Mercury</b>																						
<b>Nitrate</b>	(05/13/1986-05/23/1997)	<b>166</b>	(0.5-340.)	<b>9.5</b>	3.8	<b>15.2</b>	31.3	<b>205</b>	14.2	<b>31.4</b>											58	<b>35</b>
<b>pH</b>	(04/05/1996-05/23/1997)	<b>23</b>	(7.2-8.4)	<b>7.9</b>	0.2	<b>7.9</b>	0.3	<b>4</b>	8.25	<b>8.4</b>											2	<b>9</b>
<b>Radium (pCi/l)</b>	(05/13/1986-08/27/1992)	<b>14</b>	(0.2-9.9999)	<b>0.4</b>	0.1	<b>1.0786</b>	2.5700	<b>238</b>	0.5	<b>3.8900</b>											1	<b>7</b>
<b>Selenium</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.0005-0.019)	<b>0.0025</b>	0.0005	<b>0.0034</b>	0.0030	<b>87</b>	0.004	<b>0.009</b>					<b>108</b>	64					32	<b>19</b>
<b>Silver</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.0005-0.05)	<b>0.005</b>	0	<b>0.0053</b>	0.0040	<b>75</b>	0.005	<b>0.01</b>											10	<b>6</b>
<b>Sulfate</b>	(05/13/1986-05/23/1997)	<b>166</b>	(49.-5580.)	<b>495</b>	226.5	<b>697</b>	732	<b>105</b>	837.5	<b>1794</b>	30	<b>18</b>									27	<b>16</b>
<b>TDS - 180°C</b>	(05/13/1986-05/23/1997)	<b>168</b>	(367.-18300.)	<b>1005</b>	395	<b>1536</b>	2235	<b>146</b>	1593	<b>3884.8</b>	12	<b>7</b>									28	<b>17</b>
<b>Zinc</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.005-0.64)	<b>0.05</b>	0.045	<b>0.080</b>	0.079	<b>99</b>	0.125	<b>0.128</b>											4	<b>2</b>
<b>TSS</b>	(05/13/1986-05/23/1997)	<b>166</b>	(5.-335000.)	<b>1705</b>	1605	<b>10290.2</b>	33499.3	<b>326</b>	6570	<b>37400</b>											66	<b>40</b>
<b>Conductivity (umho/cm)</b>	(05/13/1986-05/23/1997)	<b>168</b>	(17.-25300.)	<b>1410</b>	540	<b>2207</b>	3232	<b>146</b>	2123	<b>5677</b>											28	<b>17</b>
<b>Iron (total)</b>	(12/29/1992-05/23/1997)	<b>105</b>	(0.1-325.)	<b>3</b>	2.85	<b>31.26</b>	63.93	<b>205</b>	30.1	<b>155</b>											45	<b>43</b>
<b>Manganese</b>	(05/13/1986-05/23/1997)	<b>168</b>	(0.002-3.75)	<b>0.1</b>	0	<b>0.174</b>	0.399	<b>230</b>	0.1	<b>1.086</b>											19	<b>11</b>



















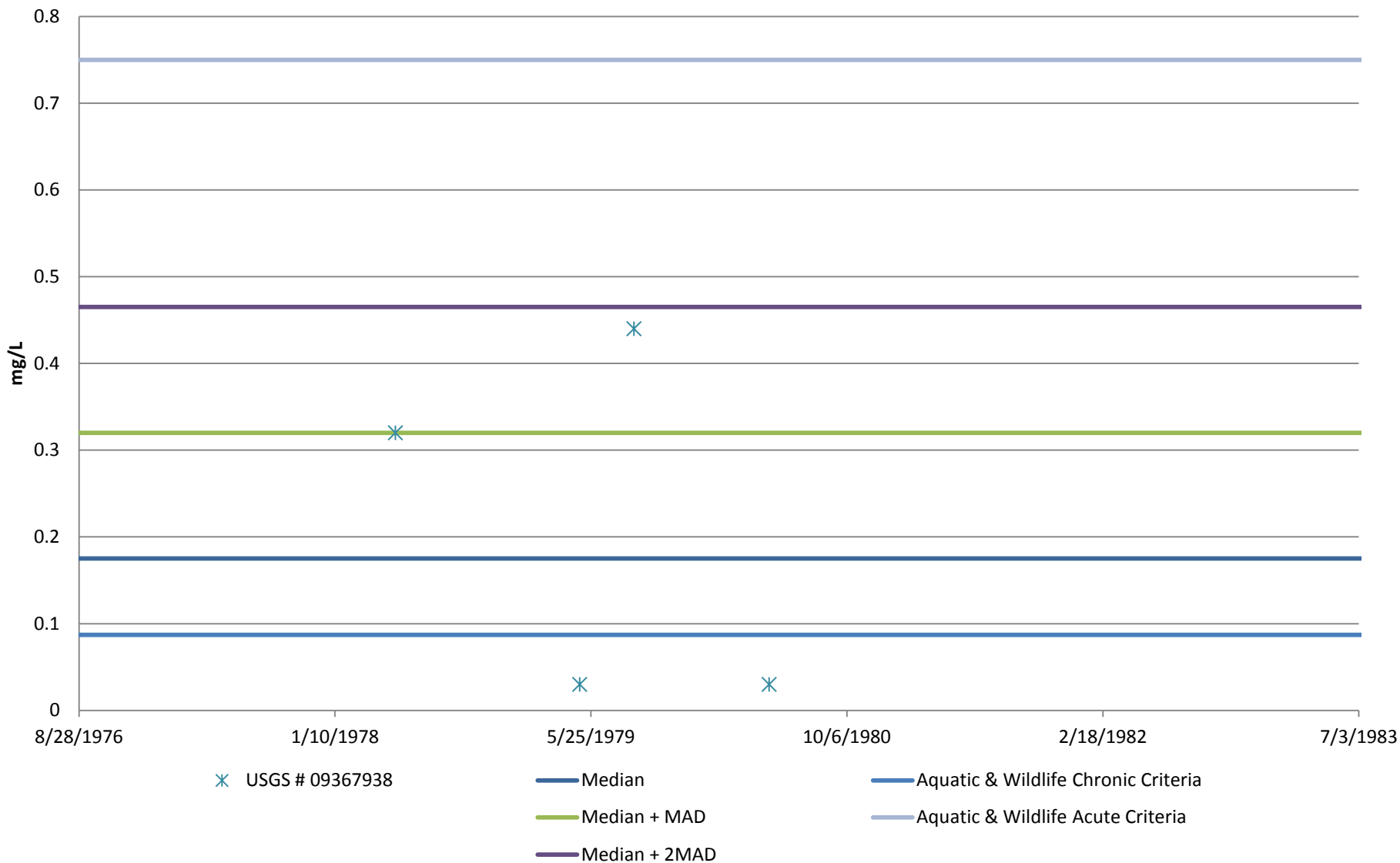




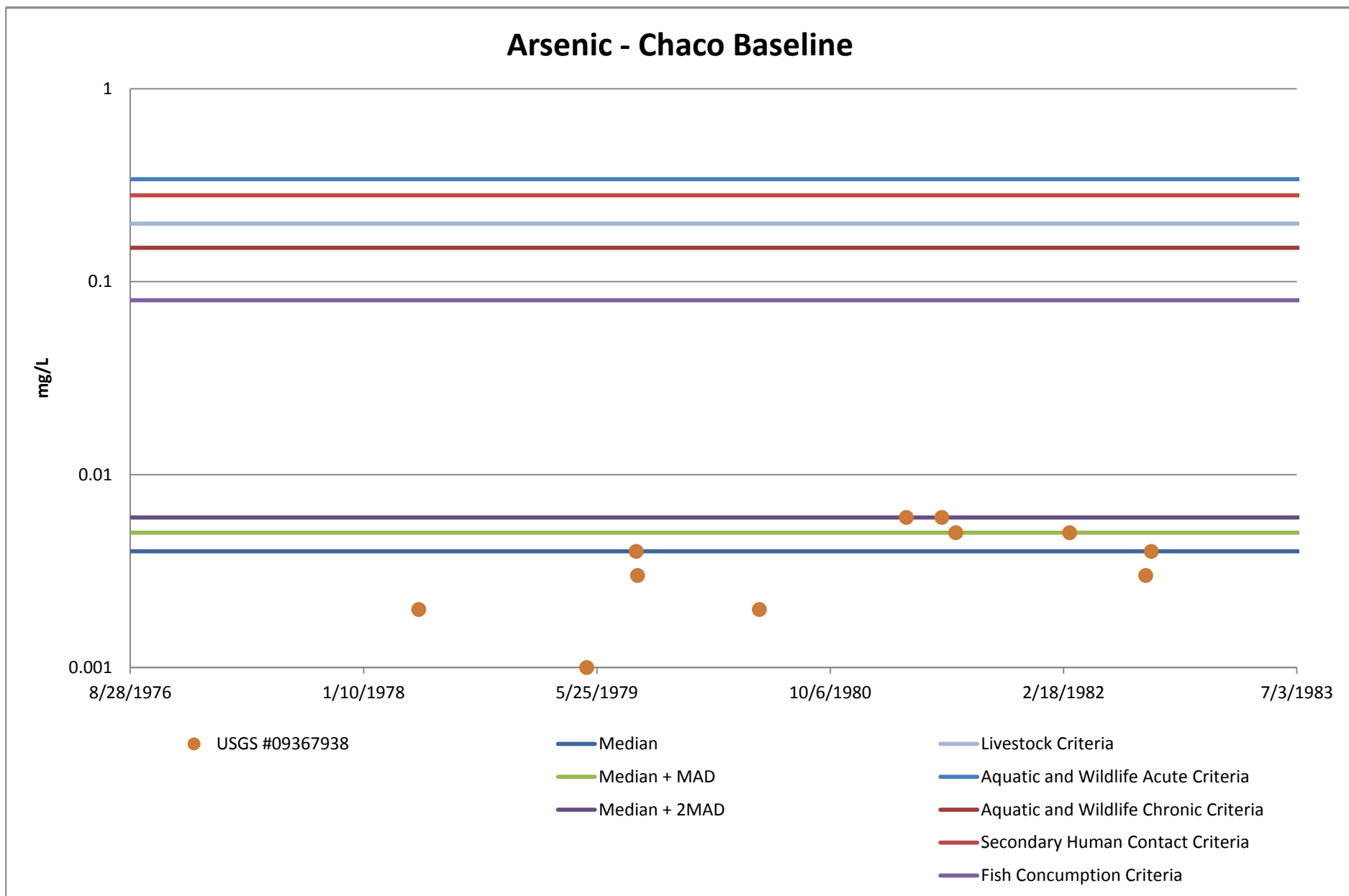


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

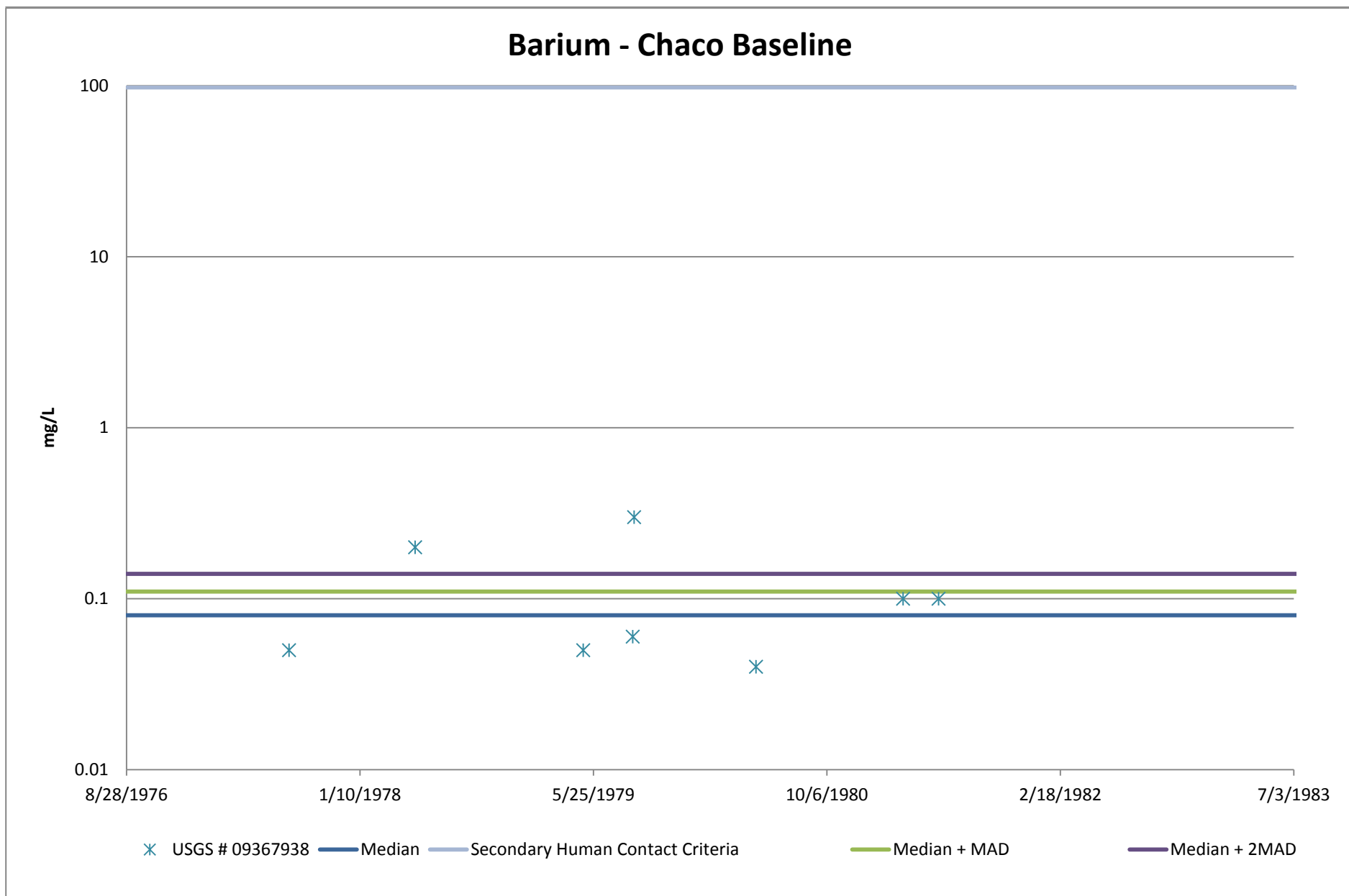
### Aluminum - Chaco Baseline



Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

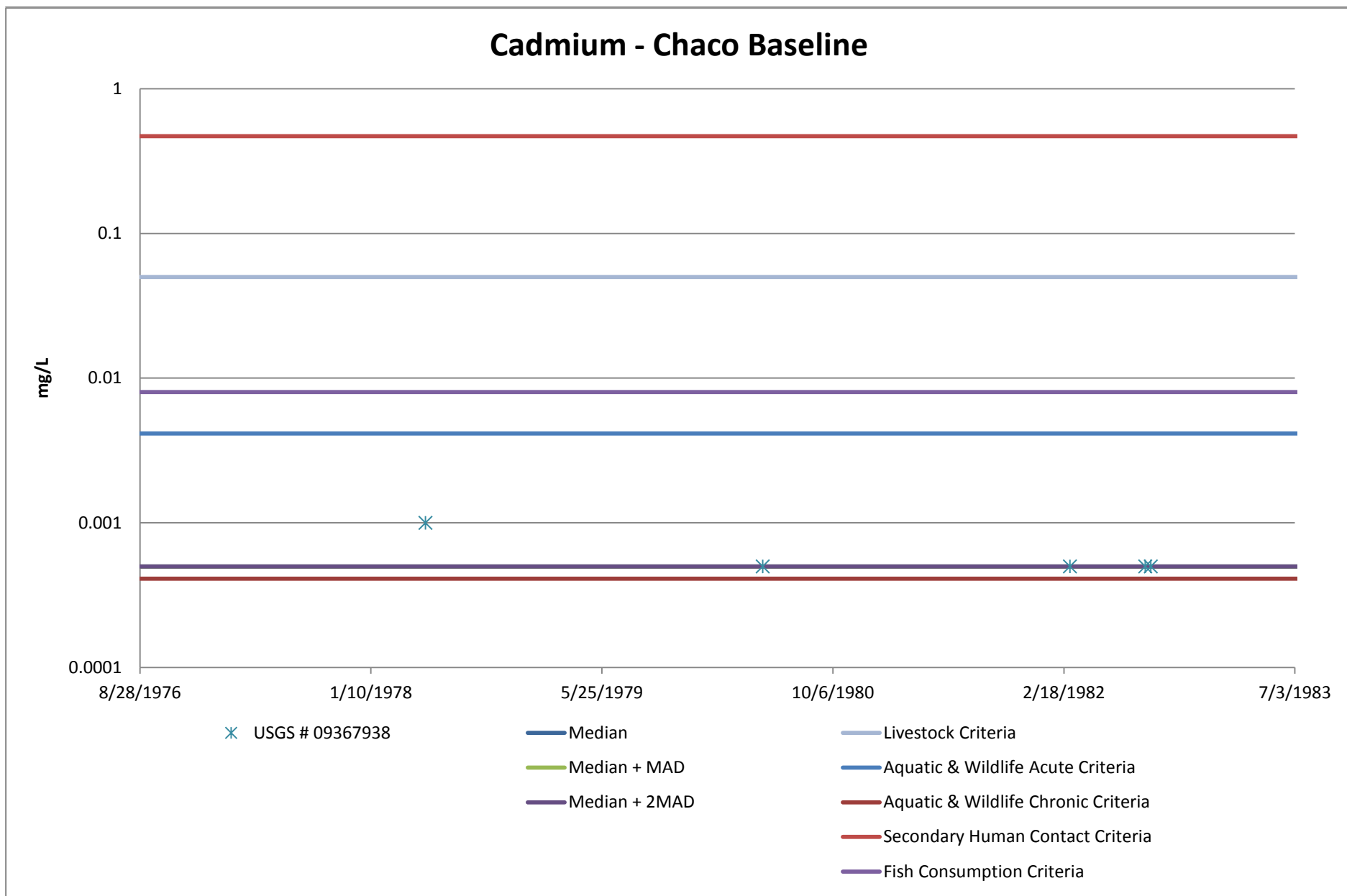


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

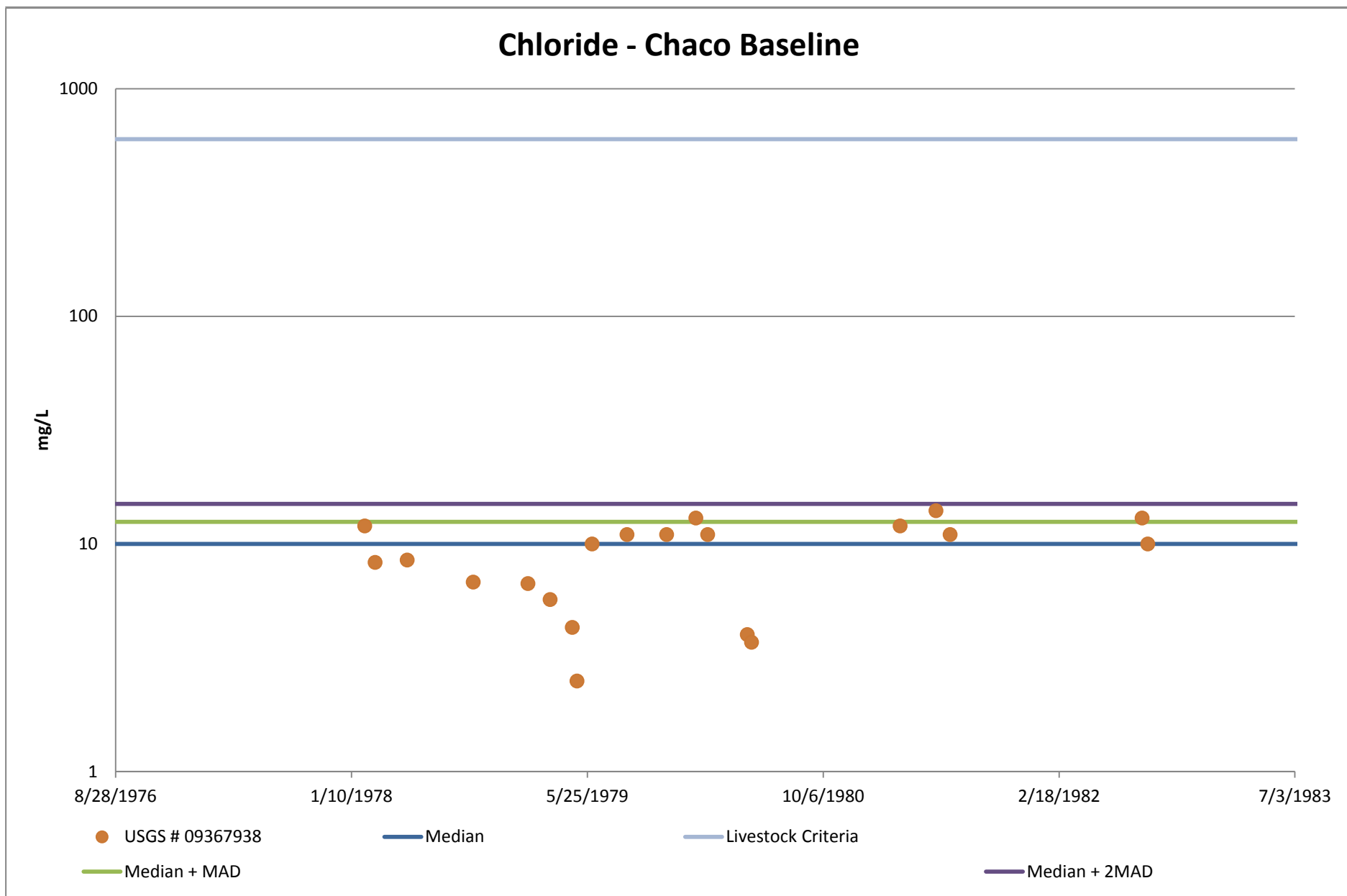




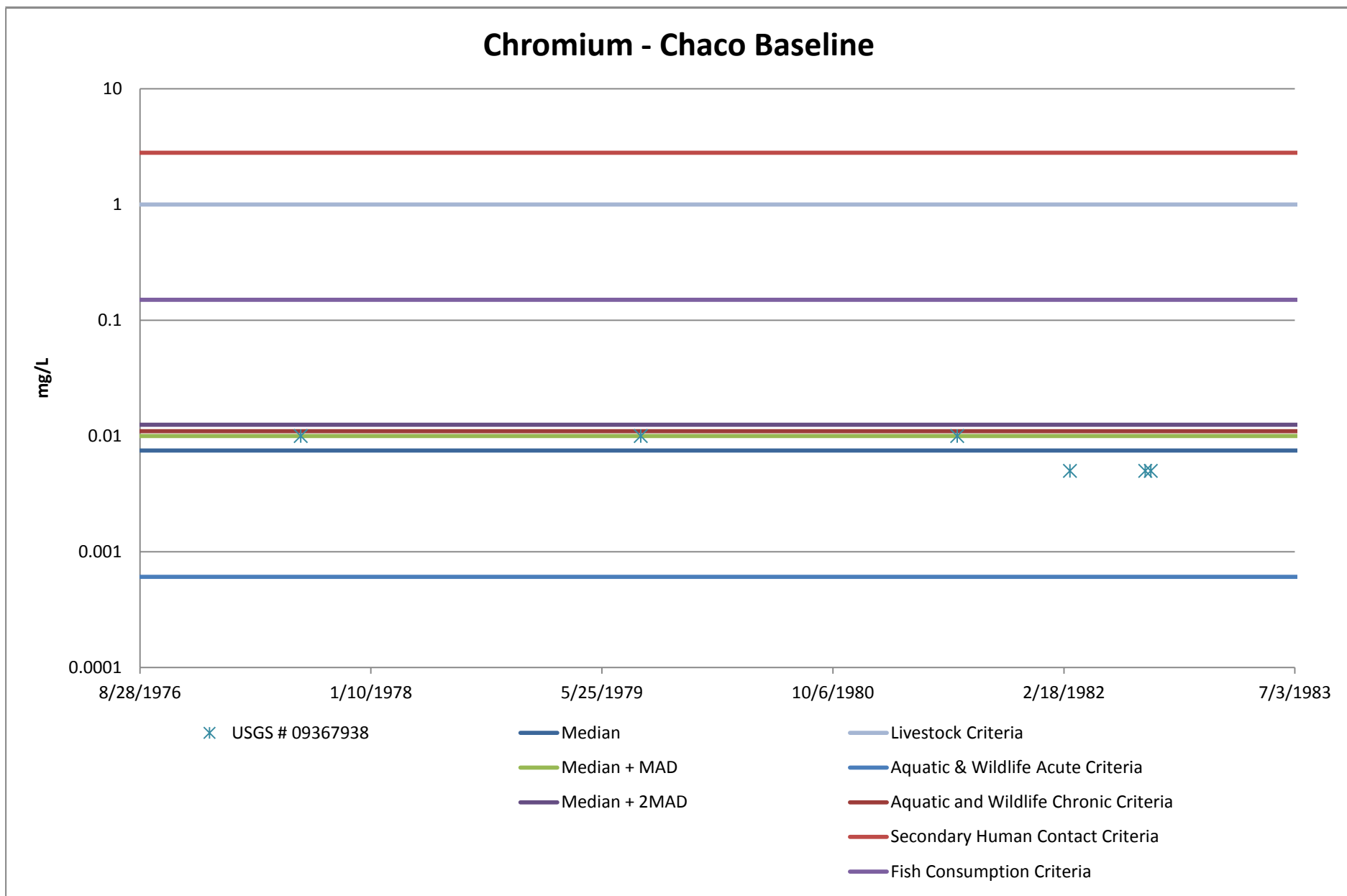
Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs



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Chaco Baseline Graphs

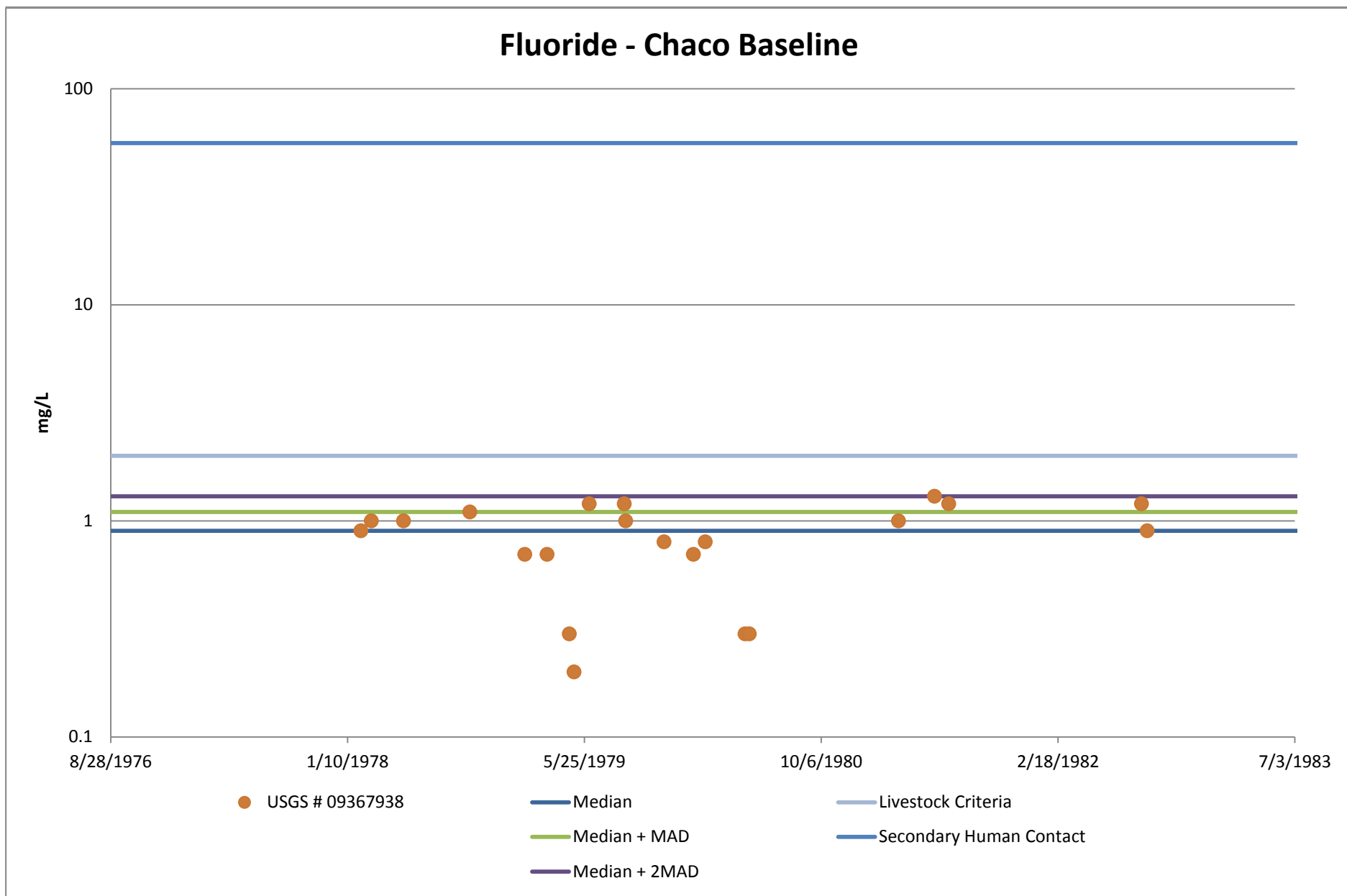


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

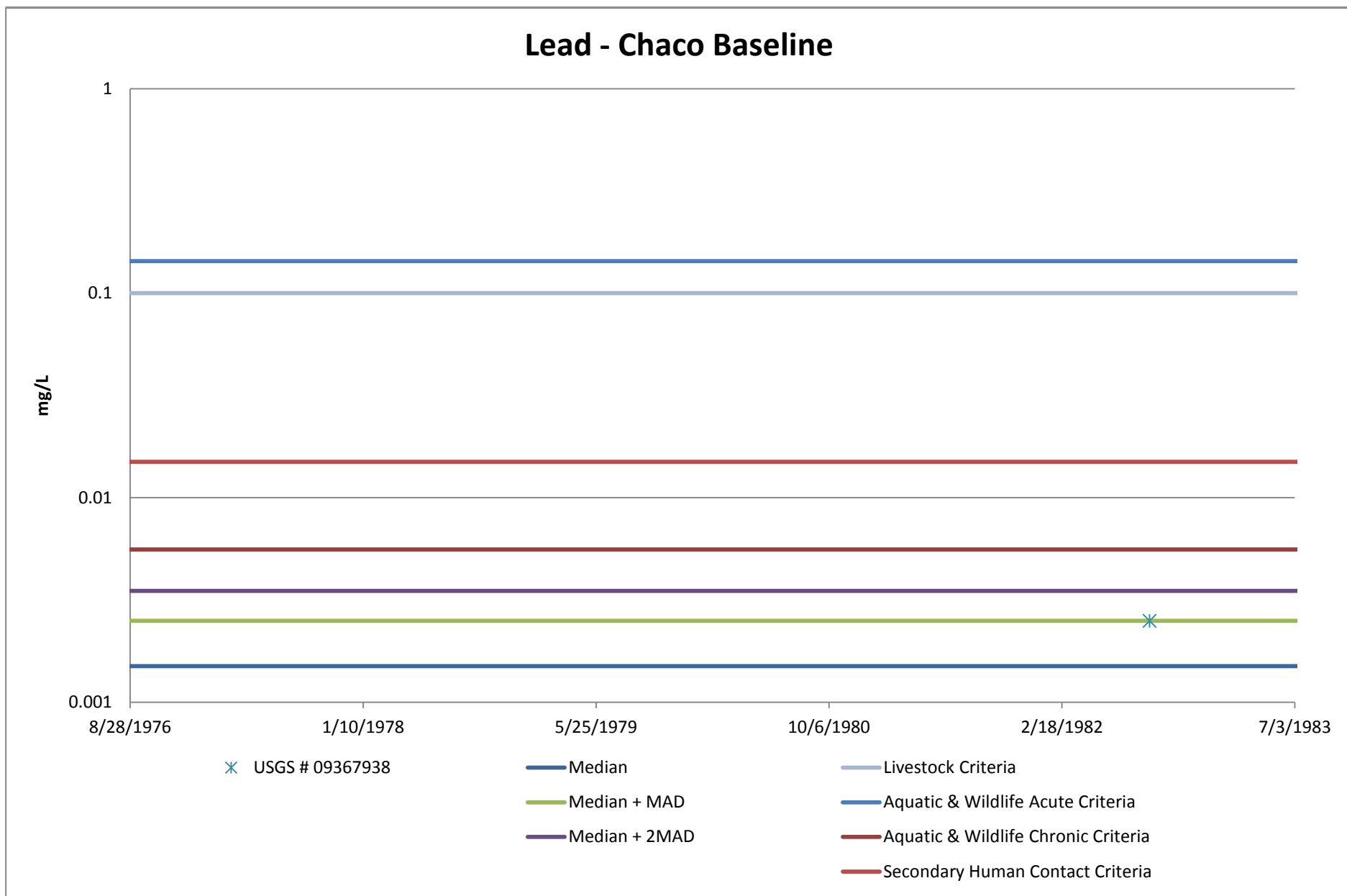




Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

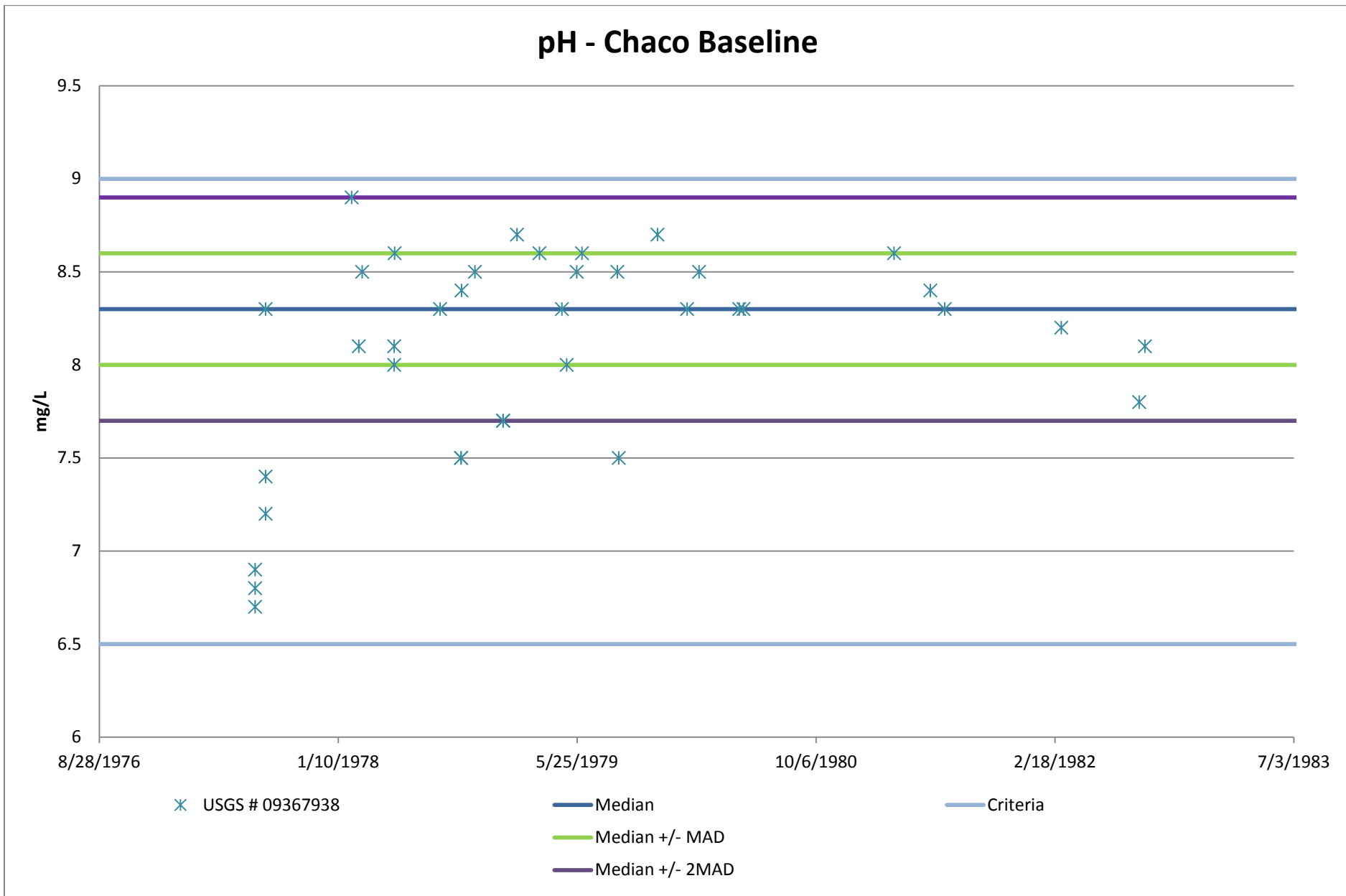


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

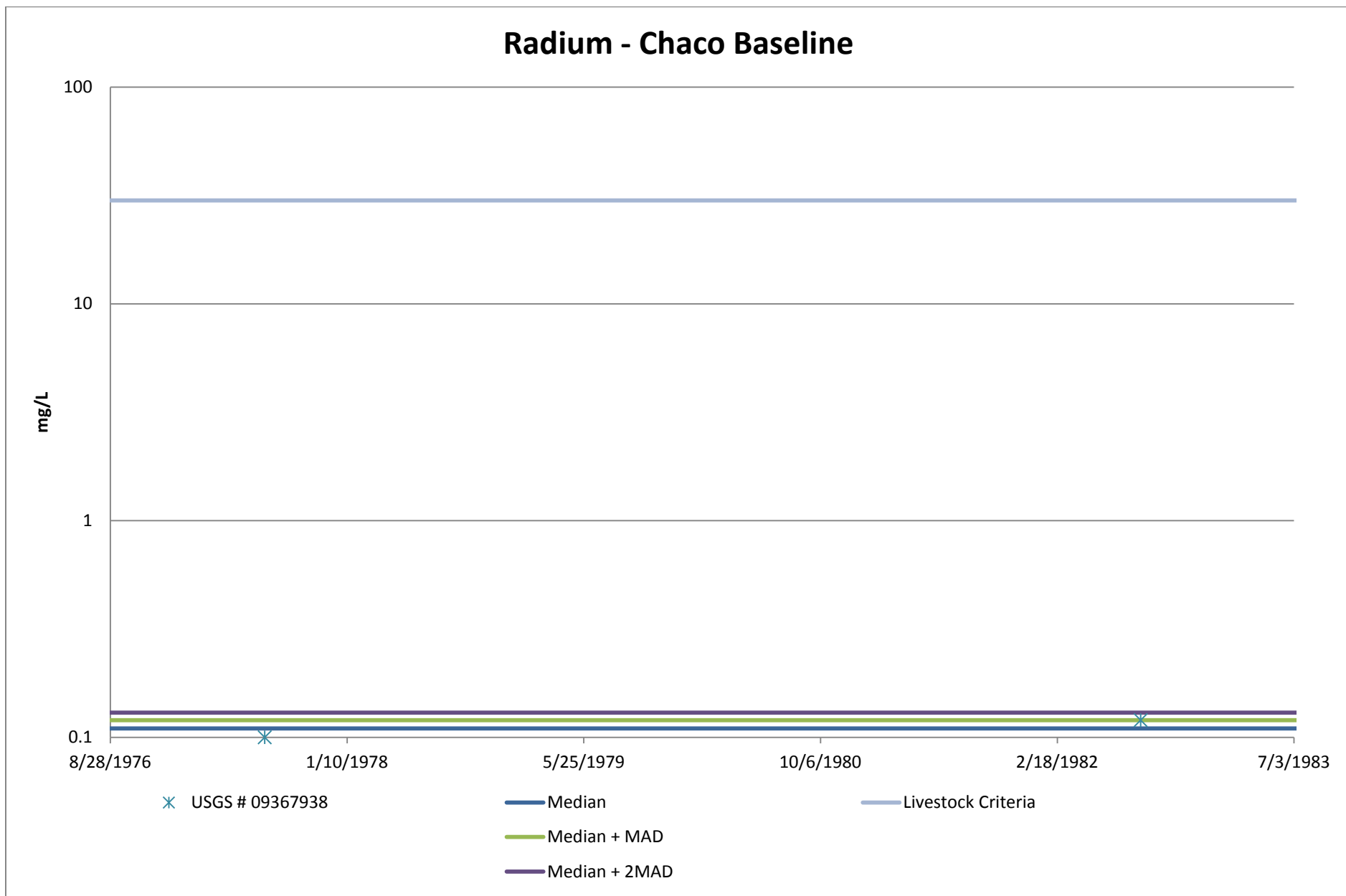


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

### pH - Chaco Baseline

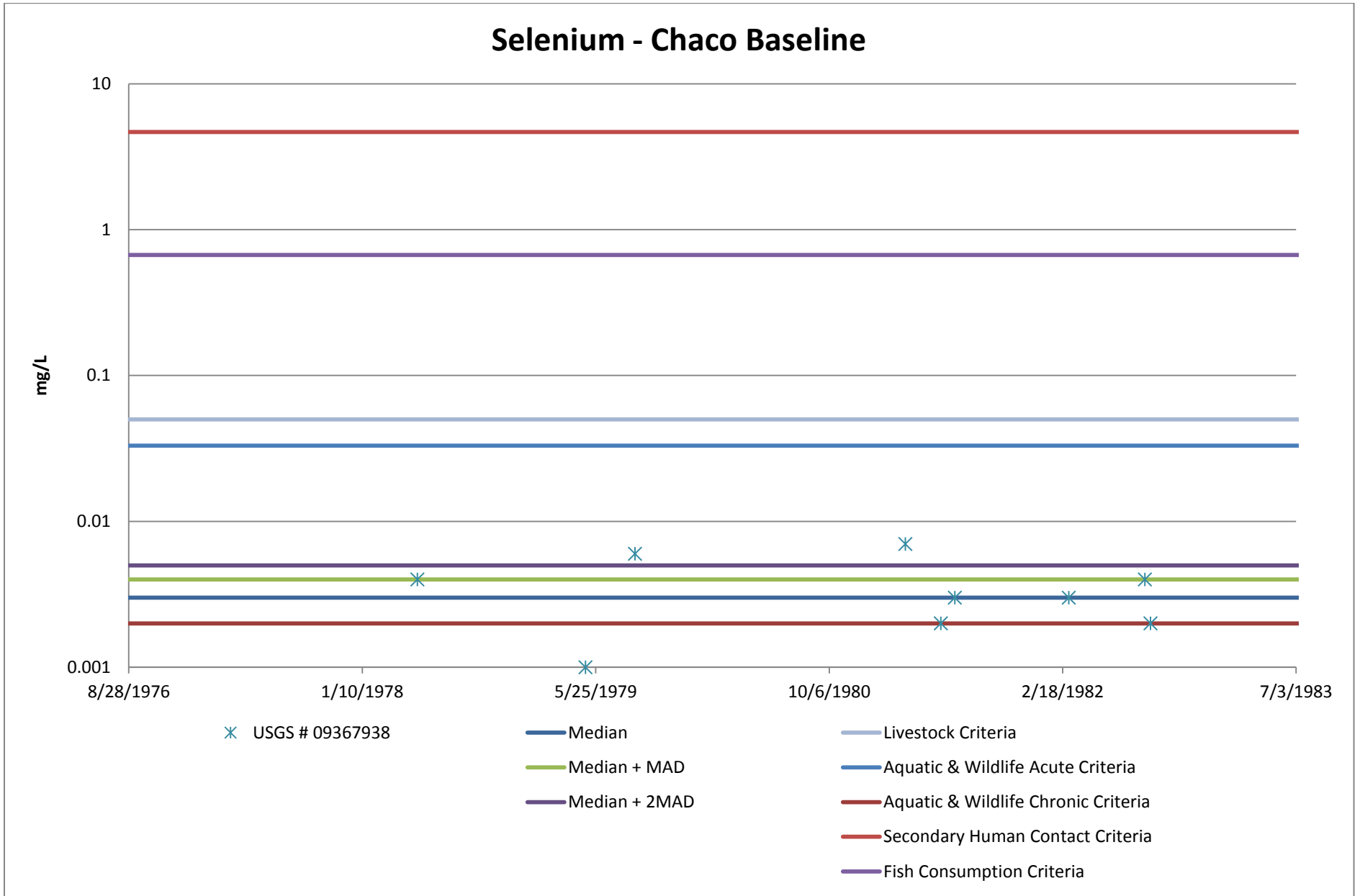


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

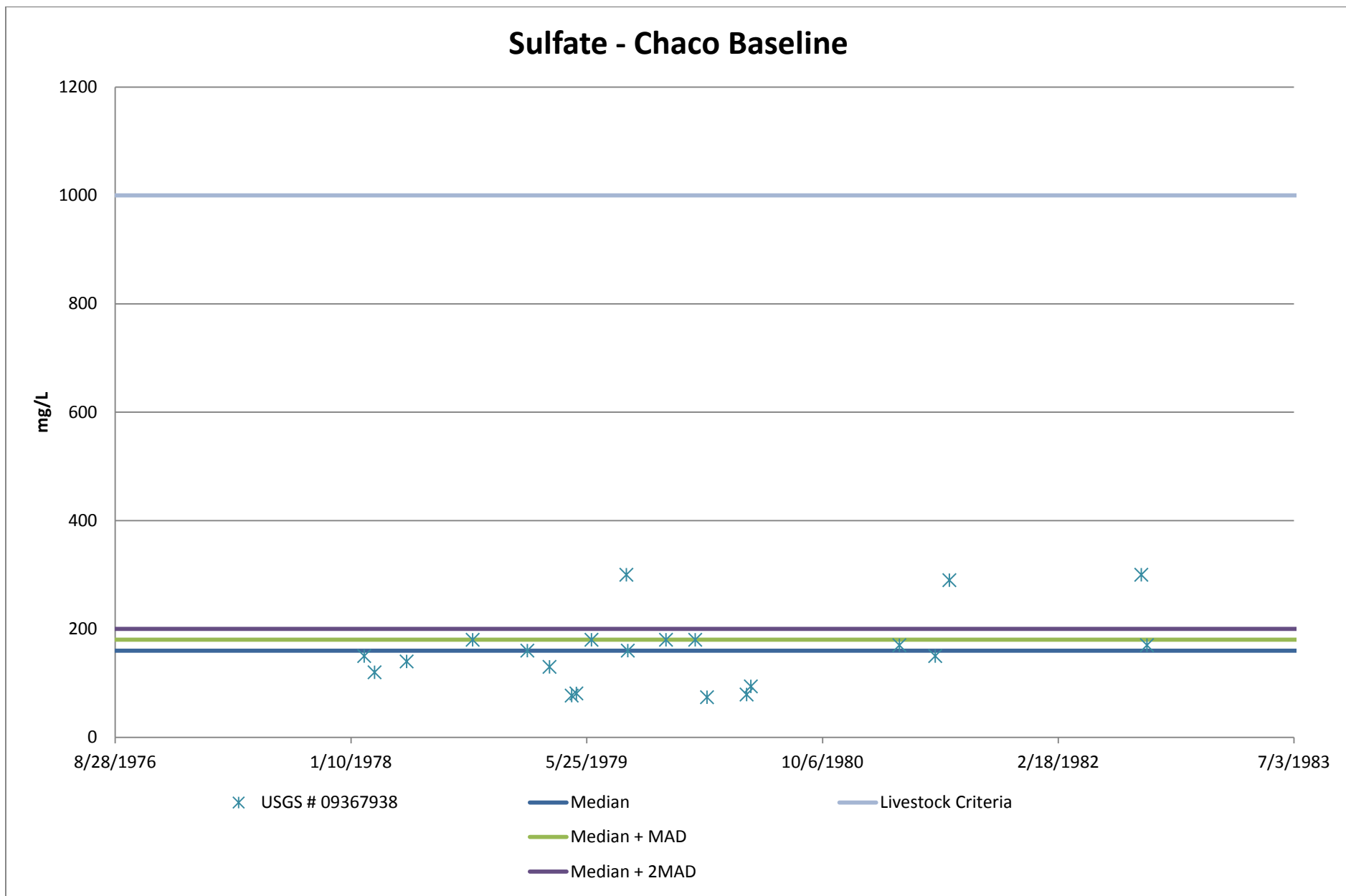


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

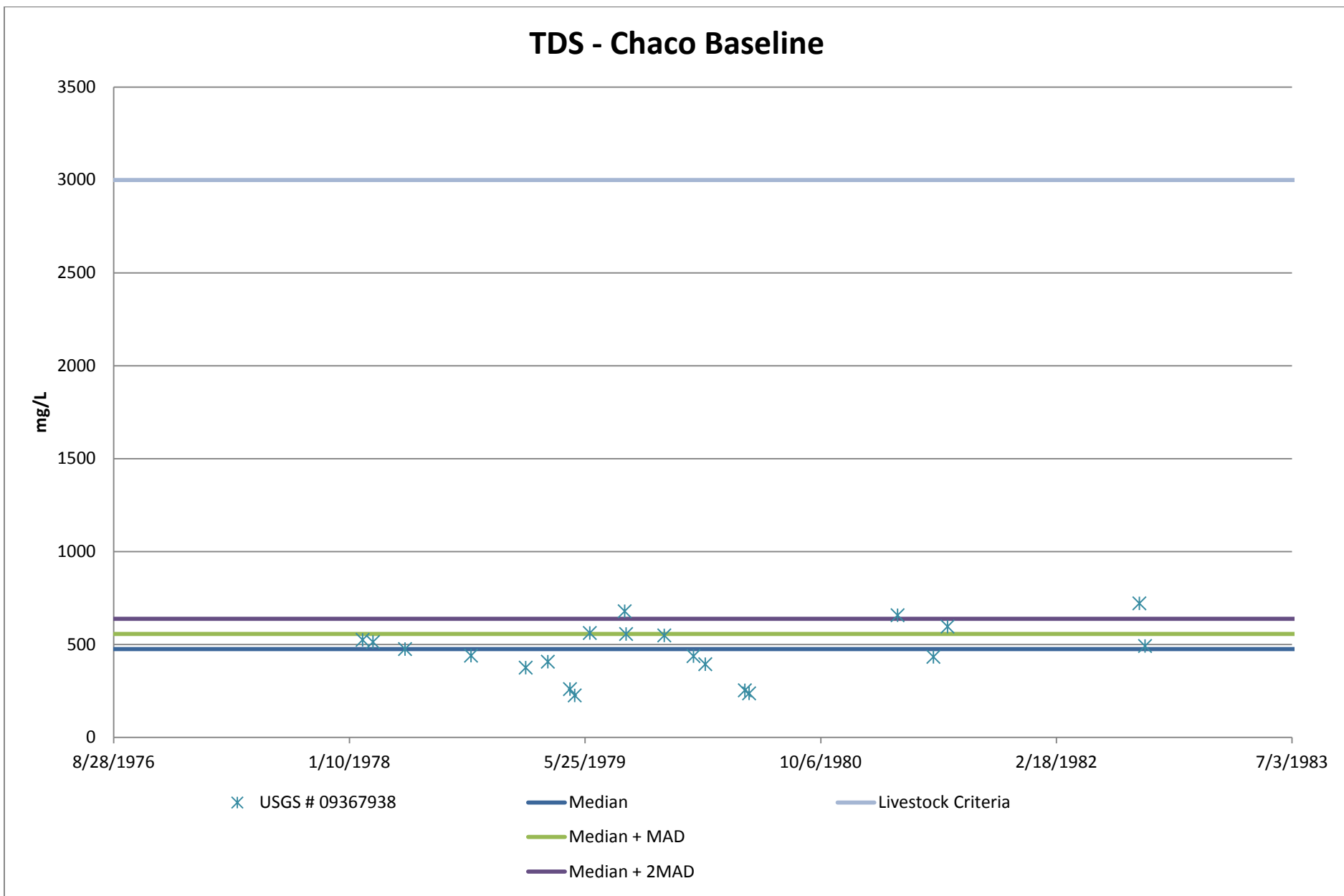
### Selenium - Chaco Baseline



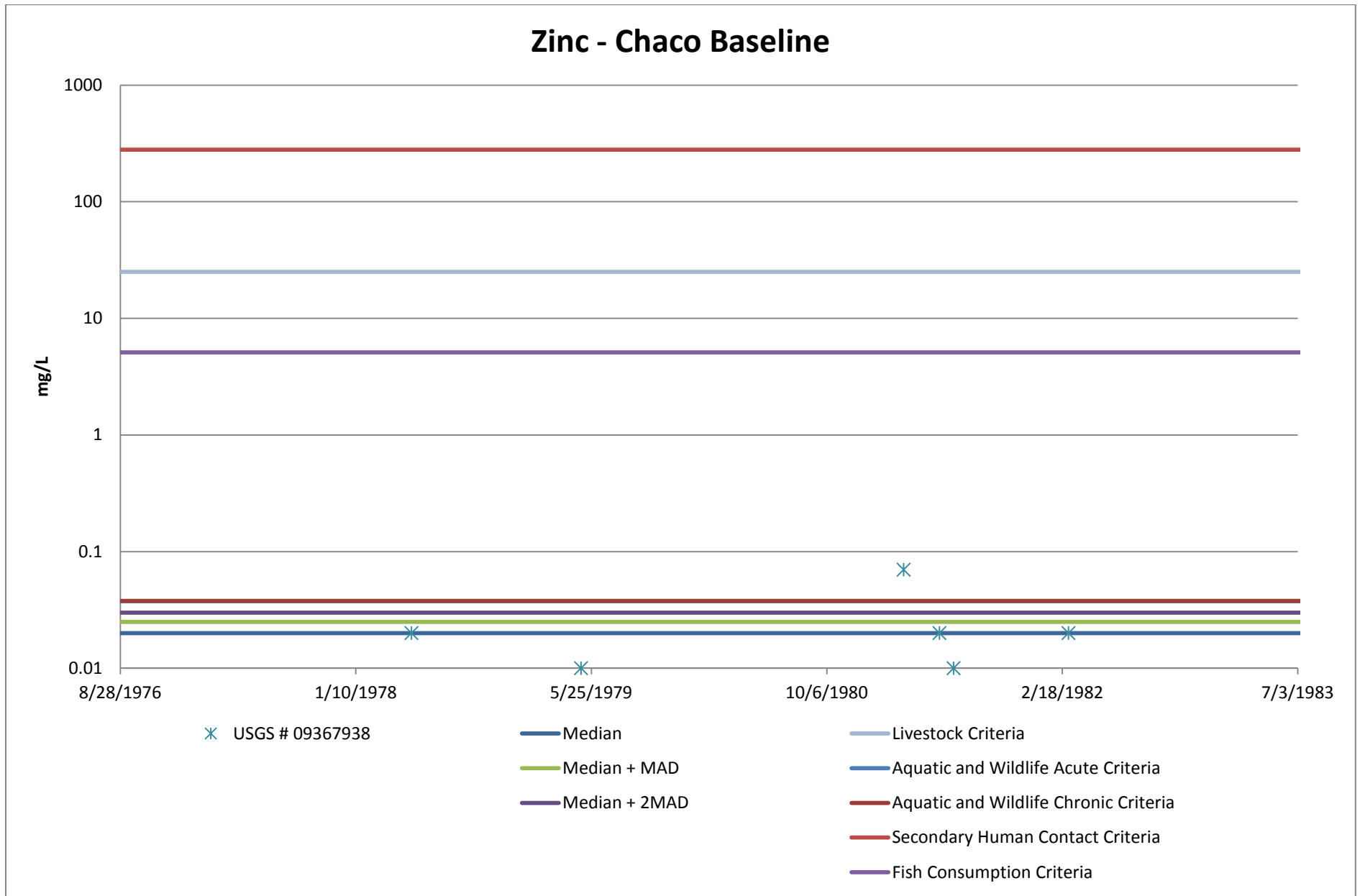
Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs



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Chaco Baseline Graphs



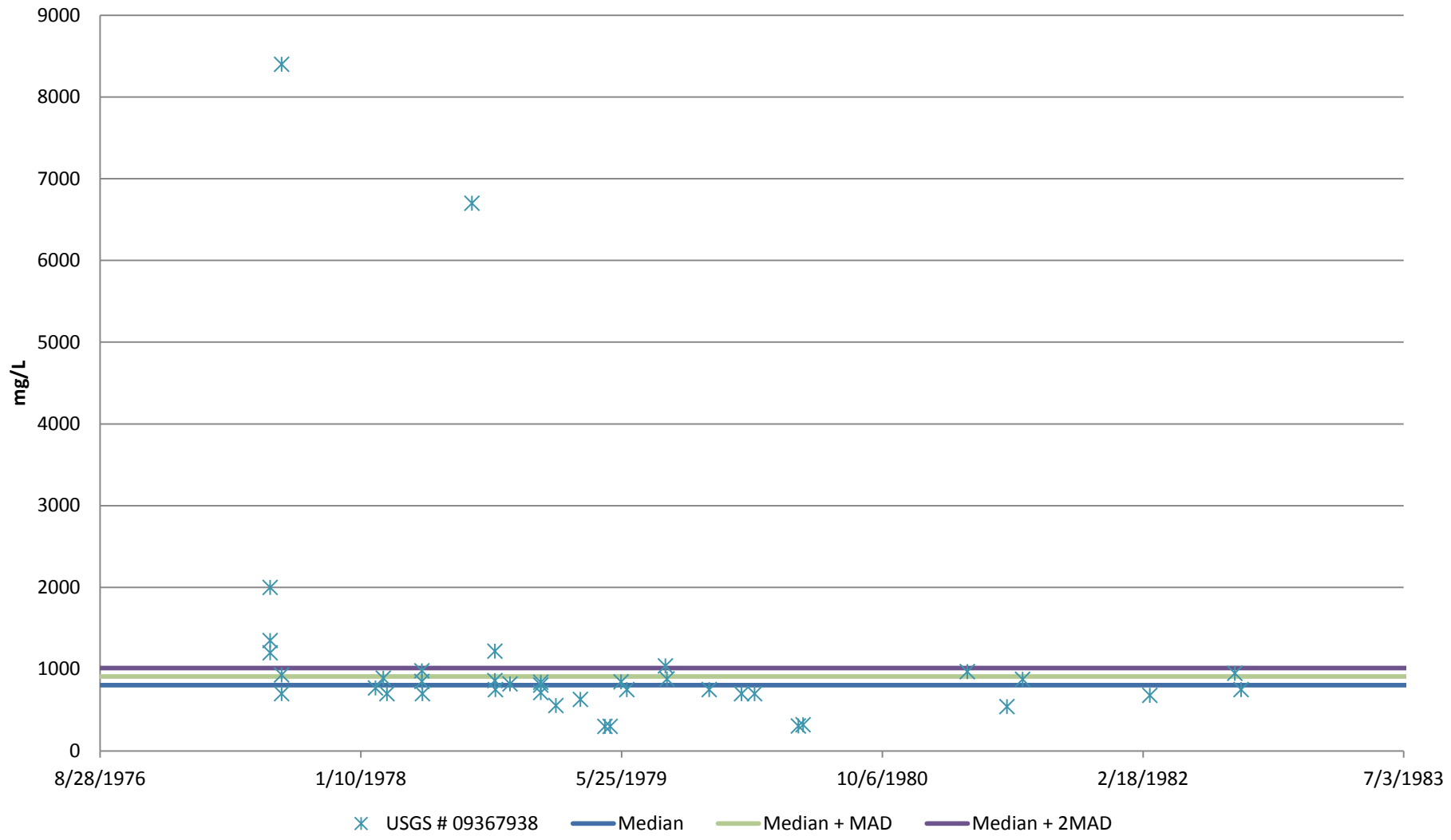
Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs



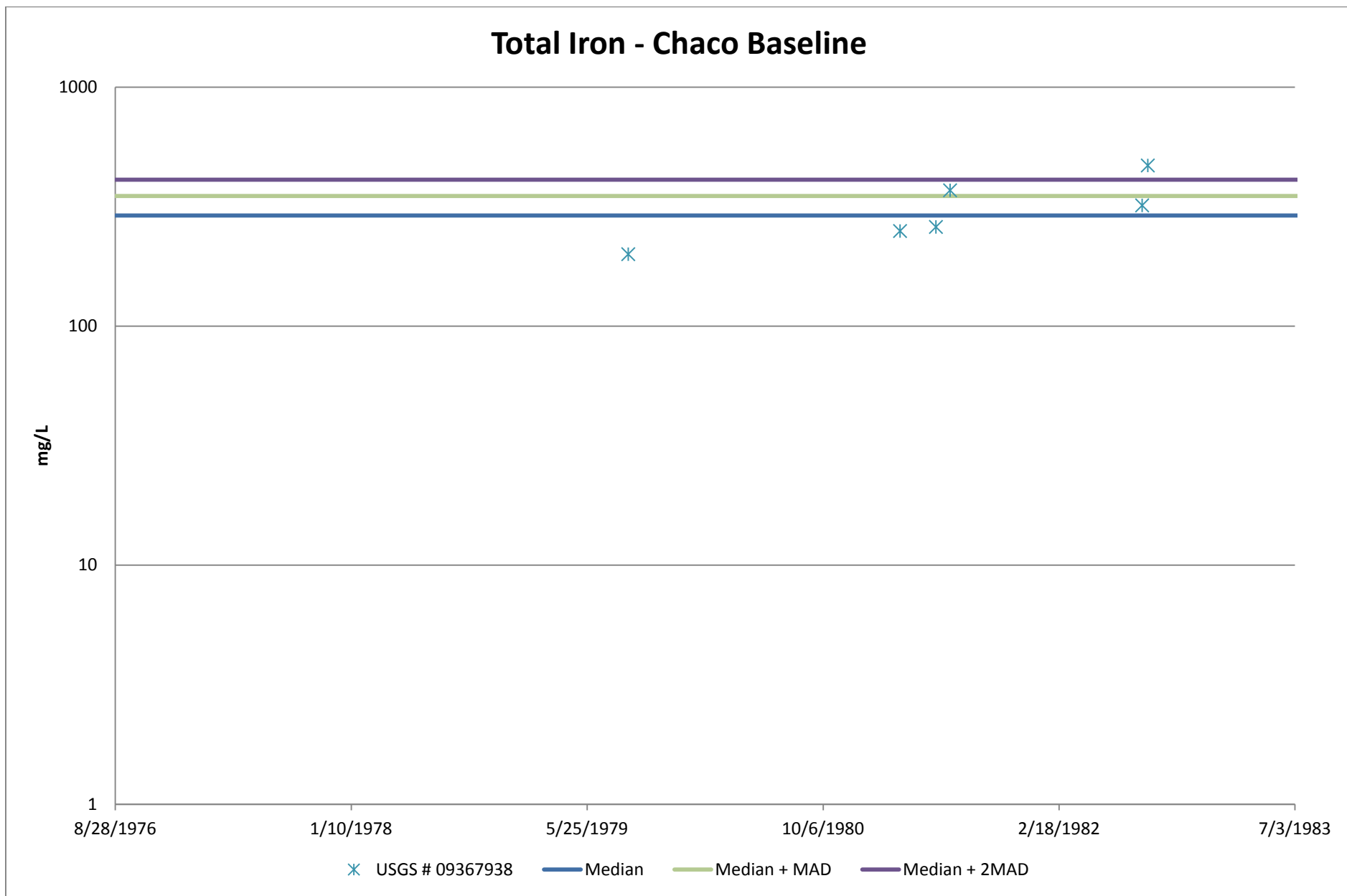


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs

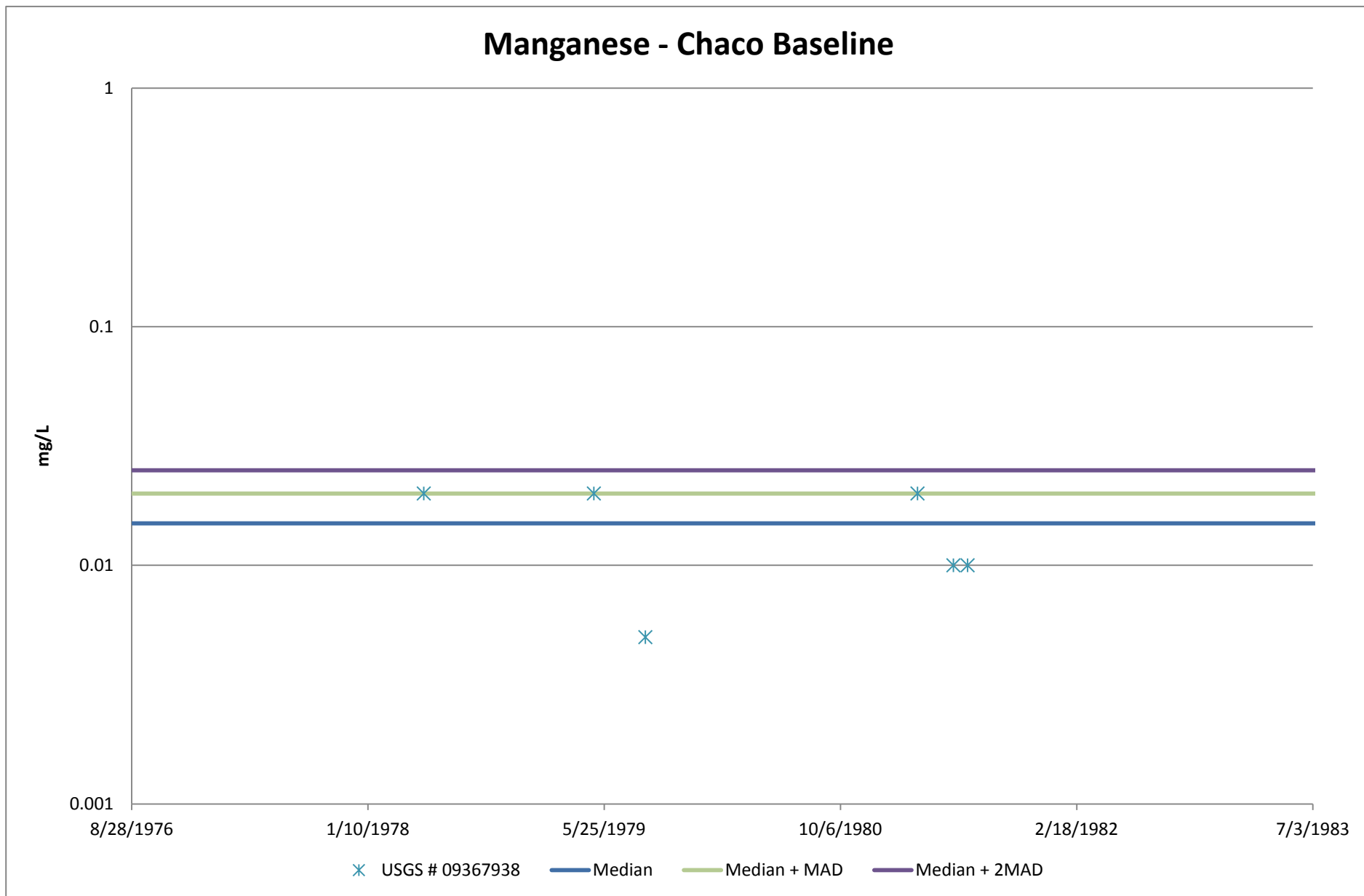
### Conductivity - Chaco Baseline



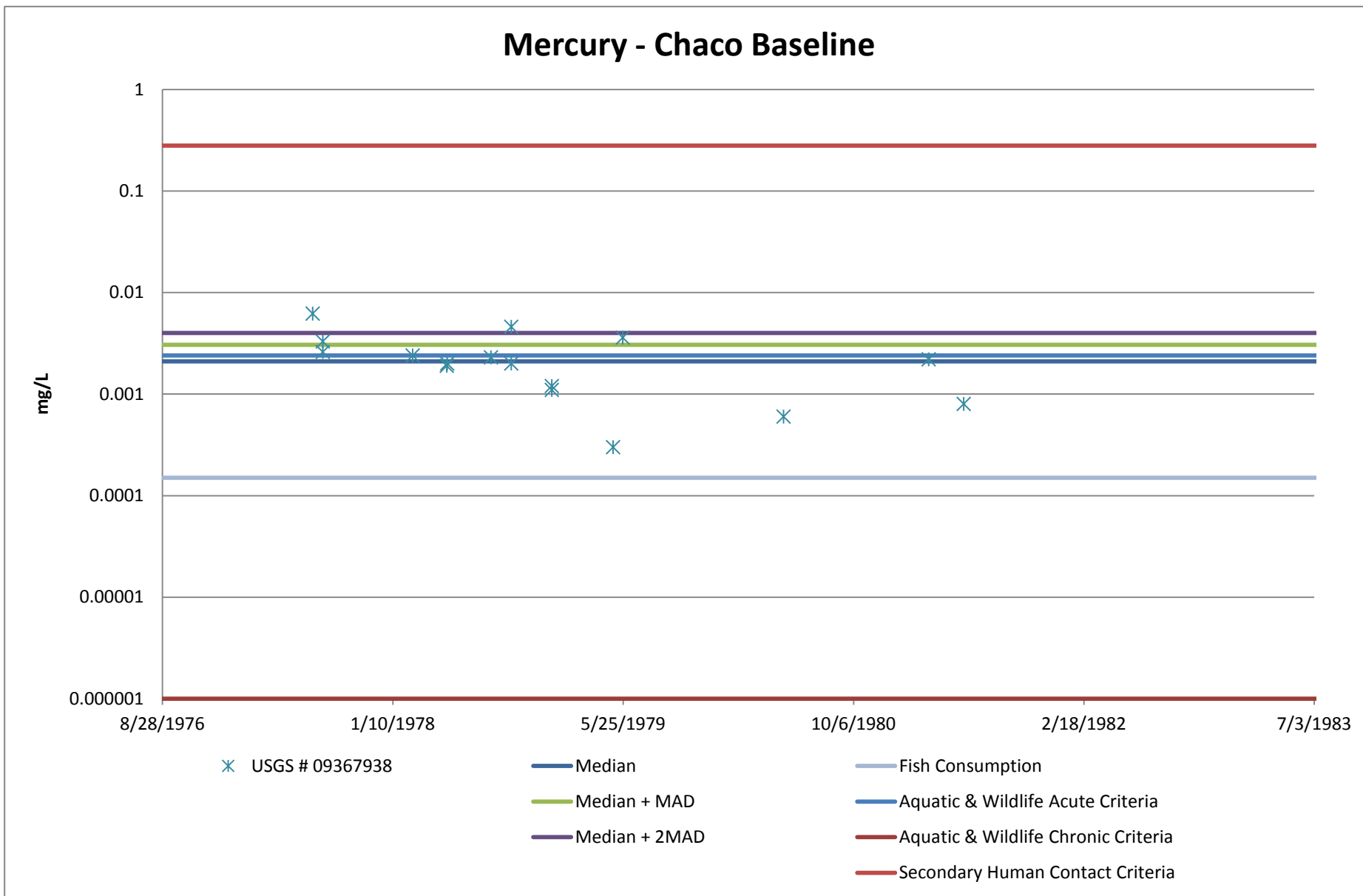
Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs



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Chaco Baseline Graphs

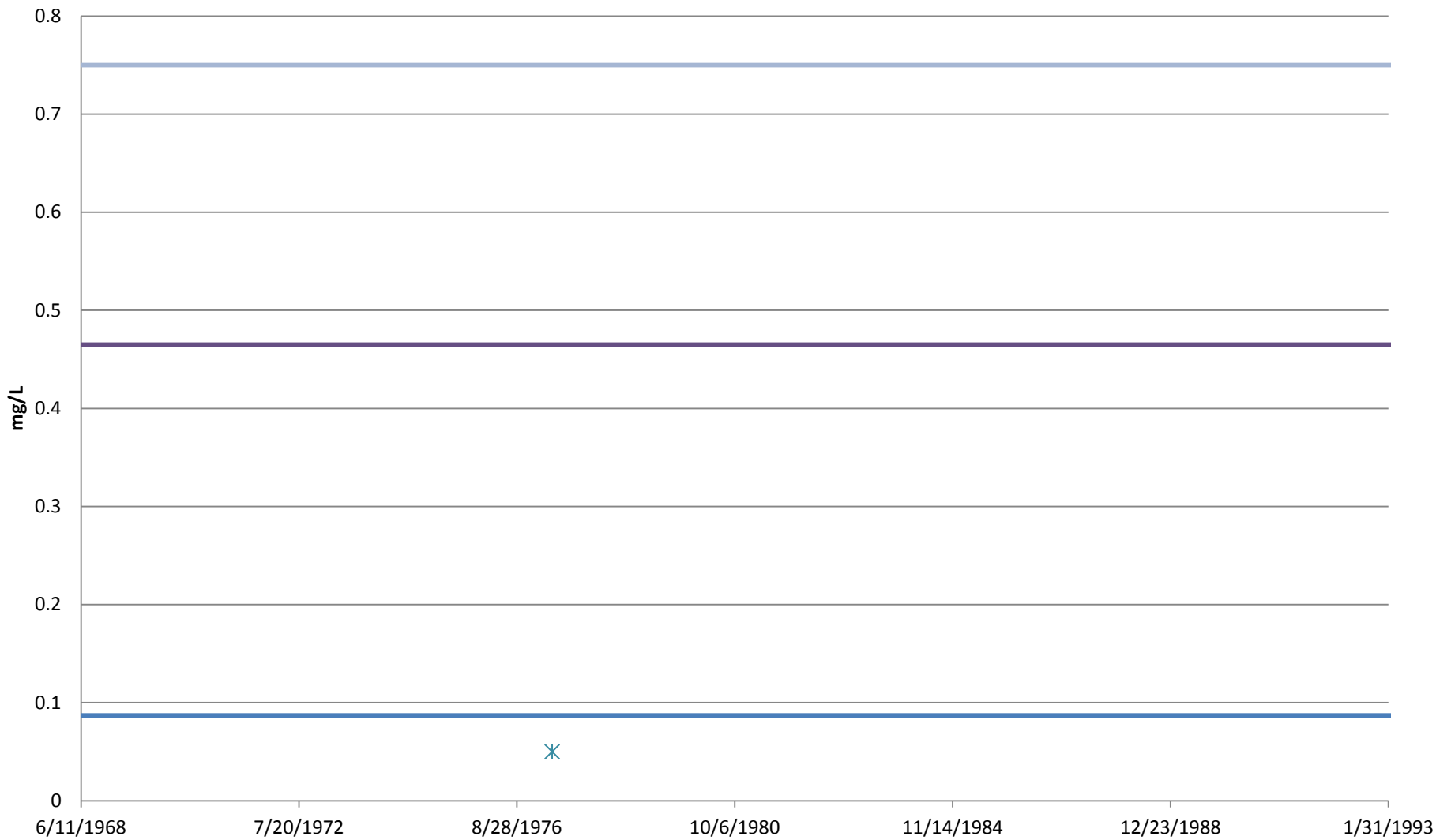


Appendix D: Surface Water Quality Data Graphs  
Chaco Baseline Graphs



Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

### Aluminum - Chaco Downstream

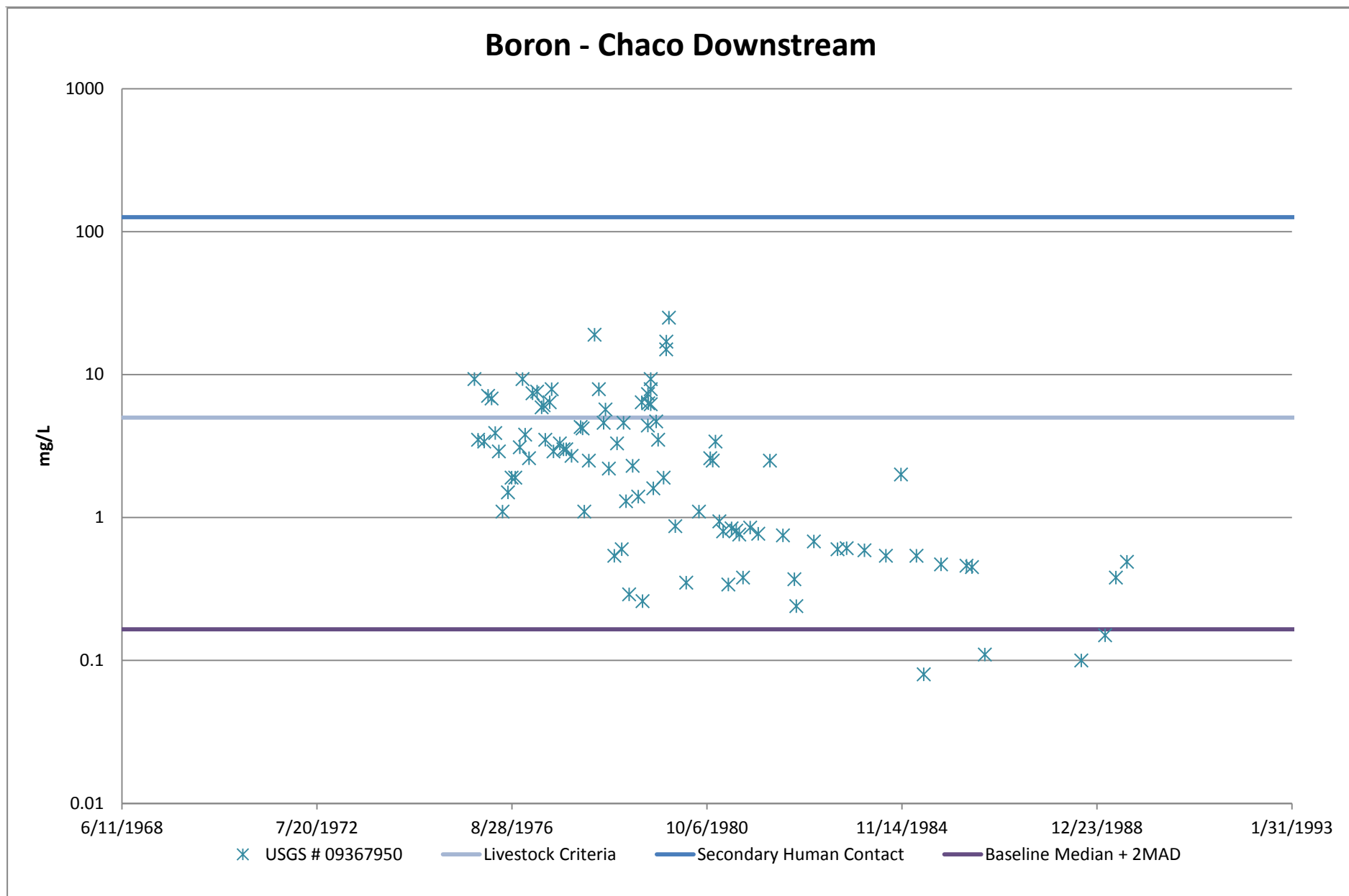


\* USGS # 09367950    — Aquatic & Wildlife Chronic Criteria    — Aquatic & Wildlife Acute Criteria    — Baseline Median + 2MAD



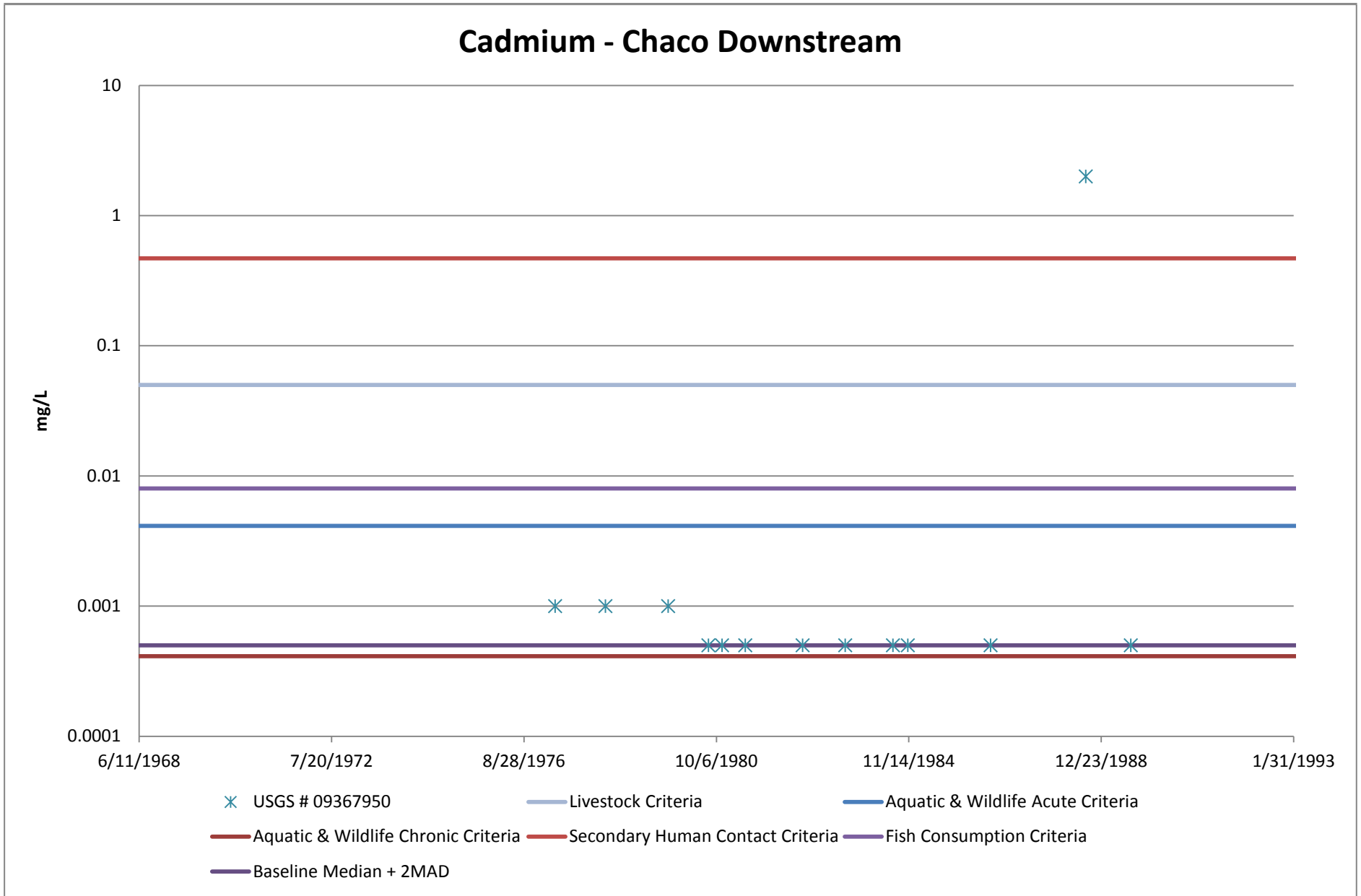


Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

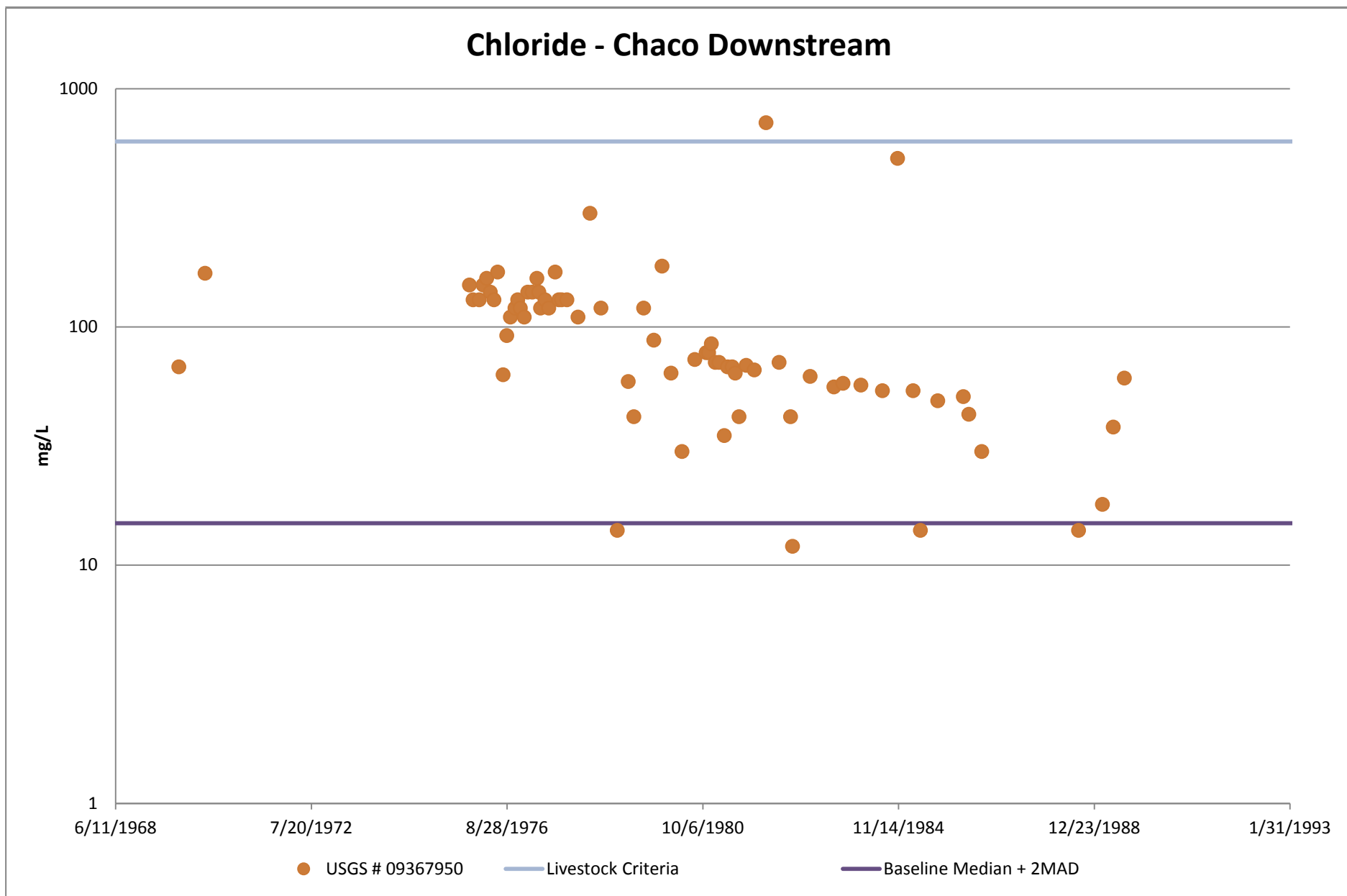




Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

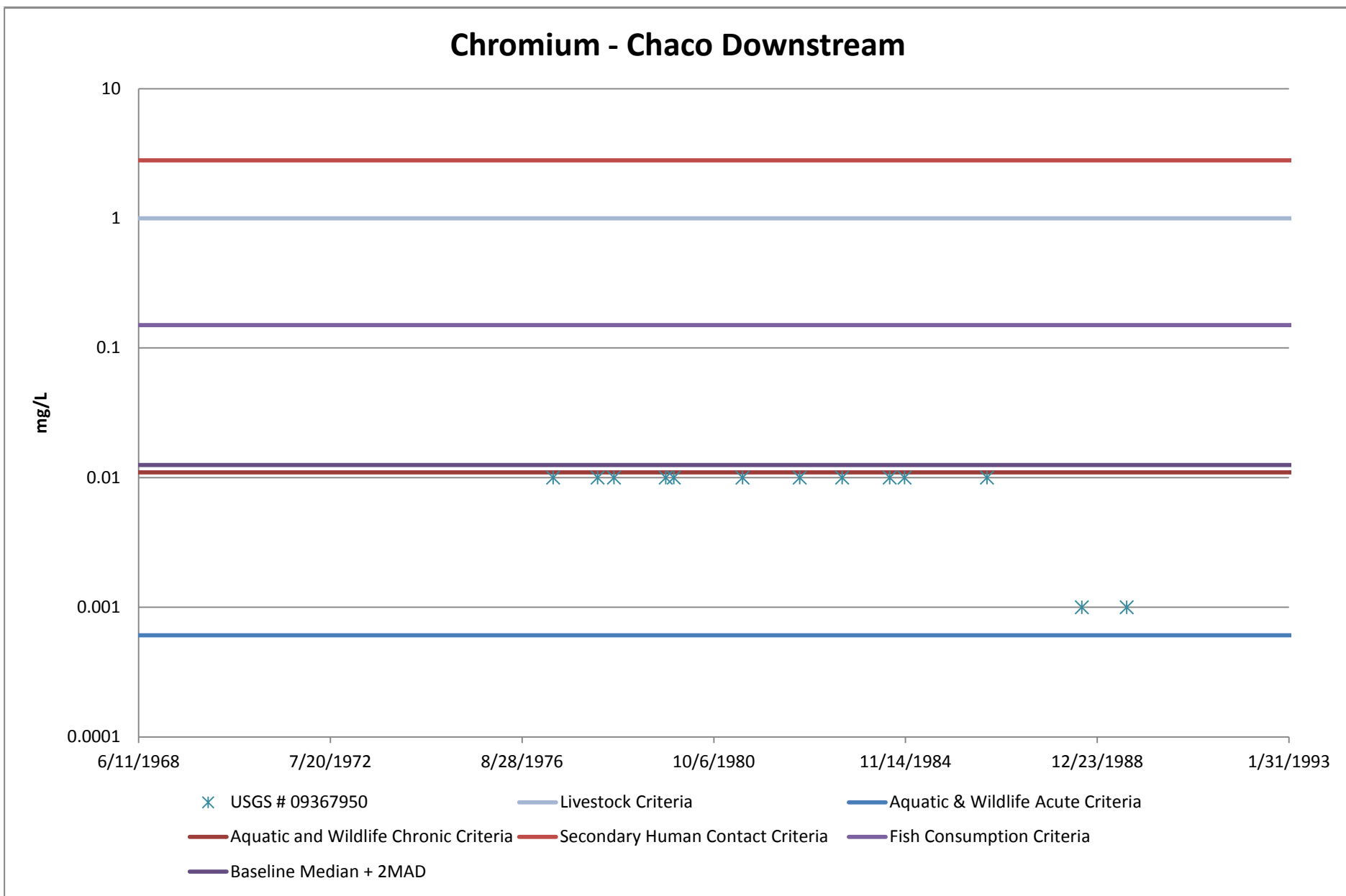


Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs



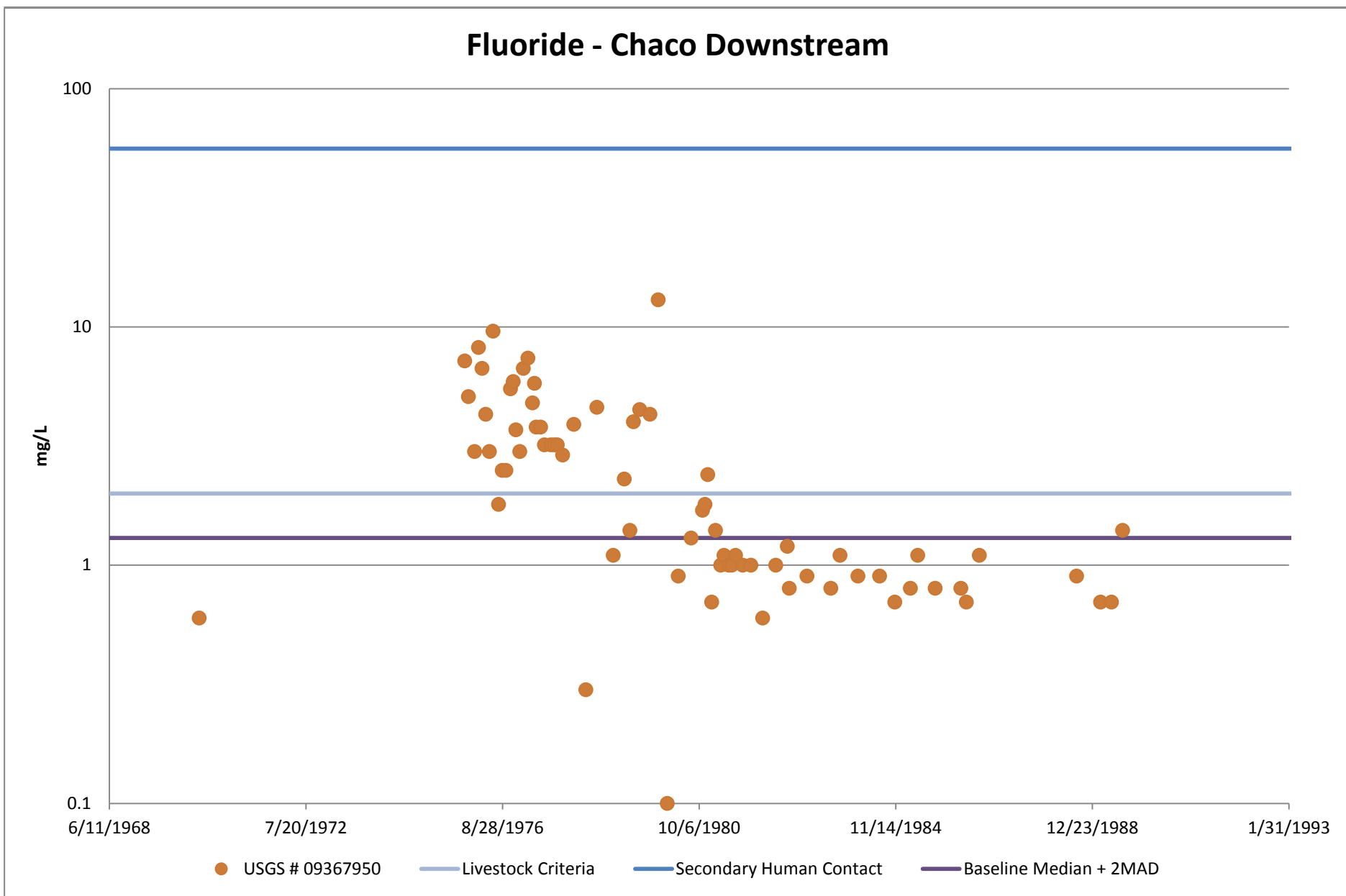
Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

### Chromium - Chaco Downstream

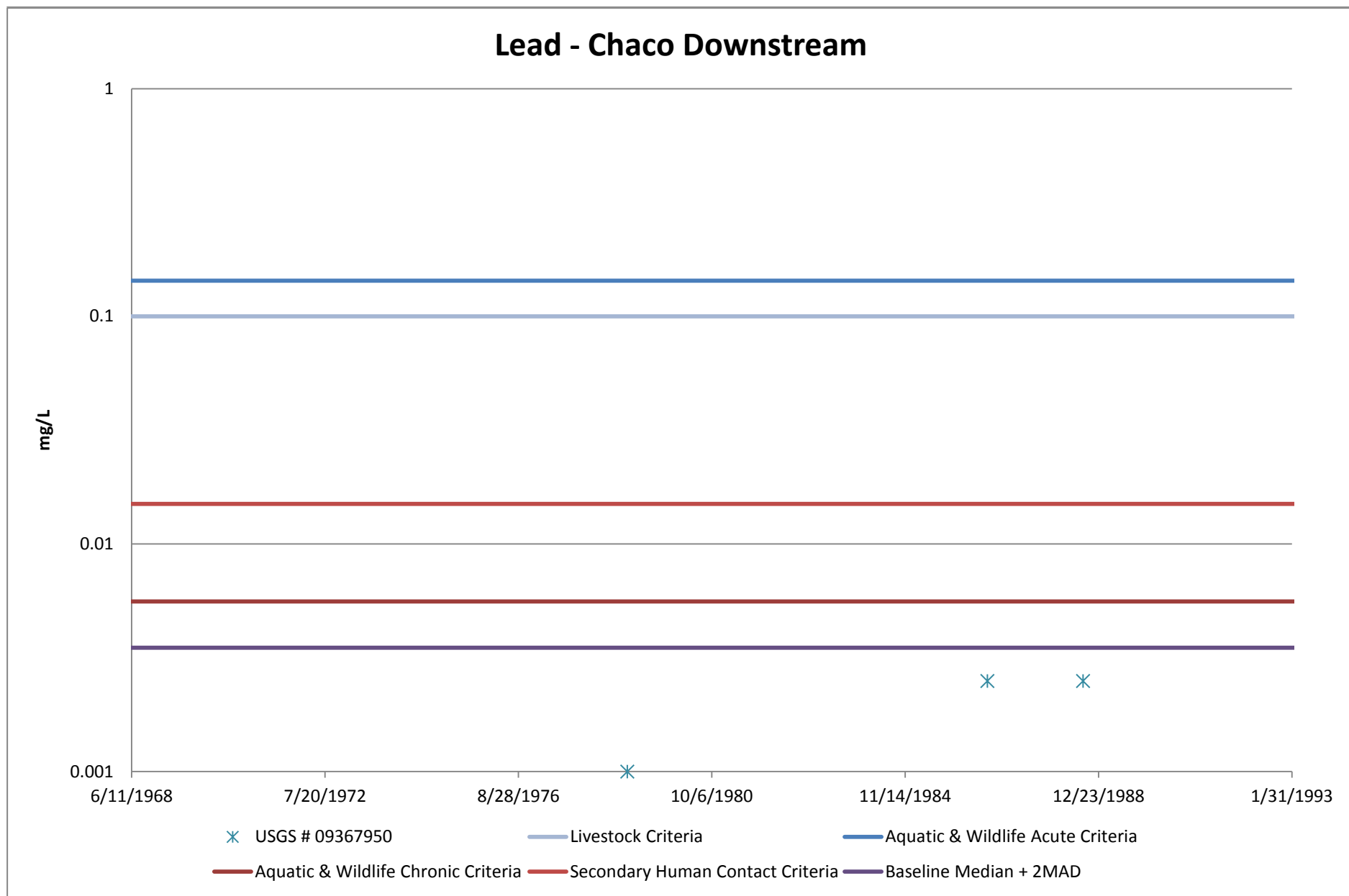


Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

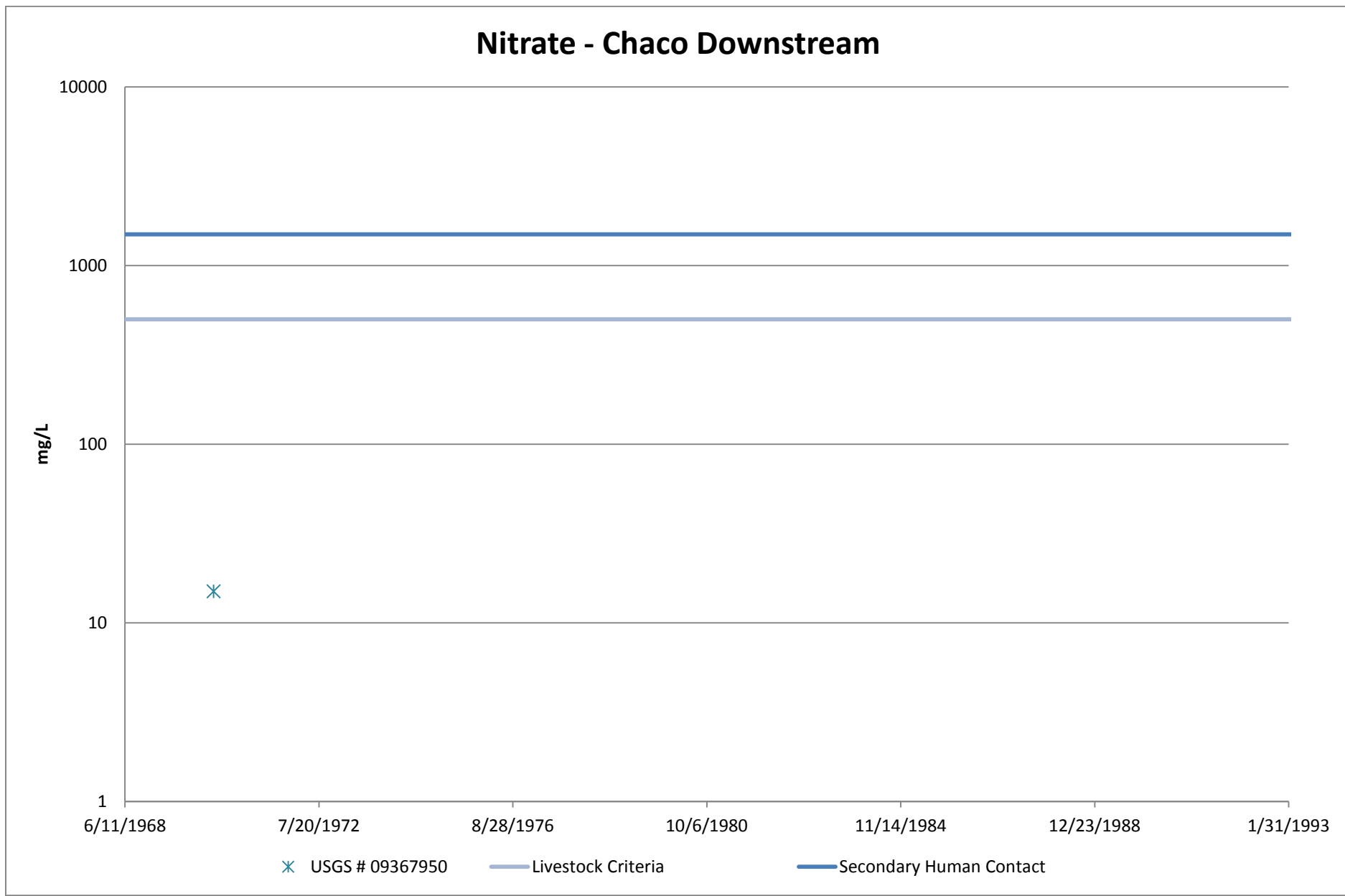
### Fluoride - Chaco Downstream



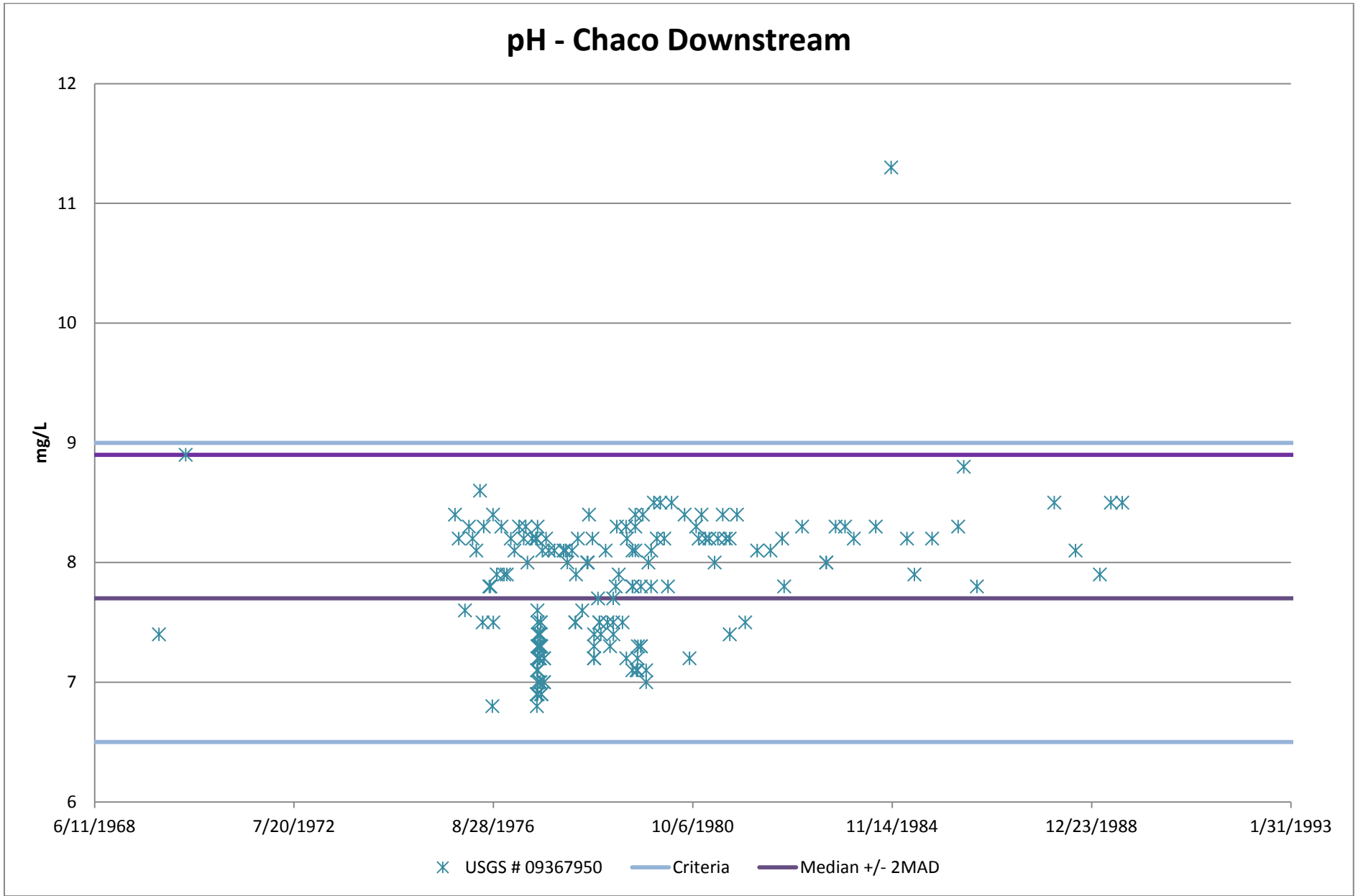
Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs



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Chaco Downstream Graphs

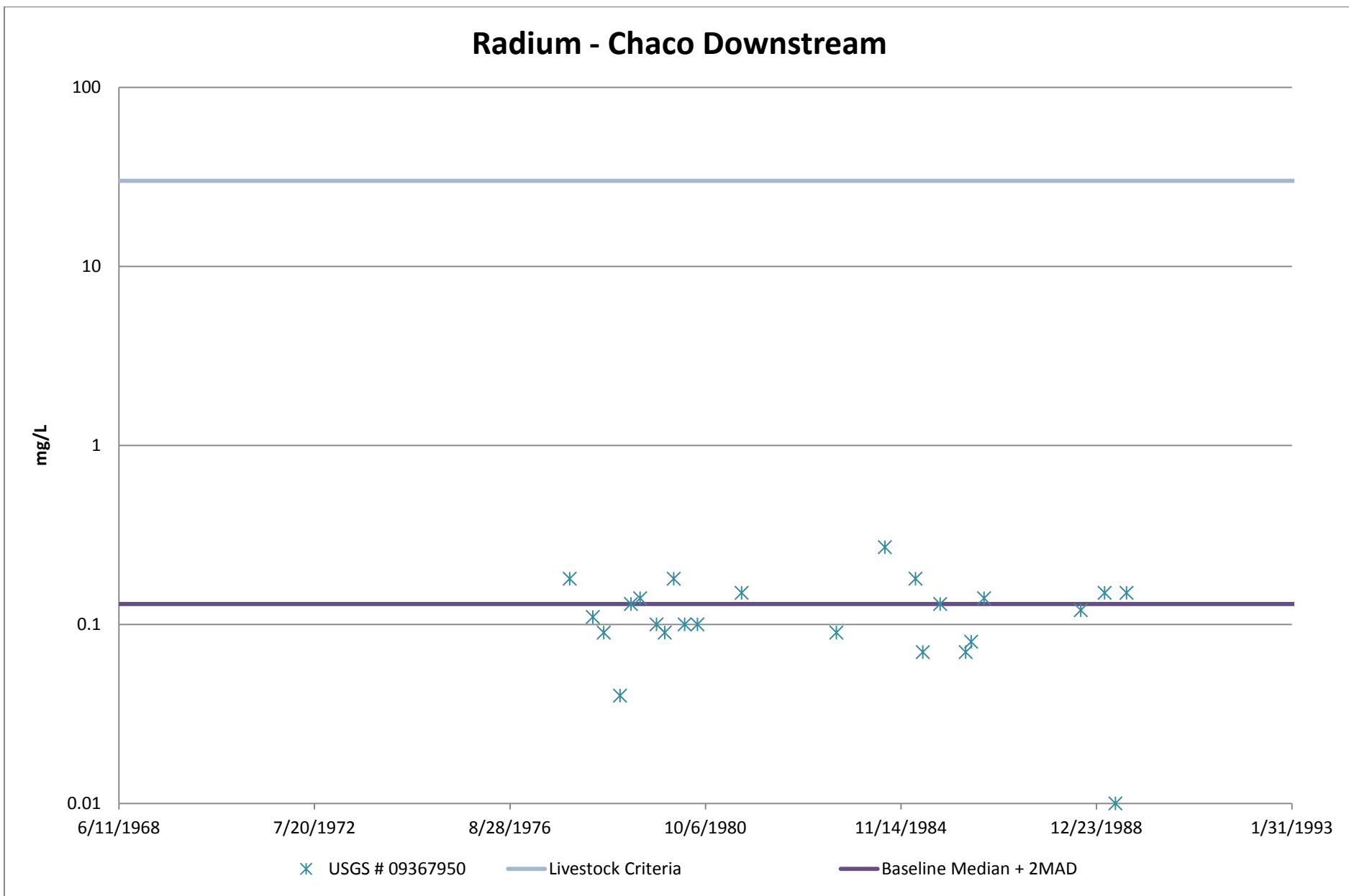


Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs



Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

### Radium - Chaco Downstream

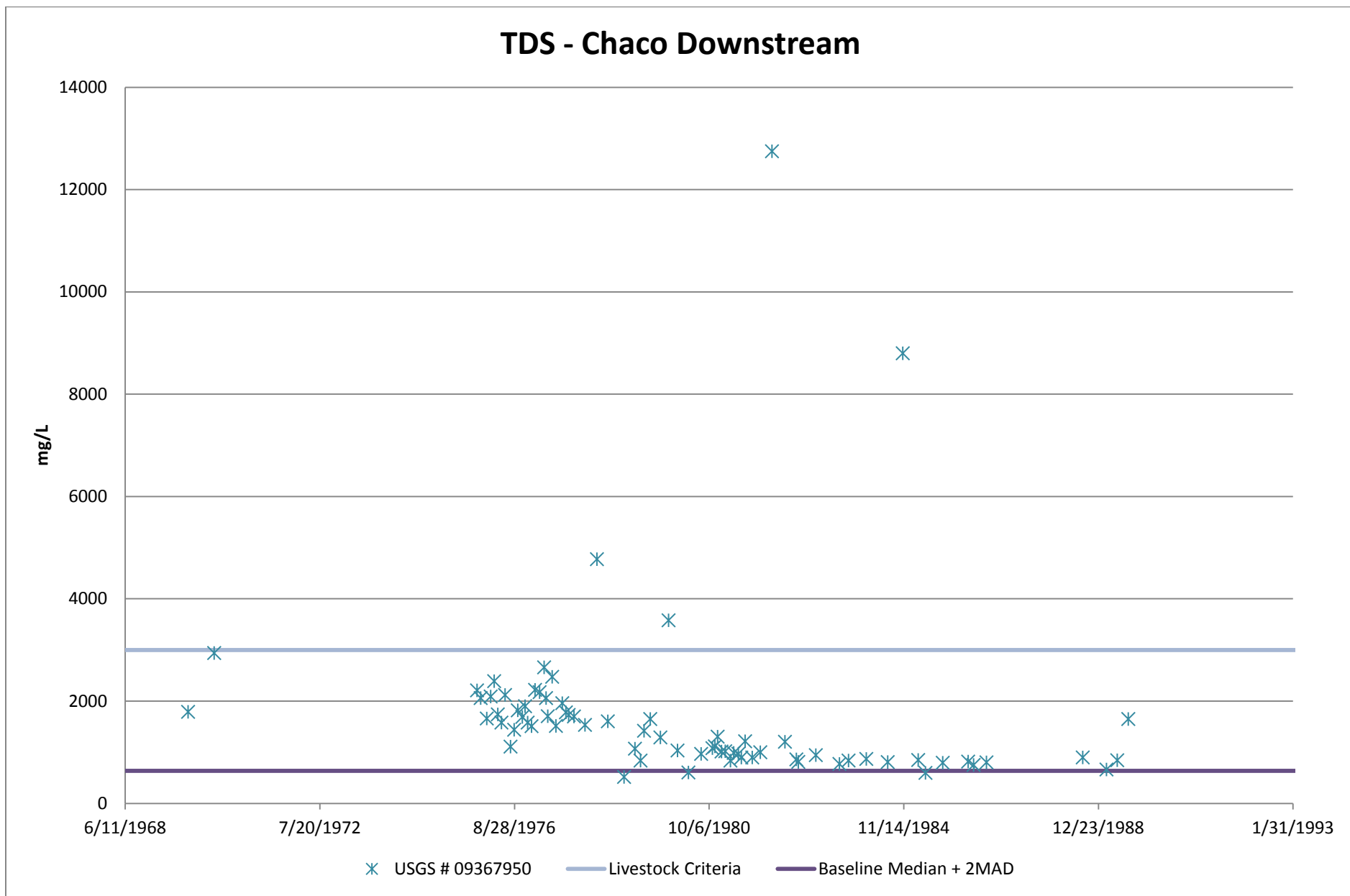






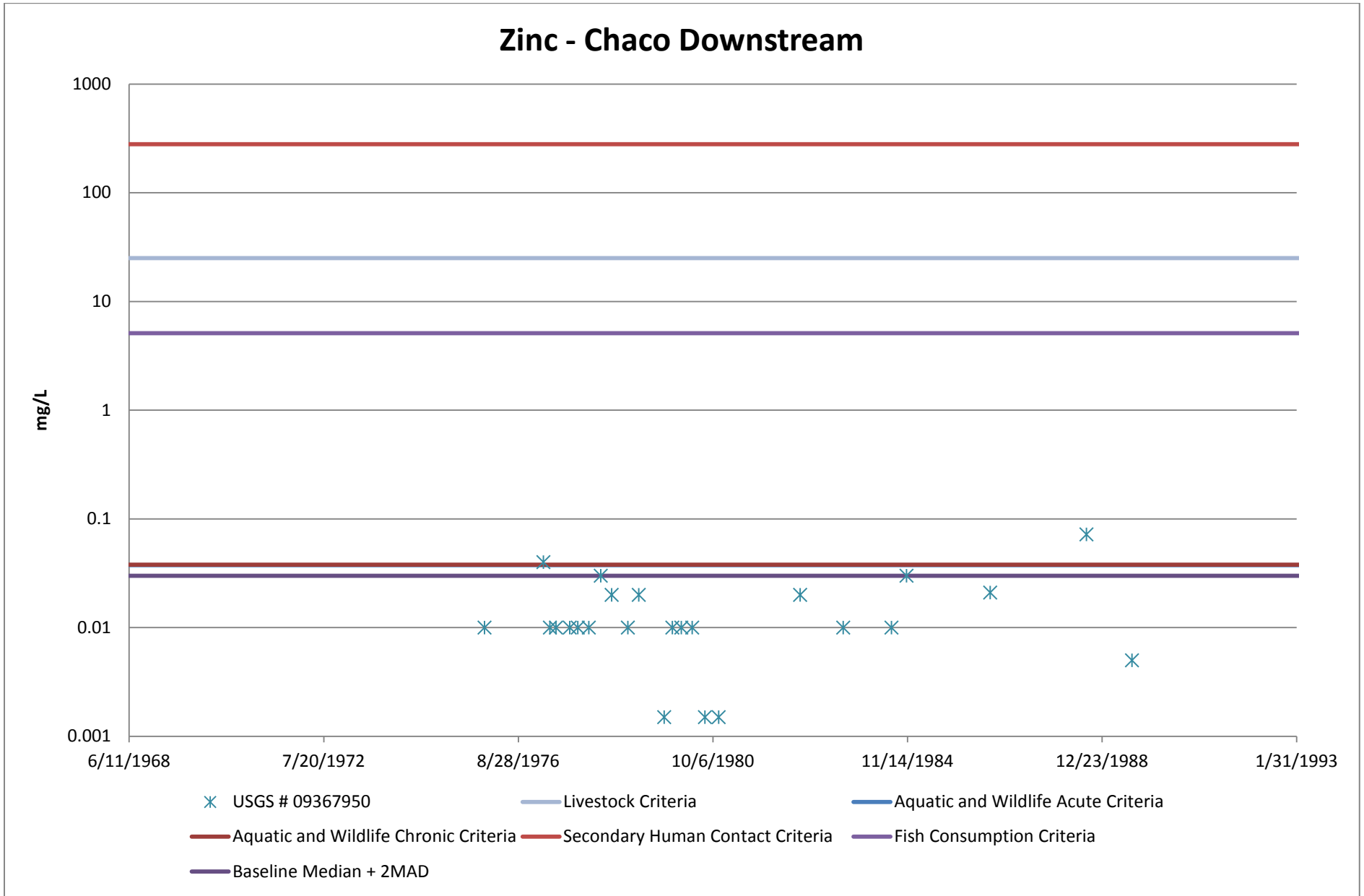


Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs



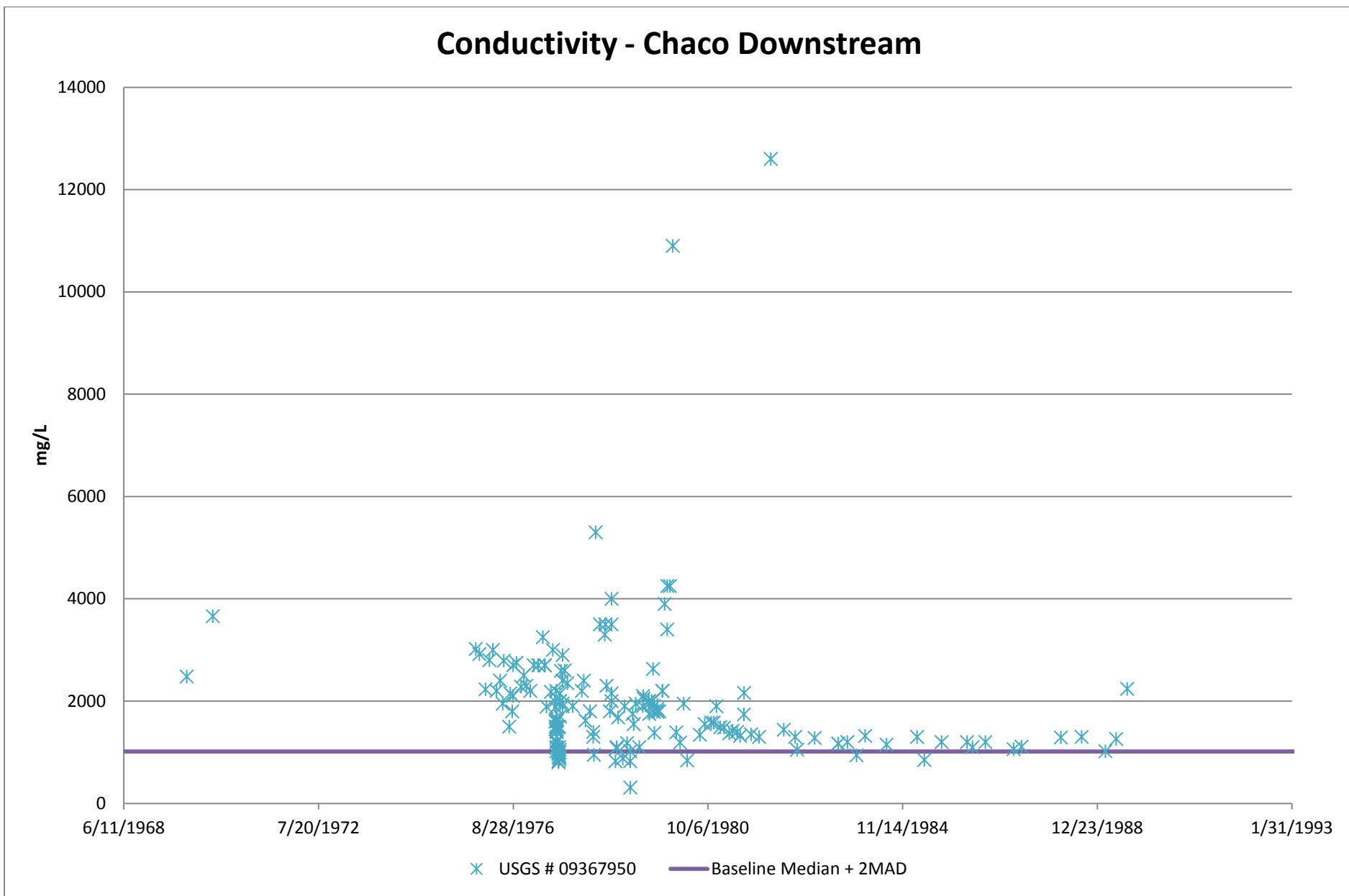
Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

### Zinc - Chaco Downstream

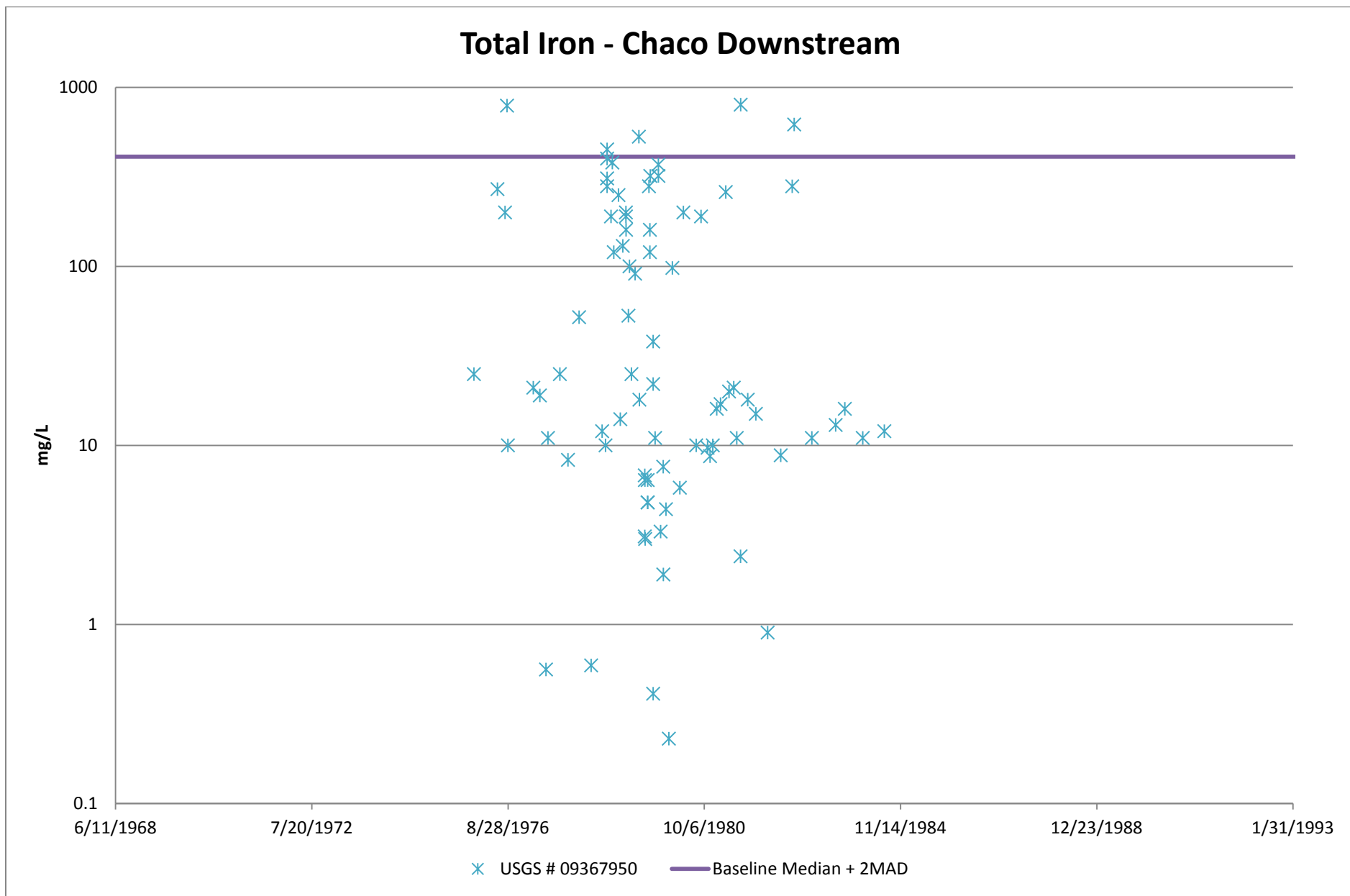


Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

### Conductivity - Chaco Downstream

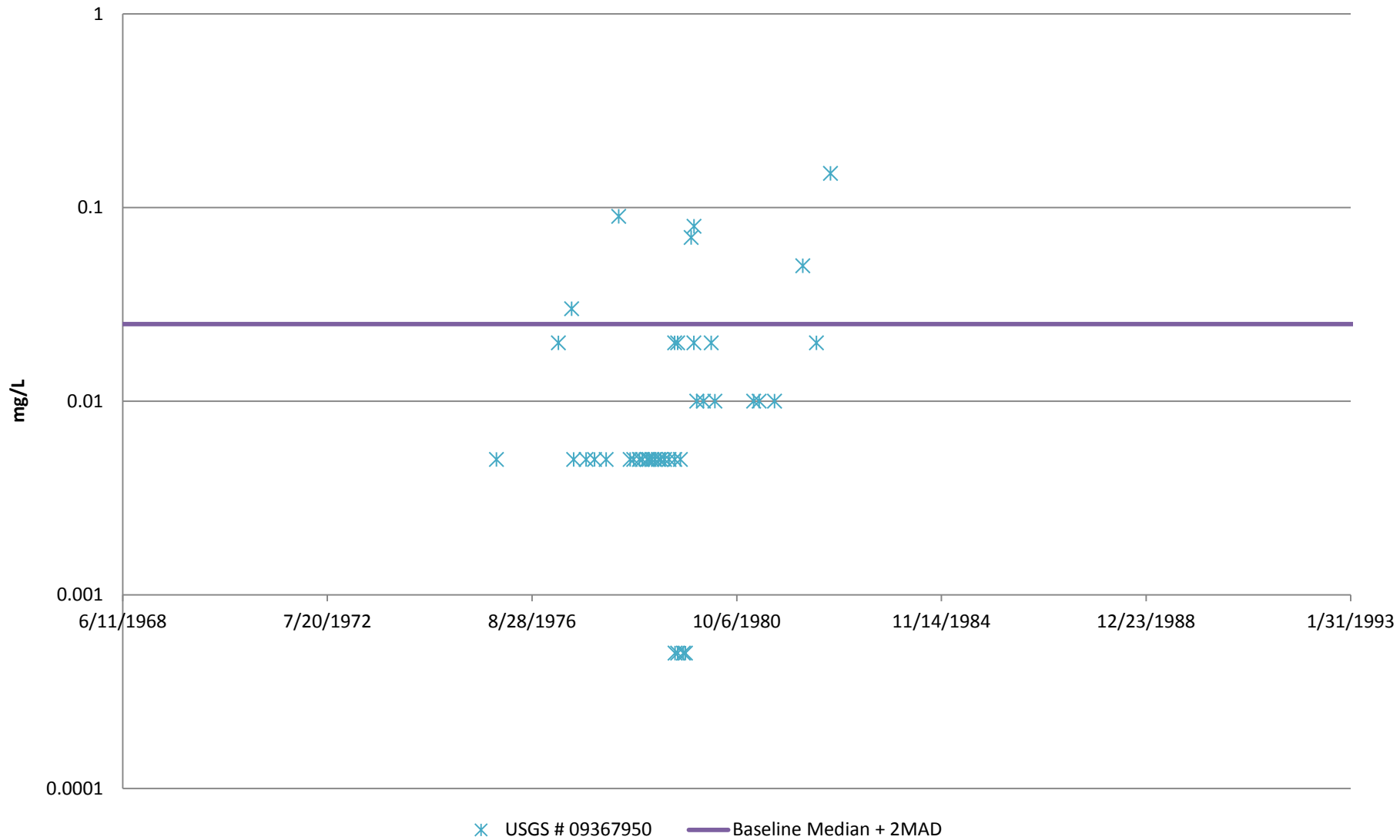


Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs



Appendix D: Surface Water Quality Data Graphs  
Chaco Downstream Graphs

### Manganese - Chaco Downstream

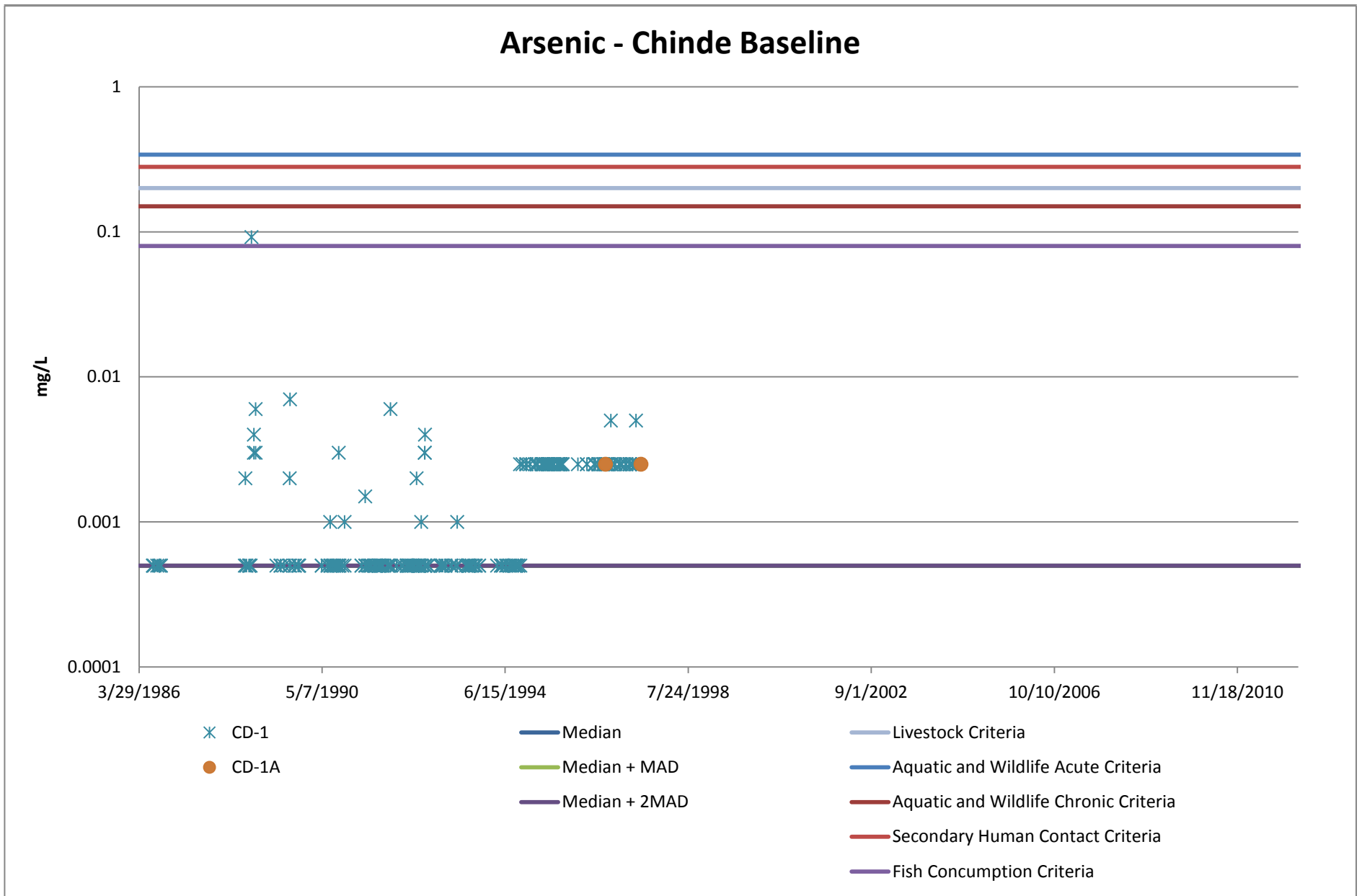




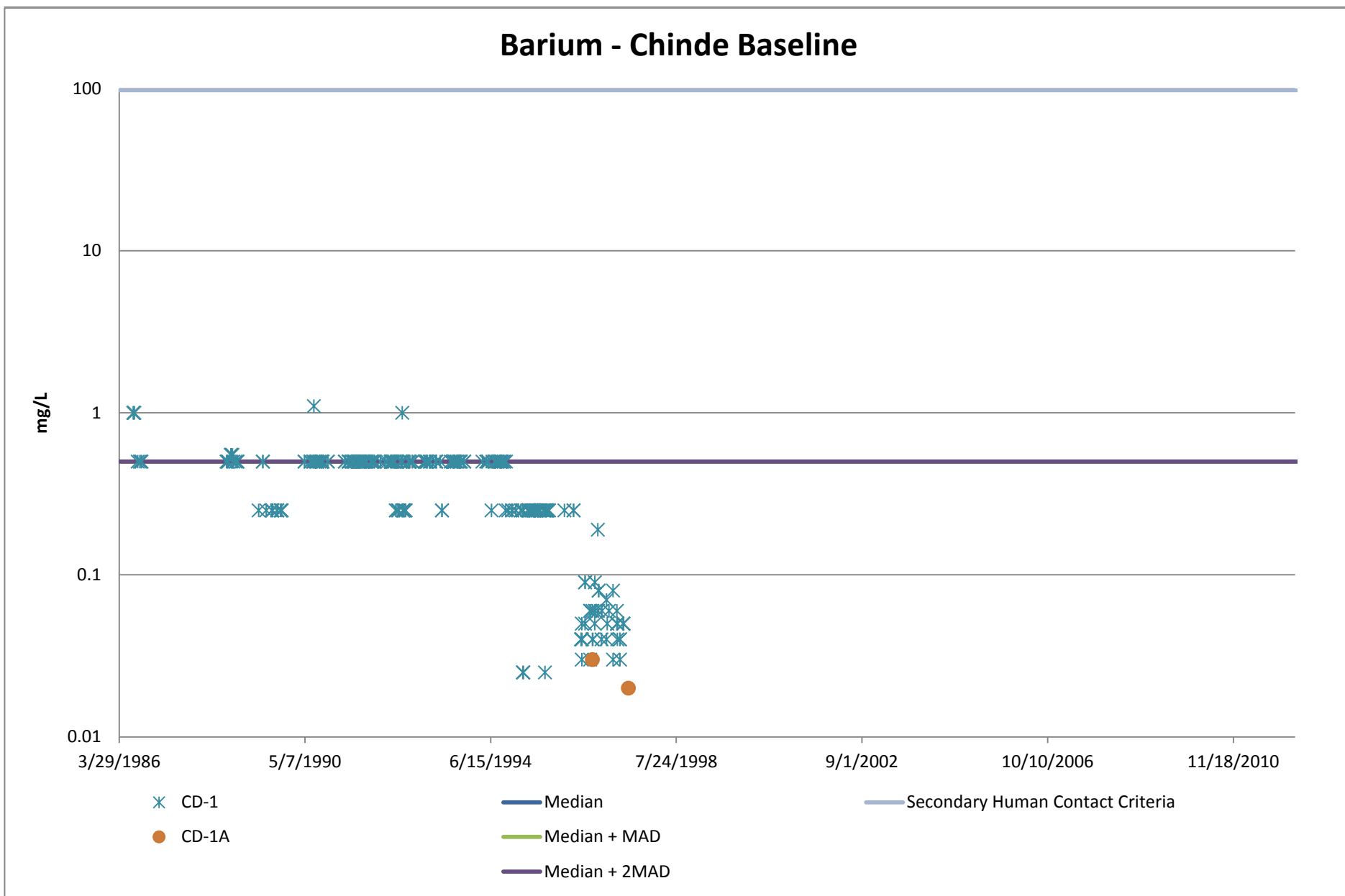




Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

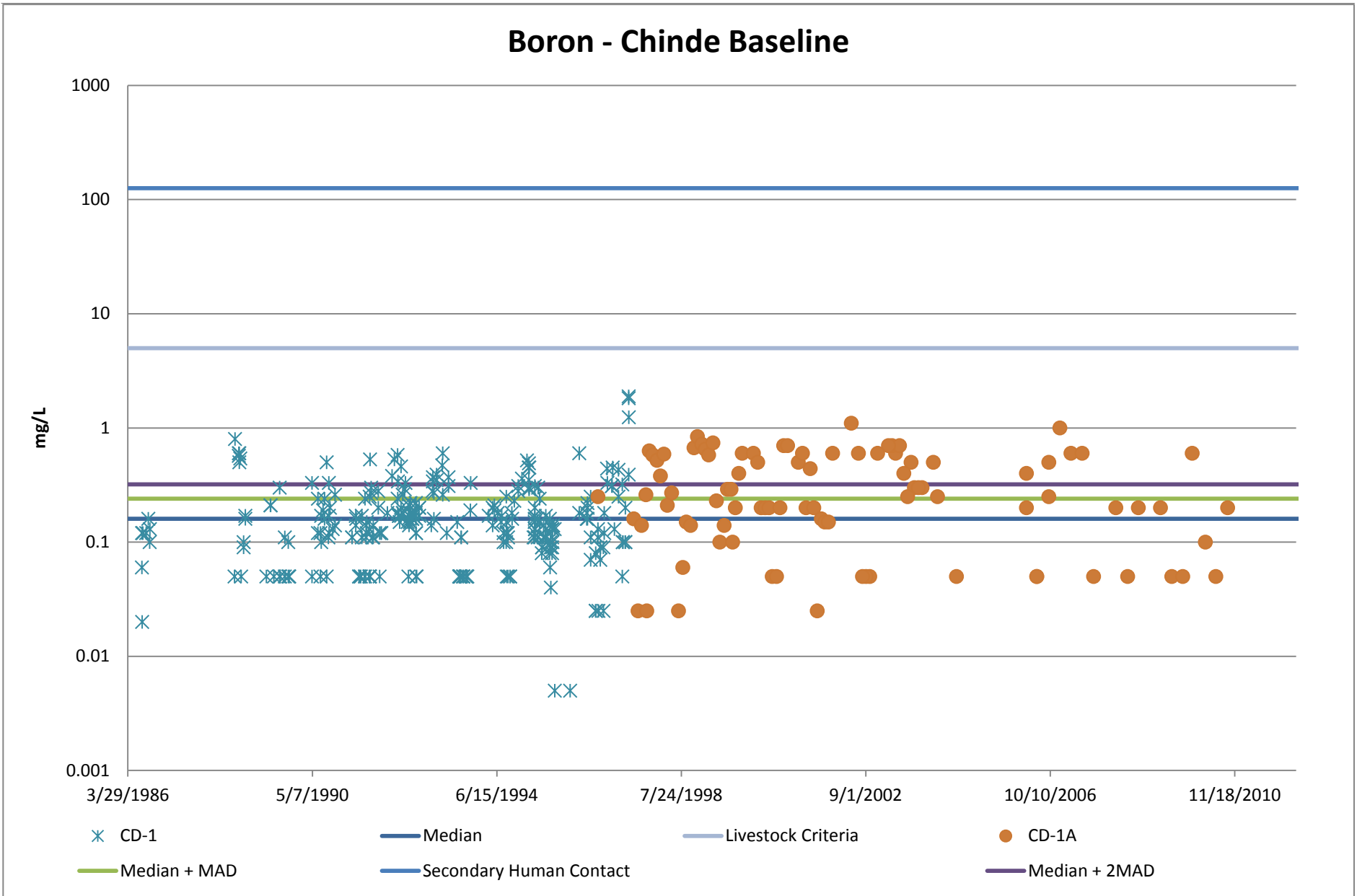


Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

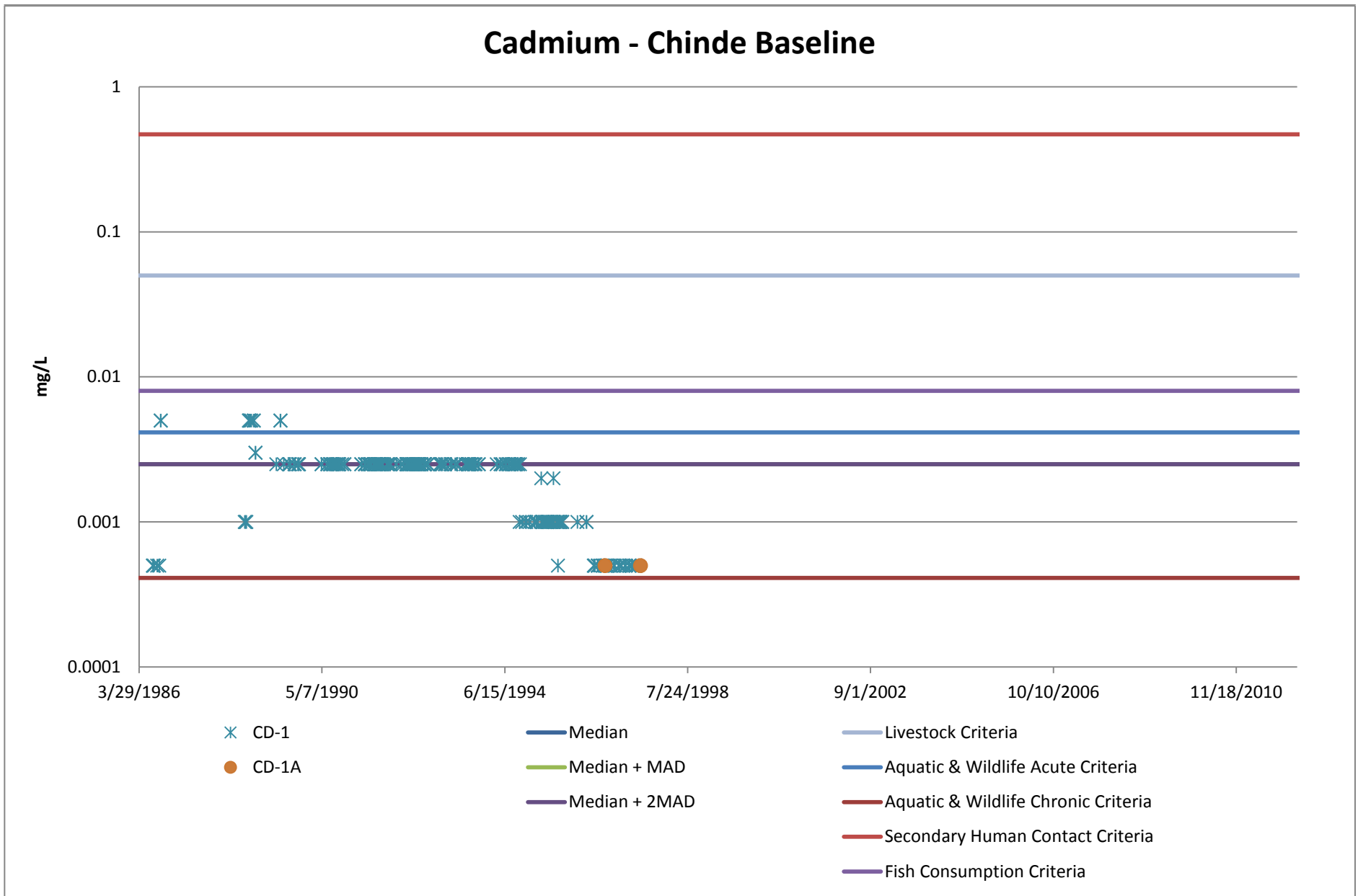


Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

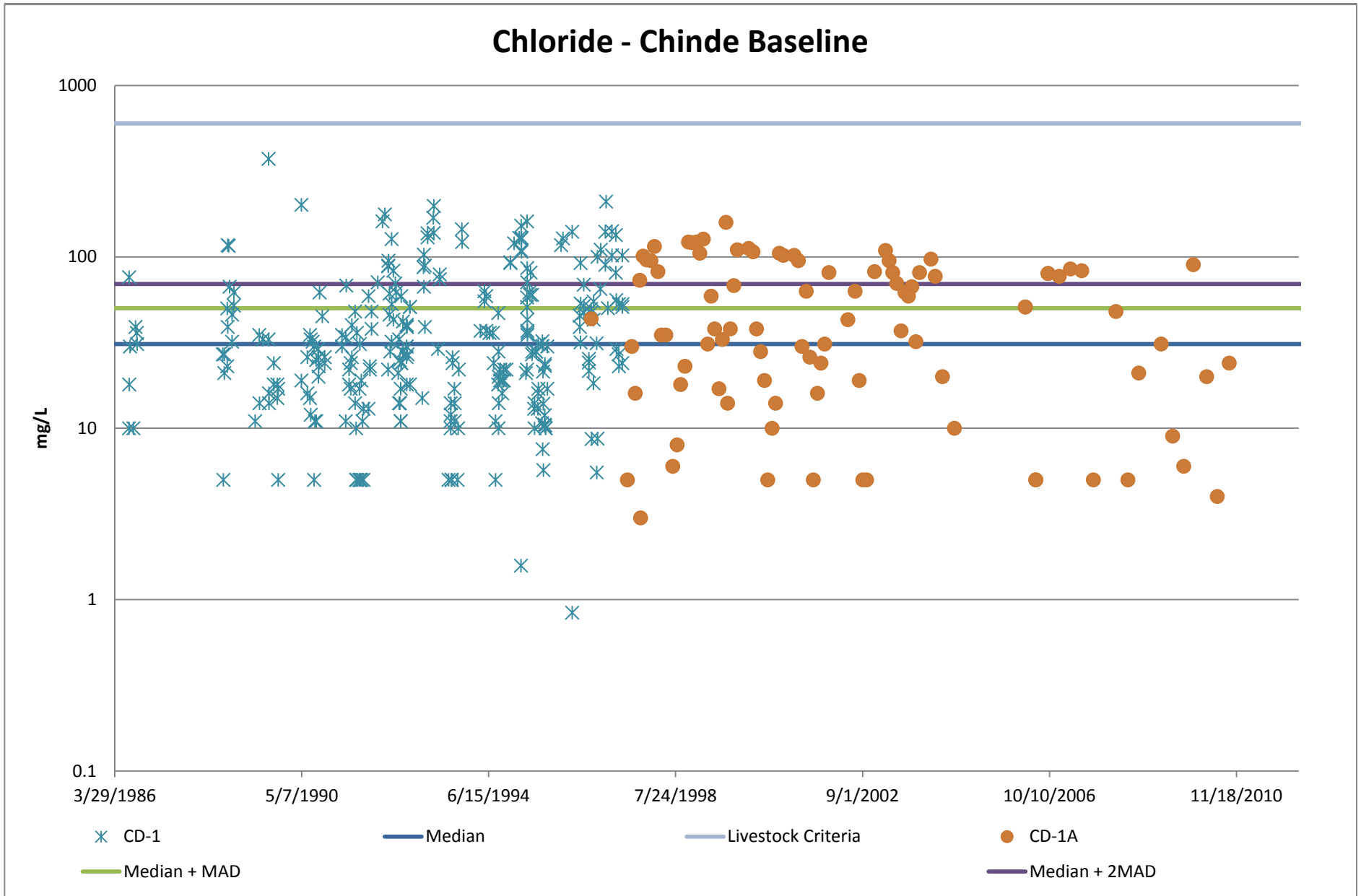
### Boron - Chinde Baseline



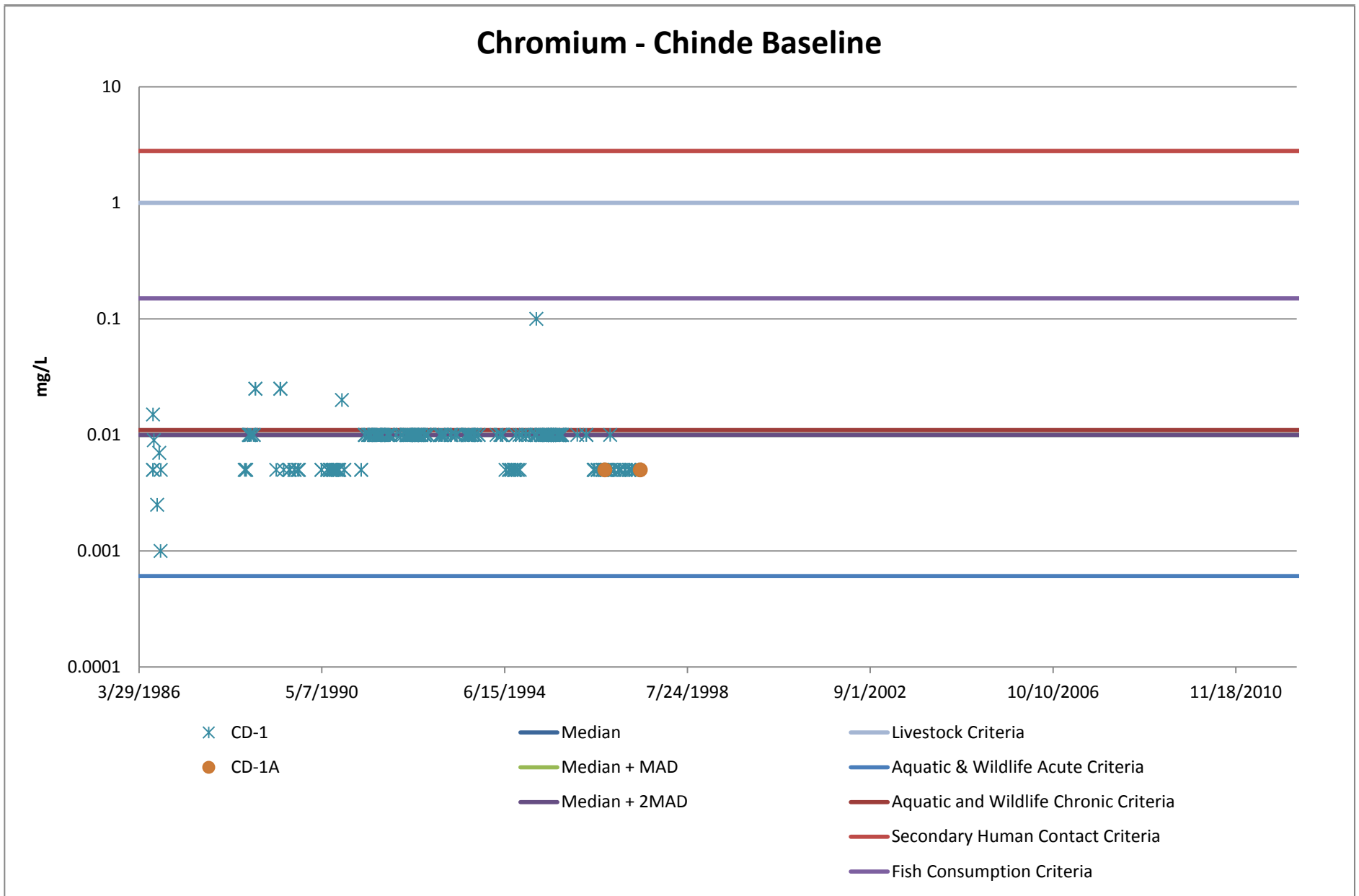
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs



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Chinde Baseline Graphs

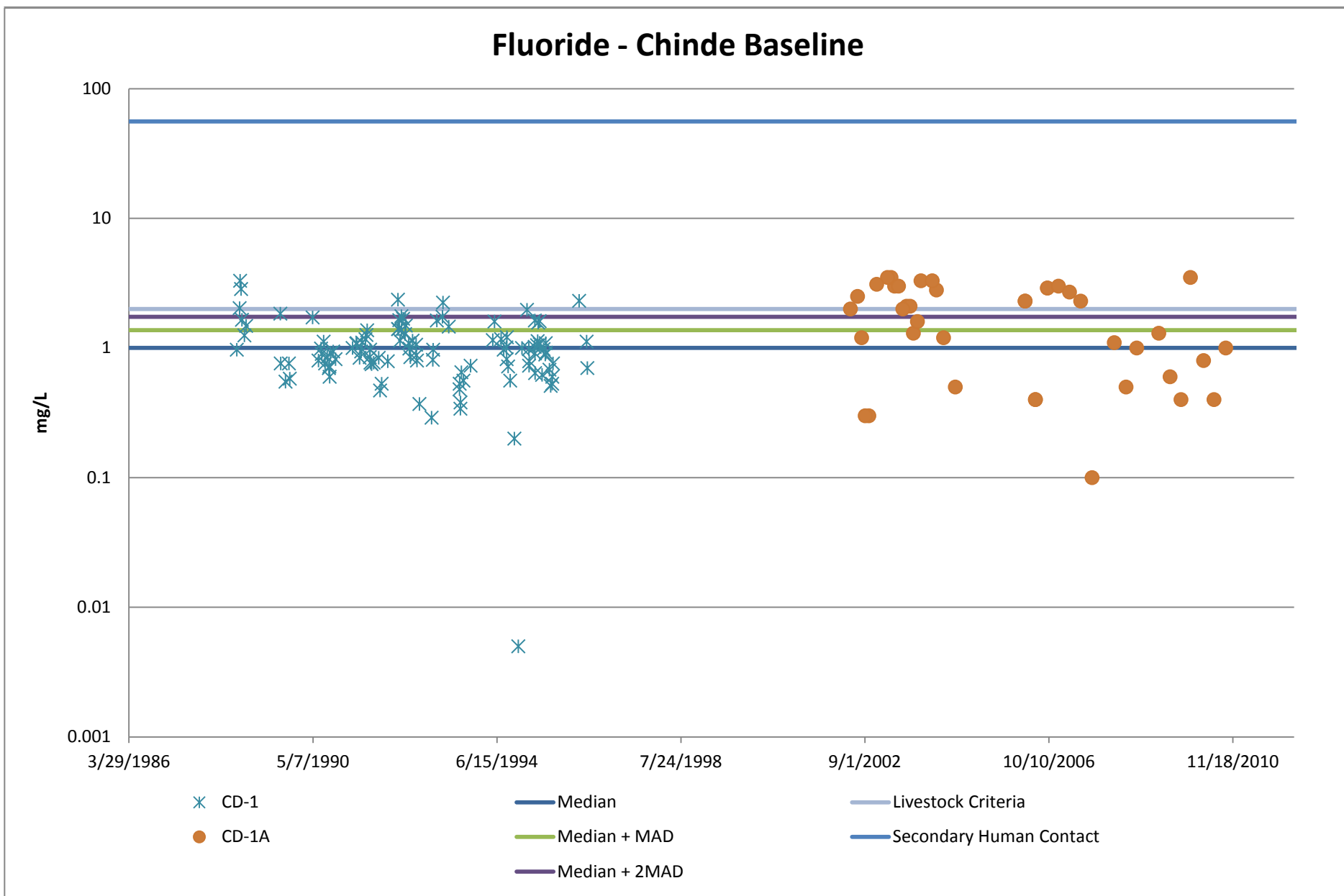


Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs



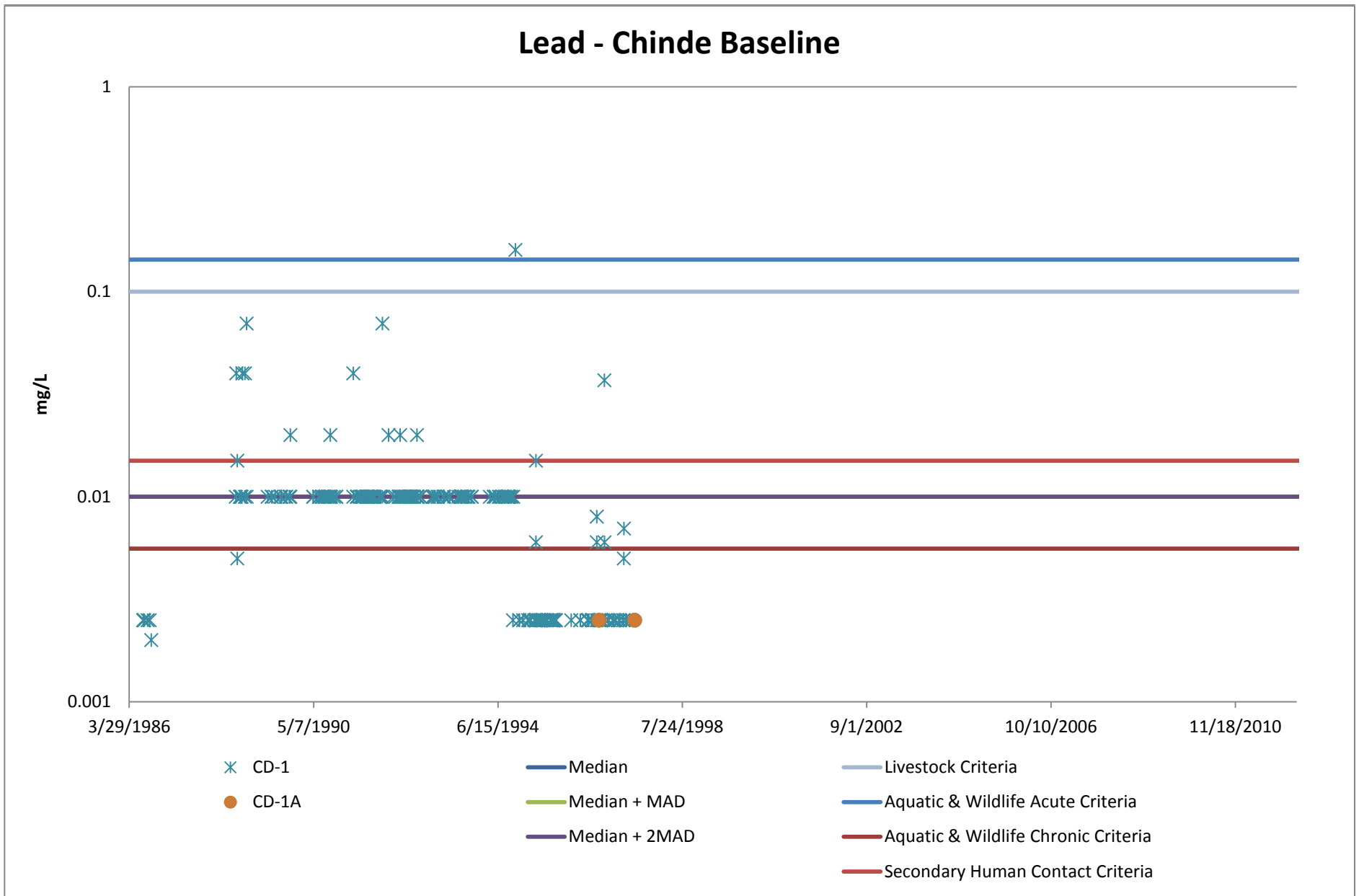
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Fluoride - Chinde Baseline



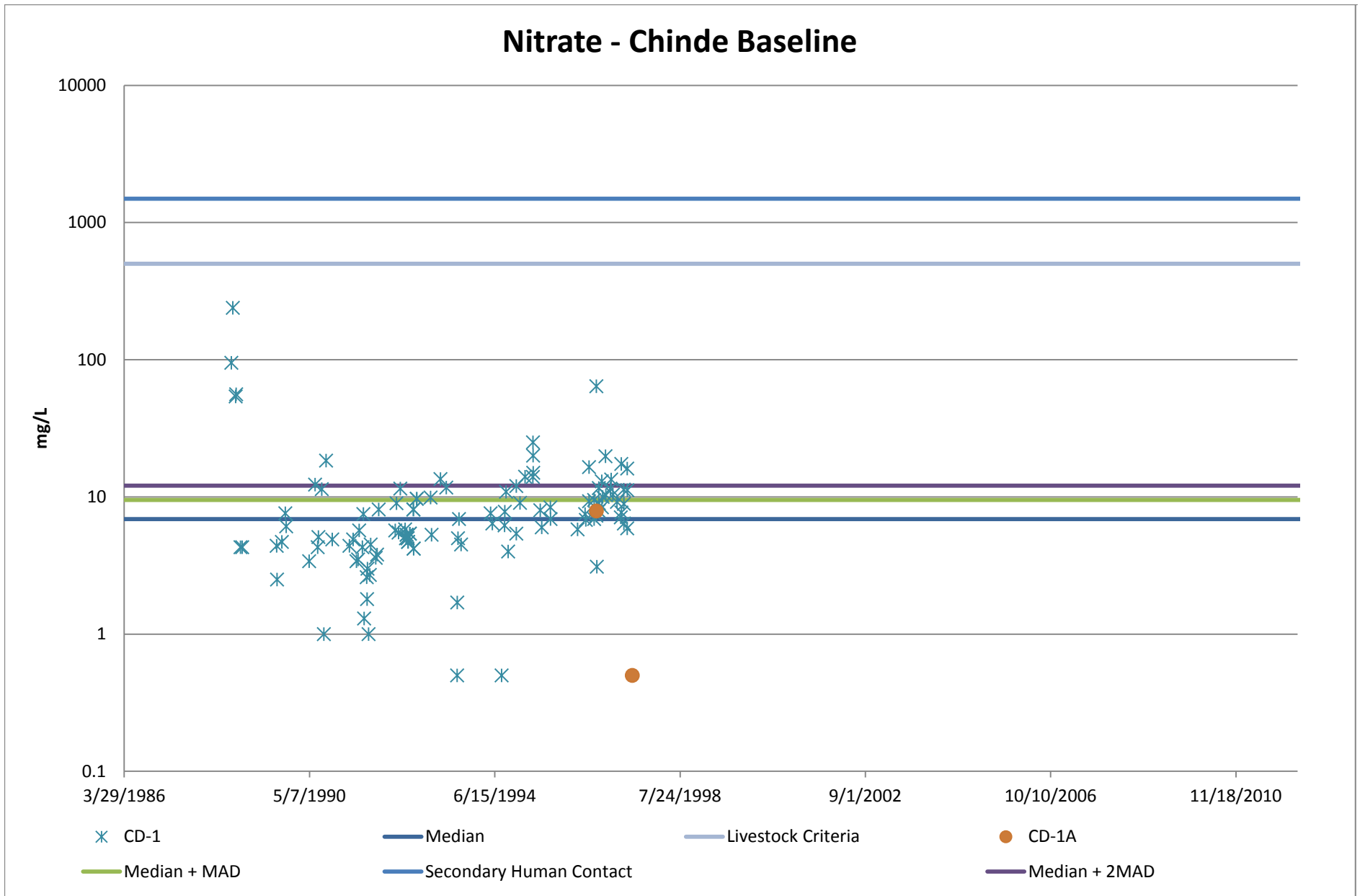


Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs



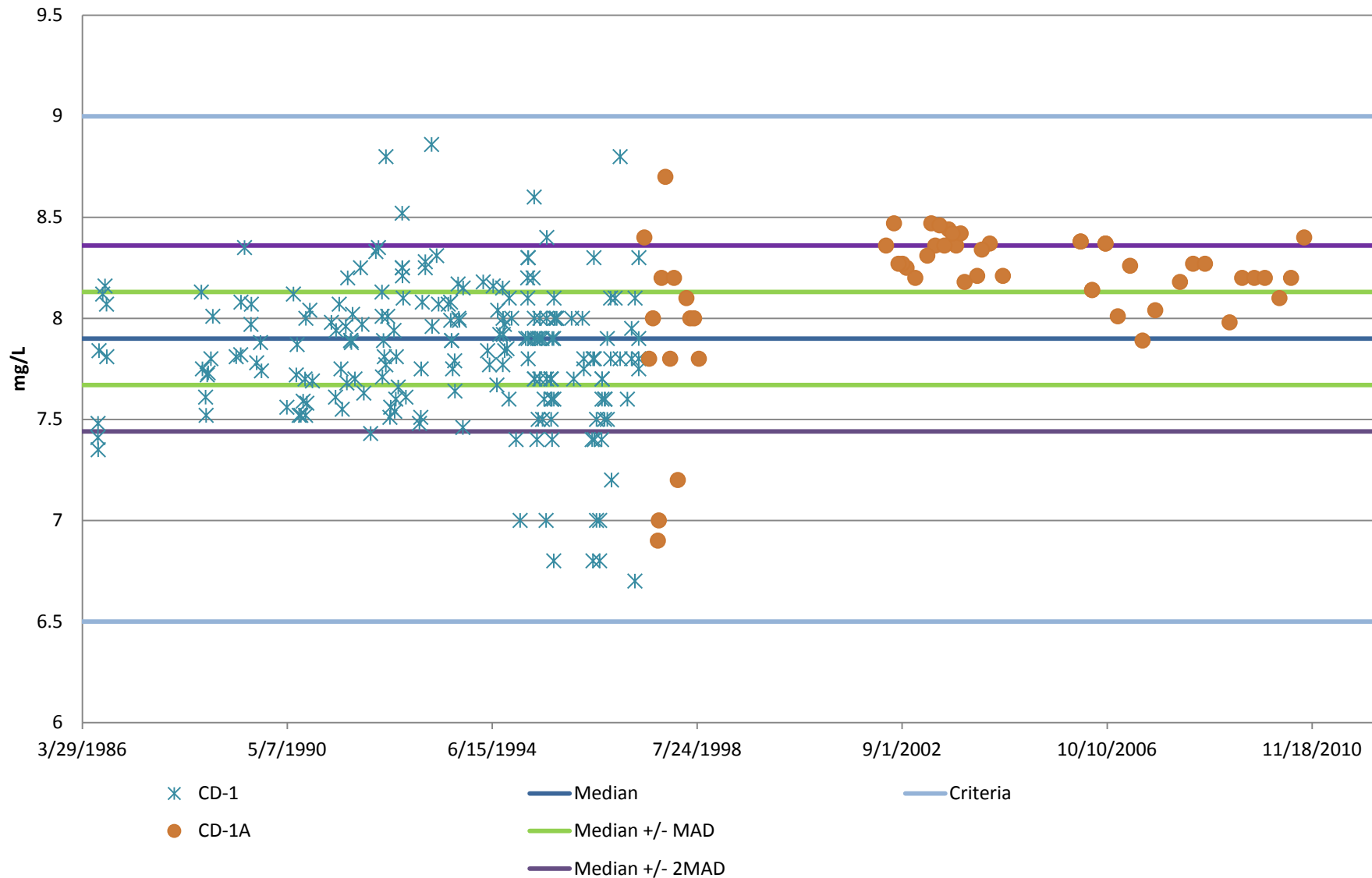
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Nitrate - Chinde Baseline



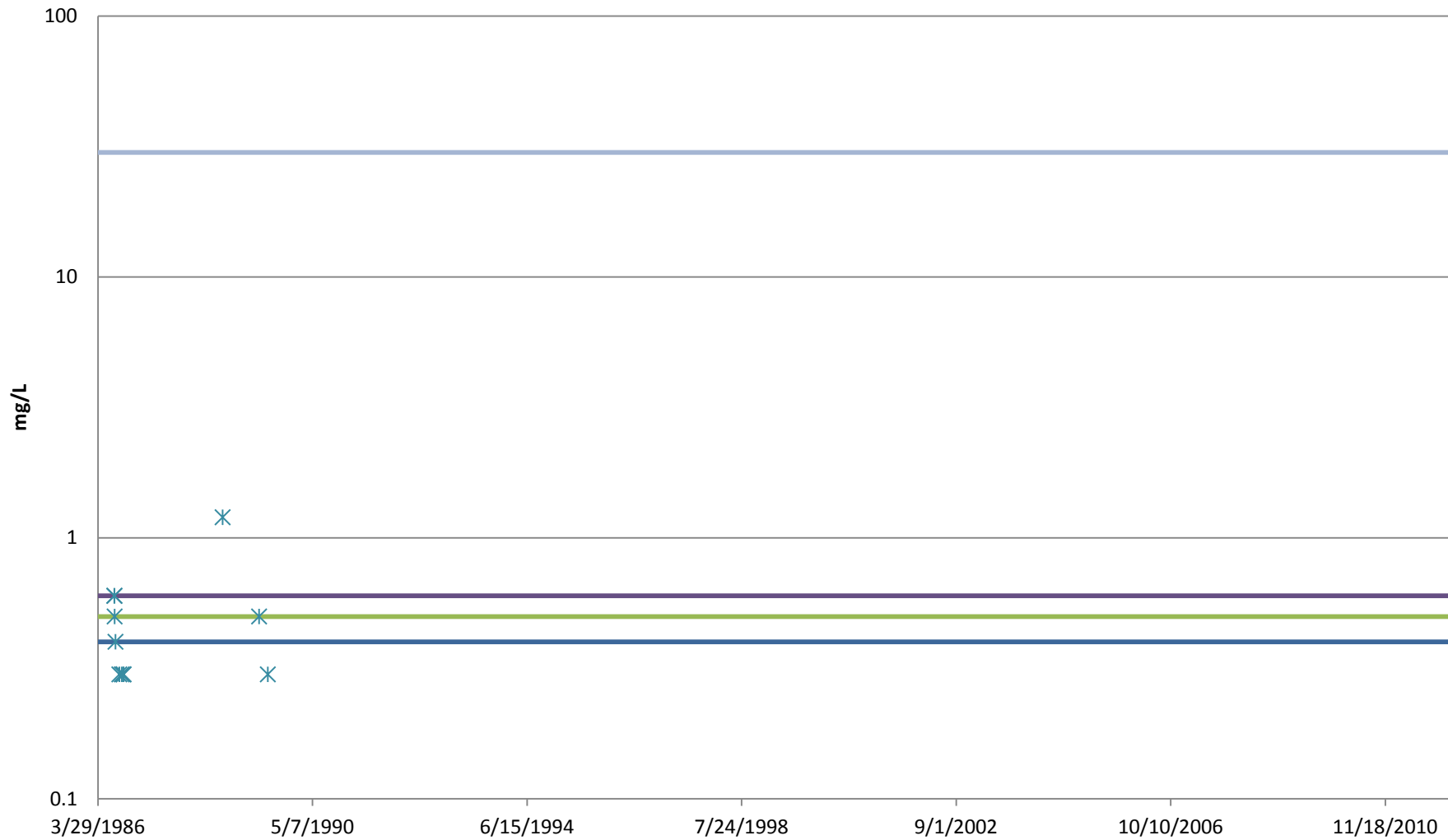
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### pH - Chinde Baseline



Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Radium - Chinde Baseline



× CD-1

— Median

— Livestock Criteria

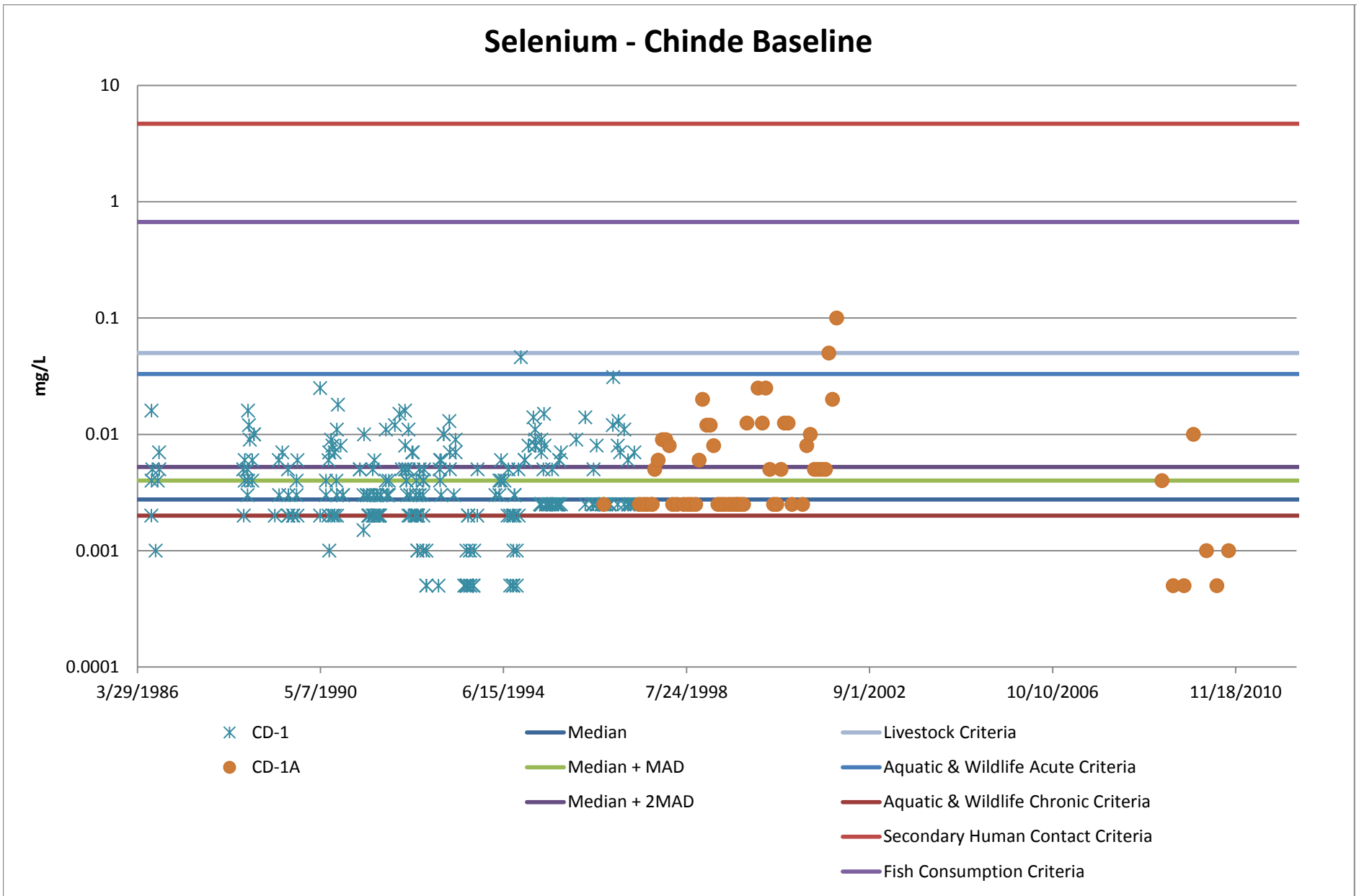
● CD-1A

— Median + MAD

— Median + 2MAD

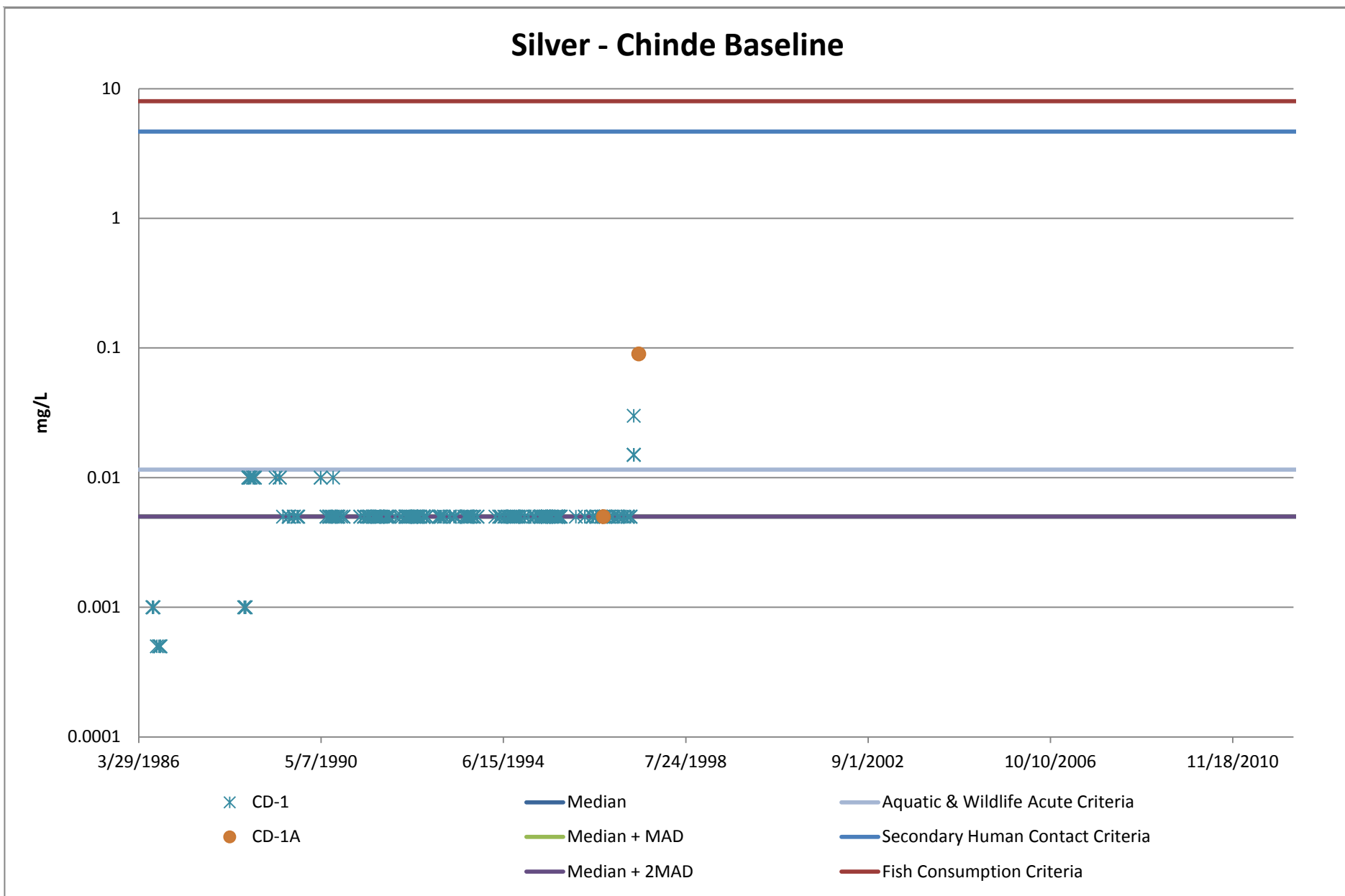
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Selenium - Chinde Baseline



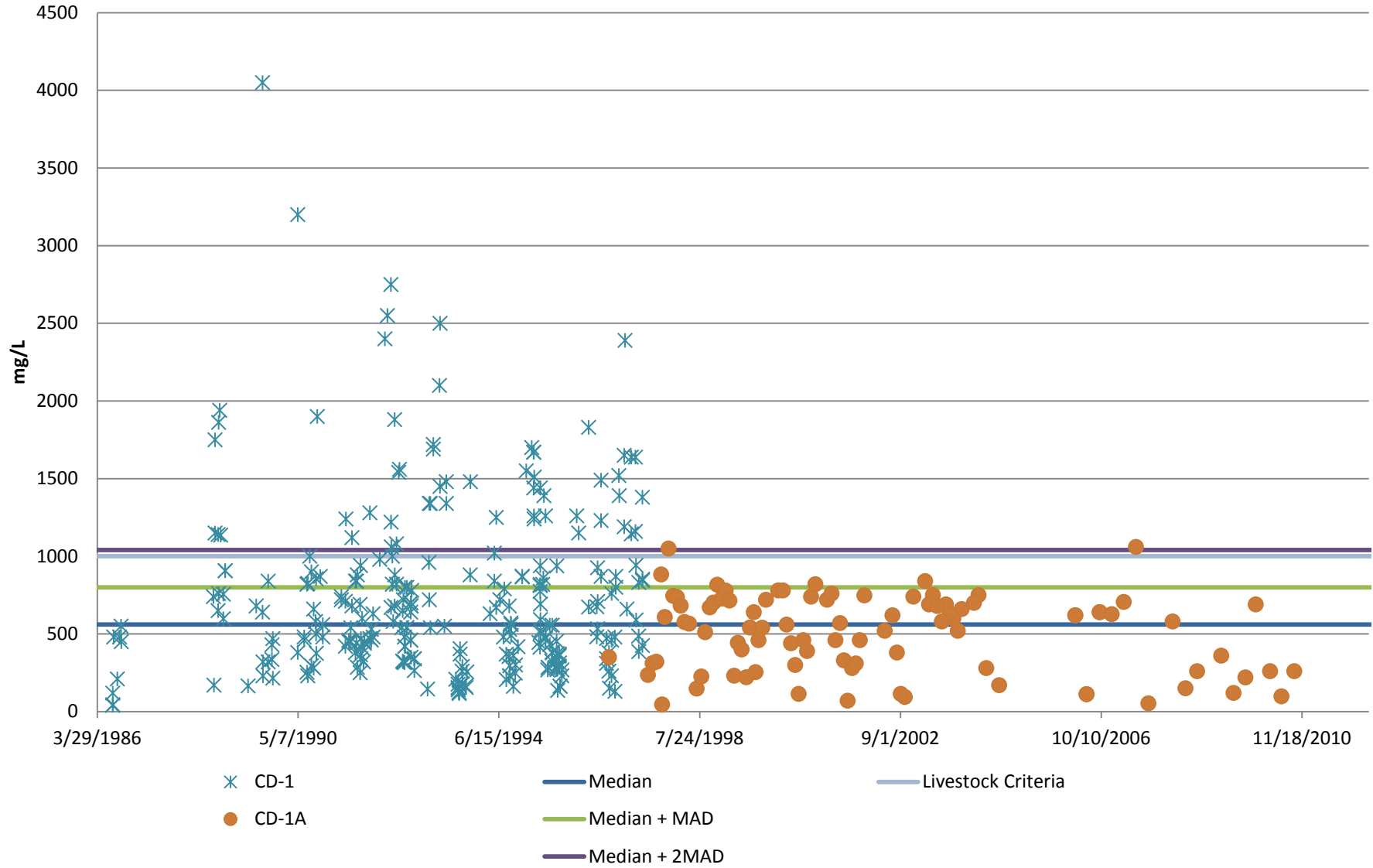
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Silver - Chinde Baseline



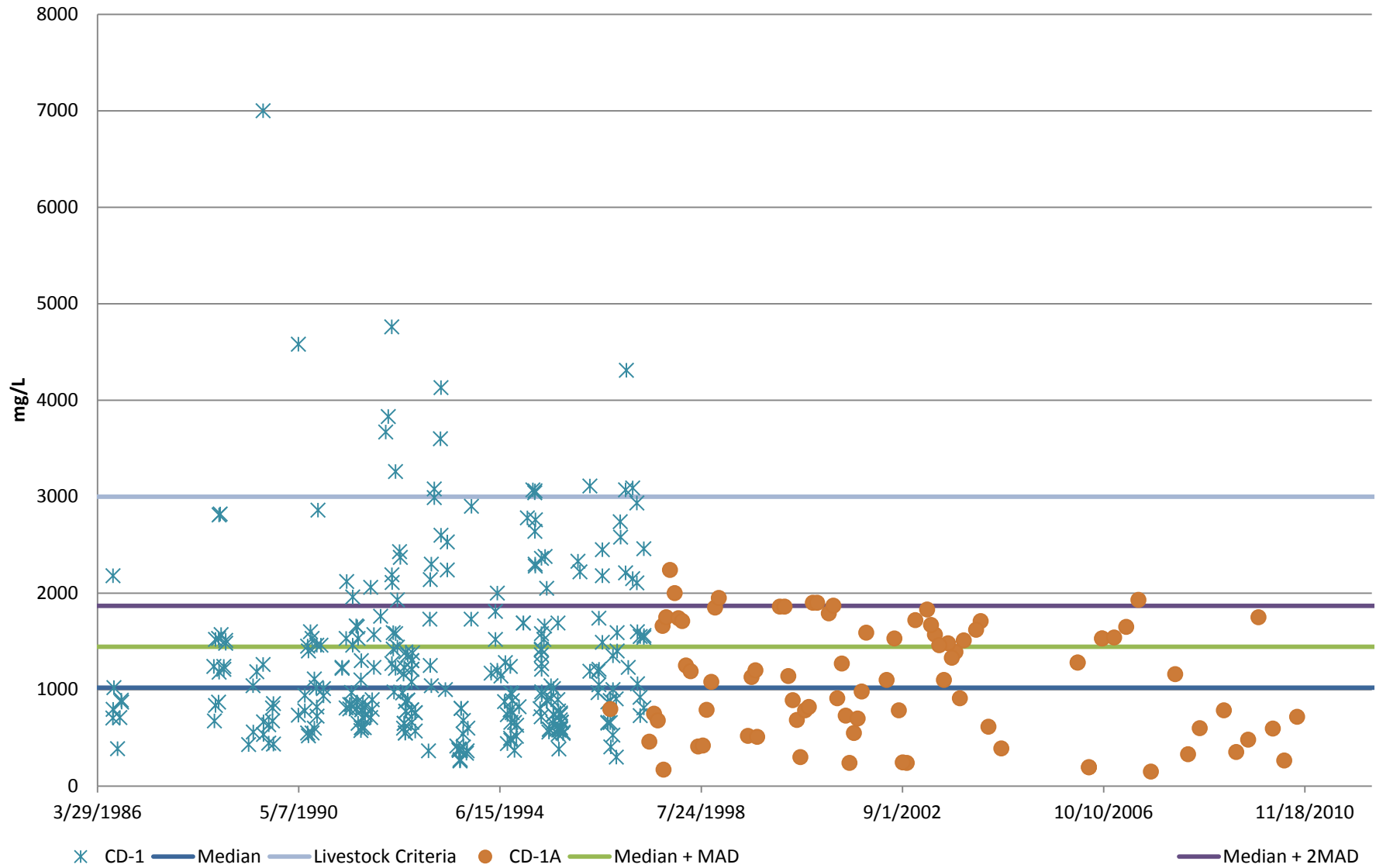
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Sulfate - Chinde Baseline



Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

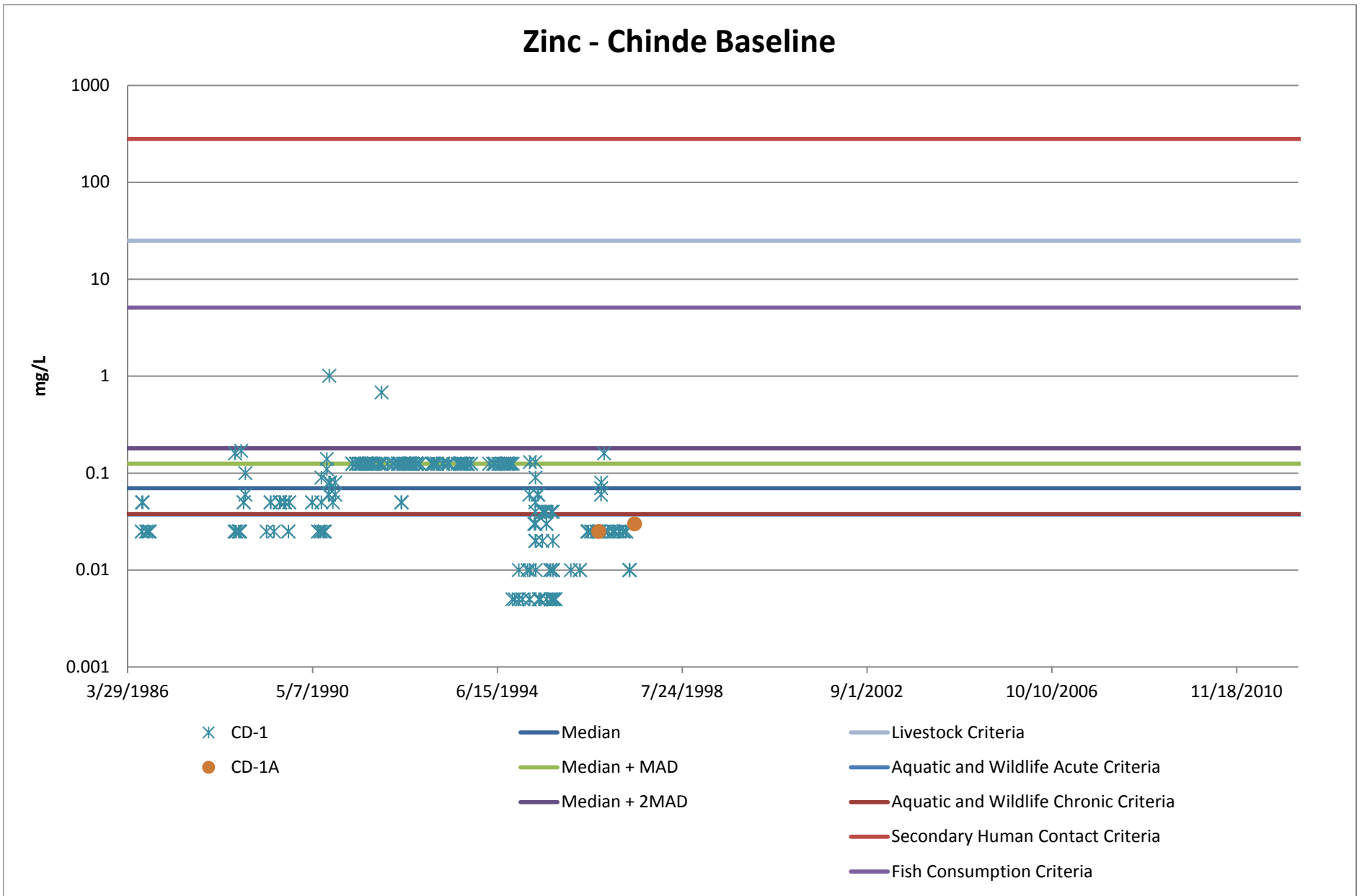
### TDS - Chinde Baseline





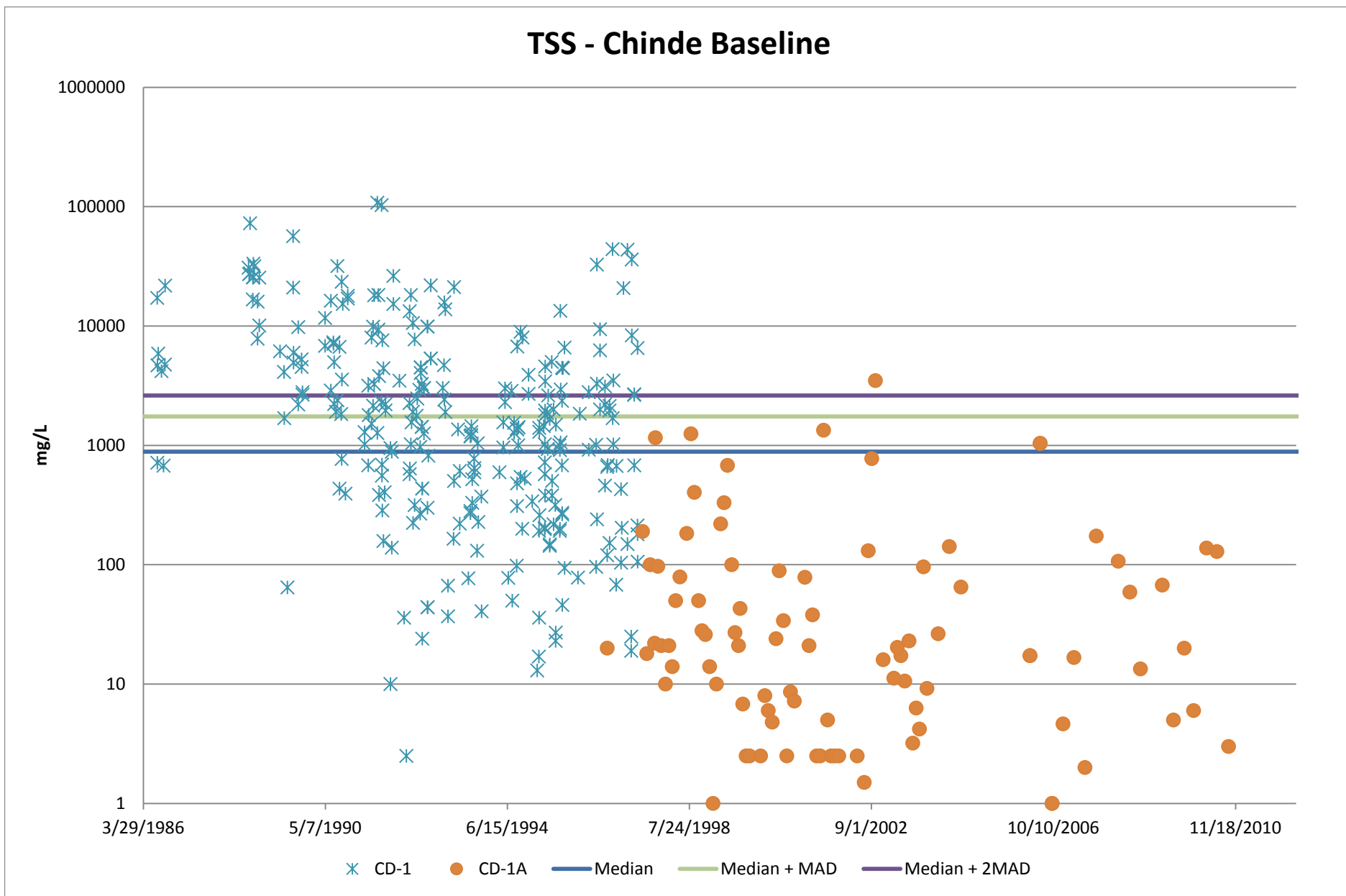
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Zinc - Chinde Baseline



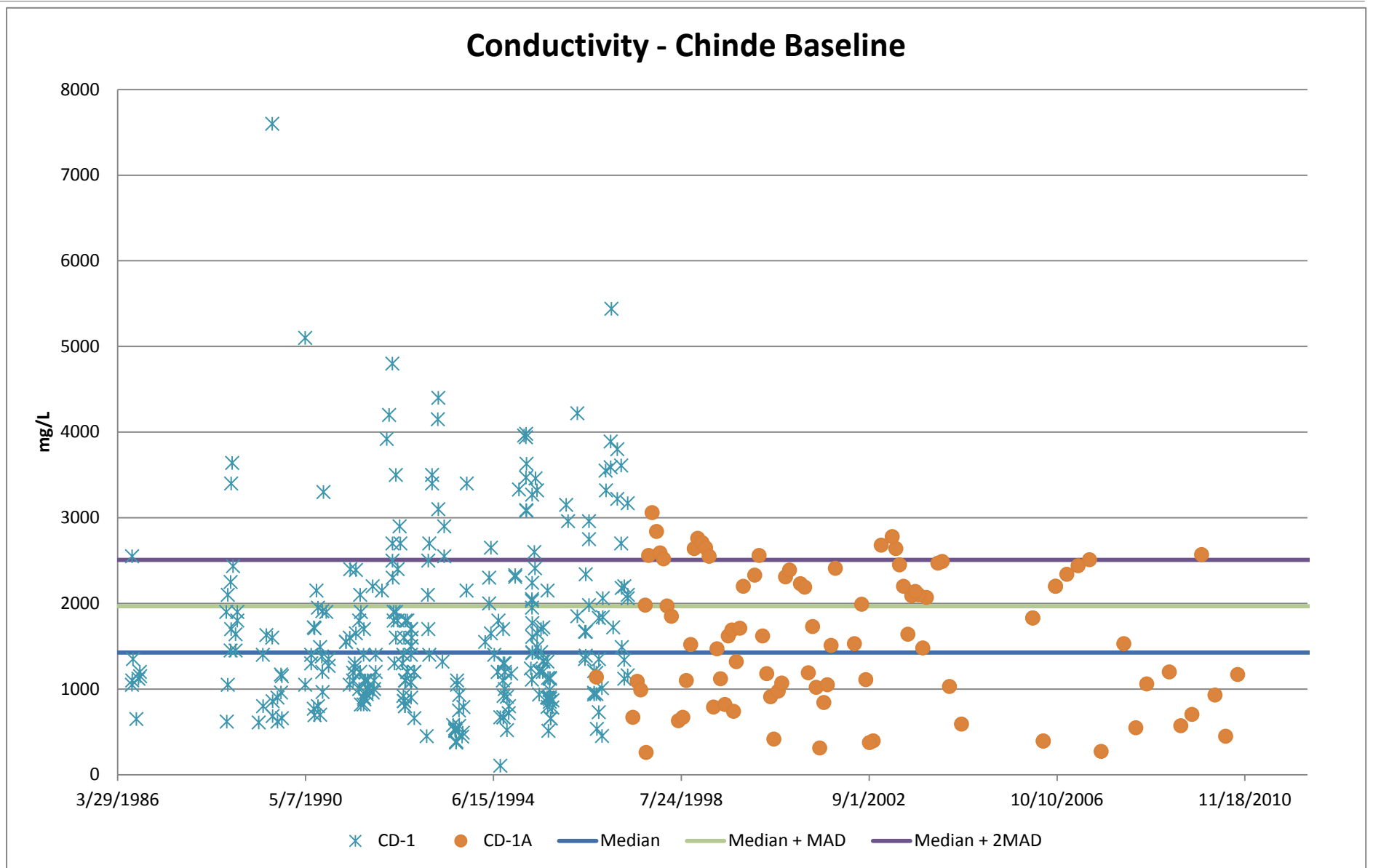
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### TSS - Chinde Baseline

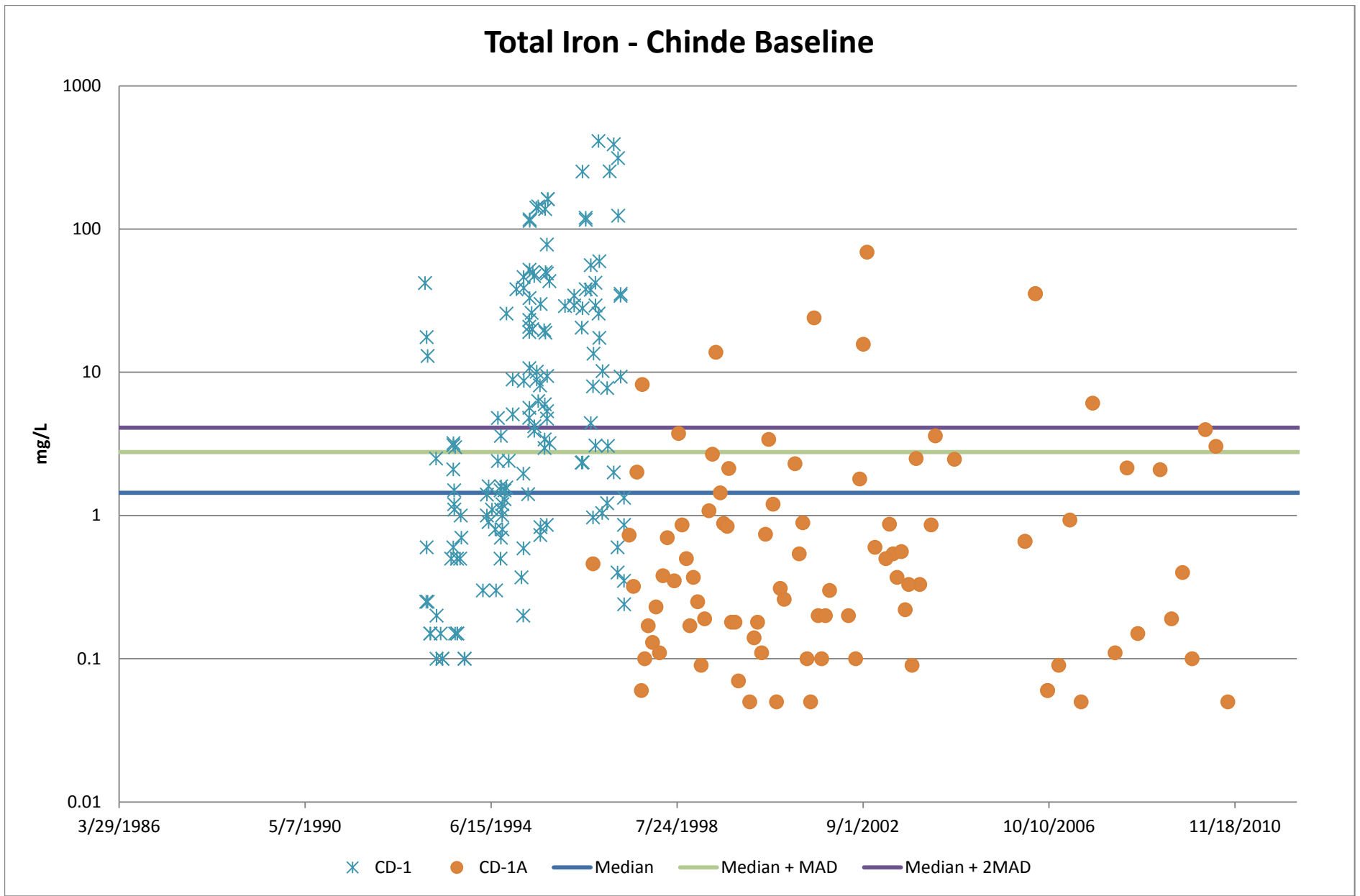


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Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

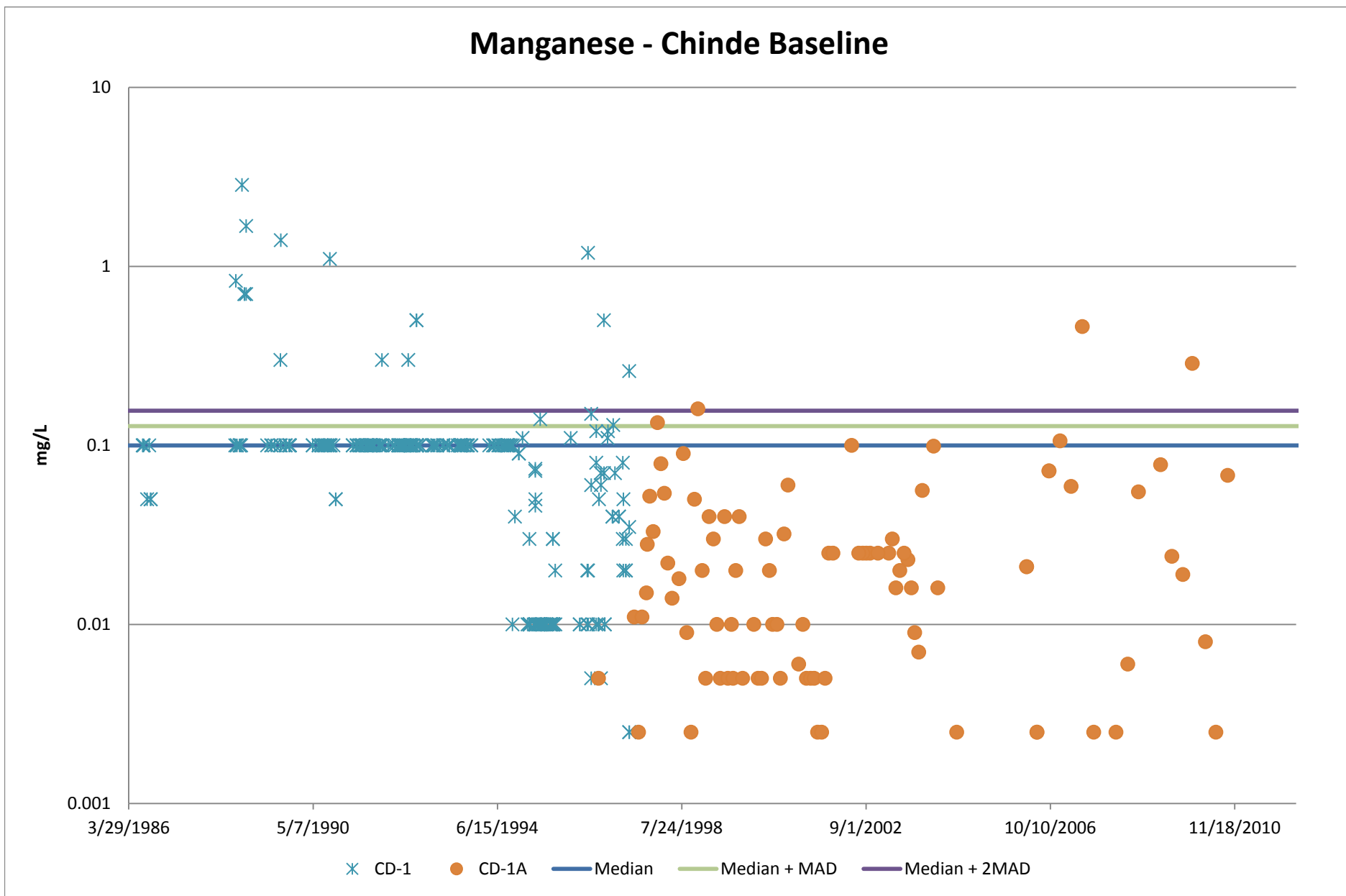


Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs



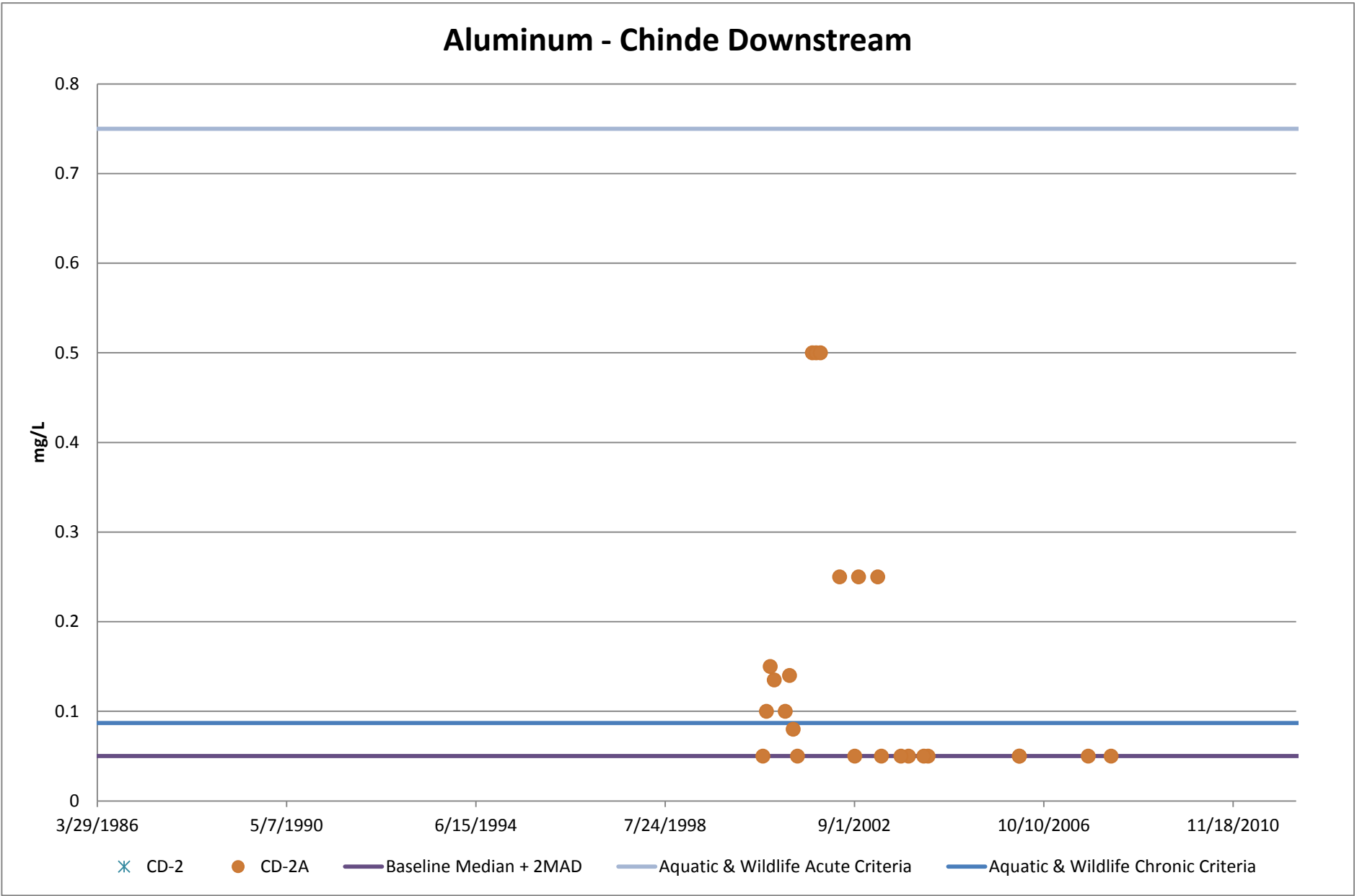
Appendix D: Surface Water Quality Data Graphs  
Chinde Baseline Graphs

### Manganese - Chinde Baseline

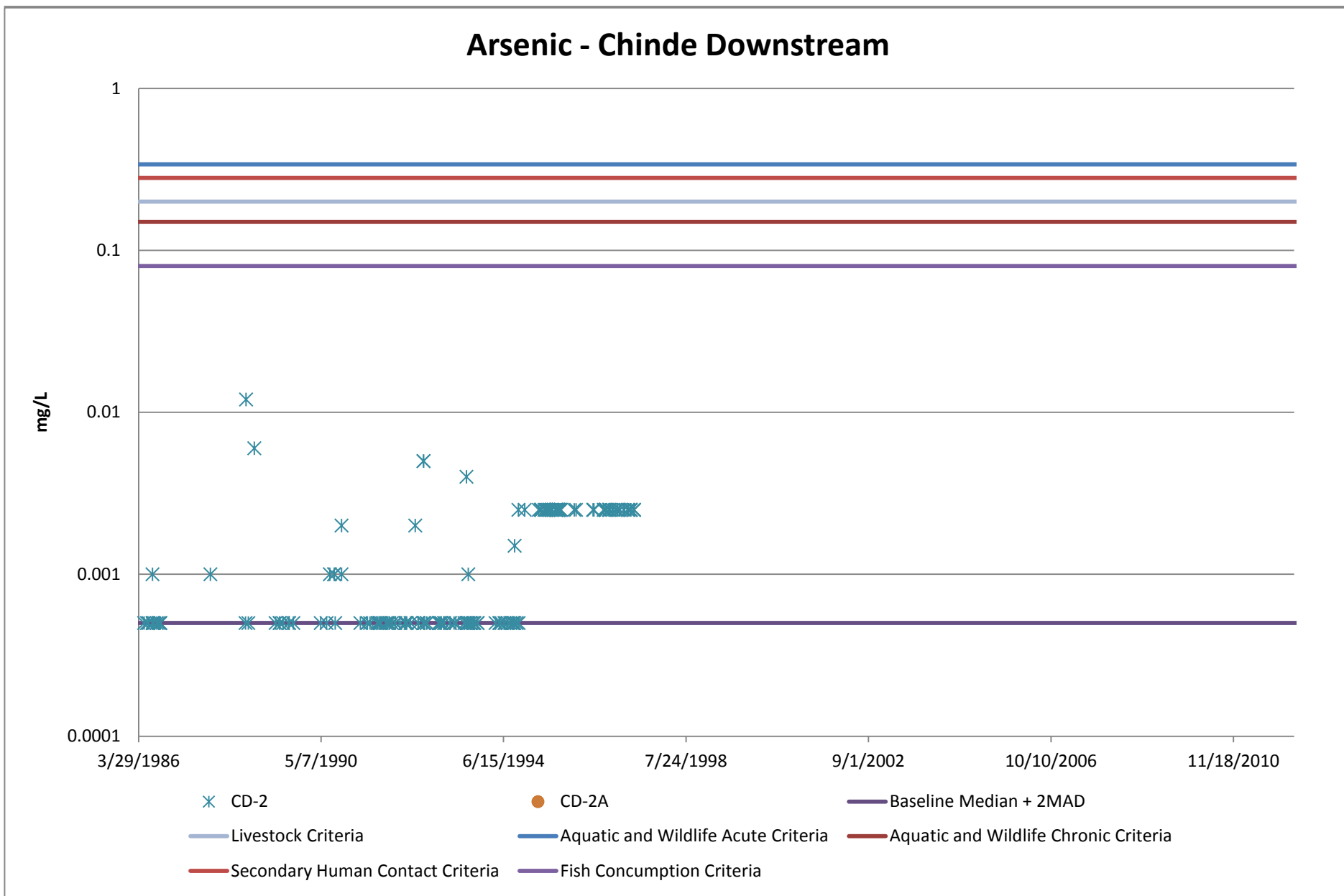


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### Aluminum - Chinde Downstream



### Arsenic - Chinde Downstream



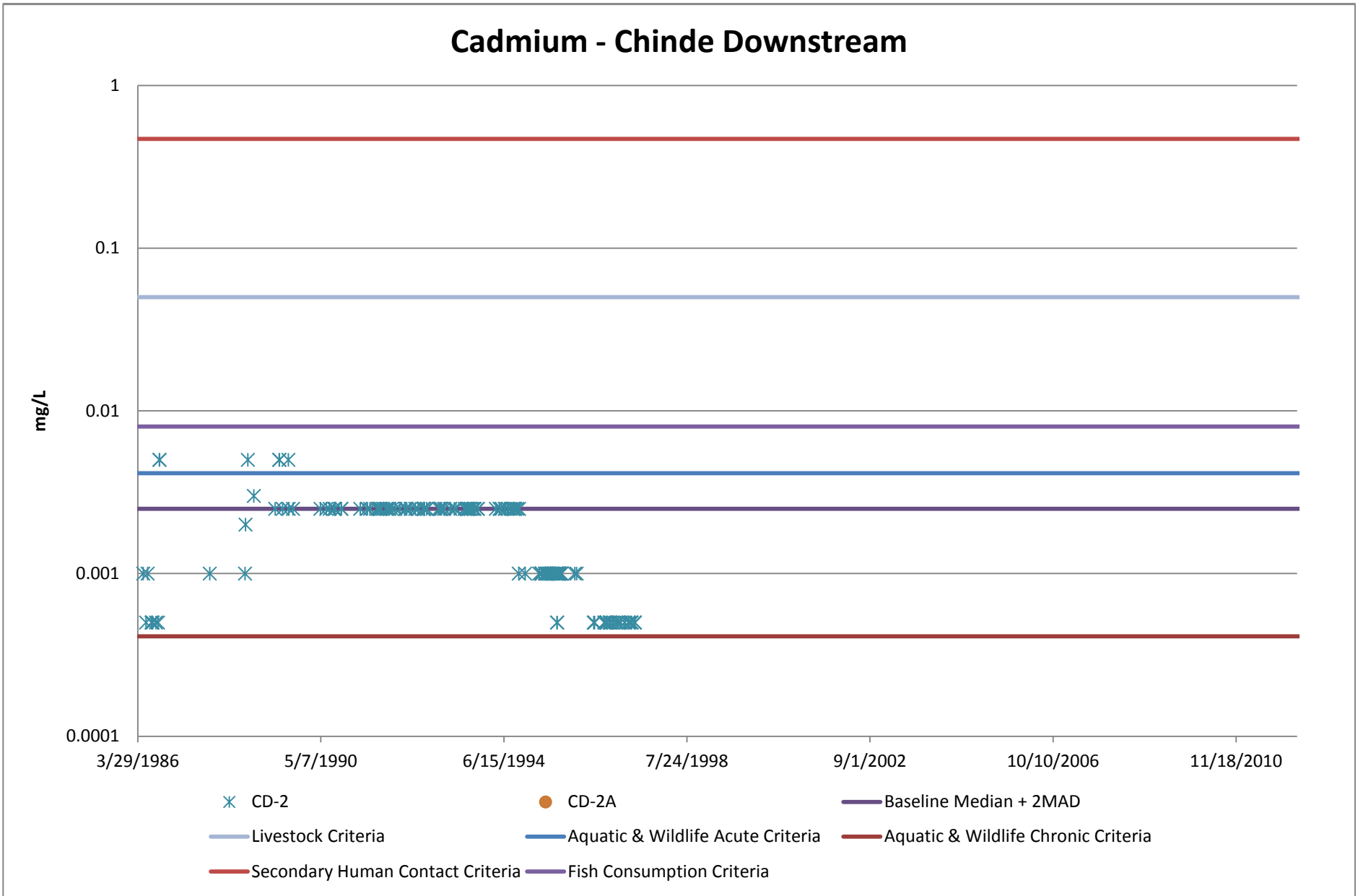






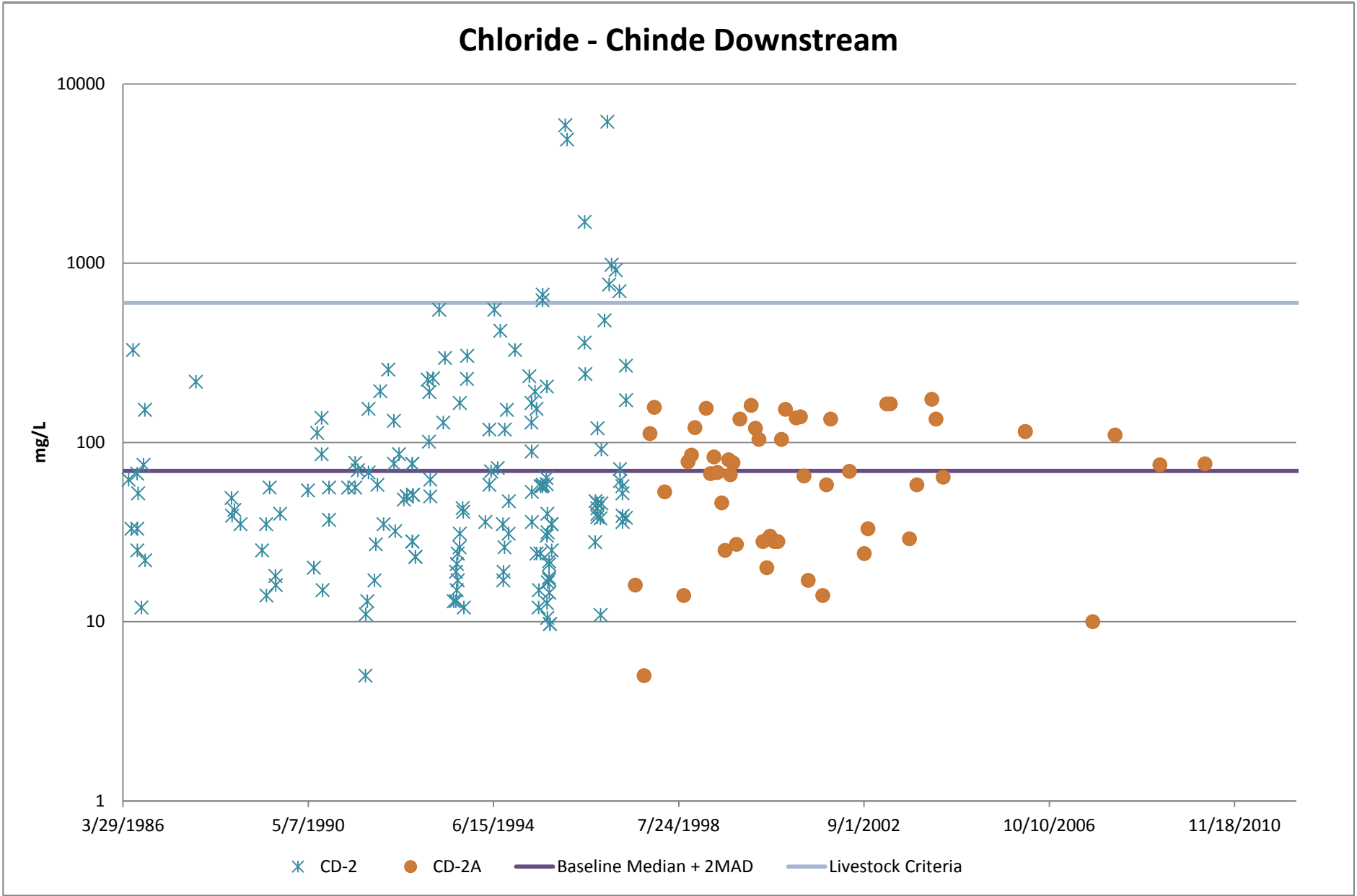
Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### Cadmium - Chinde Downstream



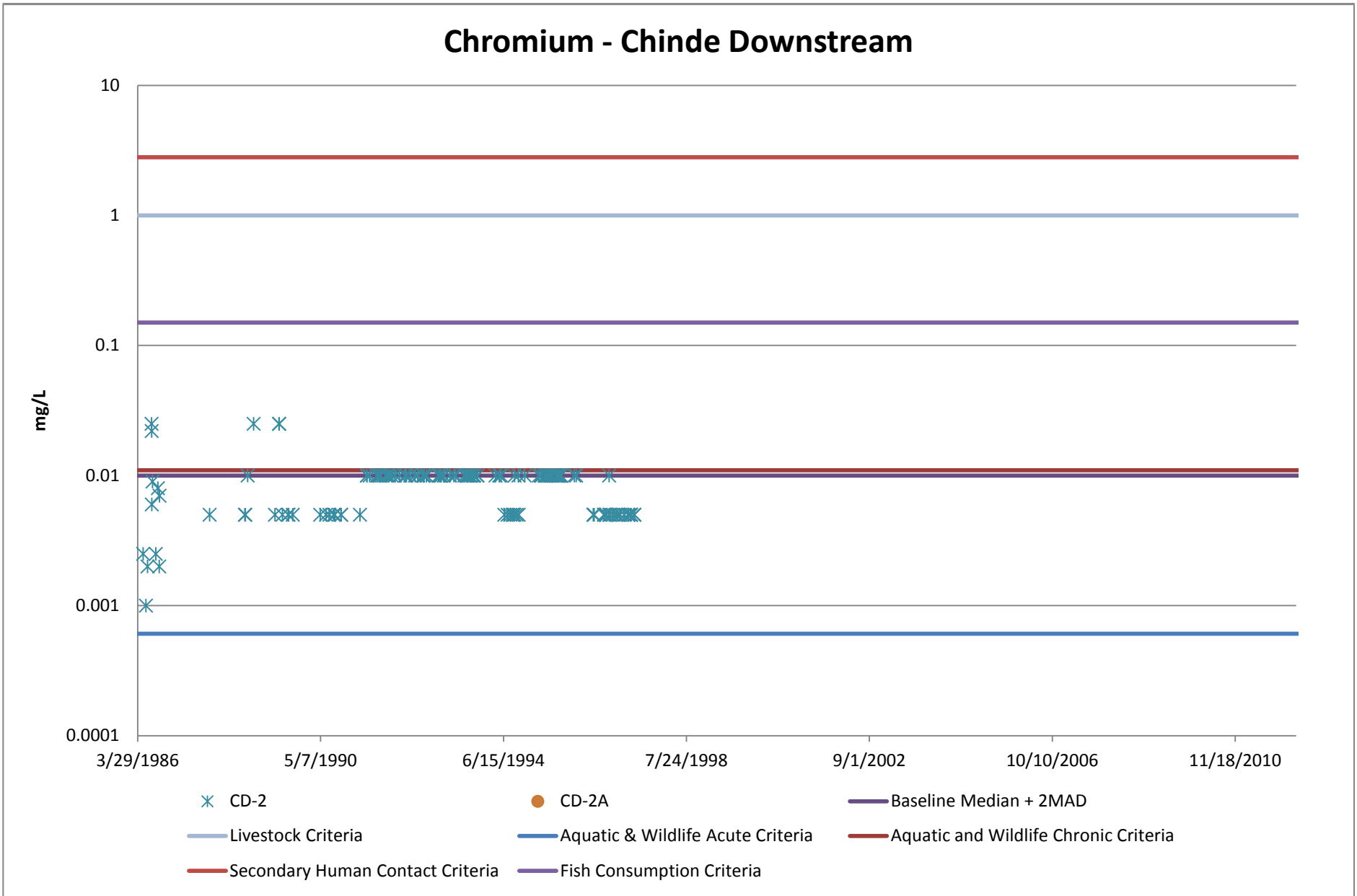
Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### Chloride - Chinde Downstream

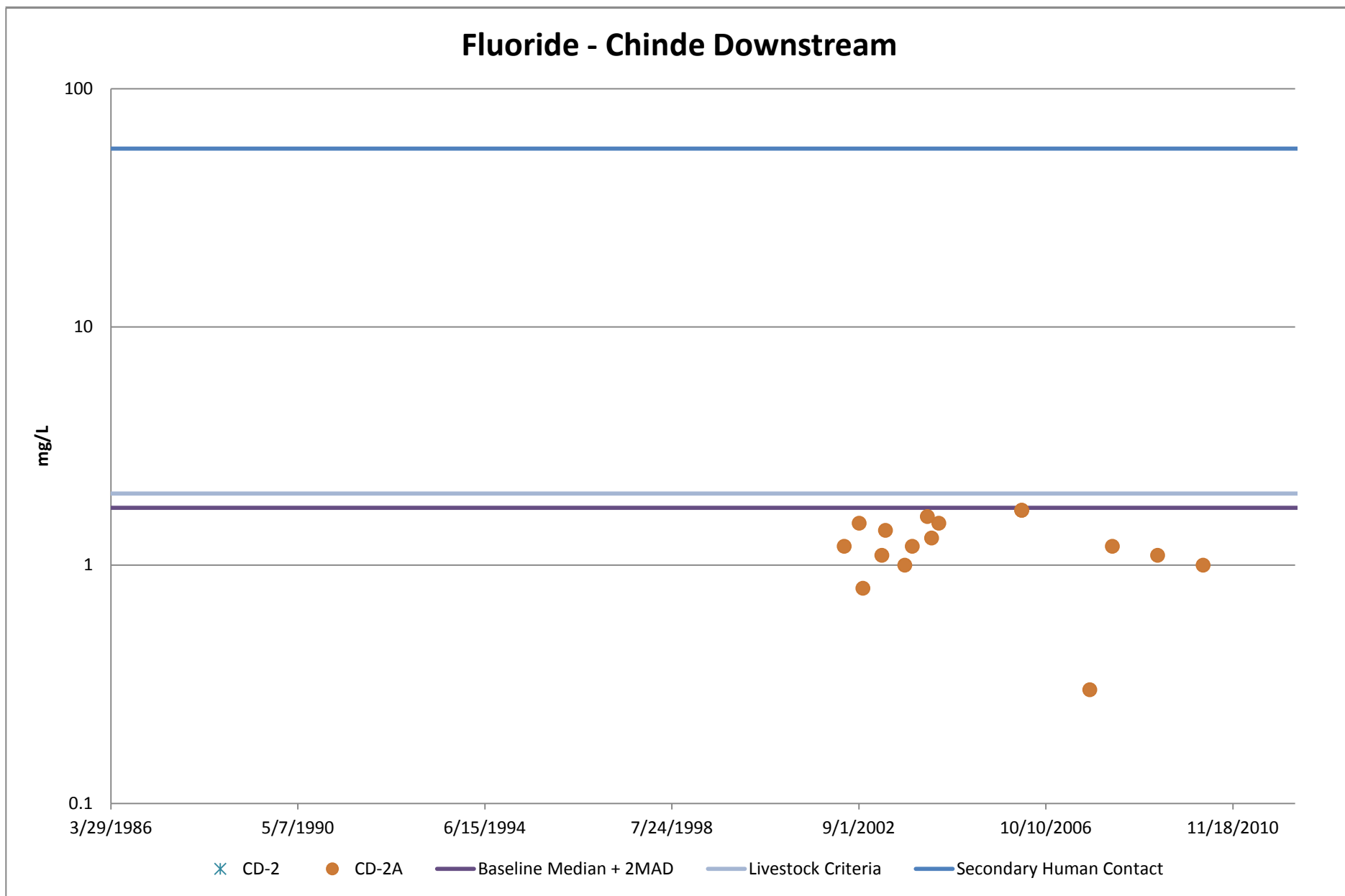


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### Chromium - Chinde Downstream

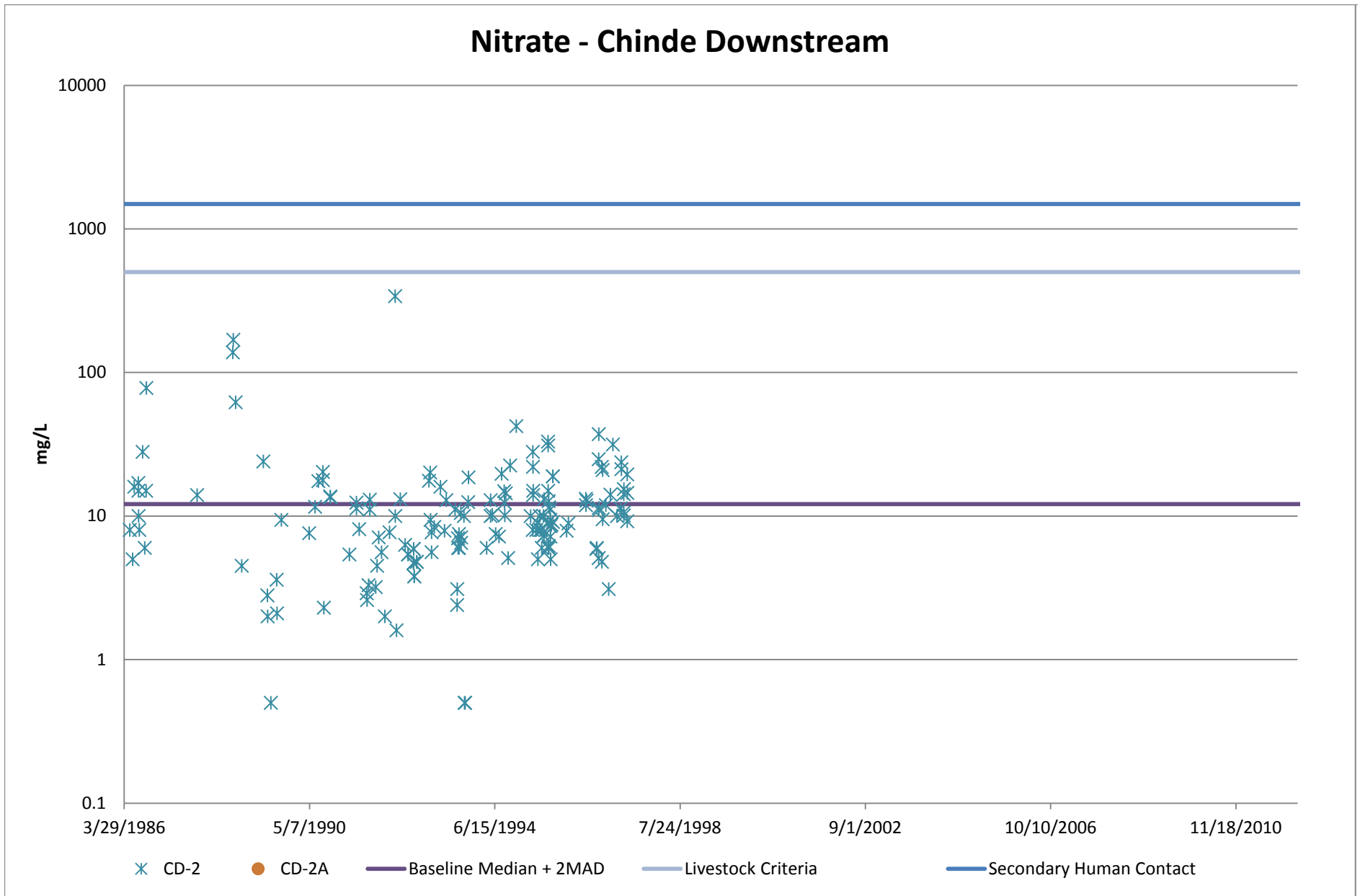


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs





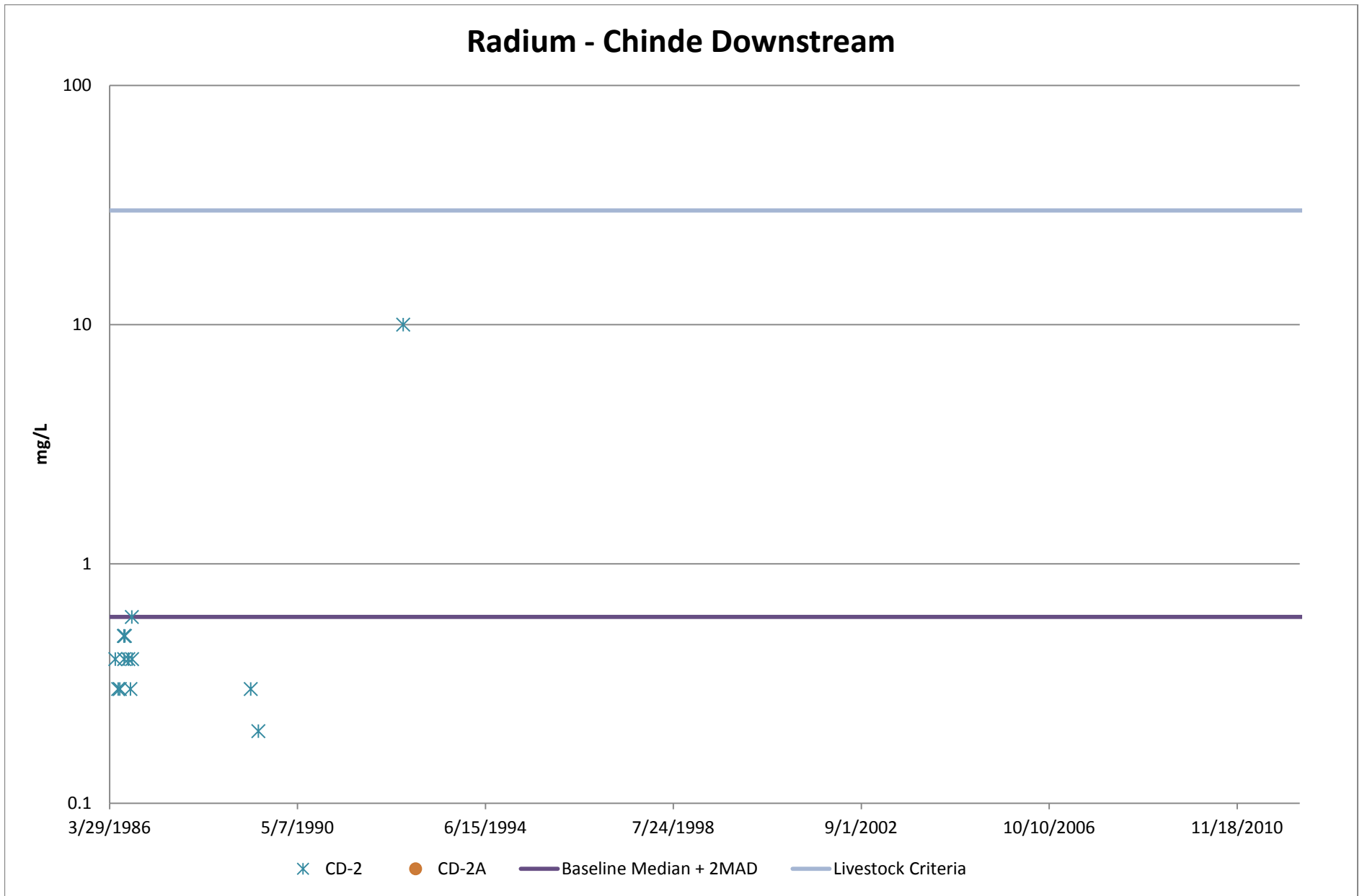
Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs





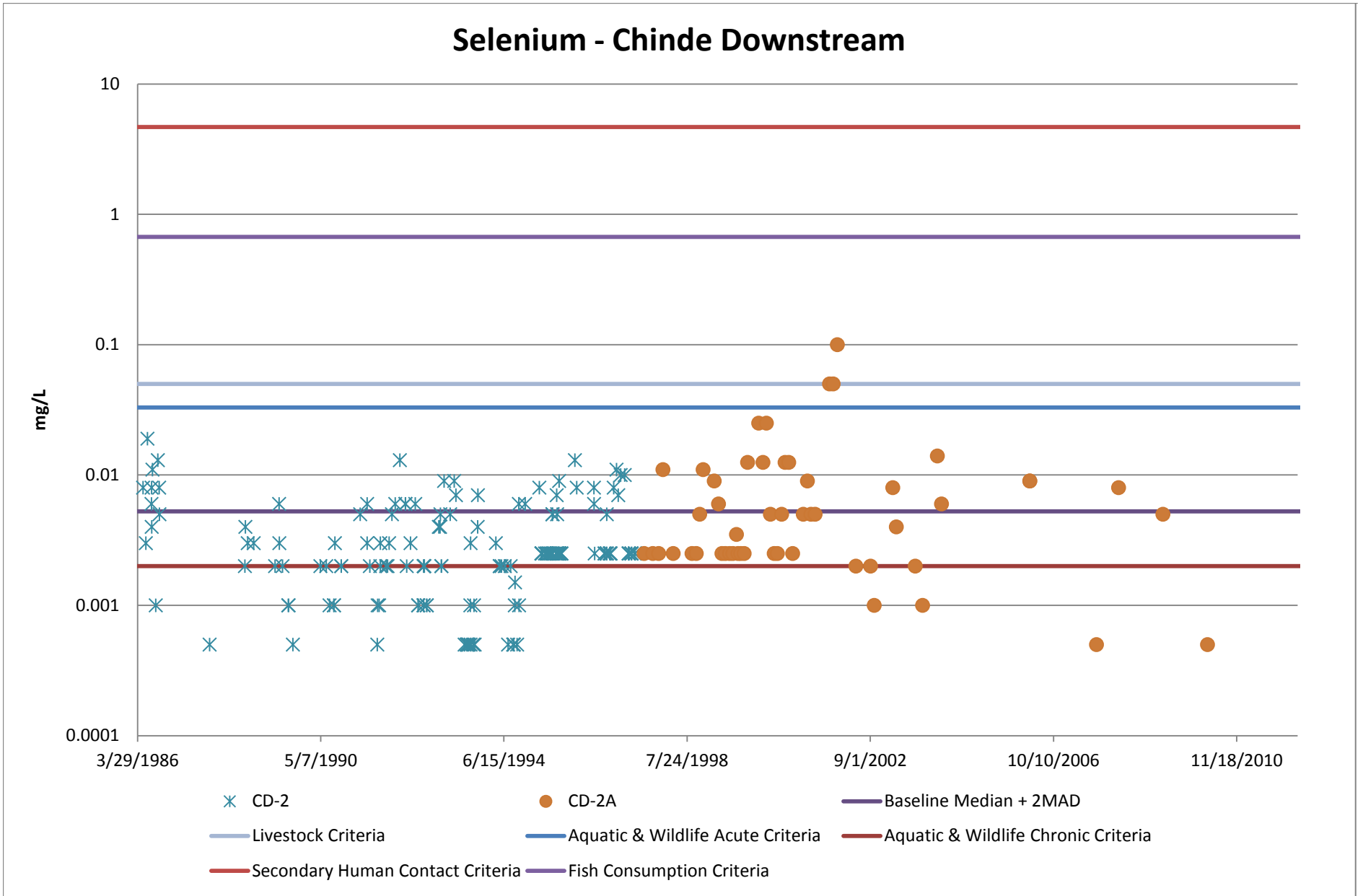


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs



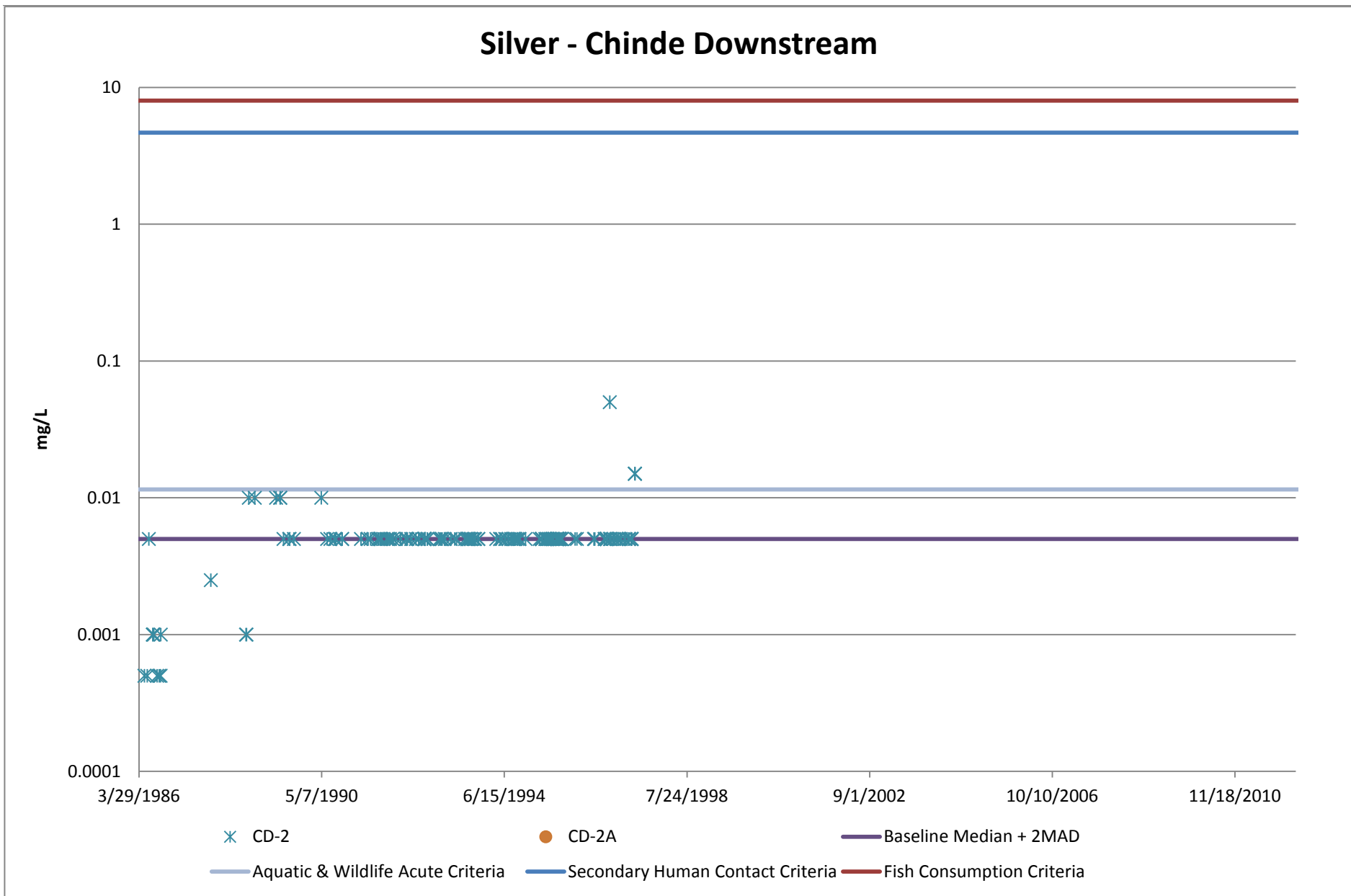
Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### Selenium - Chinde Downstream



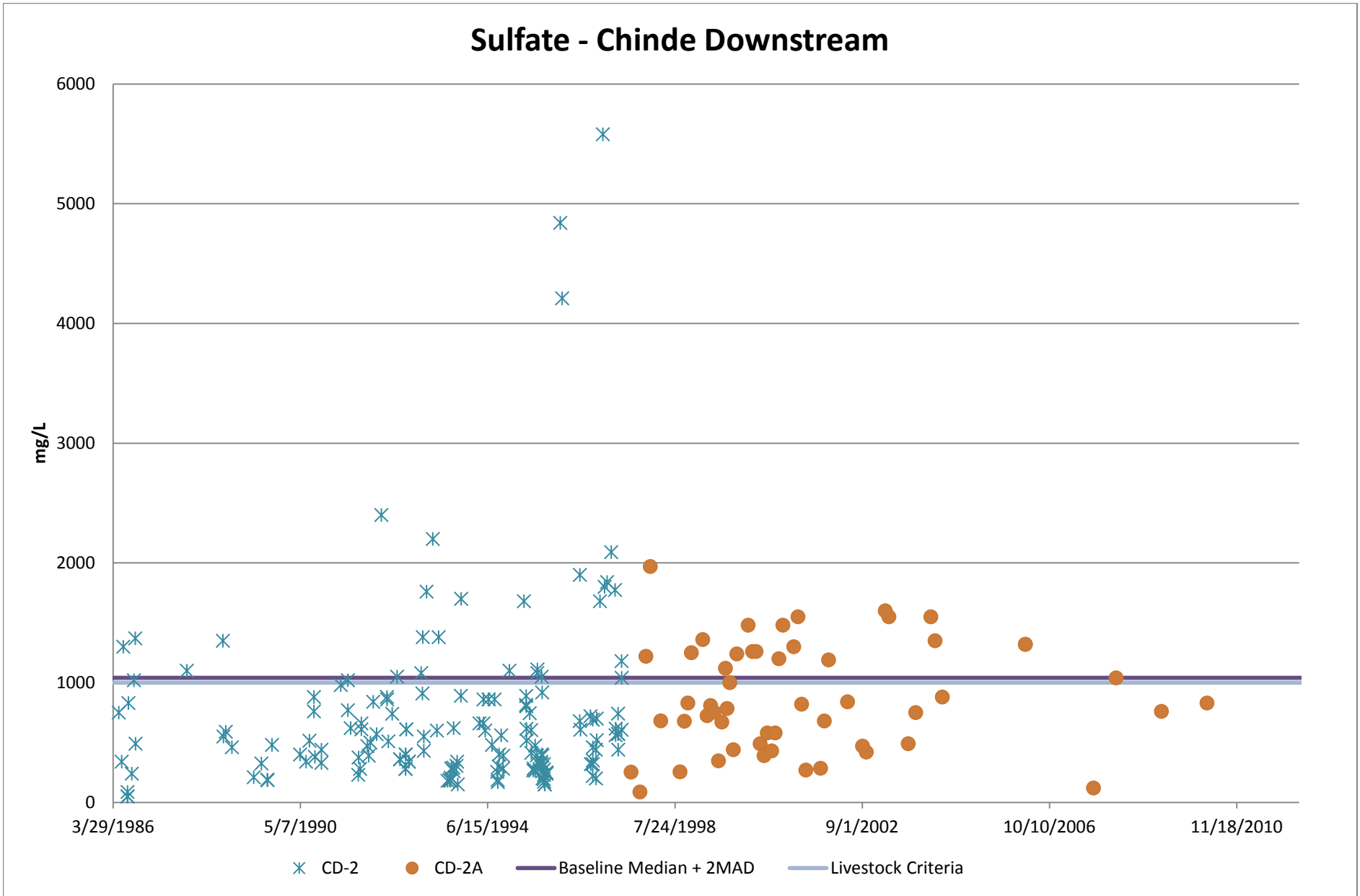
Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

**Silver - Chinde Downstream**

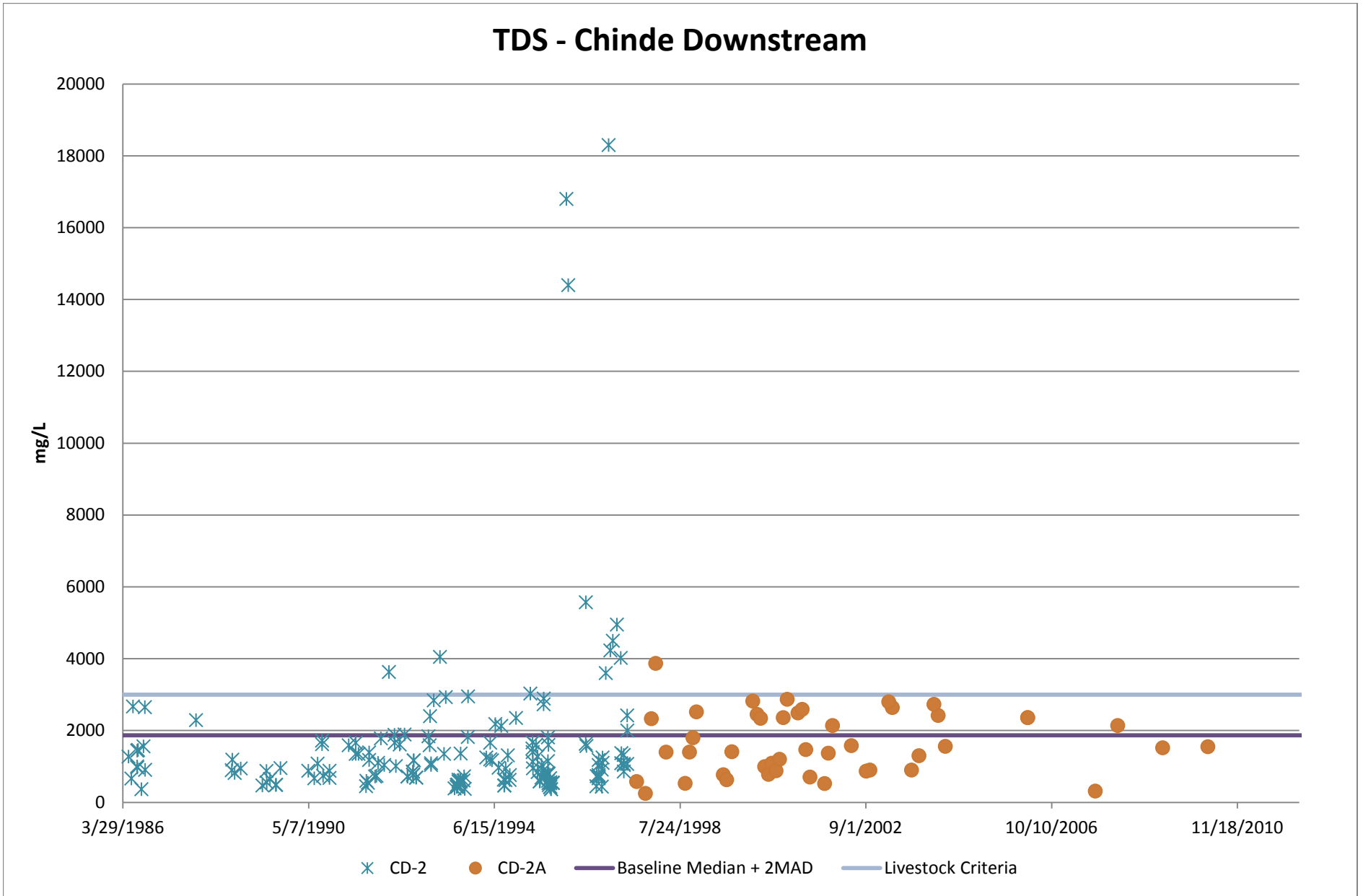


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### Sulfate - Chinde Downstream

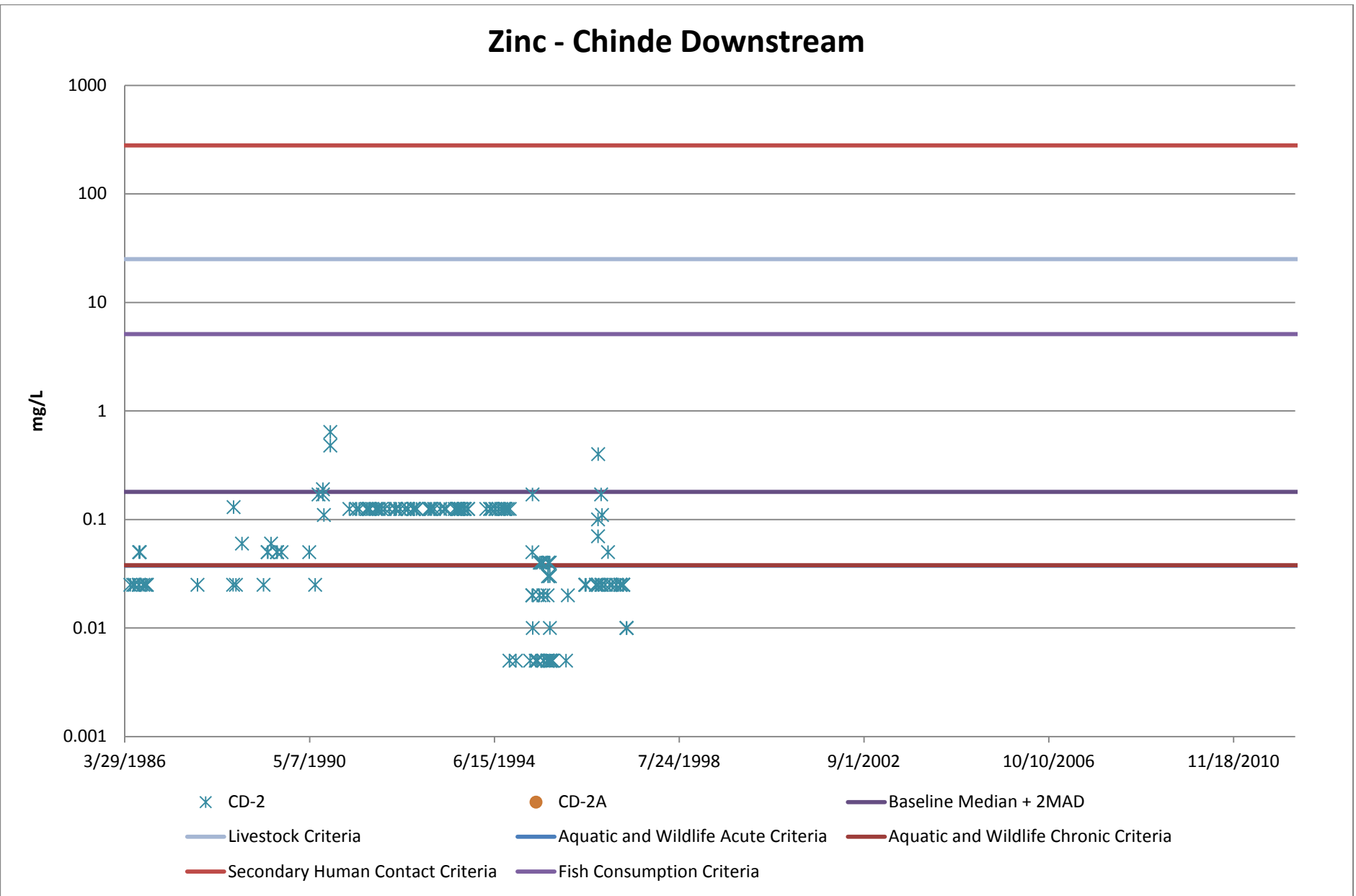


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs



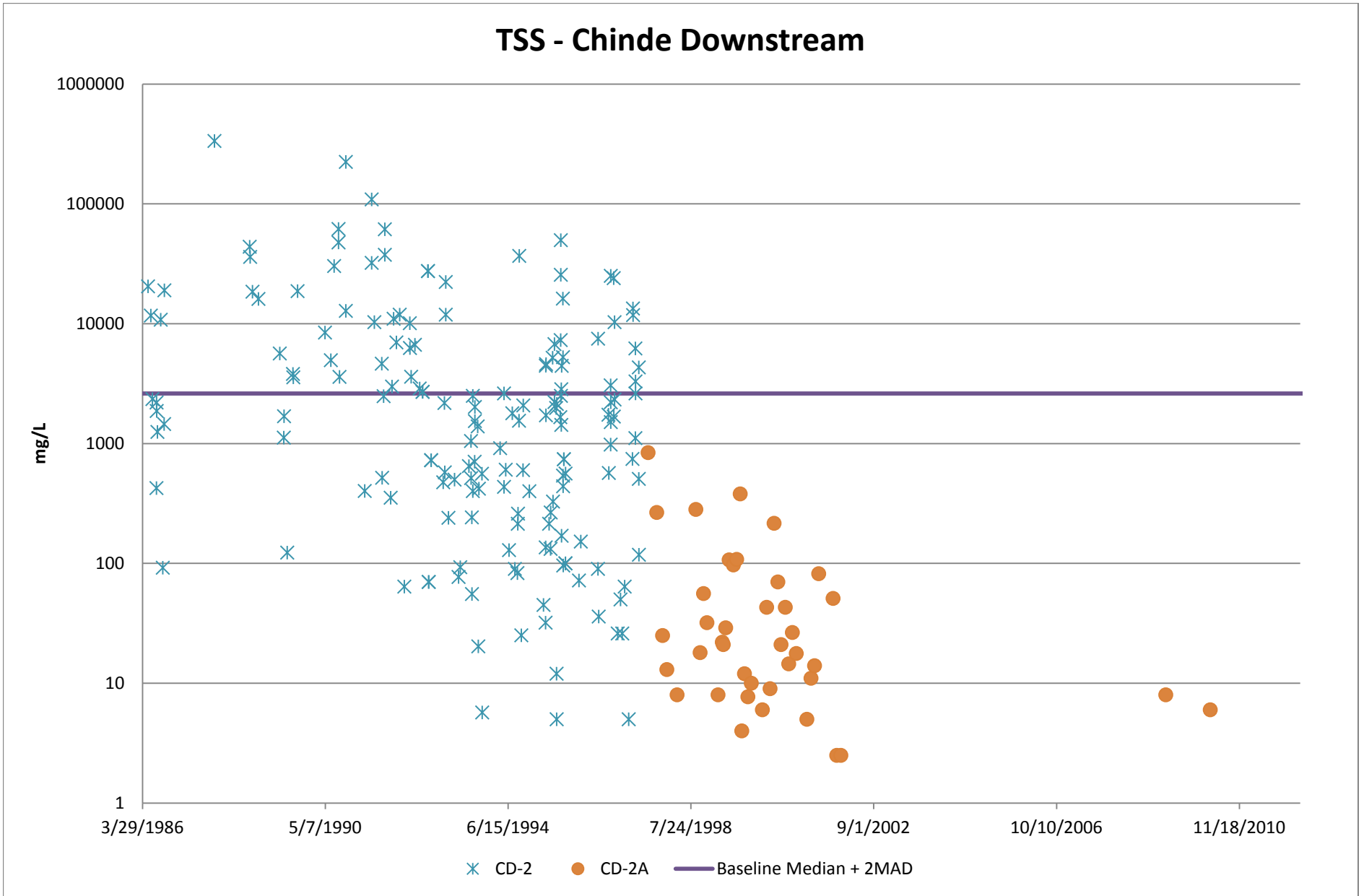
Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### Zinc - Chinde Downstream

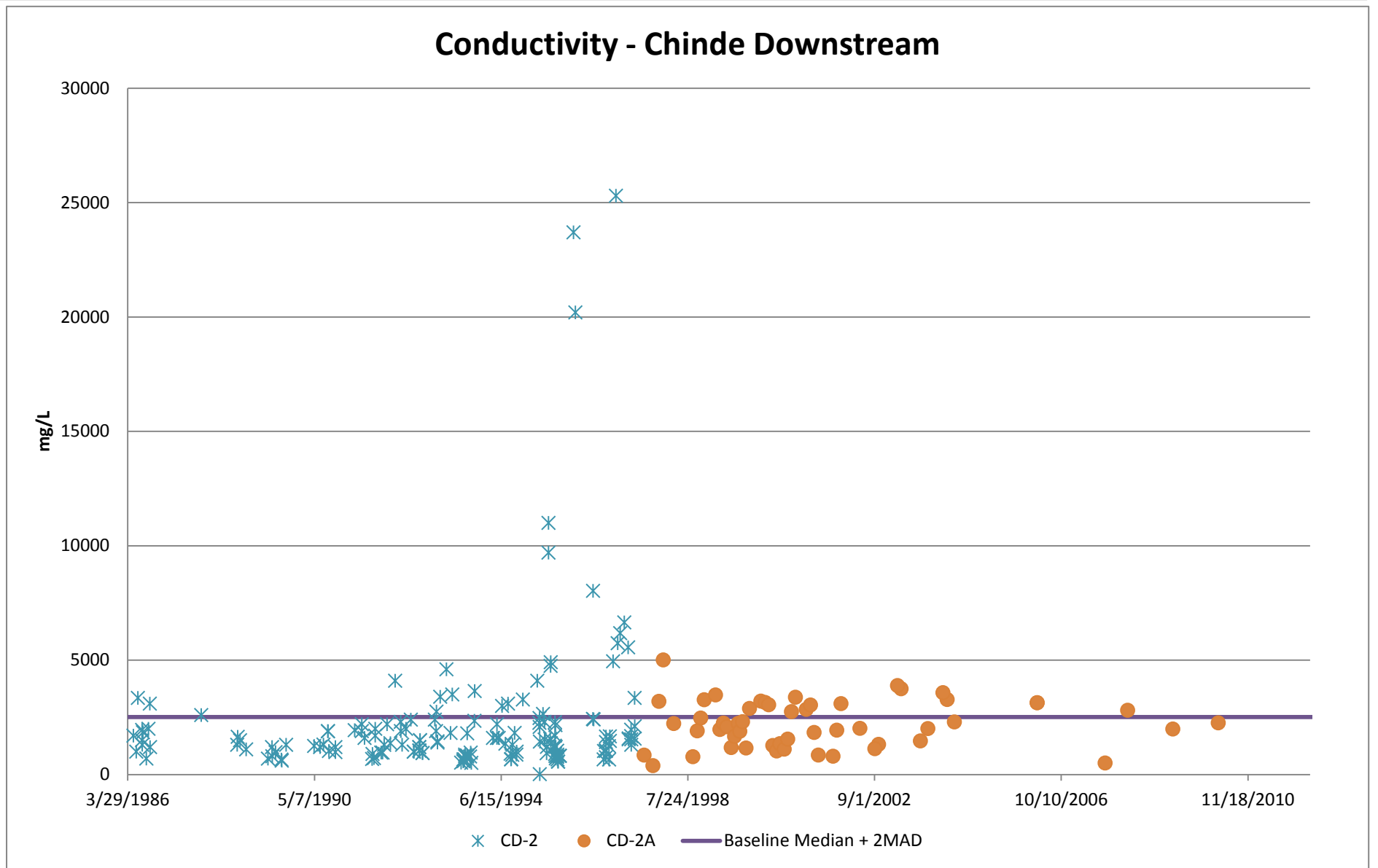


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs

### TSS - Chinde Downstream

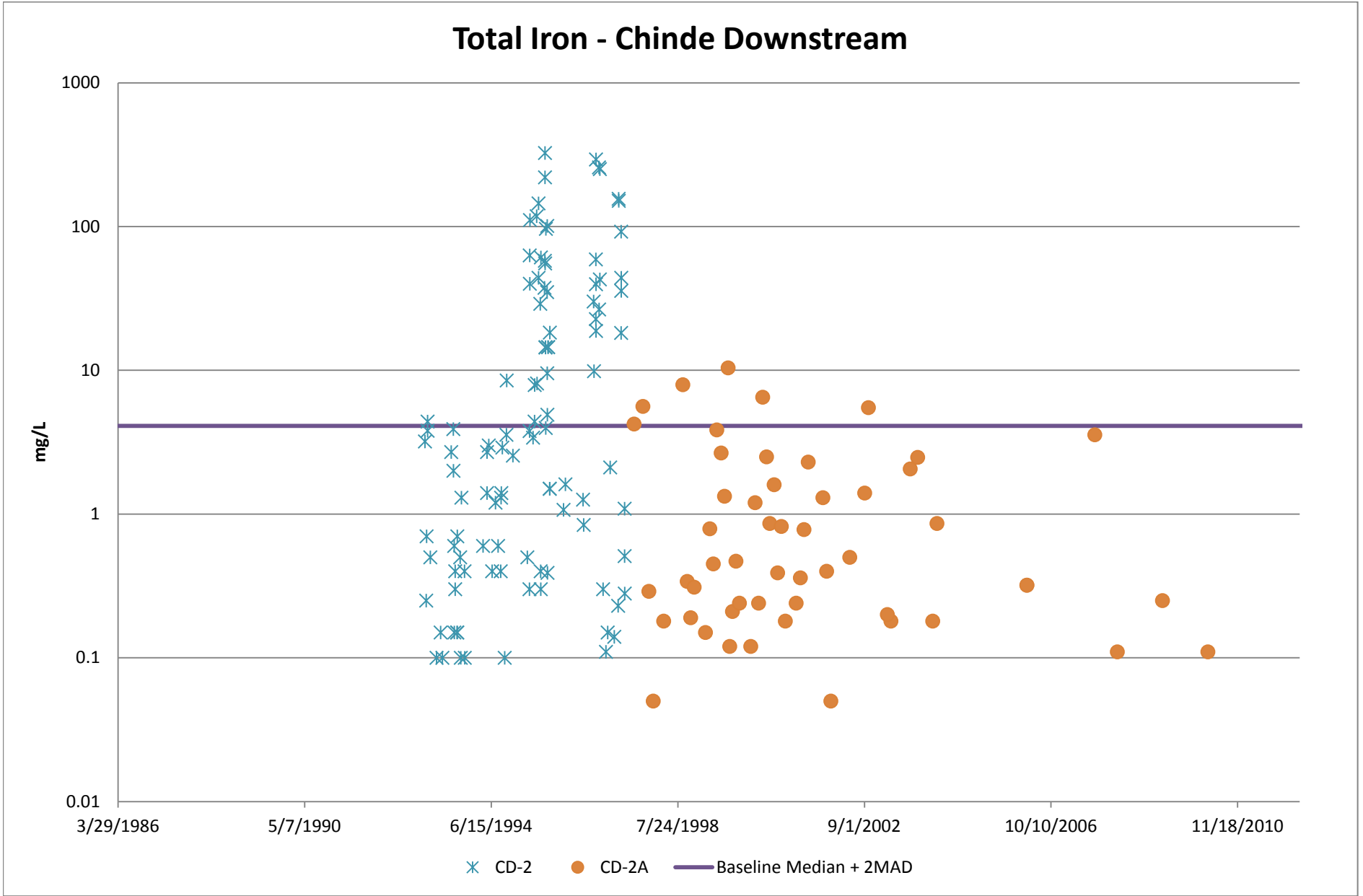


Appendix D: Surface Water Quality Data Graphs  
Chinde Downstream Graphs





### Total Iron - Chinde Downstream







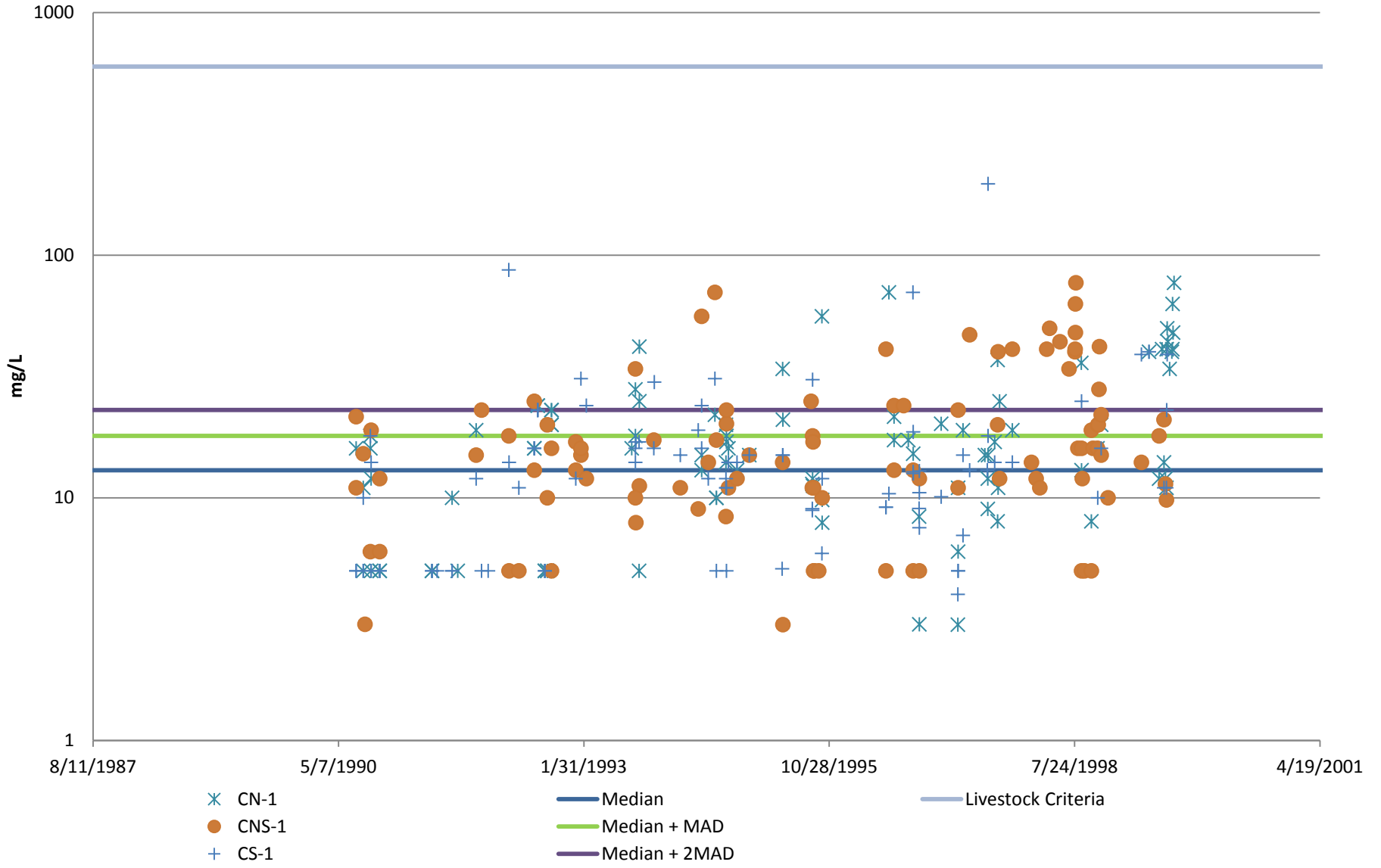




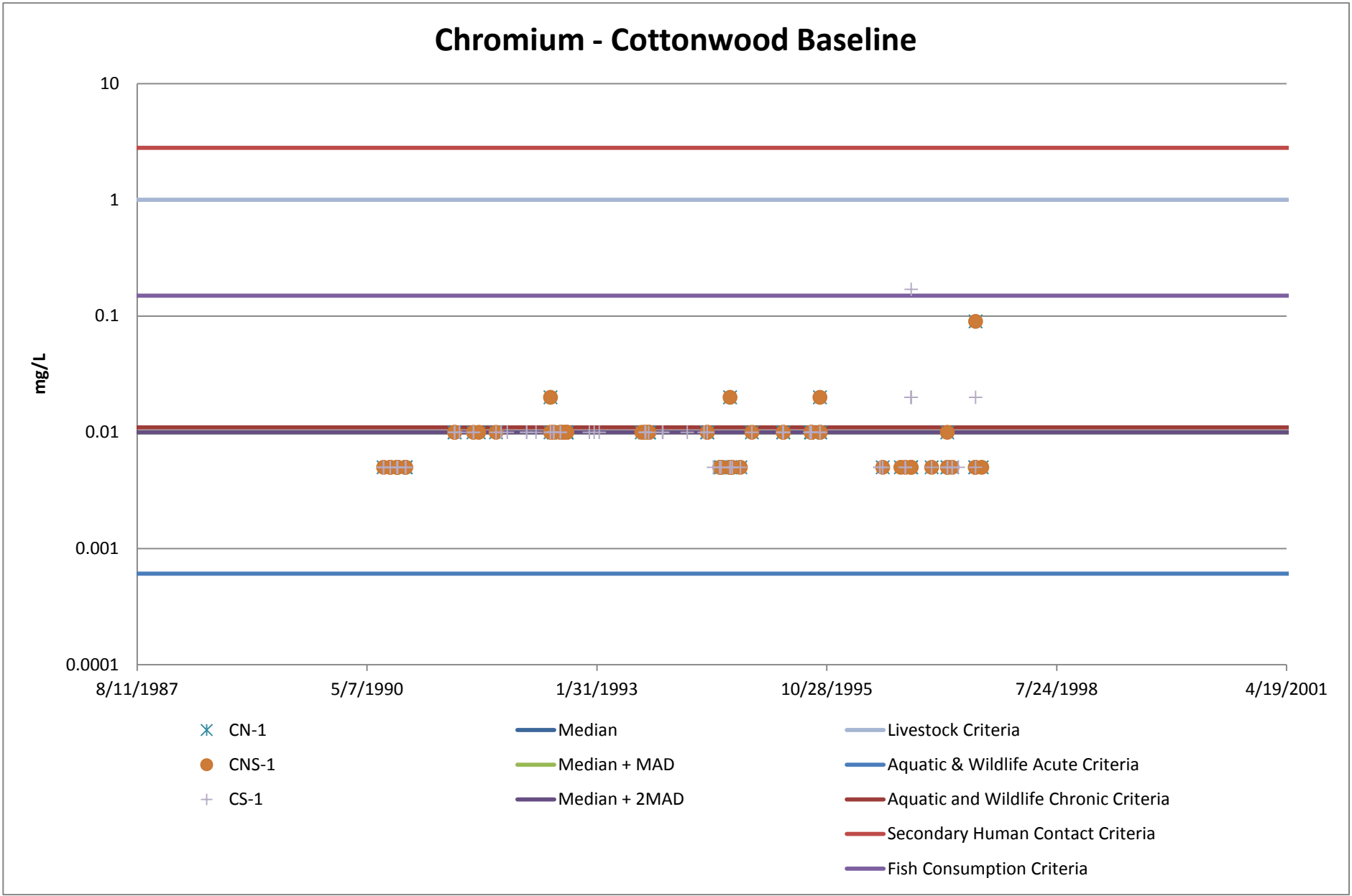


Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

### Chloride - Cottonwood Baseline



Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

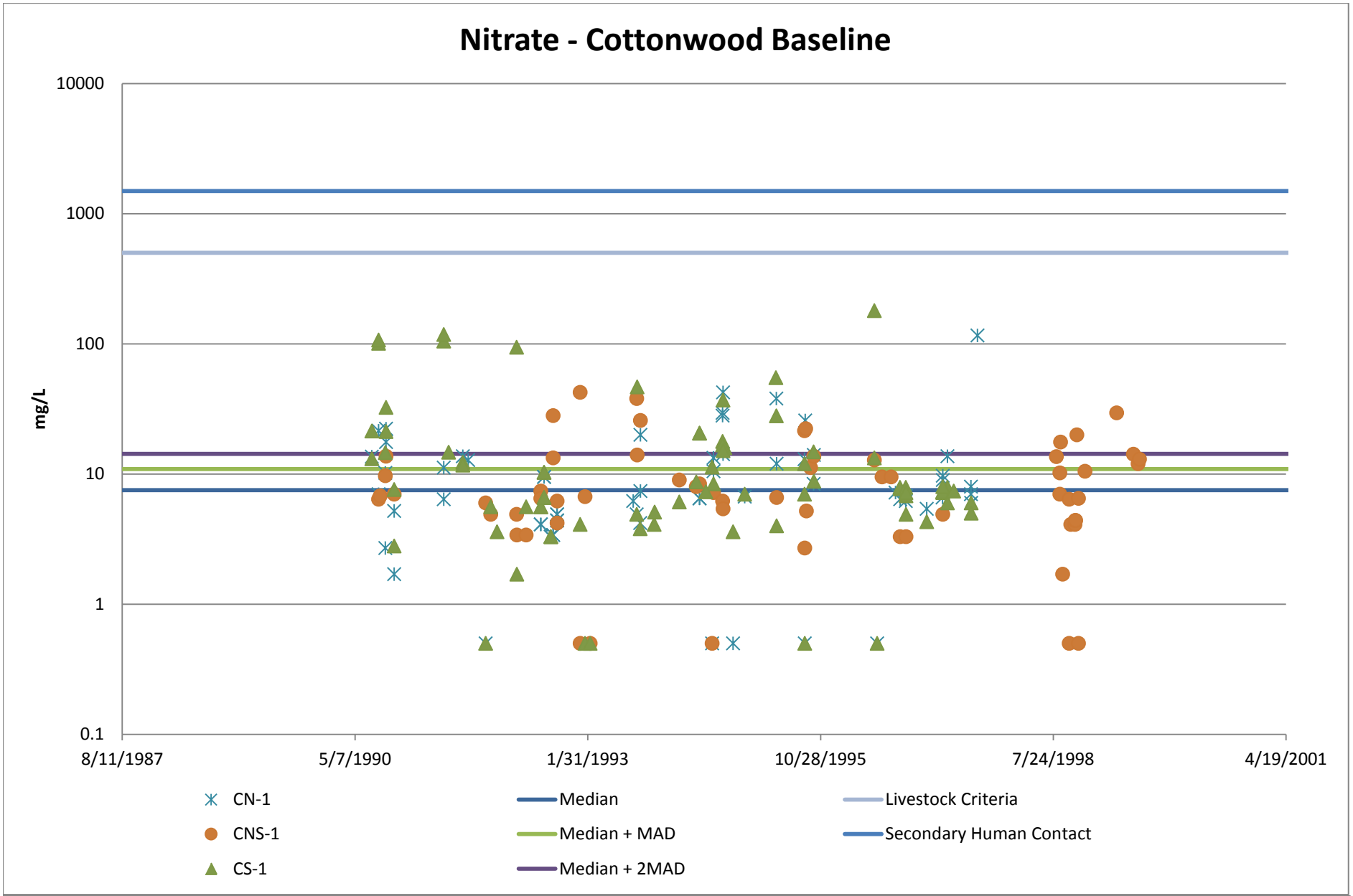




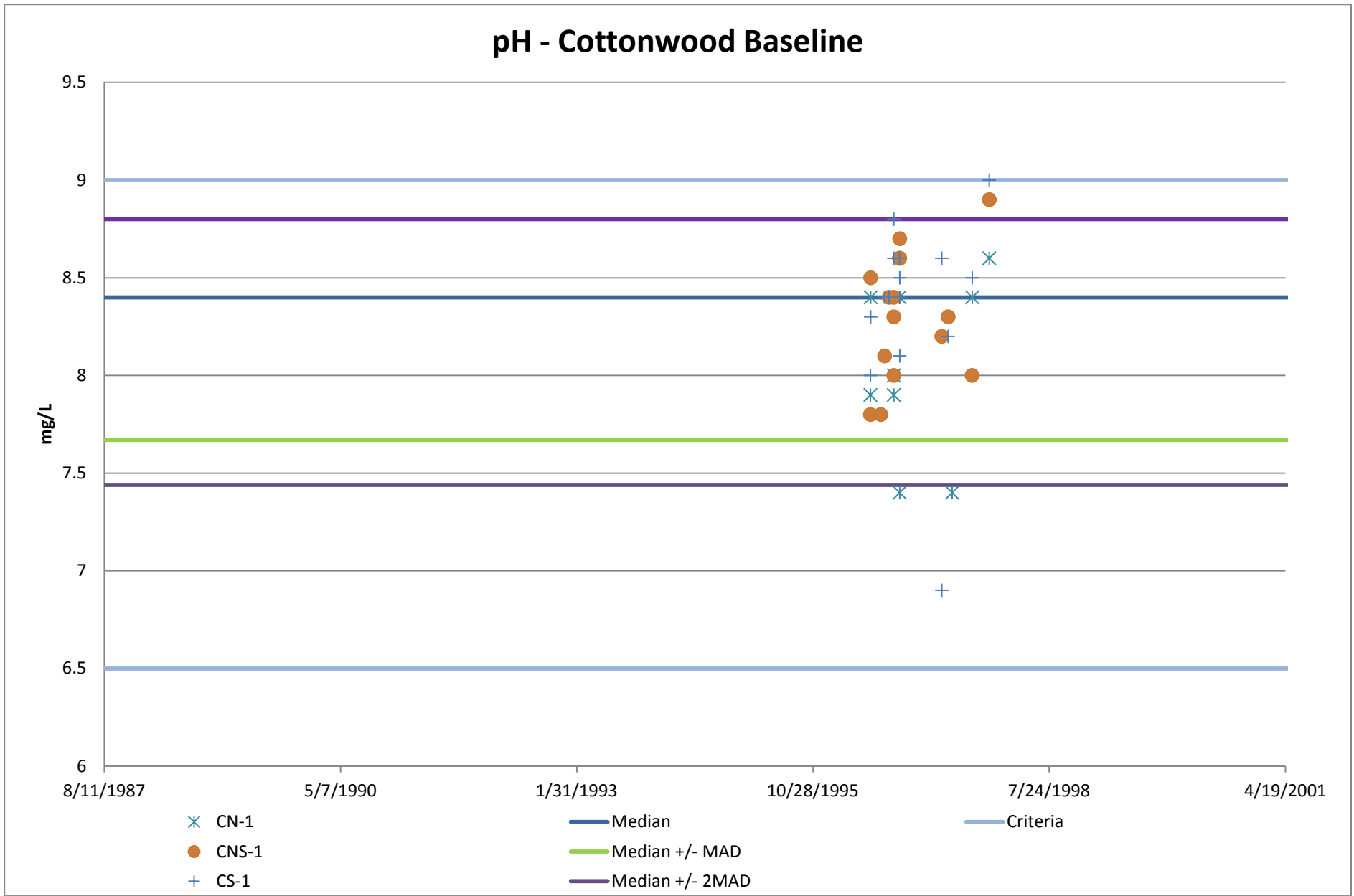


Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

### Nitrate - Cottonwood Baseline

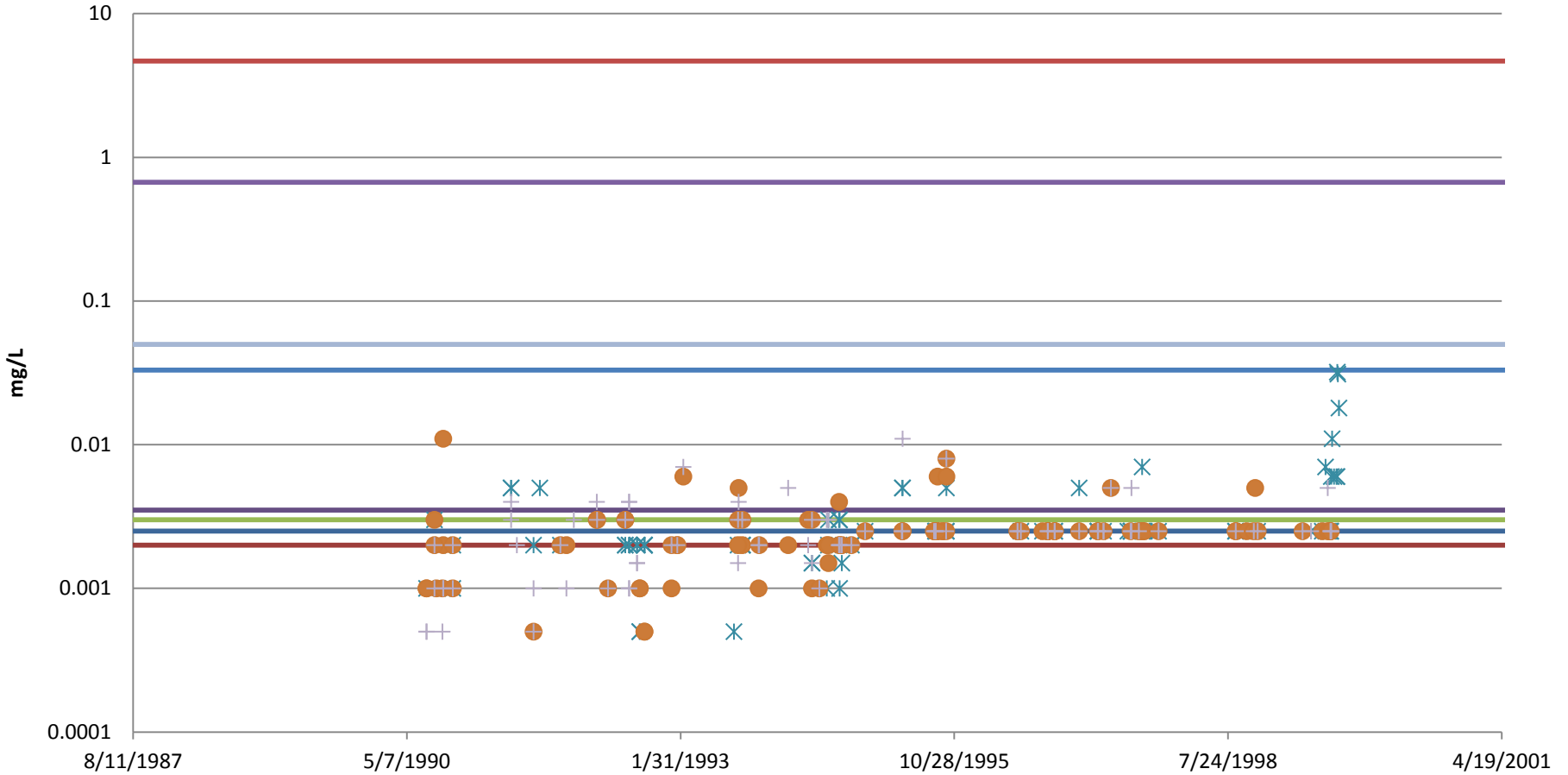


Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs



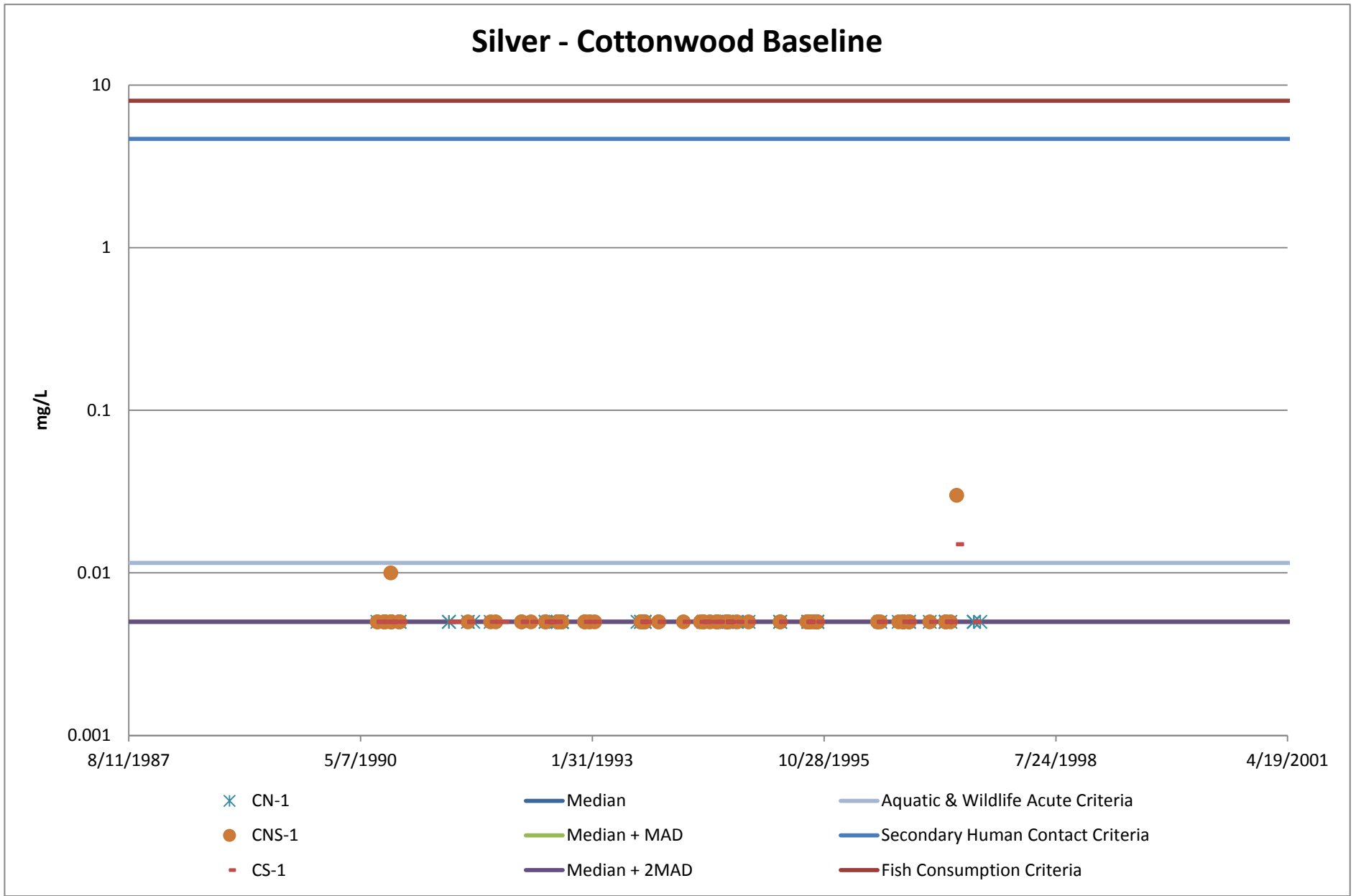
Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

### Selenium - Cottonwood Baseline



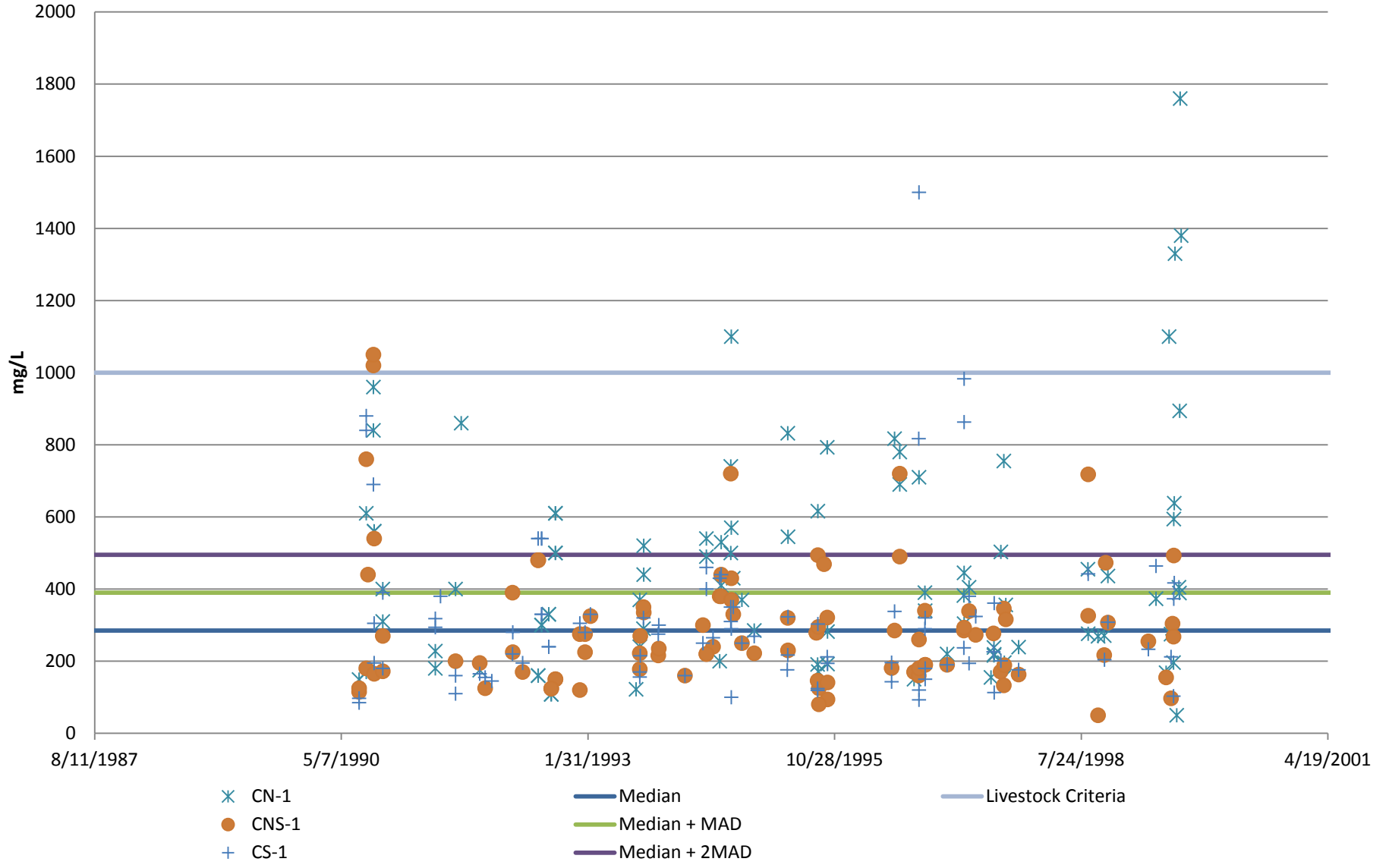
- ✖ CN-1
- CNS-1
- + CS-1
- Median
- Median + MAD
- Median + 2MAD
- Livestock Criteria
- Aquatic & Wildlife Acute Criteria
- Aquatic & Wildlife Chronic Criteria
- Secondary Human Contact Criteria
- Fish Consumption Criteria

Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

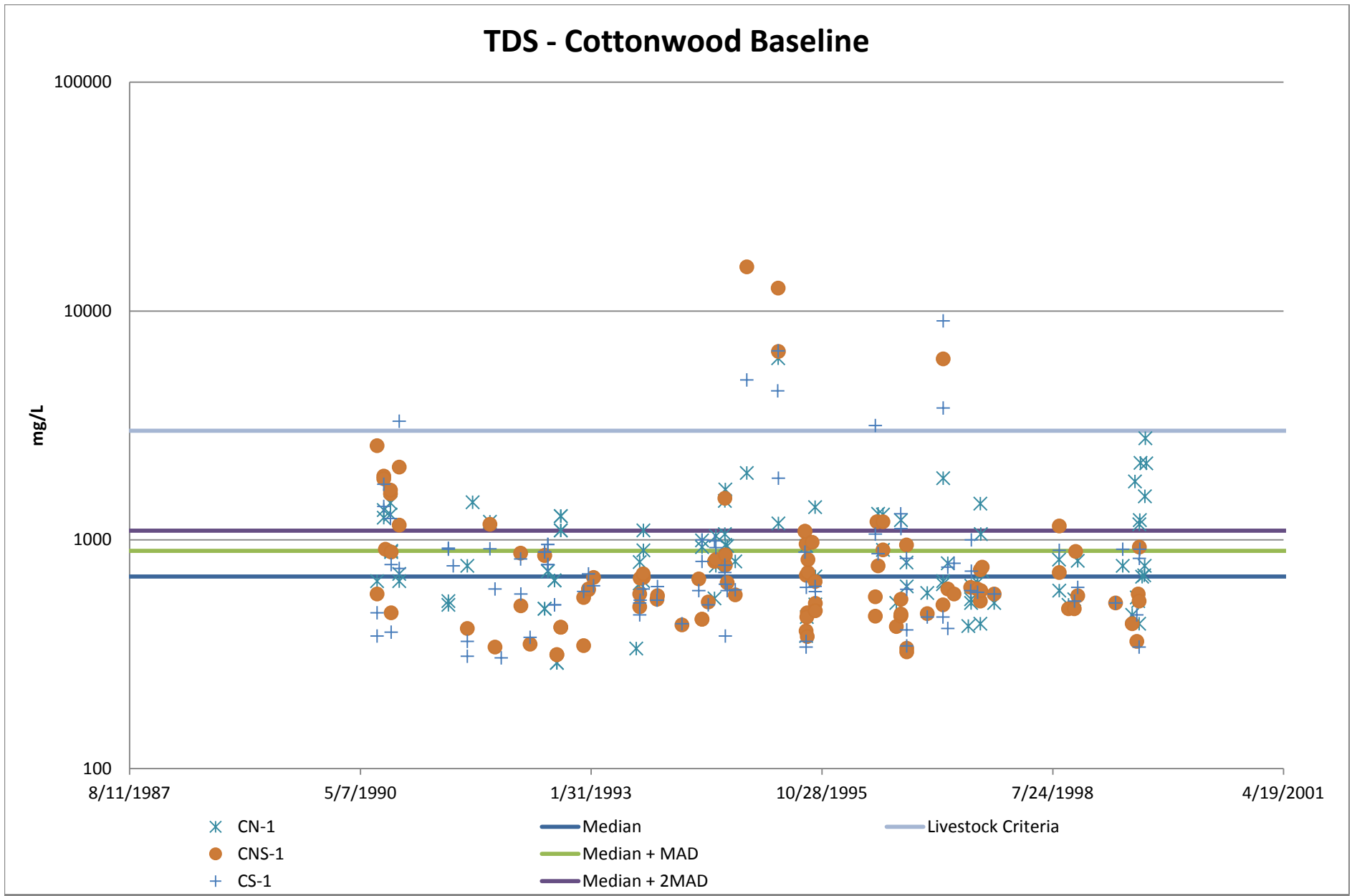


Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

### Sulfate - Cottonwood Baseline

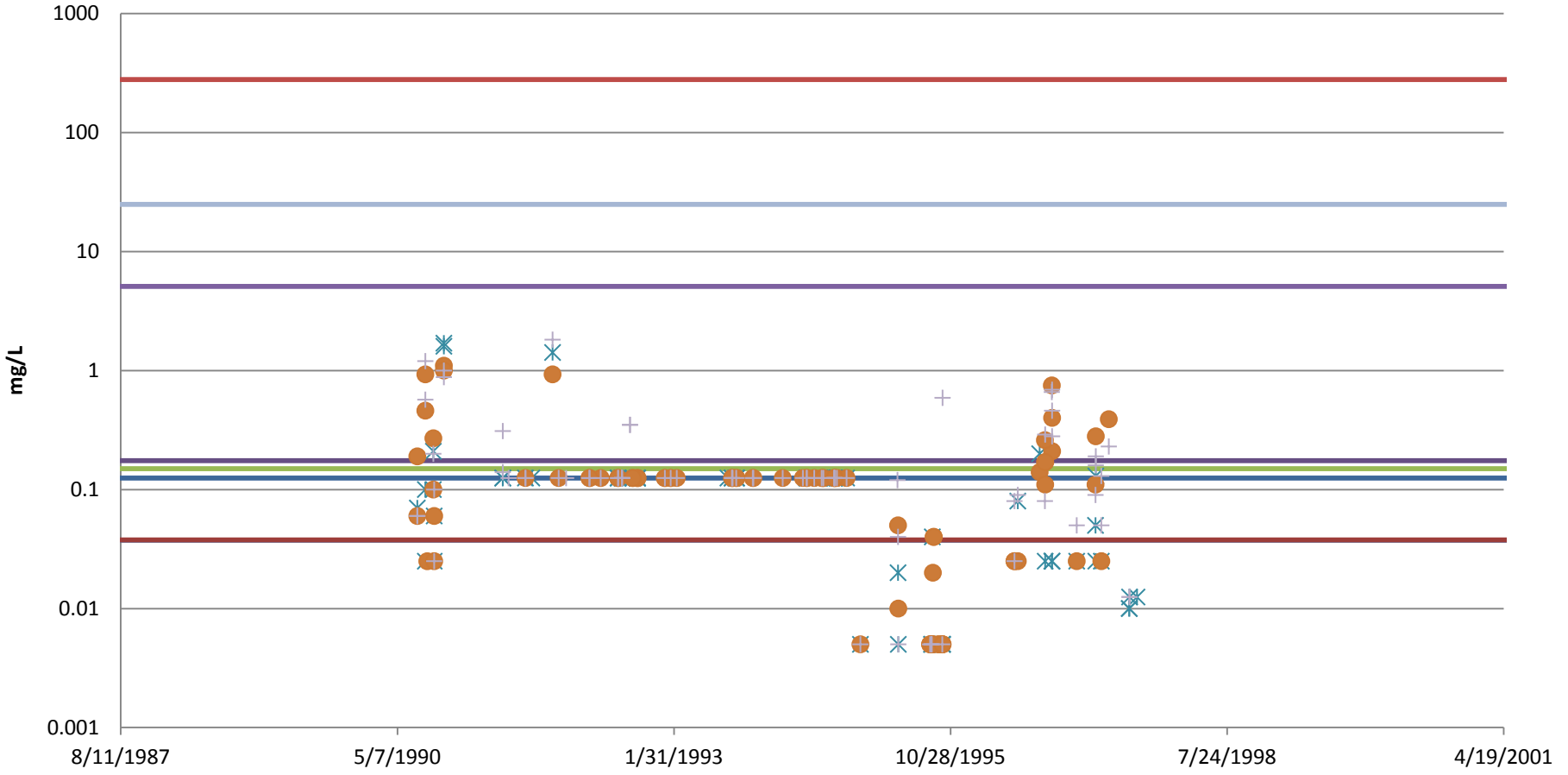


Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs



Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

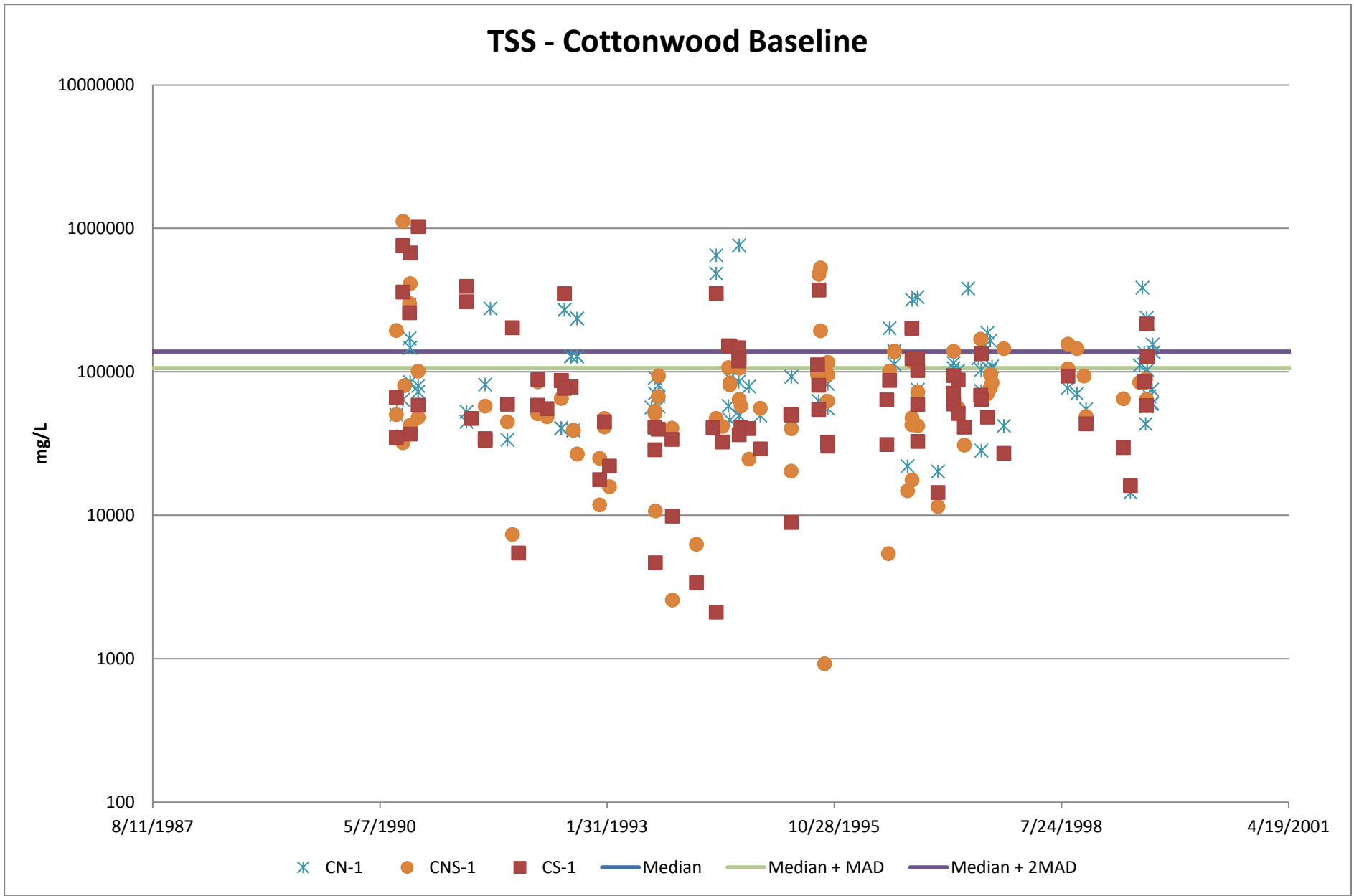
### Zinc - Cottonwood Baseline



- × CN-1
- CNS-1
- + CS-1
- Median
- Median + MAD
- Median + 2MAD
- Livestock Criteria
- Aquatic and Wildlife Acute Criteria
- Secondary Human Contact Criteria
- Fish Consumption Criteria
- Aquatic and Wildlife Chronic Criteria

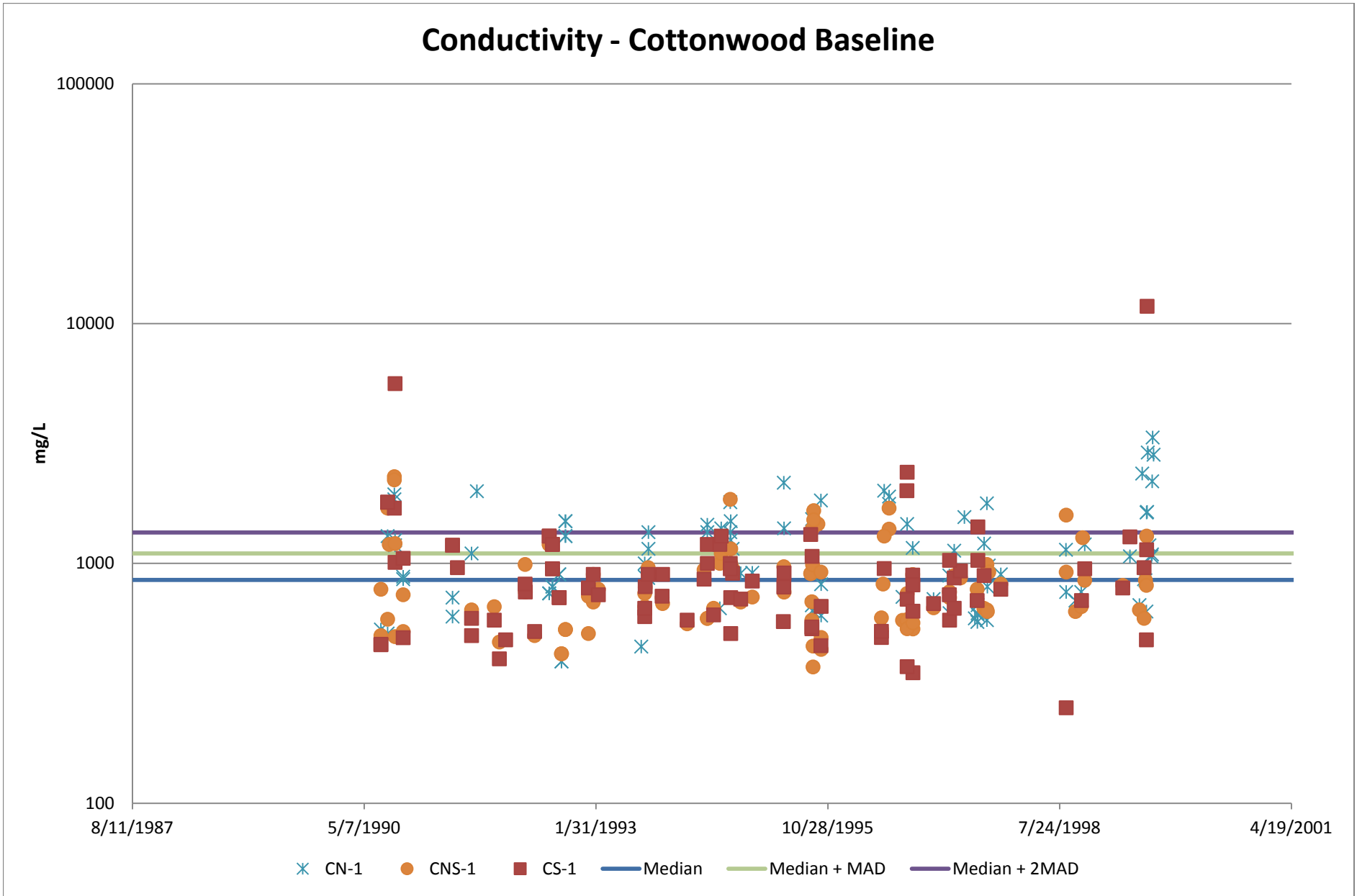


Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

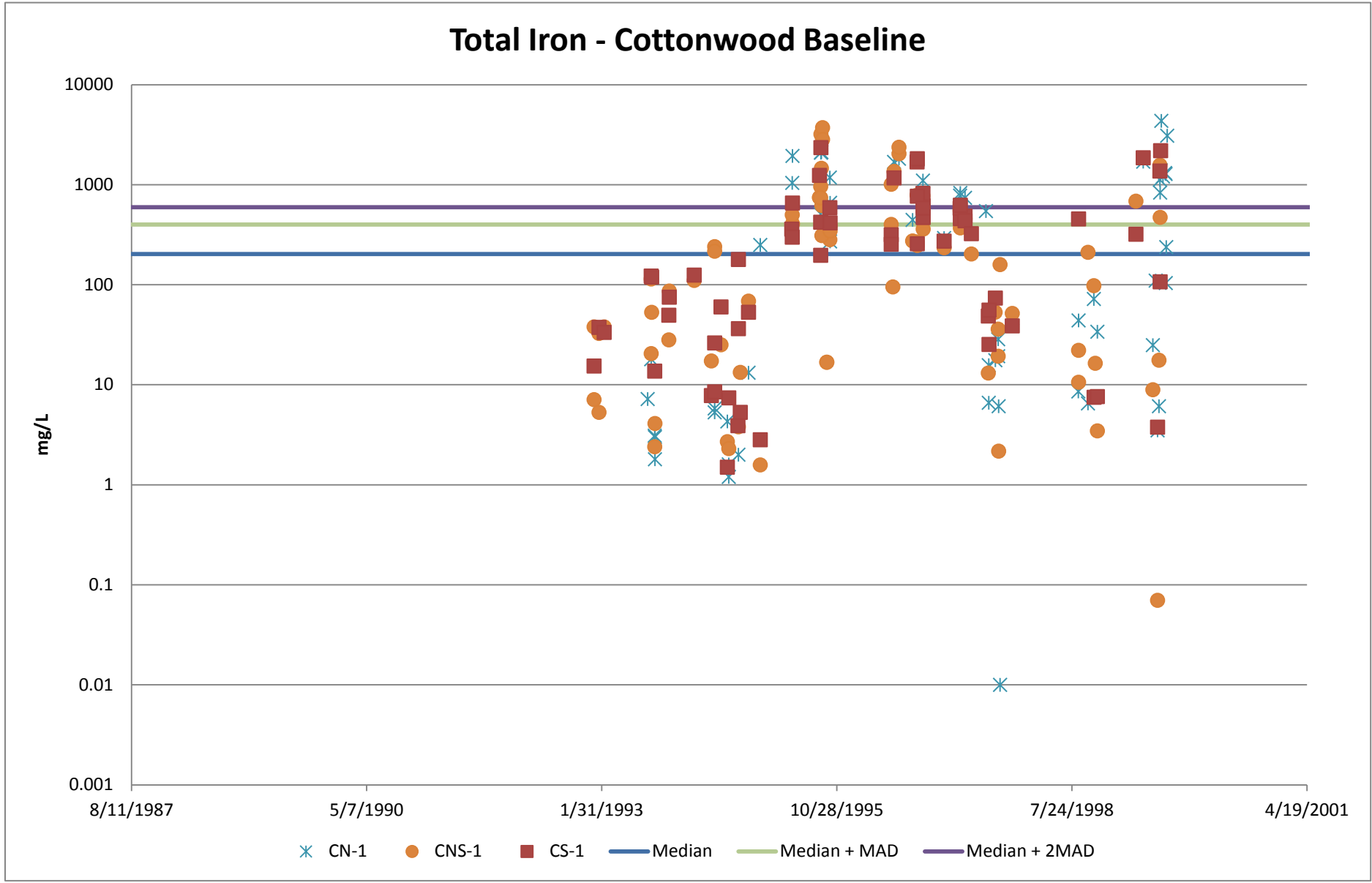


Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs

### Conductivity - Cottonwood Baseline



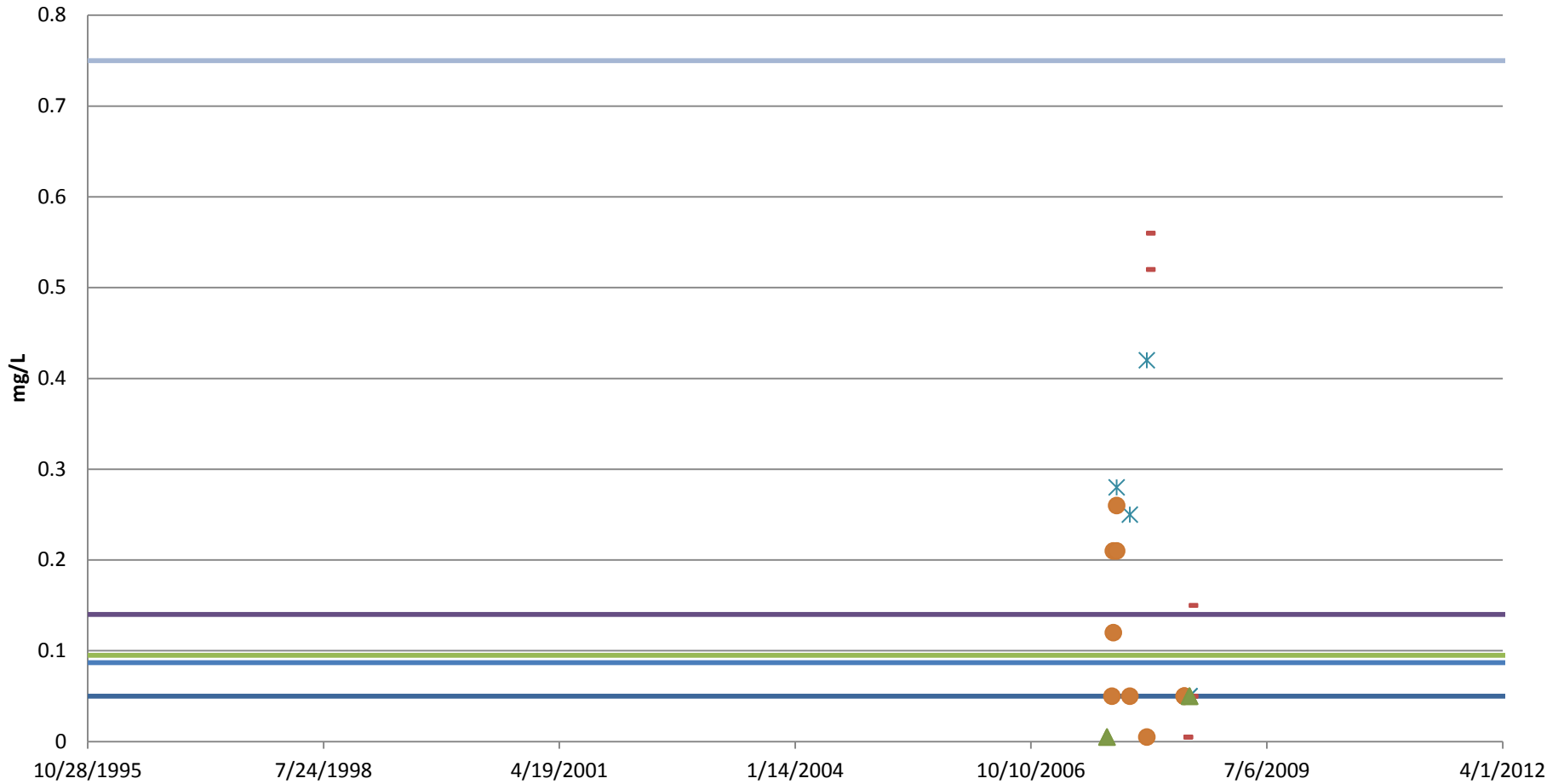
Appendix D: Surface Water Quality Data Graphs  
Cottonwood Baseline Graphs





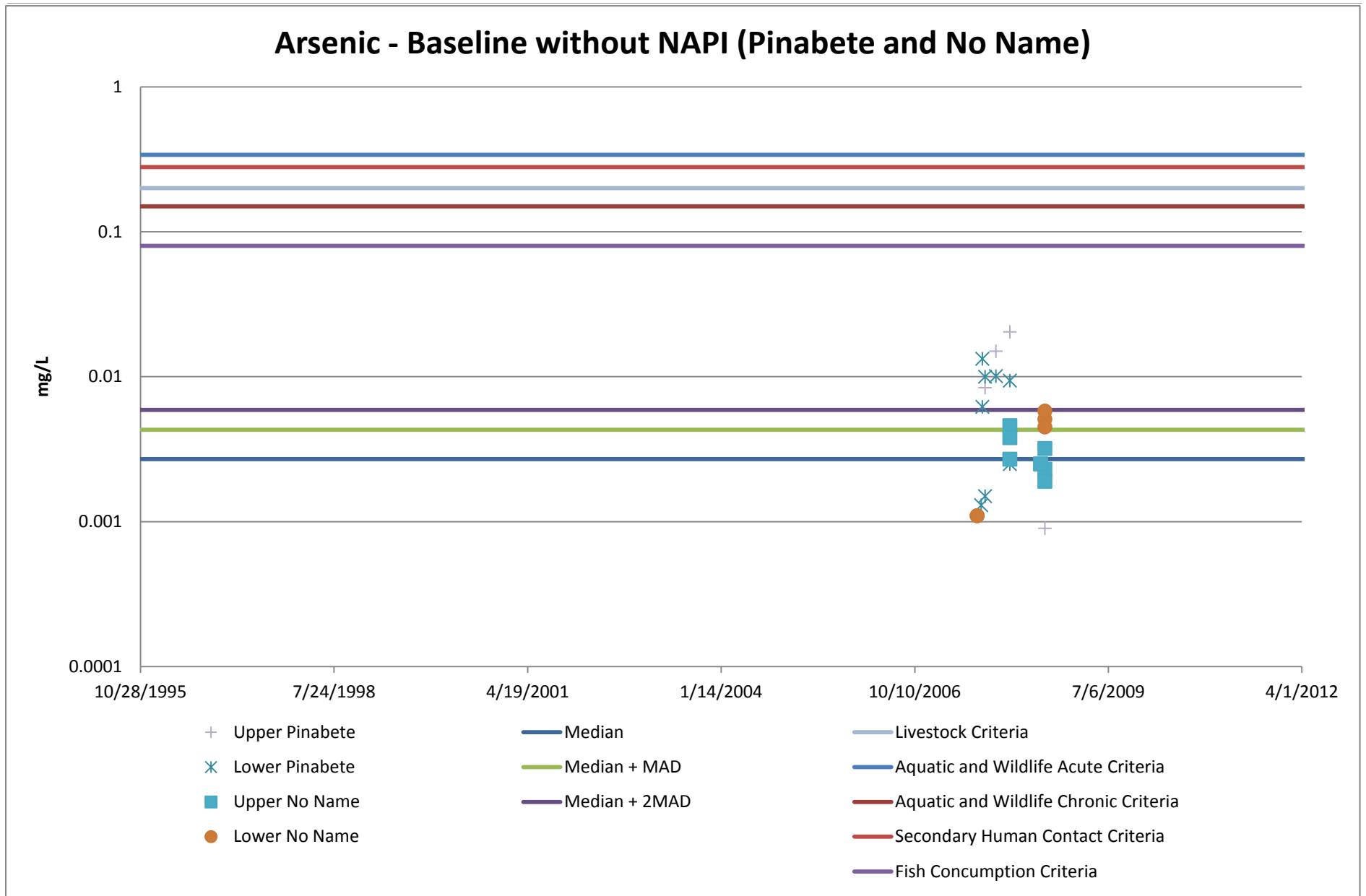
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs

### Aluminum - Baseline without NAPI (Pinabete and No Name)

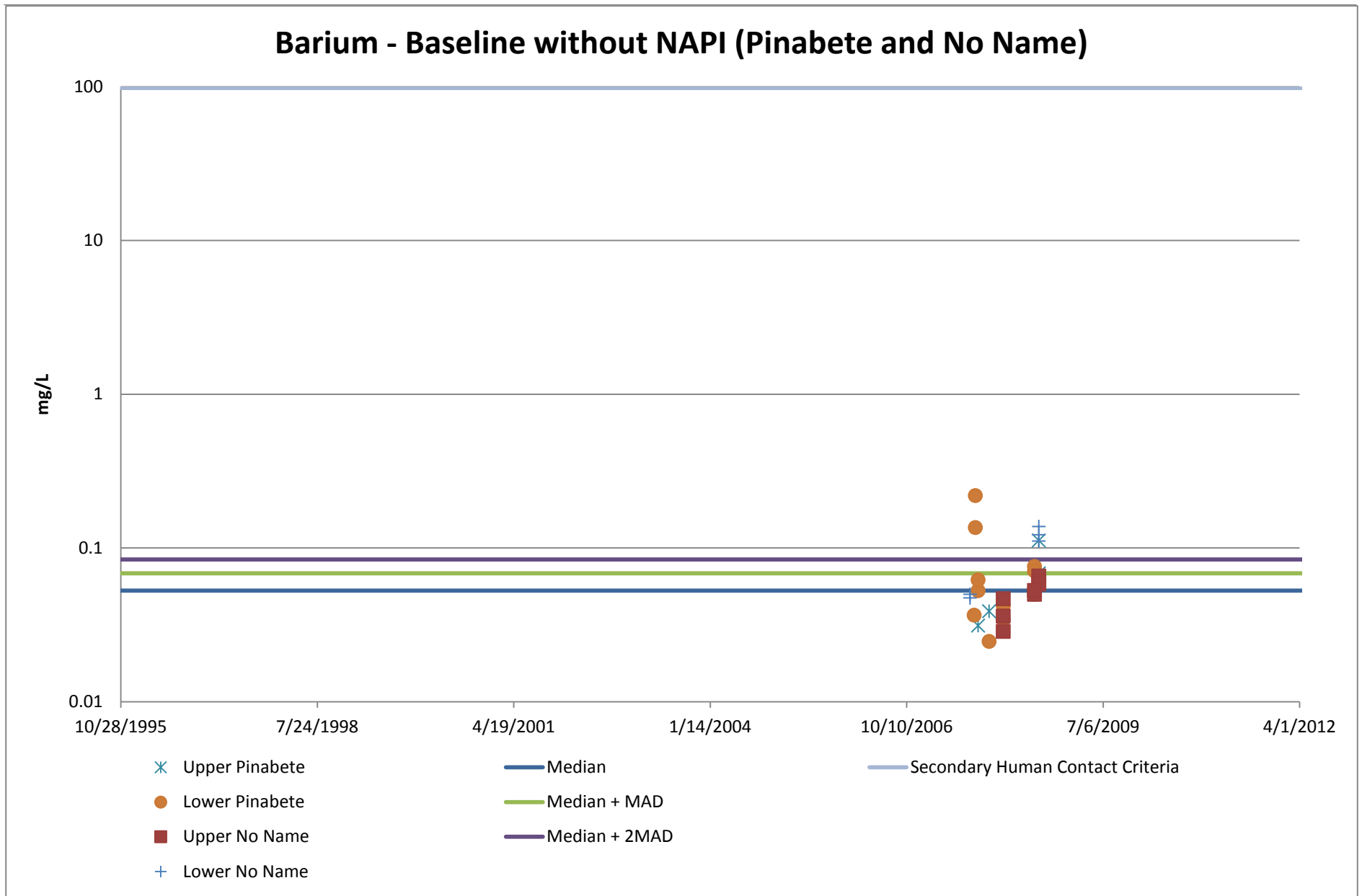


- ✕ Upper Pinabete
- Lower Pinabete
- Upper No Name
- ▲ Lower No Name
- Median
- Median + MAD
- Median + 2MAD
- Aquatic & Wildlife Acute Criteria
- Aquatic & Wildlife Chronic Criteria

Appendix D: Surface Water Quality Data Graphs  
 Baseline Without NAPI (Pinabete and No Name) Graphs

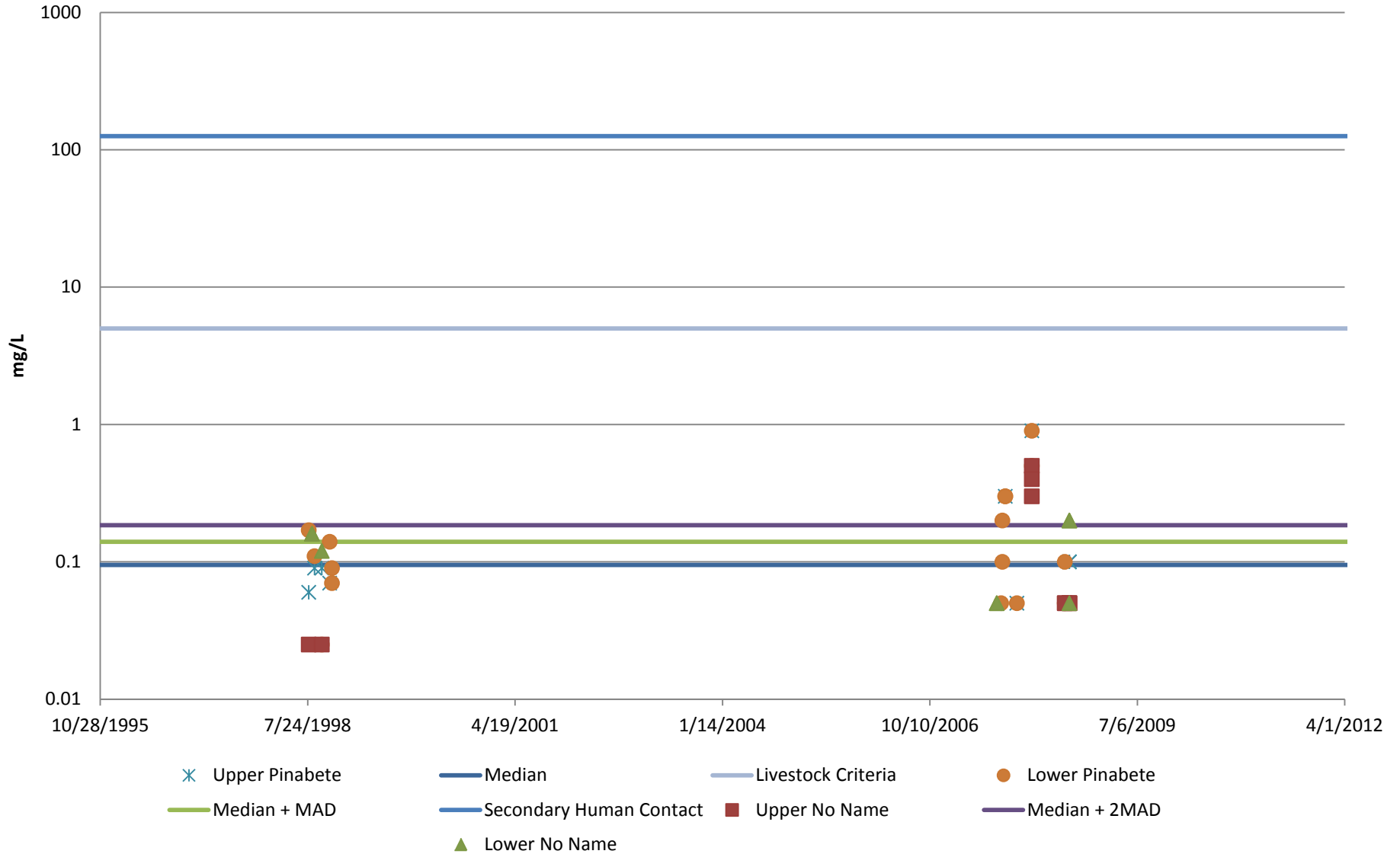


Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



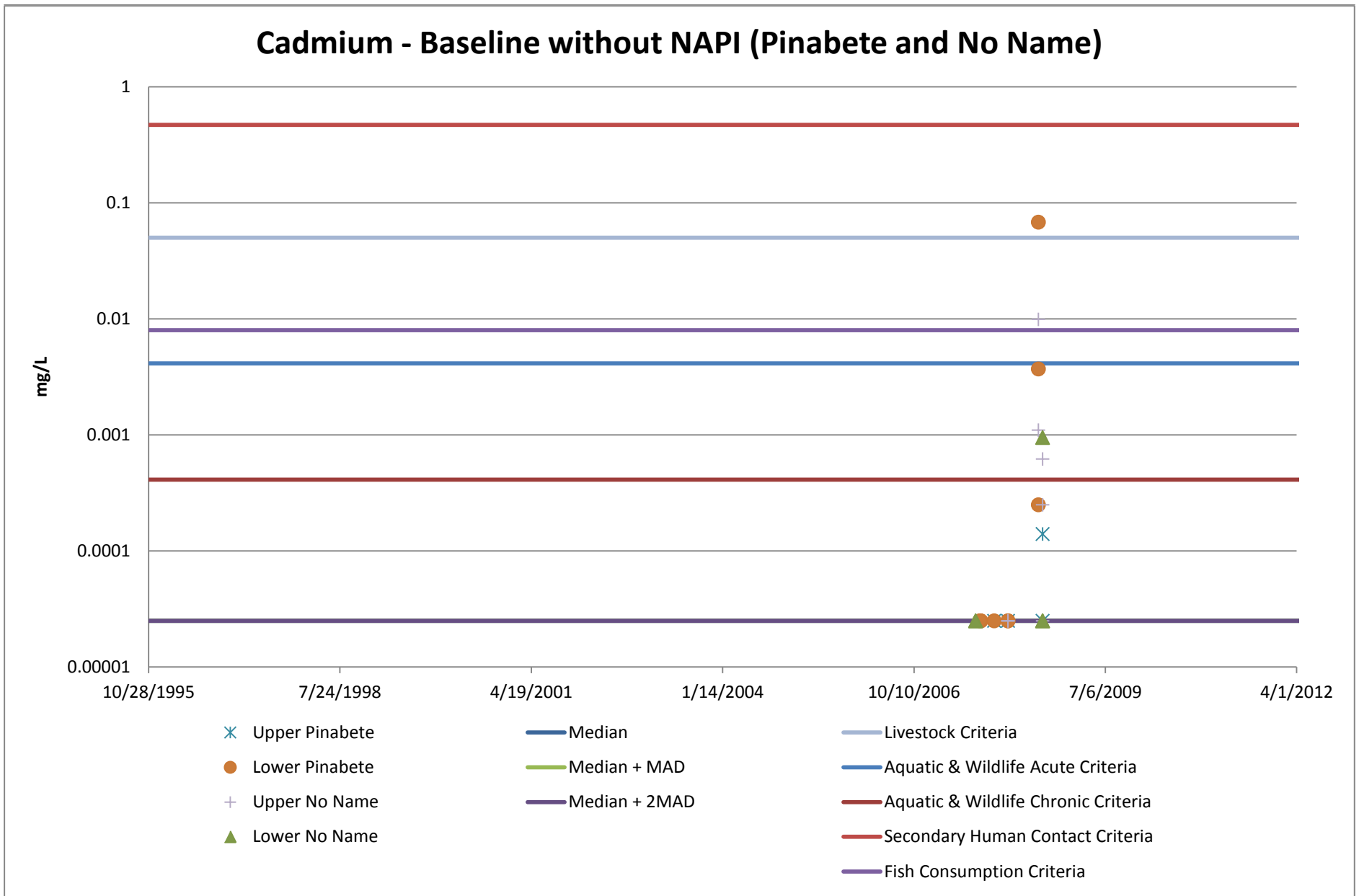
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs

### Boron - Baseline without NAPI (Pinabete and No Name)

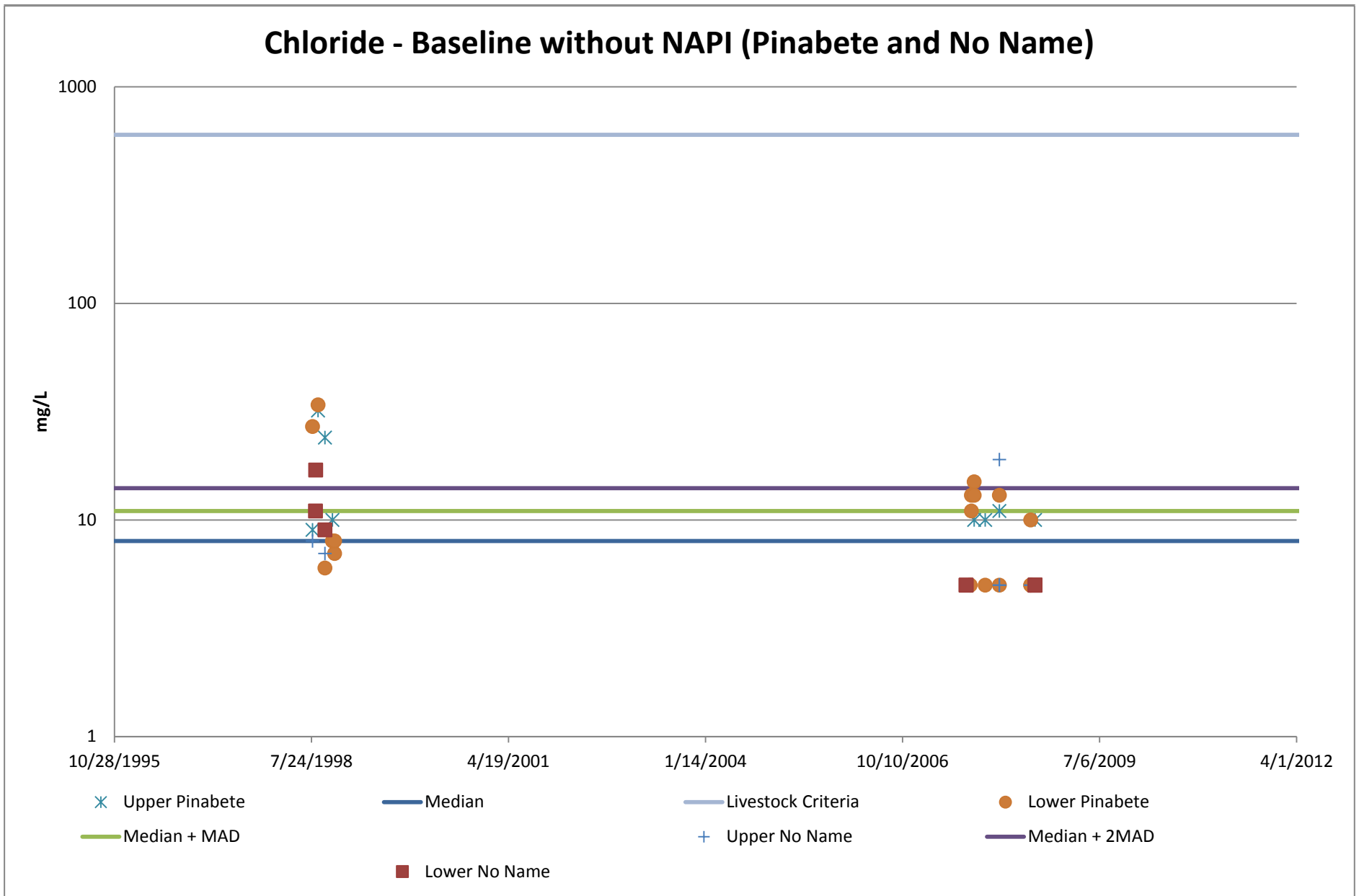




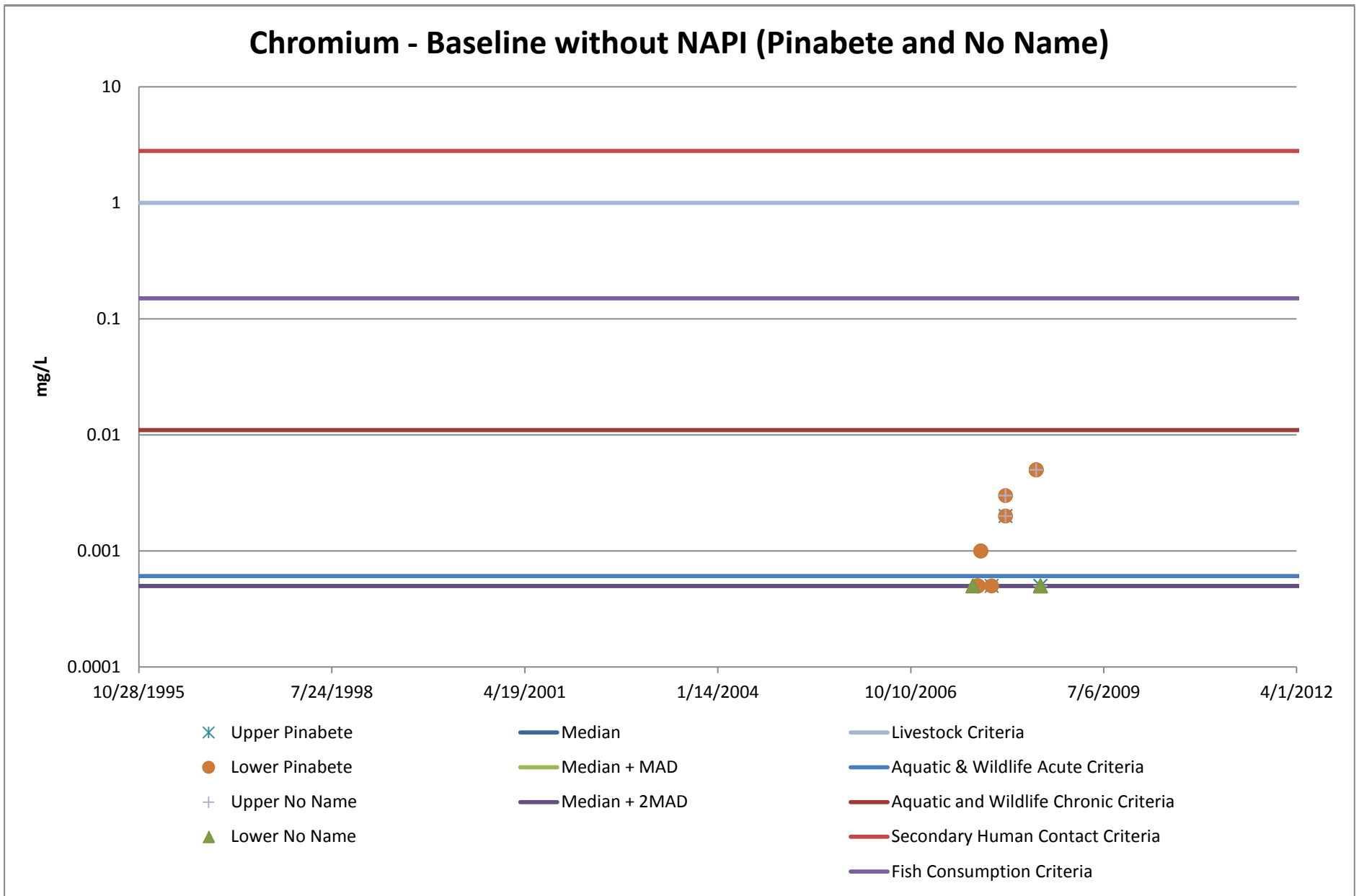
Appendix D: Surface Water Quality Data Graphs  
 Baseline Without NAPI (Pinabete and No Name) Graphs



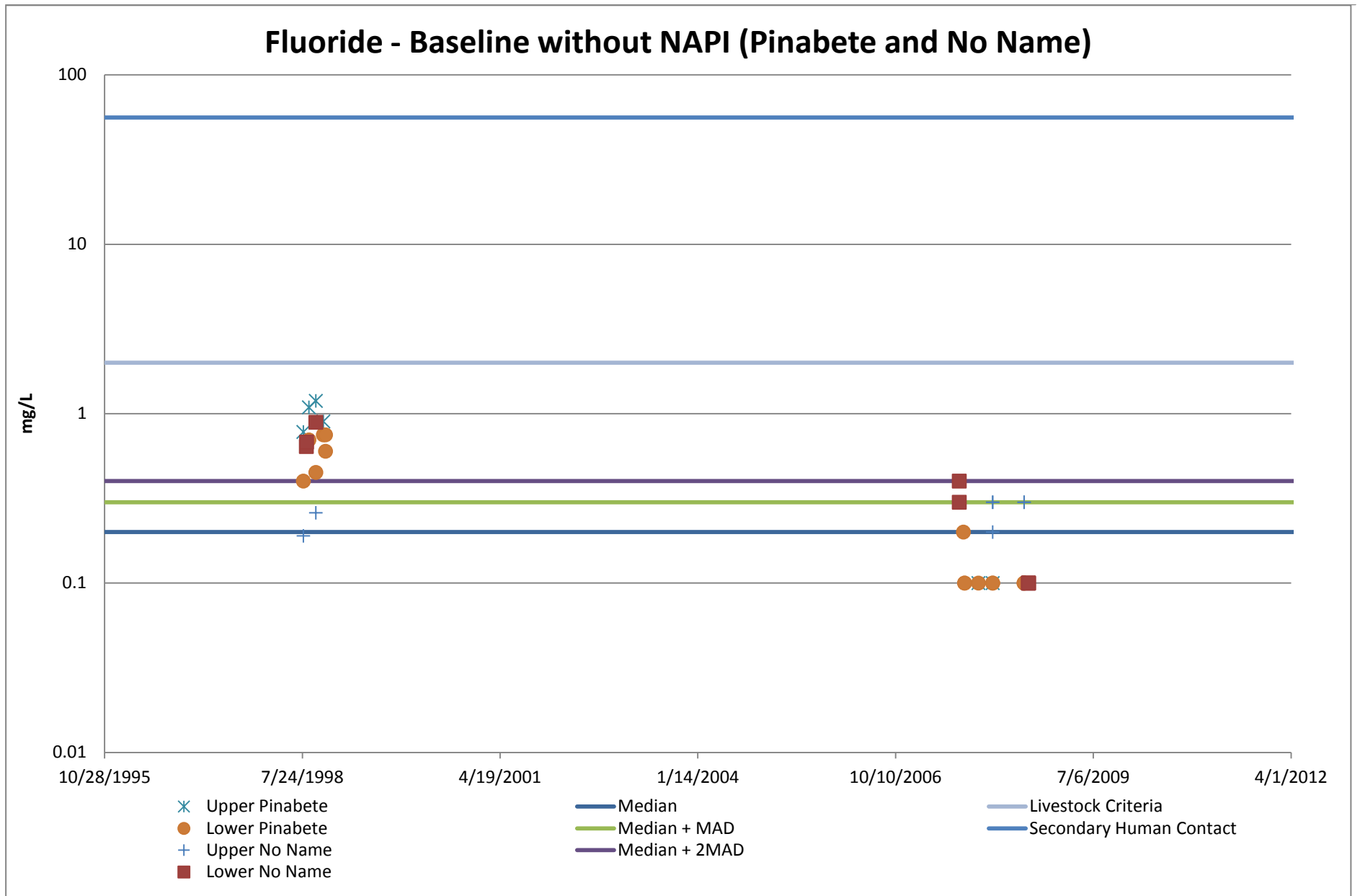
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



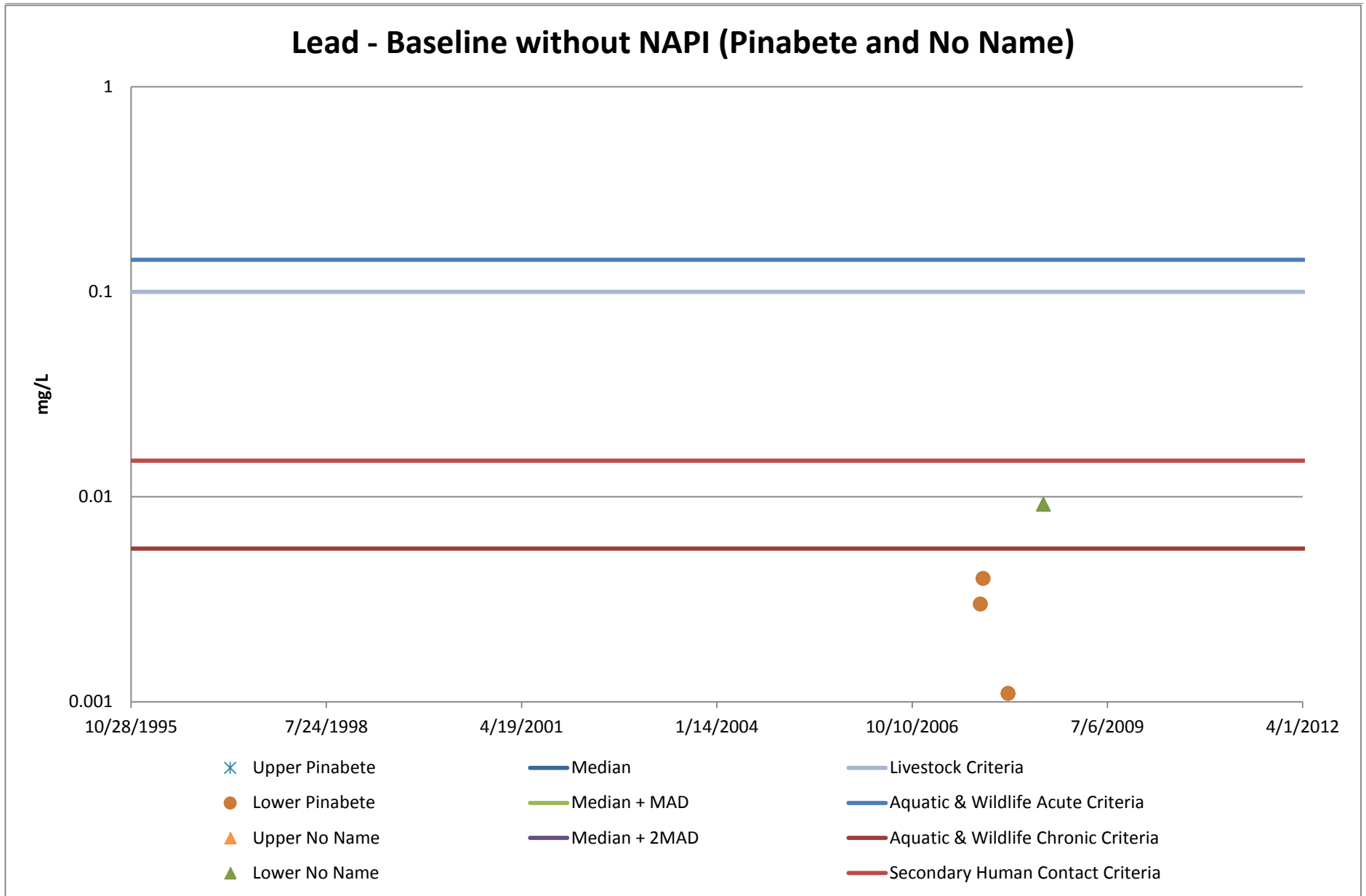
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



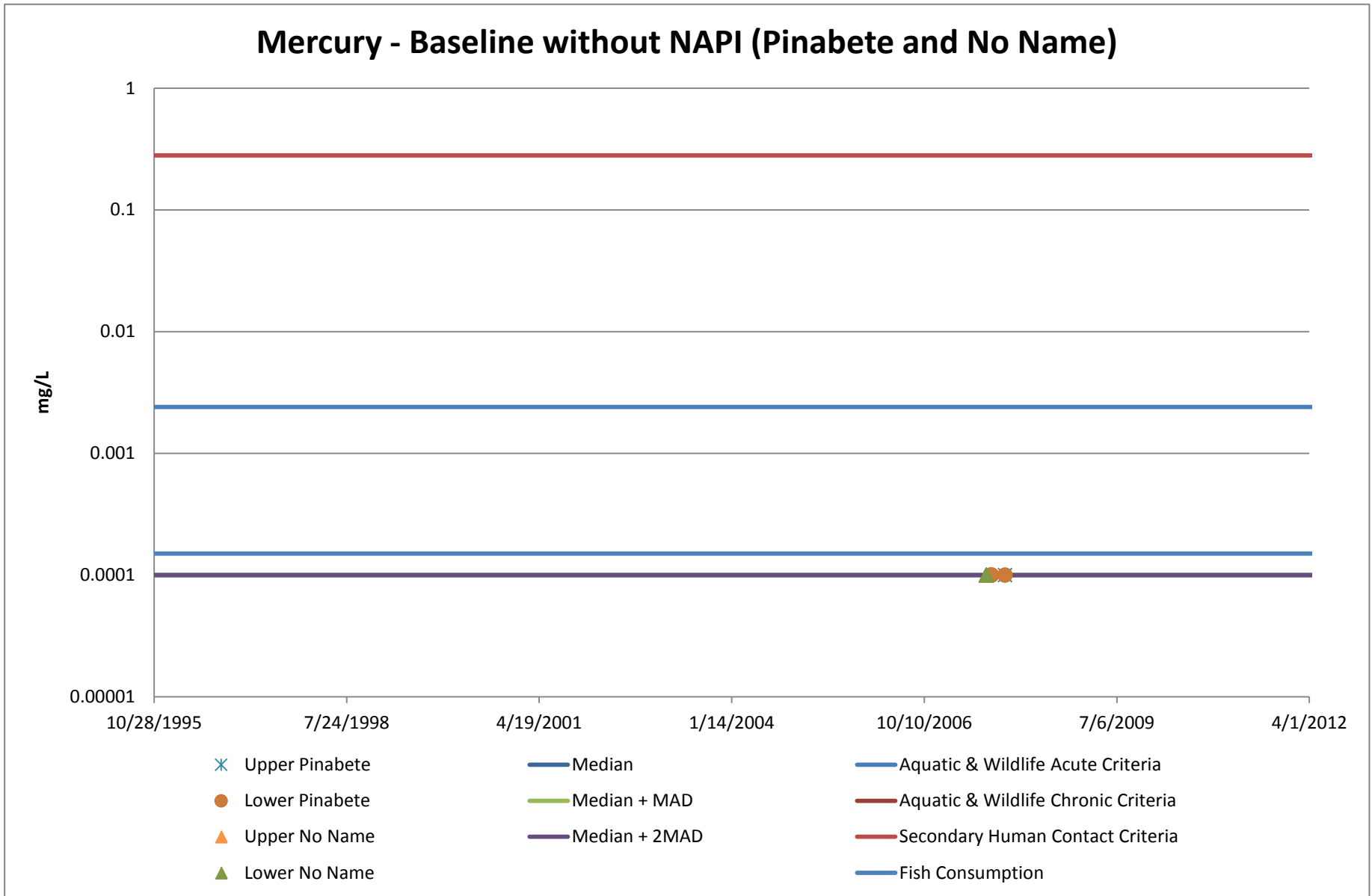
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



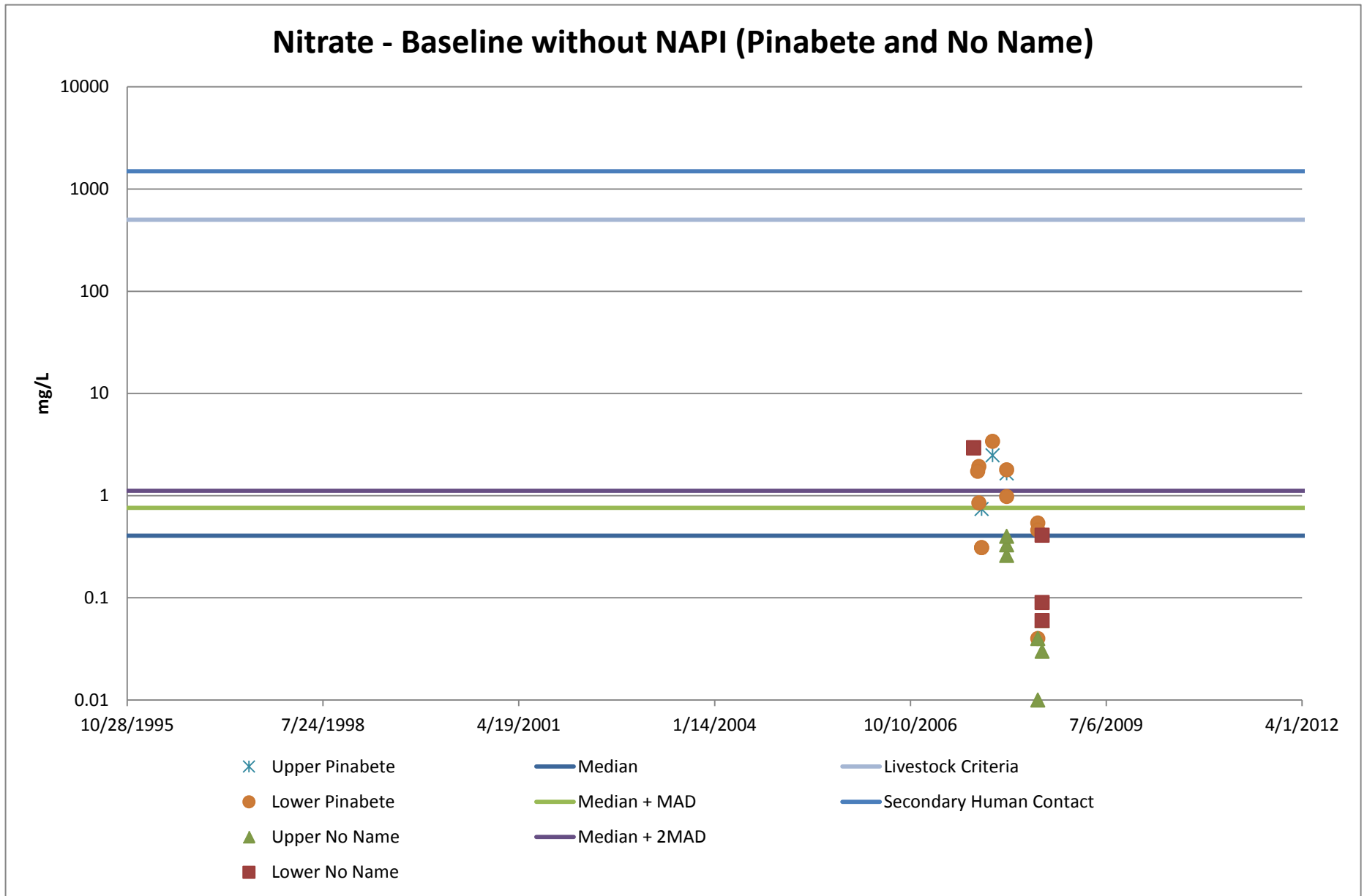
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



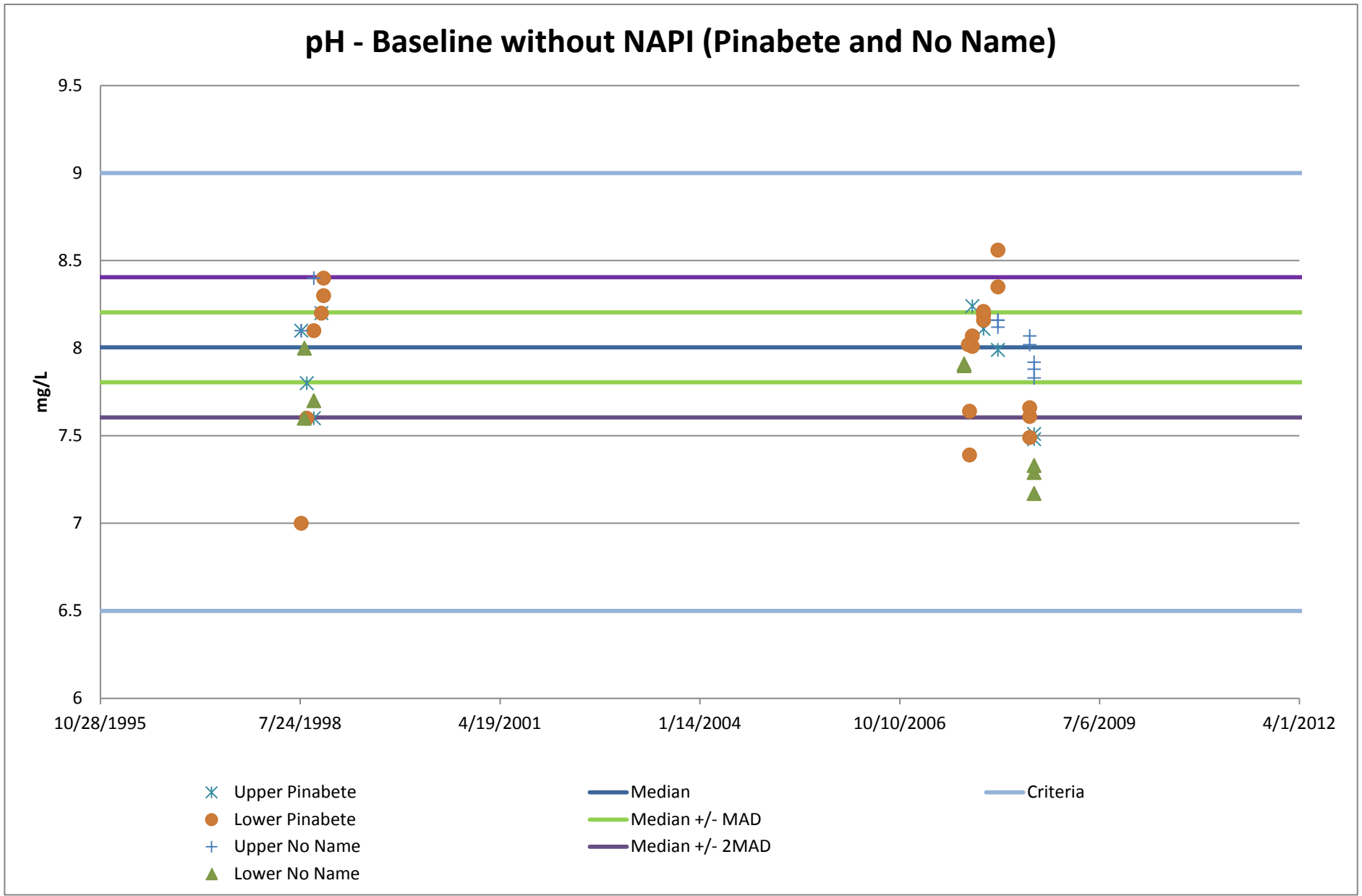
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



Appendix D: Surface Water Quality Data Graphs  
 Baseline Without NAPI (Pinabete and No Name) Graphs

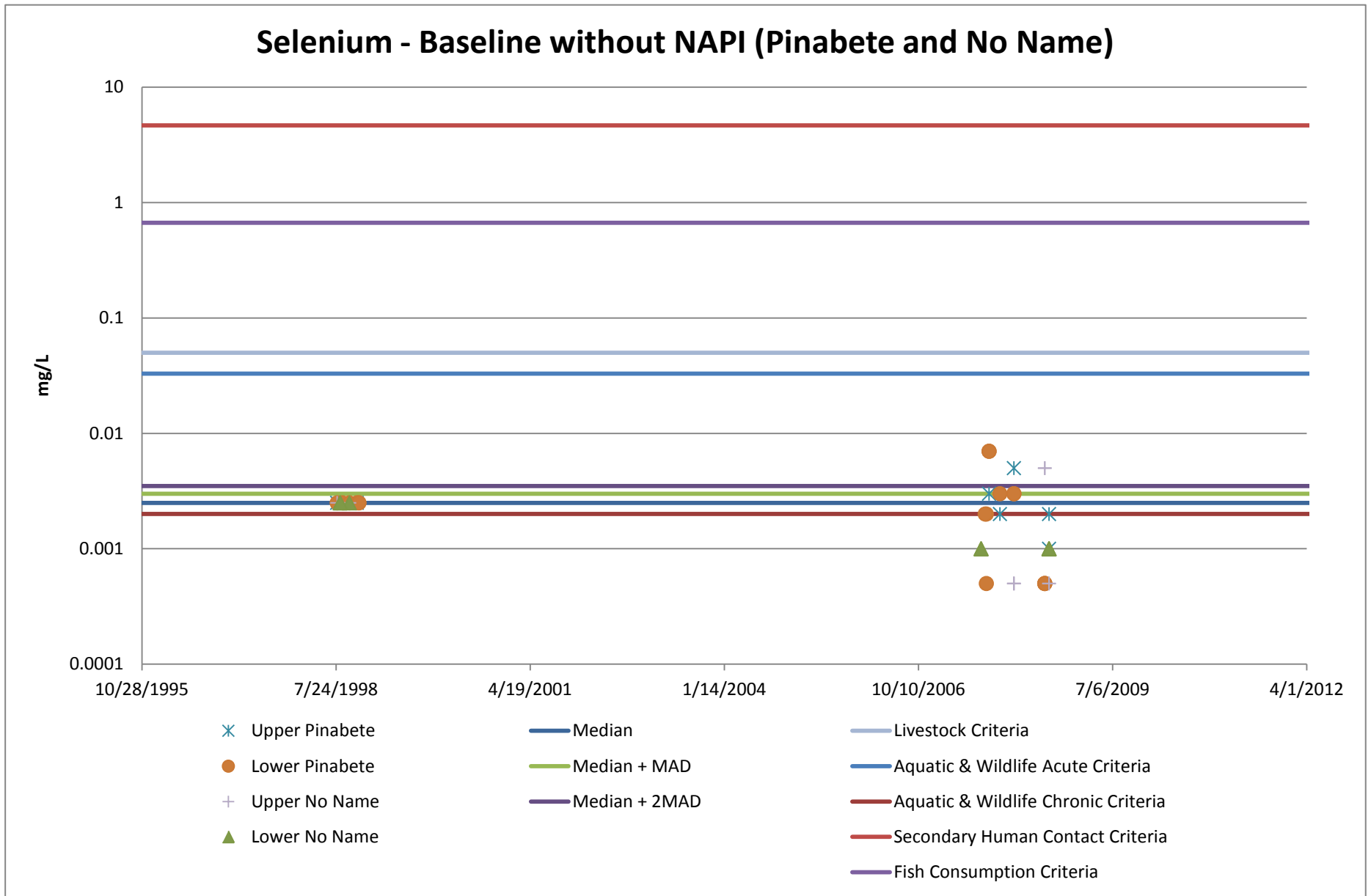


Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs

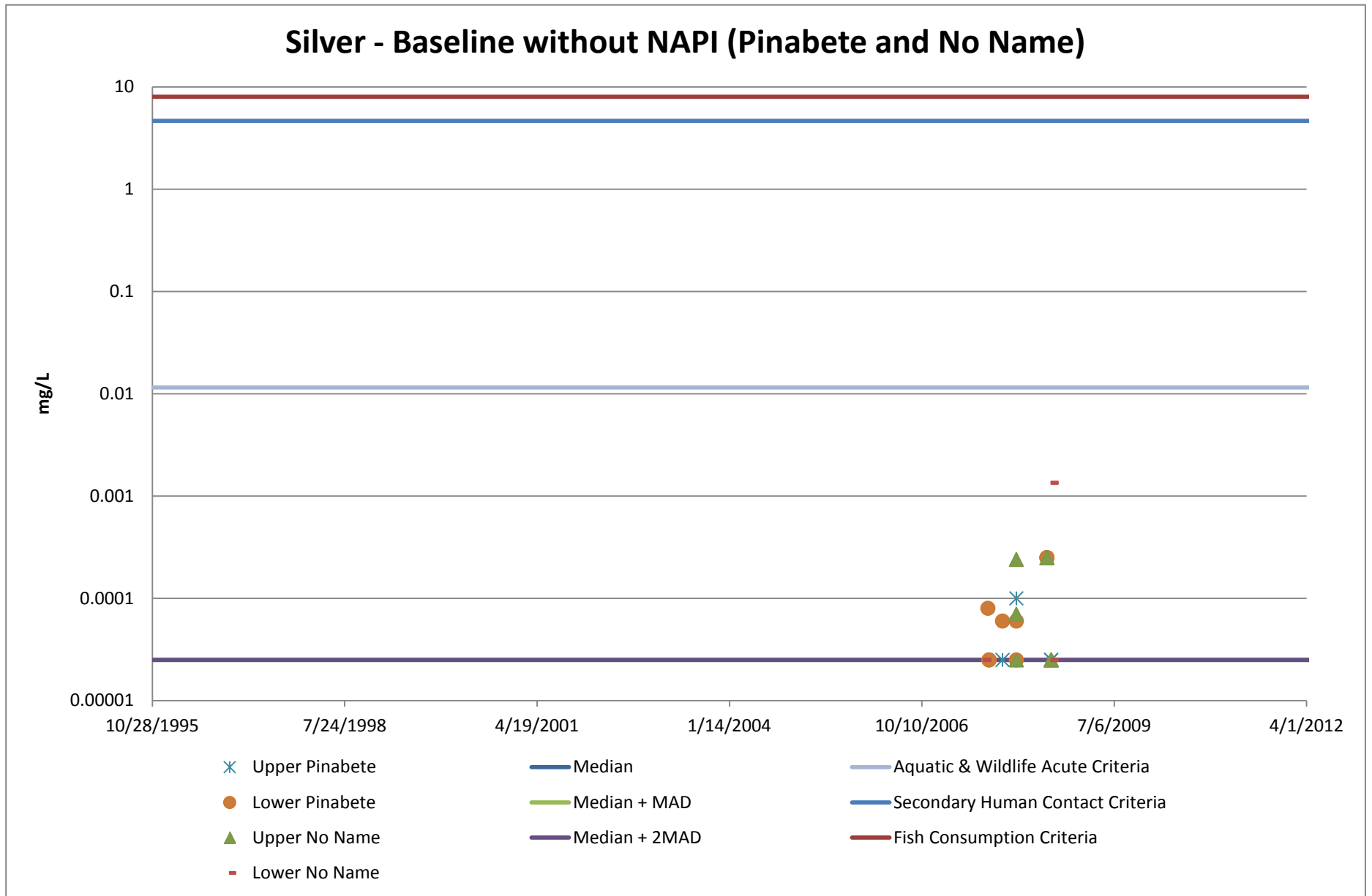




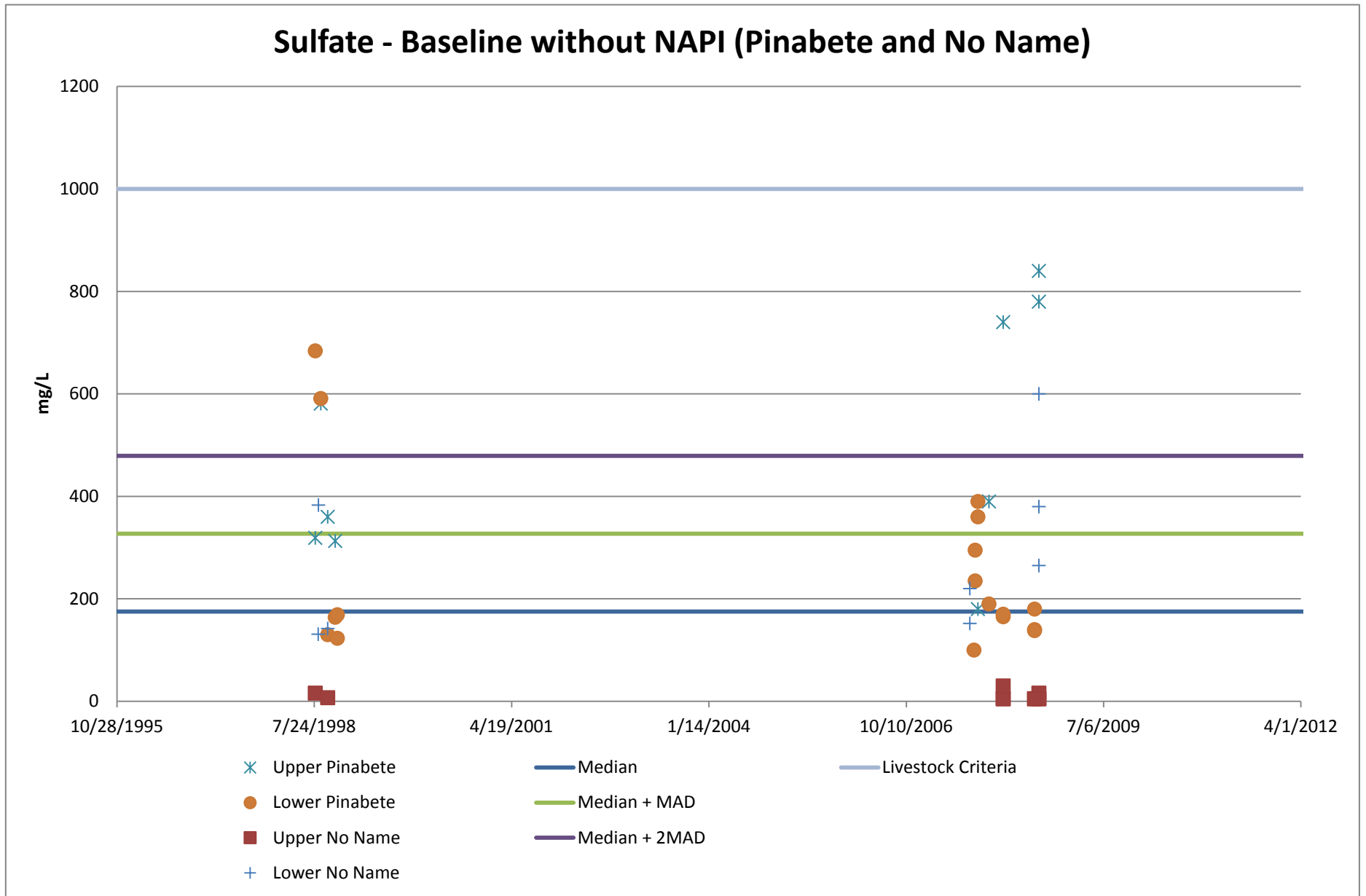
Appendix D: Surface Water Quality Data Graphs  
 Baseline Without NAPI (Pinabete and No Name) Graphs



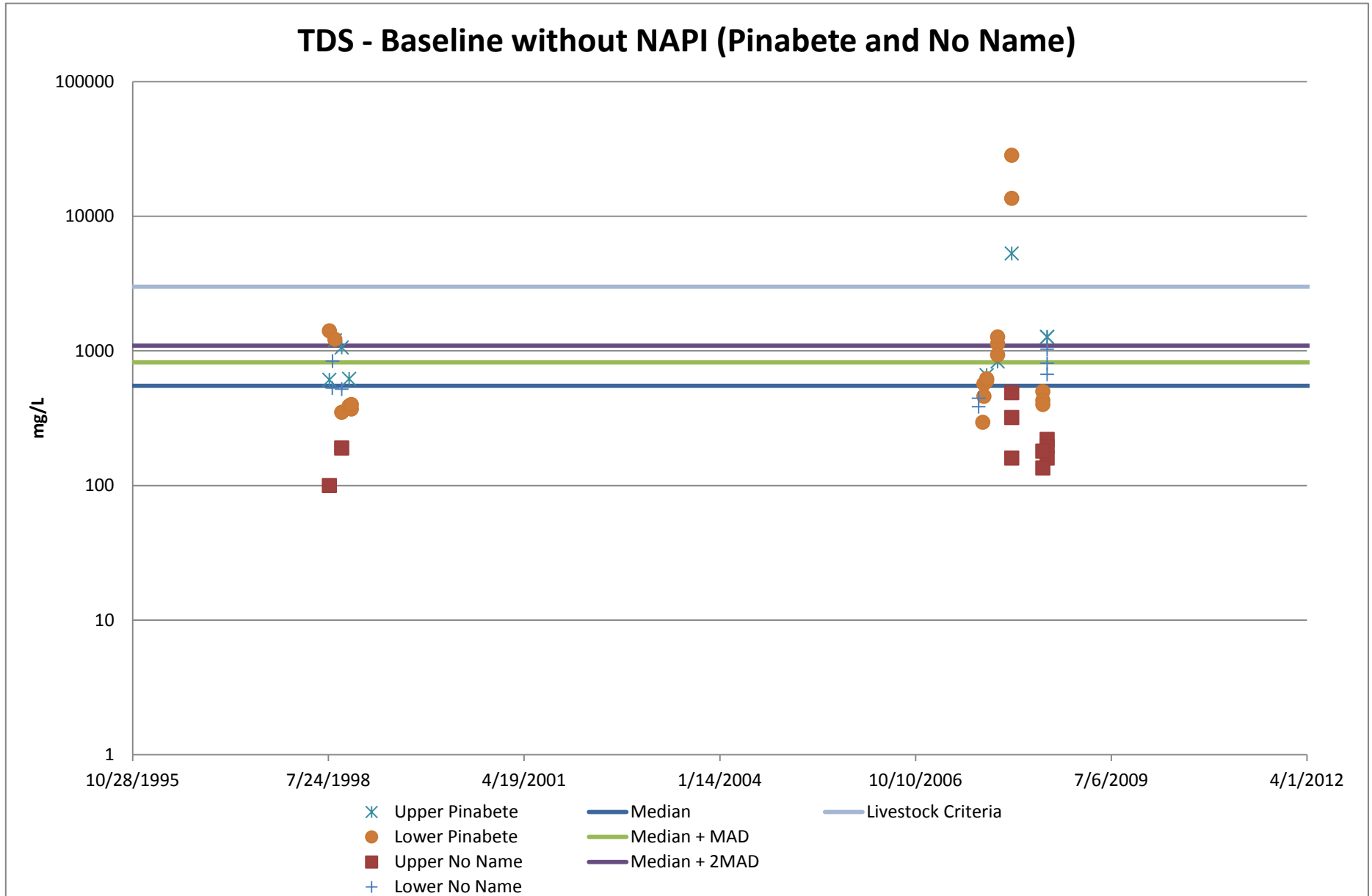
Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs

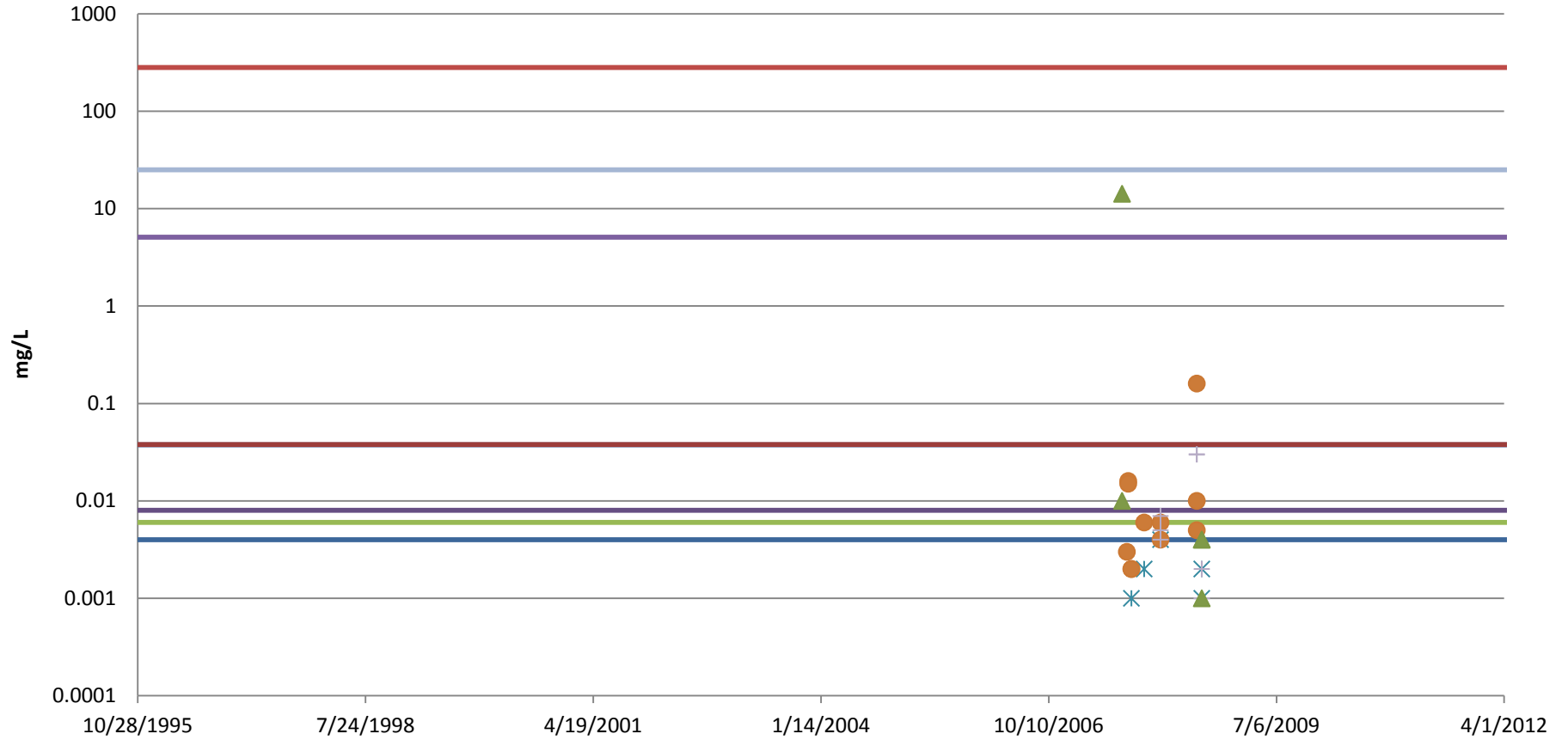


Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



Appendix D: Surface Water Quality Data Graphs  
 Baseline Without NAPI (Pinabete and No Name) Graphs

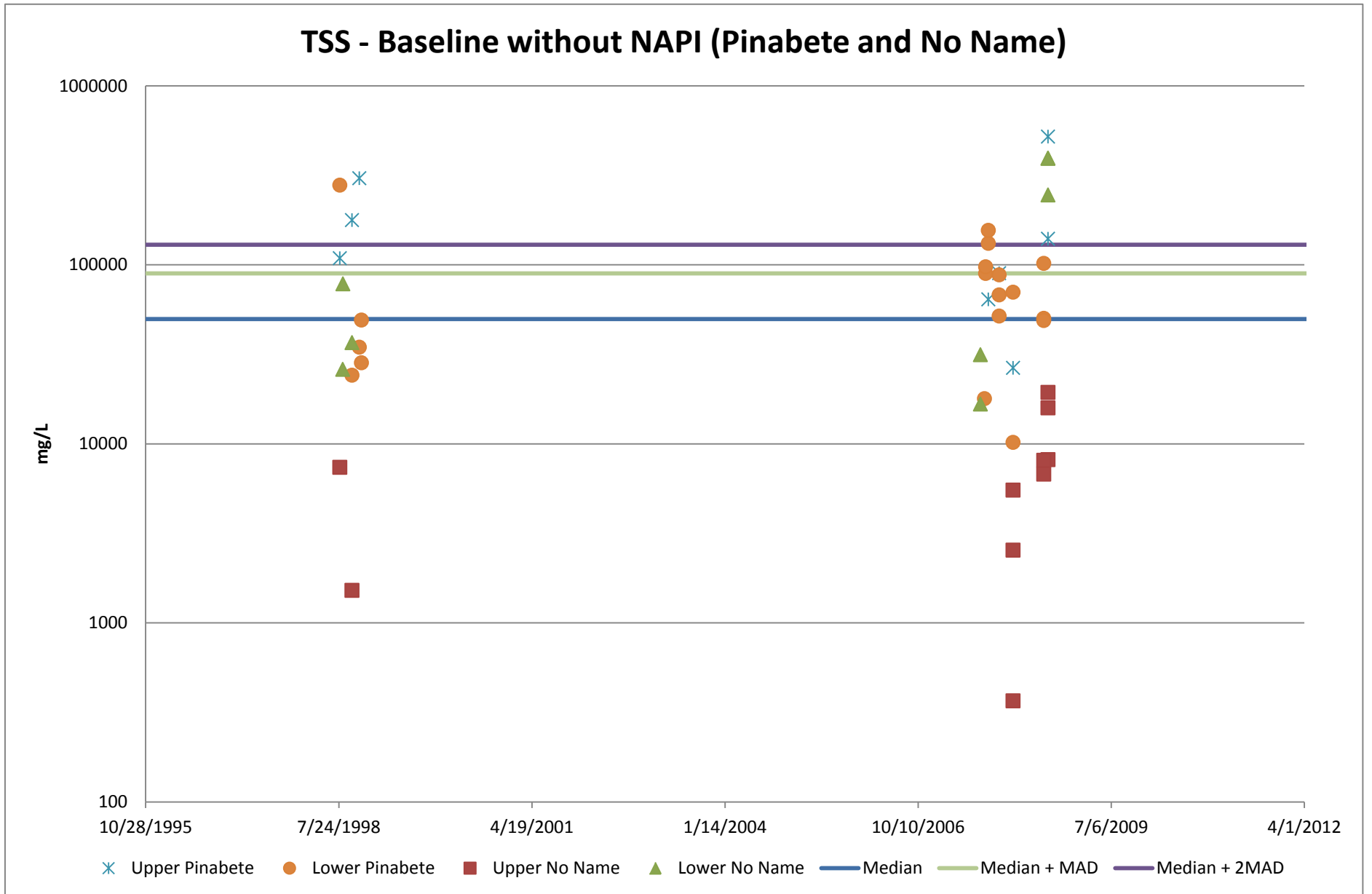
### Zinc - Baseline without NAPI (Pinabete and No Name)



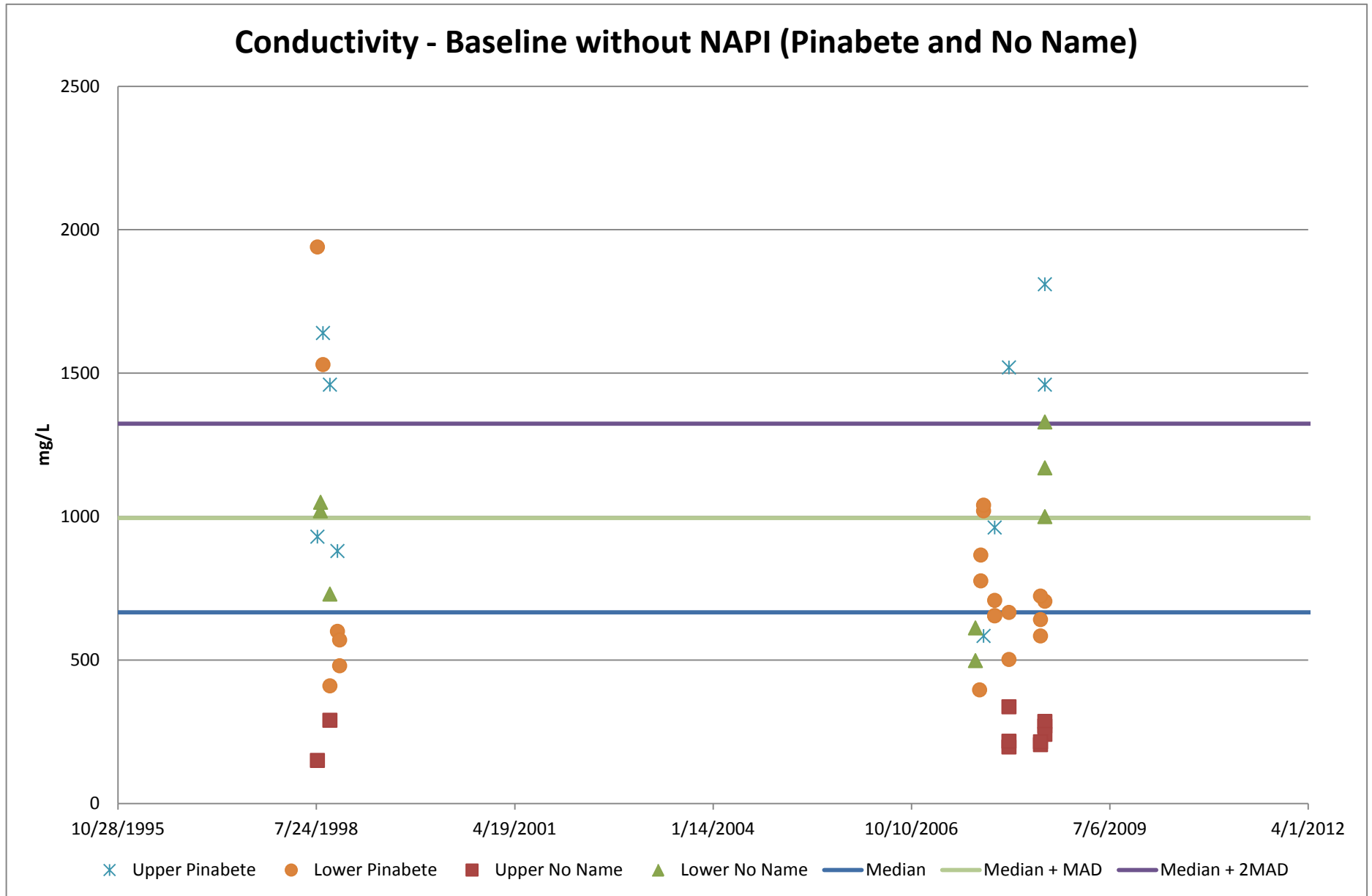
- \* Upper Pinabete
  - Lower Pinabete
  - + Upper No Name
  - ▲ Lower No Name
- Median
  - Median + MAD
  - Median + 2MAD
- Livestock Criteria
  - Aquatic and Wildlife Acute Criteria
  - Secondary Human Contact Criteria
  - Fish Consumption Criteria
  - Aquatic and Wildlife Chronic Criteria

\*

Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs



Appendix D: Surface Water Quality Data Graphs  
Baseline Without NAPI (Pinabete and No Name) Graphs

