

**Table 4-2: Water Quality in Rose Creek, Downstream of FMC Activities at Station X14 (2003 to 2010)**

Date	Sulphate (mg/L)	Zinc (Total) (mg/L)	Copper (mg/L)
14-Jan-03	113	0.038	0.013
15-Feb-03	165	0.033	0.016
15-Mar-03	186	0.027	0.019
15-Apr-03	175	0.025	0.008
13-May-03	153	0.077	0.016
14-Jun-03	79	0.039	0.028
14-Jul-03	129	0.03	0.016
14-Jul-03		0.057	
11-Aug-03	43	0.026	0.023
8-Sep-03	42	0.039	0.056
14-Oct-03	66	0.028	0.035
15-Nov-03	77	0.037	0.01
15-Dec-03	102	0.033	0.009
12-Jan-04	133	0.041	0.019
16-Feb-04	225	0.057	0.024
15-Mar-04	171	0.023	0.001
2-May-04	255	0.076	0.003
9-May-04	166	0.058	0.002
14-May-04	37	0.089	0.006
25-May-04	17	0.085	0.001
1-Jun-04	27	0.01	0.001
14-Jun-04	58	0.014	0.001
12-Jul-04	53	0.02	0.001
9-Aug-04	73	0.024	0.001
24-Aug-04	219	0.061	0.001
31-Aug-04	228	0.079	0.001
14-Sep-04	187	0.073	0.001
12-Oct-04	58	0.034	0.001
15-Nov-04	85	0.039	0.001
3-Dec-04	106	0.032	0.001
12-Jan-05	182	0.028	0.001
8-Feb-05	165	0.028	0.001
8-Mar-05	409	0.250	0.001
14-Mar-05	541	0.190	0.001
22-Mar-05	557	0.200	0.001
11-Apr-05	145	0.019	0.001
10-May-05	34	0.035	0.003
31-May-05	41	0.019	0.001
11-Jun-05	45	0.017	0.001
19-Jun-05	64	0.022	0.001
21-Jun-05	77	0.027	0.001
2-Jul-05	86	0.011	0.001
10-Jul-05	90	0.029	0.002
17-Jul-05	92	0.035	0.001
25-Jul-05	71	0.024	0.001
31-Jul-05	65	0.029	0.001
6-Aug-05	89	0.037	0.001
13-Aug-05	111	0.051	0.001
20-Aug-05	109	0.051	0.001
23-Aug-05	109	0.050	0.001
27-Aug-05	98	0.049	0.004
5-Sep-05	139	0.060	0.001
6-Sep-05	136	0.057	0.001
11-Sep-05	130	0.050	0.001
18-Sep-05	123	0.030	0.001
24-Sep-05	111	0.034	0.001
1-Oct-05	129	0.066	0.001
10-Oct-05	41	0.028	0.001
1-Nov-05	67	0.043	0.001
13-Dec-05	111	0.056	0.002
23-Jan-06	181	0.062	0.001
14-Feb-06	254	0.040	0.001
24-Mar-06	259	0.044	0.001
25-Apr-06	225	0.045	0.001
9-May-06	339	0.170	0.002
18-May-06	17	0.030	0.003
23-May-06	35	0.035	0.003
30-May-06	57	0.028	0.002
6-Jun-06	44	0.022	0.002
19-Jun-06	64	0.027	0.001
20-Jun-06	74	0.026	0.001
11-Jul-06	71	0.016	0.001
17-Jul-06	107	0.023	0.001
18-Jul-06	109	0.033	0.001
25-Jul-06	137	0.028	0.001
1-Aug-06	104	0.023	0.001
15-Aug-06	94.7	0.028	0.001
21-Aug-06	82.2	0.026	0.001
22-Aug-06	83.3	0.027	0.001
29-Aug-06	117	0.039	0.001
12-Sep-06	32.8	0.018	0.001
17-Oct-06	65.4	0.032	0.001
14-Nov-06	111	0.049	0.001
13-Dec-06	164	0.06	0.001
<b>Trigger</b>	<b>166</b>	<b>0.08</b>	<b>0.022</b>

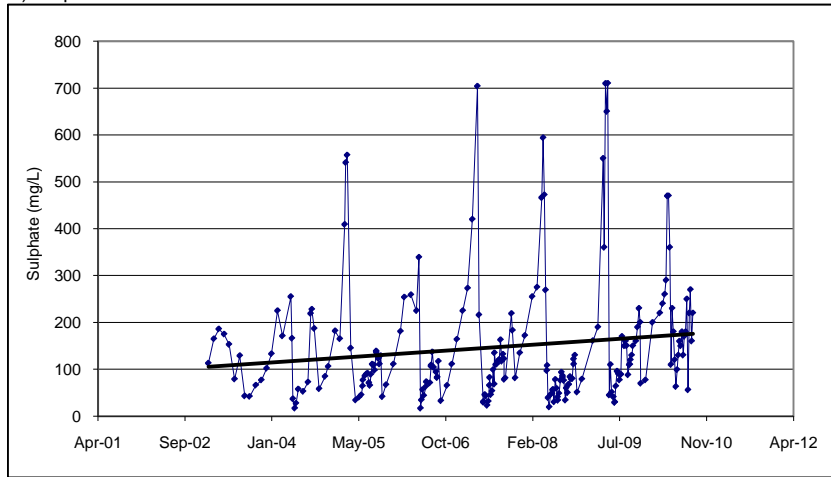
Date	Sulphate (mg/L)	Zinc (Total) (mg/L)	Copper (mg/L)
16-Jan-07	225	0.053	0.001
13-Feb-07	273	0.031	0.001
12-Mar-07	420	0.024	0.001
10-Apr-07	704	0.22	0.003
19-Apr-07	216	0.07	0.001
14-May-07	31.1	0.043	0.003
15-May-07	29.4	0.045	0.003
22-May-07	46	0.034	0.003
29-May-07	42.9	0.016	0.003
5-Jun-07	22.9	0.014	0.002
12-Jun-07	31.4	0.016	0.002
18-Jun-07	66	0.019	0.001
19-Jun-07	82.6	0.019	0.001
26-Jun-07	45.6	0.02	0.002
3-Jul-07	53.6	0.019	0.001
10-Jul-07	99.3	0.066	0.012
16-Jul-07	68	0.025	0.001
17-Jul-07	135	0.023	0.003
24-Jul-07	110	0.031	0.001
31-Jul-07	111	0.022	0.001
7-Aug-07	118	0.026	0.001
14-Aug-07	121	0.032	0.001
21-Aug-07	163	0.11	0.002
28-Aug-07	117	0.034	0.002
4-Sep-07	132	0.038	0.001
10-Sep-07	122	0.038	0.001
11-Sep-07	78.4	0.033	0.002
17-Sep-07	81.1	0.027	0.001
23-Oct-07	219	0.07	0.001
29-Oct-07	183	0.069	0.001
14-Nov-07	81.5	0.051	0.001
10-Dec-07	135	0.052	0.001
8-Jan-08	172	0.049	0.001
19-Feb-08	255	0.052	0.001
18-Mar-08	275	0.058	0.001
14-Apr-08	466	0.1	0.002
15-Apr-08	467	0.096	0.002
22-Apr-08	594	0.089	0.001
29-Apr-08	472	0.13	0.002
6-May-08	269	0.12	0.003
13-May-08	97.2	0.071	0.003
15-May-08	108	0.059	0.003
20-May-08	39.5	0.034	0.003
27-May-08	19.5	0.025	0.003
3-Jun-08	45.9	0.015	0.001
10-Jun-08	47.6	0.025	0.002
16-Jun-08	56.1	0.021	0.001
17-Jun-08	56.8	0.018	0.001
24-Jun-08	30.4	0.027	0.002
1-Jul-08	78.3	0.041	0.001
8-Jul-08	59	0.026	0.001
14-Jul-08	40.7	0.022	0.001
16-Jul-08	33.6	0.031	0.003
22-Jul-08	48.2	0.022	0.001
31-Jul-08	76.6	0.027	0.001
5-Aug-08	93.8	0.033	0.001
11-Aug-08	86.3	0.028	0.001
12-Aug-08	82.8	0.032	0.001
19-Aug-08	75.9	0.031	0.001
28-Aug-08	34	0.018	0.002
2-Sep-08	60.1	0.023	0.001
9-Sep-08	49.8	0.016	0.002
15-Sep-08	68	0.025	0.001
16-Sep-08	66.8	0.023	0.001
23-Sep-08	84.3	0.031	0.001
30-Sep-08	79.8	0.036	0.001
7-Oct-08	79.7	0.044	0.001
14-Oct-08	122	0.059	0.001
15-Oct-08	111	0.06	0.001
21-Oct-08	130	0.076	0.001
4-Nov-08	51.2	0.062	0.001
1-Dec-08	79	0.075	0.001
<b>Trigger</b>	<b>166</b>	<b>0.08</b>	<b>0.022</b>

Date	Sulphate (mg/L)	Zinc (Total) (mg/L)	Copper (mg/L)
2-Feb-09	161	0.1	0.001
3-Mar-09	190	0.088	0.001
2-Apr-09	550	0.131	0.0004
8-Apr-09	360	0.146	0.0005
16-Apr-09	710	0.156	0.0004
23-Apr-09	650	0.16	0.00030
29-Apr-09	710	0.183	0.00050
7-May-09	45	0.143	0.00413
14-May-09	110	0.0506	0.00156
21-May-09	51	0.0439	0.00264
31-May-09	41	0.0176	0.00125
7-Jun-09	29	0.0132	0.00098
8-Jun-09	30	0.0182	0.00121
14-Jun-09	64	0.0221	0.00072
21-Jun-09	96	0.0375	0.00095
28-Jun-09	91	0.0379	0.00088
5-Jul-09	77	0.033	0.00140
12-Jul-09	88	0.03	0.00055
13-Jul-09	89	0.0402	0.00075
19-Jul-09	170	0.0607	0.00065
2-Aug-09	150	0.0462	0.00063
9-Aug-09	160	0.0457	0.00067
15-Aug-09	150	0.0483	0.00068
23-Aug-09	88	0.0327	0.00065
30-Aug-09	110	0.0407	0.00077
3-Sep-09	110	0.042	0.00060
6-Sep-09	120	0.0511	0.00050
13-Sep-09	130	0.0577	0.00050
20-Sep-09	150	0.0611	0.00050
7-Oct-09	160	0.0836	0.0004
17-Oct-09	190	0.0895	0.0005
25-Oct-09	230	0.0959	0.00051
1-Nov-09	200	0.095	0.0005
4-Nov-09	70	0.03	0.0004
1-Dec-09	77	0.0331	0.0004
11-Jan-10	200	0.0431	0.0005
22-Feb-10	220	0.022	0.0003
10-Mar-10	240	0.0241	0.0003
22-Mar-10	260	0.0321	0.0003
30-Mar-10	290	0.101	0.0003
6-Apr-10	470	0.11	0.0003
13-Apr-10	470	0.0925	0.0003
20-Apr-10	360	0.0738	0.0012
27-Apr-10	110	0.0427	0.0015
4-May-10	230	0.063	0.0016
11-May-10	180	0.0454	0.0015
18-May-10	120	0.0385	0.0016
25-May-10	63	0.0226	0.0013
1-Jun-10	99	0.0426	0.0011
8-Jun-10	130	0.0399	0.0007
15-Jun-10	160	0.0484	0.0007
22-Jun-10	150	0.0455	0.0011
29-Jun-10	180	0.0493	0.0007
6-Jul-10	130	0.0334	0.0008
13-Jul-10	170	0.0429	0.0007
20-Jul-10	180	0.0583	0.0005
27-Jul-10	250	0.0726	0.0006
3-Aug-10	56	0.019	0.0006
10-Aug-10	220	0.0614	0.0006
17-Aug-10	270	0.052	0.0005
24-Aug-10	160	0.0424	0.0006
31-Aug-10	220	0.0496	0.0005
7-Sep-10	170	0.0411	0.0005
21-Oct-10	110	0.0239	0.0004
9-Nov-10	120	0.036	0.0004
18-Nov-10	420	0.135	0.0007
25-Nov-10	390	0.13	0.0004
2-Dec-10	380	0.108	0.0003
<b>Trigger</b>	<b>166</b>	<b>0.08</b>	<b>0.022</b>

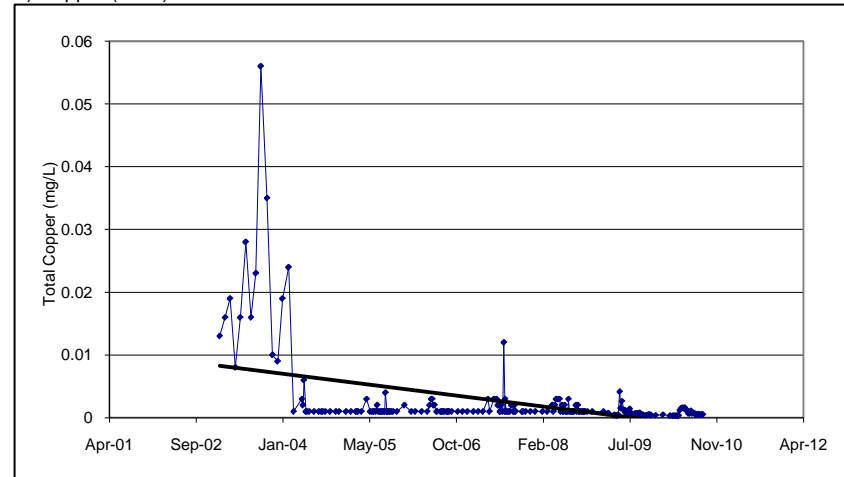
Note: Italics = Exceeds Trigger Value; a: Open Water Trigger Value; b: Winter Trigger Value; Shaded numbers are "less than" the value indicated.

**Figure 4-1: Water Quality in Rose Creek Downstream of FMC Activities at Station X14 (2003 to 2010)**

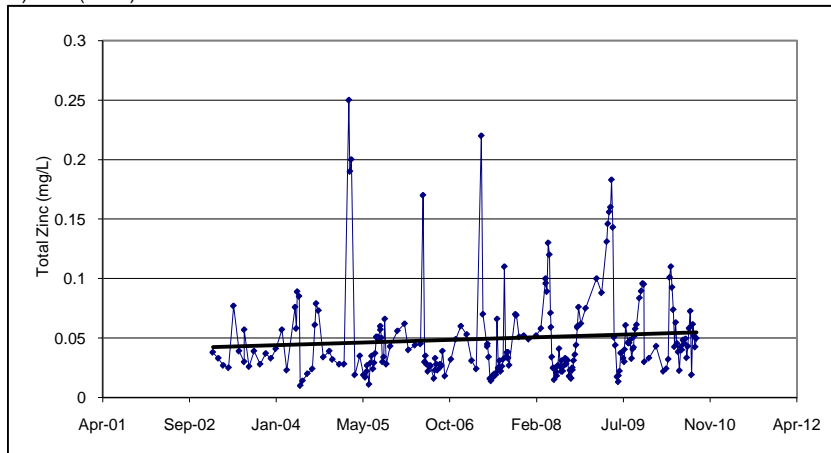
a) Sulphate

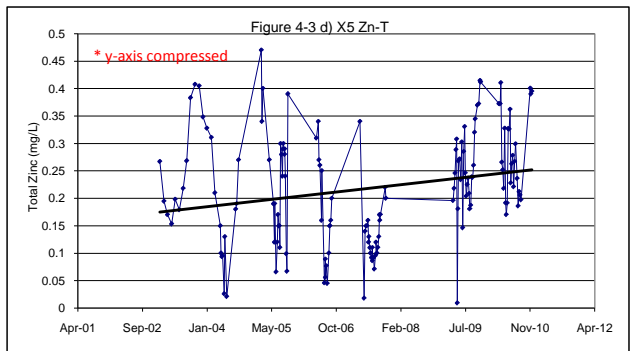
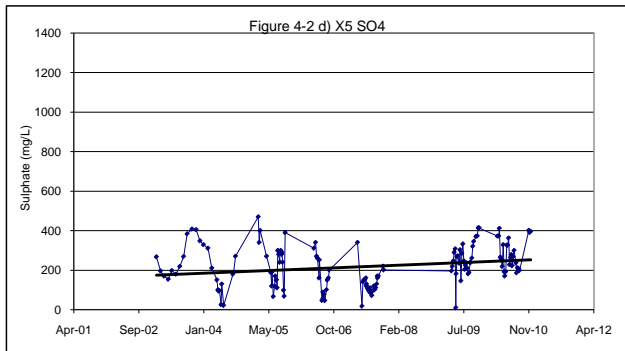
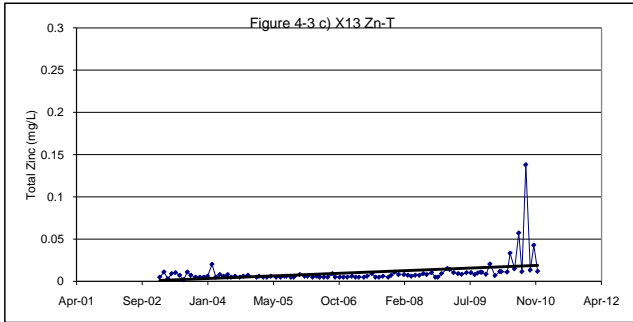
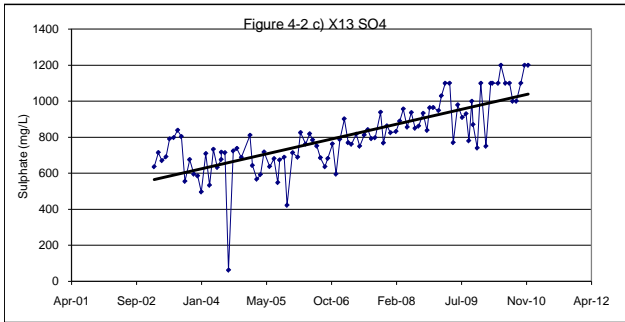
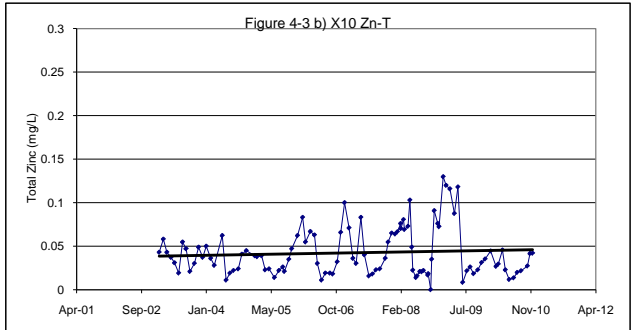
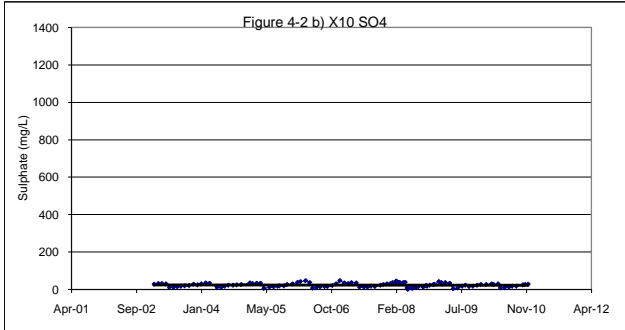
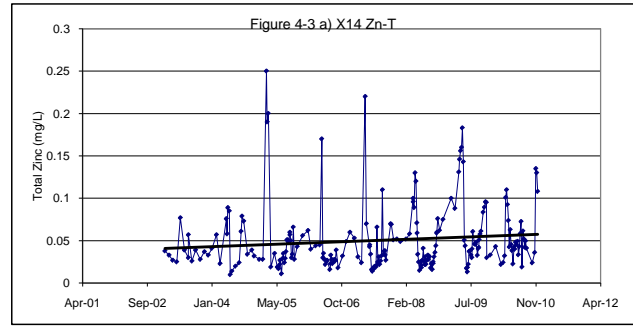
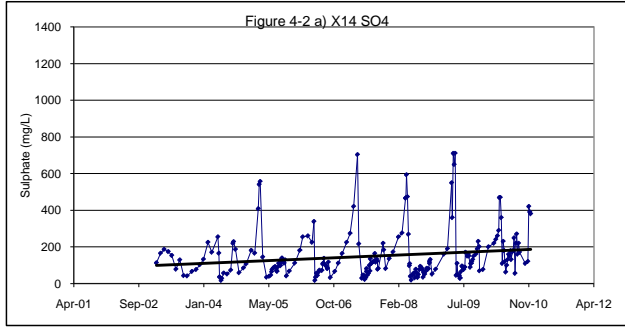


c) Copper (Total)



b) Zinc (Total)





### Figure 4-4: Water Quality in Rose Creek Downstream of FMC Activities at Station X14 - Winter (2003 to 2010)

