

APPENDIX D
SOUTHEAST BASIN

APPENDIX D: SOUTHEAST BASIN

D1: 545MAD006 – Lone Willow Slough at Road No. 903

D2: 541MER015 – Santa Rita Slough at HWY 152.....04-09

D3: 535MER577 – Deep Slough at Green House Road.....10-20

D4: 535MER007 – Bear Creek near Bert Crane Road.....21-32

D1: 545MAD006 – Lone Willow Slough at Road No. 9

Station Code: 545MAD006

Location: Latitude 36.86694444, Longitude -120.38194444

Date	Time	Temp (°C)	Field SC (umhos)	pH	Dissolved Oxygen (mg/L)	Turbidity (ntu)
10/26/2000	NA	DRY	DRY	DRY	DRY	
11/30/2000	5:30	DRY	DRY	DRY	DRY	
12/28/2000	7:30	DRY	DRY	DRY	DRY	
1/25/2001	8:10	DRY	DRY	DRY	DRY	
2/22/2001	7:40	DRY	DRY	DRY	DRY	
3/29/2001	7:40	DRY	DRY	DRY	DRY	
4/26/2001	14:30	DRY	DRY	DRY	DRY	
5/31/2001	11:00	DRY	DRY	DRY	DRY	
6/28/2001	9:00	NA	NA	NA	NA	
7/26/2001	9:30	DRY	DRY	DRY	DRY	
8/30/2001	10:00	DRY	DRY	DRY	DRY	
9/27/2001	9:06	DRY	DRY	DRY	DRY	
10/25/2001	8:43	DRY	DRY	DRY	DRY	
1/31/2002	9:00	DRY	DRY	DRY	DRY	
4/24/2002	8:34	DRY	DRY	DRY	DRY	
10/31/2002	9:30	DRY	DRY	DRY	DRY	
1/30/2003	9:17	DRY	DRY	DRY	DRY	
4/24/2003	9:30	DRY	DRY	DRY	DRY	
7/31/2003	9:05	DRY	DRY	DRY	DRY	
8/28/2003	0:00	DRY	DRY	DRY	DRY	

Count	NA	NA	NA	NA	NA	NA
Min	NA	NA	NA	NA	NA	NA
Max	NA	NA	NA	NA	NA	NA
Mean	NA	NA	NA	NA	NA	NA
Geo Mean	NA	NA	NA	NA	NA	NA
Median	NA	NA	NA	NA	NA	NA
Quartile 1	NA	NA	NA	NA	NA	NA
Quartile 3	NA	NA	NA	NA	NA	NA

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D2: 541MER015 – Santa Rita Slough at HWY 152

Station Code: 541MER015

Location: Latitude 37.04750, Longitude -120.59361

Date	Time	Temp (°C)	Field SC (umhos)	pH	Dissolved Oxygen (mg/L)	Turbidity (ntu)
10/26/2000	DRY	DRY	DRY	DRY	DRY	
11/30/2000	6:52 AM	DRY	DRY	DRY	DRY	
12/28/2000	8:20 AM	DRY	DRY	DRY	DRY	
1/25/2001	9:23 AM	5.7	731	7.1		
2/22/2001	8:45 AM	9.6	820	8.2		
3/29/2001	9:00 AM	16.3	830	7.7		
4/26/2001	12:40 PM	DRY	DRY	DRY	DRY	
5/31/2001	12:00 PM	DRY	DRY	DRY	DRY	
6/28/2001	10:34 AM	21.2	615	7.0	6.2	
7/26/2001	DRY	DRY	DRY	DRY	DRY	
8/30/2001	9:00 AM	21.7	643	7.4	NA	
9/27/2001	10:00 AM	DRY	DRY	DRY	DRY	

Count	5	5	5	1	NA
Min	5.7	615	7.0	6.2	NA
Max	21.7	830	8.2	6.2	NA
Mean	14.9	728	7.5	6.2	NA
Geo Mean	13.3	722	7.5	6.2	NA
Median	16.3	731	7.4	6.2	NA
Quartile 1	9.6	643	7.1	6.2	NA
Quartile 3	21.2	820	7.7	6.2	NA

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D2: 541MER015 – Santa Rita Slough at HWY 152 continued...

Date	TSS (mg/L)	TOC (mg/L)	Total Coli MPN	<i>E. coli</i> MPN
1/25/2001	42	24		
2/22/2001	21	4.3		
3/29/2001	NA	<1		
6/28/2001	10	8.4		
8/30/2001	<5	12		

Count	4	5	NA	NA
Min	3	0.5	NA	NA
Max	42	24	NA	NA
Mean	19	10	NA	NA
Geo Mean	12	6	NA	NA
Median	16	8.4	NA	NA
Quartile 1	8	4.3	NA	NA
Quartile 3	26	12	NA	NA

NOTE: For values reported as < (less than), half the detection limit was used
 For values reported as > (greater than), 2420 was used

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D2: 541MER015 – Santa Rita Slough at HWY 152 continued...

Date	Nitrate (mg/L)	Nitrate-N (mg/L)	TKN (mg/L)	Ammonia-N (mg/L)	Phosphorus (mg/L)	Ortho- phosphate- P (mg/L)	Potassium (mg/L)	BOD 5-Day (mg/L)	BOD 10-Day (mg/L)
1/25/2001	NA		NA		0.5	<1	23	8.4	16.9
2/22/2001	10		<2		NA	<1	8.4	2.4	4.0
3/29/2001	6.9		NA		1	1.5	8.9	2.6	5.9
6/28/2001	<2		<2		0.3	<1	6	1.6	2.9
8/30/2001	<2		<2		0.2	<1	5		
Count	4	NA	3	NA	4	5	5	4	4
Min	1.0	NA	1.0	NA	0.2	0.5	5.0	1.6	2.9
Max	10.0	NA	1.0	NA	1.0	1.5	23.0	8.4	16.9
Mean	4.7	NA	1.0	NA	0.5	0.7	10.3	3.8	7.4
Geo Mean	2.9	NA	1.0	NA	0.4	0.6	8.8	3.0	5.8
Median	4.0	NA	1.0	NA	0.4	0.5	8.4	2.5	5.0
Quartile 1	1.0	NA	1.0	NA	0.3	0.5	6.0	2.2	3.7
Quartile 3	7.7	NA	1.0	NA	0.6	0.5	8.9	4.1	8.7

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D2: 541MER015 – Santa Rita Slough at HWY 152 continued...

Date	Hardness (mg/L)	Total Arsenic (ug/L)	Total Cadmium (ug/L)	Total Chromium (ug/L)	Total Copper (ug/L)	Total Lead (ug/L)	Total Nickel (ug/L)	Total Zinc (ug/L)	Total Mercury (ug/L)
1/25/2001	260			2.4	5.4	<5	6.1	10	
2/22/2001	230			<1	2.4	<5	<5	6.7	
3/29/2001	200			<1	2.5	<5	<5	4.4	
6/28/2001	150	6.4	<1	<1	<1	<5	<5	<2	<0.2
8/30/2001	120	4.6	<1	<1	<1	<5	<5	<2	
Count	5	2	2	5	5	5	5	5	1
Min	120.0	4.6	0.5	0.5	0.5	2.5	2.5	1.0	0.1
Max	260.0	6.4	0.5	2.4	5.4	2.5	6.1	10.0	0.1
Mean	192.0	5.5	0.5	0.9	2.3	2.5	3.2	4.6	0.1
Geo Mean	184.8	5.4	0.5	0.7	1.5	2.5	3.0	3.1	0.1
Median	200.0	5.5	0.5	0.5	2.4	2.5	2.5	4.4	0.1
Quartile 1	150.0	5.1	0.5	0.5	0.5	2.5	2.5	1.0	
Quartile 3	230.0	6.0	0.5	0.5	2.5	2.5	2.5	6.7	

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D2: 541MER015 – Santa Rita Slough at HWY 152 continued...

Date	Hardness (mg/L)	Dissolved Arsenic (ug/L)	Dissolved Cadmium (ug/L)	Dissolved Chromium (ug/L)	Dissolved Copper (ug/L)	Dissolved Lead (ug/L)	Dissolved Nickel (ug/L)	Dissolved Zinc (ug/L)	Dissolved Mercury (ug/L)
1/25/2001	260			<1	2.3	<5	<5	3.4	
2/22/2001	230			<1	1.1	<5	<5	4	
3/29/2001	200			<1	2.5	<5	<5	2.7	
6/28/2001	150	5.9	<1	<1	<1	<5	<5	<2	<0.2
8/30/2001	120	4.6	<1	<1	<1	<5	<5	<2	
Count	5	2	2	5	5	5	5	5	1
Min	120.0	4.6	0.5	0.5	0.5	2.5	2.5	1.0	0.1
Max	260.0	5.9	0.5	0.5	2.5	2.5	2.5	4.0	0.1
Mean	192.0	5.3	0.5	0.5	1.4	2.5	2.5	2.4	0.1
Geo Mean	184.8	5.2	0.5	0.5	1.1	2.5	2.5	2.1	0.1
Median	200.0	5.3	0.5	0.5	1.1	2.5	2.5	2.7	0.1
Quartile 1	150.0	4.9	0.5	0.5	0.5	2.5	2.5	1.0	0.1
Quartile 3	230.0	5.6	0.5	0.5	2.3	2.5	2.5	3.4	0.1

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable
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 DRY = Site had no flow

D2: 541MER015 – Santa Rita Slough at HWY 152 continued...

Date	Chloride (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	TDS (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Total Alkalinity (mg/L)	Sodium (mg/L)
1/25/2001	61	130	67	23	470	<1	100	80	32
2/22/2001	81	150	59	21	510	<1	120	98	73
3/29/2001	92	120	46	21	440	<1	130	110	87
6/28/2001	84	71	38	14	370	<1.0	140	120	71
8/30/2001	100	49	26	15	360	<1	120	97	76
Count	5	5	5	5	5	5	5	5	5
Min	61	49	26	14	360	0.5	100	80	32
Max	100	150	67	23	510	0.5	140	120	87
Mean	84	104	47	19	430	0.5	122	101	68
Geo Mean	82	96	45	18	430	0.5	121	100	64
Median	84	120	46	21	440	0.5	120	98	73
Quartile 1	81	71	38	15	370	0.5	120	97	71
Quartile 3	92	130	59	21	470	0.5	130	110	76

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D3: 535MER577 – Deep Slough at Green House Road

Station Code: 535MER577

Location: Latitude 37.22972, Longitude -120.72833

Date	Time	Temp (°C)	Field SC (umhos)	pH	Dissolved Oxygen (mg/L)	Turbidity (ntu)
10/26/2000	10:15 AM	13.1	292	7.6		
11/30/2000	7:40 AM	9.0	507	7.4		
12/28/2000	9:15 AM	7.3	597	7.4		
1/25/2001	10:16 AM	9.7	544	7.3		
2/22/2001	10:00 AM	15.6	658	7.8		
3/29/2001	9:40 AM	19.0	698	8.4		
4/26/2001	12:01 PM	24.1	298	7.2		
5/31/2001	12:51 PM	29.5	862	8.9		
6/28/2001	11:17 AM	22.5	671	8.2	5.3	
7/26/2001	12:45 PM	28.9	597	8.6	NA	
8/30/2001	11:50 AM	24.1	311	8.6	NA	
9/27/2001	10:39 AM	20.9	480	8.3	7.6	
10/25/2001	10:16 AM	15.9	399	8.5	9.3	
11/29/2001	12:49 PM	10.0	459	8.3	11.9	
12/27/2001	11:47 AM	8.9	330	7.9	9.9	
1/31/2002	10:28 AM	5.6	414	8.2	13.4	
2/28/2002	12:47 PM	16.3	752	8.6	15.8	
3/28/2002	11:24 AM	17.5	401	8.2	10.2	
4/24/2002	10:11 AM	19.3	566	8.6	7.8	
5/30/2002	9:15 AM	23.5	509	7.8	NA	
6/20/2002	10:01 AM	24.0	591	8.1	6.6	186
7/30/2002	10:12 AM	23.8	782	8.8	7.4	319
8/29/2002	10:01 AM	21.3	966	8.5	7.5	480
9/26/2002	DRY	DRY	DRY	DRY	DRY	
10/17/2002	10:54 AM	17.3	515	7.8	6.7	80.2
10/31/2002	10:50 AM	13.9	640	8.0	8.7	79.3
11/21/2002	10:36 AM	12.0	325	7.8	9.8	68.3
12/19/2002	10:07 AM	8.4	184	7.5	9.8	113
1/14/2003	10:05 AM	11.2	290	7.8	9.9	76.5
1/30/2003	10:46 AM	13.0	385	7.3	10.3	48.6
3/27/2003	12:20 PM	16.3	862	8.1	12.2	211
4/24/2003	11:05 AM	17.0	602	7.8	7.4	57.8
5/29/2003	10:10 AM	25.7	871	7.7	5.1	91.4
6/26/2003	9:46 AM	24.3	628	8.3	7.9	50.0
7/31/2003	10:27 AM	DRY	DRY	DRY	DRY	DRY
8/28/2003	10:10 AM	DRY	DRY	DRY	DRY	DRY
9/25/2003	10:00 AM	DRY	DRY	DRY	DRY	DRY
10/30/2003	10:22 AM	DRY	DRY	DRY	DRY	DRY

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Time	Temp (°C)	Field SC (umhos)	pH	Dissolved Oxygen (mg/L)	Turbidity (ntu)
11/20/2003	10:51 AM	12.0	144	7.8	8.9	59.6
1/29/2004	10:28 AM	10.1	506	8.0	13.0	95.0
2/26/2004	10:23 AM	11.5	421	7.9	10.3	NA
3/24/2004	10:43 AM	19.3	488	8.3	8.9	NA
4/29/2004	10:05 AM	18.5	983	8.4	7.1	70.4
5/27/2004	10:26 AM	22.2	742	7.7	4.2	71.1
6/24/2004	10:25 AM	23.5	598	7.7	7.8	NA
7/29/2004	9:54 AM	23.7	526	7.7	6.6	NA
8/26/2004	10:08 AM	22.7	409	8.0	5.8	NA
9/30/2004	9:46 AM	DRY	DRY	DRY	DRY	DRY
10/28/2004	10:05 AM	12.8	358	8.2	8.7	
11/23/2004	10:04 AM	8.9	436	7.7	11.9	
12/29/2004	9:30 AM	9.3	401	7.9	10.3	
1/27/2005	9:59 AM	10.6	313	8.0	11.9	
2/24/2005	8:45 AM	13.7	208	7.8	8.0	
3/29/2005	11:37 AM	13.7	166	7.9	8.0	
4/28/2005	9:55 AM	18.1	427	7.9	7.3	
5/26/2005	11:04 AM	19.6	60	7.5	8.7	
6/30/2005	10:14 AM	26.5	48	7.9	7.2	
7/28/2005	10:03 AM	26.6	375	8.1	6.0	
8/25/2005	10:15 AM	23.8	271	7.9	5.9	
9/29/2005	10:14 AM	20.9	272	6.6	6.8	
Count		54	54	54	43	17
Min		5.6	48	6.6	4.2	48.6
Max		29.5	983	8.9	15.8	480
Mean		17.4	484	8.0	8.7	127
Geo Mean		16.1	423	8.0	8.4	98.8
Median		17.4	470	7.9	8.0	79.3
Quartile 1		12.0	326	7.7	7.2	68.3
Quartile 3		23.3	601	8.3	10.1	113

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	TSS (mg/L)	TOC (mg/L)	Total Coli MPN	<i>E. coli</i> MPN
10/26/2000	80	3.9		
11/30/2000	34	5.6		
12/28/2000	NA	6.4		
1/25/2001	91	9.5		
2/22/2001	68	3.5		
3/29/2001	NA	<1		
4/26/2001		6.9		
5/31/2001	100	11		
6/28/2001	220	12		
7/26/2001		10		
8/30/2001	95	12		
9/27/2001	110			
<hr/>				
10/25/2001		14		
11/29/2001		<1		
1/31/2002		3.2		
3/28/2002		NA		
4/24/2002		14		
5/30/2002		5.1		
6/20/2002		6.2		
7/30/2002			>2419.6	9
<hr/>				
10/17/2002			>2419.6	866
10/31/2002		NA		
11/21/2002		4.7		
12/19/2002				
1/14/2003			>2419.6	184
1/30/2003				
3/27/2003		4.4		
4/24/2003		NA	>2419.6	>2419.6
5/29/2003		11		
6/26/2003		11		
7/31/2003			DRY	DRY
8/28/2003			DRY	DRY
9/25/2003			DRY	DRY
<hr/>				
10/30/2003			DRY	DRY
11/20/2003			>2419.6	199
1/29/2004			866	109
2/26/2004			2420	488
3/24/2004			>2419.6	461
4/29/2004			>2419.6	2420
5/27/2004			>2419.6	1203
6/24/2004			>2419.6	111

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	TSS (mg/L)	TOC (mg/L)	Total Coli MPN	<i>E. coli</i> MPN
7/29/2004			>2419.6	16
8/26/2004			>2419.6	10
9/30/2004			DRY	DRY
10/28/2004		9.3	>2419.6	1733
11/23/2004		7.2	>2419.6	1120
12/29/2004		7.2	>2419.6	1414
1/27/2005		10	>2419.6	980
2/24/2005		8.6	2420	93
3/29/2005		10	>2419.6	517
4/28/2005		6.9	>2419.6	921
5/26/2005		3.6	>2419.6	108
6/30/2005		NA	>2419.6	85
7/28/2005		NA	>2419.6	19
8/25/2005		4.4	>2419.6	96
9/29/2005		4.2	>2419.6	153

Count	8	31	25	25
Min	34	0.5	866	9
Max	220	14	2420	2420
Mean	100	7.3	NA	NA
Geo Mean	89	6.0	2323	238
Median	93	6.9	2420	199
Quartile 1	77	4.4	2420	96
Quartile 3	100	10	2420	980

NOTE: For values reported as < (less than), half the detection limit was used
 For values reported as > (greater than), 2420 was used

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Nitrate (mg/L)	Nitrate-N (mg/L)	TKN (mg/L)	Ammonia-N (mg/L)	Phosphorus (mg/L)	Ortho- phosphate- P (mg/L)	Potassium (mg/L)	BOD 5-Day (mg/L)	BOD 10-Day (mg/L)
10/26/2000	4.1		<2		NA	<1	5.4	2.9	4.9
11/30/2000	3.2		<2		0.3	<1	7.2	5.4	8.2
12/28/2000	11		<2		0.4	1.1	12	3.8	6.6
1/25/2001	NA		NA		1.1	1.7	16	7.3	15.7
2/22/2001	23		2.2		NA	1.3	13	4.4	7.9
3/29/2001	<2		NA		0.6	<1	10	7.5	14.3
4/26/2001	5.4		<2		0.6	<1	10	4.3	8.4
5/31/2001	<2		3.7		1.0	<1	9.8	8.3	16.6
6/28/2001	<2		2.2		0.6	<1	12	6.3	11.6
8/30/2001	<2		<2		0.3	<1	5.8		
9/27/2001	<2		<2		0.4	<1	7.4		
10/25/2001	<2		<2		0.2	<1	7.4	4.6	7.8
11/29/2001	NA		NA		NA	0.2	NA	5.2	8.5
12/27/2001	NA		NA		1.3	1.0	9.7	3.1	6.5
1/31/2002	NA		2.6		0.5	0.4	NA	3.2	8.0
2/28/2002	NA		NA		0.4	0.2	6.9	8.0	14.1
3/28/2002	NA		1.7		0.8	0.8	7.7	3.2	5.4
4/24/2002	NA		NA		0.3	0.1	6.1	6.0	10.2
5/30/2002	NA		NA		NA	0.2	6.3	2.9	5.0
6/20/2002	NA		1.3		NA	0.2	6.8	4.6	7.8
8/29/2002	NA		6.2		NA	NA	9.1	8.5	17.1
10/31/2002	NA		1.3		0.2	0.1	4.7	4.4	7.0
11/21/2002	NA		1.2		0.4	0.2	4.4	5.5	9.0
12/19/2002	NA		1.9		0.3	<0.03	4.4	5.9	8.6
1/30/2003	NA		1.2		NA	0.5	5.3	2.4	4.0

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Nitrate (mg/L)	Nitrate-N (mg/L)	TKN (mg/L)	Ammonia-N (mg/L)	Phosphorus (mg/L)	Ortho- phosphate- P (mg/L)	Potassium (mg/L)	BOD 5-Day (mg/L)	BOD 10-Day (mg/L)
Count	11	NA	18	NA	18	24	23	23	23
Min	1.0	NA	1.0	NA	0.2	0.02	4.4	2.4	4.0
Max	23.0	NA	6.2	NA	1.3	1.7	16.0	8.5	17.1
Mean	4.8	NA	1.8	NA	0.5	0.5	8.1	5.1	9.3
Geo Mean	2.4	NA	1.5	NA	0.5	0.4	7.7	4.8	8.6
Median	1.0	NA	1.3	NA	0.4	0.5	7.4	4.6	8.2
Quartile 1	1.0	NA	1.0	NA	0.3	0.2	6.0	3.5	6.8
Quartile 3	4.8	NA	2.1	NA	0.6	0.5	9.9	6.2	10.9

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Hardness (mg/L)	Total Arsenic (ug/L)	Total Cadmium (ug/L)	Total Chromium (ug/L)	Total Copper (ug/L)	Total Lead (ug/L)	Total Nickel (ug/L)	Total Zinc (ug/L)	Total Mercury (ug/L)
10/26/2000	88			4.8	4.9	<5	6.0	9.7	
11/30/2000	130			2.2	4.0	<5	<5	6.1	
12/28/2000	150			3.0	5.3	<5	5.7	11	
1/25/2001	130			5.2	10	<5	6.4	24	
2/22/2001	170			4.7	6.9	<5	6.1	17	
3/29/2001	200			7.7	7.9	<5	8.8	14	
4/26/2001	92			3.2	5.7	<5	<5	10	
5/31/2001	240			4.2	5.7	<5	7.8	8.2	
6/28/2001	220	14	<1	14	12	<5	15	23	<0.2
7/26/2001		NA	NA	9.0	8.5	<5	9.8	NA	NA
8/30/2001	110	5.5	<1	8.3	7.0	<5	8.7	13	
9/27/2001	140	5.8	<0.1	6.1	12	<5	8.4	15	<0.2
10/25/2001	130	7.1	<0.1	<1	2.5	<5	<5	<2	NA
11/29/2001	140	6.0	<0.1	5.9	5.9	<5	8.0	14	<0.2
12/27/2001	120	5.5	<0.1	7.9	9.0	<5	8.8	21	<0.2
2/28/2002	220	5.8	<0.1	3.7	6.9	<5.0	5.6	11	<0.2
3/28/2002	120	<4.0	<0.1	5.4	5.8	<5.0	NA	18	<0.2
4/24/2002	170	9.2	<0.1	<1.0	2.6	<5.0	<5.0	<2.0	<0.2
5/30/2002	160	7.8	<0.1	4.6	4.9	<5.0	6.6	6.8	<0.2
6/20/2002	190	11	<0.1	8.2	6.7	<5.0	9.0	13	<0.2
10/31/2002	180	8.2	<0.1	3.8	4.9	<5.0	6.9	6.8	<0.2
11/21/2002	110	<4.0	<0.1	4.5	5.0	<5.0	5.8	7.1	<0.2
3/27/2003	220	6.6	<0.1	4.6	7.1	<5.0	7.2	9.1	<0.2
4/24/2003	180	7.3	<0.1	4.4	5.8	<5.0	6.6	6.1	<0.2
5/29/2003	240	16	<0.1	2.8	4.8	<5.0	6.1	4.7	<0.2
6/26/2003	190	14	<0.1	<1.0	2.4	<5.0	<5.0	<2.0	NA

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Hardness (mg/L)	Total Arsenic (ug/L)	Total Cadmium (ug/L)	Total Chromium (ug/L)	Total Copper (ug/L)	Total Lead (ug/L)	Total Nickel (ug/L)	Total Zinc (ug/L)	Total Mercury (ug/L)
Count	25	17	17	26	26	26	25	25	14
Min	88.0	2.0	0.1	0.5	2.4	2.5	2.5	1.0	0.1
Max	240.0	16.0	0.5	14.0	12.0	2.5	15.0	24.0	0.1
Mean	161.6	7.9	0.1	5.0	6.3	2.5	6.6	10.9	0.1
Geo Mean	155.3	6.9	0.1	3.9	5.8	2.5	6.0	8.3	0.1
Median	160.0	7.1	0.1	4.6	5.8	2.5	6.6	10.0	0.1
Quartile 1	130.0	5.8	0.1	3.3	4.9	2.5	5.7	6.8	0.1
Quartile 3	190.0	9.2	0.1	6.1	7.1	2.5	8.4	14.0	0.1

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Hardness (mg/L)	Dissolved Arsenic (ug/L)	Dissolved Cadmium (ug/L)	Dissolved Chromium (ug/L)	Dissolved Copper (ug/L)	Dissolved Lead (ug/L)	Dissolved Nickel (ug/L)	Dissolved Zinc (ug/L)	Dissolved Mercury (ug/L)
10/26/2000	88			<1	1.7	<5	<5	<2	
11/30/2000	130			<1	2.5	<5	<5	2.4	
12/28/2000	150			<1	2.6	<5	<5	5.0	
1/25/2001	130			<1	3.8	<5	<5	12	
2/22/2001	170			<1	2.5	<5	<5	6.6	
3/29/2001	200			<1	3.2	<5	<5	<2	
4/26/2001	92			<1	2.6	<5	<5	5.9	
5/31/2001	240			<1	2.0	<5	<5	<2	
6/28/2001	220	13	<1	<1	1.2	<5	<5	<2	<0.2
7/26/2001		NA	NA	NA	NA	NA	NA	NA	NA
8/30/2001	110	5.9	<1	<1	2.4	<5	<5	<2	
9/27/2001	140	<4	<0.1	<1	2.4	<5	<5	5.8	<0.2
10/25/2001	130	5.6	<0.1	<1	2.2	<5	<5	<2	NA
11/29/2001	140	<4	<0.1	<1	1.1	<5	<5	8.7	<0.2
12/27/2001	120	<4	<0.1	<1	3.5	<5	<5	9.6	<0.2
2/28/2002	220	6.0	<0.1	<1.0	2.9	<5.0	<5.0	5.3	<0.2
3/28/2002	120	<4.0	<0.1	<1.0	2.4	<5.0	6.1	10	<0.2
4/24/2002	170	10	<0.1	<1.0	2.4	<5.0	<5.0	<2.0	<0.2
5/30/2002	160	7.5	<0.1	<1.0	2.1	<5.0	<5.0	2.6	<0.2
6/20/2002	190	4.5	<0.1	3.3	2.8	<5.0	<5.0	9.3	<0.2
10/31/2002	180	7.5	<0.1	<1.0	1.4	<5.0	<5.0	3.9	<0.2
11/21/2002	110	4.6	<0.1	<1.0	1.9	<5.0	<5.0	<2.0	<0.2
Count	21	13	13	21	21	21	21	21	11
Min	88.0	2.0	0.1	0.5	1.1	2.5	2.5	1.0	0.1
Max	240.0	13.0	0.5	3.3	3.8	2.5	6.1	12.0	0.1
Mean	152.9	5.6	0.1	0.6	2.4	2.5	2.7	4.5	0.1
Geo Mean	147.2	4.7	0.1	0.5	2.3	2.5	2.6	3.0	0.1
Median	140.0	5.6	0.1	0.5	2.4	2.5	2.5	3.9	0.1
Quartile 1	120.0	2.0	0.1	0.5	2.0	2.5	2.5	1.0	0.1
Quartile 3	180.0	7.5	0.1	0.5	2.6	2.5	2.5	6.6	0.1

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Chloride (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	TDS (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Total Alkalinity (mg/L)	Sodium (mg/L)
10/26/2000	18	17	20	9	190	<1	120	100	25
11/30/2000	44	44	30	14	330	1	180	150	55
12/28/2000	54	45	32	16	360	<1	200	160	67
1/25/2001	46	33	29	14	320	<1	170	140	53
2/22/2001	57	49	37	19	420	<1	210	180	73
3/29/2001	65	59	43	23	430	7	240	210	75
4/26/2001	18	16	20	10	200	<1	96	96	23
5/31/2001	98	48	52	27	530	52	204	256	94
6/28/2001	58	49	44	25	440	<1.0	260	220	69
8/30/2001	15	21	23	12	230	<1	140	110	26
9/27/2001	29	45	30	16	310	<1	180	150	46
10/25/2001	19	21	28	13	NA	<1	270	220	36
11/29/2001	30	32	30	15	300	<1	140	150	44
12/27/2001	47	36	26	13	310	<1	150	120	54
1/31/2002	23	27	28	15	NA	<1	NA	NA	32
2/28/2002	7	64	47	24	440	10	260	230	91
3/28/2002	26	32	26	12	NA	<1.0	120	100	35
4/24/2002	53	38	35	19	NA	<1.0	210	170	55
5/30/2002	17	20	35	19	290	<1.0	200	160	48
6/20/2002	37	48	40	22	NA	<1.0	260	220	63
10/31/2002	29	47	38	20	360	<1.0	240	200	54
11/21/2002	16	19	24	12	210	<1.0	140	120	26
3/27/2003			47	26					
4/24/2003	42	33	38	22					
5/29/2003	80	41	49	30					
6/26/2003	32	36	40	22					

D3: 535MER577 – Deep Slough at Green House Road continued...

Date	Chloride (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	TDS (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Total Alkalinity (mg/L)	Sodium (mg/L)
Count	25	25	26	26	17	22	21	21	22
Min	7	16	20	9	190	0.5	96	96	23
Max	98	64	52	30	530	52	270	260	94
Mean	38	37	34	18	330	3.6	190	170	52
Geo Mean	32	34	33	17	320	0.8	180	160	48
Median	32	36	34	18	320	0.5	200	160	54
Quartile 1	19	27	28	13	290	0.5	140	120	35
Quartile 3	53	47	40	22	420	0.5	240	210	66

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D4: 535MER007 – Bear Creek near Bert Crane Road

Station Code: 535MER007

Location: Latitude 37.25556, Longitude -120.65194

Date	Time	Temp (°C)	Field SC (umhos)	pH	Dissolved Oxygen (mg/L)	Turbidity (ntu)
10/26/2000	10:50 AM	13.2	238	7.5		
11/30/2000	8:25 AM	8.0	111	7.9		
12/28/2000	9:40 AM	6.7	88	8.4		
1/25/2001	10:44 AM	9.2	156	7.6		
2/22/2001	10:50 AM	14.1	212	8.2		
3/29/2001	10:00 AM	18.0	78	8.7		
4/26/2001	11:34 AM	22.7	107	7.8		
5/31/2001	1:20 PM	25.2	91	8.1		
6/28/2001	11:43 AM	22.7	90	7.8	7.4	
7/26/2001	1:10 PM	27.7	90	8.4	NA	
8/30/2001	12:15 PM	24.0	102	8.7	NA	
9/27/2001	11:11 AM	20.8	193	7.9	8.1	
10/25/2001	10:43 AM	15.3	101	8.1	9.8	
11/29/2001	1:17 PM	9.9	106	7.7	10.4	
12/27/2001	12:06 PM	8.6	143	8.0	12.3	
1/31/2002	10:52 AM	5.2	213	8.3	13.8	
2/28/2002	1:11 PM	16.4	174	8.7	13.1	
3/28/2002	11:55 AM	17.9	138	8.2	10.7	
4/24/2002	10:39 AM	18.2	105	7.9	8.1	
5/30/2002	8:46 AM	22.5	109	7.4	NA	
6/20/2002	10:27 AM	22.6	101	7.7	7.6	57.2
7/30/2002	10:31 AM	22.8	188	7.7	7.2	49.5
8/29/2002	10:32 AM	22.1	117	7.7	7.9	42.0
9/26/2002	10:32 AM	20.7	89	7.9	8.5	
10/17/2002	11:12 AM	15.9	90	7.7	9.1	20.1
10/31/2002	11:12 AM	13.0	92	7.6	10.3	17.1
11/21/2002	11:03 AM	12.0	128	7.8	10.7	16.8
12/19/2002	10:31 AM	8.6	136	7.7	11.1	53.4
1/14/2003	10:33 AM	10.8	133	7.8	10.6	36.1
1/30/2003	11:18 AM	12.0	179	7.5	12.4	10.1
3/27/2003	12:39 PM	16.8	81	8.2	13	53.4
4/24/2003	11:29 AM	15.9	64	8.0	9.4	37.4
5/29/2003	10:30 AM	22.8	78	8.0	8.1	44.2
6/26/2003	10:08 AM	21.0	74	8.0	8.4	84.5
7/31/2003	10:52 AM	23.8	100	7.3	6.6	110
8/28/2003	10:36 AM	22.4	60	7.7	8	73.6
9/25/2003	10:36 AM	20.1	85	7.4	7.4	34.9
10/30/2003	10:53 AM	14.3	89	7.7	9.8	20.1
11/20/2003	11:09 AM	11.8	57	7.6	11.4	37.4

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Time	Temp (°C)	Field SC (umhos)	pH	Dissolved Oxygen (mg/L)	Turbidity (ntu)
1/29/2004	10:44 AM	9.3	108	8.2	13	18.7
2/26/2004	10:42 AM	11.6	142	8.0	10.2	NA
3/24/2004	11:02 AM	18.8	229	8.1	8.6	NA
4/29/2004	10:29 AM	17.6	76	8.5	9.5	56.6
5/27/2004	10:50 AM	21.8	109	7.9	8.5	49.4
6/24/2004	10:47 AM	22.1	61	8.0	9	NA
7/29/2004	10:09 AM	22.5	115	8.0	8.5	NA
8/26/2004	10:32 AM	22.2	64	8.4	7.6	NA
9/30/2004	10:01 AM	18.0	54	8.2	8.4	NA
10/28/2004	10:29 AM	12.4	183	8.1	9.7	
11/23/2004	10:36 AM	7.7	137	7.8	11.6	
12/29/2004	9:53 AM	9.6	91	7.9	10.4	
1/27/2005	11:08 AM	11.1	130	7.9	12.7	
2/24/2005	8:23 AM	13.3	160	8.0	10.2	
3/29/2005	11:49 AM	15.2	208	7.9	9.9	
4/28/2005	10:17 AM	17.0	132	8.2	9	
5/26/2005	10:34 AM	21.1	77	7.6	8.4	
6/30/2005	10:38 AM	22.3	78	7.5	6.8	
7/28/2005	10:27 AM	22.1	110	7.6	7.7	
8/25/2005	10:44 AM	22.0	74	7.7	8.2	
9/29/2005	10:43 AM	19.3	54	6.8	8.3	

Count	60	60	60	49	21
Min	5.2	54	6.8	6.6	10.1
Max	27.7	238	8.7	13.8	110
Mean	16.9	116	7.9	9.5	43.9
Geo Mean	15.8	108	7.9	9.4	37.5
Median	17.8	106	7.9	9.1	42.0
Quartile 1	12.0	84	7.7	8.1	20.1
Quartile 3	22.1	137	8.1	10.6	53.4

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	TSS (mg/L)	TOC (mg/L)	Total Coli MPN	<i>E. coli</i> MPN
10/26/2000	55	15		
11/30/2000	16	1.8		
12/28/2000	NA	3.3		
1/25/2001	170	6.3		
2/22/2001	28	6.0		
3/29/2001	NA	<1		
4/26/2001		3.3		
5/31/2001	54	3.3		
6/28/2001	48	5.0		
7/26/2001		3.6		
8/30/2001	51	5.5		
9/27/2001	34			
<hr/>				
10/25/2001		7.2		
11/29/2001		<1		
1/31/2002		2.1		
3/28/2002		NA		
4/24/2002		6.5		
6/20/2002		3.2		
7/30/2002			>2419.6	>2419.6
9/26/2002		3.3		
<hr/>				
10/17/2002			>2419.6	133
10/31/2002		NA		
11/21/2002		6.8		
1/14/2003			>2419.6	579
3/27/2003		2.5		
4/24/2003		NA	>2419.6	308
5/29/2003		4.0		
6/26/2003		3.7		
7/31/2003			>2419.6	387
8/28/2003			>2419.6	299
9/25/2003			>2419.6	276
<hr/>				
10/30/2003			>2419.6	411
11/20/2003			>2419.6	93
1/29/2004			1553	44
2/26/2004			>2419.6	1300
3/24/2004			>2419.6	1733
4/29/2004			>2419.6	238
5/27/2004			>2419.6	261
6/24/2004			>2419.6	921
7/29/2004			>2419.6	579
8/26/2004			>2419.6	105
9/30/2004			>2419.6	461

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	TSS (mg/L)	TOC (mg/L)	Total Coli MPN	<i>E. coli</i> MPN
10/28/2004		13	>2419.6	>2419.6
11/23/2004		9.6	>2419.6	69
12/29/2004		21	>2419.6	>2419.6
1/27/2005		14	>2419.6	>2419.6
2/24/2005		7.3	2420	285
3/29/2005		6.0	>2419.6	1300
4/28/2005		7.7	>2419.6	1203
5/26/2005		4.8	>2419.6	1203
6/30/2005		NA	>2419.6	435
7/28/2005		NA	>2419.6	>2419.6
8/25/2005		2.7	>2419.6	228
9/29/2005		3.0	>2419.6	770

Count	8	31	30	30
Min	16	0.5	1553	44
Max	170	21	2420	2420
Mean	57	5.9	NA	NA
Geo Mean	46	4.4	2384	502
Median	50	4.8	2420	448
Quartile 1	33	3.3	2420	265
Quartile 3	54	7.0	2420	1276

NOTE: For values reported as < (less than), half the detection limit was used
 For values reported as > (greater than), 2420 was used

NA = Data not applicable
 INA = Site was inaccessible
 DRY = Site had no flow

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Nitrate (mg/L)	Nitrate-N (mg/L)	TKN (mg/L)	Ammonia-N (mg/L)	Phosphorus (mg/L)	Ortho- phosphate- P (mg/L)	Potassium (mg/L)	BOD 5-Day (mg/L)	BOD 10-Day (mg/L)
10/26/2000	3.4		9.8		NA	2	11	7.6	16
11/30/2000	3.5		<2		0.2	<1	1.9	1.9	4
12/28/2000	3		<2		0.2	<1	1.6	2.9	5.2
1/25/2001	NA		NA		0.3	<1	4.7	7	10.4
2/22/2001	<2		<2		NA	<1	3.2	1.7	3.4
3/29/2001	<2		NA		<0.1	<1	1.8	1.1	2.1
4/26/2001	<2		<2		0.1	<1	1.9	1.5	2.8
5/31/2001	2.6		<2		0.3	<1	3	2	4.3
6/28/2001	31		<2		0.2	<1	2.3	1.7	3.1
8/30/2001	4.3		<2		0.1	<1	2		
9/27/2001	6.2		<2		0.2	<1	4.4		
10/25/2001	3		<2		0.2	<1	1.9	1.1	2.3
11/29/2001	NA		NA		NA	0.2	NA	7.6	13.5
12/27/2001	NA		NA		0.1	<0.03	2	0.7	1.4
1/31/2002	NA		0.5		<0.05	<0.03	NA	1	2
2/28/2002	NA		NA		0.1	<0.03	1.3	1.0	1.9
3/28/2002	NA		0.7		0.1	0.1	2.6	1.7	3.4
4/24/2002	NA		NA		0.2	0.1	1.8	1.6	2.7
5/30/2002	NA		NA		NA	0.1	1.9	1.6	2.5
6/20/2002	NA		0.7		NA	0.1	1.8	1.8	3.1
8/29/2002	NA		0.9		NA	0.1	2.8	1.5	2.8
9/26/2002	NA		0.4		0.2	0.1	1.8	1.3	2.4
10/31/2002	NA		0.2		0.1	0.1	1.4	1.4	2.1
11/21/2002	NA		0.9		0.1	0.1	4	1.0	2.0
12/19/2002	NA		1.4		0.1	NA	2.5	3.6	5.2
1/30/2003	NA		0.6		NA	<0.03	2.2	1.0	1.6

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Nitrate (mg/L)	Nitrate-N (mg/L)	TKN (mg/L)	Ammonia-N (mg/L)	Phosphorus (mg/L)	Ortho- phosphate- P (mg/L)	Potassium (mg/L)	BOD 5-Day (mg/L)	BOD 10-Day (mg/L)
Count	11	NA	19	NA	19	25	24	24	24
Min	1.0	NA	0.2	NA	0.03	0.02	1.3	0.7	1.4
Max	31.0	NA	9.8	NA	0.3	2.0	11.0	7.6	16.0
Mean	5.5	NA	1.3	NA	0.2	0.3	2.7	2.3	4.2
Geo Mean	3.1	NA	0.9	NA	0.1	0.2	2.4	1.8	3.3
Median	3.0	NA	1.0	NA	0.1	0.2	2.0	1.6	2.8
Quartile 1	1.8	NA	0.7	NA	0.1	0.1	1.8	1.1	2.1
Quartile 3	3.9	NA	1.0	NA	0.2	0.5	2.9	1.9	4.1

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Hardness (mg/L)	Total Arsenic (ug/L)	Total Cadmium (ug/L)	Total Chromium (ug/L)	Total Copper (ug/L)	Total Lead (ug/L)	Total Nickel (ug/L)	Total Zinc (ug/L)	Total Mercury (ug/L)
10/26/2000	63			1.6	6.6	<5	<5	20	
11/30/2000	41			<1	2.3	<5	<5	5.1	
12/28/2000	34			<1	2.1	<5	<5	4.5	
1/25/2001	68			7.6	13	<5	7	27	
2/22/2001	91			1.4	4.9	<5	<5	11	
3/29/2001	29			<1	3	<5	<5	4.4	
4/26/2001	41			<1	3.1	<5	<5	4	
5/31/2001	40			2.5	4.5	<5	<5	8.3	
6/28/2001	53	<2	<1	2.6	4.6	<5	<5	7.5	<0.2
7/26/2001		NA	NA	2	4.2	<5	<5	NA	NA
8/30/2001	40	<2	<1	2.5	6.1	<5	<5	6.1	
9/27/2001	71	<4	<0.1	2.5	6.2	<5	<5	5.5	<0.2
10/25/2001	39	<4	<0.1	<1	2.1	<5	<5	<2	NA
11/29/2001	35	<4	<0.1	1.2	4.9	<5	<5	9.2	<0.2
12/27/2001	73	<4	<0.1	1.1	2.6	<5	<5	3.2	<0.2
2/28/2002	75	<4.0	<0.1	<1.0	3.7	<5.0	<5.0	6.1	<0.2
3/28/2002	56	<4.0	<0.1	2.1	4.1	<5.0	NA	8.1	<0.2
4/24/2002	44	<4.0	<0.1	<1.0	1.7	<5.0	<5.0	<2.0	<0.2
5/30/2002	44	<4.0	<0.1	3.8	2.2	<5.0	<5.0	4.5	<0.2
6/20/2002	43	<4.0	<0.1	3.2	5.6	<5.0	<5.0	7.6	<0.2
9/26/2002	37	<4.0	<0.1	2.3	4.8	<5.0	<5.0	4.7	<0.2
10/31/2002	38	<4.0	<0.1	<1.0	2	<5.0	<5.0	2.1	<0.2
11/21/2002	50	<4.0	<0.1	<1.0	7.8	<5.0	<5.0	5.2	<0.2
3/27/2003	32	<4.0	<0.1	1.3	4	<5.0	<5.0	4.2	<0.2
4/24/2003	27	<4.0	<0.1	1	2.8	<5.0	<5.0	3.8	<0.2
5/29/2003	31	<4.0	<0.1	2.2	4.1	<5.0	<5.0	5.3	<0.2
6/26/2003	28	<4.0	<0.1	3.4	4.6	<5.0	<5.0	8.6	NA

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Hardness (mg/L)	Total Arsenic (ug/L)	Total Cadmium (ug/L)	Total Chromium (ug/L)	Total Copper (ug/L)	Total Lead (ug/L)	Total Nickel (ug/L)	Total Zinc (ug/L)	Total Mercury (ug/L)
Count	26	18	18	27	27	27	26	26	15
Min	27.0	1.0	0.1	0.5	1.7	2.5	2.5	1.0	0.1
Max	91.0	2.0	0.5	7.6	13.0	2.5	7.0	27.0	0.1
Mean	47.0	1.9	0.1	1.8	4.4	2.5	2.7	6.8	0.1
Geo Mean	44.5	1.9	0.1	1.3	3.9	2.5	2.6	5.4	0.1
Median	41.0	2.0	0.1	1.4	4.1	2.5	2.5	5.3	0.1
Quartile 1	35.5	2.0	0.1	0.5	2.7	2.5	2.5	4.3	0.1
Quartile 3	55.3	2.0	0.1	2.5	4.9	2.5	2.5	8.0	0.1

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Hardness (mg/L)	Dissolved Arsenic (ug/L)	Dissolved Cadmium (ug/L)	Dissolved Chromium (ug/L)	Dissolved Copper (ug/L)	Dissolved Lead (ug/L)	Dissolved Nickel (ug/L)	Dissolved Zinc (ug/L)	Dissolved Mercury (ug/L)
10/26/2000	63			<1	1.9	<5	5	3.3	
11/30/2000	41			<1	<1	<5	5	2.9	
12/28/2000	34			<1	<1	<5	5	<2	
1/25/2001	68			<1	2.2	<5	5	<2	
2/22/2001	91			<1	2.3	<5	5	2.7	
3/29/2001	29			<1	2.4	<5	5	2.2	
4/26/2001	41			<1	1.1	<5	5	<2	
5/31/2001	40			<1	1.4	<5	5	2.2	
6/28/2001	53	<2	<1	<1	<1	<5	5	<2	<0.2
7/26/2001		NA	NA	NA	NA	NA	NA	NA	NA
8/30/2001	40	<2	<1	<1	2.2	<5	5	<2	
9/27/2001	71	<4	<0.1	<1	3.4	<5	5	<2	<0.2
10/25/2001	39	<4	<0.1	<1	1.6	<5	5	<2	NA
11/29/2001	35	<4	<0.1	<1	2.1	<5	5	13	<0.2
12/27/2001	73	<4	<0.1	<1	1.6	<5	5	<2	<0.2
2/28/2002	75	<4.0	<0.1	<1.0	2.5	<5.0	<5.0	4.4	<0.2
3/28/2002	56	<4.0	<0.1	<1.0	1.8	<5.0	<5.0	4.1	<0.2
4/24/2002	44	<4.0	<0.1	<1.0	1.7	<5.0	<5.0	<2.0	<0.2
5/30/2002	44	<4.0	<0.1	<1.0	2.1	<5.0	<5.0	5.6	<0.2
6/20/2002	43	<4.0	<0.1	1.8	3.4	<5.0	<5.0	5.4	<0.2
9/26/2002	37	<4.0	<0.1	<1.0	2.5	<5.0	<5.0	<2.0	<0.2
10/31/2002	38	<4.0	<0.1	<1.0	1.3	<5.0	<5.0	3.1	<0.2
11/21/2002	50	<4.0	<0.1	<1.0	3.6	<5.0	<5.0	<2.0	<0.2
Count	22	14	14	22	22	22	22	22	12
Min	29.0	1.0	0.1	0.5	0.5	2.5	2.5	1.0	0.1
Max	91.0	2.0	0.5	1.8	3.6	2.5	2.5	13.0	0.1
Mean	50.2	1.9	0.1	0.6	1.9	2.5	2.5	2.7	0.1
Geo Mean	48.0	1.8	0.1	0.5	1.7	2.5	2.5	2.0	0.1
Median	43.5	2.0	0.1	0.5	2.0	2.5	2.5	1.6	0.1
Quartile 1	39.3	2.0	0.1	0.5	1.5	2.5	2.5	1.0	0.1
Quartile 3	61.3	2.0	0.1	0.5	2.4	2.5	2.5	3.3	0.1

NOTE: For values reported as < (less than), half the detection limit was used.

NA = Data not applicable
 INA = Site was inaccessible
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D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Chloride (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	TDS (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Total Alkalinity (mg/L)	Sodium (mg/L)
10/26/2000	8	5	14	7	140	<1	120	100	10
11/30/2000	6	NA	10	4	99	<1	50	40	5
12/28/2000	4	4	9	3	50	<1	40	30	3
1/25/2001	7	8	14	8	110	<1	70	60	7
2/22/2001	7	11	18	11	120	<1	100	86	9
3/29/2001	3	5	7	3	90	<1	44	36	3
4/26/2001	3	5	10	4	93	<1	40	40	5
5/31/2001	3	4	9	4	72	<1	34	34	4
6/28/2001	3	6	13	5	90	<1.0	60	49	5
8/30/2001	3	5	10	4	84	<1	46	38	5
9/27/2001	5	7	17	7	150	<1	95	78	10
10/25/2001	3	5	9	4	NA	<1	54	44	5
11/29/2001	4	4	9	3	98	<1	46	38	4
12/27/2001	7	12	15	9	91	<1	78	64	70
1/31/2002	8	13	17	11	NA	<1	NA	NA	10
2/28/2002	6	10	15	9	92	<1.0	85	70	8
3/28/2002	5	8	12	6	NA	<1.0	60	50	6
4/24/2002	3	5	11	4	NA	<1.0	46	38	4
5/30/2002	3	6	11	4	73	<1.0	48	39	5
6/20/2002	3	5	10	4	NA	<1.0	44	36	4
9/26/2002	3	5	9	4	NA	<1.0	37	30	4
10/31/2002	3	5	9	4	70	<1.0	44	36	4
11/21/2002	5	6	12	5	130	<1.0	54	44	5
3/27/2003			7	3					
4/24/2003	3	4	7	3					
5/29/2003	3	4	8	3					
6/26/2003	3	4	7	3					

D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	Chloride (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	TDS (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Total Alkalinity (mg/L)	Sodium (mg/L)
Count	26	25	27	27	17	23	22	22	23
Min	3	4	7	3	50	0.5	34	30	3
Max	8	13	18	11	150	0.5	120	100	70
Mean	4	6	11	5	97	0.5	59	49	8
Geo Mean	4	6	11	5	94	0.5	55	46	6
Median	3	5	10	4	92	0.5	49	40	5
Quartile 1	3	5	9	4	84	0.5	44	37	4
Quartile 3	6	7	14	7	110	0.5	68	58	8

NOTE: For values reported as < (less than), half the detection limit was used.

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INA = Site was inaccessible

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D4: 535MER007 – Bear Creek near Bert Crane Road continued...

Date	96h Acute Fathead Minnow (% Survival)		48h Acute Ceriodaphnia Dubia (% Survival)		Algae Cell Growth		
	Result	Control	Result	Control	Result (million/ml)	Control (million/ml)	MDD(%)
6/18/2001	95	100	90	90			
11/23/2004	100	100	100	100			
12/29/2004	97.5	97.5	100	100			
1/27/2005	55*	100	100	100			
2/24/2005	70.0*	100	100	100			
3/29/2005	97.5	100	100	100			
4/28/2005	N/A	N/A	100	100			
5/26/2005	77.5*	97.5	100	100			
6/30/2005	100	100	100	100			
7/28/2005	100	97.5	100	100			
8/25/2005	100	100	100	100			
9/29/2005	100	100	100	100			
Count	11	11	12	12	N/A	N/A	N/A

* Significantly reduced from the lab control.

** Significantly greater than the lab control.

^ Fish were from a "forced hatch," duplicate failed QA.

¹ Duplicate sample for the set was low - 77% recovery.

² Testing for the Fathead minnow was initiated when samples were approx. 48h old due to untimely shipping of fish by fish supplier.

³ Samples qualified, but duplicate sample recovery for the set was high - 126% (53.8%/42.5%)

NA = Data not applicable

INA = Site was inaccessible

DRY = Site had no flow