

11-5-2008

Ex. 280-US-466

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Stream: Five Mile Creek
Site: 652
Date: 9/16/1993
Habitat: Run

Flow: High

(1) Level Loop Survey (BM & HP)									
BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)	BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	5.71	105.71			HP3			5.75	99.96
					HP2			6.50	99.21
					HP1			6.11	99.60
TP					HP1	6.10	105.70		
HP2					HP2			6.49	99.21
HP3					HP3			5.75	99.95
BM					BM			5.71	99.99

Comment:

Date: 5/16/1993
Habitat: Run

Flow: Mid

(1) Level Loop Survey									
BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)	BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	6.11	106.11			HP1			6.52	99.59
					HP2			6.91	99.20
					HP3			6.15	99.96
TP					HP3	6.21	106.17		
HP2					HP2			6.97	99.20
HP1					HP1			6.58	99.59
BM					BM			6.17	100.00

Comment:

Date: 6/24/1993
Habitat: Run

Flow: low

(1) Level Loop Survey									
BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)	BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	5.60	105.60			HP3			5.64	99.96
					HP2			6.40	99.20
					HP1			6.00	99.60
TP					HP1	6.08	105.68		
HP2					HP2			6.47	99.21
HP3					HP3			5.72	99.96
BM					BM			5.68	100.00

Comment:

(2) Water Surface Elevation (WSE) Survey

	Sta		FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)	
	L/R	WSE (ft)						
TR1	0	105.15	9.20	0.00	95.95	95.96	21.6	
			9.19	0.00	95.96			
TR2	8.3	105.15	9.18	0.00	95.97	95.97	21.1	
			9.18	0.00	95.97			
TR3	128.1	106.38	10.24	0.00	96.14	96.14	20.6	
			10.24	0.00	96.14			
							Ave Q=	21.1

Note: WSE slope = 0.108%

(2) Water Surface Elevation (WSE) Survey

	Sta		FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)	
	L/R	WSE (ft)						
TR1	0	106.17	10.35	0.00	95.82	95.85		
			10.30	0.00	95.87			
TR2	8.3	106.17	10.29	0.00	95.88	95.88		
			10.29	0.00	95.88			
TR3	128.1	106.17	10.07	0.00	96.10	96.10		
			10.07	0.00	96.10			
							Ave Q=	21.1

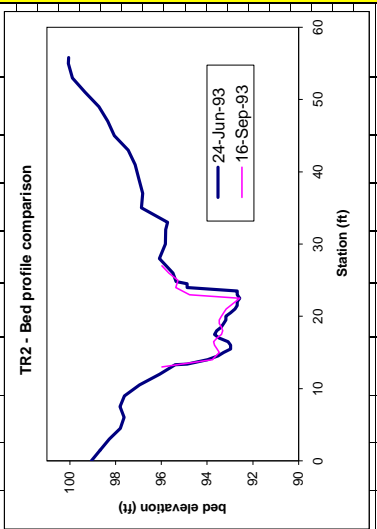
Note: WSE slope = 0.149%

(2) Water Surface Elevation (WSE) Survey

	Sta		FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)	
	L/R	WSE (ft)						
TR1	0	105.68	10.31	0.00	95.37	95.36	13.1	
			10.34	0.00	95.34			
TR2	8.3	105.68	10.28	0.00	95.40	95.38	11.6	
			10.32	0.00	95.36			
TR3	128.1	105.68	10.06	0.00	95.62	95.60	11.7	
			10.11	0.00	95.57			
							Ave Q=	12.1

Note: WSE slope = 0.140%

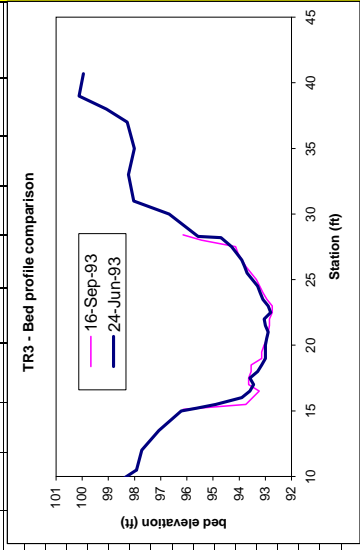
Stream: Five Mile Creek		16-Sep-93						16-May-93						24-Jun-93										
Site:	652	Sta	FS	Ground	Depth	Vel (ft/s)	q	substrate	Sta	FS	Ground	Depth	Vel (ft/s)	q	substrate	Sta	FS	Ground	Depth	Vel (ft/s)	q	substrate		
Transsect:	2	(ft)	(ft)	(ft)	(ft)	V _{0.206}	V _{0.8}	Ave	(ft)	(ft)	(ft)	(ft)	V _{0.206}	V _{0.8}	Ave	(ft)	(ft)	(ft)	(ft)	V _{0.206}	V _{0.8}	Ave	(ft)	
Habitat:	Run																							
Survey	HI	Q																						
Date	(ft)	(cfs)																						
9/16/1993	105.15	21.1	LWE	13.0	95.97	0.00	0.00	0.00	0.00	0.00	3.3													
5/16/1993	106.17			14.0	93.77	2.20	0.51	0.51	1.12	3.3														
6/24/1993	105.68	11.6		15.0	93.47	2.50	0.85	0.74	0.80	1.49	3.3													
				15.5	93.57	2.40	0.87	0.87	1.04	3.3														
				16.0	93.67	2.30	0.81	0.81	0.93	3.3														
				16.5	93.72	2.25	0.84	0.84	0.95	3.3														
				17.0	93.77	2.40	0.96	0.96	1.15	3.3														
				17.5	93.37	2.60	1.13	0.69	0.91	1.18	3.3													
				18.0	93.32	2.65	1.12	0.62	0.87	1.15	3.3													
				18.5	93.37	2.60	1.26	0.41	0.84	1.09	3.3													
				19.0	93.47	2.50	1.26	0.40	0.83	1.04	3.3													
				19.5	93.47	2.50	1.35	0.43	0.89	1.11	3.3													
				20.0	93.37	2.60	1.41	0.57	0.99	1.29	3.3													
				20.5	93.27	2.70	1.44	0.85	1.15	1.55	3.3													
				21.0	93.17	2.80	1.51	1.07	1.29	1.81	3.3													
				21.5	92.97	3.00	1.43	1.36	1.40	2.09	3.3													
				22.0	92.77	3.20	0.83	1.18	1.01	1.61	3.3													
				22.5	92.57	3.40	0.27	0.48	0.38	0.64	3.3													
				23.0	94.77	1.20	-0.05		-0.05	-0.05	1.1													
				24.0	95.37	0.60	-0.06		-0.06	-0.04	1.1													
				25.0	95.27	0.70	-0.07		-0.07	-0.05	1.1													
				26.0	95.67	0.30	-0.04		-0.04	-0.01	1.1													
				RWE	27.0	95.97	0.00	0.00		0.00	0.00	1.1												



Stream: Five Mile Creek	16-Sep-93															16-May-93															24-Jun-93														
	Sta	FS	Ground	Depth	Vel (ft/s)	Vel (ft/s)	q	substrate	Sta	FS	Ground	Depth	Vel (ft/s)	Vel (ft/s)	q	substrate	Sta	FS	Ground	Depth	Vel (ft/s)	Vel (ft/s)	q	substrate																					
	(ft)	(ft)	(ft)	(ft)	V _{0.2/0.6}	V _{0.8}	Ave		(ft)	(ft)	(ft)	(ft)	V _{0.2/0.6}	V _{0.8}	Ave		(ft)	(ft)	(ft)	(ft)	V _{0.2/0.6}	V _{0.8}	Ave																						
15.1		96.14	0.00			0.00	0.00								0.00																														
15.5		93.74	2.40	0.01		0.01	0.02	3.2							0.39	0.84	0.85																												
16.5		93.24	2.90	0.19	0.06	0.13	0.27	3.2							0.84	0.91	1.11																												
17		93.64	2.50	0.29	0.42	0.36	0.44	3.2							0.91	0.91	1.11																												
17.5		93.64	2.50	0.53	0.53	0.53	0.66	3.2							1.07	0.98	1.03	1.28																											
18		93.54	2.60	0.64	0.58	0.60	0.77	3.2							1.12	0.99	1.06	1.35																											
18.5		93.54	2.60	0.86	0.58	0.72	0.94	3.2							1.15	1.13	1.46																												
19		93.14	3.00	0.94	0.57	0.76	1.13	3.2							1.18	1.12	1.48																												
19.5		93.14	3.00	0.72	0.54	0.63	0.95	3.2							1.21	1.12	1.45																												
20		93.04	3.10	0.75	0.72	0.74	1.14	3.2							1.04	0.99	1.24																												
20.5		92.94	3.20	0.84	1.01	0.93	1.48	3.2							0.97	0.97	1.16																												
21		92.89	3.25	0.86	1.12	0.99	1.61	3.2							0.90	0.90	1.04																												
21.5		92.84	3.30	0.87	1.11	0.99	1.63	3.2							0.91	0.91	1.02																												
22		92.84	3.30	0.72	1.04	0.88	1.45	3.2							1.06	1.06	1.19																												
22.5		92.74	3.40	0.78	0.93	0.86	1.45	3.2							0.99	0.99	1.06																												
23		92.94	3.20	0.54	0.84	0.69	1.10	3.2							1.10	1.05																													
23.5		92.94	3.20	0.54	0.84	0.69	1.10	3.2							1.10	1.05																													
24		93.09	3.05	0.28	0.68	0.48	1.10	3.2							1.06	1.06	0.90																												
25		93.34	2.80	0.02	0.67	0.35	0.97	3.2							1.55	0.93	0.72																												
26		93.74	2.40	0.51		0.51	1.22	3.2							0.88	0.88	0.66																												
27		94.04	2.10	0.46		0.46	0.72	3.2							0.81	0.81	0.49																												
27.5		94.14	2.00	0.13		0.13	0.13	3.2							0.12	0.12	0.02																												
28.0		95.44	0.70	0.03		0.03	0.01	3.2							0.00	0.00	0.00																												
28.4		96.14	0.00	0.00		0.00	0.00	3.2							0.00	0.00	0.00																												
RWEE																																													

Sta	FS	Ground	Depth	Vel (ft/s)	Vel (ft/s)	q	substrate
(ft)	(ft)	(ft)	(ft)	V _{0.2/0.6}	V _{0.8}	Ave	
13.50			0.00			0.00	0.00
14.00			2.45	0.39	0.84	0.39	0.48
14.50			2.45	0.84	0.84	0.84	1.03
15.00			2.45	0.91	0.91	0.91	1.11
15.50			2.50	1.07	0.98	1.03	1.28
16.00			2.55	1.12	0.99	1.06	1.35
16.50			2.65	1.10	1.15	1.13	1.46
17.00			2.65	1.05	1.18	1.12	1.48
17.50			2.60	1.02	1.21	1.12	1.45
18.00			2.50	0.94	1.04	0.99	1.24
18.50			2.40	0.97	0.97	0.97	1.16
19.00			2.30	0.90	0.90	0.90	1.04
19.50			2.25	0.91	0.91	0.91	1.02
20.00			2.25	1.06	1.06	1.06	1.19
20.50			2.15	0.99	0.99	0.99	1.06
21.00			1.90	1.10	1.10	1.10	1.05
21.50			1.70	1.02	1.02	1.02	0.87
22.00			1.70	1.06	1.06	1.06	0.90
22.50			1.55	0.93	0.93	0.93	0.72
23.00			1.50	0.88	0.88	0.88	0.66
23.50			1.20	0.81	0.81	0.81	0.49
24.00			0.25	0.12	0.12	0.12	0.02
24.00			0.00	0.00	0.00	0.00	0.00
25.00							
RWEE							

Q transect: 45' below irrigation pipe



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RUN                HIGH                TRANSECT 1
IOC                1101100100001000101000
QARD 8.0
QARD 9.0
QARD 10.0
QARD 11.0
QARD 12.1
QARD 13.0
QARD 14.0
QARD 15.0
QARD 16.0
QARD 17.0
QARD 18.0
QARD 19.0
QARD 20.0
QARD 21.1
QARD 21.6
QARD 24.0
QARD 26.0
QARD 28.0
QARD 30.0
QARD 32.0
QARD 34.0
QARD 36.0
QARD 38.0
QARD 40.0
QARD 42.0
QARD 44.0
QARD 47.0
QARD 50.0
QARD 53.0
QARD 56.0
XSEC 0.0          0.0 1.0    93.055  0.00108
0.0  0.0 99.3  1.5 99.2  3.0 98.7  4.5 98.5  6.0 98.3  7.5 98.0
0.0  9.0 97.7 10.5 97.6 12.0 97.6 13.5 97.5 15.0 97.3 16.5 96.8
0.0 18.0 96.0 19.0 95.6 20.0 95.0 21.0 94.5 22.0 94.3 22.5 94.1
0.0 23.0 94.1 23.5 94.0 24.0 94.1 24.5 94.0 25.0 93.9 25.5 93.9
0.0 26.0 93.8 26.5 93.8 27.0 93.7 27.5 93.7 28.0 93.7 28.5 93.7
0.0 29.0 93.7 29.5 93.6 30.0 93.5 30.5 93.3 31.0 93.1 31.5 93.1
0.0 31.7 95.3 34.0 95.5 36.0 96.0 38.0 96.0 40.0 96.2 42.0 96.5
0.0 44.0 95.8 46.0 97.1 48.0 97.5 48.5 99.9 49.9 99.9
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
NS 0.0          1.0 .20    1.0 .15    1.0 .1    3.0          3.0          3.0
NS 0.0          3.0          3.0          3.0          3.0          3.0          3.0
NS 0.0          3.0          3.0          3.0          3.0          3.0          3.0
NS 0.0          3.0          3.0          3.0          3.0 .2    3.0 .25    3.0
NS 0.0 .15    1.0 .2    1.0 .2    1.0 .5    1.0          1.0          1.0
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
WSL 0.0          95.01    95.10    95.18    95.26    95.36    95.47
WSL 0.0          95.55    95.61    95.67    95.73    95.79    95.85
WSL 0.0          95.90    95.96    95.99    96.18    96.27    96.35
WSL 0.0          96.42    96.49    96.60    96.66    96.71    96.77
WSL 0.0          96.82    96.87    96.95    97.02    97.09    97.16
CAL1 0.0          95.960    21.10
VEL1 0.0
VEL1 0.0 0.00 0.09 0.10 0.29 0.73 1.07 1.18 1.26 1.25 1.32 1.31 1.23
VEL1 0.0 1.21 1.17 1.07 1.09 0.94 1.08 0.93 0.96 0.55 0.48 0.28 0.38
VEL1 0.0 0.04 0.01 0.00
CAL2 0.0          95.850    21.10
VEL2 0.0
VEL2 0.0
VEL2 0.0
VEL2 0.0
CAL3 0.0          95.360    12.10
VEL3 0.0
VEL3 0.0
VEL3 0.0
VEL3 0.0
ENDJ

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RUN                HIGH                TRANSECT 2
IOC                1101100100001000101000
QARD 8.0
QARD 9.0
QARD 10.0
QARD 11.0
QARD 12.1
QARD 13.0
QARD 14.0
QARD 15.0
QARD 16.0
QARD 17.0
QARD 18.0
QARD 19.0
QARD 20.0
QARD 21.1
QARD 21.6
QARD 24.0
QARD 26.0
QARD 28.0
QARD 30.0
QARD 32.0
QARD 34.0
QARD 36.0
QARD 38.0
QARD 40.0
QARD 42.0
QARD 44.0
QARD 47.0
QARD 50.0
QARD 53.0
QARD 56.0
XSEC 0.0          0.0 1.0          92.57 0.00108
0.0 0.0 99.1 1.5 98.7 3.0 98.3 4.5 97.8 6.0 97.6 7.5 97.8
0.0 9.0 97.6 10.5 96.9 12.0 96.1 13.0 96.0 14.0 93.8 15.0 93.5
0.0 15.5 93.6 16.0 93.7 16.5 93.7 17.0 93.6 17.5 93.4 18.0 93.3
0.0 18.5 93.4 19.0 93.5 19.5 93.5 20.0 93.4 20.5 93.3 21.0 93.2
0.0 21.5 93.0 22.0 92.8 22.5 92.6 23.0 94.8 24.0 95.4 25.0 95.3
0.0 26.0 95.7 27.0 96.0 28.0 96.1 30.0 95.8 32.0 95.8 33.0 95.7
0.0 35.0 96.9 37.0 96.8 39.0 97.0 41.0 97.2 43.0 97.4 45.0 98.1
0.0 47.0 98.3 49.0 98.7 51.0 99.3 53.0 99.9 55.0 100.1 55.8 100.1
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
NS 0.0          1.0          1.0          1.0          3.0          3.0          3.0
NS 0.0          3.0          3.0          3.0          3.0          3.0          3.0
NS 0.0          3.0          3.0          3.0          3.0          3.0          3.0
NS 0.0          3.0 0.5 3.0          3.0 -0.5 1.0          1.0          1.0
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
WSL 0.0          95.04          95.13          95.21          95.29          95.39          95.50
WSL 0.0          95.58          95.63          95.69          95.75          95.81          95.87
WSL 0.0          95.92          95.98          96.01          96.20          96.29          96.37
WSL 0.0          96.44          96.51          96.61          96.67          96.72          96.78
WSL 0.0          96.83          96.88          96.96          97.03          97.10          97.17
CAL1 0.0          95.970          21.10
VEL1 0.0
VEL1 0.0 0.87 0.81 0.84 0.96 0.91 0.87 0.83 0.83 0.89 0.99 1.15 1.29
VEL1 0.0 1.40 1.01 0.38-0.05-0.06-0.07-0.04 0.00
VEL1 0.0
CAL2 0.0          95.880          21.10
VEL2 0.0
VEL2 0.0
VEL2 0.0
VEL2 0.0
CAL3 0.0          95.380          12.10
VEL3 0.0
VEL3 0.0
VEL3 0.0
VEL3 0.0
ENDJ

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RUN                HIGH                TRANSECT 3
IOC                1101100100001000101000
QARD 8.0
QARD 9.0
QARD 10.0
QARD 11.0
QARD 12.1
QARD 13.0
QARD 14.0
QARD 15.0
QARD 16.0
QARD 17.0
QARD 18.0
QARD 19.0
QARD 20.0
QARD 21.1
QARD 21.6
QARD 24.0
QARD 26.0
QARD 28.0
QARD 30.0
QARD 32.0
QARD 34.0
QARD 36.0
QARD 38.0
QARD 40.0
QARD 42.0
QARD 44.0
QARD 47.0
QARD 50.0
QARD 53.0
QARD 56.0
XSEC 0.0          0.0 1.0      92.740  0.00108
0.0  0.0 99.7  1.5 99.3  3.0 98.8  4.5 98.7  6.0 98.4  7.5 97.9
0.0  9.0 99.1 10.5 97.9 12.0 97.7 13.5 97.1 15.0 96.2 15.1 96.1
0.0 15.5 93.7 16.5 93.2 17.0 93.6 17.5 93.6 18.0 93.5 18.5 93.5
0.0 19.0 93.1 19.5 93.1 20.0 93.0 20.5 92.9 21.0 92.9 21.5 92.8
0.0 22.0 92.8 22.5 92.7 23.0 92.7 23.5 92.9 24.0 93.1 25.0 93.3
0.0 26.0 93.7 27.0 94.0 27.5 94.1 28.0 95.4 28.4 96.1 30.0 96.7
0.0 31.0 98.0 33.0 98.2 35.0 98.0 37.0 98.3 38.0 99.1 39.0 100.1
0.0 40.7 99.9
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
NS 0.0          1.0          1.0          1.0          1.0          1.0          3.2
NS 0.0 0.6      3.2 .5      3.2          3.2          3.2          3.2          3.2
NS 0.0          3.2          3.2          3.2          3.2          3.2          3.2
NS 0.0          3.2          3.2          3.2          3.2          3.2          3.2
NS 0.0          3.2          3.2 .25      3.2 0.4      3.2          3.2          1.0
NS 0.0          1.0          1.0          1.0          1.0          1.0          1.0
NS 0.0          1.0
WSL 0.0          95.21      95.31      95.39      95.48      95.58      95.68
WSL 0.0          95.75      95.81      95.87      95.93      95.99      96.05
WSL 0.0          96.10      96.16      96.18      96.36      96.45      96.53
WSL 0.0          96.60      96.67      96.77      96.83      96.88      96.94
WSL 0.0          96.99      97.04      97.13      97.20      97.27      97.34
CAL1 0.0          96.140      21.10
VEL1 0.0
VEL1 0.0 0.01 0.13 0.36 0.53 0.60 0.72 0.75 0.63 0.74 0.93 0.99 0.99
VEL1 0.0 0.88 0.86 0.81 0.69 0.48 0.35 0.51 0.46 0.13 0.03 0.00
VEL1 0.0
CAL2 0.0          96.100      21.10
VEL2 0.0
VEL2 0.0
VEL2 0.0
VEL2 0.0
CAL3 0.0          95.600      12.10
VEL3 0.0
VEL3 0.0
VEL3 0.0
VEL3 0.0
ENDJ

```