SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi	**Begin Time:**	11:15
Date:	3/25/01	**End Time:**	
Location:	LSFELK	**Begin Gage Height:**	21.00 ft
Site:	LSFEOG	**End Gage Height:**	ft
Meter:	**Type:** Pygmy	**Accuracy Rating:**	
Spin Test (pre-Q):	68	**Water Temperature:**	
Spin Test (post-Q):		**Air Temperature:**	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
1		1.00	6.0	4.00	1.70	4.35		11			41.9		0.00	0.28	0.00	0.00	0.28	6.80	1.94	18.80%	
2		1.00	10.0	4.00	1.60	4.00		8			41.8		0.00	0.22	0.00	0.00	0.22	6.40	1.38	13.36%	
3		1.00	14.0	4.00	1.60	4.00		7			40.8		0.00	0.20	0.00	0.00	0.20	6.40	1.25	12.17%	
4		1.00	18.0	4.00	1.00	4.04		12			42.2		0.00	0.31	0.00	0.00	0.31	4.00	1.22	11.87%	
5		1.00	22.0	4.00	1.00	4.00		16			41.6		0.00	0.40	0.00	0.00	0.40	4.00	1.62	15.69%	
6		1.00	26.0	4.00	1.10	4.00		13			42.6		0.00	0.33	0.00	0.00	0.33	4.40	1.44	13.94%	
7		1.00	30.0	5.00	1.00	4.00		11			40.7		0.00	0.29	0.00	0.00	0.29	5.00	1.46	14.17%	
Right Edge of Water			36			6.08															
					Totals:	34.48												37.00	10.30		

Summary:

Discharge:	10.30 cfs
Width:	34.0 ft
Area:	37.00 ft^2
Mean Depth:	1.09 ft
Mean Velocity:	0.28 fps
Max % Flow:	18.80%
Wetted Perimeter	34.48 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF/JN		**Begin Time:**	14:22	
Date:	4/18/00		**End Time:**	14:48	
Location:	NFElk		**Begin Gage Height:**	NS	ft
Site:	KRW		**End Gage Height:**	NS	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	90 sec +		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

NS = Not Stated

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			1.0																		
1		1.00	3.0	1.50	1.90	2.76		18		40.5		0.00	0.99	0.00	0.00	0.99	2.85	2.82	4.02%	
2		1.00	4.0	1.00	2.00	1.00		12		42.1		0.00	0.64	0.00	0.00	0.64	2.00	1.28	1.83%	
3		1.00	5.0	1.00	2.00	1.00		25		41.0		0.00	1.35	0.00	0.00	1.35	2.00	2.70	3.85%	
4		1.00	6.0	1.00	1.80	1.02		27		40.3		0.00	1.48	0.00	0.00	1.48	1.80	2.67	3.81%	
5		1.00	7.0	1.00	2.00	1.02		29		40.5		0.00	1.58	0.00	0.00	1.58	2.00	3.16	4.51%	
6		1.00	8.0	1.00	1.90	1.00		27		41.0		0.00	1.45	0.00	0.00	1.45	1.90	2.76	3.95%	
7		1.00	9.0	1.00	1.90	1.00		18		41.0		0.00	0.98	0.00	0.00	0.98	1.90	1.85	2.65%	
8		1.00	10.0	1.00	2.00	1.00		27		39.9		0.00	1.49	0.00	0.00	1.49	2.00	2.99	4.27%	
9		1.00	11.0	1.00	1.90	1.00		33		40.8		0.00	1.78	0.00	0.00	1.78	1.90	3.39	4.83%	
10		1.00	12.0	1.00	2.00	1.00		34		40.1		0.00	1.87	0.00	0.00	1.87	2.00	3.73	5.33%	
11		1.00	13.0	1.00	2.20	1.02		39		41.2		0.00	2.08	0.00	0.00	2.08	2.20	4.58	6.55%	
12		1.00	14.0	1.00	2.10	1.00		28		42.3		0.00	1.46	0.00	0.00	1.46	2.10	3.07	4.39%	
13		1.00	15.0	1.00	2.10	1.00		32		40.3		0.00	1.75	0.00	0.00	1.75	2.10	3.68	5.25%	
14		1.00	16.0	1.00	2.10	1.00		35		40.1		0.00	1.92	0.00	0.00	1.92	2.10	4.04	5.77%	
15		1.00	17.0	1.00	1.90	1.02		23		41.4		0.00	1.23	0.00	0.00	1.23	1.90	2.34	3.34%	
16		1.00	18.0	1.00	2.00	1.00		38		40.1		0.00	2.09	0.00	0.00	2.09	2.00	4.17	5.96%	
17		1.00	19.0	1.00	2.00	1.00		34		41.3		0.00	1.82	0.00	0.00	1.82	2.00	3.63	5.18%	
18		1.00	20.0	1.00	2.00	1.00		24		40.1		0.00	1.32	0.00	0.00	1.32	2.00	2.65	3.78%	
19		1.00	21.0	1.00	2.10	1.00		28		40.8		0.00	1.52	0.00	0.00	1.52	2.10	3.18	4.54%	
20		1.00	22.0	1.00	2.20	1.00		31		40.3		0.00	1.70	0.00	0.00	1.70	2.20	3.74	5.34%	
21		1.00	23.0	1.00	2.40	1.02		25		40.4		0.00	1.37	0.00	0.00	1.37	2.40	3.28	4.69%	
22		1.00	24.0	1.00	2.20	1.02		23		41.0		0.00	1.24	0.00	0.00	1.24	2.20	2.73	3.90%	
23		1.00	25.0	1.00	1.20	1.41		29		49.0		0.00	1.31	0.00	0.00	1.31	1.20	1.57	2.25%	
REW			26																		
					Totals:	25.34												46.85	70.03		

Summary:

Discharge:	70.03 cfs
Width:	25.0 ft
Area:	46.85 ft^2
Mean Depth:	1.87 ft
Mean Velocity:	1.49 fps
Max % Flow:	6.55%
Wetted Perimeter	25.34 ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1 // stage 6'6" Alder Bridge // Peak 3'1" above level now // HACH 54.8 NTU

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF/EN			**Begin Time:**	16:30		
Date:	12/2/00			**End Time:**	17:00		
Location:	NFELK			**Begin Gage Height:**	1.52	ft	NS = Not Stated
Site:	NFELK			**End Gage Height:**	1.52	ft	
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	60			**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
							0.2	0.6	0.8				At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)				(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			3.0																		
1		1.00	3.8	0.50	2.42	2.53		0			0.0		0.00	0.00	0.00	0.00	0.00	1.21	0.00	0.00%	
2		1.00	4.0	0.38	2.35	0.26		7			40.5		0.00	0.40	0.00	0.00	0.40	0.88	0.35	2.15%	
3		1.00	4.5	0.50	2.45	0.51		8			44.0		0.00	0.42	0.00	0.00	0.42	1.23	0.51	3.14%	
4		1.00	5.0	0.50	2.50	0.50		12			42.0		0.00	0.64	0.00	0.00	0.64	1.25	0.80	4.95%	
5		1.00	5.5	0.50	2.45	0.50		15			40.4		0.00	0.83	0.00	0.00	0.83	1.23	1.02	6.26%	
6		1.00	6.0	0.50	2.40	0.50		16			42.8		0.00	0.83	0.00	0.00	0.83	1.20	1.00	6.17%	
7		1.00	6.5	0.50	2.33	0.50		17			41.5		0.00	0.91	0.00	0.00	0.91	1.17	1.06	6.56%	
8		1.00	7.0	0.50	2.30	0.50		18			40.7		0.00	0.98	0.00	0.00	0.98	1.15	1.13	6.97%	
9		1.00	7.5	0.50	2.20	0.51		20			40.9		0.00	1.09	0.00	0.00	1.09	1.10	1.20	7.37%	
10		1.00	8.0	0.50	2.10	0.51		20			40.7		0.00	1.09	0.00	0.00	1.09	1.05	1.15	7.06%	
11		1.00	8.5	0.50	2.00	0.51		19			40.6		0.00	1.04	0.00	0.00	1.04	1.00	1.04	6.42%	
12		1.00	9.0	0.50	1.90	0.51		15			40.5		0.00	0.83	0.00	0.00	0.83	0.95	0.79	4.85%	
13		1.00	9.5	0.50	1.70	0.54		18			41.3		0.00	0.97	0.00	0.00	0.97	0.85	0.83	5.09%	
14		1.00	10.0	0.50	1.70	0.50		23			40.8		0.00	1.25	0.00	0.00	1.25	0.85	1.06	6.54%	
15		1.00	10.5	0.50	1.60	0.51		23			40.8		0.00	1.25	0.00	0.00	1.25	0.80	1.00	6.15%	
16		1.00	11.0	0.50	1.60	0.50		21			41.6		0.00	1.12	0.00	0.00	1.12	0.80	0.90	5.53%	
17		1.00	11.5	0.50	1.55	0.50		18			41.0		0.00	0.98	0.00	0.00	0.98	0.78	0.76	4.67%	
18		1.00	12.0	0.50	1.50	0.50		14			42.3		0.00	0.74	0.00	0.00	0.74	0.75	0.56	3.43%	
19		1.00	12.5	0.50	1.45	0.50		14			47.2		0.00	0.67	0.00	0.00	0.67	0.73	0.48	2.98%	
20		1.00	13.0	0.50	1.48	0.50		8			42.7		0.00	0.43	0.00	0.00	0.43	0.74	0.32	1.95%	
21		1.00	13.5	0.50	1.40	0.51		4			57.7		0.00	0.17	0.00	0.00	0.17	0.70	0.12	0.74%	
22		1.00	14.0	0.50	1.30	0.51		3			40.3		0.00	0.18	0.00	0.00	0.18	0.65	0.12	0.73%	
23		1.00	14.5	0.50	1.20	0.51		1			40.7		0.00	0.07	0.00	0.00	0.07	0.60	0.04	0.27%	
24		1.00	15.0	0.50		1.30		0					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
25		1.00	15.5	1.00		0.50							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			17																		
					Totals:	15.24												21.65	16.23		

Summary:

Discharge:	16.23 cfs
Width:	14.0 ft
Area:	21.65 ft^2
Mean Depth:	1.55 ft
Mean Velocity:	0.75 fps
Max % Flow:	7.37%
Wetted Perimeter	15.24 ft

Notes:

Section:	10' Above staff plate.
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	C FENTON J NOELL		**Begin Time:**	14:11	
Date:	4/2/01		**End Time:**	14:46	
Location:	NFELK		**Begin Gage Height:**	1.82	ft
Site:	NFELK AT BRIDGE		**End Gage Height:**	1.82	ft
Meter:	**Type:**	AA	**Accuracy Rating:**		
Spin Test (pre-Q):	90		**Water Temperature:**		
Spin Test (post-Q):			**Air Temperature:**		

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point	At point	At Point	Mean in					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	0.2	0.6	0.8	Vertical	Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
1		1.00	3.0	1.50	1.90	2.15		4			45.9		0.00	0.21	0.00	0.00	0.21	2.85	0.60	3.25%	
2		1.00	5.0	1.75	2.70	2.15		9			43.4		0.00	0.47	0.00	0.00	0.47	4.73	2.23	12.11%	
3		1.00	6.5	1.25	2.50	1.51		10			43.5		0.00	0.52	0.00	0.00	0.52	3.13	1.63	8.85%	
4		1.00	7.5	1.00	2.40	1.00		11			43.3		0.00	0.57	0.00	0.00	0.57	2.40	1.38	7.47%	
5		1.00	8.5	1.00	2.50	1.00		11			41.9		0.00	0.59	0.00	0.00	0.59	2.50	1.48	8.04%	
6		1.00	9.5	0.75	2.40	1.00		10			41.6		0.00	0.54	0.00	0.00	0.54	1.80	0.98	5.32%	
7		1.00	10.5	1.00	3.40	1.41		11			45.2		0.00	0.55	0.00	0.00	0.55	3.40	1.87	10.17%	
8		1.00	10.0	1.00	2.50	0.51		9			42.9		0.00	0.48	0.00	0.00	0.48	2.50	1.19	6.48%	
9		1.00	11.5	1.25	2.30	1.51		12			43.0		0.00	0.63	0.00	0.00	0.63	2.88	1.80	9.80%	
10		1.00	12.0	1.00	2.20	0.51		11			45.1		0.00	0.55	0.00	0.00	0.55	2.20	1.21	6.59%	
11		1.00	12.5	1.00	2.10	1.02		12			43.1		0.00	0.63	0.00	0.00	0.63	2.10	1.32	7.15%	
12		1.00	13.5	1.00	1.80	1.04		11			42.6		0.00	0.58	0.00	0.00	0.58	1.80	1.05	5.69%	
13		1.00	14.5	1.00	1.60	1.02		9			43.2		0.00	0.47	0.00	0.00	0.47	1.60	0.76	4.12%	
14		1.00	15.5	1.10	1.20	1.08		8			41.2		0.00	0.44	0.00	0.00	0.44	1.32	0.59	3.18%	
15		1.00	16.7	1.50	0.80	1.26		5			42.8		0.00	0.27	0.00	0.00	0.27	1.20	0.33	1.79%	
Right Edge of Water			18.5			1.97															
					Totals:	20.17												36.40	18.43		

Summary:

Discharge:	18.43 cfs
Width:	16.5 ft
Area:	36.40 ft^2
Mean Depth:	2.21 ft
Mean Velocity:	0.51 fps
Max % Flow:	12.11%
Wetted Perimeter	20.17 ft

Notes:

Section: Bank full. 9-10 in depth. @ Staff plate.

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi / Joyce King	**Begin Time:**	15:15		
Date:	4/5/01	**End Time:**			
Location:	ELK	**Begin Gage Height:**	22"	ft	NS = Not Stated
Site:	LSFELK	**End Gage Height:**		ft	
Meter:	Pygmy Type:	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	75	**Water Temperature:**	NS		
Spin Test (post-Q):	NS	**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water																					
Dead Left Edge of Water			0.0		0																
1		1.00	6.0	5.00	1.80	6.26		15		43.9			0.00	0.36	0.00	0.00	0.36	9.00	3.26	21.75%	Stage = 22"
2		1.00	10.0	4.00	1.80	4.00		14		42.8			0.00	0.35	0.00	0.00	0.35	7.20	2.50	16.71%	
3		1.00	14.0	4.00	1.70	4.00		11		42.1			0.00	0.28	0.00	0.00	0.28	6.80	1.93	12.87%	
4		1.00	18.0	4.00	1.60	4.00		8		44.2			0.00	0.20	0.00	0.00	0.20	6.40	1.31	8.76%	
5		1.00	22.0	4.00	1.10	4.03		21		41.4			0.00	0.52	0.00	0.00	0.52	4.40	2.31	15.39%	
6		1.00	26.0	4.00	1.10	4.00		17		44.6			0.00	0.40	0.00	0.00	0.40	4.40	1.76	11.76%	
7		1.00	30.0	4.00	1.20	4.00		16		42.2			0.00	0.40	0.00	0.00	0.40	4.80	1.91	12.76%	
Right Edge of Water			34			4.18		0													
					Totals:	34.48												43.00	14.98		

Summary:

Discharge:	**14.98** cfs
Width:	**34.0** ft
Area:	**43.00** ft^2
Mean Depth:	**1.26** ft
Mean Velocity:	**0.35** fps
Max % Flow:	**21.75%**
Wetted Perimeter	**34.48** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	17:14	
Date:	1/14/00		**End Time:**	NS	NS =Not Stated
Location:	LSFElk		**Begin Gage Height:**	NS	ft
Site:	2nd Iron Bridge		**End Gage Height:**	NS	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	NS		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			43.0																		
1		1.00	40.0	2.50	1.60	3.40		44			40.1		0.00	2.41	0.00	0.00	2.41	4.00	9.64	######	
2		1.00	38.0	2.00	0.90	2.12		48			40.0		0.00	2.63	0.00	0.00	2.63	1.80	4.74	######	
3		1.00	36.0	2.00	0.80	2.00		49			40.5		0.00	2.66	0.00	0.00	2.66	1.60	4.25	######	
4		1.00	34.0	2.00	0.80	2.00		41			40.5		0.00	2.23	0.00	0.00	2.23	1.60	3.56	######	
5		1.00	32.0	2.00	1.00	2.01		46			40.1		0.00	2.52	0.00	0.00	2.52	2.00	5.04	######	
6		1.00	30.0	2.00	0.00	2.24		NS					0.00	######	0.00	0.00	#VALUE!	0.00	######	######	
7		1.00	28.0	2.00	1.30	2.39		63			40.5		0.00	3.41	0.00	0.00	3.41	2.60	8.85	######	
8		1.00	26.0	2.00	1.30	2.00		47			40.5		0.00	2.55	0.00	0.00	2.55	2.60	6.63	######	
9		1.00	24.0	2.00	1.10	2.01		93			41.0		0.00	4.95	0.00	0.00	4.95	2.20	10.89	######	
10		1.00	22.0	2.00	1.30	2.01		81			40.5		0.00	4.37	0.00	0.00	4.37	2.60	11.36	######	
11		1.00	20.0	2.00	1.30	2.00		74			40.0		0.00	4.04	0.00	0.00	4.04	2.60	10.52	######	
12		1.00	18.0	2.00	1.20	2.00		104			40.5		0.00	5.60	0.00	0.00	5.60	2.40	13.45	######	
13		1.00	16.0	2.00	1.40	2.01		73			41.0		0.00	3.89	0.00	0.00	3.89	2.80	10.90	######	
14		1.00	14.0	2.00	1.40	2.00		71			40.0		0.00	3.88	0.00	0.00	3.88	2.80	10.87	######	
15		1.00	12.0	2.00	1.60	2.01		65			40.0		0.00	3.56	0.00	0.00	3.56	3.20	11.38	######	
16		1.00	10.0	5.50	1.40	2.01		43			40.5		0.00	2.33	0.00	0.00	2.33	7.70	17.97	######	
REW			1																		
						Totals:	34.21											42.50	######		

Summary:

Discharge:	#VALUE!	cfs
Width:	42.0	ft
Area:	42.50	ft^2
Mean Depth:	1.01	ft
Mean Velocity:	#VALUE!	fps
Max % Flow:	#VALUE!	
Wetted Perimeter	34.21	ft

Notes:

Section: Below confluence with trid at brdge

Flow Conditions:

Weather:

Control:

Remarks: Sample tken at River left Duty ??? Stage at bridge from 4 plate 5-3 feet.

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN	**Begin Time:**	10:15
Date:	1/14/00	**End Time:**	10:35
Location:	LLSFElk	**Begin Gage Height:**	5" down trail sign base NS = Not Stated
Site:		**End Gage Height:**	ft
Meter:	Price **Type:** AA	**Accuracy Rating:**	NS
Spin Test (pre-Q):	NS	**Water Temperature:**	NS
Spin Test (post-Q):	NS	**Air Temperature:**	NS

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			4.0																		
1		1.00	6.0	2.00	2.90	3.52		80			41.0		0.00	4.26	0.00	0.00	4.26	5.80	24.73	29.85%	
2		1.00	8.0	2.00	2.80	2.00		90			40.5		0.00	4.85	0.00	0.00	4.85	5.60	27.15	32.77%	
3		1.00	10.0	2.00	1.30	2.50		27			40.5		0.00	1.47	0.00	0.00	1.47	2.60	3.83	4.62%	
4		1.00	12.0	2.00	1.10	2.01		69			40.7		0.00	3.71	0.00	0.00	3.71	2.20	8.16	9.85%	
5		1.00	14.0	2.00	1.10	2.00		40			50.9		0.00	1.74	0.00	0.00	1.74	2.20	3.82	4.61%	
6		1.00	16.0	2.00	0.90	2.01		75			40.6		0.00	4.04	0.00	0.00	4.04	1.80	7.27	8.77%	
7		1.00	18.0	2.00	0.90	2.00		48			40.7		0.00	2.59	0.00	0.00	2.59	1.80	4.66	5.62%	
8		1.00	20.0	2.00	0.90	2.00		29			41.6		0.00	1.54	0.00	0.00	1.54	1.80	2.77	3.34%	
9		1.00	22.0	2.00	0.30	2.09		14			40.6		0.00	0.77	0.00	0.00	0.77	0.60	0.46	0.56%	
REW			24																		
					Totals:	**20.13**												24.40	82.86		

Summary:

Discharge:	82.86 cfs
Width:	20.0 ft
Area:	24.40 ft^2
Mean Depth:	1.22 ft
Mean Velocity:	3.40 fps
Max % Flow:	32.77%
Wetted Perimeter	20.13 ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Water sample taken, harvest units above water turbid will investigate for bank failures after sampling SFE below OG

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	12:40	
Date:	1/14/00		**End Time:**	1:40	
Location:	Edge of old growth		**Begin Gage Height:**	NS	ft
Site:	LSFEOG		**End Gage Height:**	NS	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	CS (Clicks) 1		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

NS = Not Stated

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			4.0																		
1		1.00	5.0	1.00	1.50	1.80		30			40.1		0.00	1.65	0.00	0.00	1.65	1.50	2.48	2.26%	
2		1.00	6.0	1.00	1.90	1.08		103			40.6		0.00	5.54	0.00	0.00	5.54	1.90	10.52	9.62%	
3		1.00	7.0	1.00	1.90	1.00		79			40.7		0.00	4.24	0.00	0.00	4.24	1.90	8.05	7.36%	
4		1.00	8.0	1.00	1.50	1.08		127			40.8		0.00	6.78	0.00	0.00	6.78	1.50	10.18	9.30%	
5		1.00	9.0	1.00	1.50	1.00		115			40.0		0.00	6.27	0.00	0.00	6.27	1.50	9.40	8.60%	
6		1.00	10.0	1.00	1.50	1.00		49			41.7		0.00	2.58	0.00	0.00	2.58	1.50	3.87	3.54%	
7		1.00	11.0	1.00	1.80	1.04		142			41.3		0.00	7.49	0.00	0.00	7.49	1.80	13.48	12.33%	
8		1.00	12.0	1.00	2.00	1.02		150			41.5		0.00	7.87	0.00	0.00	7.87	2.00	15.75	14.40%	
9		1.00	13.0	1.00	1.50	1.12		142			40.5		0.00	7.63	0.00	0.00	7.63	1.50	11.45	10.47%	
10		1.00	14.0	1.00	1.90	1.08		112			40.6		0.00	6.01	0.00	0.00	6.01	1.90	11.43	10.45%	
11		1.00	15.0	1.00	1.30	1.17		84			40.4		0.00	4.55	0.00	0.00	4.55	1.30	5.91	5.40%	
12		1.00	16.0	1.50	1.10	1.02		59			40.7		0.00	3.18	0.00	0.00	3.18	1.65	5.24	4.79%	
14		1.00	18.0	1.50	0.90	2.01		22			40.8		0.00	1.19	0.00	0.00	1.19	1.35	1.61	1.47%	
REW			19																		
					Totals:	15.41												21.30	109.37		

Summary:

Discharge:	109.37 cfs
Width:	15.0 ft
Area:	21.30 ft^2
Mean Depth:	1.42 ft
Mean Velocity:	5.13 fps
Max % Flow:	14.40%
Wetted Perimeter	15.41 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Rain stage might have dropped an 1" 31.2 NTU 1-15-00 14:14 Hach 2100 P

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	EN / Seth Farthi	**Begin Time:**	14:15
Date:	3/24/01	**End Time:**	
Location:	LSFELK	**Begin Gage Height:**	19.75" ft
Site:	LSFELKOG	**End Gage Height:**	ft
Meter:	SF #3 **Type:** Pygmy	**Accuracy Rating:**	
Spin Test (pre-Q):	72	**Water Temperature:**	
Spin Test (post-Q):		**Air Temperature:**	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			45.0																		
1		1.00	39.0	6.50	1.40	6.16		2			47.5		0.00	0.07	0.00	0.00	0.07	9.10	0.63	17.27%	
2		1.00	32.0	5.50	1.30	7.00		0			0.0		0.00	0.00	0.00	0.00	0.00	7.15	0.00	0.00%	
3		1.00	28.0	4.00	1.30	4.00		0			0.0		0.00	0.00	0.00	0.00	0.00	5.20	0.00	0.00%	
4		1.00	24.0	4.00	1.00	4.01		8			44.5		0.00	0.20	0.00	0.00	0.20	4.00	0.82	22.39%	
5		1.00	20.0	5.00	0.60	4.02		14			41.9		0.00	0.35	0.00	0.00	0.35	3.00	1.06	29.18%	
6		1.00	14.0	5.00	0.50	6.00		15			50.7		0.00	0.32	0.00	0.00	0.32	2.50	0.79	21.78%	
7		1.00	10.0	4.00	0.45	4.00		7			42.2		0.00	0.19	0.00	0.00	0.19	1.80	0.34	9.39%	
8		1.00	6.0	5.00	0.60	4.00		0					0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00%	
Right Edge of Water						6.03															
					Totals:	45.23												35.75	3.64		

Summary:

Discharge:	3.64 cfs
Width:	45.0 ft
Area:	35.75 ft^2
Mean Depth:	0.79 ft
Mean Velocity:	0.10 fps
Max % Flow:	29.18%
Wetted Perimeter	45.23 ft

Notes:

Section: Stage conditions= 36"

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi		**Begin Time:**	11:15	
Date:	3/25/01		**End Time:**		
Location:	LSFELK		**Begin Gage Height:**	21.00	ft
Site:	LSFEOG		**End Gage Height:**		ft
Meter:		**Type:** Pygmy	**Accuracy Rating:**		
Spin Test (pre-Q):	68		**Water Temperature:**		
Spin Test (post-Q):			**Air Temperature:**		

Measurement No: | **Rating No:** | **Shift Adj:** | **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
1		1.00	6.0	#REF!	1.70	4.35		11			41.9		0.00	0.28	0.00	0.00	0.28	#REF!	#REF!	#REF!	
2		1.00	10.0	4.00	1.60	4.00		8			41.8		0.00	0.22	0.00	0.00	0.22	6.40	1.38	#REF!	
3		1.00	14.0	4.00	1.60	4.00		7			40.8		0.00	0.20	0.00	0.00	0.20	6.40	1.25	#REF!	
4		1.00	18.0	4.00	1.00	4.04		12			42.2		0.00	0.31	0.00	0.00	0.31	4.00	1.22	#REF!	
5		1.00	22.0	4.00	1.00	4.00		16			41.6		0.00	0.40	0.00	0.00	0.40	4.00	1.62	#REF!	
6		1.00	26.0	4.00	1.10	4.00		13			42.6		0.00	0.33	0.00	0.00	0.33	4.40	1.44	#REF!	
7		1.00	30.0	5.00	1.00	4.00		11			40.7		0.00	0.29	0.00	0.00	0.29	5.00	1.46	#REF!	
Right Edge of Water			36			6.08															
					Totals:	**34.48**												#REF!	#REF!		

Summary:

Discharge:	#REF!	cfs
Width:	34.0	ft
Area:	#REF!	ft^2
Mean Depth:	#REF!	ft
Mean Velocity:	#REF!	fps
Max % Flow:	#REF!	
Wetted Perimeter	34.48	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi	**Begin Time:**	8:15
Date:	3/25/01	**End Time:**	
Location:	LSFELK	**Begin Gage Height:**	22" ft
Site:	LSFEOG	**End Gage Height:**	ft
Meter:	Type: Pygmy	**Accuracy Rating:**	
Spin Test (pre-Q):	67	**Water Temperature:**	
Spin Test (post-Q):		**Air Temperature:**	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
1		1.00	6.0	4.00	1.70	4.35		12			42.0		0.00	0.31	0.00	0.00	0.31	6.80	2.09	18.62%	
2		1.00	10.0	4.00	1.60	4.00		10			41.6		0.00	0.26	0.00	0.00	0.26	6.40	1.68	14.99%	
3		1.00	14.0	4.00	1.60	4.00		8			41.0		0.00	0.22	0.00	0.00	0.22	6.40	1.40	12.46%	
4		1.00	18.0	4.00	1.00	4.04		14			41.6		0.00	0.36	0.00	0.00	0.36	4.00	1.43	12.72%	
5		1.00	22.0	4.00	1.00	4.00		17			41.7		0.00	0.43	0.00	0.00	0.43	4.00	1.70	15.19%	
6		1.00	26.0	4.00	1.10	4.00		12			42.1		0.00	0.31	0.00	0.00	0.31	4.40	1.35	12.02%	
7		1.00	30.0	5.00	1.00	4.00		12			40.9		0.00	0.31	0.00	0.00	0.31	5.00	1.57	14.01%	
Right Edge of Water			36			6.08															
					Totals:	34.48												37.00	11.23		

Summary:

Discharge:	**11.23**	cfs
Width:	**34.0**	ft
Area:	**37.00**	ft^2
Mean Depth:	**1.09**	ft
Mean Velocity:	**0.30**	fps
Max % Flow:	**18.62%**	
Wetted Perimeter	**34.48**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	MLA, JN		**Begin Time:**	13:50	
Date:	2/26/00		**End Time:**	14:00	
Location:	SFE (lower)		**Begin Gage Height:**	9" @ nail ft	NS = Not Stated
Site:	#28.5		**End Gage Height:**	9" @ nail ft	
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	NS		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			2.0																		
1		1.00	2.6	0.80	1.50	1.62		23			41.8		0.00	1.22	0.00	0.00	1.22	1.20	1.46	45.34%	
2		1.00	3.6	1.00	1.30	1.02		13			44.0		0.00	0.66	0.00	0.00	0.66	1.30	0.86	26.79%	
3		1.00	4.6	0.95	1.10	1.02		9			43.1		0.00	0.48	0.00	0.00	0.48	1.05	0.50	15.39%	
4		1.00	5.5	0.95	0.80	0.95		6			43.2		0.00	0.32	0.00	0.00	0.32	0.76	0.25	7.60%	
5		1.00	6.5	1.00	0.40	1.08		8			46.7		0.00	0.39	0.00	0.00	0.39	0.40	0.16	4.88%	
6		1.00	7.5	1.05		1.08							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			8.6																		
					Totals:	6.76												4.71	3.23		

Summary:

Discharge:	**3.23** cfs
Width:	**6.6** ft
Area:	**4.71** ft^2
Mean Depth:	**0.71** ft
Mean Velocity:	**0.69** fps
Max % Flow:	**45.34%**
Wetted Perimeter	**6.76** ft

Notes:

Section:	
Flow Conditions:	
Weather:	Click Setting = 1
Control:	
Remarks:	To use this flow meter, we took discharge @ a constrained area @ the base of a lateral scour pool, root waden horced.

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi		**Begin Time:**	12:00	
Date:	4/6/01		**End Time:**		
Location:	LSF		**Begin Gage Height:**	25.50	ft
Site:	LSFEOG		**End Gage Height:**		ft
Meter:		**Type:** Pygmy	**Accuracy Rating:**		
Spin Test (pre-Q):	75		**Water Temperature:**		
Spin Test (post-Q):			**Air Temperature:**		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			0.0																		
1		1.00	6.0	5.00	2.00	6.32		53			40.8		0.00	1.30	0.00	0.00	1.30	10.00	12.97	17.52%	
2		1.00	10.0	4.00	2.00	4.00		55			40.7		0.00	1.35	0.00	0.00	1.35	8.00	10.79	14.56%	
3		1.00	14.0	4.00	1.70	4.01		61			40.6		0.00	1.50	0.00	0.00	1.50	6.80	10.17	13.73%	
4		1.00	18.0	4.00	1.40	4.01		64			40.2		0.00	1.58	0.00	0.00	1.58	5.60	8.86	11.97%	
5		1.00	22.0	4.00	1.40	4.00		65			40.0		0.00	1.61	0.00	0.00	1.61	5.60	9.04	12.21%	
6		1.00	26.0	4.00	1.60	4.00		73			40.2		0.00	1.80	0.00	0.00	1.80	6.40	11.55	15.59%	
7		1.00	30.0	4.00	1.40	4.00		74			40.4		0.00	1.82	0.00	0.00	1.82	5.60	10.18	13.75%	
8		1.00	34.0	3.00	0.00	4.24		0			0.0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
9		1.00	36.0	4.00	0.00	2.00		0			0.0		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
10		1.00	42.0	3.00	0.50	6.02		13			42.2		0.00	0.33	0.00	0.00	0.33	1.50	0.49	0.67%	
Right Edge of Water			42			0.50															
					Totals:	43.12												49.50	74.06		

Summary:

Discharge:	**74.06** cfs
Width:	**42.0** ft
Area:	**49.50** ft^2
Mean Depth:	**1.18** ft
Mean Velocity:	**1.50** fps
Max % Flow:	**17.52%**
Wetted Perimeter	**43.12** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi		**Begin Time:**	16:01	
Date:	4/6/01		**End Time:**		
Location:	LSFELK		**Begin Gage Height:**	25"	ft
Site:	LSFEOG		**End Gage Height:**		ft
Meter:		**Type:** Pygmy	**Accuracy Rating:**		
Spin Test (pre-Q):	55		**Water Temperature:**		
Spin Test (post-Q):			**Air Temperature:**		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			0.0																		
1		1.00	6.0	5.00	2.00	6.32		47			40.6		0.00	1.16	0.00	0.00	1.16	10.00	11.59	16.71%	
2		1.00	10.0	4.00	2.00	4.00		51			41.2		0.00	1.24	0.00	0.00	1.24	8.00	9.91	14.28%	
3		1.00	14.0	4.00	1.60	4.02		59			40.5		0.00	1.45	0.00	0.00	1.45	6.40	9.29	13.39%	
4		1.00	18.0	4.00	1.40	4.00		59			40.1		0.00	1.47	0.00	0.00	1.47	5.60	8.22	11.85%	
5		1.00	22.0	4.00	1.40	4.00		71			40.5		0.00	1.74	0.00	0.00	1.74	5.60	9.76	14.07%	
6		1.00	26.0	4.00	1.50	4.00		74			40.0		0.00	1.83	0.00	0.00	1.83	6.00	11.01	15.87%	
7		1.00	30.0	4.00	1.30	4.00		72			40.3		0.00	1.77	0.00	0.00	1.77	5.20	9.23	13.31%	
8		1.00	34.0	4.00	0.00	4.21		0					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
9		1.00	38.0	4.00	0.00	4.00		0					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
10		1.00	42.0	2.00	0.50	4.03		15			43.8		0.00	0.36	0.00	0.00	0.36	1.00	0.36	0.52%	
Right Edge of Water			42			0.50															
					Totals:	**43.09**												47.80	69.36		

Summary:

Discharge:	**69.36** cfs
Width:	**42.0** ft
Area:	**47.80** ft^2
Mean Depth:	**1.14** ft
Mean Velocity:	**1.45** fps
Max % Flow:	**16.71%**
Wetted Perimeter	**43.09** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi	**Begin Time:**	7:00
Date:	4/6/01	**End Time:**	
Location:	LSF	**Begin Gage Height:**	26.50 ft
Site:	LSFEOG	**End Gage Height:**	26.50 ft
Meter:	Type: Pygmy	**Accuracy Rating:**	
Spin Test (pre-Q):	61	**Water Temperature:**	
Spin Test (post-Q):	61	**Air Temperature:**	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
							0.2	0.6	0.8				At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)				(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water																					
Dead Left Edge of Water																					
1		1.00	6.0	5.00	2.00	6.32		61			40.5		0.00	1.50	0.00	0.00	1.50	10.00	14.98	17.63%	
2		1.00	10.0	4.00	2.00	4.00		63			40.7		0.00	1.54	0.00	0.00	1.54	8.00	12.33	14.52%	
3		1.00	14.0	4.00	2.00	4.00		65			41.3		0.00	1.57	0.00	0.00	1.57	8.00	12.53	14.75%	
4		1.00	18.0	4.00	2.00	4.00		60			43.1		0.00	1.39	0.00	0.00	1.39	8.00	11.10	13.07%	
5		1.00	22.0	4.00	1.50	4.03		71			40.3		0.00	1.75	0.00	0.00	1.75	6.00	10.49	12.35%	
6		1.00	26.0	4.00	1.60	4.00		74			40.4		0.00	1.82	0.00	0.00	1.82	6.40	11.63	13.69%	
7		1.00	30.0	4.00	1.50	4.00		74			40.2		0.00	1.83	0.00	0.00	1.83	6.00	10.96	12.90%	
8		1.00	34.0	4.00	0.00	4.27		0					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
9		1.00	38.0	4.00	0.20	4.00		36			40.2		0.00	0.90	0.00	0.00	0.90	0.80	0.72	0.85%	
11		1.00	42.0	2.00	0.20	4.00		20			40.2		0.00	0.51	0.00	0.00	0.51	0.40	0.21	0.24%	
Right Edge of Water			42																		
					Totals:	42.64												53.60	84.96		

Summary:

Discharge:	**84.96** cfs
Width:	**42.0** ft
Area:	**53.60** ft^2
Mean Depth:	**1.28** ft
Mean Velocity:	**1.58** fps
Max % Flow:	**17.63%**
Wetted Perimeter	**42.64** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	18:36	
Date:	1/13/00		**End Time:**	NS	NS = Not Stated
Location:	ELK		**Begin Gage Height:**	NS	ft
Site:	LLSF		**End Gage Height:**	NS	ft
Meter:	Price	Type: AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	CS (Clicks) 1		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			0.0																		
1		1.00	0.5	0.75	1.60	1.68		20			40.1		0.00	1.11	0.00	0.00	1.11	1.20	1.33	34.11%	
2		1.00	1.5	1.00	2.00	1.08		12			41.2		0.00	0.65	0.00	0.00	0.65	2.00	1.31	33.62%	
3		1.00	2.5	1.00	2.00	1.00		6			45.7		0.00	0.31	0.00	0.00	0.31	2.00	0.61	15.72%	
4		1.00	3.5	1.00	1.50	1.12		4			45.1		0.00	0.21	0.00	0.00	0.21	1.50	0.32	8.22%	
5		1.00	4.5	1.25	0.80	1.22		6			42.9		0.00	0.32	0.00	0.00	0.32	1.00	0.32	8.34%	
REW			6																		
					Totals:	**6.09**												7.70	3.89		

Summary:

Discharge:	**3.89** cfs
Width:	**6.0** ft
Area:	**7.70** ft^2
Mean Depth:	**1.28** ft
Mean Velocity:	**0.51** fps
Max % Flow:	**34.11%**
Wetted Perimeter	**6.09** ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Stage hd been 6" higher

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	16.:50	
Date:	1/14/00		**End Time:**	NS	NS = Not Stated
Location:	SF Elk Bridge		**Begin Gage Height:**	NS ft	
Site:	# 27 Trib @LSF		**End Gage Height:**	NS ft	
Meter:	Price	Type: AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			0.0																		
1		1.00	0.5	0.50	1.20	1.30		19			41.0		0.00	1.03	0.00	0.00	1.03	0.60	0.62	14.11%	
2		1.00	1.0	0.50	1.10	0.51		46			40.0		0.00	2.53	0.00	0.00	2.53	0.55	1.39	31.72%	
3		1.00	1.5	0.50	1.10	0.50		30			41.2		0.00	1.61	0.00	0.00	1.61	0.55	0.88	20.19%	
4		1.00	2.0	0.50	1.10	0.50		34			40.8		0.00	1.84	0.00	0.00	1.84	0.55	1.01	23.07%	
5		1.00	2.5	0.50	0.70	0.64		25			40.5		0.00	1.37	0.00	0.00	1.37	0.35	0.48	10.91%	
REW			3																		
					Totals:	3.45												2.60	4.38		

Summary:

Discharge:	4.38 cfs
Width:	3.0 ft
Area:	2.60 ft^2
Mean Depth:	0.87 ft
Mean Velocity:	1.68 fps
Max % Flow:	31.72%
Wetted Perimeter	3.45 ft

Notes:

Section:	4" of silt in margins of stream behind 12" debris jam
Flow Conditions:	Falling stage no rain in 4 hours. Sample with fir twig in jar
Weather:	
Control:	
Remarks:	829 NTU @1-15-00 13:59 //Count Setting(clicks) 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Michelle JK			**Begin Time:**	10:20		
Date:	3/17/00			**End Time:**	11:03		
Location:	SFElk			**Begin Gage Height:**		ft	NS = Not Stated
Site:	0.5			**End Gage Height:**	3.26 m	ft	
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):				**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			0.65617																		
1		1.00	2.29659	1.15	0	1.64		6			50.5		0.00	0.28	0.00	0.00	0.28	0.00	0.00	0.00%	
2		1.00	2.95276	0.66	3	3.07		11			50.3		0.00	0.50	0.00	0.00	0.50	1.97	0.98	1.72%	
3		1.00	3.60892	0.66	3	0.66		33			64.1		0.00	1.14	0.00	0.00	1.14	1.97	2.25	3.95%	
4		1.00	4.26509	0.66	3	0.66		31			49.5		0.00	1.39	0.00	0.00	1.39	1.97	2.73	4.80%	
5		1.00	4.92126	0.66	4	1.20		32			47.9		0.00	1.48	0.00	0.00	1.48	2.62	3.88	6.81%	
6		1.00	5.57743	0.66	4	0.66		35			46.7		0.00	1.65	0.00	0.00	1.65	2.62	4.34	7.62%	
7		1.00	6.2336	0.66	5	1.20		35			47.0		0.00	1.64	0.00	0.00	1.64	3.28	5.39	9.48%	
8		1.00	6.88976	0.66	6	1.20		36			48.4		0.00	1.64	0.00	0.00	1.64	3.94	6.47	11.36%	
9		1.00	7.54593	0.66	7	1.20		36			48.1		0.00	1.65	0.00	0.00	1.65	4.59	7.59	13.34%	
10		1.00	8.2021	0.49	8	1.20		35			47.7		0.00	1.62	0.00	0.00	1.62	3.94	6.38	11.20%	
11		1.00	8.53018	0.82	9	1.05		35			47.6		0.00	1.62	0.00	0.00	1.62	7.38	11.99	21.06%	
12		1.00	9.84252	0.98	9	1.31		34			48.5		0.00	1.55	0.00	0.00	1.55	8.86	13.73	24.12%	
13		1.00	10.4987	0.66	8	1.20		29			48.3		0.00	1.33	0.00	0.00	1.33	5.25	6.98	12.26%	
14		1.00	11.1549	0.66	7	1.20		16			50.2		0.00	0.71	0.00	0.00	0.71	4.59	3.28	5.77%	
15		1.00	11.811	0.66	6	1.20							0.00	0.00	0.00	0.00	0.00	3.94	0.00	0.00%	
REW		1.00	12																		
					Totals:	**18.61**												56.92	75.97		

Summary:

Discharge:	**75.97** cfs
Width:	**18.6** ft
Area:	**56.92** ft^2
Mean Depth:	**3.06** ft
Mean Velocity:	**1.33** fps
Max % Flow:	**24.12%**
Wetted Perimeter	**18.61** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Click Setting = 1 // The original is in meters I (EN) converted it into feet.

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN			**Begin Time:**	19:28		
Date:	1/14/00			**End Time:**	NS		NS = Not Stated
Location:	SFElk			**Begin Gage Height:**	NS	ft	
Site:	#18			**End Gage Height:**	NS	ft	
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	NS			**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			0.0																		
1		1.00	0.5	0.75	0.50	0.71		10			43.0		0.00	0.53	0.00	0.00	0.53	0.38	0.20	2.26%	
2		1.00	1.5	1.00	0.70	1.02		17			41.0		0.00	0.92	0.00	0.00	0.92	0.70	0.65	7.38%	
3		1.00	2.5	1.00	1.10	1.08		21			41.0		0.00	1.14	0.00	0.00	1.14	1.10	1.25	14.27%	
4		1.00	3.5	1.00	1.40	1.04		46			40.5		0.00	2.49	0.00	0.00	2.49	1.40	3.49	39.87%	
5		1.00	4.5	1.00	1.10	1.04		49			40.5		0.00	2.66	0.00	0.00	2.66	1.10	2.92	33.34%	
6		1.00	5.5	0.75	0.50	1.17		12			40.0		0.00	0.67	0.00	0.00	0.67	0.38	0.25	2.88%	
REW			6																		
					Totals:	**6.06**												5.05	8.76		

Summary:

Discharge:	**8.76** cfs
Width:	**6.0** ft
Area:	**5.05** ft^2
Mean Depth:	**0.84** ft
Mean Velocity:	**1.73** fps
Max % Flow:	**39.87%**
Wetted Perimeter	**6.06** ft

Notes:

Section:	193 NTU
Flow Conditions:	
Weather:	
Control:	
Remarks:	

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN MA			**Begin Time:**	9:55	
Date:	2/26/00			**End Time:**	10:03	
Location:	SFElk			**Begin Gage Height:**	NS ft	NS = Not Stated
Site:	#18			**End Gage Height:**	NS ft	
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	90 sec			**Water Temperature:**	NS	
Spin Test (post-Q):	NS			**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			1.7																		
1		1.00	2.0	0.65		0.67							0.00	1.66	0.00	0.00	1.66	0.39	0.65	24.95%	
2		1.00	3.0	1.00	0.60	1.00		31			41.2		0.00	1.36	0.00	0.00	1.36	0.70	0.95	36.55%	
3		1.00	4.0	1.00	0.70	1.00		25			40.8		0.00	1.33	0.00	0.00	1.33	0.60	0.80	30.77%	
4		1.00	5.0	1.00	0.60	1.02		25			41.5		0.00	0.50	0.00	0.00	0.50	0.40	0.20	7.73%	
5		1.00	6.0	1.00	0.40	1.08		9			40.7		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			7																		
					Totals:	**4.78**												2.09	2.60		

Summary:

Discharge:	**2.60**	cfs
Width:	**5.3**	ft
Area:	**2.09**	ft^2
Mean Depth:	**0.39**	ft
Mean Velocity:	**1.24**	fps
Max % Flow:	**36.55%**	
Wetted Perimeter	**4.78**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1 // Stage falling after rain last nite. Turbidity sample taken

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	MLA		**Begin Time:**	10:53	
Date:	2/26/00		**End Time:**	11:23	
Location:	SFElk		**Begin Gage Height:**	NS	ft
Site:	22		**End Gage Height:**	NS	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

NS = Not Stated

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			39.0																		
1		1.00	38.5	1.00	0.60	0.78		25			41.0		0.00	1.35	0.00	0.00	1.35	0.60	0.81	1.71%	
2		1.00	37.0	1.25	1.00	1.55		38			40.5		0.00	2.07	0.00	0.00	2.07	1.25	2.58	5.45%	
3		1.00	36.0	1.50	0.80	1.02		74			40.0		0.00	4.05	0.00	0.00	4.05	1.20	4.86	10.24%	
4		1.00	34.0	2.00	0.90	2.00		56			41.2		0.00	2.98	0.00	0.00	2.98	1.80	5.36	11.30%	
5		1.00	32.0	2.00	0.00	2.19							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
6		1.00	30.0	2.00	0.60	2.09		42			40.7		0.00	2.05	0.00	0.00	2.05	1.20	2.46	5.19%	
7		1.00	28.0	2.00	0.50	2.00		16			45.1		0.00	0.86	0.00	0.00	0.86	1.00	0.86	1.82%	
8		1.00	26.0	2.00	0.40	2.00		37			41.3		0.00	1.82	0.00	0.00	1.82	0.80	1.46	3.07%	
9		1.00	24.0	2.50	0.60	2.01		6			44.8		0.00	0.33	0.00	0.00	0.33	1.50	0.50	1.05%	
10		1.00	21.0	3.00	0.90	3.01		17			41.8		0.00	0.92	0.00	0.00	0.92	2.70	2.49	5.24%	
11		1.00	18.0	2.00	1.20	3.01		51			41.1		0.00	2.77	0.00	0.00	2.77	2.40	6.65	14.03%	
12		1.00	17.0	1.50	0.90	1.04		34			40.4		0.00	1.86	0.00	0.00	1.86	1.35	2.51	5.29%	
13		1.00	15.0	2.50	0.70	2.01		44			40.3		0.00	2.33	0.00	0.00	2.33	1.75	4.08	8.60%	
14		1.00	12.0	2.00	0.90	3.01		67			41.5		0.00	3.58	0.00	0.00	3.58	1.80	6.44	13.59%	
15		1.00	11.0	1.00	1.10	1.02		57			41.0		0.00	3.03	0.00	0.00	3.03	1.10	3.33	7.02%	
16		1.00	10.0	1.50	0.90	1.02		52			41.3		0.00	0.06	0.00	0.00	0.06	1.35	0.08	0.16%	
17		1.00	8.0	2.00	0.60	2.02		30			####		0.00	1.59	0.00	0.00	1.59	1.20	1.91	4.03%	
18		**1.00**	**6.0**	**1.50**	**0.60**	**2.00**		**22**			**41.6**		**0.00**	**1.17**	**0.00**	**0.00**	**1.17**	**0.90**	**1.06**	**2.23%**	
REW			5																		
					Totals:	**33.80**												23.90	47.44		

Summary:

Discharge:	**47.44** cfs
Width:	**34.0** ft
Area:	**23.90** ft^2
Mean Depth:	**0.70** ft
Mean Velocity:	**1.98** fps
Max % Flow:	**14.03%**
Wetted Perimeter	**33.80** ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1 // Stage falling from other nite. // The data in bold are from another sheet

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	MLA		**Begin Time:**	15:57	
Date:	2/26/00		**End Time:**	16:23	
Location:	SFE (little)		**Begin Gage Height:**	8"	ft
Site:	#29		**End Gage Height:**	8"	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

NS = Not Stated

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point	At point	At Point	Mean in					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	0.2	0.6	0.8	Vertical	Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			1.3																		
1		1.00	5.6	2.62	5.25	6.76		4			53.8		0.00	0.18	0.00	0.00	0.18	13.78	2.51	14.58%	
2		1.00	6.6	0.98	5.58	1.04		11			47.6		0.00	0.52	0.00	0.00	0.52	5.49	2.88	16.70%	
3		1.00	7.5	0.98	3.61	2.20		7			45.6		0.00	0.35	0.00	0.00	0.35	3.55	1.26	7.31%	
4		1.00	8.5	0.98	2.62	1.39		16			49.8		0.00	0.72	0.00	0.00	0.72	2.58	1.86	10.82%	
5		1.00	9.5	0.98	1.97	1.18		40			47.2		0.00	1.87	0.00	0.00	1.87	1.94	3.62	21.05%	
6		1.00	10.5	0.98	1.64	1.04		38			46.3		0.00	1.81	0.00	0.00	1.81	1.61	2.92	16.97%	
7		1.00	11.5	0.98	1.64	0.98		29			47.9		0.00	1.34	0.00	0.00	1.34	1.61	2.16	12.56%	
8		1.00	12.5	0.66		1.91							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
9		1.00	12.8	0.16		0.33							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			12.7953																		
					Totals:	**16.84**												30.57	17.22		

Summary:

Discharge:	**17.22** cfs
Width:	**11.5** ft
Area:	**30.57** ft^2
Mean Depth:	**2.66** ft
Mean Velocity:	**0.56** fps
Max % Flow:	**21.05%**
Wetted Perimeter	**16.84** ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	MLA, JN			**Begin Time:**	12:32		
Date:	2/26/00			**End Time:**	12:43		
Location:	SFElk (little)			**Begin Gage Height:**	6"	ft	NS = Not Stated
Site:	26			**End Gage Height:**		ft	
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):				**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			3.0																		
1		1.00	6.0	2.00		3.00							0.00		0.00	0.00	0.00	0.00	0.00	#DIV/0!	
2		1.00	7.0	1.00		1.00		13			41.6		0.00	0.91	0.00	0.00	0.91	0.00	0.00	#DIV/0!	
3		1.00	8.0	1.00		1.00		17			41.7		0.00	1.17	0.00	0.00	1.17	0.00	0.00	#DIV/0!	
4		1.00	9.0	1.00		1.00		22			41.8		0.00	1.58	0.00	0.00	1.58	0.00	0.00	#DIV/0!	
5		1.00	10.0	1.00		1.00		30			41.0		0.00	0.39	0.00	0.00	0.39	0.00	0.00	#DIV/0!	
6		1.00	11.0	1.00		1.00		7			41.5		0.00	1.91	0.00	0.00	1.91	0.00	0.00	#DIV/0!	
7		1.00	12.0	1.00		1.00		36			41.1		0.00	1.45	0.00	0.00	1.45	0.00	0.00	#DIV/0!	
8		1.00	13.0	1.00		1.00		27			41.3		0.00	0.00	0.00	0.00	0.00	0.00	0.00	#DIV/0!	
9		1.00	14.0	1.00		1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	#DIV/0!	
10		1.00	15.0	1.00		1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	#DIV/0!	
11		1.00	16.0	1.00		1.00		9			44.7		0.00	0.46	0.00	0.00	0.46	0.00	0.00	#DIV/0!	
12		1.00	17.0	1.00		1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	#DIV/0!	
REW			18																		
					Totals:	**14.00**												0.00	0.00		

Summary:

Discharge:	**0.00**	cfs
Width:	**15.0**	ft
Area:	**0.00**	ft^2
Mean Depth:	**0.00**	ft
Mean Velocity:	**#DIV/0!**	fps
Max % Flow:	**#DIV/0!**	
Wetted Perimeter	**14.00**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1 Discharge tape @parallel t right edge of bridge (facing up trail)

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN HR		**Begin Time:**	9:25	
Date:	2/29/00		**End Time:**	9:55	
Location:	SFElk		**Begin Gage Height:**	8'10"	ft
Site:	Kiosk		**End Gage Height:**	8'9"	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	NS		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

NS = Not Stated

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW																					
1		1.00	3.0	4.00	2.60	3.97		10			41.9		0.00	0.54	0.00	0.00	0.54	10.40	5.62	4.24%	
2		1.00	8.0	4.00	2.90	5.01		18			40.4		0.00	0.99	0.00	0.00	0.99	11.60	11.50	8.69%	
3		1.00	11.0	2.50	3.20	3.01		27			41.1		0.00	1.45	0.00	0.00	1.45	8.00	11.62	8.78%	
4		1.00	13.0	2.00	3.40	2.01		38			40.8		0.00	2.05	0.00	0.00	2.05	6.80	13.94	10.53%	
5		1.00	15.0	1.50	3.70	2.02		53			40.7		0.00	2.85	0.00	0.00	2.85	5.55	15.84	11.97%	
6		1.00	16.0	1.65	4.20	1.12		74			40.4		0.00	4.00	0.00	0.00	4.00	6.93	27.75	20.96%	
7		1.00	**18.3**	**2.28**		4.79							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
8		1.00	**20.6**	**2.25**		2.25							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
9		1.00	**22.8**	**2.23**		2.25							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
10		1.00	25.0	2.10	4.90	5.37		83			40.5		0.00	4.48	0.00	0.00	4.48	10.29	46.13	34.84%	
11		1.00	27.0	2.00		5.29							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
12		1.00	29.0	2.50		2.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			32																		
					Totals:	**39.10**												59.57	132.39		

Summary:

Discharge:	**132.39** cfs
Width:	**32.0** ft
Area:	**59.57** ft^2
Mean Depth:	**1.86** ft
Mean Velocity:	**2.22** fps
Max % Flow:	**34.84%**
Wetted Perimeter	**39.10** ft

Notes:

Section:	DATA NOTES: The numbers in bold were left blank on the original form. The stream was to fast for a reading. I inserted an average length.
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF EN		**Begin Time:**	15:40	
Date:	12/2/00		**End Time:**	16:10	
Location:	SFElk		**Begin Gage Height:**	1.05 ft	NS = Not Stated
Site:	MB		**End Gage Height:**	1.05 ft	
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	60		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			2.0																		
1		1.00	2.5	0.75	1.20	1.30		18			42.8		0.00	0.94	0.00	0.00	0.94	0.90	0.84	5.88%	
2		1.00	3.5	1.00	1.25	1.00		22			41.7		0.00	1.17	0.00	0.00	1.17	1.25	1.46	10.20%	
3		1.00	4.5	1.00	1.10	1.01		20			48.2		0.00	0.92	0.00	0.00	0.92	1.10	1.02	7.09%	
4		1.00	5.5	1.00	0.80	1.04		5			43.1		0.00	0.27	0.00	0.00	0.27	0.80	0.22	1.52%	
5		1.00	6.5	1.00	0.55	1.03		9			48.9		0.00	0.42	0.00	0.00	0.42	0.55	0.23	1.62%	
6		1.00	7.5	1.00	0.60	1.00		19			41.3		0.00	1.02	0.00	0.00	1.02	0.60	0.61	4.28%	
7		1.00	8.5	1.00	0.70	1.00		24			41.3		0.00	1.29	0.00	0.00	1.29	0.70	0.90	6.29%	
8		1.00	9.5	1.00	0.58	1.01		23			40.8		0.00	1.25	0.00	0.00	1.25	0.58	0.72	5.05%	
9		1.00	10.5	1.00	0.50	1.00		30			40.2		0.00	1.65	0.00	0.00	1.65	0.50	0.82	5.74%	
10		1.00	11.5	1.00	0.40	1.00		29			40.7		0.00	1.57	0.00	0.00	1.57	0.40	0.63	4.39%	
11		1.00	12.5	1.00	0.35	1.00		23			41.2		0.00	1.24	0.00	0.00	1.24	0.35	0.43	3.02%	
12		1.00	13.5	1.00	0.30	1.00		17			40.1		0.00	0.94	0.00	0.00	0.94	0.30	0.28	1.97%	
13		1.00	14.5	1.00	0.31	1.00		22			41.0		0.00	1.19	0.00	0.00	1.19	0.31	0.37	2.58%	
14		1.00	15.5	1.00	0.32	1.00		35			40.1		0.00	1.92	0.00	0.00	1.92	0.32	0.62	4.29%	
15		1.00	16.5	0.75	0.41	1.00		56			40.6		0.00	3.02	0.00	0.00	3.02	0.31	0.93	6.48%	
16		1.00	17.0	0.50	0.50	0.51		56			40.9		0.00	3.00	0.00	0.00	3.00	0.25	0.75	5.24%	
17		1.00	17.5	0.50	0.50	0.50		51			40.3		0.00	2.77	0.00	0.00	2.77	0.25	0.69	4.84%	
18		1.00	18.0	0.50	0.50	0.50		25			41.2		0.00	1.34	0.00	0.00	1.34	0.25	0.34	2.34%	
19		1.00	18.5	0.50	0.55	0.50		26			41.2		0.00	1.39	0.00	0.00	1.39	0.28	0.38	2.68%	
20		1.00	19.0	0.50	0.55	0.50		31			40.8		0.00	1.68	0.00	0.00	1.68	0.28	0.46	3.21%	
21		1.00	19.5	0.50	0.60	0.50		10			40.9		0.00	0.55	0.00	0.00	0.55	0.30	0.17	1.16%	
22		1.00	20.0	0.50	0.60	0.50		39			41.0		0.00	2.10	0.00	0.00	2.10	0.30	0.63	4.39%	
23		1.00	20.5	0.50	0.55	0.50		28			41.2		0.00	1.50	0.00	0.00	1.50	0.28	0.41	2.88%	
24		1.00	21.0	0.50	0.50	0.50		30			40.4		0.00	1.64	0.00	0.00	1.64	0.25	0.41	2.86%	
25		1.00	21.5	0.75	0.42	0.51		7			40.2			0.40				0.32			
REW			22.5																		
					Totals:	**20.44**												11.71	14.34		

Summary:

Discharge:	**14.34** cfs
Width:	**20.5** ft
Area:	**11.71** ft^2
Mean Depth:	**0.57** ft
Mean Velocity:	**1.22** fps
Max % Flow:	**10.20%**
Wetted Perimeter	**20.44** ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN	**Begin Time:**	14:25		
Date:	1/23/01	**End Time:**	14:56		
Location:	SFElk	**Begin Gage Height:**	1.25	ft	NS = Not Stated
Site:	MB	**End Gage Height:**	1.25	ft	
Meter:	Price **Type:** AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	120 + sec	**Water Temperature:**	NS		
Spin Test (post-Q):	NS	**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			16.0																		
1		1.00	15.0	7.00	0.95	1.00		9			43.4		0.00	0.47	0.00	0.00	0.47	6.65	3.14	35.68%	
2		1.00	14.0	1.50	0.80	1.38		9			41.2		0.00	0.50	0.00	0.00	0.50	1.20	0.60	6.77%	
3		1.00	13.0	1.50	0.60	1.01		6			50.6		0.00	0.28	0.00	0.00	0.28	1.20	0.33	3.80%	
4		1.00	12.0	1.00	0.50	1.02		20			41.9		0.00	1.06	0.00	0.00	1.06	0.60	0.64	7.23%	
5		1.00	11.0	1.00	0.50	1.00		24			41.5		0.00	1.28	0.00	0.00	1.28	0.50	0.64	7.28%	
6		1.00	10.0	1.00	0.50	1.00		25			41.1		0.00	1.35	0.00	0.00	1.35	0.50	0.67	7.65%	
7		1.00	9.0	1.00	0.40	1.00		25			41.8		0.00	1.32	0.00	0.00	1.32	0.50	0.66	7.52%	
8		1.00	8.0	1.00	0.40	1.00		21			41.1		0.00	1.13	0.00	0.00	1.13	0.40	0.45	5.15%	
9		1.00	7.0	1.00	0.40	1.00		21			41.5		0.00	1.12	0.00	0.00	1.12	0.40	0.45	5.11%	
10		1.00	6.0	1.50	0.40	1.00		18			40.7		0.00	0.98	0.00	0.00	0.98	0.60	0.59	6.71%	
11		1.00	5.0	1.50	0.40	1.00		13			42.1		0.00	0.69	0.00	0.00	0.69	0.60	0.42	4.73%	
11		1.00	4.0	1.50	0.30	1.00		7			46.3		0.00	0.35	0.00	0.00	0.35	0.60	0.21	2.38%	
REW			3																		
					Totals:	12.42												13.75	8.80		

Summary:

Discharge:	**8.80**	cfs
Width:	**13.0**	ft
Area:	**13.75**	ft^2
Mean Depth:	**1.06**	ft
Mean Velocity:	**0.64**	fps
Max % Flow:	**35.68%**	
Wetted Perimeter	**12.42**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF/JN		**Begin Time:**	17:21	
Date:	4/18/00		**End Time:**	17:44	
Location:	SFElk		**Begin Gage Height:**	3" leaf on ft	NS = Not Stated
Site:	MB		**End Gage Height:**	3" leaf on ft	
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	90 sec +		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			25.0																		
1		1.00	24.0	1.00		1.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
2		1.00	23.0	1.00	1.20	1.56		25			42.2		0.00	1.31	0.00	0.00	1.31	1.20	1.57	2.98%	
3		1.00	22.0	1.00	0.00	1.56		20			42.4		0.00	1.05	0.00	0.00	1.05	0.00	0.00	0.00%	
4		1.00	21.0	1.00	1.50	1.80		20			41.2		0.00	1.08	0.00	0.00	1.08	1.50	1.62	3.06%	
5		1.00	20.0	1.00	1.70	1.02		42			40.3		0.00	2.29	0.00	0.00	2.29	1.70	3.90	7.37%	
6		1.00	19.0	1.00	2.10	1.08		39			40.6		0.00	2.12	0.00	0.00	2.12	2.10	4.44	8.40%	
7		1.00	18.0	1.00	1.90	1.02		29			40.7		0.00	1.57	0.00	0.00	1.57	1.90	2.99	5.65%	
8		1.00	17.0	1.00	1.30	1.17		24			41.1		0.00	1.29	0.00	0.00	1.29	1.30	1.68	3.18%	
9		1.00	16.0	1.00	1.40	1.00		47			40.7		0.00	2.54	0.00	0.00	2.54	1.40	3.55	6.72%	
10		1.00	15.0	1.00	1.40	1.00		45			40.5		0.00	2.44	0.00	0.00	2.44	1.40	3.42	6.46%	
11		1.00	14.0	1.00	1.40	1.00		41			41.9		0.00	2.15	0.00	0.00	2.15	1.40	3.01	5.70%	
12		1.00	13.0	1.00	1.60	1.02		39			40.6		0.00	2.12	0.00	0.00	2.12	1.60	3.39	6.40%	
13		1.00	12.0	1.00	1.60	1.00		40			40.9		0.00	2.15	0.00	0.00	2.15	1.60	3.44	6.51%	
14		1.00	11.0	1.00	1.60	1.00		38			40.8		0.00	2.05	0.00	0.00	2.05	1.60	3.28	6.21%	
15		1.00	10.0	1.00	1.70	1.00		36			40.4		0.00	1.96	0.00	0.00	1.96	1.70	3.34	6.32%	
16		1.00	9.0	1.00	1.70	1.00		34			40.7		0.00	1.84	0.00	0.00	1.84	1.70	3.13	5.92%	
17		1.00	8.0	1.00	1.70	1.00		33			40.4		0.00	1.80	0.00	0.00	1.80	1.70	3.06	5.79%	
18		1.00	7.0	1.00	1.60	1.00		29			40.4		0.00	1.59	0.00	0.00	1.59	1.60	2.54	4.80%	
19		1.00	6.0	1.00	1.50	1.00		21			40.4		0.00	1.15	0.00	0.00	1.15	1.50	1.73	3.27%	
20		1.00	5.0	1.00	1.40	1.00		16			40.9		0.00	0.87	0.00	0.00	0.87	1.40	1.22	2.31%	
21		1.00	4.0	1.00	1.50	1.00		14			40.7		0.00	0.77	0.00	0.00	0.77	1.50	1.16	2.19%	
22		1.00	3.0	1.00	1.30	1.02		6			43.3		0.00	0.32	0.00	0.00	0.32	1.30	0.42	0.79%	
23		1.00	2.0	1.00	0.70	1.17		0			NS		0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00%	
24		1.00	1.0	1.00		1.22							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			0																		
					Totals:	**26.67**												31.80	52.89		

Summary:

Discharge:	**52.89** cfs
Width:	**25.0** ft
Area:	**31.80** ft^2
Mean Depth:	**1.27** ft
Mean Velocity:	**1.66** fps
Max % Flow:	**8.40%**
Wetted Perimeter	**26.67** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Click Setting = 1// 20.3' below guard rail MB bridge 10.9 below top of rail @ SFE 11.1 below spike in 36' willow see survey of cross section

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	16:00	
Date:	1/13/00		**End Time:**	16:50	NS = Not Stated
Location:	Iron Bridge (150' upstream)		**Begin Gage Height:**		ft
Site:	SFElk		**End Gage Height:**		ft
Meter:	Price	Type: AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point	At point	At Point	Mean in					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	0.2	0.6	0.8	Vertical	Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			1.0																		
ZVL		1.00	2.5	1.50	0.30	1.53		0					0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00%	
2		1.00	4.0	1.50	0.80	1.58		22			54.1		0.00	1.39	0.00	0.00	1.39	1.20	1.67	2.62%	
3		1.00	5.5	1.50	0.90	1.50		34			40.6		0.00	2.27	0.00	0.00	2.27	1.35	3.07	4.83%	
4		1.00	7.0	1.50	1.00	1.50		42			40.8		0.00	1.73	0.00	0.00	1.73	1.50	2.60	4.08%	
5		1.00	8.5	1.50	1.30	1.53		32			41.1		0.00	3.04	0.00	0.00	3.04	1.95	5.92	9.31%	
6		1.00	10.0	1.50	1.80	1.58		57			40.6		0.00	2.54	0.00	0.00	2.54	2.70	6.87	10.80%	
7		1.00	11.5	1.50	1.30	1.58		47			41.7		0.00	2.16	0.00	0.00	2.16	1.95	4.21	6.63%	
8		1.00	13.0	1.50	1.00	1.53		41			40.7		0.00	2.59	0.00	0.00	2.59	1.50	3.89	6.11%	
9		1.00	14.5	1.50	0.40	1.62		48			40.1		0.00	1.70	0.00	0.00	1.70	0.60	1.02	1.61%	
10		1.00	16.0	2.00	1.00	1.62		31			40.5		0.00	2.81	0.00	0.00	2.81	2.00	5.63	8.85%	
11		1.00	18.5	2.00	1.30	2.52		52			40.1		0.00	1.05	0.00	0.00	1.05	2.60	2.74	4.30%	
12		1.00	20.0	1.50	1.00	1.53		19			42.2		0.00	1.73	0.00	0.00	1.73	1.50	2.59	4.07%	
13		1.00	21.5	1.50	0.60	1.55		33			40.1		0.00	1.87	0.00	0.00	1.87	0.90	1.68	2.64%	
14		1.00	23.0	1.50	0.50	1.50		34			40.5		0.00	1.85	0.00	0.00	1.85	0.75	1.39	2.18%	
15		1.00	24.5	1.50	0.10	1.55							0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00%	
16		1.00	26.0	1.50	0.20	1.50		35			40.8		0.00	1.89	0.00	0.00	1.89	0.30	0.57	0.89%	
17		1.00	27.5	1.50	0.40	1.51		56			41.7		0.00	2.94	0.00	0.00	2.94	0.60	1.77	2.78%	
18		1.00	29.0	1.50	0.40	1.50		58			40.1		0.00	3.17	0.00	0.00	3.17	0.60	1.90	2.99%	
19		1.00	30.5	1.50	0.60	1.51		76			40.5		0.00	4.10	0.00	0.00	4.10	0.90	3.69	5.80%	
20		1.00	32.0	1.50	0.60	1.50		101			40.3		0.00	5.47	0.00	0.00	5.47	0.90	4.92	7.74%	
21		1.00	33.5	1.50	0.30	1.53		11			41.3		0.00	0.60	0.00	0.00	0.60	0.45	0.27	0.43%	
22		1.00	35.0	1.50	1.30	1.80		71			42.0		0.00	3.70	0.00	0.00	3.70	1.95	7.22	11.34%	
REW			36.5																		
			Totals:	35.09														26.80	63.60		

Summary:

Discharge:	63.60 cfs
Width:	35.5 ft
Area:	26.80 ft^2
Mean Depth:	0.75 ft
Mean Velocity:	2.37 fps
Max % Flow:	11.34%
Wetted Perimeter	35.09 ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	MLA		**Begin Time:**	20:02	
Date:	2/26/00		**End Time:**	NS	
Location:	SFE		**Begin Gage Height:**	9'11"	ft
Site:	.5 Tom's Gulch		**End Gage Height:**	NS	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

NS = Not Stated

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			14.0																		
1		1.00	12.0	3.00	1.70	2.62		44			40.6		0.00	2.38	0.00	0.00	2.38	5.10	12.13	31.00%	
2		1.00	8.0	4.00	2.20	4.03		37			40.7		0.00	2.00	0.00	0.00	2.00	8.80	17.62	45.02%	
3		1.00	4.0	3.00	2.80	4.04		21			41.7		0.00	1.12	0.00	0.00	1.12	8.40	9.39	23.98%	
REW			2																		
				Totals:	**10.70**													22.30	39.15		

Summary:

Discharge:	39.15 cfs
Width:	12.0 ft
Area:	22.30 ft^2
Mean Depth:	1.86 ft
Mean Velocity:	1.76 fps
Max % Flow:	45.02%
Wetted Perimeter	10.70 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN HR			**Begin Time:**	10:06		
Date:	2/29/00			**End Time:**	10:30		
Location:	Elk			**Begin Gage Height:**	9'3"	ft	NS = Not Stated
Site:	Tom's Gulch			**End Gage Height:**	9'4"	ft	
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	NS			**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			17.0																		
1		1.00	16.0	1.50	1.80	2.06		39			40.9		0.00	2.10	0.00	0.00	2.10	2.70	5.66	8.35%	
2		1.00	14.0	2.00	2.30	2.06		45			40.4		0.00	2.45	0.00	0.00	2.45	4.60	11.26	16.61%	
3		1.00	12.0	2.00	2.40	2.00		41			40.3		0.00	2.24	0.00	0.00	2.24	4.80	10.74	15.84%	
4		1.00	10.0	2.00	2.60	2.01		38			40.6		0.00	2.06	0.00	0.00	2.06	5.20	10.72	15.81%	
5		1.00	8.0	2.00	2.70	2.00		35			44.4		0.00	1.74	0.00	0.00	1.74	5.40	9.39	13.86%	
6		1.00	6.0	2.00	2.80	2.00		20			48.1		0.00	0.93	0.00	0.00	0.93	5.60	5.19	7.66%	
7		1.00	4.0	3.00	1.90	2.19		48			40.5		0.00	2.60	0.00	0.00	2.60	5.70	14.83	21.87%	
REW			0																		
					Totals:	**14.33**												34.00	67.79		

Summary:

Discharge:	**67.79** cfs
Width:	**17.0** ft
Area:	**34.00** ft^2
Mean Depth:	**2.00** ft
Mean Velocity:	**1.99** fps
Max % Flow:	**21.87%**
Wetted Perimeter	**14.33** ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	C. FENTON / J NOEL	Begin Time:	13:35
Date:	4/2/01	End Time:	13:58
Location:	SFELK	Begin Gage Height:	1.31 ft
Site:	SFMRB	End Gage Height:	1.31 ft
Meter:	Type: Pygmy	Accuracy Rating:	
Spin Test (pre-Q):	90 +	Water Temperature:	
Spin Test (post-Q):		Air Temperature:	

Measurement No: | Rating No: | Shift Adj: | Percent Diff:

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			0.0																		
1		1.00	1.0	1.00	1.00	1.41		8			46.3		0.00	0.20	0.00	0.00	0.20	1.00	0.20	2.70%	10.7' DOWN TO BASE OF TREE
2		1.00	2.0	1.00	1.50	1.12		10			41.6		0.00	0.26	0.00	0.00	0.26	1.50	0.39	5.41%	12.7' TO WATER SURFACE
3		1.00	3.0	0.88	1.50	1.00		16			41.6		0.00	0.40	0.00	0.00	0.40	1.31	0.53	7.28%	REW IS 4.5 TO BASE
4		1.00	3.8	0.63	1.50	0.75		17			41.5		0.00	0.43	0.00	0.00	0.43	0.94	0.40	5.51%	SILT UP TO 0.75 ON BASE
5		1.00	4.3	0.50	1.60	0.51		18			42.5		0.00	0.44	0.00	0.00	0.44	0.80	0.35	4.85%	
6		1.00	4.8	0.50	1.60	0.50		21			41.7		0.00	0.52	0.00	0.00	0.52	0.80	0.42	5.71%	
7		1.00	5.3	0.50	1.60	0.50		21			41.9		0.00	0.52	0.00	0.00	0.52	0.80	0.41	5.68%	
8		1.00	5.8	0.50	1.60	0.50		25			40.7		0.00	0.63	0.00	0.00	0.63	0.80	0.50	6.90%	
9		1.00	6.3	0.50	1.40	0.54		21			41.2		0.00	0.53	0.00	0.00	0.53	0.70	0.37	5.05%	
10		1.00	6.8	0.63	1.40	0.50		23			41.0		0.00	0.58	0.00	0.00	0.58	0.88	0.50	6.91%	
11		1.00	7.5	0.88	1.30	0.76		22			42.4		0.00	0.53	0.00	0.00	0.53	1.14	0.61	8.35%	
12		1.00	8.5	1.00	1.10	1.02		19			41.3		0.00	0.48	0.00	0.00	0.48	1.10	0.53	7.21%	
13		1.00	9.5	1.00	1.00	1.00		17			42.4		0.00	0.42	0.00	0.00	0.42	1.00	0.42	5.76%	
14		1.00	10.5	1.00	0.90	1.00		16			42.7		0.00	0.39	0.00	0.00	0.39	0.90	0.35	4.87%	
15		1.00	11.5	1.00	0.90	1.00		13			43.5		0.00	0.32	0.00	0.00	0.32	0.90	0.29	3.95%	
16		1.00	12.5	1.00	1.10	1.02		10			44.4		0.00	0.25	0.00	0.00	0.25	1.10	0.27	3.75%	
17		1.00	13.5	1.00	1.40	1.04		15			41.4		0.00	0.38	0.00	0.00	0.38	1.40	0.53	7.33%	
18		1.00	14.5	0.75	1.40	1.00		7			41.5		0.00	0.19	0.00	0.00	0.19	1.05	0.20	2.78%	
Right Edge of Water			15			1.49															
					Totals:	16.67												18.11	7.29		

Summary:

Discharge:	7.29 cfs
Width:	15.0 ft
Area:	18.11 ft^2
Mean Depth:	1.21 ft
Mean Velocity:	0.40 fps
Max % Flow:	8.35%
Wetted Perimeter	16.67 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF/JN			**Begin Time:**	14:22		
Date:	4/18/00			**End Time:**	14:48		
Location:	NFElk			**Begin Gage Height:**	NS	ft	NS = Not Stated
Site:	KRW			**End Gage Height:**	NS	ft	
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	90 sec +			**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			1.0																		
1		1.00	3.0	1.50	1.90	2.76		18		40.5		0.00	0.99	0.00	0.00	0.99	2.85	2.82	4.02%	
2		1.00	4.0	1.00	2.00	1.00		12		42.1		0.00	0.64	0.00	0.00	0.64	2.00	1.28	1.83%	
3		1.00	5.0	1.00	2.00	1.00		25		41.0		0.00	1.35	0.00	0.00	1.35	2.00	2.70	3.85%	
4		1.00	6.0	1.00	1.80	1.02		27		40.3		0.00	1.48	0.00	0.00	1.48	1.80	2.67	3.81%	
5		1.00	7.0	1.00	2.00	1.02		29		40.5		0.00	1.58	0.00	0.00	1.58	2.00	3.16	4.51%	
6		1.00	8.0	1.00	1.90	1.00		27		41.0		0.00	1.45	0.00	0.00	1.45	1.90	2.76	3.95%	
7		1.00	9.0	1.00	1.90	1.00		18		41.0		0.00	0.98	0.00	0.00	0.98	1.90	1.85	2.65%	
8		1.00	10.0	1.00	2.00	1.00		27		39.9		0.00	1.49	0.00	0.00	1.49	2.00	2.99	4.27%	
9		1.00	11.0	1.00	1.90	1.00		33		40.8		0.00	1.78	0.00	0.00	1.78	1.90	3.39	4.83%	
10		1.00	12.0	1.00	2.00	1.00		34		40.1		0.00	1.87	0.00	0.00	1.87	2.00	3.73	5.33%	
11		1.00	13.0	1.00	2.20	1.02		39		41.2		0.00	2.08	0.00	0.00	2.08	2.20	4.58	6.55%	
12		1.00	14.0	1.00	2.10	1.00		28		42.3		0.00	1.46	0.00	0.00	1.46	2.10	3.07	4.39%	
13		1.00	15.0	1.00	2.10	1.00		32		40.3		0.00	1.75	0.00	0.00	1.75	2.10	3.68	5.25%	
14		1.00	16.0	1.00	2.10	1.00		35		40.1		0.00	1.92	0.00	0.00	1.92	2.10	4.04	5.77%	
15		1.00	17.0	1.00	1.90	1.02		23		41.4		0.00	1.23	0.00	0.00	1.23	1.90	2.34	3.34%	
16		1.00	18.0	1.00	2.00	1.00		38		40.1		0.00	2.09	0.00	0.00	2.09	2.00	4.17	5.96%	
17		1.00	19.0	1.00	2.00	1.00		34		41.3		0.00	1.82	0.00	0.00	1.82	2.00	3.63	5.18%	
18		1.00	20.0	1.00	2.00	1.00		24		40.1		0.00	1.32	0.00	0.00	1.32	2.00	2.65	3.78%	
19		1.00	21.0	1.00	2.10	1.00		28		40.8		0.00	1.52	0.00	0.00	1.52	2.10	3.18	4.54%	
20		1.00	22.0	1.00	2.20	1.00		31		40.3		0.00	1.70	0.00	0.00	1.70	2.20	3.74	5.34%	
21		1.00	23.0	1.00	2.40	1.02		25		40.4		0.00	1.37	0.00	0.00	1.37	2.40	3.28	4.69%	
22		1.00	24.0	1.00	2.20	1.02		23		41.0		0.00	1.24	0.00	0.00	1.24	2.20	2.73	3.90%	
23		1.00	25.0	1.00	1.20	1.41		29		49.0		0.00	1.31	0.00	0.00	1.31	1.20	1.57	2.25%	
REW			26																		
					Totals:	25.34												46.85	70.03		

Summary:

Discharge:	**70.03**	cfs
Width:	**25.0**	ft
Area:	**46.85**	ft^2
Mean Depth:	**1.87**	ft
Mean Velocity:	**1.49**	fps
Max % Flow:	**6.55%**	
Wetted Perimeter	**25.34**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1 // stage 6'6" Alder Bridge // Peak 3'1" above level now // HACH 54.8 NTU

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	Seth Farthi	**Begin Time:**	11:15
Date:	3/25/01	**End Time:**	
Location:	LSFELK	**Begin Gage Height:**	21.00 ft
Site:	LSFEOG	**End Gage Height:**	ft
Meter:	Type: Pygmy	**Accuracy Rating:**	
Spin Test (pre-Q):	68	**Water Temperature:**	
Spin Test (post-Q):		**Air Temperature:**	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
1		1.00	6.0	4.00	1.70	4.35		11			41.9		0.00	0.28	0.00	0.00	0.28	6.80	1.94	18.80%	
2		1.00	10.0	4.00	1.60	4.00		8			41.8		0.00	0.22	0.00	0.00	0.22	6.40	1.38	13.36%	
3		1.00	14.0	4.00	1.60	4.00		7			40.8		0.00	0.20	0.00	0.00	0.20	6.40	1.25	12.17%	
4		1.00	18.0	4.00	1.00	4.04		12			42.2		0.00	0.31	0.00	0.00	0.31	4.00	1.22	11.87%	
5		1.00	22.0	4.00	1.00	4.00		16			41.6		0.00	0.40	0.00	0.00	0.40	4.00	1.62	15.69%	
6		1.00	26.0	4.00	1.10	4.00		13			42.6		0.00	0.33	0.00	0.00	0.33	4.40	1.44	13.94%	
7		1.00	30.0	5.00	1.00	4.00		11			40.7		0.00	0.29	0.00	0.00	0.29	5.00	1.46	14.17%	
Right Edge of Water			36			6.08															
					Totals:	34.48												37.00	10.30		

Summary:

Discharge:	**10.30** cfs
Width:	**34.0** ft
Area:	**37.00** ft^2
Mean Depth:	**1.09** ft
Mean Velocity:	**0.28** fps
Max % Flow:	**18.80%**
Wetted Perimeter	**34.48** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN CF TR		**Begin Time:**	18:13			
Date:	2/14/00		**End Time:**	18:32			
Location:	FRESHWATER		**Begin Gage Height:**	3.40	ft	Equations for AA	
Site:	FTR PCB		**End Gage Height:**	3.30	ft	Falling limb 5th of day	Tape starts extended beyond nail
Meter:	Type:	CRANE	**Accuracy Rating:**	NS		DI #4 17:40 start ntu obs-3 253.0	try to compare abut distance with previous days to
Spin Test (pre-Q):			**Water Temperature:**	NS		**Price AA**	correlate
Spin Test (post-Q):			**Air Temperature:**	NS			

Measurement No: | **Rating No:** | **Shift Adj:** | **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			5.0																		
Dead Left Edge of Water			8.0																		
1		1.00	9.0	1.50	2.7	4.83		35			42.0		0.00	1.84	0.00	0.00	1.84	4.05	7.44	1.41%	
2		1.00	11.0	2.00	3.3	2.09		30			43.0		0.00	1.54	0.00	0.00	1.54	6.60	10.17	1.92%	
3		1.00	13.0	2.00	3.5	2.01		60			43.0		0.00	3.06	0.00	0.00	3.06	7.00	21.41	4.05%	
4		1.00	15.0	2.00	3.5	2.00		95			42.1		0.00	4.93	0.00	0.00	4.93	7.00	34.49	6.52%	
5		1.00	17.0	2.00	3.7	2.01		110			42.6		0.00	5.63	0.00	0.00	5.63	7.40	41.69	7.88%	
6		1.00	19.0	2.00	3.8	2.00		115			42.0		0.00	5.97	0.00	0.00	5.97	7.60	45.38	8.58%	
7		1.00	21.0	2.00	3.8	2.00		120			43.0		0.00	6.09	0.00	0.00	6.09	7.60	46.25	8.75%	
8		1.00	23.0	2.00	4.2	2.04		115			42.2		0.00	5.94	0.00	0.00	5.94	8.40	49.93	9.44%	
9		1.00	25.0	2.00	3.9	2.02		120			42		0.00	6.23	0.00	0.00	6.23	7.80	48.59	9.19%	
10		1.00	27.0	2.00	4.1	2.01		125			42.8		0.00	6.37	0.00	0.00	6.37	8.20	52.21	9.87%	
11		1.00	29.0	2.00	4	2.00		110			42.0		0.00	5.71	0.00	0.00	5.71	8.00	45.71	8.64%	
12		1.00	31.0	2.00	3.7	2.02		105			42.0		0.00	5.46	0.00	0.00	5.46	7.40	40.37	7.63%	
13		1.00	33.0	2.00	3.5	2.01		100			42.0		0.00	5.20	0.00	0.00	5.20	7.00	36.38	6.88%	
14		1.00	35.0	2.00	3.5	2.00		80			42.0		0.00	4.16	0.00	0.00	4.16	7.00	29.14	5.51%	
15		1.00	37.0	1.50	3.5	2.00		70			41.0		0.00	3.73	0.00	0.00	3.73	5.25	19.61	3.71%	
Dead Right Edge of Water			38.0																		
Right Edge of Water			40.5			#REF!															
					Totals:	**#REF!**												#####	528.76		

Summary:

Discharge:	**528.76**	cfs
Width:	**35.5**	ft
Area:	**106.30**	ft^2
Mean Depth:	**2.99**	ft
Mean Velocity:	**4.97**	fps
Max % Flow:	**9.87%**	
Wetted Perimeter	**#REF!**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF JN	**Begin Time:**	21:13		
Date:	1/11/00	**End Time:**	21:33		
Location:	FRESHWATER	**Begin Gage Height:**	1.78	ft	Equations for AA
Site:	FTR PCB	**End Gage Height:**	1.78	ft	
Meter:	Type: CRANE	**Accuracy Rating:**	NS		
Spin Test (pre-Q):		**Water Temperature:**	NS		
Spin Test (post-Q):		**Air Temperature:**	NS		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			2																		
Dead Left Edge of Water			4																		
1		1.00	5	1.50	2	3.61		4			46		0.00	0.21	0.00	0.00	0.21	3.00	0.63	0.31%	
2		1.00	7	2.00	2.2	2.01		13			40.5		0.00	0.72	0.00	0.00	0.72	4.40	3.17	1.56%	
3		1.00	9	2.00	2.4	2.01		24			42		0.00	1.27	0.00	0.00	1.27	4.80	6.08	2.99%	
4		1.00	11	2.00	2.6	2.01		77			40.5		0.00	4.16	0.00	0.00	4.16	5.20	21.61	10.63%	
5		1.00	13	2.00	2.5	2.00		80			40.5		0.00	4.32	0.00	0.00	4.32	5.00	21.58	10.62%	
6		1.00	15	2.00	2.5	2.00		69			40.5		0.00	3.73	0.00	0.00	3.73	5.00	18.64	9.17%	
7		1.00	17.0	2.00	2.5	2.00		75			40		0.00	4.10	0.00	0.00	4.10	5.00	20.49	10.08%	
8		1.00	19.0	2.00	2.6	2.00		90			40.5		0.00	4.85	0.00	0.00	4.85	5.20	25.23	12.41%	
9		1.00	21.0	2.00	2.5	2.00		76			40.5		0.00	4.10	0.00	0.00	4.10	5.00	20.51	10.09%	
10		1.00	23.0	2.00	2.5	2.00		60			40.5		0.00	3.24	0.00	0.00	3.24	5.00	16.22	7.98%	
11		1.00	25.0	2.00	2.6	2.00		56			40.5		0.00	3.03	0.00	0.00	3.03	5.20	15.76	7.75%	
12		1.00	27.0	2.00	2.3	2.02		51			40.5		0.00	2.76	0.00	0.00	2.76	4.60	12.71	6.25%	
13		1.00	29.0	2.00	2.1	2.01		52			40.5		0.00	2.82	0.00	0.00	2.82	4.20	11.83	5.82%	
14		1.00	31.0	1.50	2.3	2.01		34			40.5		0.00	1.85	0.00	0.00	1.85	3.45	6.38	3.14%	
15		1.00	32.0	1.25	1.9	1.08		19			41		0.00	1.03	0.00	0.00	1.03	2.38	2.45	1.20%	
Dead Right Edge of Water			33.5																		
Right Edge of Water			34.5			#REF!															
					Totals:	**#REF!**												67.43	203.28		

Summary:

Discharge:	203.28	cfs
Width:	32.5	ft
Area:	67.43	ft^2
Mean Depth:	2.07	ft
Mean Velocity:	3.01	fps
Max % Flow:	12.41%	
Wetted Perimeter	#REF!	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF JB		**Begin Time:**	17:00	
Date:	11/5/99		**End Time:**	18:15	
Location:	FRESHWATER		**Begin Gage Height:**	0.21	ft
Site:	FTR		**End Gage Height:**	0.21	ft
Meter:	**Type:**	AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	NS		**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			5																		
1		1.00	10	5.00	0.3	5.01		0					0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00%	
2		1.00	15	3.50	0.7	5.02		0					0.00	0.00	0.00	0.00	0.00	2.45	0.00	0.00%	
3		1.00	17	1.25	0.9	2.01		0					0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00%	
4	10	0.98	17.5	0.50	0.9	0.50		0					0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00%	
5	10	0.98	18	0.50	1	0.51		3			68.5		0.00	0.12	0.00	0.00	0.11	0.50	0.06	7.52%	
6	10	0.98	18.5	0.50	1	0.50		1			83.8		0.00	0.05	0.00	0.00	0.05	0.50	0.02	3.00%	
7	10	0.98	19.0	0.50	1	0.50		1			71.8		0.00	0.05	0.00	0.00	0.05	0.50	0.02	3.28%	
8	10	0.98	19.5	0.50	1.1	0.51		3			82.3		0.00	0.10	0.00	0.00	0.10	0.55	0.05	7.12%	
9	10	0.98	20.0	0.50	1.1	0.50		2			50.9		0.00	0.11	0.00	0.00	0.10	0.55	0.06	7.57%	
10	10	0.98	20.5	0.50	1.1	0.50		5			51.8		0.00	0.23	0.00	0.00	0.23	0.55	0.12	16.50%	
11	5	1.00	21.0	0.50	1	0.51		4			47.3		0.00	0.20	0.00	0.00	0.20	0.50	0.10	13.45%	
12	5	1.00	21.5	0.50	0.6	0.64		8			44.3		0.00	0.41	0.00	0.00	0.41	0.30	0.12	16.36%	
13	5	1.00	22.0	0.50	0.7	0.51		6			45.2		0.00	0.31	0.00	0.00	0.31	0.35	0.11	14.26%	
14		1.00	22.5	0.50	0.8	0.51		5			58.3		0.00	0.21	0.00	0.00	0.21	0.40	0.08	10.95%	
15		1.00	23.0	0.55	0.1	0.86		0					0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00%	
Right Edge of Water			23.6					0													
					Totals:	**18.58**												10.28	0.76		

Summary:

Discharge:	**0.76**	cfs
Width:	**18.6**	ft
Area:	**10.28**	ft^2
Mean Depth:	**0.55**	ft
Mean Velocity:	**0.07**	fps
Max % Flow:	**16.50%**	
Wetted Perimeter	**18.58**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN CF TR		**Begin Time:**	17:06	
Date:	2/14/00		**End Time:**	17:25	
Location:	FRESHWATER		**Begin Gage Height:**	3.80	ft
Site:	FTR PCB		**End Gage Height:**	3.70	ft
Meter:	**Type:**	CRANE	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Equations for AA
Remarks:
Falling limb DI#3 16:55 4th of day
computer stage at start 3.7x DI#4 17:40
Price AA

Tape probably starts extended beyond nail
try to compare abut distance with previous days to correlate

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			4.5																		
Dead Left Edge of Water			8.0																		
1		1.00	9.0	1.50	2.9	5.35		40			42.0		0.00	2.10	0.00	0.00	2.10	4.35	9.12	1.44%	
2		1.00	11.0	2.00	3.4	2.06		35			41.0		0.00	1.88	0.00	0.00	1.88	6.80	12.79	2.01%	
3		1.00	13.0	2.00	3.7	2.02		75			42.0		0.00	3.91	0.00	0.00	3.91	7.40	28.90	4.55%	
4		1.00	15.0	2.00	4.0	2.02		110			41.5		0.00	5.78	0.00	0.00	5.78	8.00	46.25	7.29%	
5		1.00	17.0	2.00	4.0	2.00		125			41.0		0.00	6.65	0.00	0.00	6.65	8.00	53.17	8.37%	
6		1.00	19.0	2.00	2.7	2.39		130			41.5		0.00	6.83	0.00	0.00	6.83	5.40	36.87	5.81%	
7		1.00	21.0	2.00	4.1	2.44		125			40.0		0.00	6.81	0.00	0.00	6.81	8.20	55.85	8.80%	
8		1.00	23.0	2.00	4.3	2.01		120			40.2		0.00	6.51	0.00	0.00	6.51	8.60	55.97	8.81%	
9		1.00	25.0	2.00	4	2.02		135			41		0.00	7.18	0.00	0.00	7.18	8.00	57.40	9.04%	
10		1.00	27	2.00	3.8	2.01		135			40.2		0.00	7.32	0.00	0.00	7.32	7.60	55.61	8.76%	
11		1.00	29	2.00	4.1	2.02		135			41.0		0.00	7.18	0.00	0.00	7.18	8.20	58.84	9.27%	
12		1.00	31.0	2.00	3.8	2.02		125			40.5		0.00	6.73	0.00	0.00	6.73	7.60	51.13	8.05%	
13		1.00	33.0	2.00	3.8	2.00		115			40.5		0.00	6.19	0.00	0.00	6.19	7.60	47.06	7.41%	
14		1.00	35.0	2.00	3.8	2.00		100			41.5		0.00	5.26	0.00	0.00	5.26	7.60	39.97	6.29%	
15		1.00	37.0	1.50	3.8	2.00		85			40.7		0.00	4.56	0.00	0.00	4.56	5.70	26.00	4.10%	
Right Edge of Water			38			#REF!															
					Totals:	**#REF!**												#####	634.92		

Summary:

Discharge:	634.92	cfs
Width:	33.5	ft
Area:	109.05	ft^2
Mean Depth:	3.26	ft
Mean Velocity:	5.82	fps
Max % Flow:	9.27%	
Wetted Perimeter	#REF!	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN CD TR	**Begin Time:**	14:29		
Date:	2/14/00	**End Time:**	14:50		
Location:	FRESHWATER	**Begin Gage Height:**	4.15	ft	Equations for AA
Site:	FTR PCB	**End Gage Height:**	4.10	ft	
Meter:	Type: CRANE	**Accuracy Rating:**	NS		
Spin Test (pre-Q):		**Water Temperature:**	NS		
Spin Test (post-Q):		**Air Temperature:**	NS		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			4.0																		
Dead Left Edge of Water			8.0																		
1		1.00	9.0	1.50	3.0	5.83		35			42.0		0.00	1.84	0.00	0.00	1.84	4.50	8.27	1.09%	
2		1.00	11.0	2.00	3.6	2.09		50			42.0		0.00	2.61	0.00	0.00	2.61	7.20	18.82	2.47%	
3		1.00	13.0	2.00	3.8	2.01		60			42.0		0.00	3.13	0.00	0.00	3.13	7.60	23.79	3.13%	
4		1.00	15.0	2.00	4.4	2.09		115			40.7		0.00	6.16	0.00	0.00	6.16	8.80	54.22	7.13%	
5		1.00	17.0	2.00	4.1	2.02		135			40.5		0.00	7.26	0.00	0.00	7.26	8.20	59.56	7.83%	
6		1.00	19.0	2.00	4.4	2.02		150			41.0		0.00	7.97	0.00	0.00	7.97	8.80	70.13	9.22%	
7		1.00	21.0	2.00	3.9	2.06		160			41.0		0.00	8.50	0.00	0.00	8.50	7.80	66.29	8.71%	
8		1.00	23.0	2.00	3.8	2.00		150			40.2		0.00	8.13	0.00	0.00	8.13	7.60	61.77	8.12%	
9		1.00	25.0	2.00	4.2	2.04		150			41.2		0.00	7.93	0.00	0.00	7.93	8.40	66.62	8.76%	
10		1.00	27.0	2.00	4.1	2.00		140			40.7		0.00	7.49	0.00	0.00	7.49	8.20	61.45	8.08%	
11		1.00	29.0	2.00	4.2	2.00		140			40.2		0.00	7.59	0.00	0.00	7.59	8.40	63.73	8.38%	
12		1.00	31.0	2.00	4.3	2.00		130			40.2		0.00	7.05	0.00	0.00	7.05	8.60	60.61	7.97%	
13		1.00	33.0	2.00	4.4	2.00		125			40.2		0.00	6.78	0.00	0.00	6.78	8.80	59.64	7.84%	
14		1.00	35.0	2.00	4.2	2.01		110			41.0		0.00	5.85	0.00	0.00	5.85	8.40	49.16	6.46%	
15		1.00	37.0	1.50	4.2	2.00		110			41.2		0.00	5.82	0.00	0.00	5.82	6.30	36.69	4.82%	
Dead Right Edge of Water			38.0																		
Right Edge of Water			41.5			#REF!															
					Totals:	**#REF!**												#####	760.73		

Summary:

Discharge:	760.73	cfs
Width:	37.5	ft
Area:	117.60	ft^2
Mean Depth:	3.14	ft
Mean Velocity:	6.47	fps
Max % Flow:	9.22%	
Wetted Perimeter	#REF!	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN CF TR			**Begin Time:**	12:52		
Date:	2/14/00			**End Time:**	13:15		
Location:	FRESHWATER			**Begin Gage Height:**	4.40	ft	Equations for AA
Site:	FTR PCB			**End Gage Height:**	4.35	ft	Remarks:
Meter:		**Type:**	AA	**Accuracy Rating:**	NS		Rising limb 2nd of day
Spin Test (pre-Q):	NS			**Water Temperature:**	NS		DI #1 12:40 computer stage@13:17 4.3059
Spin Test (post-Q):				**Air Temperature:**	NS		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			3.0																		
Dead Left Edge of Water			8.0																		
1		1.00	9.0	1.50	3.0	6.71		30			42.0		0.00	1.58	0.00	0.00	1.58	4.50	7.10	0.82%	
2		1.00	11.0	2.00	4.1	2.28		45			43.0		0.00	2.30	0.00	0.00	2.30	8.20	18.87	2.17%	
3		1.00	13.0	2.00	4.2	2.00		75			43.0		0.00	3.81	0.00	0.00	3.81	8.40	32.05	3.69%	
4		1.00	15.0	2.00	4.2	2.00		115			42.1		0.00	5.96	0.00	0.00	5.96	8.40	50.04	5.76%	
5		1.00	17.0	2.00	4.4	2.01		145			42.6		0.00	7.42	0.00	0.00	7.42	8.80	65.26	7.51%	
6		1.00	19.0	2.00	4.4	2.00		160			42.0		0.00	8.30	0.00	0.00	8.30	8.80	73.01	8.40%	
7		1.00	21.0	2.00	4.7	2.02		165			43.0		0.00	8.36	0.00	0.00	8.36	9.40	78.55	9.04%	
8		1.00	23.0	2.00	4.5	2.01		165			42.2		0.00	8.51	0.00	0.00	8.51	9.00	76.63	8.82%	
9		1.00	25.0	2.00	4.5	2.00		165			42		0.00	8.56	0.00	0.00	8.56	9.00	77.00	8.86%	
10		1.00	27.0	2.00	4.6	2.00		170			42.8		0.00	8.65	0.00	0.00	8.65	9.20	79.57	9.15%	
11		1.00	29.0	2.00	4.5	2.00		165			42.0		0.00	8.56	0.00	0.00	8.56	9.00	77.00	8.86%	
12		1.00	31.0	2.00	4.3	2.01		155			42.0		0.00	8.04	0.00	0.00	8.04	8.60	69.13	7.95%	
13		1.00	33.0	2.00	4.4	2.00		145			42.0		0.00	7.52	0.00	0.00	7.52	8.80	66.19	7.61%	
14		1.00	35.0	2.00	4.4	2.00		130			42.0		0.00	6.75	0.00	0.00	6.75	8.80	59.37	6.83%	
15		1.00	37.0	1.50	4.3	2.00		115			41.0		0.00	6.12	0.00	0.00	6.12	6.45	39.45	4.54%	
Dead Right Edge of Water			38.0																		
Right Edge of Water			41.5																		
					Totals:	35.06												#####	869.22		

Summary:

Discharge:	869.22	cfs
Width:	38.5	ft
Area:	125.35	ft^2
Mean Depth:	3.26	ft
Mean Velocity:	6.93	fps
Max % Flow:	9.15%	
Wetted Perimeter	35.06	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN CF TR			**Begin Time:**	11:57		
Date:	2/14/00			**End Time:**	12:25		
Location:	FRESHWATER			**Begin Gage Height:**	3.95	ft	Equations for AA
Site:	FTR PCB			**End Gage Height:**	4.20	ft	
Meter:		**Type:**	CRANE	**Accuracy Rating:**	NS		
Spin Test (pre-Q):				**Water Temperature:**	NS		
Spin Test (post-Q):				**Air Temperature:**	NS		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			4.5																		
Dead Left Edge of Water			8.0																		
1		1.00	9.0	1.50	2.5	5.15		45			43.5		0.00	2.27	0.00	0.00	2.27	3.75	8.53	1.09%	
2		1.00	11.0	2.00	3.6	2.28		50			42.7		0.00	2.57	0.00	0.00	2.57	7.20	18.51	2.37%	
3		1.00	13.0	2.00	3.7	2.00		50			40.5		0.00	2.71	0.00	0.00	2.71	7.40	20.05	2.57%	
4		1.00	15.0	2.00	4.0	2.02		95			41.0		0.00	5.06	0.00	0.00	5.06	8.00	40.46	5.18%	
5		1.00	17.0	2.00	4.0	2.00		125			39.5		0.00	6.90	0.00	0.00	6.90	8.00	55.18	7.06%	
6		1.00	19.0	2.00	4.2	2.01		150			40.0		0.00	8.17	0.00	0.00	8.17	8.40	68.61	8.78%	
7		1.00	21.0	2.00	4.1	2.00		155			40.5		0.00	8.33	0.00	0.00	8.33	8.20	68.35	8.75%	
8		1.00	23.0	2.00	4	2.00		150			40.5		0.00	8.07	0.00	0.00	8.07	8.00	64.54	8.26%	
9		1.00	25.0	2.00	4.1	2.00		155			40.5		0.00	8.33	0.00	0.00	8.33	8.20	68.35	8.75%	
10		1.00	27	2.00	4.4	2.02		165			40.1		0.00	8.96	0.00	0.00	8.96	8.80	78.84	10.09%	
11		1.00	29	2.00	4.4	2.00		160			40.5		0.00	8.60	0.00	0.00	8.60	8.80	75.70	9.69%	
12		1.00	31.0	2.00	4.2	2.01		145			40.5		0.00	7.80	0.00	0.00	7.80	8.40	65.51	8.39%	
13		1.00	33.0	2.00	4.1	2.00		135			42.0		0.00	7.01	0.00	0.00	7.01	8.20	57.44	7.35%	
14		1.00	35.0	2.00	4.3	2.01		120			40.0		0.00	6.54	0.00	0.00	6.54	8.60	56.24	7.20%	
15		1.00	37.0	1.50	4.0	2.02		110			41.2		0.00	5.82	0.00	0.00	5.82	6.00	34.94	4.47%	
Right Edge of Water			38																		
					Totals:	**33.54**												#####	781.25		

Summary:

Discharge:	**781.25**	cfs
Width:	**33.5**	ft
Area:	**115.95**	ft^2
Mean Depth:	**3.46**	ft
Mean Velocity:	**6.74**	fps
Max % Flow:	**10.09%**	
Wetted Perimeter	**33.54**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	TR PETRO		**Begin Time:**	4:27	
Date:	1/14/00		**End Time:**	4:50	
Location:	FRESHWATER		**Begin Gage Height:**	2.90	ft
Site:	FTR PCB		**End Gage Height:**	2.90	ft
Meter:	**Type:**	AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			3.5																		
1		1.00	5.0	1.75	3.1	3.44		30			40.0		0.00	1.66	0.00	0.00	1.66	5.43	8.98	1.84%	
2		1.00	7.0	2.00	3.2	2.00		35			43.0		0.00	1.79	0.00	0.00	1.79	6.40	11.48	2.35%	
3		1.00	9.0	2.00	3.5	2.02		60			41.0		0.00	3.21	0.00	0.00	3.21	7.00	22.44	4.60%	
4		1.00	11.0	2.00	3.6	2.00		100			40.0		0.00	5.46	0.00	0.00	5.46	7.20	39.28	8.04%	
5		1.00	13.0	2.00	3.5	2.00		110			41.0		0.00	5.85	0.00	0.00	5.85	7.00	40.96	8.39%	
6		1.00	15.0	2.00	3.6	2.00		115			42.0		0.00	5.97	0.00	0.00	5.97	7.20	43.00	8.80%	
7		1.00	17.0	2.00	3.7	2.00		120			41.0		0.00	6.38	0.00	0.00	6.38	7.40	47.22	9.67%	
8		1.00	19.0	2.00	3.8	2.00		130			42.0		0.00	6.75	0.00	0.00	6.75	7.60	51.27	10.50%	
9		1.00	21.0	2.00	3.8	2.00		125			42.0		0.00	6.49	0.00	0.00	6.49	7.60	49.31	10.10%	
10		1.00	23.0	2.00	3.7	2.00		115			42.0		0.00	5.97	0.00	0.00	5.97	7.40	44.19	9.05%	
11		1.00	25.0	2.00	3.7	2.00		110			43.0		0.00	5.58	0.00	0.00	5.58	7.40	41.30	8.46%	
12		1.00	27.0	2.00	3.5	2.01		105			42.0		0.00	5.46	0.00	0.00	5.46	7.00	38.19	7.82%	
13		1.00	29.0	2.00	3.6	2.00		95			42.0		0.00	4.94	0.00	0.00	4.94	7.20	35.56	7.28%	
14		1.00	31.0	1.25	3.4	2.01		70			43.0		0.00	3.56	0.00	0.00	3.56	4.25	15.14	3.10%	
Right Edge of Water			31.5																		
					Totals:	**29.51**												96.08	488.32		

Summary:

Discharge:	**488.32**	cfs
Width:	**28.0**	ft
Area:	**96.08**	ft^2
Mean Depth:	**3.43**	ft
Mean Velocity:	**5.08**	fps
Max % Flow:	**10.50%**	
Wetted Perimeter	**29.51**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	SF PP TR	**Begin Time:**	12:35		
Date:	1/14/00	**End Time:**	12:59		
Location:	FRESHWATER	**Begin Gage Height:**	4.10	ft	Equations for AA
Site:	PCB FTR	**End Gage Height:**	3.95	ft	Remarks:
Meter:	Type: CRANE	**Accuracy Rating:**	NS		DI sample #3 for day taken immediately after this discharge
Spin Test (pre-Q):		**Water Temperature:**	NS		3rd of the day
Spin Test (post-Q):		**Air Temperature:**	NS		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			3.5																		
1		1.00	5.0	1.75	4.1	4.37		40			42.0		0.00	2.10	0.00	0.00	2.10	7.18	15.04	1.92%	
2		1.00	7.0	2.00	4.4	2.02		40			41.0		0.00	2.15	0.00	0.00	2.15	8.80	18.89	2.41%	
3		1.00	9.0	2.00	4.8	2.04		70			40.0		0.00	3.83	0.00	0.00	3.83	9.60	36.74	4.70%	
4		1.00	11.0	2.00	4.9	2.00		115			41.0		0.00	6.12	0.00	0.00	6.12	9.80	59.94	7.66%	
5		1.00	13.0	2.00	5.0	2.00		135			41.0		0.00	7.18	0.00	0.00	7.18	10.00	71.75	9.17%	
6		1.00	15.0	2.00	5.0	2.00		145			41.0		0.00	7.70	0.00	0.00	7.70	10.00	77.04	9.84%	
7		1.00	17.0	2.00	4.8	2.01		140			41.0		0.00	7.44	0.00	0.00	7.44	9.60	71.42	9.13%	
8		1.00	19.0	2.00	4.9	2.00		145			41		0.00	7.70	0.00	0.00	7.70	9.80	75.50	9.65%	
9		1.00	21.0	2.00	4.9	2.00		145			42		0.00	7.52	0.00	0.00	7.52	9.80	73.71	9.42%	
10		1.00	23	2.00	4.9	2.00		145			41.5		0.00	7.61	0.00	0.00	7.61	9.80	74.60	9.53%	
11		1.00	25	2.00	4.9	2.00		135			42.0		0.00	7.01	0.00	0.00	7.01	9.80	68.65	8.77%	
12		1.00	27.0	2.00	4.6	2.02		130			42.0		0.00	6.75	0.00	0.00	6.75	9.20	62.07	7.93%	
13		1.00	29.0	2.00	4.5	2.00		110			41.0		0.00	5.85	0.00	0.00	5.85	9.00	52.67	6.73%	
14		1.00	31.0	1.25	4.2	2.02		90			42.0		0.00	4.68	0.00	0.00	4.68	5.25	24.57	3.14%	
Right Edge of Water			31.5																		
					Totals:	30.49												#####	782.61		

Summary:

Discharge:	782.61	cfs
Width:	28.0	ft
Area:	127.63	ft^2
Mean Depth:	4.56	ft
Mean Velocity:	6.13	fps
Max % Flow:	9.84%	
Wetted Perimeter	30.49	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	RE KM TR		**Begin Time:**	11:12	
Date:	1/14/00		**End Time:**	11:30	
Location:	FRESHWATER		**Begin Gage Height:**	4.40	ft
Site:	PCB FTR		**End Gage Height:**	4.25	ft
Meter:		**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Measurement No: _____ **Rating No:** _____ **Shift Adj:** _____ **Percent Diff:** _____

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
1		1.00	5.0	3.50	4.2	5.16		40			44.0		0.00	0.92	0.00	0.00	0.92	14.70	13.47	3.34%	
2		1.00	9.0	4.00	5.2	4.12		100			41.0		0.00	2.41	0.00	0.00	2.41	20.80	50.15	12.43%	
3		1.00	13.0	3.00	5.6	4.02		125			40.5		0.00	3.04	0.00	0.00	3.04	16.80	51.13	12.67%	
4		1.00	15.0	2.00	5.5	2.00		115			40.0		0.00	2.84	0.00	0.00	2.84	11.00	31.21	7.73%	
5		1.00	17.0	2.00	5.5	2.00		130			41.0		0.00	3.13	0.00	0.00	3.13	11.00	34.38	8.52%	
6		1.00	19.0	2.00	5.8	2.02		155			41.0		0.00	3.72	0.00	0.00	3.72	11.60	43.17	10.70%	
7		1.00	21.0	2.00	5.9	2.00		155			41.0		0.00	3.72	0.00	0.00	3.72	11.80	43.91	10.88%	
8		1.00	23.0	2.00	5.5	2.04		145			41.0		0.00	3.48	0.00	0.00	3.48	11.00	38.32	9.50%	
9		1.00	25.0	2.00	5.4	2.00		145			41.0		0.00	3.48	0.00	0.00	3.48	10.80	37.62	9.32%	
10		1.00	27.0	2.00	5.0	2.04		130			41.0		0.00	3.13	0.00	0.00	3.13	10.00	31.26	7.75%	
11		1.00	29.0	2.00	5.0	2.00		120			41.0		0.00	2.89	0.00	0.00	2.89	10.00	28.88	7.16%	
Right Edge of Water			31																		
					Totals:	29.41												#####	403.49		

Summary:

Discharge:	403.49 cfs
Width:	29.0 ft
Area:	139.50 ft^2
Mean Depth:	4.81 ft
Mean Velocity:	2.89 fps
Max % Flow:	12.67%
Wetted Perimeter	29.41 ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	RE /KM / TR		**Begin Time:**	10:31	
Date:	1/14/00		**End Time:**	10:57	
Location:	FRESHWATER		**Begin Gage Height:**	4.50	ft
Site:	FTR		**End Gage Height:**	4.50	ft
Meter:	**Type:**	AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	NS		**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
1		1.00	5.0	3.50	4.3	5.20		50			43.0		0.00	2.55	0.00	0.00	2.55	14.88	37.98	3.96%	
2		1.00	9.0	4.00	5.2	4.11		75			42.0		0.00	3.91	0.00	0.00	3.91	20.80	81.22	8.47%	
3		1.00	13.0	4.00	5.7	4.03		135			41.0		0.00	7.18	0.00	0.00	7.18	22.80	163.59	17.07%	
4		1.00	17.0	4.00	5.8	4.00		165			41.0		0.00	8.76	0.00	0.00	8.76	23.20	203.30	21.21%	
5		1.00	21.0	4.00	5.8	4.00		160			41.0		0.00	8.50	0.00	0.00	8.50	23.20	197.16	20.57%	
6		1.00	25.0	4.00	5.2	4.04		150			42.0		0.00	7.78	0.00	0.00	7.78	20.80	161.82	16.88%	
7		1.00	29.0	3.35	4.9	4.01		130			41.0		0.00	6.91	0.00	0.00	6.91	16.42	113.44	11.83%	
Right Edge of Water			31.7																		
					Totals:	**29.40**												#####	958.52		

Summary:

Discharge:	**958.52**	cfs
Width:	**29.7**	ft
Area:	**142.09**	ft^2
Mean Depth:	**4.78**	ft
Mean Velocity:	**6.75**	fps
Max % Flow:	**21.21%**	
Wetted Perimeter	**29.40**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF	**Begin Time:**	14:50
Date:	11/21/99	**End Time:**	15:52
Location:	FRESHWATER	**Begin Gage Height:**	0.71 ft
Site:	FTR	**End Gage Height:**	0.70 ft
Meter:	Type: PYGMY	**Accuracy Rating:**	NS
Spin Test (pre-Q):		**Water Temperature:**	NS
Spin Test (post-Q):		**Air Temperature:**	NS

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
							0.2	0.6	0.8				At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)				(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			1																		
1		1.00	2	1.00	0.4	1.08							0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00%	
2		1.00	3	1.00	0.6	1.02							0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00%	
3		1.00	4	1.00	0.7	1.00		0					0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00%	
4		1.00	5	1.00	1	1.04		0					0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00%	
5		1.00	6	1.00	1.13	1.01		0					0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00%	
6		1.00	7	1.00	1.3	1.01		0			0		0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00%	
7		1.00	8.0	1.00	1.4	1.00		0			0		0.00	0.00	0.00	0.00	0.00	1.40	0.00	0.00%	
8		1.00	9.0	1.00	1.5	1.00		11			43.72		0.00	0.27	0.00	0.00	0.27	1.50	0.41	1.89%	
9		1.00	10.0	1.00	1.5	1.00		15			41.44		0.00	0.38	0.00	0.00	0.38	1.50	0.57	2.63%	
10		1.00	11.0	1.00	1.42	1.00		29			42.31		0.00	0.70	0.00	0.00	0.70	1.42	0.99	4.55%	
11		1.00	12.0	1.00	1.33	1.00		42			42.69		0.00	0.99	0.00	0.00	0.99	1.33	1.32	6.04%	
12		1.00	13.0	1.00	1.3	1.00		50			41.32		0.00	1.21	0.00	0.00	1.21	1.30	1.57	7.22%	
13		1.00	14.0	1.00	1.3	1.00		56			42.5		0.00	1.32	0.00	0.00	1.32	1.30	1.71	7.85%	
14		1.00	15.0	1.00	1.28	1.00		58			41.78		0.00	1.38	0.00	0.00	1.38	1.28	1.77	8.14%	
15		1.00	16.0	1.00	1.31	1.00		59			41.44		0.00	1.42	0.00	0.00	1.42	1.31	1.86	8.54%	
16		1.00	17.0	1.00	1.31	1.00		43			43.07		0.00	1.00	0.00	0.00	1.00	1.31	1.31	6.04%	
17		1.00	18.0	1.00	1.22	1.00		48			42.39		0.00	1.13	0.00	0.00	1.13	1.22	1.38	6.35%	
18		1.00	19.0	1.00	1.13	1.00		52			42.25		0.00	1.23	0.00	0.00	1.23	1.13	1.39	6.38%	
19		1.00	20.0	1.00	1.14	1.00		56			41.93		0.00	1.33	0.00	0.00	1.33	1.14	1.52	6.98%	
20		1.00	21.0	1.00	1.15	1.00		55			43.78		0.00	1.26	0.00	0.00	1.26	1.15	1.44	6.63%	
21		1.00	22.0	1.00	1.22	1.00		45			44.06		0.00	1.03	0.00	0.00	1.03	1.22	1.25	5.75%	
22		1.00	23.0	1.00	1.35	1.01		35			44.69		0.00	0.79	0.00	0.00	0.79	1.35	1.07	4.92%	
23		1.00	24.0	1.00	1.4	1.00		33			54.46		0.00	0.62	0.00	0.00	0.62	1.40	0.87	3.99%	
24		1.00	25.0	1.00	1.39	1.00		20			46.88		0.00	0.44	0.00	0.00	0.44	1.39	0.62	2.84%	
25		1.00	26.0	1.00	1.41	1.00		12			43.37		0.00	0.30	0.00	0.00	0.30	1.41	0.42	1.93%	
26		1.00	27.0	1.00	1.42	1.00		8			43.91		0.00	0.21	0.00	0.00	0.21	1.42	0.29	1.34%	
27		1.00	28.0	1.00	1.5	1.00		0			0		0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00%	
28		1.00	29.0	1.00	1.39	1.01		0					0.00	0.00	0.00	0.00	0.00	1.39	0.00	0.00%	
29		1.00	30.0	1.25	0.45	1.37							0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00%	
30		1.00	31.5	15.00		1.57							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Right Edge of Water				15.75																	
				Totals:	**31.16**													35.06	21.78		

Summary:

Discharge:	21.78 cfs
Width:	1.0 ft
Area:	35.06 ft^2
Mean Depth:	35.06 ft
Mean Velocity:	0.62 fps
Max % Flow:	8.54%
Wetted Perimeter	31.16 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF JN	**Begin Time:**	17:15		
Date:	1/11/00	**End Time:**	17:55		
Location:	FRESHWATER	**Begin Gage Height:**	2.00 ft	Equations for AA	
Site:	FTR	**End Gage Height:**	1.95 ft	Remarks:	
Meter:	Type: AA	**Accuracy Rating:**	NS	Falling Limb	
Spin Test (pre-Q):	CRANE	**Water Temperature:**	NS	2 X 4 needs extending on bridge rail	
Spin Test (post-Q):		**Air Temperature:**	NS		

Measurement No: | **Rating No:** | **Shift Adj:** | **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			1.5																		
Dead Left Edge of Water			4.5																		
1		1.00	5.0	0.75	1.7	3.89		7			50.0		0.00	0.33	0.00	0.00	0.33	1.28	0.41	0.17%	
2		1.00	6.0	1.00	2.2	1.12		9			43.5		0.00	0.47	0.00	0.00	0.47	2.20	1.04	0.42%	
3		1.00	7.0	1.00	2.4	1.02		14			41.0		0.00	0.76	0.00	0.00	0.76	2.40	1.83	0.74%	
4		1.00	8.0	1.00	2.6	1.02		22			41.0		0.00	1.19	0.00	0.00	1.19	2.60	3.09	1.24%	
5		1.00	9.0	1.00	2.6	1.00		36			40.5		0.00	1.96	0.00	0.00	1.96	2.60	5.09	2.04%	
6		1.00	10.0	1.00	2.7	1.00		67			40.5		0.00	3.62	0.00	0.00	3.62	2.70	9.77	3.92%	
7		1.00	11.0	1.00	2.8	1.00		73			40.0		0.00	3.99	0.00	0.00	3.99	2.80	11.17	4.48%	
8		1.00	12.0	1.00	2.9	1.00		89			40.0		0.00	4.86	0.00	0.00	4.86	2.90	14.09	5.65%	
9		1.00	13.0	1.00	3.0	1.00		82			40.5		0.00	4.42	0.00	0.00	4.42	3.00	13.27	5.33%	
10		1.00	14.0	1.00	3.0	1.00		79			40.0		0.00	4.32	0.00	0.00	4.32	3.00	12.95	5.20%	
11		1.00	15.0	1.00	2.9	1.00		65			40.5		0.00	3.51	0.00	0.00	3.51	2.90	10.19	4.09%	
12		1.00	16.0	1.00	2.7	1.02		70			40.0		0.00	3.83	0.00	0.00	3.83	2.70	10.33	4.15%	
13		1.00	17.0	1.00	2.8	1.00		81			39.5		0.00	4.48	0.00	0.00	4.48	2.80	12.54	5.03%	
14		1.00	18.0	1.00	3.0	1.02		80			40.0		0.00	4.37	0.00	0.00	4.37	3.00	13.11	5.26%	
15		1.00	19.0	1.00	2.9	1.00		84			40.0		0.00	4.59	0.00	0.00	4.59	2.90	13.30	5.34%	
16		1.00	20.0	1.00	2.6	1.04		84			40.0		0.00	4.59	0.00	0.00	4.59	2.60	11.93	4.79%	
17		1.00	21.0	1.00	3.0	1.08		85			40.0		0.00	4.64	0.00	0.00	4.64	3.00	13.92	5.59%	
18		1.00	22.0	1.00	2.8	1.02		81			40.0		0.00	4.42	0.00	0.00	4.42	2.80	12.39	4.97%	
19		1.00	23.0	1.00	2.9	1.00		69			40.0		0.00	3.77	0.00	0.00	3.77	2.90	10.94	4.39%	
20		1.00	24.0	1.00	2.8	1.00		69			39.5		0.00	3.82	0.00	0.00	3.82	2.80	10.70	4.29%	
21		1.00	25.0	1.00	2.8	1.00		67			39.5		0.00	3.71	0.00	0.00	3.71	2.80	10.39	4.17%	
22		1.00	26.0	1.00	2.7	1.00		65			40.0		0.00	3.56	0.00	0.00	3.56	2.70	9.60	3.85%	
23		1.00	27.0	1.00	2.7	1.00		57			39.0		0.00	3.20	0.00	0.00	3.20	2.70	8.64	3.47%	
24		1.00	28.0	1.00	2.6	1.00		57			40.5		0.00	3.08	0.00	0.00	3.08	2.60	8.02	3.22%	
25		1.00	29.0	1.00	2.2	1.08		53			40.5		0.00	2.87	0.00	0.00	2.87	2.20	6.31	2.53%	
26		1.00	30.0	1.00	2.1	1.00		55			40.0		0.00	3.01	0.00	0.00	3.01	2.10	6.33	2.54%	
27		1.00	31.0	1.00	2.5	1.08		40			40.5		0.00	2.17	0.00	0.00	2.17	2.50	5.43	2.18%	
28		1.00	32.0	0.75	2.3	1.02		26			41.5		0.00	1.39	0.00	0.00	1.39	1.73	2.39	0.96%	
29		1.00	32.5	1.25		2.35							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
30		1.00	34.5	16.25		2.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
31		1.00		17.25		34.50							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
32		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
33		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
34		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
35		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Dead Right Edge of Water																					
Right Edge of Water						0.00															
					Totals:	70.32												73.20	249.20		

Summary:

Discharge:	249.20 cfs
Width:	1.5 ft
Area:	73.20 ft^2
Mean Depth:	48.80 ft
Mean Velocity:	3.40 fps
Max % Flow:	5.65%
Wetted Perimeter	70.32 ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF JN		**Begin Time:**	20:36	
Date:	2/28/00		**End Time:**	20*56	
Location:	FRESHWATER		**Begin Gage Height:**	1.72	ft
Site:	FTR PCB		**End Gage Height:**	1.70	ft
Meter:	Type:	CARNE	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Equations for AA
Falling Limb OBS-3 57 NTU
OBS-3 56 NTU @ 21:00

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
Dead Left Edge of Water			4.0																		
1		1.00	5.0	1.50	1.5	3.35		15			42.2		0.00	0.79	0.00	0.00	0.79	2.25	1.79	1.09%	
2		1.00	7.0	2.00	1.8	2.02		31			41.0		0.00	1.67	0.00	0.00	1.67	3.60	6.01	3.67%	
3		1.00	9.0	2.00	2.0	2.01		56			40.4		0.00	3.04	0.00	0.00	3.04	4.00	12.15	7.43%	
4		1.00	11.0	2.00	2.0	2.00		65			40.2		0.00	3.54	0.00	0.00	3.54	4.00	14.15	8.66%	
5		1.00	13.0	2.00	2.0	2.00		66			40.5		0.00	3.57	0.00	0.00	3.57	4.00	14.27	8.73%	
6		1.00	15.0	2.00	1.8	2.01		71			41.5		0.00	3.74	0.00	0.00	3.74	3.60	13.47	8.24%	
7		1.00	17.0	2.00	1.8	2.00		76			40.0		0.00	4.15	0.00	0.00	4.15	3.60	14.95	9.15%	
8		1.00	19.0	2.00	1.8	2.00		76			40.2		0.00	4.13	0.00	0.00	4.13	3.60	14.88	9.10%	
9		1.00	21.0	2.00	1.7	2.00		79			40.2		0.00	4.29	0.00	0.00	4.29	3.40	14.60	8.93%	
10		1.00	23.0	2.00	1.7	2.00		78			40.2		0.00	4.24	0.00	0.00	4.24	3.40	14.42	8.82%	
11		1.00	25.0	2.00	1.8	2.00		67			40.2		0.00	3.65	0.00	0.00	3.65	3.60	13.13	8.03%	
12		1.00	27.0	2.00	1.9	2.00		58			40.5		0.00	3.14	0.00	0.00	3.14	3.80	11.92	7.29%	
13		1.00	29.0	2.00	2.0	2.00		57			40.0		0.00	3.12	0.00	0.00	3.12	4.00	12.49	7.64%	
14		1.00	31.0	1.25	2.0	2.00		39			41.0		0.00	2.09	0.00	0.00	2.09	2.50	5.23	3.20%	
Dead Right Edge of Water			31.5																		
Right Edge of Water			34.5			#REF!															
					Totals:	**#REF!**												49.35	163.46		

Summary:

Discharge:	**163.46**	cfs
Width:	**32.5**	ft
Area:	**49.35**	ft^2
Mean Depth:	**1.52**	ft
Mean Velocity:	**3.31**	fps
Max % Flow:	**9.15%**	
Wetted Perimeter	**#REF!**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	C. Fenton , E. Nyman , D. Van Dyke	**Begin Time:**	16:18
Date:	3/11/01	**End Time:**	16:47
Location:	Freshwater Creek	**Begin Gage Height:**	0.51 ft
Site:	FTR	**End Gage Height:**	0.51 ft
Meter:	SF #2 Type: AA	**Accuracy Rating:**	
Spin Test (pre-Q):	90 SEC +	**Water Temperature:**	
Spin Test (post-Q):	90 SEC +	**Air Temperature:**	

Equations for AA

Measurement No: _____ **Rating No:** _____ **Shift Adj:** _____ **Percent Diff:** _____

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			2.0																		
Dead Left Edge of Water			2.0																		
1		1.00	2.5	0.50	1.25	1.35		6			42.9		0.00	0.32	0.00	0.00	0.32	0.63	0.20	1.60%	
2		1.00	3.0	0.50	1.65	0.64		7			43.9		0.00	0.37	0.00	0.00	0.37	0.83	0.30	2.39%	
3		1.00	3.5	0.50	1.90	1.03		7			42.5		0.00	0.38	0.00	0.00	0.38	0.95	0.36	2.83%	
4		1.00	4.0	0.50	2.00	0.51		5			51.5		0.00	0.23	0.00	0.00	0.23	1.00	0.23	1.82%	
5		1.00	4.5	0.50	2.30	0.58		5			49.5		0.00	0.24	0.00	0.00	0.24	1.15	0.28	2.17%	
6		1.00	5.0	0.50	2.20	0.51		5			47.2		0.00	0.25	0.00	0.00	0.25	1.10	0.28	2.17%	
7		1.00	5.5	0.50	2.45	0.56		6			43.9		0.00	0.32	0.00	0.00	0.32	1.23	0.39	3.06%	
8		1.00	6.0	0.50	2.40	0.50		7			41.5		0.00	0.39	0.00	0.00	0.39	1.20	0.47	3.66%	
9		1.00	6.5	0.50	2.65	0.56		14			42.9		0.00	0.73	0.00	0.00	0.73	1.33	0.97	7.63%	
10		1.00	7.0	0.50	2.70	0.50		25			42.6		0.00	1.30	0.00	0.00	1.30	1.35	1.75	13.81%	
11		1.00	7.5	0.50	2.60	0.51		26			42.9		0.00	1.34	0.00	0.00	1.34	1.30	1.75	13.73%	
12		1.00	8.0	0.50	2.60	0.50		22			41.7		0.00	1.17	0.00	0.00	1.17	1.30	1.52	11.98%	
13		1.00	8.5	0.50	2.50	0.51		14			41.0		0.00	0.76	0.00	0.00	0.76	1.25	0.96	7.52%	
14		1.00	9.0	0.50	2.35	0.52		13			43.5		0.00	0.67	0.00	0.00	0.67	1.18	0.79	6.21%	
15		1.00	9.5	0.50	2.30	0.50		10			44.7		0.00	0.51	0.00	0.00	0.51	1.15	0.58	4.60%	
16		1.00	10.0	0.50	2.20	0.51		10			42.1		0.00	0.54	0.00	0.00	0.54	1.10	0.59	4.66%	
17		1.00	10.5	0.75	2.10	1.00		6			40.9		0.00	0.34	0.00	0.00	0.34	1.58	0.54	4.21%	
18		1.00	11.5	1.00	1.85	1.03		2			40.7		0.00	0.13	0.00	0.00	0.13	1.85	0.24	1.85%	
19		1.00	12.5	1.00	1.60	1.03		1			49.2		0.00	0.06	0.00	0.00	0.06	1.60	0.10	0.81%	
20		1.00	13.5	1.00	1.20	1.08		1			55.0		0.00	0.06	0.00	0.00	0.06	1.20	0.07	0.56%	
21		1.00	14.5	1.75	0.90	2.52		5			54.8		0.00	0.22	0.00	0.00	0.22	1.58	0.35	2.72%	
22		1.00	17.0	0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
23		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
24		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
25		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
26		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
27		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
28		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
29		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
30		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
31		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
32		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
33		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
34		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
35		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Dead Right Edge of Water																					
Right Edge of Water			17			0.00															
					Totals:	16.46												25.83	12.71		

Summary:

Discharge:	**12.71** cfs
Width:	**15.0** ft
Area:	**25.83** ft^2
Mean Depth:	**1.72** ft
Mean Velocity:	**0.49** fps
Max % Flow:	**13.81%**
Wetted Perimeter	**16.46** ft

Notes:

Section:

Flow Conditions:

Weather: Clear & Warm

Control:

Remarks: 40' upstream of boom, computer discharge 26.765 cfs at 16:55

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF			**Begin Time:**	10:03		
Date:	10/21/00			**End Time:**	10:49		
Location:	FRESHWATER			**Begin Gage Height:**	0.37	ft	NS = Not Stated
Site:	FTR			**End Gage Height:**	0.37	ft	Remarks: Electronic Stage 16.040 CFS
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		Hach # 22431 0.92 NTU by CF 11:15
Spin Test (pre-Q):	60+			**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
							0.2	0.6	0.8				At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)				(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			0.5																		
Dead Left Edge of Water			0.75																		
1		1.00	1.00	0.25	0.55	0.74		3			46.3		0.00	0.09	0.00	0.00	0.09	0.14	0.01	0.64%	
2		1.00	1.25	0.38	0.70	0.29		5			47.3		0.00	0.13	0.00	0.00	0.13	0.26	0.03	1.75%	
3		1.00	1.75	0.50	0.75	0.50		10			41.4		0.00	0.26	0.00	0.00	0.26	0.38	0.10	5.02%	
4		1.00	2.25	0.50	1.00	0.56		12			42.2		0.00	0.31	0.00	0.00	0.31	0.50	0.15	7.75%	
5		1.00	2.75	0.50	0.90	0.51		6			49.8		0.00	0.15	0.00	0.00	0.15	0.45	0.07	3.32%	
6		1.00	3.25	0.50	0.79	0.51		15			40.8		0.00	0.39	0.00	0.00	0.39	0.40	0.15	7.75%	
7		1.00	3.75	0.50	0.70	0.51		18			41.9		0.00	0.45	0.00	0.00	0.45	0.35	0.16	7.94%	
8		1.00	4.25	0.50	0.70	0.50		15			43.3		0.00	0.37	0.00	0.00	0.37	0.35	0.13	6.50%	
9		1.00	4.75	0.50	0.70	0.50		11			42.5		0.00	0.28	0.00	0.00	0.28	0.35	0.10	4.98%	
10		1.00	5.25	0.50	0.70	0.50		20			42.6		0.00	0.49	0.00	0.00	0.49	0.35	0.17	8.63%	
11		1.00	5.75	0.50	0.62	0.51		21			42		0.00	0.52	0.00	0.00	0.52	0.31	0.16	8.12%	
12		1.00	6.25	0.50	0.57	0.50		23			40.9		0.00	0.58	0.00	0.00	0.58	0.29	0.16	8.35%	
13		1.00	6.75	0.50	0.50	0.50		12			43.5		0.00	0.30	0.00	0.00	0.30	0.25	0.07	3.77%	
14		1.00	7.25	0.50	0.45	0.50		24			40.8		0.00	0.60	0.00	0.00	0.60	0.23	0.14	6.88%	
15		1.00	7.75	0.50	0.40	0.50		21			43		0.00	0.51	0.00	0.00	0.51	0.20	0.10	5.12%	
16		1.00	8.25	0.50	0.40	0.50		20			45		0.00	0.46	0.00	0.00	0.46	0.20	0.09	4.68%	
17		1.00	8.75	0.50	0.33	0.50		14			43.5		0.00	0.34	0.00	0.00	0.34	0.17	0.06	2.86%	
18		1.00	9.25	0.50	0.30	0.50		20			42.5		0.00	0.49	0.00	0.00	0.49	0.15	0.07	3.71%	
19		1.00	9.75	0.50	0.20	0.51		9			45.5		0.00	0.22	0.00	0.00	0.22	0.10	0.02	1.12%	
20		1.00	10.25	0.50	0.15	0.50		12			43.5		0.00	0.30	0.00	0.00	0.30	0.08	0.02	1.13%	
21		1.00	10.75	0.50		0.52							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Dead Right Edge of Water			11.3																		
Right Edge of Water			12			0.00															
					Totals:	**10.69**												5.48	1.97		

Summary:

Discharge:	**1.97** cfs
Width:	**11.5** ft
Area:	**5.48** ft^2
Mean Depth:	**0.48** ft
Mean Velocity:	**0.36** fps
Max % Flow:	**8.63%**
Wetted Perimeter	**10.69** ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:		**Begin Time:**	15:56		
Date:	1/11/00	**End Time:**	18:28		
Location:	PLC Road	**Begin Gage Height:**	51" DN ft	Equations for AA	
Site:	GG	**End Gage Height:**	51 "DN ft	Remarks:	Falling stage - peaked 3:00 am
Meter:	Type: AA	**Accuracy Rating:**		Rain 1.5" est	0.77 in Eureka Peak 1' higher
Spin Test (pre-Q):		**Water Temperature:**			
Spin Test (post-Q):		**Air Temperature:**			

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			0.0																		
Dead Left Edge of Water			0.5																		
1		1.00	1.0	0.75	0.5	1.12		29			41.9		0.00	1.53	0.00	0.00	1.53	0.38	0.57	1.41%	
2		1.00	2.0	1.00	0.6	1.00		61			40.7		0.00	3.28	0.00	0.00	3.28	0.60	1.97	4.84%	
3		1.00	3.0	1.00	1.0	1.08		87			40.4		0.00	4.70	0.00	0.00	4.70	1.00	4.70	11.55%	
4		1.00	4.0	1.00	1.0	1.00		104			40.4		0.00	5.62	0.00	0.00	5.62	1.00	5.62	13.82%	
5		1.00	5.0	1.00	1.0	1.00		114			41.1		0.00	6.05	0.00	0.00	6.05	1.00	6.05	14.88%	
6		1.00	6.0	1.00	1.0	1.00		105			40.1		0.00	5.71	0.00	0.00	5.71	1.00	5.71	14.03%	
7		1.00	7.0	1.00	1.0	1.00		86			39.5		0.00	4.75	0.00	0.00	4.75	1.00	4.75	11.68%	
8		1.00	8.0	1.00	1.1	1.00		64			40.6		0.00	3.45	0.00	0.00	3.45	1.10	3.80	9.34%	
9		1.00	9.0	1.00	0.9	1.02		70			40.6		0.00	3.77	0.00	0.00	3.77	0.90	3.39	8.33%	
10		1.00	10.0	1.00	0.8	1.00		44			39.9		0.00	2.42	0.00	0.00	2.42	0.80	1.94	4.76%	
11		1.00	11.0	1.00	0.8	1.00		40			40.5		0.00	2.17	0.00	0.00	2.17	0.80	1.74	4.27%	
12		1.00	12.0	1.00	1.0	1.02		8			41.1		0.00	0.44	0.00	0.00	0.44	1.00	0.44	1.09%	
Dead Right Edge of Water			13.0																		
Right Edge of Water			14																		
					Totals:	**12.25**												10.58	40.69		

Summary:

Discharge:	**40.69**	cfs
Width:	**14.0**	ft
Area:	**10.58**	ft^2
Mean Depth:	**0.76**	ft
Mean Velocity:	**3.85**	fps
Max % Flow:	**14.88%**	
Wetted Perimeter	**12.25**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF / GZ		**Begin Time:**	13:45	
Date:	2/12/00		**End Time:**	10:26	
Location:	FRESHWATER		**Begin Gage Height:**	58" DN	ft
Site:	GG		**End Gage Height:**	58" DN	ft
Meter:	Type:	AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	NS		**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			2.00																		
Dead Left Edge of Water			2.25																		
1		1.00	2.75	0.50	0.2	0.76		60			40.0		0.00	3.29	0.00	0.00	3.29	0.08	0.25	7.17%	
2		1.00	3.25	0.50	0.4	0.56		75			40.1		0.00	4.09	0.00	0.00	4.09	0.20	0.82	23.80%	
3		1.00	3.75	0.50	0.5	0.51		71			40.0		0.00	3.88	0.00	0.00	3.88	0.25	0.97	28.25%	
4		1.00	4.25	0.75	0.5	0.50		70			41.0		0.00	3.73	0.00	0.00	3.73	0.38	1.40	40.77%	
5		1.00	5.25	1.13	0.6	1.00		77			41.0		0.00	4.11							
Right Edge of Water			6.5																		
					Totals:	**3.34**												0.90	3.44		

Summary:

Discharge:	3.44 cfs
Width:	4.5 ft
Area:	0.90 ft^2
Mean Depth:	0.20 ft
Mean Velocity:	3.82 fps
Max % Flow:	40.77%
Wetted Perimeter	3.34 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN BB MC	**Begin Time:**	13:43		
Date:	12/1/99	**End Time:**	NS		
Location:	FRESHWATER	**Begin Gage Height:**	36" DN ft	Equations for AA	
Site:	GG	**End Gage Height:**	36" DN ft		
Meter:	Type: AA	**Accuracy Rating:**			
Spin Test (pre-Q):	107	**Water Temperature:**			
Spin Test (post-Q):		**Air Temperature:**			

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			6.0																		
Dead Left Edge of Water			7.0																		
1		1.00	8.0	1.00	1.5	2.50		29			40.18		0.00	1.59	0.00	0.00	1.59	1.50	2.39	1.77%	
2		1.00	9.0	1.00	2.8	1.64		97			40.49		0.00	5.23	0.00	0.00	5.23	2.80	14.64	10.81%	
3		1.00	10.0	1.00	2.0	1.28		79			40.42		0.00	4.27	0.00	0.00	4.27	2.00	8.54	6.31%	
4		1.00	11.0	1.00	2.4	1.08		115			40.83		0.00	6.14	0.00	0.00	6.14	2.40	14.74	10.89%	
5		1.00	12.0	1.00	2.4	1.00		101			39.11		0.00	5.63	0.00	0.00	5.63	2.40	13.52	9.99%	
6		1.00	13.0	1.00	2.3	1.00		107			40.60		0.00	5.75	0.00	0.00	5.75	2.30	13.22	9.77%	
7		1.00	14.0	1.00	1.9	1.08		70			40.93		0.00	3.74	0.00	0.00	3.74	1.90	7.11	5.25%	
8		1.00	15.0	1.00	1.8	1.00		84			40.57		0.00	4.52	0.00	0.00	4.52	1.80	8.14	6.01%	
9		1.00	16.0	1.00	1.7	1.00		94			40.79		0.00	5.03	0.00	0.00	5.03	1.70	8.55	6.32%	
10		1.00	17.0	1.00	1.7	1.00		89			40.79		0.00	4.76	0.00	0.00	4.76	1.70	8.10	5.98%	
11		1.00	18.0	1.00	1.8	1.00		82			40.49		0.00	4.42	0.00	0.00	4.42	1.80	7.96	5.88%	
12		1.00	19.0	1.00	1.6	1.02		79			40.17		0.00	4.30	0.00	0.00	4.30	1.60	6.88	5.08%	
13		1.00	20.0	1.00	1.6	1.00		62			40.88		0.00	3.32	0.00	0.00	3.32	1.60	5.31	3.93%	
14		1.00	21.0	1.00	1.8	1.02		66			40.60		0.00	3.56	0.00	0.00	3.56	1.80	6.40	4.73%	
15		1.00	22.0	1.00	1.2	1.17		42			40.44		0.00	2.28	0.00	0.00	2.28	1.20	2.74	2.02%	
16		1.00	23.0	1.00	1.7	1.12		42			40.53		0.00	2.28	0.00	0.00	2.28	1.70	3.87	2.86%	
17		1.00	24.0	1.00	1.4	1.04		43			40.76		0.00	2.32	0.00	0.00	2.32	1.40	3.25	2.40%	
Dead Right Edge of Water			25.0																		
Right Edge of Water			27.9			#REF!															
					Totals:	**#REF!**												31.60	135.38		

Summary:

Discharge:	135.38 cfs
Width:	21.9 ft
Area:	31.60 ft^2
Mean Depth:	1.44 ft
Mean Velocity:	4.28 fps
Max % Flow:	10.89%
Wetted Perimeter	#REF! ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:		**Begin Time:**	9:50		
Date:		**End Time:**	10:26		
Location:	FRESHWATER	**Begin Gage Height:**	5 " DN	ft	Equations for AA
Site:	GG	**End Gage Height:**	5" DN	ft	
Meter:	Type: AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	NS	**Water Temperature:**	NS		
Spin Test (post-Q):		**Air Temperature:**	NS		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			0.0																		
Dead Left Edge of Water			0.1																		
1		1.00	1.0	0.95	0.3	1.04		60			40.0		0.00	3.29	0.00	0.00	3.29	0.29	0.94	6.84%	
2		1.00	2.0	1.00	0.6	1.04		75			40.1		0.00	4.09	0.00	0.00	4.09	0.60	2.45	17.93%	
3		1.00	3.0	1.00	0.7	1.00		71			40.0		0.00	3.88	0.00	0.00	3.88	0.70	2.72	19.86%	
4		1.00	4.0	1.00	0.5	1.02		70			41.0		0.00	3.73	0.00	0.00	3.73	0.50	1.87	13.65%	
5		1.00	5.0	1.00	0.6	1.00		77			41.0		0.00	4.11	0.00	0.00	4.11	0.60	2.46	18.01%	
6		1.00	6.0	1.00	0.4	1.02		45			40.5		0.00	2.44	0.00	0.00	2.44	0.40	0.98	7.14%	
7		1.00	7.0	1.00	0.4	1.00		52			41.5		0.00	2.75	0.00	0.00	2.75	0.40	1.10	8.04%	
8		1.00	8.0	1.00	0.4	1.00		35			40		0.00	1.93	0.00	0.00	1.93	0.40	0.77	5.64%	
9		1.00	9.0	1.00	0.2	1.02		36			40		0.00	1.98	0.00	0.00	1.98	0.20	0.40	2.90%	
10		1.00	10.0	1.00		1.02							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Dead Right Edge of Water			11.0																		
Right Edge of Water			12																		
					Totals:	**10.18**												4.09	13.68		

Summary:

Discharge:	**13.68** cfs
Width:	**12.0** ft
Area:	**4.09** ft^2
Mean Depth:	**0.34** ft
Mean Velocity:	**3.35** fps
Max % Flow:	**19.86%**
Wetted Perimeter	**10.18** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	NS		**Begin Time:**	NS	
Date:	11/29/99		**End Time:**	NS	
Location:	FRESHWATER		**Begin Gage Height:**	NS	ft
Site:	GG		**End Gage Height:**	NS	ft
Meter:	**Type:**	AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	NS		**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			8.0																		
1		1.00	9.0	1.50	0.4	1.08		26			41.3		0.00	1.39	0.00	0.00	1.39	0.60	0.84	1.91%	
2		1.00	11.0	2.00	0.4	2.00		51			40.6		0.00	2.76	0.00	0.00	2.76	0.80	2.20	5.03%	
3		1.00	13.0	2.00	0.8	2.04		61			40.3		0.00	3.31	0.00	0.00	3.31	1.60	5.30	12.10%	
4		1.00	15.0	2.00	1.0	2.01		51			41.0		0.00	2.73	0.00	0.00	2.73	2.00	5.45	12.44%	
5		1.00	17.0	2.00	1.3	2.02		91			40.5		0.00	4.91	0.00	0.00	4.91	2.60	12.76	29.10%	
6		1.00	19.0	2.00	1.0	2.02		73			40.7		0.00	3.92	0.00	0.00	3.92	2.00	7.84	17.89%	
7		1.00	21.0	2.00	1.0	2.00		89			41.2		0.00	4.72	0.00	0.00	4.72	2.00	9.44	21.54%	
Right Edge of Water			23																		
					Totals:	13.17												11.60	43.84		

Summary:

Discharge:	43.84	cfs
Width:	15.0	ft
Area:	11.60	ft^2
Mean Depth:	0.77	ft
Mean Velocity:	3.78	fps
Max % Flow:	29.10%	
Wetted Perimeter	13.17	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF		**Begin Time:**	16:47	
Date:	2/28/00		**End Time:**	17:20	
Location:	FRESHWATER		**Begin Gage Height:**	54" DN	ft
Site:	GG		**End Gage Height:**	54" DN	ft
Meter:	**Type:**	AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):	90 SEC		**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			1.00																		
Dead Left Edge of Water			1.25																		
1		1.00	1.75	0.50	0.50	0.90		41			41.50		0.00	2.17	0.00	0.00	2.17	0.25	0.54	2.07%	
2		1.00	2.25	0.50	0.80	0.58		80			42.15		0.00	4.15	0.00	0.00	4.15	0.40	1.66	6.33%	
3		1.00	2.75	0.50	0.80	0.50		100			43.07		0.00	5.07	0.00	0.00	5.07	0.40	2.03	7.74%	
4		1.00	3.25	0.50	0.80	0.50		100			42.84		0.00	5.10	0.00	0.00	5.10	0.40	2.04	7.78%	
5		1.00	3.75	0.50	0.80	0.50		80			40.56		0.00	4.31	0.00	0.00	4.31	0.40	1.72	6.58%	
6		1.00	4.25	0.50	0.71	0.51		80			43.34		0.00	4.04	0.00	0.00	4.04	0.36	1.43	5.47%	
7		1.00	4.75	0.50	1.00	0.58		45			44.10		0.00	2.24	0.00	0.00	2.24	0.50	1.12	4.28%	
8		1.00	5.25	0.50	0.90	0.51		100			41.72		0.00	5.23	0.00	0.00	5.23	0.45	2.35	8.99%	
9		1.00	5.75	0.50	1.00	0.51		80			43.18		0.00	4.05	0.00	0.00	4.05	0.50	2.03	7.73%	
10		1.00	6.25	0.50	0.90	0.51		80			45.28		0.00	3.86	0.00	0.00	3.86	0.45	1.74	6.64%	
11		1.00	6.75	0.50	0.80	0.51		85			42.47		0.00	4.37	0.00	0.00	4.37	0.40	1.75	6.68%	
12		1.00	7.25	0.50	0.90	0.51		80			41.06		0.00	4.26	0.00	0.00	4.26	0.45	1.92	7.31%	
13		1.00	7.75	0.50	0.90	0.50		70			40.78		0.00	3.75	0.00	0.00	3.75	0.45	1.69	6.45%	
14		1.00	8.25	0.50	0.70	0.54		60			42.44		0.00	3.10	0.00	0.00	3.10	0.35	1.08	4.14%	
15		1.00	8.75	0.50	0.60	0.51		70			41.12		0.00	3.72	0.00	0.00	3.72	0.30	1.12	4.26%	
16		1.00	9.25	0.50	0.50	0.51		35			41.09		0.00	1.88	0.00	0.00	1.88	0.25	0.47	1.79%	
17		1.00	9.75	0.50	0.50	0.50		40			44.00		0.00	2.00	0.00	0.00	2.00	0.25	0.50	1.91%	
18		1.00	10.25	0.50	0.50	0.50		9			45.72		0.00	0.45	0.00	0.00	0.45	0.25	0.11	0.43%	
19		1.00	10.75	0.50	0.40	0.51		30			40.68		0.00	1.63	0.00	0.00	1.63	0.20	0.33	1.24%	
20		1.00	11.25	0.50	0.40	0.50		31			40.81		0.00	1.68	0.00	0.00	1.68	0.20	0.34	1.28%	
21		1.00	11.75	0.50	0.10	0.58		33			40.96		0.00	1.78	0.00	0.00	1.78	0.05	0.09	0.34%	
22		1.00	12.25	0.50	0.20	0.51		15			40.32		0.00	0.83	0.00	0.00	0.83	0.10	0.08	0.32%	
23		1.00	12.75	0.50	0.30	0.51		8			44.31		0.00	0.41	0.00	0.00	0.41	0.15	0.06	0.24%	
24		1.00	13.25	0.38		0.58							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Dead Right Edge of Water			13.5																		
Right Edge of Water			14																		
					Totals:	**12.87**												7.51	26.20		

Summary:

Discharge:	**26.20**	cfs
Width:	**13.0**	ft
Area:	**7.51**	ft^2
Mean Depth:	**0.58**	ft
Mean Velocity:	**3.49**	fps
Max % Flow:	**8.99%**	
Wetted Perimeter	**12.87**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

JGC

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF / GZ	**Begin Time:**	11:50
Date:	Feb 12 2000	**End Time:**	12:05
Location:	JGC	**Begin Gage Height:**	37" Down from iron pipe
Site:	JGC	**End Gage Height:**	37" ft
Meter:	Type: Pygmy	**Accuracy Rating:**	NS
Spin Test (pre-Q):	OK	**Water Temperature:**	NS
Spin Test (post-Q):		**Air Temperature:**	NS

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			1.00																		
1		1.00	2.00	0.63		1.00							0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00%	
2		1.00	2.25	0.38	0.10	0.26		7			42.4		0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00%	
3		1.00	2.75	0.50	0.17	0.51		16			40.9		0.00	0.19	0.00	0.00	0.19	0.14	0.03	0.92%	
4		1.00	3.25	0.50	0.27	0.52		31			40.2		0.00	0.41	0.00	0.00	0.41	0.20	0.08	2.95%	
5		1.00	3.75	0.50	0.40	0.51		49			40.8		0.00	0.78	0.00	0.00	0.78	0.25	0.20	7.03%	
6		1.00	4.25	0.50	0.50	0.51		54			39.9		0.00	1.20	0.00	0.00	1.20	0.30	0.36	12.97%	
7		1.00	4.75	0.50	0.60	0.51		76			40.5		0.00	1.35	0.00	0.00	1.35	0.35	0.47	17.03%	
8		1.00	5.25	0.50	0.70	0.50		80			40.8		0.00	1.86	0.00	0.00	1.86	0.35	0.65	23.44%	
9		1.00	5.75	0.50	0.70	0.51			67		40.8		0.00	1.94	0.00	0.00	1.94	0.30	0.58	20.96%	
10		1.00	6.25	0.50	0.60	0.51			64		40.7		0.00	1.63	0.00	0.00	1.63	0.25	0.41	14.70%	
11		1.00	6.75	0.38	0.50	0.71		10			42.6		0.00	1.57	0.00	0.00	1.57	0.00	0.00	0.00%	
12		1.00	7.00	0.48		0.25							0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.00%	
Right Edge of Water			7.7																		
					Totals:	**6.30**												2.26	2.78		

Summary:

Discharge:	**2.78** cfs
Width:	**6.7** ft
Area:	**2.26** ft^2
Mean Depth:	**0.34** ft
Mean Velocity:	**1.23** fps
Max % Flow:	**23.44%**
Wetted Perimeter	**6.30** ft

Notes:

Section:	20' upstream of footbridge opposite stage pipe.
Flow Conditions:	
Weather:	
Control:	
Remarks:	

JGC

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	C.F. and S.F.	**Begin Time:**	14:12
Date:	10/29/00	**End Time:**	14:47
Location:	Freshwater	**Begin Gage Height:**	1.11 ft
Site:	HH	**End Gage Height:**	1.12 ft
Meter:	Type: Pygmy	**Accuracy Rating:**	
Spin Test (pre-Q):	60 +	**Water Temperature:**	
Spin Test (post-Q):		**Air Temperature:**	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			0.5																		LEW
DLEW			4.0																		DLEW
2		1.00	4.30	0.25	0.00	0.30							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
3		1.00	4.50	0.35	0.00	0.20							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
4		1.00	5.00	0.50	0.80	0.94		6			49.8		0.00	0.15	0.00	0.00	0.15	0.40	0.06	1.34%	
5		1.00	5.50	0.50	0.75	0.50		7			46.5		0.00	0.18	0.00	0.00	0.18	0.38	0.07	1.51%	
6		1.00	6.00	0.50	0.81	0.50		11			45.2		0.00	0.27	0.00	0.00	0.27	0.41	0.11	2.48%	
7		1.00	6.50	0.50	0.83	0.50		12			42.7		0.00	0.30	0.00	0.00	0.30	0.42	0.13	2.89%	
8		1.00	7.00	0.50	0.90	0.50		11			42.2		0.00	0.28	0.00	0.00	0.28	0.45	0.13	2.92%	
9		1.00	7.50	0.50	0.88	0.50		14			41.8		0.00	0.36	0.00	0.00	0.36	0.44	0.16	3.60%	
10		1.00	8.00	0.50	0.90	0.50		23			40.4		0.00	0.58	0.00	0.00	0.58	0.45	0.26	6.05%	
11		1.00	8.50	0.50	0.81	0.51		29			40.8		0.00	0.72	0.00	0.00	0.72	0.41	0.29	6.73%	
12		1.00	9.00	0.50	0.80	0.50		33			40.9		0.00	0.82	0.00	0.00	0.82	0.40	0.33	7.52%	
13		1.00	9.50	0.50	0.80	0.50		31			40.9		0.00	0.77	0.00	0.00	0.77	0.40	0.31	7.08%	
14		1.00	10.00	0.50	0.79	0.50		33			41.4		0.00	0.81	0.00	0.00	0.81	0.40	0.32	7.33%	
15		1.00	10.50	0.50	0.71	0.51		26			40.9		0.00	0.65	0.00	0.00	0.65	0.36	0.23	5.30%	
16		1.00	11.00	0.50	0.75	0.50		33			40.9		0.00	0.82	0.00	0.00	0.82	0.38	0.31	7.04%	
17		1.00	11.50	0.50	0.75	0.50		33			43.1		0.00	0.78	0.00	0.00	0.78	0.38	0.29	6.69%	
18		1.00	12.00	0.50	0.71	0.50		30			41.0		0.00	0.74	0.00	0.00	0.74	0.36	0.26	6.07%	
19		1.00	12.50	0.50	0.70	0.50		25			40.7		0.00	0.63	0.00	0.00	0.63	0.35	0.22	5.06%	
20		1.00	13.00	0.50	0.70	0.50		26			42.3		0.00	0.63	0.00	0.00	0.63	0.35	0.22	5.06%	
21		1.00	13.50	0.50	0.69	0.50		25			40.5		0.00	0.63	0.00	0.00	0.63	0.35	0.22	5.01%	
22		1.00	14.00	0.50	0.65	0.50		18			42.5		0.00	0.44	0.00	0.00	0.44	0.33	0.14	3.30%	
23		1.00	14.50	0.50	0.61	0.50		15			40.9		0.00	0.39	0.00	0.00	0.39	0.31	0.12	2.71%	
24		1.00	15.00	0.50	0.62	0.50		13			43.2		0.00	0.32	0.00	0.00	0.32	0.31	0.10	2.30%	
25		1.00	15.50	0.50	0.57	0.50		6			42.2		0.00	0.17	0.00	0.00	0.17	0.29	0.05	1.09%	
26		1.00	16.00	0.50	0.50	0.50		6			43.0		0.00	0.16	0.00	0.00	0.16	0.25	0.04	0.94%	DREW
DREW			16.5																		REW
REW			20			**Totals:**	**12.48**											8.52	4.35		

Summary:

Discharge:	4.35 cfs
Width:	16.0 ft
Area:	8.52 ft^2
Mean Depth:	0.53 ft
Mean Velocity:	0.51 fps
Max % Flow:	7.52%
Wetted Perimeter	12.48 ft

Notes:

Section:	Down Bridge rail to water 15'8"
Flow Conditions:	
Weather:	
Control:	
Remarks:	0 vel L 4.0 0 vel R 16.5 Right edge of water 20' Left edge of water 6"

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF / JB / EN / JK / RP / EC	**Begin Time:**	11:36		
Date:	3/3/01	**End Time:**	12:30		
Location:	HH - Howard Heights Br.	**Begin Gage Height:**	1.69	ft	Equations for AA
Site:		**End Gage Height:**	1.70	ft	
Meter:	S00595 Type: AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):	90 +	**Water Temperature:**	NS		
Spin Test (post-Q):	90 +	**Air Temperature:**	NS		

Measurement No: | **Rating No:** | **Shift Adj:** | **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
			3.0																		
1		1.00	5.0	1.75	0.90	2.19		0			60.0		0.00	0.00	0.00	0.00	0.00	1.58	0.00	0.00%	
2		1.00	6.5	1.50	1.25	1.54		3			51.8		0.00	0.15	0.00	0.00	0.15	1.88	0.27	0.90%	
3		1.00	8.0	1.50	1.10	1.51		8			46.3		0.00	0.40	0.00	0.00	0.40	1.65	0.65	2.14%	
4		1.00	9.5	1.50	1.15	1.50		12			42.5		0.00	0.64	0.00	0.00	0.64	1.73	1.10	3.59%	
5		1.00	11.0	1.50	1.20	1.50		13			43.5		0.00	0.67	0.00	0.00	0.67	1.80	1.21	3.95%	
6		1.00	12.5	1.50	1.30	1.50		16			42.2		0.00	0.85	0.00	0.00	0.85	1.95	1.65	5.40%	stage at 11:50 1.70ft
7		1.00	14.0	1.25	1.35	1.50		16			41.8		0.00	0.85	0.00	0.00	0.85	1.69	1.44	4.72%	
8		1.00	15.0	1.00	1.40	1.00		18			41.1		0.00	0.97	0.00	0.00	0.97	1.40	1.36	4.46%	
9		1.00	16.0	1.00	1.50	1.00		19			41.6		0.00	1.02	0.00	0.00	1.02	1.50	1.52	4.99%	
10		1.00	17.0	1.00	1.50	1.00		20			42.4		0.00	1.05	0.00	0.00	1.05	1.50	1.57	5.14%	
11		1.00	18.0	1.00	1.60	1.00		23			44.6		0.00	1.14	0.00	0.00	1.14	1.60	1.83	5.99%	stage at 12:00 1.70 ft
12		1.00	19.0	1.00	1.60	1.00		24			45.8		0.00	1.16	0.00	0.00	1.16	1.60	1.86	6.09%	
13		1.00	20.0	1.00	1.65	1.00		25			42.6		0.00	1.30	0.00	0.00	1.30	1.65	2.14	7.01%	
14		1.00	21.0	1.00	1.65	1.00		25			42.6		0.00	1.30	0.00	0.00	1.30	1.65	2.14	7.01%	
15		1.00	22.0	1.00	1.65	1.00		22			43.3		0.00	1.13	0.00	0.00	1.13	1.65	1.86	6.09%	
16		1.00	23.0	1.00	1.70	1.00		22			41.1		0.00	1.19	0.00	0.00	1.19	1.70	2.02	6.61%	stage at 12:09 1.69 ft
17		1.00	24.0	1.00	1.70	1.00		20			42.2		0.00	1.05	0.00	0.00	1.05	1.70	1.79	5.86%	
18		1.00	25.0	1.00	1.65	1.00		19			42.1		0.00	1.00	0.00	0.00	1.00	1.65	1.66	5.42%	
19		1.00	26.0	1.00	1.70	1.00		14			41.6		0.00	0.75	0.00	0.00	0.75	1.70	1.28	4.20%	
20		1.00	27.0	1.00	1.80	1.00		13			42.8		0.00	0.68	0.00	0.00	0.68	1.80	1.23	4.02%	
21		1.00	28.0	1.00	1.80	1.00		12			43.7		0.00	0.62	0.00	0.00	0.62	1.80	1.11	3.65%	
22		1.00	29.0	1.00	1.90	1.00		5			43.6		0.00	0.27	0.00	0.00	0.27	1.90	0.51	1.68%	
23		1.00	30.0	1.00	1.95	1.00		4			56.6		0.00	0.17	0.00	0.00	0.17	1.95	0.34	1.11%	
24		1.00	31.0	1.00	1.95	1.00							0.00	0.00	0.00	0.00	0.00	1.95	0.00	0.00%	stage at 12:30 1.70
25		1.00	32.0	1.00	0.00								0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	Right Edge of Water
26		1.00	33.0										0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
27		1.00											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
28		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
29		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
30		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
31		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
32		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
33		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
34		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
35		1.00				0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
					Totals:	28.27												40.96	30.58		

Summary:

Discharge:	30.58 cfs
Width:	30.0 ft
Area:	40.96 ft^2
Mean Depth:	1.37 ft
Mean Velocity:	0.75 fps
Max % Flow:	7.01%
Wetted Perimeter	28.27 ft

Notes:

Section:	
Flow Conditions:	
Weather:	Cloudy
Control:	
Remarks:	Discharge Cert. W/ Eileen Cashman / John Bair's equip. / Discharge taken 40' downstream / left rebar in

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF		**Begin Time:**		
Date:	12/10/99		**End Time:**		
Location:	FRESHWATER		**Begin Gage Height:**	ft	Equations for AA
Site:	HH		**End Gage Height:**	ft	
Meter:	Type:	AA	**Accuracy Rating:**		
Spin Test (pre-Q):	90+		**Water Temperature:**		
Spin Test (post-Q):	90+		**Air Temperature:**		

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			2.00																		
Dead Left Edge of Water			3.00																		
1		1.00	4.00	1.00		2.00		1			80.25		0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00%	
2		1.00	5.00	1.00	2.10	2.33		3			61.22		0.00	0.13	0.00	0.00	0.13	2.10	0.27	0.23%	
3		1.00	6.00	1.00	2.81	1.23		5			47.72		0.00	0.25	0.00	0.00	0.25	2.81	0.70	0.61%	
4		1.00	7.00	1.00	2.90	1.00		11			41.62		0.00	0.60	0.00	0.00	0.60	2.90	1.73	1.52%	
5		1.00	8.00	1.00	2.91	1.00		19			41.94		0.00	1.01	0.00	0.00	1.01	2.91	2.93	2.58%	
6		1.00	9.00	1.00	3.00	1.00		20			40.59		0.00	1.09	0.00	0.00	1.09	3.00	3.28	2.89%	
7		1.00	10.00	1.00	2.92	1.00		22			41.37		0.00	1.18	0.00	0.00	1.18	2.92	3.44	3.03%	
8		1.00	11.00	1.00	2.81	1.01		26			40.47		0.00	1.42	0.00	0.00	1.42	2.81	3.99	3.51%	
9		1.00	12.00	1.00	2.77	1.00		35			41.22		0.00	1.87	0.00	0.00	1.87	2.77	5.18	4.56%	
10		1.00	13.00	1.00	2.83	1.00		42			41.37		0.00	2.23	0.00	0.00	2.23	2.83	6.32	5.56%	
11		1.00	14.00	1.00	2.95	1.01		51			40.97		0.00	2.73	0.00	0.00	2.73	2.95	8.06	7.09%	
12		1.00	15.00	1.00	3.00	1.00		53			40.78		0.00	2.85	0.00	0.00	2.85	3.00	8.55	7.52%	
13		1.00	16.00	1.00	3.10	1.00		52			40.90		0.00	2.79	0.00	0.00	2.79	3.10	8.65	7.61%	
14		1.00	17.00	1.00	3.15	1.00		52			41.16		0.00	2.77	0.00	0.00	2.77	3.15	8.73	7.68%	
15		1.00	18.00	1.00	3.10	1.00		52			42.69		0.00	2.67	0.00	0.00	2.67	3.10	8.29	7.29%	
16		1.00	19.00	1.00	3.00	1.00		50			40.57		0.00	2.70	0.00	0.00	2.70	3.00	8.11	7.14%	
17		1.00	20.00	1.00	3.10	1.00		45			40.78		0.00	2.42	0.00	0.00	2.42	3.10	7.52	6.61%	
18		1.00	21.00	1.00	2.95	1.01		40			40.06		0.00	2.20	0.00	0.00	2.20	2.95	6.48	5.70%	
19		1.00	22.00	1.00	2.95	1.00		37			42.06		0.00	1.94	0.00	0.00	1.94	2.95	5.72	5.03%	
20		1.00	23.00	1.00	2.90	1.00		28			41.96		0.00	1.47	0.00	0.00	1.47	2.90	4.28	3.76%	
21		1.00	24.00	1.00	2.81	1.00		29			48.44		0.00	1.33	0.00	0.00	1.33	2.81	3.72	3.28%	
22		1.00	25.00	1.00	2.61	1.02		21			40.88		0.00	1.14	0.00	0.00	1.14	2.61	2.98	2.62%	
23		1.00	26.00	1.00	2.50	1.01		17			42.19		0.00	0.90	0.00	0.00	0.90	2.50	2.25	1.98%	
24		1.00	27.00	1.00	2.20	1.04		12			40.7		0.00	0.66	0.00	0.00	0.66	2.20	1.46	1.28%	
25		1.00	28.00	1.00	2.10	1.00		5			44.7		0.00	0.26	0.00	0.00	0.26	2.10	0.55	0.49%	
26		1.00	29.00	1.00	2.05	1.00		2			69.7		0.00	0.08	0.00	0.00	0.08	2.05	0.17	0.15%	
27		1.00	30.00	1.00	2.15	1.00		2			50.2		0.00	0.11	0.00	0.00	0.11	2.15	0.23	0.20%	
28		1.00	31.00	1.00	2.25	1.00		1			95.2		0.00	0.04	0.00	0.00	0.04	2.25	0.10	0.08%	
29		1.00	32.00	1.00	2.00	1.03							0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00%	
Right Edge of Water			33																		
					Totals:	**31.73**												75.92	113.67		

Summary:

Discharge:	**113.67**	cfs
Width:	**31.0**	ft
Area:	**75.92**	ft^2
Mean Depth:	**2.45**	ft
Mean Velocity:	**1.50**	fps
Max % Flow:	**7.68%**	
Wetted Perimeter	**31.73**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN			**Begin Time:**	17:51		
Date:	2/28/00			**End Time:**	18:23		
Location:	FRESHWATER			**Begin Gage Height:**	12'11"	ft	Equations for AA
Site:	HH			**End Gage Height:**	13'1"	ft	Remarks: Large hole in data due to impossible conditions
Meter:		**Type:**	AA	**Accuracy Rating:**	POOR		89.4 NTU @ 16:23 DIS RR Left to Centerline
Spin Test (pre-Q):	NS			**Water Temperature:**	NS		fast 6.44 sec thru
Spin Test (post-Q):				**Air Temperature:**	NS		

Measurement No: | **Rating No:** | **Shift Adj:** | **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			5.0																		
1		1.00	7.0	2.00	1.6	2.56		16			43.6		0.00	0.82	0.00	0.00	0.82	3.20	2.62	1.59%	
2		1.00	9.0	2.00	2.2	2.09		20			41.1		0.00	1.08	0.00	0.00	1.08	4.40	4.76	2.89%	
3		1.00	11.0	2.00	2.8	2.09		25			41.4		0.00	1.34	0.00	0.00	1.34	5.60	7.48	4.53%	
4		1.00	13.0	2.00	2.8	2.00		40			40.6		0.00	2.17	0.00	0.00	2.17	5.60	12.14	7.36%	
5		1.00	15.0	2.00	2.8	2.00		53			40.6		0.00	2.86	0.00	0.00	2.86	5.60	16.03	9.72%	
6		1.00	17.0	2.00	2.8	2.00		63			40.6		0.00	3.40	0.00	0.00	3.40	5.60	19.04	11.54%	
7		1.00	19.0	2.00	2.9	2.00		73			40.7		0.00	3.93	0.00	0.00	3.93	5.80	22.77	13.80%	
8		1.00	21.0	2.00	3	2.00		82			41.8		0.00	4.29	0.00	0.00	4.29	6.00	25.72	15.59%	
9		1.00	23.0	2.00	3.1	2.00		87			41.1		0.00	4.62	0.00	0.00	4.62	6.20	28.66	17.37%	
10		1.00	25.0	1.50	3.4	2.02		95			41.1		0.00	5.04	0.00	0.00	5.04	5.10	25.72	15.59%	
11		1.00	26.0	12.50		3.54							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Right Edge of Water																					
					Totals:	**24.31**												53.10	164.95		

Summary:

Discharge:	**164.95**	cfs
Width:	**5.0**	ft
Area:	**53.10**	ft^2
Mean Depth:	**10.62**	ft
Mean Velocity:	**3.11**	fps
Max % Flow:	**17.37%**	
Wetted Perimeter	**24.31**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	C. Fenton E. Nyman D. Van Dyke		**Begin Time:**	14:23	
Date:	3/11/01		**End Time:**	14:45	
Location:	Freshwater Creek		**Begin Gage Height:**	1.45	ft
Site:	HH - Howard Heights Br.		**End Gage Height:**	1.45	ft
Meter:	SF #2	**Type:** AA	**Accuracy Rating:**		
Spin Test (pre-Q):	90 sec +		**Water Temperature:**		
Spin Test (post-Q):	90 sec +		**Air Temperature:**		

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			5.0	0.00																	
Dead Left Edge of Water			5.0	0.00																	
1		1.00	6.0	0.00	0.40	1.08		0					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
2		1.00	7.0	1.00	0.80	1.08		0					0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00%	
3		1.00	8.0	1.00	1.00	1.02		6			46.5		0.00	0.30	0.00	0.00	0.30	1.00	0.30	1.89%	
4		1.00	9.0	1.00	1.00	1.00		10			43.7		0.00	0.52	0.00	0.00	0.52	1.00	0.52	3.26%	
5		1.00	10.0	1.00	1.00	1.00		9			44.1		0.00	0.47	0.00	0.00	0.47	1.00	0.47	2.92%	
6		1.00	11.0	1.00	0.90	1.00		10			42.8		0.00	0.53	0.00	0.00	0.53	0.90	0.48	2.99%	
7		1.00	12.0	1.00	0.90	1.00		11			42.4		0.00	0.59	0.00	0.00	0.59	0.90	0.53	3.31%	
8		1.00	13.0	1.00	0.90	1.00		11			41.5		0.00	0.60	0.00	0.00	0.60	0.90	0.54	3.38%	
9		1.00	14.0	0.75	0.90	1.00		13			43.0		0.00	0.68	0.00	0.00	0.68	0.68	0.46	2.88%	
10		1.00	14.5	0.50	0.90	0.50		13			42.8		0.00	0.68	0.00	0.00	0.68	0.45	0.31	1.93%	
11		1.00	15.0	0.50	1.00	0.51		13			41.0		0.00	0.71	0.00	0.00	0.71	0.50	0.36	2.24%	
12		1.00	15.5	0.50	1.00	0.50		13			43.5		0.00	0.67	0.00	0.00	0.67	0.50	0.34	2.11%	
13		1.00	16.0	0.50	1.00	0.50		12			42.0		0.00	0.64	0.00	0.00	0.64	0.50	0.32	2.02%	
14		1.00	16.5	0.50	1.10	0.51		14			43.7		0.00	0.72	0.00	0.00	0.72	0.55	0.40	2.48%	
15		1.00	17.0	0.50	1.10	0.50		14			43.5		0.00	0.72	0.00	0.00	0.72	0.55	0.40	2.49%	
16		1.00	17.5	0.75	1.10	0.50		13			44.4		0.00	0.66	0.00	0.00	0.66	0.83	0.54	3.41%	
17		1.00	18.5	1.00	1.20	1.00		14			42.9		0.00	0.73	0.00	0.00	0.73	1.20	0.88	5.52%	
18		1.00	19.5	1.00	1.30	1.00		20			55.7		0.00	0.80	0.00	0.00	0.80	1.30	1.04	6.56%	
19		1.00	20.5	1.00	1.30	1.00		14			43.2		0.00	0.73	0.00	0.00	0.73	1.30	0.94	5.94%	
20		1.00	21.5	1.00	1.40	1.00		13			42.4		0.00	0.69	0.00	0.00	0.69	1.40	0.96	6.05%	
21		1.00	22.5	1.00	1.40	1.00		15			42.3		0.00	0.79	0.00	0.00	0.79	1.40	1.11	6.98%	
22		1.00	23.5	1.00	1.50	1.00		11			40.5		0.00	0.61	0.00	0.00	0.61	1.50	0.92	5.77%	
23		1.00	24.5	1.00	1.40	1.00		13			41.1		0.00	0.71	0.00	0.00	0.71	1.40	0.99	6.24%	
24		1.00	25.5	1.00	1.40	1.00		11			40.5		0.00	0.61	0.00	0.00	0.61	1.40	0.86	5.39%	
25		1.00	26.5	1.00	1.40	1.00		8			42.6		0.00	0.43	0.00	0.00	0.43	1.40	0.60	3.77%	
26		1.00	27.5	1.00	1.40	1.00		6			42.9		0.00	0.32	0.00	0.00	0.32	1.40	0.45	2.86%	
27		1.00	28.5	1.00	1.50	1.00		6			45.9		0.00	0.31	0.00	0.00	0.31	1.50	0.46	2.88%	
28		1.00	29.5	1.00	1.60	1.00		7			46.6		0.00	0.35	0.00	0.00	0.35	1.60	0.56	3.49%	
29		1.00	30.5	1.00	1.60	1.00		2			41.8		0.00	0.12	0.00	0.00	0.12	1.60	0.20	1.25%	
30		1.00	31.5	1.50	1.70	1.00		0					0.00	0.00	0.00	0.00	0.00	2.55	0.00	0.00%	
31		1.00	33.5	0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	REW
32		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
33		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
34		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
35		1.00		0.00		0.00							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
Dead Right Edge of Water																					
Right Edge of Water			33.5			0.00															
					Totals:	26.74												32.00	15.92		

Summary:

Discharge:	**15.92** cfs
Width:	**28.5** ft
Area:	**32.00** ft^2
Mean Depth:	**1.12** ft
Mean Velocity:	**0.50** fps
Max % Flow:	**6.98%**
Wetted Perimeter	**26.74** ft

Notes:

Section:

Flow Conditions:

Weather: Clear / Warm

Control:

Remarks: Check staff plate to Bridge rail with survey rod 15.30' at 1.45' Total = 16.75' HACH cell taken

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	CF / JN		**Begin Time:**	16:45			
Date:	11/30/99		**End Time:**	17:01			
Location:	FRESHWATER		**Begin Gage Height:**	1.10	ft	NS = Not Stated	
Site:	CLONEY		**End Gage Height:**	1.10	ft	Remarks:	
Meter:	Price	Type: AA	**Accuracy Rating:**	NS		Width 15.5 feet	Margaret's staff gauge 1.99
Spin Test (pre-Q):			**Water Temperature:**	NS		Hi Flow unable to complete	
Spin Test (post-Q):	NS		**Air Temperature:**	NS			

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			14.0																		
1		1.00	15.0	1.00	2.7	2.88		77			40.7		0.00	4.14	0.00	0.00	4.14	2.70	11.17	27.40%	
2		1.00	16.0	1.00	2.6	1.00		71			40.7		0.00	3.82	0.00	0.00	3.82	2.60	9.93	24.37%	
3		1.00	17.0	1.00	2.6	1.00		75			40.8		0.00	4.02	0.00	0.00	4.02	2.60	10.46	25.68%	
4		1.00	18.0	1.00	2.6	1.00		67			41.5		0.00	3.53	0.00	0.00	3.53	2.60	9.19	22.55%	
REW			19																		
					Totals:	5.88												10.50	40.74		

Summary:

Discharge:	40.74 cfs
Width:	5.0 ft
Area:	10.50 ft^2
Mean Depth:	2.10 ft
Mean Velocity:	3.88 fps
Max % Flow:	27.40%
Wetted Perimeter	5.88 ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	10:45	
Date:	12/1/99		**End Time:**	11:20	
Location:	FRESHWATER		**Begin Gage Height:**	.4(3.8)	ft
Site:	CL		**End Gage Height:**	.38(3.8)	ft
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

NS = Not Stated

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			0.2																		
1		1.00	1.0	0.90	1.6	1.79		16			43.6		0.00	0.82	0.00	0.00	0.82	1.44	1.18	1.13%	
2		1.00	2.0	1.00	2.2	1.17		20			41.1		0.00	1.08	0.00	0.00	1.08	2.20	2.38	2.29%	
3		1.00	3.0	1.00	2.8	1.17		25			41.4		0.00	1.34	0.00	0.00	1.34	2.80	3.74	3.59%	
4		1.00	4.0	1.00	2.8	1.00		40			40.6		0.00	2.17	0.00	0.00	2.17	2.80	6.07	5.83%	
5		1.00	5.0	1.00	2.8	1.00		53			40.6		0.00	2.86	0.00	0.00	2.86	2.80	8.02	7.70%	
6		1.00	6.0	1.00	2.8	1.00		63			40.6		0.00	3.40	0.00	0.00	3.40	2.80	9.52	9.14%	
7		1.00	7.0	1.00	2.9	1.00		73			40.7		0.00	3.93	0.00	0.00	3.93	2.90	11.39	10.93%	
8		1.00	8.0	1.00	3	1.00		82			41.8		0.00	4.29	0.00	0.00	4.29	3.00	12.86	12.35%	
9		1.00	9.0	1.00	3.1	1.00		87			41.1		0.00	4.62	0.00	0.00	4.62	3.10	14.33	13.76%	
10		1.00	10.0	1.00	3.4	1.04		95			41.1		0.00	5.04	0.00	0.00	5.04	3.40	17.15	16.47%	
11		1.00	11.0	1.00		3.54							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
12		1.00	12.0	1.00	5.0	5.10		67			41.9		0.00	3.50	0.00	0.00	3.50	5.00	17.50	16.81%	
13		1.00	13.0	1.00		5.10							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			14																		
					Totals:	24.92												32.24	104.13		

Summary:

Discharge:	104.13	cfs
Width:	13.8	ft
Area:	32.24	ft^2
Mean Depth:	2.34	ft
Mean Velocity:	3.23	fps
Max % Flow:	16.81%	
Wetted Perimeter	24.92	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	11:39	
Date:	1/22/00		**End Time:**	12:09	
Location:	SF EEL		**Begin Gage Height:**	13'6" DOW ft	Equations for AA
Site:	BRANSCOMB		**End Gage Height:**	13'6" DOW ft	
Meter:	**Type:**	NS	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):			**Air Temperature:**	NS	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			5.0																		
Dead Left Edge of Water			6.0																		
1		1.00	6.5	0.75	0.8	1.70		3			51		0.00	0.15	0.00	0.00	0.15	0.60	0.09	0.22%	
2		1.00	7.5	1.00	1.4	1.17		10			47.18		0.00	0.48	0.00	0.00	0.48	1.40	0.67	1.66%	
3		1.00	8.5	1.00	1.3	1.00		17			41.60		0.00	0.91	0.00	0.00	0.91	1.30	1.18	2.92%	
4		1.00	9.5	1.00	1.3	1.00		26			40.5		0.00	1.42	0.00	0.00	1.42	1.30	1.84	4.55%	
5		1.00	10.5	1.00	1.4	1.00		46			40.5		0.00	2.49	0.00	0.00	2.49	1.40	3.49	8.61%	
6		1.00	11.5	1.00	1.3	1.00		46			40.5		0.00	2.50	0.00	0.00	2.50	1.30	3.24	8.00%	
7		1.00	12.5	1.00	1.8	1.12		42			40.3		0.00	2.29	0.00	0.00	2.29	1.80	4.12	10.17%	
8		1.00	13.5	1.00	2	1.02		44			40.6		0.00	2.38	0.00	0.00	2.38	2.00	4.76	11.75%	
9		1.00	14.5	1.00	1.9	1.00		41			40.5		0.00	2.22	0.00	0.00	2.22	1.90	4.23	10.42%	
10		1.00	15.5	1.00	2	1.00		36			40.6		0.00	1.95	0.00	0.00	1.95	2.00	3.91	9.64%	
11		1.00	16.5	1.00	2	1.00		22			40.2		0.00	1.21	0.00	0.00	1.21	2.00	2.43	5.98%	
12		1.00	17.5	1.00	1.9	1.00		31			42.8		0.00	1.60	0.00	0.00	1.60	1.90	3.04	7.49%	
13		1.00	18.5	1.00	1.4	1.12		49			40.9		0.00	2.63	0.00	0.00	2.63	1.40	3.68	9.09%	
14		1.00	19.5	1.00	1.1	1.04		42			48.9		0.00	1.90	0.00	0.00	1.90	1.10	2.08	5.14%	
15		1.00	20.5	0.75	1.6	1.12		27			40.5		0.00	1.47	0.00	0.00	1.47	1.20	1.77	4.36%	
Dead Right Edge of Water			21.0			1.68															
Right Edge of Water			22																		
					Totals:	**17.99**												22.60	40.55		

Summary:

Discharge:	**40.55**	cfs
Width:	**17.0**	ft
Area:	**22.60**	ft^2
Mean Depth:	**1.33**	ft
Mean Velocity:	**1.79**	fps
Max % Flow:	**11.75%**	
Wetted Perimeter	**17.99**	ft

Notes:

Section:

Flow Conditions:

Weather: 13'6" dn from top of guardrail spin test 2 min + / baseflow shower ended last ni(some fine sed. In moss covered edges / 80% cobbles dark algae covered >6" dia

Control: more notes: in 2' wide x section 2 cobble> 18" 5> 10" 60% area is 6" 20% is 4" estimate

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	15:00	
Date:	1/16/00		**End Time:**	15:22	
Location:	RATTLESNAKE	EEL SF	**Begin Gage Height:**		ft
Site:	SPY FORK		**End Gage Height:**		ft
Meter:	Type:	AA	**Accuracy Rating:**		
Spin Test (pre-Q):			**Water Temperature:**		
Spin Test (post-Q):			**Air Temperature:**		

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water																					
Dead Left Edge of Water			0.0																		
1		1.00	2.0	2.00	1.8	2.69		68			40		0.00	3.72	0.00	0.00	3.72	3.60	13.39	23.69%	
2		1.00	4.0	2.00	1.7	2.00		54			40.0		0.00	2.96	0.00	0.00	2.96	3.40	10.06	17.81%	
3		1.00	6.0	2.00	1.5	2.01		79			40.0		0.00	4.32	0.00	0.00	4.32	3.00	12.95	22.91%	
4		1.00	8.0	2.00	1.5	2.00		57			40.0		0.00	3.12	0.00	0.00	3.12	3.00	9.37	16.58%	
5		1.00	10.0	2.00	1.0	2.06		36			40.0		0.00	1.98	0.00	0.00	1.98	2.00	3.96	7.01%	
6		1.00	12.0	2.00	0.9	2.00		48			40.0		0.00	2.63	0.00	0.00	2.63	1.80	4.74	8.39%	
7		1.00	14.0	2.00	0.8	2.00		23			40.0		0.00	1.27	0.00	0.00	1.27	1.60	2.04	3.61%	
Dead Right Edge of Water			16.0																		
Right Edge of Water			16.5			0.00															
					Totals:	**14.77**												18.40	56.51		

Summary:

Discharge:	**56.51**	cfs
Width:	**16.5**	ft
Area:	**18.40**	ft^2
Mean Depth:	**1.12**	ft
Mean Velocity:	**3.07**	fps
Max % Flow:	**23.69%**	
Wetted Perimeter	**14.77**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	16:55	
Date:	3/4/00		**End Time:**	17:17	
Location:	SF EEL SEELY		**Begin Gage Height:**	12'9"	ft
Site:	SEELY AT WALLY'S #2		**End Gage Height:**	12'9"	ft
Meter:		**Type:** AA	**Accuracy Rating:**		
Spin Test (pre-Q):			**Water Temperature:**		
Spin Test (post-Q):			**Air Temperature:**		

Equations for AA

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
Left Edge of Water			3.0																		
Dead Left Edge of Water			3.5																		
1		1.00	4.0	0.50	0.3	1.04		17			42.1		0.00	0.90	0.00	0.00	0.90	0.15	0.14	0.32%	
2		1.00	4.5	0.75		0.58		45			46.2		0.00	2.14	0.00	0.00	2.14	0.00	0.00	0.00%	
3		1.00	5.5	1.00	0.9	1.35		64			40.6		0.00	3.45	0.00	0.00	3.45	0.90	3.11	7.41%	
4		1.00	6.5	1.00	0.8	1.00		47			40.3		0.00	2.56	0.00	0.00	2.56	0.80	2.05	4.88%	
5		1.00	7.5	1.00	1.0	1.02		62			40.1		0.00	3.38	0.00	0.00	3.38	1.00	3.38	8.07%	
6		1.00	8.5	1.00	1.0	1.00		70			41.4		0.00	3.70	0.00	0.00	3.70	1.00	3.70	8.83%	
7		1.00	9.5	1.00	1.1	1.00		94			41.2		0.00	4.98	0.00	0.00	4.98	1.10	5.48	13.07%	
8		1.00	10.5	1.00	1.3	1.02		95			40.4		0.00	5.14	0.00	0.00	5.14	1.30	6.68	15.93%	
9		1.00	11.5	1.00	1.5	1.02		71			41.3		0.00	3.76	0.00	0.00	3.76	1.50	5.64	13.47%	
10		1.00	12.5	1.00	1.4	1.00		56			39.8		0.00	3.08	0.00	0.00	3.08	1.40	4.32	10.30%	
11		1.00	13.5	1.00	1.4	1.00		62			40.6		0.00	3.35	0.00	0.00	3.35	1.40	4.69	11.18%	
12		1.00	14.5	1.25	1.3	1.00		31			40.7		0.00	1.68	0.00	0.00	1.68	1.63	2.73	6.52%	
13		1.00	16	1.25	0.9	1.55							0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00%	
Dead Right Edge of Water			17.0	1.00	0.9	1.00															
Right Edge of Water			18			1.35															
					Totals:	**15.95**												13.30	41.91		

Summary:

Discharge:	**41.91**	cfs
Width:	**15.0**	ft
Area:	**13.30**	ft^2
Mean Depth:	**0.89**	ft
Mean Velocity:	**3.15**	fps
Max % Flow:	**15.93%**	
Wetted Perimeter	**15.95**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN	**Begin Time:**	14:00		
Date:	1/22/00	**End Time:**			
Location:	SF EEL	**Begin Gage Height:**	9" ft	Equations for AA	
Site:	BRANSCOMB AT WILDERNESS	**End Gage Height:**	DN 122" ft	**Remarks:**	
Meter:	Type: AA	**Accuracy Rating:**		Peak recent storm at 16" on gauge(cork) / present stage is 9" = 122" below top of wooden guard rail	
Spin Test (pre-Q):		**Water Temperature:**		However debris downstream in alders is 36" above present stage	
Spin Test (post-Q):		**Air Temperature:**		105= zero stg 9.4 122	

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)				
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)						(ft^2)	(cfs)		
Left Edge of Water			2.6																		
Dead Left Edge of Water			3.0																		
1		1.00	4.0	1.50	0.7	1.57		57			41.1		0.00	3.04	0.00	0.00	3.04	1.05	3.19	7.69%	
2		1.00	6.0	2.00	0.5	2.01		58			40.63		0.00	3.13	0.00	0.00	3.13	1.00	3.13	7.54%	
3		1.00	8.0	2.00	0.5	2.00		89			40.50		0.00	4.80	0.00	0.00	4.80	1.00	4.80	11.57%	
4		1.00	10.0	1.75	0.7	2.01		17			42.12		0.00	0.90	0.00	0.00	0.90	1.23	1.10	2.66%	
5		1.00	11.5	1.25	0.6	1.50		37			41.41		0.00	1.97	0.00	0.00	1.97	0.75	1.48	3.56%	
6		1.00	12.5	1.00	0.7	1.00		54			40.55		0.00	2.92	0.00	0.00	2.92	0.70	2.04	4.93%	
7		1.00	13.5	1.00	0.8	1.00		61			40.80		0.00	3.27	0.00	0.00	3.27	0.80	2.62	6.31%	
8		1.00	14.5	1.00	1.2	1.08		87			40.50		0.00	4.69	0.00	0.00	4.69	1.20	5.63	13.57%	
9		1.00	15.5	1.00	1.3	1.00		66			42.17		0.00	3.43	0.00	0.00	3.43	1.30	4.45	10.74%	
10		1.00	16.5	1.00	1.3	1.00		57			40.41		0.00	3.09	0.00	0.00	3.09	1.30	4.02	9.69%	
11		1.00	17.5	1.00	1.3	1.00		58			40.83		0.00	3.11	0.00	0.00	3.11	1.30	4.05	9.75%	
12		1.00	18.5	1.00	1	1.04		58			40.53		0.00	3.14	0.00	0.00	3.14	1.00	3.14	7.56%	
13		1.00	19.5	1.00	1.0	1.00		34			40.67		0.00	1.84	0.00	0.00	1.84	1.00	1.84	4.44%	
Right Edge of Water			20.5			1.41															
					Totals:	**18.64**												13.63	41.48		

Summary:

Discharge:	**41.48** cfs
Width:	**17.9** ft
Area:	**13.63** ft^2
Mean Depth:	**0.76** ft
Mean Velocity:	**3.04** fps
Max % Flow:	**13.57%**
Wetted Perimeter	**18.64** ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN	**Begin Time:**	12:34		
Date:	1/22/00	**End Time:**	0.57		
Location:	REDWOOD CREEK	**Begin Gage Height:**	20'7" ft	Equations for AA	
Site:	135 FT UPSTREAM OF BRIDGE	**End Gage Height:**	20'7" ft		
Meter:	Type: AA	**Accuracy Rating:**	NS		
Spin Test (pre-Q):		**Water Temperature:**	NS		
Spin Test (post-Q):		**Air Temperature:**	NS		

Remarks: stage is down 20' 7" from top of 6" dia. Round aluminum guard rail
Removed and replaced peak stage gauge / recent storm had 24"
moved peak stage gauge / zero is now 3" higher present stage to 4"
10.0 to 15.5' 3/4 to 1 inch gravel over 6" cobble
16.5' to 22.5' 6" cobble w/algae / some 12"
22.5' Ea? Shelf w/roots under at ledge

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			9.0																		
Dead Left Edge of Water			10.0																		
1		1.00	11.5	1.25	0.5	2.55		21			41.00		0.00	1.14	0.00	0.00	1.14	0.63	0.71	2.65%	
2		1.00	12.5	1.00	0.9	1.08		26			41.60		0.00	1.38	0.00	0.00	1.38	0.90	1.24	4.64%	
3		1.00	13.5	1.00	1.2	1.04		24			40.63		0.00	1.31	0.00	0.00	1.31	1.20	1.57	5.85%	
4		1.00	14.5	1.00	1.3	1.00		24			41.90		0.00	1.27	0.00	0.00	1.27	1.30	1.65	6.15%	
5		1.00	15.5	1.00	1.6	1.04		22			41.32		0.00	1.18	0.00	0.00	1.18	1.60	1.89	7.04%	
6		1.00	16.5	1.00	1.9	1.04		25			40.57		0.00	1.36	0.00	0.00	1.36	1.90	2.59	9.66%	
7		1.00	17.5	1.00	2.3	1.08		26			41.80		0.00	1.38	0.00	0.00	1.38	2.30	3.16	11.80%	
8		1.00	18.5	1.00	2.4	1.00		26			40.30		0.00	1.43	0.00	0.00	1.43	2.40	3.42	12.77%	
9		1.00	19.5	1.00	2.7	1.04		24			41.50		0.00	1.28	0.00	0.00	1.28	2.70	3.46	12.89%	
10		1.00	20.5	1.00	2.5	1.02		21			40.70		0.00	1.14	0.00	0.00	1.14	2.50	2.86	10.67%	
11		1.00	21.5	1.00	2.9	1.08		23			43.16		0.00	1.18	0.00	0.00	1.18	2.90	3.43	12.78%	
12		1.00	22.5	0.75	1.0	2.15		21			42.12		0.00	1.11	0.00	0.00	1.11	0.75	0.83	3.10%	
Right Edge of Water			23			1.12															
					Totals:	16.25												21.08	26.82		

Summary:

Discharge:	26.82 cfs
Width:	14.0 ft
Area:	21.08 ft^2
Mean Depth:	1.51 ft
Mean Velocity:	1.27 fps
Max % Flow:	12.89%
Wetted Perimeter	16.25 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN	**Begin Time:**	13:46		
Date:	1/16/00	**End Time:**	14:12		
Location:	SFEEL	**Begin Gage Height:**		ft	Equations for AA
Site:	RATTLESNAKE ABOVE CONFL	**End Gage Height:**		ft	
Meter:	Type:	**Accuracy Rating:**			
Spin Test (pre-Q):		**Water Temperature:**			
Spin Test (post-Q):		**Air Temperature:**			

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			3.0																		
Dead Left Edge of Water			4.0																		
1		1.00	8.0	4.00	0.6	5.04			70			40.0		0.00	3.83	0.00	0.00	3.83	2.40	9.19	3.98%	
2		1.00	12.0	4.00	0.5	4.00		91				40.0		0.00	4.97	0.00	0.00	4.97	2.00	9.93	4.31%	
3		1.00	16.0	4.00	0.7	4.00		79				40.0		0.00	4.32	0.00	0.00	4.32	2.80	12.08	5.24%	
4		1.00	20.0	4.00	0.9	4.00		74				40.0		0.00	4.04	0.00	0.00	4.04	3.60	14.56	6.31%	
5		1.00	24.0	4.00	1.2	4.01		78				40.0		0.00	4.26	0.00	0.00	4.26	4.80	20.46	8.87%	
6		1.00	28.0	4.00	1.2	4.00		95				40.0		0.00	5.18	0.00	0.00	5.18	4.80	24.88	10.79%	
7		1.00	32.0	4.00	1.4	4.00		88				40.0		0.00	4.80	0.00	0.00	4.80	5.60	26.90	11.66%	
8		1.00	36.0	4.00	1.3	4.00		68				40.0		0.00	3.72	0.00	0.00	3.72	5.20	19.34	8.38%	
9		1.00	40.0	3.50	1.5	4.00		95				40.0		0.00	5.18	0.00	0.00	5.18	5.25	27.21	11.80%	
10		1.00	43.0	2.50	2.0	3.04		85				40.0		0.00	4.64	0.00	0.00	4.64	5.00	23.21	10.06%	
11		1.00	45.0	2.00	2.3	2.02		74				40.0		0.00	4.04	0.00	0.00	4.04	4.60	18.60	8.07%	
12		1.00	47.0	2.00	2.5	2.01		68				40.0		0.00	3.72	0.00	0.00	3.72	5.00	18.60	8.06%	
13		1.00	49.0	1.50	1.5	2.24		46				40.0		0.00	2.53	0.00	0.00	2.53	2.25	5.68	2.46%	
Right Edge of Water			50			1.80															
					Totals:	**48.18**												53.30	230.65		

Summary:

Discharge:	**230.65**	cfs
Width:	**47.0**	ft
Area:	**53.30**	ft^2
Mean Depth:	**1.13**	ft
Mean Velocity:	**4.33**	fps
Max % Flow:	**11.80%**	
Wetted Perimeter	**48.18**	ft

Notes:

Section:

Flow Conditions:

Weather: Stage fallen 8" from peak in leaf line - sample taken - no road runoff observed since 8am

Control: Continuous rain stopped at midnight - showers thru 8 am - then occasional shower

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN SD	**Begin Time:**	16:22		
Date:	1/2/00	**End Time:**			
Location:	SFEEL	**Begin Gage Height:**	2" ft	Equations for AA	
Site:	MILL CREEK	**End Gage Height:**	ft	**Remarks:**	
Meter:	**Type:**	**Accuracy Rating:**		Right edge of water is 8 feet	
Spin Test (pre-Q):		**Water Temperature:**		10 feet is 30.67 sec / 21.39 sec / 20.84 sec	
Spin Test (post-Q):		**Air Temperature:**			

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			0.0																		
Dead Left Edge of Water			1.0																		
1		1.00	2.0	1.00	0.7	2.12		2			59.00		0.00	0.09	0.00	0.00	0.09	0.70	0.07	5.42%	
2		1.00	3.0	1.00	0.8	1.00		4			37.00		0.00	0.26	0.00	0.00	0.26	0.80	0.20	16.88%	
3		1.00	4.0	1.00	0.8	1.00		9			43.70		0.00	0.47	0.00	0.00	0.47	0.80	0.38	30.96%	
4		1.00	5.0	1.00	1.0	1.02		4			45.61		0.00	0.21	0.00	0.00	0.21	1.00	0.21	17.43%	
5		1.00	6.0	1.00	0.8	1.02		5			43.95		0.00	0.27	0.00	0.00	0.27	0.80	0.21	17.69%	
6		1.00	7.0	1.00	0.8	1.00		4			55.85		0.00	0.18	0.00	0.00	0.18	0.80	0.14	11.63%	
Right Edge of Water			8			1.28															
					Totals:	**8.44**												4.90	1.21		

Summary:

Discharge:	**1.21** cfs
Width:	**8.0** ft
Area:	**4.90** ft^2
Mean Depth:	**0.61** ft
Mean Velocity:	**0.25** fps
Max % Flow:	**30.96%**
Wetted Perimeter	**8.44** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks:

SALMON FOREVER DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN	**Begin Time:**	18:09		
Date:	3/4/00	**End Time:**	18:19		
Location:	SFEEL	**Begin Gage Height:**	12'9" ft	Equations for AA	
Site:	DORA	**End Gage Height:**	12'9" ft	**Remarks:**	
Meter:	**Type:** AA	**Accuracy Rating:**		Turbidity Sample Taken / Rain over? Or lull?	
Spin Test (pre-Q):		**Water Temperature:**		1.61 NTU / 3-5-00 @ 13:06 Hach 2100p	
Spin Test (post-Q):		**Air Temperature:**			

Measurement No: **Rating No:** **Shift Adj:** **Percent Diff:**

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(Θ)	(ft^2)	(cfs)		
Left Edge of Water			3.0																		
1		1.00	3.5	0.75	0.9	1.03		31			51.3		0.00	1.34	0.00	0.00	1.34	0.68	0.90	29.91%	
2		1.00	4.5	1.00	0.8	1.00		20			53.0		0.00	0.84	0.00	0.00	0.84	0.80	0.67	22.32%	
3		1.00	5.5	1.00	0.4	1.08		13			41.4		0.00	0.70	0.00	0.00	0.70	0.40	0.28	9.32%	
4		1.00	6.5	1.05	0.6	1.02		11			41.1		0.00	0.60	0.00	0.00	0.60	0.63	0.38	12.58%	
5		1.00	7.6	1.00	0.6	1.10		13			43.1		0.00	0.68	0.00	0.00	0.68	0.60	0.41	13.47%	
6		1.00	8.5	0.70	0.7	0.91		14			41.0		0.00	0.76	0.00	0.00	0.76	0.49	0.37	12.40%	
Right Edge of Water			9			0.86															
					Totals:	7.00												3.60	3.02		

Summary:

Discharge:	3.02 cfs
Width:	6.0 ft
Area:	3.60 ft^2
Mean Depth:	0.60 ft
Mean Velocity:	0.84 fps
Max % Flow:	29.91%
Wetted Perimeter	7.00 ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN		**Begin Time:**	13:10	
Date:	1/6/00		**End Time:**	13:34	
Location:			**Begin Gage Height:**	BOLT ft	NS = Not Stated
Site:	TRIB TO RATTLESNAKE		**End Gage Height:**	.5" DOWN ft	
Meter:	Price	Type: AA	**Accuracy Rating:**	NS	
Spin Test (pre-Q):			**Water Temperature:**	NS	
Spin Test (post-Q):	NS		**Air Temperature:**	NS	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			0.0																		
DLEW			2.0																		
1		1.00	4.0	4.00	0.7	4.06		43			40.00		0.00	2.36	0.00	0.00	2.36	2.80	6.62	#REF!	
2		1.00	8.0	4.00	0.1	4.04		60			40.00		0.00	3.29	0.00	0.00	3.29	0.40	1.31	#REF!	
3		1.00	12.0	4.00	1.3	4.18		55			40.50		0.00	2.98	0.00	0.00	2.98	5.20	15.48	#REF!	
4		1.00	16.0	3.50	2.0	4.06		85			40.00		0.00	4.64	0.00	0.00	4.64	7.00	32.49	#REF!	
5		1.00	19.0	2.50	1.8	3.01		84			40.00		0.00	4.59	0.00	0.00	4.59	4.50	20.64	#REF!	
6		1.00	21.0	2.00	1.8	2.00		104			40.0		0.00	5.67	0.00	0.00	5.67	3.60	20.42	#REF!	
7		1.00	23.0	2.00	1.8	2.00		94			40.0		0.00	5.13	0.00	0.00	5.13	3.60	18.47	#REF!	
8		1.00	25.0	2.00	1.6	2.01		65			40.0		0.00	3.56	0.00	0.00	3.56	3.20	11.38	#REF!	
9		1.00	27.0	2.50	1.3	2.02		90			40.0		0.00	4.91	0.00	0.00	4.91	3.25	15.97	#REF!	
10		1.00	30.0	3.50	1.1	3.01		103			40.0		0.00	5.62	0.00	0.00	5.62	3.85	21.63	#REF!	
11		1.00	34.0	4.00	1	4.00		71			40.0		0.00	3.88	0.00	0.00	3.88	4.00	15.53	#REF!	
12		1.00	38.0	#REF!	1.1	4.00		54			40.0		0.00	2.96	0.00	0.00	2.96	#REF!	#REF!	#REF!	
DREW		1.00	42.0																		
REW			43																		
				Totals:	**38.39**														#REF!	#REF!	

Summary:

Discharge:	#REF!	cfs
Width:	43.0	ft
Area:	#REF!	ft^2
Mean Depth:	#REF!	ft
Mean Velocity:	#REF!	fps
Max % Flow:	#REF!	
Wetted Perimeter	38.39	ft

Notes:

Section:	STARTING STAGE-BOLT LINE ON CULVERT // .5 INCH BELOW BOLT LINE
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN / EB / BH		Begin Time:	10:40	
Date:	2/22/00		End Time:		
Location:	SF TRINITY		Begin Gage Height:	7'6" DOWN CUL	ft
Site:	MONROE		End Gage Height:	7'6" DOWN CUL	ft
Meter:	Price	Type: AA	Accuracy Rating:	NS	
Spin Test (pre-Q):			Water Temperature:	NS	
Spin Test (post-Q):	NS		Air Temperature:	NS	

Remarks: 8' stretch of creek 140 to 150 feet above culvert / alders on banks by downstream LB upstream RB was used as velocity reach for poohsticks method and this discharge calc.

NS = Not Stated

Measurement No: NS Rating No: NS Shift Adj: NS Percent Diff: NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			0.00																		
1		1.00	0.50	0.75	1.50	1.58		38			40.7		0.00	2.06	0.00	0.00	2.06	1.13	2.31	32.40%	
2		1.00	1.50	1.00	1.60	1.00		40			41.1		0.00	2.14	0.00	0.00	2.14	1.60	3.43	48.08%	
3		1.00	2.50	1.00	1.50	1.00		10			40.52		0.00	0.56	0.00	0.00	0.56	1.50	0.84	11.73%	
4		1.00	3.50	0.75	1.50	1.00		9			41.34		0.00	0.49	0.00	0.00	0.49	1.13	0.56	7.80%	
5		1.00	4.00	0.75		1.58							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			5																		
					Totals:	6.17												5.35	7.14		

Summary:

Discharge:	7.14 cfs
Width:	5.0 ft
Area:	5.35 ft^2
Mean Depth:	1.07 ft
Mean Velocity:	1.33 fps
Max % Flow:	48.08%
Wetted Perimeter	6.17 ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN / EB / BH	**Begin Time:**	10:40		
Date:	1/21/00	**End Time:**			
Location:	MONROE CREEK	**Begin Gage Height:**	7'6"	ft	NS = Not Stated
Site:	LOWER HYAMPOM RD.	**End Gage Height:**		ft	
Meter:	Price **Type:** AA	**Accuracy Rating:**	NS		Remarks: 8' stretch of creek 140 - 150 feet above culvert , alders on banks by downstream LB
Spin Test (pre-Q):		**Water Temperature:**	NS		and upstrm RB was used as velocity reach for poohsticks method and this discharge calc. Price AA
Spin Test (post-Q):	NS	**Air Temperature:**	NS		spin test 90 sec +

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
													At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical					
	θ	Cosine θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)					Vel * Cos(θ)	(ft^2)	(cfs)		
LEW			0.0																		
1		1.00	0.5	0.75	1.5	1.58		38			40		0.00	2.09	0.00	0.00	2.09	1.13	2.35	32.76%	
2		1.00	1.5	1.00	1.6	1.00		40			41.1		0.00	2.14	0.00	0.00	2.14	1.60	3.43	47.77%	
3		1.00	2.5	1.00	1.5	1.00		10			40.1		0.00	0.56	0.00	0.00	0.56	1.50	0.84	11.77%	
4		1.00	3.5	0.75	1.5	1.00		9			41.6		0.00	0.49	0.00	0.00	0.49	1.13	0.55	7.70%	
5		1.00	4.0	0.75	1.3	0.54							0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00%	
REW			5.0																		
					Totals:	**5.13**												6.33	7.18		

Summary:

Discharge:	**7.18** cfs
Width:	**5.0** ft
Area:	**6.33** ft^2
Mean Depth:	**1.27** ft
Mean Velocity:	**1.14** fps
Max % Flow:	**47.77%**
Wetted Perimeter	**5.13** ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	EB / JN		**Begin Time:**	16:47			
Date:	1/20/00		**End Time:**	17:22			
Location:	BARKER		**Begin Gage Height:**	7"	ft	NS = Not Stated	
Site:	TOM STOKELEY'S		**End Gage Height:**	7"	ft	Remarks:	
Meter:	Price	**Type:** AA	**Accuracy Rating:**	NS		Peak Stage 10" , present stage 7", spin test 1:30 +	
Spin Test (pre-Q):			**Water Temperature:**	NS		zero current speed at RR 00 , Dead water 00 , debris on stage gauge indicates h2o was 3to 4" higher	
Spin Test (post-Q):	NS		**Air Temperature:**	NS		**Price AA** also leaves along left bank about 4 inches above water level	

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			0.0																		
1		1.00	0.5	0.75	0.9	1.03		14			40		0.00	0.78	0.00	0.00	0.78	0.68	0.53	5.05%	
2		1.00	1.5	1.00	1.0	1.00		18			41.1		0.00	0.98	0.00	0.00	0.98	1.00	0.98	9.32%	
3		1.00	2.5	1.00	1.1	1.00		35			40.1		0.00	1.92	0.00	0.00	1.92	1.10	2.11	20.19%	
4		1.00	3.5	1.00	1.1	1.00		36			41.6		0.00	1.91	0.00	0.00	1.91	1.10	2.10	20.04%	
5		1.00	4.5	1.00	1.0	1.00		40			40.5		0.00	2.18	0.00	0.00	2.18	1.00	2.18	20.79%	
6		1.00	5.5	1.00	0.9	1.00		30			41.7		0.00	1.59	0.00	0.00	1.59	0.90	1.43	13.65%	
7		1.00	6.5	1.00	0.8	1.00		18			41.0		0.00	0.98	0.00	0.00	0.98	0.80	0.78	7.47%	
8		1.00	7.5	0.75	0.6	1.02		15			41.3		0.00	0.81	0.00	0.00	0.81	0.45	0.37	3.49%	
REW			8																		
					Totals:	**8.07**												7.03	10.47		

Summary:

Discharge:	**10.47**	cfs
Width:	**8.0**	ft
Area:	**7.03**	ft^2
Mean Depth:	**0.88**	ft
Mean Velocity:	**1.49**	fps
Max % Flow:	**20.79%**	
Wetted Perimeter	**8.07**	ft

Notes:

Section:	
Flow Conditions:	
Weather:	
Control:	
Remarks:	Click Setting = 1

DISCHARGE MEASUREMENT COMPUTATION SHEET

Personnel:	JN / EB / BH			**Begin Time:**	11:05		
Date:	1/21/00			**End Time:**	11:19		
Location:	MILL CREEK			**Begin Gage Height:**	5'2" DN	ft	NS = Not Stated
Site:	EXIT OF CV			**End Gage Height:**	5'2" DN	ft	Remarks: Measured at exit of culvert
Meter:	Price	**Type:**	AA	**Accuracy Rating:**	NS		Grab Sample Taken - DIS Taken
Spin Test (pre-Q):				**Water Temperature:**	NS		
Spin Test (post-Q):	NS			**Air Temperature:**	NS		

Measurement No: NS **Rating No:** NS **Shift Adj:** NS **Percent Diff:** NS

Vertical	Flow Angle	Angle Coefficent	Station	Width	Depth	Wetted Perimeter	Revolutions			0.2 Time	0.6 Time	0.8 Time	Velocity (fps)				Horizontal Angle Adjusment	Area	Flow	% Flow	Notes
	Θ	Cosine Θ	(ft)	(ft)	(ft)	(ft)	0.2	0.6	0.8	(sec)	(sec)	(sec)	At Point 0.2	At point 0.6	At Point 0.8	Mean in Vertical	Vel * Cos(Θ)	(ft^2)	(cfs)		
LEW			0.0																		
1		1.00	0.5	0.75	1.9	1.96		37			40.1		0.00	2.03	0.00	0.00	2.03	1.43	2.89	14.11%	
2		1.00	1.5	1.00	1.9	1.00		52			40.4		0.00	2.83	0.00	0.00	2.83	1.90	5.37	26.15%	
3		1.00	2.5	1.00	1.9	1.00		48			40.20		0.00	2.62	0.00	0.00	2.62	1.90	4.98	24.26%	
4		1.00	3.5	1.00	1.8	1.00		30			40.53		0.00	1.63	0.00	0.00	1.63	1.80	2.94	14.33%	
5		1.00	4.5	1.00	1.8	1.00		21			40.5		0.00	1.15	0.00	0.00	1.15	1.80	2.07	10.09%	
6		1.00	5.5	1.00	1.6	1.02		14			40.9		0.00	0.77	0.00	0.00	0.77	1.60	1.23	5.97%	
7		1.00	6.5	0.75	1.7	1.00		15			40.9		0.00	0.82	0.00	0.00	0.82	1.28	1.05	5.09%	
8		1.00	7.0	0.50		1.77							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	
REW			7.5																		
					Totals:	9.77												11.70	20.52		

Summary:

Discharge:	**20.52**	cfs
Width:	**7.5**	ft
Area:	**11.70**	ft^2
Mean Depth:	**1.56**	ft
Mean Velocity:	**1.75**	fps
Max % Flow:	**26.15%**	
Wetted Perimeter	**9.77**	ft

Notes:

Section:

Flow Conditions:

Weather:

Control:

Remarks: Click Setting = 1