

Su-Wa
2013 Trib Gaging

"Rain the Rain"
ALL-WEATHER
LEVEL
No. 310

1945, 150

Sep 26 - 30, 2013

Oshetna R. 9/26/13

Logger Downloaded

In	Out
Time 11:10	18:00
5.6	1.44

Photo Log (Mats Camera)

2973 still well side

2974 backup unit before removal

2975 " "

2976 backup unit after removal

2977 mat shooting 87.09

WSR 87.09

2978 close up (88.52) 87.06

8 soil plate (88.52) 87.08

2981 still plate

Level Camp 9/26/13

Oshetna River

STA	BS	HI	FS	Elev.
BM-1	1.72			100.00
BM-2		101.72	0.65	101.07
Top staff plate			11.30	90.42
WSR still well			13.22	88.50
Backup unit WSR			13.22	88.50
Rebar			9.92	91.80

Rebar 10.14

101.94

91.80

Backup unit WSR	13.41		88.53	WSR
still well WSR	13.42		88.53	
top staff plate	11.52		90.42	
BM-2	0.86		101.08	
BM-1	1.94		100.00	

main unit

88.52

100.00

BM-1

13.42

88.52

1.94

100.00

Oshetna Dumbled
9/26/13

Oshetna Printer - 2023990
started 7/13/13 10:00 am
stopped 9/26/13 11:40 am
saved as: oshetna main-unit.csv
; oshetna main-unit.csv
reset to start @ 12:00:00
* all data removed & stored on floppy
* pulled backup unit for download
in Tricketta
* stored installation assembly at base
of tree with BM-1

Kosios Cr. 9/26/13

Logger Dumbled

In Oct
Time 12:43 1:49
S.G. 11:53 1:52

Photo Log: (Mats camera)

2982 - backup unit pre-pull
2983 -
2984 - 86 = stop plate
2987 - looking S. hel. E level to pad
2988 - backup unit on removed
2989 - Barabogee (moved higher in tree)
2990 - "

* F.W.I.W - appears WSE had been 2.09'
- with recommendation that the
base of tree be removed higher in
tree
2991 - X-section
2992 - looking off
2994 - after removal

Kosina
9/26/13

BS

STA

BS

FS

Elect

Survey

Kosina
9/26/13

Download

Unit # 2022426 main unit

started: 7/13/13 10:00:00 AM

stopped: 9/26/13 1:21:50 pm

Memory used: 7.213

Computer & loggin are synchronized

Restart @: 1:24:00 pm

* all data remained from unit

with restart set for 1:30:00 pm

(09/26/13)

* full backup unit # 2023493

unit will be downloaded back

in Tekestrics, removed from unit

at ~ 1:15 pm

* returned main unit to still well

* placed install assembly for backup

unit at base of BM-1 tree

* Downloaded Para Logget # 2023189

File name: Kosina Backup_2023189 Lev

restart @ 2:00:00 pm

Bm-1	1.89	101.89	100.00	95.38
Bm-2	2.10	99.79	96.10	93.29
top of post	5.79	96.10	93.32	95.13
top of post	6.77	95.12	96.10	99.79
top of post	8.58	93.31	100.00	
top of post	8.60	93.29		
top of post	6.51	95.38		

Bm-1	6.43	101.81	8.52	95.38
Bm-2	8.49	93.32	8.49	93.29
Bm-1	6.68	95.13	5.71	96.10
Bm-2	5.71	96.10	2.02	99.79
Bm-1	1.81	100.00	1.81	100.00

Bm-1	8.51		8.51	100.00
Bm-1	1.81		1.81	100.00

Unnamed Cr. 144.6 9/26/13

Discharge Measurement
Flow Tracker 3:15 pm

Crew: M. Gagner
M. T.

File Name: Unnam.144

Photo Log:
3042 - ~~W~~ ~~stability~~ Flow Tracker
43 - looking Rt → Lt
44 - " " W/S → p/s
45 - " " dk → u/s
46 - " " Lt → RT
47

Unnamed Cr. 144.6 9/26/13

STA	Depth	V ₁	WE=4.5	Depth	V ₁	STA	Depth	V ₁
5.0	0.20	0.0				15.5	0.50	2.69
5.75	0.20	0.20				16.0	0.25	1.57
6.0	0.30	0.33				17.0	0.70	0.70
6.5	0.40	1.10				16.8	0.0	0.0
7.0	0.30	1.62						
7.5	0.40	2.14						
8.0	0.30	2.10						
8.5	0.30	2.10						
9.0	0.55	1.08						
9.5	0.50	1.84						
10.0	0.60	2.60						
10.5	0.70	3.06						
11.0	0.60	2.64						
11.5	0.60	2.52						
12.0	0.60	2.88						
12.5	0.60	3.36						
13.0	0.75	2.30						
13.5	0.60	2.82						
14.0	0.50	2.99						
14.5	0.40	2.94						
15.0	0.60	2.69						

Q = 12.210

*USGS inch tape

Deshka River 9/27/13

Pressure Sensor Operational

Mike Gagnier
Mast Tiedakana

* River is too high to measure discharge

In Dist
Time 10:15 12:40

Photo Log:

3056 - 58: Tri Rivers boat on Deshka

3059: Matt loading barn ladder

60: looking across R-Tr Pt → Lt

61: " d/s

62: " v/s

63: Matt shooting WSE at backup unit

Deshka River 9/27/13 Survey f

STA BS HI FS Elev

BM-1 3.92 103.92 100.00 ✓

BM-2 3.14 100.78 ✓

WSE Backup unit 5.52 98.40 (u/s mast)

WSE main unit 5.41 98.43 (u/s mast)

rebar 5.83 98.09

rebar 7.41 98.09

WSE main unit 7.02 98.42 (u/s mast)

WSE backup unit 7.88 98.42 (u/s mast)

BM-2 4.72 100.78 ✓

* Backup Unit WSE after install 7.05 (10:30)

BM-1 5.50 100.00 ✓

survey cap marker 3.36 RTK # 27781

Top Lt Bank fence post 3.12 10-9 A 758-5 (5706) S

Deshka River 9/27/13

Logger Download

Unit # 2023479

Backups Unit
Memory Used: 7112
(u/s mast)
Deshka Backup 2023479.csv
backed up to computer and backup drive
12:00:00 future start

Bana Logger # 2022079

Memory used: 7113
Deshka Bana Logger 2022079.Lev
" " .CSV
12:30:00 future start

* both units were cleared
& set for future restart

Deshka R. @ Susitna 9/27/13

staff Gage = 0.09' - 0.13'

STA BS AT FS Eleva

BM-1 3.73 103.73 100.00

BM-2 4.91 98.82

top staff plate 9.92 93.81

still well WSE 13.16 90.57

top staff board Log 9.97 93.76

TR Log 9.74 93.76

still well WSE 103.50 12.98 90.52

top staff plate 9.70 93.80

BM-2 4.69 98.81

BM-1 3.50 100.00

Photos: 3064 - 3065 = staff Gage
3067 = Photo of mast
3068 = after removal
Time = 1:15 pm WSE removed
1:20 pm removed

WSE
is
surging

Birch Cr. Pestalozzer
Downloaded

9/27/13

IA / Out
Time 3:15 / 5:15
S.G. 2.33 / 2.33

Photo Log: 3071 - Birch Cr looking d/s

3076 - Matt at unit 72 - "

3077 - Staff Mather 73 - Download PC

3078 - Lt - 7 Rt 74 - Rt - 7 Lt

75 - Matt at main unit

Birch Cr. Download:

Unit # 2023476

Used Memory: 7225

File Name: Birch Main Unit 2023476.L&V

o.c.v.s

Future Start 4:30:00 9/27/13

all data removed & stored
on laptop & removable drive

Birch Cr. Survey 9/27/13

STA B5 9/27/13
HI FS Ekwa

BIM-1 3.67 103.67 100.00

BIM-2 3.65 100.02

Top staff plate 4.27 79.40

staff work wse 5.28 98.39

wse @ backup unit 5.31 98.36

survey pt 4186 4.31 99.33

top staff board 3.59 100.08

top staff board 3.85 103.93 100.08

pt 4186 4.61 99.32

wse backup 5.57 98.36

wse main unit 5.55 98.38

Top staff plate 4.53 99.40

BIM-2 3.91 100.02

BIM-1 3.93 100.00

staff work wse 5.54 ✓

Top staff plate 4.53

Bich Cr. Discharge Measurement
9/27/13 (4116-5100)

Flow Tracker

STA Depth V_1 V_2

LWE

0 0.98

6.70 2.10 0.93

8.0 2.30 0.74

10.0 2.40 0.77

12.5 2.25 1.19

14.0 2.30 1.57

16.0 2.45 1.40

18.0 2.25 1.47

20.0 2.00 1.39

22.0 1.75 1.29

24.5 1.95 1.13

26.0 1.90 1.30

27.5 1.80 1.48

29.0 1.55 2.17

30.0 1.50 2.23

31.5 1.60 1.68

33.0 1.70 1.05

35.0 1.55 0.68

37.0 1.50 0.77

39.0 1.55 1.23

STA Depth V_1

40.5 0.50 0.03

41.5 0.45 0.33 WE

43.5 0.65 0.01

46.0 0.45 0.38

46.47 1.80 0.10

48.0 1.40 0.29

50.0 1.40 0.28

52.0 1.30 0.19

55.0 1.15 0.10

56.0 0.0 0.0

— RWE

Q = 82.7

veg
veg
veg

84.0

review
cell
due to
issues

Indiana R. Download

9/28/13

Unit # 2022433

(main unit) memory used: 7586
Stopped @ 2:24 pm

File Name: Indiana R Main Unit 2022433

LEV E CSV file extensions
future start set for 4:00:00 pm

Unit # 2022431

(backup) memory used: 7587
Stopped @ 2:35 pm

File Name: Indiana Backup 2022431

LEV E CSV
No future start, just stopped.

* Data from both units stored
on computer hard drive and
backup storage device

Skull Cr. Download

9/29/13

In Out

Time 8:50 10:30

S.G. 1:15 1:14 (Falling slightly)

FluorTrak

photo logs

309.7 - skull cr. stop gap

98 - "

99 - "

3100 - u/s -> d/s view

3101 - Q-TR Lt -> Rt view

02 - " d/s -> u/s view

03 - " Rt -> Lt view

3104 - Skull Cr. Barabloger

SKULL Cr.	Survey	9/29/13	Q-Measurement
STA BS	HI	PS	Elava
BM-1	2.25		100.00
BM-2			102.25
BM-1	3.06		100.00
BM-2			
S&M WSE		5.48	97.58
Well		8.97	94.09
Top of Plate		6.74	96.32
Back of WSE		8.98	94.08
Top of W/P		4.89	98.17
(TP)			
Top of W/P	5.00		98.17
Back of WSE		9.09	94.08
S&M WSE		9.68	94.09
Top of Plate		6.86	96.31 ✓
BM-2		5.60	97.57 ✓
BM-1		3.10	99.99

SKULL Cr. Q-Measurement
9/29/13

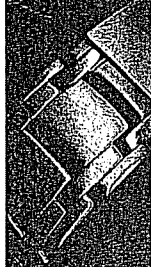
STA Depth V.I.

Flood

SKULL

File

Handwritten notes and scribbles in the right column of the notebook page.



SKULL Cr. Downloaded 9/29/13

Unit # - 2023480

(main unit) Memory Used: 7574

Stop Time : 9:30 AM

File Name : SKULL Cr. Main Unit 2023480

Future Start Time : 10:00:00 AM

Unit # - 2023471

(Backup Unit) Memory Used: 4991

Stop Time : 9:45 AM

File Name : SKULL backup 2023471

Future Start Time : did not restart

BaroLogger #: 2023122

Memory Used : 7564

Stop Time : 9:55 AM

File Name : SKULL BaroLog 2023122

Future Start Time : 10:00:00 AM

* pulled backup unit, reset main unit and baro logger for future start. all data stored on laptop & external drive.

Gash Cr. Downloaded

9/29/13

In Out

Time 12:05 1:40

S.G. 1.13 1.12

* = 5.322 cfs Flow Tracker
* not in same location as previous survey
* 2 coho salmon in culvert pool

Photo Log:

3110 - Matt @ Gash culvert

3111 - "

3112 - central TR Rt → Lt view

3113 - Q-TR Rt → Lt view

3114 - " Lt → Rt view



9/29/13

Gash C.C. Control Profile

STA	(HI=103.96)	FS	PS
LWP=0.0	7.75	18.3	RWP=6.73
LWE=1.4	9.01		
2.0	9.20		
2.5	8.56		
3.2	8.70		
4.2	9.45		
5.0	9.58		
7.0	9.67		
8.0	9.77		
9.0	9.24		
10.4	9.49		
11.4	9.17		
11.6	9.29		
12.1	9.39		
13.1	9.00		
13.8	9.17		
14.7	9.23		
* 12.7	9.05		
15.4	9.03		
15.9	9.22		
16.8	9.16		
17.8	9.15		
RWE=17.4 (curve)			WCB=15

Gash C.C. Survey

9/29/13

STA	BS	HI	FS	Eleva
B.M.-1	4.04	104.04		100.00
B.M.-3			7.63	96.39 ✓
Top Staff Plate			6.90	97.14
Styl WSE			9.13	94.91
Backstop			9.14	94.90
Unit WSE			6.22	97.82
Fence post				
(IP) Fence post	6.14	103.96		97.82
Backstop			9.06	94.90
Unit WSE			9.06	94.90
Styl WSE			7.57	96.39 ✓
B.M.-3			3.95	100.01
B.M.-1				
Styl WSE			9.04	

Gash Cr Download

9/29/13

Unit #: 2022421

(main unit)

Memory Used: 10,071

File Name: Gash Cr 2022421

Stop Time: 1:05 pm

Future Start: 1:30 pm

Unit #: 2023485

(backup) Memory Used: 4994

File Name: Gash backup 2023485

Stopped @: 1:30 pm

Slush Cr Discharge

* Q = only 9/29/13

Flow Tracker

STA Depth V₁

LWE = 3.5 0.0 0.0

6.1 0.20 0.17

6.8 0.20 1.26

7.8 0.15 0.72

RWE = 8.6 0.0 0.0

Rwp = 10.0

Lwp = 0.0

Q = 0.279 cfs

Photo Log:

3115 →

16 -

17 -

18 -

3119 -

Q-TR

"

"

"

Mattn w/ Flow Tracker

LT → RT view

U/S → d/s view

d/s → u/s view

RT → LT view

Trib. Unnamed 113.7

9/29/13

In Out
Time 2:15 3:30

5.6 — staff gage moved
Q-measurement = 4.92 cfs

Photo Log:

- 3:25 - looking w/s
- 26 - staff gage
- 27 - looking w/s
- 28 - staff gage

Data Download:

Unit # 2022356

Memory used: 10,107

File Name: Unnamed 113 2022356

Unnamed 113.7 Survey

9/29/13

STA BS HT FS Eleva

BM-1 4.38 100.00

104.38

BM-2 1.67 102.71

Top staff plate 8.07 96.31

stem w/ WF 9.49 94.89

Top wood staff 7.47 96.91

(TP)

Top wood staff 7.33 104.24

still w/ WF 9.33 94.91

Top staff plate 7.94 96.30

BM-2 1.53 102.71

BM-1 4.24 100.00

Trapper Cr.

9/30/13

	In	Out
Time	9:40	10:55
S.G	1.70	1.70

Photo Log:

3142 - Q-TR looking L → RT
 3143 - " " RT → LT
 3144 - d/s → v/s view
 3145 - v/s → d/s view
 3146 - staff plate

Flow Tracker Q = 89.713 cfs

Trapper Cr. Survey 9/30/13

STA BS HI FS Eleva

BM-1	1.61			100.00
BM-2		101.61		
Top staff plate			3.55	98.06
Main Unit WSE			6.15	95.46
back up WSE			7.78	93.83
RTK point 27346			7.81	93.80
RTK point 27346			4.79	96.82 top still looks pipe
RTK point 27346	4.87	101.69	96.71	96.82
back up WSE			7.86	93.83
Top staff plate			6.25	95.44
Main Unit WSE			7.86	93.83
BM-2			3.63	98.06
BM-1			1.70	99.29

RTK 27344

Main Unit WSE

BM-2 (RTK 27347)

7.88

3.63

Trapper Cr. Down Load

9/30/13

Unit # 2022436

(main unit) Stopped @ 10:16 AM

Memory Used: 10,077

File Name: Trapper Main Unit 2022436

Future Restart: 11:00:00 AM

Unit # 2023486

(Coachup) Memory Used: 5283

File Name: Trapper Backup Unit 2023486

Stopped Logger @ 10:40 AM

* No future start data *

Logger was removed & install assembly placed on upslope side of Paper Birch with BM-a nail.

Trapper Cr. @ Su Confluence

9/30/13

In Out

Time 11:15 12:30

Photo Log:

3147 - looking ups at install site
48 " @ install site after removed

: 3149 - looking ups from install site
3150 - " d/s "

Unit # 2022412

Memory Used: 16094

Stopped unit @ 5:53 pm

Trapper @ Conflu 2022412

Birds Cr @ Sa Confluence
9/30/13

STA	BS	HI	FS	Eleva
BMM-1	3.74			100.00
		103.74		
BMM-2		4.41		99.33
Top staff plate		7.36		96.38
Staff WSE		10.20		93.54
wood plate		6.69		97.05
wood TP				
wood plate	6.54	103.59		97.05
WSE		10.06		93.53
Top staff plate		7.21		96.38
BMM-2		4.26		99.33
BMM-1		3.59		100.00

Unit # 2023495
Memory Used; 7521
Stopped @ 6:00 pm
File Name; BMM@conflue 2023495

Whiskers Cr. Download
9/30/13

Time	In	Out
5.6	2:00	3:15
	2:41	2:40

Flow Tracker Q = 39.33 cfs

Photo Log:
3176 - whiskers staff gage
3177 - Q-TR (Mott) looking LT → RT
3178 - looking d/s → u/s
3179 - Q-TR looking RT → LT
3180 - looking u/s → d/s
3181 - " " u/s from monitoring site
3182 - " " @ backho wait site

Whiskers Cr. Survey
9/30/13
STA BS HI FS Eleva

BM-1	2.24		102.50
BM-2		3.58	98.66
Top of plate		7.05	95.19
STA well WSE		7.98	94.26
Back up		7.98	94.26
Unit WSE		1.67	100.57
TBM 3			
BM-3	1.70		100.57
BM-2		3.70	98.65
Back up		8.09	94.26
STA well WSE		8.11	94.24
Top of plate		7.16	95.19
BM-1		2.35	100.00
STA well WSE		0.10	

Michael Lilly

Whiskers Cr. Download
9/30/13

Unit # 2022437
Memory used = 9615
Stopped @ = 2:44 pm
File Name = Whiskers Main Unit 2022437
Future Restart = 3:30:00 pm

Unit # 2023124 (Bara Logger)
Memory Used = 10,070
Stopped @ = 2:53 pm
File Name = Whiskers Bara Log 2023124
Future Restart = 3:30:00 pm

Unit # 2023489
Memory used: 5301
Stopped @ = 2:53
File Name = Whiskers backup 2023489
* removed unit *

all files stored on laptop & external drive