

Su - Wa  
1943.150



*Rite in the Rain.*

ALL-WEATHER  
**LEVEL**  
**FIELD BOOK**

Nº 310

Trib. Gaging

R2

June 2014

Whiskers Cri 06/09/14

Flow Gage Install

	In	Out	
Time	3:00	5:30	
S.G	1.40	1.42	reinstalled
	@ 3:52	@ 5:15	

Equipment: Flow Tracker  
Nikon Auto Lens

Photo Log:

- #2675 - matt @ old staff & still well
- 2676 - still well straightened up (old)
- 77 - new baralogg set up
- 78 - new staff gage reading (1.4")
- 79 - pre backup unit install
- 80 - after install backup
- 81 - Rt → Lt still well profile
- 82 - Lt → Rt " "
- 83 - logger TR d/s → u/s
- 84 - " " u/s → d/s
- 85 - Q-TR looking u/s
- 86 - Q-TR looking Lt → Rt
- ① 2687 - D- " " Rt → Lt

Whiskers Cri

Level Loop & WSE

06/09/14

STA	BS	HI	FS	Elev
BM-1	2.06	102.06		100.00
BM-2			3.41	98.65
top still well pine			8.13	93.93
Top Rock			10.15	91.91
Top Rock (TP)				
Top Rock	10.26	102.17		91.91
Top still well			8.24	93.93
BM-2			3.52	98.65
BM-1			2.17	100.00
				straightened staff & still well
Top still pipe			5.47	
Top wood staff plate			5.89	
metal staff plate			6.58	
WSE @ staff plate	8.44	2.17	2.76	8.44
Top still well			5.39	
wood staff plate			5.81	
Top staff plate			6.51	
WSE			8.45	
BM-1			2.17	

②

Whiskers Cr.

06/09/14

Removed Levelogger unit Model 3001  
# 0102022437 @ 3:28 pm

Installed Levelogger Unit  
# 0102033872 @ 3:52 pm

Swapped out Paralogger  
# 0612023124  
and replaced with # 0612034351  
@ 3:50 PM

Install backup unit @ 4:24  
# 2033871

\* Q-transet time is Pacific  
on flow trucker

\* Move old rwp upstream ~ 2.0'

LWP = 31.5 inside edge

RWP = 0.0

Q = 12.13 cfs

(3)

(4)

Whiskus Cr. 06/09/14

Q-Tr. Profile

STA	BS	HI	FS	Elev	Rod
LWP=31.5		102.17	<del>102.17</del>	5.74	
29.7			5.93		
28.0			6.35		
27.0			6.91		
26.8			8.90		LWE
25.7			9.30		(8.44 WSE)
24.3			9.26		
22.7			8.95		
21.0			9.02		
19.10			9.01		
17.30			9.03		
15.70			9.07		
14.70			9.25		
12.90			9.22		
11.00			9.16		
9.0			8.94		
7.7			8.88		
5.90			8.87		
4.4			8.69		
3.5			8.52		RWE
2.3			8.05		
2.0			6.11		
1.0			5.11		
0.0			4.41		RWP

06/09/14

Whiskus Cr. Still Well Profile

STA	BS	HI	FS	Eleva
LWP=0.0		102.17	4.59	
1.6			4.96	
2.5			5.94	
4.0			7.06	
5.0			6.99	
6.5			6.68	
7.5			7.09	top bank
8.0	WSE		8.43	WSE/Toe bank
8.1			10.15	Toe bank
8.5			10.35	at still well
9.5			10.74	
11.0			10.76	
12.5			10.62	
14.0			10.55	
16.0			10.46	
17.5			10.70	
18.7			10.29	
19.2			10.78	
20.5			10.88	
23.0			10.83	
25.0			10.70	
27.0			10.72	

STA	BS	Profile IFS	FS	Still well Elevn 06/09/14
29.0			10.25	
30.5			9.77	
31.7			9.06	Toe of slope
<del>31.8</del>			8.43	WSE
<del>31.8</del> 32.2			6.05	top bank
33.0			5.18	
34.2			4.93	LWP
BM-2			3.52	
top tube			10.28	backup unit
WSE @ backup			8.42	
WSE @ staff			8.43	
BM-1			2.17	106.00 ✓

(7)

Whiskers Creek @ office  
download 06/09/14

- Retrieved drain unit:  
2022437  
Logger time: 6:22:00 PM  
Real time: 6:30:38 PM  
# of readings: 24204

- Retrieved barlogger  
# 0012023124  
Loggertime: 6:30:00  
Computer time: 6:43:16  
# of readings: 24204

(8)

Su - Wa

1945. 150

**DURA** *Rite*  
WATERPROOF



**FIELD**

Nº 653

Trib. Gaging

P 2



Blank

(2)

# Ostetna R. Gage Install

06/10/14

WSE & Still well survey

STA	BS	HI	FS	Eleva
		98.27		
Top still well			6.95	91.32
Top staff plate			7.53	90.74
Top wood			6.85	91.42
WSE			9.02	89.25
Backup Unit WSE			9.05	89.22
Top Tube			11.14	87.13
CP163			3.39	94.88 w pt 849

(3)

Oshetna R.

06/10/14

Level loop E WSE

STA	BS	HI	FS	Elevn	
BM-1	1.74			100.00	
		101.74			
BM-2			0.69	101.05	
CP 163			6.85	94.89	Dave marked braily nail
Top still well			12.22	89.62	before straightening
WSE			12.46	89.28	
Rock			10.47	91.27	
TP					
Rock	12.16			91.27	
		103.43			
CP 163			8.55	94.88	
BM-2			2.39	101.04	
BM-1			3.44	99.99	
CP 163	3.39	98.27		94.88	
Top still well			7.45		after straightening
staff plate			8.01		

(4)

Oshetna R.

June 10, 2014

\* removed old logger  
from river @ 11:10 AM

\* need to replace staff plate  
E fence post, still well ok

\* removed old logger # 102023490  
replaced with logger # 2022437  
@ 11:50 AM

\* wpt 849 marks survey pt CP 163

\* Backup # 2033904 will  
install v 22' d/s of still  
will @ 12:00

In office download: Logger # 2023490

Logger time: 5:17:30 PM 100% Battery

Computer time: 5:25:53 PM 24964 readings

Unit downloaded and upgraded to firmware 3.003

(5)

Blank

(6)

#051na Cri

Flow Gage Install

06/10/14

	In	Out
Time	11:50	2:30
S.G.	1.45	1.45
	@ 1:45	

Equip: Nikon Auto Level

Photo Log:

- #2704 - looking at staff before straighten
- 2705 - " at from blade "
- 2706 - looking at staff plate before straight.
- 2707 - Matt closing install
- 2708 - new staff plate reading 1.45'
- 2709 - new still well & staff plate
- 2710 - new backup logger location

(7)

Kosina Crk Gage Install  
06/10/14

STA	BS	HI	FS	Eleva
BM-1	1.89			100.00
		101.89		
BM-2			2.23	99.66
CP 162			5.29	96.60
still well WSE			8.62	93.27
staff plate			7.30	94.59
Top Tube TP			6.57	95.32
CP 162	5.31			96.60
		101.91		
BM-2			2.25	99.66 ✓
BM-1			1.91	100.00 ✓
Top staff plate strengthened still			6.64	95.27
Top wood			5.98	95.93
Top still well			5.87	96.04

(8)

Kosina Crk 06/10/14

Level Loop & WSE				
STA	BS	HI	FS	Eleva
BM-1	7.91			100.00
		101.91		
BM-2			2.25	99.66
CP 162			5.31	96.60 ✓
still well WSE			8.64	93.27
Bld			8.10	93.81
Bld (FP)				
Bld	8.14			93.81
		101.95		
CP 162			5.37	96.58
BM-2			2.30 ✓	99.66
BM-1			1.96	101.95
Top still well (new)			5.27	
Top wood			6.12	
Top staff plate			6.81	
WSE			8.68	
Top backup tube			10.14	
Backup WSE			8.67	

(9)

⑩

# Kosina Crn Gage Install

06/10/14

\* straightened old unit up @ 12:45 pm

\* old still well removed from  
the river @ 1:34 pm  
Unit # 2022426 removed

\* New Levelogger install @ 1:52 pm  
Unit # 2033884

\* New baralogger installed @ 2:00 pm  
Unit # 2023124

\* installed new backup Unit # 2033893  
@ 2:15 pm

In office download

Logger # 2022426

Logger time: 5:38:30 PM

Computer time: 5:46:17 PM

100% Battery

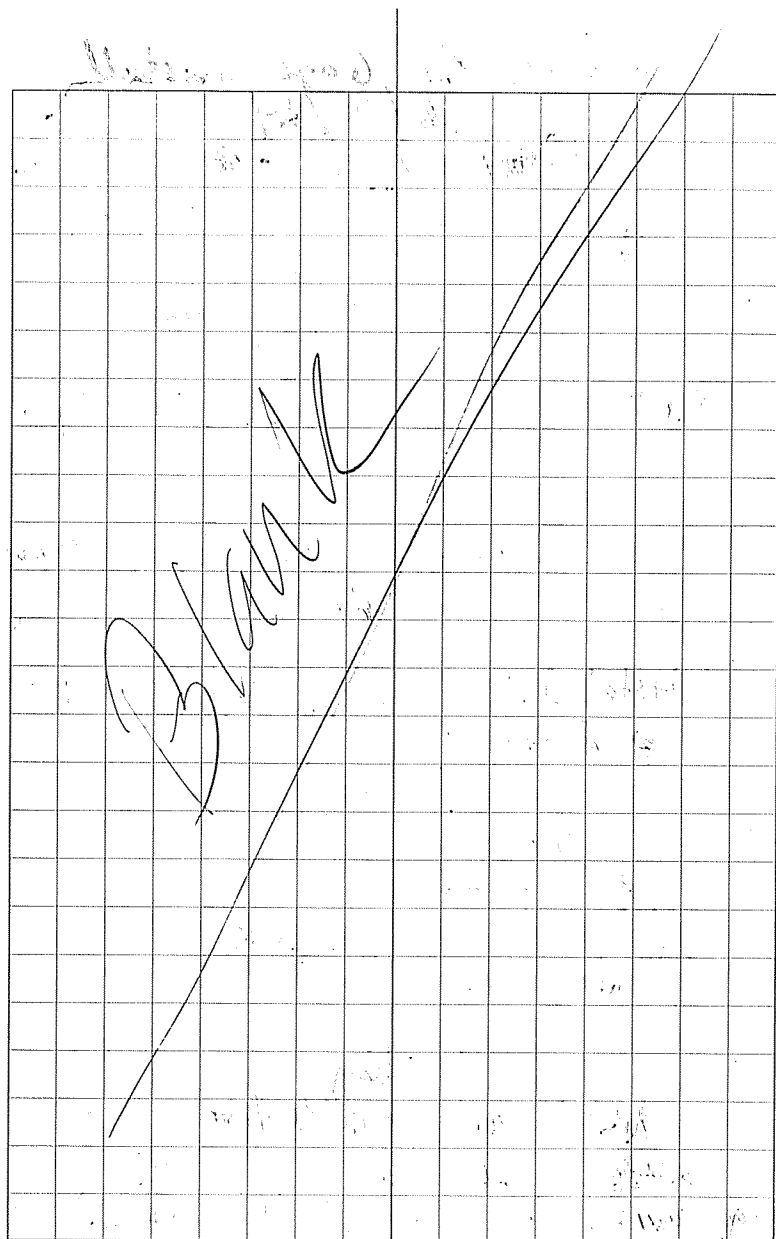
24689 readings

Unit downloaded and upgraded to firmware 3.003

Baralogger #: 2023129 100% Battery

Logger time: 5:47:30 Computer time: 5:57:55

24687 readings. Downloaded and upgraded to firmware 3.003



⑪

Trib. 144.6 Q

06/10/14

In Out  
Time 3:20 4:00

Equipment: Flow Tracker

Q measurement = 23.3 cfs

GPS wpt = 850

Photo Log:

# 2711	Q-TR	looking	Lt → Rt
2712	"	"	d/s → u/s
2713	"	"	Rt → Lt
2714	"	"	u/s → d/s
2715	helis	d/s confluence	
2716	looking	u/s from mouth	
2718	"	at clearwater plume	

(12)

Blank

(13)

# Tsusena Cr. Gage Install

June 11, 2014

In Out

Time	9:30	11:00
S.G.	1.99	1.99

Crew: M. Gagner  
M. Tiedemann

±

Photo Log:

# 2739 pre-install

2740-43 level loggers pre install

2744 - underwater view of install

2745-47 - after install

2748 - looking up from install site

49 - " d/s " "

2750 - 52 survey BM's

2753 - 55 staff gage & backup unit

CIRWG Lands

Permit # 2014-001

(14)

# Tsusena Cr. Gage Install

06/11/14

• install backup unit # 2033877  
" d/s of staff well & staff  
wpt # 851 @ 10:15 AM

• installed level logger & staff # well  
Unit # 2033902 @ 10:30 AM  
wpt # 852

• unable to wade the river  
depth 3-5' vel. 3-6 ft/sec

• Photo 2756 - 2761 Flight photos

(15)

Tsusena Cr. 06/11/14

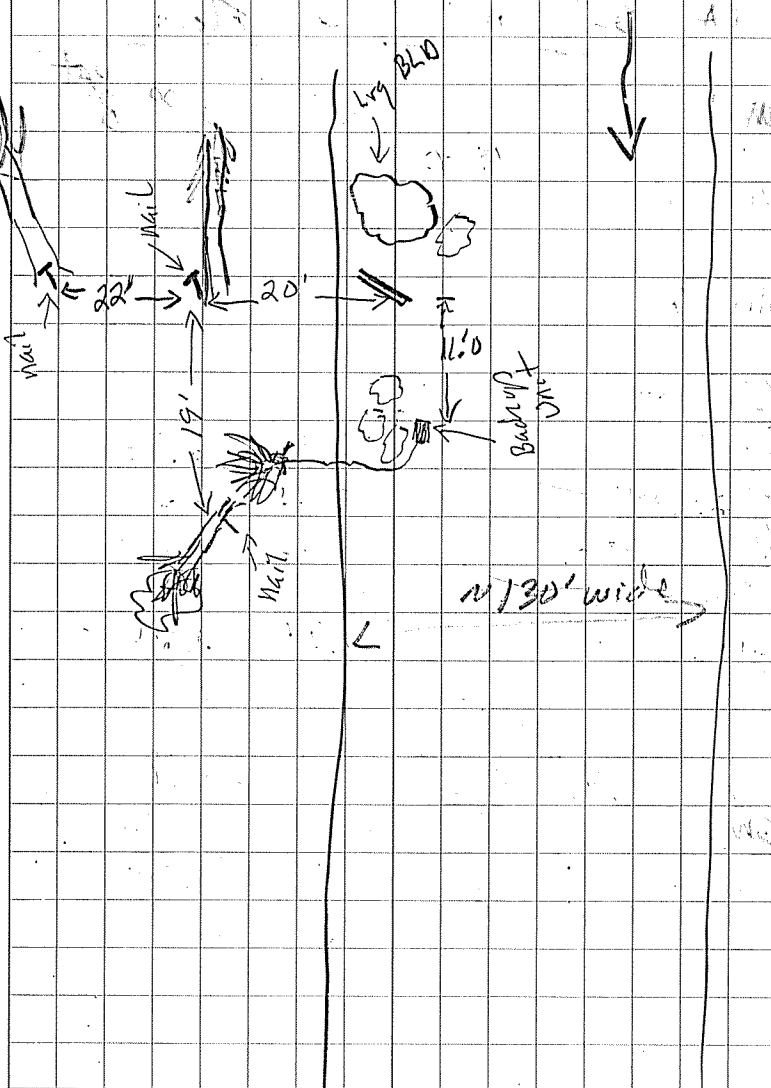
Level loop E WSE

STA	BS	HT	FS	Elev	
BM-1	0.75		0.	100.00	wpt 853
		100.75			
BM-2			2.79	97.96	
BM-3			5.20	95.55	
Top still tube			7.92	92.83	
Top wood			8.45	92.30	
Top staff plate			9.11	91.64	
WSE at well			10.45	90.30	}
backup tube			11.97	88.78	
backup WSE			10.44	90.31	
Rock TP			10.27	90.48	
Rock	10.41	100.89		90.48	
BM-3			5.32	95.57	use
BM-2			2.93	97.96	✓
BM-1			0.89	100.00	✓

(16)

Tsusena Cr Site Map

June 11, 2014



(17)

# Fog Cr. Gage Install

June 11, 2014

	In	Out
Time	1:30	3:45
S.C	1.99	1.99

## Photo Log:

- # 2763 pre-install site
- 2764 after install
- 2765 " "
- 2766 backup logger <sup>before</sup> location
- 2767 MRB w/ bug shirt
- 2768-72 Loggers w/ #s
- 2773-75 - staff gage & still well <sup>install</sup>
- 2776 - backup unit & still well <sup>install</sup>
- 2777 - Q-Tr looking d/s
- 2778 - " " looking Rt → Lt
- 2779 - " " d/s → u/s
- 2780 - " " Lt → Rt
- 2781-93 Flight photos

(18)

# Fog Cr. Gage Install Notes

6/11/14

\* installed levelogger #2023490  
@ 2:10 pm

\* installed backup unit #2022126  
@ 2:10 pm

\* Units installed under  
CIRWG permit #2014-001

\* Q = 339.0

\* backup unit is ~ 1.5' from  
still well btw bank & staff gage

\* see note attached to FlowTracker  
file @ station 30'

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# Portage Cr. Gage Install

June 12, 2014

	In	Out
Time	9:00	11:20
S.G	2:00	1:29
	@ 9:45 AM	@ 11:00 AM

Crew: M. Geyna  
M. Tiedeman

## Photo Logs

- # 2800 - pre-install of still well & staff
- 2801 - Backup and barologger tubes and levelloggers pre-installed
- 2802 - Main still well and levellogger with permit info
- 2803 - Barologger tube pre-installed
- 2804 - Barologger tube post-install
- 2805 - 7 - Still well and backup post install
- 2809 - looking u/s
- 2810 - across channel Rt → Lt
- 2811 - looking u/s → D/s
- 2812 - staff gage @ 11:15 am

# Portage Cr. Gage Install

06/12/14

\* installed <sup>main unit</sup> levellogger # 2033864  
@ 10:15 am wpt # 860

\* installed backup unit # 2033865  
@ 10:25 AM wpt # 860

\* barologger unit # 2023129  
wpt = 861

\* site is located on CIRWG lands under permit # 2014-001

Photo 2813 - ~~Bar~~ FA-151 input feature "C"

(23)

# Portage Cr. Control Survey

06/12/14

STA	BS	HI	FS	Eleva	
BM-1	3.00			100.00	Top Bld ⊗
		103.00			
BM-2			2.60	100.40	wood stake
BM-3			4.19	98.81	rebar pin
Top tube			4.94		
Top wood			5.33		
Top stub			6.00		
still well WSE			7.39		
backup WSE			7.39		
Top backup tube			9.61		
Bld			4.68	98.32	
TP					
Bld	4.48	102.80		98.32	
BM-3			4.04		
BM-2			2.44		
BM-1			2.85	99.95	

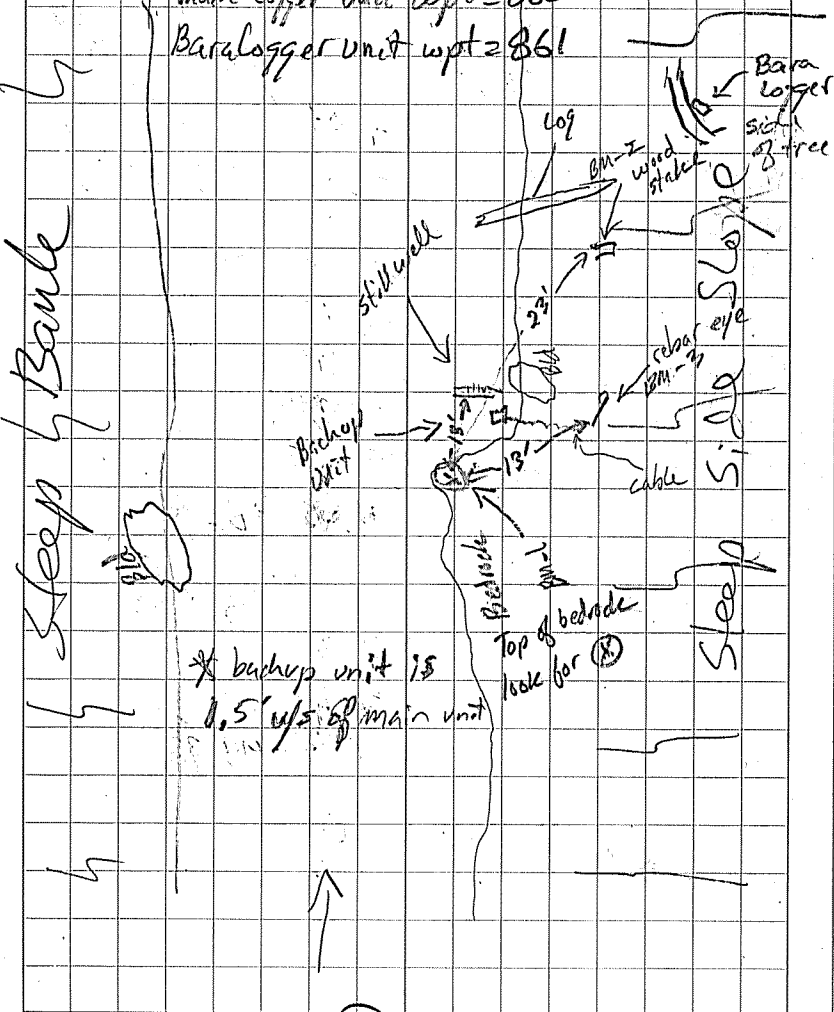
loop does not close  
redo

(24)

Susitna R. →

Portage Cr.  
Site Map  
06/12/14

BM-1 wpt = 858  
BM-2 wpt = 859  
main logger unit wpt = 860  
Baralogger unit wpt = 861



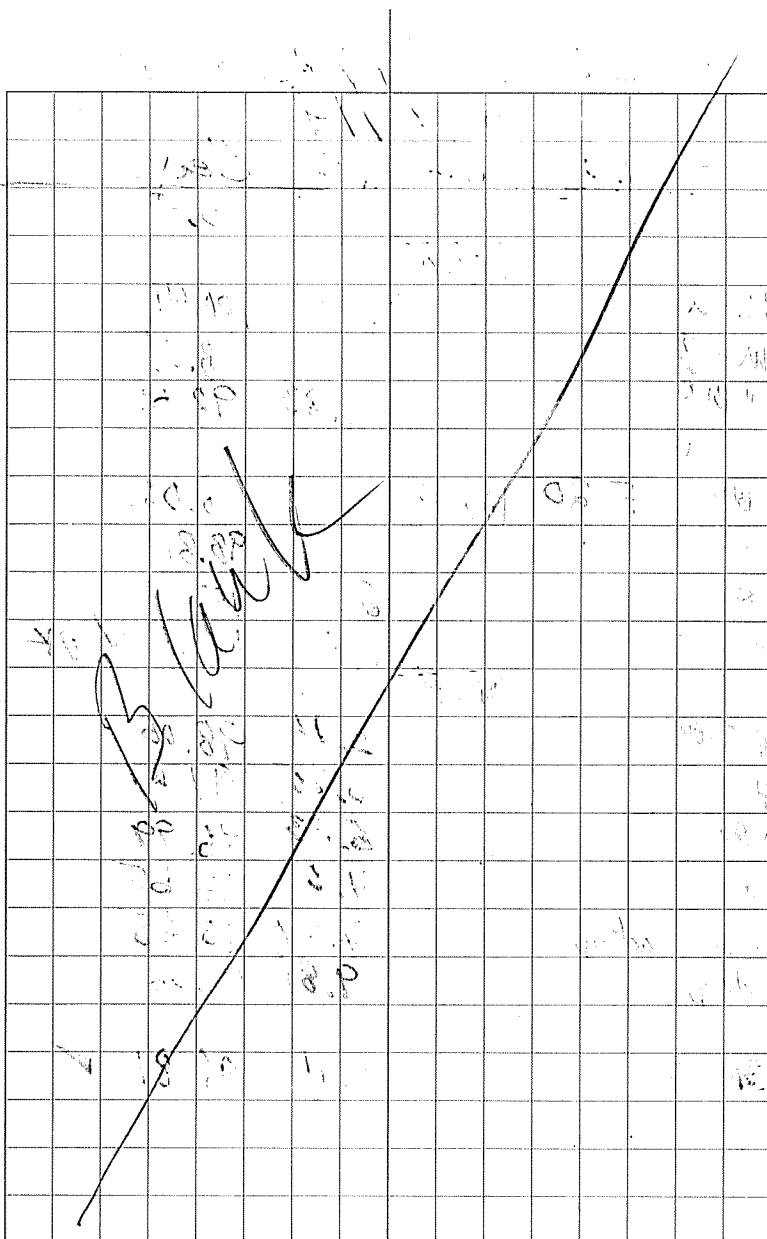
(25)

# Portage Cr. Control Survey

06/12/14

STA	BS	HI	FS	Elev
BM-1	2.85			100.00
		102.85		
BM-2			2.44	100.41
BM-3			4.04	98.81
Top BLD			4.83	98.02
TP				
Top BLD	5.20	103.22		98.02
BM-3			4.41	98.81
BM-2			2.81	100.41
BM-1			3.22	100.00 ✓ OK
		103.22		
Top Tube			5.16	98.06
top wood			5.55	97.67
Top shaft plate			6.23	96.99
WSE main unit			7.57	95.65
WSE backup			7.57	95.65
Backup tube			9.84	93.38
BM-3			4.41	98.81 ✓

(26)



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Unnamed Trib 173.8 Discharge  
06/12/14

(D/S end of focus area)

In Out

Time 12:10 12:45

\* CIRWG Lands Permit 2014-001

GPS Coordinates

0.0 RWP WPT # 862

22.3 LWP WPT # 863

photo log:

# 2815 looking Rt → Lt  
16 " d/s → u/s  
17 " Lt → Rt  
2818 " u/s → d/s

RWE = 4.5 Ft

LWE = 20.1 Ft

Flow Tracker:  $Q = 13.256$  cfs

(28)

Unnamed Trib 174.2 Discharge

06/12/14

(Left Bank looking d/s)

In Out

Time 1:35 2:15

Grew: M. Gagner, M. Tredehann  
CIRWG Land Permit # 2014-001

GPS Coordinates

wpt 364 - QTR location

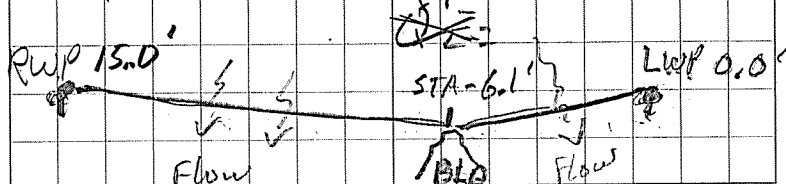
\* bedrock/boulder, cascade/falls channel

photo logs

2819 & 2820 looking u/s at Q-TR  
2821 Q-TR looking Lt → Rt  
2822 Q-TR " d/s across Q-TR  
2823 " " Rt → Lt

LWE = 1.0, RWE = 13.0

Flow Tracker  $Q_1 = 2.7$  cfs



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FA-173 Feature "G" 06/12/14  
flow from slough on left bank

	<u>In</u>	<u>Out</u>
Time	2:30	2:45

FlowTracker Q = 0.2 cfs

Transect

RWP = 0.0

LWP = 6.0

RWF = 0.7

LWF = 5.0

Photo Log:

# 2824	Q-TR	looking	d/s
# 2825	"	"	Lt → Rt
# 2826	"	"	w/s
# 2827	"	"	Rt → Lt

GPS Coordinate

wpt # 865

CIRWG Lands Permit 2014-001

(30)

FA-173 Feature "I"  
06/12/14

	<u>In</u>	<u>Out</u>
Time	3:20	3:40

GPS Location

wpt - 866

Photo Log:

2860	Q-TR	looking	d/s
2861	"	"	Lt → Rt
2862	"	"	w/s
2863	"	"	Rt → Lt

CIRWG Lands Permit 2014-001

FlowTracker Q = 0.45 cfs

Wetted width = 9.0'

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FA-173 Feature "J"  
06/12/14

In out  
Time 3:45 4:55

Q-Tr location wpt # 867

Wetted width = 3.0'  
X depth = 0.4'

Photo Log:

#2864	Q-Tr	looking	Lt → Rt
2865	"	"	d/s → u/s
2866	"	"	Rt → Lt
2867	"	"	u/s → d/s

FlowTracker Q = 0.2 cfs

CIRWG Lands Permit 2014-001

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FA-173 Feature "K"  
06/12/14

In Out  
Time 3:55 4:15

Wetted width @ TR = 4.5'

FlowTracker Q = 0.86 cfs

GPS Locations  
wpt # 868

Photo Log:

#2868	Q-TR	looking	Lt → Rt
2869	"	"	d/s → u/s
2870	"	"	Rt → Lt
2871	"	"	u/s → d/s

\* difficult to find location  
with flowing water/velocity

CIRWG Lands Permit 2014-001

(33)

# FA-173 Overlight Photos

06/12/94

- Using model input feature designations

Photo # - 2828 - Looking US  
toward G

2829 - US near "G"

2830 - Backwater above G

2831 - Isolated slough features

US and around bend from D

2832 - Looking US toward D

2833 - 5 - " " "

2836 - Looking atop = D

2837 - Beaver dam near D

2838 - Looking US near B

2839 - Looking US toward I

2840-43 - " " "

→ Note the "I" measurement was  
taken @ bottom of backwater pool

2844 - Looking ~ @ J

2845 - Atop J

2846-8 - Looking US toward K

2849 - Looking US below K

2850 - Looking toward channel N

2851 - Looking US toward end of N

2852-6 - End of N, towards R

(34)

2857-58 - Looking US toward K

2859 - Looking toward J

(35)

# Gold Cr. Gage Install

06/13/2014

In Out

Time: 9:25 } 11:45  
S.G. 1.95 } 1.95

Crew: M. Gagner  
M. Tiedemann  
R. Turner BG

Flow Tracker Q = 152.97 cfs

## Photo Log:

- # 2883 - Gold Cr. pre-install
- 84 - " after-install
- 85 - Gold Cr. staff gage @ 4/95
- 86 - Looking d/s from install site
- 87 - " Lt → Rt at install site
- 88 - " u/s from install site
- 89 - BM-1
- 90 - BM-2
- 91 - BM-3 eye bolt in log
- 92 - QTR looking Lt → Rt
- 93 - looking u/s at QTR
- 94 - QTR looking Rt → Lt
- 2895 looking d/s at QTR (36)

# Gold Cr. Control Survey 6/13/14

STA	BS	HI	IS	eleva	
BM-1	2.84	102.84		100.00	nail
BM-2			4.12	98.72	screen
BM-3			4.17	98.67	screen in log
Top Tube			7.23	95.61	
Top wood			7.95	94.89	
Top staff plate			8.61	94.23	
Wing WISE			9.99	92.85	
Wing WSP			9.99	92.85	
Backsight Tube			11.72	91.12	
Bld			5.65	97.19	
(TP)					
BLO	5.69	102.88		97.19	
BM-3			4.21	98.67	✓
BM-2			4.16	98.72	✓
BM-1			2.88	100.00	✓

Level loop closes and  
all elevations ✓

(37)

Gold Cr. Geog Install  
06/13/14

\* main logger # 2033874  
installed @ 9:45 am  
wpt - 869

\* backup logger # 2033907  
installed @ 9:45 am  
wpt - 869

\* BM-1 wpt 870

\* BM-2 wpt 871

\* BM-3 wpt 872

\* QTR RWP wpt-873

\* QTR LWP wpt 874

same spot as TT Gold Cr. XS 4L

\* Photo 2896 TT XS marker & our XS

(38)

BLM Road Access Closure

Gold Cr. Site Map  
06/13/14



(39)

# Indian R. Gage Install

06/13/14

	In	Out
Time	2:45	4:45 pm
S.G.	2.02	1.98, 1.98 (NC)
	slightly below after straightening	
Flow Tracer	Q = 435 cfs	

## Photo Log:

- 2898 & 2899 ← RWP
- 2900 - backup with bite marks
- 2901 - staff gage
- 2902 - still well in straightened
- 2903 - still well & staff plate
- 2904 - QTR Lt → Rt
- 2905 - " d/s → u/s
- 2906 - " u/s → d/s

RR mile 266.7

(410)

# Indian R. Control Survey

06/13/14

STA	BS	HI	FS	Eleva
BM-1	1.50	(774.6) 101.50		100.00 777.10
BM-2			1.58	99.92
BM-3			2.50	99.00 (776.1)
Rock			4.78	96.72
			(TP)	
Rock			4.83	96.72
			101.55	
BM-3			2.54	99.01
BM-2			1.63	
BM-1			1.55	

(41)

# Indian R. Install

06/13/14

- main unit #2033906 installed  
@ 3:00 pm, first log 3:30  
- staff & stilling well only slightly bent ( $< 16^\circ$ )  
- pulled old sensor & replaced with new (removal & install same time)  
- old sensor # (2022433)
- Backup unit #2033875 installed  
@ 3:35 pm ~ 7.0' ups of main unit

\* QTR wpt 875 (mid. channel)

In office levlogger download.

Logger # 2022433 Battery: 100%

Computer time: 6:38:30 PM Logger: 6:28:34 PM

Memory: 24778 readings

Unit downloaded and upgraded to  
firmware 3.003

(42)

# Indian R. Site Map

06/13/14

see 2013 Map  
X 5

(43)

# Indian R. QTR Profile

06/13/14

STA	BS	HI	FS	Elev
BM-3	2.23			99.00
		101.23		776.10
180.0		778.32	1.70	
179.0			2.42	
178.0			5.67	LWP
175.0			6.12	
155.0			5.14	
140.0			4.77	
115.0			5.00	
100.0			5.30	
90.0			5.69	
86.4			6.11	LWE
65.0 (WSE)			6.09	LWS
15.0 (WSE)			6.06	RWS
6.7			6.07	RWE
5.5			5.26	
4.5			4.35	
2.5			4.26	RWP
BM-3		2.23		99.00 ✓

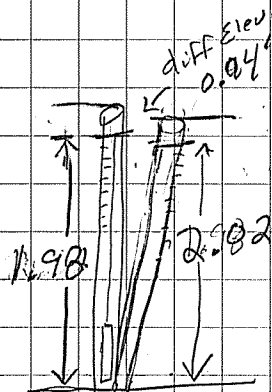
(44)

# Indian R. Survey 6/13/14

STA BS HI FS Elev

(survey mark)		101.23		
FT X S IR				3.60
Top Tube				3.48
Top Wood				3.97
Top Staff				4.69
WSE (main unit)				5.98
WSE (backup unit)				6.20
backup Tube				7.76

778.33



(45)

Skull Cr. Download & Survey  
06/14/14

	In	Out
Time	9:15	11:10
S.G	1.17	1.19

FlowTracker  $Q = 18.46$  cfs.

- Photo Logs (GPS Point 06144-)  
B&B Branch
- #2913 - 18 top slough & hydraulic control
  - 2919 - still well & staff pre-download
  - 2920 - staff reading "1.17"
  - 2921 & 22 install units
  - 2923 - chain adjustment
  - 2924 & 25 - side chn across from Skull Cr
  - 2926 - QTR looking Lt → RT
  - 27 - " " d/s → u/s
  - 28 - " " Rt → Lt
  - 29 - " " u/s → d/s

(46)

Skull Cr. Control Survey  
06/14/14

STA	B.S	I.S	F.S	Eleva
BM-1	3.18			100.00
		103.18		
BM-2			5.60	97.58
Top Tube			5.27	97.91
Top wood			6.25	96.93
Top staff plate			6.88	96.30 ✓
BLD			8.65	94.53
TR				
BLD	8.50	103.03		94.53
Top staff plate			6.74	96.29
Top wood			6.11	96.92
Top Tube			5.12	97.91
BM-2			5.46	97.57 ✓
BM-1			3.04	99.99
WSE			8.85	94.33
Backup Tube			9.36	

(47)

Skull Cr. Gaging  
06/14/14

- still well & staff plate in upright position and appear to be in good working order
- replace old main unit # 2023480 with new unit # 2022433 @ 9:47 AM
- install backup unit # @ 9:55 AM w/ 1.0' from main unit
- may have been siltation in bottom of still well tube, main unit had to be raised ~ 0.4' to be above gravel/silt in still well

\* Skull Barallogger # 2023122  
24769 reading, logger time = 10:08 AM  
computer time = 10:10:40 AM, 100% battery

(48)

Skull Cr. Gaging  
06/14/14

- Barallogger downloaded & firmware updated to version 3.003
- future start set @ 10:45 AM

In office download

~~Backup time~~ Logger # 2023480  
Logger time: 5:46:30 PM  
5:50:59 PM  
49

24800 readings

Downloaded and upgraded to firmware  
V 3.003  
100% battery

(49)

Skull Cr. Q - Profile 6/14/14

STA BS HT FS Eleva

103.03

LWP=39.1

36.9			5.73	
36.3			5.96	
35.4			7.36	
34.5			8.09	
33.9			8.43	
31.6			8.65	
29.2			8.69	
28.3			8.78	
26.6			9.08	
24.5			9.20	
23.0			9.50	
21.3			9.87	
19.3			9.68	
17.0			9.86	
15.3			9.72	
13.8			9.87	
12.1			9.62	
10.0			9.46	
9.4			9.52	
8.0			8.99	
			8.74	

Top bank

Toe bank

LWE

RWE

50

Skull Cr. Q Profile 6/14/14

STA BS HT FS Eleva

103.03

#.0

8.18

Top of bank

6.0			7.42	
4.5			7.03	
3.5			6.05	
2.5			4.42	
1.5			4.39	
0.0			4.57	

RWP

Bm-2

5.46

97.57

51

6/14/14 Unnamed ~ 115.4 Spot Q-Mint

Time In: 1215 PM

Time Out: 1245 PM

GPS Point #876

Q = 0.291 cfs

Photo 2931 - XS Looking R → L

2932 - XS Looking U/S

2934 - XS Looking D/S

2935 - XS Looking L → R

2936 - Creek math looking D/S

2937 - Creek math looking U/S

6/14/14 FAIB Input Feature "N"

Not certain if correct location.

There are 2 culverts along  
RR ROW. 1<sup>st</sup> completely dry.

2<sup>nd</sup> culvert - photo 2938  
taken from boat @ GPS # 877

(52)

6/14/14 Slash Creek Q-Mint

In: 1305 PM

Out: 1325 PM

GPS Pt# : 878

Q = 0.118 cfs

Photo #: 2939 - Slash looking D/S

2940 - XS Looking L → R

2941 - XS looking U/S

2942 - XS looking R → L

Note: XS is = 0.75 ft U/S of 2013 XS

6/14/14 Gash Creek Q-mint

In: 1345 PM Out: 1416 PM

GPS Pt# 879

Q = 3.922 cfs

Photo 2944 - XS Looking U/S

2945 - XS Looking R → L

2946 - XS Looking D/S

(53)

6/14/14 Cash Creek Cont.

Per field plan, stilling well to be removed.

Pool below culvert appears to have new gravels.

Stilling well appears unchanged from winter.

No backup unit install over winter  
Staff reading = 1.05 ft

Removed @ 2:04 PM.

Photo 2947 - Still well pre-removal  
2948 - Staff gage  
2949 - Site post staff gage removal

Logger downloaded 6/15/14 @ ~6 PM

Logger time: 6:00:00 PM

Computer time: 6:07:16 PM

24382 readings (note one day of readings after removal)

Downloaded and upgraded to firmware v 3.003

(54)

6/14/14 Unnamed 113.7 Q-Mount

Time in: 1445 Time out:

Q = 2.013 cfs

Photo 2950 - XS R → L  
2951 - XS Looking D/S  
2952 - XS L → R  
2953 - XS Looking U/S

FA-113 Input Feature "G" Investigation

GPS Pt# 880 → From this point the following photos were taken

Photo 2954 - Looking U/S toward "C" Breached  
2955 - Looking toward "E" Breached  
2957 - Looking D/S toward mile 114

Notable groundwater influence and upwelling. But mixed with mainstem breached waters.

(55)

## Gaging Supplies in ANC

- 1 1/2 spools cable
- 300' kevlar line
- 300' tag line
- 3 Klein clamps
- 20 lbs bomb
- 1 - swiffer hanging bar
- 2 - stadia rods
- 1 - small raft w/ paddles/oars
- 5 - 3.5' staff plates on wood
- 3 - still well tubes
- 4 - steel fencepost
- good supply of hand tools
- rechargeable tool kit
- 1 - box
- 1 - swiffer meter w/ rod
- lots of measuring tapes
- ~ 20 large wood stakes
- 5 - 4' x 1/2 x 4" boards for staff plates
- 5 - pvc tubes w/ brick weight
- 15 - lrg nails/spikes
- \* No tripod \*
- 2 - pfd's
- 2/2 - adjustable clamps

Su - Wa  
Trib. Gaging

**DURA** *Rite*  
WATERPROOF

**FIELD**

Nº 653

1945.150

June 2014





# Caswell Cr. Control Survey

06/15/14

STA	BS	HI	FS	Eleva	
BM-1	2.61			100.00	Top <sup>sm</sup> of colvert
		102.61			
BM-2			4.52	98.09	wood stake
BM-3			4.99	97.62	metal pin
Top tube			3.15	99.46	
Top wood			4.22	98.39	
Top staff plate			4.90	97.71	
WSE @ man unit			6.36	96.25	
WSE @ back up unit			6.36	96.25	
Backup Tube			7.79	94.82	
Top BLD			7.69	94.92	
TP					
Top BLD	8.23	103.15		94.92	
Backup Tube (depth)			0.32	94.83	
Tube Backup WSE			6.89	96.26	
BM-3			5.53	97.62 ✓	
Full well WSE			6.89	96.26	
Top staff plate			5.45	97.70	
Top wood			4.76	98.39 ✓	
Top Tube			3.68	99.47	
BM-2			5.06	98.09 ✓	
BM-1			3.15	100.00 ✓	

(2)

OK next

# Caswell Cr. Install

06/15/14

- installed main unit # 2033896  
@ 11:10 am @ 53.0' d/s of colvert  
wpt 881
- installed backup unit # 2033889  
@ 11:10 am @ 8' d/s of main unit  
wpt 882
- QTR in outlet of large colvert
- hydraulic control TR: 6820 d/s of  
main backup unit  
wpt 883 & 884

(3)

Caswell Cr. Hydraulic Control

06/15/14

STA BS HT FS Elev AT

103.15

LWP 24.5			6.10		
23.5			6.58		
LWP 23.9 (WSE)			6.89		WSE
22.4			7.72		
22.1			8.62		
20.5			8.83		
18.7			8.67		
16.6			8.90		
14.9			8.81		
13.9			8.82		waddy debris
13.0			7.71		
11.7			7.25		
10.5			7.52		
9.6			7.42		waddy debris
8.0			7.42		
6.5			8.32		
6.0			9.10		
4.9			9.35		
3.5			9.31		
2.7			9.06		
2.0			8.76		

(4)

at Caswell Cr. Profile

June 15, 2014

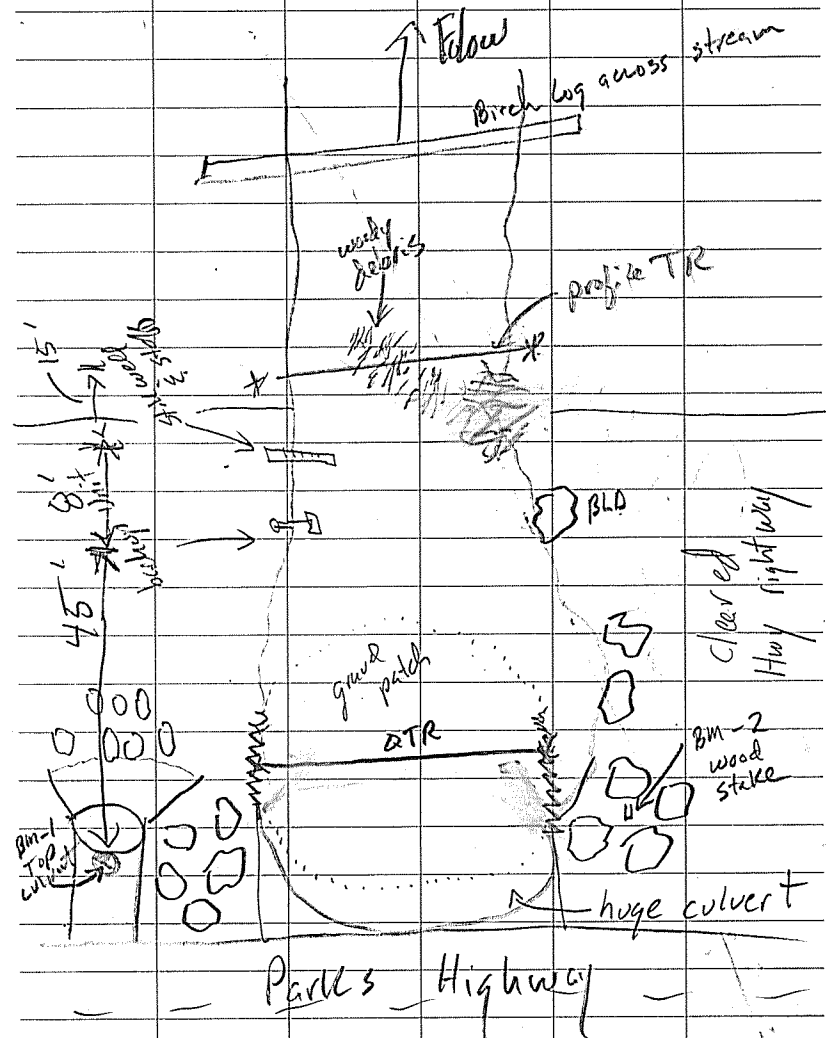
STA BS HT FS Elev

1.5			8.35		
1.1			8.22		Top bank
1.0 RWS/RWE			6.95		
0.8			6.58		Top bank
Rwp: 0.0			6.38		
12.5 WSE			6.90		
6.5 WSE			6.93		

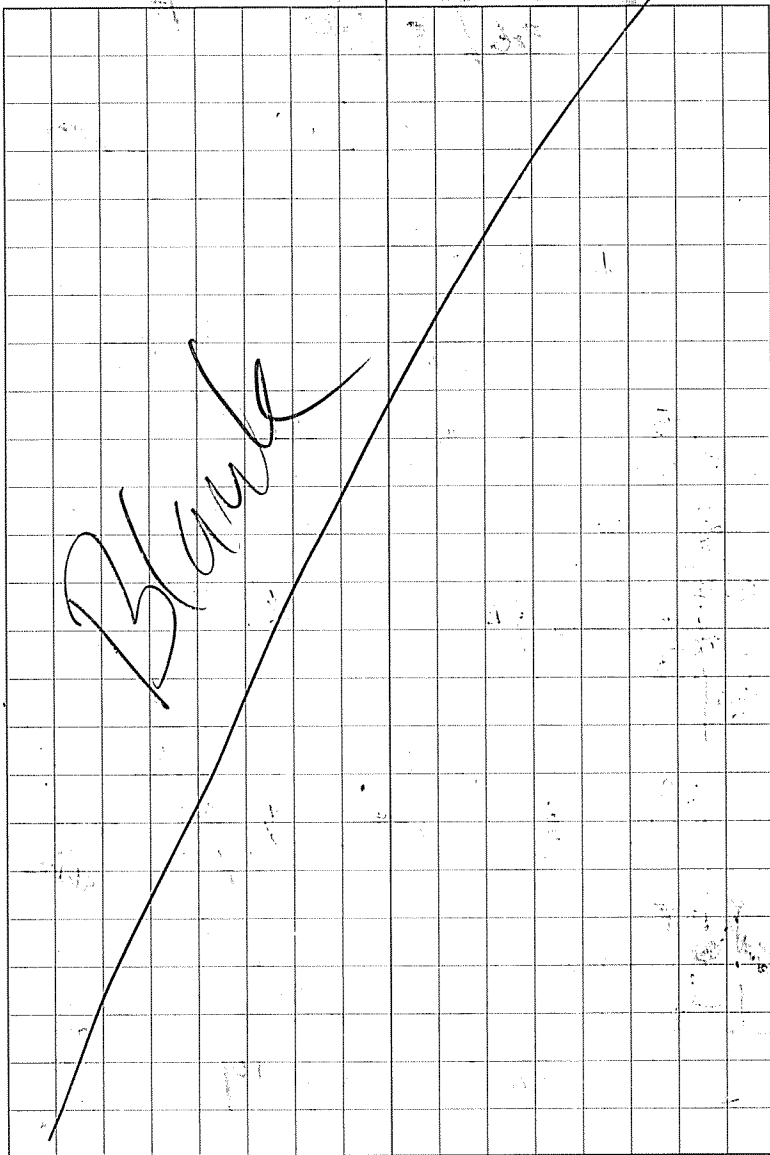
(5)

# Caswell Crn Site Map

06/15/14



⑥



⑦

# Sheep Cr. Gage Install

06/15/14

In Out

Time 1:30 4:30

S.G. 1.98 1.97 slightly falling

FlowTracker Q - 432.43 cfs

## Photo log:

- #2975 - pre-install of main unit & staff
- 2976 - main unit pre-install
- 2977 - post-install of main unit & staff
- 2978 - Sheep Cr. staff plate @ 2:00 pm
- 2979 - QTR Rt → Lt
- 2980 " d/s → u/s
- 2981 " Lt → Rt
- 2982 QTR left back tire off
- 2983 QTR loosey d/s from bridge

(8)

# Sheep Cr. Install Notes

06/15/14

\* Install main unit #2023480  
at 2:00 pm on S-side creek  
wpt - #886

\* installed backup unit on  
N-side of Sheep Cr. @ 2:45 pm  
Unit #2033881 wpt - #885

\* no sticking well installed @  
this site due to concern with  
vandalism, bottom mount units.

\* QTR E profile  
RWP wpt = 887  
LWP wpt = 888

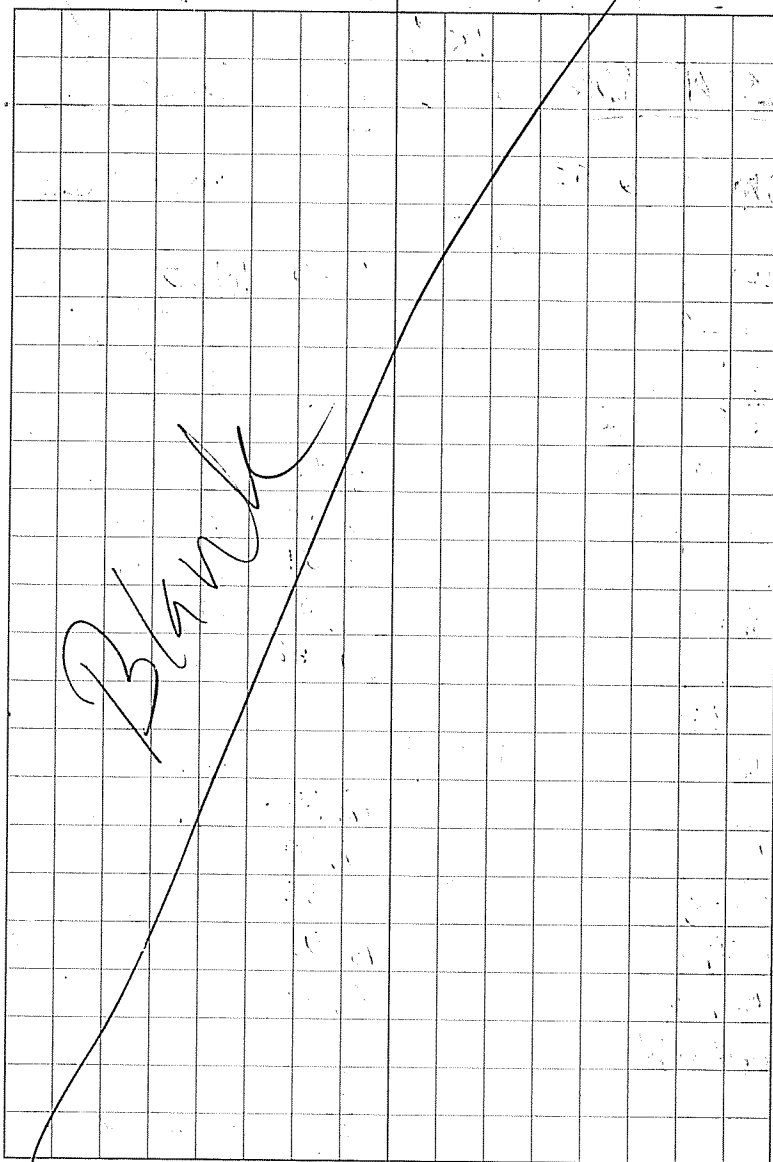
(9)

# Sheep Cr. Control Survey

06/15/14

STA BS HI FS Eleva

BM-1	5.31			100.00	nail in birch
		105.31			
BM-2			4.16	101.15	wood stake @ corner
BM-3			9.25	96.06	rebar pin
back up unit WSE			11.52	93.79	
back up unit tube (depth)			14.26	91.05	
Top wood			9.45	95.86	
Top staff plate			10.14	95.17	✓
main unit WSE / staff plate WSE			11.51	93.80	✓
main unit Tube (depth)			12.85	92.46	
BLD			10.04	95.27	
(JP) BLD	9.91	105.18		95.27	
main unit depth			12.72	92.46	✓
" WSE			11.38	93.80	✓
staff plate WSE			11.38	93.80	✓
Top staff plate			10.01	95.17	✓
Top Wood			9.34	95.84	
Back up unit depth (top tube)			14.13	91.05	✓
Back up WSE			11.39	93.79	✓
BM-3			9.12	96.06	✓
BM-2			4.03	101.15	✓
BM-1		(10)	5.18	100.00	✓



(11)

Sheep Cr. Profile Survey  
06/15/14

STA BS HT FS Elevation

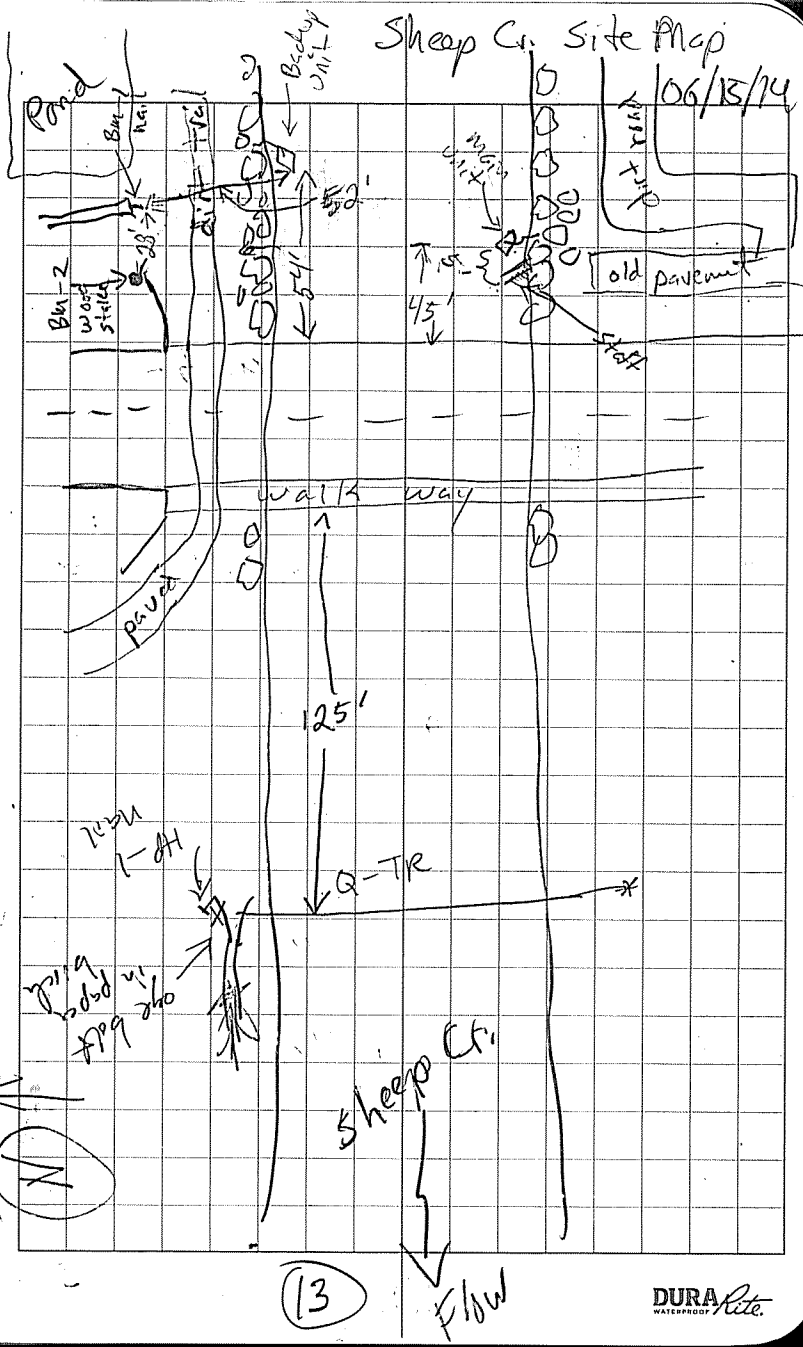
BM-1	2.97	102.97		100.00
BM-2			1.82	101.13
HP-1			6.47	96.32
TP				
HP-1	6.25			96.32
		102.57		
-10.0			5.62	
1.0			7.33	
4.4	RWE		9.08	
	WSE/edge		9.00	
60.0	WSE		9.62	
99.4	Toe bank		9.00	
99.6			8.52	
100.0			7.69	
105.0			7.18	
111.0			6.55	
113.5			6.92	
117.0			6.88	
121.0				

RWP b/cdn  
RWE tree

LWF  
Tys bank

LWP  
Tree  
front edge

(12)



(13)

# Trapper Cr. Gage Download

	In	Out
Time	9:00	10:50
S.G	1.34	1:34

FlowTracker Q = 31336

## Photo Log:

- 2992 - still well/staff plate before survey
- 2993 - staff plate @ 9:00 am = 1.34' C
- 2994 - Level loggers for Trapper Cr.
- 2995 - QTR looking Lt → Rt
- 2996 - " " d/s → u/s
- 2997 - " " Rt → Lt
- 2998 - " " u/s → d/s

## In office download

Logger # 2022436 24883 readings

Logger time = 3:38:00 PM

Computer time = 3:46:29 PM

100% battery

Unit downloaded and upgraded to  
firmware V3.803

(14)

# Trapper Cr. Control Survey

06/16/14.

STA	BS	HI	FS	Eleva
BM-1	1.79	101.79		100.00
BM-2			3.77	98.02
Top Tube			5.09	96.70 ✓
Top wood			5.76	96.03
Top staff plate			6.47	95.32
still well wSE			8.45	93.31 (staff 1.34)
QTR Lwp			5.65	96.14
QTR Lwp (TP)	5.56	101.70		96.14
wSE			8.39	93.31
Top staff			6.42	95.28
Top wood			5.69	96.01
Top Tube			5.01	96.70 ✓
BM-2			3.68	98.02 (RTK 27347)
BM-1			1.71	99.99 ✓

Reshot

(15)

# Trapper Cr. Control Survey

06/16/14

STA	BS	HI	FS	Eleva	
BM-1	1.63			150.00	
		101.63			
BM-2			3.61	98.02	(RTK 27347)
Top Tube			4.93	96.70	✓
Top wood			5.61	96.02	
Top staff plate			6.32	95.31	
still well WSE			8.29	93.34	
QTR LWP			5.49	96.14	
QTR LWP (TP)	5.56	101.70		96.14	
WSE			8.39	93.32	
Top staff			6.41	95.29	
Top wood			5.70	96.00	
Top Tube			5.02	96.68	
d/s fence post			5.47	96.23	
u/s "			5.42	96.28	(RTK 27348)
BM-2			3.68	98.02	
BM-1			1.71	99.99	
Backup Unit (depth)			9.39		

(16)

# Trapper Cr. Comments

06/16/14

\* staff & still well appear little disturbed over the winter

\* replaced main logger @ 10:15 AM  
old unit # 2022436  
new unit # 2022421

\* back up unit # 2033897  
installed @ 10:10 AM wpt. # 889

\* reshot survey control to verify elevations

(17)

06/16/14

Trapper Cr. QTR Profile

STA	BS	HI	FS	Eleva
RWP=43.5		101.70	6.42	
42.3			6.98	RWP Top bank
41.8			9.20	
40.6			9.52	
RWS			8.36	93.34 RWS
39.0			9.63	92.07
37.5			9.60	92.10
36.0			9.61	92.09
34.0			9.62	92.08
31.0			9.28	92.42
29.0			9.36	
26.6			9.33	
24.5			9.37	
22.3			9.45	
20.0			9.32	
18.0			9.30	
16.0			9.27	
14.3			9.25	
12.7			8.98	
10.7			9.03	
8.6			8.82	
7.0			8.72	
4.8			8.55	

18

Trapper Cr. QTR Profile

STA	BS	HI	FS	Eleva
		06/16/14	114	
		101.70		
3.5			8.45	
3.0			8.45	LWE
LWS			8.36	LWS 93.34
2.0			6.84	
w/p=0.7			6.05	
BM-2			3.68	98.02

19

Su @ Trapper Cr.  
06/16/14

	In	Out
Time	11:25	12:30
S.G.	1.99	1.99
	(@ 11:55)	

Install Unit # 2033899 @ 11:50 AM  
wpt # 890

Photo Log:

- #2999 - pre-install of staff & still well
- 3000 - post-install " "
- 3001 - Logger unit # 2033899
- 3002 - staff plate @ 1:99'

(20)

Su @ Trapper Control Survey

STA	BS	HI	FS	Eleva
BM-1	4.45	313.93		309.48
BM-2			5.08	308.85 ✓
Top Tube			8.19	305.74 ✓
Top Wood			9.03	304.90 ✓
Top staff plate			9.72	304.21 ✓
WSE			11.03	302.90 ✓
Tallest steel post			8.32	305.61
Tallest steel post	8.36	313.97		305.61
WSE			11.11	302.86
Top Staff Plate			9.75	304.22 ✓
Top Wood			9.07	304.90 ✓
Top Tube			8.23	305.74 ✓
BM-2			5.12	308.85 ✓
BM-1			4.49	309.48 ✓
WSE				
dist. from bench	4.0		11.07	302.90
" "	3.5		11.11	302.86

JV  
MARKS

(21)

Su @ Birch Slough/Creeke  
06/16/14

	In	Out
Time	1:14	2:35
S.G	1.98	1.98

Flow Tracker Q = No discharge measured  
& installed unit # 2033894 @ 1:40 pm

Photo log:

- #3003 - Su @ Birch pre-install
- 3004 - Matt installing staff plate
- 3005 - Logger Unit #2033894
- 3006 - staff plate reading 1.98'
- 3007 - staff & still well @ end of survey

(22)

Su @ Birch Slough 06/16/14

STA	BS	HS	FS	Eleva
Bm-1	3.58			294.63
		298.21		
Bm-2			4.26	293.95
Top Tube			5.90	292.31 ✓
Top Wood			6.57	291.64 ✓
Top staff plate			7.25	290.96 ✓
WSE			8.65	289.56
close bank fencepost			6.54	291.67
(TP) near bank fencepost		6.42	298.09	291.67
WSE			8.48	289.61 ✓
Top staff plate			7.13	290.96 ✓
Top Wood			6.44	291.65 ✓
Top Tube			5.77	292.32 ✓
Bm-2			4.13	293.96 ✓
Bm-1			3.46	294.63 ✓
(TP) Bm-1	3.21			OK MARK 294.63
		297.84		
WSE			8.25	289.59 ✓
3.33	1.34		calculated value →	289.62
1.99				

(23)

Su @ Birch Slough  
06/16/14

STA	BS	HI	FS	Elev
Bm-1	3.52			294.63
		298.15		
Bm-2			4.20	293.95
WSE			8.53	289.62 ✓
near bank post			6.48	291.67
(TP) Survey post	6.32	297.99		291.67
WSE			8.38	289.61 ✓
Bm-2			4.03	293.96
Bm-1			3.35	294.64

re shoot WSE

OK  
MRS

(24)

DESHKA RIVER

06/17/14

IN	OUT	
Time 1005	2:30	(upgraded firmware to v3.003)
WSE 10.70	10.70	Computer time: 7:36:55 PM
-		Removed and Jamboxed unit 2023479 (100% battery)
		25278 data points, Logger time: 7:33:00 PM
-		All BMs are bent over. Both XS fence posts are bent as well.
-		Logger on back is turned upside down. Looks like it turned one rotation down stream.
-		Will survey site as is with damaged BMs, and attempt to tie into LB fence post
		→ Will then establish new BMs, and survey, including travel over logger.
*		Main Unit # 2023483 @ 12:40
		wpt # 891
*		Backup Unit # 2022436 @ 12:50
		wpt # 892
*		old BM-1 & 2 are no longer suitable for use.

(25)

Deshka R. 06/17/14  
 STA BS HI FS Elev Note

<del>BM1</del>	<del>7.27</del>				
<del>BM2</del>					
<del>BM3</del>					<del>new</del>
<del>BM4</del>					<del>new</del>
<del>X5 RWP</del>					<del>Reat</del>

5.08 ↓

D9R (7538-5)	105.08			100.00	RTK#27781
BM4		2.50		102.58	new (D/S)
BM3		2.04		103.04	new (U/S)
BM2		6.91		98.17	dd-bent
(height above ground = 0.43') base of rebar ↗					
BM1		7.28		97.80	dd-bent

top of bent rod ↗

Logger Ute		12.65		92.43	Top of tunnel tube
Logger Install Pin		9.89		95.19	
Logger WSE		11.48		93.60	
LWP-Top		5.62		99.46	✓ bent ↗
Rock		7.54		97.54	

(TP) 7.55	105.09	5.64			
LWP-Top		5.64		99.45	✓
Logger WSE		11.58		93.51	x
Logger tube		12.55		92.54	x
Logger Install Pin		10.89		94.20	x
BM3		2.05		103.04	✓
BM4		1.27		103.82	x
D9R	(26) 5.05			100.04	x

Deshka R. 06/17/14

Bad closure, resheet new BMS

STA	BS	HI	FS	ELEV	NOTE
D9R	4.48	104.48		100.00	
BM3			1.93	102.55	New-U/S
BM4			1.15	103.33	New-D/S
Rock			0.56	103.92	
(TP)					
Rock	0.35	104.27		103.92	
BM4			1.01	103.26	x 777
BM3			1.46	102.81	x . . .

RES-1001

STA	BS	HI	FS	ELEV	NOTE
D9R	3.93	103.93		100.00	
BM4			0.57	103.36	D/S
BM3			1.34	102.59	U/S
Rock			6.56	97.37	
(TP)	6.50	103.87		97.37	
BM3			1.28	102.59	✓
BM4			0.50	103.37	✓
D9R			4.30	99.57	777!!!
			4.30		. . .

(27)

# Deshka R. Control Survey

06/17/14

STA BS HI ES Elevation

B DGR 4.30 104.30 100.00

104.30

Bm-4 0.51 103.79

Bm-3 1.28 103.02

Rock 7.18 97.12

TP

Rock 7.11 104.23 97.12

Bm-3 1.21 103.02

Bm-4 0.44 103.79

DGR 4.23 100.00

OK  
MRS

Backup Tube 11.84

Backup unit WSE 10.67

GTR Lt wp 5.79

main unit WSE 10.70

" " top Tube 11.70

backup unit WSE 10.73

" " Top tube 12.98

DGR 4.24 99.99

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# Deshka R. Photo Log

06/17/14

## Photo Log:

3014 main unit & backup unit pre-install

3015 main unit install site

3017 backup unit install site pre-install

3018 " " after install

3019 GTR looking Rt → Lt

3020 " " vs → d/s

3021 " " Lt → Rt

RWP = 1.0', RWB = 15.0'

LWP = 186.0', LWB = 174.0'

In field data download of Barologger

Barologger # 2022079

25250 readings

logger time: 6/17/14 12:59:00 PM

Computer time: 6/17/14 1:12:30 PM

FlowTracker Q = 481.6 cfs

Unit downloaded and data saved

— upgraded to firmware v3.003

Set to future start @ 1:30:00 PM

Reinstalled in same location 1:26 PM

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Su @ Deshka Confluence  
06/17/14

	In	Out
Time	2:45	3:50
S.L	1.98'	1.95'

Photo Log

- 3022 - Su @ Deshka pre-install
- 3023 - " after install
- 3024 - " staff gage 1.98'
- 3025 - " site photo
- ~~3026~~

Installed Levellogger # 2023493  
Started Logging @ noon  
Installed in water @ 3:07 PM  
Still well GPS pt # 893

(30)

Su @ Deshka Control Survey  
06/17/14

STA	BS	HI	FS	Eleva
Bm-1	3.84	103.84		100.00
Bm2			5.03	98.81
Top tube			8.77	95.07
Top wood			8.91	94.93
Top staff			9.59	94.25
WSE			10.90	92.94
D/S Fence Post			9.51	94.33
(TP)	9.29	103.62		94.33
WSE			10.64	92.98
Top staff			9.33	94.29
Top Wood			8.64	94.96
Top Tube			8.50	95.12
Bm2			4.79	98.83
Bm1			3.61	100.21

reshot

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Sun @ Deschka R. Conf.  
Resistat - control survey 06/17/14

STA	BS	HI	FS	Elev	Note
BMI1	3.61	103.61		100.00	
BMI2			4.79	98.82	
Top tube			8.51	95.1	
Top wood			8.66	94.95	
Top staff			9.33	94.28 ✓	
WSE			10.73	92.88 ✓	
WSE			9.25	94.36	
WSE	9.44	103.80		94.36	
WSE			10.84	92.96	
Top Staff			9.55	94.25	
Top Wood			8.86	94.94 ✓	
Top tube			8.72	95.08 ✓	
BMI2			4.98	98.82 ✓	
BMI1			3.79	100.01 ✓	
Top Staff			9.53	94.27 ✓	
WSE			10.91	92.89 ✓	

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Birch Cr. Gage Down Load  
06/17/14

	In	Out
Time	5:20	6:45
S.G	1.90	1.90

FlowTracker Q = 37.2 cfs

Photo Log:

- #3026 backup unit install site (pre)
- 3027 staff & still well
- 3028 Birch Cr. staff gage (1.90)
- 3029 QTR looking L → R
- 3030 " " d/s → u/s
- 3031 " " R → L
- 3032 " " u/s → d/s
- 3033 backup install site pre
- 3034 " " " after install

(33)

# Birch Cr. Control Survey

06/17/14

STA	BS	HI	FS	Eleva
BM-1	3.03			306.41 ✓
		309.44		
BM-2			3.01	306.43 ✓ <sup>306.43</sup>
Top Tube			2.07	307.37 ✓
Top wood			2.95	306.49 ✓
Top staff			3.68	<del>306.26</del> 305.76 ✓
WSE (still well)			5.07	304.37 ✓
nail			3.73	305.71 ✓ <sup>RTK</sup> 4186
stream side fencepost			2.98	306.46
TP				
fencepost	2.84	309.30		306.46
nail			3.60	305.70 ✓ <sup>RTK</sup> 4186
WSE			4.94	304.36 ✓
Top staff			3.49	305.81 ✓
Top wood			2.82	306.48 ✓
Top Tube			1.93	307.37 ✓
BM-2			2.88	306.42 ✓
BM-1			2.89	306.41 ✓ <sup>old unit</sup>
nail RTK 4186	5.37	311.07		305.70
Backup Tube WSE			6.72	304.35
Backup Tube depth		(34)	8.02	303.05

# Birch Cr. Gage Site

06/17/14

\* backup unit # 2023487 installed @ 5:55 pm

\* old unit # 2023476 removed from still well and replaced with new unit # 2023213 @ 6:05 pm

\* still well and staff appear to be undisturbed since last visit

In office download: unit 2023476  
 25262 readings 100% battery  
 Datalogger time: 8:00:00 PM  
 Computer time: 8:04:05 PM  
 Unit downloaded and upgraded to  
 firmware v. 3.003

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Birds Cr. Q-TR Proj. 6 6/17/14

STA	FS	HI	STA	FS	HI
LWP=1.0	1.20	309.30	49.7	6.07	309.30
5.0	3.45		52.4	5.61	
5.7	4.43	Top bank	53.5	5.77	base
LWE LWS/6.4	4.95		55.0	5.36	ucB
6.4	5.81	bottom cut bank	WSE	4.95	
8.5	6.67		56.0	4.27	
11.5	6.89		56.7	3.92	RWP
14.0	6.86				
16.5	6.99		BM-1	2.89	
19.5	6.62				
WSE →	4.95				
22.0	6.29				
25.5	6.55				
29.0	6.25				
31.0	6.06				
33.5	6.30				
35.5	6.14				
38.5	6.25				
40.5	5.87				
41.5	4.96	main RWE ch. on island			
44	5.09				
46.2	4.99				
47.1	5.78				

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Island

Sun @ Caswell Cr.

06/18/14

In | Out

Time 9:45 | 10:52

S.G 2.05 | 2.05

Logger Unit #2023479 installed @ 10:25  
 " " wpt #895

Photo log:

- #3042 pre - install gage site
- 3043 level logger on staff post #2023479
- 3044 post install staff & still well
- 3045 staff gage reading 2.05'
- 3046 looking v/s site location
- 3047 " d/s " "

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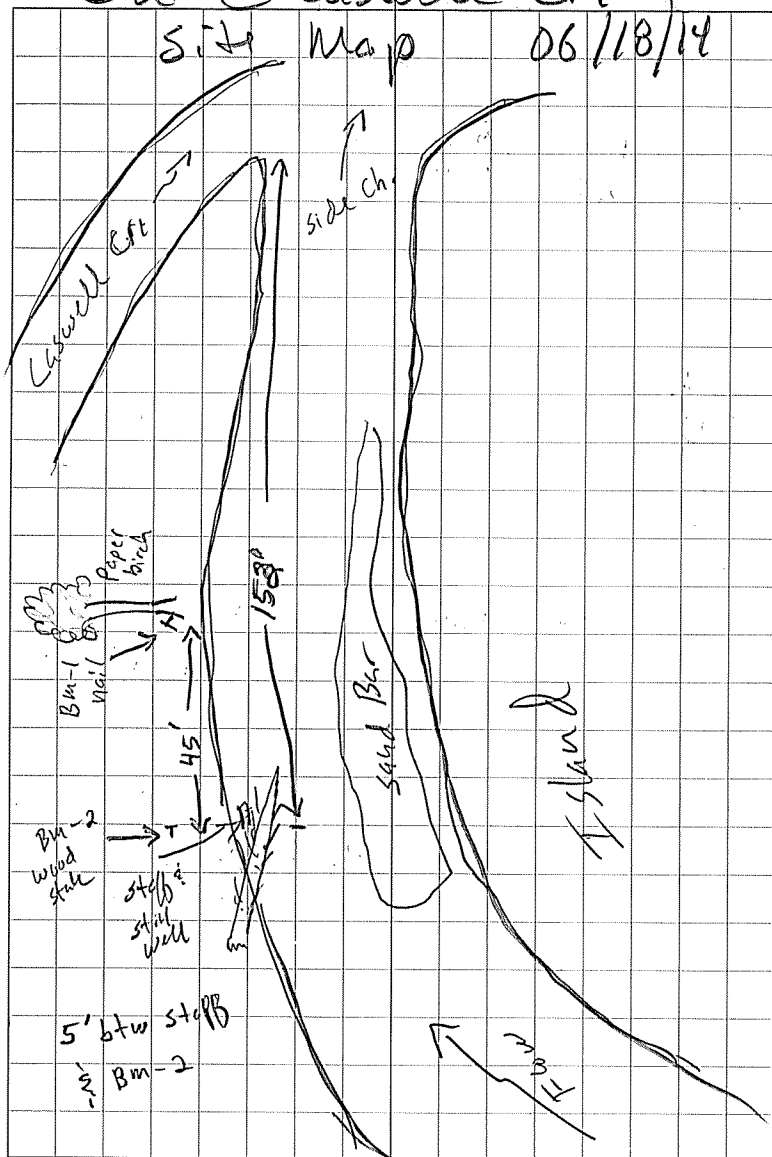
Su @ Caswell Control Survey  
06/18/14

STA	BS	HI	FS	Elev	
IBM-1	3.65			100.00	wpt 896
		103.65			
IBM-2			3.99	99.66	
Top Tube			3.81	99.84	
Top Wood			4.47	99.18	
Top Staff			5.15	98.50	
still well WSE			6.44	97.21	
v/s fencepost			5.86	97.79	
TP					
v/s fencepost	6.23	104.02		97.79	
WSE			6.81	97.21	✓
staffs plate			5.51	98.51	
Top wood			4.84	99.18	✓
Top Tube			4.17	99.85	
IBM-2			4.36	99.66	✓
IBM-1			4.02	100.00	✓

OK  
MRP

38

Su @ Caswell Cr.  
Site Map 06/18/14



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Su @ Sheep Cr. 06/18/14

	In	Out
Time	12:20	1:20
S.G	2.25	2.25

Photo Log

- 3055 - install site pre-installation
- 56 - Matt Dairy install
- 57 - staff plate reading (2.25')
- 58 - looking ds from Gage site
- 59 - " v/s " gage site
- 60 - looking across ch. RT → LT @ gage site

Installed Unit # 2023476 @ 12:55pm

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Su @ Sheep Cr. Control Survey

STA	BS	HI	FS	Eleva
BM-1	5.84			100.00 nail beaver check
		105.84		
BM-2			3.31	102.53 ✓
Top Tube			8.59	97.25 ✓
Top wood			8.98	96.86 ✓
Top staff Gage			9.66	96.18 ✓
WSE			10.76	95.68
near bank fencepost			9.39	96.45
TP fencepost	9.61	106.06		96.45
WSE			10.97	95.09
Top staff			9.88	96.18 ✓
Top wood			9.20	96.86 ✓
Top Tube			8.81	97.25 ✓
BM-2			76.07	102.53 ✓
BM-1			13.53	99.99

OK  
MARKS

(41)

