STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 78-7031
Exam Date: 8/1/1991

1. Current Owner: CIRCLE C RANCH INC
PO BOX 118
NEW MEADOWS ID 83654

RECEIVED
MAY - 9 2005
DEPARTMENT OF WATER RESOURCES

2. Accompanied by: Darrel Clay
Phone No: 208-347-2244
Address:

Relationship to Permit Holder: At the time of the exam, Darrel was co-lessee of ranch with Larry Clay (contact on exam fee info sheet).

3. **SOURCE**: LITTLE SALMON RIVER
TRIBUTARY: SALMON RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 78-7083, 78-4272, 78-2011
2. Other water rights with the same point of diversion: 78-7083

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

LITTLE SALMON RIVER NE1/4NW1/4 Sec. 35, Twp 21N, Rge 01E, B.M.
ADAMS County

Method of Determination: Exam, Topo Map

2.

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
21N 01E 27									1.1	20.7	40.0	34.9			3.4		100.1
21N 01E 28																18.6	18.6
21N 01E 33	8.4			22.4													30.8
21N 01E 34	30.6	28.2	40.0	28.3	40.0	40.0	40.0	40.0	6.5	10.0			4.1	29.8			337.5
21N 01E 35						28.9	4.1										33.0

Total Acres: 520

Method of Determination:

3. __Y___ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

__Y___ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

__Y___ Aerial Photo Attached (required for irrigation of 10+ acres).

__Y___ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
AA Current Meter						
Weir	Cipolletti (non-standard)					

2. Measurements:

Current Meter: 8.64 cfs

Weir: 9.29 to 9.89 cfs

Theoretical: 7.51 cfs (assume 10 psi)
8.28 cfs (assume 5 psi)

E. FLOW CALCULATIONS __Y___Additional Computation Sheets Attached

Measured Method:

See Steve Lester's attached field notes dated 4/15/05.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.}$ = (Acres Irrigated) x (Irrigation Requirement) = 520 x 3 = 1560

$V_{D.R.}$ = [Diversion Rate (cfs)] x (Days in Irrigation season) x 1.9835 = 3.53 cfs x 1.9835 x 214 dys = 1498.4

V = Smaller of $V_{I.R.}$ and $V_{D.R.}$ = 1498.4

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

Season of use listed on the permit is 4/15 to 10/15. The standard season of 4/1 to 10/31 was recommended for licensing. This right uses the same diversion on the Little Salmon River as license 78-7083. The recommended p/u includes the same acres licensed on 78-7083 plus additional acres irrigated from an upper ditch. Irrigation from the upper ditch is made possible by a booster pump located on the main ditch from the river. The system capacity appears to be 8.64 cfs. The license recommendations for permit 78-7031 are based on the following calculations:

License 78-7083: 467 acres, 5.11 cfs, 1852 af (Note: 467 acres allowed 3.97 af/ac. Standard is 3.0 af/ac).

8.64 cfs system capacity – 5.11 licensed cfs = 3.53 cfs rate to be licensed

3.53 cfs x 1.9835 x 214 dys = 1498.4 af volume to be licensed (see F.1. above)

To account for the direct p/d and p/u overlap with license 78-7083, this right when combined with license 78-7083 should be limited to 8.64 cfs, 2011 af and 520 acres. The combined volume limit is based on the following calculations:

520 acres – 467 licensed acres = 53 additional acres x 3.0 af = 159.0 af.

1852.0 licensed af + 159.0 af = 2011.0 af.

Statutory claim 78-4272 and license 78-2011 also overlap the recommended p/u. The sources of water for these rights are Round Valley Creek and unnamed streams.

Irrigation rights 78-7031, 78-7083, 78-4272 and 78-2011were all claimed in the SRBA by Circle C Ranch Inc. The ownership of these claims was changed in the SRBA to Circle C Ranches Homeowners Association Inc. Copies of the ownership documentation that allowed the ownership changes have been included in the file.

Carter Fritschle will be making the SRBA recommendations for the above claims and has been notified of this licensing recommendation. Please see file for exam details.

Have conditions of permit approval been met? __X__Yes _____No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
IRRIGATION	04/01 to 10/31	3.53 CFS	1,498.4 AF
	Totals:	3.53 CFS	1,498.4 AF

2. Recommended Amendments

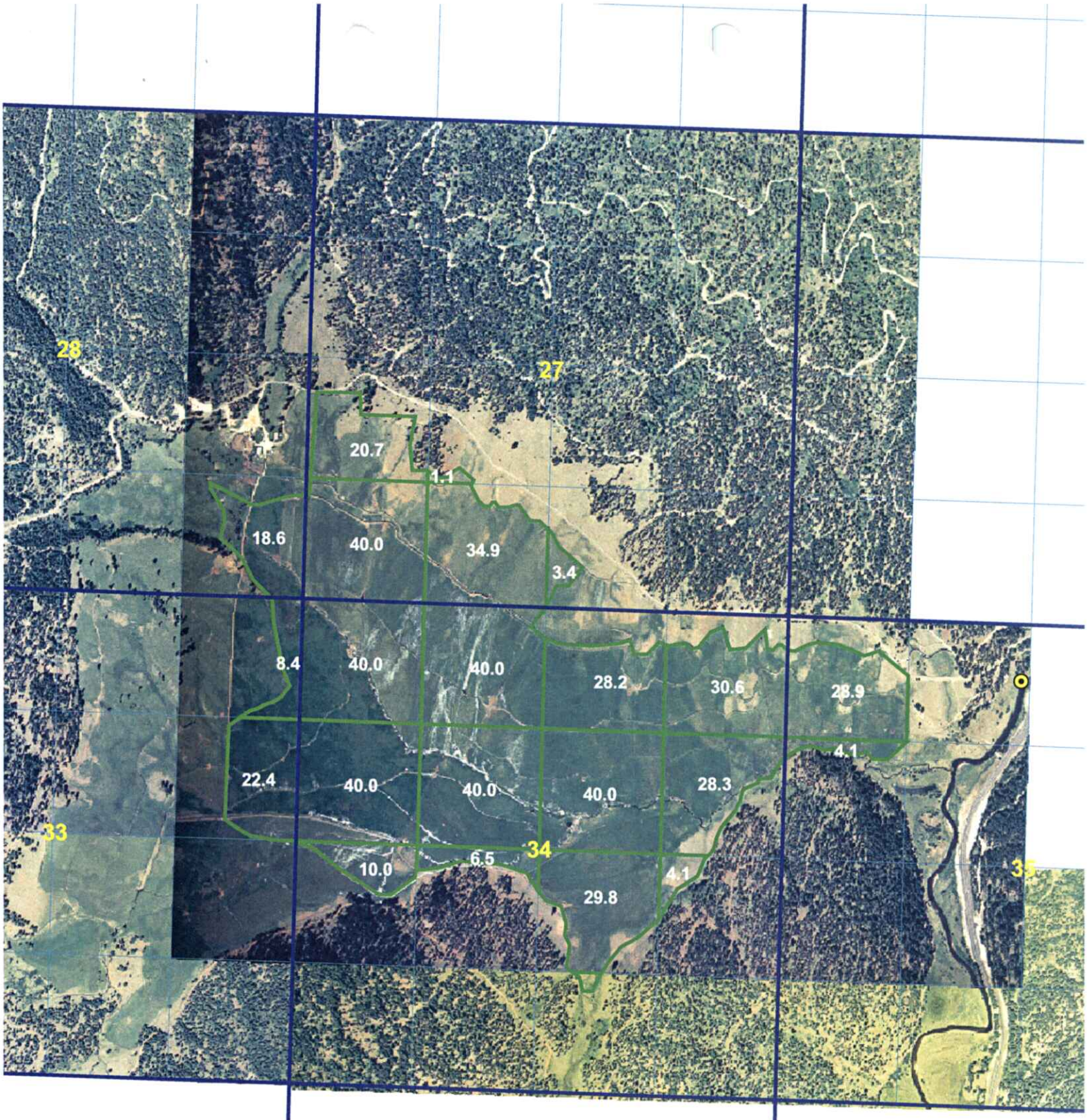
___Change P.D. as reflected above ___Add P.D. as reflected above ___None

_X__Change P.U. as reflected above ___Add P.U. as reflected above ___Other

I. AUTHENTICATION

Field Examiner's Name Lon Graves for Steve Lester Date 5/15/05

Reviewer_____ Date_____


28
27
20.7
1.1
18.6
40.0
34.9
3.4
8.4
40.0
40.0
28.2
30.6
28.9
4.1
22.4
40.0
40.0
40.0
28.3
33
34
10.0
6.5
4.1
29.8
35

78-7031 FIELD EXAM NOTES

4/15/05 per original exam notes

NOTE: I borrowed aerial photo from original exam file 78-7083 from SO vault. Be sure to return this to vault file & remove note in that file about this. Can include this step as forward exam 78-7031 to SO.

Exam appt. with Larry Clay per exam fee information sheet.

Conducted 8/1/1991, accompanied by Darrel Campbell (208-347-2244), co-leased ranch with Larry.

9/8/1998 – visited site again and remained the same system for same acres. More homes added above the ditch system … AJ claim ownership (?) update from Circle C Ranch to homeowners association. Sufficient background to replace assignment of permit for licensing (check with SO about that)?

Permit diversion works description is fair picture of system but omits booster pump.

Same diversion system as 78-7083 (previously mis-numbered 67-7035) but added booster pump at far west end of P/U to lift water to newer, upper ditch to pick up more acres.

See exam 78-7083 for same motor & pump specs. Divert from Little Salmon River with 130 ft. of 14" intake pipe to 150 hp pump, to 12" main that expands to 18" main before buried, then open discharge to diversion box and earth ditch ("river ditch"). River ditch continues to west until booster pump lifts water to upper ditch for new acres. River ditch continues past this point to far west end of P/U. Some old acres also have other water from various sources (mostly floodwater for early irrigation).

P/D pump has IP meter # 62 983 322.

Acres below river ditch = same as 78-7083. Acres above river ditch are unique to 78-7031.

Booster pump at west end of P/U:

GE motor, 25 hp, can't read serial # tag

Johnston pump, model 12CC, serial # TL 14657, 8" pipe to upper ditch for new acres.

Water Measurement:

- 1975 exam 78-7083 measured .4 ft. head for 6 ft. Cipolletti weir, licensed for 5.11 cfs. But UI Water Measurement booklet indicates that result would be 5.04 cfs … ok since already licensed but curious (different table used in 1970's?).

- Measured .63 ft. head during my exam.

- Weir is not standard – not true Cipolletti (insufficient angles), not true rectangular (not 90 degree angles) so does not fit actual weir tables. But assume either a 6 ft. Cipolletti or 1 of 2 types of rectangular weir and see table results: from 9.29 to 9.89 cfs.

- Weir submerged in 1991 exam. Maybe designed as submerged weir? Can't find measurement table for submerged weir.

- See AA current meter results: 8.64 cfs (reasonable for area of about 7 sq. ft. and average velocity about 1.2 ft/s).

- Although HP equation not reliable for open discharge systems, compare results where z = 100 ft. (approx. elevation change per topo between river intake pipe and diversion box discharge to river ditch):

assume e 10 psi

$Q = \frac{8.8 \times .7 \times hp}{2.31 \times psi + z} = \frac{8.8 \times .7 \times 150}{(2.31 \times 10) + 100} = 7.51$ cfs } much closer to 1991 Q than 1975 Q

with 5 psi . . . = 8.28 cfs

- Conclusion: system capacity is about 8.64 cfs, 1975 exam was not correct &/or was based on lower flow found at that time. Let older license stand and use newer permit to add water and acres to older P/U.

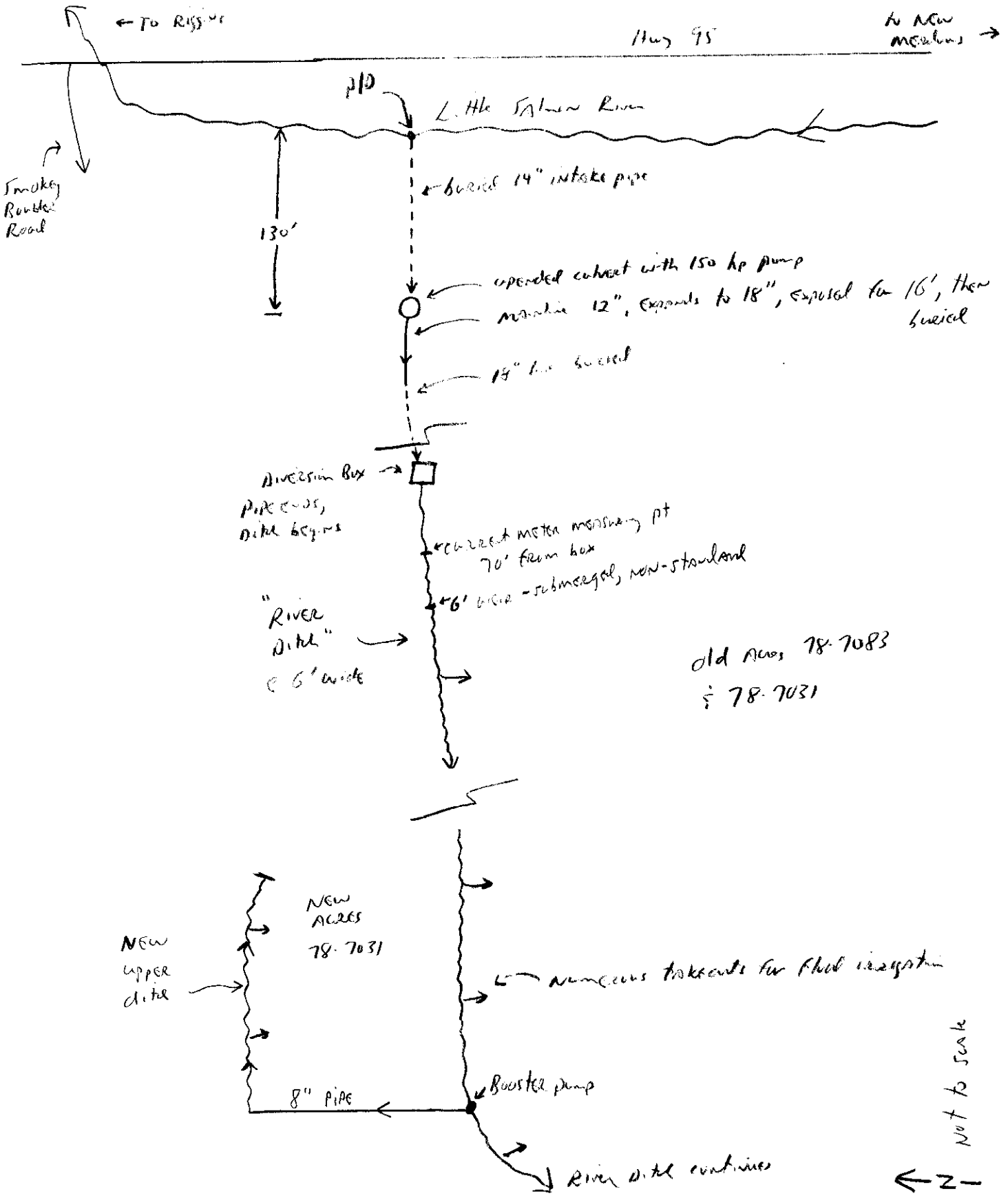
$200 exam fee in 1987 was ok to cover permit rate of flow.

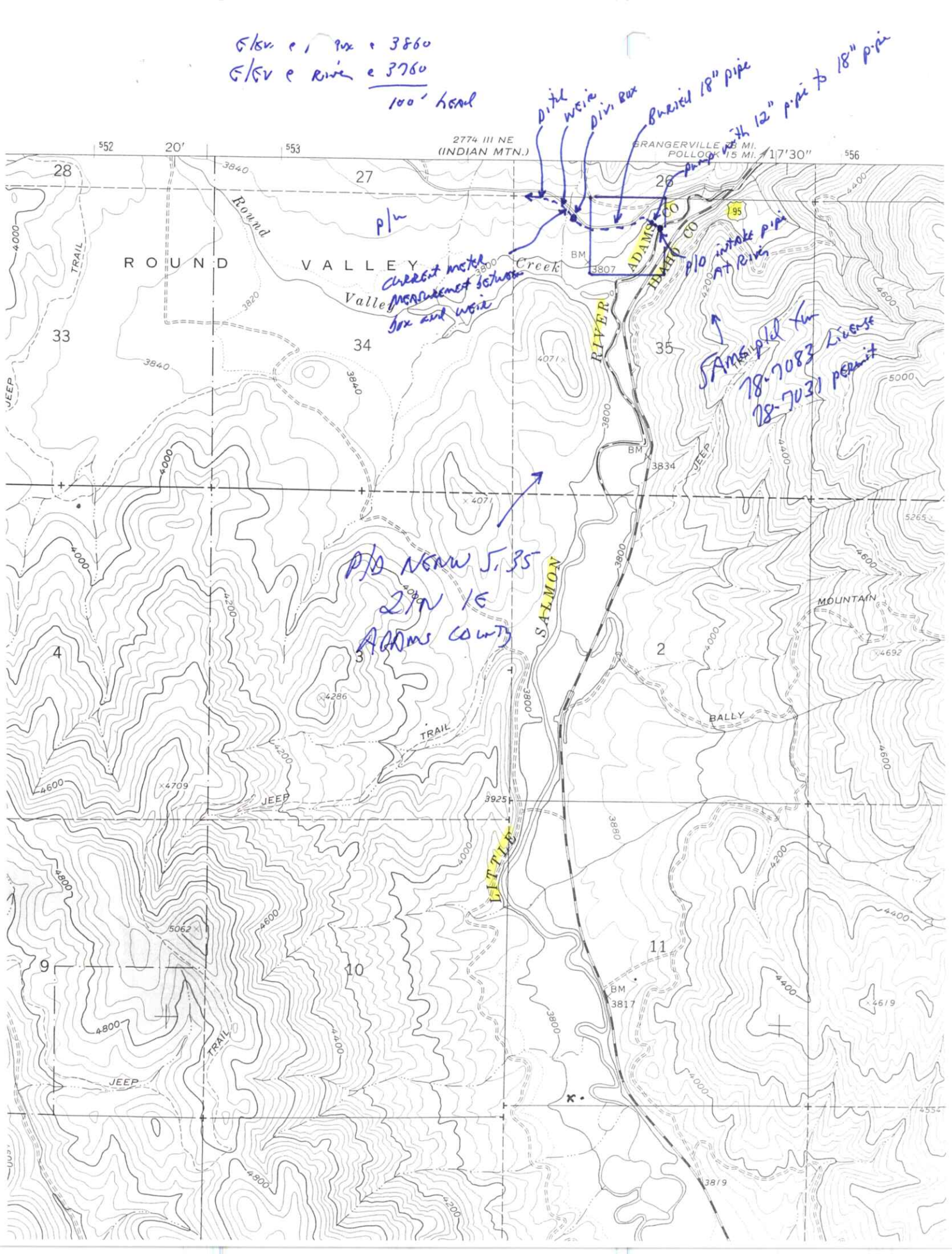
If recommend 4.4 cfs in permit, rate-limited when combined with 78-7083: 5.11 + 4.4 = 8.64 cfs.

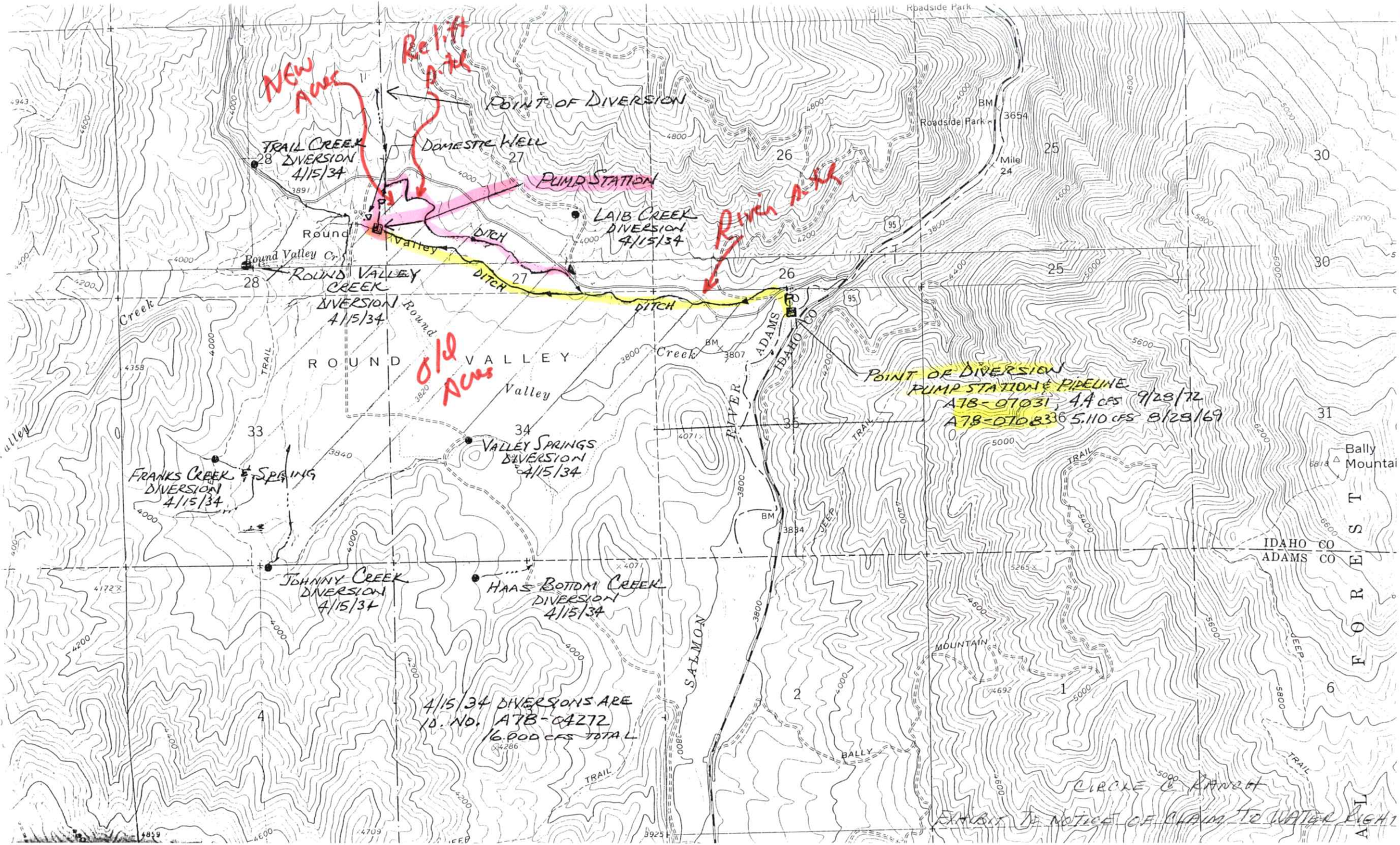
Permit condition about measuring device ok even though weir not accurate. Could upgrade weir someday if necessary. Better compliance with m.d. condition than in many cases.

78-7031 Diagram

-SR 4/15/05




G/Sv @ Pvc = 3860
G/Sv @ River = 3760
100' head
Ditch
Weir
Divi. Box
Buried 18" pipe
pump with 12" pipe to 18" pipe
2774 III NE
(INDIAN MTN.)
GRANGERVILLE 13 MI.
POLLOCK 15 MI.
17'30"
552
553
556
20'
28
27
26
25
33
34
35
4
3
2
9
10
11
ROUND VALLEY
Round Valley Creek
TRAIL
JEEP
ADAMS CO
IDAHO CO
95
BM 3807
BM 3834
BM 3817
SALMON RIVER
LITTLE
MOUNTAIN
BALLY
P/L
Current meter measurement section. Box and weir
P/O intake pipe at River
Sampled for 78-7083 License 78-7031 permit
P/O NENW S. 35 21N 1E Adams County
3840
4000
4200
4400
4600
4800
5000
5062
4709
4286
4071
3925
3800
3850
4692
4619
5265
5554
3819


NEW ACRES
Re-lift 0.7cfs
POINT OF DIVERSION
DOMESTIC WELL
TRAIL CREEK DIVERSION 4/15/34
PUMP STATION
LAIB CREEK DIVERSION 4/15/34
Rinch 4.4cfs
DITCH
ROUND VALLEY CREEK DIVERSION 4/15/34
0/4 ACRES
ROUND VALLEY
POINT OF DIVERSION PUMP STATION & PIPELINE
A78-07031, 4.4 CFS 9/28/72
A78-07083 5.110 CFS 8/28/69
VALLEY SPRINGS DIVERSION 4/15/34
FRANKS CREEK & SPRING DIVERSION 4/15/34
JOHNNY CREEK DIVERSION 4/15/34
HAAS BOTTOM CREEK DIVERSION 4/15/34
4/15/34 DIVERSIONS ARE I.D. NO. A78-04272 16.000 CFS TOTAL
Roadside Park
Mile 24
IDAHO CO
ADAMS CO
SALMON RIVER
BALLY MOUNTAIN
Bally Mountai
FOREST
CIRCLE C RANCH
EXHIBIT A NOTICE OF CLAIM TO WATER RIGHT

179 56 L

183

T 20-2

Smoky Rabbits Road

Proposed

Buried 18" main

pump

Little Salmon River

26

35

2

(out)

6' weir

4

D. Rel.

(IN)

Div. Box

RCPO

current meter meas. pt.

130' Buried intake pipe

p/o intake pipe ERin

Hwy 95

IRR's Downstream Rivin NZS

(IN)

(out)

35

2

243

Byrne & Shell

Shop

Boundary new acres

NEW acres here

upper ditch H2o from River ← Ditch w/a pump to sw

out

River ditch turns

pump: ditch to river

IN

River irrig Boundary

Fence

Cont. Next Photo

Not irrig by River H2o

River Ditch

Out

27 | 26

34 | 35

28 | 27

33 | 34

A-11

CIRCLE C

IN

IN

IN

Out

IRRIG by River H2o

River ditch

not IRRIG by River H2o

32 | 33

4 | 3

343

New acres

IN

out

out

IN

IN

out

28 | 27
03 | 34

A-11
CIRCLE C

IN

River H2o
Irrig Boundary

IN

out

IN

39 | 34
1 | 3

.0 .10 .20 .30 .40 .50 .60 .70 .75 .80 .85

Form 219-N
7/86

78-7031
Water Right No.
(if applicable)

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Open Channel Discharge Measurement Notes

A. GENERAL INFORMATION

1. Name of stream or ditch: Circle C Ranch, Little Salmon River Dist
2. Location:
3. Person conducting measurement: Steve Lester
4. Date and time of measurement: 8/6/1991 4 pm
5. Accompanied by: NO ONE
6. Measuring device size and ID no.: AA meter # 090126
7. Spin test before measurement (OK?) > 2½ minutes after measurement (OK?) ✓
8. Purpose of measurement: Licensing field exam

B. MEASUREMENT DATA

.6 of surface depth < 2' deep
> 40 is good

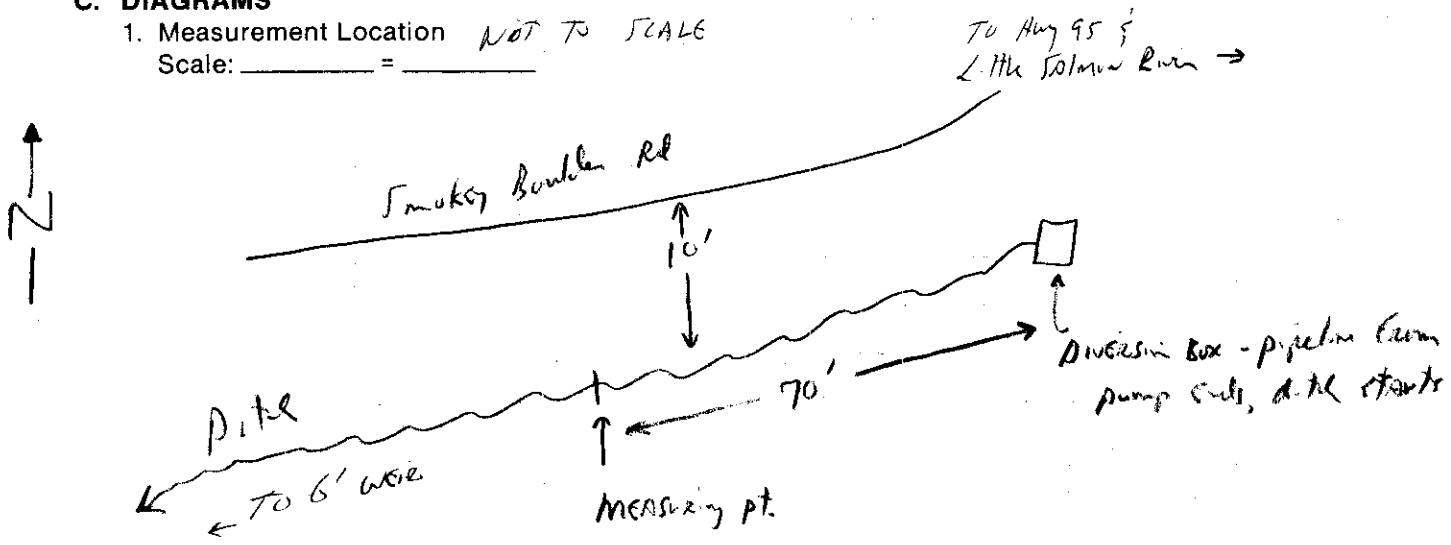
Angle coefficient	Dist. from initial point	Width ft.	Depth ft.	Observation depth ✓	Revolutions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	Adjusted for hor. angle or	Area ft²	Discharge cfs
LEW = 0											
	.8	1.0	0.9		20	53	.843			.9	.759
	1.25	.5	1.0		20	52	.858			.5	.429
	1.75	.5	1.2		30	54	1.23			.6	.738
	2.25	.5	1.35		35	44	1.754			.675	1.184
	2.75	.5	1.4		35	45	1.716			.7	1.201
	3.25	.5	1.4		40	46	1.92			.7	1.344
	3.75	.5	1.4		35	51	1.575	*		.7	1.061
	4.25	.5	1.3		25	47	1.18			.65	.767
	4.75	.5	1.1		20	50	.892			.55	.491
	5.25	.5	1.0		15	46	.731			.5	.366
	5.70	.7	.9		10	48	.474			.63	.299
REW = 6.2						AVERAGE →	1.2	TOTAL		7.11	8.64
* 30	REV =	1.30									
40	REV =	1.73									
35	REV =	1.3 +	½ difference		≈ 1.515						

.0 .10 .20 .30 .40 .50 .60 .70 .75 .80 .85

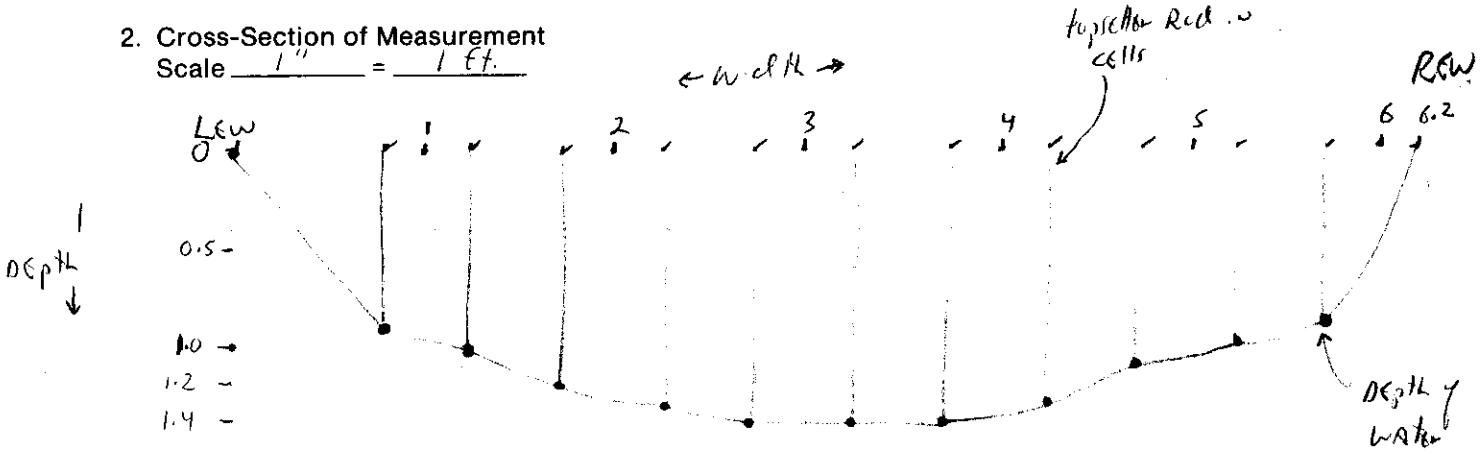
78-7031

C. DIAGRAMS

1. Measurement Location NOT TO SCALE
   Scale: _____ = _____



2. Cross-Section of Measurement
   Scale 1" = 1 ft.



- WEIR Downditch: 6' crest, not true rectangular or Cipolletti (not angled enough for latter but not 90° either). Submerged in exam.
- 63' Ld. measured to center of weir blade - not rebuilt structure weir, thick grasses both sides of ditch just upstream from weir.

D. SUMMARY INFORMATION

1. Measurement rated _____ excellent _____ good ✓ fair _____ poor
2. Remarks: Considerable vegetation along both sides of ditch
3. Width: 6.2' Area: 7.11 ft² Discharge in cubic feet per second: 8.64 cfs

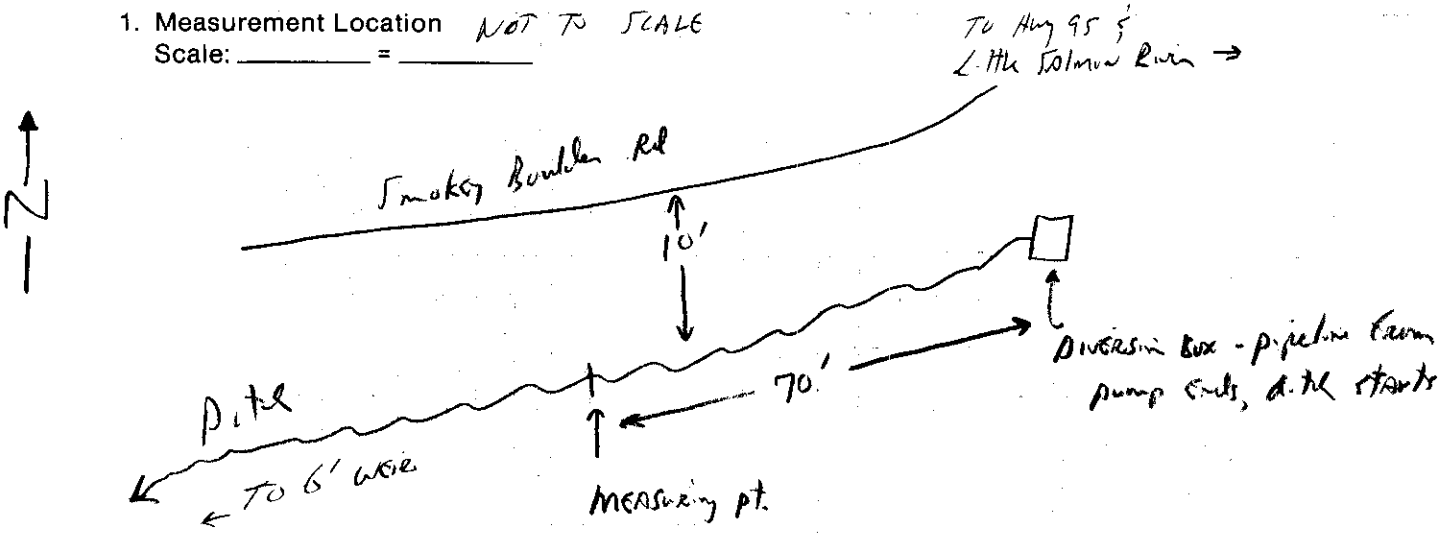
4/14/05 per original Exam notes
DATE

SIGNATURE OF PERSON CONDUCTING MEASUREMENT

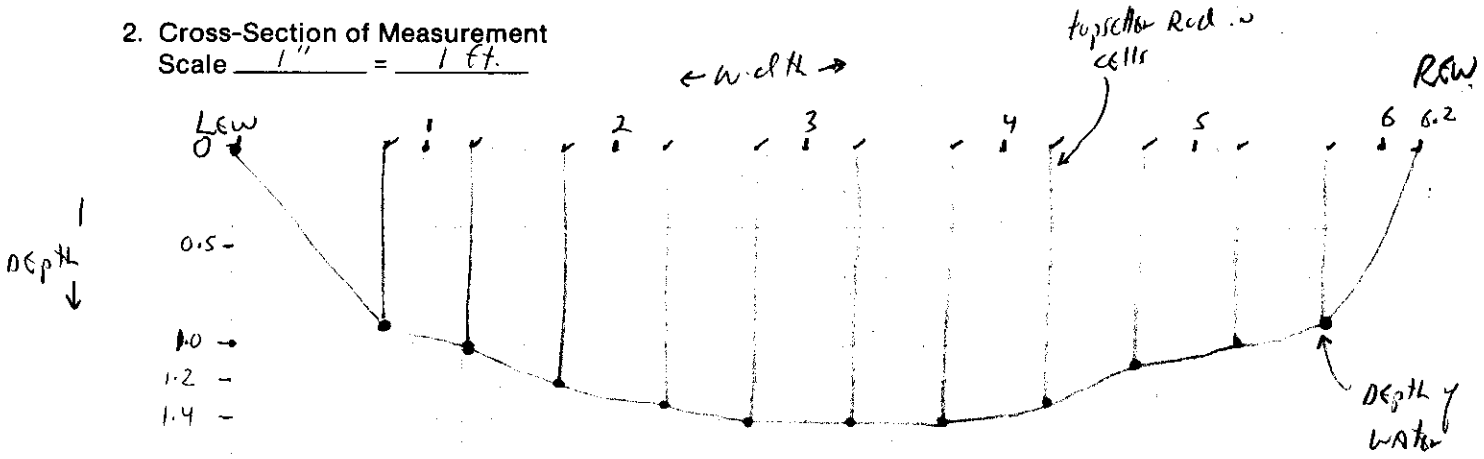
78-7031

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Scale: _____ = _____



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- 63' Ld. measured @ center of weir blade - not rebuilt standard weir, thick grasses both sides of ditch just upstream from weir.

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4/14/05 per original Exam notes
DATE

SIGNATURE OF PERSON CONDUCTING MEASUREMENT

.0 .10 .20 .30 .40 .50 .60 .75 .80 .85

Orig in Field notes

Form 219-N
7/86

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

78-07031
Water Right No.
(if applicable)

Open Channel Discharge Measurement Notes

.90

A. GENERAL INFORMATION

1. Name of stream or ditch: Circle C Ranch Little Salmon River Ditch .92
2. Location:
3. Person conducting measurement: Steve Lester .94
4. Date and time of measurement: 8/6/91 4:00 p.m.
5. Accompanied by: Ø .96
6. Measuring device size and ID no.: AA METER # 090126
7. Spin test before measurement OK? > 2 1/2 min. after measurement OK? .97
8. Purpose of measurement: LICENSING EXAM .98

B. MEASUREMENT DATA

Set at .6d as w/ prgrm meter - dec'd 12" depth
30R → 1.30 > 1/2
40R → 1.73

.99

Angle co-efficient	Dist. from initial point	Width	Depth	Observation depth	Revolutions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	Adjusted for hor. angle or ____	Area	Discharge
	~~1.0~~ ~~0~~		—								
	~~1.8~~ 1.0										
	LEW =		0.0								
	.8	1.0	.9		20	53	.843			.9	.759
	1.25	.5	1.0		20	52	.858			.5	.429
	1.75	.5	1.2		30	54	1.23			.6	.738
	2.25	.5	1.35		35	44	1.754			.675	1.184
	2.75	.5	1.4		~~3~~ 35	45	1.716			.7	1.201
	3.25	.5	1.4		40	46	1.92			.7	1.344
	3.75	.5	1.4		35	51	(1.515) *			.7	1.061
	4.25	.5	1.3		25	47	1.18			.65	.767
	4.75	.5	1.1		20	50	.892			.55	.491
	5.25	.5	1.0		15	46	.731			.5	.366
	5.70	.7	0.9		10	48	.474			.63	.299
	REW =	6.2									
											8.639 = 8.64

.90 .92 .94 .96 .97 .98 .99 .96 .94 .92 .85

.0 .10 .20 .30 .40 .50 .60 .70 .75 .80

* 30R → 1.30 } 35R → 1.515
40R → 1.73 }

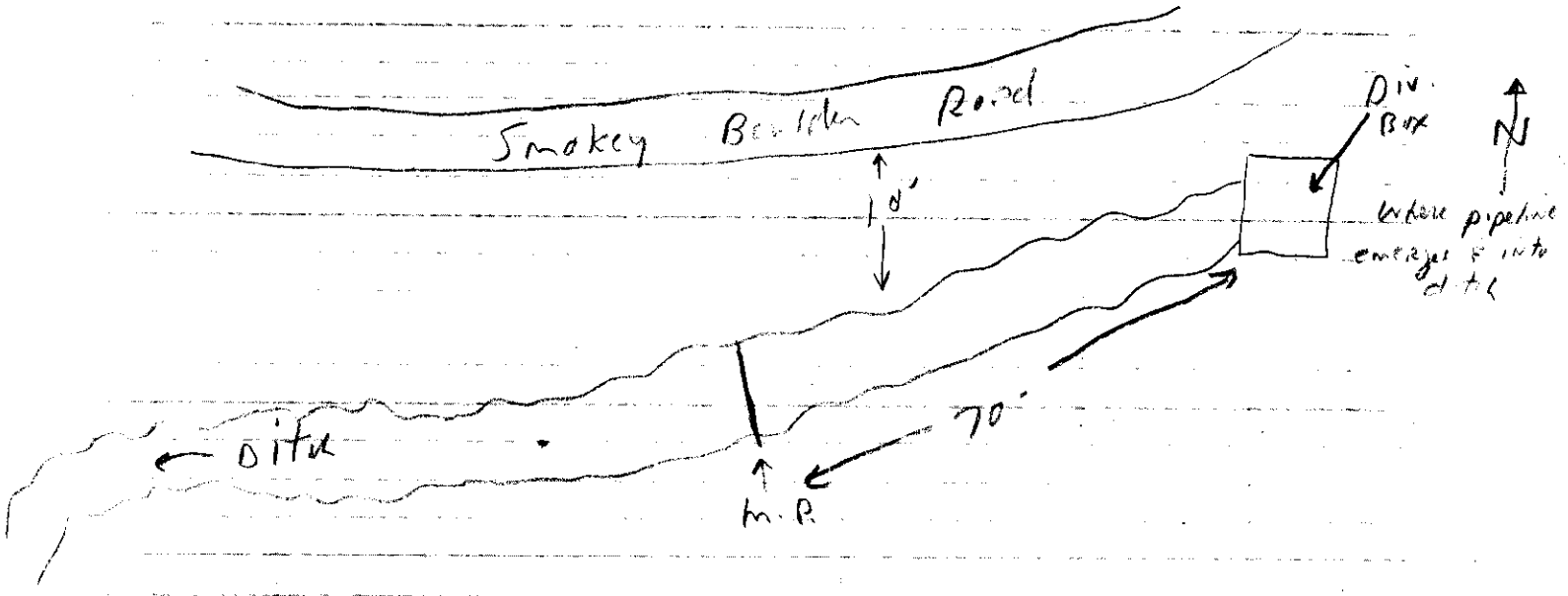
Work up

Sub Tot = ~~2.578~~ 1.061

C. DIAGRAMS

1. Measurement Location
   Scale: _____ = NOT TO SCALE

M.P. = 70' downstream from "diversion box"



2. Cross-Section of Measurement
   Scale _____ = _____

? re variability

Comprise

✓ 1) Fair - almost pour point
lots weed, hard to clean off w/ trowel
channel for V's

✓ 2) want DD meter of direct setting as of
Aging (.6d) is clear from DD box.
OK? BIAS? ~~& pigging might skew~~

✓ weir
✓ DD
? pump curve

✓ Weir is submerged & not built to specs
Perhaps more measurement and more in weir
but still wasn't built to specs flow.

D. SUMMARY INFORMATION

1. Measurement rated _____ excellent _____ good ___✓___ fair _____ poor
2. Remarks: VGS

3. Width: _____ Area: _____ Discharge in cubic feet per second: _____

DATE

SIGNATURE OF PERSON CONDUCTING MEASUREMENT

Re 78.7083 exam

if 6' cip with .4' hd:

$Q = 3.36 + 2(.84) = 5.04$ cfs (not 5.11 cfs)

d weirs.

4.0 feet	For each additional foot of crest in excess of 4 ft. (approx.)
14.64	3.74
14.83	3.79
15.03	3.84
15.22	3.88
15.42	3.94
15.62	3.98
15.82	4.03
16.02	4.08
16.23	4.14
16.43	4.19
16.63	4.24
16.83	4.29
17.03	4.34
17.25	4.40
17.45	4.46
17.65	4.51
17.87	4.57
18.07	4.62
18.28	4.67
18.50	4.73
18.71	4.78
18.92	4.82
19.12	4.88
19.34	4.94
19.55	4.99
19.77	5.05
19.98	5.10
20.20	5.16
20.42	5.22
20.64	5.28
20.86	5.33
21.08	5.39
21.29	5.44
21.52	5.50
21.74	5.55
21.96	5.62
22.18	5.67
22.41	5.73
22.64	5.79
22.85	5.84
23.08	5.91

UI Water Means: Booklet 1976

Table 4. Flow over Cipolletti weirs in cubic feet per second.*

Head in ft. "H"	Head in inches, approx.	Crest length (L) 1.0 foot	1.5 feet	2.0 feet	3.0 feet	4.0 feet	For each additional foot of crest in excess of 4 ft. (approx.)
		Flow in cubic feet per second					
0.10	1-3/16	0.107	0.160	0.214	0.321	0.429	0.108
0.11	1-5/16	0.123	0.185	0.246	0.370	0.494	0.124
0.12	1-7/16	0.140	0.210	0.280	0.421	0.562	0.141
0.13	1-9/16	0.158	0.237	0.316	0.474	0.632	0.159
0.14	1-11/16	0.177	0.264	0.352	0.528	0.706	0.177
0.15	1-13/16	0.195	0.293	0.390	0.586	0.782	0.196
0.16	1-15/16	0.216	0.322	0.430	0.644	0.860	0.216
0.17	2-1/16	0.237	0.353	0.470	0.705	0.941	0.236
0.18	2-3/16	0.258	0.384	0.512	0.768	1.024	0.257
0.19	2-1/4	0.280	0.417	0.555	0.832	1.110	0.278
0.20	2-3/8	0.302	0.450	0.599	0.898	1.20	0.302
0.21	2-1/2	0.324	0.484	0.644	0.966	1.29	0.324
0.22	2-5/8	0.349	0.519	0.691	1.04	1.38	0.35
0.23	2-3/4	0.374	0.555	0.739	1.11	1.47	0.37
0.24	2-7/8	0.397	0.591	0.786	1.18	1.57	0.39
0.25	3	0.423	0.628	0.836	1.25	1.67	0.42
0.26	3-1/8	0.449	0.667	0.886	1.33	1.77	0.44
0.27	3-1/4	0.475	0.705	0.937	1.40	1.87	0.47
0.28	3-3/8	0.502	0.745	0.990	1.48	1.97	0.49
0.29	3-1/2	0.529	0.785	1.04	1.56	2.08	0.52
0.30	3-5/8	0.557	0.827	1.10	1.64	2.19	0.55
0.31	3-3/4	0.586	0.869	1.15	1.73	2.30	0.57
0.32	3-13/16	0.615	0.911	1.21	1.81	2.41	0.60
0.33	3-15/16	0.644	0.954	1.27	1.89	2.52	0.62
0.34	4-1/16	0.675	1.00	1.32	1.98	2.64	0.66
0.35	4-3/16	0.705	1.04	1.38	2.07	2.75	0.69
0.36	4-5/16	0.735	1.09	1.44	2.16	2.87	0.71
0.37	4-7/16	0.767	1.13	1.50	2.25	2.99	0.74
0.38	4-9/16	0.799	1.18	1.57	2.34	3.11	0.78
0.39	4-11/16	0.832	1.23	1.63	2.43	3.24	0.81
0.40	4-13/16	0.866	1.28	1.69	2.53	3.36	0.84
0.41	4-15/16	0.899	1.32	1.76	2.62	3.49	0.87
0.42	5-1/16	0.932	1.37	1.82	2.72	3.61	0.89
0.43	5-3/16	0.967	1.42	1.89	2.81	3.74	0.93
0.44	5-1/4	1.00	1.47	1.95	2.91	3.87	0.97
0.45	5-3/8	1.04	1.53	2.02	3.01	4.01	1.00
0.46	5-1/2	1.07	1.58	2.09	3.11	4.14	1.02
0.47	5-5/8	1.11	1.63	2.16	3.21	4.28	1.06
0.48	5-3/4	1.15	1.68	2.23	3.32	4.41	1.10
0.49	5-7/8	1.18	1.74	2.30	3.42	4.55	1.13
0.50	6	1.22	1.79	2.37	3.53	4.69	1.16
0.51	6-1/8	1.26	1.85	2.44	3.64	4.83	1.20
0.52	6-1/4	1.30	1.90	2.51	3.74	4.97	1.24
0.53	6-3/8	1.34	1.96	2.59	3.85	5.12	1.26
0.54	6-1/2	1.38	2.02	2.66	3.96	5.26	1.30
0.55	6-5/8	1.42	2.07	2.74	4.07	5.41	1.33
0.56	6-3/4	1.46	2.13	2.81	4.18	5.56	1.38
0.57	6-13/16	1.50	2.19	2.89	4.30	5.71	1.41
0.58	6-15/16	1.54	2.25	2.97	4.41	5.86	1.44
0.59	7-1/16	1.58	2.31	3.05	4.53	6.01	1.49

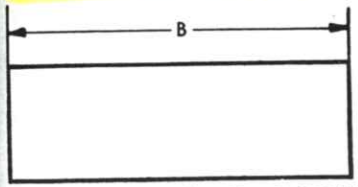
*Computed from Cone's formula: $Q = 3.247\ LH^{1.48} - \frac{0.566L^{1.8}}{1\ 2L^{1.8}}\ H^{1.9} + 0.609\ H^{2.5}$

TABLE 66. FLOW OVER RECTANGULAR SUPPRESSED WEIR IN CU. FT. PER SECOND. $Q = 3.33Bh^{3/2}$

Head Ft.	Crest Length in Feet								
	1.0	1.5	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.1	0.11	0.16	0.21	0.32	0.42	0.53	0.63	0.74	0.84
0.2	0.30	0.45	0.60	0.89	1.19	1.49	1.79	2.08	2.38
0.3	0.55	0.82	1.09	1.64	2.19	2.74	3.28	3.83	4.38
0.4	0.84	1.26	1.68	2.53	3.37	4.21	5.05	5.90	6.74
0.5	1.18	1.77	2.35	3.53	4.71	5.89	7.06	8.24	9.42
0.6	1.55	2.32	3.10	4.64	6.19	7.74	9.29	10.83	12.38
0.7	1.95	2.93	3.90	5.85	7.80	9.75	11.70	13.65	15.60
0.8	2.38	3.57	4.77	7.15	9.53	11.91	14.30	16.68	19.06
0.9	2.84	4.26	5.69	8.53	11.37	14.22	17.06	19.90	22.75
1.0	3.33	5.00	6.66	9.99	13.32	16.65	19.98	23.31	26.64
1.1	3.84	5.76	7.68	11.53	15.37	19.21	23.05	26.89	30.73
1.2	4.38	6.57	8.75	13.13	17.51	21.89	26.26	30.64	35.02
1.3	4.94	7.40	9.87	14.81	19.74	24.68	29.61	34.55	39.49
1.4	5.52	8.27	11.03	16.55	22.06	27.58	33.10	38.61	44.13
1.5	6.12	9.18	12.24	18.35	24.47	30.59	36.71	42.82	48.94
1.6	6.74	10.11	13.48	20.22	26.96	33.70	40.44	47.18	53.92
1.7	7.38	11.08	14.76	22.14	29.52	36.91	44.29	51.67	59.05
1.8	8.04	12.06	16.08	24.13	32.17	40.21	48.25	56.29	64.33
1.9	8.72	13.08	17.44	26.16	34.89	43.61	52.33	61.05	69.77
2.0	9.42	14.13	18.84	28.26	37.68	47.10	56.51	65.93	75.35
2.1	10.13	15.20	20.27	30.40	40.54	50.67	60.80	70.94	81.07
2.2	10.87	16.30	21.73	32.60	43.46	54.33	65.20	76.06	86.93
2.3	11.62	17.42	23.23	34.85	46.46	58.08	69.69	81.31	92.92
2.4	12.38	18.57	24.76	37.14	49.52	61.91	74.29	86.67	99.05
2.5	13.16	19.74	26.33	39.49	52.65	65.82	78.98	92.14	105.30
2.6	13.96	20.94	27.92	41.88	55.84	69.81	83.77	97.73	111.69
2.7	14.77	22.16	29.55	44.32	59.10	73.87	88.64	103.42	118.19
2.8	15.60	23.40	31.20	46.81	62.41	78.01	93.61	109.21	124.82
2.9	16.45	24.67	32.89	49.34	65.78	82.23	98.67	115.12	131.56
3.0	17.30	25.95	34.61	51.91	69.21	86.52	103.82	121.12	138.42

Following are sketches of various weir types, with formulas for calculation of flow over each:

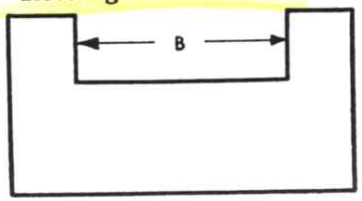
Rectangular Suppressed



Francis Formula, $Q = 3.33Bh^{3/2}$ or the more accurate Rehbock Formula,

$$Q = \left(3.228 + 0.435\frac{h_e}{z}\right) Bh_e^{3/2}$$

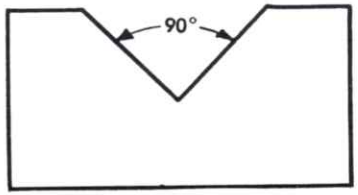
Rectangular Contracted



Francis Formula,

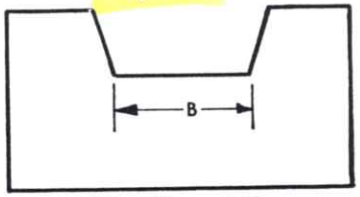
$Q = 3.33h^{3/2}\ (B - 0.2h)$

V-Notch



Thompson Formula,
$Q = 2.54h^{5/2}$

Cipolletti



Sides Slope 1:4

Cipolletti Formula,
$Q = 3.367Bh^{3/2}$

FIG. 73. Various weir formula.

PITOT TUBE

The Pitot Tube is a device used for measuring the velocity of flowing fluids. Many forms of Pitot Tube are used but the principle of all are the same. Two pressure readings are taken on the pipe interior—one receiving the full impact of the flowing stream reads a pressure equal to the static head plus the velocity head—the other reads the static head only. The difference between the two readings, therefore, is the velocity head. The velocity can be calculated by the equation $V = C\sqrt{2gh}$ where C is a cofficient for the meter determined by calibration. The quantity of fluid flowing equals the pipe area × average velocity.

Since the velocity varies from a minimum at a point adjacent to the pipe wall to a maximum at the pipe center a traverse of the pipe must be made to determine the average velocity. This is not easily done. The use of a commercially manufactured Pitot Tube gives results accurate to approximately 97% when used by a carefully trained operator.

TESTING FIRE PUMPS

A specialized type of Pitot Tube is used when testing Fire Pumps.

XI

UI WATER MEAS. Bulletin 1976 78.7031

6' CREST 6.63 + 2(1.63) = 9.89 cfs

Table 4 (Continued). Flow over Cipolletti weirs.

Head in ft. "H"	Head in inches, approx.	Crest length (L) 1.0 foot	1.5 feet	2.0 feet	3.0 feet	4.0 feet	For each additional foot of crest in excess of 4 ft. (approx.)
		Flow in cubic feet per second					
0.60	7-3/16	1.62	2.37	3.13	4.64	6.17	1.53
0.61	7-5/16	1.67	2.43	3.20	4.76	6.32	1.55
0.62	7-7/16	1.71	2.49	3.28	4.88	6.47	1.60
0.63	7-9/16	1.75	2.55	3.37	5.00	6.63	1.63
0.64	7-11/16	1.80	2.62	3.45	5.12	6.79	1.67
0.65	7-13/16	1.84	2.68	3.53	5.24	6.95	1.72
0.66	7-15/16	1.89	2.75	3.61	5.36	7.11	1.75
0.67	8-1/16	1.93	2.81	3.70	5.48	7.28	1.79
0.68	8-3/16	1.98	2.87	3.79	5.61	7.44	1.83
0.69	8-1/4	2.02	2.94	3.87	5.73	7.61	1.87
0.70	8-3/8	2.07	3.01	3.95	5.86	7.77	1.91
0.71	8-1/2	2.12	3.07	4.04	5.99	7.94	1.95
0.72	8-5/8	2.16	3.14	4.13	6.12	8.11	1.99
0.73	8-3/4	2.21	3.21	4.22	6.24	8.28	2.03
0.74	8-7/8	2.26	3.28	4.31	6.38	8.45	2.08
0.75	9	2.31	3.35	4.40	6.51	8.62	2.12
0.76	9-1/8	2.36	3.42	4.49	6.64	8.80	2.16
0.77	9-1/4	2.41	3.49	4.58	6.77	8.97	2.21
0.78	9-3/8	2.46	3.56	4.67	6.90	9.15	2.24
0.79	9-1/2	2.51	3.63	4.76	7.04	9.33	2.29
0.80	9-5/8	2.56	3.70	4.85	7.18	9.51	2.33
0.81	9-3/4	2.61	3.77	4.95	7.31	9.69	2.38
0.82	9-13/16	2.66	3.84	5.04	7.45	9.87	2.42
0.83	9-15/16	2.71	3.92	5.14	7.59	10.05	2.46
0.84	10-1/16	2.77	3.99	5.23	7.73	10.23	2.51
0.85	10-3/16	2.82	4.07	5.33	7.87	10.42	2.55
0.86	10-5/16	2.87	4.14	5.43	8.01	10.60	2.60
0.87	10-7/16	2.93	4.22	5.52	8.15	10.79	2.64
0.88	10-9/16	2.98	4.29	5.62	8.30	10.98	2.69
0.89	10-11/16	3.04	4.37	5.72	8.44	11.17	2.72
0.90	10-13/16	3.09	4.45	5.82	8.59	11.36	2.77
0.91	10-15/16	3.15	4.53	5.92	8.73	11.55	2.82
0.92	11-1/16	3.20	4.60	6.02	8.88	11.74	2.87
0.93	11-3/16	3.26	4.68	6.13	9.03	11.94	2.91
0.94	11-1/4	3.32	4.76	6.23	9.17	12.13	2.96
0.95	11-3/8	3.37	4.84	6.33	9.32	12.33	3.00
0.96	11-1/2	3.43	4.92	6.44	9.48	12.53	3.05
0.97	11-5/8	3.49	5.00	6.55	9.62	12.72	3.10
0.98	11-3/4	3.55	5.09	6.64	9.78	12.92	3.14
0.99	11-7/8	3.61	5.17	6.75	9.93	13.12	3.19
1.00	12	3.67	5.25	6.86	10.08	13.32	3.24
1.01	12-1/8		5.33	6.96	10.24	13.53	3.29
1.02	12-1/4		5.42	7.07	10.40	13.73	3.34
1.03	12-3/8		5.50	7.18	10.55	13.94	3.38
1.04	12-1/2		5.59	7.29	10.71	14.15	3.43
1.05	12-5/8		5.67	7.40	10.87	14.35	3.48
1.06	12-3/4		5.76	7.51	11.03	14.56	3.53
1.07	12-13/16		5.84	7.62	11.18	14.76	3.58
1.08	12-15/16		5.93	7.73	11.35	14.98	3.63
1.09	13-1/16		6.02	7.84	11.51	15.19	3.68

CI Water Assoc. Bulletin 1976

78-7031

6' crest

6.44 + 2(1.63) = 9.70 cfs

Table 3 (Continued). Flow over rectangular contracted weirs.

et	For each additional foot of crest in excess of 4 ft. (approx.)
7	0.108
1	0.124
9	0.141
9	0.159
1	0.177
6	0.196
4	0.216
4	0.236
	0.257
	0.278
	0.303
	0.326
	0.35
	0.37
	0.39
	0.42
	0.44
	0.47
	0.49
	0.52
	0.55
	0.57
	0.60
	0.62
	0.66
	0.69
	0.71
	0.74
	0.78
	0.81
	0.84
	0.87
	0.89
	0.93
	0.97
	1.00
	1.02
	1.06
	1.10
	1.13
	1.16
	1.20
	1.24
	1.26
	1.30
	1.33
	1.38
	1.41
	1.44
	1.49

Head in ft. "H"	Head in inches, approx.	Crest length (L) 1.0 foot	1.5 feet	2.0 feet	3.0 feet	4.0 feet	For each additional foot of crest in excess of 4 ft. (approx.)
		Flow in cubic feet per second					
0.60	7-3/16	1.45	2.20	2.96	4.47	6.00	1.53
0.61	7-5/16	1.49	2.25	3.03	4.59	6.14	1.55
0.62	7-7/16	1.52	2.31	3.10	4.69	6.29	1.60
0.63	7-9/16	1.56	2.36	3.17	4.81	6.44	1.63
0.64	7-11/16	1.60	2.42	3.25	4.92	6.59	1.67
0.65	7-13/16	1.63	2.47	3.32	5.03	6.75	1.72
0.66	7-15/16	1.67	2.53	3.40	5.15	6.90	1.75
0.67	8-1/16	1.71	2.59	3.47	5.26	7.05	1.79
0.68	8-3/16	1.74	2.64	3.56	5.38	7.21	1.83
0.69	8-1/4	1.78	2.70	3.63	5.49	7.36	1.87
0.70	8-3/8	1.82	2.76	3.71	5.61	7.52	1.91
0.71	8-1/2	1.86	2.81	3.78	5.73	7.68	1.95
0.72	8-5/8	1.90	2.87	3.86	5.85	7.84	1.99
0.73	8-3/4	1.93	2.93	3.94	5.97	8.00	2.03
0.74	8-7/8	1.97	2.99	4.02	6.09	8.17	2.08
0.75	9	2.01	3.05	4.10	6.21	8.33	2.12
0.76	9-1/8	2.05	3.11	4.18	6.33	8.49	2.16
0.77	9-1/4	2.09	3.17	4.26	6.45	8.66	2.21
0.78	9-3/8	2.13	3.23	4.34	6.58	8.82	2.24
0.79	9-1/2	2.17	3.29	4.42	6.70	8.99	2.29
0.80	9-5/8	2.21	3.35	4.51	6.83	9.16	2.33
0.81	9-3/4	2.25	3.41	4.59	6.95	9.33	2.38
0.82	9-13/16	2.29	3.47	4.67	7.08	9 50	2.42
0.83	9-15/16	2.33	3.54	4.75	7.21	9.67	2.46
0.84	10-1/16	2.37	3.60	4.84	7.33	9.84	2.51
0.85	10-3/16	2.41	3.66	4.92	7.46	10.01	2.55
0.86	10-5/16	2.46	3.72	5.01	7.59	10.19	2.60
0.87	10-7/16	2.50	3.79	5.10	7.72	10.36	2.64
0.88	10-9/16	2.54	3.85	5.18	7.85	10.54	2.69
0.89	10-11/16	2.58	3.92	5.27	7.99	10.71	2.72
0.90	10-13/16	2.62	3.98	5.35	8.12	10.89	2.77
0.91	10-15/16	2.67	4.05	5.44	8.25	11.07	2.82
0.92	11-1/16	2.71	4.11	5.53	8.38	11.25	2.87
0.93	11-3/16	2.75	4.18	5.62	8.52	11.43	2.91
0.94	11-1/4	2.79	4.24	5.71	8.65	11.61	2.96
0.95	11-3/8	2.84	4.31	5.80	8.79	11.79	3.00
0.96	11-1/2	2.88	4.37	5.89	8.93	11.98	3.05
0.97	11-5/8	2.93	4.44	5.98	9.06	12.16	3.10
0.98	11-3/4	2.97	4.51	6.07	9.20	12.34	3.14
0.99	11-7/8	3.01	4.57	6.15	9.34	12.53	3.19
1.00	12	3.06	4.64	6.25	9.48	12.72	3.24
1.01	12-1/8		4.71	6.34	9.62	12.91	3.29
1.02	12-1/4		4.78	6.43	9.76	13.10	3.34
1.03	12-3/8		4.85	6.52	9.90	13.28	3.38
1.04	12-1/2		4.92	6.62	10.04	13.47	3.43
1.05	12-5/8		4.98	6.71	10.18	13.66	3.48
1.06	12-3/4		5.05	6.80	10.32	13.85	3.53
1.07	12-13/16		5.12	6.90	10.46	14.04	3.58
1.08	12-15/16		5.20	6.99	10.61	14.24	3.63
1.09	13-1/16		5.26	7.09	10.75	14.43	3.68

Permit 78-7031 Photos taken 8/1/91 Pg 1 of 4

(1)

P/O buried intake pipe from River to pump, then to ~~buried~~ partly exposed, partly buried 12" main that expands to 18" main line.

Little Salmon River & Hwy 95 mid + background.



(2)

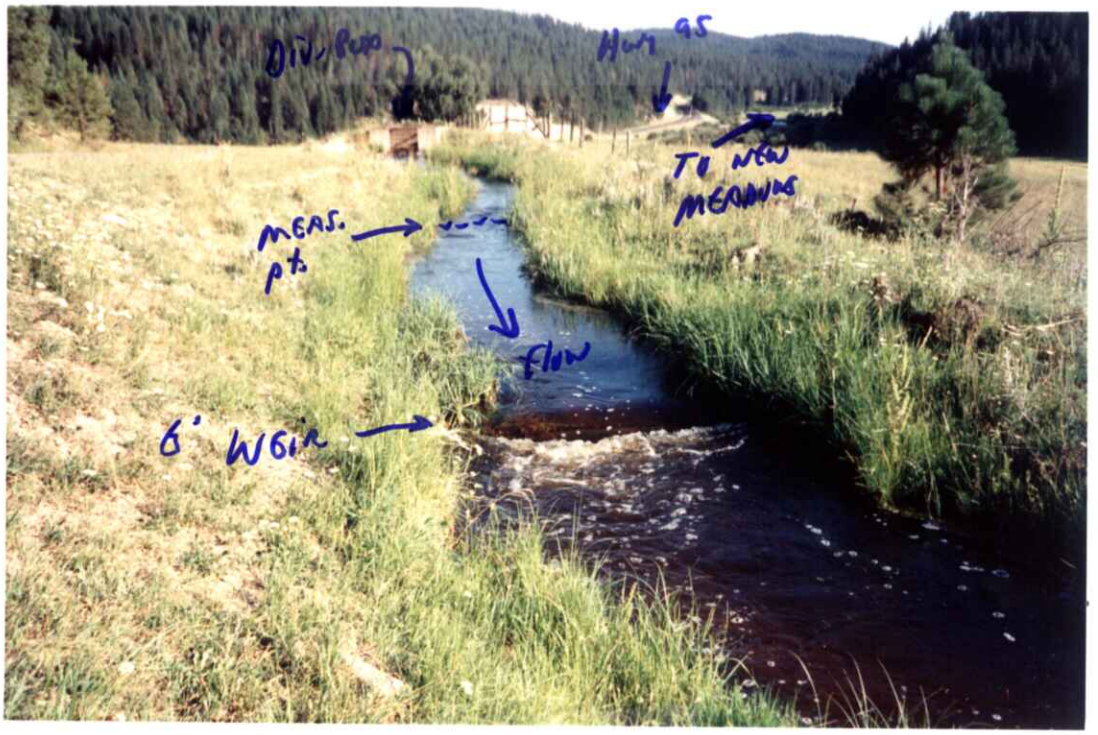
Closeup of P/O pump. 12" main line shown before it's buried



(3)

View SE at discharge diversion box from 18" main to south ditch

Submerged weir in foreground.



(4)

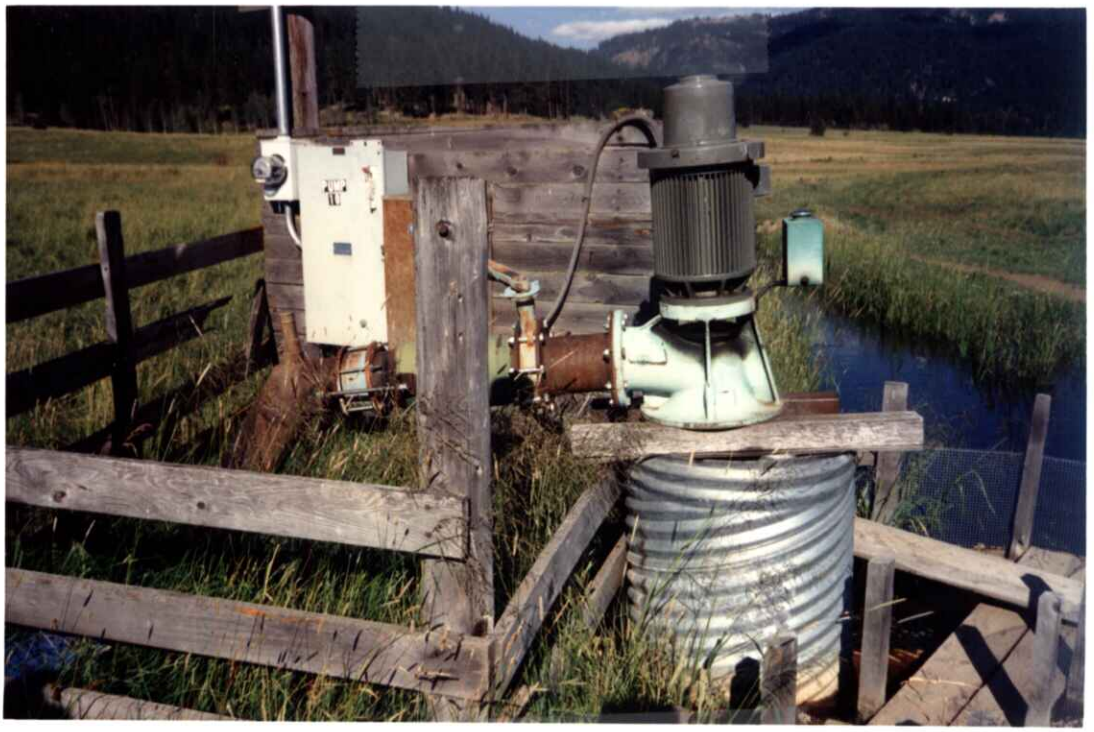
Similar view As photo 3, current meter measuring point shown.



(5)

Booster pump at West end of P/L. Lifts water to upper dite to irrigate new acres (in excess of 78-7083).

View to East with some of P/L shown.



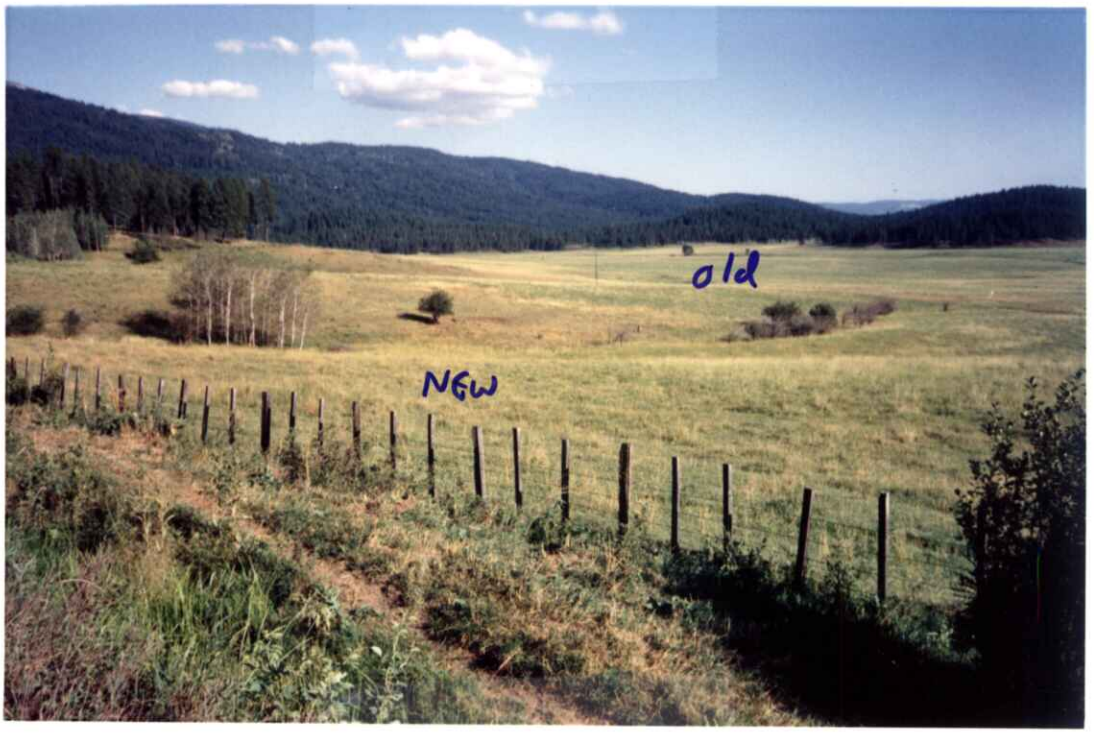
(6)

View to SE from booster pump, showing P/L.



(7)

View to SE showing new acres in foreground & old acres in background.



RECEIVED
JUL 13 1995
WESTERN REGION

CHANGE IN ADDRESS OF NOTICE OF CLAIM

[ ] Water Right Number (s): A78-02011 A 78-07031
A 78-10227 A 78-04272
A78-07083

[ ] Old Mailing Address: P.O. 1991
SUN VALLEY ID 83353

[ ] New Mailing Address: P.O. BOX 296
NEW MEADOWS, ID 83654

New Telephone Number: (208) 347 - 2786

[ ] Signature of Claimant: Burl L. Boone for CIRCLE C RANCHETTES HOMEOWNERS ASSOC.
VICE PRES.

Date: 7/11/95

FOR IDWR USE ONLY:
Initial Review and Data-Entry
Date: By:
Further Action Needed:
Further Action Taken
Date: By:
Final Review and Data-Entry
Date: By:

MICROFILMED
OCT 22 1996

Ownership change documentation submitted to SRBA. Included in file per Shelley Keen's request.

LG
5/5/05

Date: 10/24/90

P 01

CHANGE IN OWNERSHIP Page 1

This form is solely for purposes of notifying IDWR of a change in ownership of an adjudication claim.

[xx] Water Right Number(s): A78-07031

[xx] Name and Address of Former Claimant(s): Circle C Ranch Company, a partnership

499 Seaport Ct., Suite 302

Redwood City, Ca. 94064

[xx] New Claimant(s): Robert M. Brennan, a single man

[xx] New Mailing Address: 1411 Marsh St., Suite 207

San Luis Obispo, Ca. 93401

New Telephone Number: ( ) ___-____

[xx] Does the change in ownership result in a splitting of the water right claimed? _____ yes xxx no
If yes, then describe the portion of the water right that is now claimed by the new owner:

[xx] Attach proof of ownership
Describe proof attached: copy of Warranty Deed
(Proof of ownership must describe either the property conveyed or include the claim number. Proof of ownership is not required if this form is signed by the former claimant.)

( ) Signature of New Claimant(s): R. M. Brennan

Date: 10/24/90

32

see claim file for better copies

WARRANTY DEED

POOR ORIGINAL

CIRCLE C RANCH COMPANY, a partnership

... hereby grant, bargain, sell and convey unto

ROBERT M. BRENNAN a single man,

... whose current address is 1411 MARSH St. Ste 207,
San Luis Obispo, Ca. 93401

... the following described premises, in Adams County, Idaho, to-wit:

The Real Property is more particulary described in Exhibit "A" which Exhibit is incorporated herein by reference as if set forth in full.

TO HAVE AND TO HOLD the said premises, with [illegible]
... and assigns forever. And the said Grantor ... does hereby ...
...ners ... in fee simple of said premises; that they are free from all ...
except for all easements of record, right of way, matters ... of record and title.

... that they will warrant and defend the same from all lawful claims whatsoever.

... October 12, 1990

Circle C Ranch Company, a partnership

by Robert J. [illegible], a partner

Form 43-1409(7)

NEW PROPERTY OWNER
NOTICE OF CHANGE OF WATER RIGHT OWNERSHIP

Please print or type
(see instructions on back of page)

RECEIVED
OCT 15 1993
Department of Water Resources

IDWR

DATE OF CLOSING: 9-24-93

LEGAL DESCRIPTION OF PROPERTY: Township_____ Range_____
Section_____, _____ 1/4 of _____ 1/4 of _____ 1/4, Govt. Lot_____, BM.
Lot_____, Block_____, Subdivision/Townsite_____.
If you have additional legal descriptions, please attach separate sheet.

[ ] Served Only by a Public Service Water Supply (all water is received from a city or company who maintains water supply system, owns the water right, and bills the customer on a regular basis)

[X] Water Right Number(s) Assigned by IDWR: 78-04272, 78-07083, 78-07031, 78-10227, 78-02011

[X] Name and Address of Former Owner/Claimant(s)(Seller): Robert M. Brennan
P. O. Box 1991
Sun Valley, ID 83353

[X] New Owner/Claimant (Purchaser): Circle C Ranches Homeowners Association, Inc.

[X] New Mailing Address: P. O. Box 1991
Sun Valley, ID 83353

[X] New Telephone Number: (208) 788 - 9876

[X] Does the change in ownership result in a splitting of the water right owned/claimed? ___ yes X no
If yes, then describe the portion of the water right that is now owned/claimed by the new owner:

[X] Attach proof of ownership, describe proof attached: Quitclaim Deed
(proof of ownership must describe either the property conveyed or include the claim number. Proof of ownership is not required if this form is signed by the former owner/claimant.)

[X] Signature of New Owner/Claimant(s): Robert M. Brennan, President Date Sept. 21, 1993
Circle C Ranches Homeowners Association, Inc. Date
Date

[ ] Signature of Former Owner/Claimant(s): Date
Date
(Signature of former claimant(s) is not required if proof of ownership is attached.)

FOR IDWR USE ONLY:
Initial Review and Data-Entry
Date 10-25-93 By KD
Further Action Needed:
Further Action Taken
Date By
Final Review and Data-Entry
Date 10-25-93 By KD
Claim Numbers of Split, If any:

Original to be mailed to Idaho Department of Water Resources
Copies to Former Owner and New Owner

THIS BLANK FURNISHED BY FIRST AMERICAN TITLE CO.

QUITCLAIM DEED

For Value Received Robert M. Brennan, a married man dealing with his sole and separate property

do hereby convey, release, remise and forever quit claim unto
Circle C Ranches Homeowners Association, Inc.
P. O. Box 1991, Sun Valley, ID 83353

the following described premises situated in ~~Blaine~~ Adams County, Idaho, to-wit:

Water Rights for use on the real property commonly known as the Circle C Ranch and legally described in Exhibit A attached hereto

1. Idaho Dept of Water Resources Water Right No. 78-04272, Priority Date of January 1, 1934.

Sources known locally as Frances Springs, Frances Creek, Johnny Creek, Haas Bottom Creek, Lais Creek, Trail Creek Springs and Unnamed Streams Tributary to Round Valley Creek and Round Valley Creek, Tributaries to Little Salmon River. Diversion Rate: 16.00.

2. Idaho Dept. of Water Resources Water Right No. 78-07083, Priority Date of August 28, 1969.

Source: Little Salmon River. Diversion Rate: 5.110.

3. Idaho Dept. of Water Resources Water Right No. 78-07031, Priority Date of September 28, 1972.

Source: Little Salmon River. Diversion Rate: 4.400.

4. Idaho Dept. of Water Resources Water Right No. A78-04272, Priority Date of April 15, 1934. Source: Trail Creek, Round Valley Creek, Frank's Spring, Frank's Creek, Johnny Creek, Valley Springs, Haas Bottom Creek, Lais Creek and Unnamed Streams. Diversion Rate: 15.660.

5. Idaho Dept. of Water Resources Water Right No. A78-07083, Priority Date of August 28, 1969.

Source: Little Salmon River. Diversion Rate: 5.110.

6. Idaho Dept. of Water Resources Water Right No. A78-10227, Priority Date of May 15, 1976.

Source: Groundwater for domestic use. Quantity: 0.040cfs.

7. Idaho Dept. of Water Resources Water Right No. A78-02011, Priority Date of July 18, 1908.

Source: Round Valley Creek, North Branch Tributary to Round Valley Creek, Round Valley Creek, West Branch Tributary to Round Valley Creek. Quantity: 1.600 cfs/160 acre feet per annum.

together with their appurtenances.

Dated: September 20, 1993

Robert M. Brennan

STATE OF Idaho COUNTY OF Blaine
On this 20th day of September, 19 93, before me, a notary public in and for said State, personally appeared

Robert M. Brennan

known or identified to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

Notary Public

residing at Hailey
Commission Expires: 4-11-99

INSTRUMENT NO. 84805
State of Idaho) ss.
County of Adams)

Filed for record at the request of
Timberline Title & Escrow
02 min. past 11 o'clock A.M.
this 24 day of Sept., 1993
MICHAEL FISK, RECORDER
by Sarah Williams Deputy

Indexed

Fee $ 6.00

NOV-28-91 MON 14:33 ADAMS CT TITLE P.02

#84805

Circle C Ranch

Exhibit A

Township 20 North, Range 1 East, Boise Meridian, Adams County, Idaho
Section 2: Lots 3 and 4 (N½SW¼), S½W¼, W½SE¼, SW¼SW¼;

EXCEPTING all that portion lying East of U.S. Highway 95, and more particularly described as follows:

Commencing at the North ¼ Corner, which is also the NE corner of Government Lot 3 of said Section 2;

thence South 00°20'44" East along the East boundary of said W½ a distance of 4,056.43 feet to the NE corner of the SE¼SW¼ of said Section 2;

thence South 89°34'51" West along the North boundary of the said SE¼SW¼ a distance of 1,321.82 feet to the NW corner of the SE¼SW¼;

thence South 00°23'13" East along the West boundary of the said SW¼SW¼ a distance of 1,330.21 feet to the SE corner of the SW¼SW¼ of said Section 2;

thence South 89°22'59" West along the South boundary of said SW¼SW¼ a distance of 325.35 feet to a point on the Easterly right of way boundary of U.S. Highway 95;

thence traversing said Easterly right of way boundary North 02°41'13" West a distance of 404.20 feet; North 87°18'47" East a distance of 30.00 feet; North 02°41'13" West a distance of 684.82 feet; Northwesterly a distance of 843.01 feet along the arc of a curve to the right, having a radius of 1,807.55 feet, a central angle of 26°43'18" and a long chord which bears North 10°40'28" East, a distance of 835.39 feet; North 85°57'55" West a distance of 40.00 feet; North 24°02'05" East a distance of 1,850.89 feet; Northeasterly a distance of 169.77 feet along the arc of a curve to the left having a radius of 5,790.00 feet, a central angle of 01°40'48" and a long chord which bears North 23°13'01" East, a distance of 169.77 feet; North 67°35'23" West a distance of 10.00 feet; Northeasterly a distance of 1,200.96 feet along the arc of a curve to the left having a radius of 5,780.00 feet, a central angle of 11°54'04" and a long chord which bears North 16°27'35" East, a distance of 1,198.43 feet; North 10°30'34" East a distance of 404.37 feet to a point on the North boundary of said Section 2;

thence leaving said right of way boundary and running South 89°16'52" East along said North boundary a distance of 267.11 feet to the PLACE OF BEGINNING.

Section 3: S½N½, Lots 1, 2, 7 and 8 (N½ST), Lots 3 and 6 (NE¼SW¼).

Township 21 North, Range 1 East, Boise Meridian, Adams County, Idaho
Section 27: SW¼NE¼, SW¼, W½SE¼.

Section 28: S½NE¼, SE¼, S½NW¼.

Section 33: NE¼, NE¼NW¼, SW¼NW¼, S½.

Section 34: All.

Section 35: NW¼, W½NE¼, SE¼NW¼.

EXCEPTING the right of way of U.S. Highway 95, and the county road.