

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13627

Exam Date: 8/7/1998

1. Current Owner:
 DONNA HEFFNER 4811 MONTOUR RD EMMETT ID 83617 (208) 584-3383 And
 DONALD D HEFFNER 4811 MONTOUR RD EMMETT ID 83617 (208) 584-3383

2. Accompanied by: Unknown.
 Phone No:
 Address:
 Relationship to Permit Holder:

3. **SOURCE:**
 PAYETTE RIVER

TRIBUTARY:
 SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None.
 2. Other water rights with the same point-of-diversion: None

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

PAYETTE RIVER L4 (SW¼NE¼) Sec. 21, Twp 07N, Rge 01E, B.M. GEM County

Method of Determination: Location identified on field exam map is located within the described QQ using a digital PLSS layer.

2.

PLACE OF USE: STOCKWATER

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07N	01E	16															X		
07N	01E	21		X	X L 4														

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	
07N	01E	16															17.0		17.0
07N	01E	21		28.0	10.0 L 4														38.0

Total Acres: 55

Method of Determination: The permit was issued in 1995 and proof was submitted in 1996. Irrigation use was measured using 1992 – 2004 imagery. According to the photography little has changed in terms of irrigation use. There is a small acreage in the NW corner of the SWSE QQ that has been added to the irrigation use well after the BU period and field exam was completed. The new property owners should file a new water right to cover this use, since it cannot be recommended for license at this time.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.

X Indicate weir size/pipe as applicable.X Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.X Aerial Photo Attached (required for irrigation of 10+ acres).X 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
2 Raft pumps	Grundfos	15 x 2			

*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

2. Measurements: None taken during exam.

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method:

$$Q = \frac{8.8 * (\text{Efficiency}) * hp}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Efficiency = 0.70

Depth to water = 50 ft.

psi = 40-60

hp = 30

See attached theoretical sheet.

Theoretical = 1.13 cfs

Permit	1.20 cfs
B.U. Standard Allowance	1.10 cfs
B. U. Proof Fee	\$125 → 1.01 to 2.00 cfs
Theoretical Rate	1.13 cfs
License Recommendation	1.10 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 55.0 \text{ ac} \times 4.5 \text{ af/ac} = 247.5 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 1.10 \text{ cfs} \times 260 \text{ days} \times 1.9835 \text{ af / cfs} \times \text{d} = 567.3 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \mathbf{247.5 \text{ af}}$$

2. Volume Calculations for Other Uses: Stockwater use suggests 0.4 af for 10 cattle + 6 horses per admin memo #3.

**Maximum volume from surface water source is not identified per IDAPA 37.03.02 Rule 35.

G. NARRATIVE/REMARKS/COMMENTS

This field exam report was completed by IDWR Agent Patrick Kelly in November of 2017. The field exam file was reviewed for all of the information presented in the report.

A theoretical calculation was completed using information collected during the exam. 2 15 hp pumps were present on a raft off the Snake River. There is a 75 hp re-lift pump that is "not in use" according to exam report. Lift of 50 ft in exam notes matches topography estimate for the property. Pressure of 52 – 40 psi is recorded on field notes. All of this information suggests a theoretical flow rate of 0.98 to 1.30 cfs, for an average of 1.13 cfs. The beneficial use limit of 55 acres allows for a diversion of 1.10 cfs. It is reasonable to recommend the 1.10 cfs based on what was observed in the field, and standard limits authorized by the department.

Historical imagery was observed to measure the POU. 0.2 acres of irrigation are found in the NW SE of Section 21. However, because this is less than an acre it would not be recommended for licensing, and should not require a licensing amendment.

Land at the north end of the farm in the SWSE QQ appears to have been sold to a new owner. This area is clearly included in the field exam notes recorded in 1998. There are no other water rights associated with this land, so it should be assumed they are irrigated under this right. New property owners will be able to file a change of ownership to claim a split portion for their interest once the license is issued. There is approximately 1.5 acre field in the NW corner of the SWSE QQ that has been added sometime between 2004 – 2009. This is outside the development period and cannot be recommended for license.

Have conditions of permit approval been met? _____ Yes X No

- There is no evidence in the field exam report that a measuring device has been installed. A letter will be sent requesting evidence of such a device is in place, or a waiver from the watermaster is received.

Condition for measuring device was subsequently met on March 25, 2024. See photos and installation receipts in back file. Jf

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER	01/01 to 12/31	0.01 CFS	
IRRIGATION	03/15 to 11/15	1.10 CFS	

Totals: 1.110 CFS

2. Recommended Amendments

_____ Change P.D. as reflected above _____ Add P.D. as reflected above X None

_____ Change P.U. as reflected above _____ Add P.U. as reflected above X None

I. AUTHENTICATION

Field Examiner's Name Patrick Kelly Date 11-24-2017

Reviewer [Signature] Date 4/4/2024

THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 65-13627
 Reviewer: Patrick Kelly
 Date of Review: 11/21/2017

P/D No.:	Scenario 1	Scenario 2	Scenario 3
PUMP HORSEPOWER	30	30	30
BOOSTER HORSEPOWER	0	0	0
PUMPING LEVEL	50	50	50
DISCHARGE PRESSURE	40	50	60
RATE OF FLOW (cfs)	1.30	1.12	0.98 1.13

The above calculates the formula =
$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency.
 No Friction

Examiners Notes:

2 15 hp pumps were found on site during field exam. Lift was estimated using a topographic map and estimated during exam. A range of discharge pressures were used based on suspected lift pressures (40 - 60 psi). Notes found in field exam file suggest a pressure of 40 psi. Average theoretical flow rate is 1.13 cfs.

DATE: 10/29/92

RIVER: Payette River

INTERSECTION NAME: Heffner, Don

POINT OF DIVERSION: T7N R1E Sec. 21, Lot 4 (SESWNE)

ACCESS: Vehicle - South side of Highway 52, take main road towards
Montour off 52 then turn right at Heffner residence/farm driveway
before Montour bridge. Walk downhill toward river to pumps.

MAP: Montour NE
(name)

W8
(number)

MASTER CONTROL: YES X NO

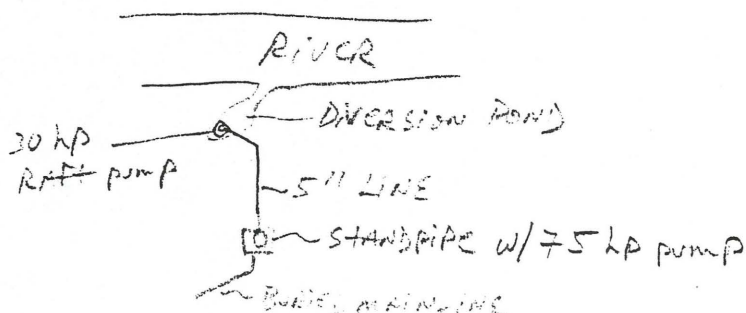
DIVERSION DESCRIPTION: 30 HP Uniclosed electric motor and Jacuzzi
centrifugal suction lift pump sits on raft in small channel/pond
off river. Raft pump lifts water about 50 ft. uphill thru 5 inch
diameter pipeline to an aluminum corrugated standpipe which sits
underneath a 75 HP US Electric motor and unknown type pump. From
standpipe, water is pumped to buried mainline and place of use.

MEASUREMENT: None at either pump. Appears to be one electric power
meter for both pumps. IPCO power box/pole no. = 698
Eqn. at raft pump: consider lift to standpipe & second/larger
head only, no pressure head or friction losses

$$Q = (0.7) (8.81) (30) / 50 = 3.70 \text{ cfs.}$$

$$Q = 1.94 \text{ cfs with 3 ft. suction lift and 40 psi at pump}$$

CURRENT WATER RIGHTS: No rights found to match this point of
diversion. Place of use or irrigated acreage not determined during
diversion inventory.



GPS

B/U EXAM SCHEDULING PHONE MEMO

DATE _____

NAME: Heffner
PHONE #: 584 3383

WELL OR PUMP INFO
CASING:
HP:
SWL:
PWL:
SET DEPTH:
PSI:

ACRES IRRIGATED:

SPRINKLER INFO
LINE DIA:
HEADS:
NOZZLE SZ:

STOCK:

DOMESTICS:

OTHER USES:

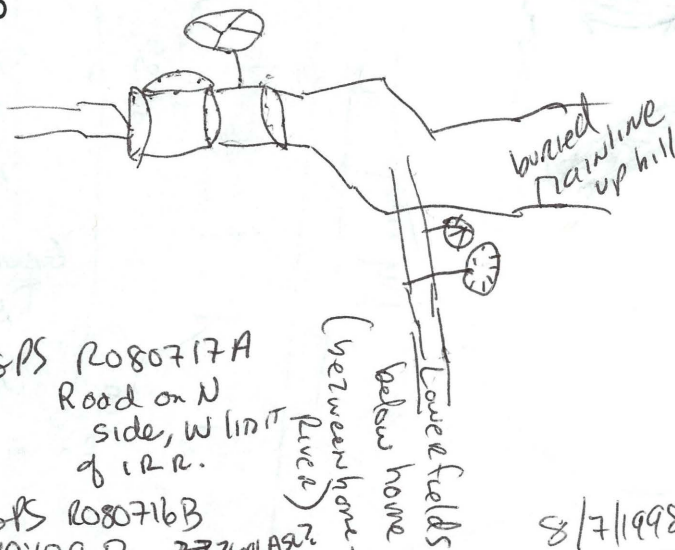
OTHER RIGHTS:

(FOR BS63 GROUND WATER) SURFACE WATER USED?:

DIRECTIONS:

Photo 10: P/D

11: Old booster location
Pressure gauge



PERMIT # 65-13627

12: POU btw driveway + river
13: Old mainline coming up from underground on hill

8/4/1998

Sheryl Howe, IDWR

Power records to calculate diversion

* Home on same outlet?
Will Fax her diversion info.

8/7/1998

* GPS File R080714A
9:00 a.m. P/D

GPS File 2316 ft ASL?

* GPS File R080715A
9:48 a.m.

2923 ft ASL?

#4811 = Trail Boxes

Big Blue Silo @ house

Hwy 52 toward Portland

1 mile

Turn RT, 1/4 mile

Before river bridge

8" + 4" mainline pipes from P/D to mainline. One or both @ once

2 is HP submersible. Larger mainline is no longer used. (Sometimes still used)

Booster no longer used. To mainline @ location of old booster,

Pressure gauge @ 52 psi

→ still available per owner

EXAM DATE/TIME: 08/07/1998

EXAMINER TTTINICUCCI
C. Bird

Roll 2

- 1: Pos from corner looking toward POV + River
- 2: " "
- 3: " "
- 4: " "
- 5: Inset
- 6: GPS site 16B Riverin background

NORTH

Toward house

8/7/1998

Line 1 run
parallel w/ Road
+ River

(2) 15 HP subn

Also available
30 or 40 HP
850 gpm

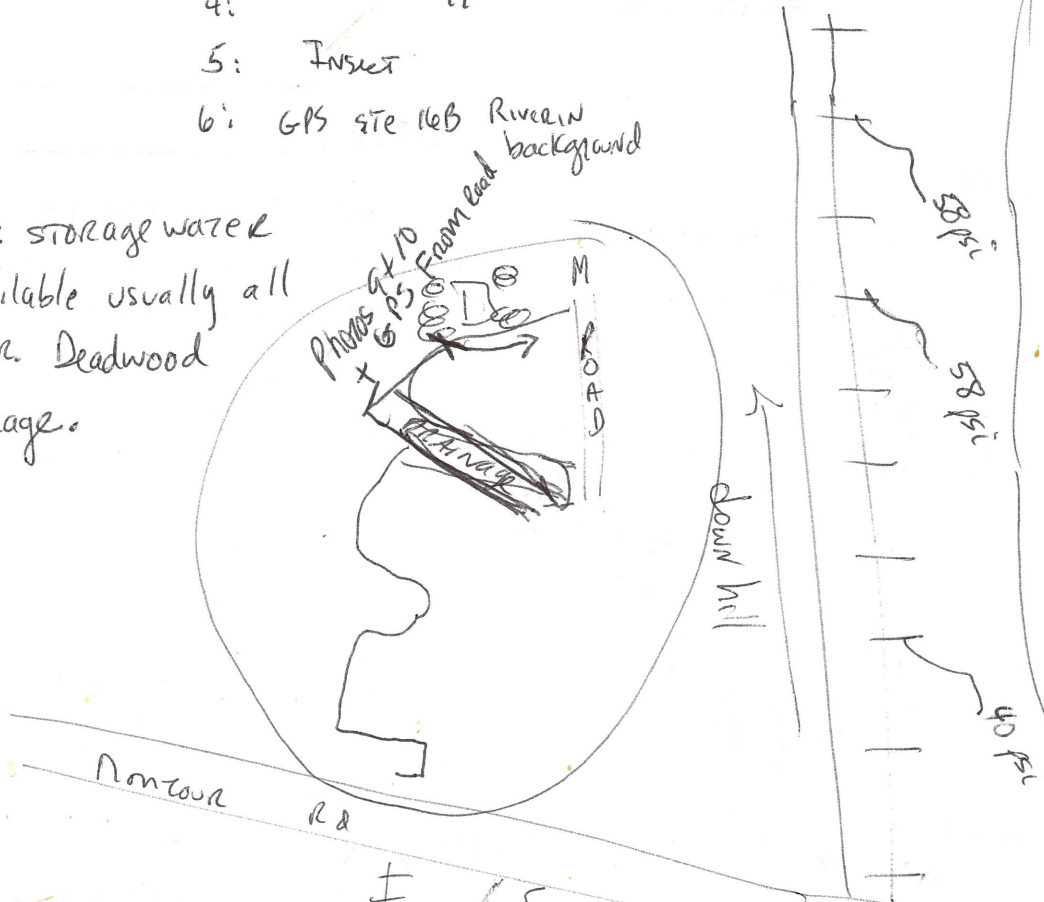
Use booster
with these
75 HP.

NOT RUNNING NOW

Grundfos
Model 230S

1/8 Nozzles
Assorted
brands

Has storage water
Available usually all
year. Deadwood
Storage.

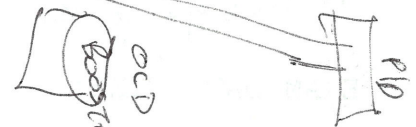


HLL

Northwest boundary
of irr. is hillside



Big Hill





State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000

Phone: (208) 327-7900 FAX: (208) 327-7866

PHILIP E. BATT
GOVERNORKARL J. DREHER
DIRECTORFACSIMILE COVER SHEETDate: 4 AUGTo: MARIA M. From: SHERYL HOWEDocument description: HEFFNER DIVERSION DATA FOR '97 & '96Cover sheet + 1 pagesPlease contact 327-7990 if there is a problem with the transmittal.

4-AUG-98

13248975 D HEFFNER
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1996 TO OCTOBER 1997
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
2	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
3	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
4	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
5	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
6	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
7	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
8	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
9	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
10	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
11	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
12	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
13	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
14	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
15	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
16	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	3.7
17	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	0.0
18	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	0.0
19	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	0.0
20	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	0.0
21	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	0.0
22	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	0.0
23	---	---	---	---	---	0.0	0.8	1.5	1.5	3.7	3.7	0.0
24	---	---	---	---	---	0.0	0.8	1.5	3.8	3.7	3.7	0.0
25	---	---	---	---	---	0.0	0.8	1.5	3.8	3.7	3.7	0.0
26	---	---	---	---	---	0.0	0.8	1.5	3.8	3.7	3.7	0.0
27	---	---	---	---	---	0.0	0.8	1.5	3.8	3.7	3.7	0.0
28	---	---	---	---	---	0.0	0.8	1.5	3.7	3.7	3.7	0.0
29	---	---	---	---	---	0.0	0.8	1.5	3.7	3.7	3.7	0.0
30	---	---	---	---	---	0.0	0.8	1.5	3.7	3.7	3.7	0.0
31	---	---	---	---	---	---	0.8	---	3.7	3.7	---	0.0
TOTAL						0	25	45	65	115	111	59
MEAN						0.0	0.8	1.5	2.1	3.7	3.7	1.9
MAX						0.0	0.8	1.5	3.8	3.7	3.7	3.7
MIN						0.0	0.8	1.5	1.5	3.7	3.7	0.0
AC-FT						0	49	89	128	228	220	117

IRRIGATION YEAR 1997 TOTAL 419 MEAN 1 AC-FT 831

08/04/98

14:50

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ID WATER RESOURS +--+ WESTERN

002

4-AUG-98

13248975 D HEFFNER
DISCHARGE, CUBIC FEET PER SECOND, IRRIGATION YEAR NOVEMBER 1995 TO OCTOBER 1996
MEAN VALUES

DAY	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
2	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
3	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
4	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
5	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
6	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
7	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
8	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
9	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
10	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
11	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
12	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
13	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
14	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
15	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	3.8
16	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	0.0
17	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	0.0
18	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	0.0
19	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	0.0
20	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	0.0
21	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	0.0
22	---	---	---	---	---	0.0	0.8	1.5	1.5	3.8	3.8	0.0
23	---	---	---	---	---	0.0	0.8	1.5	3.8	3.8	3.8	0.0
24	---	---	---	---	---	0.0	0.8	1.5	3.8	3.8	3.8	0.0
25	---	---	---	---	---	0.0	0.8	1.5	3.8	3.8	3.8	0.0
26	---	---	---	---	---	0.0	0.8	1.5	3.8	3.8	3.8	0.0
27	---	---	---	---	---	0.0	0.8	1.5	3.8	3.8	3.8	0.0
28	---	---	---	---	---	0.0	0.8	1.5	3.8	3.8	3.8	0.0
29	---	---	---	---	---	0.0	0.8	1.5	3.8	3.8	3.8	0.0
30	---	---	---	---	---	0.8	0.8	1.5	3.8	3.8	3.8	0.0
31	---	---	---	---	0.0	---	1.5	---	3.8	3.8	---	0.0
TOTAL					0	1	25	45	67	118	114	57
MEAN					0.0	0.0	0.8	1.5	2.2	3.8	3.8	1.8
MAX					0.0	0.8	1.5	1.5	3.8	3.8	3.8	3.8
MIN					0.0	0.0	0.8	1.5	1.5	3.8	3.8	0.0
AC-FT					0	2	51	89	133	234	226	113

IRRIGATION YEAR 1996

TOTAL

427

MEAN

1

AC-FT

847

08/04/98

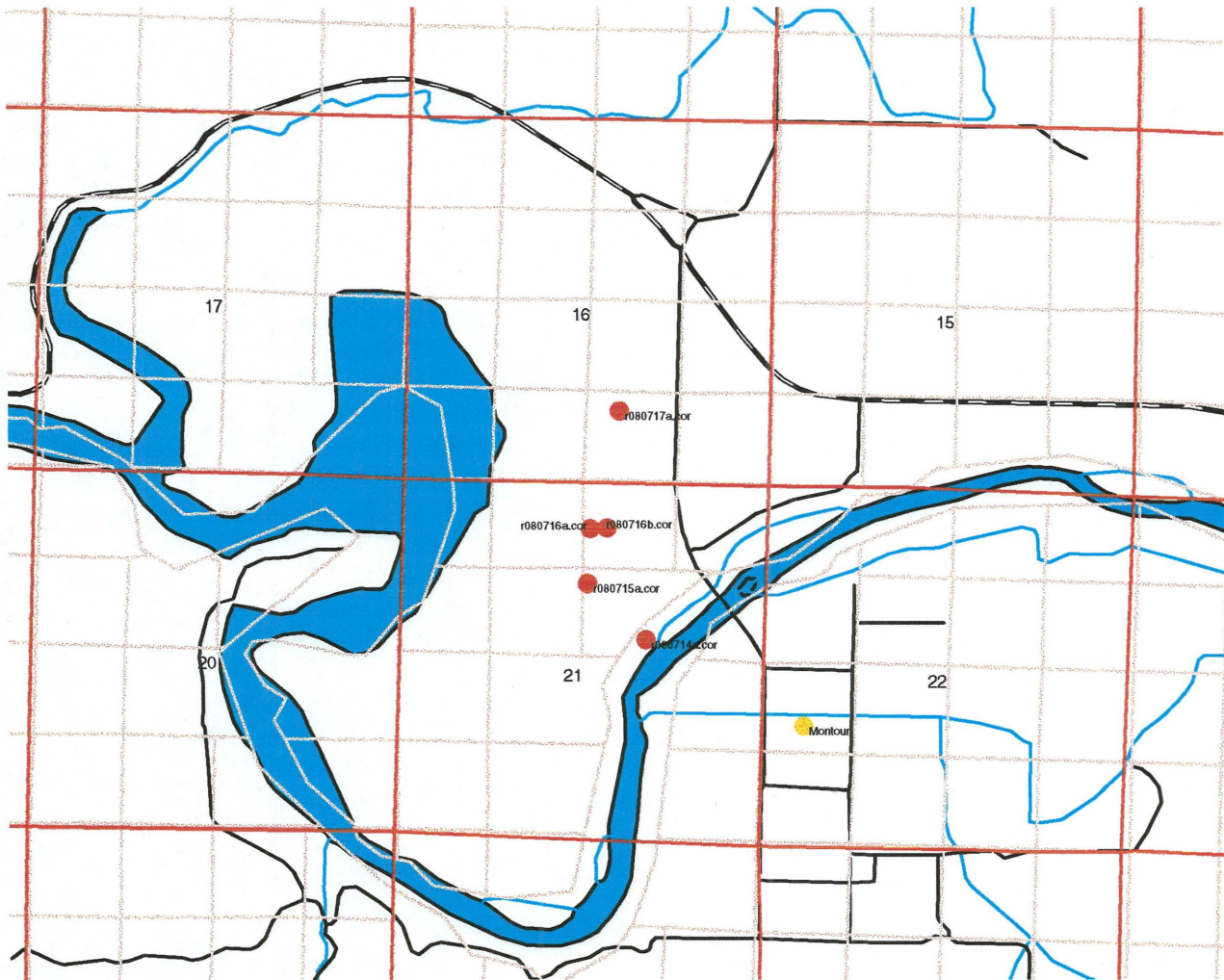
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ID WATER RESOURS --> WESTERN

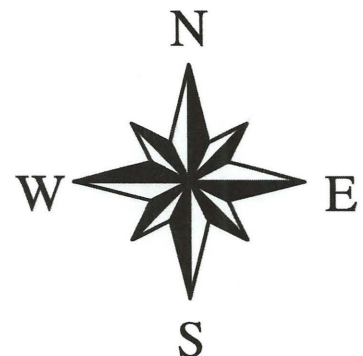
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Cindy Bird, 8/7/98 gps points

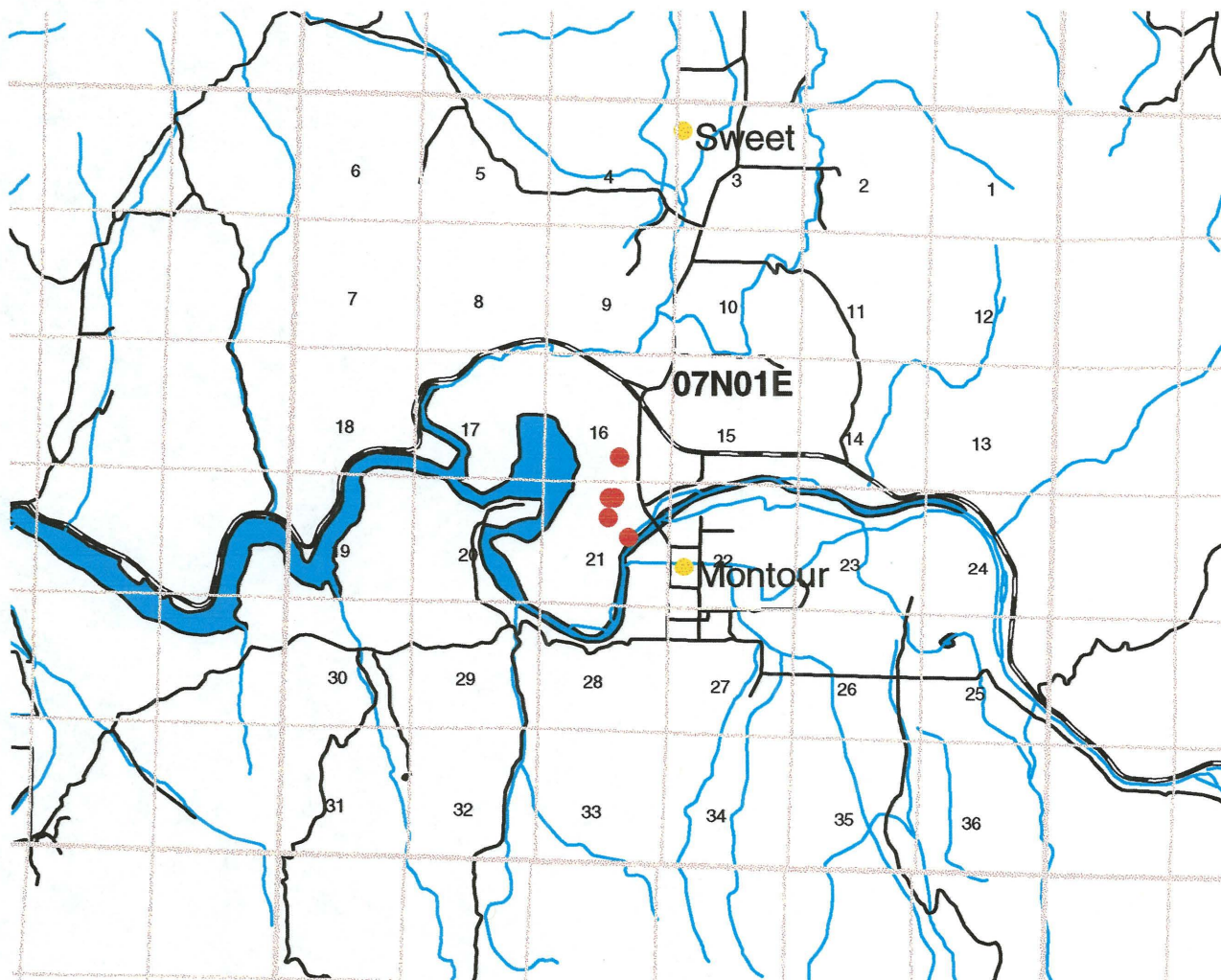


0.5 0 0.5 1 1.5 2 2.5 Miles

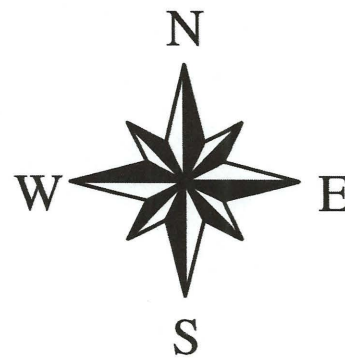
- Cb980807.txt
- ▭ Tandr.shp
- ▭ Plss.shp
- ▭ Gemqq
- Cities.shp
- Boisrds.shp
- ∧ -99999
- ∧ 172
- ∧ 173
- ∧ 174
- ∧ S7050122.shp
- B7050122.shp

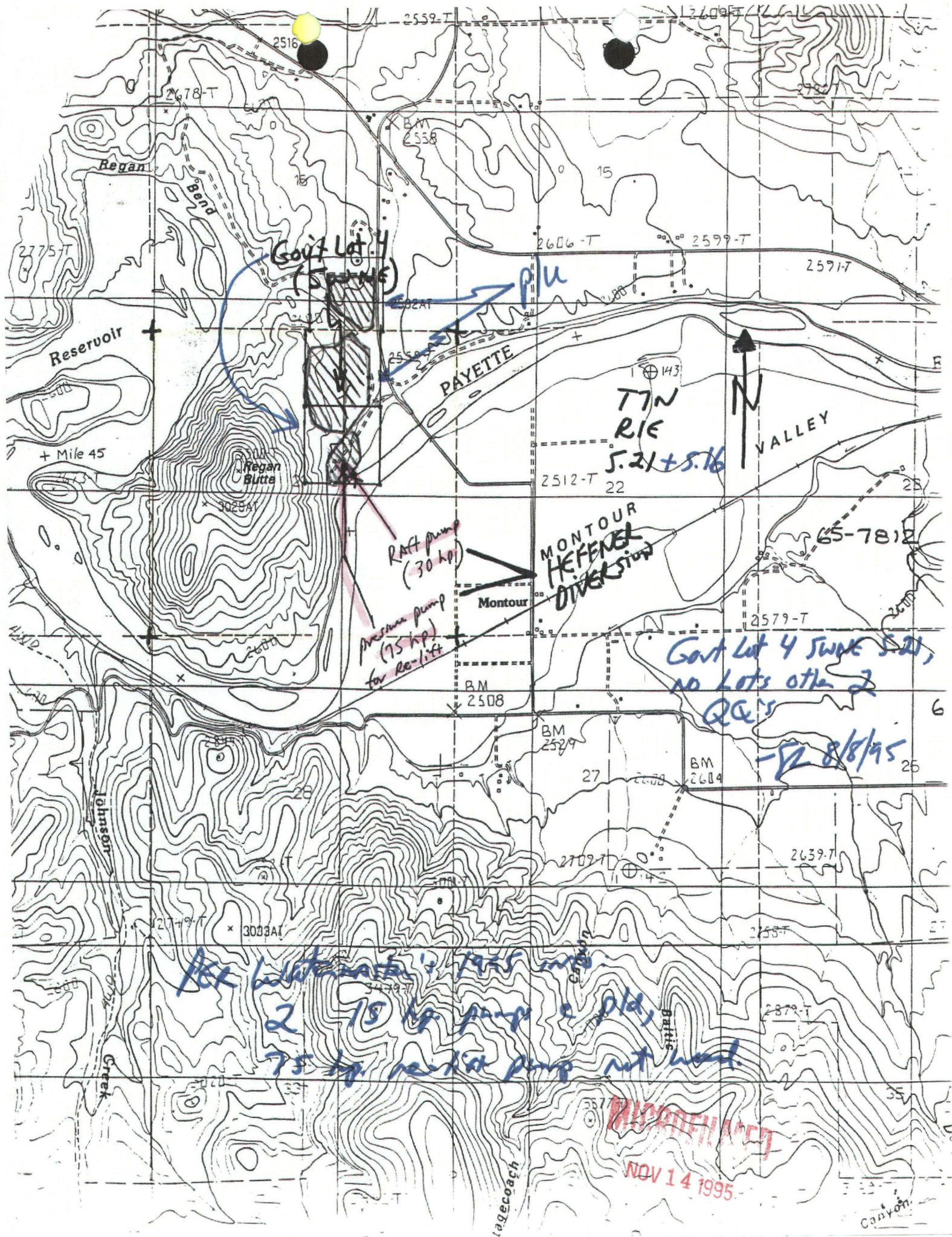


65-13627



- Cb980807.txt
- Tandr.shp
- Plss.shp
- Cities.shp
- Boisrds.shp
- ▲ -99999
- ▲ 172
- ▲ 173
- ▲ 174
- ▲ S7050122.shp
- B7050122.shp







Roystone
Hot Springs

Regan
Bend

Reservoir

PAYETTE

VALLEY

MONTOUR

Montour

Johnson
Creek

Canyon

Battle

2591AT

2601-T

2516AT

2678-T

890-T

BM
2538

2782-T

2539-T

2571-T

2592AT

2552-T

3300-T
Regan
Butte

3028AT

21

23

27

BM
2529

BN
2524

2611-T

28

2721-T

3033AT

3001-T

2709-T

2753-T

2879-T

W8(197

T7NR1E
S16
S21



Lower POU



Old mainline rising on
side of hill



POD

2 15 hp submersibles



Booster – Not used.