

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 43-7188

Exam Date: 9/16/2014

1. Current Owner: UNITED STATES OF AMERICA ACTING THROUGH USDA FOREST SERVICE
2647 KIMBERLY RD
TWIN FALLS ID 83301
(208) 737-3200

2. SOURCE

SPRING

TRIBUTARY

SINKS

B. OVERLAP REVIEW

1. Other water rights with the same place of use: SRBA decreed right 43-11193, with an 1880 priority date, is from the same spring for stockwater use at the same location (prior to development of the trough).
2. Other water rights with the same point of diversion: SRBA decreed right 43-11193, with an 1880 priority date, is from the same spring for stockwater use at the same location (prior to development of the trough).

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

SPRING

NE1/4NE1/4SW1/4

Sec. 27, Twp 12S, Rge 29E, B.M.

CASSIA County

Method of Determination: GPS, aerial photography, and site investigation

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	
12S	29E	27									X								

Method of Determination: GPS, aerial photography, and site investigation

D. FLOW MEASUREMENTS

Not required for permits with irrigation of less than five (5) acres or permits with the total combined diversion rate for all the uses established in connection with the permit not exceeding twenty-four one hundredths (0.24) cubic feet per second per new Beneficial Use Examination Rules implemented 3/29/2012. At the time of the field inspection (September 16) the spring was dry and there was no water flowing into the trough.

E. FLOW CALCULATIONSHazen-Williams Formula

$$V = 1.318 \times C_h \times R^{0.63} \times S^{0.54}$$

V = Velocity (ft/s)

C_h = Hazen-Williams Friction Coefficient = 130 (for old/plastic pipe)

R = Hydraulic Radius = Cross Sectional Area / Wetted Perimeter = D/4 (for round pipes)

for 1.25" dia pipe D = 1.25" = 0.104 ft (1982 Range Water Development Inventory sheet indicates that 1.25" plastic pipe was used)

$$R = 0.104/4 = 0.02604$$

S = h_f/L = Slope of Energy Grade Line = 0.111 (estimated from field observation based on estimated five foot elevation difference and 45 foot distance between spring and trough)

$$V = 1.318 \times 130 \times (0.02604)^{0.63} \times (0.111)^{0.54}$$

$$V = 5.25 \text{ ft / sec}$$

$$Q = VA \text{ where } A = \pi r^2 = \pi (.625/12)^2 = 0.008522 \text{ ft}^2 \text{ for 1.25 inch diameter pipe}$$

$$Q = (5.25 \text{ ft/ sec})(0.008522 \text{ ft}^2) = 0.045 \text{ cfs}$$

Rate exceeds permitted amount of 0.02 cfs, therefore use permitted rate of 0.02 cfs

F. VOLUME CALCULATIONS

Not required for 42-111 type domestic uses per new Beneficial Use Examination Rules implemented 3/29/2012. Stockwater use can be considered a "part a" domestic use (up to 13,000 gpd).

G. NARRATIVE/REMARKS/COMMENTS

Application for Permit 43-7188 was filed on January 18, 1983 by the United States Forest Service (USFS) for the diversion of 0.02 cfs from Van Camp Spring (tributary to sinks) for stockwater use north of Sublett Reservoir. Permit 43-7188 was approved on June 21, 1984 and Proof of Beneficial Use was filed on March 7, 1985. On September 16, 2014, I conducted the licensing exam for permit 43-7188.

The system consists of a developed spring with a buried pipeline serving a single trough located approximately 45 feet down the drainage. A copy of a 1982 document in the IDWR field exam file, titled "Range Water Development Inventory" (apparently obtained from the USFS) indicates that 45 feet of 1.25 inch diameter plastic pipe was buried from the spring to the trough. At the time of the exam, the spring was dry and there was not any water flowing into the trough. An estimate of the system capacity using the Hazen-Williams Formula indicates that the system could theoretically divert more than the permitted rate of 0.02 cfs. During the exam, it was noted that livestock trails appeared to lead to and from the trough location demonstrating likely stockwater use. It is recommended that license 43-7188 be issued as originally permitted.

A couple of items should be noted. SRBA decree 43-11193, with an 1880 priority date, appears to describe the same spring and stockwater use within the same tract. Initially it was proposed to void permit 43-7188 since it did not appear that any additional use was developed in this 40 acre-tract. After discussing the matter with Steve Spencer of the USFS, it was decided to go ahead and license right 43-7188 based on previous IDWR licensing actions in other regions, where the USFS had an old SRBA decree for stockwater use and a more recent administrative (permit) filing with IDWR for stockwater use from the same spring. Apparently, the logic is that the SRBA decree (in this case with an 1880 priority date) is for stockwater use out of the undeveloped spring, and the more recent permit filing is for the development of a trough from the same spring. The IDWR database lists the "USDA Forest Service Boise National Forest" as the current owner of permit 43-7188, but per Steve Spencer's direction (see 9/29/2014 e-mail) it was decided to issue license 43-7188 with a current owner of...

UNITED STATES OF AMERICA ACTING THROUGH USDA FOREST SERVICE
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Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

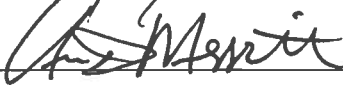
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER	6/01 to 9/30	0.020 CFS	N/A
<u>Totals:</u>		0.020 CFS	N/A

2. Recommended Amendments

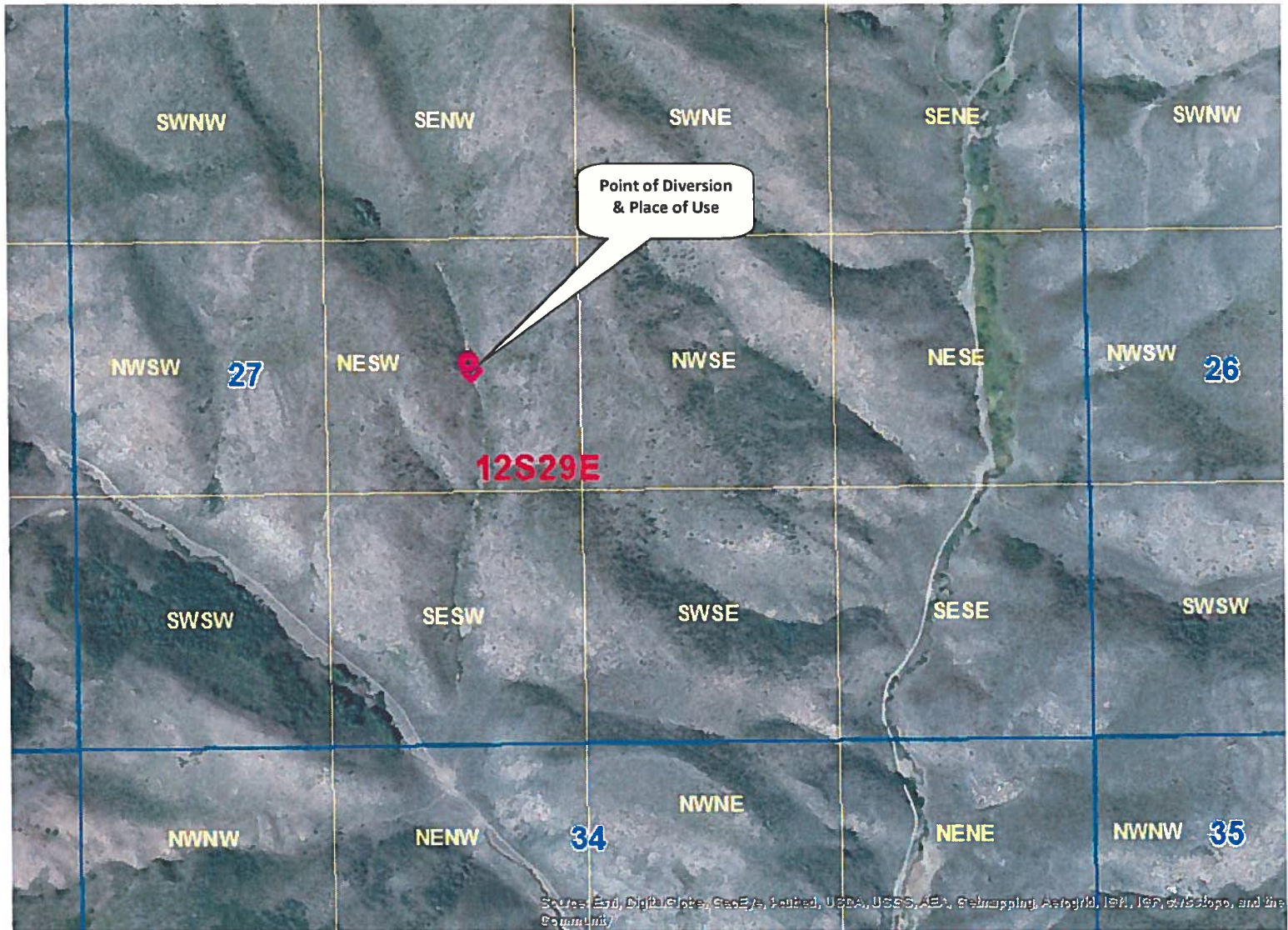
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name  Date 10/6/2014

Reviewer  Date 10/6/14

43-7188 Point of Diversion & Place of Use Map ESRI Imagery



43-7188 Point of Diversion & Place of Use Photo



Remarks 427 head of cattle are allowed in this unit for 30 days between 6/16 and 9/30 if extensions are allowed. Van Camp Creek, Sublett Res. Fir Grove Spring, South Fork Van Camp pond, Lake Fork Creek are other sources used by the same cattle during the same period of use.

SCHMATIC DIAGRAM OF SYSTEM

(Include distance from pump to measuring device, if applicable.)

Point(s) of diversion: NESW 527 T12S R29E Cass Co.

Place(s) of Use

TWP.	RGE.	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
12S	29E	27									5								

Recommended Amendments:

☐ Change P.D. as reflected above

☐ Add P.D. as reflected above

☒ None

☐ Change P.U. as reflected above

☐ Add P.U. as reflected above

☐ Other

Examiner's Signature *[Signature]* Dr. Terry Blum

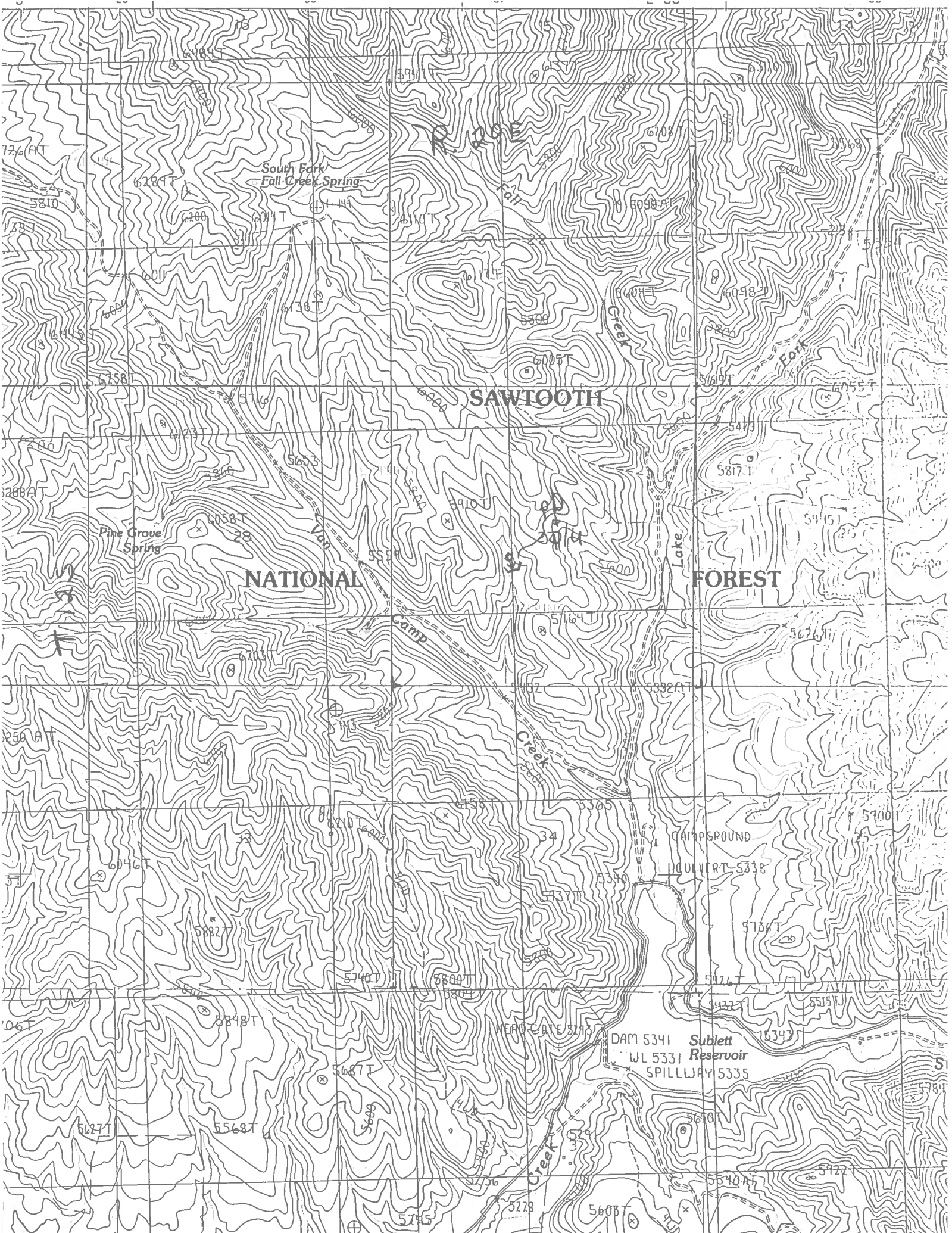
Checked by _____

Approved by _____

Date 8/20/90

Date _____

Date _____



RANGE WATER DEVELOPMENT INVENTORY

FY 1982

PROJECT No Fork Van Camp

MAINTENANCE/CONSTRUCTION/RECONSTRUCTION

ALLOTMENT Lake Fork

DATE COMPLETED Aug. 11, 1982

1. CONDITION:

- A. Headbox New
- B. Pipeline New
- C. Trough New
- D. Fence none
- E. Escape Ramp needed? (Game Bird - Small Game) provided

2. REPAIRS NEEDED OR COMPLETED:

3. MATERIALS NEEDED OR USED:

Trough, Type <u>fiberglass</u>	Size <u>1/2 Round 10'</u>	@ \$	\$ <u>155.00</u>
Posts <u>6 wood</u>		@ \$	\$ <u>15.30</u>
Poles <u>3</u>		@ \$	\$ <u>7.65</u>
Pipe, Type <u>plastic</u>	Size <u>1 1/4" x 45' x 80psi</u>	@ \$	\$ <u>10.35</u>
Overflow <u>Complete</u>		@ \$	\$ <u>25.00</u>
Headbox, Type <u>plastic</u>	Size <u>20" x 30"</u>	@ \$	\$ <u>80.00</u>
~~Pipe, Type plastic~~	~~Size 1 1/2" x 15' x 80psi~~	@ \$	\$ <u>3.90</u>
~~framing material~~		@ \$	\$ <u>10.00</u>
~~stand pipe complete~~		@ \$	\$ <u>15.00</u>
~~Bells, logs & misc~~		@ \$	\$ <u>8.00</u>
<u>total materials</u>			\$ <u>330.20</u>

4. COST OF JOB COMPLETED OR NEEDED:

Man Hours <u>Laverne Tracy 13 hrs</u>	@ \$ <u>9.07</u>	\$ <u>117.91</u>
<u>Connie Ostler 8 hrs</u>	@ \$ <u>4.51</u>	\$ <u>36.08</u>
Per Diem <u>Margaret Gromley 8 hrs</u>	@ \$ <u>4.51</u>	\$ <u>36.08</u>
Mileage <u>60</u>	@ \$ <u>.32</u>	\$ <u>19.20</u>
Other	@ \$	\$ <u>209.27</u>

TOTAL COST TO FOREST SERVICE: \$ 539.47

PERMITTEE CONTRIBUTION:

Man Hours	<u>Rich Olsen for Ross Olsen 8 hrs</u>	@ <u>4.50</u>	\$ <u>36.00</u>
	<u>Olsen's 4x4</u>		\$ <u>25.00</u>
	<u>John Schorizman 4 hrs</u>	@ <u>4.50</u>	\$ <u>18.00</u>
	<u>Schorizman's 4x4</u>		\$ <u>25.00</u>
	<u>Merlin Atley, older American 8 hrs</u>	@ <u>3.35</u>	\$ <u>26.80</u>
	<u>Ryan Hall of ACC 8 hrs</u>	@ <u>3.35</u>	\$ <u>26.80</u>
Mileage			\$
Other Costs			\$
			\$
			\$
			\$
			\$

TOTAL PERMITTEE CONTRIBUTED COST: \$ 151.60
TOTAL COST OF PROJECT: \$ 487.80

Signature

Date

(Drawing on the Back)

It is possible to get to this trough with a 4x2 vehicle, But recommend a 4x4.

Drawing of development and/or change in development.

Headbox Location

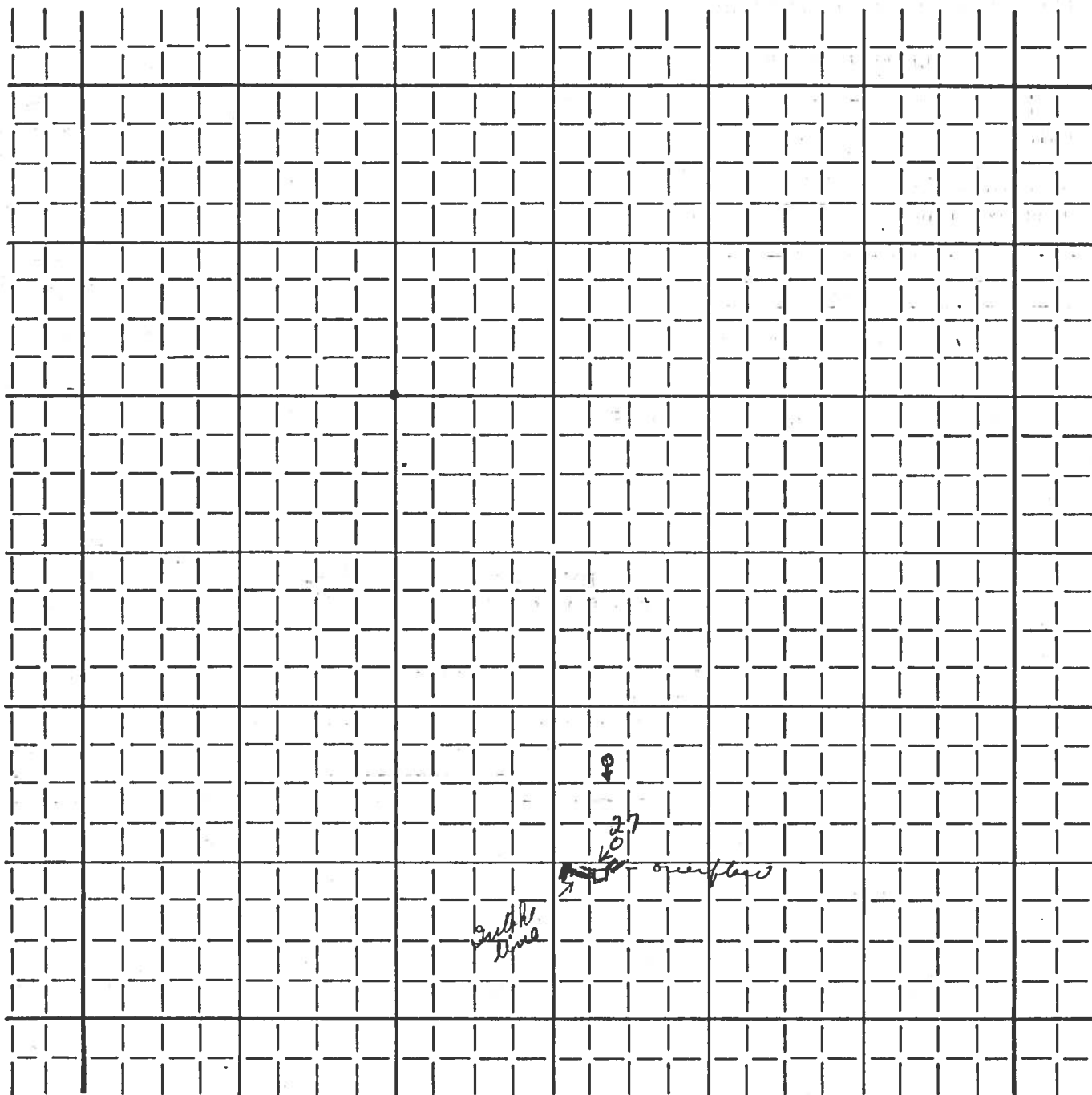
Trough Location

Length of Pipe 45'

Water flow - Gal/Min. 60

Water flow - Gal/Min.

Township 12 S Range 29 E Section 27



Scale: 1/2 inches equals one mile