

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

JUN 13 2003

DEPARTMENT OF WATER RESOURCES

A. GENERAL INFORMATION

Permit No. 85-07633

1. Owner: John R. Hagen
Polly S. Hagen

Phone No. (208) 935-2807

Current Address: Rt. 1 Box 763
Kamiah, ID 83536

2. Accompanied by: John R. Hagen

EXAM DATE: August 18, 2000

Address: See Above

Phone No. See Above

Relationship to Permit Holder: Permit Holder

3. Source: Lawyer Creek

tributary to: Clearwater River

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 85-07548
2. Other water rights with the same point of diversion: 85-07548

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident No.	Gov't Lot	¼	¼	¼	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
NA	10		SW	NW	12	33N	03E	Lewis	7½ min. topographical map

2. Place(s) of Use:

Indicate Method of Determination: 7½ min. topographical map

TWP	RGE	SEC	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
33N	03E	12							C										
33N	03E	12							3										3

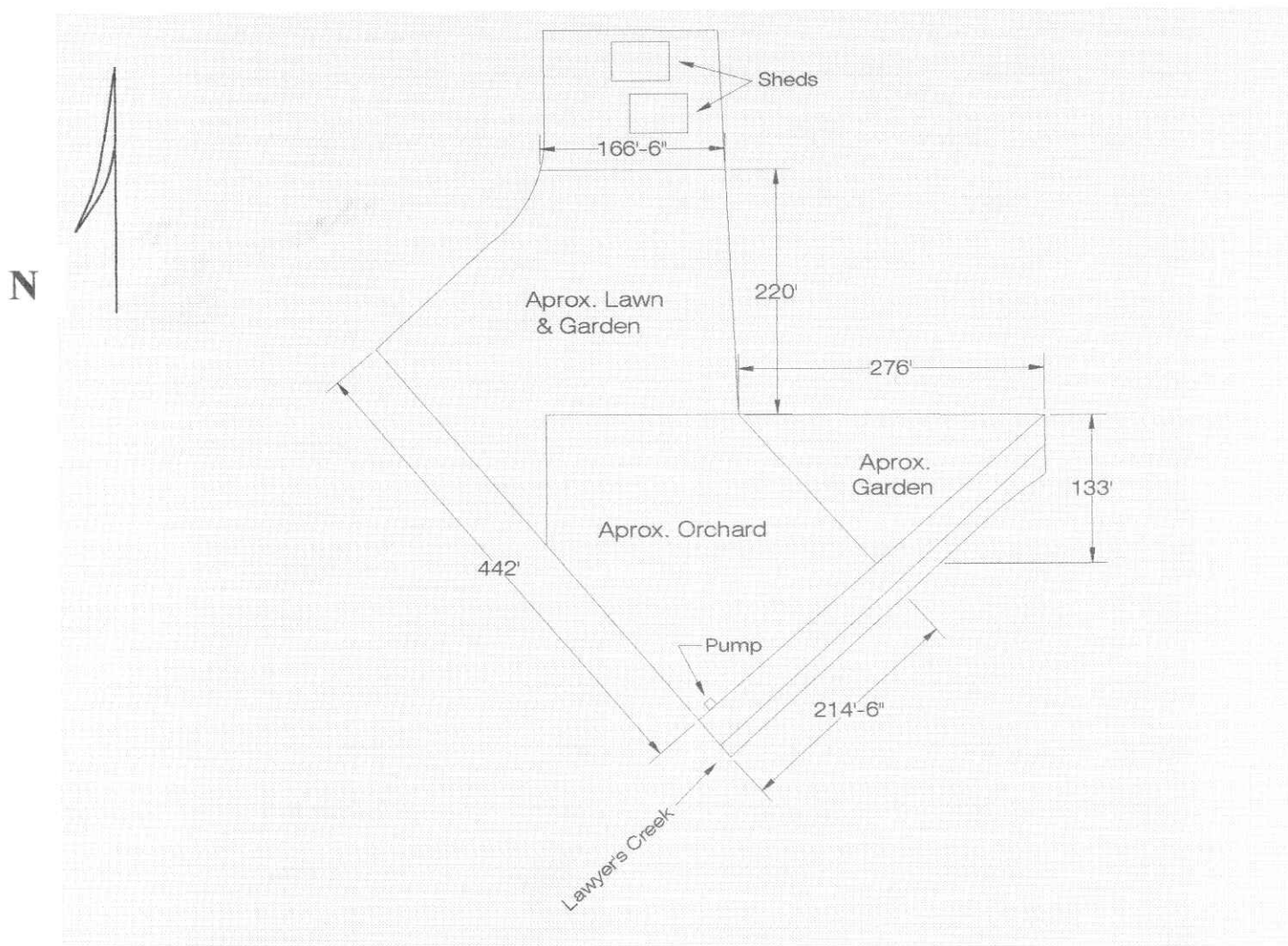
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3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable.

Irrigated Area

(Also see enclosed survey map.)

(Frost Control is only in Orchard Area)

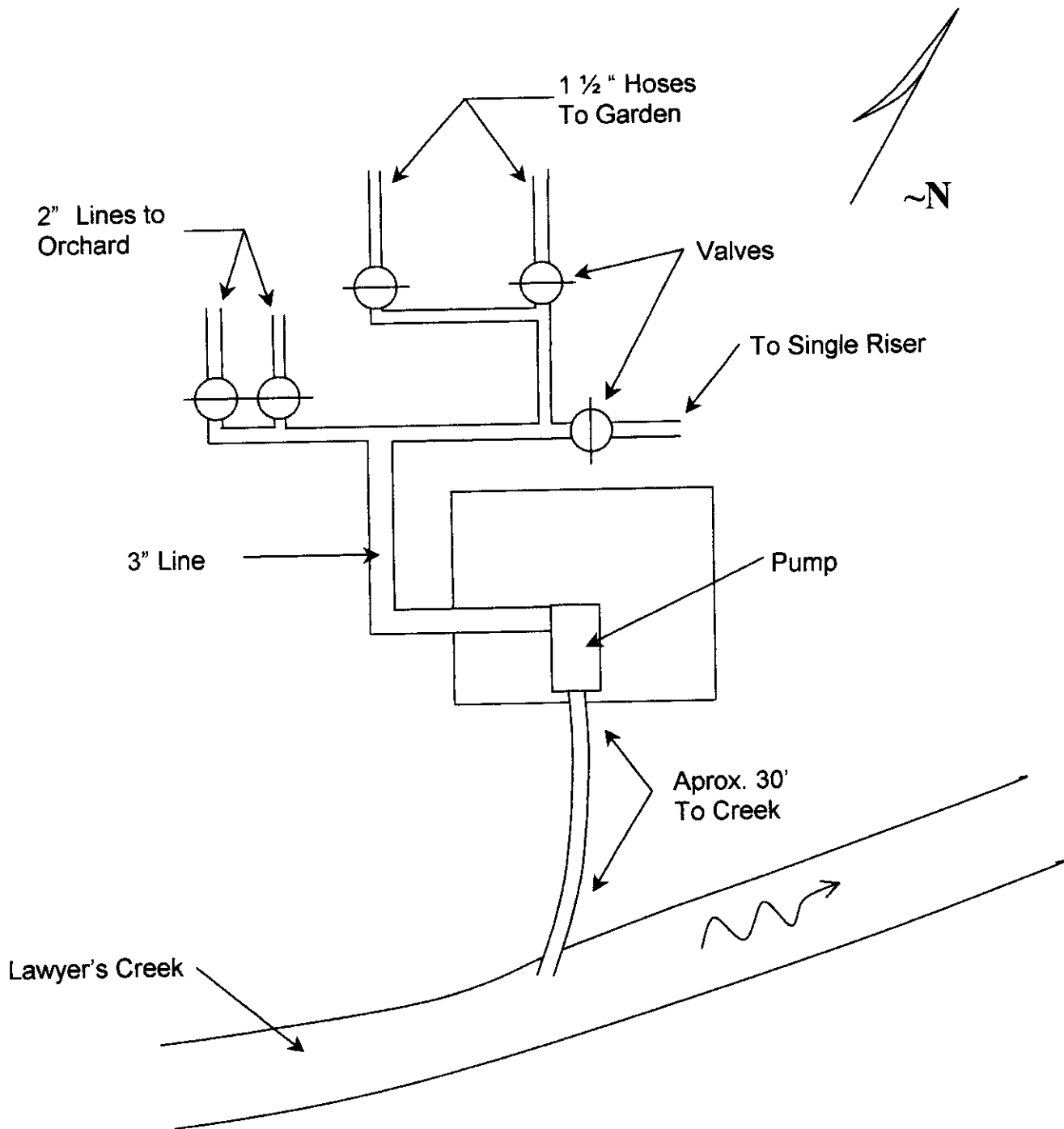


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Note: AutoCAD gives the irrigated area at approximately 3 acres.

Configuration at Pump



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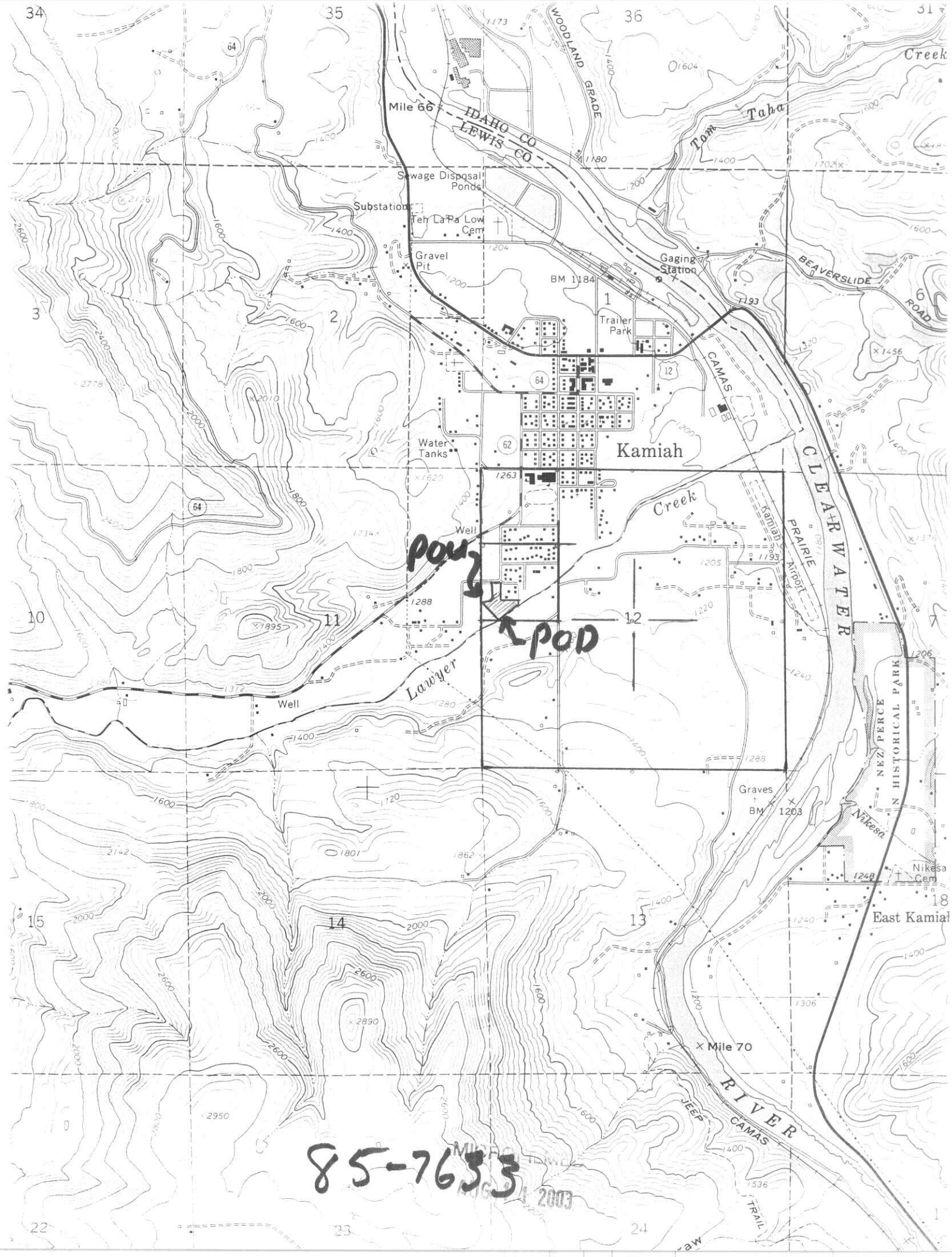
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Scale: 1" = Not To Scale.

Yes Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

No Aerial Photo Attached (required for irrigation of 10+ acres)

Yes Photo of Diversion and System Attached



85-7633

SWNW Twp 33N
Rge 3 E

SECTION

NICKEL

Sec 12
SW, NW

Sec 12
NW, NW

Sec 11
NE, NE

Sec 11
SE, NE

STORAGE BLDG 32'x52'

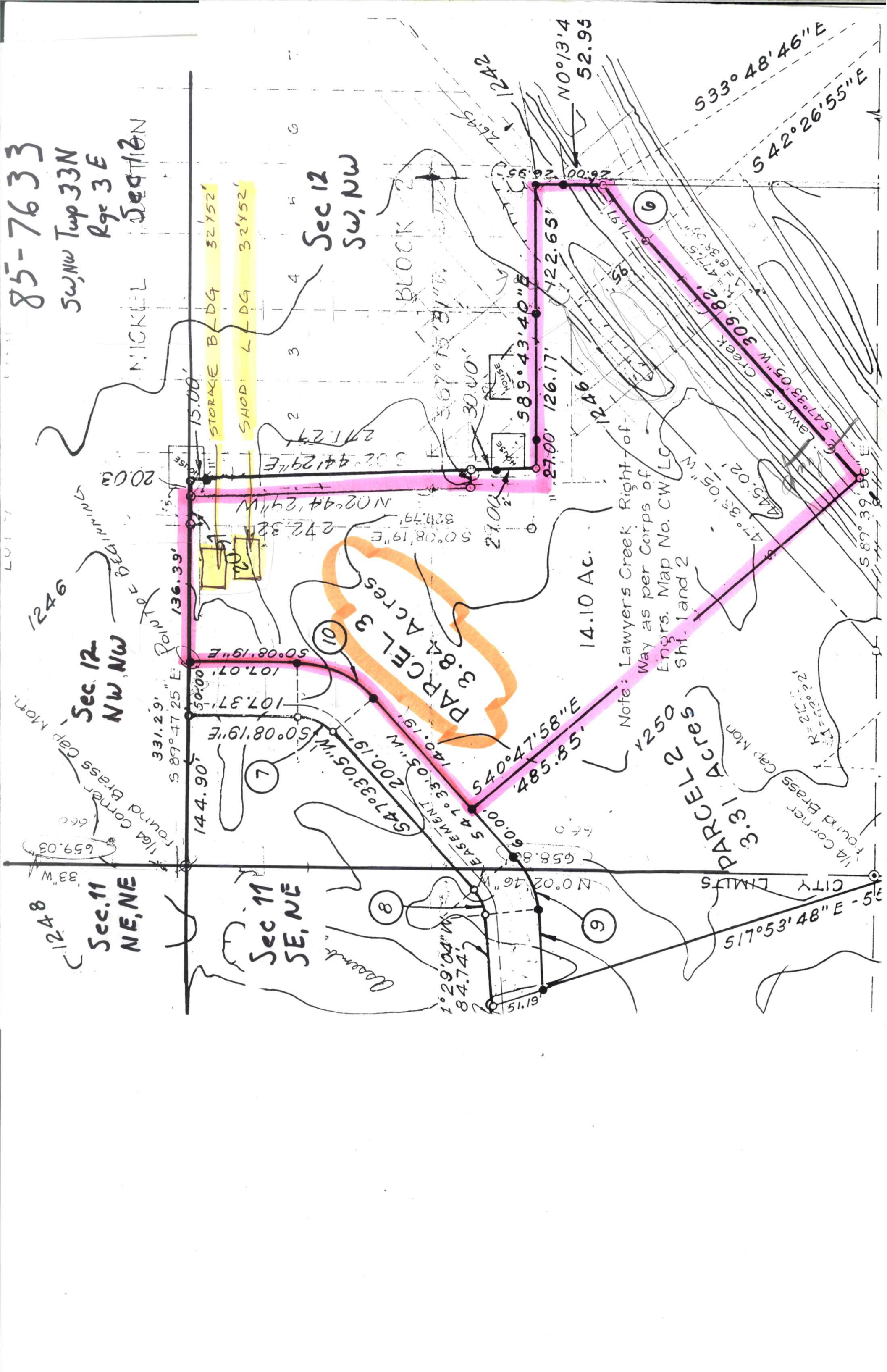
SHED 32'x52'

BLOCK 2

PARCEL 3
3.82 Acres

PARCEL 2
3.81 Acres

Note: Lawyers Creek Right-of-Way as per Corps of Engrs. Map No. CW-10 Sht. 1 and 2



85-07633



Photo 1. Showing Point of Diversion (POD).

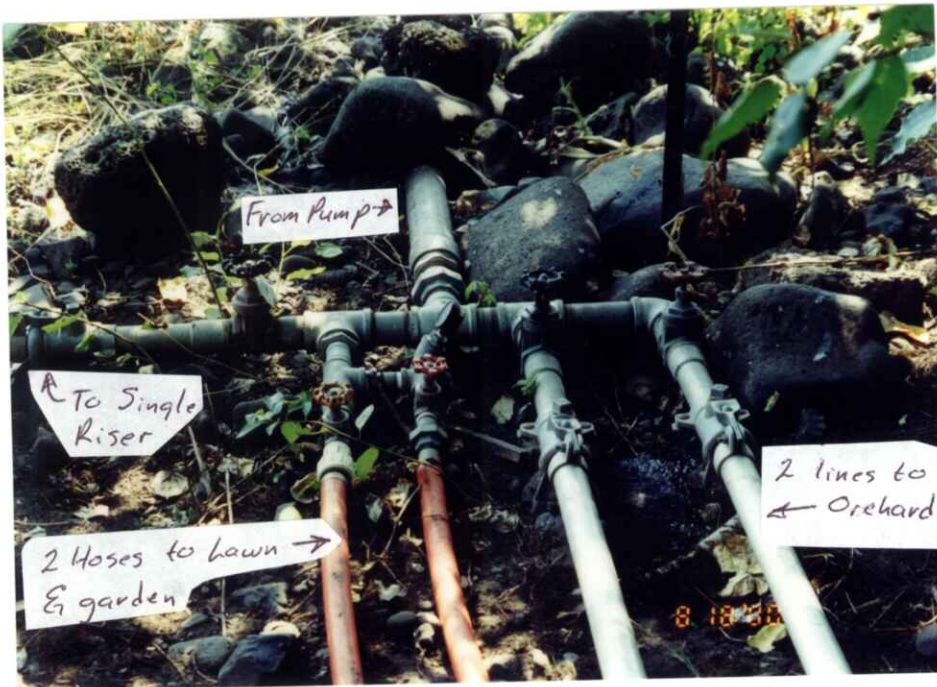


Photo 2. Showing System Division at Pump.

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Photo 3. Showing Place of Use (POU).



Photo 4. Showing Place of Use (POU).

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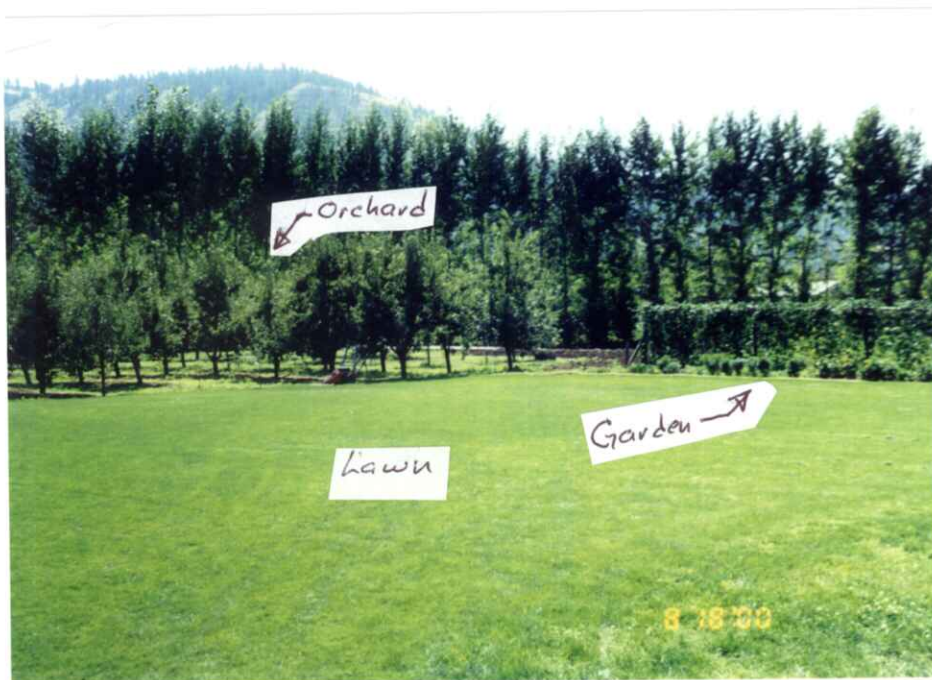


Photo 5. Showing Place of Use (POU).

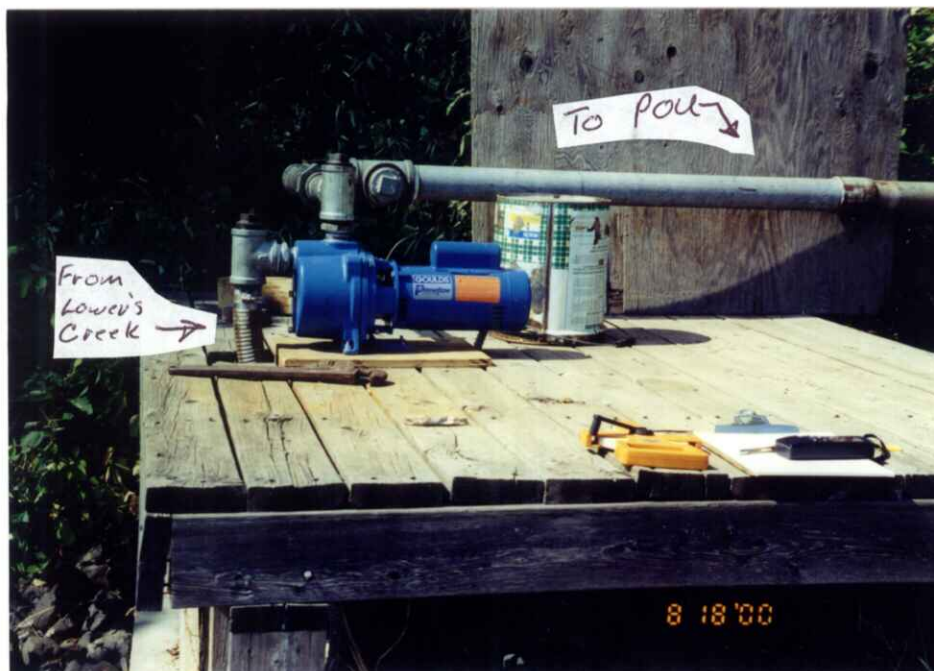


Photo 6. Showing Pump.

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4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	Gould	2		Gould	F9608972

* 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
5 Gallon Bucket					5 Gal	
Stopwatch	Wrist	Timex	Ironman			

2. Measurements:

A five (5) gallon bucket was filled and the fill time recorded at each sprinkler head.

Sprinkler	Time/5Gal.	Gal./min.
1	2:26	0.487
2	2:17	0.457
3	2:21	0.470
4	2:20	0.467
5	2:25	0.483
6	2:26	0.487
7	2:27	0.490
8	2:18	0.460
9	2:36	0.520
10	2:28	0.493
11	2:24	0.480
12	2:21	0.470
13	2:21	0.470
14	2:13	0.487
15	2:15	0.450
16	2:13	0.487
17	2:19	0.463
18	2:22	0.473
19	2:20	0.467
20	2:17	0.457

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9.518

E. NARRATIVE/REMARKS/COMMENTS

The point of diversion (POD) is on Lawyer's Creek as indicated above (**C. Diversion and Delivery System**). The pump is on the bank of Lawyer's Creek (*Photo 1*) and has a GPS location of **N 46°12' 59.7"** by **W116°01' 59.3"** (GPS unit, Garmin, Model GP-12, serial #36061391).

Water exits the pump through a three-inch (3") line. The system then divides into two (2) two-inch (2") lines that supply the orchard and two (2) one and one-half inch (1½") flexible lines that supply the garden and lawn areas (*Photo 2*). Irrigation is done through thirty-foot (30) sprinkler lines, each having a three-quarter inch (¾") riser (*Photo 3*). Each sprinkler head is a Rainbird L-20 with 7/64" nozzles. Mr. Hagen (one of the permit holders) stated that he used ten (10) to twenty (20) sprinklers in a typical set.

Commercial use is for orchard frost protection from March 15 through May 31 (See permit). Mr. Hagen stated that for frost protection he ran 30 sprinklers at a time. For flow measurement purposes for this use, the measured output of the average sprinkler head was multiplied by 30.

This permit is supplemental to license **85-07548** (See Comments on this Permit). I did not have a copy of license 85-07548 for comparison purposes. As indicated on the permit, the rate of diversion of water for irrigation under this right and all other water rights on the same land shall not exceed 0.03cfs for each acre of land.

Have conditions of permit approval been met?

☒ Yes

☐ no

F. FLOW CALCULATIONS

Measured Method:

$$9.518 \text{ gpm} \times \left(\frac{\text{cfs}}{448.83 \text{ gpm}} \right) \approx 0.0212 \text{ cfs} \approx \mathbf{0.02 \text{ cfs}}$$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3 \times 2 = \mathbf{6 \text{ AFA}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = (0.02)(245)(1.9835) \approx 9.1719 \text{ AFA} \approx \mathbf{9.7 \text{ AFA}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \mathbf{6 \text{ AFA}}$$

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2. Volume Calculations for Other Uses:

Commercial (Frost Protection):

$$\frac{9.518 \text{ gpm}}{20 \text{ sprinklers}} \times 30 \text{ sprinklers} \approx 14.28 \text{ gpm}$$

$$\frac{14.28 \text{ gpm}}{448.83 \text{ gpm / cfs}} \approx 0.03 \text{ cfs}$$

$$0.03 \text{ cfs} \times 61 \text{ days} \approx 1.8 \text{ AF}$$

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Irrigation	3/15	11/15	0.02	6.0
Commercial	1/1	12/31	0.03	1.8
Totals:			0.05	7.8

2. Recommended Amendments

Change P.D. as reflected above
Change P.U. as reflected above

Add P.D. as reflected above
Add P.U. as reflected above

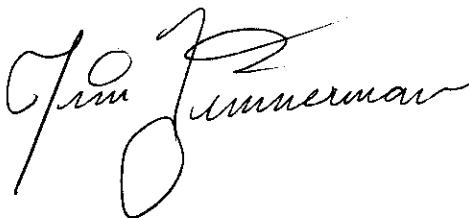
☒ None
Other

I. AUTHENTICATION

Field Examiner's Name: Jim Zimmerman

Date: 8/30/02

Signature



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