

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 43-7160

Exam Date: 6/24/1991 Block

Revised 6/26/2001 Folsom

Revised 3/8/2012 Robertson

1. Original Owner: RAYMOND H ANDERSON and VERLETTA M ANDERSON
1146 S 2900 E
HAZELTON ID 83335
(208)678-7006

Current Owners G. Kurt Anderson & Brenda Anderson
2063S 1125 E
Elba ID, 83342
(208)948-5595

Kevin Anderson & Johanna Anderson
1227 S 2900 E
HAZELTON ID, 83335
(208)260-0144

2. Accompanied by: Kevin Anderson (Son of applicant and now new owner) Note that the applicant has died.
Phone No: 208-260-0144
Address: 1227 S 2900 E, Hazelton, ID 83335
Relationship to Permit Holder: son

3. SOURCETRIBUTARY

GROUND WATER *

*Source is a tile drain

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 43-53, 43-54 & 43-473B
2. Other water rights with the same point of diversion: NONE
Note that pump on pond now re-lifts water from Barker Ditch

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

Unnamed Drain NW1/4SW1/4 Sec. 5, Twp 14S, Rge 25E, B.M.
CASSIA County

Method of Determination: GIS using imagery and field exams of Block and Folsom

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
14S	25E	5											9.0	6.0					15.0

Total Acres: 15

Method of Determination: Block FE with original aerial map showing 15 acre pasture south and west of pond.

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached
- ☒ Find attaché BLOCK and FOLSOM notes.

4.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
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D. **FLOW MEASUREMENTS** None possible since drain tile buried and flows into pond. Only way to estimate flow was to do a calculation of pump capacity that pumps from pond to 15 acre pasture.

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
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2. Measurements: **NONE**

E. **FLOW CALCULATIONS**

☒ Additional Computation Sheets Attached

Measured Method: Theoretical pump flow calculation

The capacity of the pump in the pond is 0.7 cfs. Allow 0.02 cfs per acre. Allow 0.30 cfs.

F. **VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V = (15 \text{ acres}) \times (4.0 \text{ af/acre/annum}) = 60 \text{ acre feet per annum}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = (0.30 \text{ cfs}) \times (123 \text{ days}) \times 1.9835 = 73.2 \text{ acre feet per annum}$$

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

Recommend 60 afa

2. Volume Calculations for Other Uses: **Does not apply****G. NARRATIVE/REMARKS/COMMENTS**

This exam was compiled based on initial field exams by Block and Folsom and owner interview by Merritt. The water developed is from a 6" buried clay tile drain that supplies water to a pond where it historically was pumped to irrigate a 15 acre pasture. Currently this pond is also supplied water from a pipeline directing water from Cross Creek via the Barker Ditch. The original 7 1/2 HP pump has been replaced by a larger pump which now supplies water to a pivot. The pivot now waters the historical 15 acre pasture and additional lands covered under water rights 43-53, 43-54 and 43-473B. The original permit holders have died and the land is now owned by son and nephew. A change in ownership is pending. An amendment of the permit for licensing will be required since the drain location and POU need to be corrected. Once licensed the right will be included in a future transfer to re-describe the POU.

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>
IRRIGATION	5/01 to 8/31	0.30 CFS	60 afa
<u>Totals:</u>		0.30 CFS	

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 describe source as unnamed drain

I. AUTHENTICATION

Field Examiner's Name *Kevin Roberson* Date 3/8/2012

Reviewer *Chris Merritt* Date 3/8/2012

State of Idaho
Department of Water Resources

Attachment To Field Report for Licensing

43-7160

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



0 0.0275 0.055 0.11 Miles

- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters





USDA United States Department of Agriculture
Farm Service Agency

Tract # 1424

2/7/12
Adm



43-7160

Digital Orthophotograph
Not to Scale

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No. 43-07160

1. Owner: Raymond H. or Verletta M. Anderson Phone No. 678-7006

Current Address: 1146 S. 2900 E. Hazelton, ID 83335

2. Accompanied by: Peg Anderson EXAM. DATE: 6/27/91

Address: _____ Phone No. _____

Relationship to Permit Holder: _____

3. Source: Wastewater tributary to _____
Groundwater

B. OVERLAP REVIEW

1. Other water rights with same place of use: none

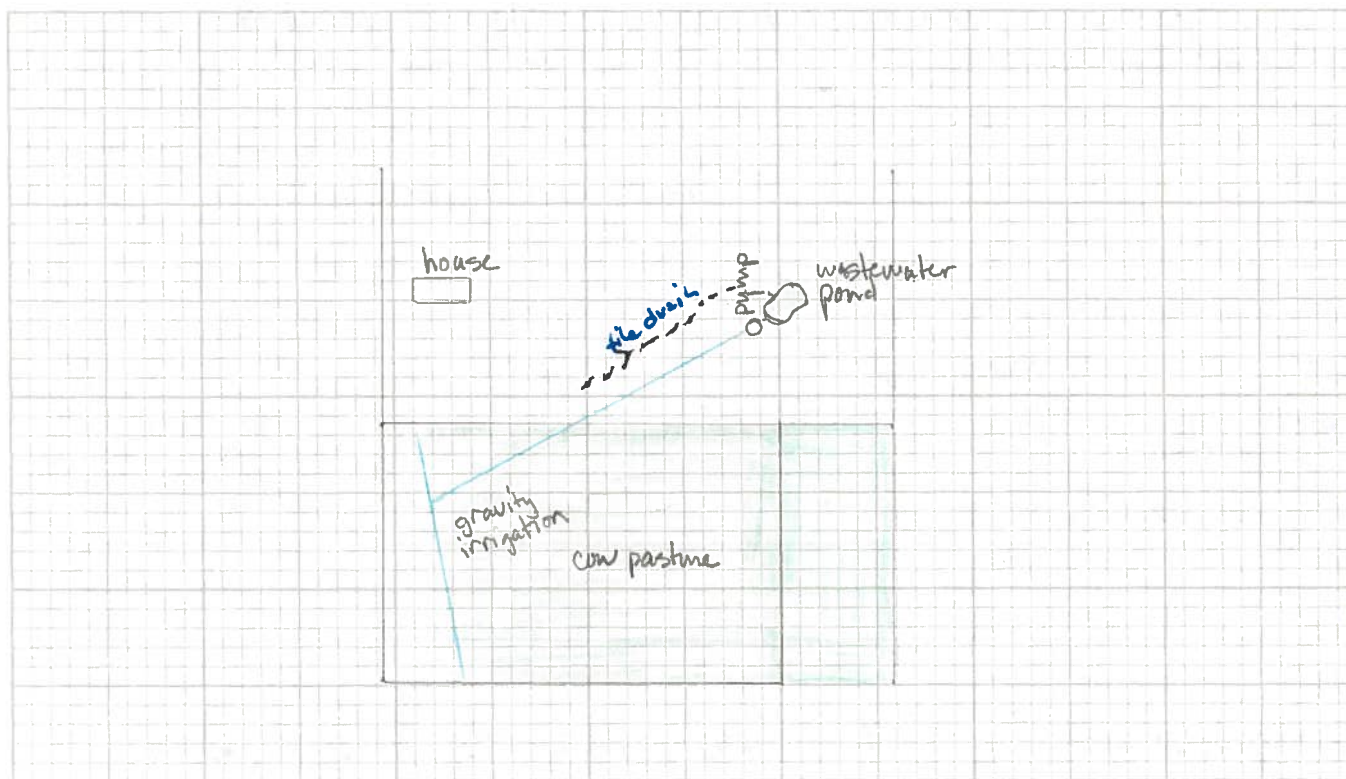
_____ ☐ Copies Attached

2. Other water rights with same point of diversion: none

_____ ☐ Copies Attached ☐ Copies of Field Exam's Attached

C. SYSTEM DESCRIPTION

1. **Diversion System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable. ☐ Alternative diagram attached



Scale: 1" = 250'

2. ☒ Copy of U.S.G.S. Quadrangle Attached
Showing location(s) of point(s) of diversion and
place(s) of use (required).

☒ Photo of Diversion and System Attached

(required for all but single household domestic groundwater, and stockwater.

☒ Aerial Photo Attached
(required for irrigation of 10 acres or more).

System Description (continued)

3. Narrative: Description (As operating at time of measurement. Indicate pressure, number of sprinklers, etc.)

pump taking water from waste pond for gravity irrigation of pasture

Buried drainage line to pond. Pump in pond to gravity irrigation system.

☐ See Remarks on page 4 for continuation

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
		7.5	no tag	Burkesly	

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

5. Point(s) of Diversion:

Ident. No.	Gov't. Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Method of Determination/Remarks
		NE	NW	SW	5	14S	25E	Cassia	USGS map/aerial photo
		S							

6. Place(s) of Use:

Indicate Method of Determination

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Totals
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
14S	25E	5									8	7							15

Do not use this space

Do not use this space

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements:

E. FLOW CALCULATIONS

☒ Additional Computation Sheets Attached

1. Measured Method:

2. Alternate Method for Checking Purposes: *horsepower*

F. PUMP EFFICIENCY DATA (Optional)

Discharge Pressure: _____ psi x 2.31 = _____ ft (1); Dynamic pumping level: _____ ft (2)

Total Head: (1) + (2) = _____ (3)

; Flow rate: _____ cfs (4)

Water HP: (3) x (4) ÷ 8.8 = _____ (5)

Meter Input KW: 3.6 x _____ KH x _____ CTR or _____ MULT x _____ PTR x _____ N/ _____ T = _____ (6)

Meter Input HP: (6) x 1.34 = _____ (7)

Panel Input KW: _____ Ave PF x _____ Ave Volts x _____ Ave Amps x .001732 = _____ (6)

Panel Input HP: (6) x 1.34 = _____ (7) Efficiency: (5)/(7) x 100 = _____ %

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 15 (3.5) = 52.5 \text{ af.}$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = .4 (245) (1.9835) = 194.4 \text{ af.}$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 70 \text{ af.}$

2. Volume Calculations for Other Uses:

H. REMARKS AND OVERLAP REVIEW ANALYSIS

Pond starts filling in late May, little inflow occurs after early July.

I determined the point of diversion to be different from what is listed on the permit. According to the topo map and aerial photo, the diversion appears to be in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ rather than the SW $\frac{1}{4}$ SW $\frac{1}{4}$ as stated on the permit.

The P/U is also changed from the permit. The system capacity appears to be greater than the permitted flow rate.

Diversion rate is based on acreage determined to be in use.

Owner has Cassia Creek water, but very little of this reaches this pasture.

I. 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	0.30	52.5
	6-1	7-10		
Totals:			0.30	52.5

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

J. AUTHENTICATION

Field Examiner's Name

Brian Block

Signature

Brian Block

Certification Date

Field Report Preparation Date

6/24/91

CONSULTANT SEAL

K. Licensing recommendation shall be prepared by an Idaho Department of Water Resources employee on a computer printout attached hereto.

FLOW CALCULATIONS

43-07160

Known values:

power = 7.5 hp

lift = approx 20 ft.

pressure = approx. 20 psi.

$$Q = \frac{8.8(0.7)(7.5)}{20 + 2.31(20)} = \boxed{0.70 \text{ cfs.}}$$

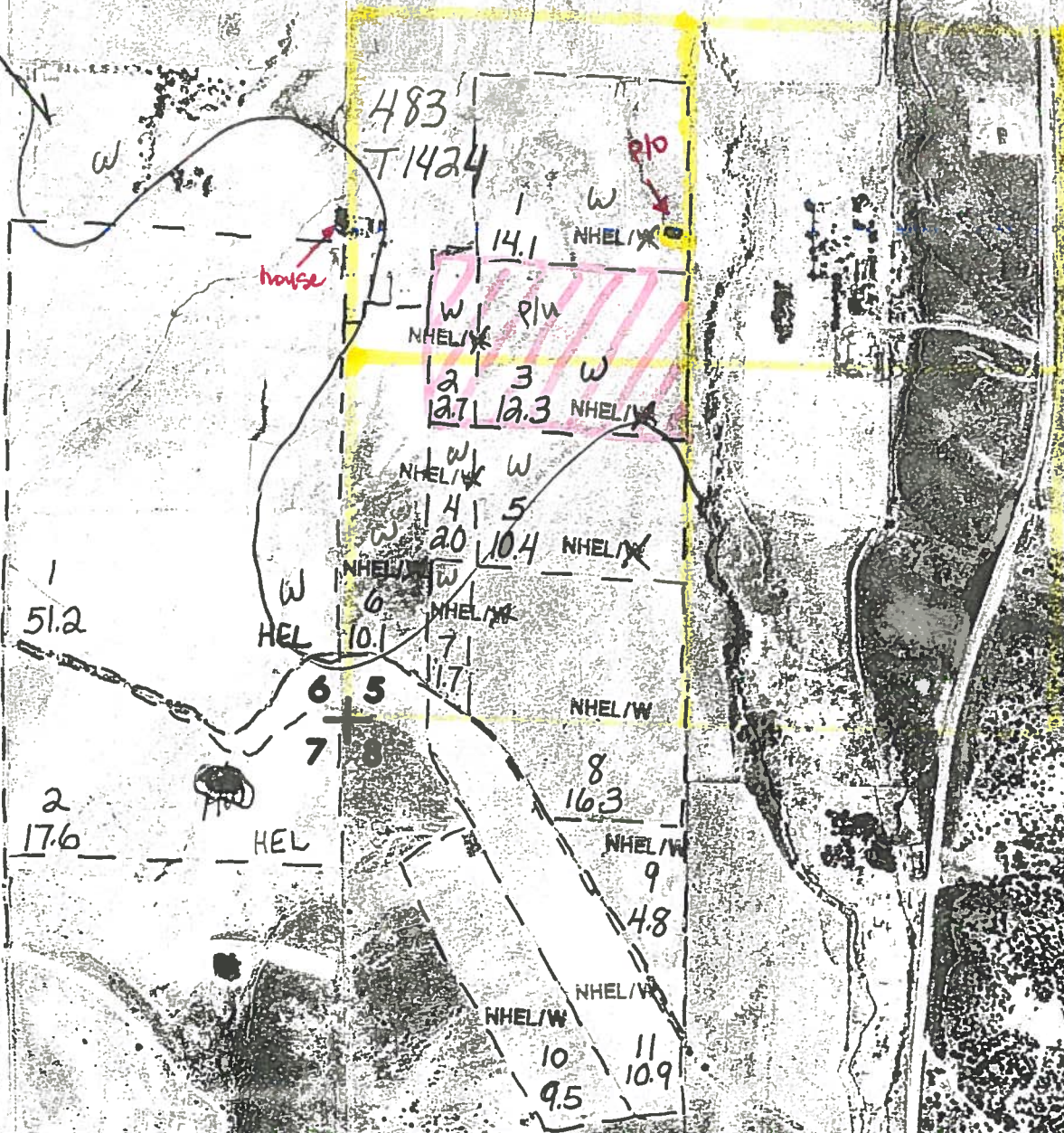
43-7160



P/D - wastewater pond



P/M - cattle pasture



43-7160

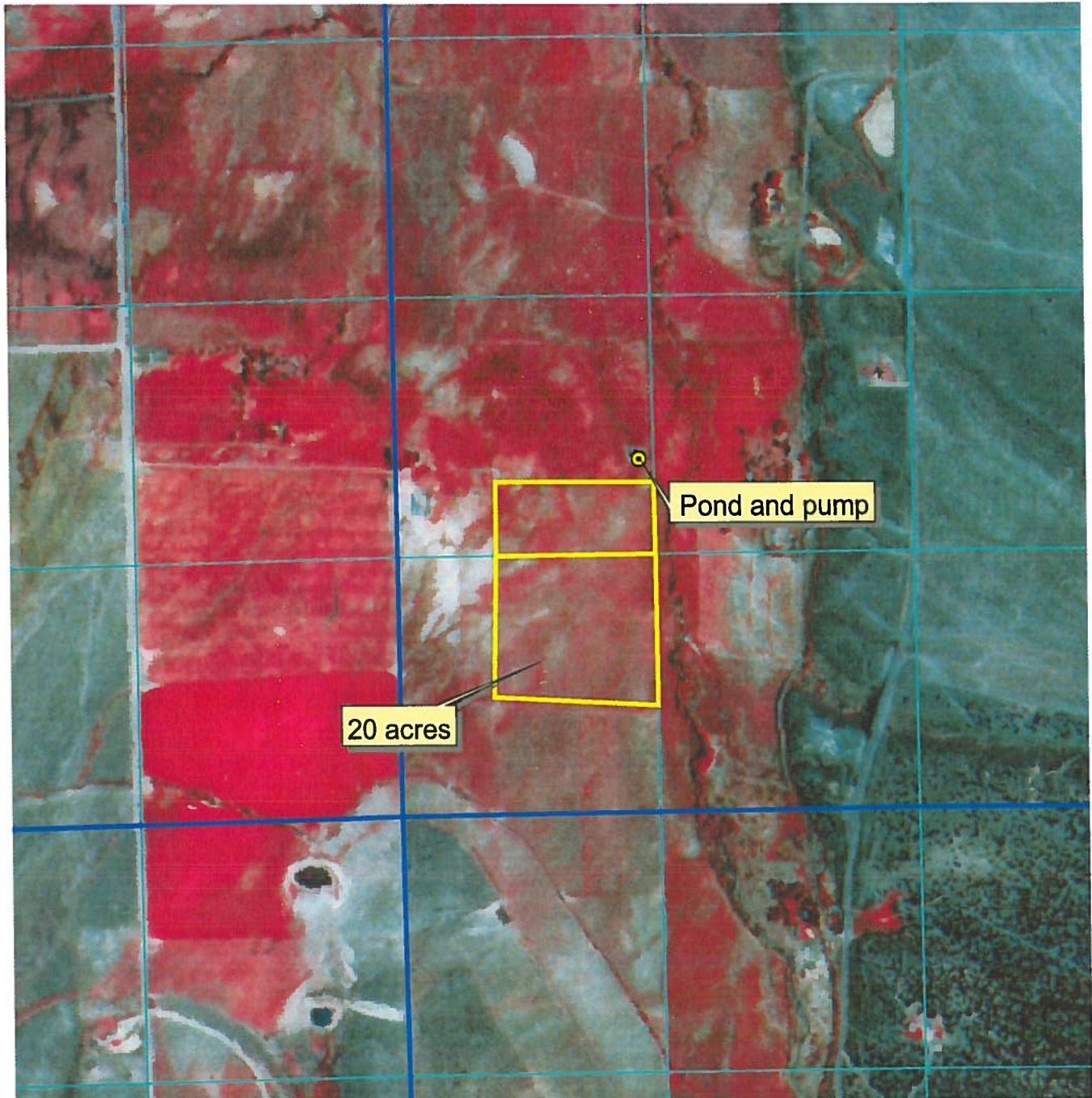
Idaho Department of Water Resource

Recommendation for 43-7160

Kevin Anderson

T14S

R25E



● Point of Diversion

□ Quarter-quarter Lines

□ Section Lines

□ Place of Use



Point of Diversion

T14S R25E S5

Data entry on August 2, 2001

Point of Diversion Presentation

1987/1988 NAPP Photography

Data Entry By: Amanda Folsom

E. NARRATIVE/REMARKS/COMMENTS

PERMIT: 43-7160
FROM: Amanda Folsom
DATE: August 2, 2001

I met with Kevin Anderson on June 26, 2001. Kevin Anderson is the son of Raymond Anderson. Kevin cares for the property under irrigation and the cattle that feed on the pastures.

I did a field exam for the runoff water that fills a pond, that is then used to irrigate pastureland with. I did not do the field exam for the ground water use. Another field exam will be needed for this use.