

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

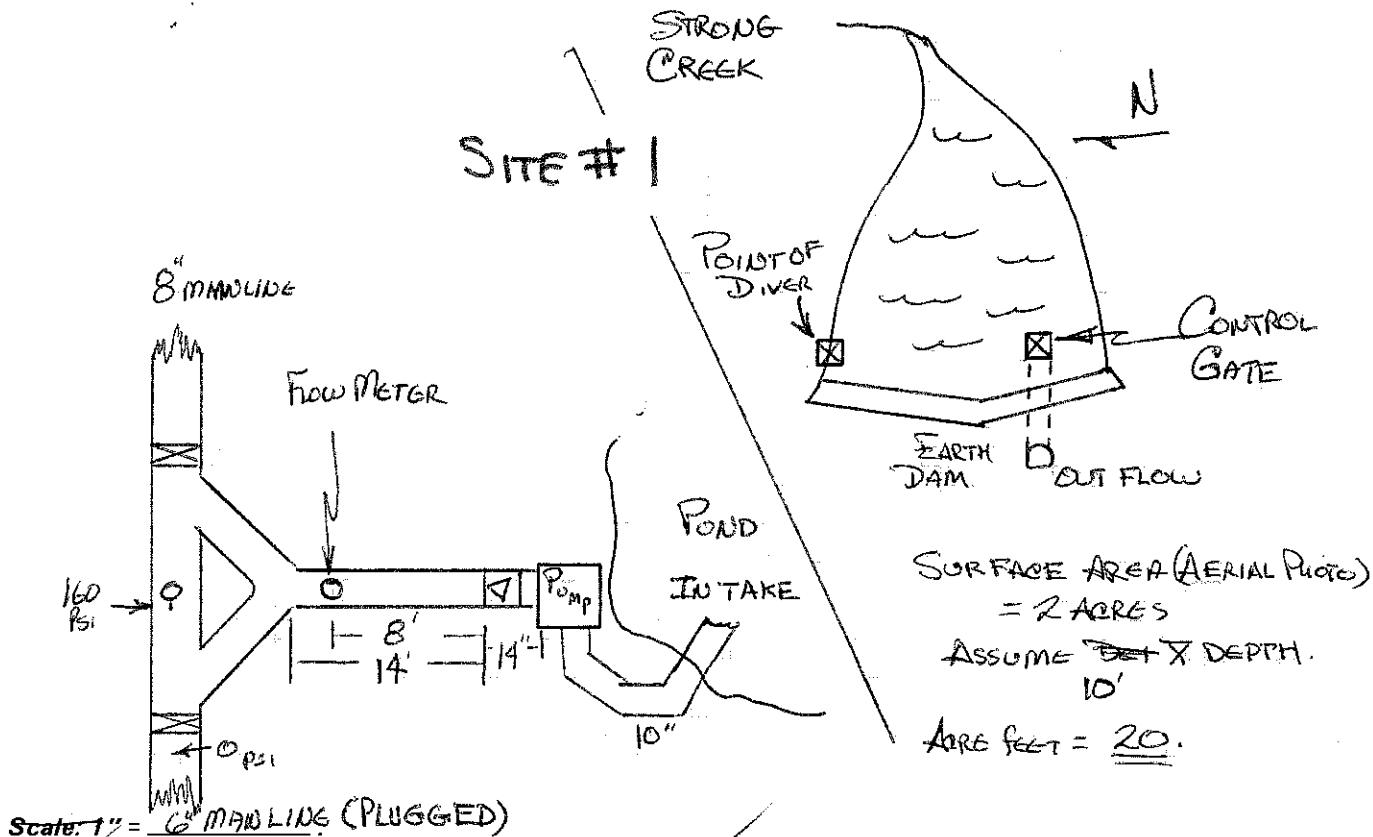
Permit No. 21-7133
Phone No. 652-3515
1. Owner: EDWARD G. HOWELL
Current Address: Box 216 Ashton, Idaho, 83420
2. Accompanied by: SAME EXAM. DATE: 10-July-1987
Address: _____ Phone No. _____
Relationship to Permit Holder: OWNER
3. Source: STRONG CREEK tributary to SNAKE RIVER

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



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.)

THE PERMITEE HAS BUILT AN EARTHEN DAM ACROSS STRONG CREEK WHICH IMPOUNDS ~ 25 ACRE FEET. FROM DAM SAFETY RECORDS FROM 1976 TO DATE DAM IS 15' HIGH W/ SURFACE AREA OF POND 0.6 ACRE. STORAGE CAPACITY = 25 A.C. FT.

SEE ATTACHED INSPECTION REPORT DATED 7/7/87 BY STEVE MCCORMACK IDWR.

WATER IS PUMPED FROM POND INTO APPLICANTS SPRINKLER 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
PUMP	G.E.	75	DN-175016	CORNELL #	23262 9

*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
		NW	NW	NW	20	9N	43E	FREMONT	USGS/ON-SITE

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	
9N	43E	17					32	10	29	28	24	11	20	10					164
		18	28	31			3												62
																			226

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Do not use this space

D. FLOW MEASUREMENTS

☐ Additional Data Sheets Attached

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
Flow Meter	INLINE PROP.	METER		77-8-2284	8"	

2. Measurements:

(160psi) - ~~0.01~~ ~~0.001~~ AF IN 46.09 Sec.

E. FLOW CALCULATIONS

☐ Additional Computation Sheets Attached

1. Measured Method:

$$(0.001 \text{ AF} / 46.09 \text{ sec}) \times 43560 \text{ ft}^2 / \text{Acre} = 0.945 \text{ ft}^3 / \text{sec.}$$

2. Alternate Method for Checking Purposes:

PUMPING UP HILL 160' VERT. $(75 \text{ HP})(8.814)(.80) = 0.99 \text{ cfs}$ 2.72 cfs

$\text{THEORETICAL Q} = \frac{160 + 160(2.308)}{10' + 160} = 0.99 \text{ cfs}$

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:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = (226)(3.0) = 678 \text{ AFA}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = (0.945)(214)(1.9835) = 401.12$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 401.12 \text{ AFA}$$

2. Volume Calculations for Other Uses:

AFA LIMITED BY PERMIT STORAGE CAPACITY OF 20 ACRE FEET.

H. REMARKS AND OVERLAP REVIEW ANALYSIS

I. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
STORAGE FOR IRR.	Nov. 2	MAR. 31		20 afa
IRR. FROM STORAGE	APRIL 1	Nov. 1		20 afa
Totals:				20 afa

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 ERIC S. VERWER

Signature *Eric S. Verwer*

Certification Date _____

Field Report Preparation Date Sept. 18, 1987

CONSULTANT SEAL

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

DAM SUMMARY SHEET

November 22, 1996

HOWELL LOWER (Site # 1)
21 - 7133

INVENTORY _____ A
BASIN _____ 21
DAM NUMBER _____ 7133
FED ID NUMBER _____
DAM NAME _____ HOWELL LOWER
COUNTY _____ FREMONT
STREAM _____ STRONG CREEK
REGION _____ E
PURPOSE _____ I
RISK CATEGORY _____ 3
SIZE CATEGORY _____ 3
Q-Q SECTION _____ NENW
SECTION _____ 20
TOWNSHIP _____ 09N
RANGE _____ 43E
LATITUDE DEC _____ 44.1049
LONGITUDE DEC _____ 111.4022
DAM TYPE _____ EARTH
STORAGE CAPACITY _____ 25.00 ACFT
HEIGHT _____ 16.40 FT
DRAINAGE AREA _____ 2.80 SQMI
RESERVOIR AREA _____ 6.00 AC
YEAR COMPLETED _____ 1976
CREST ELEVATION _____ 5,240.00 MSL
CREST LENGTH _____ 200.00 FT
SPILLWAY TYPE _____ GLHOLE
SPILLWAY DEPTH _____ 4.20 FT
SPILLWAY CAPACITY _____ 41.00 CFS
OUTLET TYPE _____ CMP
OUTLET SIZE _____ 24 IN
OUTLET CAPACITY _____ 42.00 CFS
IDF _____ Q50
IDF MAGNITUDE _____ 128.00 CFS
RELEASE CAPACITY _____ 42.00 CFS

CONDITION _____ FR
MAINTENANCE _____ ROUTINE
INSPECTION DATE _____ 0896 MO/YR
CERTIFICATE EXP DATE _____ 1197 MO/YR
LAST RISK EVALUATION _____ 0590 MO/YR
SURVEY DATE _____ 7/10/91 MO/DD/YR
CALL UP DATE _____ MO/DD/YR
CERT ISSUE DATE _____ 11/15/95 MO/DD/YR
INSPECTION INTERVAL _____ 2YR
PHASE 1 INSP DATE _____
OPERATION PLAN _____ N
SEISMIC ANALYSIS _____ N
RESTRICTED _____
JOINT INSPECTION _____
QUAD NUMBER _____ V97
QUAD NAME _____ ASHTON

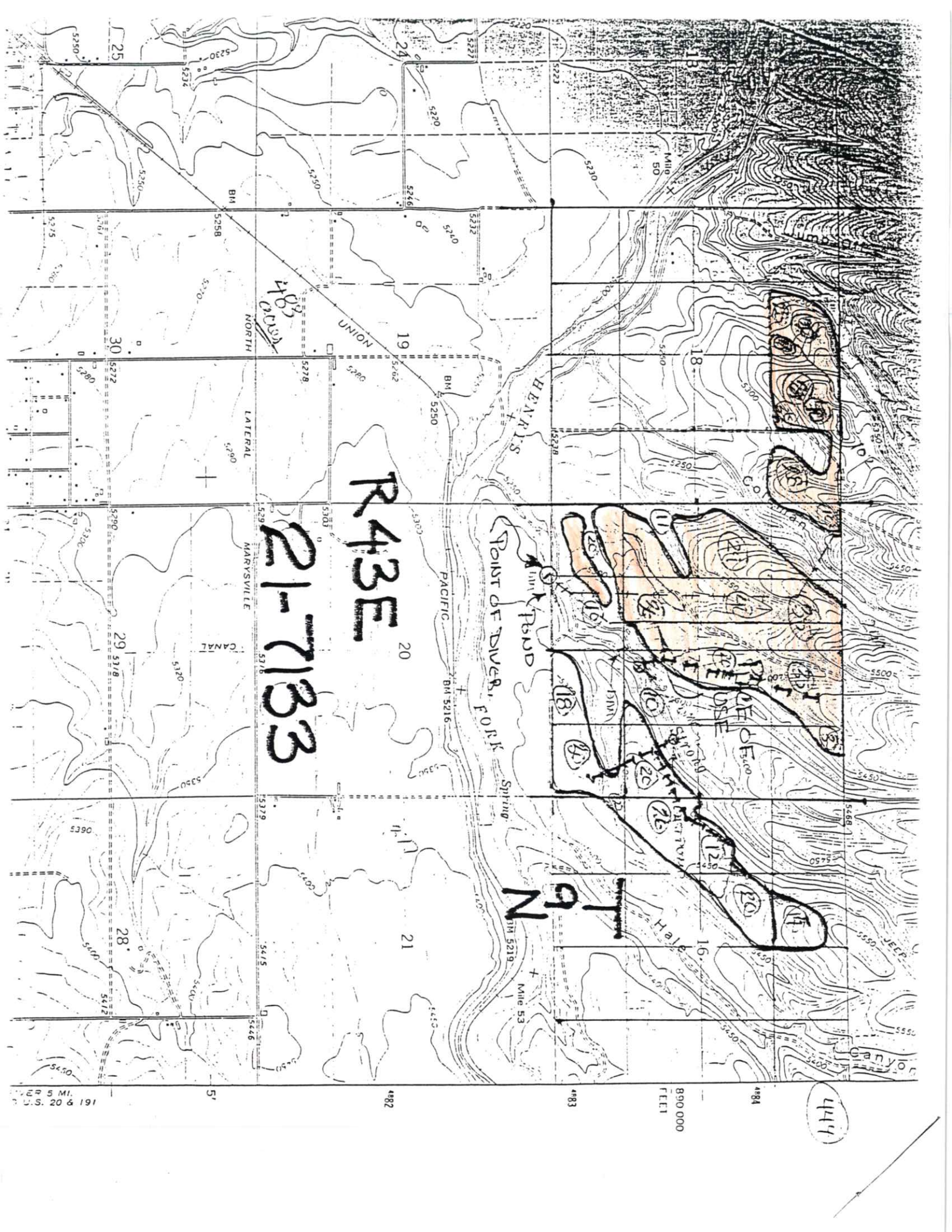
DAM OWNER _____ FRANK VANDERSLOOT
ADDRESS - 1 _____
ADDRESS - 2 _____ P O BOX 305
CITY _____ IDAHO FALLS
STATE _____ ID
ZIP CODE _____ 83405
ZIP SUFFIX _____
PHONE _____ 0
AREA CODE _____ 208

GENERAL REMARKS : NUMBER CHANGED FROM 21-7053. DAM RAISED AND SPILLWAY
ENLARGED IN 1994. ALSO HAS ERCHAN SPILLWAY 2' DEEP X 20' WIDE
ON RIGHT ABUTMENT. IF ERCHAN SPILLWAY IS EVER USED IT WILL
ERODE AND SHOULD BE ADEQUATE.

TECHNICAL REMARKS : SPILLWAY & RELEASE CAPACITY ARE WITH 2.0' FREEBOARD.
SPILLWAY CAPACITY IS TOTAL THRU BOTH SPILLWAYS.

RESTRICTIONS :

ALTERNATE CONTACTS :



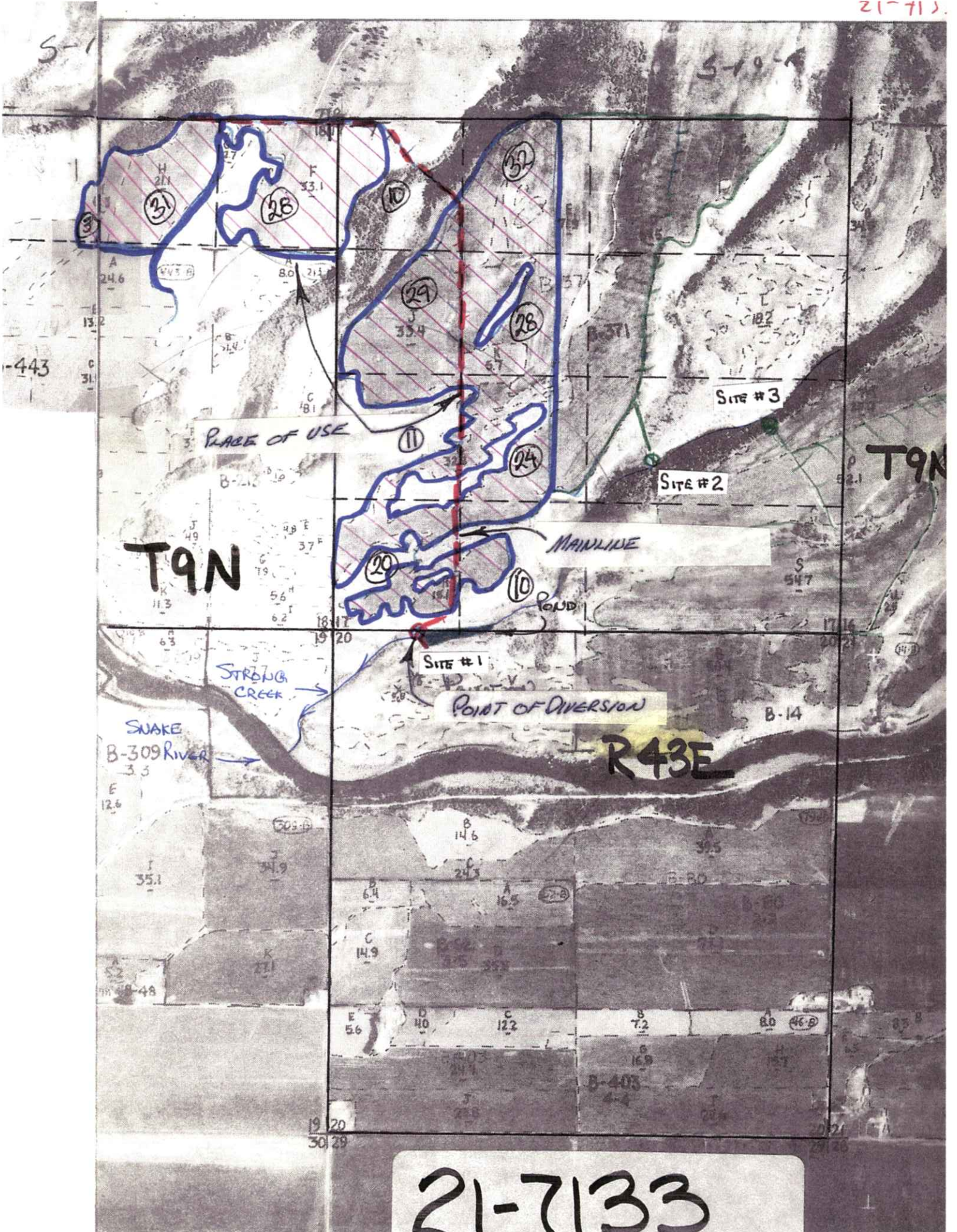
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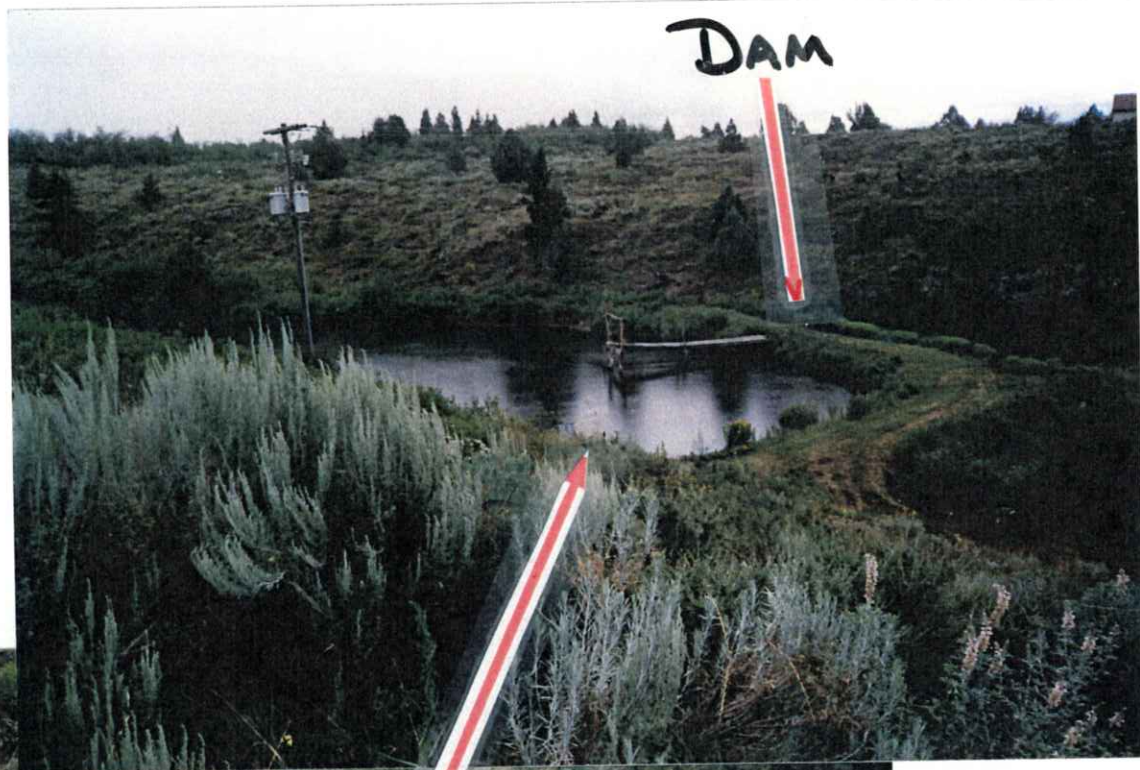
POINT OF DIVER, FORK

MILE 53

890 000
FEET

444





FLOW METER



SITE
#1

LOWER RESERVOIR

21-07133





DIVERSION AT DIVERSION
DAM ON UPPER
RESERVOIR

SITE
#2



DIVERSION AT DIVERSION
DAM ON UPPER
RESERVOIR

SITE
#2



UPPER DIVERSION
FROM UPPER RESERVOIR

SITE
3

16	15
21	22

