

RECEIVED

Page 1 of 2 8/28/2004

Permit No: 74-7165

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

Department of Water Resources

A. GENERAL INFORMATION

Permit No: 74-7165

Exam Date: 8/28/1995

1. Current Owner: KURT W BIRD
56 LOWER TEXAS CREEK RD
LEADORE ID 83464
(208)768-2425

And/Or

JANET E BIRD
56 LOWER TEXAS CREEK RD
LEADORE ID 83464
(208)768-2425

2. Accompanied by: Kurt Bird
Phone No: Cell Phone (208) 303-0055
Address:
Relationship to Permit Holder:

3. SOURCE

TRIBUTARY

BIG TIMBER CREEK

LEMHI RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 74-34, 74-35, 74-912
2. Other water rights with the same point of diversion: 74-34, 74-35, 74-912

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

BIG TIMBER CREEK NW1/4NW1/4 Sec. 20, Twp 15N, Rge 26E, B.M.

LEMHI County

Method of Determination: On site, FSA Aerial photos, and ArcView

2.

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	
15N	26E	14							34.9				21.8						56.7
15N	26E	15	30.7	40.0	40.0	31.6	40.0	40.0	31.7	40.0	40.0	31.7	30.6	40.0	30.9	40.0	40.0	32.0	579.2

Total Acres: 635.9

Method of Determination:

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

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>

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

D. FLOW MEASUREMENTS

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>
weir	Cipolletti				6' x 30"	

2. Measurements: ~~NONE~~

Theoretical Capacity from BOR Measurement manual
 6' Cipolletti Weir w 15" (1.25') discharge $Q = 28.23$

E. FLOW CALCULATIONS

____ Additional Computation Sheets Attached

Measured Method:

$Q_{LIMITED TO PERMITTED AMOUNT} = 6.55 \text{ cfs}$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 327.5 (3.5) = 1146.3 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = (6.55) 245 (1.9835) = 3183.0 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1146.3 \text{ af}$$

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

The diversion works consisted of a diversion dam to a head gate to ditch with a 6 foot long Cipolletti Weir with a height of 30 inches. At the time of the exam the capacity of the system was not available from Big Timber Creek.

The capacity of a Cipolletti Weir at 15 inches (1.25 feet) is 28.23 cfs. This exceeds the total diversion rate of 15.75 cfs authorized by 74-34 (2.17 cfs), 74-35 (6.61 cfs), 74-912 (0.42 cfs), and this permit for 6.65 cfs.

The Diversion ditch at the West property boundary was 18 inches deep and 54 inches wide. At 15.75 cfs the velocity in the ditch at the west property boundary would be 2.33 feet/second and at 28.23 cfs would be 4.2 feet/second.

The place of use was irrigated by flood and sprinkler irrigation. Sprinkler irrigation was accomplished using center pivots and hand lines with sprinklers.

Recommend licensing this permit at the permitted capacity of 6.55 cfs and 327.5 acres within the 635.9 acres of the permissible place of use.

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	03/15 to 11/15	6.550 CFS	
	<u>Totals:</u>	6.550 CFS	1,146.30 AF

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

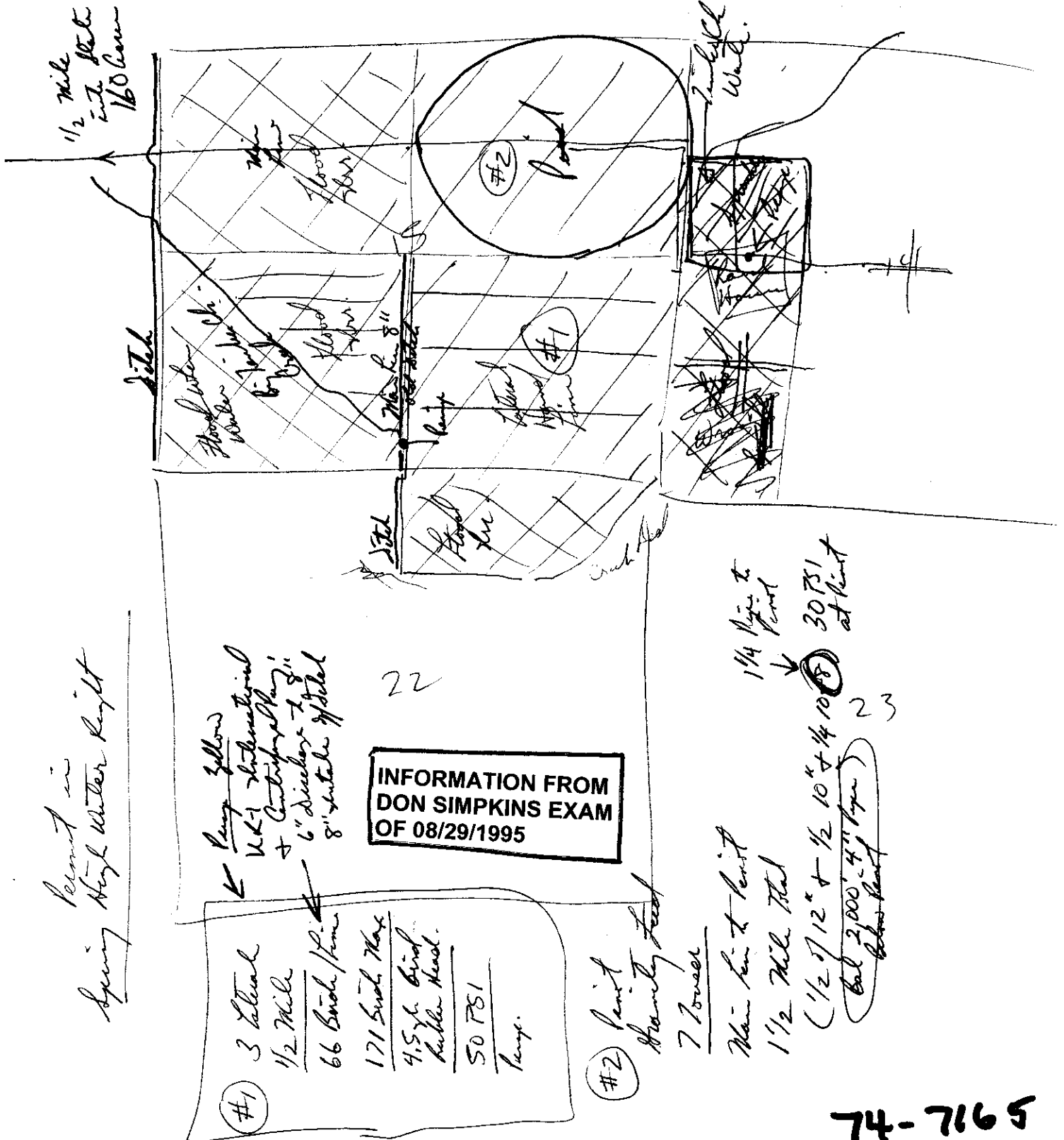
I. AUTHENTICATION

Field Examiner's Name KEITH C. WILSON ^{FOR DON SIMPKINS} Date 10/15/2004

Reviewer _____ Date _____

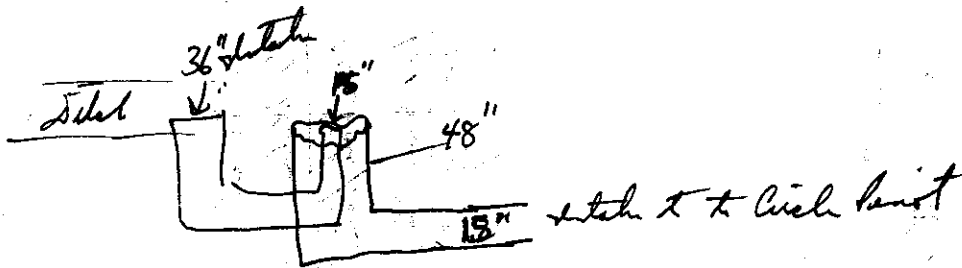
8/29/95

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① Ditch at post property boundary 18" deep x 54" wide.

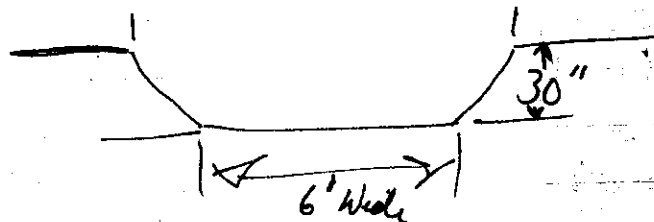


Dimension bypass around intake during high water.

Thin Permit	6.55	app. 3.27 inches	} 766 inches
Other Permit	2.17 gph	109 inches	
	6661 gph	330 inches	

Point of Diversion - Approx 1/2 Mile from
Congo Mouth.
Bay Center Ch.

POD 4' Wide x 5' Tall.
Weir



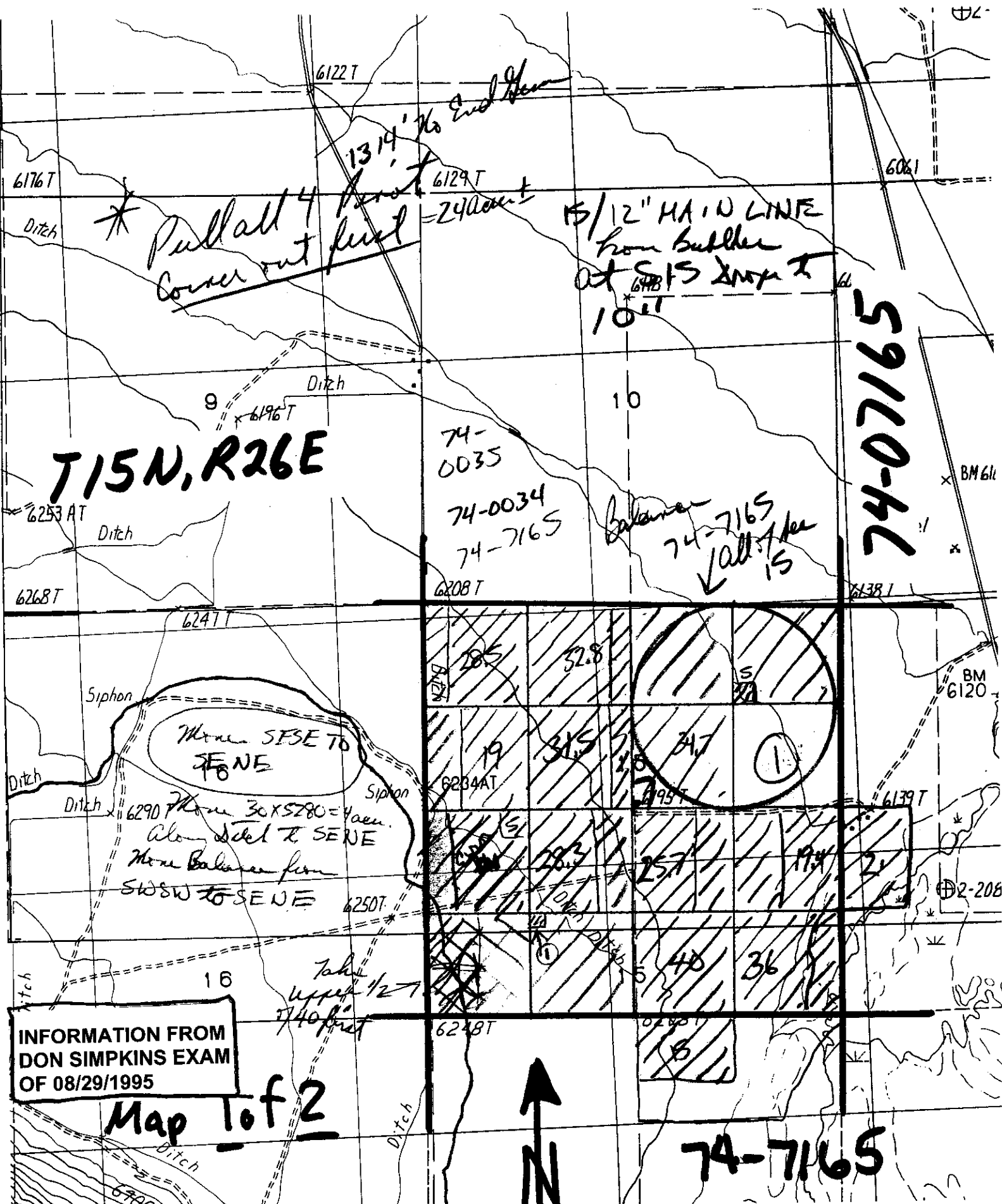
INFORMATION FROM
DON SIMPKINS EXAM
OF 08/29/1995

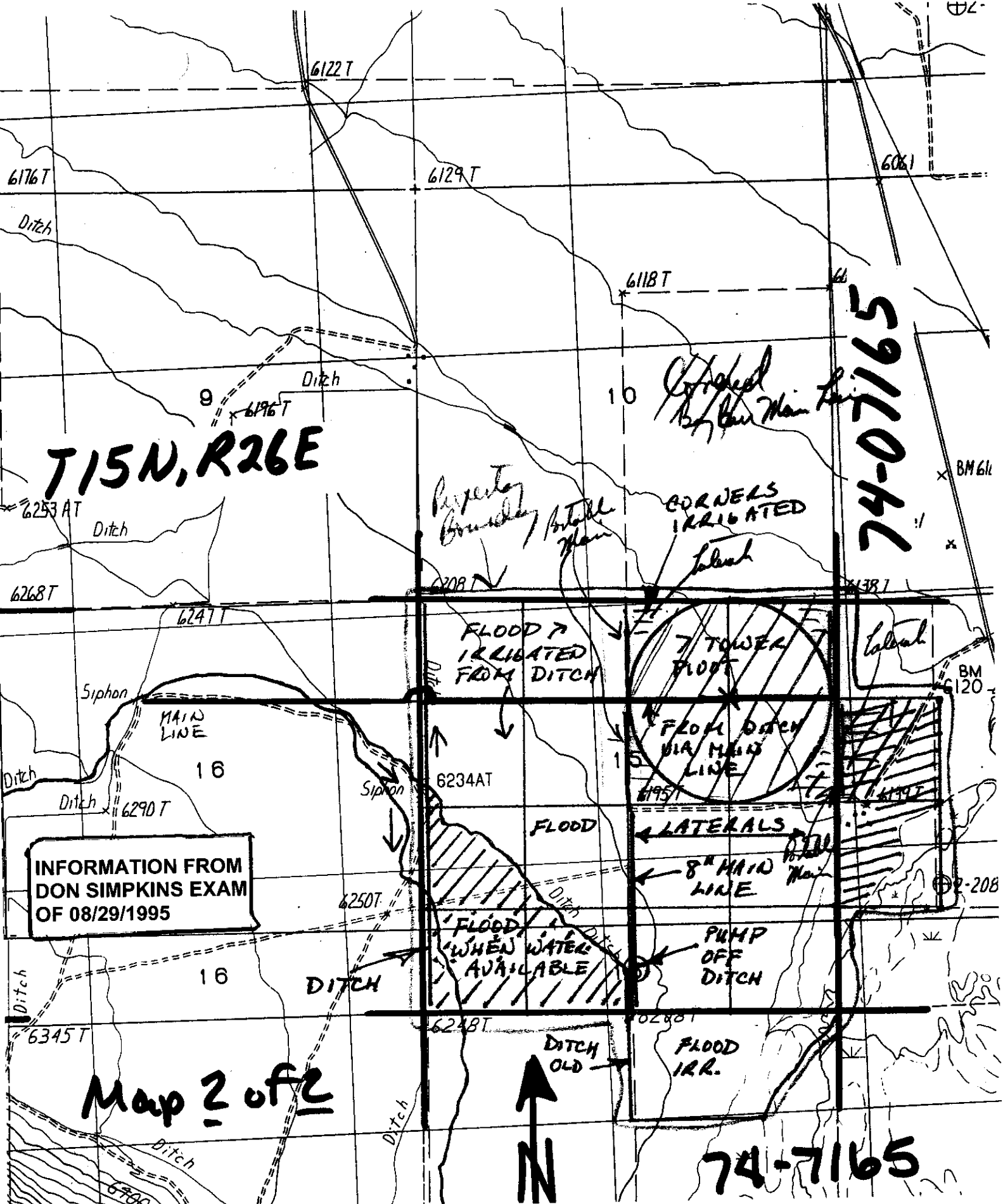
Pump Power field
Below House 7 1/2 HP Cent.

4" ditch 2" Outpost
Marathon Motor
bushy pump.

1 Line - 30 Heads
45 PSI 4.5 gph Output

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T15N, R26E

74-07165

INFORMATION FROM
DON SIMPKINS EXAM
OF 08/29/1995

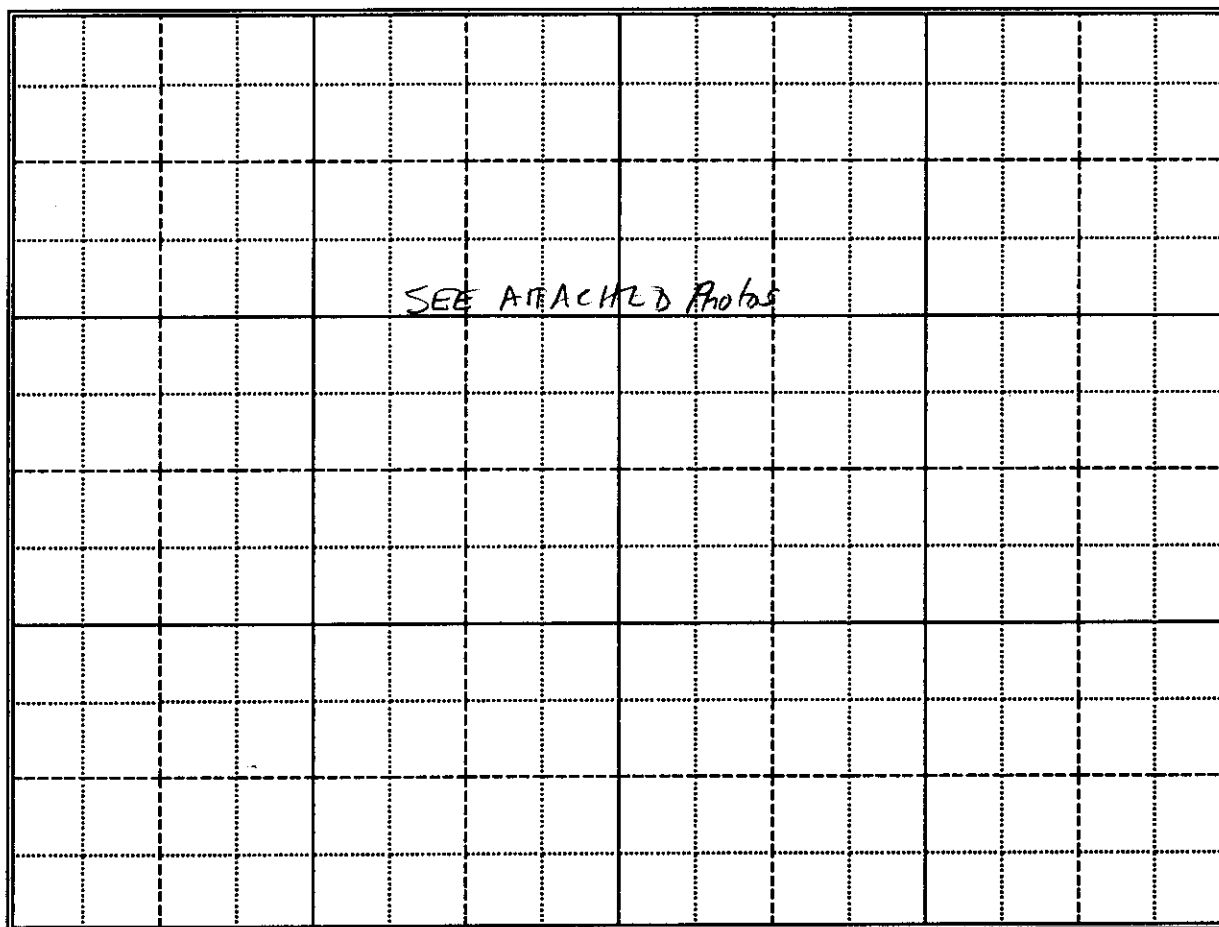
Map 2 of 2

N

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[illegible]

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



Scale: 1" = _____

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

☒ Aerial Photo Attached
(required for irrigation of 10+ acres)

☒ Photo of Diversion and System Attached

4.

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

*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
Weir	Cipolletti	—	—	—	6' wide	

2. **Measurements:** Cipolletti weir 30" (2.5') high Length of Crest 6'

@ time of exam system not a capacity Q_{measured} = 4.02 cfs

E. NARRATIVE/REMARKS/COMMENTS

6' Cipolletti Weir capacity a 15" or 1.25ft = 28.23 cfs which exceeds
total diversion rate for all rights (74-34 @ 2.17 cfs; 74-35 @ 6.61 cfs; 74-912 @ 0.42 cfs;
Permit @ 6.55 cfs) $Q = 2.17 \text{ cfs} + 6.61 \text{ cfs} + 0.42 \text{ cfs} + 6.55 \text{ cfs} = 15.75 \text{ cfs}$

Field examiner indicated diversion ditch at West property Boundary was 18" deep x
54" wide. At 15.75 cfs velocity would be 2.33 ft/sec @ 28.23 cfs Velocity = 4.2 cfs

Have conditions of permit approval been met? ☐ yes ☐ no

F. FLOW CALCULATIONS

Additional Computation Sheets Attached

Measured Method: Cipolletti Weir capacity @ 15" (1.25') $Q = 28.23 \text{ cfs}$

$Q_{\text{LIMITED BY PERMIT}} = 6.55 \text{ cfs}$

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 327.5 \text{ ac} (3.5) = 1146.3 \text{ afa}$$
$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = (6.55)(245)(1.9835) = 3183.0 \text{ cfs}$$
$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 1146.3 \text{ afa}$$

2. Volume Calculations for Other Uses:

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	6.55 cfs	1146.3 afa
Totals:				

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 KETH C WILSON Date 10/15/04

Reviewer _____ Date _____

SEAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

WATER MEASUREMENT MANUAL

A MANUAL PERTAINING PRIMARILY
TO MEASUREMENT OF WATER FOR
IRRIGATION PROJECTS



Second Edition—Revised Reprint

Denver, Colorado

1974

Reprinted 1981.

CIPOLLETTI Weir
Capacity @ 15" (1.25') = 28.23 cfs

268

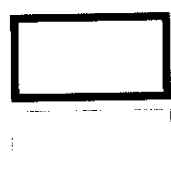
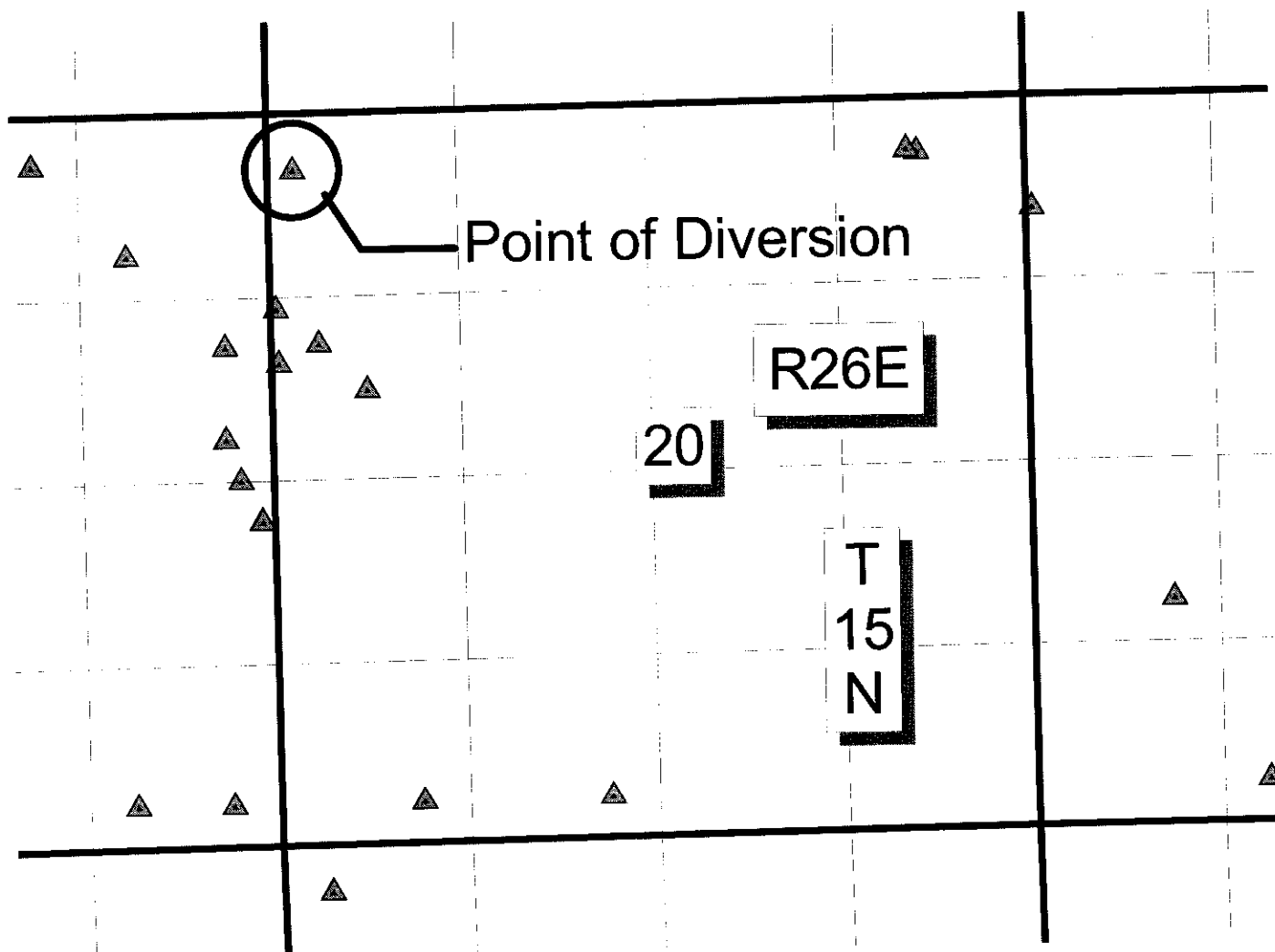
WATER MEASUREMENT MANUAL

Table 10.—Discharge of standard Cipolletti weir in second-feet.
Values computed from the formula $Q=3.367LH^{3/2}$. (See sec.
19.)—Continued

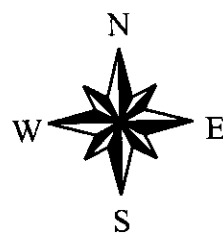
Head H , feet	Length of weir, L , feet ¹				Head H , feet	Length of weir, L , feet ¹			
	6.00	7.00	8.00	9.00		6.00	7.00	8.00	9.00
0.91	17.54	20.46	23.38	26.30	1.36	32.04	37.38	42.72	48.06
.92	17.83	20.80	23.77	26.74	1.37	32.39	37.79	43.19	48.59
.93	18.12	21.14	24.16	27.17	1.38	32.75	38.20	43.66	49.12
.94	18.41	21.48	24.55	27.61	1.39	33.10	38.62	44.14	49.65
.95	18.70	21.82	24.94	28.06	1.40	33.46	39.04	44.62	50.19
.96	19.00	22.17	25.33	28.50	1.41	33.82	39.46	45.09	50.73
.97	19.30	22.51	25.73	28.95	1.42	34.18	39.88	45.57	51.27
.98	19.60	22.86	26.13	29.40	1.43	34.54	40.30	46.06	51.81
.99	19.90	23.21	26.53	29.85	1.44	34.91	40.72	46.54	52.36
1.00	20.20	23.57	26.93	30.30	1.45	35.27	41.15	47.03	52.90
1.01	20.50	23.92	27.34	30.76	1.46	35.64	41.57	47.51	53.45
1.02	20.81	24.28	27.75	31.21	1.47	36.00	42.00	48.00	54.00
1.03	21.12	24.64	28.15	31.67	1.48	36.37	42.43	48.49	54.56
1.04	21.42	24.99	28.57	32.14	1.49	36.74	42.86	48.99	55.11
1.05	21.73	25.36	28.98	32.60	1.50	37.11	43.30	49.48	55.66
1.06	22.05	25.72	29.39	33.07	1.51	37.48	43.73	49.98	56.22
1.07	22.36	26.08	29.81	33.54	1.52	37.85	44.16	50.47	56.78
1.08	22.67	26.45	30.23	34.01	1.53	38.23	44.60	50.97	57.34
1.09	22.99	26.82	30.65	34.48	1.54	38.60	45.04	51.47	57.91
1.10	23.30	27.19	31.07	34.96	1.55	38.98	45.48	51.97	58.47
1.11	23.62	27.56	31.50	35.43	1.56	39.36	45.92	52.48	59.04
1.12	23.94	27.93	31.92	35.91	1.57	39.74	46.36	52.98	59.61
1.13	24.26	28.31	32.35	36.40	1.58	40.12	46.80	53.49	60.18
1.14	24.59	28.69	32.78	36.88	1.59	40.50	47.25	54.00	60.75
1.15	24.91	29.06	33.22	37.37	1.60	40.88	47.70	54.51	61.32
1.16	25.24	29.44	33.65	37.86	1.61	41.27	48.14	55.02	61.90
1.17	25.56	29.82	34.09	38.35	1.62	41.65	48.59	55.53	62.48
1.18	25.89	30.21	34.52	38.84	1.63	42.04	49.04	56.05	63.06
1.19	26.22	30.59	34.96	39.33	1.64	42.42	49.50	56.57	63.64
1.20	26.55	30.98	35.40	39.83	1.65	42.81	49.95	57.08	64.22
1.21	26.89	31.37	35.85	40.33	1.66	43.20	50.40	57.60	64.80
1.22	27.22	31.76	36.29	40.83	1.67	43.59	50.86	58.13	65.39
1.23	27.56	32.15	36.74	41.33	1.68	43.99	51.32	58.65	65.98
1.24	27.89	32.54	37.19	41.84	1.69	44.38	51.78	59.17	66.57
1.25	28.23	32.94	37.64	42.35	1.70	44.77	52.24	59.70	67.16
1.26	28.57	33.33	38.09	42.85	1.71	45.17	52.70	60.23	67.75
1.27	28.91	33.73	38.55	43.37	1.72	45.57	53.16	60.76	68.35
1.28	29.25	34.13	39.00	43.88	1.73	45.96	53.62	61.29	68.95
1.29	29.60	34.53	39.46	44.39	1.74	46.36	54.09	61.82	69.54
1.30	29.94	34.93	39.92	44.91	1.75	46.76	54.56	62.35	70.15
1.31	30.29	35.34	40.38	45.43	1.76	47.16	55.03	62.89	70.75
1.32	30.63	35.74	40.85	45.95	1.77	47.57	55.50	63.42	71.35
1.33	30.98	36.15	41.31	46.48	1.78	47.97	55.97	63.96	71.96
1.34	31.33	36.56	41.78	47.00	1.79	48.38	56.44	64.50	72.56
1.35	31.68	36.97	42.24	47.53	1.80	48.78	56.91	65.04	73.17

See footnote at end of table.

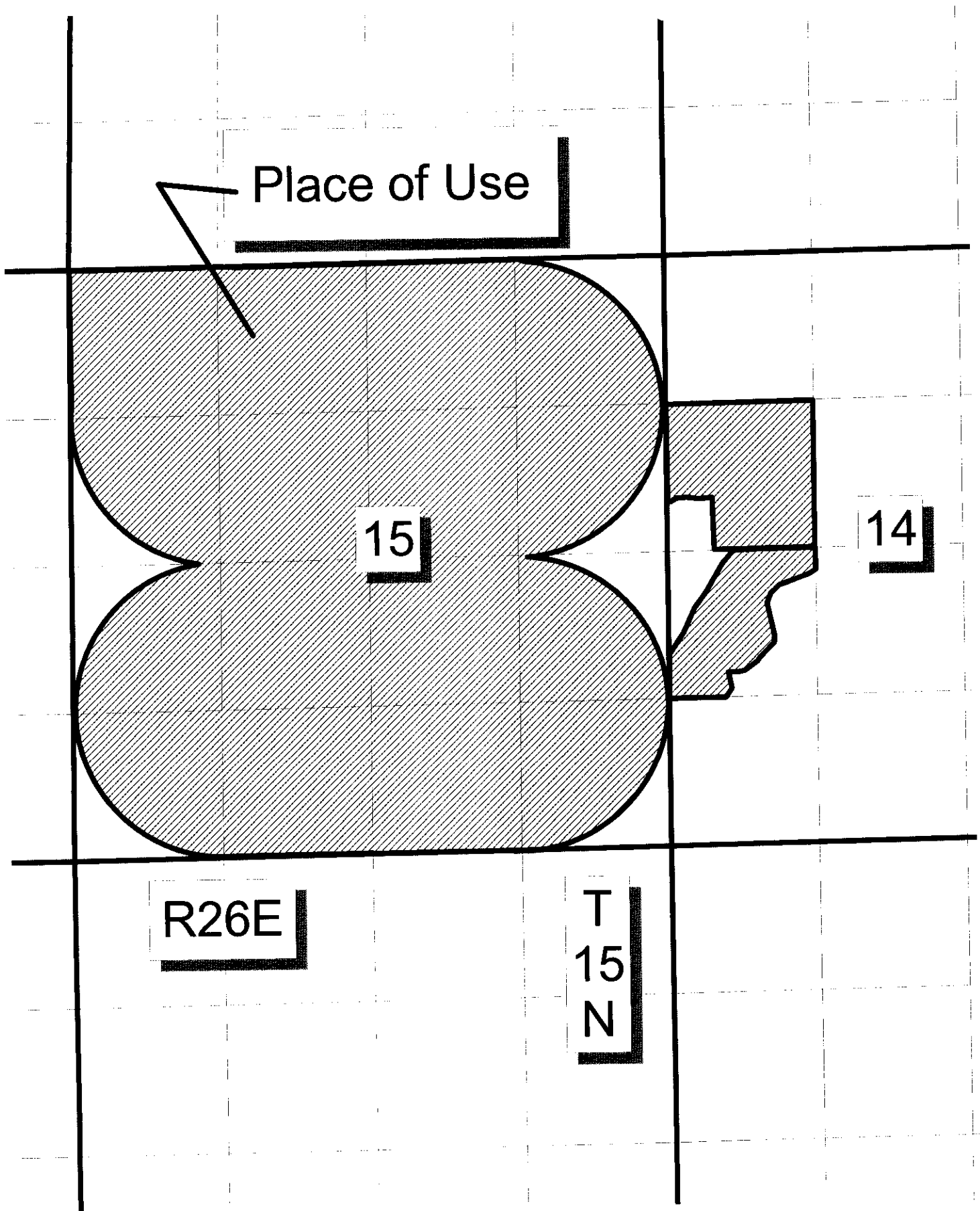
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Sections
QQ
SpatialData



74-7165



74-7165



T15N,R26E

635.9 ac

74-7165



Big Timber
Creek Diversion

1

All water rights
Diverted at
this point



Weir at
Big Timber
Creek Diversion

2

PERMIT
NUMBER

74-7165



POND & INTAKE
SCREEN at
Bubbler

3

Location
Sec 16 above
Ranch



Bubbler & headgate
Gravity flow
mainline starts
at this point &
feeds Pivot
IN NE 1/4 Sec 15

4

PERMIT
NUMBER

74-7165



Fence & mainline
divide SE $\frac{1}{4}$ and
SW $\frac{1}{4}$ Sec 15
Hand lines water
on both sides of
fence

5

Ditch used for
overflow of
pump pictured
in photo 6



Pump with
screen

6

PERMIT
NUMBER

74-7165



Ditch entering
NW 1/4 Sec 15

7



SE 1/4 Sec 15
Watered by
hand lines

8

Shovel beside
mainline
Background the
Pivot in NE 1/4
Sec 15

PERMIT
NUMBER

74-7165



Electric pump &
mainline located
below house in
SW NW Sec 14

9



FIELD & handline
described above
in Sec 14

10

PERMIT
NUMBER

74-7165