

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-9644

Exam Date: 6-2-08

1. Current Owner: RICKEL WATER CO
PO BOX 1261
HAYDEN LAKE ID 83835-1261
(208)772-3685
2. Accompanied by: KEN RICKEL
Phone No: SAME AS ABOVE
Address: SAME AS ABOVE
Relationship to Permit Holder: OWNER

3. SOURCE

TRIBUTARY

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 95-9643
2. Other water rights with the same point of diversion: 95-9643

C. DIVERSION AND DELIVERY SYSTEM

1. LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER SW¼SW¼ Sec. 29, Twp 53N, Rge 03W, B.M. KOOTENAI County

GROUND WATER SW¼SW¼ Sec. 29, Twp 53N, Rge 03W, B.M. KOOTENAI County

Method of Determination: GPS

2.

PLACE OF USE: MUNICIPAL

Twp	Rge	Sec	NE				NW				SW				SE				Totals	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
53N	03W	20									X				X		X	X	X	
53N	03W	28								X	X	X								
53N	03W	29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
53N	03W	30	X			X														
53N	03W	32	X	X		X									X				X	
53N	03W	33					X													

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>
	See Attached				

*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>

2. Measurements: SEE ATTACHED

E. FLOW CALCULATIONS

Measured Method:

☒ Additional Computation Sheets Attached

F. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

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

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

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

2. Volume Calculations for Other Uses:

$$19 \times .6 = 11.4 \text{ AF}$$

$$11.5 \times 3 = 34.5 \text{ AF}$$

$$45.9 \text{ AF total}$$

G. NARRATIVE/REMARKS/COMMENTS

THIS SYSTEM USES GROUNDWATER FOR MUNICIPAL USE. THE PERMIT WAS FOR DOMESTIC AND IRRIGATION BUT WILL BE AMENDED TO MUNICIPAL. THERE ARE 2 POINTS OF DIVERSION IN THE SAME OO. THE PERMIT WAS ONLY FOR ONE POINT OF DIVERSION BUT WILL BE AMENDED TO 2. WELL #1 HAS A 25 HP PUMP THAT PRODUCES 0.43 CFS AND WELL #2 HAS A 20 HP PUMP THAT PRODUCES 0.32 CFS FOR A TOTAL OF 0.75 CFS. THE PERMIT WILL LIMIT THE DIVERSION RATE TO 0.28 CFS. THE WELLS PUMP THE WATER INTO A STORAGE TANK WHERE BOOSTER PUMPS DELIVER THE WATER TO THE SYSTEM. THE PLACE OF USE IS THE SERVICE AREA OF RICKEL WATER COMPANY. THIS SYSTEM HAS AN OVERLAP WITH WATER RIGHT 95-9643.

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>
MUNICIPAL	01/01 to 12/31	0.280 CFS	45.90 AF
<u>Totals:</u>		0.280 CFS	45.90 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 [Signature] Date 1-9-09

Reviewer Bob Haynes Date 1/26/09



Well #2

95-9644

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

RECEIVED

USE TYPEWRITER OR
BALLPOINT PEN

MAR 24 1993

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources, within 30 days after the completion or abandonment of the well.

1. WELL OWNER
Name KEN RICKEL
Address PO BOX 1261 HAYDEN LAKE ID 83835
Drilling Permit No. 96-92-N-278
Water Right Permit No. _____

2. NATURE OF WORK
☒ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase ☐ Modification
☐ Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)

3. PROPOSED USE
☒ Domestic ☐ Irrigation ☐ Monitor
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED
☐ Rotary ☒ Air ☐ Auger ☐ Reverse rotary
☒ Cable ☐ Mud ☐ Other _____ (backhoe, hydraulic, etc.)
(+ Surges & Boils) 1-28-92

5. WELL CONSTRUCTION
Casing schedule: ☒ Steel ☐ Concrete ☐ Other
Thickness .250 inches Diameter 10 inches From 1 foot To 200 feet
.250 inches 8 inches 1 1/2 feet 447 feet
_____ inches _____ inches _____ feet _____ feet
Was casing drive shoe used? ☒ Yes ☐ No 10"/8" o.d.
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☒ Yes ☐ No
How perforated? ☐ Factory ☒ Knife ☐ Torch ☐ Gun
Size of perforation? 1 inches by 1/4 inches
Number _____ From _____ To _____
390 perforations 417 feet 443 feet
_____ perforations _____ feet _____ feet
_____ perforations _____ feet _____ feet
Wall screen installed? ☐ Yes ☒ No
Manufacturer _____ Type _____
Top Packer or Headpipe _____
Bottom of Tailpipe _____
Diameter _____ Slot size _____ Set from _____ feet to _____ feet
Diameter _____ Slot size _____ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 60 Material used in seal: ☐ Cement grout
☒ Bentonite ☐ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit ☒ Overbore to seal depth
☐ Temp. surface casing ☐ Threaded ☐ Welded
Method of joining casing: ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL
Sketch map location must agree with written location.
Subdivision Name _____
Lot No. _____ Block No. _____
County KOOTENAI
Address of Well Site _____ (give at least name of road)
SW 1/4 SW 1/4 Sec. 29 T. 53 N. R. 3 E. or S. E. or W. E.

7. WATER LEVEL
Static water level 381 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe erosion or temperature zones below _____

8. WELL TEST DATA
☐ Pump ☐ Sailer ☒ Air ☐ Other _____
Discharge G.R.M. _____ Pumping Level 444 Hours Pumped 1
30+ _____ _____

9. LITHOLOGIC LOG
104582
Bore Diam. From To Material Water Yes No
12 0 60 SAND, GRAVEL, BOULDERS
10 60 200 SAND, GRAVEL, BOULDERS
10 200 447 SAND, GRAVEL, BOULDERS X

10.
Work started 12-03-92 finished 12-07-92

11. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name H2O WELL SERVICE Firm No. 448
Address 582 W HAYDEN AVE Date 12-07-92
Signed by Drilling Supervisor _____ and _____ (Operator) _____
(If different than the Drilling Supervisor)

RECEIVED
FEB 01 1993
NORTHERN REGION
IDWR

MAINTAINED
AUG 9 1993

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

PUMP EQUATIONS					
WATER RIGHT No. 95-9644 WELL #1					
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
$Q = \frac{HP \times 8.8 \times \text{Eff}}{H}$	25	413.3878	0.8	344	30
Q = 0.426 cfs 191.4 gpm					

PUMP EQUATIONS					
WATER RIGHT No. 95-9644 WELL #2					
	HP	H in feet	Efficiency as a decimal	Pumping lift in feet	System pressure in PSI
$Q = \frac{HP \times 8.8 \times \text{Eff}}{H}$	20	450.3878	0.8	381	30
Q = 0.313 cfs 140.5 gpm					



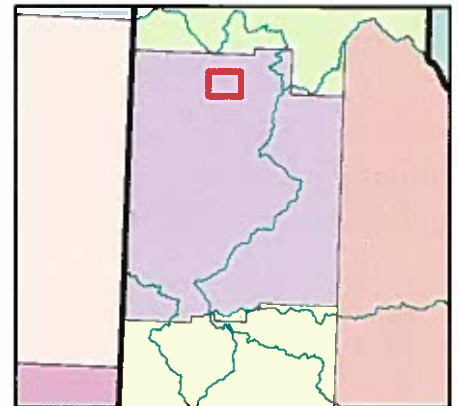
Rickel Water Co

Water Rights: 95-9644

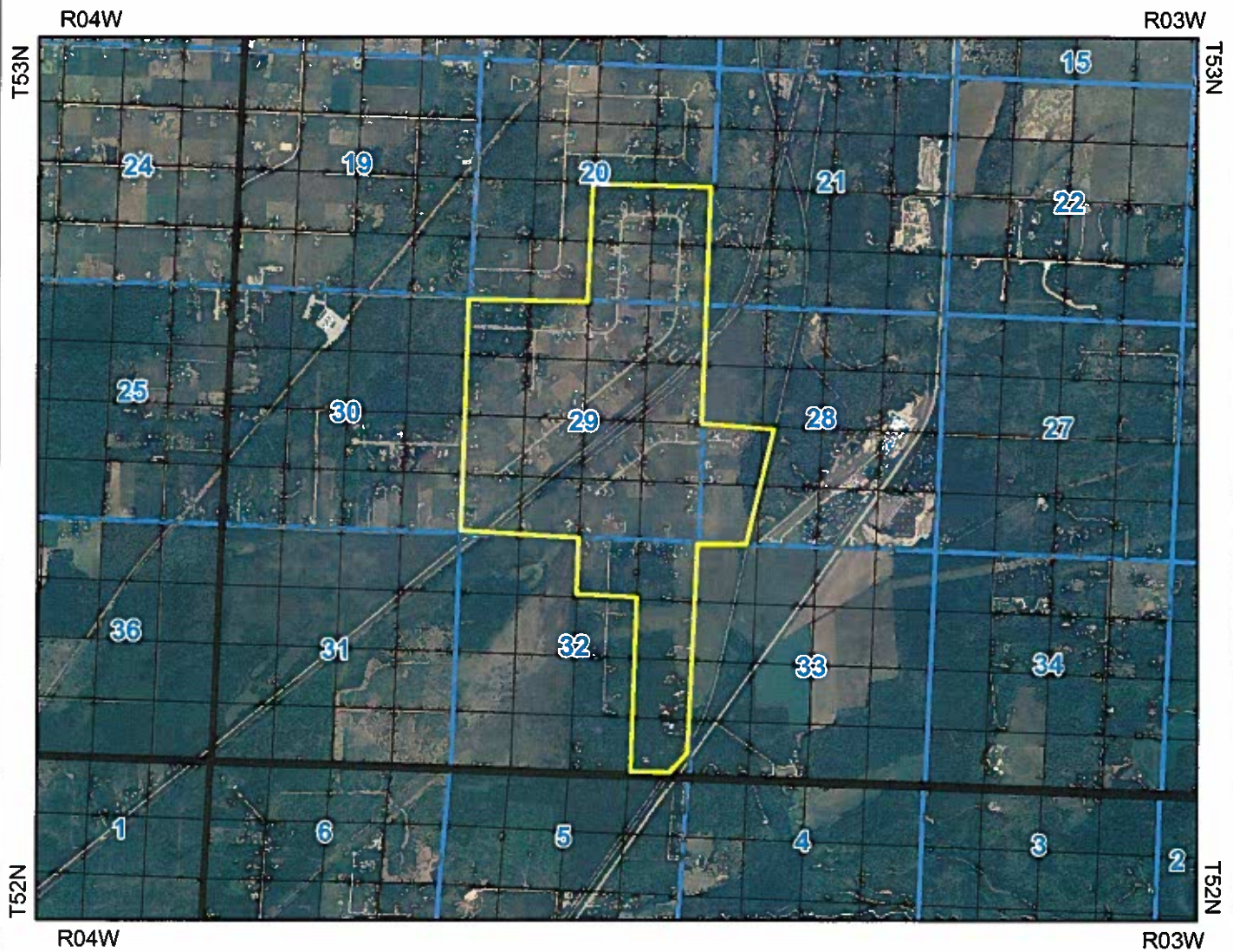
Legend

-  Service Area
-  State Outline
-  Townships
-  PLS Sections
-  Quarter Quarters

Service Area Boundary
GIS Place of Use Illustration



Kootenai County
IDWR Basin 95



Prepared by Chad Goodwin
On January 09, 2009
2004 Aerial Photography

0 0.5 1 2 Miles



BOOSTER PUMP
CONTROL PANEL.JPG



BOOSTER PUMP
HOUSE.JPG



BOOSTER PUMPS FROM
STORAGE.JPG



POINT OF DIVERSION
WELL #1.JPG



POINT OF DIVERSION
WELL #2.JPG



PUMP HOUSE WELL
#1.JPG



PUMP HOUSE WELL
#2.JPG



STORAGE.JPG

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