

Permit No: 65-13976

STATE OF IDAHO
 DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-13976

Exam Date: 7/27/2005

1. Current Owner: BILLY D KLAS
 9581 PACKER JOHN RD
 CASCADE ID 83611
 (208)382-7230

Or

JOAN KLAS
 9581 PACKER JOHN RD
 CASCADE ID 83611
 (208)382-7230

2. Accompanied by: Billy and his son Jim

Phone No:

Address:

Relationship to Permit Holder:

3. **SOURCE**

NORTH FORK PAYETTE RIVER

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

NORTH FORK PAYETTE RIVER SE1/4SE1/4SE1/4 Lt 8 Sec. 15, Twp 11N, Rge 03E, B.M.
 VALLEY County

Method of Determination:

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	
11N	03E	14											1.3						1.3
													L 3						
11N	03E	15															1.7		1.7
																	L 8		

Total Acres: 3

Method of Determination:

3. Y Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- Y Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- Y Aerial Photo Attached (required for irrigation of 10+ acres).
- Y 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>
River Pump	GE	2	SRJ170014	Jet Pump	

*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>
Sprinkler Specs	Pop-up	K Rain	Dial-A-Nozzle			
Theoretical						

2. Measurements:

15 sprinklers set at R#3.0 @ 40 psi = 3.4 gpm/sprinkler = 51 gpm = .11 cfs system capacity

(The pump is set to kick off if the pressure drops below 40 psi. Running more than 15 sprinklers would drop the pressure below 40 psi and kick the pump off.)

 Pump Theoretical: $\frac{2 \text{ hp} \times 8.8 \times .7}{10' \text{ lift} \times 40 \text{ psi} \times 2.31} = .12 \text{ cfs}$
E. FLOW CALCULATIONS

Y Additional Computation Sheets Attached

Measured Method:

See above and attached technical info for K Rain sprinklers.

Sprinkler specs: .11 cfs

Theoretical: .12 cfs

3 acres developed irrigation limited to **.09 cfs**

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3 \times 3 = 9.0$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = .09 \times 214 \times 1.9835 = 38.2$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 9.0$$

2. Volume Calculations for Other Uses:

G. NARRATIVE/REMARKS/COMMENTS

A 2 hp Jet pump is used to divert water from the North Fork of the Payette River for irrigation of three acres of grass. Diversion works consists of a 4 inch intake pipe that graduates down to 2 inch at the pump, 2 inch buried mainline, and 30 Rain K pop-up sprinklers. 15 sprinklers can operate at 40 psi. The pump has a safety pressure regulator that will kick it off if pressure drops below 40 psi. The Rain K sprinklers are adjustable and were set at R#3.0. Flow rate was then determined using a pressure gage located at the pump and a performance chart supplied by the specific sprinkler manufacturer. The acres are located on the east side of the river. The permit indicates that the acres in S15 are located in Gov Lot 4, however, Arc View indicates that the acres are in Gov Lot 8. Arc View was not available at the time the application was filed and the Gov Lot microfiche for S15 is difficult to read. Lot 8 was recommended for licensing. A domestic well is used for internal domestic use. No other rights are used.

Have conditions of permit approval been met? ☒ Yes ☐ No The power source for the pump can be locked. See photos.

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	04/01 to 10/31	0.090 CFS	9.00 AF
<u>Totals:</u>		0.090 CFS	9.00 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 Loi Ganner Date 8/1/05

Reviewer _____ Date _____



DIAL-A-NOZZLE®

GEAR DRIVEN SPRINKLER SETTING INSTRUCTIONS

DIRECTIONS FOR ARC SETTING BEFORE INSTALLATION

ARC SETTING OF THE SPRINKLER IS AS SIMPLE AS TURNING THE ARC SETTING ARROW TO THE DESIRED ARC AS INDICATED ON THE TOP OF THE NOZZLE HOUSING.

The sprinkler will then oscillate at this indicated setting.

DIAL-A-NOZZLE IS ADJUSTABLE AND CONTINUOUS 360° ALL IN ONE MODEL.

WHEN SET TO 360° IT WILL AUTOMATICALLY CONTINUE TO ROTATE IN SINGLE FULL 360° COVERAGE.

IT'S AS EASY AS 1..2..3 TO SET A K-RAIN SPRINKLER

INSTALLATION: Sprinkler should be installed with the top even with ground level.

SETTING INSTRUCTIONS:

1. In order to set sprinkler you must establish the left starting point. To establish the left starting point, **using the palm of your hand or fingers, turn the top center of the sprinkler to the right until it stops; then turn it back to the left until it stops.**

2. Sprinkler must now be aligned so that the raised arrow points where you want the sprinkler to begin spraying. The operating nozzle is located under this arrow. **Turn the can on the pipe until you align the raised arrow where you**

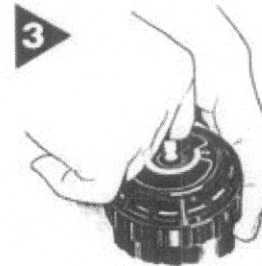
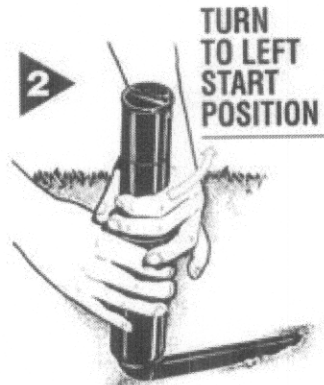
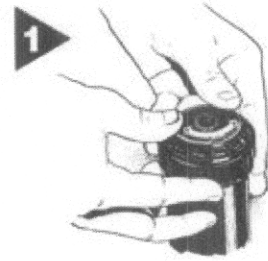
want the sprinkler to begin spraying. You have now established the left starting position for the sprinkler. The sprinkler will rotate from left to right and return.

3. Set the spray pattern. The spray pattern can be adjusted anywhere from 40°-360°. **Hold the top center of the sprinkler** (at the left starting point) **and insert K-Rain key or screwdriver into center arrow.** Turn until arrow points to desired setting. You have now set the spray pattern.

TO SELECT NOZZLE:

With sprinkler running or riser popped up, insert flat screwdriver or K-Key into nozzle selection keyhole on top of the sprinkler. Rotate screwdriver or K-Key until desired nozzle is aligned with raised arrow on top. Breakup screw (provided with sprinkler) can be used to adjust radius. Insert screw into raised arrow for adjustment. (**NOTE: Nozzle Selection Can Not Be Changed When Radius Adjustment Screw is Installed**)!

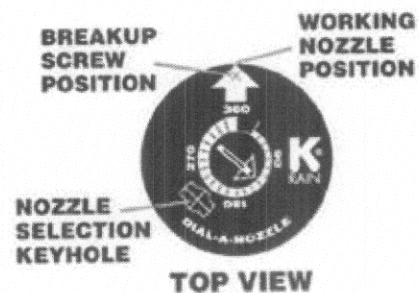
NOTE: Do not force or turn the sprinkler in the opposite way it is currently turning or you may damage the sprinkler.



FOR MEDIUM TO LARGE TURF WATERING

- Quiet, smooth rotation
- Waters 15' - 46'
- Adjustable & continuous full circle sprinkler in one
- 3/4" female inlet
- Replaces all major brands
- 1 year guarantee

EASY DIAL-IN SPRAY PATTERN 40° - 360°



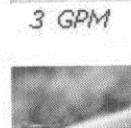
INSPECTING THE FILTER

Unscrew the top and lift the complete sprinkler assembly out of the housing can. The filter is on the bottom of the sprinkler assembly and can easily be pulled out, cleaned and re-installed.

OPERATING SPECIFICATIONS

- Discharge Rate: 4.5 to 16.7 GPM
(.23 to 2.00 m³/hr; 3.8 to 33.3 I/m)
- Radius: 10 feet to 46 feet (3 to 14.0m)
- Pressure Range: 30 to 70 PSI
(2.1 to 4.8 bars; 206 to 482 kPa)
- Precipitation Range: at 60 PSI (4.1 bars; 413 kPa)
matched precipitation rates about .5" (12.7mm) per hour
- Nozzle Trajectory: Standard 26°, Low Angle 12°

PERFORMANCE

Nozzle	Pressure PSI	Radius Ft.	Flow GPM	LOW ANGLE NOZZLES	STANDARD ANGLE NOZZLES
L#1	30	30'	1.0		
	40	31'	1.2		
	50	33'	1.4		
	60	36'	1.7		
L#2	30	32'	2.0		
	40	35'	2.4		
	50	36'	2.9		
	60	38'	3.1		
L#3	30	33'	2.9		
	40	36'	3.4		
	50	39'	3.9		
	60	40'	4.3		
L#4	30	32'	4.0		
	40	35'	4.6		
	50	36'	5.3		
	60	38'	5.9		
R#1.5	30	36'	1.5		
	40	39'	1.8		
	50	40'	2.1		
	60	41'	2.3		
R#3.0	30	39'	3.0		
	40	41'	<u>3.4</u>		
	50	42'	3.9		
	60	43'	4.2		
R#4.5	30	37'	4.2		
	40	40'	5.1		
	50	43'	5.6		
	60	45'	6.3		
R#6.0	30	35'	5.3		
	40	39'	6.5		
	50	43'	7.3		
	60	44'	8.1		
	70	46'	8.8		

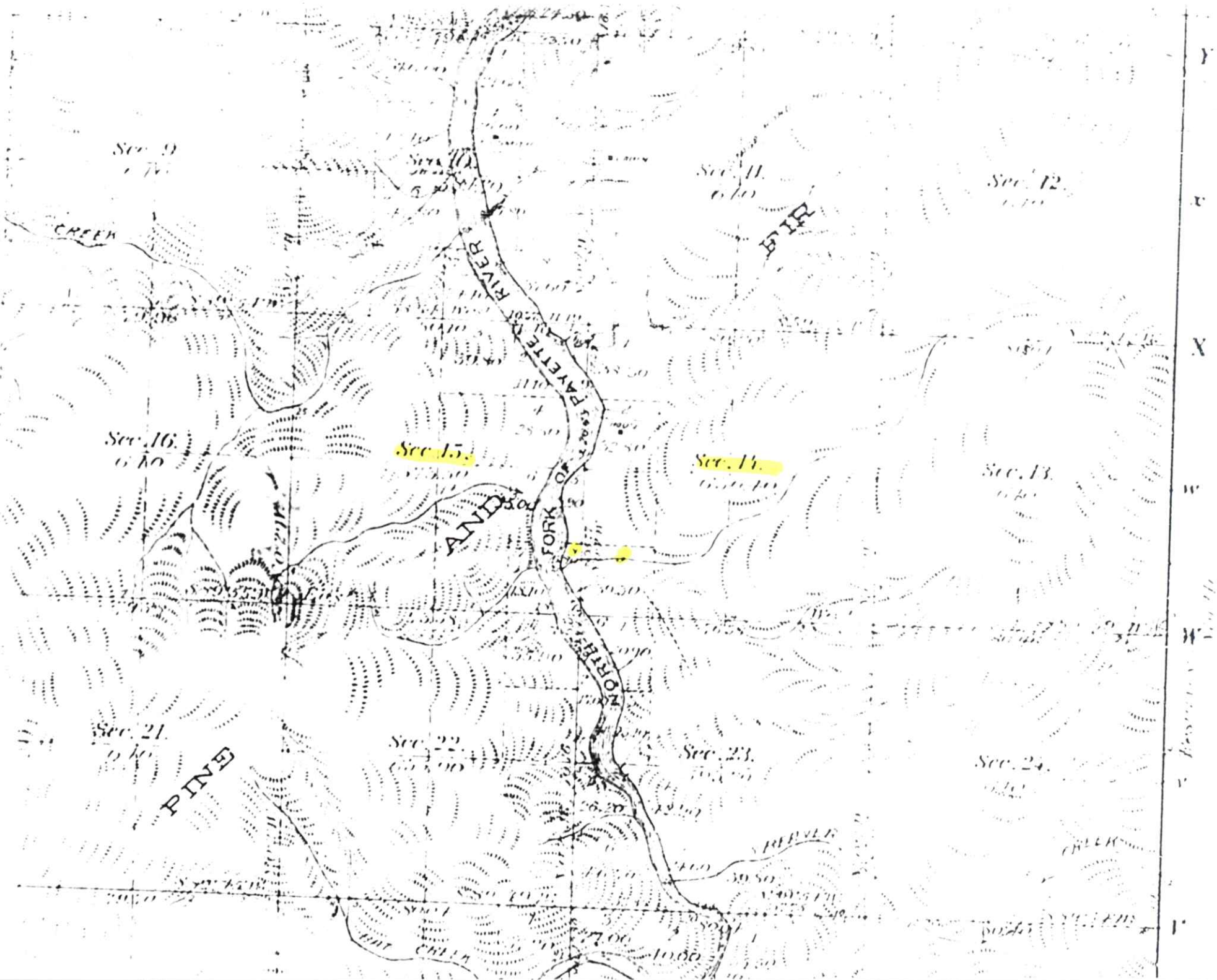
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Pump

SESE Lt 8 S15
1.7 ac

SWSW Lt 3 S14
1.3 ac





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Power to
Pump



Lockable



Pump Control Box-
pressure regulated-
kicks pump off when
pressure gets below
40 psi



4" intake pipe-
graduates down
to 2" at pump



↑
P/U
↓

