

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 17-7026

Exam Date: 10/25/1995

1. Current Owner: CURLEW DEVELOPMENT INC
C/O BRENT BIRD
9830 N ARBON VALLEY RD
HOLBROOK ID 83243
(208)698-3345

2. Accompanied by: Jeff/Brent Bird
Phone No:
Address:
Relationship to Permit Holder: 698-3340

3. SOURCE TRIBUTARY
GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 17-7065
2. Other water rights with the same point of diversion: 17-7065

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER	L1 NE1/4NE1/4NE1/4	Sec. 1,	Twp 15S,	Rge 32E, B.M.	WELL #1
ONEIDA County					
GROUND WATER	L2 NW1/4NE1/4	Sec. 6,	Twp 15S,	Rge 33E, B.M.	WELL #3
ONEIDA County					
GROUND WATER	L3 NW1/4NE1/4NW1/4	Sec. 6,	Twp 15S,	Rge 33E, B.M.	WELL #4
ONEIDA County					
GROUND WATER	L1 SE1/4NE1/4NE1/4	Sec. 1,	Twp 15S,	Rge 32E, B.M.	WELL #2
ONEIDA County					

Method of Determination: FE/Maps/GIS

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	
14S	33E	31												12.0	39.0	15.0	26.0	39.0	131.0
15S	32E	1	39.0	39.0	39.0	39.0	38.0	39.0	39.0	40.0									312.0
			L 1	L 2			L 3	L 4											
15S	33E	6	40.0	40.0	40.0	39.0	12.0			9.9									180.9
			L 1	L 2			L 3												

Total Acres: 623.9

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</u>			<u>Pump Serial No. or Discharge</u>		
	<u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Size</u>
#1		Detroit Diesel	350hp		Johnston	200hp pump
#2		GE	200hp			
#3		Fairbank	75hp			
#4		GE	75hp			

*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:

SONIC METER

WELL #1 — 2.4 cfs

WELL #3 — 1.73 cfs

WELL #4 — 1.64 cfs

WELL #2 — 2.69 cfs (theoretical calc)

E. FLOW CALCULATIONS☐ Additional Computation Sheets Attached

Measured Method:

SONIC METER / ONE THEOR. CALCULATION

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 240 \times 3.5 = 840 \text{ AF/A}$$

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

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 840 \text{ AF/A}$$

2. Volume Calculations for Other Uses:

ACRE LIMIT 240 AC

TOTAL COMBINED USE WITH 17-7065

8 CFS $\rightarrow$ 623.9 ACRES $\times$ 3.5 = 2183.6 AF/A

G. NARRATIVE/REMARKS/COMMENTS

4 wells/pumps to sprinklers and pivots. Combined use with 17-7065. the four wells measured at 8.46 cfs. this right was for 240 acres 4 cfs. proof submitted for 3.0 CFS. acreage based on 1992 air photos. there have been some changes since then. Totalizing meters on each well.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE	ANNUAL VOLUME
IRRIGATION	04/01 to 10/31	3.000 CFS	840.00 AF
Totals:		3.000 CFS	840.00 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 Skip Jones/Don Simpkins Date 10/1995

Reviewer DAVE CARLSON Date 4/10/2007

PRINTER USE
? YES #1
10-25 15:4800 *R
+002.70 % AI2
MODE SELECT
T0 CHECK
0386.2 MMSEC
100.41 % T0
MODE SELECT
INPUT
OUTER DIAMETER
10.7701 IN
PIPE MATERIAL
? CS,SS
WALL THICKNESS
0.2949 IN
INNER LINING
? NO LING.
KIND OF FLUID
? ANOTHER
SOUND VELOCITY
1460 M/S-
SENSOR MOUNTING
? U
TYPE OF SENSOR
? SMALL
DATA CHANGE
? NO
SPACING
8.340 IN U
ZERO MODE
CLEAR
ZERO MODE
AUT ZERO
ZERO MODE
ZERO OPR
DAMPING SET
25 SEC
10-25 16:0900 *R
+ 1.120E 3GPM

2.4 cfs

PRINTER USE
? YES
10-25 14:4500 *R
+002.20 % AI2
MODE SELECT #3
T0 CHECK
0385.2 MMSEC
100.65 % T0
ZERO MODE
CLEAR
ZERO MODE
AUT ZERO
MODE SELECT
INPUT
OUTER DIAMETER
10.7902 IN
PIPE MATERIAL
? CS,SS
WALL THICKNESS
0.3311 IN
INNER LINING
? NO LING.
KIND OF FLUID
? ANOTHER
SOUND VELOCITY
1460 M/S-
SENSOR MOUNTING
? U
TYPE OF SENSOR
? SMALL
DATA CHANGE
? NO
SPACING
8.416 IN U
ZERO MODE
ZERO OPR
10-25 14:4800 *R
+927.508E 0GPM
DAMPING SET
25 SEC
10-25 14:5000 *R
+778.251E 0GPM

1.73 cfs

MODE SELECT
-----DATA SET
With #4
PRINTER USE
? YES
10-25 13:5600 *R
+002.60 % AI2
MODE SELECT
T0 CHECK
0307.9 MMSEC
100.60 % T0
ZERO MODE
CLEAR
ZERO MODE
AUT ZERO
ZERO MODE
CLEAR
ZERO MODE
ZERO OPR
MODE SELECT
T0 CHECK
0308.5 MMSEC
100.79 % T0
10-25 14:0400 *R
+002.30 % AI2
DAMPING SET
10 SEC
10-25 14:0800 *R
+762.664E 0GPM
DAMPING SET
25 SEC
10-25 14:1100 *R
+723.567E 0GPM
10-25 14:2200 *R
+735.719E 0GPM

1.639 cfs

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well #2

THEORETICAL PUMP FLOW CALCULATIONS

Formula:

$$Q_{cfs} = [(Hp)(8.814)(Eff)] \div [Lift + (psi \times 2.308)]$$

$$Hp = \text{Horsepower} = \underline{200}$$

$$Eff = \text{Efficiency} = \underline{0.70} \quad (\text{Usually } 70\%)$$

$$\text{Lift: (Static Level + Assumed Draw down)}$$

$$(\text{From well log}) \text{ Static Water Level} = \underline{73} \text{ ft.}$$

$$\text{Assumed Draw down} = + \underline{190} \text{ ft.}$$

$$\text{Lift} = \underline{263}$$

OR

$$\text{Measured Dynamic Water Level} = \underline{\hspace{2cm}} \text{ ft.}$$

$$psi = \text{Operating Pressure} = \underline{85} \text{ psi}$$

$$Q_{cfs} = \left[\frac{200}{Hp} \times 8.814 \times \frac{0.7}{Eff} \right] \div \left[\frac{263}{Lift} + \left(\frac{85}{psi} \times 2.308 \right) \right]$$

$$Q_{cfs} = \left[\underline{1233.96} \right] \div \left[\underline{459.18} \right]$$

$$Q_{cfs} = \underline{2.69} \text{ cfs}$$

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