

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 65-23526

Exam Date: 9/11/2012

1. Current Owner: GUINN FAMILY TRUST
4909 W IDAHO BLVD
EMMETT ID 83617
(208)398-8636

2. Accompanied by: Lettie Guinn

Phone No: Cell phone 208-365-8387, home phone 208-398-8636

Address:

Relationship to Permit Holder: Owner

3. **SOURCE**

WASTE WATER

TRIBUTARY

PAYETTE RIVER

B. OVERLAP REVIEW

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

C. DIVERSION AND DELIVERY SYSTEM

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

WASTE WATER L5 NW1/4SW1/4 Sec. 4, Twp 06N, Rge 02W, B.M. GEM County

Method of Determination: GPS and visual inspection.

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	
06N 02W 4							1.8	.4			3.1						5.3
											L 5						

Total Acres: 5.3

PLACE OF USE: STOCKWATER

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
06N 02W 4							X	X			X						
											L 5						

Method of Determination: GIS and visual inspection.

3. Yes Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

Yes Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

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

Yes 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
POD corral	Berkeley Pumps		M7369 B2TPM		5.62 " impeller dia.

*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

2. Measurements: No measurements taken.

E. FLOW CALCULATIONS

___Additional Computation Sheets Attached

Measured Method: Theoretical

According to Berkeley Pumps website, a B2TPM pump max output is 24.11 cubic meters per hour.

24.11 cubic meters/h = 851.43 cubic feet/hour

851.43 ÷ 60 = 14.18 cubic feet/min

14.18 ÷ 60 = 0.24 cfs5.3 acres x 0.02 cfs/a = 0.11 cfsAccording to Field Examinars Handbook: 26-50 head of horses use 0.02 cfs**F. VOLUME CALCULATIONS**

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 5.3 \times 4.5 = 23.9 \text{ AF}$$

I.R.

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.24 \times 260 \times 1.9835 = 123.8 \text{ AF}$$

D.R.

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{23.9 \text{ AF}}$$

2. Volume Calculations for Other Uses: Stock water (horses)

According to Field Examinars Handbook: 26-50 head of horses use 0.7 AFA. Since horses drink directly from wastewater ditch, condition 111 added to license and no volume listed on license.

G. NARRATIVE/REMARKS/COMMENTS

Mrs. Guinn's husband submitted this permit and passed away years ago. Mrs. Guinn did not have complete knowledge of her husband's intent but explained the system as best she could.

The original permit 65-22381 describes multiple POD's covering different POU's. Mr. Guinn did develop water diverted to land around the riding corrals for irrigation of grass, trees and for stockwater. They developed the Circle G River Ranch which offers riding corrals and boarding stalls for horses. Mrs. Guinn continues to operate the Circle G River Ranch with around 50 horses maximum.

Permit 65-22381 is split into 65-23525 and 65-23526. This permit 65-23526 covers the lower diversion for irrigation of grass, trees and for stockwater. The lower POD is a Berkeley pump located next to the horse corral pulling water out of the wastewater ditch. This pump drives sprinklers around the corrals and along the hillside north of the waste water ditch. Horses are allowed to graze on the grass along the corral and hillside. At the time of the exam, horses and riders were observed in the area. There was also a maintenance person moving horses around. Mrs. Guinn indicated horses water directly from the waste water ditch so condition 111 will be added to the permit. Also, there will be no Annual Diversion Volume listed on the license.

The overlap report indicates numerous water rights decreed during the SRBA., all with different PODs. Many are domestic groundwater for houses but some have a stockwater component also. WR 65-22356 is a groundwater right for domestic and stockwater. The POU is the entire QQ of NSW. Condition X02 indicates use is for 50 mixed stock.

Water Right 65-11249 appears to overlap a portion of this water right. However, the shape for 65-11249 is for 3.2 acres in area but the water right is only for 3.0 acres. The ditch that supplies 65-11249 does not go around the portion irrigated under this water right. Therefore, 65-11249 is not a direct overlap and combined conditions should not be used. These water rights use completely separate irrigation

systems.

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The condition for installing a locking and measuring device may not be needed on this system. A letter to the water master for district 65 will be requested asking if they require this condition or will be waiving this conditions.

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	03/01 to 11/15	0.110 CFS	23.90 AF
STOCKWATER	01/01 to 12/31	0.020 CFS	
	<u>Totals:</u>	0.130 CFS	23.90 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 Glenn Gardner Date 27 Sept 2012

Reviewer _____ Date _____

State of Idaho
Department of Water Resources
Attachment To Water Right License
65-23526

This map depicts the IRRIGATION place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

R02W



0 0.0325 0.065 0.13 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters



State of Idaho
Department of Water Resources
Attachment To Water Right License
65-23526

This map depicts the STOCKWATER place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.

R02W

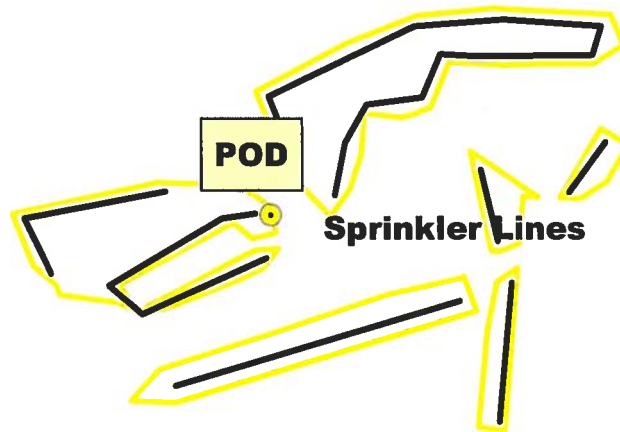


0 0.0325 0.065 0.13 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters



Field Exam Diagram for 65-23526 System Diagram

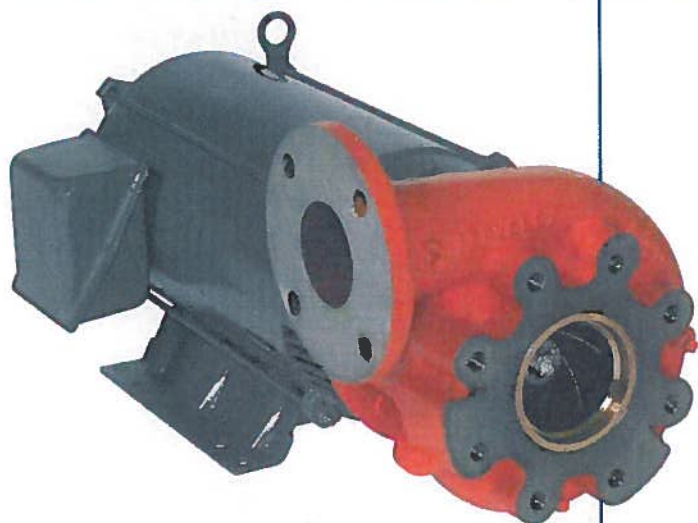


Mrs. Guinn's husband submitted this permit and passed away years ago. Mrs. Guinn did not have complete knowledge of her husband's intent but explained the system as best she could. The exact location of the sprinkler lines is unknown.

Water is pumped from the waste water ditch into a sprinkler system that irrigates grass and trees around the corrals and on the hillside. Horses graze mostly on the hillside but also around the corrals.



CLOSE-COUPLED MOTOR DRIVEN PUMPS



BERKELEY CLOSE-COUPLED END-SUCTION PUMPS are ideal for most applications requiring high performance, easy maintenance and moderate initial cost. Cast iron construction with unique back pull-out design permits access to the impeller without disturbing the piping.

FEATURES / BENEFITS

- **Four-position Discharge** – Rotatable discharge can be positioned for fast, easy piping. Small models equipped with tapped suction and discharge; large models have standard ANSI 125# flat-face flange.
- **Premium-grade Motors** – NEMA grade motors for greater efficiency, reliability and longevity. Quiet, smooth operation.
- **Motor Bracket** – Precision-machined, closed-grain cast iron provides added strength to minimize deflection and ensure a tight component seal.
- **Maintenance-free Shaft Seal** – Self-lubricating, corrosion-resistant mechanical shaft seal provides maximum abrasion resistance without leaking. Optional seals available for special applications.
- **Replaceable Slip-on Shaft Sleeve** – Rugged stainless steel shaft sleeve provides maximum corrosion and wear resistance.
- **Replaceable Bronze Wear Ring** – Available on some models.
- **Superior Impeller** – Precision-machined to optimize performance and operating efficiencies. Mechanically balanced to reduce bearing load for longer service life. Keyed and locked to motor shaft.
- **Heavy-duty Volute Case** – Thick-wall, close-grained cast iron stands tough in high-demand environment. Hydraulic efficiency is improved with CAD-based geometric design. Back pull-out design permits easy removal and repair without disturbing piping.
- **Multiple Taps** – Taps included for easy priming and draining.
- **Durable Finish** – High-quality lead-free/chromate-free primer and paint coatings.

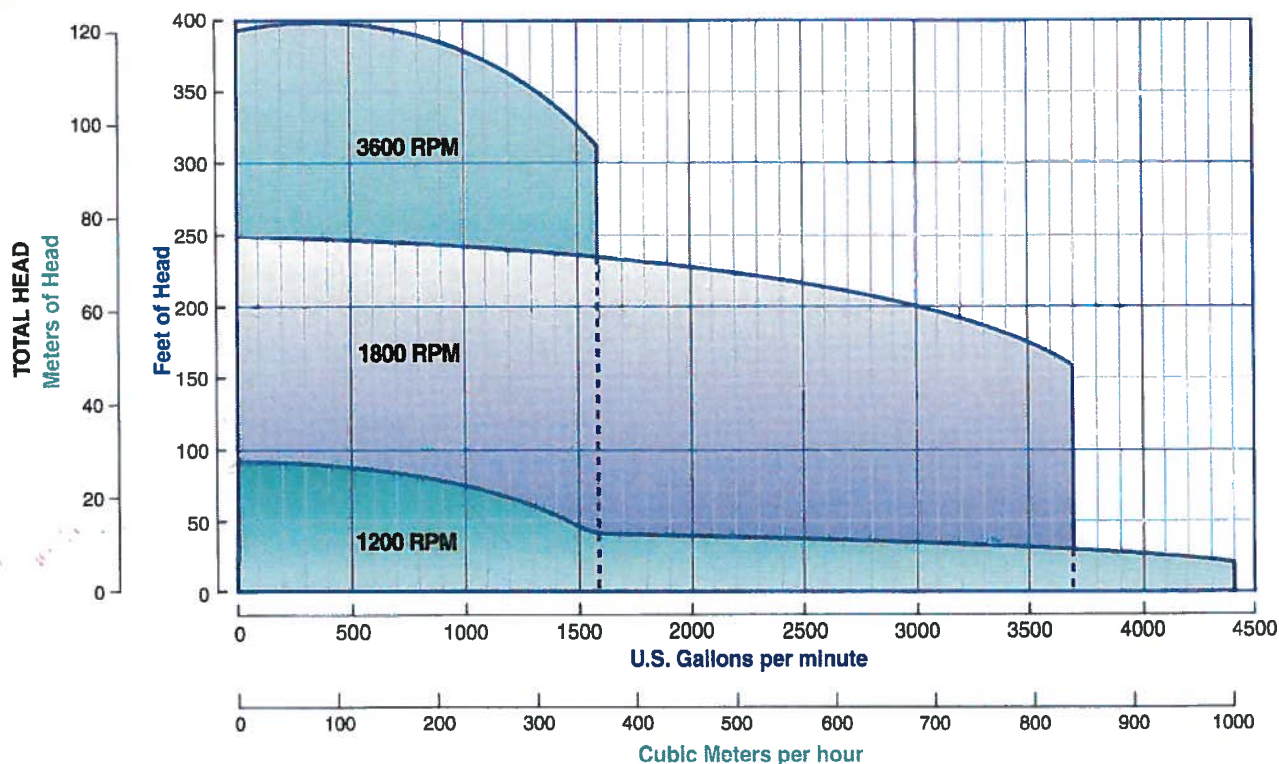


CENTRIFUGAL PUMPS

TYPE B

MATERIALS OF CONSTRUCTION

Part Name	Material	Spec Number
Volute Case	Cast Iron	ASTM A48 Class 30
Wear Ring	Bronze	ASTM B584 (UNS C87500)
Impeller	Cast Iron	ASTM A48 Class 30
	Bronze (optional)	ASTM B854 (UNS C87500)
Seal Retainer	Cast Iron	ASTM A48 Class 30
Adaptor Bracket	Cast Iron	ASTM A48 Class 30
Shaft Sleeve	416 S.S.	AISI 416SS
Lantern Ring	Teflon®	
Mechanical Shaft Seal	18-8 S.S. metal parts; "Buna-N" rubber bellows, ceramic stationary, carbon rotating face	
Packing Gland	Stainless Steel	AISI 304
	Cast Iron	ASTM A48 Class 30
Packing	PTFE packing with graphite impregnation	
Close Coupled Motor Shaft	Carbon Steel	AISI C1045



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Water™**

293 Wright Street | Delavan, WI 53115 | Phone: 1-888-BERKELEY | Fax: 1-800-426-9446 | www.berkeleypumps.com



CENTRIFUGAL PUMPS

B SERIES

Motor Drive Dimensions

NPT (Threaded) – Single Stage

PUMP MODEL	SHAFT SEAL	RPM/ PHASE	FRAME GROUP*	SUCTION	DISCHARGE	X	Y	MP	LP	Z	T1	T2	T3	T4	D1†	CP (MAX)
B2TPM	Packing	3600/1	C-1	2 1/2"	2"	5.38	3.07	4.38	5.56	4.12	4.75	4.44	5.38	5.63		24.11
						5.38	3.07	4.38	6.56	4.12	4.75	4.44	5.38	5.63		26.61
		3600/3	C-1	2 1/2"	2"	5.38	3.07	4.38	5.56	4.12	4.75	4.44	5.38	5.63		22.60
B2TPMS	Mechanical	3600/1	C-1	2 1/2"	2"	5.38	3.07	4.38	2.50	4.12	4.75	4.44	5.38	5.63		22.55
		3600/3	C-1	2 1/2"	2"	5.38	3.07	4.38	2.50	4.12	4.75	4.44	5.38	5.63		20.94
B2ZPL	Packing	3600/1	C-1	2 1/2"	2"	5.75	3.19	4.50	6.69	5.38	5.94	6.25	5.75	6.88		26.86
			C-1	2 1/2"	2"	5.75	3.19	4.50	6.69	5.38	5.94	6.25	5.75	6.88		26.75
		3600/3	C-2	2 1/2"	2"	5.75	3.19	4.50	6.69	5.38	5.94	6.25	5.75	6.88		28.36
B2ZPLS	Mechanical	3600/1	C-1	2 1/2"	2"	5.75	3.19	4.50	2.38	5.38	5.94	6.25	5.75	6.88		22.55
			C-1	2 1/2"	2"	5.75	3.19	4.50	2.38	5.38	5.94	6.25	5.75	6.88		22.44
		3600/3	C-2	2 1/2"	2"	5.75	3.19	4.50	3.75	5.38	5.94	6.25	5.75	6.88		25.42
B2ZPH	Packing	3600/3	C-2	2 1/2"	2"	5.75	3.19	4.50	6.69	5.38	5.94	6.25	5.75	6.88		30.25
B2ZPHS	Mechanical	3600/3	C-2	2 1/2"	2"	5.75	3.19	4.50	3.75	5.38	5.94	6.25	5.75	6.88		27.31
B2EPBL	Packing	3600/3	C-2	3"	2"	5.94	3.75	5.44	6.25	6.06	6.81	7.06	5.94	7.56		32.25
B2EPBLS	Mechanical	3600/3	C-2	3"	2"	5.94	3.75	5.44	3.38	6.06	6.81	7.06	5.94	7.56		29.38
B2EPBHH	Packing	3600/3	C-2	3"	2"	5.94	3.75	5.44	6.25	6.06	6.81	7.06	5.94	7.56		34.19
B2EPBHHS	Mechanical	3600/3	C-2	3"	2"	5.94	3.75	5.44	3.38	6.06	6.81	7.06	5.94	7.56		31.32
B2-1/2TPM	Packing	3600/1	C-1	3"	2 1/2"	5.88	3.56	4.88	5.56	4.25	4.94	6.50	6.25	7.25		23.28
						5.88	3.56	4.88	6.56	4.25	4.94	6.50	6.25	7.25		27.11
		3600/3	C-1	3"	2 1/2"	5.88	3.56	4.88	5.56	4.25	4.94	6.50	6.25	7.25		26.00
						5.88	3.56	4.88	6.56	4.25	4.94	6.50	6.25	7.25		27.00
		1800/1	C-1	3"	2 1/2"	5.88	3.56	4.88	5.56	4.25	4.94	6.50	6.25	7.25		22.28
		1800/3	C-1	3"	2 1/2"	5.88	3.56	4.88	5.56	4.25	4.94	6.50	6.25	7.25		19.81
B2-1/2TPMS	Mechanical	3600/1	C-1	3"	2 1/2"	5.88	3.56	4.88	2.50	4.25	4.94	6.50	6.25	7.25		23.05
		3600/3	C-1	3"	2 1/2"	5.88	3.56	4.88	2.50	4.25	4.94	6.50	6.25	7.25		22.94
		1800/1	C-1	3"	2 1/2"	5.88	3.56	4.88	2.50	4.25	4.94	6.50	6.25	7.25		19.22
		1800/3	C-1	3"	2 1/2"	5.88	3.56	4.88	2.50	4.25	4.94	6.50	6.25	7.25		17.25
B2-1/2ZPL	Packing	3600/3	C-1	3"	2 1/2"	6.25	3.68	5.18	6.69	4.25	4.94	6.50	6.25	7.25		27.43
			C-2	3"	2 1/2"	6.25	3.68	5.18	6.69	4.25	4.94	6.50	6.25	7.25		30.93
B2-1/2ZPLS	Mechanical	3600/3	C-1	3"	2 1/2"	6.25	3.68	5.18	2.38	4.25	4.94	6.50	6.25	7.25		23.12
			C-2	3"	2 1/2"	6.25	3.68	5.18	3.75	4.25	4.94	6.50	6.25	7.25		27.99
B2-1/2ZPM	Packing	1800/1	C-1	3"	2 1/2"	6.25	3.68	5.18	5.44	4.25	4.94	6.50	6.25	7.25	5.25	26.29
						6.25	3.68	5.18	6.69	4.25	4.94	6.50	6.25	7.25		27.54
		1800/3	C-1	3"	2 1/2"	6.25	3.68	5.18	5.44	4.25	4.94	6.50	6.25	7.25	5.25	24.68
B2-1/2ZPMS	Mechanical					6.25	3.68	5.18	6.69	4.25	4.94	6.50	6.25	7.25		25.93
		1800/1	C-1	3"	2 1/2"	6.25	3.68	5.18	2.38	4.25	4.94	6.50	6.25	7.25		23.23
		1800/3	C-1	3"	2 1/2"	6.25	3.68	5.18	2.38	4.25	4.94	6.50	6.25	7.25		21.62
B2-1/2JPBM	Packing	1800/3	C-2	4"	2 1/2"	6.50	4.38	6.75	5.44	7.81	8.56	8.94	6.50	9.75	8.00	31.25
B2-1/2JPBMS	Mechanical	1800/3	C-2	4"	2 1/2"	6.50	4.38	6.75	2.69	7.81	8.56	8.94	6.50	9.75		28.50
B3TPM	Packing	3600/1	C-1	4"	3"	7.00	3.50	4.94	6.56	4.56	5.38	5.00	7.00	6.75		27.17
						7.00	3.50	4.94	5.56	4.56	5.38	5.00	7.00	6.75		26.06
		3600/3	C-1	4"	3"	7.00	3.50	4.94	6.56	4.56	5.38	5.00	7.00	6.75		27.06
			C-2	4"	3"	7.00	3.50	4.94	6.56	4.56	5.38	5.00	7.00	6.75		28.67
		1800/1	C-1	4"	3"	7.00	3.50	4.94	5.56	4.56	5.38	5.00	7.00	6.75		23.84
		1800/3	C-1	4"	3"	7.00	3.50	4.94	5.56	4.56	5.38	5.00	7.00	6.75		22.16
B3TPMS	Mechanical	3600/1	C-1	4"	3"	7.00	3.50	4.94	2.50	4.56	5.38	5.00	7.00	6.75		23.11
			C-1	4"	3"	7.00	3.50	4.94	2.50	4.56	5.38	5.00	7.00	6.75		23.00
		3600/3	C-2	4"	3"	7.00	3.50	4.94	3.62	4.56	5.38	5.00	7.00	6.75		25.73
		1800/1	C-1	4"	3"	7.00	3.50	4.94	2.50	4.56	5.38	5.00	7.00	6.75		19.28
		1800/3	C-1	4"	3"	7.00	3.50	4.94	2.50	4.56	5.38	5.00	7.00	6.75		18.67

*See Motor Frame Size Chart.

† If Dimension "D1" is not referenced, no drain connection is available.

PHOTOGRAPHER AND DATE OF PHOTOS Glen Gardiner 11-Sept-2012

FILE NUMBER 65-23526



Photo of the POD.
Pump was not
running at the time
of the field exam.



Downstream
looking up at the
pump.

PHOTOGRAPHER AND DATE OF PHOTOS Glen Gardiner 11-Sept-2012

FILE NUMBER 65-23526



Photo of main corral area. Pump is located on right edge of photo.