

State of Idaho
Department of Water Resources
Water Right License
Water Right No. 63-34769

Priority: August 19, 2019

Maximum Diversion Rate: 0.16 CFS

It is hereby certified that:

KNIFE RIVER CORPORATION MOUNTAIN WEST 5450 W GOWEN RD BOISE ID 83709-5625

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated August 16, 2019, and has submitted Proof of Beneficial Use on June 01, 2021. An examination confirms water is diverted from:

Source : GROUND WATER

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/01 to 11/15	0.12 CFS	
COMMERCIAL	01/01 to 12/31	0.16 CFS	36.8 AF

Location of Point(s) of Diversion

GROUND WATER L4 (NW¼ NW¼), Sec. 4, Twp 03N, Rge 02W, B.M. CANYON County

Place of Use: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	02W	4						6.0											6.0

Total Acres: 6.0

Place of Use: COMMERCIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	02W	4						X											

Conditions of Approval

- Commercial use is for production of Ready Mix Concrete.
- The right holder shall make full beneficial use of all surface water available to the right holder for irrigation of lands within the authorized place of use for this right. The right holder may divert ground water under this right to irrigate land with appurtenant surface water rights when the surface water supply is not reasonably sufficient to irrigate the place of use for this water right or is not available due to drought, curtailment by priority, or the seasonal startup and shutoff or maintenance schedule for canal company deliveries. The right holder shall not divert ground water for irrigation purposes under this right if use of the surface water supply is intentionally discontinued or reduced (for example abandoned, forfeited, sold, disallowed by court decree, or leased to the Water Supply Bank), or is not deliverable due to non-payment of annual assessments, without an approved transfer pursuant to Idaho Code § 42-222 or other Department approval.

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3. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor exceed a combined annual maximum diversion volume of 27.0 af at the field headgate for the place of use.
4. This right when combined with all other rights shall provide no more than 4.5 afa per acre at the field headgate for irrigation of the place of use.
5. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.
6. The diversion and use of water described in this right may be subject to additional conditions and limitations agreed to by the protestant and the right holder under a separate agreement to which the Department is not a party. Because the Department is not a party, the Department is not responsible for enforcement of any aspect of the agreement not specifically addressed in other conditions herein. Enforcement of those portions of the agreement not specifically addressed in other conditions shall be the responsibility of the protestant and the water right holder.
7. The well used as a point of diversion for this water right shall be constructed and maintained with unperforated casing and sealed into the first significant confining layer located 200 feet or more below ground surface.
8. When ordered by the Director, the right holder shall provide mitigation acceptable to the Director to offset depletion of lower Snake River flows needed for migrating anadromous fish. The amount of water required for mitigation, which is to be released into the Snake River or a tributary for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this right. Any order of the Director issued in accordance with this paragraph shall be in conformance with applicable rules allowing the right holder due process as the need for mitigation and the amount of mitigation are determined.

This license is issued pursuant to the provisions of Idaho Code § 42-219. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed this 30th day of September, 2022.

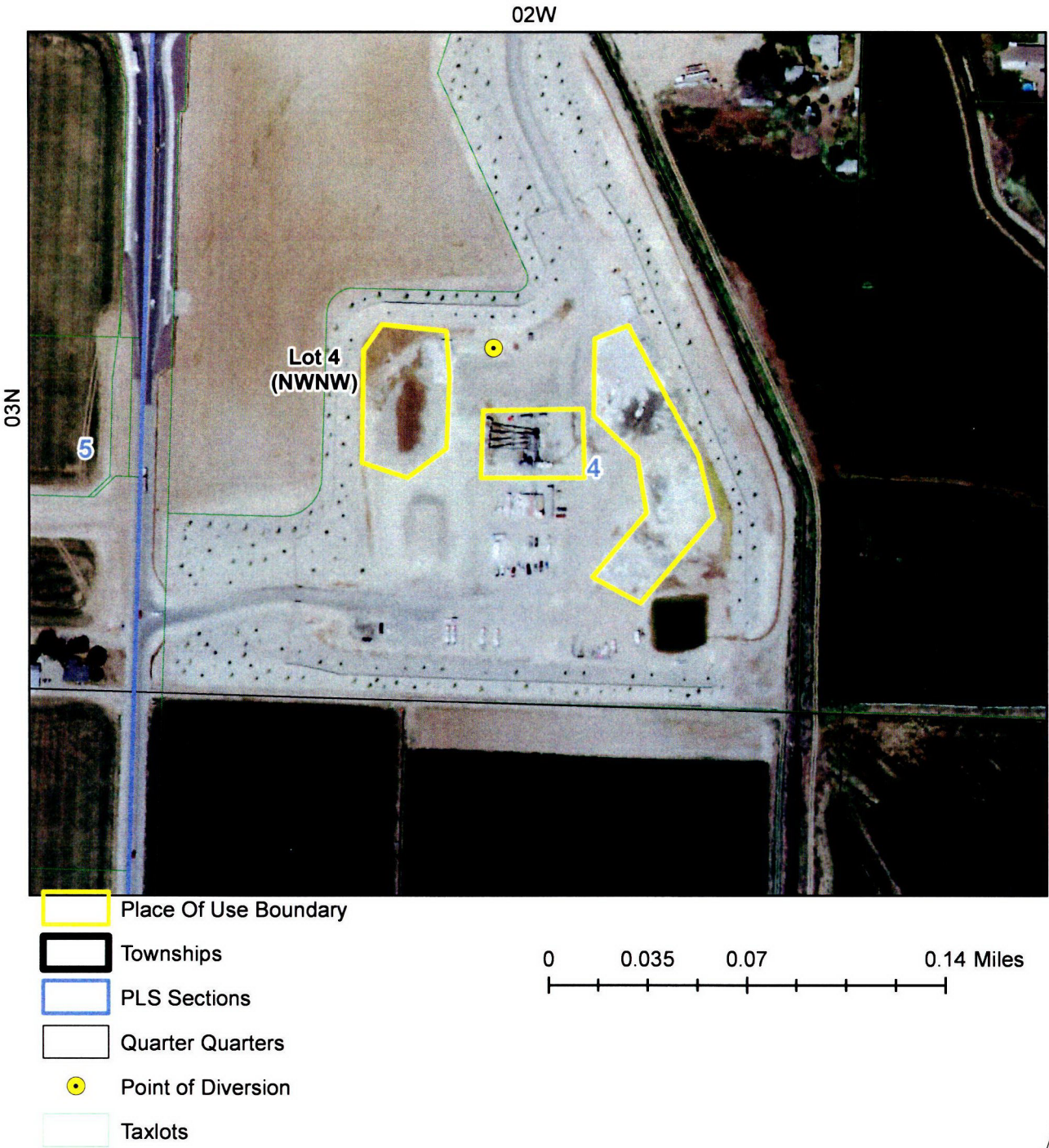


SCOTT STORMS
Water Rights Supervisor

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State of Idaho
Department of Water Resources
Attachment to Water Right License
63-34769

This map depicts the COMMERCIAL 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.



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State of Idaho
Department of Water Resources

Attachment to Water Right License

63-34769

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.



02W Place Of Use Boundary



Townships



PLS Sections



Quarter Quarters



Point of Diversion



Taxlots

0 0.0425 0.085 0.17 Miles

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Western Region • 2735 W Airport Way • Boise, ID 83705-5082

Phone: 208-334-2190 • Fax: 208-334-2348 • Email: westerninfo@idwr.idaho.gov • Web: idwr.idaho.gov

Governor Brad Little

Director Gary Spackman

September 30, 2022

KNIFE RIVER CORPORATION MOUNTAIN WEST
5450 W GOWEN RD
BOISE ID 83709-5625

RE: License No. 63-34769

ISSUANCE OF LICENSE

Dear Water Right Holder(s):

The Department of Water Resources ("Department") has issued the enclosed Water Right License confirming that a water right has been established in accordance with your permit. Please be sure to thoroughly review all the conditions of approval listed on your license. The conditions may include ongoing requirements, such as maintenance of a measuring device or implementation of mitigation, as well as information about how your water use may be administered, such as regulation by a watermaster in a water district.

The license is a PRELIMINARY ORDER issued by the Department pursuant to Rule 730 of the Department's Rules of Procedure (IDAPA 37.01.01.730). It can and will become a final order without further action by the Department unless a party petitions for reconsideration, files exceptions, or requests a hearing as described in the enclosed information sheet.

Also, please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Water right forms are available from any office of the Department or on the Department's website at idwr.idaho.gov

If you have any questions concerning the enclosed information, please contact me at (208) 605-4624.

Sincerely,

Scott Storms
Water Rights Supervisor

Enclosure(s)

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CERTIFICATE OF SERVICE

I hereby certify that on October 3, 2022, I served a true and correct copy of Water Right License No. 63-34769 by U.S. Mail, postage prepaid, to the following:

KNIFE RIVER CORPORATION MOUNTAIN WEST (Current Owner)
5450 W GOWEN RD
BOISE ID 83709-5625

JUSTIN TIETZ (Representative)
5450 W GOWEN RD
BOISE ID 83709-5625



Scott Storms
Water Rights Supervisor

EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "Preliminary Order" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:

- (a) The petition for reconsideration is disposed of; or
- (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

- i. A hearing was held,
- ii. The final agency action was taken,
- iii. The party seeking review of the order resides, or
- iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-34769
Exam Date: 08/10/2022

1. Current Owner:
KNIFE RIVER CORPORATION MOUNTAIN WEST 5450 W GOWEN RD BOISE ID 83709-5625
2. Accompanied by: Joe Smith, Mark Clayborne, Nathan Weldon
Phone No: 406-876-4637
Address:
Relationship to permit Holder: VP of Idaho Operations and Staff

3. **SOURCE:**
GROUND WATER

Method of Determination: Site visit, aerial imagery

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:**
GROUND WATER L4 (NW¼ NW¼), Sec. 4, Twp 03N, Rge 02W, B.M. CANYON County

Method of Determination: Pump GPS at 43° 37' 56.33" N, 116° 35' 25.93" W

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	02W	4						6.0											6.0

Total Acres: 6.0

PLACE OF USE: COMMERCIAL

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	02W	4						X											

Method of Determination: Field photos and aerial photography used to verify commercial and irrigation use site.

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

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4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0087808	Hitachi	7.5		Berkeley 5TMH-110 4STG	6" PE

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Measurements: Buried pump system and physical characteristics of the conveyance components did not provide suitable circumstances to directly measure the diversion rate.

E. FLOW CALCULATIONS

yes Additional Computation Sheets Attached

Measured Method: Measured Method: Pump specifications and performance curve information provided by the applicant were used to estimate flow. Performance curve at maximum performance with approximately 276' total head and 7.5 hp yields 60 gpm (0.16 cfs) capacity.

The Theoretical Horsepower Equation Worksheet and Friction Head Loss Calculator were also used to calculate an average flow rate of 0.14 cfs (see calculation sheets in file).

Depth to water = 276'

Hp = 7.5

Estimated frictional head loss = 0.11'

Theoretical Commercial Use = 0.16 cfs

0.14 cfs

Theoretical Irrigation Use = 0.16 cfs

0.14 cfs

Permitted Total Rate 1.0 cfs

License Recommendation 0.16 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{I.R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 6.0 \text{ acres} \times 4.5 \text{ AFA} = 27.0 \text{ AF}$

$V_{D.R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.12 \text{ cfs} \times 259 \text{ days} \times 1.9835 = 61.65$

$V = \text{Smaller of } V_{I.R} \text{ and } V_{D.R} = \underline{27.0 \text{ AF}}$

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2. Volume Calculations for Other Uses: Commercial use for the production of ready-mix concrete. Applicant confirmed annual max permitted average of 300,000 yards of concrete using 40 gallons of water per yard.

$$V_{D.R.} = [300,000 \text{ yards}] \times (40 \text{ gallons/yard}) = \underline{36.8 \text{ AF}}$$

G. NARRATIVE/REMARKS/COMMENTS

A field exam was conducted on 08/10/22 by Water Right Agent Laura McSherry and was accompanied by Mr. Joe Smith, Mr. Mark Clayborne, and Mr. Nathan Weldon. Mr. Joe Smith is the Vice President of Idaho Operations at Knife River Corporation. The permit was approved on January 29, 2020, and proof of beneficial use was submitted on June 1, 2021.

The point of diversion (POD) location was confirmed at a ground water well head in the NWNW QQ and is accurately described by the permit. An underground 7.5 hp Berkeley pump is diverting water using 2" piping to a ready-mix concrete manufacturing system and surrounding sprinkler system. From the manufacturing system, the mixed concrete is then loaded into concrete mixing trucks within the place of use (POU). Water right overlap did not discover any other water rights associated with the ground water POD. No amendment required to correct the legal description.

The permit authorizes 1.0 cfs for commercial use and 0.12 cfs for irrigation use within NWNW Sec 4, T03N, R02W, Lot 4. The concrete manufacturing system, which includes ready-mix concrete production and dust abatement, and irrigable acres are located within the POU. The irrigated acres include landscaped berms containing trees, bushes, and native shrubs which surround the entire POU. The irrigation use is supplemental to surface water shares with the Pioneer Irrigation District. ArcMap tools and aerial imagery, supported by photos taken during the field exam, were used to verify the POU area. No amendment required to correct the legal description of the POU.

The POD and pump are buried resulting in approximately 276 ft of head between where the water is diverted and where it is used on land. Pump and motor information was provided by the applicant. Using the pump performance curve for the 7.5 hp Berkely pump with 276 ft of total head, a theoretical flow rate of 0.16 cfs was calculated which is less than the permitted rate. The Theoretical Horsepower Equation Worksheet and Friction Head Loss Calculator were also used to determine an average flow rate of 0.14 cfs applying estimated discharge pressures ranging from 20-30 psi. The recommended licensed flow rate for commercial use is 0.16 cfs which is the max system capacity. The maximum diversion volume for commercial use is 36.8 AF. The recommended licensed flow rate for irrigation use is 0.12 cfs.

Condition 103 replaced condition 121 per department standards. Condition R61 added. Condition 26A and 046 were removed

Have conditions of permit approval been met? x Yes No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/01 to 11/15	0.12 CFS	
COMMERCIAL	01/01 to 12/31	0.16 CFS	36.8 AF

Totals: 0.16 CFS 36.8 AF

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2. Recommended Amendments

____ Change P.D. as reflected above ____ Add P.D. as reflected above x None

____ Change P.U. as reflected above ____ Add P.U. as reflected above x None

I. AUTHENTICATION Laura McSherry – Water Resource Agent

Field Examiner's Name  Date 9.16.2022

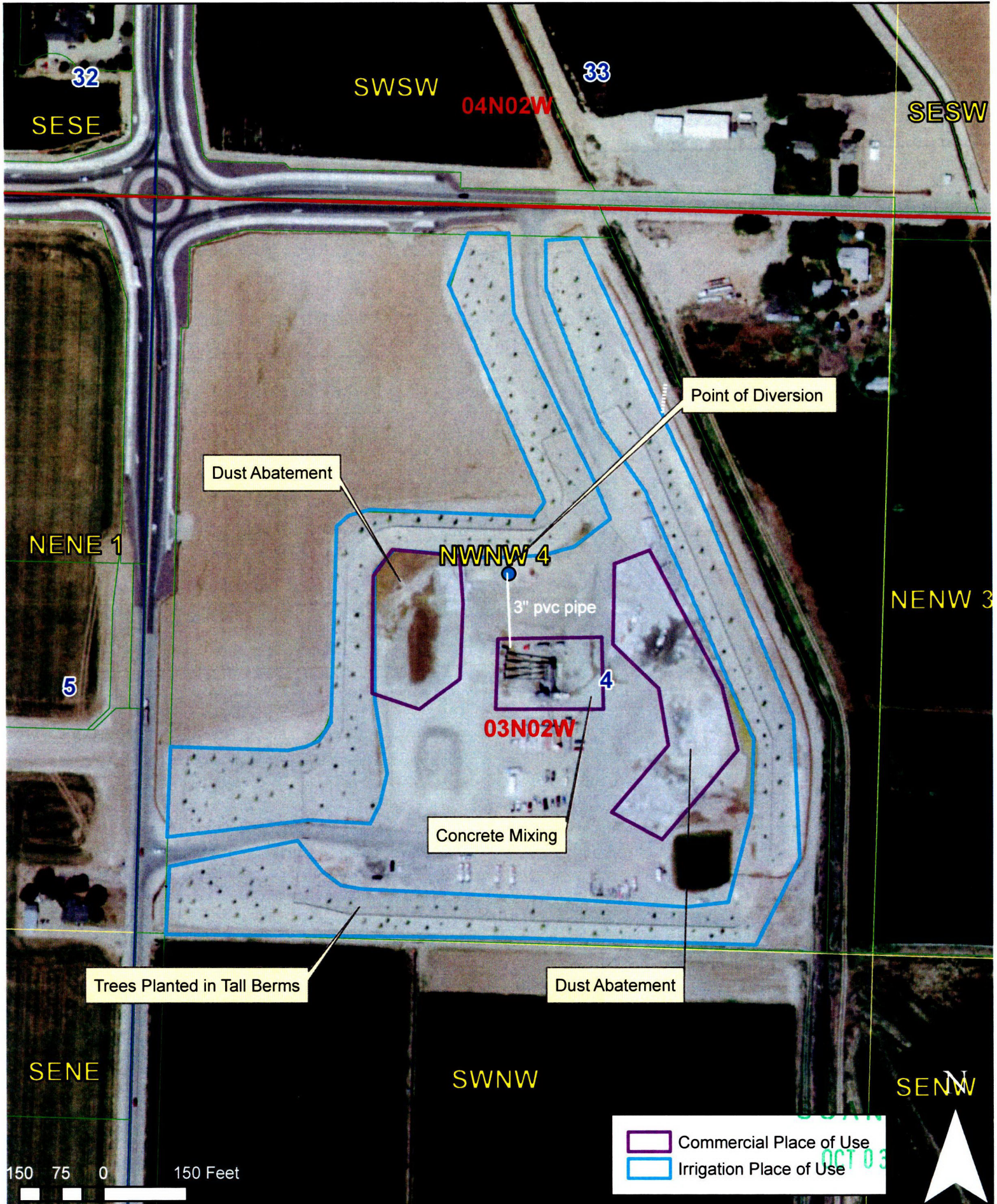
Reviewer  Date 9/27/2022

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DELIVERY SYSTEM DIAGRAM

Water Right No. 63-34769



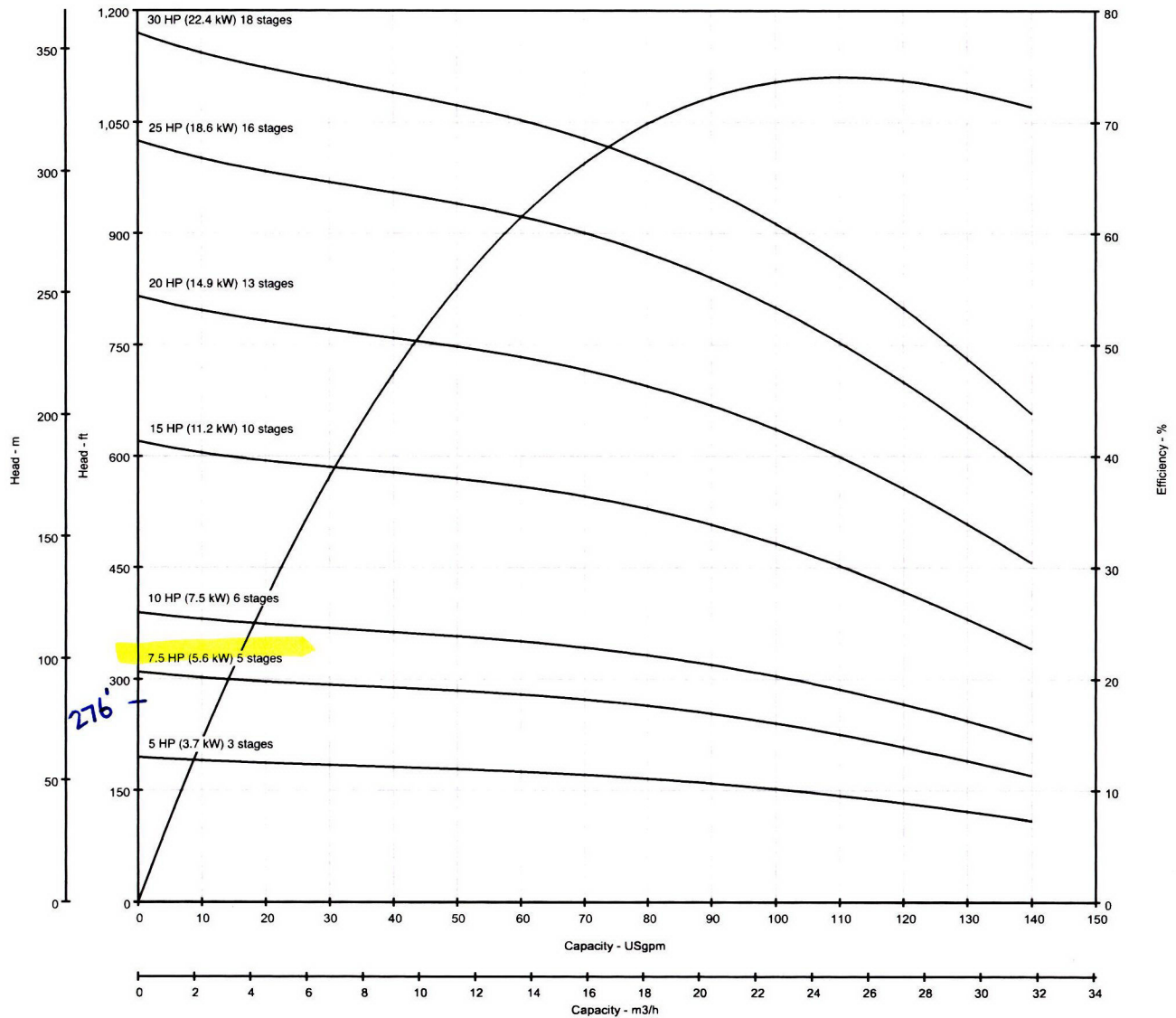
BERKELEY[®] 5TMH-110

SUBMERSIBLE TURBINES

PERFORMANCE CURVE

Curve 5TMH-110
Date 08/20/15
Page 1.0
Supersedes 03/01/15

Nominal RPM: 3500 (60 hz)
Based on Fresh Water@ 68° F (20° C)
Maximum Working Pressure: 735 PSI (50.6 BAR)
Standard Catalog Staging
Pump Diameter with Cableguard 5.625" (143 mm)



IDWR - Consult w/ Thom-

10/25/19 - DECEMBER



DENNIS PHIPPS WELL DRILLING INC.

12440 KARCHER ROAD • NAMPA, ID 83651

(208) 465-4444 | FAX (208) 465-4465

Estimate

Name / Address

Knife River
Justin Tietz
5450 W. Gowen Rd.
Boise, Id. 83709

Mark Phipps

Date	Estimate #
8/2/2019	5919
Project	

Description	Qty	Cost	Total
8" Drilling & Casing	+ 50 ~ 150	65.00	9,750.00
12"x 58' Bentonite Seal	1	3,000.00	3,000.00
Irr. Well Permit	1	200.00	200.00
8" Drive Shoe	1	250.00	250.00
8" Turtle Cap	1	100.00	100.00
10"x 6" Stainless Steel Screen	1	2,800.00	2,800.00
7.5HP 6" Hitachi Motor	1	2,300.00	2,300.00T
Berkeley STMH-110 4STG 6" PE (100GPM @ 60PSI from 20')	1	3,515.00	3,515.00T
7.5HP Phase Tech VFD 3R Controller	1	3,500.00	3,500.00T
Voltage Plug 5-30HP 230V Hitachi	1	100.00	100.00T
20 Gallon Well-X-Trol Pressure Tank	1	450.00	450.00T
2" Brass Pitless Adapter	1	390.00	390.00T
2" Brass Check Vavle	1	120.00	120.00T
2" SCH40 Gal. Drop Pipe	42	8.00	336.00T
10/3 Pump Cable	48	2.25	108.00T
14" Bury Yard Hydrant	1	110.00	110.00T
2" Sprinkler Manifold	1	300.00	300.00T
2" Poly Pipe 160PSI w/ Blue Tracer	100	3.50	350.00T
10-3 UF Wire	110	2.25	247.50T
Electrical fittings	1	200.00	200.00T
Misc Plumbing	1	400.00	400.00T
Plumbing & Electrical	1	135.00	135.00
Labor	8	125.00	1,000.00
Sales Tax		6.00%	745.59
Excavation by customer		Total	\$30,407.09

Phone #	Customer Fax	E-mail
208-941-8289		justin.tietz@kniferiver.com

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THEORETICAL HORSEPOWER EQUATION WORKSHEET

Water Right No.: 63-34769

Examiner: Laura M

Date of Field Exam: 8/10/2022

Irrigation and Commercial Use

	OPTION 1	OPTION 2	OPTION 3	
P/D No.:				
PUMP HORSEPOWER	7.5	7.5	7.5	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	276	276	276	
DISCHARGE PRESSURE	20	25	30	
FRICTION	0.1	0.11	0.12	
RATE OF FLOW (cfs)	0.14	0.14	0.13	AVE
(gpm)	64.3	62.1	60.0	0.14 62.16

The above calculates the formula =

$$Q = \frac{8.8 * (\text{Efficiency}) * \text{hp}}{\text{depth to water} + 2.31 * (\text{psi}) + \text{friction}}$$

Assumptions: %70 efficiency

Examiners Notes:

Friction Head Loss Calculator Hazen-Williams Method

[Read Me](#)

$$h_f = \frac{10.44(L)(Q)^{1.85}}{(C)^{1.85} d^{4.8655}}$$

Required Input

L = 276 feet (length of pipe)
Q = 60 gpm (flow rate)
d = 6 inches (inside diameter of pipe)

Select Pipe Material Type

plastic (PVC or ABS)

C = 130 unitless (Hazen-Williams Roughness Coeff.)

Output

$h_f = 0.11$ feet (frictional head loss)
or
 $h_f = 0.05$ psi (frictional head loss)

Table 1

Hazen Williams Roughness Coefficients*

Index No.	Material Type	Design Value
1	steel, welded and seamless	100
2	concrete	100
3	cement-asbestos	140
4	vitified clay	110
5	brick sewer	100
6	cast iron, plain	100
7	cast iron, tar (asphalt) coating	100
8	copper or brass	130
9	wood stave	110
10	lead, tin, glass	130
11	plastic (PVC or ABS)	130
12	fiberglass	150

*Values taken from Lindeburg (1999) CE Reference Manual, Ap. 17.A

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Fig. 1 – Entrance to Knife River concrete mixing factory for commercial use. View looking E.



Fig. 2 – A tall, continuous, landscaped berm surrounds the entire operation.



Fig. 3 – The irrigated berm surrounding the operation contains trees, bushes, and native shrubs. Views looking S and SE.



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Fig. 4 – View of the irrigated berms at the front and back of the north entrance to the operation.



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Fig. 5 – View of the irrigated
berms on the west side of
the operation.

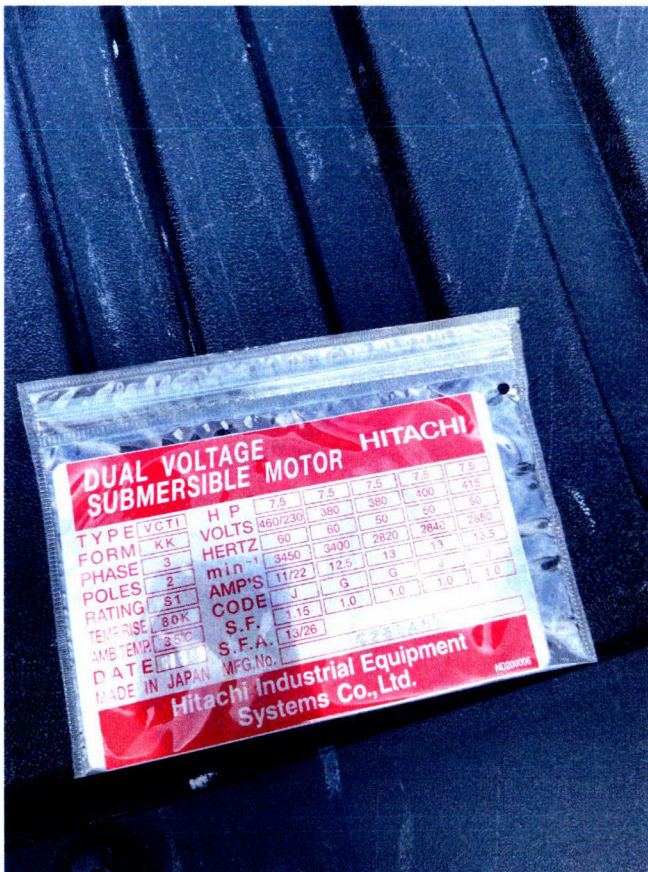


Fig. 6 – Well motor
specifications.



Fig. 9 – Concrete mixing operation. View looking S.



Fig. 10 – Concrete mixing operation. View looking SW.



Fig. 11 – Concrete mixing operation. View looking E.



Fig. 12 – Concrete mixing trucks parked near surrounding berm. View looking SE.



Fig. 13 – Dust abatement activity.
View looking W.



Fig. 14 – Dust abatement activity.
View looking E.