

Nelson, Dan

From: Nelson, Dan
Sent: Tuesday, August 17, 2021 8:33 AM
To: 'Dave Shaw'
Subject: RE: Amendments for permits 63-33690, 63-34429, and 63-34876

Dear Mr. Shaw,

Thank you for this information. We will resend the letter to you. I also want to inform you that we have received the signed amendments from your client, and I will have the draft licenses to my supervisor for these permits by the end of the week.

Respectfully,

Daniel Nelson
Water Right Analyst 3
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

From: Dave Shaw [mailto:dshaw@eroreources.com]
Sent: Tuesday, August 17, 2021 8:21 AM
To: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
Subject: Re: Amendments for permits 63-33690, 63-34429, and 63-34876

Dan,
You have the correct mailing address. Thank you for the follow up.
Dave

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From: Nelson, Dan <Dan.Nelson@idwr.idaho.gov>
Sent: Tuesday, August 17, 2021 7:09:58 AM
To: Dave Shaw <dshaw@eroreources.com>
Subject: RE: Amendments for permits 63-33690, 63-34429, and 63-34876

Dear Mr. Shaw,

We recently sent a letter to you by email and by regular mail. Please see the email below as the email that was sent to you that included the letter that was sent. The letter sent by regular mail was returned to our office. The address we sent it to was as follows:

Dave Shaw
ERO Resources Corp
4001 East Main St
Emmett ID 83617

Please advise us if your address has changed. I will resend the letter today by regular mail, but I wanted to check and see if the address has changed.

Respectfully,

Daniel Nelson
Water Right Analyst 3
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

From: Nelson, Dan
Sent: Monday, August 02, 2021 9:02 AM
To: 'Dave Shaw' <dshaw@eroresources.com>
Subject: Amendments for permits 63-33690, 63-34429, and 63-34876

Dear Mr. Shaw;

Attached is a copy of a letter sent to you by normal mail. The letter includes a copy of an amendment cover letter and amendments that is being sent to your clients Highland Livestock and Land Co. LTD. The amendment cover letter sent to Highland Livestock and Land Co. LTD, does include the letter sent directly to you.

If you have any questions, please don't hesitate to contact us.

Respectfully,

Daniel Nelson
Water Right Analyst 3
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)



IDAHO DEPARTMENT OF
WATER RESOURCES

322 E Front Street, Suite 648, Boise ID 83702 • PO Box 83720, Boise ID 83720-0098
Phone: 208-287-4800 • Fax: 208-287-6700 • Email: idwrinfo@idwr.idaho.gov • Website: idwr.idaho.gov

Governor Brad Little

Director Gary Spackman

July 30, 2021

DAVE SHAW
ERO RESOURCES CORP
4001 EAST MAIN ST
EMMETT ID 83617

Re: Highland Livestock and Land Co., Ltd. Water Right Permit Nos. 63-33960, 63-34429, and 63-34876 Beneficial Use Field Examinations Response to Additional Information Request

Dear Dave,

On August 27, 2020, IDWR received the beneficial use field reports (“reports”) you completed for Permits 63-33960, 63-34429, and 63-34876 (“permits”). On September 21, 2020, IDWR returned the reports and requested additional information. Your response dated April 26, 2021, provided the additional information IDWR needed to draft applications for amendment of permit for licensing purposes (“licensing amendments”) for the permits. I’ve enclosed a copy of the draft licensing amendments IDWR sent to the permit holder, Highland Livestock and Land Co., Ltd. The cover letter for the licensing amendments, also enclosed, explains how IDWR applied the information in your reports to prepare the licensing amendments.

I want to acknowledge and respond to the concerns expressed in your April 26, 2021, letter regarding the additional information request. Your concerns were that IDWR sought more information than necessary to issue water right licenses and that IDWR used a theoretical calculation to evaluate and question your direct measurements of the permit holder’s diversion rates.

First of all, I want to affirm that IDWR values its relationships with certified water right examiners (“CWREs”) and appreciates the contributions of CWREs to the water right licensing program. The opportunity to employ a CWRE helps to make the water right licensing program efficient and cost effective for many permit holders.

Second, I want to assure you IDWR does not have a “make work approach” in the water appropriation program. IDWR strives for the appropriate balance between accomplishing our duties efficiently and gathering enough information to make quality decisions. Before issuing a water right license, IDWR must determine that the evaluation of the beneficial use of water is consistent with the minimum requirements set forth in the Beneficial Use Examination Rules (IDAPA 37.03.02). IDWR staff members must also be able to understand the technical information in the reports well enough to draft accurate water right licenses. The IDWR staff member who reviewed your reports thought they lacked some of the information he needed to

Letter to Dave Shaw

RE: Permits 63-33960, 63-34429, and 63-34876

July 30, 2021

Page 2

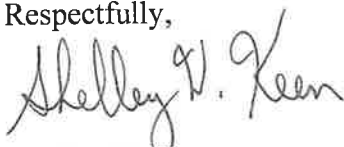
draft water rights licenses. He explained his difficulties in a detailed letter rejecting your reports. To be more efficient, I think IDWR's questions about the reports could have been presented to you, discussed, and resolved less formally and more quickly by email or phone call. I have discussed my view with the staff member involved.

That being said, after reviewing the reports, I understand some of the staff member's uncertainty. For example, the report for Permits 63-33960 and 63-34876 recommends a single diversion rate of 1.93 cfs and a single acreage total of 120 acres, when one of the permits is for 1.80 cfs on 102 acres and the other is for 0.40 cfs on 20 acres. To determine how much rate and how many acres to assign to each water right, IDWR would have had to assume the information explained in the third paragraph of your letter or conduct its own research to determine how development of the permits proceeded and apply the system rate per acre, as it ultimately did.

As for the diversion rate matter, I agree with you that a direct measurement of the flow rate with a properly calibrated and properly installed measuring device is ideal. We have trained the staff members who draft water right licenses to ask questions if the information in a beneficial use field report does not seem right to them for some reason. In this case, the staff member thought the reported diversion rates may have been transposed, and he was trying to resolve what he thought was a discrepancy.

Thank you for providing the additional information to augment your reports. As described above, the additional information enabled IDWR to take the next steps in the water right licensing process. If you have questions about the licensing amendments or if you wish to discuss this matter further, please contact me at (208) 287-4947 or shelley.keen@idwr.idaho.gov.

Respectfully,



Shelley W. Keen

Water Allocation Bureau Chief

Enclosure(s): Copy of Applications for Amendment of Water Right Permit Nos. 63-33960, 63-34429, and 63-34876 and cover letter



322 E Front Street, Suite 648, Boise ID 83702 • PO Box 83720, Boise ID 83720-0098
Phone: 208-287-4800 • Fax: 208-287-6700 • Email: idwrinfo@idwr.idaho.gov • Website: idwr.idaho.gov

Governor Brad Little

Director Gary Spackman

July 30, 2021

HIGHLAND LIVESTOCK AND LAND CO LTD
PO BOX 448
EMMETT ID 83617

RE: Water Right Permits No. 63-33690, 63-34429, and 63-34876

Dear Permit Holder:

The Idaho Department of Water Resources (Department) is reviewing the three permits referenced above prior to issuing water right licenses. By issuing licenses, the Department confirms the extent of development that has been established in compliance with the terms of the permit.

On April 29, 2021, Department staff received a letter and field reports from certified water right examiner, David Shaw, concerning the above referenced permits. In order to meet the requests made by Mr. Shaw in his letter and field reports, amendments of the permits will be required. Due to the rights being submitted in a package format, I will discuss each water right separately and provide a map for each right. Each right will be addressed separately below.

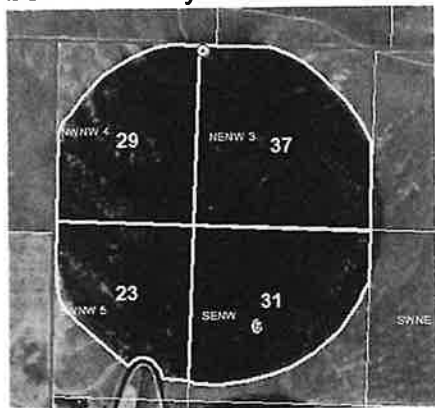
Permit 63-33960:

The field examiner requested that this permit be licensed as having a permissible place of use with the full acres and diversion rate authorized by the permit. It appears as though the entire pivot has been irrigated, since the water was first put to beneficial use. The system does not appear to have been operated by using each water right individually using the full diversion rate authorized by each right. Based on the permit development, we will not be able to issue a license on this permit for more than an average diversion rate per acre for the 102 acres authorized by this right. This right will be recommended at a diversion rate of 1.64 cubic feet per second and the 459 acre-feet of annual volume based on the diversion rate and volume actually applied to the 102 acres irrigated under this right.

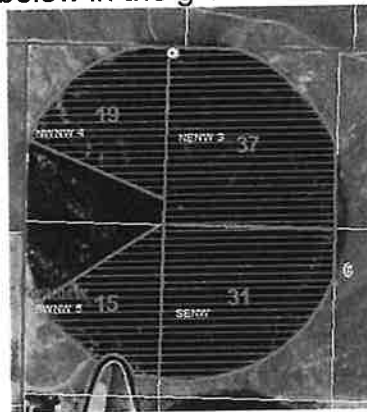
An amendment can be filed to allow this right to irrigate any 102 acres in a single season within the 120 acre pivot described in his field report. This will allow you to move the acres around each irrigation season to cover the most important 102 acres if water right 63-34876 is curtailed to ensure you are irrigating the 102 acres best served by the system. If you wish to have this flexibility, you will need to sign the amendment and return it with the \$100.00 fee.

If you don't wish to sign the amendment and return the \$100.00 fee with the amendment, we will need to license the water right as it was permitted. The following maps show how we can license this water right with the amendment and without the amendment.

With the amendment, you will be able to irrigate 102 acres within the 120 acre area shown below in the yellow border.



If you decide to not sign the amendment and not pay the \$100.00 amendment fee, you will be limited to the 102 acres shown below in the green border.



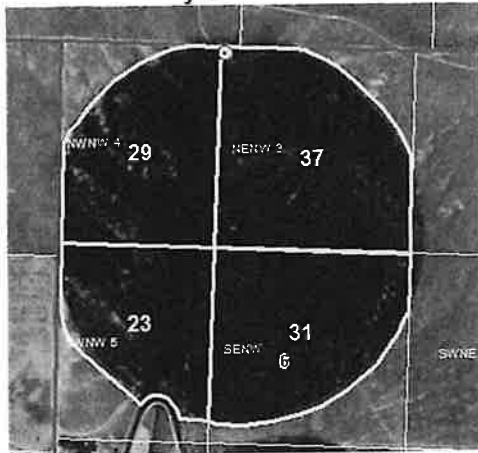
Permit 63-34876:

The field examiner requested that this permit be licensed as having a permissible place of use with the full acres and diversion rate authorized by the permit. As stated above, we will not be able to give the full diversion rate and acres authorized above, because the full pivot has never been operated in a manner to separate out the individual rights. The license for this permit will authorize 0.29 cubic feet per second, 81 acre-feet of annual volume, and 18 acres developed in this system in addition to the diversion rate, volume, and acres authorized by water right 63-33960.

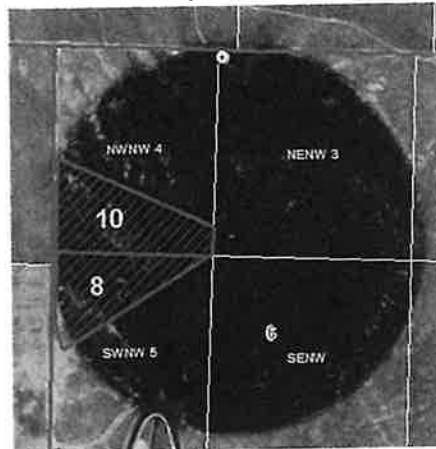
An amendment will allow you to move the 18 acres associated with this right to different areas within the pivot. You will be able to adjust the location that will ensure the best use of the land if a call limits this right or water right 63-33960. In order to have this flexibility, you will need to sign the enclosed amendment for water right 63-34876 and return it with a \$100.00 fee.

If you don't wish to sign the amendment and return the \$100.00 fee with the amendment, we will need to license the water right as it was permitted. The following maps show how we can license this water right with the amendment and without the amendment.

With the amendment, you will be able to irrigate 18 acres within the 120 acre area shown below in the yellow border.



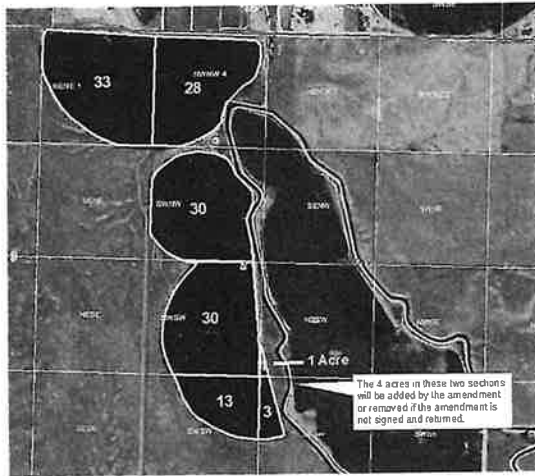
If you decide to not sign the amendment and not pay the \$100.00 amendment fee, you will be limited to the 18 acres shown below in the purple border.



PLEASE NOTE: Regardless of whether or not you sign the amendments for the permissible place of use, you will still be able to irrigate the entire 120 acre pivot at a diversion rate of 1.93 cubic feet per second and 540 acre-feet. The amendment will only give you the option of choosing which acres are to be irrigated if one of the rights are ever a curtailed.

Permit 63-34429:

The field examiner requested that the acres originally authorized by this permit be adjusted to cover 4 acres in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ and the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 2 in Township 5 North, Range 4 West. The 4 acres were not included on your original permit, so the certified water right examiner requested that the permit be amended to include these lands. The certified water right examiner also provided documentation that you have entered into an agreement to irrigate those 4 acres. Please see the map below for identification of the 4 acres in question:



The 4 acres shown on the southeastern side of the southernmost pivot are the 4 acres that need to be added to the permit by an amendment if they are going to continue to be irrigated. If you choose not to amend this water right, we will remove these acres from the proposed license.

If you choose not to sign the amendment for permit 63-34429, we will remove the 4 acres from the licensing of this permit, which will reduce the license to 2.68 cubic feet per second, 603 acre-feet for the irrigation of the remaining 134 acres.

The enclosed Application for Amendment forms depict the elements of each water right as they will appear on the licenses when issued. Please review each amendment form carefully. If you concur with the information presented, please sign and return the form with the \$100.00 filing fee for each amendment within 14 days. If you sign all three amendments, the total cost will be \$300.00.

If you have any questions, please don't hesitate to contact me.

Sincerely,

Daniel A. Nelson
Analyst 3
Water Right Section
Idaho Department of Water Resources
Telephone # (208) 287-4856
Email – dan.nelson@idwr.idaho.gov

Enclosure(s): Three Applications for Amendment with maps

cc David Shaw – ERO Resources.

MEMORANDUM

TO: Water Right File 63-33960 and 63-34876

FROM: Daniel Nelson – Analyst 3

DATE: June 24, 2021

SUBJECT: Licensing Review of Water Right 63-33960 and 63-3487

The field exam for this right was performed by Certified Water Right Examiner David Shaw of ERO Resources Corp. Mr. Shaw's recommendations will be discussed throughout this memorandum.

History:

Permit 63-33960 was approved in February 2015, for 1.80 cfs from ground water for the irrigation of 102 acres. In February of 2020, a Request for Extension of Time to provide proof was submitted to the Idaho Department of Water Resources (Department).

Permit 63-34876 was approved in June of 2020, for 0.40 cfs for an additional 20 acres at the same location as 63-33960. Permit 63-34876 was filed to allow the pivot installed on the place of use to go completely around. Permit 63-33960 only authorized the irrigation of approximately 4/5's of the pivot, so 63-34876 covered the additional 1/5th of the pivot that was developed. Neither of these two permits were approved with a permissible place of use (PPU).

On August 27, 2020, the Department received a single field examination report from Mr. Shaw for both water rights 63-33960 and 63-34876. That field exam was subsequently rejected, and a letter stating the reasons why the field exam was rejected was sent to Mr. Shaw on September 21, 2020.

On April 29, 2021, the Department received a letter from Mr. Shaw that included the original field examinations. I reviewed Mr. Shaw's April 29, 2021, letter, and determined that the information supplied with Mr. Shaw's April 29, 2021, letter still did not comply with all of the information requested in the field exam rejection letter I sent on September 21, 2020. After discussions with Department staff, it was determined that there was adequate information in Mr. Shaw's April 29, 2021, letter to attempt to make a recommendation for licensing on permits 63-33960 and 63-34876.

During the review by Department staff we also looked at the actual development of the pivot. The pivot was developed as a full pivot from the very beginning, so there has never been a time where only a portion of the pivot has been irrigate. Therefore, it has been determined by Department staff that we should consider that the entire system was developed in 2016, and permit 63-34876 was filed later to bring the water use into compliance by covering the acres not authorized by permit 63-33960. Please see the maps attached to this memorandum for the historical use review of the pivot used for irrigation for both of these two water rights.

Overlap:

There are water rights from Black Canyon Irrigation District in Government Lot 5 (SWNW), but those rights are only used on lands south of the canal. Therefore, there are no true overlapping water rights for this property other than the two permits discussed in this permit.

Point of Diversion:

The point of diversion shown in Mr. Shaw's field report maps matches the location GPS'ed in the well driller's report, so I am confident with the point of diversion shown on Mr. Shaw's maps.

Place of Use:

In Mr. Shaw's field reports, he did not provide any discussion on which acres were to be assigned to each specific water right. In Mr. Shaw's April 29, 2021, letter, he states that these two water rights should be included in a PPU. Mr. Shaw did mark in the field reports that an amendment would be needed, but he didn't mention the PPU until we received the April 29, 2021 letter. It should be noted that in Mr. Shaw's April 29, 2021, letter, he refers to a PPU of 220 acres, but we are assuming that he actually meant the 120 acres he recommended in the field reports and was found to have been irrigated at this location.

An amendment of permit will be needed to authorize the PPU for these two permits prior to licensing the permit. A licensing amendment will be sent out prior to licensing this permit.

Mr. Shaw found a total of 120 acres of irrigation. I was able to recreate a shape file that reflected the acres recommended by Mr. Shaw. There is approximately 0.6 acres that are suspect along the section border in Government Lot 5 (SWNW) on the southwest side of the pivot, but that could be due to the turning on and off of the end gun for this location. There also appears to be a portion of the pivot that drifts over the eastern boundary of the property onto BLM land. It is clear that no crops are grown on the BLM ground, so the small portion drifting over the 40 acre tract lines were not included in the place of use by Mr. Shaw or myself.

As discussed above, the entire pivot has been in use since 2016, so we will need to address each right as though the use for both permit was developed from the first sign of irrigation in 2016. Since only 120 acres has been irrigated each year with no variation of the pivot use, we will authorize the full amount of senior water right 63-33960 of 102 acres, and reduce the junior water right to the remaining 18 acres ($120 \text{ acres} - 102 \text{ acres authorized by } 63-33960 = 18 \text{ acres}$). Mr. Shaw recommended in his April 29, 2021, letter that we authorize both rights for the full permitted amount of acres with a condition limiting the total number of acres. There is no proof that the rights have been operated independently, so we can only consider that the number of acres should be what is shown above for each water right.

Diversion Rate:

In my September 21, 2020, rejection letter, I suggested that the flow rate measured by Mr. Shaw seemed to be a bit low based on the information that I had available to me at that time. Mr. Shaw provided pump curves for the well pump with his April 29, 2021, letter. In reviewing these pump curves, I am still concerned that the flow rate measured by Mr. Shaw could be less than the system could provide. Without any field notes or additional information to dispute Mr. Shaw's original measurement, I am limited to the flow rate measured by Mr. Shaw.

In Mr. Shaw's April 29, 2021, letter, he suggests that each permit should be licensed for the full flow rate authorized by the permit with a condition that limits the rights when combined to a total of the 1.93 cfs when they were combined. As described above, the entire pivot was developed in 2016 and the number of acres haven't changed since irrigation began on this property. There is no proof that the rights have been operated independently, so we can only consider that both rights were operating at the time of development. Therefore, staff determined that we could not license these permits as suggested by Mr. Shaw.

Based on the above analysis, the diversion rate of 63-33960 would be 1.64 cfs for the 102 acres developed ($[1.93 \text{ cfs} / 120 \text{ acres}] \times 102 \text{ acres authorized by } 63-33960 = 1.64 \text{ cfs}$). This would allow 0.29 cfs for the 18 acres that can be authorized by water right 63-34876 ($[1.93 \text{ cfs} / 120 \text{ acres}] \times 18 \text{ acres authorized by } 63-34876 = 0.2895 \text{ cfs}$). Since there has never been a time when the pivot has not operated as full pivot, we can only license each right based on the rate per acre applied at 1.93 cfs for 120 acres.

Diversion Volume:

Mr. Shaw recommended a volume of 540 acre-feet for the entire 120 acres in his field report, but did not separate out how that volume should be distributed between the two water rights. Mr. Shaw also didn't mention the volume for each right in his April 29, 2021, letter.

The headgate requirement for this area is 4.5 acre-feet per acre. Therefore, volume will be distributed between the two water rights as follows:

Right 63-33960 = 102 acres X 4.5 acre-feet = 459 acre-feet

Right 63-34876 = 18 acres X 4.5 acre-feet = 81 acre-feet

The combined total volume for both rights would be the 540 acre-feet that was recommended by Mr. Shaw (459 af + 81 af = 540 af). A diversion rate of 1.93 could provide 1,031 acre-feet during the 260 day irrigation season ($1.93 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 1,031.4 \text{ af}$), so the field headgate requirement would be volume limitation for each right.

Conditions:

These two rights have the exact same conditions except for water right 63-33960, which has conditions 26A and 046 which are always removed at licensing. Therefore, I will include the same conditions on both recommendations for licensing. Conditions R65 and 01M will be carried forward to licensing, and condition 121 will be changed to condition 103 as is standard. Condition F06 will be needed to show that both of these permits are diverted from the same point of diversion.

We also need to add the standard PPU conditions per the request of Mr. Shaw. We will need condition X27 limiting permit 63-33960 to 102 acres and permit 6334876 to 18 acres. We will also need condition X35 limiting the rights to 120 acres when combined.

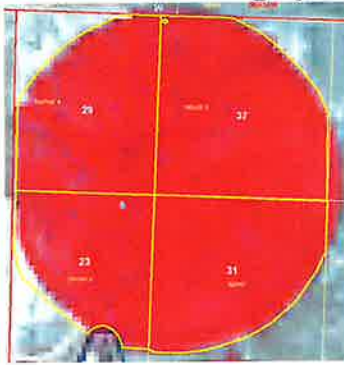
Pivot Development and Irrigation Review for Water Rights 63-33960 and 63-34876:

As you can see from aerial and Sentinel imagery below that the pivot was first put to use in 2016. You can also see that the entire pivot was irrigated every year from 2016 to 2020. The 2021 image shows that the pivot appears to have been tilled, but there doesn't appear to be noticeable irrigated crop as of May 31, 2021. The crop in 2021 could just not be mature enough to show up in satellite imagery.

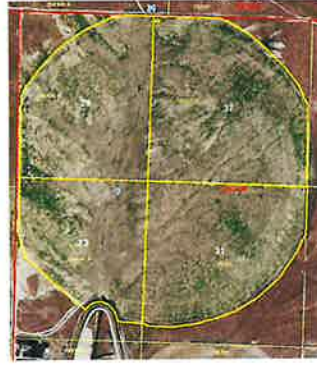
2015 NAIP Imagery



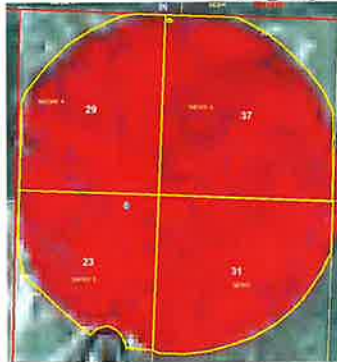
2016 Sentinel Imagery



2017 NAIP Imagery



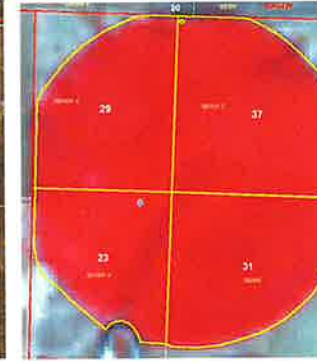
2018 Sentinel Imagery



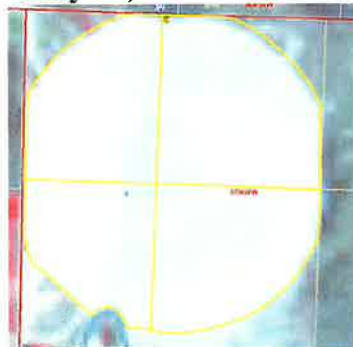
2017 NAIP Imagery



2018 Sentinel Imagery



May 31, 2021 Sentinel Imagery





RECEIVED

APR 29 2021

DEPARTMENT OF
WATER RESOURCES

April 26, 2021

Mr. Daniel Nelson
Idaho Department of Water Resources
PO Box 83720
Boise, ID 83720-0098

RE: Field Exam Reports for Water Right Permit Nos. 63-33960, 63-34429 and
63-34876

Dear Mr. Nelson:

This letter and attachments to the Beneficial Use Field Reports are being submitted in response to your letter of September 21, 2020 regarding the above referenced water right permits. These should have been the simplest, most straight forward irrigation field exams completed in 2020. I am appalled at the make work approach IDWR seems to take toward completing the simplest, most straight forward obligations to manage the water resources of Idaho.

These ground water permits are stand alone as clearly stated on all 3 applications for permit, there are no other water rights appurtenant to the lands covered by these permits, they are for new land being brought into production. Each well is plumbed to the pivot or pivots in place on the lands being irrigated.

For Permit Nos. 63-33960 and 63-34876 the field exam requests the POU be amended to reflect the acreage identified in the field exam. That acreage would then become a PPU of 220 acres for the 2 licenses with acreage limitations licensed for each right based upon the permitted acreage of 102 and 20, respectively. The diversion rate for each right would be licensed to match the permitted amounts of 1.80 and 0.40 cfs respectively with a combined diversion rate limit of 1.93 cfs.

The 1.93 cfs measured at 10:10 am on 8-21-2020 matches closely to the 925 gpm design for this well and pump installation, copy enclosed. The pump and well have been in use since 2016 so a 6½% reduction from the design capacity of the well and pump should not be unexpected.

The meter I have does not have a printout or a method to download the measurement results. I have never before been asked to justify measurements reported under my signature and seal. The 864 gpm measurement was taken at 10:10 am on 8-21-2020 with the transducers installed as shown in the photo attached to the field exam. That information has been sufficient in past field exams

Denver
1842 Clarkson St.
Denver, CO 80218
303.830.1188

Durango
1015 ½ Main Avenue
Durango, CO 81301
970.422.2136

Hotchkiss
P.O. Box 932
161 South 2nd St.
Hotchkiss, CO 81419
970.872.3020

Idaho
4001 East Main Street
Emmett, ID 83617
208.365.7684

www.eroresources.com

Consultants in
Natural Resources
and the Environment

and I am not aware of any change to IDWR's Beneficial Use Examination Rules in the interim. I find it unconscionable a theoretical diversion rate, which is deemed unacceptable by IDAPA 37.03.02.040.04 for determining the amount of water being beneficially used, is offered as the basis for finding an actual measured rate of flow unacceptable.

I believe the pressure gage readings at both wells were questionable and did not report them for that reason. Including questionable data in the beneficial use exam record does not add to the quantification of the amount of water being beneficially used.

The measurement for permit 63-34429 was taken at 11:28 am on 8-21-2020 with the transducers installed as shown in the attached photo. The measured 2.79 cfs matches closely the 1,200 gpm design for this well and pump, copy attached, being 4% greater than the design rate of discharge. This well and pump was installed in 2018 making them a little newer than the well and pump described above.

There are 3 booster pumps in the distribution system for 63-34429, all located downstream on the measure point. There is a booster pump shown in the attached photos that is a 15 hp booster for the northern most pivot. There is a 3 hp booster pump for the middle pivot and a 5 hp booster pump for the southern most pivot. As noted above, all 3 booster pumps are downstream of the measurement location used on 8-21-2020.

Should you require any additional information, please let me know.

Yours truly,



Dave Shaw

Enc.

cc: David Little via Email w/o Enc
Shelley W. Keen w/o Enc.



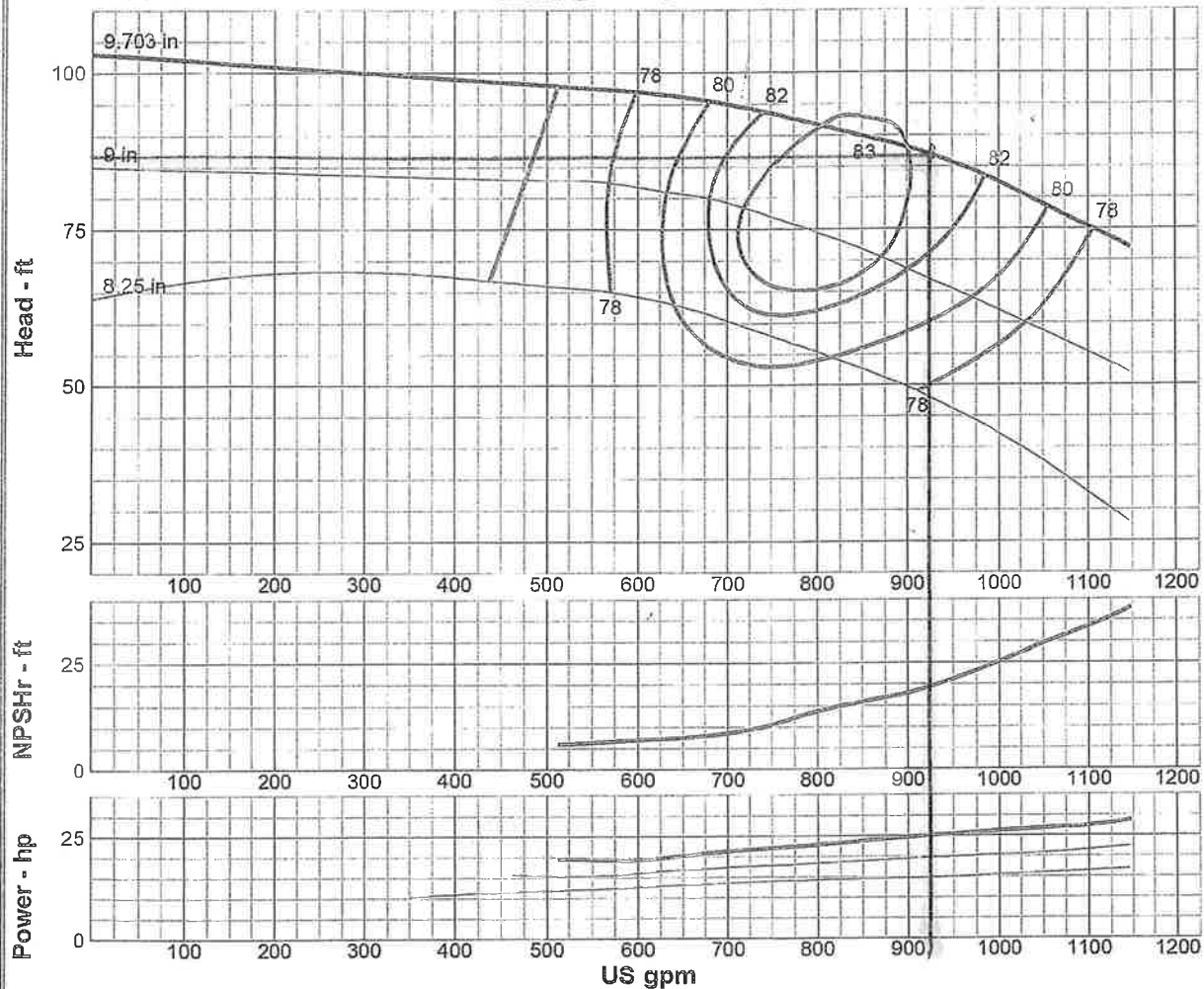
TURBINE PUMP CURVE

SINGLE STAGE PERFORMANCE

JANUARY 2010

480 SERIES

12NC 1750 RPM



IMPELLER DATA

IMPELLER NUMBER	0704	Minimum submergence above eye of bottom impeller: 30 IN.
TYPE	ENCLOSED	
THRUST FACTOR	K=4.40	
EYE AREA	14.1 SQ. IN.	
WEIGHT	12.50 LB.	

EFFICIENCY CORRECTION

NUMBER OF BOWLS:	1	2	3		
CHANGE AS FOLLOWS:	-2	-1	0		
CHANGE IN EFFICIENCY MAY AFFECT BOTH HEAD AND HORSEPOWER.					

PUMP MATERIAL EFFICIENCY CORRECTION

	DUCTILE	BRONZE	NI-R	STAINLESS
IMPELLER MATERIAL:	-2	0	-1	-2
BOWL MATERIAL:	-2	-1	-2	-3

FLANGED BOWL DATA

BOWL NUMBER	0902
BOWL MAX. DIAMETER	12.188 IN.
BOWL MIN. DIAMETER	11.750 IN.
MAX. NO. STAGES	13
ONE STAGE WEIGHT	245 LB.
ADD STAGE WEIGHT	102 LB.
STD. SHAFT DIA.	1.688 IN.
STD. LATERAL	0.625 IN.
DISCHARGE SIZE	8 - 10 IN.
DISCHARGE CONNECTION	THD - FLG
SUCTION SIZE	8 - 10 IN.
SUCTION CONNECTION	THD
MAX. SPHERE SIZE	0.750 IN.
MAX. OPERATIONAL P.S.I.	515 (SPECIAL)

Performance based on pumping clear, fresh water at a temperature not over 85° F., free of gas, air or abrasives and with bowls properly adjusted and submerged. Performance curve reflects Hydraulic Institute tolerances and guidelines.

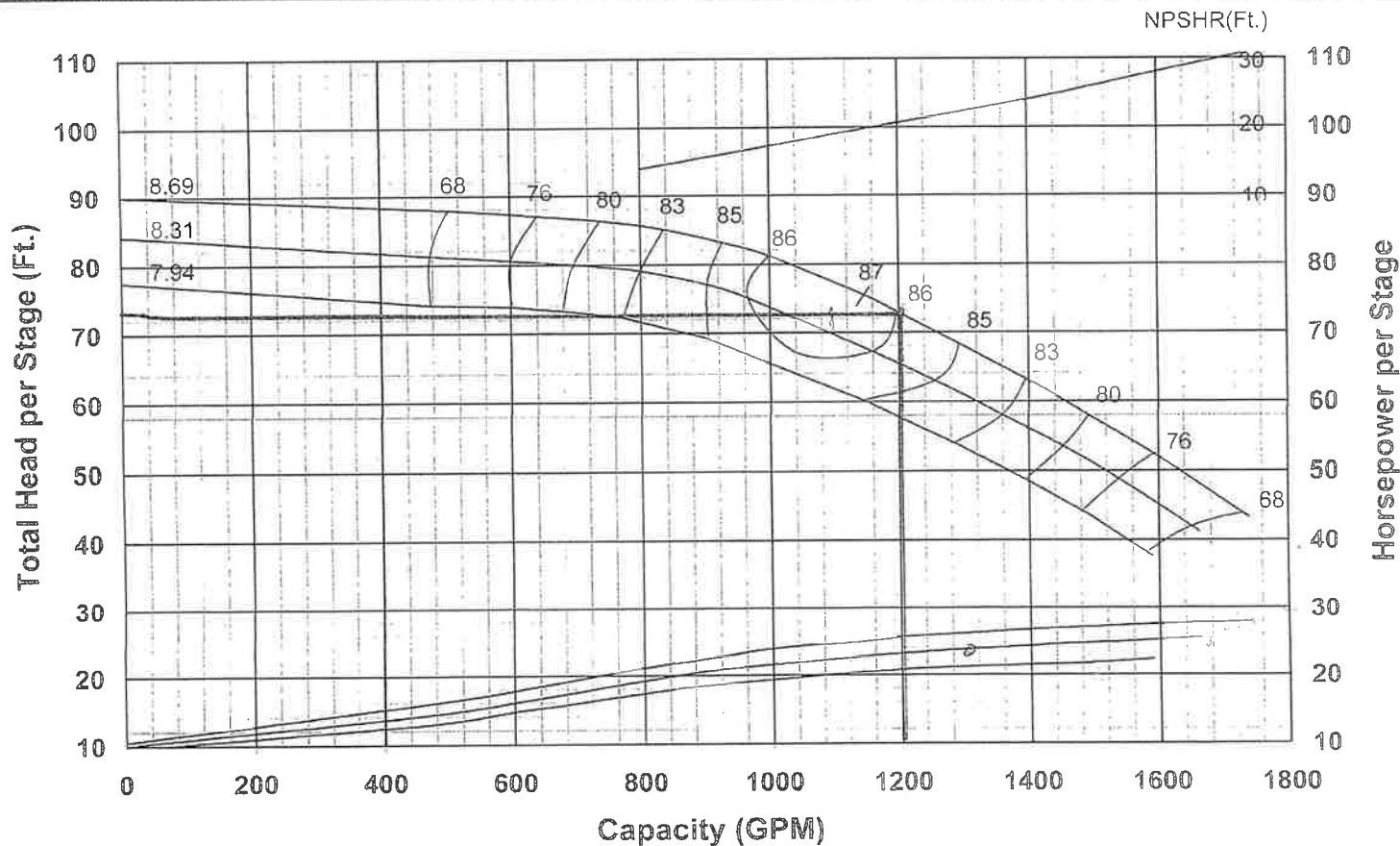
Dave Little
12NC 5 stage,
925 GPM @ 400' TDH

Gotsch Road Pump



Oasis Road Pump

GOULDS PROPOSAL NO.	GOULDS S.O. NO.	INQUIRY NO.	CUSTOMER P.O. NO.	P.O. DATE	ITEM NO.	CUSTOMER
				3/11/13		David Little Goulds 12CHC 5 stg
PROJECT	SERVICE	GPM CAPACITY	FT. TDH	% EFFICIENCY	RPM	
	125 HP	1200	375		1800	



Curve No. E6412CCPC1	
Model 12CHC	
RPM 1770	
EFFICIENCY CORRECTION	
1-STAGE	-3.0
2-STAGE	-2.0
3-STAGE	-0.5
4-STAGE	0.0
Impeller ENCLOSED	
Ns = 2100	
K = 7.5 LBS/FT	
K(Bal.)= N/A	
Bowl O.D.	11.75"
Bowl Lateral	1.00"
Max. PSI	340
Disch size	6", 8", 10"
TURBINE OPERATIONS	
Lubbock, Texas	
BOWL PERFORMANCE CURVE BASED ON PUMPING CLEAR, NON-AERATED WATER. RATED POINT ONLY IS GUARANTEED. CURVES REPRESENT SINGLE STAGE PERFORMANCE BASED ON TEST OF MULTI-STAGE BOWL ASSEMBLY. EFFICIENCY CORRECTION IS REQUIRED FOR LESSER STAGES.	

Model 12CHC

June 2005

Goulds Pumps



ITT Industries



RECEIVED

AUG 27 2020

WATER RESOURCES
WESTERN REGION

August 24, 2020

Nick Miller, Manager
Department of Water Resources Western Region
2735 Airport Way
Boise, ID 83705-5082

RE: Statements of Completion and Beneficial Use Field Reports for 63-33960,
63-34429 & 63-34876

Dear Nick:

Enclosed are Statements of Completion and Beneficial Use Field Reports for the above referenced water right permits in the name of Highland Livestock and Land Co. Ltd. One project is covered by the 2 permits no. 63-33960 and 63-34876, and the second project is covered by the single permit no. 63-34429.

Please let me know if I can provide you with any additional information or answer any questions. Thank you in advance for your consideration.

Yours truly,

A handwritten signature in cursive script that reads "Dave".

Denver
1842 Clarkson St.
Denver, CO 80218
303.830.1188

Durango
1015 1/2 Main Avenue
Durango, CO 81301
970.422.2136

Hotchkiss
P.O. Box 932
161 South 2nd St.
Hotchkiss, CO 81419
970.872.3020

Idaho
4001 East Main Street
Emmett, ID 83617
208.365.7684

www.eroresources.com

cc: Highland Livestock & Land Co. Ltd.

Consultants in
Natural Resources
and the Environment

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

RECEIVED

APR 29 2021

DEPARTMENT OF
WATER RESOURCES

A Beneficial Use Field Report is prepared by a water right examiner as the result of an examination to clearly confirm and establish the extent of the beneficial use of water established in connection with a permit during the development period authorized by the permit and any extensions of time previously approved.

A. GENERAL INFORMATIONPermit No. 63-33960 & 63-34876

1. Owner Highland Livestock and Land Co Ltd Phone No. 208-365-4611
Current address PO Box 448, Emmett, ID 83617
2. Examiner's name David Shaw EXAM DATE 8-21-20
3. Accompanied by David Little Email dalittle61@outlook.com
Address PO Box 448, Emmett, ID 83617
Relationship to permit holder Managing Partner Phone No. 208-365-4611
4. Source Ground Water tributary to _____

B. OVERLAP REVIEW

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

C. DIVERSION AND DELIVERY SYSTEM

1. Point(s) of Diversion:

Ident. No.	Gov't Lot	1/4	1/4	1/4	Sec	Twp	Rge	County	Method of Determination/Remarks
	3		NE	NW	6	5N	4W	Canyon	Aerial Photo

2. Place(s) of Use: Method of determination Aerial Photo

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
5N	4W	6					Lt 3	Lt 4	Lt 5										
							37	29	23	31									120

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☒ see attached.

Scale: 1" = _____

- ☒ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (**required**)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ 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
	GE	125	33068307		

*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
Acoustic Transit Time	Portable	Polysonics	DCT7008	33508		6-17-16 - Factory
						8-20-20 - In-House

2. **Measurements:** _____
 864 gpm 10:10 am 8-21-20 See photo of meter installation. Measurement was made while end-gun was in operation.

E. NARRATIVE/REMARKS/COMMENTS

NARRATIVE/REMARKS/COMMENTS
This water right is for the development of new ground previously not irrigated. Well was drilled in 2015, well log attached.

Has the permit holder met all conditions of permit approval, including any mitigation requirements and/or measuring device installation requirements? ☒ Yes ☐ No If no, what must be done to meet the permit requirements?

F. FLOW CALCULATIONS

☐ Additional computation sheets attached

Measured Method:

Discharge measured directly from portable flow meter at 864 gpm or 1.93 cfs.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 120 \times 4.5 = 540$$

$$V_{D,R} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = 1.93 \times 260 \times 1.9835 = 995$$

$$V = \text{Smaller of } V_{I,R.} \text{ and } V_{D,R.} = \underline{540}$$

2. Volume Calculations for Other Uses:

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use From To		Rate of Diversion Q (cfs)	Annual Volume V (afa)
Irrigation _____	<u> 3/1 </u>	<u> 11/15 </u>	<u> 1.93 </u>	<u> 540 </u>
_____	____	____	_____	_____
_____	____	____	_____	_____
_____	____	____	_____	_____
_____	____	____	_____	_____
		Totals:	<u> 1.93 </u>	<u> 540 </u>

2. Recommended Amendments

- ☐ Change P.D. as reflected on page 1 ☐ Add P.D. as reflected on page 1 ☐ None
☒ Change P.U. as reflected on page 1 ☐ Add P.U. as reflected on page 1 ☐ Other

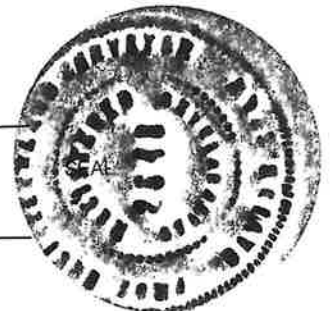
I. AUTHENTICATION

Field Examiner's Signature

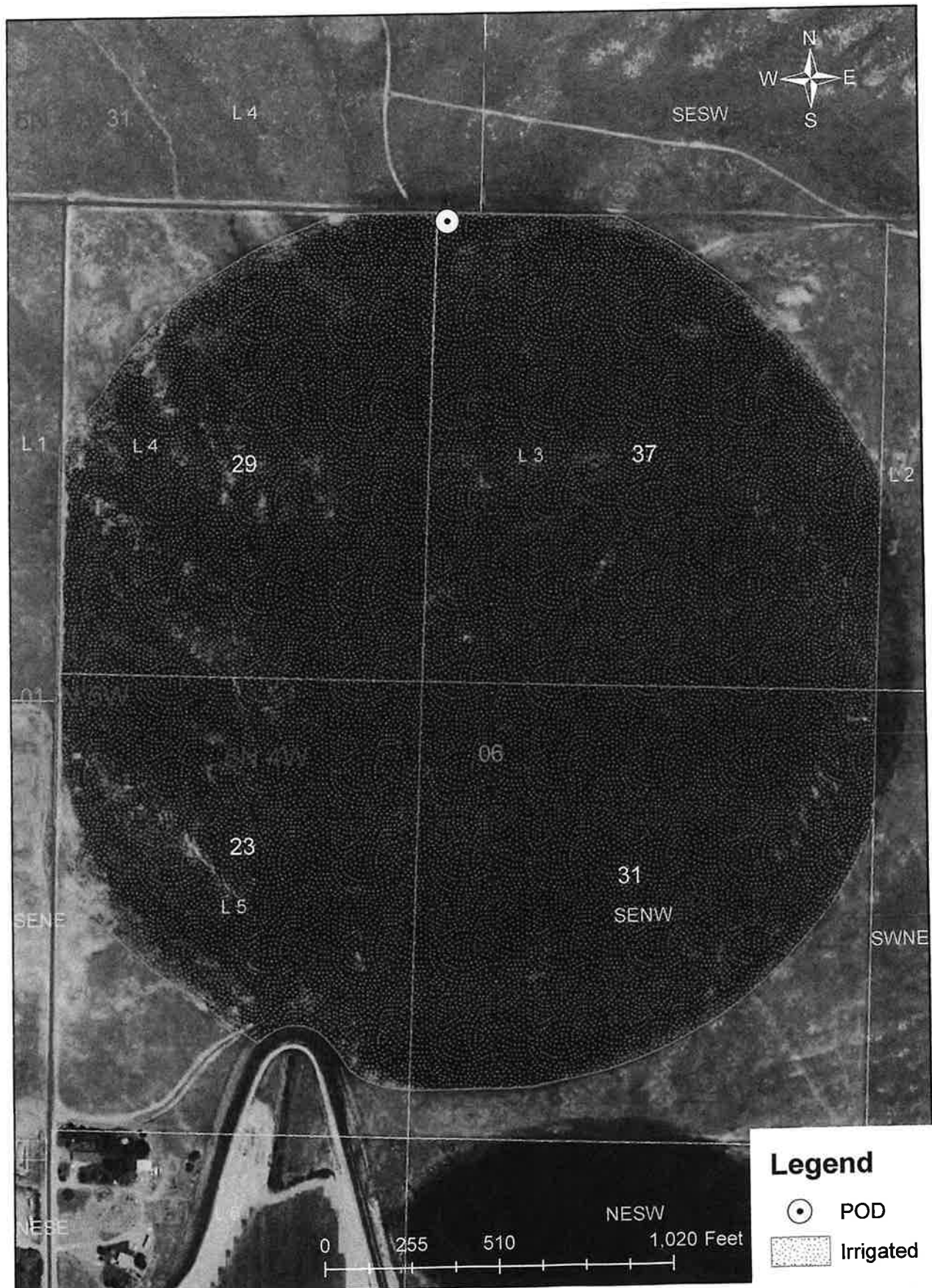
Date 8-21-20

Reviewer

Date _____



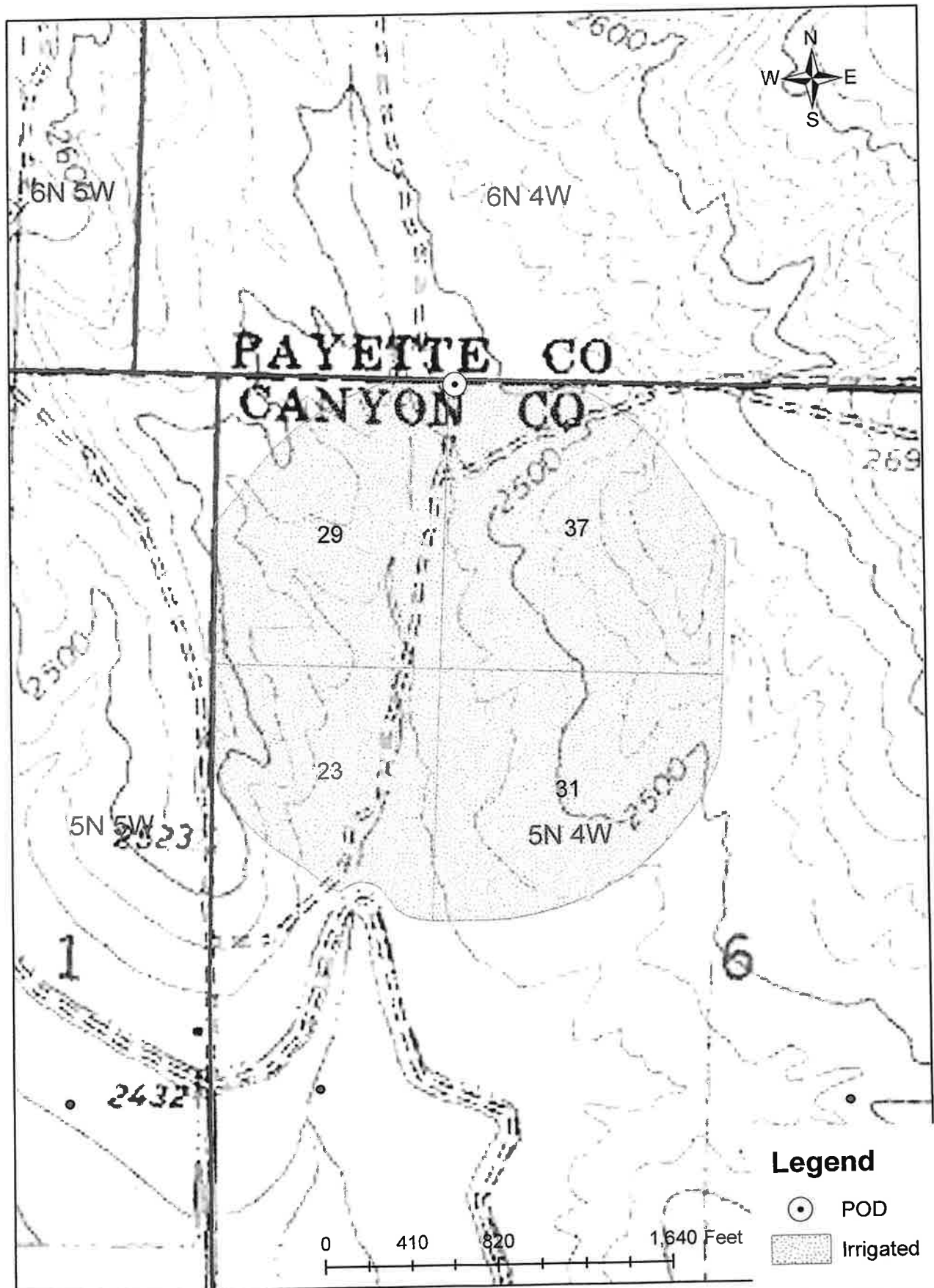
Highland Livestock & Land Permits 63-33960 and 63-34876



Based on 2019 NAIP Photography

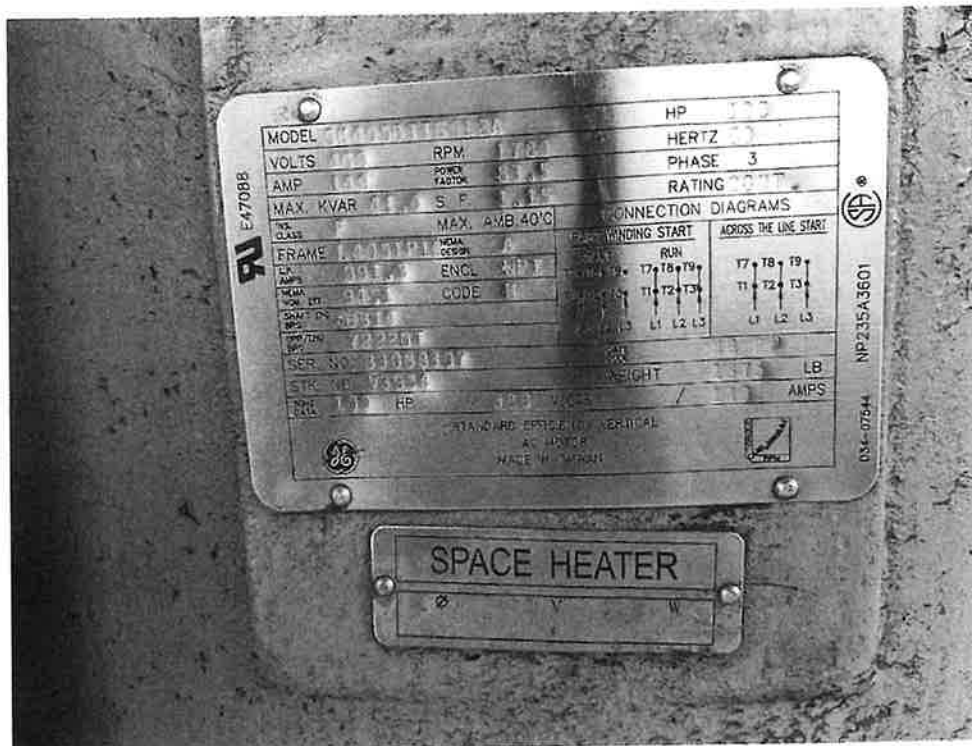
Prepared by ERO 6-2020

Highland Livestock & Land Permits 63-33960 and 63-34876

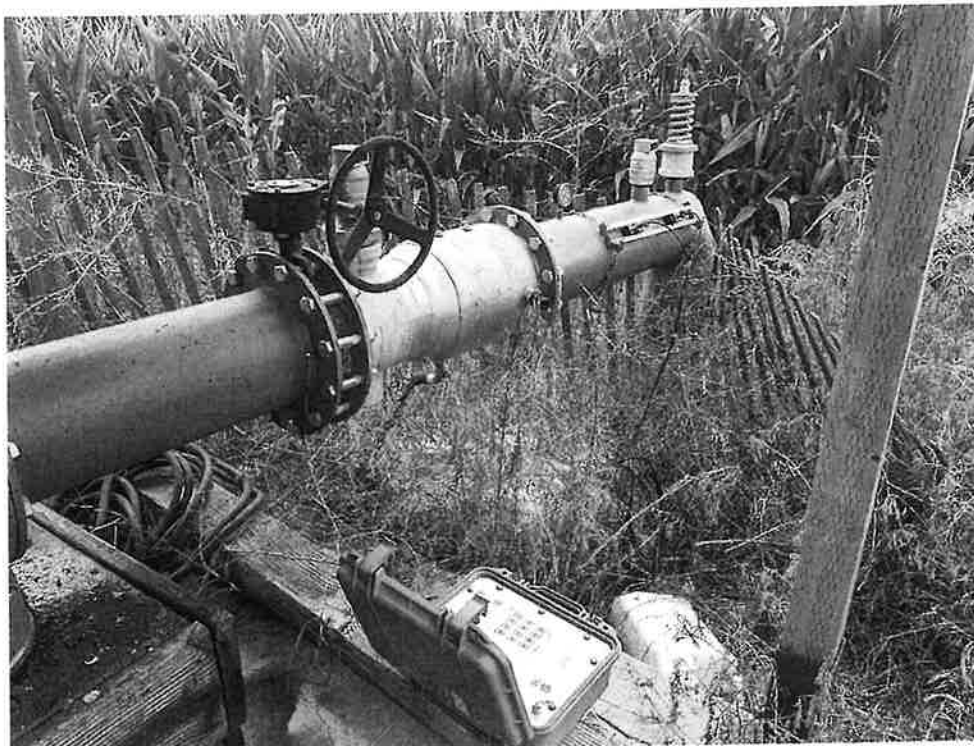


63-33960 & 63-34876 Photos

8-21-20



Pump Motor Name Plate



Meter Installation



Well and Pump Installation



End Gun in Operation

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. WELL TAG NO. D 0070281

Drilling Permit No 970756 - 876813

Water right or injection well # 63-33960

2. OWNER: Highland Livestock and Land Company

Name

Address PO Box 488

City Emmett State ID Zip 83617

3. WELL LOCATION:

Twp. 05 North ☒ or South ☐ Rge 04 East ☐ or West ☒

Sec. 6 1/4 NE 1/4 NW 1/4

Gov't Lot _____ County Canyon

Lat 43 08 43.2 (Deg and Decimal minutes)

Long 116 08 08.8 (Deg and Decimal minutes)

Address of Well Site 1/2 mile North & East of the North end of
Gotsch Road City Parma

(Name of local name of road - Distance to Road or Landmark)

Lot _____ Blk _____ Sub Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☒ Irrigation ☐ Thermal ☐ Injection
☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☐ Air Rotary ☐ Mud Rotary ☐ Cable ☒ Other Reverse Rotary

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft)	Placement method/procedure
Bentonite chips	0	317	41,000 lbs	Dry pour

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge Schedule	Material	Casing Liner	Threaded	Welded
16	+2	351	.375	Steel	☒	☐	☒
16	401	433	.375	Steel	☒	☐	☒
16	453	506	.375	Steel	☒	☐	☒

Was drive shoe used? ☐ Y ☒ N Shoe Depth(s) _____

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☐ N Method _____Manufactured screen ☒ Y ☐ N Type Johnson Wire Wrap

Method of installation Lower in one string

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
351	401	.030		16	Stainless	
433	453	.030		16	Stainless	
506	546	.030		16	Stainless	

Length of Headpipe _____ Length of Tailpipe 5'

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft)	Placement method
#8-16 Sand	317	362	9000 lbs	Dry pour
#5-12 Sand	362	548	30,000 lbs	Dry pour

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 171' 8" Static water level (ft) 171' 8"

Water temp (°F) 70° Bottom hole temp (°F) 65.8°

Describe access port 2" pipe on side

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
28	1000	340

Test method:

Pump	Ball	Art	Flowing
☒	☐	☐	☐

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
24	0	29	Brown sandy loam		X
24	29	32	Brown sandstone		X
24	32	40	Brown clay		X
24	40	88	Fine-coarse brown sand		X
24	88	90	Brown clay		X
24	90	94	Fine-medium brown sand		X
24	94	103	Brown clay w/sandstone streak		X
24	103	108	Fine-medium brown sand		X
24	108	113	Brown clay		X
24	113	189	Fine-coarse brown sand	X	
24	189	196	Brown clay		X
24	196	202	Medium-coarse brown sand	X	
24	202	220	Brown clay		X
24	220	294	Fine-medium brown sand	X	
24	294	296	Brown clay		X
24	296	298	Blue clay		X
24	298	304	Brown clay		X
24	304	308	Fine-medium brn sand w/clay lenses	X	
24	308	312	Fine-coarse brown sand	X	
24	312	314	Blue clay w/ wood		X
24	314	315	Brown clay		X
24	315	334	Blue clay		X
24	334	339	Fine brown sand	X	
24	339	351	Blue, brown clay		X
24	351	367	Fine-coarse brown sand	X	
24	367	368	Brown clay		X
24	368	401	Fine brn sand w/ brn clay layer	X	X
24	401	432	Brown, blue clay		X
24	432	453	Fine-medium brown sand	X	
24	453	503	Blue clay		X
24	503	546	Fine-medium blue sand	X	
24	546	560	Blue clay		X

Completed Depth (Measurable): 551

Date Started: Oct 20, 2015 Date Completed: Dec 21, 2015

14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Riverside Inc Co. No 333

*Principal Driller [Signature] Date 12/22/15

*Driller [Signature] Date 12-22-15

*Operator II _____ Date _____

Operator I _____ Date _____

*Signature of Principal Driller and rig operator are required

RECEIVED

#6-9 SAND 548-560 3000# Dry Pour DEC 24 2015

WATER RESOURCES
WESTERN REGION



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 E Front Street, Suite 648 • PO Box 83720 • Boise ID 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700

Website: idwr.idaho.gov • Email: idwrinfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

September 21, 2020

ERO RESOURCES CORP
ATTN DAVE SHAW
4001 E MAIN ST
EMMETT ID 83617

RE: Field exam report for water right permits 63-33960, 63-34429, and 63-34876.

Dear Mr. Shaw:

I have reviewed the field exam you supplied for water right permit 63-33960, 63-34429, and 63-34876. During my review I discovered that field exam is deficient in several areas. Due to the number of issues involved, I am required to reject this field report. I will discuss each deficiency below:

The Idaho Administrative Code Beneficial Use Examination Rules, IDAPA 37.03.02.035.c states the following:

A concise description of the diversion works and a general description of the distribution works shall be given. This description must trace the water from the point of diversion to the place of use and the return to a public water source, if any. Any reservoir, diversion dam, headgate, well, canal, flume, pump and other related structure shall be included. If water is stored, the timing and method of storage, release, redistribution and conveyance to the place of use shall be described. The make, capacity, serial number and model number of all pumps, boosters or measuring devices associated with the point of diversion at the source of the water supply shall be described on the field examination report. Schematic diagrams, photographs, and maps sufficient to locate and describe the diversion, conveyance and usage systems shall also be provided in the examination report.

Neither of your reports include any information on the delivery system or very little narrative on how the system is operated. For example, is any canal water or other systems connected into the pivot or is it a standalone system? There are times that we can overlook an incomplete narrative if there is substantial information in the file that provides the information needed to render a decision. In this case, there was very little information provided in the entire file to attain a reasonable understanding on how this system works. A narrative should tell the story of the water use, and what you did during your field examination.

The Idaho Administrative Code Beneficial Use Examination Rules, IDAPA 37.03.02.035.01.n states the following:

For permits having more than one (1) use, the diversion rate measured for each use, the annual diversion volume determined for each use (unless specifically exempted by rule or statute), and the place of use for each use shall be described

You combined the field reports for permit 63-33960 and 63-34876. We have allowed this type of field report to be accepted in the past if the use allocated under each right met the IDAPA rule shown above. You did not separate how much diversion rate or volume that was allocated to each water right, and you also didn't separate out the number of acres each should be allotted to which right. If you combine field reports in this manner, recommendations need to be given for each water right you are including in the field report. Although we prefer separate field reports for each right, we do accept them if they clearly show a delineation of what is being recommended for each water right. Either supply separate field reports, or clearly show what diversion rate, volume, and acres are to be assigned to which water right.

The Idaho Administrative Code Beneficial Use Examination Rules, IDAPA 37.03.02.040.03 and 04 state the following:

03. Measurements. Water measurements may be made by vessel, weir, meter, rated flume, reservoir capacity table or other standard method of measurement acceptable to the Director. The field report shall describe the method used in making the measurement, the date when made, the name of the person making the measurement, the legal description of the location where the measurement was taken and shall include sufficient information, including current meter notes, rating tables, and/or calibration information to enable the Director to check the quantity of water measured in each case. (3-20-20)T

04. Unacceptable Measurements. Theoretical diversion rates or theoretical carrying capacities are not acceptable as a measure of the rate of diversion except as indicated in these rules and for some diversion systems where the flow rate cannot be measured accurately due to the physical characteristics of the diversion and distribution system.

Neither of your field reports had the measurements that were downloaded from your measurement device. There were no pictures showing the rate of flow or field notes describing how the measurement was accomplished. There were no pressure readings to determine if the pumps were operating normally. I was only able to guess at the pressures and flow rates.

By using the well driller's report and the contour lines on the map, I determined that the maximum the 125 Hp pump for permit 63-34429 could deliver was 849 gpm, but you are stating that the pump can divert 1,252 gpm. With the pumping water level suggested in the well driller's report, the well would need to be pumping against 35 psi to accomplish this type of flow rate. Most pivots require a minimum of 40 psi at the pivot, and the majority of the pivots for this permit are run uphill from pump between 80 and 100 feet, so under the best of circumstances, the pressure on the pump would be closer to 92 psi to allow the pumps to operate correctly.

The well for permits 63-33960 and 63-34876 according to the well driller's report has a pumping water level of 200 feet, but the pressure should be less, since it isn't pumping as far uphill from the well. I would guess that the pressure of this system is closer to 50 psi at the pump. Taking this information, it appears as though this pump could operate at close to 1,095 gpm, but you state that this pump operated at 864 gpm.

With the information you supplied, it appears as though you may have transposed the measurements taken on the two wells. However, without the field notes or the downloaded measurement information, I cannot tell which measurement goes with which system.

CONCLUSION:

Idaho Code §42-219 (1) states the following in part:

Upon receipt by the department of water resources of all the evidence in relation to such final proof, it shall be the duty of the department to carefully examine the same, and if the department is satisfied that the law has been fully complied with and that the water is being used at the place claimed and for the purpose for which it was originally intended, the department shall issue to such user or users a license corresponding to the beneficial use. Such license shall state the name and post office address of such user, the purpose for which such water is used and the quantity of water that may be used, which in no case shall be an amount in excess of the amount that has been beneficially applied. For permits held by a municipal provider for reasonably anticipated future needs, a license may be issued incrementally for an amount corresponding to the beneficial use demonstrated to the satisfaction of the department in each incremental statement of completion showing proof of beneficial use submitted pursuant to section 42-204(4), Idaho Code, which amount, together with any previously licensed portion of said permit, shall not exceed the initial quantity authorized under the permit. The final incremental license at the end of the planning horizon shall be issued for an amount corresponding to the beneficial use. The director shall condition the license to prohibit any transfer of the place of use outside the service area, as defined in section 42-202B, Idaho Code, or to a new nature of use of amounts held for reasonably anticipated future needs together with such other conditions as the director may deem appropriate.

The IDAPA Beneficial Use Examination Rules 37.03.02.035.02.b states the following:

Field reports not completed as required by these rules will be returned to the certified water right examiner for completion. If the date for submitting proof of beneficial use has passed, the penalty provisions of Rule 055 shall apply.

The Department has concluded that the field reports for permits 63-33960, 63-34429, and 63-34876 that the field reports for these three permits are not completed as required by the IDAPA Beneficial Use Rules. Therefore, we are returning the Proof of Beneficial Use Statements and Field Reports to you for completion. A copy of this letter will be also be sent to the permit holder, since there water rights are involved. The permit holder could also file a standard amendment according to Idaho Code § 42-204B for the additional acres actually developed if they choose to correct the record prior to refileing proof of beneficial use.

The "Proof of Beneficial Use Statement of Completion" form for this permit is not required to be submitted until February 1, 2022 (63-33960), October 1, 2022 (63-34429), and June 1, 2022 (63-34876). Therefore, there will be no penalties or adjustments of the priority date until after the proof of beneficial use due date for each right shown above.

If you have any questions or concerns, please don't hesitate to contact me.

Respectfully,



Daniel Nelson
Staff Hydrologist
Idaho Department of Water Resources
Telephone (208) 287-4856
Fax (208) 287-6700 (attn: Dan Nelson)

Enclosures: Returned Field Report
 Returned Proof of Beneficial Use

CC HIGHLAND LIVESTOCK & LAND CO LTD
 PO BOX 448
 EMMETT ID 83617