NOTICE AREA

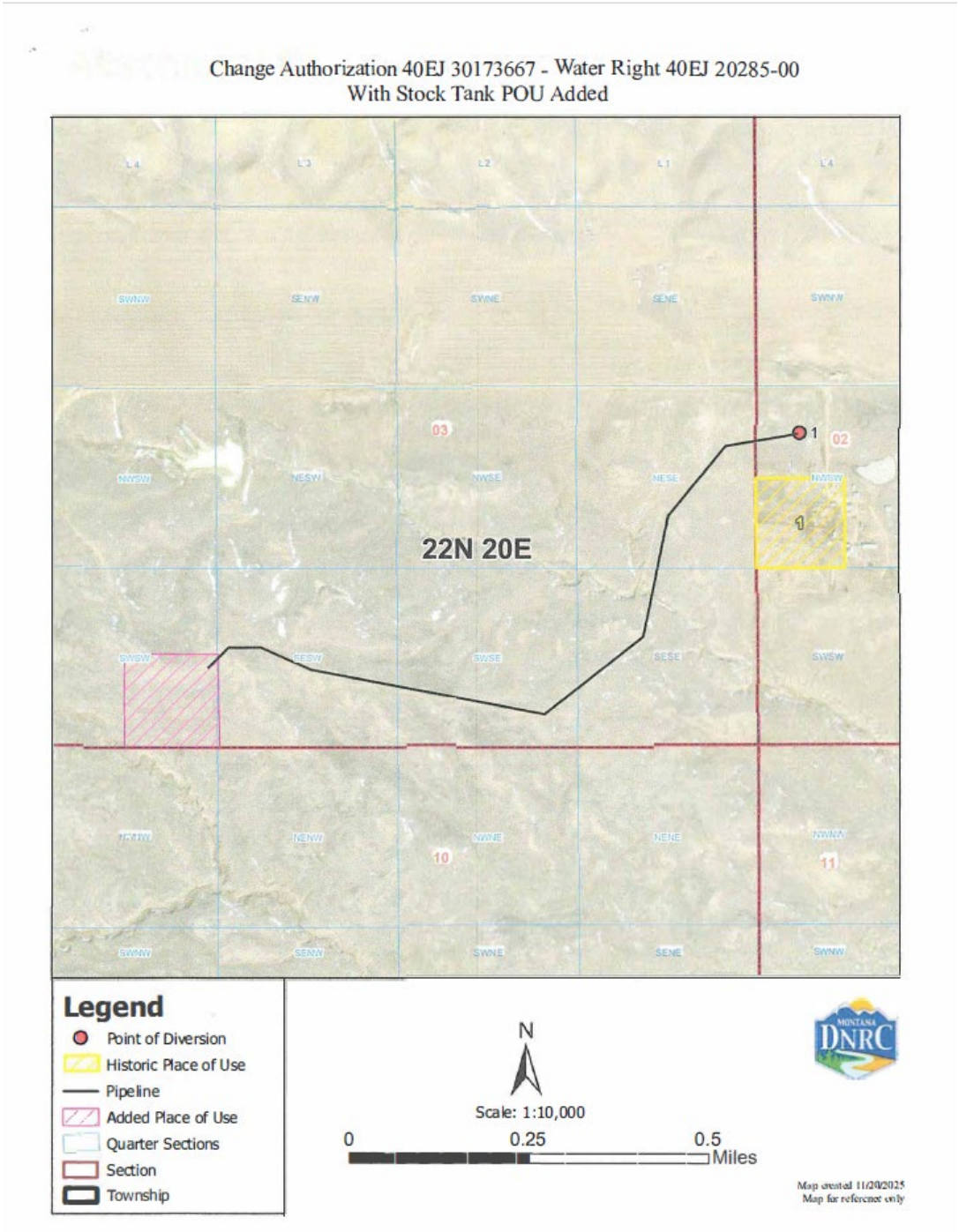
Application No. **40EJ 30173667** Regional Office # 6

Applicant's Name **TK & CO LLLC** **Mail Job: 3474**

Indian Reservation ☐ Yes ☑ No If yes, Reservation _____

Irrigation District ☐ Yes ☑ No If yes, District _____

Specialist **Steven B. Hamilton** Date **1-23-26**



Water Right Owner	Water Right # (Basin, ID, and Number)
TK & CO LLLP (Applicant)	40EJ 202850 00
Robert R. and Vicki F. Ehlert	40EJ 202838 00
Standards:	
MT DFWP - Andy Brummond	1FWP
MT DFWP	2FWP
MT DNRC - Trust Lands Management Div.	1DSL
USDOI - Bureau of Indian Affairs	1BIA
USDOI - Bureau of Reclamation	7BOR
USDOI - Fish & Wildlife Service	1FWS
Water Quality Board - DEQ	1WQB
Clark Fork Coalition	1CFC
MT DNRC - Water Resources Div., Lewistown Regional Office	6LEW
USDOI - Bureau of Land Management, Judith Resource Area	4JRA
Newspaper: Lewistown News Argus	
PUBLISHED: Lewistown News-Argus REMARKS: Sections 2 and 3, TWP22N RGE 20E – Fergus County	

**If owner listed twice, only one notice sent*

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O. BOX 201601 HELENA, MONTANA 59620-1601

CHANGE AUTHORIZATION

UPON FINDING THE REQUIREMENTS OF SECTION 85-2-429, MCA HAVE BEEN MET, APPLICATION TO CHANGE WATER RIGHT NUMBER 40JE-30173667 SUBMITTED ON DECEMBER 26, 2025, IS APPROVED.

Application Form: TK & CO LLLP
2449 EAGLE CREEK BLVD
SHAKOPEE, MN 55379

Water Right Number(s) Changed:	Wr #	Ext	Type
	40EJ-202850	00	STATEMENT OF CLAIM

Change Description:

THIS CHANGE AUTHORIZATION IS FOR THE ADDITION OF 1 STOCK TANKS TO WR #40EJ-202850 LOCATED IN THE SESWSW OF SECTION 3, T22N, R20E. THE EXISTING PLACE OF USE IN SWNWSW SEC 2, T22N, R20E WILL REMAIN.

Additional Information:

THIS CHANGE AUTHORIZATION IS AUTHORIZED PURSUANT TO 85-2-429(5) MCA.

CONDITIONAL APPROVAL

THIS AUTHORIZATION IS LIMITED TO THE AMOUNT OF THE HISTORIC USE RECOGNIZED BY THE DEPARTMENT IN THIS PROCEEDING AS SUBJECT TO CHANGE, AND WILL THEREAFTER NOT EXCEED THAT AMOUNT. IF THE HISTORIC USE IS REDUCED UNDER ADJUDICATION PROCEEDINGS PURSUANT TO TITLE 85, CHAPTER 2, PART 2, MCA, THIS AUTHORIZATION WILL BE LIMITED TO A LESSER AMOUNT.

TEMPORARY CHANGE/PERMIT OR INTERIM PERMIT EXPIRATION

THIS RIGHT EXPIRE ON **FEBRUARY 22, 2031**.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS CHANGE AUTHORIZATION.

Witness Signature

Water Resources Division

DATE ISSUED: JANUARY 23, 2026

THE INFORMATION SHOWN BELOW REFLECTS THE ENTIRE WATER RIGHT.

AN ASTERISK (*) HAS BEEN PLACED NEXT TO EACH ITEM ALTERED BY THIS CHANGE AUTHORIZATION.

Water Right Number: 40EJ 202850-00 STATEMENT OF CLAIM

Version: 3 -- CHANGE AUTHORIZATION

Version Status: ACTIVE

Owners: TK & CO LLLP
2449 EAGLE CREEK BLVD
SHAKOPEE, MN 55379

Priority Date: DECEMBER 31, 1947

Enforceable Priority Date: DECEMBER 31, 1947

Purpose (Use): STOCK

Maximum Flow Rate: 10.00 GPM

Maximum Volume: THIS RIGHT INCLUDES THE AMOUNT OF WATER CONSUMPTIVELY USED FOR STOCK WATERING PURPOSES AT THE RATE OF 30 GALLONS PER DAY PER ANIMAL UNIT. ANIMAL UNITS SHALL BE BASED ON REASONABLE CARRYING CAPACITY AND HISTORICAL USE OF THE AREA SERVICED BY THIS WATER SOURCE.

Source Name: GROUNDWATER

Source Type: GROUNDWATER

ALSO KNOWN AS FORD NO. 4

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NWNWSW	2	22N	20E	FERGUS

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Purpose (Use) STOCK

Period of Use: JANUARY 1 to DECEMBER 31

***Place of Use:**

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SWNWSW	2	22N	20E	FERGUS
*2			SESWSW	3	22N	20E	FERGUS

OWNERSHIP UPDATE RECEIVED

OWNERSHIP UPDATE TYPE 608 # 43449 RECEIVED 12/20/2006.

OWNERSHIP UPDATE TYPE DOR # 70288 RECEIVED 03/08/2010.

For Department Use Only

RECEIVED - DNRC

DEC 26 2025

LEWISTOWN WATER RESOURCES

The Montana Department of Natural Resources & Conservation

Notice of Change in Appropriation Right for Stock Tanks

85-2-429(5), MCA

Form No. 656 *(Revised 10/2025)*

Application # 30173667 Basin 40 · EJ

Received By Tony

Fee Received $400.00 Check # 1206

Deposit Receipt # LWS26/2286

Payor H+H Land + Cattle LLC

Refund $ _____ Date/Time 2:30 pm 12/26/25

FILING FEE:

$400.00

WHEN TO USE THIS FORM:

- To add, move, or remove stock tanks on an existing water right for stock use, or to change to stock tanks from a livestock direct from source water right.
- File this form within 60 days after the project is completed.
- Multiple water rights may be changed on one form if the place of use and purpose will be exactly the same for each water right, and all water rights will share a common conveyance system.
- This form cannot be used if the amount of water diverted from the source or the number of animal units will increase.

I was working with Elizabeth "Letty" Miller on Their Application. Thanks

---

1. Water right owner(s) information:

Name(s) TK & Co LLLP 292160

Mailing Address 2449 Eagle Creek Blvd

City Shakopee State MN Zip 55379

Phone Number _____ Email _____

Note: *If there are additional owners, attach the water right owner information labeled as Attachment #1.*

Contact Person: ☑ Applicant ☐ Consultant ☐ Attorney ☐ Other _____

Contact Name Scott Hauer (Hauer & Hennen Land & Cattle)

Mailing Address 19633 Xeon Ave

City Jordon State MN Zip 55352

Phone Number 612-803-8753 Email scottjhauer@gmail.com

Note: *If a contact person is identified as an attorney, all communications will be sent only to the attorney unless the attorney provides written instruction to the contrary. Unless the contact person is an attorney, the water right owner will receive all correspondence, and a copy may be sent to the contact person.*

2. Application details:

a. **Date project was completed:** 11/01/2025

Note: *If more than 60 days have passed since the project completion you cannot use this form and will need to file Form 606-Application to Change a Water Right.*

b. **List all water right numbers included in this change in appropriation right:**

40EJ 202850-00

Note: *Attach the water right abstracts and a narrative explaining details of the change in appropriation right and label as Attachment #2b.*

Note: *If you do not have a DNRC water right number, you may have an existing exempt water use. Water for stock use from groundwater sources (well or developed springs) or stock drinking directly from a surface water source were exempt from the general adjudication filing requirements for claims of existing water rights if they met either of the following criteria:*

- *For wells, the water was put to use prior to January 1, 1962,* OR put to use between January 1, 1962, and July 1, 1973, and a notice was filed in the courthouse records.
- *For stock drinking directly from the source and water was put to use before July 1, 1973.*

If your stock use meets one of the above criteria, complete this form and a Non-Filed Water Project Addendum. You can obtain the addendum from the Water Rights Forms and Resources webpage. If your use does not meet these criteria, contact your Regional Water Resources Office for more information (Reginal Office contact information is on page 5).

c. **How many stock tanks have been added through this change?**

Permanent_____ Temporary 1

Note: *A temporary change in appropriation right for stock tanks may be authorized in accordance with 85-2-407, MCA.*

d. **Will the existing places of use (POUs) continue to be used?** ☑ Yes ☐ No

e. **New places of use: Provide the following information for all POUs being added in this change:**

Note: *If necessary, attach additional geocode or legal land descriptions using another sheet and label as Attachment #2e.*

i. Geocode(s) of the place(s) of use:

08-3278-03-3-03-01-0000

ii. Legal Land Description (LLD):

1. SE ¼ SW ¼ SW ¼ Section 3 Twp 22 ☒N ☐S Rge 20 ☒E ☐W County Fergus

   # of permanent tanks in LLD _____ # of temporary tanks in LLD 1

2. ___ ¼ ___ ¼ ___ ¼ Section ___ Twp ___ ☐N ☐S Rge ___ ☐E ☐W County _____

   # of permanent tanks in LLD _____ # of temporary tanks in LLD _____

3. ___ ¼ ___ ¼ ___ ¼ Section ___ Twp ___ ☐N ☐S Rge ___ ☐E ☐W County _____

   # of permanent tanks in LLD _____ # of temporary tanks in LLD _____

4. ___ ¼ ___ ¼ ___ ¼ Section ___ Twp ___ ☐N ☐S Rge ___ ☐E ☐W County _____

   # of permanent tanks in LLD _____ # of temporary tanks in LLD _____

5. ___ ¼ ___ ¼ ___ ¼ Section ___ Twp ___ ☐N ☐S Rge ___ ☐E ☐W County _____

   # of permanent tanks in LLD _____ # of temporary tanks in LLD _____

6. ___ ¼ ___ ¼ ___ ¼ Section ___ Twp ___ ☐N ☐S Rge ___ ☐E ☐W County _____

   # of permanent tanks in LLD _____ # of temporary tanks in LLD _____

7. ___ ¼ ___ ¼ ___ ¼ Section ___ Twp ___ ☐N ☐S Rge ___ ☐E ☐W County _____

   # of permanent tanks in LLD _____ # of temporary tanks in LLD _____

8. ___ ¼ ___ ¼ ___ ¼ Section ___ Twp ___ ☐N ☐S Rge ___ ☐E ☐W County _____

   # of permanent tanks in LLD _____ # of temporary tanks in LLD _____

f. **What are the types and numbers of animals that use the stock water system?**
Refer to the *DNRC Water Calculation Guide* for information about animal unit (AU) calculations.
Note: *If necessary, attach additional animal information using a separate sheet and label as Attachment #2.f.*

Type of Animal Beef Cattle x # of Animals 1380 = 1380 AU

Type of Animal _____ x # of Animals _____ = _____ AU

Type of Animal _____ x # of Animals _____ = _____ AU

Type of Animal _____ _____ x # of Animals _____ = _____ AU

Total Animal Units: _____

g. **Provide the legal land description for new points of diversion (PODs), if the change involves going from livestock drinking direct from source to tanks:**

___¼___ ¼ ___¼ Section____Twp___☐N☐S Rge____ ☐E☐W County_____

___¼___ ¼ ___¼ Section____Twp___☐N☐S Rge____ ☐E☐W County_____

___¼___ ¼ ___¼ Section____Twp___☐N☐S Rge____ ☐E☐W County_____

___¼___ ¼ ___¼ Section____Twp___☐N☐S Rge____ ☐E☐W County_____

h. **Are you changing all water right(s) associated with the place of use? ☐ Yes ☒ No**

If **No**, provide an explanation of how the rights will be operated to ensure no expansion of use:
This is an additional tank to water the same herd. This additional tank allows for dispersal around the leased Trust land ground.

Note: *If necessary, attach additional narrative explaining details of associated rights and label as Attachment #2h.*

i. **Did you add stock tanks on State Trust Lands? ☑ Yes ☐ No**

If **Yes**, you must include a copy of the DNRC Forestry and Trust Lands Division's *Authorization for Temporary Change in Appropriation Right Consent Form*. A change in authorization to add stock tanks on state trust land will be temporary for the duration of the lease term. If one FORM No. 656 is used to add permanent stock tanks on private land and temporary stock tanks on state trust land the form, attachments and map(s) must clearly identify the permanent POUs on private land and temporary POUs on state trust land.

3. **Adequate infrastructure to control diversions:**

Note: *If stock tanks are being added to a livestock direct from source water right, the diversion must be shut off when the tank is full. If you will not have an automatic shut off on the tank, outflow water must be immediately directed back to the source.*

a. **How will the water be diverted from the source?**

☑ Well ☐ Pump ☐ Gravity Flow ☐ Other

b. **Identify the flow rate that will be diverted:** 11 **GPM**

Note: *If stock tanks are being added to a livestock direct from source water right, the maximum flow rate for the diversion to the tanks may not exceed 35 GPM (85-2-429(5)(b)(i), MCA).*

c. **How was the flow rate determined?**

Well pump test on private well in 2023

d. **Provide evidence to show that the flow rate will be adequate for the new system.**

Note: *Attach evidence to the form and label it #3d.*

e. **Will a pipeline be used to convey water to the new tanks?** ☑ **Yes** ☐ **No**

If **No**, explain the new means of conveyance:

f. **Provide design plans for the stock tanks system from the point of diversion to the place of use (tanks).** Include pump information, pipe size, pipe length, pipe material, flow shut off method, any valves or booster pumps used, depth pipelines will be buried, etc.

Note: *Attach information to the form and label as Attachment #3e.*

4. **Map: Provide a map or maps depicting the changed stock water system;**
   ***Note**: label map as attachment #4.*
   Aerial photos may be available from the DNRC, NRIS, NRCS, USGS, or other sources. Be sure to indicate which tanks are currently authorized and which tanks are being added via this form. The map also must show:

   - North arrow, scale bar, section lines and numbers, and township and range.
   - Labels for already authorized PODs, POUs and means of conveyance.
   - Labels for new PODs, POUs and means of conveyance. The map should reflect the entire water right including the change and the remaining old use.

Signatures(s): *All owners must sign the form.*

I DECLARE UNDER PENALTY OF PERJURY AND UNDER THE LAWS OF THE STATE OF MONTANA THAT THE FOREGOING IS TRUE AND CORRECT.

I AFFIRM STATEMENTS APPEARING HERE ARE TO THE BEST OF MY KNOWLEDGE TRUE AND CORRECT. I ALSO AFFIRM THAT I HAVE POSSESSORY INTEREST IN THE PROPERTY WHERE THE WATER IS TO BE PUT TO BENEFICIAL USE.

Water Right Owner Signature TK & Co LLLP Scott Haver Date 10-24-25

Printed Name Scott Haver for TK & Co LLLP

Water Right Owner Signature _____ Date _____

Printed Name _____

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION
Trust Lands Management Division

GREG GIANFORTE GOVERNOR
STATE OF MONTANA
1539 ELEVENTH AVENUE
DIRECTOR'S OFFICE: (406) 444-2074
FAX: (406) 444-2684
PO BOX 201601
HELENA MONTANA 59620-1601

Montana Department of Natural Resources and Conservation
Trust Lands Management Division
Authorization for Temporary Change in Appropriation Right
Consent Form

The lessee proposes to obtain a temporary change in appropriation right to use the lessee's water right(s) on school trust land for the duration of the State Lease 10951; lease term beginning 3-1, 2021 and ending Feb 23, 2031, pursuant to §§ 85-2-407 and -441, MCA.

Information about the water right proposed for temporary use on state trust land:

Water Right: _____
Means of diversion
☒ well
☐ developed spring

Point of diversion:
Place of use:
Purpose of use:

Information regarding proposed purpose of use/place of use:

☐ Irrigation: _____ acres of State Trust Land
_____ acres of Non-Trust Land

☒ Stock/Stock Tanks: 1 tanks on State Trust Land
1 tanks on Non-Trust Land

☐ Industrial/commercial
☐ Other (describe _____)
☐ Attach map depicting proposed point of diversion, place of use, location of stock tanks, acres irrigated, etc.

TLMD authorizes the lessee to obtain a temporary change in appropriation right to use the lessee's water right described herein on school trust land for the duration of State Lease _____ pursuant to §§ 85-2-407 and -441, MCA. TLMD does not assert an ownership or co-ownership interest in the water right being temporarily changed. Temporary use of the lessee's water right on the state trust land is not an improvement subject to 77-6-301, MCA, and ARM 36.25.125. Authorization is only for the term of the lease and must be re-applied for at the time of lease renewal.

This approval is made upon the express condition that the lessee shall assume all liability for any injury, property damage or loss by any persons, including such loss to any employee or property of lessee, its agents, or third persons, or to the lessee, from any cause or causes arising from placing the above-described water right on state land. Lessee shall indemnify lessor and save, protect, defend, and hold lessor harmless from any and all liability, loss, damage, expense (including legal expenses and reasonable attorney fees), causes of action, suits, claims or judgments arising from injury to person or property or resulting from or based upon lessor's ownership of the property, which is the subject of this lease, from any cause or causes arising from using the above-described water right on state land, and shall, at lessee's own cost and expense, defend any and all suits which may be brought against lessor, either alone or in conjunction with others, upon any such liability or claim(s). Lessee shall satisfy, pay and discharge any and all judgments and fines that may be recovered against lessor in any such action(s).

Scott Hu — 8-26-25

Lessee Signature — Dated

Lessee Signature — Dated

Lewistown Unit Manager
Lewistown Unit, NELO, DNRC

DNRC Area Unit Office Approval — 9/23/25 — Dated

Elizabeth Miller — 10/6/2025

DNRC AG & Grazing Bureau Approval — Dated

ATTACHMENT #2b

STATE OF MONTANA

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

1424 9TH AVENUE P.O. BOX 201601 HELENA, MONTANA 59620-1601

GENERAL ABSTRACT

Water Right Number: 40EJ 202850-00 STATEMENT OF CLAIM

Version: 2 -- POST DECREE

Version Status: ACTIVE

Owners: TK & CO LLLP
2449 EAGLE CREEK BLVD
SHAKOPEE, MN 55379

Priority Date: DECEMBER 31, 1947

Enforceable Priority Date: DECEMBER 31, 1947

Type of Historical Right: USE

Purpose (Use): STOCK

Maximum Flow Rate: 10.00 GPM

Maximum Volume: THIS RIGHT INCLUDES THE AMOUNT OF WATER CONSUMPTIVELY USED FOR STOCK WATERING PURPOSES AT THE RATE OF 30 GALLONS PER DAY PER ANIMAL UNIT. ANIMAL UNITS SHALL BE BASED ON REASONABLE CARRYING CAPACITY AND HISTORICAL USE OF THE AREA SERVICED BY THIS WATER SOURCE.

Source Name: GROUNDWATER

Source Type: GROUNDWATER

ALSO KNOWN AS FORD NO. 4

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NWNWSW	2	22N	20E	FERGUS

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

No expansion of herd, this is simply to allow better cattle dispersal around the property/water following herd movement

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			SWNWSW	2	22N	20E	FERGUS

Geocodes/Valid: 08-3278-02-3-02-01-0000 - Y

Adding Temporary POU: SESWSW Sec 3 T 22N R20E Fergus County Geocode: 08-3278-03-3-03-01-0000

Remarks:

THE WATER RIGHTS LISTED FOLLOWING THIS STATEMENT ARE MULTIPLE USES OF THE SAME RIGHT. THE USE OF THIS RIGHT FOR SEVERAL PURPOSES DOES NOT INCREASE THE EXTENT OF THE WATER RIGHT. RATHER IT DECREES THE RIGHT TO ALTERNATE AND EXCHANGE THE USE (PURPOSE) OF THE WATER IN ACCORD WITH HISTORICAL PRACTICES.

202819-00 202850-00

NOTICE OF WATER RIGHT TRANSFER RECEIVED 06/01/88.

NOTICE OF WATER RIGHT TRANSFER RECEIVED 05/05/88.

OWNERSHIP UPDATE RECEIVED

OWNERSHIP UPDATE TYPE 608 # 43449 RECEIVED 12/20/2006.

OWNERSHIP UPDATE TYPE DOR # 70288 RECEIVED 03/08/2010.

Attachment 3d

Current situation/statement on flow rate. Well test by driller in 2023 on following pages.

Water is supplied by an existing 1 HP submersible well pump set at 320 feet, producing an estimated flow rate of 14 gallons per minute (GPM) with a total dynamic head (TDH) of approximately 164 feet. The system operates under adequate pressure to serve all stock tanks without the need for booster pumps.

Well at house

Attachment #3d Continued

USDA United States Department of Agriculture
Natural Resources Conservation Service

CEMA 224 – AQUIFER FLOW TEST COVER PAGE

☑ **Participant Information:** Name: TK & Co LLLP (Scott Hauer)

Farm Bill Program Name: RCPP Contract Number: 910325230070

County: Fergus Farm Number: 3254 Tract Number: 717

☑ **Qualified Individual (QI) Information:** Name: Central Drilling Inc

Address: 964 H Street Phone Number: 406-538-7355

Email: _____

I am a (select one of the following and provide associated license or certification information below):

- ☐ Licensed or Certified Professional Geologist (PF, LPG, CPG), licensed Professional Engineer (PE), Certified Water Well Driller (CWD), or licensed Monitoring Well Installer (MWI). Certified Pump Installer (CPI).
- ☐ NRCS Technical Service Provider (TSP) certified for Conservation Practice Standards (CPSs) Water Well (Code 642) or Pumping Plant (Code 533).
- ☐ Non-qualified individual conducting the test under the guidance and oversight of a QI. (If this option is selected, enter the QI's information below).

Certification Name: Lark Smith Certification Number: _____

License Name: _____ License Number: DWC#741

OR

Other (explanation of why no certification or license information is entered above): _

☐ **QI Certification of Deliverables:**

I, Mark Smith, certify the work completed and delivered for this CEMA (select all that apply):

- ☑ Complies with all applicable Federal, State, Tribal, and local laws and regulations.
- ☑ Meets the general requirements, technical requirements, and deliverables for this CEMA.
- ☑ Is consistent with and meets the conservation objectives for which the program contract was entered into by the participant.
- ☑ Addresses the participant's conservation objectives for this CEMA.

QI Signature: Mark Smith *Date:* 4-28-23

☐ **Participant's acceptance statement:**

I accept the completed CEMA deliverables as thorough and satisfying my objectives.

Participant Signature: _____ *Date:* _____

NRCS Review and Approval (Completed by NRCS staff):

NRCS review completed by: _____ Title: _____

Signature: _____ *Date:* _____

☐ ***Attach CS-200 Aquifer Test Data Sheets; Testing Results; All Maps Developed for CEMA; Field Notes documenting each site visit, all on site participant's names; other information related to the well and aquifer test.***

Construction Specification

200 Step-Drawdown Aquifer Test for Water Wells

SCOPE

The work consists of conducting a step-drawdown aquifer test in new and existing wells to determine water level drawdown at the design production rate. A Step-Drawdown Test is an accelerated aquifer test for a single well, designed to estimate the aquifer characteristics and performance of a pumped well under three successively higher controlled pumping rates or steps.

Work includes mobilizing and demobilizing a temporary pump and equipment to measure water level drawdown and flow rate, data collection of water level and flow rate measurements, and associated recovery data in conformance with standard forms.

QUALITY OF WORK

Measure flow rates within +/- 1 gpm and water levels to within +/- 1 foot. Discharge pumped water onto the ground surface far enough away from the well to prevent artificial recharge to the aquifer during the test and to prevent damage to the well site.

REQUIRED MATERIALS

- Pump installation rig. The rig needs to be able to install and remove the riser pipe, electrical cable, and pump.
- Pump with foot valve, with adequate horsepower to lift 150% of the design production rate to the top of casing.
- Discharge pipe
- Marine powerline for the electricity for the pump
- Water level indicator to measure drawdown. Transducers are acceptable.
- Generator
- Flow meter and throttle valve for controlling the flow rate. If a flow meter is not available, a bucket and stopwatch are acceptable.

STEP-DRAWDOWN PUMPING TEST PROCEDURE

A "Step-Drawdown Aquifer Test" consists of placing a pump into a completed cased well and pumping the well continuously in a controlled manner.

Measure the static water level before and after installing the pump. Place the pump immediately above the screen and pump the well until achieving a clear discharge. Once the discharge is clear, allow the well to recover to static conditions. The test can then start.

Using the design production rate (DPR) specified by NRCS, conduct the test using a minimum of three pumping rates (e.g. 50%, 100%, and 150% of the DPR). NRCS will specify the pumping rates. Conduct the test continuously, starting with the lowest pumping rate and ending at the highest pumping rate. Use throttle valve to maintain the pumping rate to within +/- 1 gpm during each step and record incremental water level (drawdown) measurements. Continue each step until there is no drawdown for a minimum of 15 minutes or drawdown stabilizes to within +/- 1 foot of a constant value for a minimum of 15 minutes.

For each pumping rate, measure drawdown to within +/- 1 foot at the time increments (listed for each step) shown on the Pumping Test Data Sheets included in this specification. Measuring water levels at the indicated time may be difficult; a column for recording actual measurement time is on the data sheets.

Stopping the test for any reason is a test failure. Drawing the water level below the pump will cause the pump to suck air and result in a test failure. If failure is about to occur or occurs due to excessive

drawdown, contact NRCS; you may need to restart the test at a reduced flow rate after full recovery of the static water level. If a test failure occurs due to mechanical, electrical, or another reason not related to the geology, restart the test after full recovery of the static water level. After completion of drawdown measurements for all three pumping rates (steps), start the recovery test.

RECOVERY TEST PROCEDURE

Do not remove the pump until the recovery test is completed. Shutoff the pump and start the stopwatch at the same time. Measure recovery levels at the time increments shown on the Recovery Test Data Sheets until water level is within 95% of initial static water level. Measuring water levels at the indicated times may be difficult; a column for recording actual measurement is on the data sheets. Recording water levels every minute for the first 10 minutes is acceptable.

If problems occur during the pumping or recovery tests, contact NRCS.

Phone number _____

MEASUREMENT AND PAYMENT

(Used only if applicable) For established, specific unit prices, measure each work item to the nearest unit applicable, and make each work item payment to the agreed-to unit price (for work items with established lump sum prices, make payments at the lump sum price).

REFERENCES

Administrative Rules of Montana, Title 36, Chapter 21. ASTM D5786, Standard Practice for (Field Procedure) for Constant Drawdown Tests in Flowing Wells for Determining Hydraulic Properties of Aquifer Systems.

Driscoll, F.G. (1986) Groundwater and Wells. 2nd Edition, Johnson Division, St Paul, 1089. Dross.P. 2011. Technical Review Practical Guidelines for Test Pumping in Water Wells. International Committee of the Red Cross (ICRC).

Hantush, M. S., "Nonsteady Flow to Flowing Wells in Leaky Aquifer," Journal of Geophysical Research, Vol 64, No. 8, 1959, pp. 1043-1052.

http://nevada.usgs.gov/tech/excelforhydrology/Listing_and_Description.htm for Excel Workbooks used in analyzing time-drawdown data.

Jacob, C. E., and Lohman, S. W., "Nonsteady Flow to a Well of Constant Drawdown in an Extensive Aquifer," American Geophysical Union Transactions, Vol 33, No. 4, 1952, pp. 552– 569.

Lohman, S. W., "Ground-Water Hydraulics," Professional Paper 708, U.S. Geological Survey, 1972.

Montana Codes Annotated, Title 37, Chapter 43.

Montana Stockwater Pipeline Manual. U.S. Department of Agriculture, Natural Resources Conservation, 2004, pp. 2-6.

GS-200 AQUIFER TEST DATA SHEETS

Producer: _____ Tested by: Central Drilling Step Number: 1 Date: 4-25-23

Latitude: N 47° 42.317' Longitude: W 109° 07.763' Legal Description: _____

Static Water: Flowing 0' ft Pump Intake: 270' ft Well Depth: 310 ft Casing Stick up: 1 ft

Flow Rate Equip: _____ Water Measurement Equip: _____

Step 1

Time Since Start (min)	Actual Time (min)	Pumping Water Level (ft)	Drawdown (ft)	Pumping Rate (3 gpm)	Comments
1	10:41 AM	1.5	1.5'	3	
2	10 42				well making a lot of
3	10 43				Gas.
4	10 44				
5	10 45				
6	10 46				
7	10 47				
8	10 48				
9	10 49				
10	10 50				
11	10 51				
12	10 52				
13	10 53				
14	10 54				
15	10 55				
17	10 57				
19	11 00 AM	1.5	1.5'	3	
21			ft		
23					
25					
27					
29					
30					
35					
40					
45					
50					
55					
60					
70					
80					
90					
100					
115					
130					
145					
160					
180					
210					
240					
270					
300					

Field Notes: Drawdown = pumping water level - static water level

CS-200 AQUIFER TEST DATA SHEETS

Date:		Start Time: 11:01		Step 2	
Time Since Start (min)	Actual Time (min)	Pumping Water Level (ft)	Drawdown (ft)	Pumping Rate (6 gpm)	Comments
1	11:01	2		6	
2	11:02	4	4		still making gas
3	11:03 AM	4			but slowing a bit
4	11:04				
5	1105				
6	1106				
7	1107				
8	1108				
9	1109				
10	1110				
11	1111				
12	1112				
13	1113				
14	1114				
15	1115				
17	1117				
19	1119				
21	~~1121~~ 1121				
23	1123				
25	11:25 AM	4	4	6	
27					
29					
30					
35					
40					
45					
50					
55					
60					
70					
80					
90					
100					
115					
130					
145					
160					
180					
210					
240					
270					
300					

Field Notes:

CS-200 RECOVERY TEST DATA SHEETS

Date:		Start Time: 11:50		
Time Since Start (min)	Actual Time (min)	Pumping Water Level (ft)	Residual Drawdown (ft)	Comments
1	11:51	5'		
2	11:52	4.5'		
3	11:53	4'		
4	11:54	3		
5	11:55	3		
6	11:56	3		
7	11:57	3		
8	11:58	2.5		
9	11:59	2.5		
10	12:00 PM	2.5		
11	12:01	2		
12	12:02	2		
13	12:03	2		
14	12:04	2		
15	12:04	2		
17	12:06	1.5'		
19	12:08	1.5		
21	12:10	1.5		
23	12 12			
25	12 14			
27	12 16			
29	12 17			
30	12:18	1		
35	1223			
40	1228			
45	1233			
50	1238			
55	1243			
60	12:48	.5		
70	~~12:53~~ 1253			
80	~~12:58~~ 1258			
90	118			
100	128			
115	~~2:00~~ 143	Flowing		not as much Gas But still a Few Bubbles
130				
145				
160				
180				
210				
240				
270				
300				

Field Notes:

CS-200 RECOVERY TEST DATA SHEETS

Time Since Start (min)	Actual Time (min)	Pumping Water Level (ft)	Residual Drawdown (ft)	Comments
330				
360				
390				
420				
450				
480				
510				
540				
570				
600				
630				
660				
690				
720				
750				
780				
810				
840				
870				
900				
930				
960				
990				
1020				
1050				
1080				
1110				
1140				
1170				
1200				
1230				
1260				
1290				
1320				
1350				
1380				
1410				
1440				

Field Notes:

Attachment #3e.

Stock Tank Water System – Design Description
The stock tank water system described below is an existing, installed pipeline system conveying water from the point of diversion (well) to the place of use (livestock stock tanks).

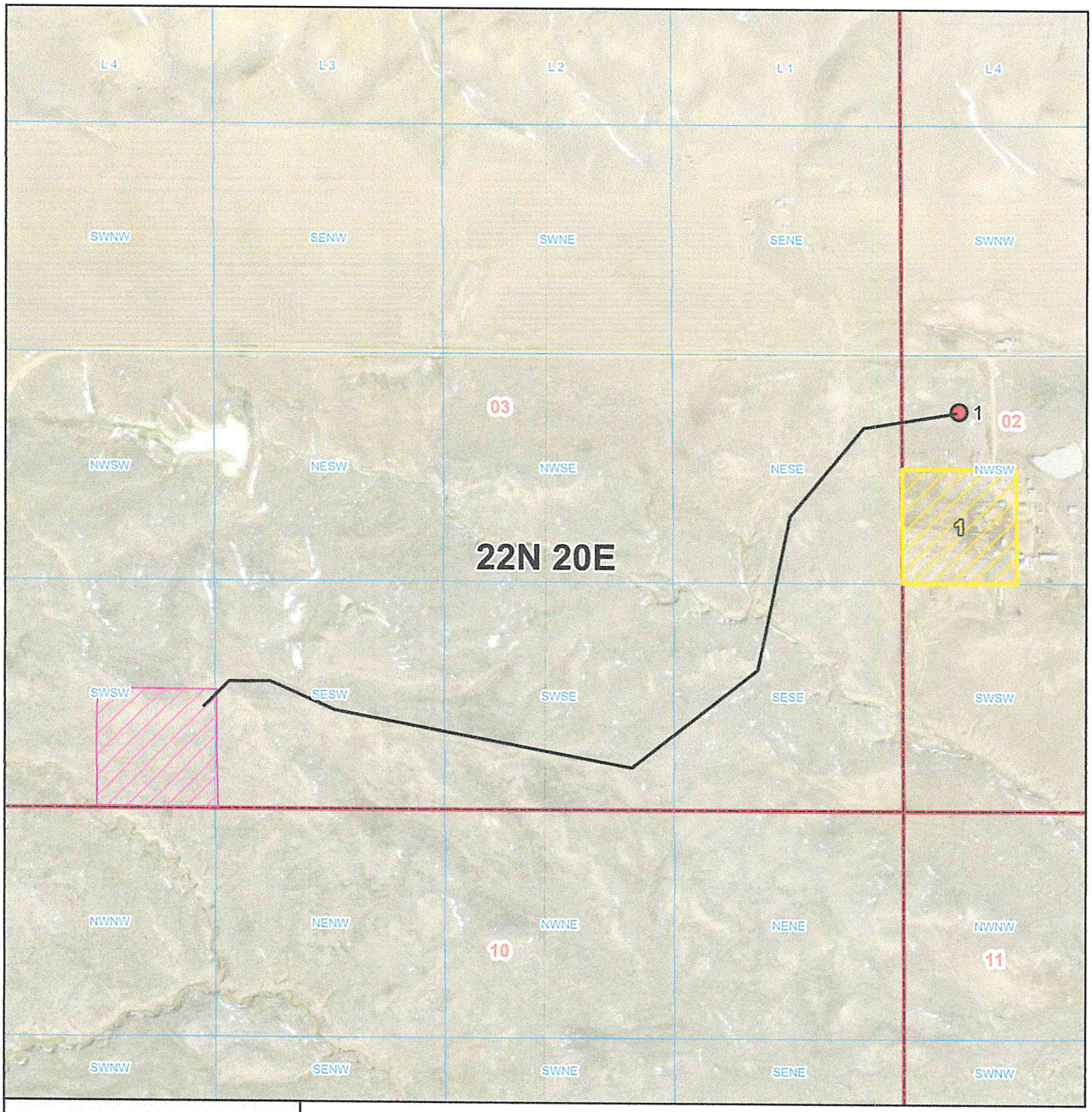
Water is supplied by an existing 1 HP submersible well pump set at 320 feet, producing an estimated flow rate of 14 gallons per minute (GPM) with a total dynamic head (TDH) of approximately 164 feet. The system operates under adequate pressure to serve all stock tanks without the need for booster pumps. Water is conveyed through an existing 2-inch HDPE pipeline with a total length of approximately 8,600 feet. The pipeline is buried to an average depth of approximately 5 feet to provide freeze protection and prevent damage.

Brass curb stops are installed along the pipeline and function as flow shutoff and isolation valves, allowing portions of the system to be shut down for maintenance or repair. No additional control valves or booster pumps are present. Flow to the stock tanks is controlled through the curb stops and tank float valves, where installed, to prevent overflow.

This description is provided to document the configuration and operation of the existing stock tank pipeline system from the point of diversion to the place of use.

Attachment #4

Water Right 40EJ 20285-00
With Stock Tank POU Added



Legend

- Point of Diversion
- Historic Place of Use
- Pipeline
- Added Place of Use
- Quarter Sections
- Section
- Township

N

Scale: 1:10,000

0 0.25 0.5 Miles

Map created 11/20/2025
Map for reference only