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Attorney/Mediator

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November 11 2021

Via Electronic Mail

Richard Elliott
Thousand Hills Land & Cattle Co., LLC
812 E. Monument Street
Colorado Springs, CO 80903

This information does not match information on Water Supply Information Summary. Please confirm and revise as necessary.

Re: Falcon Acres – Water Resources Report

Dear Mr. Elliott:

Per your request, I prepared the following water supply report to support the application to be submitted by Thousand Hills Land & Cattle Co. (Thousand Hills) to El Paso County for preliminary plan approval of a proposed subdivision. The information contained in this report addresses the information required under Section 8.4.7(B)(3), Chapter 8, of the County's Land Development Code and the report format essentially tracks these requirements. In preparing this report, I reviewed the preliminary ground water investigation report for the subdivision property by Curt Wells, CPG, dated May 9, 2007.

A. Summary of the Proposed Subdivision

The subdivision property consists of approximately 49.2 acres of largely undeveloped land and is located at the southwest corner of Davis Road and Curtis Road in unincorporated El Paso County with a street address of 14655 Davis Road. Attachment A to this report provides the legal description for the property, and Attachment B is a plat map of the proposed subdivision. Per the plat map, the property would be subdivided into eight (8) residential lots ranging in size between approximately 4.93 acres and 5.62 acres.

For the subdivision water supply, there is no surface water source available on the property nor otherwise owned by Thousand Hills that could serve as a water supply. The primary plan is to serve the proposed lots through a centralized system supplied by a single well in one of two ways: (1) through a new well constructed into the non-tributary Arapahoe aquifer; or (2) using an existing well constructed into the Denver aquifer. As described below, use of the Denver aquifer well could require Commission approval of a replacement plan.

As an alternative to a centralized water system, each subdivision lot could have either an individual Arapahoe or Denver aquifer well. In the event individual Denver wells are used as the water supply, one newly constructed Arapahoe aquifer well could provide the replacement water for post-pumping replacement of depletions. Under this alternative, it is presumed Thousand Hills would need to obtain Commission approval for a replacement plan to use individual Denver aquifer wells as a subdivision water supply.

B. Determination of Sufficient Quantity of Water

Groundwater source information

The property is located within the Upper Black Squirrel Ground Water Management District. In 2007, Thousand Hills obtained orders for Determinations of Water Rights (Determination Orders) from the Colorado Ground Water Commission (Commission) for the Denver, Arapahoe and Laramie-Fox Hills aquifers underlying the property. Copies of the Determination Orders are included with this report as Attachments C-1 through C-3. Pursuant to findings contained in the Determination Orders 1146-B and 1145-BD, respectively, the water contained within the Arapahoe and Laramie-Fox Hills aquifers is considered “non-tributary” and non-renewable; the Denver aquifer is considered “not non-tributary” and also non-renewable per Determination Order 1147-BD. The permitted uses under the Commission’s Determination Orders include domestic, commercial, industrial, irrigation, and replacement.

Well production information

Based on a 300-year supply analysis as described below, it is estimated that the Arapahoe aquifer underlying the property needs to reliably produce about three gallons per minute (3 gpm) to provide an adequate annual supply to all the lots. Because the Commission’s Determination Order in 1146-BD found that the Arapahoe aquifer is non-tributary, a replacement plan is not required to put the water to use; however, this Determination Order requires Thousand Hills to relinquish four percent (4%) of total annual pumping.

Alternatively, the existing Denver aquifer well (permit #74444-A) could serve as the primary water source well. A recent test of the Denver well structure (Attachment D) indicates this well can sustainably produce about six and one-half gallons per minute (6.5 gpm). For purposes of this report, the Denver aquifer well is treated as if a replacement plan is required for subdivision water supply use.¹

Calculation of water demand & quantity of water available

Arapahoe aquifer

As described below, the maximum quantity available per lot is based on a 300-year supply deemed to be available in the Arapahoe aquifer per Determination Order 1146-BD. The 300-year supply for this aquifer is calculated by dividing the 100-year supply identified in this Determination Order by three (3), such that the 300-year quantity equals one-third of the 100-year supply.

¹ At this time, it is not certain whether the Denver aquifer well is located within the 4.2-acre area of the property determined to be subject to a 4% relinquishment of the total amount pumped rather than a replacement plan; see paragraph 13 of the 1147-BD Determination Order. Even if it is, the quantity of Denver aquifer water underlying this area is probably insufficient by itself to provide a 300-year supply for the subdivision.

- For the Thousand Hills property, the 100-year supply was determined to be 14.2 acre-feet (AF) per year (Determination Order 1146-BD, paragraph 8); dividing this quantity by three yields a 300-year supply of 4.73 AF per year:

$$100\text{-year supply} = 14.2 \text{ AF per year}$$

$$300\text{-year supply} = 14.2 \text{ AF} / 3 = 4.73 \text{ AF per year}$$

- The maximum annual water supply available per lot on a 300-year supply basis equals 0.57 AF when accounting for a 4% relinquishment of total pumping as required by Determination Order 1146-BD:

$$4.73 \text{ AF} \times 0.04 = 0.1892 \text{ AF (4\% relinquishment quantity)}$$

$$4.73 \text{ AF} - 0.1892 \text{ AF} = 4.54 \text{ AF (total annual water available after 4\% relinquishment)}$$

$$4.54 \text{ AF} / 8 \text{ lots} = 0.5676 \text{ AF/lot, or } \sim 0.57 \text{ AF/lot}$$

Denver aquifer

As a primary water source, or as a backup and/or supplemental water supply, the existing Denver aquifer well could provide up to 0.33 AF per lot per year over a 300-year period under a similar analysis (presuming no 4% relinquishment required):

$$100\text{-year supply} = 8.0 \text{ AF per year (1147-BD Determination, paragraph 9)}$$

$$300\text{-year supply} = 8.0 \text{ AF} / 3 = 2.67 \text{ AF per year}$$

$$2.67 \text{ AF per year} / 8 \text{ lots} = 0.33 \text{ AF per year per lot}$$

When compared to residential water service provide by municipal systems, an annual water supply of 0.33 AF per lot should be sufficient to meet average water use requirements for subdivision residents. In this instance, using either the existing Denver well or a new Arapahoe well should be capable of providing a sufficient annual water quantity to serve each lot.

C. Determination of Sufficient Dependability of Water Supply

Information regarding sufficient dependability of water supply

Thousand Hills obtained Determination Orders in 2007 for the Denver, Arapahoe and Laramie-Fox Hills aquifers underlying its property. The overlying property continues to be owned by Thousand Hills, and none of the underlying ground water has been sold, leased or encumbered so as prevent use at the property. Therefore, all of the ground water underlying the property is available for Thousand Hills' use.

Arapahoe aquifer

To produce 4.73 AF per year from the Arapahoe aquifer, a well constructed into this aquifer should be capable of producing a minimum, sustained flow of 3 gpm. Based on the recent flow test of the Denver aquifer well (Attachment D) showing a sustained 6.5 gpm flow rate, a well production flow rate of 3 gpm from the Arapahoe aquifer should be achievable. The required minimum well production rate is calculated based on the annual available quantity (prior to the 4% relinquishment) as follows:

$$4.73 \text{ AF per year} / 365 \text{ days} = 0.013 \text{ AF per day (rounded)}$$

$$0.013 \text{ AF per day} \times 325,851 \text{ gallons}^2 = 4,222.67 \text{ gallons per day}$$

$$4,222.67 \text{ gallons per day} / 24 \text{ hours} = 175.95 \text{ gallons per hour (rounded)}$$

$$175.95 \text{ gallons per hour} / 60 \text{ minutes} = 2.93 \text{ gallons per minute, or } \sim 3 \text{ gpm}$$

Denver aquifer

As noted above, the recent well test for the Denver aquifer well indicates it appears capable of reliably producing 6.5 gpm on a continuous basis. Based on the above analysis for the Arapahoe aquifer, the measured, sustained flow rate for the existing Denver aquifer well should be adequate to produce 2.67 AF annually.

As noted earlier, it is presumed that use of the existing Denver aquifer well for the subdivision's water system will require a replacement plan; in that event, Commission approval of a replacement plan could require construction of a well into the Arapahoe and/or Laramie-Fox Hills aquifer to replace all post-pumping depletions created by the Denver aquifer well. Given the annual amounts determined for the Arapahoe and Laramie-Fox Hills aquifers (see Attachments C-1 and C-2), sufficient replacement water should be available.

D. Determination of Sufficient Quality and Potability of Water

It is my understanding the existing Denver aquifer well was used previously for domestic use purposes on the property. Using a central water system for the subdivision homes that may be occupied year around could subject the water system to State of Colorado water quality standards for "public water systems". It is recommended that Thousand Hills conduct water quality testing for both the Denver and Arapahoe aquifers to determine whether current aquifer water quality complies with these standards. It is my understanding that the Colorado public water system standards do not apply to individual private wells, and El Paso County does not separately regulate water quality for such wells.

² 325,851 gallons equals one acre-foot of water.

Richard Elliott, Thousand Hills Land & Cattle Co., LLC
Re: Falcon Acres – Water Resources Report
November 11, 2021
Page 5

Via Electronic Mail

I trust that this report serves your needs. Please do not hesitate to contact me with any questions. Thanks very much.

Very truly yours,

/s/ Paul G. Anderson

Paul G. Anderson

Attachments:

Attachment A – Legal description

Attachment B – Subdivision plat map

Attachment C-1 through C-3 – Determination Orders 1145-BD – 1147-BD

Attachment D – Kunau Drilling LLC Metered Flow Test & Well Inspection Report

ATTACHMENT A

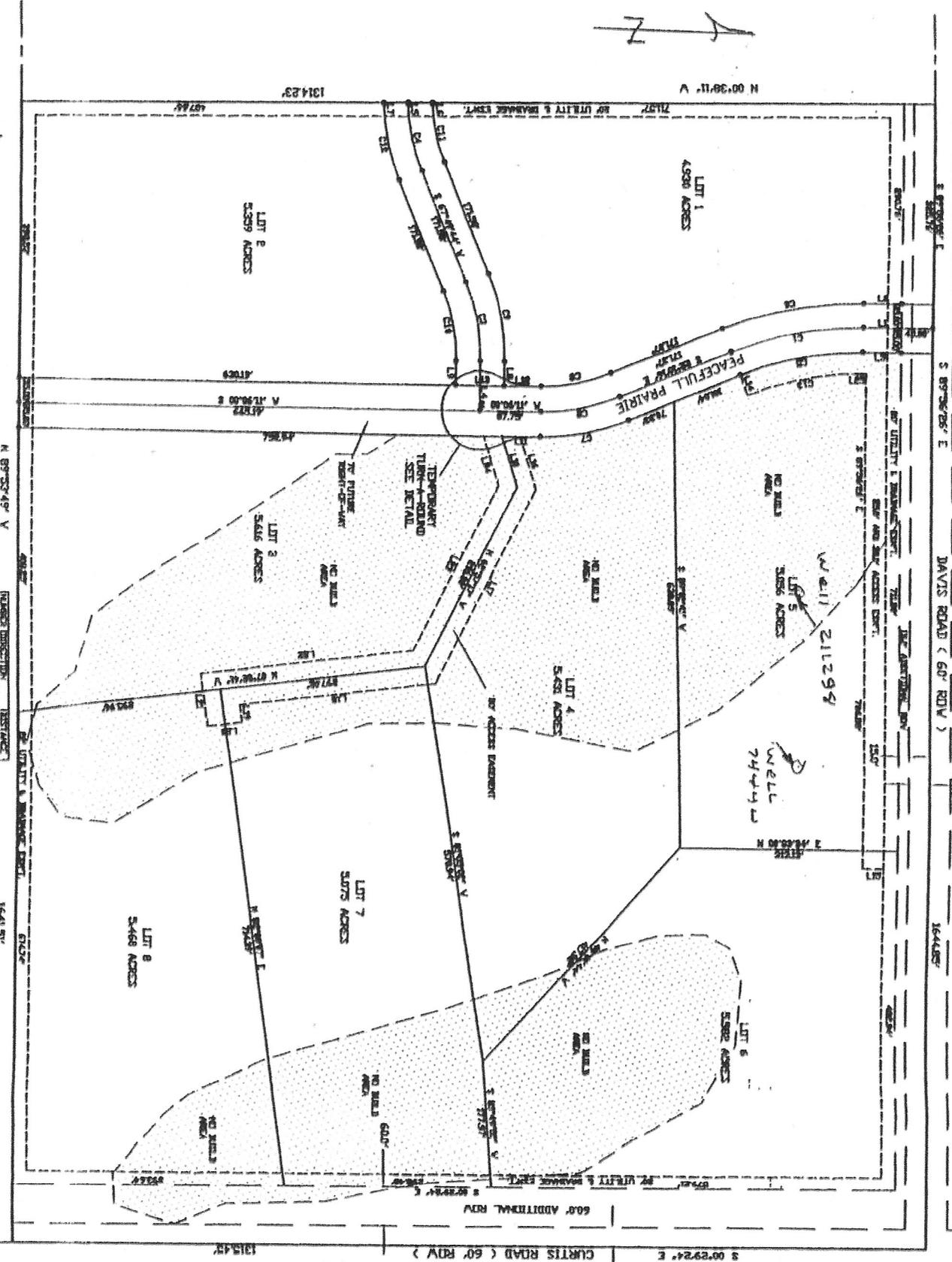
LEGAL DESCRIPTION

FALCON ACRES
LEGAL DESCRIPTION

LOT 1, ALSO KNOWN AS THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER AND A PORTION OF LOT 2, ALSO KNOWN AS THE EAST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 14 SOUTH, RANGE 64 WEST OF THE 6TH P.M., EXCEPT ANY PORTION THEREOF LYING WITHIN DAVIS ROAD AND CURTIS ROAD, COUNTY OF EL PASO, STATE OF COLORADO MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 4; THENCE S 00°29'24" E, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER, 30.00 FEET; THENCE N 89°56'26" W, 30.00 FEET, TO THE POINT OF BEGINNING; THENCE S 00°29'24" E, 30.00 FEET FROM AND PARALLEL WITH SAID EAST LINE, 1285.42 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER; THENCE N 89°53'49" W, 1641.50 FEET TO THE SOUTHWEST CORNER OF SAID EAST HALF OF THE EAST HALF OF NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE N 00°38'11" W, 1284.23 FEET TO A POINT 30.00 FEET AND PARALLEL WITH THE NORTH LINE OF SAID SECTION 4, 1614.77 FEET, TO THE POINT OF BEGINNING AND CONTAINING 47.577 ACRES MORE OR LESS.

ATTACHMENT B
SUBDIVISION PLAT MAP

FALCON ACRES



DETAIL
TEMPORARY
TURN-AROUND

NUMBER	DIRECTION	DISTANCE
1	S 89°32'49" W	100.00
2	E 89°32'49" W	100.00
3	S 89°32'49" W	100.00
4	E 89°32'49" W	100.00
5	S 89°32'49" W	100.00
6	E 89°32'49" W	100.00
7	S 89°32'49" W	100.00
8	E 89°32'49" W	100.00
9	S 89°32'49" W	100.00
10	E 89°32'49" W	100.00
11	S 89°32'49" W	100.00
12	E 89°32'49" W	100.00
13	S 89°32'49" W	100.00
14	E 89°32'49" W	100.00
15	S 89°32'49" W	100.00
16	E 89°32'49" W	100.00
17	S 89°32'49" W	100.00
18	E 89°32'49" W	100.00
19	S 89°32'49" W	100.00
20	E 89°32'49" W	100.00

NUMBER	DIRECTION	DISTANCE
1	S 89°32'49" W	100.00
2	E 89°32'49" W	100.00
3	S 89°32'49" W	100.00
4	E 89°32'49" W	100.00
5	S 89°32'49" W	100.00
6	E 89°32'49" W	100.00
7	S 89°32'49" W	100.00
8	E 89°32'49" W	100.00
9	S 89°32'49" W	100.00
10	E 89°32'49" W	100.00
11	S 89°32'49" W	100.00
12	E 89°32'49" W	100.00
13	S 89°32'49" W	100.00
14	E 89°32'49" W	100.00
15	S 89°32'49" W	100.00
16	E 89°32'49" W	100.00
17	S 89°32'49" W	100.00
18	E 89°32'49" W	100.00
19	S 89°32'49" W	100.00
20	E 89°32'49" W	100.00

ATTACHMENT C-1
DETERMINATION NO. 1145-BD
(LARAMIE-FOX HILLS)

**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO ALLOW THE WITHDRAWAL OF GROUND WATER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUND WATER BASIN

APPLICANT: THOUSAND HILLS LAND & CATTLE CO., LLC

AQUIFER: LARAMIE-FOX HILLS

DETERMINATION NO.: **1145-BD**



In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Thousand Hills Land & Cattle Co., LLC (hereinafter "applicant") submitted an application for determination of water right to allow the withdrawal of designated ground water from the Laramie-Fox Hills Aquifer.

FINDINGS

1. The application was received complete by the Colorado Ground Water Commission on January 24, 2007.
2. The applicant requests a determination of rights to designated ground water in the Laramie-Fox Hills Aquifer (hereinafter "aquifer") underlying 49.2 acres, generally described as the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and the E $\frac{1}{2}$ of the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 4, Township 14 South, Range 64 West of the 6th Principal Meridian, in El Paso County. According to a signed statement dated January 23, 2007, the applicant owns the 49.2 acres of land, as further described in said affidavit which is attached hereto as Exhibit A, and claims control of the ground water in the aquifer underlying this land area.
3. The proposed annual amount of ground water to be allocated and withdrawn from the aquifer for intended beneficial uses is the maximum allowable amount.
4. The above described land area overlying the ground water claimed by the applicant is located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction.
5. The applicant intends to apply the allocated ground water to the following beneficial uses: domestic, commercial, industrial, irrigation, and replacement supply. The applicant states that these uses may be supplied with a central system. The applicant's proposed place of use of the allocated ground water is the above described 49.2 acre land area.
6. The quantity of water in the aquifer underlying the 49.2 acres of land claimed by the applicant is 1,550 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:
 - a. The average specific yield of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 15 percent.

- b. The average thickness of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 210 feet.
7. At this time, there is no substantial artificial recharge that would affect the aquifer within a one hundred year period.
 8. Pursuant to Section 37-90-107(7), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate ground water in the aquifer based on ownership of the overlying land and an aquifer life of one hundred years. Therefore, the maximum allowed average annual amount of ground water in the aquifer that may be allocated for withdrawal pursuant to the data in the paragraphs above for the 49.2 acres of overlying land claimed by the applicant is 15.5 acre-feet.
 9. A review of the records in the Office of the State Engineer has disclosed that none of the water in the aquifer underlying the land claimed by the applicant has been previously allocated or permitted for withdrawal.
 10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
 11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable aquifer may be less than the one hundred years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.
 12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the aquifer underlying the land claimed by the applicant will not, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the ground water is nontributary ground water as defined in Rule 4.2.19 of the Designated Basin Rules. No more than 98% of the amount of ground water withdrawn annually shall be consumed, as required by the Designated Basin Rules.
 13. In accordance with Section 37-90-107(7), C.R.S., upon Commission approval of a determination of water right, well permits for wells to withdraw the authorized amount of water from the aquifer shall be available upon application, subject to the conditions of this determination and the Designated Basin Rules and subject to approval by the Commission.
 14. On February 15, 2007, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.
 15. The Commission Staff has evaluated the application relying on the claims to control of the ground water in the aquifer made by the applicant.

Applicant: Thousand Hills Land & Cattle Co., LLC
Aquifer: Laramie-Fox Hills
Determination No.: 1145-BD

Page 3

16. In accordance with Sections 37-90-107(7) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on February 22 and March 1, 2007.
17. No objections to the determination of water right and proposed allocation of ground water were received within the time limit set by statute.
18. In order to prevent unreasonable impairment to the existing water rights of others within the Upper Black Squirrel Creek Designated Ground Water Basin it is necessary to impose conditions on the determination of water right and proposed allocation of ground water. Under conditions as stated in the following Order, no unreasonable impairment of existing water rights will occur from approval of this determination of water right or from the issuance of well permits for wells to withdraw the authorized amount of allocated ground water from the aquifer.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of rights to designated ground water in the Laramie-Fox Hills Aquifer underlying 49.2 acres of land, generally described as as the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and the E $\frac{1}{2}$ of the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 4, Township 14 South, Range 64 West of the 6th Principal Meridian, is approved subject to the following conditions:

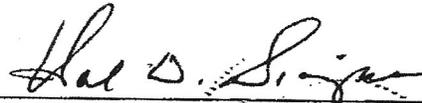
19. The allowed average annual amount of withdrawal of ground water from the aquifer shall not exceed 15.5 acre-feet. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
20. To conform to actual aquifer characteristics, the Commission may adjust the allowed average annual amount of ground water to be withdrawn from the aquifer based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the volume of water in the aquifer was incorrect.
21. The applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
22. No more than 98% of the ground water withdrawn annually shall be consumed. The Commission may require well owners to demonstrate periodically that no more than 98% of the water withdrawn is being consumed.
23. The use of ground water from this allocation shall be limited to the following beneficial uses: domestic, commercial, industrial, irrigation, and replacement supply. The place of use shall be limited to the above described 49.2 acre land area.

24. The applicant, or subsequent persons controlling this water right, shall record in the public records of the county - in which the claimed overlying land is located - notice of transfer of any portion of this water right to another within sixty days after the transfer, so that a title examination of the above described 49.2 acre land area, or any part thereof, shall reveal the changes affecting this water right. Such notice shall consist of a signed and dated deed which indicates the determination number, the aquifer, a description of the above described land area, the annual amount of ground water (acre-feet) transferred, name of the recipient, and the date of transfer.
25. Subject to the above conditions, well permits for wells to withdraw the allocated annual amount of water from the aquifer shall be available upon application subject to approval by the Commission and the following conditions:
 - a. The wells shall be located on the above described 49.2 acre overlying land area.
 - b. The wells must be constructed to withdraw water from only the Laramie-Fox Hills Aquifer. Upon application for a well permit to construct such a well, the estimated top and base of the aquifer at the proposed well location will be determined by the Commission and indicated on the approved well permit. Plain non-perforated casing must be installed, grouted and sealed to prevent diversion of ground water from other aquifers and the movement of ground water between aquifers.
 - c. The entire depth of each well must be geophysically logged prior to installing the casing as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - d. Each well shall be constructed within 200 feet of the location specified on the approved well permit, but must be more than 600 feet from any existing large-capacity well completed in the same aquifer.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and maintained by the well owner and submitted to the Commission or the Upper Black Squirrel Creek Ground Water Management District upon their request.
 - f. The well owner shall mark the well in a conspicuous place with the permit number and the name of the aquifer. The well owner shall take necessary means and precautions to preserve these markings.
26. A copy of this Findings and Order shall be recorded by the applicant in the public records of the county in which the claimed overlying land is located so that a title examination of the above described 49.2 acre overlying land area, or any part thereof, shall reveal the existence of this determination.

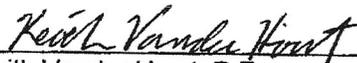
Applicant: Thousand Hills Land & Cattle Co., LLC
Aquifer: Laramie-Fox Hills
Determination No.: 1145-BD

Page 5

Dated this 16th day of April, 2007.



Hal D. Simpson
Executive Director
Colorado Ground Water Commission

By: 

Keith Vander Horst, P.E.
Supervisor, Designated Basins

Prepared by: SKR

EXHIBIT A

1145-BD

Page 1 of 2

GWS-1 (Rev, Sept 1996)

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

RECEIVED
JAN 24 2007
WATER RESOURCES
STATE ENGINEER
COLO.

NONTRIBUTARY GROUND WATER LANDOWNERSHIP STATEMENT

I (we) Thousand Hills Land & Cattle Co., LLC

(Name)

claim and say that I (we) am (are) the owner(s) of the following described property consisting of 49.2 acres in the County of El Paso, State of Colorado:

Northeast Quarter of the Northeast Quarter and the East Half of the East Half of the Northwest

Quarter of the Northeast Quarter, Section 4, Township 14 South, range 64 West

and, that the ground water sought to be withdrawn from the Laramie Fox Hills aquifer underlying the above-described land has not been conveyed or reserved to another, nor has consent been given to its withdrawal by another.

Further, I (we) claim and say that I (we) have read the statements made herein; know the contents hereof; and that the same are true to my (our) own knowledge.

[Signature]

(Signature)

1-23-07

(Date)

(Signature)

(Date)

INSTRUCTIONS:

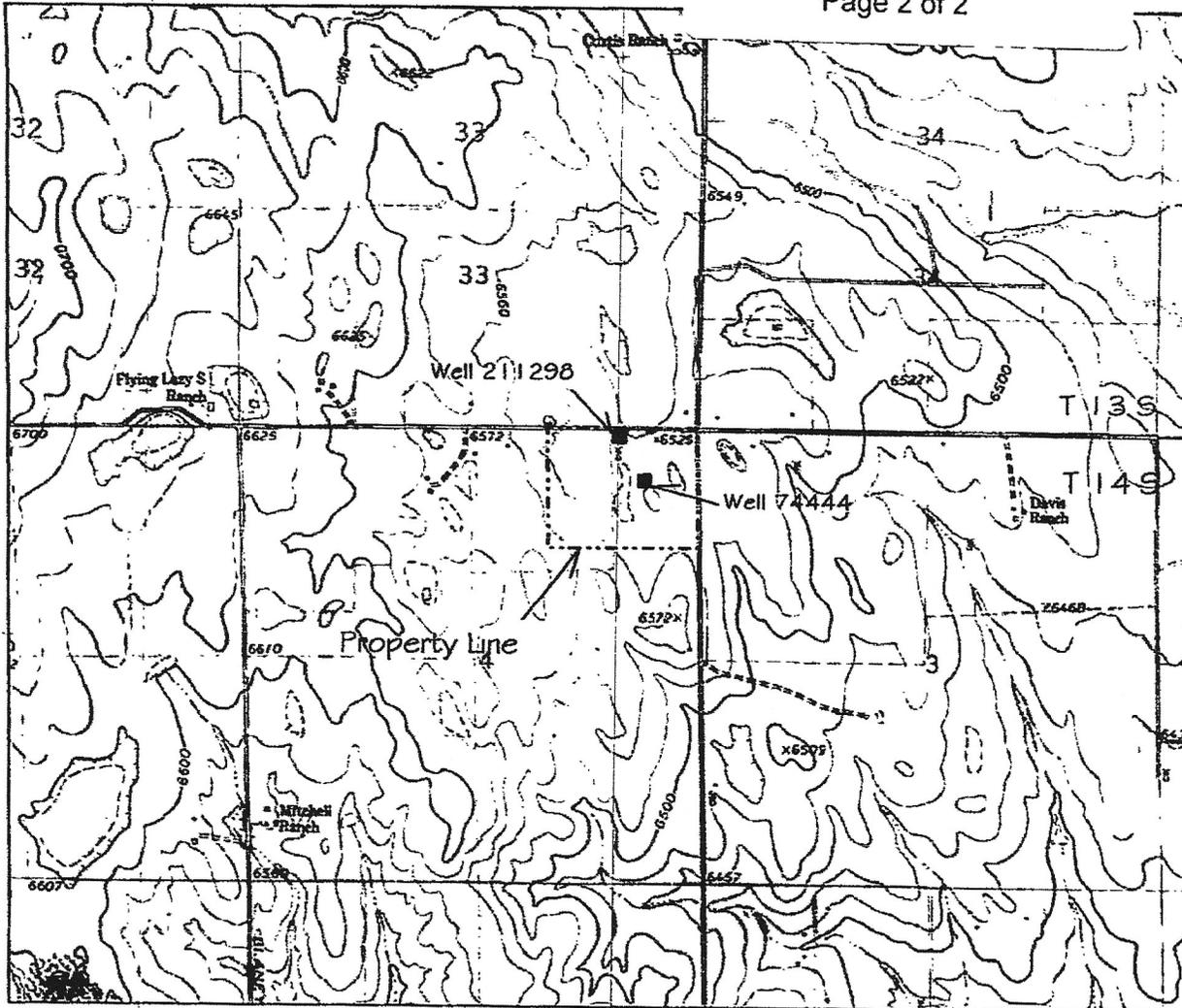
Please type or print neatly in black ink. This form may be reproduced by photocopy or word processing means. See additional instructions on back.

EXHIBIT A

1145-BD

Page 2 of 2

R 64 W



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RECEIVED

JAN 24 2007

WATER RESOURCES
STATE ENGINEER
COLO.

Location Map

Thousand Hills Land & Cattle Co. Property

Wm Curtis Wells & Co.
consulting ground water geologists

Figure 1



Scale 1" = 2000'

ATTACHMENT C-2
DETERMINATION NO. 1146-BD
(ARAPAHOE)

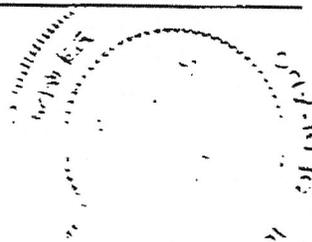
**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO ALLOW THE WITHDRAWAL OF GROUND WATER IN THE UPPER BLACK SQUIRREL CREEK DESIGNATED GROUND WATER BASIN

APPLICANT: THOUSAND HILLS LAND & CATTLE CO., LLC

AQUIFER: ARAPAHOE

DETERMINATION NO.: **1146-BD**



In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Thousand Hills Land & Cattle Co., LLC (hereinafter "applicant") submitted an application for determination of water right to allow the withdrawal of designated ground water from the Arapahoe Aquifer.

FINDINGS

1. The application was received complete by the Colorado Ground Water Commission on January 24, 2007.
2. The applicant requests a determination of rights to designated ground water in the Arapahoe Aquifer (hereinafter "aquifer") underlying 49.2 acres, generally described as the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and the E $\frac{1}{2}$ of the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 4, Township 14 South, Range 64 West of the 6th Principal Meridian, in El Paso County. According to a signed statement dated January 23, 2007, the applicant owns the 49.2 acres of land, as further described in said affidavit which is attached hereto as Exhibit A, and claims control of the ground water in the aquifer underlying this land area.
3. The proposed annual amount of ground water to be allocated and withdrawn from the aquifer for intended beneficial uses is the maximum allowable amount.
4. The above described land area overlying the ground water claimed by the applicant is located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction.
5. The applicant intends to apply the allocated ground water to the following beneficial uses: domestic, commercial, industrial, irrigation, and replacement supply. The applicant states that these uses may be supplied with a central system. The applicant's proposed place of use of the allocated ground water is the above described 49.2 acre land area.
6. The quantity of water in the aquifer underlying the 49.2 acres of land claimed by the applicant is 1,422 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:
 - a. The average specific yield of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 17 percent.

- b. The average thickness of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 170 feet.
7. At this time, there is no substantial artificial recharge that would affect the aquifer within a one hundred year period.
 8. Pursuant to Section 37-90-107(7), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate ground water in the aquifer based on ownership of the overlying land and an aquifer life of one hundred years. Therefore, the maximum allowed average annual amount of ground water in the aquifer that may be allocated for withdrawal pursuant to the data in the paragraphs above for the 49.2 acres of overlying land claimed by the applicant is 14.2 acre-feet.
 9. A review of the records in the Office of the State Engineer has disclosed that none of the water in the aquifer underlying the land claimed by the applicant has been previously allocated or permitted for withdrawal.
 10. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
 11. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable aquifer may be less than the one hundred years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.
 12. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that withdrawal of ground water from the aquifer underlying the land claimed by the applicant will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the ground water is considered to be not-nontributary ground water. Also, the location of the land claimed by the applicant is farther than one mile from the aquifer contact with the alluvium. The Designated Basin Rules require that at least four percent (4%) of the amount of water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal.
 13. In accordance with Section 37-90-107(7), C.R.S., upon Commission approval of a determination of water right, well permits for wells to withdraw the authorized amount of water from the aquifer shall be available upon application, subject to the conditions of this determination and the Designated Basin Rules and subject to approval by the Commission.
 14. On February 15, 2007, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.

15. The Commission Staff has evaluated the application relying on the claims to control of the ground water in the aquifer made by the applicant.
16. In accordance with Sections 37-90-107(7) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on February 22 and March 1, 2007.
17. No objections to the determination of water right and proposed allocation of ground water were received within the time limit set by statute.
18. In order to prevent unreasonable impairment to the existing water rights of others within the Upper Black Squirrel Creek Designated Ground Water Basin it is necessary to impose conditions on the determination of water right and proposed allocation of ground water. Under conditions as stated in the following Order, no unreasonable impairment of existing water rights will occur from approval of this determination of water right or from the issuance of well permits for wells to withdraw the authorized amount of allocated ground water from the aquifer.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of rights to designated ground water in the Arapahoe Aquifer underlying 49.2 acres of land, generally described as as the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and the E $\frac{1}{2}$ of the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 4, Township 14 South, Range 64 West of the 6th Principal Meridian, is approved subject to the following conditions:

19. The allowed average annual amount of withdrawal of ground water from the aquifer shall not exceed 14.2 acre-feet. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
20. To conform to actual aquifer characteristics, the Commission may adjust the allowed average annual amount of ground water to be withdrawn from the aquifer based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the volume of water in the aquifer was incorrect.
21. The applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
22. At least four percent (4%) of the amount of water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal.

23. The use of ground water from this allocation shall be limited to the following beneficial uses: domestic, commercial, industrial, irrigation, and replacement supply. The place of use shall be limited to the above described 49.2 acre land area.
24. The applicant, or subsequent persons controlling this water right, shall record in the public records of the county - in which the claimed overlying land is located - notice of transfer of any portion of this water right to another within sixty days after the transfer, so that a title examination of the above described 49.2 acre land area, or any part thereof, shall reveal the changes affecting this water right. Such notice shall consist of a signed and dated deed which indicates the determination number, the aquifer, a description of the above described land area, the annual amount of ground water (acre-feet) transferred, name of the recipient, and the date of transfer.
25. Subject to the above conditions, well permits for wells to withdraw the allocated annual amount of water from the aquifer shall be available upon application subject to approval by the Commission and the following conditions:
 - a. The wells shall be located on the above described 49.2 acre overlying land area.
 - b. The wells must be constructed to withdraw water from only the Arapahoe Aquifer. Upon application for a well permit to construct such a well, the estimated top and base of the aquifer at the proposed well location will be determined by the Commission and indicated on the approved well permit. Plain non-perforated casing must be installed, grouted and sealed to prevent diversion of ground water from other aquifers and the movement of ground water between aquifers.
 - c. The entire depth of each well must be geophysically logged prior to installing the casing as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
 - d. Each well shall be constructed within 200 feet of the location specified on the approved well permit and, except for wells permitted pursuant to this determination of water right, must be more than 600 feet from any existing large-capacity well completed in the same aquifer.
 - e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and maintained by the well owner and submitted to the Commission or the Upper Black Squirrel Creek Ground Water Management District upon their request.
 - f. The well owner shall mark the well in a conspicuous place with the permit number and the name of the aquifer. The well owner shall take necessary means and precautions to preserve these markings.
26. A copy of this Findings and Order shall be recorded by the applicant in the public records of the county in which the claimed overlying land is located so that a title examination of the above described 49.2 acre overlying land area, or any part thereof, shall reveal the existence of this determination.

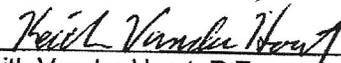
Applicant: Thousand Hills Land & Cattle Co., LLC
Aquifer: Arapahoe
Determination No.: 1146-BD

Page 5

Dated this 16th day of April, 2007.



Hal D. Simpson
Executive Director
Colorado Ground Water Commission

By: 
Keith Vander Horst, P.E.
Supervisor, Designated Basins

Prepared by: SKR

EXHIBIT A

1146-BD

Page 1 of 2

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GWS-1 (Rev, Sept 1996)

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

WATER RESOURCES
STATE ENGINEER
COLO.

NONTRIBUTARY GROUND WATER LANDOWNERSHIP STATEMENT

I (we) Thousand Hills Land & Cattle Co., LLC

(Name)

claim and say that I (we) am (are) the owner(s) of the following described property consisting of 49.2 acres in the County of El Paso, State of Colorado:

Northeast Quarter of the Northeast Quarter and the East Half of the East Half of the Northwest

Quarter of the Northeast Quarter, Section 4, Township 14 South, range 64 West

and, that the ground water sought to be withdrawn from the Arapahoe aquifer underlying the above-described land has not been conveyed or reserved to another, nor has consent been given to it's withdrawal by another.

Further, I (we) claim and say that I (we) have read the statements made herein; know the contents hereof; and that the same are true to my (our) own knowledge.



(Signature)

1-23-2007

(Date)

(Signature)

(Date)

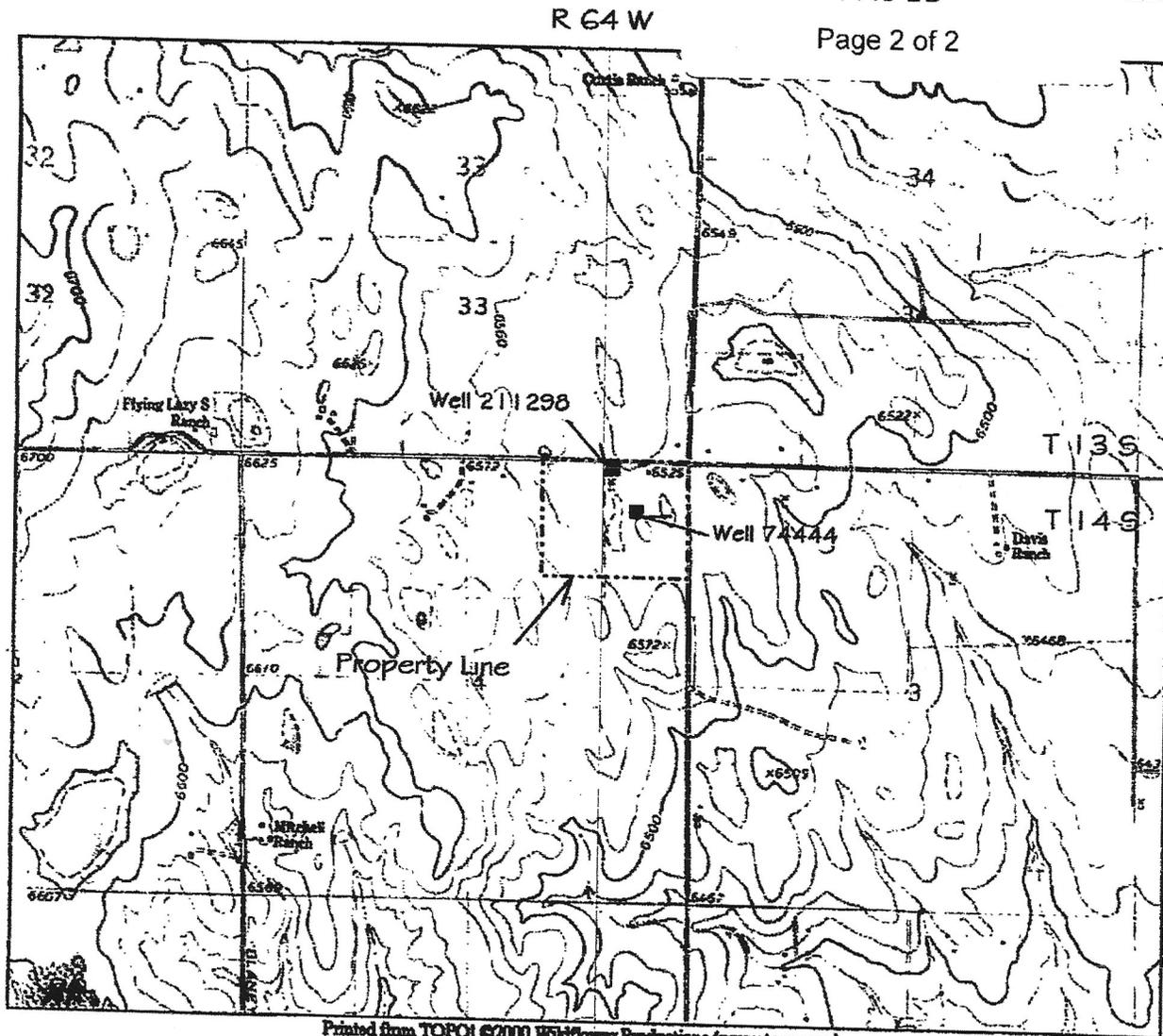
INSTRUCTIONS:

Please type or print neatly in black ink. This form may be reproduced by photocopy or word processing means. See additional instructions on back.

EXHIBIT A

1146-BD

Page 2 of 2



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JAN 24 2007

WATER RESOURCES
STATE ENGINEER
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Location Map

Thousand Hills Land & Cattle Co. Property

Wm Curtis Wells & Co.
consulting ground water geologists

Figure 1



Scale 1" = 2000'

ATTACHMENT C-3
DETERMINATION NO. 1147-BD
(DENVER)

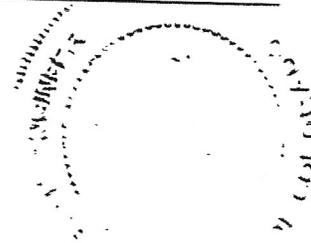
**COLORADO GROUND WATER COMMISSION
FINDINGS AND ORDER**

IN THE MATTER OF AN APPLICATION FOR DETERMINATION OF WATER RIGHT TO
ALLOW THE WITHDRAWAL OF GROUND WATER IN THE UPPER BLACK SQUIRREL CREEK
DESIGNATED GROUND WATER BASIN

APPLICANT: THOUSAND HILLS LAND & CATTLE CO., LLC

AQUIFER: DENVER

DETERMINATION NO.: 1147-BD



In compliance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, 2 CCR 410-1, Thousand Hills Land & Cattle Co., LLC (hereinafter "applicant") submitted an application for determination of water right to allow the withdrawal of designated ground water from the Denver Aquifer.

FINDINGS

1. The application was received complete by the Colorado Ground Water Commission on January 24, 2007.
2. The applicant requests a determination of rights to designated ground water in the Denver Aquifer (hereinafter "aquifer") underlying 49.2 acres, generally described as the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and the E $\frac{1}{2}$ of the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 4, Township 14 South, Range 64 West of the 6th Principal Meridian, in El Paso County. According to a signed statement dated January 23, 2007, the applicant owns the 49.2 acres of land, as further described in said affidavit which is attached hereto as Exhibit A, and claims control of the ground water in the aquifer underlying this land area.
3. The proposed annual amount of ground water to be allocated and withdrawn from the aquifer for intended beneficial uses is the maximum allowable amount.
4. The above described land area overlying the ground water claimed by the applicant is located within the boundaries of the Upper Black Squirrel Creek Designated Ground Water Basin and within the Upper Black Squirrel Creek Ground Water Management District. The Colorado Ground Water Commission (hereinafter "Commission") has jurisdiction.
5. The applicant intends to apply the allocated ground water to the following beneficial uses: domestic, commercial, industrial, irrigation, and replacement supply. The applicant states that these uses may be supplied with a central system. The applicant's proposed place of use of the allocated ground water is the above described 49.2 acre land area.
6. The replacement water requirement for withdrawal of ground water from the aquifer underlying the 49.2 acres of overlying land claimed by the applicant consists of two different requirements, which effectively divides the claimed land into two areas. The amount of ground water in the aquifer and a maximum annual amount available for allocation will be determined specifically for the aquifer underlying each of the two areas. These areas are designated and described as follows:

Area A – 45.0 acres, generally described as the majority of the applicant's claimed overlying land area, excluding the southwest corner thereof.

Area B – 4.2 acres, generally described as the southwest corner of the applicant's claimed overlying land area.

These two areas are depicted in a map attached hereto as Exhibit B.

7. The quantity of water in the aquifer underlying the 49.2 acres of land claimed by the applicant is as follows: Area A = 803 acre-feet; Area B = 71.4 acre-feet. This determination was based on the following as specified in the Designated Basin Rules:
 - a. The average specific yield of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is 17 percent.
 - b. The average thickness of the saturated permeable material of the aquifer underlying the land under consideration that could yield a sufficient quantity of water that may be extracted and applied to beneficial use is as follows: Area A = 105 feet; Area B = 100 feet.
8. At this time, there is no substantial artificial recharge that would affect the aquifer within a one hundred year period.
9. Pursuant to Section 37-90-107(7), C.R.S., and in accordance with the Designated Basin Rules, the Commission shall allocate ground water in the aquifer based on ownership of the overlying land and an aquifer life of one hundred years. Therefore, the maximum allowed average annual amount of ground water in the aquifer that may be allocated for withdrawal pursuant to the data in the paragraphs above for the 49.2 acres of overlying land claimed by the applicant is as follows: Area A = 8.0 acre-feet; Area B = 0.7 acre-feet.
10. In accordance with Rule 5.3.2.4 of the Designated Basin Rules, the maximum average annual amount of ground water available for allocation from the aquifer underlying the 45.0 acre portion of land claimed by the applicant, designated Area A, is reduced to 4.0 acre-feet to allow for the annual withdrawal of two small capacity wells which are completed in the aquifer, Permit Nos. 74444-A and 113499. Except for these wells, review of the records in the Office of the State Engineer has disclosed that none of the water in the aquifer underlying the land claimed by the applicant has been previously allocated or permitted for withdrawal.
11. Pursuant to Section 37-90-107(7)(c)(III), C.R.S., an approved determination of water right shall be considered a final determination of the amount of ground water so determined; except that the Commission shall retain jurisdiction for subsequent adjustment of such amount to conform to the actual local aquifer characteristics from adequate information obtained from well drilling or test holes.
12. The ability of wells permitted to withdraw the authorized amount of water from this non-renewable aquifer may be less than the one hundred years upon which the amount of water in the aquifer is allocated, due to anticipated water level declines.

13. In accordance with Rule 5.3.6 of the Designated Basin Rules, it has been determined that the replacement water requirements for withdrawal of ground water from the aquifer underlying the subject land area are as follows:

Area A – Withdrawal of ground water from the aquifer underlying the 45.0 acre portion of land claimed by the applicant will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one-tenth of one percent of the annual rate of withdrawal and, therefore, the ground water is considered to be non-tributary ground water. Also, the location of the 45.0 acre portion of the land claimed by the applicant is closer than one mile from the aquifer contact with the alluvium. Withdrawal of water from the aquifer underlying the 45.0 acre portion of the claimed land area would impact the alluvial aquifer of Upper Black Squirrel Creek or its tributaries, which has been determined to be over-appropriated. Commission approval of a replacement plan - pursuant to Section 37-90-107.5, C.R.S., and Rule 5.6 of the Designated Basin Rules - providing for the actual depletion of the alluvial aquifer and adequate to prevent any material injury to existing water rights, would be required prior to approval of well permits for wells to be located on this portion of the land area to withdraw the allocated ground water from the aquifer.

Area B – Withdrawal of ground water from the aquifer underlying the 4.2 acre portion of the land claimed by the applicant will, within one hundred years, deplete the flow of a natural stream or its alluvial aquifer at an annual rate greater than one tenth of one percent of the annual rate of withdrawal and, therefore, the ground water is considered to be non-tributary ground water. Also, the location of the 4.2 acre portion of the land claimed by the applicant is farther than one mile from the aquifer contact with the alluvium. The Designated Basin Rules require that at least four percent (4%) of the amount of water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal.

14. In accordance with Section 37-90-107(7), C.R.S., upon Commission approval of a determination of water right, well permits for wells to withdraw the authorized amount of water from the aquifer shall be available upon application, subject to the conditions of this determination and the Designated Basin Rules and subject to approval by the Commission.
15. On February 15, 2007, in accordance with Rule 9.1 of the Designated Basin Rules, a letter was sent to the Upper Black Squirrel Creek Ground Water Management District requesting written recommendations concerning this application. No written recommendations from the district were received.
16. The Commission Staff has evaluated the application relying on the claims to control of the ground water in the aquifer made by the applicant.
17. In accordance with Sections 37-90-107(7) and 37-90-112, C.R.S., the application was published in the Ranchland News newspaper on February 22 and March 1, 2007.
18. No objections to the determination of water right and proposed allocation of ground water were received within the time limit set by statute.

19. In order to prevent unreasonable impairment to the existing water rights of others within the Upper Black Squirrel Creek Designated Ground Water Basin it is necessary to impose conditions on the determination of water right and proposed allocation of ground water. Under conditions as stated in the following Order, no unreasonable impairment of existing water rights will occur from approval of this determination of water right or from the issuance of well permits for wells to withdraw the authorized amount of allocated ground water from the aquifer.

ORDER

In accordance with Section 37-90-107(7), C.R.S., and the Designated Basin Rules, the Colorado Ground Water Commission orders that the application for determination of rights to designated ground water in the Denver Aquifer underlying 49.2 acres of land, generally described as as the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and the E $\frac{1}{2}$ of the E $\frac{1}{2}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 4, Township 14 South, Range 64 West of the 6th Principal Meridian, is approved subject to the following conditions:

20. The allowed average annual amount of withdrawal of ground water from the aquifer shall not exceed the following: Area A = 4.0 acre-feet; Area B = 0.7 acre-feet. The allowed maximum annual amount of withdrawal may exceed the allowed average annual amount of withdrawal as long as the total volume of water withdrawn does not exceed the product of the number of years since the date of approval of this determination times the allowed average annual amount of withdrawal.
21. To conform to actual aquifer characteristics, the Commission may adjust the allowed average annual amount of ground water to be withdrawn from the aquifer based on analysis of geophysical logs or other site-specific data if such analysis indicates that the initial estimate of the volume of water in the aquifer was incorrect.
22. The applicant may pump the allowed average annual amount of withdrawal and the allowed maximum annual amount of withdrawal from one or more wells of a well field in any combination, so long as the total combined withdrawal of the wells does not exceed the amounts described in this Order.
23. Replacement water requirements shall be as follows:
 - a. For the aquifer underlying the above-described 45.0 acres of Area A, Commission approval of a replacement plan, providing for actual depletion of affected alluvial aquifers and adequate to prevent any material injury to existing water rights in such alluvial aquifers is required prior to approval of well permits for wells to be located on the overlying land area to withdraw ground water from the aquifer.
 - i. Upon withdrawal of the allowed maximum annual amount of withdrawal underlying Area A through wells located within Area A, the allowed maximum annual amount of withdrawal underlying the above-described Area B may be withdrawn through wells located on Area A, subject to the conditions of an approved replacement plan.

- b. For the aquifer underlying the above-described 4.2 acres of Area B, at least four percent (4%) of the amount of water withdrawn annually must be returned to the uppermost aquifer in the vicinity of the permitted point or points of withdrawal.
- i. Upon withdrawal of the allowed maximum annual amount of withdrawal underlying Area B through wells located within Area B, the allowed maximum annual amount of withdrawal underlying the above-described Area A may be withdrawn through wells located on Area B, subject to the conditions of an approved replacement plan.
24. The use of ground water from this allocation shall be limited to the following beneficial uses: domestic, commercial, industrial, irrigation, and replacement supply. The place of use shall be limited to the above described 49.2 acre land area.
25. The applicant, or subsequent persons controlling this water right, shall record in the public records of the county - in which the claimed overlying land is located - notice of transfer of any portion of this water right to another within sixty days after the transfer, so that a title examination of the above described 49.2 acre land area, or any part thereof, shall reveal the changes affecting this water right. Such notice shall consist of a signed and dated deed which indicates the determination number, the aquifer, a description of the above described land area, the annual amount of ground water (acre-feet) transferred, name of the recipient, and the date of transfer.
26. Subject to the above conditions, well permits for wells to withdraw the allocated annual amount of water from the aquifer shall be available upon application subject to approval by the Commission and the following conditions:
- a. The wells shall be located on the above described 49.2 acre overlying land area.
- b. The wells must be constructed to withdraw water from only the Denver Aquifer. Upon application for a well permit to construct such a well, the estimated top and base of the aquifer at the proposed well location will be determined by the Commission and indicated on the approved well permit. Plain non-perforated casing must be installed, grouted and sealed to prevent diversion of ground water from other aquifers and the movement of ground water between aquifers.
- c. The entire depth of each well must be geophysically logged prior to installing the casing as set forth in Rule 9 of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7.
- d. Each well shall be constructed within 200 feet of the location specified on the approved well permit, but must be more than 600 feet from any existing large-capacity well completed in the same aquifer.
- e. A totalizing flow meter or other Commission approved measuring device shall be installed on each well and maintained in good working order by the well owner. Annual diversion records shall be collected and maintained by the well owner and submitted to the Commission or the Upper Black Squirrel Creek Ground Water Management District upon their request.

Applicant: Thousand Hills Land & Cattle Co., LLC
Aquifer: Denver
Determination No.: 1147-BD

Page 6

- f. The well owner shall mark the well in a conspicuous place with the permit number and the name of the aquifer. The well owner shall take necessary means and precautions to preserve these markings.
27. A copy of this Findings and Order shall be recorded by the applicant in the public records of the county in which the claimed overlying land is located so that a title examination of the above described 49.2 acre overlying land area, or any part thereof, shall reveal the existence of this determination.

Dated this 16th day of April, 2007.



Hal D. Simpson
Executive Director
Colorado Ground Water Commission

By: 

Keith Vander Horst, P.E.
Supervisor, Designated Basins

Prepared by: SKR

EXHIBIT A

1147-BD

Page 1 of 2

GWS-1 (Rev, Sept 1996)

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

RECEIVED
JAN 24 2007
WATER RESOURCES
STATE ENGINEER
COLO.

NONTRIBUTARY GROUND WATER LANDOWNERSHIP STATEMENT

I (we) Thousand Hills Land & Cattle Co., LLC

(Name)

claim and say that I (we) am (are) the owner(s) of the following described property consisting of 49.2 acres in the County of El Paso, State of Colorado:

Northeast Quarter of the Northeast Quarter and the East Half of the East Half of the Northwest

Quarter of the Northeast Quarter, Section 4, Township 14 South, range 64 West

and, that the ground water sought to be withdrawn from the Denver aquifer underlying the above-described land has not been conveyed or reserved to another, nor has consent been given to its withdrawal by another.

Further, I (we) claim and say that I (we) have read the statements made herein; know the contents hereof; and that the same are true to my (our) own knowledge.

Lisa Elliott 1-23-2007
(Signature) (Date)

(Signature) (Date)

INSTRUCTIONS:

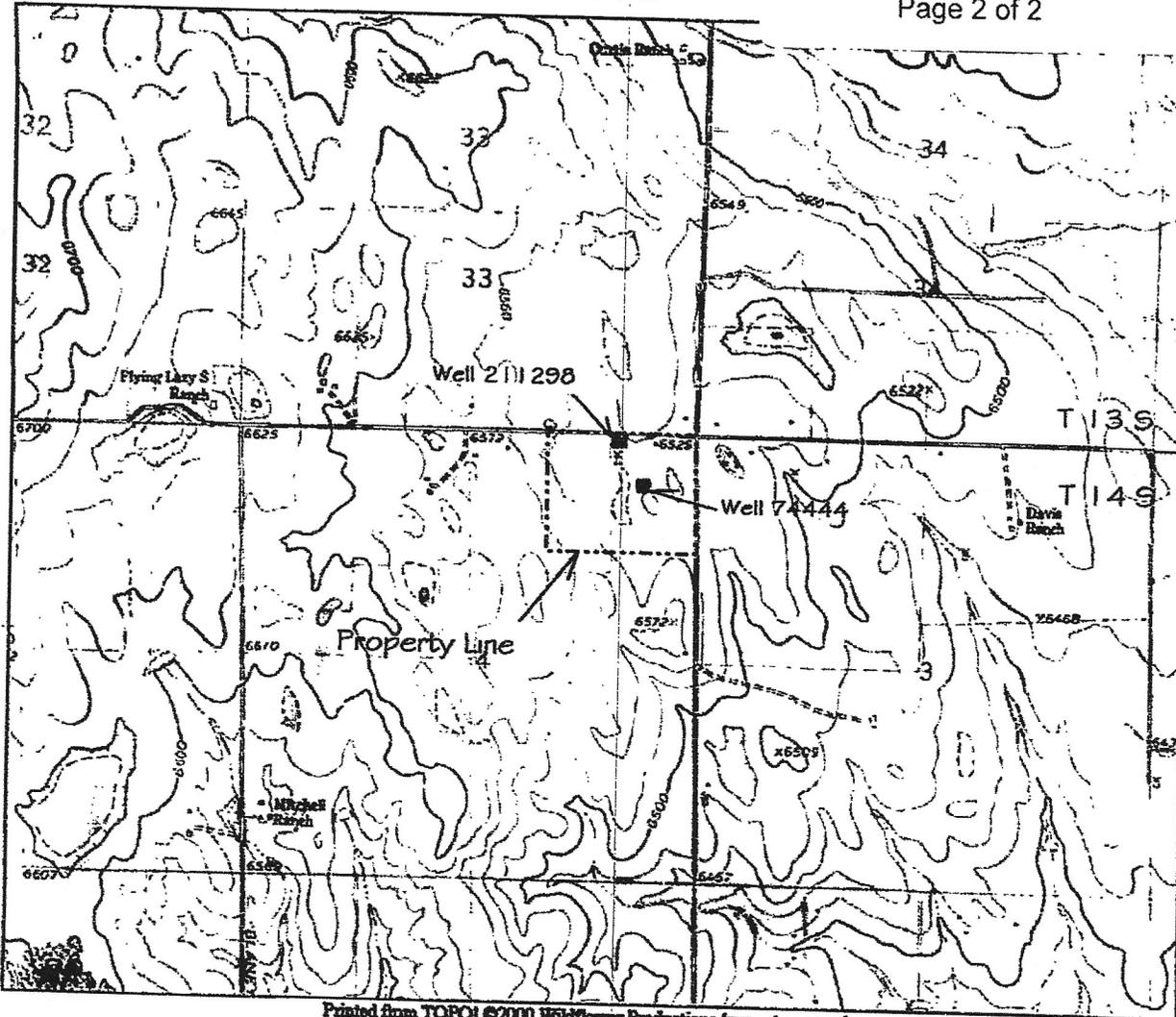
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EXHIBIT A

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R 64 W



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JAN 24 2007

WATER RESOURCES
STATE ENGINEER
COLO.

Location Map

Thousand Hills Land & Cattle Co. Property

Wm Curtis Wells & Co.
consulting ground water geologists

Figure 1



Scale 1" = 2000'

EXHIBIT B

1147-BD

Page 1 of 1

DIVISION OF WATER RESOURCES STATE OF COLORADO

Receipt Number: 3612665 C
Applicant: Thousand Hills Land & Cattle Co., LLC
Basin: Upper Black Squirrel Creek
GWMD: Upper Black Squirrel Creek
Aquifer: Tkd

Section: 4
Township: 14 S
Range: 64 W
Meridian: S
Total area claimed: 49.2 acres

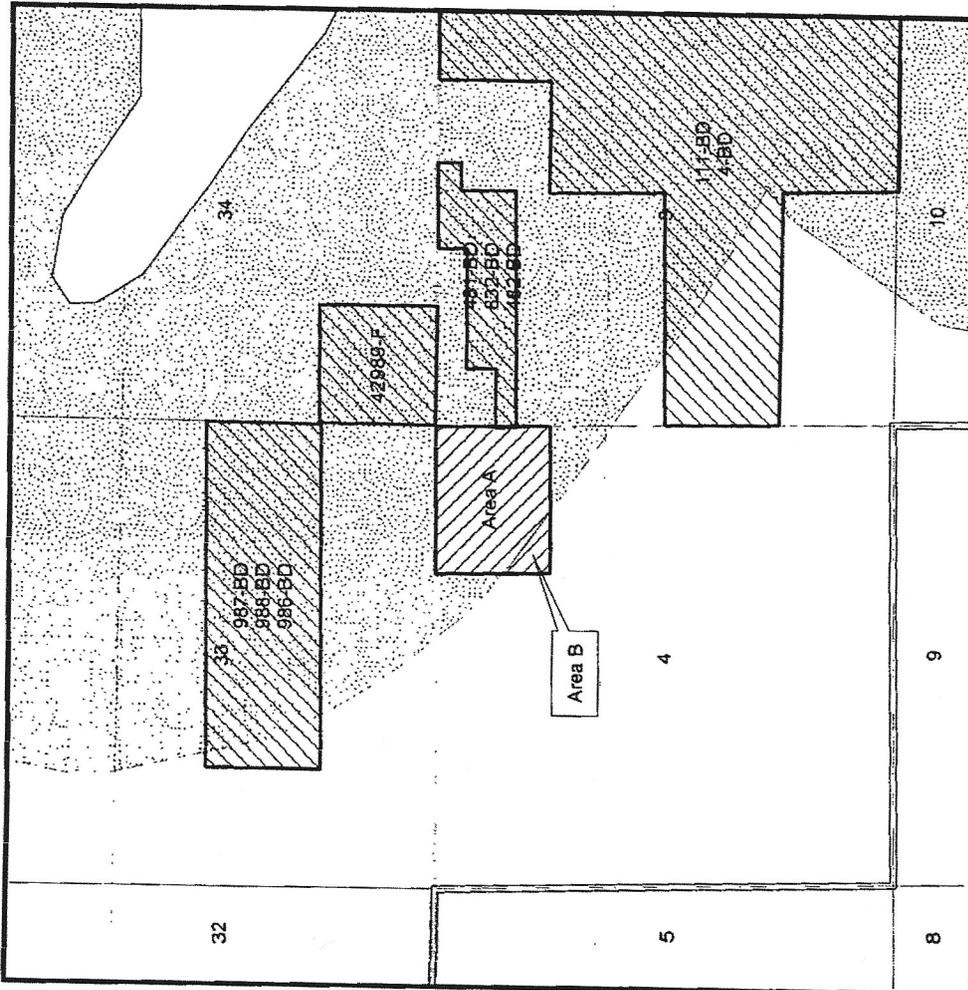
Area A - NNT AIR
45.0 acres

Area B - NNT 4%
4.2 acres

- Legend
- Subject Parcel
 - Parcel
 - Basin
 - Township
 - Section
 - Tkd Alluvium
 - Tkd AIR



Office of the State Engineer
Division of Water Resources
Department of Natural Resources



1:24,000

0 1,000 2,000 4,000 6,000 Feet

0 0.25 0.5 0.75 1 Miles

ATTACHMENT D

**KUNAU DRILLING LLC
METERED FLOW TEST & WELL INSPECTION REPORT**

Kunau Drilling LLC

23945 Lucky Lane Calhan, CO 80808

719-683-3720

Metered Flow Test & Well Inspection Report

Date: Aug 17, 2021 Address: 14655 Davis Rd

Electrical Components: _____ Pressure Switch: _____ Motor Windings: _____

Disconnect: _____ Fuses: _____ On/Off PSI: _____ Blk-Yel: _____

Amp Size: _____ Style: _____ Make: _____ Red-Yel: _____

Brand: _____ Make: _____ Tank: _____

Control Box: _____ Brand: _____ Gal Size: _____

HP: _____ Max Amps: _____ Year: _____ Model: _____

Year: _____ Amps Pulled _____ Tank Tee: Yes/No PRV: Yes/No

Make: _____ Gauge PSI: _____ Make: _____

Filter: Yes/No _____ Boiler Drain: Yes/No _____ Incoming Water Line: _____

Meter Serial No: _____ Cycle Stop: Yes/No _____ Outgoing Water Line: _____

Well Permit # 7444-A

Casing size: _____ Material: _____ Well Cap/Well Seal _____

COMMENTS: (400' well) Dump in well is a 1/2 HP 10 GPM. Did a 2 hour flow test & it sustained 6.5 GPM's.

Flow Test Results

1)T: 1:10 / GPM: 8 4)T: 1:40 / GPM: 6.5 7)T: 2:10 / GPM: 6.5 10)T: 2:40 / GPM: 6.5

2)T: 1:20 / GPM: 7.5 5)T: 1:50 / GPM: 6.5 8)T: 2:20 / GPM: 6.5 11)T: 2:50 / GPM: 6.5

3)T: 1:30 / GPM: 7.0 6)T: 2:00 / GPM: 6.5 9)T: 2:30 / GPM: 6.5 12)T: 3:00 / GPM: 6.5

TEST PERFORMED BY: [Signature]