

MEMORANDUM

TO: Dan Haberkost
FROM: Gina Burke
DATE: March 12, 2026
SUBJECT: Water Availability Study – El Paso County
JOB NO: 1091.1

Pursuant to your request, we have completed a review of the available ground water in the Denver Basin aquifers underlying the property located in Section 21, Township 13 South, Range 63 West, 6th P.M., El Paso County, Colorado (the Property). The Property consists of approximately 310 acres as shown on the attached map (Figure 1). This Memorandum provides a preliminary review of the water supply underlying the 310 acres. Please note that we offer no opinion relating to ownership of land or water rights herein.

Ground Water

We completed a document review at the State Engineer's Office to determine if there are any existing wells on the Property. There were two Denver aquifer ground water wells found within the State's database. As shown on Figure 1, Permit No. 29372 is a domestic well that was completed in November of 1966 to a total depth of 105 ft below ground surface (bgs). At the time of completion, it produced 5 gallons per minute (gpm). Permit No. 5675 is a domestic and stock well that was completed in August 1972 to a total depth of 125 ft bgs. At the time of completion, the well produced 7 gpm. Both well permits are attached for your records. At the time of this Memorandum, the actual location of the two wells have not been verified. If the project proceeds and the Property is subdivided, the State may require these wells to either be abandoned or included in an approved Replacement Plan as discussed below.

We also completed a pre-213 well search for the Property to determine if any existing water rights impact the Property. Based on the State Engineer's Office maps, there are no wells whose circles of appropriation impact the property.

The Property is located within the boundaries of the Upper Black Squirrel Creek Designated Basin. Ground water located within the designated basins is administered by the Colorado Ground Water Commission (CGWC). The ground water underlying the Property has not been formally claimed in a Determination of Water Right under the CGWC. There are three Denver Basin aquifers underlying the Property: the Denver, Arapahoe and the Laramie-Fox Hills, as shown in Table 1. We have calculated an estimate of water availability in the Denver Basin aquifers underlying the Property. Table 1 includes the estimated saturated sand thickness of each aquifer, and the estimated volume of water in each of the aquifers underlying the Property. These values may be slightly adjusted in the Determination of Water Right application process. By Colorado State Statute, a maximum of 1% per year can be withdrawn from the aquifers resulting in a 100-year supply for each aquifer. Table 1 also shows an allocation for a 300-year water supply per El Paso County requirements.

Table 1 indicates the status of each aquifer as being considered nontributary or not-nontributary. The ground water in the Denver and Arapahoe aquifers is considered not-nontributary as pumping from the aquifer would cause depletions to the alluvial aquifer. Pumping from the Denver aquifer will require replacement of actual depletions to the alluvial system, since the Property is located within one mile from contact with the alluvial aquifer. A CGWC approved Replacement Plan is required to place the Denver aquifer ground water to beneficial use. The ground water in the Arapahoe aquifer is considered not-nontributary with a 4% replacement requirement. This is due to the location of the property being greater than 1-mile from the alluvial/aquifer contact. The water in the Arapahoe aquifer does not require an approved Replacement Plan, and can be placed to beneficial use by applying for a well permit with the CGWC. The ground water in the Laramie-Fox Hills aquifer underlying the Property is considered nontributary and can be placed to beneficial use by applying for a well permit with the CGWC.

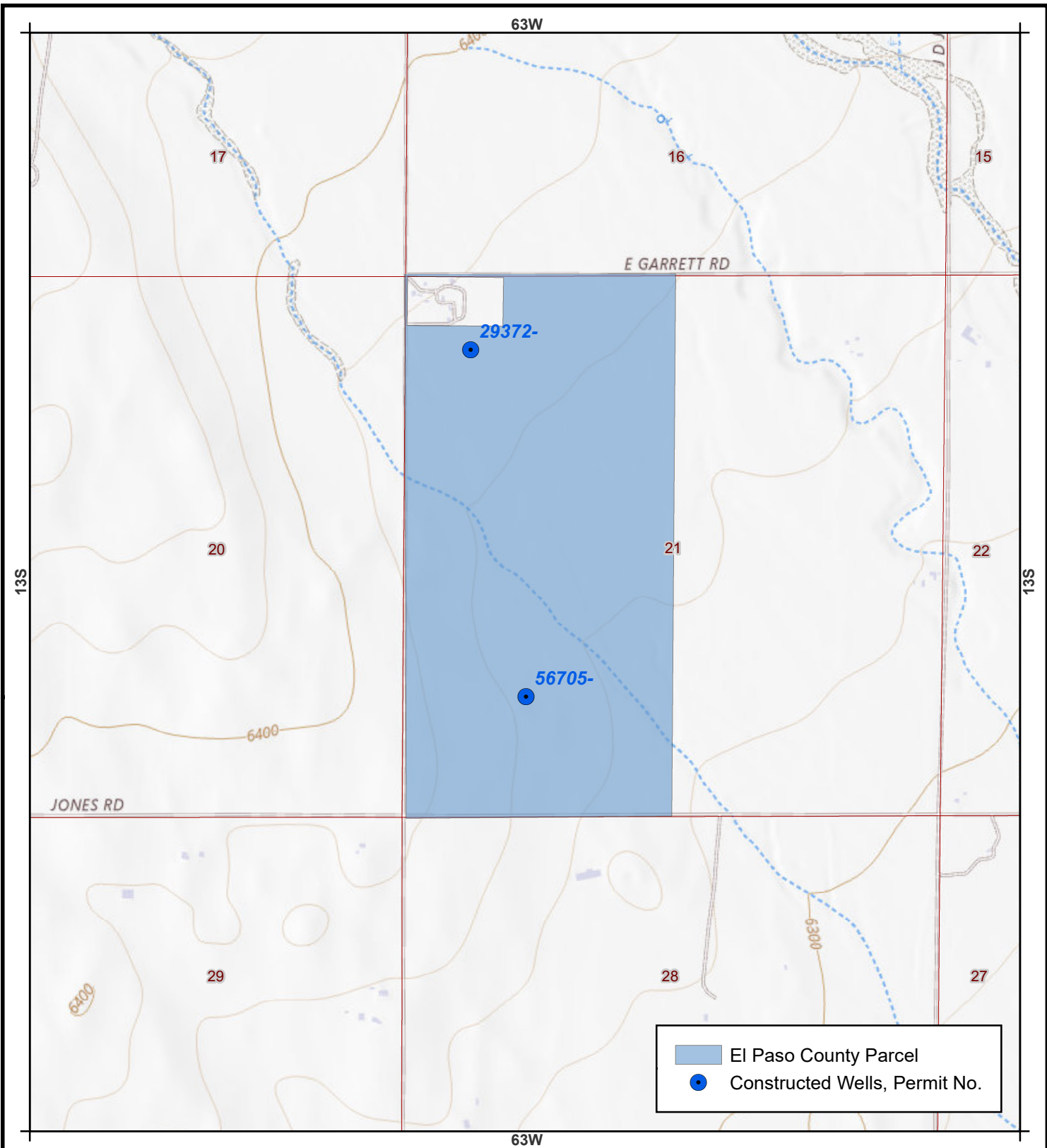
Should you decide to drill wells on the property, the completion depths of the aquifers were obtained from the Colorado Division of Water Resources Denver Basin Aquifers Determination Tool. The base of the Denver aquifer is estimated at 345 feet bgs, the base of the Arapahoe aquifer is estimated to be 880 feet bgs, and the base of the Laramie-Fox Hills aquifer is estimated to be 1,485 feet bgs.

Demands

In our conversations, we understand that you are considering dividing the Property into 10-acre parcels, resulting in 31 lots. Under the current County requirement for a 300-year water supply and assuming you do not want to go through the Replacement Plan process for the Denver aquifer, you have sufficient water within the Arapahoe aquifer to meet demands. Per the Upper Black Squirrel Creek Ground Water Management District Rules and Regulations, dated February 3, 2009, small capacity wells included in a subdivision or cluster development would be limited to 0.5 af/yr per residence. If located outside a subdivision or cluster development, the limit is 1 af/yr. Assuming your project falls in line with the 1 af/yr per lot limit, this would provide sufficient water to meet the in-house demand of 0.2 af/yr, the irrigation of over 10,000 square-feet of landscaping and gardens and the watering of 3 horses.

In total, the ground water underlying the Property in the Arapahoe and Laramie-Fox Hills aquifers is more than adequate to service the 31 lots, while adhering to the El Paso County 300-year life aquifer rule. In order to formally quantify the water available underlying the Property and define the uses, we recommend seeking a Determination of Water Rights through the CGWC.

If you have any questions, or if you would like to discuss this Memorandum in greater detail including the Replacement Plan process for the use of the Denver aquifer, please do not hesitate to call.

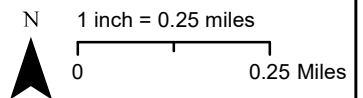


Jehn Water Consultants, Inc.
 348 Lake Dillon Dr, Suite B-1
 P.O. Box 144
 Dillon, CO 80435
 (303) 321-8335
 www.jehnwater.com

DRAFT

FIGURE 1

Haberkost General Location



Job No. 1091.1
 Projection: UTM NAD83
 Prepared By: HLB 01/29/2026
 Checked By:

Sources: El Paso County Parcels,
 DWR MapViewer, USGSTopo Basemap

TABLE 1
ESTIMATED WATER AVAILABLE
Dan Haberkost - El Paso County
Underlying the 320 acre parcel

Aquifers	Acreage	Avg Saturated Thickness ft	Sy	Total Appropriation af/yr 100 years	Total Appropriation af/yr 300 years	SEO Status	Notes
Denver	310	142	17%	74.7	24.9	NNT	Replacement Plan Required Actual replacement
Arapahoe	310	235	17%	123.8	41.3	NNT	4% - Replacement Plan not Required
Laramie-Fox Hills	310	199	15%	92.6	30.9	NT	
Totals				291.1	97.0		
Total (Non-Replacement Plan)				216.4	72.1		

Notes:

NNT=Not Nontributary

NT=Nontributary

Parcel acreage based on provided deed.

FEB 10 1967

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

RECEIVED
DEC 13 1966
WATER
DIVISION
ENGINEER

Index No. 1174
IDWD 2-13
Use 1
Registered 12-13-66

MAP AND STATEMENT FOR WATER WELL FILING

PERMIT NUMBER 29372

Know all men by these presents: That the undersigned, Herman Bressler, claimant(s), whose address is _____, City Fort Collins, Colo. states: Claimant(s) is (are) the owner(s) of well No. _____ located as shown on the map below; the total number of acres of land owned by him (them) to be irrigated from this well is _____; work was commenced on this well by actual construction 28 day of May 1966 the tested capacity of said well is 5 (gpm) (cfs), for which claim is hereby made for domestic purposes; that the average annual amount of water to be diverted is _____ acre-ft.; and that the aforementioned statements are made and this map and statement are filed in compliance with the law.

State of Colorado)
County of _____) ss

Herman Bressler
Claimant(s)

Subscribed and sworn before me this _____ day of _____, 19____.

My Commission expires _____

Notary Public

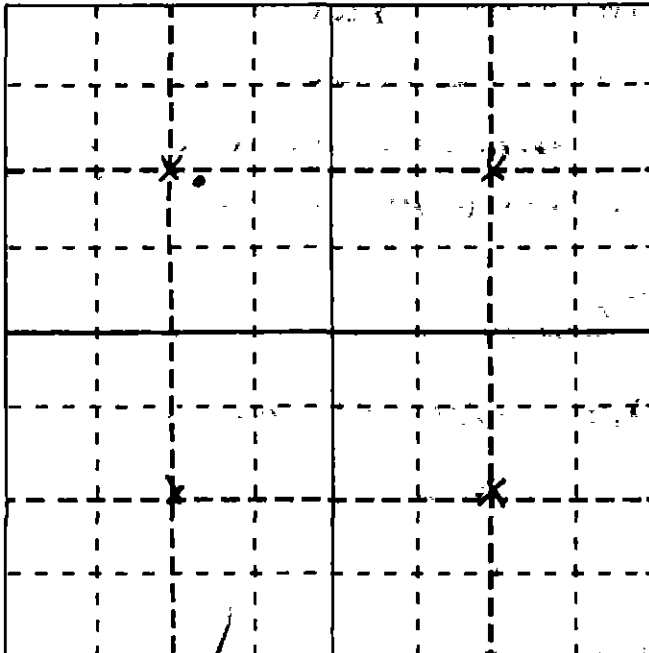
MAP

THE WELL SHALL BE LOCATED WITH REFERENCE TO GOVERNMENT SURVEY CORNERS OR MONUMENTS, OR SECTION LINES BY DISTANCE AND BEARING.

_____ feet from _____ (North or South) section line
_____ feet from _____ (East or West) section line

IF WELL IS FOR IRRIGATION, THE AREA TO BE IRRIGATED MUST BE SHADED OR CROSS-HATCHED.

The square below will be used to indicate the location of the well and the irrigated land.



WELL LOCATION

El Paso - 21 County

MW 1/4 MW 1/4, sec. 21

T. 13S, R. 6-3 W N 6 P.M.

Ground Water Basin _____
Water Management _____
District _____

Domestic wells may be located by the following: LOT _____, BLOCK _____

_____ SUBDIVISION

ACCEPTED FOR FILING IN THE OFFICE OF THE STATE ENGINEER OF COLORADO ON THIS _____ DAY OF _____, 19____.

State Engineer

LOG AND HISTORY

WELL LOG

WELL DATA

Ground Elevation _____

Date Started Nov 28 - 66

Type Drilling Rotary

Date Completed Nov 29 - 66

From	To	Type of Material	Water Loc.	Perf.
1	3	Sand soil		
3	15	sandy Clay		
15	19	Clay		
19	27	sand Clay		
27	32	sandy Clay		
32	35	Fine sand	X	X
35	48	sand & Clay string	X	X
48	59	Blue Clay		X
59	74	Hard Rock		X
74	89	soft sand Rock	X	X
89	105	Acap Stone		

Hole Diameter:
~~9 1/8~~ in. from 0 ft. to 105 ft.
 _____ in. from _____ ft. to _____ ft.
 _____ in. from _____ ft. to _____ ft.

CASING RECORD
 Cemented from 0 - 19 ft
Plain Casing
 Size 5 1/2, kind Galv from 1 ft. to 36 ft.
 Size _____, kind _____ from _____ ft. to _____ ft.
 Size _____, kind _____ from _____ ft. to _____ ft.
Perforated Casing
 Size 5 1/2, kind Galv from 36 ft. to 105 ft.
 Size _____, kind _____ from _____ ft. to _____ ft.
 Size _____, kind _____ from _____ ft. to _____ ft.

TEST DATA
 Date Tested Nov 29 - 66
 Type of Pump Beiler
 Length of Test 2 1/2 hrs
 Constant Yield 5 1/2 gpm
 Drawdown 61 ft

PUMP DATA (To be filled in)
 Type of Pump Sub
 Outlet Size 1 in
 Driven by Electric motor
 Horsepower 3

Use additional paper if necessary to complete log and attach.

WELL DRILLERS STATEMENT

State of Colorado)
 County of _____) ss

M.B. Drilling Co being duly sworn, deposes and says: he is the driller of the above described well; he has read the above map and statement, knows the content thereof, and the same is true of his own knowledge.

Steve Mateyka
 License No. 69

Subscribed and sworn to before me this _____ day of _____, 19____.

My Commission expires _____, 19____.

Notary Public

FORM TO BE MADE OUT IN QUADRUPPLICATE:
 Original WHITE (both sides) & Triplicate GREEN Copy must be filed with the State Engineer within 30-days after well is completed. Duplicate PINK copy is for the Owner & YELLOW copy for the Driller. WHITE FORM MUST BE AN ORIGINAL COPY ON BOTH SIDES AND SIGNED.

STATE OF COLORADO

APPLICATION FOR: A PERMIT TO USE GROUND WATER
 A PERMIT TO CONSTRUCT A WELL
 OTHER

Application must be completed satisfactorily before acceptance

RECEIVED
NOV 25 1966
WATER SECT.
COLORADO
STATE ENGINEER

PRINT OR TYPE

LOCATION OF WELL

APPLICANT HERMEN BRESSER

COUNTY El Paso

Street Address Payton Colo

nw 1/4 nw 1/4, sec. 21

City & State _____

T. 13, R. 63 W 6th P.M.

Use of ground water Domestic

Ground Water Basin _____

Owner of land on which well is located Hermen Bresser

Water Management District _____

Number of acres to be irrigated none

USE DIAGRAM ON THE BACK OF THIS SHEET TO LOCATE WELL.

Legal description of irrigated land _____

Other water rights on this land _____

Driller M. B. Drilling No. 69

Owner of irrigated land _____

Driller's Address Rt 2 Colo Spring, Colo.

Aquifer(s) ground water is to be obtained from _____

Hermen Bresser
Signature of Applicant

ESTIMATED WELL DATA

CONDITIONS OF APPROVAL

Est. quantity of ground water to be claimed:
Est. Max. Yield 20 GPM or CFS
Est. average annual amount to be used in acre-feet _____
Storage capacity _____ AF

Anticipated start of drilling Dec 1966

Hole Diameter:
9 1/8 in. from 1 ft. to 300 ft.
_____ in. from _____ ft. to _____ ft.

Casing:
Plain 5 1/2 in. from 1 ft. to 150 ft.
_____ in. from _____ ft. to _____ ft.
Perf 5 1/2 in. from 150 ft. to 300 ft.
_____ in. from _____ ft. to _____ ft.

PUMP DATA:
Type sub. HP 1 Outlet Size 1 1/4

This application approved
PERMIT NUMBER 29372
DATE ISSUED NOV 25 1966
[Signature]
State Engineer
by [Signature]

This application approved
CONDITIONAL PERMIT NO. _____
(Permit good for one (1) year after date of issuance)
DATE ISSUED _____

Chairman Ground Water Commission
by _____

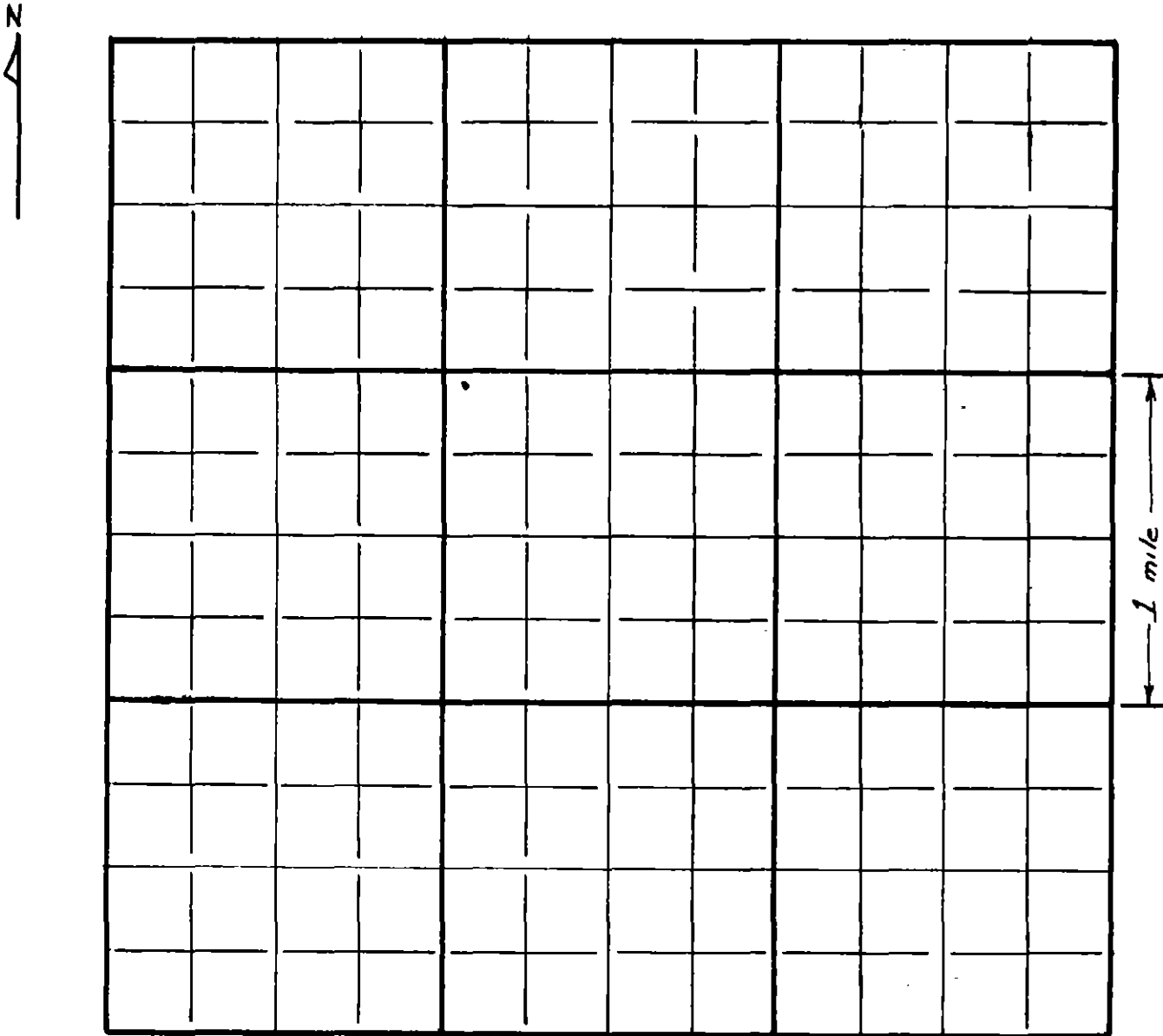
THE LOCATION OF THE PROPOSED WELL SHALL BE SHOWN ON THE DIAGRAM BELOW. THE LOCATION WILL BE INDICATED BY THE DISTANCES FROM THE SECTION LINES, OR THE DISTANCE AND BEARING FROM GOVERNMENT SURVEY CORNERS OR MONUMENTS.

IF WELL IS FOR IRRIGATION, THE AREA TO BE IRRIGATED MUST BE SHADED OR CROSS-HATCHED.

Domestic wells may be located by the following:

Lot _____ Block _____ Street Address _____
or
City _____
Subdivision _____

The diagram represents nine (9) sections. Use the center square (section) to indicate the location of the well.



THE SCALE OF THE DIAGRAM IS TWO INCHES EQUALS ONE-MILE

THIS FORM MUST BE SUBMITTED PRIOR TO THE EXPIRATION OF THE PERMIT. TYPE OR PRINT IN BLACK INK.

COLORADO DIVISION OF WATER RESOURCES
101 Columbine Bldg., 1845 Sherman St.
Denver, Colorado 80203

RECEIVED

OCT 3 '72

RECEIVED

SEP 22 '72

WATER RESOURCES STATE ENGINEER COLO.

WATER RESOURCES STATE ENGINEER COLO.

RECEIVED

SEP 25 '72 84

WATER RESOURCES STATE ENGINEER COLO.

C

STATEMENT OF BENEFICIAL USE OF GROUND WATER
AMENDMENT OF EXISTING RECORD

PERMIT NUMBER 56705

STATE OF COLORADO
COUNTY OF El Paso } SS.

THE AFFIANT(S) Herman H. Bresser
whose address is Rural Route Peyton, Colorado 80831

being duly sworn upon oath, deposes and says that he (they) is (are) the owner(s) of the well described hereon; the well is located in the SW 1/4 of the SW 1/4 of Section 21, Township 13 S, Range 63 W, 6th P.M. at distances of 1,218 feet from the South section line and 1,203 feet from the West section line; the total depth of the well is 125 feet; water from this well was first applied to a beneficial use for the purpose(s) described herein on the 17th day of September, 1972; the maximum sustained pumping rate of the well is six gallons per minute, the pumping rate claimed hereby is Six gallons per minute; the average annual amount of water to be diverted is 8+ acre-feet; for which claim is hereby made for Domestic and stock purpose(s); the legal description of the land on which the water from this well is to be used is SW 1/4 and the SE 1/4 of the SW 1/4 of Section 21 Township 13 S R 63W

which totals 80 acres and which is illustrated on the map on the reverse side of this form; that this well was completed in compliance with the permit approved therefor; this statement of beneficial use of ground water is filed in compliance with law; he (they) has (have) read the statements made hereon; knows the content thereof; and that the same are true of his (their) knowledge.

Signature(s) Herman H. Bresser

Subscribed and sworn to before me on this 22 day of September, 1972

My Commission expires: Sept 27, 1973

Notary Public signature

ACCEPTED FOR FILING IN THE OFFICE OF THE STATE ENGINEER OF COLORADO ON THIS DAY OF 19

STATE ENGINEER

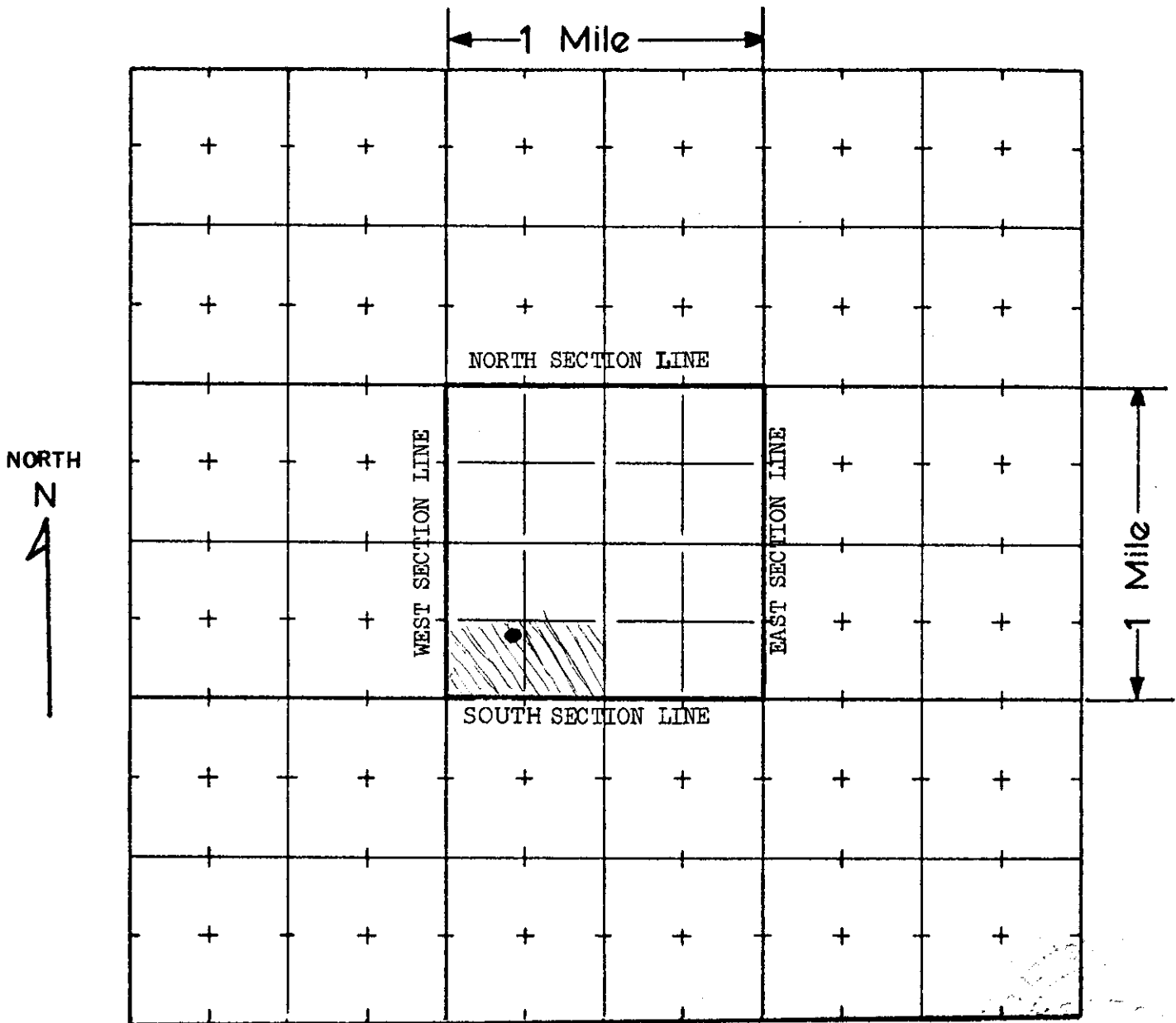
WHITE COPY FOR DIVISION OF WATER RESOURCES
PINK COPY FOR WELL OWNER

The amount of appropriation in acre feet is not considered to be material to the terms of this permit pursuant to Section 148-21-45 CRS.

FOR OFFICE USE ONLY
Prior. Date, 19
Well Use 3
1/4, 1/4, 1/4, Sec.
T., R., P.M.
Yield W.D. 2-14
Co. 21
Index

THE LOCATION OF THE WELL MUST BE SHOWN AND THE AREA ON WHICH THE WATER IS USED MUST BE SHADED OR CROSS-HATCHED ON THE DIAGRAM BELOW.

This diagram represents nine (9) sections. Use the **CENTER SQUARE** (one section) to indicate the location of the well, if possible.



THE SCALE OF THE DIAGRAM IS TWO INCHES EQUALS ONE-MILE

Meter Serial No. _____ Flow Meter Electric Meter Fuel Meter

Owner of land on which water is being used _____

WATER EQUIVALENTS TABLE (Rounded Figures)

- An acre-foot covers 1 acre of land 1 foot deep.
- 1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm).
- 1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
- 1,000 gpm pumped continuously for one day produces 4.42 acre-feet.
- 100 gpm pumped continuously for one year produces 160 acre-feet.

OCT 25 '72

COLORADO DIVISION OF WATER RESOURCES

101 Columbine Bldg., 1845 Sherman St.
Denver, Colorado 80203

WATER RESOURCES
STATE ENGINEER
COLO.

THIS FORM MUST BE SUBMITTED
WITHIN 60 DAYS OF COMPLETION
OF THE WORK DESCRIBED HERE-
ON. TYPE OR PRINT IN BLACK
INK.

WELL COMPLETION AND PUMP INSTALLATION REPORT
PERMIT NUMBER 56705

WELL OWNER HERMAN H BRESSON SW ¼ of the SW ¼ of Sec. 21
ADDRESS Rh. Peyton, Colo. T. 13 S, R. 63 W, 6 P.M.
DATE COMPLETED Aug 28, 1972

HOLE DIAMETER
8 in. from 0 to 125 ft.
_____ in. from _____ to _____ ft.
_____ in. from _____ to _____ ft.

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	18	Fine SAND	
18	64	Gravel	
64	69	Water SAND.	
69	125	SHALE	
TOTAL DEPTH <u>125</u>			

CASING RECORD: Plain Casing
Size 1 1/2 & kind PLASTIC from 1 to 60 ft.
Size _____ & kind _____ from _____ to _____ ft.
Size _____ & kind _____ from _____ to _____ ft.

Perforated Casing
Size 1 1/2 & kind PLASTIC from 60 to 125 ft.
Size _____ & kind _____ from _____ to _____ ft.
Size _____ & kind _____ from _____ to _____ ft.

GROUTING RECORD
Material Cemented
Intervals 0-50 FT
Placement Method L

GRAVEL PACK: Size 3/8
Interval 20-125

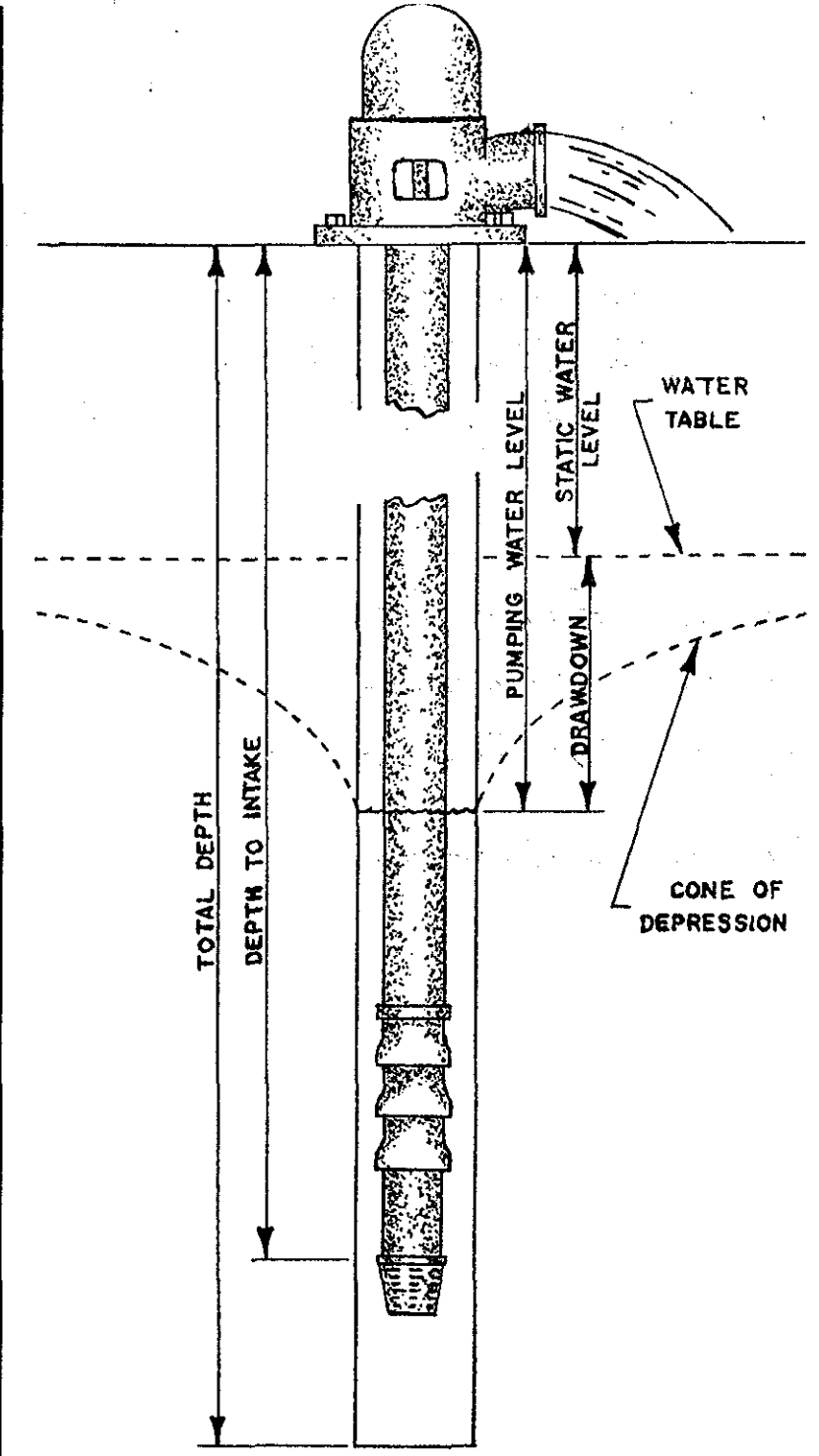
TEST DATA
Date Tested Aug 28, 1972
Static Water Level Prior to Test 64 ft.
Type of Test Pump L
Length of Test 2 1/2
Sustained Yield (Metered) 7
Final Pumping Water Level TOTAL

Use additional pages necessary to complete log.

PUMP INSTALLATION REPORT

Pump Make _____
 Type _____
 Powered by _____ HP _____
 Pump Serial No. _____
 Motor Serial No. _____
 Date Installed _____
 Pump Intake Depth _____
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP
 Date Tested _____
 Static Water Level Prior to Test _____
 Length of Test _____ Hours
 Sustained yield (Metered) _____ GPM
 Pumping Water Level _____
 Remarks _____



CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature John E. Mateyka License No. 69

State of Colorado, County of El Paso SS

Subscribed and sworn to before me this 30 day of August, 1972

My Commission expires: My Commission Expires May 25, 1975

Notary Public Wra Mateyka

DIVISION OF WATER RESOURCES, DEPARTMENT OF NATURAL RESOURCES
101 Columbine Bldg., 1845 Sherman Street, Denver, Colorado 80203

200

APPLICATION FOR: A PERMIT TO USE GROUND WATER
 A PERMIT TO CONSTRUCT A WELL
 REPLACEMENT FOR NO. _____
 A PERMIT TO INSTALL A PUMP
 OTHER

RECEIVED
APR 3 1972

WATER RESOURCES
STATE ENGINEER
COLO.

PRINT OR TYPE

LOCATION OF WELL

APPLICANT Herman
Herman H. Bresser

COUNTY El Paso

Street Address Rural Route

S.W. 1/4, of the S.W. 1/4, sec. 21

City & State Peyton, Colorado 80831

T. 13 S, R. 63 W, Sixth P.M.

Use of ground water Domestic & Stock
Owner of land on which well
is located SAME

Street or
Lot & Block _____

City or
Subdiv. _____ Filing _____

Owner of irrigated
land _____

Ground Water Basin Black Squirrel Creek

Number of acres
to be irrigated ✓

Water Management
District _____

Legal description of
irrigated land ✓

LOCATE WELL ON THE BACK OF THIS SHEET

Other water rights on
this land ✓

Driller M. B. Drilling No. 69

Driller's
Address Rt 2 Calhan Colo.

Aquifer (s) ground water is to be obtained
from ALL UNION

Herman H. Bresser

Signature of Applicant

CONDITIONS OF APPROVAL

Storage capacity _____ AF

ANTICIPATED PUMPING RATE 50 GPM

AVERAGE ANNUAL AMOUNT OF GROUND WATER TO
BE APPROPRIATED _____ Acre-feet

ESTIMATED WELL DATA

Anticipated start of drilling May 1972

Anticipated start of use May 1972

Hole Diameter:

8 in. from 0 ft. to 300 ft.
_____ in. from _____ ft. to _____ ft.

Casing:

Plain 5 in. from 0 ft. to 250 ft.
_____ in. from _____ ft. to _____ ft.

Perf. 5 in. from 250 ft. to 300 ft.
_____ in. from _____ ft. to _____ ft.

ESTIMATED PUMP DATA

Type ✓ HP ✓ Outlet
Size _____

APPLICATION MUST BE COMPLETED SATISFACTORILY BEFORE ACCEPTANCE

(OVER)

25881

APPLICATION APPROVED:
VALID FOR ONE (1) YEAR AFTER DATE ISSUED
UNLESS EXTENDED FOR GOOD CAUSE SHOWN TO
THE ISSUING AGENCY

PERMIT NO. 56705 CONDITIONAL

DATE ISSUED APR 12 1972

STATE ENGINEER [Signature]

BY [Signature]

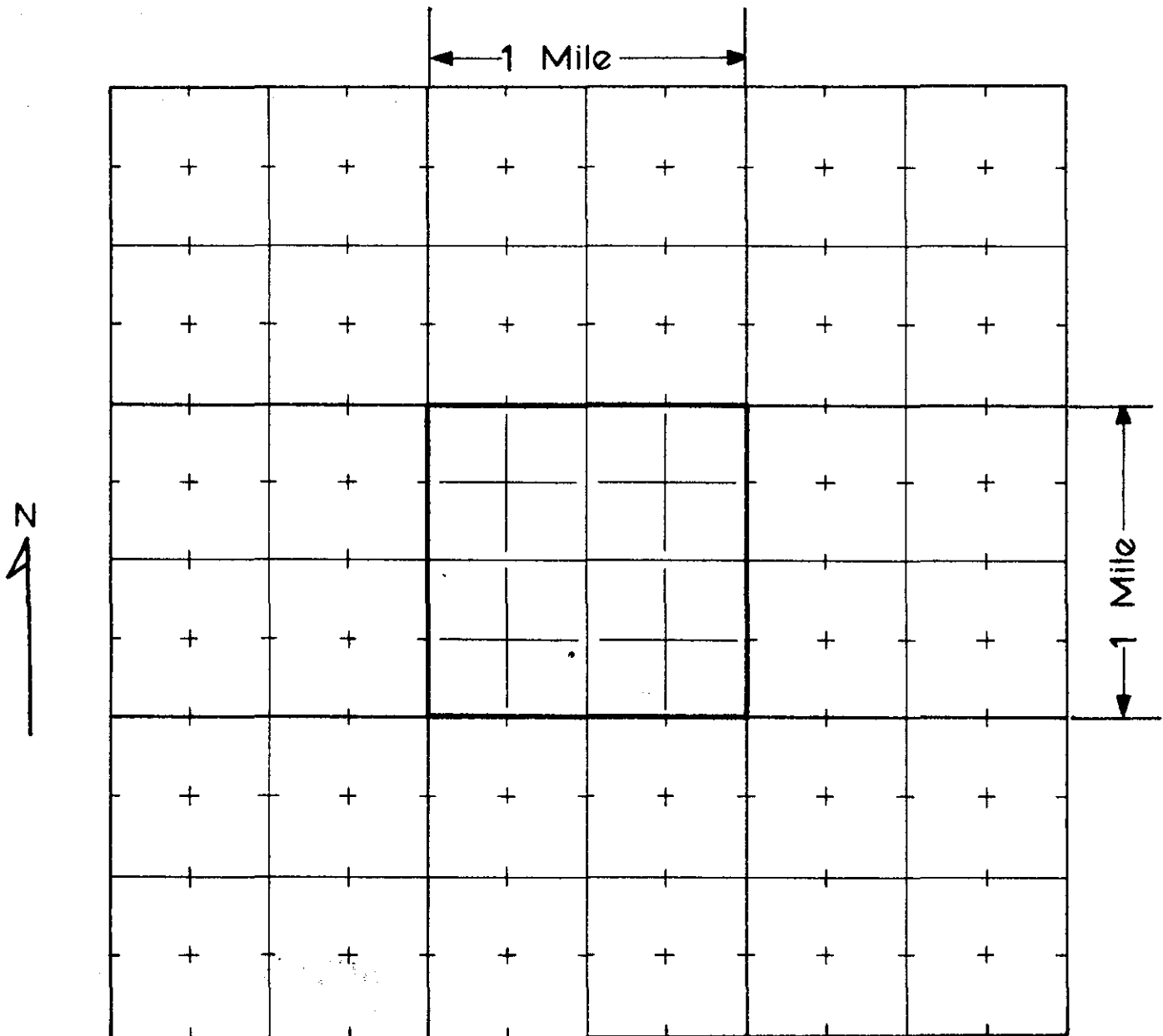
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_____ feet from _____ (North or South) section line

_____ feet from _____ (East or West) section line

IF WELL IS FOR IRRIGATION, THE AREA TO BE IRRIGATED MUST BE SHADED OR CROSS-HATCHED.

This diagram represents nine (9) sections. Use the CENTER SQUARE (one section) to indicate the location of the well.



THE SCALE OF THE DIAGRAM IS TWO INCHES EQUALS ONE-MILE