

WAP/1 EAD

COLORADO DIVISION OF WATER RESOURCES

1313 Sherman Street - Room 818
Denver, Colorado 80203

RECEIVED

APR 12 1988

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

WATER RESOURCES
STATE ENGINEER
COLO.

PERMIT NUMBER 150413

WELL OWNER Timber Ridge Group, Inc. N.E. % of the N.W. % of Sec. 21

ADDRESS P.O.Box 794, Elizabeth, Co. 80107 T. 7 S. , R. 64 W. 6 th. P.M.

DATE COMPLETED February 29, 1988 HOLE DIAMETER

7" in. from 0 to 395 ft.

 in. from to ft.

 in. from to ft.

DRILLING METHOD A. Rotary

CASING RECORD: Plain Casing

Size 4" & kind P.V.C. from 0 to 315 ft.

Size XX & kind XXXX from XXX to XXX ft.

Size & kind from to ft.

Perforated Casing

Size 4" & kind P.V.C. from 315 to 395 ft.

Size & kind from to ft.

Size & kind from to ft.

GROUTING RECORD

Material Neat Cement and Bentonite Pellets.

Intervals 18-20 feet and 275-285 feet

Placement Method Mixed and poured.

GRAVEL PACK: Size 1/4 in. rock

Interval 28-275 and 285-395 feet.

TEST DATA

Date Tested February 29, 1988

Static Water Level Prior to Test 140 ft.

Type of Test Pump Airlifted

Length of Test 2 Hrs.

Sustained Yield (Metered) 12 G.P.M.

Final Pumping Water Level 380 feet.

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	5	Sandy brown clay	
5	45	Fine brown sand	
45	75	Fine to medium quartz sand.	
75	79	Brown clay	
79	92	Fine to medium quartz sand.	
92	100	Brown clay	
100	105	Fine to medium quartz sand	
105	128	Sandy blue shale layers.	
128	142	Medium to coarse quartz sand	
142	258	Sandy blue shale with fine consolidated brown sand layers.	
258	276	Medium to coarse quartz sand.	
276	285	Sandy blue shale	
285	296	Medium to coarse quartz sand	
296	305	Blue shale	
305	315	Medium to coarse quartz sand.	
315	335	Blue shale	
335	355	Medium to coarse quartz sand	
355	370	Blue shale	
370	390	Medium to coarse quartz sand.	
390	395	Blue shale.	

TOTAL DEPTH 395 feet.

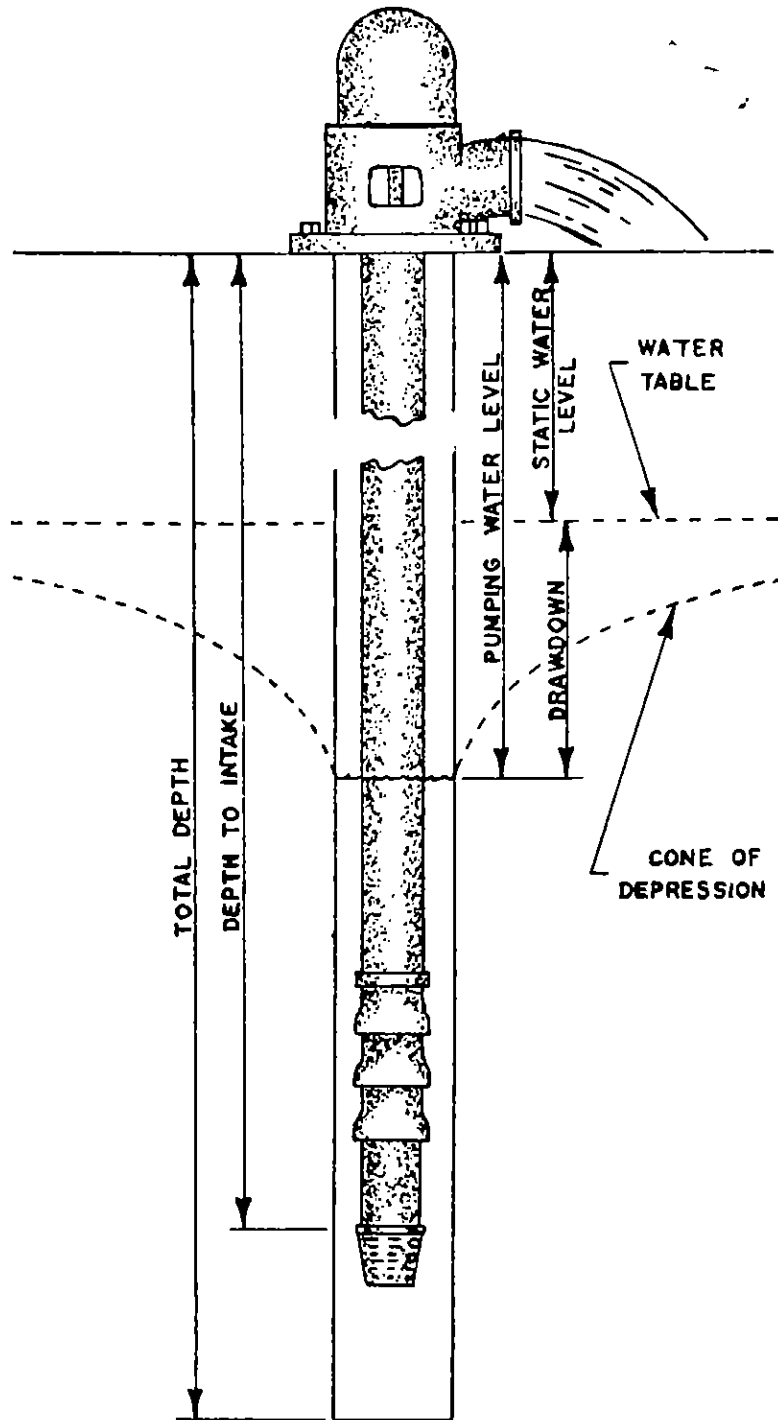
Use additional pages necessary to complete log.

PUMP INSTALLATION REPORT

Pump Make Coilco
 Type 7EH10A12 / Submersible
 Powered by Franklin Electric HP 1
 Pump Serial No. 21A308AA16 LB7 03 1129
 Motor Serial No. N.F.G. 01/88
 Date Installed February 29 / 1988
 Pump Intake Depth 305 feet.
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP

Date Tested February 29 / 1988
 Static Water Level Prior to Test 140 feet.
 Length of Test 4 Hrs. Hours
 Sustained yield (Metered) 8 GPM
 Pumping Water Level 260 feet.
 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 *W. J. ...* License No. 1149
 State of Colorado, County of Elbert SS
 Subscribed and sworn to before me this 10th day of April, 19 88.
 My Commission expires: 01/08, 19 91.
 Notary Public *Jessilyn K. Arce*

FORM TO BE MADE OUT IN QUADRUPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

RECEIVED

NOV 23 1987

51A

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

FOR: () A PERMIT TO USE GROUND WATER
() A PERMIT TO CONSTRUCT A WELL
() A PERMIT TO INSTALL A PUMP
() REPLACEMENT FOR NO. _____
() OTHER _____
WATER COURT CASE NO. _____

11-23-87 3:20 P
032472 60.00
NWX008 P0011
TTL 60.00
CHG 0.00

STATE ENGINEER
BANK - ENGINEER
CRA.

CHEQUE 60.00

(1) APPLICANT - mailing address

NAME TIMBER RIDGE GROUP INC
STREET PO. Box 794
CITY ELIZABETH, Colo. 80107
(State) (Zip)
TELEPHONE NO. 721-1633

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN
CL-1 8A2428

Receipt No. 82428
Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

(2) LOCATION OF PROPOSED WELL

County ELBERT
NE 1/4 of the NW 1/4, Section 21
Twp. 7 S, Rng. 64 W, 6th P.M.
(N,S) (E,W)

1) APPROVED PURSUANT TO CRS 37-92-602 (3)(b)(I) AND POLICY OF THE STATE ENGINEER UNDER THE FOLLOWING CONDITIONS.

2) PLAIN (NON-PERFORATED) CASING MUST BE INSTALLED FROM GROUND SURFACE DOWN TO A MINIMUM DEPTH OF 260 FEET AND PROPERLY SEALED TO PREVENT DIVERSION OF WATER ABOVE THIS DEPTH. THE DEPTH OF THE WELL SHALL NOT EXCEED 425 FEET, WHICH CORRESPONDS TO THE BASE OF THE UPPER DAWSON AQUIFER.

3) THE USE OF GROUND WATER FROM THIS WELL IS LIMITED TO ORDINARY HOUSEHOLD PURPOSES INSIDE ONE SINGLE FAMILY DWELLING AND THE IRRIGATION OF NOT MORE THAN 5,000 SQUARE FEET OF HOME GARDENS AND LAWNS, AS RECOMMENDED BY THE DIVISION OF WATER RESOURCES TO THE COUNTY COMMISSIONERS.

(NOTE: TO INSURE A MAXIMUM PRODUCTIVE LIFE OF THIS WELL, PERFORATED CASING SHOULD BE SET THROUGH THE ENTIRE PRODUCING INTERVAL OF THE APPROVED ZONE OR AQUIFER INDICATED ABOVE.)

WB. 1/26/88

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) 15
Average annual amount of ground water to be appropriated (acre-feet): 1
Number of acres to be irrigated: 1
Proposed total depth (feet): 400
Aquifer ground water is to be obtained from:

Owner's well designation #1

APPLICATION APPROVED

PERMIT NUMBER 150413
DATE ISSUED JAN 26 1988
EXPIRATION DATE JAN 26 1990
Jim A. Danilow
(STATE ENGINEER)
BY John W. Bilisely
I.D. 1-01 COUNTY 20

GROUND WATER TO BE USED FOR:

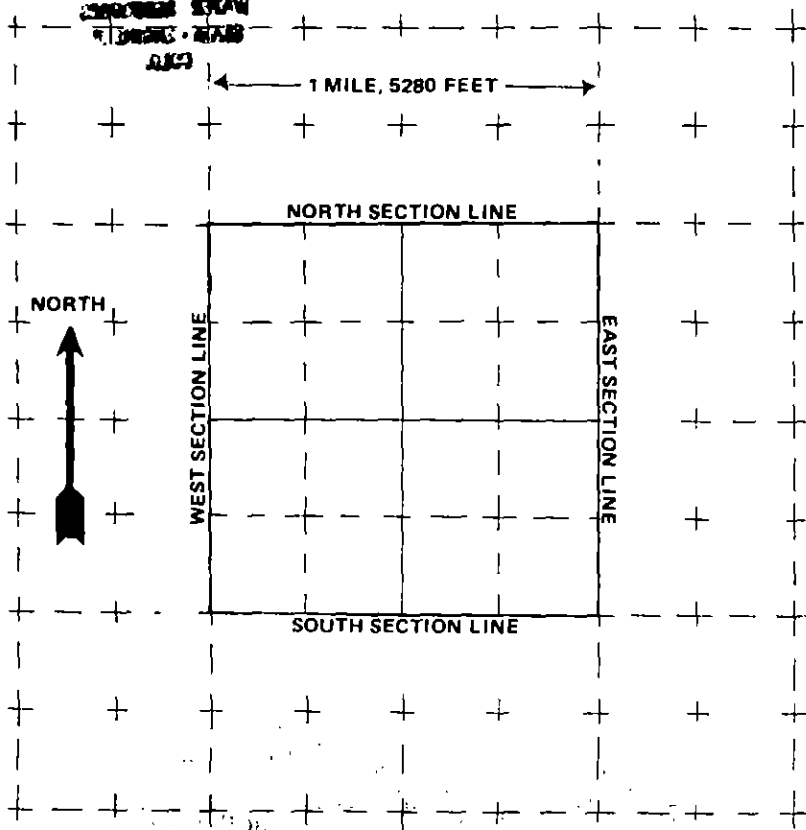
() HOUSEHOLD USE ONLY - no irrigation (0)
(X) DOMESTIC (1) () INDUSTRIAL (5)
() LIVESTOCK (2) () IRRIGATION (6)
() COMMERCIAL (4) () MUNICIPAL (8)
() OTHER (9) _____

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name PARKER DRILLING
Street 1490 E. Cnty RD 186
City PARKER Colo. 80134
(State) (Zip)
Telephone No. 841-5020 Lic. No. 1120

(5) THE LOCATION OF THE PROPOSED WELL and the area on which the water will be used must be indicated on the diagram below. Use the CENTER SECTION (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

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)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) THE WELL MUST BE LOCATED BELOW by distances from section lines.

950 ft. from NORTH sec. line
(north or south)
2363 ft. from WEST sec. line
(east or west)

LOT 9 BLOCK _____ FILING # _____
SUBDIVISION THE ESTATES AT HIDDEN Pines

(7) TRACT ON WHICH WELL WILL BE LOCATED Owner: BRUCE & JERRI LYNN WAYNE

No. of acres 4. Will this be the only well on this tract? YES

(8) PROPOSED CASING PROGRAM

Plain Casing
6 5/8 in. from 0 ft. to 20 ft.
4 1/2 in. from 20 ft. to 300 ft.
Perforated casing
4 1/2 in. from 300 ft. to needed ft.
_____ in. from _____ ft. to _____ ft.

(9) FOR REPLACEMENT WELLS give distance and direction from old well and plans for plugging it:

(10) LAND ON WHICH GROUND WATER WILL BE USED:

Owner(s): BRUCE AND JERRI LYNN WAYNE No. of acres: 4
Legal description: LOT 9 THE ESTATES AT HIDDEN Pines SUBDIVISION

(11) DETAILED DESCRIPTION of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used.

to operate a household, small yard on a septic system

(12) OTHER WATER RIGHTS used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right	Used for (purpose)	Description of land on which used

(13) THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.

Timber Ridge Group Inc. by [Signature] its president
SIGNATURE OF APPLICANT(S) Timber Ridge Group Inc. A. COLORADO CORPORATION
A. COLORADO CORPORATION

EXEMPT WELL DATA SHEET - DENVER BASIN, COLORADO

APPLICANT: TIMBER RIDGE GROUP INC RECEIPT NO. 282428
 LOCATION: NE1/4 OF NW1/4 OF SEC. 21, T.7S., R.64W. (950 MSL, 2363 MSL)

PROPOSED AQUIFER:
 SURFACE ELEVATION: 6415 NUMBER OF ACRES IN TRACT: 4

IS PROPERTY WITHIN SERVICE BOUNDARIES OF MUNICIPALITY S.B.5 CONSENT MAPS? NO YES
 IF SUBDIVISION IS UNDER AUGMENTATION PLAN, CASE NO. IS _____, DIV. _____
 IF SUBDIVISION WAS RECOMMENDED FOR APPROVAL BY THE WATER MANAGEMENT BRANCH, DATE OF LETTER IS 12/10/84.
 INFORMATION ON SUBDIVISION OR TRACT OF LAND/SPECIAL RESTRICTIONS:

- L-TDW only
- 4U, & 5,000 Ft in "as recommended ..."
- now will allow U-TDW with 260' plain min.
 - same use restrictions

Our records show the name of this sub. as "Timber Ridge" (see below)*

evaluated by JWB on DECEMBER 8, 1987

AQUIFER	ELEVATION		NET SAND	DEPTH TO		ANNUAL APPROP A-F	STATUS
	BOT.	TOP		BOT.	TOP		
UPPER DAWSON	5989	6276	144	426	139	1.144	NNT
LOWER DAWSON	5823	5901	63	592	514	0.496	NT
DENVER	5049	5769	290	1366	646	1.965	NT
UPPER ARAPAHOE	4472	5050	254	1943	1365	1.720	NT
LOWER ARAPAHOE	---	---	---	---	---	---	---
LARAMIE-FOX HILLS	3989	4182	175	2426	2233	1.044	NT

260' plain.

note: E indicates location is at aquifer boundary and values may be more approximate.
 * indicates the proposed aquifer.

All values are interpolated from the S.B.5 data base assembled in November of 1986.

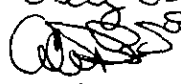
* Al Richards, President of Timber Ridge Group, Inc. called 1/12/88. The name of the subject subdivision, "Timber Ridge" was the plotting name. The subdivision is now marketed as "The Estates At Hidden Pines".

— JWB. 1/19/88.

To whom it may concern.

Two previous applications for this file were submitted and in Early August 1987 and one mailed ~~at~~ Oct. 10, 1987. Both were never received by your office (no records on file) nor received back in return mail.

We would certainly appreciate any expediency due to the fact this house is well under construction and the homeowners are anticipating a Christmas 87 move in. Any help you can give us would be greatly appreciated.

Very Truly yours
 A. Riccio
Timber Ridge Property

RICHARD D. LAMM
Governor



JERIS A. DANIELSON
State Engineer

OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

1313 Sherman Street-Room 818
Denver, Colorado 80203
(303) 866-3581

December 10, 1984

Ms. Glenna Sullivan
Elbert County Land Use Administration
P. O. Box 205
Kiowa, CO 80117

Re: Timber Ridge, #84-148
N1/2, NW1/4, Sec. 21, T7S, R64W

Dear Ms. Sullivan:

12/11/84

We have reviewed the above referenced application for eighteen lots on 74.8 acres. The water report by Colorado Geologic, Inc. discusses water availability from each of the Denver basin aquifers. The report indicates that non-exempt well permits are not being processed for the Dawson aquifer at this time. While this may be correct, we are presently issuing exempt domestic well permits under Section 37-92-602, CRS (1973), for the lower portion of the Dawson at this location. Wells of this type must be the only well on the site and will be limited to 15 gpm.

Our analysis indicates the lower portion of the Dawson exists at a depth from 260 to 440 feet. We must stress these depths are estimated from general information for planning purposes only. The actual well depth of the formation may differ somewhat at the proposed well site locations. We would recommend that wells be constructed to the bottom of the Lower Dawson formation to assure a long-term reliable water supply.

Well permits in the Lower Dawson formation in this subdivision would allow 1.0 acre-foot annual appropriation. This would be sufficient for the 5000 square feet of lawn and garden irrigation per lot proposed in the application plus household use for each lot.

Since well permits would be available, we can recommend approval of this proposal provided the assumed number of wells and distribution of available water is acceptable to the applicants. If the applicant is interested in another well arrangement, then we would have to review this proposal again. Potential buyers should be made aware that constructing wells to the indicated depth may be quite expensive.

Sincerely,

Richard Steyer

for Hal D. Simpson, P.E.
Assistant State Engineer

HDS/JRH:ma/3977

cc: Jim Clark, Div. Eng.
Steve Lautenschlager



OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

1313 Sherman Street-Room 818
Denver, Colorado 80203
(303) 866-3581

December 8, 1987

MEMORANDUM

TO: Richard L. Stenzel, Chief, Water Management Branch

FROM: Steve Lautenschlager *Steve*

SUBJECT: Timber Ridge Subdivision, Elbert County, CO

Timber Ridge Subdivision is located in the N1/2, NW1/4, Sec.21, T.7S, R.64W, 6th P.M., and was recommended for approval by the Water Management Branch on December 10, 1984. Well production was to be restricted to the Lower Dawson aquifer. The letter states that the lower portion of the Dawson aquifer existed at a depth from 260 feet to 440 feet at this time. Now based on the Denver Basin Rules, the Lower Dawson is in the approximate interval from 500 feet to 600 feet below ground surface at this location.

On November 23, 1987 we received an application requesting well production from the interval between 300 feet and 400 feet below ground surface. It is now felt that a well producing from this interval would actually be producing from the Upper Dawson aquifer. The Upper Dawson aquifer was not evaluated as a potential water source for this subdivision, and could not likely be utilized today without an augmentation plan.

In an effort to resolve this problem so that pending applications and future applications in this subdivision can be evaluated in an expeditious manner, we would request that the Water Management Branch re-evaluate this subdivision and possibly modify their previous recommendations. We would appreciate a timely response in order to meet the 45 day application evaluation limit imposed by Senate Bill 200.

SL/JWB85:



OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

1313 Sherman Street-Room 818
Denver, Colorado 80203
(303) 866-3581

January 21, 1988

MEMORANDUM

TO: Steve Lautenschlager

FROM: Hal D. Simpson, Deputy State Engineer *Hal D. Simpson*

SUBJECT: Timber Ridge Subdivision, Elbert County

This is in response to your memorandum of December 8, 1987 in regard to the above referenced subdivision. In your memo, you state that our approval of the Timber Ridge Subdivision was based upon well permits being restricted to the Lower Dawson aquifer which our office believed at the time existed at an approximate depth of 260 to 440 feet below ground surface. Since the original review, Senate Bill 5 mapping now indicates the depth of this aquifer at approximately 500 to 600 feet below ground surface at this location.

You state that on November 23, 1987 you received an application for a well permit in the interval of 300 to 400 feet which is now considered part of the Upper Dawson aquifer. You further state that it is unlikely this aquifer could be utilized today without an augmentation plan.

I feel that we are bound by our comments to the county to issue well permits in the interval originally discussed since this depth was the basis for our earlier comments and the depth estimate in our original comments differs so greatly from the present depth estimate for the Lower Dawson aquifer. It is my recommendation that all well permits in this subdivision be issued in the interval originally referred to in our December 10, 1984 letter. However, permits should only allow penetration to the base of the Upper Dawson aquifer, which may not extend quite to 440 feet, in order to avoid the potential mixing of aquifers. Water usage limitations should remain the same as those discussed in the December 10, 1984 review letter.

HDS/JRH/28671

ROY ROMER
Governor



JERIS A. DANIELSON
State Engineer

OFFICE OF THE STATE ENGINEER
DIVISION OF WATER RESOURCES

1313 Sherman Street-Room 818
Denver, Colorado 80203
(303) 866-3581

March 2, 1988

Wayne Arde
Can-Am Drilling
P.O. Box 416
Simla, Co., 80835

RE: WELL PERMIT NUMBER 150413

Dear Mr. Arde;

On February 29, 1988, Lloyd A. Hershey and I conducted an inspection of this well and at the time of the inspection we concurred with your method of grouting. Further review and discussions of the Rules and Regulations indicate the well is improperly constructed.

At the time of the inspection a fifteen (15) foot probe was used to probe for a grout seal. I did not encounter any resistance that might indicate the well was grouted.

Section 4(2)(a) of the Rules and Regulations for Water Well and Pump Installation contractors say that the well casing must be grouted from a point one (1) foot below the connection of the pitless adapter to ten (10) feet below that point.

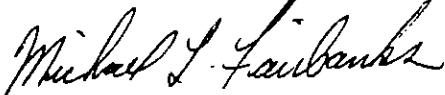
During our conversation on the drill site you stated that you used bentonite pellets to seal a zone around 100 feet from the aquifer the well was completed in. You also stated the method of placement of the pellets was by pouring the pellets from the top of the well. The use of bentonite has not as yet been approved by the Board of Examiners to be used as a sealant.

You have thirty (30) days to take corrective measures or to respond to the Board of Examiners as to why you chose to grout from twenty (20) feet down. Failure to respond will result in a review of your license by the Board of Examiners.

When responding, please refer to file number 880301.

If I may be of any further assistance, please call or write.

Michael L. Fairbanks

A handwritten signature in cursive script that reads "Michael L. Fairbanks".

Well Drilling Inspector
State of Colorado
Division of Water Resources

DIVISION OF WATER RESOURCES
Alamosa, Colorado
FIELD CONTACT REPORT

Best Copy Available

Date 2-29-88

Contact Wayne Arde's Crew

Purpose Inspect for complaint against
Hamacher Drg of Grouting Violation.

Location Drill Site of Completed well

E. of Hilltop Rd.

Do. Elbert County

Address/Phone _____

Observations and Comments Crew was towing truck through muddy
access road. At new home site. Mike & I walked to the well
Mike checked the distance to septic excavation at NW. Cor. of
house and it was in excess of 100' from well. He then walked to
road and checked Rig license which was 1149 - CAN AM Drg.

Met w/ Way Arde at well and probed for grout 13'. He and
consultant said grout was at 16 to 20 feet. Construction was
4 1/2" PVC in 7" hole with gravel pack. in Perf interval 315-395 ft.
Backfilled with silty sand and bentonite mix with bentonite seal below
100 feet to seal out upper water encountered @ 100 ft.

6 5/8" Steel Casing - reported set @ 20 ft. over 10' of 4 1/2"

PVC. The steel was set in a sand bentonite slurry one day

after emplacement of the grout. Static Water Level Reported at

175 ft (not measured) - Contractor Reports that Bentonite Pellets

seem to be doing the job as far as he can tell from water levels.

They had permit with them. P# 150413 - Timber Ridge Group -

There is some question as to the acceptab. of
of the bentonite seal.

By Thyl C. Hervey