



WATER-RIGHT DOCKET

Capulin Volcano National Monument

Docket No: 1

ARTESIAN WELL. HEADQUARTERS WELL

Preliminary Docket Information

10-11-1995: notes to the file cavo 0001 headquarters well; october 11, 1995

NOTES TO THE FILE CAVO 0001 Headquarters Well October 11, 1995

By Act of Congress of December 31, 1987 (Public Law 100-225, 101 Statute 1548), Capulin Mountain National Monument was redesignated as Capulin Volcano National Monument.

Information pertaining to this docket which was filed in the NPS-WRD resources room library:

A report titled HYDROLOGIC CHARACTERIZATION, INVENTORY OF WATER RIGHTS, USES, AND REQUIREMENTS, AND RECOMMENDED STRATEGY TO PROTECT THE WATER SUPPLY AND MONITOR GROUND WATER CONDITIONS, CAPULIN VOLCANO NATIONAL MONUMENT, prepared in 1994, by the Water Rights Branch, Water Resources Division. It concerns the water supply described in DOCKET CAVO - 0001.

USGS chemical analysis collected 1-30-68 (provisional)

USGS ground-water analysis, 1966 (provisional)

USGS ground-water analysis, 1967 (provisional)

USGS analytical notes, 1965 (provisional)

Analytical statement April 10, 1964

NPS Face sheet for completion report, costs verified May 14, 1964

Unit price contract, September 6, 1963

Narrative Statement for completion report

Well log (extra copy)

Alice Johns
Hydrologist
Water Rights Branch
Water Resources Division

File Misc. 31-92

United States of America
Capulin Mountain National Monument
P.O. Box 728
Santa Fe, New Mexico 87501

Attn. Mr. John E. Cook

Gentlemen:

Enclosed is your copy of declaration of underground water right in Union County. This declaration has been given File Number 31-92. Please refer to this number in the future.

The acceptance for filing of this declaration does not mean that the State Engineer agrees with the claims made thereon. This declaration is being processed without a field check. You will be advised when personnel of this office will be in the area so that a field check may be made.

If this office may be of further assistance, please advise.

ma
encl. Decl.
cc-J. L. Williams

Very truly yours,

S. E. Reynolds
State Engineer

By: *M. B. Compton*
M. B. Compton
Engineer
Water Rights Div.

L54
Camo

Revised December 1975

IMPORTANT — READ INSTRUCTIONS ON BACK BEFORE FILLING OUT THIS FORM.

Declaration of Owner of Underground Water Right

Undeclared

BASIN NAME

Declaration No. 31-92Date received Sept. 6, 1977STATE ENGINEER OFFICE
SANTA FE, N.M. 87501

STATEMENT

1. Name of Declarant United States of America (Capulin Mountain National Monument)Mailing Address P.O. Box 728, Santa Fe, New Mexico 87501County of Union, State of New Mexico2. Source of water supply Artesian Well (artesian or shallow water aquifer)

3. Describe well location under one of the following subheadings:

a. SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Sec. 5 Twp. 29N Rge. 28E N.M.P.M., inCounty, Union

b. Tract No. _____ of Map No. _____ of the _____

c. X = _____ feet, Y = _____ feet, N. M. Coordinate System _____ Zone _____

in the _____ Grant.

On land owned by United States of America4. Description of well: date drilled 7-3-62 driller Shamrock Drilling Company depth 680 feet.outside diameter of casing 6 inches; original capacity Sc=65 gpm/ft. gal. per min.; present capacity Unknowngal. per min.; pumping lift _____ feet; static water level 643 feet ~~(XXXX)~~ (below) land surface;make and type of pump 5 HP Red Jacket Submersible Pumpmake, type, horsepower, etc., of power plant Single phase, 440 volts, commercial powerFractional or percentage interest claimed in well 100%5. Quantity of water appropriated and beneficially used _____ 20

(acre feet per acre) (acre feet per annum)

for municipal, construction, maintenance etc. purposes.6. ~~Water right is hereby declared~~ located and described as follows ~~(See attached drawing #125/80008)~~~~Water right is hereby declared~~FILED
UNDER NEW MEXICO LAW A DECLARATION IS ONLY A STATEMENT OF DECLARANT'S CLAIM.
ACCEPTANCE FOR FILING DOES NOT CONSTITUTE APPROVAL OR REJECTION OF THE CLAIM.

(Note: location of well and acreage actually irrigated must be shown on plat on reverse side.)

7. Priority date claimed August 9, 1916 and since that time~~Water right is hereby declared~~8. Additional statements or explanations. This notice is given as a matter of comity, cooperative and information. It does not indicate consent to the jurisdiction of the State in regard to the rights of the United States to the use of water or the amount thereof described in this Declaration. This Declaration is not intended to affect previously vested rights under either Federal or State law to the use of this water or any other water.I, John E. Cook being first duly sworn upon my oath,

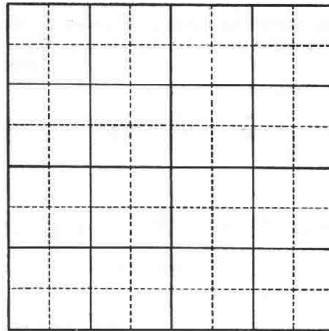
depose and say that the above is a full and complete statement prepared in accordance with the instructions on the reverse side of this form and submitted in evidence of ownership of a valid underground water right, that I have carefully read each and all of the items contained therein and that the same are true to the best of my knowledge and belief.

United States of Americaby John E. Cook declarant.Subscribed and sworn to before me this 1st day of August, A.D. 19 77My commission expires June 10, 1978 Forrest A. Johnson Notary Public

Locate well and areas actually irrigated as accurately as possible on following plat:

Section (s) _____, Township _____, Range _____ N. T. P. T.

See attached
drawing



INSTRUCTIONS

Declaration shall be executed (preferably typewritten) in triplicate and must be accompanied by a \$1.00 filing fee. Each of triplicate copies must be properly signed and attested.

A separate declaration must be filed for each well in use.

All blanks shall be filled out fully. Required information which cannot be sworn to by declarant shall be supplied by affidavit of person or persons familiar with the facts and shall be submitted herewith.

Secs. 1-3. Complete all blanks.

Sec. 4. Fill out all blanks applicable as fully as possible.

Sec. 5. Irrigation use shall be stated in acre feet of water per acre per year applied on the land. If used for domestic, municipal, or other purposes, state total quantity in acre feet used annually.

Sec. 6. Describe only the acreage actually irrigated. When necessary to clearly define irrigated acreages, describe to nearest $2\frac{1}{2}$ acre subdivision. If located on unsurveyed lands, describe by legal subdivision "as projected" from the nearest government survey corners, or describe by metes and bounds and tie survey to some permanent, easily-located natural object.

Sec. 7. Explain and give dates as nearly as possible of any years when all or part of acreage claimed was not irrigated.

Sec. 8. If well irrigates or supplies supplemental water to any other land than that described above, or if land is also irrigated from any other source, explain under this section. Give any other data necessary to fully describe water right.

If additional space is necessary, use a separate sheet or sheets and attach securely hereto.



OPTIONAL FORM NO. 10
JULY 1973 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : Gary Moore, Division of Maintenance

DATE: July 14, 1982

FROM : Vera Davis, Division of Land Resources

SUBJECT: Capulin Mountain - Water Resource Management Profile

As I told you in our phone conversation this morning, there are other lands at Capulin which were not withdrawn directly from the public domain. In a BLM exchange completed in 1972 (Quitclaim Deed attached), the State of New Mexico conveyed to the United States the following lands within the monument boundaries:

T. 29 N., R. 28 E., NMPM,

Sec. 5, S $\frac{1}{2}$ S $\frac{1}{2}$ of Lot 3, S $\frac{1}{2}$ SE $\frac{1}{4}$ of Lot 4,
NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$;

T. 30 N., R. 28 E., NMPM,

Sec. 32, SE $\frac{1}{4}$ SE $\frac{1}{4}$.

These lands are shown as Tracts 01-101, 01-102, and 01-105 on the attached segment map. Tract 01-106 was also conveyed by the deed but is outside the monument boundary and is under the jurisdiction of BLM. It is proposed to add this tract to the monument by legislative amendment.

Vua

Enclosures 2

cc:
Superintendent, CAMO, w/o encs.



Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

Deed Book 49 595-576 Union Co., N. M. Files DEED NO. 3206
 Record August 1 1972 at 9:00 A.M. for Becker Vol. No. 10
 Recorder PAGE NO. 1706

QUITCLAIM DEED

THIS INDENTURE, made this 27th day of July, 1972, by and between the State of New Mexico, through the State Land Commissioner, hereinafter referred to as the Grantor, and the United States of America and its assigns, hereinafter referred to as the Grantee,

WITNESSETH:

WHEREAS, the Grantor is the fee simple owner of certain property located in Union County, New Mexico, described as follows:

T. 29 N., R. 28 E., N. M. P. M.

Section 5: E $\frac{1}{2}$ of Lot 3 (19.965 acres), NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Lot 3 (2.49 acres), S $\frac{1}{4}$ SW $\frac{1}{4}$ of Lot 3 (4.991 acres), S $\frac{1}{4}$ SE $\frac{1}{4}$ of Lot 4 (4.974 acres), NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, N $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$

T. 30 N., R. 28 E., N. M. P. M.

Section 32: SE $\frac{1}{4}$ SE $\frac{1}{4}$

containing an aggregate of 112.42 acres more or less;

AND WHEREAS, an exchange on an approximately equal basis is authorized by Section 5(b) of the Act of July 15, 1968 (82 Stat. 356) designated Public Law 90-401; and

WHEREAS, the Grantor will receive equal valued federal land from the Grantor to be selected from the public domain based on the appraisals dated October 20, 1970, and March 16, 1972, wherein the market value has been reviewed and approved by the Grantor;

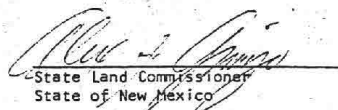
NOW, THEREFORE, for and in consideration of these premises, the Grantor herein does hereby grant and convey unto the United States of America, and its assigns, all right, title and interest to the above described land; SUBJECT TO existing easements for public roads and highways, public utilities, railroads and pipelines;

The Grantor reserves unto itself all the minerals including Sand and Gravel in, and under, the above described land.

TO HAVE AND TO HOLD the said lands together with all and singular the appurtenances thereunto pertaining unto the United States of America, and its assigns, forever.

IN WITNESS WHEREOF, the State of New Mexico, through the State Land Commissioner, has caused this deed to be executed on the day and year first above.

STATE OF NEW MEXICO


State Land Commissioner
State of New Mexico

Accepted by


H. F. Anderson

AUG 3 10 30 AM '72

STATE OF NEW MEXICO



OFFICE OF
THE SECRETARY OF STATE

Certificate

I, Betty Fiorina, Secretary of State of the State of New Mexico, do hereby certify

that

*ALEX J. ARMIJO is now and has been as of January 1,
1969, Commissioner of Public Lands for the State of
New Mexico, duly elected and qualified to that office
with full power by the laws of this State and legally
entrusted with the possession and custody of the
files and records thereof.*



*Given under my hand and the Great Seal of the State
of New Mexico, in the City of Santa Fe, the Capital
on this 27th day of July, A.D. 1972*

Betty Fiorina
Secretary of State



IN REPLY REFER TO:
L54-RL

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D.C.
October 10, 1962

RECEIVED	
OCT 15 1962	
NAME	DATE
Regional Director	
Cons. Int. & Dev.	
Admin. Serv.	
Resource Planning	
Program. & Eval.	
Operations	
Construction	
Native Hist.	
Sci. & Archaeology	
Range & Wildlife	
Files	

Handwritten notes:
Kelt Oct 10/15
WRT 10/17

Memorandum

To: Regional Director, Southwest Region
From: Acting Chief, Branch of Water Resources
Subject: Additions to Docket No. 1, Headquarters Well Capulin Mountain

We have received the Washington Office copy of the subject docket folder. The sewage lagoon easement lease and map received with Mr. Carpenter's memorandum of September 28 is related to this system in that it is evidence of the point of return flow. We are including it in the subject docket folder under "Land Status."

The Shamrock Drilling Company mentioned in the well records sent with the docket should be contacted for a log of the subject well to be added to the docket. As time permits a drawing of the complete water system should also be drafted and included. Data on pump installation can be included thereon.

E. W. Reed
E. W. Reed

cc:
Superintendent, Capulin
Chief, WODC (2)

LST Camp

LEASE

BETWEEN

The State of New Mexico, acting by and through its Commission of Public Lands, hereinafter called the Lessor

AND

THE UNITED STATES OF AMERICA

APPLICATION NO RW-15527

~~Lessee~~

PERMIT NO RW-15527

1. THIS LEASE, made and entered into this 27th day of September in the year one thousand nine hundred and Sixty-two-----by and between The State of New Mexico, acting by and through its Commission of Public Lands whose address is State Land Office, P. O. Box 791, Santa Fe, New Mexico

for its heirs, executors, administrators, successors, and assigns, hereinafter called the Lessor, and THE UNITED STATES OF AMERICA, hereinafter called the Government:

WITNESSETH: The parties hereto for the considerations hereinafter mentioned covenant and agree as follows:

2. The Lessor hereby leases to the Government the following-described premises, viz:

A tract of land consisting of 1.45 acres more or less lying partially in the NE¹/₄SW¹/₄ and NW¹/₄SE¹/₄ of Section 5, T. 29 N., R. 28 E., N.M.P.M., Union County, New Mexico, and more particularly described as follows:

Beginning at the center of above described Section 5, T. 29 N., R. 28 E., N.M.P.M., thence North 87° 28' East along the south boundary of the SW¹/₄ of the NE¹/₄ of said Section 5 a distance of 175.85 feet to the true point of beginning. Thence South 44° 31' West a distance of 544.40 feet to point No. 1. Said line being the center line of a 30-foot easement (15 feet on each side of the 6" sewer line) containing .38 acres more or less.

Also beginning at point No. 1 as described above thence South 51° 27' 30" East a distance of 155.00 feet to corner No. 2; thence South 35° 28' West a distance of 153.60 feet to corner No. 3; thence North 66° 02' West a distance of 278.20 feet to corner No. 4; thence North 39° 58' East a distance of 163.10 feet to corner No. 5; thence South 82° 00' 30" East a distance of 116.10 feet to point No. 1 the point of beginning containing 1.07 acres, together with the right of ingress and egress to reach a gate to be located in the fence somewhere between Point No. 1 and Corner No. 2, to be used exclusively for the following purposes (see instruction No. 3): For the construction, operation and maintenance of a sewer line and sewage lagoon as described above and as shown on Drawing NM-CN-7107 attached hereto.

3. To HAVE AND TO HOLD the said premises with their appurtenances for the term beginning October 1, 1962, or thereafter and ending with October 1, 1967.

4. The Government shall not assign this lease in any event, and shall not sublet the demised premises except to a desirable tenant, and for a similar purpose, and will not permit the use of said premises by anyone other than the Government, such sublessee, and the agents and servants of the Government, or of such sublessee.

5. This lease may, at the option of the Government, be renewed from year to year at a rental of and otherwise upon the terms and conditions herein specified, provided notice be given in writing to the Lessor at least **Sixty** days before this lease or any renewal thereof would otherwise expire: Provided that no renewal thereof shall extend the period of occupancy of the premises beyond the **1st** day of **October, 1967**

6. The Lessor shall furnish to the Government, during the occupancy of said premises, under the terms of this lease, as part of the rental consideration, the following:

7. The Government shall pay the Lessor for the premises rent at the following rate:

A filing fee of \$5.00 to accompany this lease.

An annual rental of \$15.00 per annum payable on the anniversary date of this lease.

Payment shall be made at the end of each **year**.

8. The Government shall have the right, during the existence of this lease, to make alterations, attach fixtures, and erect additions, structures, or signs, in or upon the premises hereby leased (provided such alterations, additions, structures, or signs shall not be detrimental to or inconsistent with the rights granted to other tenants on the property or in the building in which said premises are located); which fixtures, additions, or structures so placed in or upon or attached to the said premises shall be and remain the property of the Government and may be removed therefrom by the Government prior to the termination of this lease, and the Government, if required by the Lessor, shall, before the expiration of this lease or renewal thereof, restore the premises to the same condition as that existing at the time of entering upon the same under this lease, reasonable and ordinary wear and tear and damages by the elements or by circumstances over which the Government has no control, excepted: Provided, however, that if the Lessor requires such restoration, the

Lessor shall give written notice thereof to the Government
the termination of the lease.

Sixty days before

9. The Lessor shall, unless herein specified to the contrary, maintain the said premises in good repair and tenable condition during the continuance of this lease, except in case of damage arising from the act or the negligence of the Government's agents or employees. For the purpose of so maintaining the premises, the Lessor reserves the right at reasonable times to enter and inspect the premises and to make any necessary repairs thereto.

10. If the said premises be destroyed by fire or other casualty this lease shall immediately terminate. In case of partial destruction or damage, so as to render the premises untenable, either party may terminate the lease by giving written notice to the other within fifteen days thereafter, and if so terminated no rent shall accrue to the Lessor after such partial destruction or damage.

11. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefit to arise therefrom. Nothing, however, herein contained shall be construed to extend to any incorporated company, if the lease be for the general benefit of such corporation or company.

Items Nos. 6, 8, 9 and 10 have been deleted from this lease as not applicable.

IN WITNESS WHEREOF, the parties hereto have hereunto subscribed their names as of the date first above written.

In presence of:

E. S. Johnny Walker
E. S. Johnny Walker Lessor,
Commissioner of Public Lands
State of New Mexico
UNITED STATES OF AMERICA,

By *George W. Miller*
George W. Miller, Acting Regional Director
Southwest Region, National Park Service
(Official title)

(If Lessor is a corporation, the following certificate shall be executed by the secretary or assistant secretary.)

I, _____, certify that I am the _____
Secretary of the corporation named as Lessor in the attached lease; that _____
_____, who signed said lease on behalf of the Lessor, was then
_____ of said corporation; that said lease was duly signed for and
in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

INSTRUCTIONS TO BE OBSERVED IN EXECUTING LEASE

1. This standard form of lease shall be used whenever the Government is the lessee of real property; except that when the total consideration does not exceed \$100 and the term of the lease does not exceed 1 year the use of this form is optional. In all cases where the rental to be paid exceeds \$2,000 per annum the annual rental shall not exceed 15 per centum of the fair market value of the rented premises at the date of lease. Alterations, improvements, and repairs of the rented premises by the Government shall not exceed 25 per centum of the amount of the rent for the first year of the rental term or for the rental term if less than 1 year.

2. The lease shall be dated and the full name and address of the lessor clearly written in paragraph 1.

3. The premises shall be fully described, and, in case of rooms, the floor and room number of each room given. The language inserted at the end of article 2 of the lease should specify only the general nature of the use, that is, "office quarters," "storage space," etc.

4. Whenever the lease is executed by an attorney, agent, or trustee on behalf of the lessor, two authenticated copies of his power of attorney, or other evidence to act on behalf of the lessor, shall accompany the lease.

5. When the lessor is a partnership, the names of the partners composing the firm shall be stated in the body of the lease. The lease shall be signed with the partnership name, followed by the name of the partner signing the same.

6. Where the lessor is a corporation, the lease shall be signed with the corporate name, followed by the signature and title of the officer or other person signing the lease on its behalf, duly attested, and, if requested by the Government, evidence of his authority so to act shall be furnished.

7. Under paragraph 6 of the lease insert necessary facilities to be furnished, such as heat, light, janitor service, etc.

8. There shall be no deviation from this form without prior authorization by the Director of Procurement, except—

(a) Paragraph 3 may be drafted to cover a monthly tenancy or other period less than a year.

(b) In paragraph 5, if a renewal for a specified period other than a year, or for a period optional with the Government is desired, the phrase "from year to year" shall be deleted and proper substitution made. If the right of renewal is not desired or cannot be secured paragraph 5 may be deleted.

(c) Paragraph 6 may be deleted if the owner is not to furnish additional facilities.

(d) If the premises are suitable without alterations, etc., paragraph 8 may be deleted.

(e) Paragraph 9 provides that the lessor shall, "unless herein specified to the contrary, maintain the said premises in good repair, etc." A modification or elimination of this requirement would not therefore be a deviation.

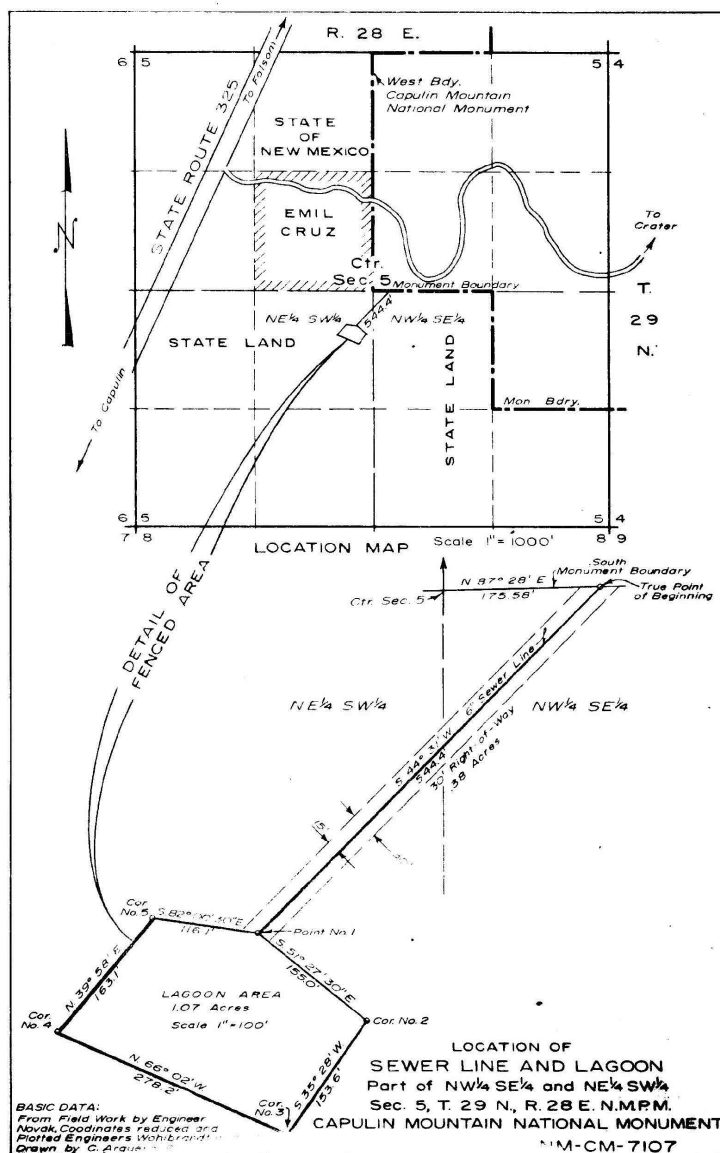
(f) In case the premises consist of unimproved land, paragraph 10 may be deleted.

(g) When executing leases covering premises in foreign countries, departure from the standard form is permissible to the extent necessary to conform to local laws, customs, or practices.

(h) Additional provisions, relating to the particular subject matter mutually agreed upon, may be inserted, if not in conflict with the standard provisions, including a mutual right to terminate the lease upon a stated number of days' notice, but to permit only the lessor so to terminate would be a deviation requiring approval as above provided.

9. When deletions or other alterations are permitted specific notation thereof shall be entered in the blank space following paragraph 11 before signing.

10. If the property leased is located in a State requiring the recording of leases in order to protect the tenant's rights, care should be taken to comply with all such statutory requirements.



Supporting Hydro Data

Ground Water Branch
P.O. Box 4217
Albuquerque, New Mexico
July 3, 1962

Mr. John E. Kell
Regional Chief of Lands
National Park Service
Santa Fe, New Mexico

Dear Mr. Kell:

The test well at Capulin Mountain National Monument, in the northwestern part of Union County, New Mexico was completed on June 15, 1962 at a depth of about 680 feet below land surface and was developed on June 20, 1962.

The driller reported that a water-bearing formation was tapped at a depth of 662 feet below land surface and that water rose above this level in the hole. On the basis of an examination of drill cuttings which were collected and labeled by the driller and of information furnished by the driller, it was determined that the test well taps an aquifer which is composed of volcanic cinders from 662 to 671 feet and fine sand and clay from 671 to 680 feet. Although the bed of fine sand and clay is saturated with water, it probably does not yield water to the well as readily as the overlying bed of cinders. The water-bearing bed of volcanic cinders is overlain by an olivine-basalt lava flow which is about 160 feet thick. The lava flow is overlain by about 500 feet of alternating beds of volcanic cinders and lava flows.

A pumping test was made on the test well on June 26 and 27, 1962. The intake to the turbine pump was reported to be 676 feet below land surface. The water-level measurements were made with an electric probe through an air line which was installed with the pump column. The bottom of the air line was reported to be 4 feet above the pump intake or 672 feet below land surface. The prepumping water level in the well was 637.94 feet below the measuring point, 3.56 feet above land surface; therefore, the prepumping water level was 634.38 feet below land surface. This water level agrees very well with a water level of 634.4 feet which was measured June 21, 1962 in the open hole. If the top of the aquifer is at 662 feet, the prepumping water level of 634.38 feet indicates an artesian-pressure head of about 28 feet. The well was pumped at a rate of about 25 gpm (gallons per minute) for 180 minutes. During this time, the maximum drawdown of the water level was 0.44 foot. After 3 hours, the pumping rate was increased to about 39 gpm, and water was pumped at this rate for more than 4½ hours. The maximum drawdown of the water level at the increased rate was 0.60 foot. The pumping test was interrupted for 17 minutes.

Mr. John Kell
July 3, 1962
Page 2

because of motor failure after about $7\frac{1}{2}$ hours of pumping. The motor was restarted and the well was pumped for another 9 hours at a rate of about 40 gpm. The prepumping water level was regained and exceeded with 1 minute after the pump was turned off. The final water level being higher than the prepumping water level probably can be attributed to a change in atmospheric pressure. The recovery of the water level was measured for more than 2 hours. The water level was 634.29 feet below land surface 140 minutes after the pump was turned off. Data collected after pumping for 3 hours at each rate indicate that the specific capacity of the well is about 65 gpm per foot of water-level drawdown. Because the amount of water-level drawdown was very small, any error introduced in the water-level and discharge measurements is significant; therefore, the specific capacity as reported above is approximate, and aquifer characteristics such as transmissibility and boundary conditions are indeterminable from this test. 7 1/2
9
16 1/2

A sample of water for chemical analysis was collected from the well on June 15, 1962. The results of the analysis (refer to the chemical analysis with laboratory number 49/89 which was received by your office on June 20, 1962) indicate that the water generally is acceptable according to Public Health Service Drinking Water Standards (1946); however, the iron content of 9.5 parts per million is greater than the recommended maximum limit. A field check of the specific conductance of the water during the pumping test indicated that the dissolved-solids content of the water had not changed appreciably.

The collected data indicate that this well may be pumped at a rate of 40 gpm or less for a period of several hours which is sufficient to satisfy the water requirements of the Monument and its facilities; however, since some areas of analysis of the pumping-test data are inconclusive, it is recommended that an air line or some other method of water-level measurement be permanently installed in order that the position of the water level in succeeding years may be determined.

The high iron content of the water may be due to the action of iron-reducing bacteria, or it may be due directly to dissolution of iron from the formation. Iron which is reduced to the ferrous state and which is in solution in the water may be removed by precipitation in the ferric state and by filtration. The iron may be precipitated chemically by addition of an oxidizing agent or it may be precipitated physically by aeration. The iron precipitate may then be filtered from the water.

cc: Branch Area Chief

Yours very truly,

George A. Dinwiddie
George A. Dinwiddie
Hydr. Engineer

Southwest Region
Santa Fe, New Mexico

154
CAND

OCT 23 1982

OCT 26 '82

CHF	
ADM	
PERS	
P & P	
ATCH	
L.A.	
SPEC	
CONT	
SFTY	
ACTION TAKEN - DATE	

File

Memorandum

To: Director

From: Regional Director

Subject: Well Log, Headquarters Well, Docket No. 2, Capulin Mountain
National Monument

Enclosed is a graphic illustration of a well log prepared by
this office which we have inserted in our Water Rights Docket No. 1,
for the headquarters well at Capulin Mountain National Monument.

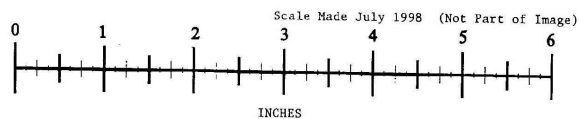
By copies of this memorandum we are sending it to WODC and the
Superintendent, Capulin Mountain, for insertion in their dockets.

Thomas J. Allen
Regional Director (SIGNED)

In duplicate

Enclosure (1)

Copy to: Chief, WODC (2) w/1 enclosure
Supt., Capulin Mountain w/enclosure



WELL LOG

CAPULIN NATIONAL MONUMENT

CAPULIN, NEW MEXICO

0	2	Topsoil
2	10	Boulders
10	32	Black Malpie
32	92	Red cinders (caving)
92	94	Rock, hard red
94	186	Red Cinders
186	197	Black Malpie
197	216	Red Cinders
216	236	Red and Black Cinders
236	240	Black Malpie
240	242	Red Cinders
242	287	Black Malpie
		Crevice at 245,255,276,285
287	300	Red Cinders
300	312	Malpie (hard)
312	330	Red Cinders
330	372	Malpie
372	387	Red Cinders (Gravel Size)
387	391	Hard Malpie
391	412	Red Cinders
412	418	Hard Malpie, Crevice at 418
418	432	Red Cinders
432	462	Brown Malpie
462	473	Red Cinders

Page 2 of 2

473	499	Clay and Gravel
499	544	Gravel and Cinders mixed
544	551	Brown and yellow rock
551	555	Rock
555	662	Malpie , Gray hard
662	671	Red Cinders (Water)
671	679	Yellow clay with some sand and gravel
679	681	Red clay

Prepared by:

/s/ Dan Laughlin
 Dan Laughlin

Shamrock Drilling Company
 P. O. Box 491
 Espanola, New Mexico

FIELD NO. 29.28.5.230		ANALYTICAL STATEMENT		COUNT Union	
Test Well No. 1		LAB NO. 49789			
Location Capulin, N. M.		Date of collection June 15, 1962			
SW 1/4 Sec. 5 T29N, R28E.		Ignition Loss Color 12		apm ppm	
Owner National Park Service		Dissolved Solids: 200		SiO ₂ 27	
Bore (type of well) Drilled well (cable tool)		Calculated (Sum) 188		Fe 0.08	
Date dtd 6-15-62		Tons per Acre Foot 0.27		Fe (total) 9.5	
Depth 680 ft		Hardness as CaCO ₃ 114		Co 1.30	
Volcanic cinders & sand		Non-carbonate Hardness 0		Mg 0.98	
Static about 640 ft below land		pH 7.8		Na 26	
Water level 640 ft below land		Specific Conductance 308		Mg 12	
Sampled after pumping N xx surface		(micromhos at 25°C)		K 0.90	
Yield 600 (gpm at well)		Producing intervals from 662 to 680.		Na + K 21	
Fr of well from bailer		*Bailed about 300 gals.		HCO ₃ 2.75	
Appearance very muddy (red)		Remarks: Slot perforated from 660 to 680 ft. Field cond. was 280 micromhos.		CO ₂ 0.00	
Pump (") 61				SD ₄ 0.20	
Operator Geo. A. Dinwiddie				Cl 0.16	
Checked E. F. Williams, L. Alary				F 0.03	
Date sampled June 19, 1962				NO ₃ 0.04	
Checked by H. Koester				3.18	
Date transmitted					

JUN 19 1962



IN REPLY REFER TO:

L54
CAMO

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Capulin Mountain National Monument
Capulin, New Mexico
June 16, 1962

RECEIVED	
NPS REGION THREE OFFICE	
JUN 18 1962	
SIGNATURE	DATE
REG. DIR.	
ASST. R.D.	
ADMIN.	
OPERATIONS	
RANGER ACT.	
INTERP.	
RECREATION	
SOLICITOR	
FILES	

Memorandum

To: Regional Director, Region Three
From: Superintendent, Capulin Mountain
Subject: Drilling a Water Well, Contract No. 14-10-0333-883,
Capulin Mountain National Monument

The following information supplied by Mr. George Dinwiddie,
U.S.G.S., Geologist.

- 1.) Hole cased to bottom at 4:00 p.m., June 15, 1962.
- 2.) Length of casing in hole = 680.5 feet below land surface.
- 3.) Length of perforated casing on bottom = 20 feet.
- 4.) Approximately 300 gallons of water bailed from hole.
- 5.) Obtained samples of water for chemical analysis and conductance analysis (field).
- 6.) Specific conductance adjusted to 25°C, is 280 micromhos.
- 7.) Temperature of the water in the hole was about 61°F.

Mr. Laughlin, Shamrock Drilling Co., went to his home in Espanola, New Mexico, Friday, p.m. He said he will call Mr. Kell before he returns to Capulin, and will inform Mr. Kell as to his plans for the development of the well.

Mr. Dinwiddie thinks it may take about a week to get the laboratory chemical analysis of the water. He will be in

D5039 (amd)



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

IN REPLY REFER TO:

Albuquerque and will return to Capulin when called.

Please Advise.

David G. Stimson
Superintendent

In duplicate

Other Supporting Information

FEB 6 1980

L54(SWR)OM

Memorandum

To: Superintendent, Capulin Mountain
From: Associate Regional Director, Park Operations, SWR
Subject: Water Right Docket #1

Enclosed are copies of "Declaration of Owner of Underground Water Right" with an accompanying map. Both should be permanently filed in your Water Right Docket #1. In addition, enclosed is a copy of USGS Water Resources Investigations 79-79 "Ground Water in the Vicinity of Capulin, New Mexico."

In view of the City of Raton's most recent expressed intentions to supplement their existing water supply from the Eagle Nest Area and not divert water from their Capulin wells, no in depth analysis will be made at this time unless it becomes their first choice.

In the interim, we refer you to Figure 11 on page 54 of the report which generally shows under ideal theoretical conditions that the monument's well will not be affected if the City of Raton's well(s) is more than 10,000 feet away.

Please continue to keep us informed of developments as they occur. Should you have any questions contact Garland Moore of this office.

(Sgd.) Leslie P. Arnberger

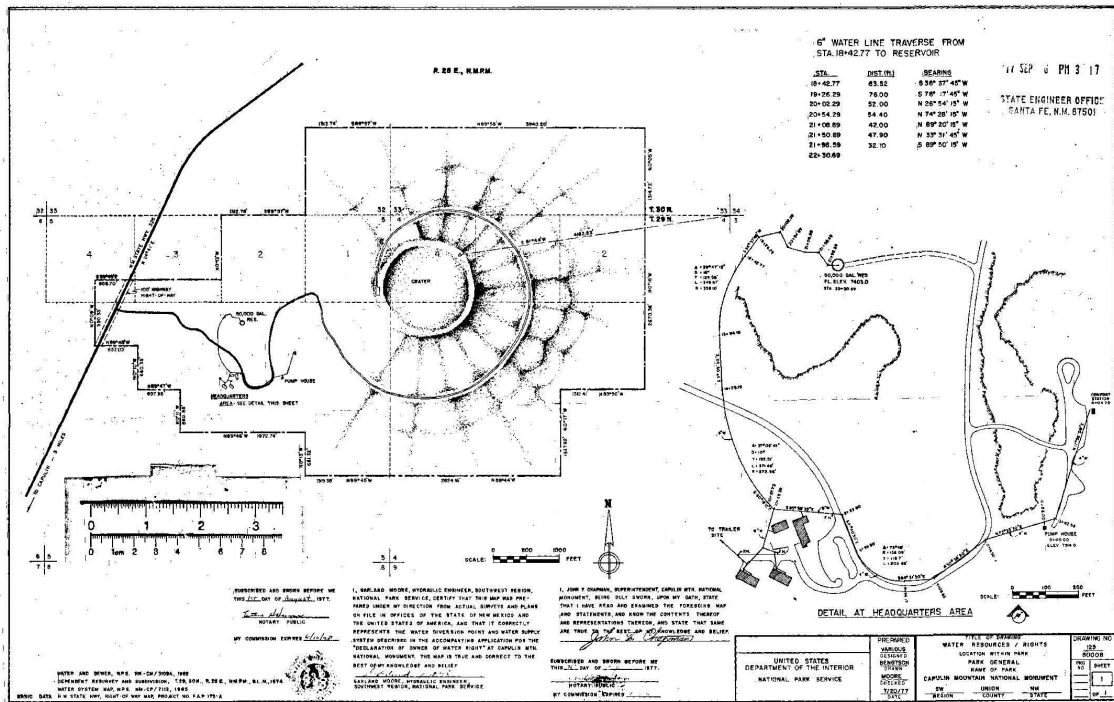
Enclosures

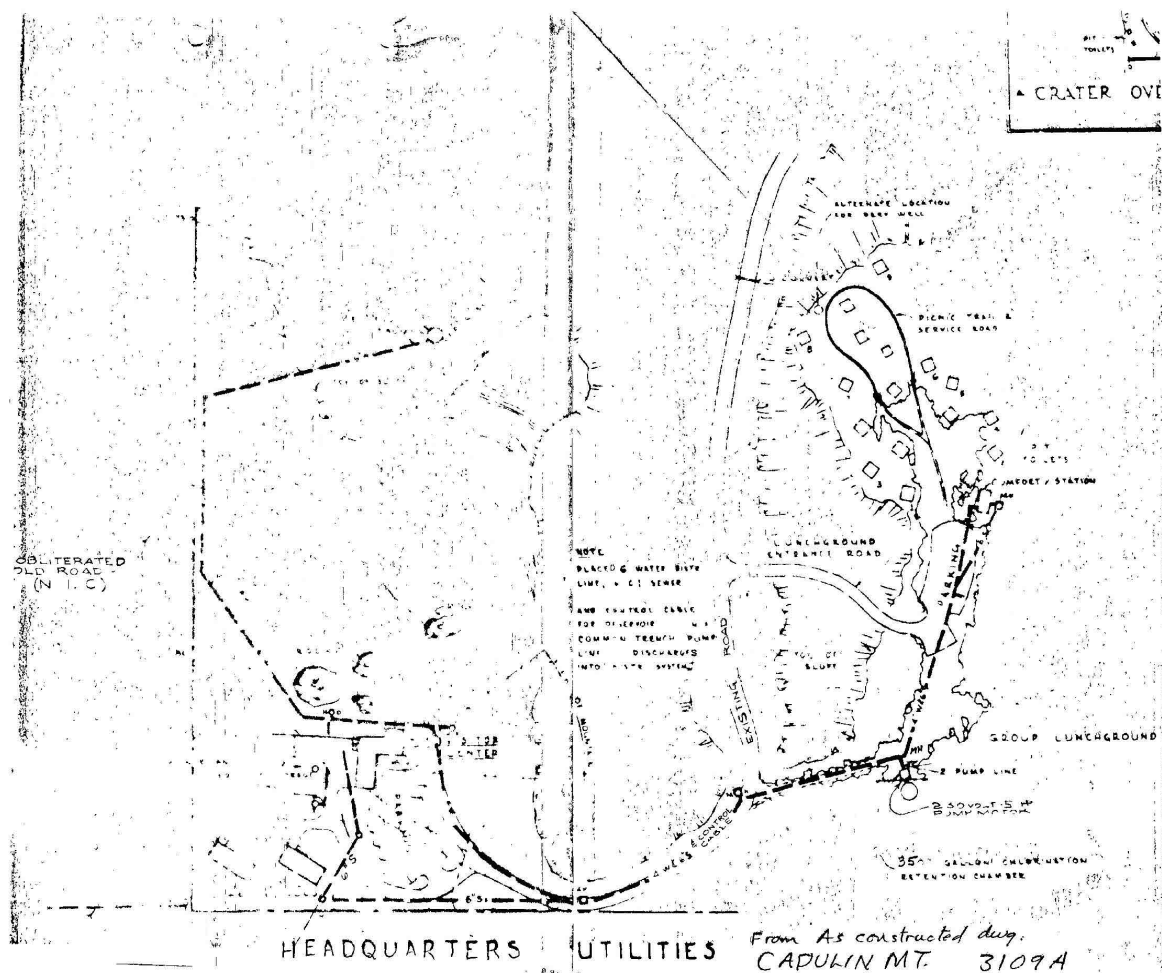
cc: Chief, Air and Water Resources Division, WASO, 492 (Atten. Vic Berte')
w/enclosure
bcc: Moore, OM, SWR

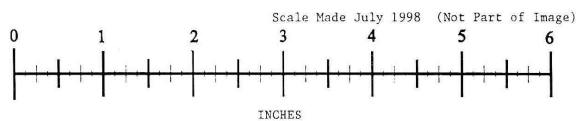
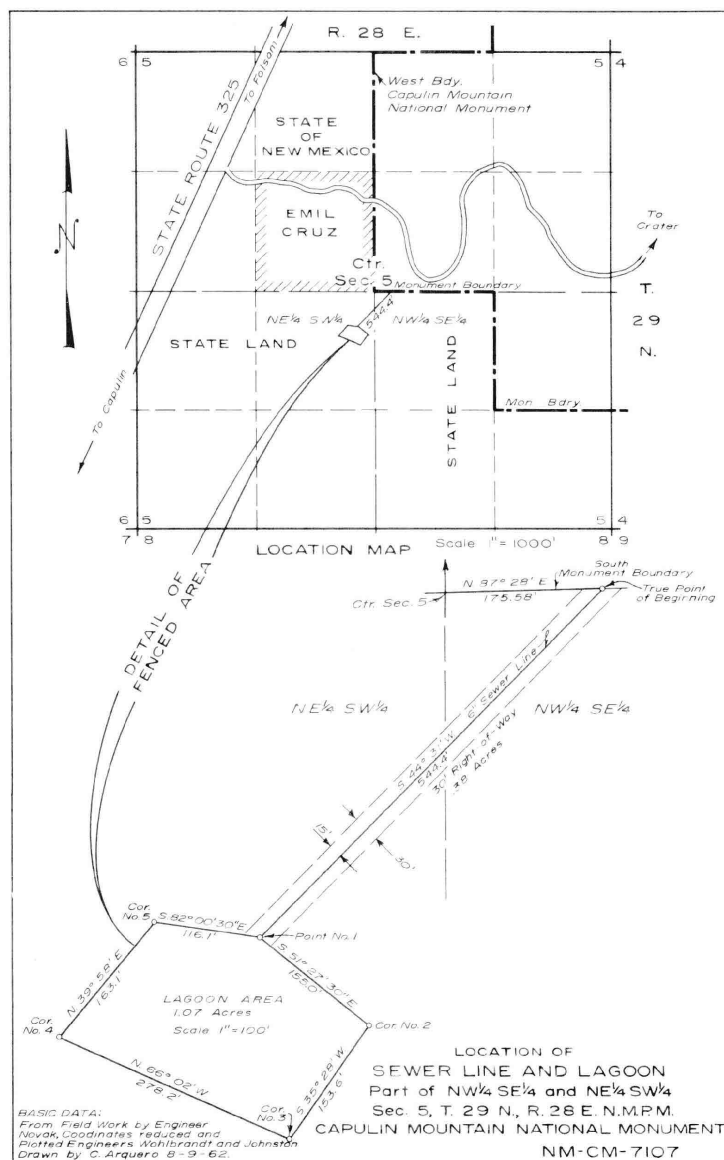
GMoore:NMG:2/4/80

Draft approved by: Moore, Parks, Arnberger

Maps and Miscellaneous Information







Docket Information

Number of Documents in Docket 27

Documents Dated from 6/15/1962 to 10/11/1995

Docket Compiled: 2/2/2011