Dinosaur National Monument

Docket No: 22

QUARRY HEADQUARTERS WELL AND SPRING

Preliminary Docket Information

00-00-0000: water right record quarry headquarters water system

WATER RIGHT RECORD

Park: DINO

Docket Number:
Federal #22

IDENTIFICATION NO: DINO, W,2 6,0 4,2 3,A ,F,2 2,

DITCH/WATER SYSTEM: Quarry Headquarters Water System

SOURCE OF SUPPLY: ~~Spring Area~~ Well #3

LOCATION: Various locations in Sec. 26, T4S, R23E, SLM

WATER RIGHT:

Appropriator: United States of America, National Park Service

Application/Permit Number: 13209 38809

Certificate Record Number:

Date of Priority: B1252

Quantity of Water: 0.02 c.f.s.

Purpose: Domestic

Irrigated Land Description:

Well drilled 900'
Pump suspended at 800'
34 gpm
100,000 gal. storage & distribution.
Contract now in progress (1976) to supply water from Jensen, Utah, water district. When this is completed, this well will be for standby use only.

SUMMARY OF STATUS: This is a Federal water right consisting of a spring area, pipe, reservoir and distribution system.

Original water right application #3977, May 10, 1911, to Earl Douglass, 0.01 c.f.s., 150B.

Application to Appropriate Water #13209, January 2, 1940, National Park Service. Thereafter a number of requests for extension of time were made. Amended in 1955 after two test wells were dug. Well #1 was drilled in 1942. Well #2 was drilled in 1951. Well #3 was drilled in 1956-57. Wells #1 and #2 proved inadequate. This application superceded by #29871.

Claims under this application will probably be limited to water of natural spring in designated spring area. Last extension granted June 30, 1965.
This Docket formerly part of Docket #1.

DOCKET INFORMATION SHEET

Docket Identity	DINO W 30 04 24 A E 22
Region	ROCKY MOUNTAIN
Area	DINOSAUR NATIONAL MONUMENT
Site	QUARRY HEADQUARTERS WATER SYSTEM
State	UTAH
County	UINTAH
Docket	DINO WATER RIGHT DOCKET 22
Location	T4S R24E SEC 30
Acquired by	
Application	38809 APPROVED SEPT 17 1968
Permit	
Certificate	
Priority	JAN 12 1968 0.055 CFS
Reservation	OCT 4 1915
Status	ACTIVE FEDERAL
Source	GROUND WATER
Use	DOMESTIC
Quantity	0.055 CFS APRIL 1 - OCT 31
Hydrologic Unit	14060001
Remarks	

DOCKET INFORMATION SHEET

Docket Identity	DINO W 26 04 23 A IF 22
Region	ROCKY MOUNTAIN
Area	DINOSAUR NATIONAL MONUMENT
Site	QUARRY HEADQUARTERS
State	UTAH
County	UINTAH
Docket	DINO WATER RIGHT DOCKET 22
Location	T4S R23E N280 W0 W4 280 FT FR S1/4 COR SEC 26
Acquired by	
Application	13209 [13209-AMENDED] APPROVED JAN 6 1941
Permit	
Certificate	
Priority	JAN 2 1940 0.02 CFS
Reservation	
Status	ACTIVE FEDERAL
Source	WELL
Use	DOMESTIC RECREATIONAL FIRE PROTECTION
Quantity	0.02 CFS
Hydrologic Unit	14060001
Remarks	

State Water Rights Documentation

01-26-1973: letter to dinosaur national monument regarding this office has completed the preparation of the water user's claims th

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

HUBERT C. LAMBERT
STATE ENGINEER

23 East Main P. O. Box 879
Vernal, Utah 84078

Robert F. Guy
Eastern Area Engineer

January 26, 1973

REC'D DINO NM
JAN 29 1973

ACT		INI	DATE
✓	SUPT		
	ADM OFFICER		
✓	CHIEF I&RM		
	MAINT SUPT		
	FILE		

Dinosaur National Monument
Dinosaur, Colorado 81610

Gentlemen:

This office has completed the preparation of the Water User's Claims that you elected to file in lieu of Proof of Appropriation on Applications 38809 (45-3367) & 38808 (45-3366).

It is requested that you meet with representatives of this office at the Area Office of the Division of Water Rights, 23 East Main Street, Vernal, Utah on Friday, February 2, 1973 at 1:15 p.m. for the purpose of executing these claims.

If you have any questions regarding the above please refer them to this office.

Very truly yours,

Robert F. Guy

Robert F. Guy
AREA ENGINEER
EASTERN AREA OFFICE

ln

01-26-1973: attention this form is to be used only when water has been placed to full beneficial use form 152 before the state engi

A T T E N T I O N

THIS FORM IS TO BE USED ONLY WHEN WATER HAS BEEN PLACED TO FULL BENEFICIAL USE

Form 152

BEFORE THE STATE ENGINEER OF THE STATE OF UTAH

ELECTION TO FILE WATER USER'S CLAIM

APPLICATION NO. 38809 (45-3367)

STATE OF UTAH)
) ss.
COUNTY OF Uintah)

I, James E. Jones, being first duly sworn, the agent of says that he is/the owner of the above application; that the development contemplated under this application has been completed and the water placed to beneficial use.

In lieu of submitting "Proof of Appropriation" or "Certificate of Change", the applicant hereby elects to file a "Statement of Water User's Claim" or an "Amended Statement of Water User's Claim" in the pending GENERAL DETERMINATION OF WATER RIGHTS; and that the applicant requests that said statement be prepared by the State Engineer and submitted for execution at an early date.

James E. Jones
APPLICANT

Subscribed and sworn to before me this 24th day of June, 1971.

Linda B. Redford
NOTARY PUBLIC

My Commission expires Aug 17, 1971

06-16-1971: letter to dinosaur national monument regarding it is noted from our files that you have only fourteen more days in whi

orm 11

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

442 STATE CAPITOL
SALT LAKE CITY, UTAH 84114

DIVISION OF
WATER RIGHTS

HUBERT C. LAMBERT
STATE ENGINEER

June 16, 1971

Dinosaur National Monument
Dinosaur
Colorado

Re: Appl. No. 38809 (45-3367)

It is noted from our files that you have only fourteen more days in which to submit proof before the lapsing of your application.

This letter is sent to remind you to have your proof or a request for extension of time filed in this office on or before the proof-due date of your application which is June 30, 1971.

Enclosed is a request for extension of time form in case you have misplaced the one previously sent to you.

Yours truly,

Hubert C. Lambert

Hubert C. Lambert
State Engineer

HCL: jb
Enc. Request Form, Form 152

04-29-1971: letter to dinosaur national monument regarding appropriation of water in utah or to change the point of diversion, plac

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
442 STATE CAPITOL
SALT LAKE CITY, UTAH 84114

DIVISION OF
WATER RIGHTS

HUBERT C. LAMBERT
STATE ENGINEER

REC'D DINO NM
MAY 3 1971

rm 37

April 29, 1971

Dinosaur National Monument
Dinosaur
Colorado

Gentlemen:

Re: Application No. 38808 (45-3366)
38809 (45-3367)

To appropriate water in Utah or to change the point of diversion, place, and nature of use of water, you must make application, receive approval, complete the intended development work, and submit proof that the water has been put to beneficial use. Our records indicate that you have not made proof on your application. This is due **June 30, 1971.**

In those areas in which general adjudication proceedings are pending and elections are authorized, the applicant can either:

1. Submit a satisfactory proof of appropriation.
   or
2. Elect to file a statement of water user's claim in lieu of proof of appropriation.
   or
3. Request an extension of time.

Failure to complete one of the above three actions on or before the proof-due date shall cause the application to lapse.

If development is not complete, additional time may be allowed by completing the enclosed request for extension of time and submitting it in affidavit form on or before the proof-due date. Submission of a request for extension of time in no way guarantees that it will be granted. Extensions of time are granted only after the applicant has made a showing of diligence before the State Engineer. Also enclosed is an election to file a water user's claim form for submission in lieu of proof if the project is complete.

Yours truly,

Hubert C. Lambert

Hubert C. Lambert, State Engineer

jl

Encs. Forms 29 & 152

Registered Mail

PROOF DUE

09-17-1968: letter to dinosaur national monument regarding enclosed approved application no. 38809

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

442 STATE CAPITOL
SALT LAKE CITY, UTAH 84114

DIVISION OF WATER RIGHTS

HUBERT C. LAMBERT
STATE ENGINEER

Form 33

54

September 17, 1968

REC'D DINO NM
SEP 18 1968

ACT			
	SUPT	✓	9/18
	AREA OFFICER		
	CHIEF ISRM		
	ASST SUPT	✓	9/20
	FILE		

Dinosaur National Monument
Dinosaur
Colorado

Gentlemen:

RE: APPROVED APPLICATION NO. 38809

Enclosed find approved Application No. 38809 (45-3367) . This is your authority to proceed with actual construction work which, under Sections 73-3-10 and 73-3-12, Utah Code Annotated, 1953, as amended, must be diligently prosecuted to completion. The water shall be put to beneficial use and Proof of Appropriation shall be made to the State Engineer on or before June 30, 1971.--------- Otherwise, the application will lapse.

Failure on your part to comply with the requirements of the statutes may result in forfeiture of this application.

Yours truly,

Hubert C. Lambert

ADDRESS ALL COMMUNICATIONS TO:

Hubert C. Lambert
State Engineer
442 State Capitol Building
Salt Lake City, Utah 84114

mt

Enc. Copy of approved application

APPLICATION APPROVED

00-00-0000: application to appropriate water state of utah

Area Code 45-3367

Form 97 10M 2-62

Application No. 38809

APPLICATION TO APPROPRIATE WATER STATE OF UTAH

NOTE:—The information given in the following blanks should be free from explanatory matter, but when necessary, a complete supplementary statement should be made on the following page under the heading "Explanatory."

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, for uses indicated by (X) in the proper box or boxes, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

1. Irrigation ☐ Domestic ☒ Stockwatering ☐ Municipal ☐ Power ☐ Mining ☐ Other Uses ☐
2. The name of the applicant is Dinosaur National Monument
3. The Post Office address of the applicant is Dinosaur, Colorado
4. The quantity of water to be appropriated is .055 second-feet or ..... acre-feet
5. The water is to be used for Domestic (Major Purpose) from Apr. 1 (Month) (Day) to October 31 (Month) (Day)

   other use period ..... (Minor Purpose) from ..... (Month) (Day) to ..... (Month) (Day)

   and stored each year (if stored) from ..... (Month) (Day) to ..... (Month) (Day)
6. The drainage area to which the direct source of supply belongs is ..... (Leave Blank)
7. The direct source of supply is* Underground Water (Name of stream or other source)

   which is tributary to ....., tributary to .....

*Note.—Where water is to be diverted from a well, a tunnel, or drain, the source should be designated as "Underground Water" in the first space and the remaining spaces should be left blank. If the source is a stream, a spring, a spring area, or a drain, so indicate in the first space, giving its name, if named, and in the remaining spaces, designate the stream channels to which it is tributary, even though the water may sink, evaporate, or be diverted before reaching said channels. If water from a spring flows in a natural surface channel before being diverted, the direct source should be designated as a stream and not a spring.

8. The point of diversion from the source is in Uintah County, situated at a point*
   North 1030 feet, East 2200 feet from the S¼ Cor. of Sec. 30, T4S, R22E, SLB&M
   R24E

*Note.—The point of diversion must be located definitely by course and distance or by giving the distances north or south, and east or west with reference to a United States land survey corner or United States mineral monument, if within a distance of six miles of either, or if at a greater distance, to some prominent and permanent natural object. No application will be received for filing in which the point of diversion is not defined definitely.

9. The diverting and carrying works will consist of an electric pump, 3500 ft. of 4" pipe and a 10,000 Gallon regulating tank
10. If water is to be stored, give capacity of reservoir in acre-feet ..... height of dam ..... area inundated in acres ..... legal subdivision of area inundated .....
11. If application is for irrigation purposes, the legal subdivisions of the area irrigated are as follows:

    ..... Total ..... Acres
12. Is the land owned by the applicant? Yes x No ..... If "No," explain on page 2.
13. Is this water to be used supplementally with other water rights? Yes ..... No x

    If "yes," identify other water rights on page 2.
14. If application is for power purposes, describe type of plant, size and rated capacity. .....
15. If application is for mining, the water will be used in ..... Mining District at the ..... mine, where the following ores are mined .....
16. If application is for stockwatering purposes, number and kind of stock watered .....
17. If application is for domestic purposes, number of persons ....., or families 35
18. If application is for municipal purposes, name of municipality .....
19. If application is for other uses, include general description of proposed uses .....
20. Give place of use by legal subdivision of the United States Land Survey for all uses described in paragraphs 14 to 19, incl. SE¼NE¼, NE¼SE¼, SE¼SE¼, of Sec. 30, T5S, R24E, SLB&M,
21. The use of water as set forth in this application will consume .055 second-feet of water and None second feet will be returned to the natural stream or source at a point described as follows: .....

EXPLANATORY

The following additional facts are set forth in order to define more clearly the full purpose of the proposed application:

This well was drilled under Application 13209. However additional water was recovered over what was applied for.

This application is submitted to acquire a right to use ~~it~~ this water.

The water will be used at the 35 unit Split Mountain campground



(Use page 4 if additional explanatory is needed.)

The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purpose herein described.

NATIONAL PARK SERVICE
DINOSAUR NATIONAL MONUMENT

by Gladys P. Thompson
SUPT.
Signature of Applicant*

*If applicant is a corporation or other organization, signature must be the name of such corporation or organization by its proper officer, or in the name of the partnership by one of the partners, and the names of the other partners shall be listed. If a corporation or partnership, the affidavit below need not be filled in. If there is more than one applicant, a power of attorney, authorizing one to act for all, should accompany the Application.

DECLARATION OF CITIZENSHIP

STATE OF UTAH,
County of ..... } ss

On the ..... day of ....., 19....., personally appeared before me; a notary public for the State of Utah, the above applicant who, on oath, declared that he is a citizen of the United States, or has declared his intention to become such a citizen.

My commission expires:

(SEAL)

Notary Public

00-00-0000: application to appropriate water state of utah cont. fees for applications to appropriate water in utah

RECEIVED
JAN 12 1968
State Engineer
VERNAL

FEES FOR APPLICATIONS TO APPROPRIATE WATER IN UTAH

Flow rate — c.f.s.			Cost	
0.0	to	0.1	$ 10.00	
over 0.1	to	0.5	20.00	
over 0.5	to	1.0	30.00	
over 1.0	to	15.0	30.00	plus $5 for each cfs above the first cubic foot per second.
over 15.0			100.00	

Storage — acre-feet				
0	to	20	15.00	
over 20	to	500	30.00	
over 500	to	7500	30.00	plus $5 for each 500 a.f. above the first 500 acre feet.
over 7500			100.00	

(This section is not to be filled in by applicant)

STATE ENGINEER'S ENDORSEMENTS

1. Jan. 12, 1968 Application received by mail / over counter in State Engineer's office by RFJ
2. ..... Priority of Application brought down to, on account of .....
3. May 20, 1968 Application fee, $ 10.00, received by mt Rec. No 04610
4. July 23, 1968 Application ~~copied in book~~ Microfilmed by MS, File 504, and indexed by WR
5. June 6, 1968 Application platted by ZB (D-4-22) 30 ddd
6. 7-12-1968 Application examined by RFJ
7. ..... Application returned, ... or corrected by office.
8. ..... Corrected Application resubmitted over counter / by mail to State Engineer's office.
9. Jan 12 1968 Application approved for advertisement by RFJ
10. June 25, 1968 Notice to water users prepared by WK
11. July 4, 1968 Publication began; was completed July 18, 1968
    Notice published in Vernal Express
12. July 2, 1968 Proof slips checked by WK + mt
13. ..... Application protested by .....
14. July 25, 1968 Publisher paid by M.E.V. No 2-1326-1
15. ..... Hearing held by .....
16. ..... Field examination by .....
17. Aug 26 1968 Application designated for approval / rejection RFJ
18. Sept. 17, 1968 Application copied or photostated by mt proofread by .....
19. Sept. 17, 1968 Application approved / ~~rejected~~
20. **Conditions:**

    This Application is approved, subject to prior rights, as follows:

    a. Actual construction work shall be diligently prosecuted to completion.

    b. Proof of Appropriation shall be submitted to the State Engineer's office by 6/30/71.

    c. .....

Hubert C. Lambert
Hubert C. Lambert, State Engineer.

21. ..... Time for making Proof of Appropriation extended to .....
22. ..... Proof of Appropriation submitted.
23. ..... Certificate of Appropriation, No. ....., issued

Application No. 38809

Form 114
25M 4-63

IN THE FOURTH JUDICIAL DISTRICT COURT, IN AND FOR THE COUNTY OF DUCHESNE STATE OF UTAH

IN THE MATTER OF THE GENERAL DETERMINATION OF RIGHTS TO THE USE OF ALL THE WATER, BOTH SURFACE AND UNDERGROUND, WITHIN THE DRAINAGE AREA OF THE UINTAH BASIN IN UTAH.

STATEMENT OF WATER USER'S CLAIM
CODE NO. 45 SERIAL NO. 3367
MAP NO. 142

NOTE: This blank is sent to you in accordance with Utah Law. The information called for herein will be used in connection with the adjudication of water rights on the above mentioned drainage area. All questions applicable to your claim must be answered fully, and one copy of this form must be filed with the Clerk of the District Court at Duchesne, Utah, within sixty (60) days from date of service of the attached Notice. A copy shall be filed with the State Engineer, State Capitol, Salt Lake City. Failure to file the attached Statement of the Water User's Claim with the Clerk of the District Court within the time stated will forever bar and estop you from asserting any right to the use of water from said drainage area.

1. Name of Claimant Dinosaur National Monument Interest Claimed
2. Address Dinosaur, Colorado 81610
3. Name of particular ~~spring, spring area, stream, well~~ from which water is diverted is Underground Water in Uintah County.
4. Priority date claimed 12-, 1968 Date when water was first used
   Date when work on diverting system was first begun Date when diverting system was completed
   Nature of work
5. Class of Right (Indicate by X):
   (a) Right to surface water initiated by beneficial use before 1903 Claim No.
   (b) Right to underground water initiated before 1935 Claim No.
   (c) Right decreed by court, cite title of case
   (d) X Application filed, State Engineer's Office No. 38809 Cert. of App. No. Election
   (e) Right acquired by adverse use prior to 1939
6. Nature (Indicate by X), Amount, and Annual Period of Use (by month & day):

(a)	Irrigation	Sec. Ft.		from		to	(both dates incl.)
(b)	Stockwatering	Sec. Ft.		from		to	(both dates incl.)
(c)	X Domestic	Sec. Ft.	.055	from	Apr. 1	to	Oct. 31 (both dates incl.)
(d)	Municipal	Sec. Ft.		from		to	(both dates incl.)
(e)		Sec. Ft.		from		to	(both dates incl.)

7. Direct Flow Appropriation (must be described with reference to U. S. Government Survey Corner)
   (a) Point of diversion from ~~spring, spring area, stream, well~~ North 1030 ft. East 2200 ft. from the S¼ Cor. Sec. 30, T4S, R24E, SLB&M
   (b) Description of spring area
   (c) Point of rediversion or point of return to natural channel
   (d) If flow is intermittently diverted, list by number or description, all rights involved
8. Where water is used for irrigation purposes:
   (a) Area irrigated in legal subdivisions of land by 40-acre tract. (All sources of water for same land or lands must be described in each instance by name or claim number)
   (b) Do you get water under a ditch owned by several users If so, give names of all users and divisions of interest
9. Where water is used for Stockwatering:
   (a) Number of each kind of stock watered
   (b) All sources of water for same stock. (Describe by name or claim number)
10. Where water is used for Domestic:
    (a) Number of families or their equivalent 35 Families All sources of water for same use. (Describe by name or claim number)

11. Where water is used for Municipal Purposes:
(a) Name of city or town supplied ..... Population .....
Number of families ..... Quantity of water .....
12. Where water is used for a purpose not above enumerated:
(a) Nature of Use ..... Extent of Use .....
.....
.....
.....
.....
.....
13. Appropriation for Storage Purposes:
(a) Name of reservoir .....
(b) Location of reservoir by legal subdivisions described by 40-acre tracts .....
.....
(c) Maximum capacity of reservoir in acre feet .....: Year construction commenced .....
Completed .....: Water first used ..... Is reservoir located on or off stream.....
(d) Period of Storage from ..... to ..... (both dates incl.). Period of use from .....
to..... (both dates incl.). Maximum area in acres inundated ..... Max. depth in feet.....
Average depth in feet..... Is reservoir drained each year..... Maximum number of fillings per year..... Is reservoir used for equalizing purposes..... If feeder canal is used, give maximum carrying capacity in sec. ft.....
14. Diverting Works:
(a) Surface water diverting dam: Material composed of .....
Max. length..... Max. height.....Max. width at bottom..... Max. width at top.....
(b) Underground water diverting works: Is well flowing or pump..... Depth of well.....
Diameter of well..... Length of drain..... Width of drain ..... Depth of drain.....
Diameter of drain..... Length of tunnel .....Width of tunnel..... Height of tunnel.....
Type of pump..... Capacity of pump.....
(c) Surface and underground water conveying works: Length of ditch to first place of use..... Width of ditch at top ..... Width of ditch at bottom..... Depth of water..... Grade of ditch per 1000 ft..... .. Material through which ditch passes..... Maximum length of pipe line to first place of use..... Diameter of pipe line ..... Grade of pipe line per 1000 feet.....
15. The undersigned hereby enters his appearance and waives service of summons or other process.

STATE OF UTAH
} SS. (To be used if claimant is an individual)
COUNTY OF.....

..... being first duly sworn, upon oath deposes and says that he is the claimant whose name appears hereon, that he has read the foregoing statement of his claim and knows the contents thereof, that he has signed the same, and that the answers set forth therein are true to his best knowledge and belief.

.....
Signature of Claimant

Subscribed and sworn to before me this ..... day of ..... 19.....

.....
NOTARY PUBLIC

STATE OF UTAH
} SS. (To be used if claimant is a corporation or an estate)
COUNTY OF .....

....., being first duly sworn, upon oath deposes and says that he is the.....
..... of the above claimant, that he makes this certification on behalf of said claimant, that he has read the foregoing statement of claim and knows the contents thereof, and that he has signed the name of said claimant to said statement, that the answers set forth therein are true to his best knowledge and belief.

Glenn E. Gunn Chief Jan 1961

Subscribed and sworn to before me this ..... day of ..... 19.....

.....
NOTARY PUBLIC

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Dinosaur National Monument
Artesia, Colorado 81610

ALIEN WATER RIGHTS within DINOSAUR NATIONAL MONUMENT

Application Number: 13209

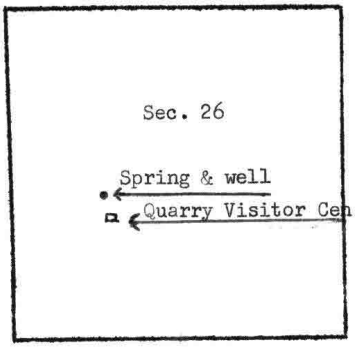
Applicant: NPS, Dinosaur National Monument

Quantity; Use Period: 0.02 sec. ft.; January 1 to December 31

Source: Developed spring for public use and the 965 foot well which supplies all residences and Quarry Visitor Center.

Point of Diversion: North 28 degrees 10 minutes West 2814 feet from the South quarter corner of Section 26, Township 4 South, Range 23 East, SLB&M.
Note: Three other wells listed on this application have been abandoned.

A check of the main water supply well in Split Mountain Campground reveals that it is also appropriated under application No. 13209. This well is equiped with a electric driven pump and diverts water to a 10,000 gallon water storage tank above the campground. Location is approximately North 55 degrees East, 1910 feet from the $\frac{1}{4}$ corner common to Sections 30-31, Township 4 South, Range 24 East, SLB&M.

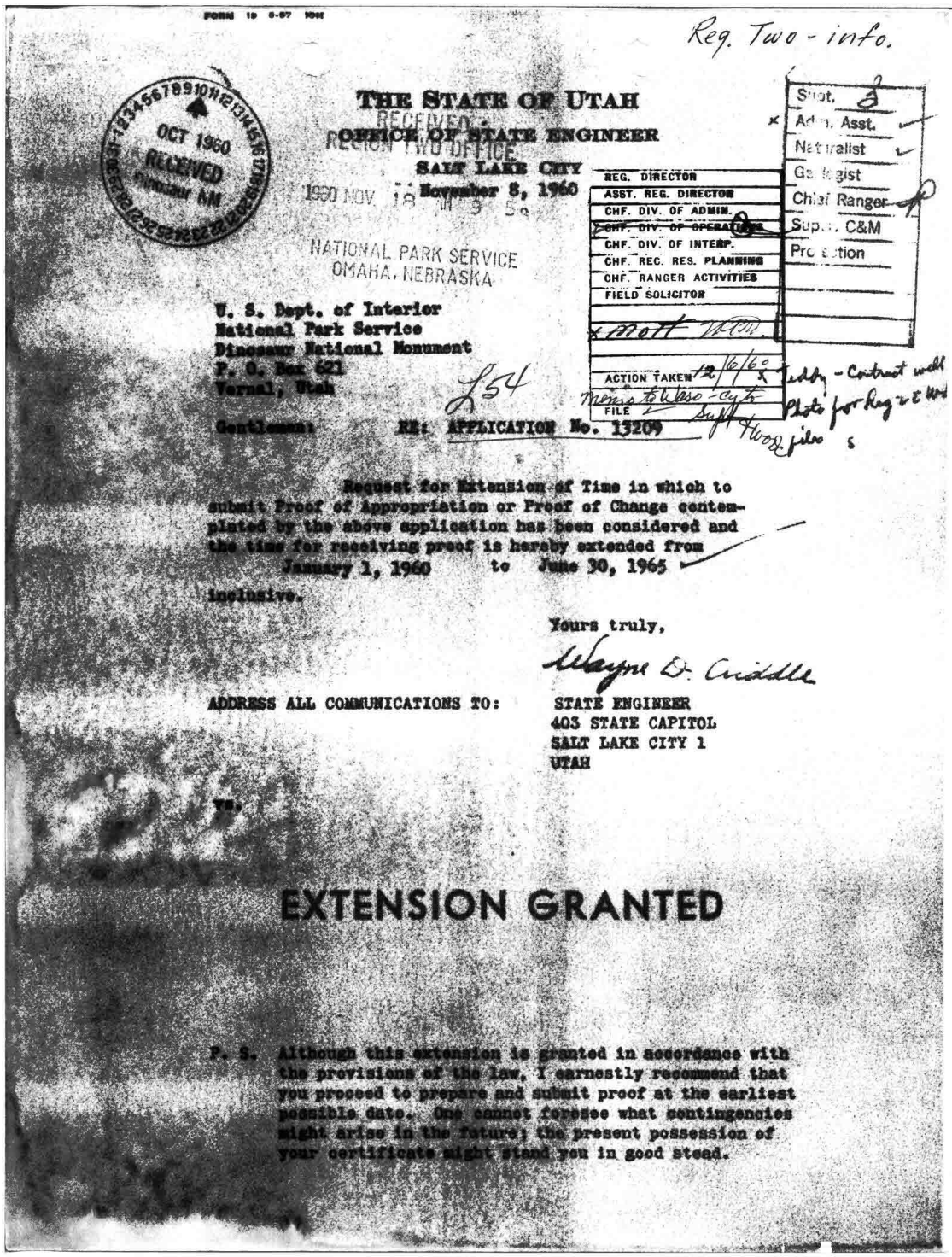


Application No. 13209 - well.

The well is located in the NW corner of the NE¼, SW¼, of Section 26, Township 4 South, Range 23 East, SLB&M.

The well shaft was drilled to 9.25" diameter to a depth of 955'. There is a 6" I.D. casing in the well to 955' depth. There is a total of 425' linear feet of perforations in the 6" casing. 300 linear feet of perforations (2 per linear foot) are in the Navajo formation at depths of 600-900 feet. 125 linear feet of perforations (1-1/3 per linear foot) are in the Entrada formation at depths of 325-400 feet. In addition to the 6" well casing we have 38' of 10" casing and 21' of 16" casing poured with concrete grout forming a surface water seal under the pump and pumphouse. The pump is a 20 H.P. submersible set at a depth of 800' in the 6" casing.

00-00-0000: letter to department of interior regarding application no. 13209



Reg. Two - info.

OCT 1960 RECEIVED Farmington NM

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
SALT LAKE CITY

November 8, 1960

RECEIVED REGION TWO OFFICE
1960 NOV 18 PM 3 58

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

REG. DIRECTOR	
ASST. REG. DIRECTOR	
CHF. DIV. OF ADMIN.	
CHF. DIV. OF OPERATIONS	
CHF. DIV. OF INTERP.	
CHF. REC. RES. PLANNING	
CHF. RANGER ACTIVITIES	
FIELD SOLICITOR	
ACTION TAKEN	12/16/60
FILE	

Shot. 8
Adm. Asst.
Naturalist
Geologist
Chief Ranger
Supt. C&M
Protection

Matt Tom.

Teddy - Contract with Plats for Reg 2 & Wash

U. S. Dept. of Interior
National Park Service
Dinosaur National Monument
P. O. Box 621
Vernal, Utah

L54

Gentlemen: RE: APPLICATION No. 13209

Request for Extension of Time in which to submit Proof of Appropriation or Proof of Change contemplated by the above application has been considered and the time for receiving proof is hereby extended from January 1, 1960 to June 30, 1965 inclusive.

Yours truly,

Wayne D. Criddle

ADDRESS ALL COMMUNICATIONS TO:
STATE ENGINEER
403 STATE CAPITOL
SALT LAKE CITY 1
UTAH

Re:

EXTENSION GRANTED

P. S. Although this extension is granted in accordance with the provisions of the law, I earnestly recommend that you proceed to prepare and submit proof at the earliest possible date. One cannot foresee what contingencies might arise in the future; the present possession of your certificate might stand you in good stead.

FORM 29 2M- 3-59

IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF UTAH

Request for ~~Reinstatement and~~ Extension of Time

(Strike words not needed)

(AFTER FOURTEEN YEARS)

APPLICATION NO. 13209

STATE OF UTAH
COUNTY OF Uintah } ss.

Jess H. Lombard, Superintendent, being first duly sworn says that he is the owner or the agent of the owner of the above numbered Application; that he knows of his own knowledge that the construction of works as contemplated by the Application was actually commenced within __ months after the date of approval of the Application, and the work has since been prosecuted with diligence.

The nature, extent and approximate cost of construction work done to this date, together with a detailed statement of use to which the water has been put, is as follows. (Describe briefly the type and extent of construction, whether impounding or diversion dam, or diverting channels and give the cost of construction. Indicate what part of the water, if any, covered by this Application has been put to beneficial use, the number of acres irrigated, etc. Mere statements as to general character of works, costs and use will not answer—give details sufficient for one to determine what has actually been done.)

--SEE ATTACHED--

ATTACHMENT NO. 1

The nature, extent and estimated cost of construction remaining to be done to complete the work in accordance with the Application follows: (Describe with same details as required last above.)

It will be necessary to supplement the spring water with another supply of satisfactory quality and quantity before the most advantageous use can be made of the spring supply. Otherwise, dual distribution systems would be necessary to separate the water for domestic use from the sanitary and operational uses in the Quarry Area.

(OVER)

Request is made for an extension of time for filing proof from January 1, , 1960 to January 1 , 1965 . (Last date for submitting proof cannot exceed 50 years from date of approval of Application.) Reasons why extensions should be granted are: (Give reasons why the work could not be completed and the water put to beneficial use within the time heretofore allowed and why conditions now will permit the completion of the works and filing of proof within the time requested. Be specific in statement

--SEE ATTACHED--

ATTACHMENT NO. 2

Affiant upon oath states that he or the owner of the Application, whom he represents, has a bona fide intention and the financial ability to complete the works and to apply the water to beneficial use as provided in the Application, within the period of extension requested. $25.00 is tendered herewith for publishing notice to water users.

Jess H. Lombard, Supt.
Dinosaur National Monument
National Park Service
Applicant
(If a corporation, specify the title of the officer making the affidavit and affix corporate seal.)

Subscribed and sworn to before me this 28th day of December 1959

Gene R. Hall
Notary Public

NOT TO BE FILLED IN BY APPLICANT

Application No._____ Request due_____ Recd._____
Applicant_____
Source_____
50 year period ends_____ Adv. fee $25.00 Recd._____ by_____
Receipt No._____
Hearing set for_____ at_____
Notice published weekly in_____
Beginning_____ and ending_____
Extension protested by_____

Request for extension approved / rejected ; time for submitting proof is hereby extended from_____ to and including_____

Date

STATE ENGINEER

In accordance with application No. 13209, a spring, N. 24° 38' W. 2746 ft. from S¼ corner, Sec. 26, T. 4 S., R. 23 E., SLM was developed and diverted to 500 gal. dist. reservoir by 716 ft. of 1" G.I. pipe about 1934 at cost of about $2000 as temporary water supply for Quarry Headquarters of Dinosaur National Monument, as established by proclamation of October 4, 1915 (39 Stat. 1752).

The surface spring flowas inadequate for headquarters of the Monument as enlarged by proclamation of July 4, 1938 (53 Stat. 2454). To comply with State water laws and provide additional water, application No. 13209 was filed to claim waters from a spring area including said spring, and to establish the right to divert such water before it emerged on the surface. Said application designated a test well as tentative point of diversion N. 28° 10' W. 2814 ft. from said S¼ corner, Sec. 26; and described the spring area as beginning N. 23° 39' W. 2729.45 ft. from said S¼ corner, Sec. 26; thence N. 4° 43' W. 150 ft.; thence S. 85° 17' W. 350 ft.; thence S. 4° 43' E. 200 ft.; thence N. 85° 17' E. 350 ft.; and thence N. 4° 43' W. 50 ft. to point of beginning. The entire spring area is within homogenous tract of Federal land within Dinosaur National Monument and drains to Green River with no intervening private land.

Test Well No. 1 was dug to a depth of 73 ft. from surface elevation 5190 ft. Water was found in a coarse sandstone, yielding only 0.01 sec. ft., approximately the same flow as available at the original spring. When the well was pumped the spring flow reduced practically to zero. Pending further drilling, a concrete collecting sump was provided at aforesaid spring and the 1" pipe was replaced with 2" G.I. pipe at approximate cost of $1700.

To explore the aquifer at a lower depth, and simplify drilling, a new well site No. 2 was selected, N. 26° 37' W. 2715 ft. from said S¼ corner, Sec. 26. In 1951 Well No. 2 was drilled to a depth of 168 ft. from surface elevation 5160 ft., cased with 42' of 8" and 65' of 6" pipe, and bailed at 10 gpm, or 0.022 sec. ft. by Garnett Birchell, reported to be a licensed well driller, at a cost of $1332.69.

Project now includes spring flow diverted and used and well No. 2 drilled but not connected to system at a total cost of about $7533.

The water from the spring has been limited to the domestic uses in the employees' residences as it is the most potable supply available. It is necessary that further investigations be made for a potable supply that may be used throughout the distribution system.

ATTACHMENT No. 1

The supply of water from the spring source is inadequate for the requirements of domestic and sanitary uses as affected by the expansion of improvements in the area and the increased number of visitors to the area during recent years. Through investigations to locate a satisfactory water supply a well was drilled near the bank of the Green River which proved to be highly mineralized and unsatisfactory for domestic use. The spring water has been limited to domestic use, thus serving as a standby in the absence of a potable water from the main supply well. It is imperative that the spring supply be used for domestic use until a suitable supply of potable water is developed which may, or may not, be used as a supplemantal to the spring supply. The ultimate use of the spring water and the rights thereto will be dependent upon locating a satisfactory water supply that meets the requirements of the area. The programming of investigative work is dependent upon available appropriations made by Congress which limits the execution of the works. Although limited appropriations have been budgeted for further explorations in fiscal year 1960 to locate a satisfactory water supply, it cannot be anticipated that full construction will be completed until about 1965.

ATTACHMENT No. 2

10-30-1959: letter to department of interior regarding application no. 13209

FORM 19
1M 4-58

154
Thompson

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
SALT LAKE CITY

October 30, 1959

att.

United States of America
Department of the Interior
National Parks Service
Washington 25 D. C.

Attention: A. Van V. Dunn, Chief, Water Branch

Gentlemen:

RE: APPLICATION NO. 13209

Proof as contemplated by the above numbered Application will be due January 1, 1960 Such proof, together with maps, profiles, if required, and drawings in conformity with rules and regulations promulgated by the State Engineer, and the statutory filing fees, must be received in this office on or before that date. The law provides that failure to make proof of appropriation or proof of change of the water on or before the date set therefor, shall cause the Application to lapse. Blank forms upon which proof must be submitted and a copy of the Rules and Regulations will be sent upon request.

Your attention is called to the fact that the 14 year period during which the State Engineer may grant extensions of time in which to submit proof of appropriation without publication, ended January 6, 1955 Further extensions may be granted only upon application to the State Engineer, publication of notice and a hearing before the State Engineer as provided by law.

Request for extension of time, made in affidavit form, must show diligence or a reasonable cause for delay and contain the following information:

1. Date actual construction work was begun and whether or not construction work has been prosecuted until this time with diligence.
2. Amount of work done to date and approximate cost.
3. Amount of work remaining to be done and its estimated cost.
4. Reason for extension, and time desired.

A fee of $20.00 to cover the cost of publishing notice of hearing must accompany each request. A blank form for extension of time is enclosed.

Yours very truly,
Wayne D. Criddle

ADDRESS ALL COMMUNICATIONS TO:
Wayne D. Criddle
STATE ENGINEER
STATE CAPITOL
SALT LAKE CITY, UTAH

js
Encl. F-29

PROOF DUE - - - ADV. REQUIRED

10-30-1959: application to appropriate water for domestic and municipal purposes

FORM M
4-10-38

Application No 13209

Application to Appropriate Water for Domestic and Municipal Purposes

STATE OF UTAH

Do not fill out this blank until you have read carefully and thoroughly understand the "Rules and Regulations" on the back hereof and all the notes in the body of it.

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, for domestic and municipal purposes, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

NOTE—The information given in the following blanks should be free from explanatory matter, but when necessary a complete supplementary statement should be made on page 2 under the heading "Explanatory."

1. *The name of the applicant is* The United States of America
2. *The post-office address of the applicant is* Dinosaur National Monument, Jensen, Utah, c/o Coordinating Superintendent, Rocky Mountain National Park, Estes Park, Colorado.
3. *The flow of water to be appropriated, in cubic feet per second, is* 0.02.
4. *The quantity of water to be appropriated, in acre feet, is (see note under Explan.)*
5. *The water is to be used each year from* January (Month) 1 (Day) *to* December (Month) 31 (Day)
6. *The water is to be stored each year from* (Month) (Day) *to* (Month) (Day)
7. *The drainage area to which the direct source of supply belongs is* Green River (Leave Blank)
8. *The direct source of supply is* spring ~~in~~ area tributary to Green River (Name of Stream or Other Source)
   in ..... *County*
   ~~proposed~~ spring area is in Uintah county
9. *The* (Strike out one not needed) ~~proposed~~ *situated at a point*
   N 28°10' W 2811 Ft. from the S¼ corner of Section 26, T 4 S, R 23 E, Salt Lake Meridian
   ~~bears S 24-38 E 2746 feet.~~

NOTE—The "point of diversion" or "point of issuance of spring" must be located definitely by course and distance or by rectangular distances with reference to some United States land corner or United States mineral monument, if within a distance of six miles of either, or if a greater distance to some prominent and permanent natural object.
No application will be received in which the "point of diversion" or "point of issuance of spring" is not described definitely. Any change made in this description after application is received and before approval will bring down the priority of application to the date when amended application is received.

10. *The diverting and carrying works will consist of a* ~~proposed~~ tunnel type ~~tap~~ collecting ~~sump at~~ Diversion Point and GI pipe from sump to place of use, a pump and distribution reservoir will serve proposed museum and provide fire protection.
11. *The cross-section of the diverting channel will be* ~~⊥⊥~~ ⊢⊣ O (Strike out ones not needed)
12. *The nature of the diverting channel will be* ~~unlined~~, iron, concrete. (Strike out ones not needed)
13. *The length of the diverting channel will be* ~~775~~ 1600 feet
14. *The top width of the diverting channel will be (if a ditch)* -- feet
15. *The bottom width of the diverting channel will be (if a ditch)* -- feet
16. *The depth of water in the channel will be (if a ditch)* -- feet
17. *The width of the diverting channel will be (if a flume)* -- feet
18. *The depth of water in the diverting channel will be (if a flume)* -- feet
19. *The diameter of the diverting channel will be (if a pipe)* 4 inches
20. *The grade of the diverting channel will be* (control) 20 feet per thousand

ACTUAL DIA. 6" DEPTH 965'-well No.? ACTUAL DIA. DEPTH
WELL DRILLER'S REPT. NO. [illegible] WELL DRILLER'S REPT. NO. A 12004
St. Engr. approved Lot 4 Sec 26 T 4 S R 23 E
St. Engr. approved 10-30-59 Lot 4 Sec 26 T 4 S R 23 E

00-00-0000: application to appropriate water for domestic and municipal purposes cont. explanatory

3411

EXPLANATORY

NOTE—Paragraph 4 on page 1 must not be used except when storage is contemplated; in such case Paragraph 5 should indicate the time in each year during which the water will be released and used. The lands to be inundated by the reservoir must be described in the space below this note as nearly as may be and by government subdivisions if upon surveyed land, and the area of the reservoir when at full stage should be given in acres.

If the reservoir is located on the channel of the source from which the water is to be appropriated, it should be so stated in the space below, and--

1. The location of the impounding dam should be described in Paragraph 9.
2. The point where the released storage will be rediverted from the natural stream should be described below in accordance with the note under Paragraph 9.

When water is not stored in the natural channel of the source from which it is to be appropriated, it should be so stated in the space below, and—

1. The point of diversion from the supplying source should be described in Paragraph 9.
2. The center of the impounding dam and the point where the released storage will be rediverted from a natural channel should be described below in accordance with the note under Paragraph 9.

In all cases Paragraphs 10 to 20, incl., should describe the entire diverting works, exclusive of natural channels and laterals, even if already constructed in whole or in part.

If application is made for the water of a number of springs, or other sources, collected at a common point, said point should be described as the point of diversion in Paragraph 9, and the point of diversion from each source should also be described below in accordance with the note in paragraph 9. The quantity of water sought from each source should be indicated below, the total equaling the quantity specified in Paragraphs 3 or 4. Where the source of supply is in reality a spring area, the point of diversion is the point where the water is collected; in such case the exterior boundary of the spring area must be described below by metes and bounds and located with reference to a point as outlined by the note under Paragraph 9.

The following additional facts are set forth in order to define more clearly the full purpose of the proposed appropriation:

at A spring N 24°38' W 2746 ft. from said S¼ corner Section 26

The diversion, by temporary 1-inch pipe, has been in use for more than six years to provide domestic and sanitary facilities for the custodian, a crew of archaeological assistants and the visiting public in the SW¼ of said Section 26, SE¼ of Section 27, and NE¼ Section 35 of same township and range lying north of Green River.

An increase of 100% in monument attendance during the past three years has brought the peak water demand to full pipe capacity of 90% of the 0.01 sec.ft. spring flow and floods in the canyon have threatened to pollute the spring. The plans for a museum and other additional developments also require extensions and enlargement of the water system.

An exploratory shaft, on the rim of the canyon, has been sunk at the point of diversion described in paragraph 9 proceeding N 26°10' W 2814 feet from SE cor of Section 26 [illegible]. Pumping out this shaft has stopped the natural spring flow, proving identity of source of supply and indicating availability of larger quantity by further development of the layer of water-bearing sandstone by tunnels drifted from said exploratory shaft at point of diversion described at existing 1-inch pipe diversion described first in this application in Paragraph 9. (approximately 0.02 second feet)

This application is, therefore, for 0.02 second feet of water at point of diversion and collection, at said exploratory shaft N 23°39' E 2729.45 feet from S¼ corner Section 26, to be used from a spring area beginning at a point N 85°-17' E 350 feet from said diversion, thence N 4°43' W 150 feet, thence S 85°-17' W 350 feet, thence S 4°43' E 200 feet, thence N 85°-17' E 350 feet, and thence N 4°-43' W 50 feet to the point of beginning; said area to be developed by tunnels or collecting galleries along the line of water-bearing soak 6.5 ft. high, 6 feet wide, and totalling 100 feet in length to provide 30,000/ gallon collecting capacity. A 4-inch GI pipe, from said exploratory shaft, and 775 feet long, will provide gravity supply to main plant at Rim to south. A pump (30/ gpm capacity) will deliver part of the water to concrete reservoir of 20,000 gallon capacity near proposed museum by 800± feet of 4-inch GI lateral serving also for fire protection distribution.

The water is used for domestic purposes in the residences and offices of the custodian and other permanent employees, and in camps of construction, maintenance and archaeological crews; for the normal purposes in machine shops, garages and a blacksmith shop; for the sanitary facilities in public comfort stations; and for fire protection. Any limited picnicking, restaurant facilities, or camping will be secondary to preceding operating and administrative needs which are expected to require total available water supply.

County of ..... } ss.

Personally appeared before me, a notary public for the State of Utah, the above applicant who, on oath, declared that he is a citizen of the United States.

My commission expires .....

(Seal) *Notary Public*

00-00-0000: application to appropriate water for domestic and municipal purposes cont. state engineer's endorsements

3128

(This page is not to be filled in by applicant)

State Engineer's Endorsements

1. 9 a.m. Jan. 2, 1940 *Application received* by mail *in State Engineer's Office by* WEK
2. *Priority of application brought down to, on account of*
3. Jan. 5, 1940 Voucher signed and returned AMW $2.50 Jan. 19, 1940 *Fee for filing application,* $2.50 *received by* ERB *Rec. No.* 595
4. Jan. 10, 1940 *Application copied in book* D-11 *, page* 310 *, and indexed by* IMC
5. Feb. 23, 1940 *Application platted by* JWF
6. Jan. 15, 1940 *Application examined by* JWF
7. Jan. 15, 1940 *Applic. returned, with letter to* D. H. Canfield *for correction*
8. Feb. 23, 1940 *Corrected application resubmitted* by mail *to State Engineer's Office.*
9. Feb. 26, 1940 *Fee for publishing notice requested.*
10. April 4, 1940 *Fee for publishing notice* $ 15.00 *, received by* ERE *Rec. No* 712
11. Feb. 23, 1940 *Application approved for advertisement by* JWF THH
12. Apr. 10, 1940 *Notice to water users prepared by* JWF
13. Apr. 18, 1940 *Publication began; was completed* May 16, 1940
    Notice published in Vernal Express
14. Apr. 20, 1940 *Proof slips checked by* JWF VM
15. *Application protested by*
16. Nov. 23, 1940 *Application designated for* approval ~~rejection~~ *by* JWF THH
17. Nov. 23, 1940 *Fee for approving application requested*
    Signed voucher returned Dec. 2, 1940 ERE
18. Jan. 2, 1941 *Fee for approving application,* $2.50, *received by* ERE 4242
19. Jan. 6, 1941 *Application proof read by* MS & MCT
20. Jan. 6, 1941 *Application* approved ~~rejected~~ and *returned to applicant*

This application is approved on the following conditions:

1. *Actual construction work shall begin within six months from date of approval.*
2. *Proof of appropriation shall be submitted to the State Engineer's office by* Dec. 25, 1942.
3. Subject to existing rights.

Sept 8, 1960 Published and mailed 2-1148-Rm

T. H. HUMPHERYS, *State Engineer.*

21. Dec. 1, 1942 *Time for making proof of appropriation extended to* Feb. 5, 1943; Dec. 25 1945 Dec 25 1953 Jan 6, 1955, June 30, 1965
22. *Proof of appropriation submitted*
23. *Fee for filing proof of appropriation,* $1.00, *received by*
24. *Fee for filing maps, profiles and drawings,* $5.00, *received by*
25. *Fee for issuing certificate of appropriation,* $1.00, *received by*
26. *Certificate of appropriation, No.* , *issued*

I hereby certify that the foregoing is a true copy of the application by to appropriate water and of the endorsements thereon as shown by the records of my office on the date given below.

Salt Lake City, Utah, , 19

State Engineer.

Application No. 13209

00-00-0000: hand written note, this application was attached to mr. dunn's memo of nov 18(?), 1959

This Application was attached to Mr. Dunn's memo of Nov 18(?), 1959 w/a State form for "Request for Extension of Time".

W. Mott
12/03/59.

Form 115 9-52 1500

Application No. 13209-Amended

Application to Appropriate Water for Miscellaneous Purposes
STATE OF UTAH

Do not fill out this blank until you have read carefully and thoroughly understand the Rules and Regulations on the back hereof and all notes in the body of it, as well as the rules and regulations in pamphlet form promulgated by the State Engineer.

This blank not to be used if the main purpose is for Irrigation, Power, Mining, Stock-Watering or Domestic Purposes.

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, for domestic, recreational and fire protection *purposes, application is hereby made to the state engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.*

Note.—The information given in the following blanks should be free from explanatory matter, but when necessary a complete supplementary statement should be made on the following page under the heading "Explanatory."

1. *The name of the applicant is* The United States of America
2. *The post office address of the applicant is* National Park Service, Interior Building, Washington 25, D. C.
3. *The quantity of water to be appropriated is* 0.02 *second-feet or* -- *acre-feet* (See note on page 4)
4. *The water is to be used each year from* January (Month) 1 (Day) *to* December (Month) 31 (Day) *incl.,*
   and stored each year (if stored) from -- (Month) -- (Day) *to* -- (Month) -- (Day) *incl.,*
5. *The drainage area to which the direct source of suppy belongs is* ---- (Leave blank)
6. *The direct source of supply is*† a spring area (Name of stream or other source) *which is tributary to* Green River, *tributary to* Colorado River

†Note.—Where water is to be diverted from a well, a tunnel, or drain, the source should be designated as "Underground Water" in the first space and the remaining spaces should be left blank. If the source is a stream, a spring, a spring area, or a drain, so indicate in the first space, giving its name, if named, and in the remaining spaces, designate the stream channels to which it is tributary, even though the water may sink, evaporate, or be diverted before reaching said channels. If water from a spring flows in a natural surface channel before being diverted, the direct source should be designated as a stream and not a spring. (See note on page 4.)

7. *The point of diversion from* ~~stream, spring~~, spring area ~~drain, well (tunnel, pump) channel,~~ (Strike words not needed)
   ~~or~~ *is in* Uintah *county, situated at a point**
   (1) at main spring N24°38' W 2746 ft. from S¼ Cor. Sec. 26;
   (2) at well No. 2 intercepting underground source of spring N28°24' W2802 ft. from S¼ Cor. Sec. 26, both T 4 S, R 23 E, SLM (Well No. 1, N26°10' W 2814 ft. from said S¼ Cor. Sec. 26 being abandoned)

*Note.—The point of diversion must be located definitely by course and distance or by giving the distances north or south, and east or west with reference to a United States land survey corner or United States mineral monument, if within a distance of six miles of either, or if at a greater distance, to some prominent and permanent natural object. (Also see note on page 4.)

No Application will be received in which the point of diversion is not described definitely. Any change made in this description after Application is received and before approved will bring down the priority of Application to the date when the amendment is made of record in the state engineer's office.

8. *The diverting and carrying works will consist of* collecting box at spring, well, pump, and 4" G.I. Pipe to 100,000 gal. concrete distribution reservoir.
9. *The cross section of the diverting channel will be* ~~III~~ ~~HII~~ ○ 4" (Strike ones not needed)
10. *The diverting works and diverting channel will be constructed of* ~~earth, timber~~, iron, concrete. (Strike words not needed)
11. *The length of the diverting channel, exclusive of laterals, will be* 1600 *feet*
12. *The top width of the diverting channel will be (if a ditch)* -- *feet*
13. *The bottom width of the diverting channel will be (if a ditch)* -- *feet*
14. *The depth of water in the diverting channel will be (if a ditch)* -- *feet*
15. *The width of the diverting channel will be (if a flume)* -- *feet*
16. *The depth of water in the diverting channel will be (if a flume)* -- *feet*
17. *The diameter of the diverting channel will be (if a pipe)* 4 *inches*
18. *The grade of the diverting channel will be* control 20 *feet per thousand*
19. *The purposes for which the water is to be used are* domestic, recreational and fire protection

This will consume 0.02 *second-feet of the water and* 0.002 *second-feet will be returned to the natural stream or source at a point described as follows: (See note under No. 7)* 0.01 sec.ft., or total flow of spring, now used. Initial well yield 0.022 sec.ft. of which 0.020 sec.ft. claimed to extent not diverted from spring.

00-00-0000: application to appropriate water for miscellaneous purposes cont. explanatory

EXPLANATORY

The following additional facts are set forth in order to define more clearly the full purpose of the proposed appropriation. (If additional space is required under this paragraph, sheets cut to same size as this form folded should be added, identified as "Explanatory Continued")

Initial diversion prior to 1940 was from aforesaid spring in bottom of ravine, and subject to pollution or contamination from surface run-off during storms. Exploration and development of spring revealed that water emerged from porous sand and sandstone on steep tilt along side of ravine. Original Application 13209 was filed in 1940 to claim water source in spring area beginning N23°39'W (erroneously stated as N23°39'E) 2729.45 ft. from S¼ Cor. Sec. 26, T 4 S, R 23 E, SLM; thence bounded by courses N4°43'W 150 ft; S85°17'W 350 ft; S4°43'E 200 ft; N85°17'E 350 ft; and N4°43'W 50 ft. to point of beginning. To include spring, as obviously intended, point of beginning must be N23°29'W 2729.45 ft. from said S¼ Cor. Sec. 26. Test well No. 1 was dug to depth of 73 ft. and tunnel drifted into bank intercepted spring flow, but with no increase in flow. Test well No. 2 drill to depth of 168 ft. intercepte same source of lower depth and yields more than authorized 0.02 sec.ft.

Claim is made to 0.02 sec.ft. of source of spring at point of emergence or at well No. 2, or both. The water is used for domestic purposes in the residences and offices of the custodian and other permanent employees, and in camps of construction, maintenance and archaeological crews; for the normal purposes in machine shops, garages and a blacksmith shop; for the sanitary facilities in public comfort stations; anf for fire protection. Any limited picnicking, restaurant facilities, or camping will be secondary to preceding operating and administrative needs which are expected to require total available water supply.

Since well No. 2 does not provide storage of shaft and tunnel of well No. 1, and storage at spring collecting sump will be abandoned if well No. 2 proves adequate, regulatory storage of 100,000 gallons may be necessary at lower end of diversion pipe, and may be located higher on hill to increase fire protection pressure. Pump of at least 15 gpm will deliver well water and possibly spring water to distribution reservoir through 1600 ft. 4" G.I. pipe, or less.

Existing water supply served employees and 9133 visitors in 1941 and employees and 65,996 visitors in 1954 but in inadequate amounts due to low natural spring flow and water using facilities.

A. van V. Dunn
Chief, Water Resources Section
National Park Service
Department of the Interior

A. van V. Dunn *Signature of Applicant**

*If applicant is a corporation or other organization, signature must be in the name of such corporation or organization by its proper officer. If a corporation, the affidavit below need not be filled in. If there are more than one applicant, a power of attorney, authorizing one to act for all should accompany the Application.

~~STATE of UTAH.~~
District of Columbia
County of — — — } ss.

On the 4th day of January, 1955, personally appeared before me, a notary public ~~in and for the State of Utah~~, in and for the District of Columbia, the above applicant who, on oath, declared that he is a citizen of the United States.

My Commission expires
(SEAL)

Notary Public, D. C.
My Commission Expires November 14, 1956

Notary Public.

00-00-0000: application to appropriate water for miscellaneous purposes cont. state engineer's endorsements

(This page is not to be filled in by applicant)

State Engineer's Endorsements

1. ..... *Application received* *over counter / by mail* *in state engineer's office by* .....
2. ..... *Priority of Application brought down to, account of* .....
3. ..... *Fee for filing Application, $* ....., *received by* ..... *Rec. No.* .....
4. ..... *Application copied in book* ....., *page* ....., *and indexed by* .....
5. ..... *Application platted by* .....
6. ..... *Application examined by* .....
7. ..... *Application returned, with letter, to* ..... *for correction*
8. ..... *Corrected Application resubmitted* *over counter / by mail* *to state engineer's office.*
9. ..... *Fee for publishing notice requested.*
10. ..... *Fee for publishing notice, $* ....., *received by* ..... *Rec. No.* .....
11. ..... *Application approved for advertisement by* .....
12. ..... *Notice to water users prepared by* .....
13. ..... *Publication began; was completed* .....
    Notice published in .....
14. ..... *Proof slips checked by* .....
15. ..... *Application protested by* .....
16. ..... *Application designated for* *approval / rejection* *by* .....
17. ..... *Fee for approving Application requested* .....
18. ..... *Fee for approving Application, $2.50 received by* ..... *Rec. No.* .....
19. ..... *Application proofread by* .....
20. ..... *Application* *approved / rejected* *and returned to applicant* .....

This application is approved, subject to prior rights, if any, on the following conditions:

1. *That actual construction work shall be diligently prosecuted to completion.*
2. *That Proof of Appropriation shall be submitted to the state engineer's office by* .....
3. .....

.....

State Engineer.

21. ..... *Time for making Proof of Appropriation extended to* .....
22. ..... *Proof of Appropriation submitted.*
23. ..... *Fee for filing Proof of Appropriation, $1, rec. by* ..... *Rec. No.* .....
24. ..... *Fee for exam. maps, profiles and drawings, $5, rec. by* ..... *Rec. No.* .....
25. ..... *Fee for issuing Cert. of Appropriation, $1, rec. by* ..... *Rec. No.* .....
26. ..... *Certificate of Appropriation, No.* ....., *issued.*

I Hereby Certify that the foregoing is a true copy of the Application by ..... to appropriate water and of the endorsements therein as shown by the records of my office on the date given below.

Salt Lake City, Utah, ..., 19.....

.....
State Engineer

Application No. .....

NOTICE TO APPLICANT

The approval of this Application is not a Certificate of Appropriation. It is merely your authority to begin construction work, which must be prosecuted diligently to completion. To secure a Certificate of Appropriation under this Application, Proof of Appropriation must be submitted within the time limit allowed by the state engineer. The amount of water for which Certificate will be issued will depend upon the amount of water actually put to a beneficial use, not to exceed, however, the amount of water specified in this Application. Proof of Appropriation must be made in accordance with the requirements of the law. For further information write the state engineer.

Note.—The second space provided in Paragraph 3 on page 1 must not be used except in cases in which storage is contemplated; in such case Paragraph 4 (first line) should indicate the time in each year during which the water will be released and used. The lands to be inundated by the reservoir shall be described under "explanatory" as nearly as may be and by government subdivisions if upon surveyed lands, and the area of the reservoir when at full stage shall be given in acres.

If the Reservoir is Located on the Channel of the Source from which the water is to be appropriated, it shall be so stated under "explanatory," and—

1. The intersection of center line of stream bed and longitudinal axis of impounding dam shall be described in Paragraph 7.
2. The point where the released storage will be rediverted from the natural stream shall be described under "explanatory" in accordance with the note under Paragraph 7. If a diversion dam is involved, the point of rediversion is intersection of center line of stream bed and longitudinal axis of dam.

When Water is not Stored in the Natural Channel of the Source from which it is to be appropriated, it shall be so stated under "explanatory," and—

1. The point of diversion from the supplying source shall be described in Paragraph 7.
2. The intersection of center line of stream bed and longitudinal axis of impounding dam and the point where the released storage will be rediverted from a natural channel shall be described under "explanatory" in accordance with the note under Paragraph 7. If a diversion dam is involved the point of rediversion is intersection center line of stream bed and longitudinal axis of dam.

In all cases Paragraphs 8 to 18, inclusive, shall describe the entire diverting works, exclusive of natural channels and laterals, even if already constructed in whole or in part.

If Application is Made for the Water of a Number of Springs, or other sources collected at a common point, said point shall be described as the point of diversion in Paragraph 7 and the point of diversion from each source shall also be described under "explanatory," in accordance with the note under Paragraph 7. The quantity of water sought from each source shall be indicated under "explanatory," the total equaling the quantity specified in Paragraph 3. Where the source of supply is in reality a spring area, the point of diversion is the point where the water is collected within the area, the point of collection being described in Paragraph 7; in such case the exterior boundary of the spring area shall be described under "explanatory" by metes and bounds and located as outlined by the note under Paragraph 7.

Rules and Regulations

If a dam is not required across the natural channel of the stream or outlet of the lake comprising the supplying source to divert water into the diverting channel, the point of diversion or rediversion shall be the intersection of the axis of the first tangent in the diverting channel and the high water line on the adjacent side of the natural channel or body of water of the supplying source.

All waters in this state, whether above or under the ground, are the property of the public, subject to all existing rights to the use thereof. No appropriation of the unappropriated public water may be made and no rights to the use thereof shall be recognized except Application for such appropriation first be made to the state engineer.

The Application must be signed by the applicant at the bottom of page 2 and the affidavit relating to citizenship acknowledged before a notary public before the Application be received by the state engineer.

An application shall not be made for more than one purpose; except where the secondary purpose is a necessary incident to the primary one; as for instance, an Application for irrigation purposes may specify domestic purposes as a necessary incident.

An Application made to appropriate water for use in a single system with one or more points of diversion or sources of supply, or both, if the water is commingled, may be accepted if made by one person or by a corporation, if and when the points of diversion be in close proximity or located in contiguous sections by government survey; provided, however, that the quantity of water sought, also tie to a U. S. land survey corner, be given for each point of diversion, and the point of commingling given by tie to a U. S. land survey corner.

In case a material error is made in the description of the point of diversion, or in case any error is made the correction of which would enlarge the rights sought in an Application after its receipt in the state engineer's office, then such error may be corrected before advertising, but the priority date of the Application will be changed to the time when the corrected Application is resubmitted (received) in the state engineer's office; and, if the notice to water users has been published, the state engineer may in his discretion, before approval, cause a revised notice to be published at the expense of the applicant.

When there are two or more coapplicants the Application must be accompanied by a power of attorney authorizing one to act for all.

The applicant's permanent address should be given in Paragraph 2, and the state engineer notified promptly of any change in address; otherwise applicant may lose rights initiated by Application by failing to receive notices sent from the state engineer's office.

No Application or other paper (requiring a fee) pertaining to an Application will be marked received unless accompanied by the required filing fee.

Applications accepted and numbered by the state engineer, when returned to applicant for correction or additions, must be amended with red ink. Erasures must not be made, but any matter may be eliminated by running a red line through it in such a manner that the stricken matter may still be read. Corrected Applications must be resubmitted to the state engineer's office, within sixty days from the date of state engineer's letter returning Application for correction; otherwise the Application will lapse.

Applicants will be informed by the State engineer's office when cost of publishing notice of Application is due, and must advance cost within sixty days after date of notice, otherwise Application will lapse.

Fees Required by Law Payable to State Engineer

For filing Application to appropriate 10 second-feet of water or less and additionally, $1.00 for each second-foot above 10.	$2.50
For filing Application to appropriate 500 acre-feet of water or less and additionally, 3 cents for each acre-foot above 500.	2.50
When the filing fee on any Application to appropriate water shall exceed $1,000.00, the balance of the fee in excess of $1,000.00 may, at the option of the applicant, be paid at time the Proof of Appropriation is submitted.	
For approving and recording completed Application	2.50
For filing written Proof of Appropriation	1.00
For examining maps, profiles and drawings that are part of the Proof of Appropriation	5.00
For issuing Certificate of Appropriation	1.00

NOTE.—Applicants will save time and expense by familiarizing themselves with the law before making Application.

00-00-1955: article from vernal express: notice to water users

L54 Dino
File Docket No. 1
w/ memo 10/25/55
in L54 Bound file

NOTICE TO WATER USERS

Notice is hereby given that the United States Department of the Interior by A. Van V. Dunn, Chief, Water Resources Section, National Park Service, Washington, D. C., has filed with the State Engineer, a request for an extension of time from January 6, 1955 to January 1, 1960, in which to make and submit Proof of Appropriation of Water under Application No. 13209 for the appropriation of 0.02 sec.-ft. of water from a spring area in Uintah County to be used for domestic purposes at the Dinosaur National Monument.

It is represented that approximately $7,533.00 has been expended on construction of works. It is estimated it will cost approximately $15,000.00 to complete construction and apply the water to beneficial use.

All protests resisting the granting of said request, with reasons therefor, must be in affidavit form with extra copy and filed with the State Engineer, 403 State Capitol, Salt Lake City, Utah, on or before September 10, 1955.

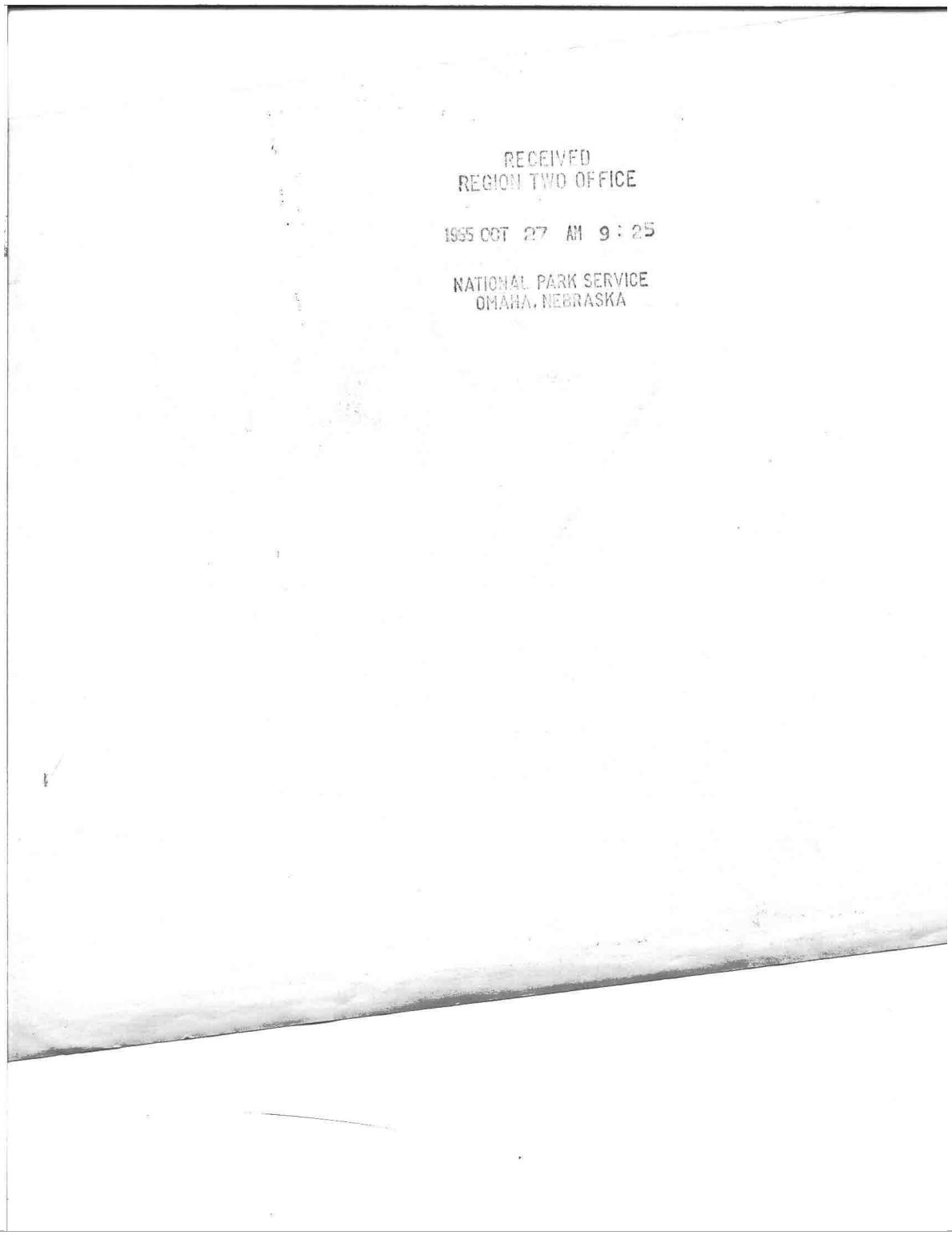
A hearing will be held on this request for extension of time before the State Engineer at 403 State Capitol, Salt Lake City, Utah, at the hour of 2:00 p. m. September 15, 1955. Protestants may appear at the hearing and adduce testimony in support of their protests.

JOSEPH M. TRACY
STATE ENGINEER

"Published in the Vernal Express, Vernal, Ut. from July 28 to Aug. 11, 1955."

REC'D IN GEN. FILES OCT 31 1955

10-27-1955: receival stamp



NOTICE TO WATER USERS

The following applications have been filed with the State Engineer to change or appropriate water in Uintah County, State of Utah, throughout the entire year unless otherwise designated. All locations are in SLB&M, unless otherwise designated.

To Change:

a-3690—San Francisco Chemical Co., Drawer F. Montpelier. Ida. proposes to change the point of diversion of 13 sec.-ft. of water initiated by Application No. 23384. The water was to have been diverted from a well at a point N. 55 degrees 12' E. 1007 ft. from S¼ Cor. Sec. 29, T2S, R22E, and used for domestic purposes, processing phosphatic minerals, and irrigation of 113.7 acres, all uses in Lot 2, Sec. 5, Secs. 31, 32, T2S, R22E.

Hereafter, 13 sec.-ft. will be diverted from five wells at the following points: (1) 12 and 16-in. well, 630 ft. deep—N. 55 degrees 12' E. 1007 ft. from S¼ Cor. Sec. 29; (2) 24-in. bet. 1500 and 2500 ft. deep—N. 05 degrees 00' E. 3460 ft. from SW Cor. Sec. 32, both in T2S, R22E; (3) 24-in. bet. 1500 and 2500 ft. deep—N. 4435 ft. from SE Cor. Sec. 36, T2S, R21E; (4) 24-in. bet. 1500 and 2500 ft. deep—N. 960 ft. and E. 750 ft. from SW Cor. Sec. 32; (5) 24-in. bet. 1500 and 2500 ft. deep—N. 3700 ft. and E. 2480 ft. from SW Cor. Sec. 31, both in T2S, R22E. The water will be conveyed from the wells to a 6,000,000 gal. equalizing reservoir and used for the domestic requirements of 100 families, 500 employees, and processing phosphatic minerals, and from Apr. 1 to Nov. 1 to irrigate 113.7 acres in Lot 2, Sec. 5, T3S, R22E, Secs. 31, 32, T2S, R22E.

Cor. Sec. 20, T4S, R21E. The water is to be used for the domestic requirements of one family, for the watering of 10 cows, 10 sheep and 2 horses, and from Apr. 1 to Oct. 31 to irrigate 1.33 acres, all uses in SE¼SE¼NE¼, NE¼NE¼-SE¼ said Sec. 20.

31415— Ethel M. Palmer, RFD No. 1, Vernal, Ut. 1 sec.-ft. from a 6-in. well, bet. 20 and 50 ft. deep at a point N. 460 ft. and E. 41 ft. from W¼ Cor. Sec. 16, T4S, R21E. The water is to be used for the domestic requirements of two families, for the watering of 30 cattle and 200 sheep, and from Apr. 1 to Nov. 15 to irrigate 18 acres, all uses in S½-NW¼ said Sec. 16.

31497—DeKalb Agricultural Assn., Inc., Box 523, Vernal, Ut. .0256 sec.-ft. from a well at a point S. 660 ft. and W. 660 ft. from NE Cor. Sec. 4, T10S, R22E. The water will be conveyed to an equalizing reservoir having a capacity of 3 ac.-ft., the height of dam being 4½ ft., inundating 1.6 acres in SW¼NE¼NE¼ said Sec. 4. The water is to be used for oil and gas well drilling in Secs. 29 to 34 incl., T9S, R22E, Secs. 3 to 6 incl., 8, 10, T10S, R22E.

31534—Eugene R. McLean, R No. 1, Vernal, Ut. .1 sec.-ft. from a 1½-in. well 25 ft. deep at a point S. 1591 ft. and W. 375 ft. from NE Cor. Sec. 7, T4S, R21E. The water is to be used from Apr. 15 to Oct. 30 to irrigate 1 acre in NE¼SE¼NE¼ said Sec. 7.

31535—Eugene R. McLean, RFD No. 1, Vernal, Ut. .1 sec-ft. from a 1½-in. well, 25 ft. deep at a point S. 1657 ft. and W. 151 ft. from NE Cor. Sec. 7, T4S, R21E. The water is to be used from Apr. 15 to Oct. 30 to irrigate ½ acre in NE¼SE¼NE¼ said Sec. 7.

To Appropriate:

29871 — United States of America, Dept. of the Interior for Dinosaur National Monument, % Director, National Park Service, Washington 25, D. C., .111 sec.-ft. from Subsurface flow of Green River, trib. to Colo. River at a point S. 37 degrees 52' 40" E. 1038.-9 3ft. from NW Cor. Sec. 35, T4S, R23E. The water will be diverted from a 24-in. diameter dug well bet. 0 and 30 ft. deep and conveyed through pipe line for the domestic requirements of 24 families, 10,000 visitors, fire protection, sanitation, and irrigation of 2 acres in Dinosaur National Monument.

31354—Lorenzo S. and Wilda T. Samuels, Route 2, Vernal, Ut. .1 sec.-ft. from a 4-in. well bet. 20 and 150 ft. deep at a point N. 99 ft. and W. 370.4 ft. from S¼ Cor. Sec. 22, T4S, R21E. The water is to be used from Apr. 15 to Oct. 15 to irrigate 1 acre in SW¼SE¼SW¼ SE¼SW¼-SW¼ said Sec. 22.

31369—LeGrande Hadlock, Box 178—Vernal, Ut. .015 sec.-ft. from a 6-in. well bet. 30 and 40 ft. deep at a point N. 99 ft. and W. 2351.50 ft. from E¼ Cor. Sec. 28, T4S, R21E. The water is to be used for the domestic requirements of one family in SW¼SW¼-SE¼ said Sec. 28.

31371—Elmer Lind, RFD No. 1, Vernal, Ut. .10 sec.-ft. from a 2-in. well, 26 ft. deep at a point S. 1747 ft. and E. 45 ft. from N¼ Cor. Sec. 17, T4S, R21E. The water is to be used for the domestic requirements of 2 families, for the watering of 50 sheep and 2 cows, and from Apr. 15 to Nov. 15 to irrigate 3 acres, all uses in W½SW¼NE¼ said Sec. 17.

31385—Adrian R. Kump, Lapoint, Ut. .015 sec.-ft. from a 6-in. well, bet. 50 and 100 ft. deep at a point N. 75 ft. and W. 405 ft. from S¼ Cor. Sec. 8, T1S, R2E, USB&M. The water will be used for the domestic requirements of one family, and from Apr. 1 to Oct. 31 to irrigate ¼ acre, all uses in SE¼SE¼SW¼ said Sec. 8.

31392—Dan L. Oaks, P. O. Box 372, Vernal, Ut. .1 sec.-ft. from a 7-in. well bet. 20 and 30 ft. deep at a point N. 22 ft. and W. 230 ft. from E¼

31826—Lawrence Adams, Route No. 1, Vernal, Ut. .1 sec.-ft. from a 1½-in. well, 24 ft. deep at a point S. 1676 ft. and W. 169 ft. from NE Cor. Sec. 7, T4S, R21E. The water is to be used for the domestic requirements of one family, and from Apr. 15 to Oct. 30 to irrigate .5 acre, all uses in NE¼SE¼NE¼ said Sec. 7.

31810—D. Glen Davidson, Rt. 1, Box 487, Vernal, Ut. .015 sec.-ft. from a 6-in. well, bet. 30 and 100 ft. deep at a point N. 1359 ft. and W. 160 ft. from E¼ Cor. Sec. 11, T4S, R21E. The water will be used for the domestic requirements of one family, and from Apr. 1 to Oct. 31 to irrigate ½ acre, all uses in SE¼NE¼NE¼ said Sec. 11.

31812—Reed G. Bills, 2850 So. 20th East, Salt Lake City, Ut. .01 sec.-ft. from an unnamed spring at a point N. 100 ft. and E. 3050 ft. from SW Cor. Sec. 9, T1S, R21E. The water is to be used from May 1 to Nov. 1 for the domestic requirements of 4 persons, and for mining and milling of ore, all uses in E½NW¼ Sec. 16, T1S, R21E.

Protests resisting the granting of any of the foregoing applications with reasons therefor, must be filed in duplicate with the State Engineer, 403 State Capitol, Salt Lake City 14, Utah, on or before June 11, 1960.

WAYNE D. CRIDDLE
State Engineer.

Published in Vernal Express, Vernal, Utah, from April 28 to May 12, 1960.

L 54

RECEIVED
Chief Clerk's Office
NATIONAL PARK SERVICE
1955 SEP 23 AM 8:54

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
SALT LAKE CITY

September 20, 1955

Price

United States of America
Department of the Interior
National Parks Service
Washington 25 D. C.

ATTENTION: A. van V. Dunn, Chief, Water Branch

Gentlemen: RE: APPLICATION 13209

Request for Extension of Time in which to submit Proof of Appropriation or Proof of Change contemplated by the above application has been considered and the time for receiving proof is hereby extended from January 6, 1955 to January 1, 1960, inclusive.

Yours truly,
Joseph M. Tracy

Joseph M. Tracy
STATE ENGINEER
403 STATE CAPITOL
SALT LAKE CITY 1
UTAH

ADDRESS ALL COMMUNICATIONS TO:

le

EXTENSION GRANTED

P. S. Although this extension is granted in accordance with the provisions of the law, I earnestly recommend that you proceed to prepare and submit proof at the earliest possible date. One cannot foresee what contingencies might arise in the future; the present possession of your certificate might stand you in good stead.

00-00-0000: in the office of the state engineer of the state of utah request for extension of time

IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF UTAH

REQUEST FOR EXTENSION OF TIME
(After Fourteen Years)

APPLICATION NO. 13209

[redacted] CITY OF WASHINGTON
[redacted] DISTRICT OF COLUMBIA } ss.
COUNTY OF

A. van V. Dunn, being first duly sworn says that he is [redacted] the agent of the owner of the above numbered Application; that he knows of his own knowledge that the construction of works as contemplated by the Application was actually commenced within 1 months after the date of approval of the Application, and the work has since been prosecuted with diligence.

The nature, extent and approximate cost of construction work done to this date, together with a detailed statement of use to which the water has been put, is as follows: (Describe briefly the type and extent of construction, whether

In accordance with Application No. 13209, a spring, N. 24°38' W 2740 ft. from S¼ Cor. Sec. 26, T. 4 S., R. 23 E., SLM, was developed and diverted to 500 gal. dist. reservoir by 716 ft. of 1" G.I. pipe about 1934 at cost of about $2,000 as temporary water supply for Quarry Headquarters of Dinosaur National Monument, as established by proclamation of October 4, 1915 (39 Stat. 1752).
The surface spring flow was inadequate for headquarters of Monument as enlarged by proclamation of July 14, 1938 (53 Stat. 2454). To comply with state water laws and provide additional water, Application No. 13209 was filed to claim waters of a spring area including said spring, and to establish the right to divert such water before it emerged on the surface. Said application designated a test well as tentative point of diversion N. 28°10' W. 2814 ft. from said S¼ Cor. Sec. 26; and described the spring area as beginning N. 23°39' E. 2729.45 ft. from said S¼ Cor. Sec. 26; thence N. 4°43' W. 150 ft.; thence S. 85°17' W. 350 ft.; thence S. 4°43' E. 200 ft.; thence N. 85°17' E. 350 ft.; and thence N. 4°43' W. 50 ft. to point of beginning. Part of the ties and courses were erroneously described and corrected before Application 13209 was accepted but the point of beginning was not properly corrected, thus describing a spring area approximately 0.5 mile east of spring and test well. Request is hereby made that the description of said spring area be corrected to begin at point N. 23°39' W. 2729.45 ft. from said S¼ Cor. Sec. 26. Both correct and incorrect locations of spring area are within homogenous tract of Federal land within Dinosaur National Monument and drain to Green River with no intervening private land.
Said test well No. 1 was dug to depth of 73 ft. from surface elevation 5190 with approximately 110 ft. of horizontal, exploratory tunnelling at the bottom, all completed about July 1, 1952, at cost of $2,500. Water was found in tilted, coarse sandstone 55 ft. north of shaft, yielding only about the same flow of 0.01 sec.ft. available at the original spring, and reduced the spring flow to practically zero during pumping. #1 well
To explore the tilting aquifer at a lower depth, and simplify drilling, a new well site, No. 2, was selected N. 28°24' W. 2802 ft. from said S¼ Cor. Sec. 26, and about 20 ft. from well No. 1. Pending further drilling, a concrete collecting sump was provided at aforesaid spring and the 1" pipe was replaced with 2" G.I. pipe at approximate cost of $1,700. #2 well
Due to wartime limitations, the test well No. 2 was deferred until 1951. In that year, the well was drilled to depth of 168 ft. from surface elevation 5160, cased with 42' of 8" and 65' of 6" pipe, and bailed at 10 gpm, or 0.022 sec.ft. by Garnett Birchall, who is reported to be a licensed well driller, at a cost of $1,332.69.
1952 Project 48W included spring flow diverted and used and satisfactory well No. 2, not connected to system, at total cost of about $7,533.

The nature, extent and estimated cost of construction remaining to be done to complete the work in accordance with the Application follows: (Describe with same details as required last above.) Install pump and power unit at well No. 2 to provide 15 gpm capacity; construct 100,000 gallon distribution reservoir; and replace existing pipes with approximately 1500 ft. of 4" pipe, at total cost of approximately $15,000; and to complete proposed public and employee accommodations to permit the use of said water.

Request is made for an extension of time for filing proof January 6 , 1955 to January 1 , 1960. (Last date ubmitting proof cannot exceed 50 years from date of approval of ation.) Reasons why extensions should be granted are: (Give reasons ork could not be completed and the water put to beneficial use within the time heretofore allowed and why conditions now the completion of the works and filing of proof within the time requested. Be specific in statement.

s and Bureau of the Budget have repeatedly reduced requested annual iations for construction in national parks and monuments since 1942 as war d post-war economy measures. Appropriations for fiscal year 1955 and budget cal year 1956 are already fixed for same reasons, with no provision for roject, although annual visting public served by water system has increased 133 in 1941 to 65,996 in 1954. Although emergency budget request is being ed for 1956 fiscal year, full construction and use cannot be anticipated about 1960.

Affiant upon oath states that he or the owner of the Applica- whom he represents, has a bona fide intention and the financial ty to complete the works and to apply the water to beneficial as provided in the Application, within the period of extension sted. ~~$15.00~~ Not $ 20.00 is tendered herewith for publishing notice to water s, The charge will be paid on receipt of bill after publication State Engineer's letter of December 28, 1954.

A. van V. Dunn
Chief, Water Resources Section — A.van V. Dunn, Applicant
National Park Service
(If applicant is a corporation, specify the title of the officer making the affidavit and affix corporate seal.)

Subscribed and sworn to before me this 3rd day of January 1955

Notary Public, D. C. — Notary Public
My Commission Expires November 14, 1956

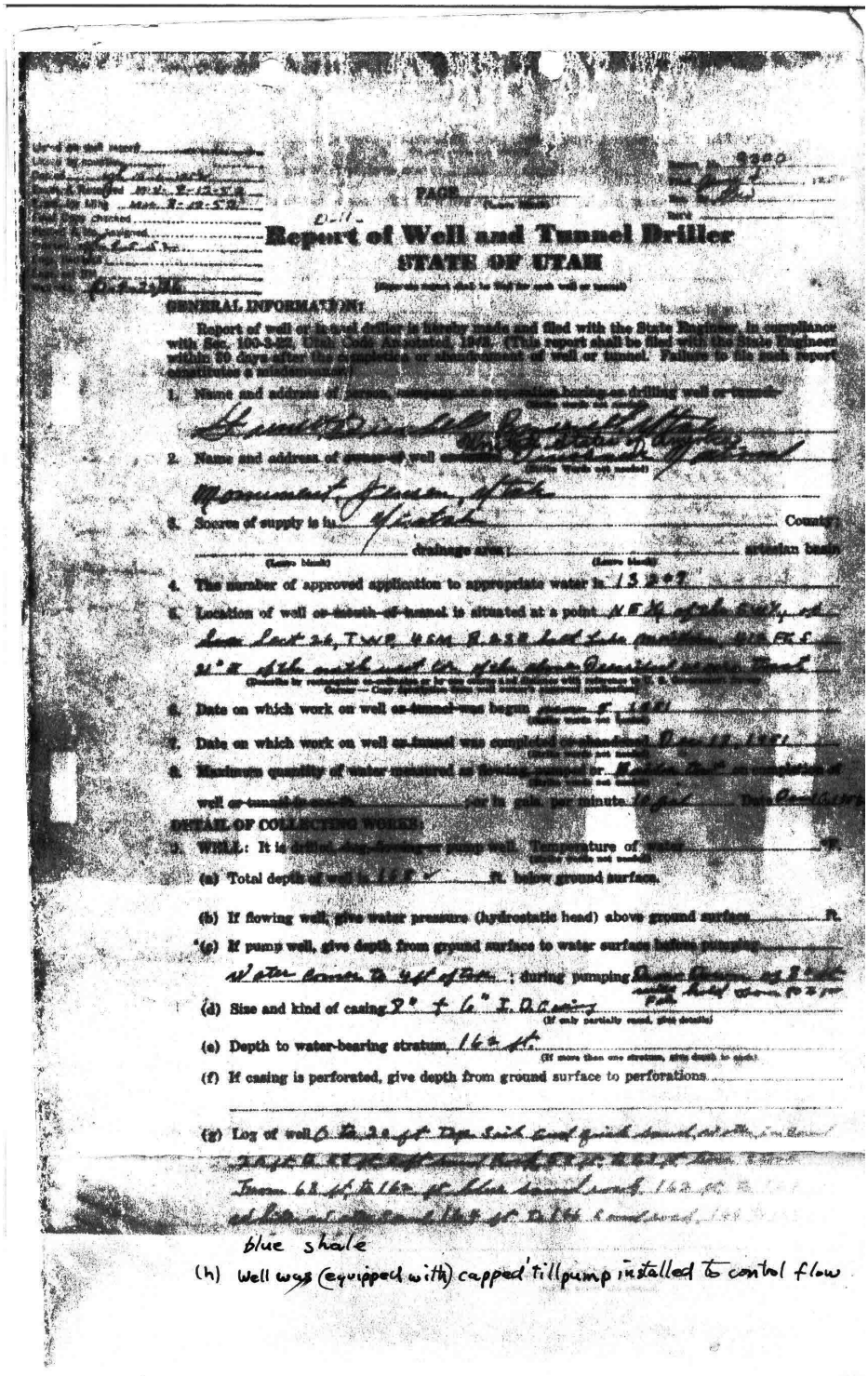
NOT TO BE FILLED IN BY APPLICANT

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0 year period ends Adv. fee ~~$15.00~~ $20.00 Recd. by Receipt No.
earing set for at
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Extension protested by

Request for extension approved / rejected ; time for submitting proof reby extended from to and including

STATE ENGINEER

00-00-0000: report of well and tunnel driller state of utah



Report of Well and Tunnel Driller
STATE OF UTAH

GENERAL INFORMATION:

Report of well or tunnel driller is hereby made and filed with the State Engineer, in compliance with Sec. 100-3-20, U.C.A. 1943. This report shall be filed with the State Engineer within 30 days after the completion of well or tunnel. Failure to file such report constitutes a misdemeanor.

1. Name and address of person, company or corporation drilling well or tunnel:

2. Name and address of owner of well or tunnel:

Monument, Grant, Utah

3. Source of supply is in Artesian County
(Name basin) drainage area; (Name basin) artesian basin

4. The number of approved application to appropriate water is 13207

5. Location of well or tunnel is situated at a point N E ¼ of the S W ¼, of Sec. Lot 24, T 19 S R 25 E S L B & M, which point is 1320 Ft S 21° E of the north west cor. of the above described tract.

6. Date on which work on well or tunnel was begun January 6 1951

7. Date on which work on well or tunnel was completed January 12 1951

8. Maximum quantity of water encountered or developed or flowing or pumped or bailed from well or tunnel [illegible] gallons per minute. Date of test

DETAIL OF COLLECTING WORKS:

9. WELL: It is drilled, dug, driven or bored well. Temperature of water [illegible]

(a) Total depth of well is 165 ft. below ground surface.

(b) If flowing well, give water pressure (hydrostatic head) above ground surface ft.

(c) If pump well, give depth from ground surface to water surface before pumping

Water dropped to 40 ft. ; during pumping

(d) Size and kind of casing 8" to 6" I.D. casing
(If only partially cased, give details)

(e) Depth to water-bearing stratum, 160 ft.
(If more than one stratum, state depth to each)

(f) If casing is perforated, give depth from ground surface to perforations

(g) Log of well 0 to 20 ft. Top soil and gravel

20 ft. to 63 ft. Sand

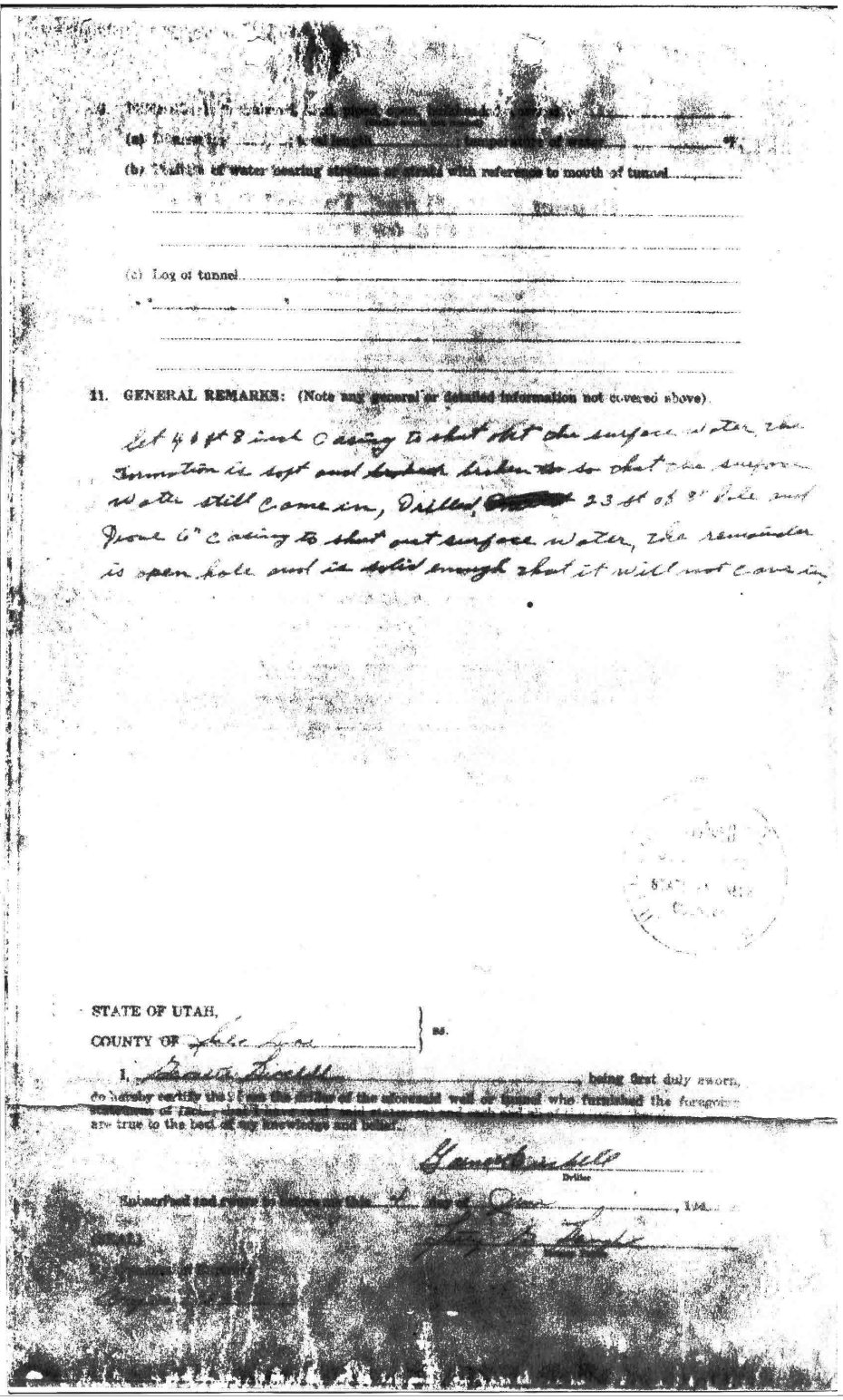
From 63 ft. to 160 ft. blue shale

and 160 ft. to 165 ft. sand

blue shale

(h) Well was (equipped with) capped till pump installed to control flow

00-00-0000: report of well and tunnel driller state of utah cont.



(b) [illegible] of water bearing [illegible] encountered with reference to mouth of tunnel.....

(c) Log of tunnel.....

11. GENERAL REMARKS: (Note any general or detailed information not covered above).

Set 4 ft 8 inch Casing to shut out the surface water, the formation is soft and broken so that the surface water still Come in, Drilled [redacted] 33 ft of 8" hole and drove 6" Casing to shut out surface water, the remainder is open hole and is solid enough that it will not cave in

STATE OF UTAH,
COUNTY OF [illegible] } ss.

I, [illegible], being first duly sworn, do hereby certify that I am the driller of the aforesaid well or tunnel who furnished the foregoing statement of facts, and that the statements therein are true to the best of my knowledge and belief.

[illegible]
Driller

Subscribed and sworn to before me this [illegible] day of [illegible], 194..

[illegible]

00-00-0000: request for extension of time

Form L25 3M 7-43

Memorandum dated 3. File

IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF UTAH

REQUEST FOR ~~REINSTATEMENT AND~~ EXTENSION OF TIME
(Strike words not needed)
(Before Fourteen Years)

Dem. 660-05.7
(See DO memo to RO dated 1-3-48 filed Dem 660-05.7)

APPLICATION NO. 13209

~~CITY OF WASHINGTON~~
~~STATE OF UTAH~~
~~COUNTY OF~~ DISTRICT OF COLUMBIA) ss

A. van V. Dunn, being first duly sworn says that he is ~~the owner~~ the agent of the owner of the above numbered Application; that he knows of his own knowledge that the construction of works as contemplated by the Application was actually ~~commenced~~ within ~~6~~ one month~~s~~ after the date of approval of the Application, and that the work has since been prosecuted with diligence.

The nature, extent and approximate cost of construction work done to this date, together with a detailed statement of use to which the water has been put, is as follows: (Describe briefly the type and extent of construction, whether impounding or diversion dam, or diverting channels and give the cost of construction. Indicate what part of the water, if any, covered by this Application has been put to beneficial use, the number of acres irrigated, etc. Mere statement as to general character of works, costs and use will not answer,—give details sufficient for one to determine what has actually been done.)

Construction is approximately at the stage described in the application for extension of time by George W. Fry, Acting Superintendent of Rocky Mountain National Park, subscribed December 2, 1942. Work has been suspended during the war and the recent postwar period, because the United States has had to direct all of its resources toward the war effort, the alleviation of the national housing shortage, and the stabilization of the national economy.

Some features of the development are being resumed during the current fiscal year, and extensive appropriations have been included in the budget for 1950.

The nature, extent and estimated cost of construction remaining to be done to complete the work in accordance with the Application follows: (Describe with same details as required last above.)

The required additional work is approximately as described in the application for extension of time in 1942.

(OVER)

Request is made for reinstatement and extension of time for filing
(Strike words not needed)
proof from December 25 , 1948 , to December 25, , 19 55 . Reasons why extensions should be granted are: (Give reasons why the work could not be completed and the water put to beneficial use within the time heretofore allowed and why conditions now will permit the completion of the works and filing of proof within the time requested. Be specific in statement.)

The need for the completion of the water system is real. The accommodations for the public, and for the resident Federal employees, are inadequate, and cannot be extensively improved until the water supply, with better head and better regulatory storage, is provided. The war, and subsequent national social and economic conditions, which are beyond the control of the National Park Service, have prevented such essential action.

Affiant upon oath states that he or the owner of the Application, whom he represents, has a bona fide intention and the financial ability to complete the works and to apply the water to beneficial use as provided in the Application, within the period of extension requested. ~~A filing fee of $1.00 is tendered herewith.~~ United States of America, Department of the Interior, National Park Service,

By: (Sgd) A. van V. Dunn.

Chief, Water Resources Branch Applicant

(If a corporation, specify the title of the officer making the affidavit and affix corporate seal)

Subscribed and sworn to before me this 2nd day of November, 1948.
19

(SEAL)

(Sgd) Lorin A. Davis
Notary Public

My commission expires Nov. 14, 1951.

NOT TO BE FILLED IN BY APPLICANT

Application No._____ Request due_____ Recd._____
Applicant_____ Filing fee $1.00 Recd._____ by____
Source_____ Receipt No._____
14 year period ends_____

Request for extension approved / rejected ; time for submitting proof is hereby extended from_____ to and including_____

_____ _____
Date STATE ENGINEER

11-12-1948: entension granted

C
O
P
Y

THE STATE OF UTAH
Office of State Engineer
Salt Lake City

November 12, 1948

EXTENSION GRANTED

U. S. National Park Service
Department of the Interior
Washington 25, D. C.

Dear Sir: RE: EXT. GRANTED APPLICATION NO. 13209

This will acknowledge receipt of your request of November 2, 1948 for Extension of Time in which to submit Proof of Appropriation or Proof of Change contemplated by Application No. 13209.

The matter has been considered and the time for submitting proof has been extended from December 25, 1948 to December 25, 1953 inclusive.

Yours very truly,

/s/ Ed. H. Watson

STATE ENGINEER
403 STATE CAPITOL
SALT LAKE CITY, UTAH

COPY

Form L21 1000 6-24-41 The Times

THE STATE OF UTAH

OFFICE OF STATE ENGINEER
SALT LAKE CITY

December 1, 1942.

PROOF DUE

Mr. U.S.National Park Service
Water Rights Section
601 Sheldon Building
San Francisco, Calif.

Dear Sir: REL: APPLICATION NO. 13209

Proof as contemplated by Application No. 13209 will be due February 5, 1943. Such proof, together with maps, profiles and drawings and the statutory filing fees, must be received in this office on or before that date. "Failure to make proof of appropriation or proof of change of the water on or before the date set therefor, shall cause the Application to lapse." (Section 100-3-17, Revised Statutes of Utah, 1933, as amended by Chapter 130, Laws of Utah, 1937). Blank forms upon which proof must be submitted and a copy of the Rules and Regulations will be sent upon request. Upon receipt of the proof it will receive an office examination after which a field inspection will follow.

An extension of time for filing proof will be granted only upon the filing of a written request for extension made in affidavit form, showing diligence or a reasonable cause for delay and containing the following information:

1. Whether or not actual construction work was begun within 6 months of the date of approval of Application and prosecuted until this time with diligence.
2. Amount of work done to date and approximate cost.
3. Amount of work remaining to be done and its estimated cost.
4. Reason for extension, and time desired.

Filing fee of $1.00 must accompany each request.

Yours very truly,

/s/ Ed. H. Watson

ADDRESS ALL COMMUNICATIONS TO:
BA
enc.: fl-25
(REGISTER)

STATE ENGINEER
403 STATE CAPITOL
SALT LAKE CITY, UTAH

00-00-0000: proof of publication

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION TWO
OMAHA, NEBRASKA

Address Reply To
Regional Director, Region Two
National Park Service

PROOF OF PUBLICATION

Pinosaur - Deed 3

STATE OF UTAH,
County of Uintah } ss.

I, Mable G Goodrich, being duly sworn, depose and say, that I am the Business Manager of **The Vernal Express**, a weekly newspaper of general circulation, published once each week at Vernal, Utah, that the notice attached hereto was published in said newspaper for 5 consecutive weeks, the first publication having been made on the 18 day of April, 1940 and the last on the 16 day of May, 1940, that said notice was published in the regular and entire issue of every number of the paper during the period and times of publication, and the same was published in the newspaper proper and not in a supplement

By Mable G Goodrich, Manager.

Subscribed and sworn to before me, this 16 day of May A. D. 1940

Wm B Wallis
Notary Public Residence, Vernal, Utah.

My Commission expires .....

NOTICE TO WATER USERS

The U. S. Dinosaur National Monument, Jensen, Utah, has filed Application No. 12369 to appropriate 0.02 sec. ft. of water (9 g. p. m.) from a spring area in Uintah county, described as follows: Beginning at a point N. 23 deg. 39 min East 2729.45 ft from the S¼ cor. Sec. 28 Twp 4 S., R 22 E., SLB & M and running th N 4 deg 43 min W 150 ft S 85 deg 17 min W 350 ft S 4 deg 43 min E 300 ft N 85 deg 17 min E 350 ft and N. 4 deg 43 min W 150 ft to beginning. The water will be collected during the entire year at a point N 28 deg 10 min W 2814 ft from said S¼ cor Sec. 28, conveyed by gravity and pumping and used for domestic purposes at the Dinosaur National Monument.

Protests resisting the granting of this Application must be in affidavit form with extra copy and filed with T. H. Humpherys, State Engineer, 402 State Capitol, Salt Lake City, with a fee of $1 on or before June 15, 1940.

T. H. HUMPHERYS, state engineer
First publication date, April 18th;
Last publication, May 16, 1940.

Form F-b—4-10-38—1M

Application No. 13209

Application to Appropriate Water for Domestic and Municipal Purposes
STATE OF UTAH

Do not fill out this blank until you have read carefully and thoroughly understand the Rules and Regulations on the back hereof and all the notes in the body of it.

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, for domestic and municipal purposes, Application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

NOTE—The information given in the following blanks should be free from explanatory matter, but when necessary a complete supplementary statement should be made on the following page under the heading "Explanatory."

1. *The name of the applicant is* The United States of America
2. *The post-office address of the applicant is* Dinosaur National Monument, Jensen, Utah, c/o Coordinating Superintendent, Rocky Mountain National Park, Estes Park, Colorado.
3. *The flow of water to be appropriated, in second-feet, is* 0.02.
4. *The quantity of water to be appropriated, in acre-feet, is* -- (See note on following page)
5. *The water is to be used each year from* January 1 (Month) (Day) *to* December 31 (Month) (Day) *incl.*
6. *The water is to be stored each year from* -- (Month) -- (Day) *to* -- (Month) -- (Day) *incl.*
7. *The drainage area to which the direct source of supply belongs is* Green River (Leave blank)
8. *The direct source of supply is†* a spring/ ~~and underground water~~ area tributary to Green River (Name of stream or other source)

which is tributary to ....., *tributary to* .....

†NOTE—Where water is to be diverted from a well or a tunnel, the source should be designated as "Underground Water" in the first space and the remaining spaces should be left blank. If the source is a stream, a spring, a spring area, or a drain, so indicate in the first space, giving its name, if named, and in the remaining spaces, designate the stream channels to which it is tributary, **even though the water may sink, evaporate, or be diverted before reaching said channels.** If water from a spring flows in a natural surface channel before being diverted, the direct source should be designated as a stream and not a spring.

9. *The* ~~point of diversion from stream, spring~~, *spring area,* ~~drain, well (flowing or pump), tunnel, or~~ *is in* Uintah *county, situated at a point** / ~~at a spring whence~~ N 28° 10' W 2814 ft. from the S¼ corner of Section 26, T 4 S, R 23 E, Salt Lake Meridian. ~~bears S 24-38 E 2746 feet.~~

*NOTE—The point of diversion must be located definitely by course and distance or by rectangular distances with reference to some United States land corner or United States mineral monument, if within a distance of six miles of either, or if a greater distance, to some prominent and permanent natural object. (Also see note at top of following page.)
No Application will be received in which the point of diversion is not described definitely. Any change made in this description after Application is received and before approved will bring down the priority of Application to the date when the amendment is made of record in the State Engineer's office.

10. *The diverting and carrying works will consist of* a/ tunnel type ~~small concrete~~ collecting gallery / Diversion Point ~~spring, and GI~~ pipe from sump to place of use. A pump and distribution reservoir will serve proposed museum and provide fire protection.
11. *The cross section of the diverting channel will be* ☐ ☒ ○ (Strike out ones not needed)
12. *The diverting works and diverting channel will be constructed of* ~~earth, wood~~, *iron, concrete.* (Strike out words not needed)
13. *The length of the diverting channel, exclusive of laterals, will be* ~~999~~ 1600 *feet*
14. *The top width of the diverting channel will be (if a ditch)* -- *feet*
15. *The bottom width of the diverting channel will be (if a ditch)* -- *feet*
16. *The depth of water in the channel will be (if a ditch)* -- *feet*
17. *The width of the diverting channel will be (if a flume)* -- *feet*
18. *The depth of water in the diverting channel will be (if a flume)* -- *feet*
19. *The diameter of the diverting channel will be (if a pipe)* ~~2~~ 4 *inches*
20. *The grade of the diverting channel will be* (control) 20 *feet per thousand*

EXPLANATORY

NOTE—Paragraph 4 on page 1 must not be used except when storage is contemplated; in such case Paragraph 5 should indicate the time in each year during which the water will be released and used. The lands to be inundated by the reservoir must be described in the space below this note as nearly as may be and by government subdivisions if upon surveyed land, and the area of the reservoir when at full stage should be given in acres.

If the reservoir is located on the channel of the source from which the water is to be appropriated, it should be so stated in the space below, and—

1. The location of the impounding dam should be described in Paragraph 9.
2. The point where the released storage will be rediverted from the natural stream should be described below in accordance with the note under Paragraph 9.

When water is not stored in the natural channel of the source from which it is to be appropriated, it should be so stated in the space below, and—

1. The point of diversion from the supplying source should be described in Paragraph 9.
2. The center of the impounding dam and the point where the released storage will be rediverted from a natural channel should be described below in accordance with the note under Paragraph 9.

In all cases Paragraphs 10 to 20, incl., should describe the entire diverting works, exclusive of natural channels and laterals, even if already constructed in whole or in part.

If Application is made for the water of a number of springs, or other sources, collected at a common point, said point should be described as the point of diversion in Paragraph 9, and the point of diversion from each source should also be described below, in accordance with the note in Paragraph 9. The quantity of water sought from each source should be indicated below, the total equaling the quantity specified in Paragraphs 3 or 4. Where the source of supply is in reality a spring area, the point of diversion is the point where the water is collected; in such case the exterior boundary of the spring area must be described below by metes and bounds and located with reference to a point as outlined by the note under Paragraph 9.

The following additional facts are set forth in order to define more clearly the full purpose of the proposed appropriation:

at a spring N 24°38' W 2746 ft. from said S¼ corner Section 26
The diversion by temporary 1-inch pipe, has been in use for more than six years to provide domestic and sanitary facilities for the custodian, a crew of archaeological assistants and the visiting public in the SW¼ of said Section 26, SE¼ of Section 27, and NW¼ Section 35 of same township and range lying north of Green River.

An increase of 100% in monument attendance during the past three years has brought the peak water demand to full pipe capacity, of 90% of the 0.01 sec.ft. spring flow and floods in the canyon have threatened to pollute the spring. The plans for a museum and other additional developments also require extensions and enlargement of the water system.

An exploratory shaft, on the rim of the canyon, has been sunk at a point ~~whence said S¼ corner of Section 26 bears S 28-10 E 2814 feet.~~ of diversion described in paragraph 9 preceding page N 28°10' W 2814 feet from ~~Pumping out this shaft has~~ at existing 1-inch pipe diversion described first in this explanation stopped the natural spring flow, proving identity of source of supply and indicating availability of larger quantity (approximately 0.02 second feet) by further development of the layer of water-bearing sandstone by tunnels drifted from said exploratory shaft at point of diversion in Paragraph 9.

This application is, therefore, for 0.02 second feet of water at point of diversion ~~collection at said exploratory shaft, as described in Paragraph 9, page 1,~~ from a spring area beginning at a point N 85°17'E 350 feet from said S¼ corner Section 26 ~~diversion~~, thence N 4°43'W 150 feet, thence S 85°17'W 350 feet, thence S 4°43'E 200 feet, thence N 85°17'E 350 feet, and thence N 4°43'W 50 feet to the point of beginning; said area to be developed by tunnels or collecting galleries along the line of water-bearing rock, 6.5 ft. high, 6 feet wide, and totalling 100 feet in length to provide 30,000± gallon collecting capacity. A 4-inch GI pipe, from said exploratory shaft, and 775 feet long, will provide gravity supply to main place of use to south. A pump (30± gpm capacity) will deliver part of the water to concrete reservoir of 20,000 gallon capacity near proposed museum by 800 feet of 4-inch GI lateral serving also for fire protection distribution.

The water is used for domestic purposes in the residences and offices of the custodian and other permanent employees, and in camps of construction, maintenance and archaeological crews; for the normal purposes in machine shops, garages and a blacksmith shop; for the sanitary facilities in public comfort stations; and for fire protection. Any limited picnicking, restaurant facilities, or camping will be secondary to preceding operating and administrative needs which are expected to require total available water supply.

STATE OF UTAH, }
County of..... } ss.

Personally appeared before me, a notary public for the State of Utah, the above applicant who, on oath, declared that he is a citizen of the United States.

My commission expires .....
(Seal) *Notary Public.*

00-00-0000: application to appropriate water for domestic and municipal purposes cont. state engineer's endorsements

(This page is not to be filled in by applicant)

State Engineer's Endorsements

9 A.M.

1. Jan. 2, 1940 *Application received* ~~over counter~~ / *by mail* *in State Engineer's office by* W.B.N.
2. ..... *Priority of Application brought down to, on account of* .....
3. Jan. 5, 1940 Voucher signed and returned - $2.50 W.N.W. Jan. 12, 1940 *Fee for filing Application,* $2.50 *, received by* E.R.B. Rec. # 595
4. Jan. 10, 1940 *Application copied in book* D-11 *, page* 310 *, and indexed by* J.M.C.
5. Feb. 23, 1940 *Application platted by* J.W.F.
6. Jan. 15,1940 *Application examined by* J.W.F.
7. Jan. 15, 1940 *Application returned, with letter, to* D. H. Canfield *for correction*
8. Feb. 23,1940 *Corrected Application resubmitted* ~~over counter~~ / *by mail* *to State Engineer's office.*
9. Feb. 26,1940 *Fee for publishing notice requested.*
10. April 4, 1940 *Fee for publishing notice,* $15.00 *, received by* E.R.B. Rec. # 712
11. Feb. 23, 1940 *Application approved for advertisement by* J.W.F. T.H.H.
12. April 10, 1940 *Notice to water users prepared by* J.W.F.
13. April 18, 1940 *Publication began; was completed* May 16, 1940
    Notice published in Vernal Express
14. April 20, 1940 *Proof slips checked by* JWF - VN
15. ~~March 23, 1940~~ *Application protested by* .....
16. Nov. 23, 1940 *Application designated for* *approval* / ~~rejection~~ *by* JWF THH
17. Nov. 23, 1940 *Fee for approving Application requested*
18. Jan. 2, 1941 Signed Voucher returned, Dec. 2, 1940 ERB *Fee for approving Application,* $2.50, *received by* ERB Record # 4242
19. January 6, 1941 *Application proofread by* MS & McT
20. January 6, 1941 *Application* *approved* / ~~rejected~~ *and returned to applicant*

This Application is approved, subject to prior rights, if any, on the following conditions:

1. *Actual construction work shall begin within six months from date of approval.*
2. *Proof of Appropriation shall be submitted to the State Engineer's office by* December 25, 1942.
3. Subject to existing rights.

/s/ T H Humpherys
State Engineer.

21. ..... *Time for making Proof of Appropriation extended to* .....
22. ..... *Proof of Appropriation submitted.*
23. ..... *Fee for filing Proof of Appropriation,* $1.00, *received by* .....
24. ..... *Fee for filing maps, profiles and drawings,* $5.00, *received by* .....
25. ..... *Fee for issuing Certificate of Appropriation,* $1.00, *received by* .....
26. ..... *Certificate of Appropriation, No.* ....., *issued*

I hereby certify that the foregoing is a true copy of the Application by ..... to appropriate water and of the endorsements thereon as shown by the records of my office on the date given below.

Salt Lake City, Utah ....., 19..... .....
State Engineer.

Application No. 13209

00-00-0000: application to appropriate water for domestic and municipal purposes cont. notice to applicant

NOTICE TO APPLICANT

The approval of this Application is not a Certificate of Appropriation. It is merely your authority to begin construction work, which must be commenced within six months from the date of approval of this Application and prosecuted diligently to completion. To secure a Certificate of Appropriation under this Application, Proof of Appropriation must be submitted within the time limit allowed by the State Engineer. The amount of water for which Certificate will be issued will depend upon the amount of water actually put to a beneficial use, not to exceed, however, the amount of water specified in this Application. Proof of Appropriation must be made in accordance with the requirements of the law. For further information write the State Engineer.

(Not to be filled in by applicant.)

No. 13209

APPLICATION
OF
United States of America
TO
APPROPRIATE WATER
FROM
Spgs. & Underground Water
IN
Utah County
FOR
DOMESTIC AND MUNICIPAL PURPOSES

Rules and Regulations

All waters in this state, whether above or under the ground, are the property of the public, subject to all existing rights to the use thereof. No appropriation of the unappropriated public water may be made and no rights to the use thereof shall be recognized except Application for such appropriation first be made to the State Engineer.

The Application must be signed by the applicant at the bottom of page 2 and the affidavit relating to citizenship, acknowledged before a Notary Public before the Application be received by the State Engineer.

An Application shall not be made for more than one purpose, except where the secondary purpose is a necessary incident to the primary one; as for instance, an Application for irrigation purposes may specify domestic purposes as a necessary incident.

An Application made to appropriate water for use in a single system with one or more points of diversion or sources of supply, or both, whether the water be commingled or not, may be accepted if made by one person or by a corporation, if and when the points of diversion be in close proximity or located in contiguous sections by government survey; provided, however, that the quantity of water sought, also tie to section corner, be given for each point of diversion.

In case a material error is made in the description of the point of diversion, or in case any error is made the correction of which would enlarge the rights sought in an Application after its receipt in the State Engineer's office, then such error may be corrected, but the priority date of the Application will be changed to the time when the corrected Application is resubmitted in the State Engineer's office; and, if the notice to water users has been published, the State Engineer may in his discretion cause a revised notice to be published at the expense of the applicant.

When there are two or more coapplicants the Application must be accompanied by a power of attorney, together with a fee of $1.00, authorizing one to act for all.

The applicant's permanent address should be given in Paragraph 2, and the State Engineer notified promptly of any change in address; otherwise applicant may lose rights initiated by Application by failing to receive notices sent from the State Engineer's office.

No Application or other paper pertaining to an Application will be marked received unless accompanied with the required filing fee.

Applications accepted and numbered by the State Engineer, when returned to applicant for corrections or additions, must be amended with red ink. Erasures must not be made, but any matter may be eliminated by running a red line through it. Corrected Applications must be resubmitted to the State Engineer's office, within sixty days from the date of State Engineer's letter returning Application for correction; otherwise the priority will be brought down to date corrected Application is resubmitted.

Applicants will be informed by the State Engineer's office when cost of publishing notice of Application is due, and must advance cost within sixty days after date of notice, otherwise Application will lapse.

Fees Required by Law Payable to State Engineer

For filing Application to appropriate 10 second-feet of water or less $2.50
and additionally, $1.00 for each second-foot above 10.
For filing Application to appropriate 500 acre-feet of water or less 2.50
and additionally, 2 cents for each acre-foot above 500.
When the filing fee on any Application to appropriate water shall exceed $1,000.00, the balance of the fee in excess of $1,000.00 may, at the option of the applicant, be paid at the time the Proof of Appropriation is submitted.
For approving and recording completed Application 2.50
For examining and filing written Proof of Appropriation 1.00
For examining and filing map, profile and drawings that are part of the Proof of Appropriation 5.00
For issuing Certificate of Appropriation 1.00
For filing and examining paper of assignment 1.00
For filing protests against the granting of Application or answers thereto 1.00
For filing an affidavit or any other paper 1.00

NOTE—Applicants will save time and expense by familiarizing themselves with the law before making Application.

00-00-0000: request for reinstatement and extension of time

COPY

IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF UTAH

REQUEST FOR REINSTATEMENT AND EXTENSION OF TIME

(Before Fourteen Years)

APPLICATION NO. 13209

STATE OF UTAH)
COUNTY OF _____) SS

George W. Fry, being first duly sworn says that he is the owner or the agent of the owner of the above numbered Application; that he knows of his own knowledge that the construction of works as contemplated by the Application was actually commenced within 6 months after the date of approval of the Application, and that the work has since been prosecuted with diligence.

The nature, extent and approximate cost of construction work done to this date, together with a detailed statement of use to which the water has been put, is as follows: (Describe briefly the type and extent of construction, whether impounding or diversion dam, or diverting channels and give the cost of construction. Indicate what part of the water, if any, covered by this Application has been put to beneficial use, the number of acres irrigated, etc. Mere statement as to general character of works, costs and use will not answer,-- give details sufficient for one to determine what has actually been done.)

A concrete collecting sump has been provided at diversion No. 1 and 1000' of 2" G.I. pipe have been layed to the place of use and both are in operation to supply all water used at the Quarry headquarters of the monument, but none is available for irrigation.

A shaft, 6' in diameter, has been sunk a depth of 75 feet without hitting adequate water at diversion No. 2. The depth is too great for proposed design. The bottom 26 feet have been abandoned and a horizontal drift has been started.

Approximately $2500 have been spent on the project.

The nature, extent and estimated cost of construction remaining to be done to complete the work in accordance with the Application follows:
(Describe with same details as required last above.)

It is necessary to complete the horizontal tunnels, pour 27 yards of concrete, lay another 1500 feet of 4" pipe, build a reservoir and install a pump. It is estimated that another $15,000 will be spent on the project. It is also essential that monument employment and public attendance return to normal before full beneficial use can be made.

(Over)

00-00-0000: request for reinstatement and extension of time

Request is made for reinstatement and extension of time for filing proof from December 25, 1942, to December 25, 1955. Reasons why extensions should be granted are:

(Give reasons why the work could not be completed and the water put to beneficial use within the time heretofore allowed and why conditions now will permit the completion of the works and filing of proof within the time requested. Be specific in statement.)

Above 13 year extension is requested to provide 2 or 3 years after close of war, and may be reduced accordingly when peace is restored.

See accompanying drawings NM-DIN-5307A and NM-DIN-6977.

Diversion No. 1 has been completed to provide limited, temporary supply which is adequate for reduced war time demand. Development of Diversion No. 2 was necessarily slow until May 1941, due to congested working quarters, care needed not to damage flow in water bearing stratum and difficulty in finding the water (see first attempt on 5307A where water was found to be too low for proper use). Since May 1941, first for defense and later for war, the United States has had to suspend all but the most essential pacific developments and impound their appropriations to provide the maximum of immediate cash for war activities.

The completion of this project is scheduled as a part of the post war stabilization program. The need for the extra water is so imperative under normal monument operation that resumption of activities is assured as soon as labor returns, the materials can be fabricated or their priorities are dropped, and funds are restored.

Affiant upon oath states that he or the owner of the Application, whom he represents, has a bona fide intention and the financial ability to complete the works and to apply the water to beneficial use as provided in the Application, within the period of extension requested. A filing fee of $1.00 is tendered herewith.

THE UNITED STATES OF AMERICA
By George W. Fry
Applicant
Act. Supt., Rocky Mountain National Park.

See Memo from Dunn dated 12/6/42

Subscribed and sworn to before me this 2 day of Dec. 1942

Wayne H. Hackett
Notary Public
U.S. Commissioner.

NOT TO BE FILLED IN BY APPLICANT

Application No. _____ Request due _____ Recd. _____
Applicant _____ Filing fee $1.00 Recd. _____ by _____
Source _____ Receipt No. _____
14 year period ends _____

Request for extension approved ; time for submitting proof is hereby rejected
extended from _____ to and including _____

_____ DATE

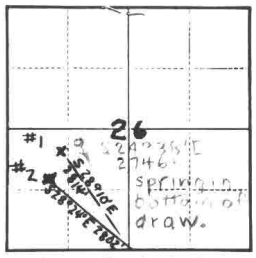
_____ STATE ENGINEER

Supporting Hydro Data

9–255
(Jan. 1927)

U[illegible] STATES
DEPARTM[illegible]T OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

RECORD OF WELL #2



Locate well on plat of section.

1. **Location:** State Utah County Uinta
Nearest P. O. Jensen, Utah Direction from P. O. NNE
Distance from P. O. 5 miles; SW ¼ sec. 26, T. 4 S, R. 23 E of the Salt Lake Meridian
If in city, give street and number

2. **Owner:** Dinosaur National Monument U.S.D.I. National Pake Service. Address Jensen, Utah.
Driller: Garnett Birchell Address Vernal, Utah

3. **Situation:** Is well on upland, in valley, or on hillside? Hillside

4. **Elevation of top of well:** Appr. 5160 ft. above (Above or below) the level of mean sea level (Sea, depot, lake, or stream)

5. **Type of well:** drilled (Dug, driven, bored, or drilled); kind of drilling rig used solid tool (Solid tool, jetting, rotary, etc.)

6. **Depth of well:** 165 ft.; year in which well was finished 1951
Does well enter rock? Yes; if so, at what depth? 41 ft. ft.; kind of rock Sandstone

7. **Diameter:** At top 8" cased inches; at bottom 6" uncased inches.

8. **Principal water bed:** Rock - Sandstone (Gravel, sand, clay, or rock. If rock, state kind)
Depth to principal water bed 150 ft.; thickness of bed 15 ft.
If other water supplies were found, give depth to each None other encountered 1 foot 41' below

9. **Casings:** Kind Steel; size 8"; length 42 ft.; between depths of 2' above gnd. and gnd. ft.
Kind Steel; size 6"; length 65 ft.; between depths of gnd. and 63' below gnd. ft.
Kind ; size ; length ft.; between depths of and ft.
Packers (if any): Depth at which packers were used None; kind
Screen or Strainer: Was well finished with screen? No; kind of screen ;
length of screen ft.; diameter inches; size of openings

10. **Head:** Does well at present overflow without pumping? No; did it overflow when new? No;
if flowing, give pressure lb. per sq. inch; or height water will rise in a pipe ft. above surface;
original pressure or head ; if not flowing, give water level in well one ft. below surface.

11. **Pump:** Is the well pumped? Not yet; kind of pump ;
size or capacity of pump ; kind of power

12. **Yield:** Natural flow at present (if any) No gallons per minute; original flow No gallons per minute;
well has been ~~pumped~~ baled at approx. 10 gallons per minute continuously for 5 hours;
quantity of water ordinarily obtained from well gallons per day.

13. **Use:** For what purpose is the water used? Domestic

14. **Quality of the water:** no test yet made (Hard or soft, fresh or salty, etc.); is there an analysis?

15. **Cost of well,** not including pump: $ 1,332.69 Temperature of water ° F.

Name of person filling blank Richard T. Montgomery, Park Engr. R.M.N.P.
Date 1/29/52 Address Estes Park, Colorad.

On the back of this sheet give the record of the beds through which the well passes and any other facts not given above.

6—9642

LOG OF WELL

KIND OF ROCK OR OTHER MATERIAL (Give color and tell whether hard or soft)	DEPTH, IN FEET From—	DEPTH, IN FEET To—	THICKNESS, IN FEET	REMARKS (Especially information as to water found)
Quick sand (Soil mantle)	0	20	20'	
Soft sand stone	20	58	38'	
Sand stone (Hard)	58	64	6'	
Sand stone (tight)	64	162	98'	
White water sand	162	165	3'	
Sand stone (hard)	165	168	3'	Streak of blue clay at 167'

U. S. GOVERNMENT PRINTING OFFICE 6—9642

Other Supporting Information

07-19-1961: memorandum to regional director regarding water right application no. 13209

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Dinosaur National Monument
91 West Main, Vernal, Utah

RECEIVED
REGION TWO OFFICE
1961 JUL 24 AM 8:48

IN REPLY REFER TO:
L54

July 19, 1961

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

Reg. Director
Asst. Reg. Director
Chf. Div. of Admin.
Chf. Div. of Operations
Chf. Div. of Interp.
Chf. Reg. Res. Planning
Chf. Ranger Activities
Field Solicitor
Action Taken 7-27-61 Memo to Supt - w/suspense date of Oct. 10/61
File

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur

Subject: Water Right Application No. 13209

Attached is a photo copy of State Engineer Criddle's letter of July 13, together with attachment for Mr. Mott's use in assisting us in making application for a Water Users Claim as explained in Mr. Criddle's letter.

It is our impression that we would necessarily need to complete an application on the Visitor Center water well which is presently under contract. We would like to receive Mr. Mott's suggestions and assistance in processing a water users claim for the two wells mentioned.

Earl M. Semingsen
Superintendent

In dupl.
w/attachments in dupl.

c.c. [redacted]
Water Resources
BY Matt DATE 10/10/61

Mott 7/28
atbu 7/28

L54 DINO

JUL 28 1961

Wayne D. Criddle, State Engineer
Office of State Engineer
Salt Lake City, Utah

Dear Mr. Criddle:

In your letter of July 13, 1961, to the National Park Service, Vernal, Utah, concerning Water Right Application No. 13209, you mention an order of the District Court in connection with the adjudication of water rights of the Uintah Basin. We would like to obtain two copies of this order and were wondering if your office could furnish us these. If you cannot do this could you inform us where we might obtain same.

We also have a request from our Washington Office for reports on and copies of any decrees in all adjudications in Daggett and Uintah Counties, Utah, as they might affect water appropriations in Dinosaur National Monument and Flaming Gorge Recreation Area Project. Could you furnish us copies of these.

Should there be a great number of the decrees, we would appreciate an estimate of the cost before you furnish them.

Any further information you can furnish us in regard to the foregoing will be very much appreciated.

Sincerely yours,

SIGNED

William A. Mott
Hydraulic Engineer

In duplicate

(Above referenced July 13, 1961, ltr. was received as an attachment to Supt. Semingsen's July 19 memo.)

MDCook/WAMott/etb

05-19-1961: memorandum to the chief regarding pump testing, well no. 3, spring gulch, quarry area

Dinosaur National Monument
91 East Main, Vernal, Utah

D22 May 19, 1961

Memorandum

To: Chief, WOBC

From: Regional Hydraulic Engineer, Region Two

Subject: Pump Testing, Well No. 3, Spring Gulch, Quarry Area, Dinosaur National Monument

The casing was perforated (in place), between the 325 ft and 450 ft. levels to admit the water supply from the Entrada formation. The perforations were made by shooting 9/16 inch bullets. Two shots per lineal foot were placed between 450 ft. and 410 ft. levels; and one shot between 410 ft. and 325 ft.

Attached for your advanced information are copies of the following sheets of data.

a. Field notes (4 sheets)
b. Discharge - Drawdown crave
c. Water surface - recovery curve
d. Diagram of the pump-setting

The scattered points lying to the right of discharge-drawdown curve, should be disregarded as they resulted from increases in discharge to draw the water-surface down more quickly to an estimated level.

Before the pump-testing operations started, the well produced a natural artesian flow but was of no consequence, except to show the presence of the required pressure. It is believed the pressure comes from the Navajo formation, while the major quantity of water is from the Entrada formation.

An air line should be provided when the supply pump is installed, to facilitate checking the water surface level, during normal pumping operations.

Copies of this data will be subsequently distributed for documentation after it is prepared in proper form.

William A. Nott
Regional Hydraulic Engineer

Attachments (7 sheets)

cc: Reg. Dir. Reg. Two
JASD

05-15-1961: memorandum to regional director regarding perforation of water well casing and formation at quarry area, pcp no. u-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Dinosaur National Monument
91 West Main, Vernal, Utah

RECEIVED
REGION TWO OFFICE
1961 MAY 19 AM 10 05

IN REPLY REFER TO:
D 22

May 15, 1961

Rec'd May 22/61

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

Reg. Director
Asst. Reg. Director
Chf. Div. of A[illegible]in.
Chf. Div. of O[illegible]ations
Chf. Div. of In[illegible]p.
Chf. Rec. Res. [illegible]anning
Chf. Ranger Ac[illegible]ies
[illegible] Solicitor
Programs
Mott
Peterson
Aton

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur

Subj: Perforation of water well casing and formation at Quarry Area, PCP No. U-19

Attached is a copy of Slumberger Well Surveying Corp's report showing perforation of subject well which was performed by this company under purchase order No. 136 and supervised by Regional Hydraulic Engineer, William Mott.

In the event that additional copies of the Slumberger's report are required we have the original copy of the film on file for reproducing the report.

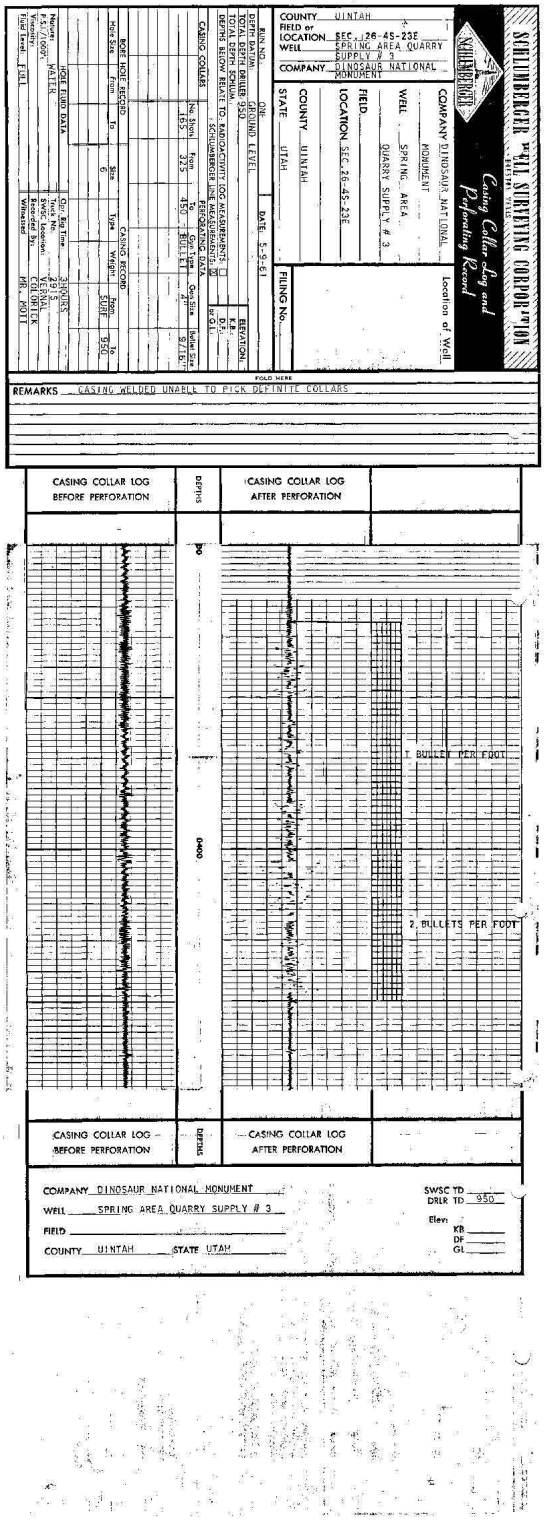
Earl M. Semingsen
Superintendent

Attachment
In duplicate

cc: Chief, WODC

C.C. MAILED TO
BY..... DATE.....

00-00-0000: well log of the spring area quarry supply #3 well



05-15-1961: memorandum to regional director regarding perforation of water well casing and formation at quarry area, pcp no. u-1

Dinosaur National Monument
91 West Main, Vernal, Utah

D 22 May 15, 1961

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur

Subj: Perforation of water well casing and formation at Quarry Area, PCP No. U-19

Attached is a copy of Slumberger Well Surveying Corp's report showing perforation of subject well which was performed by this company under purchase order No. 136 and supervised by Regional Hydraulic Engineer, William Mott.

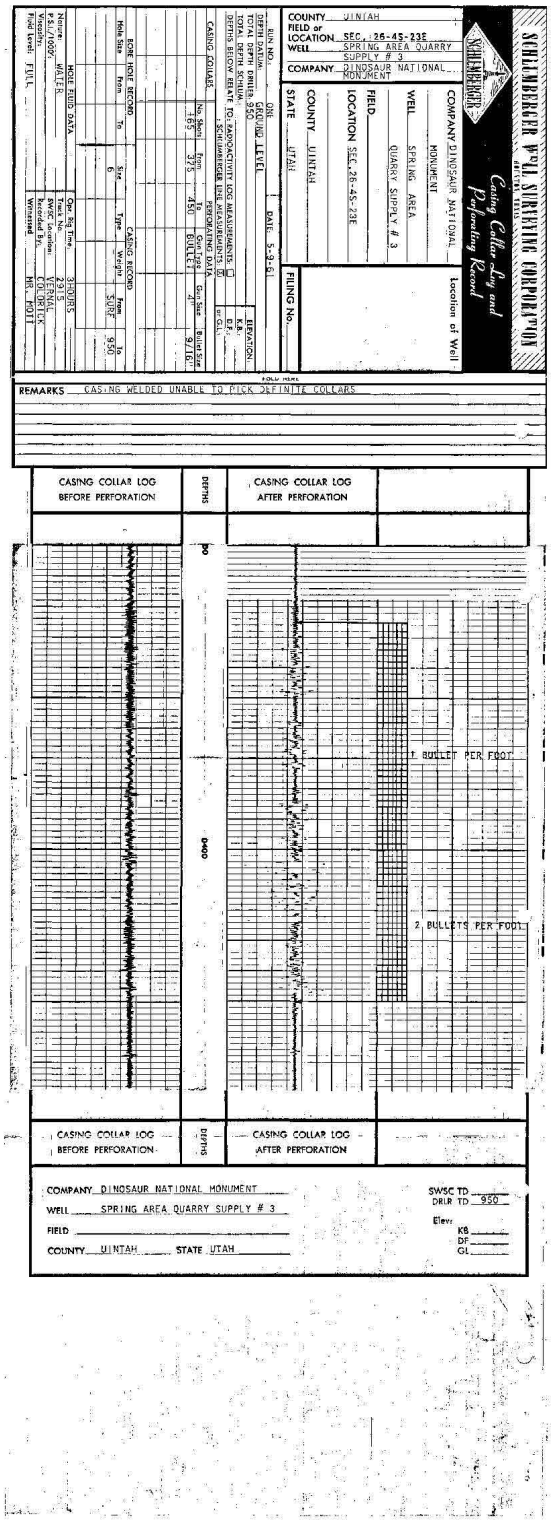
In the event that additional copies of the Slumberger's report are required we have the original copy of the film on file for reproducing the report.

Earl M. Semingsen
Superintendent

Attachment
In duplicate

cc: Chief, WODC

00-00-0000: well log of the spring area quarry supply #3 well



SCHLUMBERGER WELL SURVEYING CORPORATION
Casing Collar Log and Perforating Record

COMPANY DINOSAUR NATIONAL MONUMENT
WELL SPRING AREA QUARRY SUPPLY # 3
FIELD
LOCATION SEC. 26-4S-23E
COUNTY UINTAH
STATE UTAH
Location of Well

COUNTY UINTAH
FIELD or LOCATION SEC. 26-4S-23E
WELL SPRING AREA QUARRY SUPPLY # 3
COMPANY DINOSAUR NATIONAL MONUMENT

FILING NO.

Run No. ONE
Date 5-9-61
Depth-Driller 950
Depth-Schlum. 950
Bottom Logged Interval 950
Top Logged Interval GROUND LEVEL
Type Fluid in Hole WATER
Salinity, PPM Cl
Density
Level FULL
Max. Rec. Temp. Deg. F
Operating Time 3 HOURS
Equip. No. & Location 2915 VERNAL
Recorded By C. HEDRICK
Witnessed By MR. MOTT

BORE HOLE RECORD
Bit Size — From — To
6 — 0 — 950

CASING RECORD
Size — Type — Weight — From — To
5 3/8" — — — 0 — 950

CASING COLLARS
No. Shots — From — To
185 — 375 — 450

SCHLUMBERGER DEPTH MEASUREMENTS
All depths below rotary table.

SCHLUMBERGER PERFORATING DATA
Gun Type — Gun Size — Bullet Size
BULLET — 4" — 9/16"

ELEVATION
K.B.
D.F.
G.L.

REMARKS CASING WELDED UNABLE TO PICK DEFINITE COLLARS

FOLD HERE

CASING COLLAR LOG BEFORE PERFORATION | DEPTHS | CASING COLLAR LOG AFTER PERFORATION

0
900
1 BULLET PER FOOT
2 BULLETS PER FOOT

CASING COLLAR LOG BEFORE PERFORATION | DEPTHS | CASING COLLAR LOG AFTER PERFORATION

COMPANY DINOSAUR NATIONAL MONUMENT
WELL SPRING AREA QUARRY SUPPLY # 3
FIELD
COUNTY UINTAH STATE UTAH

SWSC TD
DRLR TD 950
Elev.
KB
DF
GL

Surname

WA Mott 4/28/61

L-54
D100

APR 28 1961

Memorandum

To: Superintendent, Dinosaur National Monument

From: William A. Mott, Regional Hydraulic Engineer

Subject: Supervision of Perforating Casing and Test Pumping Test Well No. 3, Spring Area, Quarry Headquarters, Dinosaur National Monument

It was understood, from your telephone conversation with me on April 27, the driller would definitely be ready to start work on Monday, May 8.

I have an approved itinerary for travel, scheduling arrival in Vernal Saturday night, May 6, or Sunday, May 7. It depends whether or not I have to travel from Rocky Mountain National Park via Denver. A reservation at the Lazy K Motel will be appreciated.

SIGNED
William A. Mott, P.E.
Regional Hydraulic Engineer

WAMott/etb

Aiton 4/24

L-54 D106

Memorandum

APR 25 1961

To: Superintendent, Dinosaur National Monument

From: Acting Regional Chief of Operations

Subject: Work Order, DINO 1-WR-61 (1st Rev.) dated April 20, 1961, Perforating Casing in place, and test-pumping at Well No. 3, Spring Area, Dinosaur National Monument

Attached is a copy of subject work order for the drilling of Test Well No. 3, Spring Area, Quarry Supply, for test-pumping Test Well No. 2 in Split Mountain Gorge Campground and perforating Test Well No. 3 casing in place and making the final test-pumping analysis of the available water supply.

In your purchase order for the test-pumping you should specify the top of the pump screen be set at a depth of 850 feet below the ground surface, and the pump shall be able to deliver 40 gpm under a static head of 850 feet. During the test-pumping, by the step method, the rates of discharge should be 10, 20, 30 and the maximum rate. Each rate of discharge should be held until the water surface drawdown remains practically constant before approaching the next increment of discharge. A test by continuous pumping at a rate of discharge as directed by the Contracting Officer should be maintained for a period of not less than 12 hours duration.

We understand the cost of perforating the casing, in place, is based on 165 lineal feet with one 9/16 inch shot-hole per lineal foot. The perforations should be located in the lower portion of the Entrada formation and it may be that we should reduce the length of perforations from 165 feet to possibly 125 feet, and increase by 40 holes the perforations in the lower part of the perforated section. It should not increase the cost, as long as the total perforations do not exceed 165 in number.

You should attach to your purchase order for the perforating of the casing in place, a statement that this phase of work requires the services of a specialist and the use of equipment that is not generally supplied by a well driller.

(Sgd) John F. Aiton

John F. Aiton
Acting Regional Chief of Operations

WAMott/etb

Attachment
Copy to: Chief, WODC (2), w/attachment

Form 10-556
(June 1956)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

DINO 1-WR-61
September 19, 1960

WORK ORDER

No. DINO 1-WR-61 (1st Rev.)
Date April 20, 1961

Area or Office: Region Two Office
Region: Two
General Ledger Acct. No.: 102.5

The Dinosaur National Monument (Organizational Unit) under the supervision of Superintendent is authorized and requested to proceed with the performance of the work or service described below in accordance with the detail and plan more specifically set forth in the drawing or plan referred to herein.

Fund Symbol: 14X1035 (0343)
Statutory Authority (where necessary):
Plan No.:

Title and/or Description of Project or Service to be Performed

Drilling, Casing, Alignment Test, Caliper Test, Test-pumping and analyses of water supply - Perforating casing (in place) in Entrada formation, Test-pumping well after perforating casing in Entrada formation and final analyses of the water supply, Test Well Quarry Supply - Test-pump Test Well No. 2, Split Mountain Gorge Campground.

PCP No.:
Year Programmed: 1961 F.Y.
Est. Starting Date: July 1, 1960
Est. Completion Date: June 30, 1961

Location of Work Requested
Spring Gulch in Quarry Area and Split Mountain Gorge Campground

ESTIMATE OF COSTS

Components of Costs	Amount	Acctg. Code	Project Features	Amount
Contract to drill, case, develop, test-pump - Test Well No. 3, Spring Area, Quarry Supply.	$16,216.43		Drilling, casing, provide additional perforations with casing in place, test-pumping of test wells.	$19,300.00
Test-pump Test Well No. 2 in Split Mountain Gorge Campground.	200.00			
Perforate casing, clean well, test-pumping water supply with casing in place - Test Well No. 3, Spring Area, Quarry Supply.	2,436.25			
Superintendent's use.	447.32			
TOTAL	$19,300.00		TOTAL	$19,300.00

Distribution of Copies

No.	TO
1	Dinosaur NM
1	Reg. Two Files
1	Reg. Two FFO
1	Reg. Two MOTT
1	Chief, WODC

Remarks: This authorization sets the maximum to be expended on a refundable basis for the purposes described. Any balance not expended by next June 30 is automatically cancelled as of the close of the fiscal year. Unpaid June 30 obligations will be reprogrammed in the following year.

Approved by (Signature, Title, & Date) April 24, 1961
/s/ John F. Aiton, Acting Regional Ch. of Operations

Regional Office Clearance when Required (Signature, Title, & Date) April 24, 1961
/s/ William A. Mott, Regional Hydraulic Engineer

ALLOTMENT ACTION
Allotment Advice No.:
Allotment Advice Date:
Amount for Work Order:

If Additional Space is Necessary, Use Reverse in Tumble Fashion

16-16422

04-21-1961: memorandum to regional director, region two regarding perforating casing (in place) and test pumping well no. 3, spri

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Dinosaur National Monument
91 West Main, Vernal, Utah

APR 24 10 11 AM '61

IN REPLY REFER TO:

L 54

April 21, 1961

D1430

Reg. Director
Asst. Reg. Director
Chf. Div. of Admin.
Chf. Div. of Operations
Chf. Div. of Interp.
Chf. Rec. Res. Planning
Chf. Ranger Activities
Field Solicitor

Memorandum

To: Regional Director, Region Two

From: Acting Superintendent, Dinosaur

Subject: Perforating Casing (in place) and Test Pumping Well No. 3, Spring Area Quarry

This will confirm our telephone conversation yesterday with Mr. Mott regarding the above subject project.

We plan to issue two purchase orders to accomplish this work. One will be issued for perforating the casing and another for pump testing after perforating.

We believe it advisable and we would very much appreciate having Mr. Mott on the job to supervise this work. We would advise you by telephone when necessary equipment is in place and work is ready to start and possibly Mr. Mott would need to be on the job for only a short time. Please let us know if Mr. Mott will be available.

Paul L. Webb
Acting Superintendent

In duplicate

C.C. MAILED TO
BY ..... DATE .....

04-21-1961: letter to a. van v. dunn regarding increased cost of perforating test well no. 3, spring area, quarry water supply, dinosa

Long Distance Telephone Call April 18, 1961 ROUTING:

L-54 DINO
L-54 SHMO

~~Aiton~~
~~Peterson~~

To: A. van V. Dunn, Washington Office FILES

By: William A. Mott, Hydraulic Engineer

Subject: Increased Cost of Perforating Test Well No. 3, Spring Area, Quarry Water Supply, Dinosaur National Monument - USGS Water Resource Investigation in Shadow Mountain National Recreation Area.

As a result of Superintendent Semingsen's telephone call to this office on April 17 discussing the increased cost of perforating the casing in the subject well and his request for additional funds, we made inquiry of Mr. Dunn for his comments on the handling of this increased cost item. Mr. Dunn expressed the belief that if we revised our work order to include the additional costs mentioned above that he would authorize the same; however, he expressed the desire that the Regional Office adjust their program to account for the change in costs for this work. He indicated that we should proceed to accomplish the work but believed that near the end of the year we may have to delete some of the work scheduled for accomplishment by Park personnel in sufficient amount to offset the additional costs of $700 requested for Dinosaur National Monument. We are to proceed with the work and submit a revised work order to the Washington Office for their approval and authorization.

It was suggested by Mr. Dunn that the Regional Office provide in their programming of water resources projects a liberal amount, sufficient to permit any of the unforeseen increases in cost. This would eliminate the need for contacting the Washington Office when minor increases of costs occur in any of the programmed projects.

Mr. Dunn commented upon the report by the USGS on their water supply investigations conducted in Rocky Mountain National Park and Shadow Mountain National Recreation Area in October, 1960. It is believed desirable that a general map be included in their report which would identify the general location of the various areas studied so the reader would not have to turn back into the written material of the report to determine the locations. Mr. Dunn knows of no reason why this report should not be cleared for open file status which has been requested by the U.S. Geological Survey.

William A Mott.
William A. Mott, Hydraulic Engineer

WAMott/etb 4/21/61

04-17-1961: long distance telephone call to hydraulic engineer, region two office regarding perforating casing in place and test pu

J 54 dino

Long Distance Telephone Call April 17, 1961 ROUTING:

Aitch
Peterson
LBrown
FILES

To: Hydraulic Engineer, Region Two Office

From: Supt. Semingsen, Dinosaur National Monument

Subject: Perforating Casing in Place and Test Pumping Well No. 3, Spring Area, Quarry Water Supply, Dinosaur National Monument

A representative of Schlumberger Drilling Co. and Mr. D. L. Campbell were in the office of the Superintendent discussing the matter of perforating the well casing in Well No. 3, Spring Area, Quarry water supply. Specifications to cover the work and perforating and pump-testing Well No. 3 did not indicate a specific method of perforating the casing, but left the option to the Contractor whether he would perforate the casing by shooting or by piercing with a lance.

Mr. Campbell, when he submitted a total bid of $1640 for this work, considered using an improvised lance he had made and allowed in his estimate $500 for the perforating operations. Subsequently, Mr. Campbell decided it more feasible to employ Schlumberger Drilling Col to shoot the perforations with equipment having a more positive action. The Superintendent did not feel the improvised perforator that Mr. Campbell had constructed would be satisfactory. Mr. Campbell quoted a bid of $1296.25 for perforations made with the Schlumberger shot gun, and $1140 for cleaning the sediment from the well and test-pumping the water supply. Schlumberger would shoot 19/16" holes in the casing, and they state the shot would penetrate the formation from 9" to 12" and believe that the available supply of water would be increased due to the shot penetrating into the formation and the possibility that the shot might fracture the formation.

Supt. Semingsen stated that by perforating the casing with a jet type of lance, it would cost $165 per hole. With one hole per lineal foot and perforating 165 feet of casing, the cost of perforations by lancing would be $27,000. Such a figure is very unreasonable; consequently, we believe the perforations should be made by use of the shot gun. Mr. Semingsen requested that we advise him by telegram after talking with the Washington Office for additional funds of $700, so that the driller may clean the well and the perforations could be made while the driller is ordering new pump bowls that will permit him to set the pump at 850 feet and pump a discharge of 40 gpm. In the specifications the pump was to be set at 900 feet and discharge 40 gpm. We concurred with the setting of the pump at 850 feet instead of the 900 feet as the potential supply can be determined at this setting.

William A Mott O.E.
Hydraulic Engineer

WAMott/etb 4/18/61

04-05-1961: memorandum to superintendent regarding perforating casing (in place) and test-pumping well no. 3

Mott 4/5

mo
Aiton 4/5

L-54

APR 5 1961

Memorandum

To: Superintendent, Dinosaur National Monument

From: Acting Regional Chief of Operations

Subject: Perforating Casing (in place) and Test-pumping Well No. 3, Spring Area, Quarry Supply, Dinosaur National Monument

Attached are five copies of the proposed specifications for perforating the 6" casing and test-pumping the available supply from the subject well. It will be necessary that you supply us with the list of solicited drillers showing that the bid of the Uintah Drilling Company is the lowest received, or a statement that no other drillers are interested or available to do the work.

We are attaching a sample purchase order form from which you might prepare a purchase order for the accomplishment of the work, indicating the articles and services as per sample copy.

Please note the sample purchase order excludes bailing and graveling as proposed by Mr. Campbell. It is possible that a slight amount of the Entrada formation will become dislodged and accumulate in the bottom of the well, but it is believed it will not be enough to warrant gravel packing the casing. This amount of $240 was included in item 2 of the sample purchase order to offset the cost of developing the supply, after the perforations had been made in the casing.

In the specifications, under item 1-03, b, the discharge rates during the pump-tests should be at increments of 10 gpm, each increment of discharge being maintained until water surface elevation reaches practically a constant stage, and each succeeding increment of discharge tested in a similar manner.

[redacted]

John F. Aiton
Acting Regional Chief of Operations

Attachments - 2

WAMott/etb

METHOD OF PURCHASE: Form Approved Budget Bureau No. 48-R101
Indicate Method by Number:
1. Federal Supply Schedule.
2. Bureau of Federal Supply Stock.
3. Excess Property Transfer.
4. Advertising (R. S. § 3709).
5. Other Exemptions from R. S. § 3709
6. Miscellaneous
(See Bureau of Federal Supply Circular B69)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

PURCHASE ORDER

THIS NUMBER MUST APPEAR ON ALL PACKAGES AND PAPERS RELATING TO THIS ORDER.
ORDER NO.
DATE

☐ SMALL BUSINESS ☐ OTHER BUSINESS

POINT OF ISSUE

REQUISITION NO.

APPROPRIATION SYMBOL AND TITLE
14X1035, ~~(0343) Water Rights Acquisition~~ Construction, NPS

ACCOUNT
0343 - (2+WR-61)

TO:
SELLER

CONSIGNEE AND DESTINATION
SHIP TO

INVITATION NO.	CONTRACT NO.	TIME FOR DELIVERY	DISCOUNT TERMS

F. O. B. POINT	SHIP VIA	GOV'T B/L NO.

ITEM NO.	ARTICLES AND SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1.	all Furnish necessary labor, material & equipment. To perforate 165 ft. of 6" casing (in place) between depths 285 ft. and 450 ft. below ground surface as per attached specifications.	1	L.S.		$ 500 00
2.	To test-pump the yield from the water well, develop and per specifications, and submit reports, in quadruplicate, on the work as follows: a. Narrative report on perforating showing type of perforator used, size of perforations, number of shots if such are used. b. Test pumping data re: discharge-water surface drawdown relationships during period of pumping at each discharge. c. The amount of sediment removed as a result of developing the well	1	L.S.		$ 1140 00
			TOTAL		$ 1640 00

RECEIVING AGENT:
Please sign the following certificate and return to office as soon as articles or services are received.
I certify that the above-listed articles or services have been received by me and that same have been inspected and accepted, except as otherwise noted hereon.

(DATE RECEIVED) (SIGNATURE AND TITLE OF RECEIVING EMPLOYEE)
I acknowledge receipt of items marked "X" to be used by me in accordance with the regulations.

(DATE RECEIVED) (SIGNATURE AND TITLE OF EXPENDING EMPLOYEE)

PLEASE SUPPLY PROMPTLY THE ABOVE ARTICLES OR SERVICE.

SIGNATURE

NAME AND TITLE

DATE RECEIVING REPORT SENT TO ACCOUNTS:

FORM 10-131
(REV. 2/57)

WAREHOUSE COPY

(5)

SPECIFICATIONS
for
PERFORATING AND TEST-PUMPING A WATER WELL

SPECIAL PROVISIONS

SP-01 Description of Work

The Contractor shall furnish all labor and materials, power and equipment, and perform all work required to perforate the well casing (in place) and pump-test the yield from Well No. 3, Spring Area, Quarry Supply, Dinosaur National Monument, State of Utah. The perforations shall be made as hereinafter specified.

SP-02 Commencement, Prosecution and Completion of Work

The Contractor shall commence work on this project within 7 calendar days after the date of receipt of notification to proceed. He shall prosecute the work with faithfulness and energy and in a neat and orderly manner so as to complete the entire work within 17 calendar days is hereby agreed upon as the time necessary for the completion of the entire work.

SP-03 Protection of Site

The Contractor shall protect all structures, trees, shrubbery, etc., during the progress of his work; he shall remove from the site all debris and unused materials and shall upon the completion of the work, restore the site as nearly as possible to its original condition. The water pumped from the well shall be conducted to a place designated by the Contracting Officer where it will be possible to dispose of it without erosion or other damage to the property or the creation of a nuisance.

CONSTRUCTION SPECIFICATIONS

1-01 Perforating Casing

The Contractor shall furnish and employ the necessary equipment to perforate the casing between depths of 285 feet and 450 feet below the ground surface. The Contractor shall have the choice of making the perforations by shooting the bullets (15/32" diameter) or piercing with a lance; however, the total area of perforations per lineal foot of casing shall be 1.38 square inches or greater. The perforations shall be spaced as uniformly as practicable about the circumference of the casing.

1-02 Developing the Well

The well shall be thoroughly cleaned and developed by approved methods of surging, bailing or pumping, and approved by the Contracting Officer. The developing shall continue for a sufficient length of time to remove any loose sediment from the well bore and upon completion of the developing operation, all sediment accumulated in the well shall be removed prior to test-pumping operations.

1-03 Test Pumping

a. Equipment. The Contractor shall furnish, install and operate the necessary pumping equipment and measuring devices to conduct the required pumping test of the well. The pumping equipment shall be capable of developing water from a depth of 900 feet at rates varying from zero to 40 gpm. The flow measuring device shall be capable of measuring the rate of flow within an accuracy of 3 per cent of the flow. A suitable measuring device to determine the water surface elevation below the ground surface shall be used that will provide determination of the water surface within an accuracy of one foot. The Contractor shall also furnish all necessary discharge conduit of sufficient size and lengths to conduct the water being pumped to a point of final discharge as directed by the Contracting Officer.

b. Tests. After the work of perforating the casing in the Entrada formation has been completed, the Contractor shall set the pump at the 900- foot level below the ground surface and test-pump the well at such increasing discharge rates as directed by the Contracting Officer until a maximum of 40 gpm is reached or the water level reaches such a point where further increase in rate of discharge might pump the well dry, or there is danger of damage to the well, whichever rate is the smallest. The well shall be continuously pumped for a period of 3 hours at the maximum rate of discharge and the elevation of the water surface shall be determined every 15 minutes. At the end of this test the well shall be allowed to fully recover its static water level, without disturbance, and during this period of recovery the water level in the well shall be determined periodically, at 5 minute intervals, and until the water surface has reached an elevation within 20 feet of its static level.

Upon completion of the above tests the well shall be pumped at a rate of 80 per cent of the maximum discharge, based upon information obtained from the previous test, for a continuous period of not less than 12 hours. The water level in the well shall be measured periodically during this test at each 10 minute interval, or as directed by the Contracting Officer.

All data obtained from the various tests shall be neatly and orderly submitted in quadruplicate to the Contracting Officer.

03-02-1961: long distance telephone call to d. l. campbell, well driller, roosevlet, utah regarding perforating, casing, test - pumping

Long Distance Telephone Call March 2, 1961

L-54 DINO

ROUTING:
~~JFAlton~~ 3/15
LBrown (Acting)
~~LPeterson~~

To: D. L. Campbell, Well Driller, Roosevlet, Utah

From: William A. Mott, Hydraulic Engineer, Region Two

Subject: Perforating, Casing, test - pumping, Bailing and Graveling, Well #3, Spring Area, Dinosaur NM

Mr. Campbell advised that the graveling of the Entrada formation should be accomplished to assure the availability of the entire water supply from the Entrada formation.

We noted that during the drilling operations that the material of the Entrada formation was quite soft and tended to sluffing, thus the walls of the well should be supported by gravel pack on the outside of the 6" casking. He also advised he had obtained an estimate from another contractor for only the test pumping, and that amounted to $1200. Mr. Campbell's estimate for the test-pumping was $900 and included mobilization and demobilization.

Mr. Campbell submitted an estimate of $500 to perforate 165 feet of the casing within the Entrada formation. This figure was based on shooting the perforations which is believed to be the more desirable, as there would be less chance of distorting the casing as would be done by lancing.

We advised Mr. Campbell that we would prepare specifications on the work and attach to a purchase order for the accomplishment of the work.

William A Mott P.E.
Hydraulic Engineer

WAMott/etb 3/15/61

03-01-1961: long distance telephone call to paul webb, assistant supt. regarding perforating and test-pumping well #3, quarry area

Long Distance Telephone Call March 1, 1961

ROUTING:
~~JFAiton~~ 3-15
LBrown(Actg)
~~LTPeterson~~
FILES

L-54 DINO

To: Paul Webb, Assistant Supt., Dinosaur NM

From: William A. Mott, Hydraulic Engineer, Region Two

Subject: Perforating and Test-pumping Well #3, Quarry Area, and Proposed Well Location in Artesia Development, Dinosaur NM

The Superintendent was requested to obtain estimate of costs to test-pump and perforate in the Entrada formation. This work was proposed by WODC, and they requested that it be accomplished prior to the design of the pump and development of the well as a source of supply.

This office received a memorandum with quotations for perforating, test-pumping, bailing and graveling operations at Well #3. The total estimate was $1640. To clarify the item of bailing and graveling, we called Dinosaur NM and talked to Mr. Paul Webb, who advised that this item was proposed by Mr. D. L. Campbell, (well driller) as being advisable to prevent a possible sluffing off of the walls of the well bore.

During the test-pumping operations to analyze the available supply, no casing was in place, so the supply of water issued from the plain walls of the well bore, thus permitting the maximum sluffing effect that would occur and result from the full yield of the Entrada formation. Before the casing was installed a caliper test was made of the bore, which revealed relatively slight sluffing of the Entrada formation.

The estimate for bailing and graveling was $240, which is a relative small amount to assure and protect the perforations in the Entrada formation from becoming clogged, which likely can be justified in extending the service of the well without requiring frequent cleaning of sediment from the well. Mr. Webb suggested that this office call Mr. Campbell at Roosevelt, Utah, and discuss with him the need for the gravel to be placed in the Entrada formation.

William A. Mott P.E.
Hydraulic Engineer

WAMott/etb 3/15/61

02-27-1961: memorandum to chief, western office regarding development of test well no. 3, spring area

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Region Two Office
307 Federal Office Building
Omaha 2, Nebraska

IN REPLY REFER TO:

L-54

FEB 27 1961

MAR 2 '61
CHF
ADM
PERS
P & P
ARCH
ENG
L. A.
SPEC
CONT
ACTION TAKEN DATE
As a result of a telephone call prior to this memo. Region is to get the well perforated.

Memorandum

To: Chief, Western Office, Division of Design and Construction

From: Acting Regional Chief of Operations

Subject: Development of Test Well No. 3, Spring Area, Quarry Water Supply, Dinosaur National Monument

Mr. P. E. Smith's teletype of February 21 to this office proposed to perforate the casing of subject well in the Entrada formation and test the yield, prior to design of pump and pump house. We concur with your proposal to determine the available supply, with the casing in place. However, the yield should be the same as when the combined supplies of the Entrada and Navajo were test-pumped from the open bore, providing the Entrada perforations are located to obtain the entire contribution of that formation.

A packer was placed in the casing at about the 610-foot level below the ground surface and grout was pumped around the casing for an estimated distance of 150 feet above the packer.

We suggest the perforations in the Entrada zone should extend from the 440-foot level below the ground surface, upward to the 275-foot level which would provide 165 feet of perforations. We believe this will be sufficient to accept the total yield of this formation.

Attached is a copy of the pump-testing data and a chart showing the discharge-drawdown relationship.

We have not received the geologic log of the well, except as is shown on the report of the well driller, copy attached.

Superintendent Semingsen is to follow up with Doctor White, geologist, at Dinosaur or with the USGS and provide you the geologic log of subject well, with a copy to this office.

John F. Aiton
Acting Regional Chief of Operations

In duplicate

Attachments

Copy to: Supt., Dinosaur NM

02-24-1961: memorandum to chief, wodc regarding water well, quarry area, pcp u-19

D5639 Dino

RECEIVED
REGION TWO OFFICE
1961 FEB 27 AM 9

Dinosaur National Monument
Vernal, Utah

PCP - U 19

February 24, 1961

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

Reg. Director
Asst. Reg. Director
Chf. Div. of Admin.
Chf. Div. of Operations
Chf. Div. of Interp.
Chf. Rec. Res. Planning
Chf. Ranger Activities
Field Solicitor
Peterson
Mott
Action Taken
File

Memorandum (AIRMAIL)

To: Chief, WODC

From: Superintendent, Dinosaur

Subject: Water well, Quarry Area, PCP U-19

Reference Mr. P. E. Smith's, P.B.S. Teletype to Region Two, copy of which was furnished this office.

For your information, Mr. Mott called me Feb. 23, asking for a geological log of subject test well. During the well drilling contract, the contractor Mr. Darwood Campbell, Mr. Mott and I agreed that Dr. T. E. White, Paleontologist, and Assistant Naturalist Alan Mebane, Graduate Geologist, would assist the contractor by keeping him informed of the geological formations encountered as drilling progressed.

Dr. White also secured the drilling cores and samples taken at each 10 ft. level. When the drilling contract ended we asked Mr. Harry D. Goode, Geologist, USGS, Salt Lake City, if that agency would like to retain the 95 samples and the cores for future analysis and study of geological formations in the Quarry Area. Mr. Goode was anxious to secure the samples and cores and at some future date, when research funds are avialable USGS may have the samples and cores laboratory tested.

In a telephone conversation with Mr. Goode, Feb. 23, I asked if the National Park Service could secure a geological analysis of the samples and cores. Mr. Goode advised me that this was a big order, which would require detailing a geologist, setting up a laboratory study and slowly making the analysis depending on how detailed the NPS would specify.

Mr. Goode stated that he did not believe that the NPS wanted or required a detailed geological analysis of the samples and cores. And, the knowledge of the formations entered by drilling was all that is needed for perforating in place casing and pump testing prior to design of pump and pumphouse, as desired by WODC.

Mr. Goode estimated that to make a geological analysis of the samples and cores, it will require 30 days after a geologist is assigned and the laboratory set up to perform the work. The cost would be about $1000.00, minimum and would necessarily be financed by the NPS.

After carefully reviewing our project file, together with the narrative report and sketches prepared by Maintenance Supervisor Robert D. Jeffery to the Superintendent, it appears that your office has not received this information and data from Region Two as indicated by Mr. Aiton's memorandum to you dated Feb. 15, 1961. ?

Portions of the completion report made to Region Two including our water demand studies, were to be evaluated by Region Two prior to recommending development of the well to your office, to determine adequacy of supply.

Regional Engineer Peterson recently informed me at Dinosaur that subject well would supply 80% of demand and by reducing about one acre of lawn grass around the perimeter of the residence and utility area, the well would supply 100% of demand.

I agreed with Mr. Peterson that reductions of lawn area could be accomplished. Also, that we recommend retaining the existing river well and from a valve controlled manhole near the residential area, we would like consideration of installing a separate lawn watering system, using the river well source only. Furthermore, in the event of failure of pumps, etc., at the new well we would always have a standby water source from the existing well. The river well could easily be adapted for pumping river water for lawn irrigation purposes as well as standby source for emergency use in the event the new well system is being serviced, from time to time.

Attached are copies of the following reports which we believe you need to assist you in pump and pumphouse design:

1. Narrative Statement of Completion Report
2. Memorandum Jan. 7, 1961 to Superintendent from Jeffery with sketches of transit surveys made to locate test well #2 (abandoned) and test well #3.
3. Report of Well driller, Oct. 29, 1960.
4. Sketch drawn by Jeffery showing geological formations as obtained by him from Dr. White and Report of Well driller and verified Feb. 24, by Dr. White.

Messrs. Peterson and Mott confirmed by telephone with me today that analysis of demand would be furnished your office promptly.

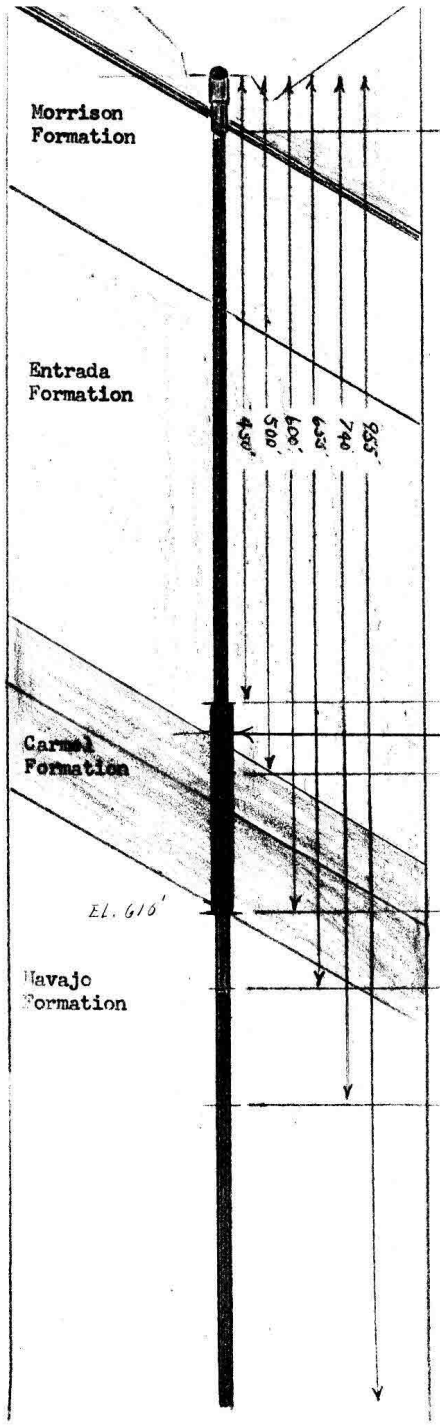
Please feel free to call on us for any additional detail needed on the well as we are anxious to get this project underway and obligate funds as we reported to Region Two and Washington that funds would be obligated prior to July 1, depending on release of plans and advertising of bids can be processed by your office.

Earl M. Semingsen

Earl M. Semingsen
Superintendent

In duplicate w/attachments
cc: Reg. Dir. Reg. Two

00-00-0000: new well as it exists



New well as it exists. Reg 2 copy

Scale 1" - 100'

Bottom of the surface seal. 21' of 16" caseing and 33' of 10" caseing. Groute between 10" & 16" and full length of 10"

NOTE: My sketch of the formations may not be exact but are sketched in where they seemed to be, from observations and work on this project.

Top of 150' groute seal

Estimated Top of Carmal Formation, 475'

First pump test @ 500'---- 32 GPM

Packer location and bottom of 150' groute seal.

Top of perforated 6" caseing.

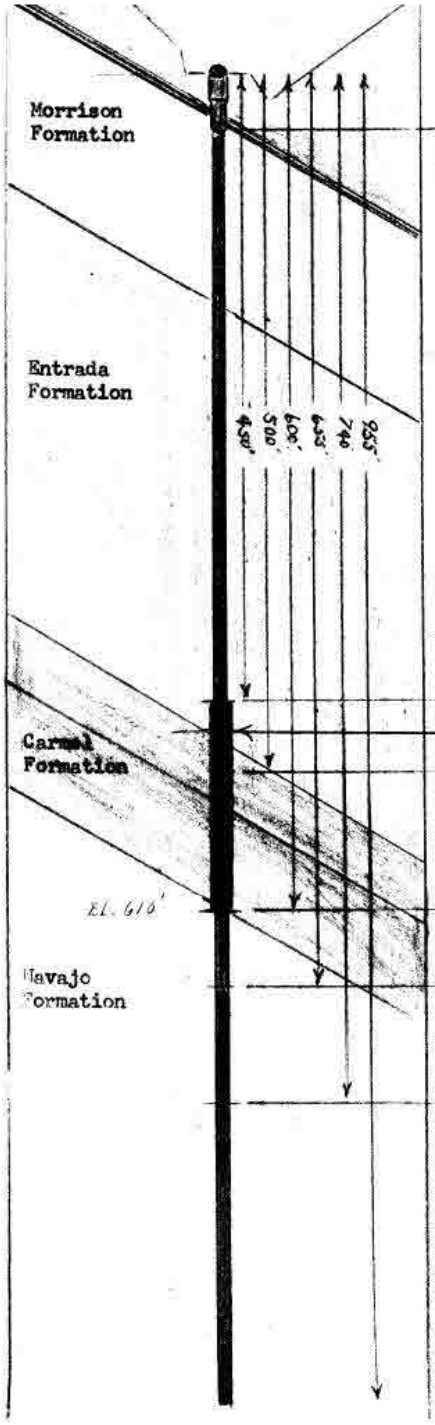
Seacond pump test @ 740' ---- 8-10 GPM

Robert D. Jeffery
Maintenance Supervisor

R. D. Jeffery

Earl M. Senniger
Supt.

00-00-0000: new well as it exists repeated



New well as it exists. Reg 2 copy

Scale 1" - 100'

Bottom of the surface seal. 21' of 16" caseing and 33' of 10" caseing. Groute between 10" & 16" and full length of 10"

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First pump test @ 500'---- 32 GPM

Packer location and bottom of 150' groute seal.

Top of perforated 6" caseing.

Seacond pump test @ 740' ---- 8-10 GPM

Robert D. Jeffery
Maintenance Supervisor

R. D. Jeffery

Earl M. Semmingsen
Supt.

01-07-1961: memorandum to superintendent regarding location of test well number 3

DINOSAUR NATIONAL MONUMENT
Vernal, Utah

Reg 2

Memorandum January 7,1961

To: Superintendent

From: Maintenance Supervisor

Subject: Location of Test Well Number 3

On August 8,1960 the contractor filled in Test Well Number 2 and did not leave a reference marker of any type to indicate the location of the abandoned well hole.

During the work project of drilling Test Well Number 3 any and all signs of the abandoned well have been eliminated.

Also the reference point at the spring was lost when the bank caved in in early 1959.

We refered to Drawing Number NM-DIN 6972 and attempted to establish the location of Test Well Number 2 and some given reference point at the Spring.

Setting our transit on the hub at 16 TH. COR. NW COR. ORIGINAL MONUMENT and reading S 26 E and 236' we feel that we located the site of the abandoned Test Wall Number 2 and useing S 51 E and 242' we hit the corner of the new concrete manhole cover over the Spring as shown in the attached sketch.

Angles and distances for the location of Test Well Number 3 are taken from these points.

While I was working on this project I noted that nearly every hub and marker in this area, such as Monument Number 13 and the 16 TH. COR. of the ORIGINAL Monument are deteriated and need replaceing with concrete. In addition to this some markes are nails in ceader trees or driven in embankments.

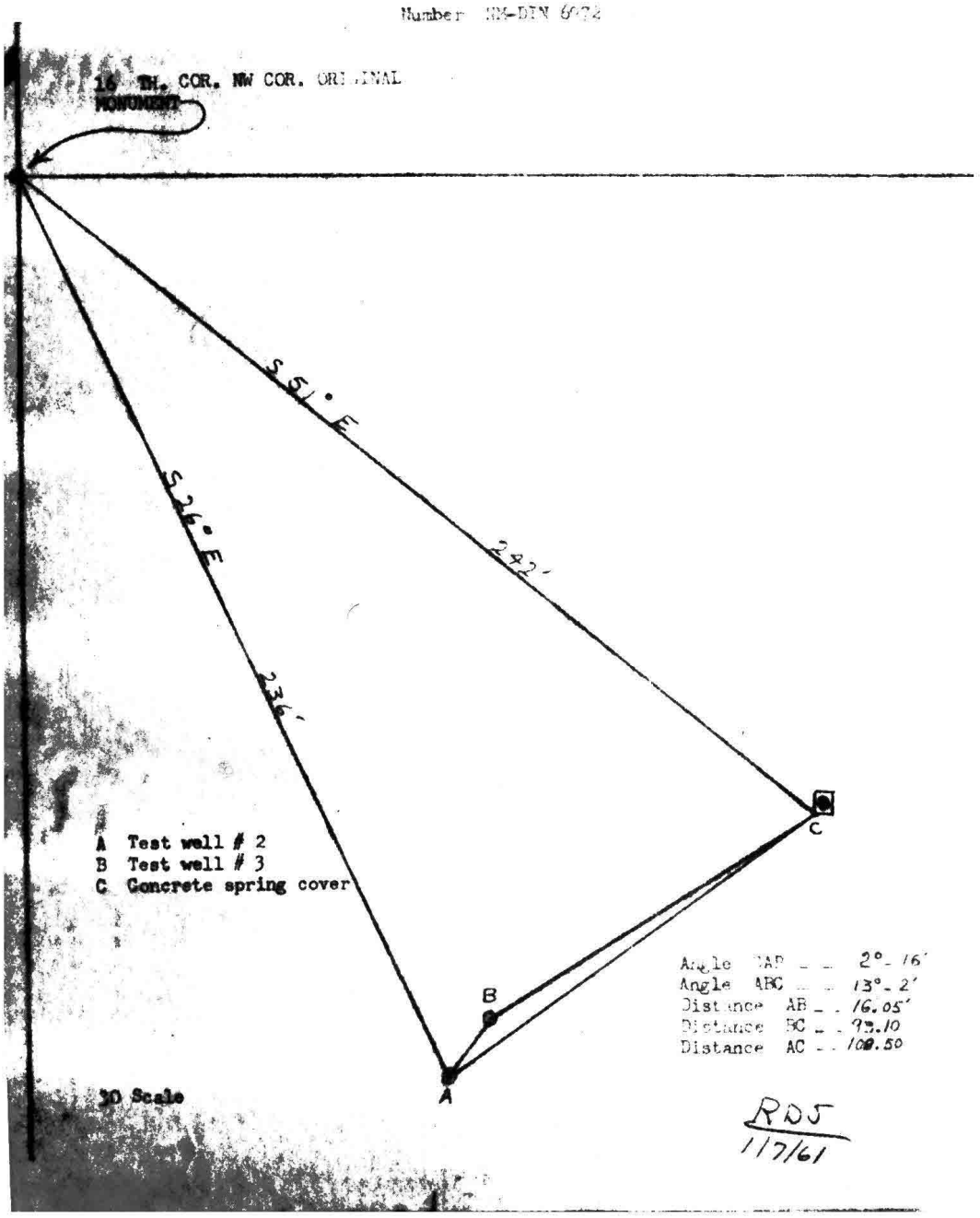
Attachment:

Robert D. Jeffery
Maintenance Supervisor

00-00-0000: location of test well #2, #3 and concrete spring cover

NOTE: This data plotted from ... Drawing

Number HM-DIN 6072



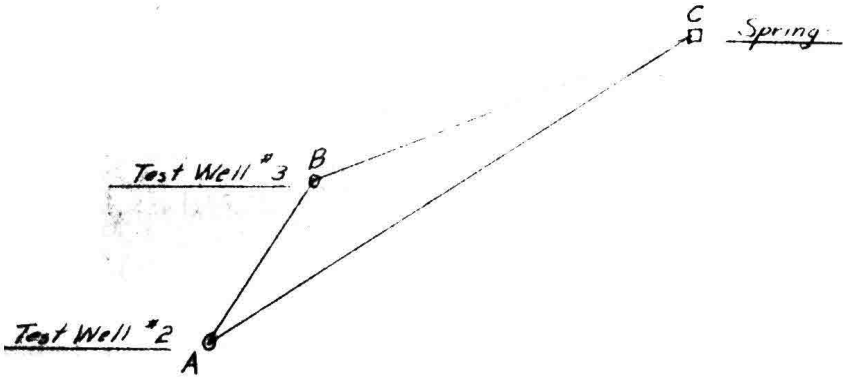
Angle BAC - - 2°-16'
Angle ABC - - 13°-2'
Distance AB - - 16.05'
Distance BC - - 93.10
Distance AC - - 108.50

RDS
1/7/61

00-00-0000: location of test well #2, #3 and concrete spring cover cont.

Dinosaur Nat'l Monument — Date: Jan. 7, 1961

Relative Location of Test Well #3, Spring and Test Well #2 (Above Top of Quarry Area.



Data Required		Measured Values.
Angle C-A-B	=	2°-16'
Angle A-B-C	=	13°-2'
Distance A-B	=	16.05'
Distance B-C	=	93.10'

Field Data by: R.D. Jeffers

See attached notes.

02-16-1961: memorandum to chief, western office regarding test-pumping test well no. 3, spring area, quarry water supply

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Region Two Office
307 Federal Office Building
106 South 15th Street
Omaha 2, Nebraska

IN REPLY REFER TO:

L-54

FEB 16 1961

Memorandum

To: Chief, Western Office, Division of Design and Construction

From: Acting Regional Director, Region Two

Subject: Test-pumping Test Well No. 3, Spring Area, Quarry Water Supply, Dinosaur National Monument

Results of a plumbness test on Test Well No. 2 made by Schlumberg Well Surveying Corporation showed that conditions of the well would not justify extending its depth to the Navajo formation, so an entirely new test well (Test Well No. 3) was drilled.

The drilling of an open bore (except for 25 feet of collar casing directly below ground surface) continued to full depth (965 feet) before the water supply was pump-tested. The well produced (before the casing was installed) a natural artesian flow of 1.21 gpm.

A submersible pump was set at approximately the 500 feet level below the ground surface. The well yield was then pump-tested with the supply coming from both the Entrada (upper) and the Navajo (lower) formations. This produced a yield of 34 gpm.

A 6-inch casing, having the lower 300 feet perforated, was then installed to the bottom of the bore. A well packer was placed in the line of a 6-inch casing so it would rest at about 610 feet level. Through this packer, cement grout was pumped to seal about 150 feet of the area between the casing and the well bore, thus isolating the Entrada supply and allowing the supply from the Navajo formation to be tested for individual yield. The submersible pump was reinstalled to about the 740 feet level, and the well pump-tested and it yielded 10 gpm.

After the supply from the Entrada formation was sealed off, the pressure from the Navajo produced a natural flow over the top of the casing of a little less than 1 gpm. It is believed that the portion of the Navajo intercepted by the well bore has a relatively low transmissibility factor.

When the pump-testing operations were finished, the well was producing its supply only from the Navajo formation. It will be necessary to perforate the casing (in place) within the Entrada area to derive the maximum supply from the well.

A field analysis of the water showed a total hardness content of 165 p.p.m., in the combined supply from both aquifers, and would provide a satisfactory supply for domestic use.

We recommend that the supply of water from this well be developed for use in the Quarry Area water system. It may be necessary, during a portion of the season, to limit the amount of water used for irrigation purposes, yet the supply would be satisfactory for the domestic requirements.

Acting Regional Director

In duplicate

Copy to: Supt., Dinosaur NM

01-11-1961: memorandum to regional director regarding well no. 3, spring area, quarry water supply

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Dinosaur National Monument
91 West Main, Vernal, Utah

RECEIVED
REGION TWO OFFICE
1961 JAN 13 PM 1:03

IN REPLY REFER TO:
L 54
X D5039

January 11, 1961

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
Mott
ACTION TAKEN
FILE

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur

Subject: Well No. 3, Spring Area, Quarry Water Supply, Dinosaur National Monument

We are submitting the completion report on subject well as requested by Acting Regional Chief of Operations Reynolds in his memorandum of Dec. 19, 1960.

We are unable to furnish any information relating to the water analysis report or geologic log of the well. It is assumed that Hydraulic Engineer Mott has access to this information.

Earl M. Semingsen
Superintendent

In duplicate

Enclosure

P.S. We are also enclosing the information requested by Mr. Brown in his memorandum of 12/15/60. We have not received the reports on chemical analysis from Salt Lake City, nor the report on the core samples from the U.S.G.S.

C. C. MAILED TO:
5039
D 5033 File.
BY Mott DATE 2/3/61

01-11-1961: memorandum to regional director regarding well no. 3, spring area, quarry water supply

Dinosaur National Monument
91 West Main, Vernal, Utah

L 54 January 11, 1961

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NARRATIVE STATEMENT

Negotiated Contract #14-10-0232-436 in the amount of $10,212.99 for drilling of test water well was awarded on July 12, 1960 to D. L. Campbell, dba Uintah Basin Drilling Company, Roosevelt, Utah. The contractor was notified to proceed with the work on the same date and began moving in on the job on July 19, 1960.

As required by the contract, the contractor began work at the old well site #2, July 20, 1960. It was unknown whether or not this bore was plumb to within 3 degrees, so a 40' section of 5½" O.D. pipe was lowered into the casing to test for plumbness. This test was not considered accurate or adequate.

July 21-30, 1960
Considerable work was accomplished in preparation for deepening Well #2, such as reaming, installation of new outer and inner casings, all covered by Change Order #1, dated July 21, 1960, in the amount of $1,853.33.

July 31, 1960
Any further development of Well #2 was held up until a thorough alignment test could be made. Change Order #2, in the amount of $299.00, was issued to cover this extra work.

August 2-8, 1960
Alignment test was made by the Schlumberger Well Surveying Corp. and it was found that the bore was out of plumb to the extent that it could not be utilized in our test well research. With the approval of the Region Two Office, Test Well Site #2 was abandoned and filled and a new location, designated as Site #3, was selected for the Test Water Well. Stop Order dated August 3, 1960 was issued, Order to Resume Work was issued on August 6, 1960. Change Order #3, dated August 7, 1960, in the amount of $1839.74, was issued to cover the cost of extra work involved in drilling the new test well from ground surface.

August 9, 1960
The contractor began drilling at the new Site #3, finished to the 25' depth and installed 25' of outer protective casing.

August 10-12, 1960
Drilling continued without incident, with plumb tests being taken by the contractor at the 40, 70 and 100 foot depths. The bore was found to be out of plumb by .50 degrees at 100' level.

August 13-22, 1960
The contractor forced 21' of 16" casing down over the 10" casing. The 10" casing was then pulled, extended and reinstalled to a depth of 38 ft. Grouting was then poured between the 10 and 16 inch casings, thereby assuring that no surface water could enter the well.

August 23-29, 1960
The Entrada formation was encountered at a depth of approximately 165 ft. A core sample was taken. Drilling was continued, with formation samples being taken every 10 ft. The 300 ft. level was reached and at this stage it was estimated that the

bore was out of plumb 1.5 degrees. The contractor is using every resource available to assure a bore that is within the allowable limits.

Sept. 2, 1960
Drilling continued and the Carmel formation was encountered at a depth of approximately 525 feet.

Sept. 3-6, 1960
The 565 ft. level was reached, with no water being encountered, and the contractor was ordered to begin Phase II of the contract.

Sept. 7-12, 1960
The Navajo formation was encountered at a depth of about 600 ft.

Sept. 12-18, 1960
The contractor reached the 755 ft. depth, and encountered water. Drilling continued to the 925 ft. depth; indication of additional volume of water.

Sept. 19-23, 1960
Water filled the casing to within 2 ft. of the top. The contractor continued drilling until a depth of 965 ft. was reached, as specified in the contract. Water then began flowing over the top of the casing; flow estimated at 1.5 G.P.M.

Sept. 23, 1960
A determination was made to ream the bore to 9¼" from 568 to 965 ft. depth. Change Order #4, dated Sept. 23, 1960, in the amount of $1148.40, was issued to cover this additional work. A 20 H.P. submersible pump with 500 ft. of 3" pipe, was installed for making the pump test.

Sept. 24 - Oct. 3, 1960
A large portable generator was rented from Moon Lake Electric Company to provide power. Contrary to the assurances of the power company, it was found that the generator was defective, after much lost time for the contractor, in that he had to check and recheck his equipment, including pulling and reinstalling the pump and 500 ft. of pipe.

October 4, 1960
The generator defects were corrected and testing of the well began. The well produced about 32 G.P.M.

October 5-20, 1960
The contractor pulled the pump and 3" pipe and Moon Lake removed their generator. The contractor obtained the 965 ft. of 6" casing, perforated 300 ft. for installation at bottom of the Navajo formation, and installed it in the well. Change Order #5, dated Oct. 10, 1960 and in the amount of $1549.49, was issued to cover costs of extra work in making an additional pump test, installing a packer and grouting. The McCullough Tool Company brought in equipment and check the formation and diameter of the bore to determine the correct placement of the packer, which was then installed at approximately the 600 ft. level. One hundred fifty feet of grouting was then pumped in under pressure, backing up towards the surface through

the Carmel formation and sealing off approximately the lower 75 ft of the Entrada formation.

Oct. 21, 1960
Other than a small amount of "touch-up," work was stopped until the grout could set up.

Oct. 22, 1960
The contractor moved in a small generator and reinstalled the pump and 3" pipe to an approximate depth of 740 ft.

Oct. 26-27, 1960
Pump test was completed, and the maximum obtained was from 8 to 10 G.P.M. In this test, the Navajo formation was the sole source of supply.

Oct. 29, 1960
Contractor removed all of his equipment, after cleaning up the area, and left the project. Final inspection was made on this date and the contractor notified of our acceptance. Total contract price including change orders amounted to $16,216.43.

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The contractor forced 21' of 16" casing down over the 10" casing. The 10" casing was then pulled, extended and reinstalled to a depth of 38 ft. Grouting was then poured between the 10 and 16 inch casings, thereby assuring that no surface water could enter the well.

August 23-29, 1960
The Entrada formation was encountered at a depth of approximately 165 ft. A core sample was taken. Drilling was continued, with formation samples being taken every 10 ft. The 300 ft. level was reached and at this stage it was estimated that the

bore was out of plumb 1.5 degrees. The contractor is using every resource available to assure a bore that is within the allowable limits.

Sept. 2, 1960
Drilling continued and the Carmel formation was encountered at a depth of approximately 525 feet.

Sept. 3-6, 1960
The 565 ft. level was reached, with no water being encountered, and the contractor was ordered to begin Phase II of the contract.

Sept. 7-12, 1960
The Navajo formation was encountered at a depth of about 600 ft.

Sept. 12-18, 1960
The contractor reached the 755 ft. depth, and encountered water. Drilling continued to the 925 ft. depth; indication of additional volume of water.

Sept. 19-23, 1960
Water filled the casing to within 2 ft. of the top. The contractor continued drilling until a depth of 965 ft. was reached, as specified in the contract. Water then began flowing over the top of the casing; flow estimated at 1.5 G.P.M.

Sept. 23, 1960
A determination was made to ream the bore to 9¾" from 568 to 965 ft. depth. Change Order #4, dated Sept. 23, 1960, in the amount of $1148.40, was issued to cover this additional work. A 20 H.P. submersible pump with 500 ft. of 3" pipe, was installed for making the pump test.

Sept. 24 - Oct. 3, 1960
A large portable generator was rented from Moon Lake Electric Company to provide power. Contrary to the assurances of the power company, it was found that the generator was defective, after much lost time for the contractor, in that he had to check and recheck his equipment, including pulling and reinstalling the pump and 500 ft. of pipe.

October 4, 1960
The generator defects were corrected and testing of the well began. The well produced about 32 G.P.M.

October 5-20, 1960
The contractor pulled the pump and 3" pipe and Moon Lake removed their generator. The contractor obtained the 965 ft. of 6" casing, perforated 300 ft. for installation at bottom of the Navajo formation, and installed it in the well. Change Order #5, dated Oct. 10, 1960 and in the amount of $1549.49, was issued to cover costs of extra work in making an additional pump test, installing a packer and grouting. The McCullough Tool Company brought in equipment and check the formation and diameter of the bore to determine the correct placement of the packer, which was then installed at approximately the 600 ft. level. One hundred fifty feet of grouting was then pumped in under pressure, backing up towards the surface through

the Carmel formation and sealing off approximately the lower 75 ft of the Entrada formation.

Oct. 21, 1960
Other than a small amount of "touch-up," work was stopped until the grout could set up.

Oct. 22, 1960
The contractor moved in a small generator and reinstalled the pump and 3" pipe to an approximate depth of 740 ft.

Oct. 26-27, 1960
Pump test was completed, and the maximum obtained was from 8 to 10 G.P.M. In this test, the Navajo formation was the sole source of supply.

Oct. 29, 1960
Contractor removed all of his equipment, after cleaning up the area, and left the project. Final inspection was made on this date and the contractor notified of our acceptance. Total contract price including change orders amounted to $16,216.43.

NARRATIVE STATEMENT

Negotiated Contract #14-10-0232-436 in the amount of $10,212.99 for drilling of test water well was awarded on July 12, 1960 to D. L. Campbell, dba Uintah Basin Drilling Company, Roosevelt, Utah. The contractor was notified to proceed with the work on the same date and began moving in on the job on July 19, 1960.

As required by the contract, the contractor began work at the old well site #2, July 20, 1960. It was unknown whether or not this bore was plumb to within 3 degrees, so a 40' section of 5½" O.D. pipe was lowered into the casing to test for plumbness. This test was not considered accurate or adequate.

July 21-30, 1960
Considerable work was accomplished in preparation for deepening Well #2, such as reaming, installation of new outer and inner casings, all covered by Change Order #1, dated July 21, 1960, in the amount of $1,853.33.

July 31, 1960
Any further development of Well #2 was held up until a thorough alignment test could be made. Change Order #2, in the amount of $299.00, was issued to cover this extra work.

August 2-8, 1960
Alignment test was made by the Schlumberger Well Surveying Corp. and it was found that the bore was out of plumb to the extent that it could not be utilized in our test well research. With the approval of the Region Two Office, Test Well Site #2 was abandoned and filled and a new location, designated as Site #3, was selected for the Test Water Well. Stop Order dated August 3, 1960 was issued, Order to Resume Work was issued on August 6, 1960. Change Order #3, dated August 7, 1960, in the amount of $1839.74, was issued to cver the cost of extra work involved in drilling the new test well from ground surface.

August 9, 1960
The contractor began drilling at the new Site #3, finished to the 25' depth and installed 25' of outer protective casing.

August 10-12, 1960
Drilling continued without incident, with plumb tests being taken by the contractor at the 40, 70 and 100 foot depths. The bore was found to be out of plumb by .50 degrees at 100' level.

August 13-22, 1960
The contractor forced 21' of 16" casing down over the 10" casing. The 10" casing was then pulled, extended and reinstalled to a depth of 38 ft. Grouting was then poured between the 10 and 16 inch casings, thereby assuring that no surface water could enter the well.

August 23-29, 1960
The Entrada formation was encountered at a depth of approximately 165 ft. A core sample was taken. Drilling was continued, with formation samples being taken every 10 ft. The 300 ft. level was reached and at this stage it was estimated that the

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the Carmel formation and sealing off approximately the lower 75 ft of the Entrada formation.

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Contractor removed all of his equipment, after cleaning up the area, and left the project. Final inspection was made on this date and the contractor notified of our acceptance. Total contract price including change orders amounted to $16,216.43.

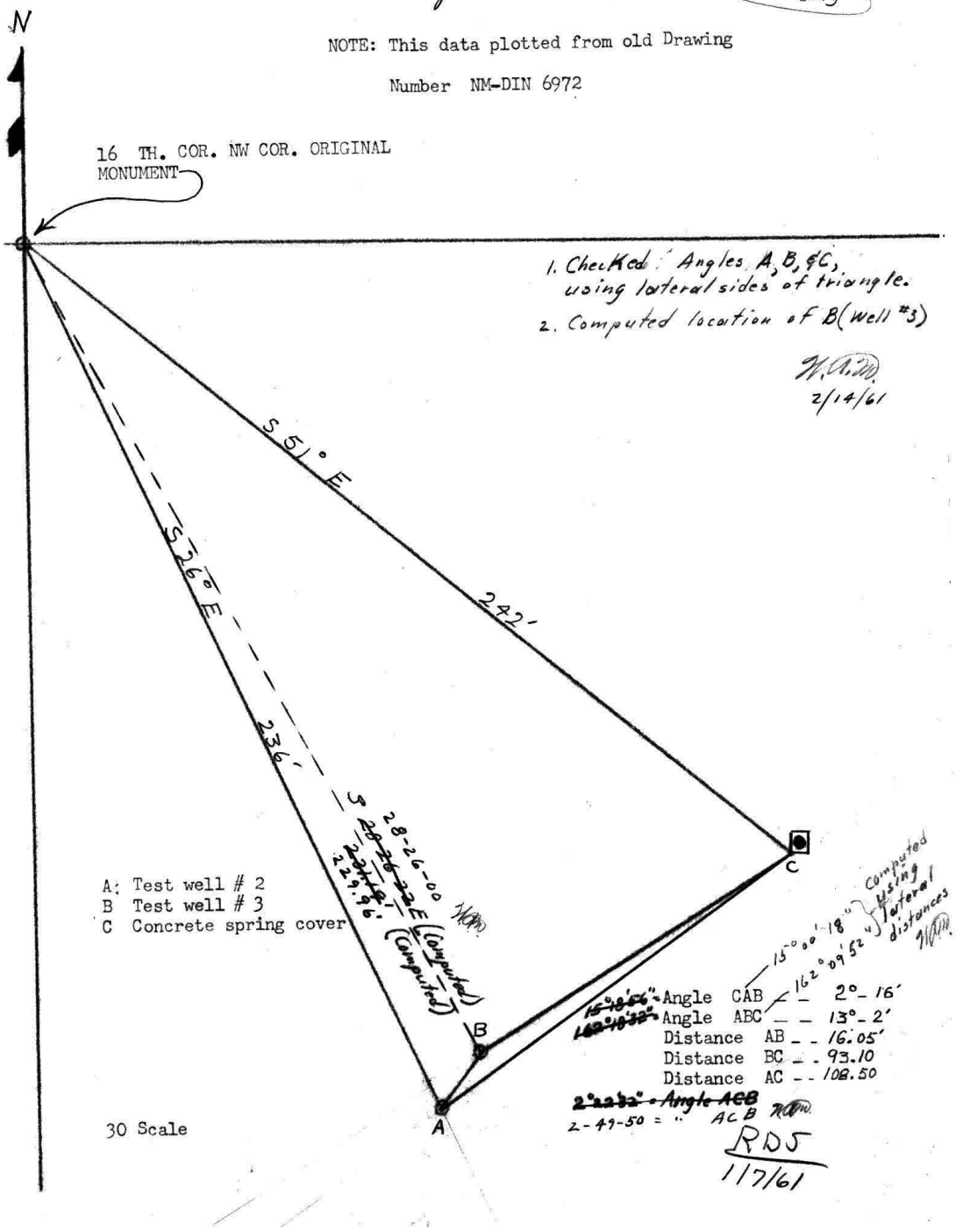
00-00-0000: data plotted form old drawing number nm-din 6972

Reg. II

Office Copy

NOTE: This data plotted from old Drawing

Number NM-DIN 6972



NOTES

The contractor had filled in Test Well #2 and did not leave a reference marker of any type to indicate the location of the abandoned well.

The reference point at the Spring was lost when the bank caved-in in early 1959.

We referred to Drawing Number NM-DIN-6972 and attempted to establish the location of Test Well #2 and some given reference point at the Spring.

Setting our transit on the hub at 16th Cor. NW Cor. Original Monument and reading S.26E and 236' we feel that we located the site of the abandoned well #2, and using S.51 E. and 242' we hit the corner of the new concrete manhole cover over the Spring as shown in the attached sketch.

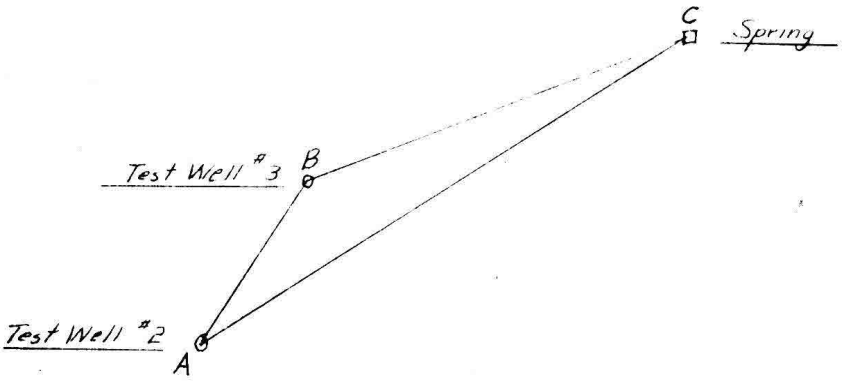
Angles and distances for the location of Test Well #3 are taken from these points.

/S/ Robert D. Jeffery
Foreman IV, C&M

01-07-1961: relative location of test well #3, spring and test well #2

Dinosaur Nat'l Monument Date: Jan. 7, 1961

Relative Location of Test Well #3, Spring and Test Well #2 (Abandoned), Quarry Area.



Data Required		Measured Values.
Angle C-A-B	=	2°-16'
Angle A-B-C	=	13°-2'
Distance A-B	=	16.05'
Distance B-C	=	93.10'

Field Data by: R.D. Jeffery

See attached notes.

12-19-1960: memorandum to superintendent regarding well no. 3, spring area, quarry water supply

L 54 Dino

Memorandum

DEC 19 1960

To: Superintendent, Dinosaur National Monument

From: Acting Regional Chief of Operations

Subject: Well No. 3, Spring Area, Quarry Water Supply, Dinosaur National Monument

You should submit a completion report (in triplicate) giving information on the drilling operations performed under Contract 14-10-0232-436 for the new well in the Spring Area. The report may be in narrative form covering the following items:

1. Date and number of contract.

2. Contractor's name.

3. Factors of importance pertaining to the drilling operations in sequence of occurance and dates.

4. Change orders - work to be accomplished in the order, date issued and estimated cost of work.

5. Dates - work commenced and completed.

6. Water analysis report.

7. Geologic Log of the well.

8. Total cost of the work.

Mr. Mott will prepare the report on the test pumping operations and an appropriate map of the well area.

You should prepare and distribute your regular project completion report when the entire project, including construction of pump house, installation of well pump, connection to distribution system and other pertinent work is completed.

We are setting up a temporary file labeled "DINO Well No. 3, Spring Area, Quarry Water Supply" to serve for filing data until a docket file can be prepared. This office will prepare the docket assembly and make distribution so that each office will have identical records.

(Sgd) Harvey B. Reynolds

WAMott/etb

Harvey B. Reynolds
Acting Regional Chief of Operations

12-16-1960: letter to uintah basin drilling co. regarding a final inspection of your contract #14-10-0232-436

Dinosaur National Monument
91 West Main, Vernal, Utah

D-3039 554 December 16, 1960

Uintah Basin Drilling Co.
Roosevelt, Utah

Gentlemen:

A final inspection of your Contract #14-10-0232-436, for drilling a test water well at Dinosaur National Monument was made on October 29, 1960, by Paul L. Webb, Acting Superintendent and Robert D. Jeffery, Maintenance Supervisor, both of the National Park Service and Mr. D. L. Campbell of the Uintah Basin Drilling Company, Roosevelt, Utah

This inspection revealed that the work was completed in accordance with specifications and is hereby accepted.

Sincerely,

Paul L. Webb
Acting Superintendent

Sat in
last day
Nov 9.

12-15-1960: memorandum to superintendent regarding location and identification number, new well in spring area

Mott 12/14
Peterson 12/14
Wilson 12/14

L54 D1A30

DEC 15 1960

M

To: Superintendent, Dinosaur National Monument

From: Acting Regional Chief of Operations

Subject: Location and Identification Number, New Well in Spring Area, Quarry Headquarters, Dinosaur National Monument

The new well will be designated as Well No. 3, Spring Area, Quarry Headquarters.

The location of subject well, drilled by the Uintah Drilling Company in October, 1960, is described as being in the land area of NE¼SW¼ of Sec. 26, T. 4 S., R. 23 E., S.L.M. To determine the location of the new well by bearing and distance from the S¼ Cor. of Sec. 26, it is necessary to establish the relative position of Well No. 3 to the Spring and to Well No. 2 (abandoned). Attached is a sketch of these three points, and if the Maintenance Foreman can supply this office with the data required for the measured values on the attached sketch, we will determine the bearing and distance tie values that will be used in the water right filing for Well No. 3, Spring Area.

The casing must be perforated to admit the water supply from the Entrada aquifer before a supply pump is set into the well in order to obtain the maximum yield which the well is capable of supplying.

You may issue a Letter of Acceptance to the Uintah Drilling Company as the contract work has been completed and the yield from the well has been tested for the required supply.

(Sgd) L. R. Brown

LeRoy R. Brown
Acting Regional Chief of Operations

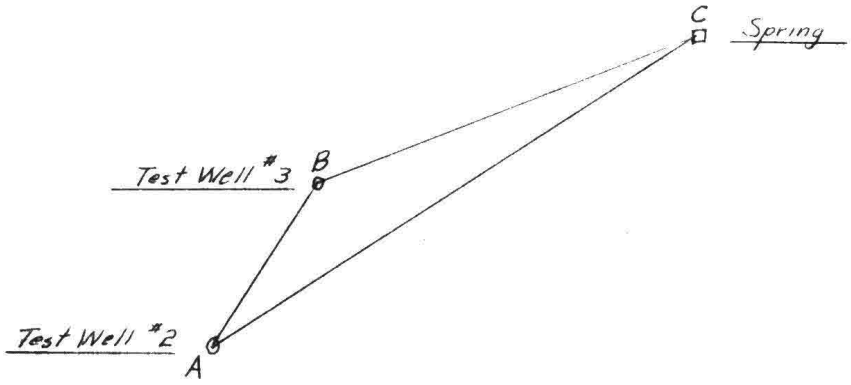
Attachment

WAMott/etb

00-00-0000: relative location of test well #3, spring and test well #2(abandoned)

Dinosaur Nat'l Monument Date: _____

Relative Location of Test Well #3, Spring and Test Well #2 (Abandoned), Quarry Area.



Data Required		Measured Values
Angle C-A-B	=	
Angle A-B-C	=	
Distance A-B	=	
Distance B-C	=	

Field Data by: _____

Mott 12/6/60
Aitow 12-6
Bagley 12/6

L54 - Docket #1

DEC 7 1960

Memorandum

To: Director

Acting Assistant
From: Regional Director, Region Two

Subject: Application No. 13209, Docket No. 1,
Dinosaur National Monument

Attached is a copy of extension granted on subject application as a result of the hearing on water rights held at Vernal Utah, on October 19, 1960. This copy should be filed in the subject docket on top of Part II - Well No. 2.

A representative from the State Engineer's Office, Salt Lake City, Utah, present at the hearing, read the location of the point of diversion and the amount of water for which the application is made, then requested an account of the status of development.

Mr. Semingsen, Superintendent of Dinosaur National Monument and representing the National Park Service, introduced Mr. Mott, Region Two Hydraulic Engineer, to comment upon the status of developments relative to the subject application. Mr. Mott advised that the spring (Application No. 13209) water supply was inadequate and that a supplemental, potable water supply is needed to meet the requirements. Consequently, we are drilling a test well in search of a desirable supply.

The State Engineer's representative proposed that, should we find a suitable supply of water as a result of the test well, an application should be made on the well as a supplemental to the spring supply, thus it would hold the same priority date as the application on the spring.

[SGD.] GEORGE F. BAGGLEY

Acting Assistant
Regional Director

In duplicate

Attachment

Copy to: Supt., Dinosaur NM
Chief, WODC (2), w/attachment

WAMott/etb

L54.

November 18, 1960

File
2/16/60

Memorandum

To: Superintendent Dinosaur National Monument

From: Regional Procurement and Property Management Officer

Subject: Contract 14-10-0232-436, Test Water Well Drilling at Dinosaur National Monument

It appears that we need some clarification or modification of your memorandum of September 9 in which you advise that the contractor, at time of offsetting well to a new site, agreed to provide a 10" rather than an 8" bore for the same unit price of $6.90 per foot.

Probably what we need is an explanation that the 10" bore could only be drilled to a depth of 568 feet and that the depth from 568' to 868' had to be drilled with an 8" bore and from 869' to 965' with a 6" bore as this will account for the charge of $2.90 per foot for reaming to a 9¼" bore. Otherwise the charge for reaming will be questioned, also why the 9¼" bore instead of 10" which was the initial size of bore.

(Sgd.) H. C. Melaas

H.C. Melaas
Regional Procurement and
Property Management Officer

10-14-1960: long distance telephone call to acting supt. paul webb and adm. asst. ted cockrell regarding expected presence

L54 Dino

Long Distance Telephone Call Oct. 14, 1960

ROUTING:

~~Baggley~~ 10/17

~~Peterson~~ 10/18

~~Alton~~ 10-19

To: Acting Supt. Paul Webb and Adm. Asst. Ted Cockrell FILES

From: State Hearing at Vernal, Utah, Oct. 19, on Water Right Application No. 13209, and Status of Well Driller's Progress on Test Well Drilling, Dinosaur National Monument

I was advised my presence was expected and needed at the subject hearing. I told them I plan to arrive at Dinosaur about noon Tuesday, Oct. 18, and go over some of the matters pertinent to the application.

Mr. Cockrell has kept in constant touch with the well driller. The pipe arrived late Thursday, October 13, and the driller is working to get it placed. Haliburton's cement will probably be placed Tuesday or Wednesday. The cement should set at least 48 hours, and better to let it set 72 hours, before pump testing the well. The pump will be set at 700 feet depth. The driller wants to contact the power company to learn if he can use more than 16 stages on the pump to increase the pump capacity at the 700-foot level.

I am scheduling my trip to attend the hearing on the 19th; and then supervise the test well testings as soon as possible after the grouting has been placed and set.

William A. Mott

William A. Mott, P.E.
Hydraulic Engineer

10-14-1960: long distance telephone call to mr. dunn, waso regarding state hearing at vernal, utah, on water right application no. 1

L54 Dino

Long Distance Telephone Call Oct. 14, 1960

Baggley EC 10/17
Peterson LB 10/18
Litton 10-19
Files

To: Mr. Dunn, WASO

From: William A. Mott, Hydraulic Engineer

Subject: State Hearing at Vernal, Utah, on Water Right Application No. 13209, Dinosaur National Monument

Call was made to determine Mr. Dunn's comments on my attendance at the subject hearing on Wednesday, October 19. Mr. Dunn stated that at such a hearing it is necessary the Superintendent be present as well as a Regional representative. Region Three has had more experience in similar hearings, because more claims have been heard, and on two or three occasions it was most important that the Regional representative was at the hearing to present and protect their case.

I reported the status of the present test well drilling: (1) that the well is being drilled 25 feet north of test well No. 2, (2) that test well No. 2 is involved in subject water right application, (3) the new test well now has a depth of 965 feet, (4) that the new test well has not been tested to much satisfaction as yet because the driller had a cave-in and some other difficulties, and (5) the well should be ready sometime next week for further tests. Mr. Mott also stated that a test had been made on test well No. 4 which would not furnish an adequate quantity of water because, when pumped at 34.2 gpm at a 500-foot drawdown, air was pumped from the well.

Mr. Dunn advised and recommended that I be present at the hearing and have with me exhibits to support the water right application. While Mr. Paul Webb, formerly of Pipestone National Monument, should be present at the hearing, he is not too well informed about the water situation in the area. Mr. Webb is Acting Superintendent at Dinosaur.

William A. Mott

William A. Mott, P.E.
Hydraulic Engineer

09-27-1960: letter to dept. of interior regarding application no. 13209

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
SALT LAKE CITY

September 27, 1960

WAYNE D. CRIDDLE
STATE ENGINEER

	Supt.
X	Adm. Asst.
X	Naturalist
	Geologist
XX	Chief Ranger
	Supvr. C&M
	Protection

SEP 1960

U. S. Dept. of Interior
National Park Service
Box 621
Vernal, Utah

Gentlemen:

RE: APPLICATION NO. 13209

This is to remind you of the meeting to be held on the above application at 2:00 p.m. Wednesday, October 19, 1960, County Courthouse, Vernal, Utah.

The applicant or his representative must attend this meeting, be prepared to show diligence, and answer any protests.

Yours truly,

Gretchen McClintock
Gretchen McClintock
SECRETARY, APPLICATIONS

GM/s

XX Important — be sure we go.

Tiny

09-14-1960: memorandum to chief, western office regarding estimate no. 1, contract 14-10-0232-436, test water well drilling

Riha
9/14/60.

~~D5039~~

September 14, 1960

Memorandum

To: Chief, Western Office, Division of Design and Construction

From: Acting Procurement and Property Officer

Subject: Estimate No. 1, Contract 14-10-0232-436, Test Water Well Drilling, Dinosaur National Monument

We are attaching two copies of Estimate No. 1, which has application to the above-mentioned project at Dinosaur National Monument.

(SGD.) JOE H. RIHA

Joe H. Riha
Acting Procurement
and Property Officer

Attachment

Copy to: The Director, w/attachment

FORM WODC 20
UNIT PRICE CONTRACT
(Rev. Nov. 1959)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DINOSAUR NATIONAL MONUMENT

Monthly Est. x

ESTIMATE NO. 1 For (Period) 6/12-8/25/60 Date Aug. 31, 1960

CONTRACT NO. 14-10-0232-436 Completion Date 10-10-60 Extended Date 10-29-60
Uintah Basin Drilling Co.
CONTRACTOR Roosevelt, Utah ORIGINAL CONTRACT $ 10,212,75

PROJECT Test Water Well Drilling CHANGE ORDERS $ 3,992.07

LOCATION Quarry Area TOTAL CONTRACT $14,204.82

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
		PHASE I			
1.	100 ft.	Bore, 10" to 268 ft.	100 ft.	$ 6.90	$ 690.00
2.	100 ft.	" , 10" to 368 ft.	100 ft.	6.90	690.00
3.	100ft.	" , 10" to 468 ft.	0	6.90	0.00
4.	100 ft.	" , 10" to 568 ft.	0	6.90	0.00
5.	8 ea	Core Samples	4	56.25	225.00
6.	100 ft.	Casing, 6" to 100 ft.	0	3.40	0.00
7.	100 ft.	" , 6" to 200 ft.	0	3.40	0.00
8.	100 ft.	" , 6" to 300 ft.	0	3.40	0.00
9.	100 ft.	" , 6" to 400 ft.	0	3.40	0.00
10.	100 ft.	" , 6" to 500 ft.	0	3.40	0.00
11.	100 ft.	" , 6" to 600 ft.	0	3.40	0.00
12.	1	Developing Well	0	50.00	0.00
13.	32 hrs.	Pump Testing	0	36.00	0.00
14.	63 ft.	Pull 6" casing	63 ft.	2.38	149.94
15.	560 ft.	Plugging abandoned 10"bore	0	.15	0.00
		PHASE II			
1.	100 ft.	Bore, 10" to 668 ft.	0	4.00	0.00
2.	100 ft.	" , 10" to 768 ft.	0	4.00	0.00
3.	100 ft.	" , 10" to 868 ft.	0	4.00	0.00
4.	100 ft.	" , 10" to 968 ft.	0	4.00	0.00
5.	7	Core Samples	0	56.25	0.00
6.	100 ft.	Casing, 6" to 700 ft.	0	3.40	0.00
7.	100 ft.	" , 6" to 800 ft.	0	3.40	0.00
8.	100 ft.	" , 6" to 900 ft.	0	3.40	0.00
9.	1	Developing Well	0	50.00	0.00
10.	32 hrs.	Pump Testing	0	6.35	0.00
11.	400 ft.	Plugging abandoned bore	0	.15	0.00
12.	300 ft.	Pulling casing from Navajo formation.	0	.333	0.00
13.	60 ft.	Perforations	0	1.67	0.00

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
C.O.#1	41 ft.	Pull 8" casing	27 ft.	2.38	64.26
	41 ft.	Install 10" casing	33 ft.	6.00	198.00
	127 ft.	Reaming 6" to 10" bore	163 ft.	4.00	652.00
	168 ft.	Install 8" casing	0	4.60	0.00
	2	Drive shoes both 8" & 10"	1	103.95	63.00
	1	Cementing (Grouting)	0	125.00	0.00
C.O.#2	1	Alignment Test	1	299.00	270.25
C.O.#3	33 ft.	Pull 10" casing	33 ft.	2.38	78.54
old well #2	164 ft.	Plug 10" bore, existing well #2	164 ft.	.15	24.60
	21 ft.	Install 16" casing	21 ft.	12.00	252.00 ?
	38 ft.	Install 10" casing	38 ft.	6.00	228.00
	1	Cementing (Grouting)	1	125.00	125.00
	164 ft.	Drill 10¼ bore	164 ft.	6.90	1,131.60

RECOMMENDED: Robert D. Jeffery
Robert D. Jeffery
(Project Supervisor)

APPROVED: Earl M. Semingsen
Earl M. Semingsen, (Date)
Contracting Officer

SUMMARY

TOTAL TO DATE	$ 4,842.19
LESS RETAINED AMOUNT	484.22
NET	4,357.97
LESS PREVIOUS PAYMENTS	0.00
LESS LIQUIDATED DAMAGES	0.00
DUE THIS ESTIMATE	4,357.97

% Completed to Date 40

Distribution:
- Region Two - Orig. & 1 conformed copy
- WASO - 1 signed copy
- WODC - 1 conformed copy
- Supt. - 1 conformed copy
- Proj. Supv. - 1 conformed copy
- Contractor - 1 signed copy

09-13-1960: long distance telephone call to supt. semingsen regarding test pumping test well in quarry area

L54 Dino

Long Distance Telephone call. Sept. 13, 1960

ROUTING:

~~Aiton~~

~~Baggley~~ 9/27

~~Peterson~~ 9/23

FILES

To: Supt. Semingsen, Dinosaur NM

By: Hydraulic Engr., William A. Mott

Subject: Test Pumping Test Well in Quarry Area,
Dinosaur National Monument

In a telephone call on September 12, Supt. Semingsen advised Messrs. Baggley and Mott that the well was drilled to a depth of 965 feet and that water had been encountered at approximately a depth of 800 feet. It proposed a problem of setting the pump during pump testing operations. The contract specifications called for the setting of the pump at a 500-feet depth. We suggested that the pump be set at a lower depth inasmuch as the water supply was encountered at approximately a 800-feet depth.

The Supt. advised of a proposal by the driller to set the pump at a 200 feet depth and conduct a pump test in the light of the fact that the well at the present time is flowing a natural stream from 3 to 4 gpm. This office concurred in that proposal as an initial setting of the pump and dependent upon the results of the pump test the pump could be relocated at a lower depth, if it becomes necessary to determine a larger water supply than would be produced at the 200 feet depth.

The well is collared with a 16" pipe for a distance of 40 feet below the ground surface. The driller bored a 4½" hole to a depth of 965 feet taking core samples as the work progressed in accordance with the specifications. The driller proposed to ~~remount~~ ream the bore to 9" instead to the proposed 8" at no additional expense to permit freer alignment of the 6" casing when placed into the bore. This office concurred in the use of the 9" bore.

Tentative plans were made to pump test the well the week of September 19.

William A Mott P.E.

William A. Mott, P.E.
Hydraulic Engr.

09-09-1960: memorandum to regional director regarding contract #14-10-0232-436

Dinosaur National Monument
91 West Main, Vernal, Utah

[redacted] 254

Sept. 9, 1960

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur

Subject: Contract #14-10-0232-~~465~~ 436, Test Water Well Drilling

As a result of the alignment test covered by Change Order #2, dated 8/2/60, it was determined that the contractor should offset to a new location approximately 25 ft. North of the existing Test Well Site #2.

Because of offsetting to a new location, the following item covered by Change Order #1, will not be accomplished: Grouting @ $125.00. This item is covered under Change Order #3 dated 8/7/60. All other items covered by Change Order #1, will be accomplished at the new location.

At the time of offsetting to the new site, the Contractor asked and received, permission to provide a 10", rather than 8", bore at the same unit price of $6.90 per ft.

The date of final completion, as reflected on Order to Resume Work, dated 8/6/60, was incorrect. The correct date to be shown on that document would be October 24, 1960, rather than October 20, 1960.

Earl M. Semingsen
Superintendent

In duplicate

07-08-1960: memorandum to superintendent regarding negotiation of bid for test water well drilling head quarters area

Mott 7/8/60
aston 7-8-60

L54

JUL 8 1960

Memorandum

To: Superintendent, Dinosaur National Monument

From: Acting Regional Chief of Operations

Subject: Negotiation of Bid for Test Water Well Drilling, Headquarters Area, Dinosaur National Monument

As a result of negotiation held with Mr. D. L. Campbell, doing business as Uintah Basin Drilling Company, by Mr. William A. Mott, Hydraulic Engineer of this office and Mr. T. M. Cockrell, Administrative Assistant of your office, we are attaching five (5) copies of a "Memorandum of Agreement" and a revised bid schedule which you should submit to Mr. Campbell for his approval and signature. The bid schedule has been divided into two phases, and each shows the appropriate negotiated unit prices submitted by Mr. Campbell.

Phase I - Is the work necessary to explore water supply from the Entrada formation; also, it will permit a new hole to be bored in approximately the same location, at the same unit cost per foot as the bid for extending the bore of the present test well. The justification off-setting the present well and drilling an entirely new test well will depend upon the conditions existing in the present well.

Phase II - Covers the work necessary to explore the water supply of the Navajo formation. This work will be accomplished in case the water supply of the Entrada formation proves unsatisfactory

You should arrange to have all of the five copies signed. The original and two signed copies are to be returned to this office. One signed copy should be retained by the Contractor, and one signed copy should be retained for your files.

As soon as the Contractor has explored the conditions of the existing well, please advise this office of the findings. This office must have the information before any action is taken to off-set the rig to drill at a new location should the findings in the existing well indicate the need for this action.

Mr. Mott plans to be in Rock Springs, Wyoming, July 20. He will stop in your area July 21 on his return to Omaha.

[SGD.] JOHN F. AITON

John F. Aiton
Acting Regional Chief of Operations

In duplicate

Attachment (5 cys)

06-22-1960: long distance telephone call to administrative management assistant regarding negotiated contract for test well

L54 Dino

June 22, 1960

ROUTING: ~~[illegible]~~ ~~[illegible]~~ [illegible] D

LONG DISTANCE TELEPHONE CALL

From: Administrative Management Assistant, Dinosaur

To: Regional Engineer and Regional Procurement Officer

Subject: Negotiated contract for test well, Dinosaur National Monument

Mr. Cockrell called to advise that he and Mr. Mott had spent most of the previous day with Mr. Campbell negotiating prices for drilling and developing a test well in Dinosaur National Monument. Mr. Campbell was the only bidder at the time the job was advertised for bid. His base bid at that time was in the vicinity of $19,300. In accordance with previous recommendations, the bid schedule had been broken down to bids for a basic contract which would include drilling and testing a well in the Entrada formation and an alternate bid for drilling and testing a well in the Navajo formation. He advised that the bid for the base contract was $6686 and the alternate bid was $3476.95.

He advised that several changes had been made in the original bid schedule, which were expected, but that no changes had been made in the specifications except that the contractor was to be permitted to use an 8" bore all the way down to the Navajo formation instead of using a 6" bore between the Entrada formation and the Navajo formation, as previously specified.

While Mr. Cockrell was talking with others concerning a different matter, Ed Smith of WODC was telephoned to determine if he would concur with using the 8" bore throughout the drilling of the well. Mr. Smith concurred with this and Mr. Cockrell was so informed.

Mr. Melaas informed Mr. Cockrell of the papers and documents that would be required to support this negotiated contract and advised him to send them in to this office for review prior to final execution.

Luther T. Peterson, Jr.
Regional Engineer

LTPeterson:wla

SECTION IV

SPECIAL PROVISIONS

S.P.-1. PROPOSED WORK. The Contractor shall furnish all labor and materials, power and equipment, and perform all work required for the drilling, logging and testing of a water well to be located in a tract of land owned by the United States Government and known as the Quarry Area of Dinosaur National Monument, in the State of Utah. The contractor shall be licensed well driller as required by the State of Utah, and shall comply with all laws of the State of Utah pertaining to water well drilling. All developing, testing, installation of casing, and grouting shall be done in the presence of the Contracting Officer or his representative.

The work consists of extending an existing test well (presently 168 feet deep) to such a depth as required to drill to, and 100 feet into the Navajo rock formation. It is estimated that the drilling operations will have to be carried to a depth 950 feet below the ground surface. The existing test well is cased with 8-inch steel casing, 41 feet below the ground surface; and 6-inch casing, 63 feet below the ground surface.

The Contractor shall pull the 6-inch casing from the existing well to permit drilling of the bore to greater depths. The 6-inch casing pulled from the existing well shall remain the property of the Government and shall be stored as directed by the Contracting Officer. An 8-inch bore shall be drilled from the bottom of the existing well to a depth necessary to penetrate the entire thickness of the Entrada formation. When the base of the Entrada formation is reached, the Contractor shall install the 6-inch casing with performations as specified into and extending to the bottom of the bore. Following installation of the casing, the well shall be developed and pump-tested as specified under Item 8, (a), (d), (e), (f), (h), ~~and (i)~~.

Following the pump test of the Entrada water supply and when authorized, in writing, by the Contracting Officer, the Contractor shall resume drilling operations and extend the 8-inch bore through the Carmel formation. The 6-inch casing shall then be driven into the Navajo formation (lying beneath the Carmel formation) an estimated distance of 5 feet to 10 feet to form a seal between the casing and the Navajo formation.

Providing the Navajo formation is self-supporting, the drilling shall then continue with a 6-inch bore into the Navajo formation a distance of 100 feet or to such a distance as directed by the Contracting Officer. The bore in the Navajo formation shall not be cased.

This information is intended to assist the Contractor in preparing his bid. The Government does not guarantee the accuracy, and the Contractor shall satisfy himself regarding all local conditions affecting his work. Neither the information contained herein nor that derived in any manner from the Government, its agents or employees, except as otherwise provided herein, shall act to relieve the Contractor from any responsibility hereunder or from fulfilling any and all of the terms of the contract.

The well is located in Spring Gulch about 1/4 mile north of the roadway leading to the Quarry Visitor Center.

S.P.-2. CONTRACT DRAWINGS. There are no contract drawings connected with this contract.

S.P.-3. FEDERAL SPECIFICATIONS. Special Specifications referred to herein shall be and become a part of this contract, and be considered as though incorporated in these specifications. The latest revised editions, which may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., of such Federal Specifications shall apply.

S.P.-4. PROTECTION OF SITE. The contractor shall protect all structures, trees, shrubbery, etc., during the progress of his work; he shall remove from the site all cuttings, drillings, debris and unused materials; and shall, upon completion of the work, restore the site as nearly as possible to its original condition. Water pumped from the well shall be conducted to a place where it will be possible to dispose of it without erosion or other damage to property or the creation of a nuisance.

S.P.-5 TYPE OF WELL AND DETAILS. The well shall be of the single casing type and is expected to be finished to a point in the Navajo formation, it being intended to terminate the well in the upper 100 feet of this stratum. The exact depth of the well is to be determined by the Contracting Officer.

(a) Drilling. The well may be drilled by either the cable tool or rotary drill method, at the discretion of the Contractor. If a rotary drill is used, a standard commercial mud shall be used, or as recommended by the Drill Manufacturer.

(b) Bore. The well shall be drilled a minimum of 6" and 8" in diameter as previously indicated, and shall be straight and plumb. The Contracting Officer shall have the option of abandoning the well upon completion of the bore without further payment to the Contractor for work not accomplished or materials not installed, if in his judgment a suitable water supply cannot be obtained.

S.P.-6. MATERIALS.

(a) Casing. Casing shall be constructed of 6-inch (I.D.) black steel pipe not less than .280-inch thick, weighing not less than 18.97 pounds per lineal foot. Joints may be either welded or standard threads and couplings, at the discretion of the Contractor. A standard 6-inch casing drive shoe shall be fitted and welded on the lower end of the casing.

(b) Perforations. The casing shall be perforated near its lower end and also in the area of the Entrada formation, if required and directed in writing by the Contracting Officer, all in accordance with specifications set forth below. The location of the upper perforations (in the Entrada formation) will be determined by the Contracting Officer subsequent to pump testing the Navajo formation water supply. The Contractor may select the method of providing the upper perforation, either to pull the case, perforate it, then replace the casing into its lower position; or to perforate the casing in place by such method approved by the Contracting Officer. The upper perforations shall be accomplished under a lump-sum bid, but the cost of the lower perforations shall be included in the unit cost of installed casing.

In the event the investigation of water supply from each (Entrada and Navajo) stratum proves it would be advisable to select the Entrada supply, the Contractor, when directed by the Contracting Officer, shall pull the 6-inch casing so the lower section of perforations will be in the lower part of the Entrada formation. After the casing has been reset to collect the Entrada water supply, the Contractor shall plug the bore from its bottom up to the end of the reset casing. The material used for plugging the bore, shall be a mixture of cement and earth in equal proportions, uniformly mixed together.

Beginning three (3) feet from the lower end of the casing, perforations shall be provided in sixty (60) lineal feet of the casing. The perforations shall be either apunched perforation (3/4" diameter), or slots burned with an acetylene torch evenly and uniformly spaced on the surface of the casing. Total perforation openings shall be equivalent to 6.33 sq. in. (minimum) per lineal foot of casing. Burned slots shall be uniform in dimension (1/4 inch x 2-1/4 inches), having six (6) slots evenly spaced in each circumferential row and the rows spaced on 6-inch centers along the axis of the casing. The slots in any circumferential row shall be shifted in circumference position to align with the mid-point between the slots in each adjacent row. After burning, each slot shall be swaged with a bar 1/4" x 2-1/4" to assure a full opening and remove any loose slag from the inside of the opening.

(c) All materials specified shall be new and free from objectionable defects. No used or old material will be accepted. However, if in the opinion of the Contractor it appears necessary or desirable to use temporary casing, the casing may be either used or new, subject to the approval of the Contracting Officer. The temporary casing shall remain the property of the Contractor and shall be removed by him prior to final completion of the well.

S.P.-7. WORKMANSHIP. All work performed shall be done in a careful and workmanlike manner.

(a) Welded Casing. In event the Contractor elects to use welded joints, all sections of casing shall be welded in such a procedure that will avoid excessive distortion of alignment and will meet the alignment requirements. All welding shall be in accordance with applicable provisions of the American Welding Society Specifications for "PIPE LINES."

(b) Grouting. Upon completion of the drilling of the bore and placement of the 6-inch casing, the void between the 6-inch casing and the 8-inch bore shall be grouted from a point 40 feet below the ground surface to the ground surface. The grout shall be a neat cement mix with not less than one part cement to one part water - by volume. This grout shall be allowed to set for not less than forty-eight (48) hours after placement. Work, which may disturb the grout or would cause it to crack, shall not be performed during this 48-hour period.

S.P.-8. DEVELOPING AND TESTING.

(a) Developing. The Contractor shall develop, clean and pump the well by such methods as may be approved by the Contracting Officer. The Contractor shall furnish all necessary pumps, compressors, plungers, or other needed equipment to develop the well to give maximum yield of water per foot of drawdown and to extract from the water bearing formation the maximum practical quantity of matter as may be pumped under maximum conditions of drawdown. At conclusion of the development, the well shall be cleared of all accumulations of mud, sand or sediment to the full depth of the well. All equipment and material furnished and installed by the Contractor for developing the well shall remain his property and shall be removed by him upon completion of the work.

(b) Logging of Well. The Contractor shall provide one core sample from within each fifty feet (50 ft.) of drilling depth, below the bottom of the existing well (168 feet below ground surface). Besides the taking of the core samples, the Contractor shall keep an accurate daily log and record for the well of all materials passed through and the depths at which the changes in formation occur, together with such other informatinn as may be called for by the Contracting Officer. Samples of the materials found in each stratum shall be taken at intervals of not more than ten (10) feet and preserved in receptacles to be furnished by the Contractor. The samples shall be plainly marked, showing the well identification and depth below the ground surface from which the sample was obtained. The log of the well shall show all material penetrated and full descriptive notes made of everything found by the drill and of all difficulties or unusual conditions met in the drilling. All water bearing strata shall be described in special details as to whether the material is loose, compact, its color, whether the particles are angular (sharp) or rounded (worn). The presence of clay or shale must be noted. Upon completion of the well, the log shall be prepared in quadruplicate, signed by the Contractor and delivered to the Contracting Officer for approval.

(c) Plumbness and Alignment Test. Refer to the attached "Memorandum of Agreement."

(d) Test Pump and Equipment. The Contractor shall furnish, install, and operate necessary pumping equipment capable of pumping from the well a maximum of 80 gpm, under an operating head of 500 feet. Throttling devices shall be furnished so that the discharge may be reduced to 5 gpm. The pumping unit shall be complete with prime mover of ample power, controls and appurtenances and shall be capable of being operated without interruption for a period of 48 hours. The Contractor shall furnish all necessary discharge piping for the pumping unit, which shall be of sufficient size and length to conduct the water being pumped to the point of final discharge as directed by the Contracting Officer. He shall also furnish, install and operate equipment of approved size and type for measuring the flow of water, such equipment to be a weir box, orifice or water meter. To measure the elevation of the water level in the well, an air line, complete with gauge, hand pump and check valve shall be provided. Unless otherwise directed, the air line shall be securely fastened to the pumping unit, and shall terminate approximately at the maximum desired pumping level, but in no case shall terminate within two (2) feet of the end of the suction pipe. All equipment and material furnished and installed by the Contractor for the pumping test shall remain his property, and shall be removed by him upon completion of the work.

(e) Duration of Pumping Test. Except as otherwise provided, the Contractor shall furnish all labor, motive power, lubricating oil, and other necessary materials, equipment, labor and supplies required and shall operate the pumping unit as hereinafter described. Accidental interruptions may, if so agreed upon between the Contractor and the Contracting Officer, be compensated for by correspondingly extending the time of the completion of the test run. After completion of final test, the Contractor shall remove by bailing, and sand pumping or other methods, any sand, stones, or other foreign material that may become desposited in the well. The time stated for the duration of the final test is a minimum only and the Government reserves the right to extend such period of test, or to make additional tests.

(f) Maximum Yield. The Contractor shall operate the pumping equipment at increasing discharge rates until the water level reaches a point where further increases would pump the well dry or until a maximum of 65 gpm is produced. The Contractor shall then pump continuously for a period of six (6) hours at a maximum rate which causes no further drawdown of the water level. The Contractor shall make certain that the water level remains stationary during this pumping period. At the end of this test, the well shall be allowed to fully recover its static water level.

(g) Desired Yield. Upon completion of the above test, and at the discretion of the Contracting Officer, the Contractor shall determine the gallons per minute delivered at fifty per cent of the maximum drawdown at maximum yield or the point where no foreign material is pumped, whichever is the lesser. He shall then operate his pump, delivering water at this rate, for a period of not less than twenty-four (24) hours after the pumping level reaches stability. The Contractor shall make certain that the water level remains stationary during this pumping period.

(h) Pumping Test Data. Drawdown reading and discharge rates for the "Maximum Yield Test" shall be taken every five (5) minutes until the maximum drawdown for such increment of discharge has been reached and held for a period to be determined by the Contracting Officer. At the end of this test, recovery levels shall be measured every five (5) minutes until the water surface has risen to within five (5) feet of the original or starting level. Drawdown readings and discharge tests for the "Desired Yield Test" shall be taken every five (5) minutes. All data shall be carefully recorded and a written report, containing all data shall be delivered to the Contracting Officer in quadruplicate.

S.P.-9. PROTECTING WATER SUPPLY. The Contractor shall take such precautions as are necessary or as may be required to permanently prevent contaminated water or water having undesirable physical or chemical characteristics, from entering, through the opening made by the Contractor in drilling the well, the stratum from which the well is to draw its supply. He shall also take all necessary precautions during the construction period to prevent contaminated water, gasoline, etc., from entering the well either through the opening or by seepage through the ground surface.

S.P.-10. CORRECTIVE WORK. In the event the well becomes contaminated or that water having undesirable physical or chemical characteristics does enter the well due to the neglect of the Contractor, he shall, at his own expense, perform such work or supply such casings, seals, sterilizing agents or other material as may be necessary to eliminate the contamination or shut off the flow of undesirable water.

S.P.-11. TEMPORARY CAPPING. At all times during the progress of the work, the Contractor shall protect the well in such a manner to effectively prevent either tampering with the well or the entrance of foreign matter into it. Upon its completion, he shall provide and set a substantial screwed, flanged or welded cap satisfactory to the Contracting Officer at a distance not less than one (1) foot or more than three (3) feet above the normal ground surface.

S.P.-12. ABANDONMENT OF BORE OF WELL. If a satisfactory water supply is not found within a reasonable distance of the estimated depth and, the Contracting Officer directs the Contractor to abandon drilling operations, the Contractor shall fill the abandoned hole with clay or clay and concrete, after removal of the casing.

If, for any reason, other than at the direction of the Contracting Officer, the Contractor should abandon drilling operations at any one location in favor of drilling in another location or should fail to complete the well to the depth specified or to such lesser depth as ordered by the Contracting Officer, the Contractor shall, if requested and as directed, fill the abandoned hole with clay or clay and concrete at no cost to the Government and shall not receive compensation for drilling operations performed at that site.

S.P.-13. MEASUREMENT AND PAYMENT.

(a) Estimated Quantities. Estimated quantities contained in these specifications are given for the purpose of indicating the approximate magnitude of the work and for serving as an equitable basis for award of a contract. Payments will be based on the actual quantity of work required and performed at the unit prices bid.

(b) Drilling of Bore. Under this item, the Contractor shall be paid for drilling an 8-inch bore from the bottom of the existing well to the base of the Entrada formation; and an 8-inch bore from the base of the Entrada formation through the Carmel formation and approximately ten (10) feet into the Navajo formation, as designated by the Contracting Officer, including bringing his rig to the job and removing same, setting of his well drilling equipment, capping the top of casing, clearing site, furnishing written reports in quadruplicate, daily logs, samples of drill cuttings, and miscellaneous work and materials called for in the specifications but not set up as separate pay items. The unit of payment will be the linear feet of bore measured between the above-mentioned limits for the 8-inch bore and the 6-inch bore respectively. Measurement of depths shall be made by the Contractor using a steel line in presence of the Contracting Officer.

(c) Casing and Grouting. Under this item the Contractor shall be paid for furnishing and placing of 6-inch (I.D.) casing and grouting of casing. The unit of payment will be the linear feet of casing placed and grouted.

(d) Developing Well. Under this item the Contractor shall be paid a lump sum for furnishing all necessary material, equipment and labor for the development of the well as specified.

(e) Pumping Test. Under this item, the Contractor shall be paid for making the required pumping tests, including tests for yield and drawdown, and report. Test shall be made with equipment previously described herein and for such periods as directed by the Contracting Officer. The unit of payment will be the number of hours the pump is in operation and deductions shall be made for all breakdowns or stops or for such tests as are not made in complete accordance with specifications. No payment will be made hereunder for tests made by the Contractor for his own information or for pumping to develop the well.

(f) Filling of abandoned Bore. Under this item, the Contractor shall be paid for filling an abandoned bore when the Government determines that such a location is not suitable to its needs. The unit of payment will be the linear feet of bore filled, measured between the bottom of the bore and the ground surface.

05-05-1960: long distance telephone call to mr. gratton and mr. peterson regarding invitation for bids and specifications for drilling

L 54 Dino

LONG DISTANCE TELEPHONE CALL May 5, 1960 - 10:45 AM

ROUTING:

FROM: Mr. D. L. Campbell (Well Driller)
Roosevelt, Utah

~~Baggley~~ B 5/25
Aiton 5-27
~~Gratton~~
~~Mott~~ 5/27/60

To: Mr. Gratton and Mr. Peterson

Subject: Invitation for Bids and Specifications for drilling of Test Well - Bid Opening May 25, 1960 at 2:00 PM - Dinosaur National Monument

Mr. Campbell called concerning the requirements for pump testing the proposed well at Dinosaur. Mr. Campbell asked if it would be permissible to plan on using a submersible pump in making pump tests. He explained that he had contacted a number of pump manufacturers for other types of pumps which would work under the conditions cited in the specifications but had been unsuccessful in locating other than submersible pumps.

Knowing that Mr. Mott had discussed this project with Layne-Western, it was suggested to Mr. Campbell that he contact a representative of that company either here in Omaha or in Denver to determine pump equipment they might have which might successfully perform under the conditions cited in the specifications.

Mr. Campbell was advised that if there is any question in his mind whether the submersible pump could be used on the test that he qualify his bid by stating that his bid was predicated on the use of a submersible pump and that if this method was unsatisfactory he would not be obligated to furnish other equipment in the event he was awarded the bid.

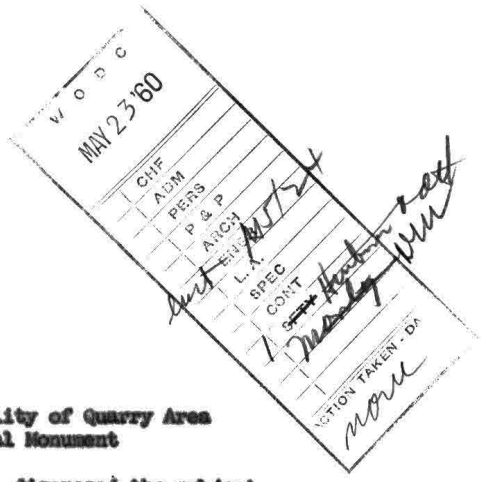
Mr. Campbell mentioned that he anticipated some difficulties in drilling the hole which would comply with the requirements of the plumbness and the alignment tests because of the steep tilt of the formations in which the well is being drilled. He was advised that the standards set forth in the specifications would be adhered to and that if he anticipated trouble he should plan accordingly.

L T P

Luther T. Peterson, Jr.
Regional Engineer

LTPeterson/etb
May 5, 1960

05-19-1960: memorandum to the director regarding investigations to improve quality of quarry area water supply



L54

MAY 19 1960

Memorandum

To: The Director

From: Acting Regional Director, Region Two

Subject: Investigations to Improve Quality of Quarry Area Water Supply, Dinosaur National Monument

Mr. Dunn, in his memorandum of March 23, discussed the subject investigations as related to subsurface water supplies and water from the deeper aquifers.

During the latter part of March, two shallow test wells were drilled in Split Mountain Gorge Campground and one shallow test well was drilled near the river in the Quarry Area. The test wells in the campground each produced relative good quality water and a sufficient quantity of supply. The shallow test well in the Quarry Area produced very undesirable quality water and was abandoned and not pumptested for quantity.

It was decided that we should extend the depth of Test Well No. 2 (Spring Gulch) to the Navajo formation. During the drilling operations we plan to investigate the water supply in the Entrada formation, as well as the Navajo formation. Should a suitable and potable water supply be obtained in either of these formations, the costs of development, connection to the present water system and operation, would be greatly reduced as compared to developing a supply from the campground and installing about 3½ miles of pipeline. However, the water in the campground is a potable water and compares very closely, chemically, to the stream flow in the Green River.

A report on investigations of the Entrada and Navajo aquifers should be completed late this summer and distributed for review.

(SGD.) GEORGE F. BAGGLEY

Acting Regional Director

In duplicate

Copy to: Superintendent, Dinosaur NM
Chief, WODC (2)

12-31-1959: letter to u.s. dept of interior regarding application no. 13209

L54 Dino

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
SALT LAKE CITY

December 31, 1959

WAYNE D. CRIDDLE
STATE ENGINEER

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
Mott. Otten
ACTION
Memo to Supt. 8/7/69

U. S. Dept. of Interior
National Park Service
Region Two Office
307 Federal Office Bldg.
Omaha 2, Nebraska

Gentlemen: RE: APPLICATION NO. 13209

This is to acknowledge receipt of your letter and request for extension of time on the above application.

Since the proof due date is beyond the 14-year period, it is necessary to advertise the extension. We have changed the office policy regarding collection of advertising fees and it is now necessary to collect $25.00 before advertising starts. Please forward check to cover these fees.

Your particular county is not scheduled for hearing until late summer of 1960 so the file will be held in good standing and you will be notified of advertising and hearing date later on.

Yours truly,

Gretchen McClintock

Gretchen McClintock
SECRETARY, APPLICATIONS

GM/s

12-28-1959: letter to state engineer regarding application 13209 extension of time

L54 Dino

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REG. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
ACTION TAKEN

Dinosaur National Monument
Box 621 - Vernal, Utah

December 28, 1959

State Engineer
Office of the State Engineer
State of Utah
Salt Lake City, Utah

Re: Application 13209
Extension of Time

Dear Sir:

The above application for extension of time in excess of 14 years in which to complete construction and make full benaficial use of water for the Quarry Headquarters at Dinosaur National Monument is attached for your consideration.

In accordance with our information it is necessary to publish notice of the application for extention of time at the applicant's expense, but the payment need not be made until your notice to the United States of America, as applicant, of the cost of advertising. Please advise us of the approximate cost of advertising so that we may issue a Purchase Order to you thereby obligating funds to make payment upon receipt of your invoice.

Sincerely yours,

Jess H. Lombard
Superintendent

Attachment
cc: Reg. Dir., Reg. Two
Waso
WODC in dupl.

L54 Dino
Mott 12/23/59
Baggley
12/23

DEC 2 3 1959

Memorandum (AIR MAIL)

To: Superintendent, Dinosaur National Monument

From: Regional Chief of Operations

Subject: Water Right Application 13209, Well No. 2 and Spring in Spring Area, Part II, Docket No. 1, Dinosaur National Monument

Attached are five copies of Form L-29 "Request for Extension of Time" on subject application, one copy of which is due in the office of the State Engineer before January 1, 1960. We have filled out the application, and are forwarding it to you for your signature and the required notarization.

Please consummate each copy with the appropriate signature and notary seal, and forward original copy promptly to the State Engineer; and, distribute one copy to each: WODC, Director, and Region Two office.

The charge of $25.00 to be tendered with this "Request for Extension of Time", for publishing the notice to water users, and the notary fee, if any, should be paid from your impress funds and charged to Regional Office Account 3-WR-60 (0343).

(SGD.) GEORGE F. BAGGLEY

George F. Baggley
Regional Chief of Operations

Attachment

In duplicate

WAMott/etb

12-21-1959: letter to dept of interior regarding application no. 13209

THE STATE OF UTAH
OFFICE OF STATE ENGINEER

SALT LAKE CITY
December 21, 1959

WAYNE D. CRIDDLE
STATE ENGINEER

L54 Dino

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
ACTION TAKEN Done
12/23/59

U. S. Dept. of Interior
National Park Service
Region Two Office
307 Federal Office Building
Omaha 2, Nebraska

Gentlemen: RE: APPLICATION NO. 13209

This is to acknowledge receipt of your letter dated December 16, 1959, requesting additional copies of form 29, Request for Extension of Time.

One copy of the form is all that is required by this office to be filed together with $25.00 for advertising fee. The Proof Due date on this application is Jan. 1, 1960.

Yours truly,

Gretchen McClintock

Gretchen McClintock
SECRETARY, APPLICATIONS

GM/s

Encl: 5 copies F-29

12-17-1959: long distance telephone call to mr. dunn, waso regarding request for extension of time, application no. 13209

LONG DISTANCE TELEPHONE CALL

L54 Dino

Dec. 17, 1959

ROUTING:

12/17/59

12-24

12-17

1-11-60

To: Mr. Dunn, WASO

From: William A. Mott, Hydraulic Engr.

Subj: Request for Extension of time, Application No. 13209, Dinosaur National Monument

Mr. Dunn concurred, in general, with the request for extension of time which was prepared by this office. He proposed the inclusion of the following relative to the beneficial use of the spring water:

1. The spring water is being supplied to the employees' residences for limited domestic uses.

2. The spring water should be held as a "standby supply" in case of disrupted service from the main supply.

William A. Mott

William A. Mott
Hydraulic Engineer

WAMott/etb

Dec. 17, 1959

12-14-1959: long distance telephone call to supt. regarding quarry area water supply

LONG DISTANCE TELEPHONE CALL

Dec. 14, 1959

ROUTING:

L54 Dino

TO: Supt., Dinosaur NM

FROM: William A. Mott, Hydraulic Engr.

Subj: Quarry Area Water supply

Due date for Proof of Beneficial Use of water under Application No. 13209, Spring Area, is January 1, 1960. Mr. Lombard believes we should request an extension of time for making proof of beneficial use of the springwater. The spring water is presently the supply being used by the employees for domestic use. The water is being carried in individual containers from the spring to the residences.

The water from Well #3 (on the bank of the Green River) is apparently free of suspended material but is very high in dissolved minerals. It was proposed by Mr. Lombard that some test wells be drilled upstream of Well No. 3, on right bank of the river. Samples of water collected from some holes, drilled with hand auger, indicate a possibility that a satisfactory supply of water might be developed in this region.

Only as a last resort of providing satisfactory water, he would construct a water treatment plant at Well No. 3.

Mr. Mott advised the Superintendent that $4150 had been programmed for test well drilling at the Quarry area. Mr. Lombard believes that three test wells might be drilled, to an average of 50 ft. depth, under this program. He will have Mr. Oscar Dick prepare a work order, and send to this office, showing estimates of costs that he may receive from a local driller.

Oscar Dick is handling the water supply matters as Mr. Lombard is transfering from Dinosaur NM to Wind Cave NP about January 1, 1960.

William A Mott

William A. Mott
Hydraulic Engr.

WAMott/etb
Dec. 16, 1959

11-16-1959: memorandum to regional director regarding water right application 13209, well no. 2 and spring in spring area, part ii

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

IN REPLY REFER TO:
L54-OBI

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR

November 16, 1959

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Water Right Application 13209, Well No. 2 and Spring in Spring Area, Part II, Docket 1, Dinosaur

Attached are copy of notice of October 30 of Proof Due under the subject application by January 1, 1960, and the only copy of the form which was attached, for use in requesting an extension of time. It will be necessary for you and the Superintendent to decide on the action to be taken, and to prepare either the proof or request for extension of time. Very careful technical detail is needed, and can only be supplied by an engineer who is more familiar than I am with the present status.

This relates to only the use of the spring or adjacent Well No. 2, as described in my request of January 3, 1955, for extension of time. Please refer to the last sentence on attached "nature and extent and cost ..... work", in that application, which reads "Project no included spring flow.....", which should have read "Project now included: spring flow diverted and used.....". Part II of the docket also includes my Section A-A and letter of July 7, 1955, to the State Engineer. The docket also includes the published notice for, and the order granted for extension of time under the application which was filed in 1940. That application is at the bottom of contents of Part I.

Also attached are a copy of amended Application 13209 which I signed on January 4, 1955, which was submitted to the State Engineer with my letter of the same date. This application was returned with the State Engineer's letter of January 26, 1955, of which copies were sent to you, the Superintendent and WODC with memorandum of February 3. You were also supplied with Mr. Allen's reply of February 4, 1955, the State Engineer's letter of March 16, 1955, and his ultimate one of July 15, 1955, all leading to the advertisement for the last extension of time and agreement to accept a request for change in point of diversion from Well No. 2 to the spring, if desirable. Also attached are the six copies of Form F-8-11-45-6M which were provided for that application.

It should not be difficult to complete the request for change in point of diversion from the data in amended Application 13209 and the 1955 request for extension of time, if the spring diversion is still used. You have also been supplied with print of Drawing 6972 from which a proof map could be prepared by tracing the portion to show the water system from the spring, but you would also have to prepare and add plans of the diversion and storage structure. A narrative proof is also needed, with record of the measured diversion and description of how measured, and similar records of the use of that diverted quantity of water. I assume that measurements of diversion and use are all that would prevent proof for license of the limited flow by January 1.

I also assume that Well No. 2 has not been connected to the system since test showed its inadequacy, and Well No. 3 (Part III of docket) was dug.

In all probability it will be desirable to pay the $20.00 for another extension of time if you can provide a justifiable request. In that case, you should obtain more copies of attached Form L-29, in order to prepare identical copies for the dockets. If I understand correctly, Well No. 3, on which approved application has not yet been received, is not proving as satisfactory as anticipated. Since it covers the use of subsurface flow of Green River, and application 13209 covers an artesian water which might be the source of any new well, both applications should be kept in good standing until the permanent supply is developed. //

A. van V. Dunn
Chief, Water Resources Section

Attachments 9

Copy to: Superintendent, Dinosaur
Chief, WODC (2)

In reply refer to:
L54-L

Dend

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REG. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
Matt Miller 4/24/58
ACTION TAKEN
FILE

April 21, 1958

Mr. Wayne D. Criddle
State Engineer
State Capitol
Salt Lake City, Utah

Well #3?

Dear Mr. Criddle:

Re: UNNUMBERED APPLICATION AND
APPLICATION NO. 13209

Enclosed is our unnumbered application for the appropriation of subsurface flow of the Green River at Dinosaur National Monument. This has been corrected in red and signed, in accordance with the letter of April 10 from Mr. J. M. Gardner.

Mr. Gardner's letter suggests that the procedure for filing may have been changed since we obtained our last copy of your Rules and Regulations, which was dated June 1, 1947, and contained hand lettered editing to July 1949, when it was supplied by Mr. Linke. Please supply us with your latest edition.

The lack of signature, when the application was filed in July 1957, may have resulted from my confusing different procedures for applications and proofs. It was my understanding that either type of instrument was to be submitted for your review before being signed.

Sincerely yours,
SIGNED

A. van V. Dunn
Chief, Water Resources Section

Enclosure

Copy to: Regional Director, Region Two
Superintendent, Dinosaur
Chief, WODC (2)

L-54
DINO

Mott.
4/10/58
action 4/10

APR 10 1958

Memorandum

To: The Director

From: Hydraulic Engineer, Region Two

Subject: Water Rights for Well 3, Quarry Headquarters - Docket 1, Dinosaur National Monument

We have taken the action called for by Mr. Dunn in his subject memorandum of March 26, 1958.

The description and price of the pump and power unit for the subject well has been prepared by WODC and copies distributed for the four dockets.

We are attaching a copy of Mr. Lombard's memorandum of April 4, 1958, with listed enclosures, in which he advises he has no record of the Utah State Engineer ever having acknowledged Mr. Dunn's application submitted on July 9, 1957. He also furnishes additional information concerning Mr. Dunn's memorandum of February 13, 1957, justifying retention of the spring and the old pipeline for the purpose of furnishing drinking water to employees.

Signed

William A. Mott
Hydraulic Engineer

Attachments

Copy to: Supt., Dinosaur Nat

WAMott:JFA:ewm

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Dinosaur National Monument
Box 621, Vernal, Utah

IN REPLY REFER TO:
L-54-L Dino

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
ACTION TAKEN Memo to Dir - 4-10-58
FILE 4-10-58

April 4, 1958

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur National Monument

Subject: Water Rights for Well 3, Quarry Headquarters - Docket 1, Dinosaur National Monument

This is an answer to Mr. Aiton's Memorandum of April 1, 1958 referring to Mr. Dunn's Memorandum of March 26, 1958.

We have no record of the Utah State Engineer ever having acknowledged Mr. Dunn's application submitted on July 9, 1957.

The attached itemized cost sheet for the water taken from the Completion Report on Contract No. 14-10-232-164, Water and Sewer System, gives a great deal of information on the water system but does not indicate the cost or description of the pump and power unit. The pump and electric motor power unit is included in Item 3, "One each pump house at $3,340.97" plus an additional $1,427.03 in Item No. 4 of Change Order No. 2. This totals $4,768.00 for the pump house and pump with integral electric motor power unit. A picture of the Fairbanks Morse pump and motor is in the Completion Report copies of which are in your office and WODC. We have no knowledge in this office of what part of the $4,768 was for the pump. From the literature in the files, the pump is the Fairbanks Morse "Pomona Little Chief," turbine type (Serial No.TV.7095) as described in Bulletin 6980-1 Figure 6980. See the attached performance chart and Bulletion 6980-1. There is a $7\frac{1}{2}$ h.p. motor directly connected to the pump shaft. The motor operates on 220/440 V., 60 cycle, 3 phase electric power. See Item 4-e, of Change Order No. 2 dated October 29, 1956.

Mr. Dunn is right in assuming there will be in excess of 200,000 people per year visit the Quarry Area by 1970. In our MISSION 66 we estimated between 3 and 4 hundred thousand for the Monument in general.

Point No. 3 in Mr. Dunn's Memorandum of February 13 1957 asks about the spring and old water line. He is definitely correct in showing the new line independent of the old one. We do not plan on

C. C. MAILED TO:
Director with Memo 4-10-58
BY Wennett DATE 4-10-58

Attachments filed in Water Right Docket 4 Quarry Head, Dino.

any emergency cross connections. We do wish to retain use of the spring and the old pipe line to furnish drinking water of better quality than the new system furnishes. The employees haul water in 5-gallon carboys from an outside riser and hose bibb on the old water system for use in their homes for drinking. We hope that the water in the new system will improve in quality but it's still pretty bad.

Perhaps R. Neil Grunigen in WODC can remember the cost of the pump and power unit that make up the Item No. 4, Pump House in the contract, if it is that important.

Jess H. Lombard
Superintendent

in tripl.
cc: WODC

WATER SYSTEM, CONTRACT NO. 14-10-232-164, DINOSAUR NATIONAL MONUMENT

Bid Item:

1.	1 each, developing well	$ 812.90 *
2.	15 1/3 hours pumping test @ $6.50	101.20 *
3.	1 each, pump house @ $3,340.97	3,340.97
4.	1 each, 50,000-gallon steel reservoir installed in place @ $10,577.50	10,577.50
5.	2,150 lin. ft.,8-inch class 150 cast iron pipe @ $7.76	16,684.00
6.	1881 lin. ft., 6-inch class 150 cast iron pipe @ 5.74	10,796.94
7.	607 lin. ft., 2-inch galvanized steel pipe @ $1.23	746.61
8.	288 lin. ft., 1-inch galvanized steel pipe @ $1.02	293.76
9.	Not installed	------
10.	6-inch flanged gate valve w/gate box-4 each @ $94.36	377.44
11.	2-inch gate valves with gate box 2 each @ $50.00	100.00
12.	1-inch gate valves with gave box 6 each @ $27.14	162.84
13.	6-inch fire hydrants on 8 inch line 2 each @ $351.65	703.30
14.	6-inch fire hydrant on 6 inch line 2 each @ $338.82	677.64
15.	Concrete collar anchors, 12 each @ $143.00	1,716.00
16.	Insulated channel crossing and drain 1 each @ $791.38	791.38
17.	1 each, pressure reducing valve and box @ $1,154.65	1,154.65
		49,317.13

Change Order No. 2

1.	Providing a dug well	1,718.05
2.	Developing the well	1,169.00
3.	5 hours, pumping test @ $7.50	37.50
4.	Construct pump house for an additional amount above the original amount of item 3 of the bid schedule for the Water System	1,427.03
5.	1,573 lin ft., 6-inch class 250 cast iron pipe @ $6.93	10,900.89
6.	Install 6" x 6" x 2½" tee and valve, reducing valve with strainer and valve box	1,154.65
		16,407.12.

~~Data submitted with Memo 4/4/58~~
~~From Superintendent~~

Change Order No. 3

1.	Raise pumphouse, construct new foundation, etc. as specified in Change Order No. 3, Lump Sum	3,330.22

RESERVOIR TANK

Demension-------24 ft. X 19 ft.

Plate Size Bottom--1/4 inch thickness

Plate Size Top and Sides--3/16 inch thickness

To be constructed by Hammond Iron Works, Provo, Utah

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WESTERN OFFICE, DESIGN AND CONSTRUCTION
1000 GEARY STREET, SAN FRANCISCO 9, CALIFORNIA

IN REPLY REFER TO:
L 54 Dino

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
ACTION TAKEN
cc Filed Docket 1
FILE 4-9-58

April 2, 1958

Memorandum

To: Regional Director, Region Two

From: Supervisory Engineer, WODC

Subject: Water Rights for Well 3, Quarry Headquarters - Docket 1, Dinosaur

Referring to a copy of a memorandum dated March 26, from the Chief, Water Resources Section transmitting the subject Docket to you, we comply with the second paragraph of this memorandum with the following description of the pump installed.

Make - Fairbanks Morse & Co., Pomona No. 6977, Type H, 10 x 2½ surface discharge head assembly, 22 stages, delivering 50 gpm into the reservoir. It is powered with a 7½ H.P. 220/440 volt, 3 phase electric motor. This unit was sold to the contractor by Fairbanks Morse & Co., for $1,020 FOB Salt Lake City, Utah.

One copy of this has been placed in our copy of Docket 1.

P. E. Smith
Supervisory Engineer

In duplicate

Copy to: Chief, Design and Construction
Chief, Water Resources Section
Supt., Dinosaur NM

C. C. MAILED TO:
Filed in Docket 1
BY WAM DATE 4-9-58

L54-L Dino
aiton 3-31-58

APR 1 1958

Memorandum

To: Superintendent, Dinosaur National Monument

From: Regional Chief of Lands

Subject: Water Rights for Well 3, Quarry Headquarters - Docket 1, Dinosaur National Monument

We have Mr. Dunn's subject memorandum of March 26, 1958, copy direct to your office, requesting certain information pertaining to Water Rights for Well 3.

It will be appreciated if you will advise us whether you have received a letter from the State Engineer acknowledging or commenting on the application submitted to him by Mr. Dunn on July 9, 1957. If such a letter has been received it is suggested it be forwarded to this office and that a copy be retained for your files.

You will note Mr. Dunn requests a statement covering the pump and power unit be prepared giving the description and price of those features. Upon receipt of this statement we will duplicate it and make distribution to WODC and to the Washington Office.

We will appreciate receiving the above information as soon as convenient.

(Sgd.) JOHN F. AITON

John F. Aiton
Regional Chief of Lands

JFAiton:ewm

03-26-1958: memorandum to regional director regarding water rights for well 3, quarry headquarters - docket 1

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

IN REPLY REFER TO:
L54-L

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
CHF. RANGER ACTIVITIES
FIELD SOLICITOR
Aylmer Roberts Hall Watts
ACTION TAKEN
Minute Dinosaur
FILE

March 26, 1958

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Water Rights for Well 3, Quarry Headquarters - Docket 1, Dinosaur

Attached is a divider for "Part III - Well 3", which should be placed in the subject docket. Also attached are copy of the completion report under Contract 14-10-232-164, and the cover memorandum of October 4, 1957, which should be placed in the aforesaid Part III.

The completion report and the contract do not cover the pump and power unit which are essential parts of the system. It will be appreciated if a statement is prepared, and distributed for the four dockets, giving the description and price of these features of the project.

As of this date we do not appear to have had any acknowledgment or comment on the application which was submitted to the State Engineer with our letter of July 9, 1957. Such comments should come to this office, but before we make inquiry we shall appreciate confirmation that no communications have gone directly to the Superintendent.

We are sending WODC a docket folder and the subject attachments. I am not sure that records of claims to Wells 1 and 2 are needed until we see what the State Engineer does about the new application.

A. van V. Dunn
Chief, Water Resources Section

Attachments 2

Copy to: Superintendent, Dinosaur, w/c 2 attachments
Chief, WODC, with docket folder and attachment

L54-L

JUL 9 1957

WESTERN OFFICE
DESIGN & CONSTRUCT
JUL 11 1957A
CHIEF
ADMIN.ASSIST.
PERSONNEL
PLANS & PROC
SAFETY
ARCHITE
ENGR.
LAND, ARCH.

NO COPY MADE IN MAIL ROOM

Mr. Wayne D. Criddle, State Engineer
State Capitol
Office of State Engineer
Salt Lake City 1, Utah

Re: Application No. 13209
Dinosaur National Monument

Dear Mr. Criddle:

The enclosed application for the supplemental appropriation of the underground flow of the Green River for the Quarry Area of Dinosaur National Monument by Well No. 3, is based on suggestions in the letter of March 16, 1955, from Mr. Tracy, except that we have had to resort to a more adequate source. We have used the "Miscellaneous" form supplied with that letter, but wonder whether a higher priority under "Domestic" classification is not possible with the limited irrigation and utility use. Water demand for utility purposes will probably be less than 5,000 gallons per day.

The natural spring covered by Application 13209 now has a flow of slightly less than 0.01 sec.ft., on which proof will be made. The enclosed application includes claims to any water in excess of the natural spring flow, which was formerly claimed under Application 13209. Unless there are complications after the notice of the new application is published, we do not believe that further amendments of Application 13209 to cover Well No. 3 are justified.

Sincerely yours,

(SGD) RONALD F. LEE
Ronald F. Lee
Acting Associate Director

Enclosure

Copy to: Regional Director, Region Two) Application conforms with draft
Superintendent, Dinosaur) concurred in by memo of 5/27 from
Chief, WODC) Mr. Baggley. Copies of final
application to be supplied when
approved by State Engineer.

02-28-1957: memorandum to the director regarding water system and water rights (including application 13209)

L-54

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

WESTERN OFFICE
DESIGN & CONSTRUC
MAR 4 1957
CHIEF
ADMIN.ASSIST.
PERSONNEL
PLANS & PROG.
SAFETY
ARCHITECT
ENGINEER
LAND. ARCH.
ACTION TAK...
None

FEB 28 1957

Memorandum

To: The Director

From: Regional Engineer, Region Two

Subject: Water System and Water Rights (including Application 13209), Docket 1, Dinosaur National Monument

We have Mr. Dunn's memorandum of February 13 on the above subject, and as we had expected, WODC has been able to answer Mr. Dunn's questions in numbered paragraphs 1, 2 and 3 of his memorandum

However, we cannot see any foreseeable need for 72,000 gallons of water per day for the Quarry Area.

Assuming that we have an attendance of 200,000 per year, and further assuming that they all come in the 120 day period during the summer months, we would have an average daily attendance of somewhat less than 1,700 people. As there are no overnight accommodations, their stay will be somewhat limited and their only need for water will be for drinking purposes and toilet facilities, and we do not believe their use of water will exceed 10 gallons per person.

Plans for the development of the area call for four residences, plus four units for seasonal employees. We believe that we are quite generous in assuming that the residences will use 500 gallons of water per day and that each of the four units for seasonal personnel will use 300 gallons per day.

For irrigation we would estimate that a maximum of two acres might be irrigated. Assuming that irrigation water will be used at the rate of 1 cu. ft. per second for 70 acres would require about 6,150 gallons of water per eight-hour day. In summation, this amounts to the following:

1,700 visitors @ 10 gal. per day	17,000 gal.
4 residences @ 500 gal. per day	2,000 gal.
4 units (seasonal) @ 300 gal. per day	1,200 gal.
Irrigation - 2 acres @ 1 cu. ft. per sec. per 70 acres	6,200 gal.
Total (per day)	26,400 gal.

We believe all the above assumptions are more than generous.

The present spring flows about 4 to 4½ gallons per minute. If it could be connected to the present system, its flow of about 6,000 gallons per day might take care of all winter needs for a long time and save on the high lift of water from the well near the river.

(Sgd) William E. Robertson

William E. Robertson
Regional Engineer

Copy to: Chief, WODC
Supt., Dinosaur NM

L 5h

Grunigen

~~Garber~~

February 18, 1957

Smith

Memorandum

To: Chief, Water Resources Section

From: Supervisory Engineer, Western Office,
Division of Design and Construction

Subject: Water System and Water Rights (including Application 13209)
Docket 1, Dinosaur

Your memorandum of February 13 to the Regional Director, Region Two, with copy to this office on the above subject is answered herewith:

1. Base of tank, elevation 5,294
Bottom of pump column, elevation 4,910 ±
Difference 384 ft.
Height of tank 24
Pump lift without friction 408 ft.

NOTE: Change Order No. 2, dated October 29, 1956 made provision for a pump capable of pumping 50 gpm with a lift of 408 ft. Since digging and developing the well, the bottom of the pump column will probably be set at elevation 4914 plus or minus.

2. Junction of pump line with distribution line, Station 16+23 1,623
Well location, Station 0+57 57
Horizontal distance 1,666
From pump base to flow line of pipe at pump house, vertical length 7
Lineal ft. of 6" C.I. pipe required 1,673

3. The new pipe line is entirely independent of the old line from the Spring and it is not contemplated that they will be interconnected at any point.

So far as this office is concerned, it will be perfectly satisfactory to claim at least 50 gpm if as you say it will be easier to prove up on less water at a later date when our needs are definitely established.

FILE COPY

One print of Drawing No. NM-DIN-6972, Water System, Quarry Headquarters, on which the sizes and lengths of pipe have been indicated in pencil, is attached to show lengths and diameters of pipe as requested.

(Sgd.) P. E. Smith

P. E. Smith
Supervisory Engineer, Western Office
Division of Design and Construction

In duplicate

Attachment

Copy to: Superintendent, Dinosaur
Region Director, Region Two

RNGrunigen:as

IN REPLY REFER TO:
L54-L Dino

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

RECEIVED
REGION TWO OFFICE
1957 FEB 18 AM 8 : 4

February 13, 1957

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF OPERATIONS
CHF. DIV. OF INTERP.
CHF. REC. RES. PLANNING
FIELD SOLICITOR
ACTION TAKEN
memo to WASO, c/WODC & Denv.
FILE 2-27-57

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Water System and Water Rights (including Application 13209), Docket 1, Dinosaur

With copies of this memorandum we are sending you one print of Drawing NM-DIN-6972 as of January 30, and the Superintendent and WODC each two prints of the drawing, as modified in accordance with the Superintendent's memorandum of December 10, 1956. The extra prints should be corrected as needed, forwarded to you, and one copy with consolidated data should be returned to us.

The drawing shows very little variation in the relative positions S½ and SW Cor. Sec. 26 due to additional surveys. The basic surveys are, therefore, in sufficient agreement for water right purposes. The following points need clarification:

1. The static head between river water level in adjacent well, and 50,000 gallon reservoir is 391 feet while the letter to contractor of October 29, 1956, specified pump lift of 408 feet without fraction. The top of the reservoir may be 17 feet above natural ground level, or we may have shown incorrect location from Drawing 3110.

2. The same letter specified 1573 feet of 6 inch cast iron pipe from pump to connection with main distribution line, but drawing shows 1623.06 feet. We should have lengths of various diameters of pump line and distribution mains to both proposed visitor center and the new residential area.

3. Are we correct in showing new pipe line independent of old one from the spring? If the old spring supply is to be retained, please indicate any emergency cross connections.

Although Mr. Lombard may have been correct in estimating a maximum water demand of between 15,000 and 18,000 gallons per day during the period of MISSION 66 development, I think this Service should claim at least 50 gpm (0.111 sec.ft. or 72,000 gpd) during the tourist season, or at least 10 acre-feet per annum in the water right. Attached semi-logarithmic chart of the annual attendance shows too much irregularity

REC'D IN GEN. FILES MAR 6 1957

to draw final conclusions, but there is enough to suggest that annual attendance may increase from the present 73,000 per year to about 200,000 per year some time between 1970 and 1995.

It seems probable that with complete development of facilities, the average August water demand of 1956 might have been close to 15,000 gpd if all visitors stopped at the Quarry area and if about 1.38 acres of scattered vegetation were irrigated. The peak demand would probably have been three or four times the monthly average. Moreover, we are definitely dealing with Colorado River water, and the suit between Arizona and California, in the Lower Basin, will probably be followed by adjudications throughout the Upper Basin. It is easy to prove up on less water about 1975 but it may become impossible to initiate any claims to more water after the next year or so.

Even the 18,000 gpd, which Mr. Lombard has suggested, will be in excess of rights under Application 13209. At least a supplemental filing is needed. Referring to the letter of July 15, 1955, from the State Engineer, there is also a question as to whether he will accept withdrawals from the new well as appropriations under Application 13209. We will have to decide on the nature of amended and supplemental water claims after we obtain answers to, and comments on this memorandum. So far as I can see, the published notice of August 1955 only extends the time under Application 13209, and that application claimed water from a "spring area" tributary to the Green River. As Mr. Tracy stated on July 15, 1955, we have since determined that water use to date has been from the tributary spring but the well supplies were from an artesian source and the tributary relation to the Green River has not been determined. The public (lower water users) has accepted the appropriation and extensions of time under Application 13209 on the basis of use of 0.02 sec.ft. of water of a Green River tributary.

An early reply to this memorandum will be appreciated, in order that we may complete the much overdue application to water in excess of 0.02 sec.ft.

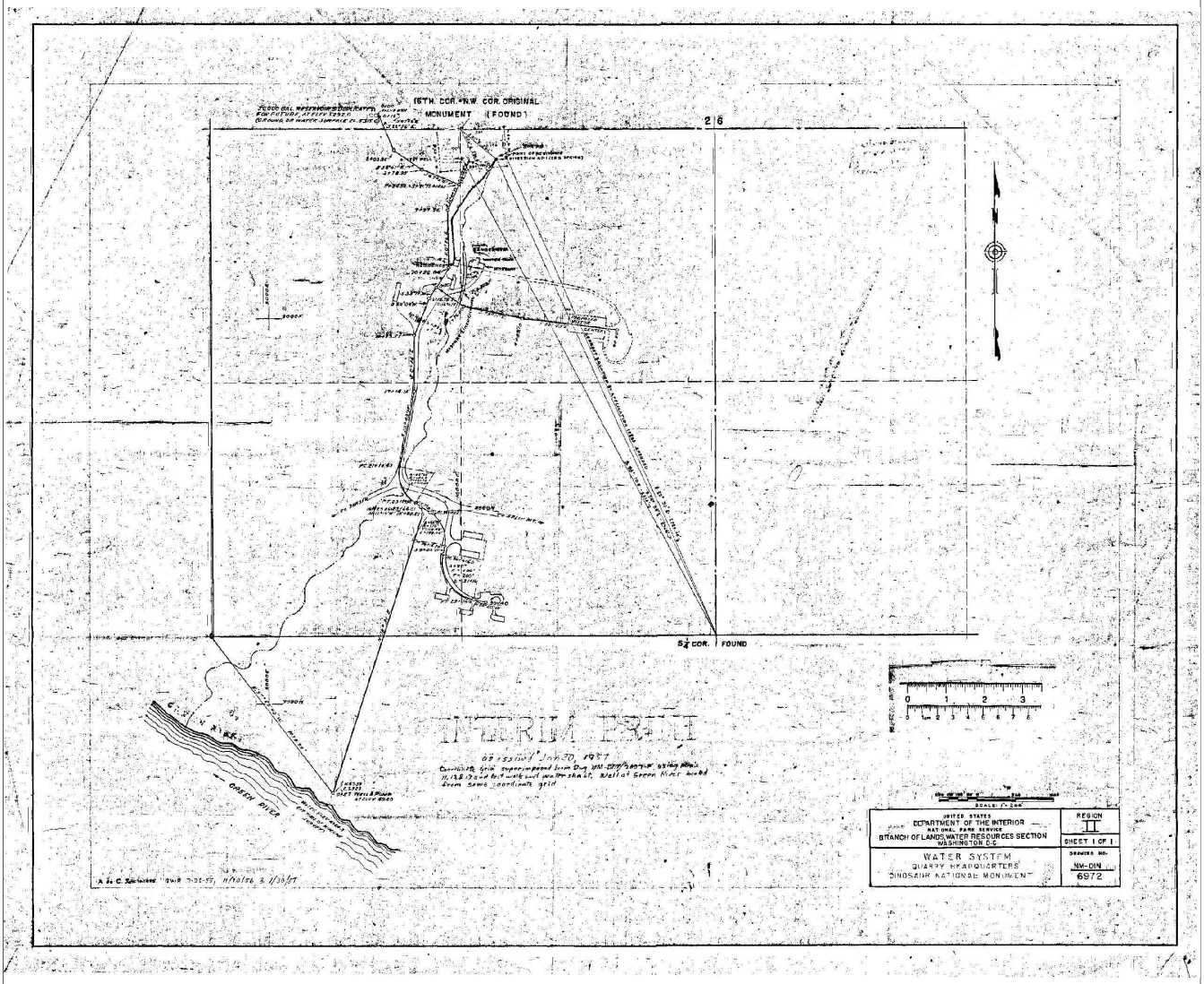
A. van V. Dunn
Chief, Water Resources Section

Attachments 2

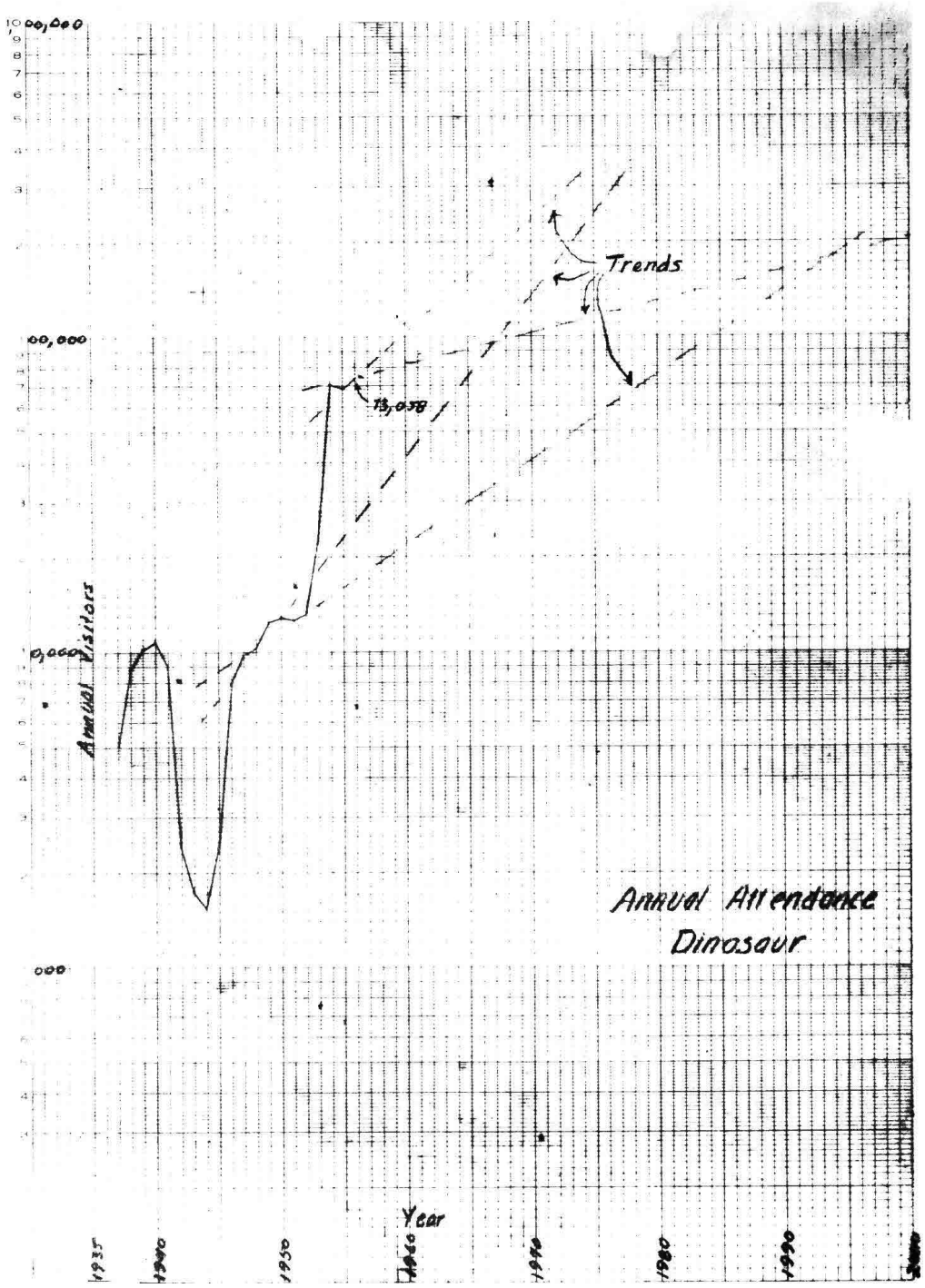
Copy to: Superintendent, Dinosaur, with 3 attachments
Chief, WODC, with 3 attachments

REC'D IN GEN. FILES MAR 6 1957

01-30-1957: map of the quarry headquarters water system



00-00-0000: annual attendance graph



12-10-1956: memorandum to director regarding water system and water rights (application 13209, docket 1)

L 54 L

WESTERN OFFIC
DESIGN & CONSTRUC
DEC 13 1956
CHIEF
ADMIN.ASSIST.
PERSONNEL
PLANS & PROG.
SAFETY
ARCHITECT
ENGINEER
LAND. ARCH.
ACTION TAKEN—DA
None

DINOSAUR NATIONAL MONUMENT
Box 621 Vernal, Utah

Dec. 10, 1956

Memorandum

To: Director

From: Superintendent, Dinosaur National Monument

Subject: Water System and Water Rights (Application 13209, Docket 1) Quarry Headquarters Area, Dinosaur

Reference is made to Chief, Water Resources Section, A. Van V. Dunn's memorandum of Nov. 21 to the Regional Director, Region Two on the subject. Engineer, Grunigen of WODC has furnished the data for this memorandum and Mr. Dunn's questions are answered as follows:

"We should like to have confirmation that:"

1. "The entire 3941 feet of pump line are on the same bearing." No. The pump line and distribution lines are one and the same and have been constructed as shown on Sheets 1, 2 & 6 of Drawing NM-DIN 3110.

2. "That ground surface at the well is as scaled and shown from a topographic map." The ground surface at the well is 4940.8.

3. "That the water surface elevation in the well is 4924.3 as shown on Drawing 3118 (and whether the river water level was normally the same)." Yes. It is fully expected that the water level will rise above this elevation however as the source is seepage from the river & should rise and fall with the river.

4. "That the well was drilled to depth of just 30 feet." This is not a drilled well, it is a dug well and the bottom of the 24 in. perforated casing was set at elevation 4912.4 or a depth of 28.4 ft. below original ground surface.

"We should like to know:"

1. "Whether the Park Service has a copy of well driller's report." This is a dug well and not a drilled well and no report was requested or required to our knowledge.

2. "What developments are to be retained at Museum and Parking area, and what are planned at residential-utility area?" The only developments to be retained at the Museum & Parking areas will be the Visitor Center building which will have public rest rooms in it.

Please refer to Drawing No. NM-DIN 3102-D, dated 8/28/56, Titled Visitor Center, Quarry Site, Scheme A."

As now planned the residential-Utility area will ultimately be developed to 4 residences, 3 bedroom; 2 apartments houses of 4 units each; and one utility building housing the small warehouse, shop, equipment storage and wash room.

3. What are present and proposed ultimate permanent population of this area?" They are as follows:

	Permanent, all year	Seasonal, May 15-Sept. 15
Present	2 families	Three
Proposed	4 families	Eight

The main tourist season is from May 15 to Sept. 15 however year around visitation is increasing. It is not anticipated that other than the above listed employees will be quartered in this area.

4. Length, size of pipes etc. This entire paragraph is answered by referring to drawing No. NM-DIn 3110, sheets 1, 2 & 6. The 2 inch pipe from the original well site to the junction with the 8 inch cast iron pipe at Station 1+44.95 & 5 +84.00 etc. was not constructed since pump tests on this well proved it inadequate for our needs.

5. "Did Park Service file any application to drill well No. 3 as test well, etc." No, this is a dug well and no application was made for a permit. If one is required for this well, please request the Water Resources Section to secure it.

6. "Is Park Service sure that water is underground flow of river etc.--". Yes as all (or nearly all) flow into the perforated 24 inch casing is from the river side.

The last paragraph of Mr. Dunn's memorandum requests consideration in filing for 50 GPM under this supplemental application. We feel that this amount (50 GPM) would be excessive to care for all our requirements for both domestic and irrigation uses (landscaping around residence & utility area for which no plans have yet been prepared) and suggest that the application be prepared for 15 to 18 thousand gallons per day. Unless plans change we do not feel "proof of use" for more than that amount could be shown in time to perfect the water right.

We trust this information will let Mr. Dunn proceed with filing this water right application.

Jess H. Lambard
Superintendent

in dupl.
cc: Reg. Two
WODC

11-28-1956: memorandum to superintendent regarding water system and water rights (application 13209, docket 1)

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

IN REPLY REFER TO:

In reply refer
to: D5039 L54

Region Two
Omaha 2, Nebraska

November 28,1956

Memorandum

To: Superintendent, Dinosaur National Monument
Chief, Western Office, Division of Design and Construction

From: Acting Regional Chief of Operations

Subject: Water System and Water Rights (Application 13209, Docket 1)
Quarry Headquarters Area, Dinosaur

You have no doubt received a copy of Mr. Dunn's memorandum of November 21 on the above subject. On account of our not being familiar with any of the details of the new sources of water for the area, we are unable to answer any of Mr. Dunn questions.

However, we believe that the Western Office of Design and Construction already has secured sufficient data to enable them to answer Mr. Dunn memorandum and we will appreciate that office preparing the necessary reply.

William E. Robertson
Acting Regional Chief of Operations

Copy to: Director

L54-L

WESTERN OI
DESIGN & CONS
NOV 28 19
CHIEF
ADMIN.ASSIS
PERSONNEL
PLANS & PRC
SAFETY
ARCHITECT
ENGINEERING
LAND. ARCH.
ACTION TAKEN

November 21, 1956

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Water System and Water Rights (Application 13209, Docket 1)
Quarry Headquarters Area, Dinosaur

Attached are two interim prints of November 20 which include data from Drawings 3110 and 3118 of which copies have recently been sent to this office. We are also sending two copies to the Superintendent and one copy to WODC with copies of this memorandum. One copy is for possible use in reply, if being assumed that WODC could supply an overlay if a map is needed.

We had to project the coordinate grid from monuments 12, 13 and 14 on Drawing 5307-A which is in the docket, then project the new well #3 from the coordinates on Drawing 3118, and then locate the SW Cor. Sec. 26 and the real location by ties given on Drawings 3110 and 3118. The data all seem to fit with sufficient accuracy.

We should like to have confirmation that:

1. The entire 3941 feet of pump line are on the same bearing,.

2. That ground surface at the well is as scaled and shown from a topographic map.

3. That the water surface elevation in the well is 4924.3 as shown on Drawing 3118 (and whether river water level was nominally the same).

4. That well was drilled to depth of just 30 feet.

We should also like to know:

1. Whether the Park Service has copy of well driller's report. This should be sent to this office at once, if available. If it is necessary to obtain copy from State Engineer, it better be ordered from here for reasons hereafter given.

2. What developments are to be retained at Museum and parking area, and what are planned at residential-utility area?

3. What are present and proposed ultimate permanent population at this area? This should be divided into all-year residents (employees and families), and additional labor and other employees during peak season, giving approximate dates of beginning and end of the construction and main tourist season.

4. It appears that the original contract probably called for 780' of 2" pump line from well 2 to reservoirs, 2150' of 8" distribution pipe which was not enough to reach utility area, and 1860' of 6" distribution pipe, and the distribution pipe is probably to be used as pump line in the changes under the extra work order. Please show sections of different sized pump line pipes, and give brief description of distribution system.

5. Did Park Service file any applications to drill well no. 3 as test well, or did well driller get his drilling permit under older permits granted under Application No. 13209.

6. Is Park Service sure that water is underground flow of River and not from the artesian source intercepted by well no. 2?

Because of the controversy which we have been having with the State Engineer for the past few years, it will be desirable to assemble only as much of the aforementioned information as can be supplied at once from the three NPS offices, and then request the rest of the records from the State Engineer when filing the water right application which will be prepared from the NPS data. Fortunately, the application is not supported by complete plans in Utah.

In general, the new well will simplify the water right problem if it does derive its water from the River. Application 13209 was for the appropriation of water from a spring area tributary to the river, and accumulating data has shown that well no. 2 derived its water from an artesian source whose tributary relation to the river had not been established. Thus, we should be able to transfer the priority under 13209 to well no. 3 with less difficulty than to well no. 2 as its source is now defined.

Application 13209 is for the appropriation of 0.02 sec.ft. Drawing 3118 indicates intended use of 15,000 gpd, or 0.0232 sec.ft. We will have to claim only 0.02 sec.ft. under the priority of Application 13209. We will also file a supplemental application for the 0.0032 sec.ft., or any other amount up to 0.111 sec.ft. (50 gpm). Since the supplemental application is not quite such a rush job, it is requested that you give a little more consideration to the ultimate demand if necessary. Another application for only 0.0032 sec.ft. is pretty expensive.

ORIGINAL

A. van V. Dunn
Chief, Water Resources Section

Attachments 2
Copy to: Superintendent, Dinosaur, with 2 attachments
Western Office of Design and Construction, with 1 attachment

09-16-1955: memorandum to regional director regarding water right acquisition by appropriation

In reply refer to:
L54-L

September 16, 1955
AIR MAIL

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Water Right Acquisition by Appropriation, Areas in Region Two

No copy of Mr. Lombard's memorandum of August 22 was received with the memorandum of September 1 from Mr. Robertson. We are therefore unable to offer comments which appear to be desired before Mr. Grunigen makes survey ties.

All plans which were requested for the wells in Dinosaur, in Mr. Garrison's memorandum of July 29, should show the water systems and water using developments with a tie to a section corner. They should also show control elevations for pipeline profile. Such plans are no more than should be prepared for utility sheets for the master plans. The plans should be supplemented by description of pump unit, giving type and capacity of pump and motor, and with log of the well drilling and record of the pump test. Part of the well data will be obtained from State Engineer if wells were drilled by licensed well driller who had to file the normal report. The same type of plans and data are needed for the Headquarters Well but only to the extent it has not been obtained already.

This may, or may not, be the information desired, but we hope it is enough to permit completion of the work while Mr. Grunigen is at Dinosaur. Please send copy of Mr. Lombard's memorandum if further explanation is desired.

[redacted]

A. van V. Dunn
Chief, Water Resources Section

Copy to: Superintendent, Dinosaur
Western Office of Design and Construction

Grunigen read 9/21/55 HR

Office of
Chief, Western Office
Div. of Design and Const.
SEP 21 1955 A.M.
Supv. Architect
Supv. Engineer HRG 9/21
Supv. Landscape Arch.
Safety Engineer

Office of
Chief, Western Office
Div. of Design and Const.
SEP 6 1955 A.M.
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer
See memo to Region Two, 9/16/55

X1 —

154

Dinosaur

Memorandum

To: Director

From: Acting Regional Chief of Operations, Region Two

Subject: Water Right Acquisition by Appropriation - Areas in Region Two

On receipt of Mr. Garrison's memorandum of July 29 on the above subject, we sent copies to various field areas concerned asking that they supply information requested in that memorandum, wherever possible. We also asked that where surveys were needed to secure this information, the field area estimate the cost and type of work required.

While we have only had replies from two areas, we are now enclosing a copy of Mr. Lombard's memorandum of August 22 in regard to necessary work at Dinosaur National Monument.

Engineer R. Neil Grunigen, who carried on survey work at Dinosaur early this summer, is now returning to Dinosaur from Grand Canyon, and, if at all possible, he should make ties to the three wells mentioned in Mr. Garrison's memorandum. Mr. Grunigen is an engineer from WODC and permission from that office for him to do this work is requested by copy of this memorandum to that office. We assume reimbursement should be made from funds you now have under account 347.

We will appreciate an immediate reply as it is quite unlikely that Mr. Grunigen will be stationed at Dinosaur for any length of time and this would seem to be an opportunity to get surveys made at the least cost to the government.

(Sgd) William E. Robertson

William E. Robertson
Acting Regional Chief of Operations

Attachment

Copy to: Supt., Dinosaur NM
Chief, WODC, w/c Mr. Lombard's memo

P. S. WODC: Can Grunigen handle this work if the Washington Office approves our suggestion?

W. E. R.

08-22-1955: memorandum to regional director regarding water right acquisition by appropriation

L 54

DINOSAUR NATIONAL MONUMENT
BOX 621, VERNAL, UTAH

Aug. 22, 1955

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur National Monument

Subject: Water Right Acquisition by Appropriation, Dinosaur

As per Mr. Baggley's memorandum of Aug. 16 the following information is supplied for Dinosaur.

1. Plans for proposed water system for "Well No. 2" are not available yet. Engineering data secured by R. Neil Grunigen has been sent to WODC for preparation. As the construction of this system is dependent upon availability of funds, it is not possible to say when it will be put to use.

2. There have been no ties made to section corners for the wells at Pats Hole campground and Lodore Canyon Campground. These are driven wells installed by NPS personnel in accordance with Drawing No. NM-DIN-2032 Water Well and Hand Pumps. The Split Mountain Gorge Campground well will probably be drilled by Mr. Garnet Birchell of Roosevelt, Utah this Fall and completed by NPS personnel in accordance with the same drawing.

As DNM has no engineering personnel it would seem proper to have the survey crew or some engineer tie in these wells.

I estimate that there is 5 to 7 days work for a 2 man survey crew to tie in all 3 wells.

Jess H. Lombard
Superintendent

In triplicate

154-L

July 20, 1955

Mr. Joseph M. Tracy
State Engineer
Salt Lake City, Utah

Re: Application 13209
Dinosaur National Monument

Dear Mr. Tracy:

Your letter of July 15 concerning Application 13209 refers to new Rules and Regulations Promulgated by the State Engineer June 30, 1955. We have only the 1947 issue with amendments as supplied by you in October 1952, and we cannot identify the applicable paragraphs 28 to 30, to which you refer. We shall appreciate four copies of the new publication for distribution within the National Park Service.

Our copy of your compiled laws is also a 1947 publication with amendments to about 1952. While our copy does appear to have Sections 73-3-3 and 73-3-28, they are numbered 100-3-3 and 100-3-28, the latter being your mimeographed insertion. Accordingly, if available, we should also like to obtain four copies of your compiled water code.

The status of the subject water rights appear to have been satisfactorily clarified with the completion of records in our two offices. However, Well No. 2 was described as more than 150 feet from the old one by the well driller, and is actually only about 110 feet distant. It might be considered as replacement except that Well No. 1 was not formally used. We have forms for change applications but not for replacement. If you prefer to use the latter form, please send us six copies.

Sincerely yours,

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Copy to: Regional Director, Region Three, detached
Superintendent, Dinosaur, detached
Western Office of Design and Construction, detached

REC'D GEN. FILES SEP 1 1955

07-00-1955: two stamps





L54-L

July 20, 1955

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Water Rights, Quarry Headquarters, Docket 1, Dinosaur

Attached is your copy of letter of July 15 from the State Engineer and our reply. Copies are being sent directly to the Superintendent and Western Office of Design and Construction. We will supply all three offices with the new regulations, and we hope with the revised 1953 water laws.

We may now transfer the priority of Application 13209 to the second well, to the extent of authorized diversion. We can also file new application for excess yield of new well because of greater artesian pressure. The question is whether Well No. 2 will be put to use before it caves in, if we file the two applications in the near future. There is also some question as to whether the surplus yield of Well No. 2 will be used, which depends on the nature of ultimate developments at the Quarry Headquarters.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Attachments 2

Copy to: Superintendent, Dinosaur, with attachments
Western Office of Design and Construction, with attachments

Office of
Chief, Western Office
Div. of Design and Const.
JUL 25 1955 A.M.
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer

C
O
P
Y

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
Salt Lake City

July 15, 1955

File in docket. 1
Trans. memo July 20, 1955 Dino
in L54 bound file

United States Department of the Interior
National Park Service, Lands Branch
c/O Mr. A. van V. Dunn
Room 2225 Interior Building
Washington 25, D. C.

Gentlemen: RE: APPLICATION NO. 13209
Your No. L54-L

On July 11, 1955, this office received your letter of July 7, 1955, relative to Application No. 13209 and accompanying photostat showing the vertical section through the wells Nos. 1 and 2 appurtenant to the aforementioned application.

With reference to your inquiry in Paragraph 5 of the aforesaid letter, pertaining to the authority of the State of Utah to accept and approve a change application amending Application No. 13209, as outlined in your letter, this is to advise you that the authority of filing such change application is covered by Section 73-3-3, Utah Code Annotated, 1953 and Paragraphs 28 to 30, inclusive of the Rules and Regulations Promulgated by the State Engineer June 30, 1955.

As it appears that the same water would be diverted at the new point of diversion established by the change application and as in fact Application No. 13209 was an application to appropriate from an underground source, by means of a well and not as the development of a spring area, as outlined in the application, the filing of the change application when in proper form will be accepted and acted upon under the aforesaid statute and Rules and Regulations.

Your request for extension of time will be advertised and you will be notified in due time of the action taken.

Yours truly,

/s/ JOSEPH M. TRACY
STATE ENGINEER

JMG/vm

REC'D IN GEN. FILES SEP 1 [illegible]

07-07-1955: letter to joseph m. tracy regarding application 13209

C. C. MAILED TO: Lineaum
By WER Date 7/13/55

L54-L

July 7, 1955

Mr. Joseph M. Tracy
State Engineer
Salt Lake City, Utah

Re: Application 13209
Dinosaur National Monument

Dear Mr. Tracy:

We concur in the proposal in your letter of June 30 to advertise the application for extension of time in excess of 14 years under Application 13209 on July 15. This application relates to the spring area with diversion at the main spring, and shallow Well No. 1 which intercepts the same water source within that spring area.

The receipt of the drillers report of June 4, 1952, with your letter of December 28, 1954, introduced a new location for the well, by tie to the NW Cor. NE¼ SW¼ Sec. 26, which was also the NW Cor. of the original area of Dinosaur National Monument, instead of to the S¼ Corner of that Section which this Service had been using. An inconsistency was noted in the relation between the two corners, or in the location of Well No. 2 after the application for extension of time to complete developments under Application 13209 was sent to you on January 4.

We have just received a report on the second of two check surveys by different engineers who independently agree that Well No. 2 is S25°34' E. 237.6 feet from the said NW Cor. of NE¼ SW¼ of Sec. 26. This places the two wells in a plane nominally normal to the course of the spring outlet and about 100 feet downstream from the spring.

Attached is a vertical section through the two wells, showing their logs and a geologists report on the dip rock strata at Well No. 1. The indications are that both wells and the spring derive their water from the same sandstone aquifer which is confined except as it approaches the surface at the spring. The tunnel from Well No. 1 intercepted the water near its normal surface. Well No. 2 intercepted it at a depth of 162 feet, and the spring is approximately at the elevation of the water surface.

It is important, therefore, to advertise the request for extension of time under Application 13209, as you propose, to retain the date of priority. However, before we file a supplemental application for change in point of diversion to Well No. 2, or for a new appropriation therefrom, we should like to know whether the water laws grant you authority for the changes or clarification which the additional information suggest.

First, the two wells and the spring appear to derive their water from the same artesian aquifer in white sandstone. Diversions to the extent of the authorized 0.02 sec.ft. under Application 13209, with priority of January 2, 1940, and changing the point of diversion to Well No. 2 should be permitted. It should also be possible to reclassify the source as groundwater, without penalty, now that the two well logs indicate that both wells and the spring derive their water from that aquifer and not from the percolating water in the top soild and shale which was excluded from Well No. 2 by 40 or 41 feet of casing.

Second, a new application should be filed for the appropriation of well yield in excess of 0.02 sec.ft. which is available from Well No. 2 because of the additional approximate 150 feet of head where that well intercepts the aquifer.

Sincerely yours,

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Enclosure

Copy to: Regional Director, Region Two (2) with copy of State Engineer's letter of 6/30
Superintendent, Dinosaur " " " "
Western Office of Design and Construction

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
SALT LAKE CITY

JOSEPH M. TRACY
STATE ENGINEER

June 30, 1955

United States Department of the Interior
National Park Service, Lands Branch
c/o Mr. A. van V. Dunn
Room 2225 Interior Building
Washington 25, D. C.

Gentlemen: RE: APPLICATION NO. 13209
Your No. L54-L
Query Ridge WS. Dinosaur

On review of the file, relative to the above numbered application, it is noted that proof was due January 6, 1955 and that the request for extension of time was filed January 6, 1955.

No action has been taken on the required advertising relative to this request for extension of time after 14 years, since the receipt thereof, as a request was made in your letter of January 4, 1955 to withhold this advertising, as you may file an additional application to appropriate or a change application relative to this application, and as there may be a reduction in cost by a simultaneous advertising thereof.

As it is the administrative policy of this office to advertise applications to appropriate and change applications in group notices and the advertising required in granting extensions of time to complete work after 14 years relative to an application is published singularly, there is no reason to withhold the advertising relative to granting an extension of time on Application No. 13209, as no reduction in cost could be effected.

This is to advise you that the preparation of the Notice to Water Users to be published relative to Application No. 13209 will proceed on July 15, 1955.

Yours truly,

Joseph M. Tracy

Joseph M. Tracy
STATE ENGINEER

JMG/vm

REC'D [illegible] FILES JUL 14 [illegible]

06-01-1955: memorandum to chief regarding water right application 13209, docket 1, quarry headquarters water system

L 54

DINOSAUR NATIONAL MONUMENT
BOX 621, VERNAL, UTAH

June 1, 1955

Memorandum

To: Chief, Water Resources Section

From: Superintendent, Dinosaur National Monument

Subject: Water Right Application 13209, Docket 1, Quarry Headquarters Water System, Dinosaur National Monument

Mr. Grunigen, of the Western Office, Design and Construction, was asked to check the location of the test well #2 which he has done. He has tied the well to the Original NW corner of the Monument the same as Mr. Herranen did and makes the location the same.

The well bears S 25°34' E, 237.6 ft. from the Northwest corner of the Original Monument which is the NW corner of the NE¼ of the SW¼ of Section 26.

In my memorandum of Feb. 25, 1955, L 54, to the Regional Director, Region Two the description of the original corner was incorrectly given.

It is hoped this information will clear the matter.

Jess H. Lombard
Superintendent

cc: WODC w/attachments
Reg. Dir., Reg. Two

Office of
Chief, Western Office
Div. of Design and Const.
JUN 6 1955 A.M.
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer

In reply refer to:
L54-L

May 16, 1955

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Water Right Application 13209, Docket 1, Quarry Headquarters Water System, Dinosaur

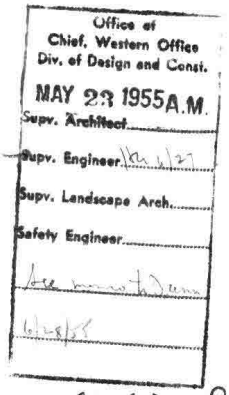
Since we have had no comments from the Western Office of Design and Construction since receipt of the memorandum of April 19 from Mr. Baggley, we assume that the check tie from well to section corner is being made by the survey crew now at Dinosaur. This check is very important, in connection with water rights, and we can reimburse the WODC for the extra day of travel and other expenses, if such is necessary.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

In duplicate

Copy to: Western Office of Design and Construction



See memo to Chief, DoC
6-28-55

04-19-1955: memorandum to the director regarding water right application 13209

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

154

APR 19 1955

Office of Chief, Western Office, Div. of Design and C
APR 22 1955
Supv. Architect
Supv. Engineer 4/25
Supv. Landscape Arch.
Safety Engineer

Memorandum

To: The Director

From: Regional Chief of Operations

Subject: Water Right Application 13209, Docket 1, Quarry Headquarters Water System, Dinosaur National Monument

We have Mr. Dunn's memorandum of April 6 on the above subject that was addressed to Region Three and consequently did not reach this office until April 18.

Since all field books covering surveys made in Dinosaur National Monument have been sent to the Western Office, Design and Construction, we have no way to check the apparent discrepancies mentioned by Mr. Dunn. Engineer Herranen, who is now in the WODC, made a number of these surveys and it is possible that he may be able to show the proper ties. With this possibility in view we are sending a copy of this memorandum to the WODC with one of the prints of Drawing No. NM-DIN-6972 and asking that they attempt to straighten out this matter.

If Mr. Herranen is unable to show the correct ties from the information available in the field books, our next suggestion would be to have all ties remeasured when a field party from the WODC will be at Dinosaur in May in connection with surveys for construction projects.

(Sgd) George F. Baggley
George F. Baggley
Regional Chief of Operations

In duplicate

Copy to: Supt., Dinosaur w/copy of drawing
WODC w/copy of drawing — Retained WODC file until 6-1-55 then destroy as incorrect info shown

P.S. - WODC
Perhaps Dick Herranen can supply the information requested by Mr. Dunn. We note that you have a copy of his memorandum and attached drawing.

NM-DIN 6972

G.F.B.

04-06-1955: memorandum to regional director regarding water right application 13209, docket 1, quarry headquarters water syste

In reply refer to:
L54-L

Office of
Chief, Western Office
Div. of Design and Const.
APR 11 1955 A.M
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer

April 6, 1955

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Water Right Application 13209, Docket 1, Quarry Headquarters Water System, Dinosaur

Attached three prints of Drawing NM-DIN-6972 show the location of Test Well No. 2, as drilled, from ties to the S¼ Cor. Sec. 26, which were supplied several years ago, and as projected on Drawings 2028 and 6972, which were submitted in reply to my memorandum of January 19. The disconcerting point is that the new tie does not agree with previous bearing and distance from the S¼ Cor. of the Section, or with the tie given by the well driller in his report of June 4, 1952 to the State Engineer, which is included in Docket 1.

Since we have not shown the BLM survey of the section, there has not been any past reason to question independent ties to the S¼ and nearest 1/16 corner, but there is, or has been, some radical error in ties if the spring, well, and a land survey marker have the relations shown on the attached drawing, and the survey marker is as close to a theoretical 1/16 corner as shown.

Since we are holding up an important reply to the State Engineer, please check the conflicting location ties which are now available, using one of the attached prints for reply.

By memorandum of March 22, Mr. Lombard has suggested potential difficulty in measuring spring flow. Any proof requires an actual measurement by a competent engineer. Therefore, some means will have to be worked out when an engineer visits the area the next time, and the method and results should be sent to us for proper action.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

In duplicate

Attachments 3

Copy to: Western Office of Design and Construction, with attachment

03-22-1955: memorandum to director regarding water right application 13209, docket 1, quarry headquarters water system

L54

DINOSAUR NATIONAL MONUMENT
BOX 621, VERNAL, UTAH

Office of
Chief, Western Office
Div. of Design and Cons
MAR 28 1955 A.M
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer

March 22, 1955

Memorandum

To: The Director

From: Superintendent, Dinosaur National Monument

Subject: Water Rights, Application 13209, Docket 1, Dinosaur

Following is the information in regard to, "population", requested in Assistant Director Allen's memorandum of Feb. 3 and by the memorandum of Mar. 4 from the Region Two Office.

Casual Visitors	600 daily average during August, 1954
Employees & Families	20
Campers & Picnickers	20
Total using water	640 daily average during August, 1954

There was one small evaporation cooler in operation in the office. There was no irrigation and shop use of water amounted to an estimated 300 gals. daily.

No details concerning establishment of rate of flow of the spring have been found here. I agree with Regional Engineer Robertson that the flow has long been considered as about 4 gals. per minute. I found a memorandum by former Custodian Dan Beard referring to Dr. Boyle's figure of 3½ gals. per minute but did not find Boyle's report.

It would be practically impossible to obtain an accurate flow measurement now as the curtain wall of the catchment basin does not intercept all of the flow. I consequently, distrust the accuracy of earlier flow figures. I firmly believe that if all the flow of the spring could be intercepted, it would exceed 5 gals. per minute, year-round.

Jess H. Lombard

Jess H. Lombard
Superintendent

In duplicate
cc: Reg. Two
WODC

02-25-1955: memorandum to regional director regarding water system, quarry headquarters, water right application 13209

Office of
Chief, Western Office
Div. of Design and Const.
MAR 14 1955 A.M.
Supv. Architect
Supv. Engineer H4 3/25
Supv. Landscape Arch.
Safety Engineer

L 54

DINOSAUR NATIONAL MONUMENT
BOX 621, VERNAL, UTAH

Feb. 25, 1955

Memorandum

To: Regional Director, Region Two

From: Superintendent, Dinosaur National Monument

Subject: Water System, Quarry Headquarters, Water Right Application 13209, Docket 1, Dinosaur National Monument

As engineering and drafting personnel and facilities are lacking at DNM, I have secured prints of Drawing No NM-DIN-2028 Plot Plan, Headquarters Area, Dinosaur National Monument and Have shown in pencil:

1. The correct location of the new section of water pipe from the Spring to the junction with the old pipe line. There was no survey of the line when replaced so this location is close but may vary a few feet.

2. The correct location of the spring and the test well. Only one test well was completed (No. 2 on Drawing NM-DIN-6972). These locations were calculated by engineers in the WODC Office and are given as bearing and distance from the NW corner of the NW¼ of the SW¼ of Sect. 26, Twp. 45, R 23E, SL Mer.

3. Extension and changes in the service road to the test well are shown in pencil as well as the changes in the parking area caused by our cutting in to the hill on the north of the parking area.

4. The building locations as shown on Drawing NM-DIN-2028 are correct except Shed No. 6 which is the oil house has been moved to the gas pump as shown in pencil.

I am sending copies of these two drawings to the WODC to the Washington Office, and to your office. I hope that this information will be satisfactory for Mr. Dunn's purposes.

Jess H. Lombard
Superintendent

cc: Director, ATTN: Chief Water Resources Section with copies of Drwgs. 2028 and 6972
cc:WODC w/copies Drwgs. 2028 and 6972

WASO - DIN 6972
REG 2 - DIN 2028
Prints in Eng. file 3/25/55

In reply refer to:
L54-L

FEB - 4 1955

AIR MAIL

Mr. Joseph M. Tracy
State Engineer
Salt Lake City, Utah

Re: Application 13209 for Appropriation of Water, Dinosaur National Monument

Dear Mr. Tracy:

With your letter of January 26, you returned Application 13209-Amended, and requested that it be resubmitted as an Application for Permanent Change in Point of Diversion . You also pointed out the irregularity of developing a spring area by means of a well, and suggested that the reference to a spring area be omitted in the application. In your letter of December 28, 1954, as item 2, you stated that the second well could be considered as additional development of the spring area, but only to the extent of 0.02 sec.ft. authorized under Application 13209. As item 7, you stated that the loss of priority for a new appropriation for the additional well yield in 1955, as compared with the priority of January 1940, when Application 13209 was filed, would probably not be serious.

Before completing and returning the Application for Permanent Change in Point of Diversion , we believe that the basic conditions should be clarified. We have prepared the enclosed table from the logs of Wells 1 and 2 by engineers of the National Park Service and the log of Well 2 by the driller. Although there are some variations and omissions, the records suggest that all water originates in an artesian aquifer with a surface elevation at about 5156, about 3 feet above the surface spring, and about 3' to 13' above the first water encountered in Wells 1 and 2. The water in the upper aquifer does not appear on the adjacent hillside, either because of rapid seepage into the strata below or because of confinement by the surface mantle. The well driller believes that he excluded the upper level water by casing in Well 2. Mr. Dunn did not catch some of these features until he compiled the table.

Assuming that the State laws will still permit you to recognize the appropriation of water from Well 2 under Application 13209, we believe that the basic source of the spring and well is in the nature of an artesian channel or basin and should be reclassified by the suggested change in Permanent Points of Diversion, or some other form of amendment. If, on the other hand, you must differentiate between the water under artesian pressure and that portion emerging at the spring, rights under Application 13209 should be the spring diversion, and a new application is essential for the appropriation of the well water. Your comments are requested.

If rights under Application 13209 are limited to the appropriation of the spring water, we have records of flow of no more than 0.01 sec.ft. in the Washington Office, and believe that maximum flow and use must be limited to between 0.01 sec.ft. and 0.015 sec.ft. The State Water Laws, Sec. 100-3-16, provide that no final proof is needed for the appropriation of 0.015 sec.ft., or less, for domestic and stock watering purposes. If the designated purposes of use in Application 13209 all fall under the State classification of domestic, no proof of the spring diversion seems necessary. If the use is classified as municipal, the proof is probably possible at this time by filing plan of the existing system with little consideration of whether the full beneficial use has been made to date.

This discussion indicates that we should file an additional application for either the well yield in excess of rights under Application 13209 or for all the intercepted artesian water. As we have only a few forms of 1952 and earlier dates for the appropriation of water, we should like to have six copies of the form now used for the purposes designated in Application 13209.

Sincerely yours,

(SGD) THOMAS J. ALLEN

Thomas J. Allen
Assistant Director

Enclosure

Copy to: Regional Director Region Two (2) (detached)
Western Office of Design and Construction, (detached)
Superintendent, Dinosaur (detached)

02-03-1955: memorandum to regional director regarding water rights, application 13209

In reply refer to:
L54-L

Office of
Chief, Western Office
Div. of Design and Const.
FEB 9 1955 A.M.
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer

February 3, 1955

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Water Rights, Application 13209, Docket 1, Dinosaur

Attached is your copy of the letter of January 26 by which the State Engineer has returned Application 13209-Amended, and the reply by Mr. Allen. A copy of this memo and the letters are being sent directly to the Superintendent and the Western Office of Design and Construction because of the potential need for some of the information within a week or ten days which only the Superintendent can supply.

If the State Engineer segregates surface and artesian waters, as anticipated, it will probably be possible to perfect the spring rights. To be prepared for such action, we should have records of the maximum daily attendance, broken down as to campers, picnickers and casual visitors, and approximate permanent population on same day, with the date. We should also know whether there are evaporation types of air conditioners in any building, and the number, and the nature and best estimate of water used at shops and for any irrigation.

In order to determine the amount of spring water on which to base final claim or proof, we should have any records available as to maximum flow. We want to know whether there has been a wet year flow in excess of 0.01 sec.ft. In addition, Utah laws require an actual record of measured flow, giving name and title of man making measurement, description of instrument used for measurement, the time it took to fill a container or the other records for instrument used, and the date of the measurement. Since the water seems to come from an artesian source, the flow may be fairly constant and we should be so advised. If there is variation, and measurements have not been made at peak flow, I can attempt to show potential maximum from related flow of Green River on specified date and in wetter seasons.

It is assumed that we will have to revise our claims as soon as we hear from the State Engineer. Hence, we should have best available data at once. In connection with the future plans, it is also recommended that any representative of the Geological Survey who is to make studies of potential water sources for the new headquarters should be requested to give some thought, and report on the probable limitations of the artesian source intercepted by Well 2.

Nothing in this correspondence is supposed to eliminate the need for completing the water system and related water using facilities in accordance with the recommendations in my memorandum of January 5. Some further progress will have to be reported to the State Engineer within a few years.

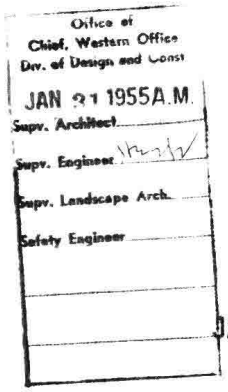
(SGD.) A. V[illegible]

A. van V. Dunn
Chief, Water Resources Section

Attachments 2

Copy to: Superintendent, Dinosaur, with attachments
Western Office of Design and Construction, with attachments

01-27-1955: memorandum to director regarding amendment and extension of time under water right application 13209



L54

Memorandum

To: Director

From: Regional Chief of Operations, Region Two

Subject: Amendment and Extension of Time under Water Right Application 13209 (Docket No. 1), Dinosaur National Monument

We have Mr. Dunn's memorandum of January 5 on the above subject and have sent copies of all material to Dinosaur National Monument for their records. As Dinosaur National Monument is no longer under the coordination of Rocky Mountain National Park, we see no purpose in having Rocky Mountain continue to keep records pertaining to Dinosaur so are not sending them copies of Mr. Dunn's correspondence.

We will attempt to include a project to utilize the Dinosaur well in the 1957 program.

George F. Baggley
Regional Chief of Operations

Copy to: Supt., Dinosaur NM
Supt., Rocky Mountain NP
Chief, WODC

C
O
P
Y

THE STATE OF UTAH
OFFICE OF STATE ENGINEER
Salt Lake City

January 26, 1955

United States Department of the Interior
National Park Service
c/o A. van V. Dunn
Chief, Water Resources Section
Washington 25, D. C.

RE: APPLICATION NO. 13209

Gentlemen:

This is to acknowledge receipt of your letter dated January 4, 1955, Purchase Order No. 99-285, request for extension of time for submitting proof on Application No. 13209, and application to appropriate water for miscellaneous purposes marked "Application No. 13209-Amended". The aforementioned documents were received by this office January 6, 1955.

I am returning, herewith, the aforesaid application marked "13209-amended" as it appears that it was meant to be filed as a change application amending Application No. 13209, and is therefore not in accordance with the rules and regulations of this office which require that changes be filed on form entitled "Application for Permanent Change of Point of Diversion, Place and Nature of Use". I am enclosing, herewith, six of the above entitled forms for your convenience in resubmitting the change application.

Since it is your intention to amend Application No. 13209 rather than file a new application on the 168 ft. deep well and let Application No. 13209 cover the development, as stated therein, as was our recommendations in our letter to you dated December 28, 1954, and since it is irregular to develop a spring area by means of a well and it appears from facts available that the water applied for is not from the spring area but is in fact an underground aquifer with the water diverted therefrom by a well or a developed spring, it is recommended that a statement be made in the Explanatory of the change application to the effect that it is intended under the change application to divert the same water applied for in Application No. 13209 at either one or both of the new points of diversion, which will be the 168 ft. deep well and the developed spring, and that the shaft and collecting tunnels contemplated under the original application No. 13209 are to be abandoned as a spring area development.

No further action will be taken on the request for extension of time to submit proof on Application No. 13209 until receipt and acceptance by this office of the aforementioned change application, at which time it will be advertised simultaneous, if applicable, with the request for extension of time, as requested in your letter of January 4, 1955.

Yours truly,
(SGND)
Joseph M. Tracy
STATE ENGINEER

Enc: Change Application
Forms (6)
App. 13209 - Amended

01-19-1955: memorandum to regional director regarding water system, quarry headquarters, water right application 13209

In reply refer to:
L54-L

Office of
Chief, Western Office
Div. of Design
JAN 24 1955 A.M
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer

January 19, 1955

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Water System, Quarry Headquarters, Water Right Application 13209, Docket 1, Dinosaur National Monument

Attached are four advance prints of Drawing NM-DIN-6972 compiled in connection with the application for extension of time in which to perfect rights under Application 13209 at the first of the month. The drawing has not been submitted to the State Engineer, but the tracing is in a form which can be completed for either final proof, or to clarify the requested amendments, if necessary.

Please return one print with the correct pipe connection to the reservoir, which we have shown by dotted line. We should also like to have the existing buildings, road alignment and parking area completed because we have shown them from a number of drawings at different dates and accuracy.

(SGD.) A. VAN V. DUNN

A. van V. Dunn
Chief, Water Resources Section

In duplicate
Attachments 4

Copy to: Western Office of Design and Construction, with copy of print

01-05-1955: memorandum to regional director regarding amendment and extension of time under water right application 13209

In reply refer to:
L54-L

January 5, 1955

Memorandum

To: Regional Director, Region Two

From: Chief, Water Resources Section

Subject: Amendment and Extension of Time under Water Right Application 13209 (Docket No. 1), Dinosaur National Monument

Attached are three copies of (1) letter of December 28, 1954 from the State Engineer of Utah; (2) well driller's report for Well No. 2; (3) application for extension of time in excess of 14 years; and (4) our letter of transmittal to the State Engineer. We are holding the amended Application 13209 until it is accepted, with possible corrections, by the State Engineer. The well driller's report and application for extension of time should be filed at proper dates in Part II of Docket 1 at your office, Rocky Mountain and Dinosaur. We are sending copies of the State Engineer's letter, our letter transmitting the applications, and this memorandum to the Western Office of Design and Construction, but not attempting to establish a docket in the WODC as a result of your recent suggestions.

Due to the State Engineers delay in replying to my letter of December 9, 1954, there has been no time to obtain your concurrence in our procedure. The adoption of the ground water law subsequent to 1940 makes Application 13209 irregular in claiming both surface and ground water. We do not believe that a supplemental claim to ground water at a later day will be any less valuable than one filed now, but it is essential to retain the 1940 priority of right to the surface flow by further extension of time, until the final water system for the Quarry Area is completed and the water is put to full use through adequate residences, comfort stations, and other possible developments.

In requesting an extension to 1960, I hope to obtain time in which to decide on the plans for an alternative Headquarters Area and related source of water supply, and some further development of the facilities which will still be needed at the Quarry Area. We can actually get further extensions for a total of 50 years from either last fall or January 6, 1955, if there is reasonable diligence in the next 5 years.

For these reasons, I strongly recommend that some construction be attempted with 1957 funds or emergency 1956 funds, either to place the well in operation, or to modernize comfort stations, increase residence facilities, or provide other water using facilities which will be permanently needed at the Quarry Area.

SIGNED
A. van V. Dunn
Chief, Water Resources Section

In triplicate
Attachments 12

RECD IN GEN. FILES JAN 28 1955

01-04-1955: letter to joseph m. tracy regarding application 13209 amended

In reply refer to:
L54-L

AIR MAIL

January 4, 1955

Mr. Joseph M. Tracy
State Engineer
Salt Lake City, Utah

Application 13209 Amended--Dinosaur Natl. Monument

Dear Sir:

Enclosed are our application for extension of time in excess of 14 years in which to complete construction and make full beneficial use of water under Application 13209 for the Quarry Headquarters at Dinosaur National Monument, amended Application 13209 to correct description of spring area and designate a new well location, and a purchase order, but no voucher, to cover cost of publication of notice.

In accordance with your letter of December 28, 1954, it is necessary to publish notice of the application for extension of time at the applicants expense, but the payment need not be made until receipt of your notice to the United States of America, as applicant, of the cost of advertising. The Application 13209 Amended will also require publication of notice, and you may be able to combine the published notices.

The purchase order, with estimated cost of $20.00, is to obligate Federal funds, and to indicate to which agency and office of the United States of America your notice or invoice should be sent. That notice should be submitted with at least one, and preferably two copies of the published notice, and we assume it will be certified to eliminate the need for a voucher.

We assume that you will hold our purchase order no. 99-258 of December 7, 1954, and the accompanying voucher for a similar publication of the request for extension of time under Application 13618 for the appropriation of water at Arches National Monument, until the notice is published. The unused voucher can then be returned with a certified invoice.

Although your letter of December 28, 1954 indicates that amendments of Application 13209 might wait until time for proof, we have found the change in well location to be an essential part of the justification for further extension of time and evidence of progress in the development. It will also be advisable to correct errors while the Federal personnel includes those familiar with the work, and it will simplify statements relating to the extension of time to have the corrections. There may be a reduction in the total cost of

publication if one notice can be published to cover amendments and extension of time, and we note that there is no Federal fee for filing either application.

We definitely need an extension of time in which to make full use of the designated 0.2 sec.ft. of water and to determine whether all, or only part of the intercepted flow at the lower elevation of the new well (No. 2) is tributary to the surface spring flow. We do not know whether the extra 0.002 sec.ft. of water bailed from the new well in 1952 will prove sufficiently permanent to justify a supplemental junior appropriation or not. Accordingly, we are only claiming the authorized 0.02 sec.ft. from the proper spring area, with the established priority of Application 13209 at this time.

Your letter implies that it is not essential to change the point of diversion from the first to the second test well at this time, but there is little possibility that any third well will be attempted. We are more likely to wish to establish a junior claim to the well yield in excess of existing rights, with or without deepening. Our major problem is now to connect the well to a more adequate water system, and to provide comfort stations and more modern employee residences to make use of available water. Accordingly we believe that the change in point of diversion can be recorded at this time, and any further changes will be proper matters to cover with a possible junior appropriation at a later date.

Sincerely yours,

(SGD.) A. VAN V. [illegible]

A. van V. Dunn
Chief, Water Resources Section

Enclosures 3

Copy to: Regional Director, Region Two (3)(detached)
Western Office of Design and Construction (detached)

C
O
P
Y

THE STATE OF UTAH
Office of State Engineer
Salt Lake City

Joseph M. Tracy
State Engineer

December 28, 1954

United States Department of the Interior
National Parks Service
Washington 25, D. C.

ATTN: A. van V. Dunn, Chief,
Water Resources Section.

RE: Application #13209

Dear Sir:

This is to acknowledge receipt of your letter dated December 9, 1954 received by this office December 13, 1954, wherein information is requested relative to the above numbered application.

It is noted on examination of the Application #13209 that the application was filed January 2, 1940 to appropriate 0.02 second-feet of water for Domestic and Municipal purposes from a spring area as described therein. The water to be diverted from a point N 28°10' W, 2814 feet from the S¼ corner of Section 26, T4S, R23E, S.L.B. & M., by pumping of an exploratory shaft connected by tunnels driven along a water bearing sandstone. The application also states that the pumping of the shaft stopped flow of a natural spring that had been used previous to the filing of the application. The spring is located as described in the application at a point N 24°38' W, 2746 feet from the said S¼ corner, Section 26, T4S, R23E, S.L.B. & M. All of the aforementioned points were meant to be within the spring area that is described in the application.

From examination of the file relative to the above noted application it is found that by letter dated April 7, 1951 permission was granted to drill a well from 75 to 150 feet deep near the aforementioned exploratory shaft and within the intended spring area and that on June 4, 1952 a report of Well Driller was filed with this office wherein it was stated that a well cased with 8" and 6" diameter casing, 168 feet deep had been completed and tested to produce a maximum of 10 gallons per minute.

A photostatic copy of the above mentioned Well Driller's report is enclosed herewith as requested.

It is also noted that the course and distance to the points of beginning of the spring area as described in the application is N 23°39' E, 2729.45 feet from the S¼ corner of said Section 26 and as stated in your letter is in error and should read N23°and 39' W, 2729.45 feet from the aforesaid S¼ corner to be consistant with the intent of the application to divert the water by development in the spring area.

In view of the above noted facts the following information is submitted in answer to your inquiries:

1. The course and distance to the point of beginning of the spring area that is in error could be corrected by filing a Change Application. The filing of a Change Application as stated in Section 73-3-3, Utah Code Annotated, 1953, does not affect the priority of the original application. It would appear however that no action is necessary until the submitting of Proof of Appropriation at which time other changes may be necessary and this error could be corrected at that time.

2. The second well drilled under authorization from this office by letter dated April 7, 1951 and covered by the Well Driller's Report enclosed herewith, could be considered as additional development of the spring area and no action would be necessary to change the point of diversion by Change Application at this time as it is within the spring area. However Application #13209 was filed to appropriate 0.02 second-feet of water from a spring area and as it is stated that the original development by the shaft nearly approached that amount and was from the same source as the natural spring which would appear that a quantity of water beyond the 0.02 second-feet has been developed. To appropriate any amount of water over 0.02 second-feet would require the filing of a new application to appropriate. It would then appear that a filing to appropriate underground water to cover the well drilled to 168 feet would be the logical step to take which would eliminate the filing of a Change Application to change the point of diversion. This new application would have a priority of the date of filing and the original application would cover the natural spring developed flow and the shaft developed flow with the priority of it's date of filing of January 2, 1940.

Also please be advised that changes amending the point of diversion, place and nature of use can only be made by filing a Change Application and not in request for Extension of Time.

3. In accordance with Section 73-3-12, Utah Code Annotated, 1953, extension of time within which to submit proof beyond 14 years cannot be made without advertising regardless of type of form. The cost of advertising must be paid by the applicant. In the case of Federal Agencies the cost of advertising need not accompany their request for Extension of Time as when the cost of advertising is submitted to this office from the publisher a notice thereof will be forwarded to the United States of America as applicant, indicating the correct amount due.

4. If it is your desire to appropriate no more than 0.02 second-feet of water from within the spring area and from any or all of the three sources and make proof in accordance thereto it would appear that a Change Application would be required at the time of submitting proof, amending the application in respect to the point of diversion. The filing of the Change Application if one is found to be necessary will not change the priority of the original application.

5. It is possible to submit proof under Application #13209 to obtain a certificated right to a maximum of 0.02 second-feet from the development of the spring area providing that quantity of water has been developed and used. Any additional quantity developed would entail the filing of a new application.

6. The certificate issued under Application #13209 could provide for a maximum of 0.02 second-feet from any or all sources of development within a spring area providing the proof outlines specifically the conditions of the development and substantiating the beneficial use of that quantity of water by actual measurement.

7. Since the spring area is relatively isolated and a small quantity of water is involved a loss in priority would probably not be serious.

8. As stated in Paragraph 2, a water application filed for any amount over 0.02 second-feet would be a new appropriation and therefore would have a priority to the date of filing and providing it went unprotested on advertising would be an application in good standing.

Hoping the above information will clarify your questions and if further information is needed it is recommended that a representative familiar with the problem contact this office for further discussion.

Enclosed herewith is the requested Well Driller's Report and six (6) applications to appropriate water for Miscellaneous purposes for your use on which to file for additional water if you find it necessary.

Also this is to advise you that a request for Extension of Time for which to submit proof on the aforementioned application must be received by this office or post-marked on or before January 6, 1955 or the application will lapse.

Please be advised that in compliance with your letter dated December 8, 1954, pertaining to proofs of change submitted under applications numbered a-1657, a-1658, a-1659 and a-1660, examination thereon is in process. You will be advised upon completion of the examination as to the requirements necessary for the completion of these proofs.

Very truly yours,

/s/ Joseph M. Tracy
JOSEPH M. TRACY
State Engineer.

Encl: Well Driller's Report

(6) Miscellaneous Applications.

12-09-1954: letter to joseph m. tracy regarding reference: permit 13209

In reply refer to:
L54-L

Office of
Chief, Western Office
Div. of Design and Const.
DEC 16 1954 A.M
Supv. Architect
Supv. Engineer
Supv. Landscape Arch.
Safety Engineer

AIR MAIL December 9, 1954

Mr. Joseph M. Tracy
State Engineer
Salt Lake City, Utah

Reference: Permit 13209

Dear Mr. Tracy:

We propose to request an extension of time, in excess of 14 years in which to complete the Quarry Headquarters Water System at Dinosaur National Monument under Permit No. 13209. This extension will require readvertising in accordance with Sec. 73-3-12 of the Water Code of 1953, as you have pointed out in connection with a similar request for extension of time under Permit 13619.

The application for Permit 13209 designated a spring from which water was, and still is, diverted for the claimed purposes, an incomplete dug well by which it was hoped to intercept all the spring flow and approximately an equal amount of ground water which did not reach the surface. Both sources were described as lying within a spring area. We note that the point of beginning of the spring area was erroneously described as northeast instead of northwest of the S½ of Sec. 26, thus placing the area nearly half a mile east of the spring and well. The same error in bearing was repeated in the published notice of 1940, and that notice omitted the reference to the existing direct diversion from the spring.

The well, shown as #1 Test Well, was started 5 years before the adoption of the ground water law of 1945, was dug to a depth of 73 feet, with exploratory tunnels, was found to yield approximately the same flow as the spring but to only partially reduce the surface flow of the spring. The recognition of the spring as Diversion No. 1, and #1 Test Well as Diversion No. 2, disappointing results obtained in the development of that well, and a proposal to drill a second test well, shown as #2 Test Well on the drawing, were covered in a letter to you of March 29, 1951 from Mr. William E. Robertson, Acting Assitant Regional Director of this Service, in Omaha.

No. 2 Test Well was drilled to a depth of 168 feet and within 20 feet of #1 Test Well in 1951, as determined with more refinement since my letter of November 19, 1953 to you, and bailed at 10 gallons per minute. It was drilled under contract by Mr. Garnett Birchell of Vernal, Utah, who is reported to be a licensed well driller. We assume that he complied with the State ground water laws,

but we do not have a copy of the required well driller's report. No pump and water system connections have been made because of restrictions on construction which have been imposed by the Bureau of the Budget and Congress, and the Monument Headquarters water supply is still obtained from the spring.

Several questions should be answered before the request is prepared. A print of our Drawing NM-DIM-6973 is enclosed for illustrative purposes.

1. Can the tie to the spring area be corrected without loss of priority in the application for extension of time in excess of 14 years?

2. Should the second well be treated as a replacement, or a change in point of diversion, and should the change be requested in the application for extension of time, or by other form of application?

3. Would the alternative types of form eliminate the need for extension of time beyond 14 years with any reduction in the cost of advertising?

4. What claim should be included in any application to shift the emphasis from a single point of diversion at a well to the spring area with alternative diversions at the spring and well, and what effect would it have on the priority of right?

5. Is it possible to obtain final certificate now, to the spring flow which varies between 4 and 4.5 gallons per minute, and is fully used at times, without loss of priority and right to the rest of the claimed 0.02 sec.ft. with or without the proof map of the existing system?

6. Would it be possible to provide for alternative diversions of 4.5 gpm from the spring or No. 2 well either in the license for the spring flow or the subsequent proof and license for the water from the well?

7. How significant would the loss of 14 years of priority in rights to the underground water rights be since our well logs indicate that both wells derive their water from aquifers in sand stone extending well below the aluvial deposits in the Green River channel?

8. How adequate a right could be established to an additional 0.01 sec.ft. if:

a. We treated the permit 13209 as relating to 0.02 sec.ft. of ground water, and filed a new application to surface spring flow.

b. We treat the permit, as intended, as a claim to the surface and ground water of the spring area, and file a new application for the appropriation of an additional 0.01 sec.ft. from No. 2 Test Well, which appears to be available.

Since it is essential to act before January 6 to salvage any part of the 1940 priority, we shall appreciate an immediate reply, and 6 copies of any application forms you consider appropriate. We should also like to know the cost of a copy of the well driller's report, which we assume you have, in order that a purchase order may be prepared. (We do not need such report before January 6, as we have adequate well records for immediate use). We shall also need an answer to the questions concerning the $20.00 charge for advertising applications for extensions of time in excess of 14 years, which were presented in our letter of December 8 concerning the similar application for extension of time to perfect rights under Permit 13619.

Sincerely yours,

(SGD.) A. VAN V. DUNN

A. van V. Dunn
Chief, Water Resources Section

Copy to: Regional Director, Region Two (2)
Western Office of Design and Construction

01-26-1943: letter to national park service water rights section regarding ext. granted application no. 13209

C O P Y

THE STATE OF UTAH
Office of State Engineer
Salt Lake City
January 26, 1943.

U. S. National Park Service
Water Rights Section
601 Sheldon Building
San Francisco, Calif.

Dear Sir: REL: EXT. GRANTED APPLICATION NO. 13209

This will acknowledge receipt of your request of Dec. 2, 1942, for Extension of Time in which to submit Proof of Appropriation or Proof of Change contemplated by Application No. 13209, together with filing fee of $1.00.

The matter has been considered and the time for submitting proof has been extended from February 5, 1943, to December 25, 1948, inclusive.

Yours very truly,

/s/ Ed. H. Watson

ADDRESS ALL COMMUNICATIONS TO:

STATE ENGINEER
403 STATE CAPITOL
SALT LAKE CITY, UTAH

12-14-1942: letter to state engineer regarding acknowledge receipt of your letter of december 9,

Region Two.

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
WATER RIGHTS SECTION

SAN FRANCISCO, CALIF.

601 Sheldon Building

December 14, 1942.

State Engineer,

Salt Lake City, Utah.

Dear Sir:

This will acknowledge receipt of your letter of December 9, together with a voucher to cover the application for extension of time in the matter of Water Right Application No. 13209 covering diversion at Dinosaur National Monument. We will see that this voucher is paid within the next few days.

You will notice that the application was forwarded by the Superintendent before we had time to act on the suggestions in your letter of December 1 with regard to the time limit requested. No doubt, however, since we made our request entirely in compliance with Section 100-3-12 of the water code, it is not really necessary to make any changes and if, for administrative reasons, you find it necessary to reduce the time limit, such reduction can be covered by your permit for the extension.

We should, however, like to call your attention to the extremely unusual conditions existing at this time which will affect not only the federal developments but all private construction as well. As we understand it, you now grant only a five-year period and we may obtain another extension of the same amount in 1947 if it is necessary. On the other hand, if you were to grant the thirteen-year limit which we requested, we should still make every effort to complete the system within the five-year period if the war is terminated and labor and materials become available within that period. The question is, therefore, one of reducing clerical work both in your office and ours during the war period.

(SGD.) A. VAN V. DUNN

Yours very truly,

A. van V. Dunn,
Hydraulic Engineer.

cc: Director.
Region Two.
Supt., Rocky Mt.
Custodian, Dinosaur N.M.,
through Supt., Rocky Mt.

COPY

THE STATE OF UTAH

OFFICE OF STATE ENGINEER
SALT LAKE CITY

ED. H. WATSON
State Engineer

December 1, 1942

Mr. A. van V. Dunn
Hydraulic Engineer
Water Rights Section
National Park Service
Department of the Interior
601 Sheldon Building
San Francisco, Calif.

re: Application No. 13209

Dear Sir:

I have your letter of November 27, 1942, in which you state that you are intending to request an extension of time on application #13209 to 1955, although you say that you intend to complete the project and file proof within two or three years after the war.

It is contrary to the policy of this office to grant extensions exceeding five years each, and I therefore suggest that you revise your form of request for extension, if you have already prepared it. Under separate cover, I am mailing you fifteen copies of our form of request for extension.

Our files indicate that no formal notice of proof due was sent on application #13209. I have therefore extended the time for filing proof to and including February 5, 1943, and am enclosing the regular proof due notice.

Very truly yours,

/s/ Ed. H. Watson

Ed. H. Watson,
State Engineer.

EJS/ba
fL-19;
encl.:fl-21; fl-25.
Register.

C O P Y

601 Sheldon Building

November 27, 1942.

State Engineer,

Salt Lake City, Utah.

Dear Sir:

Reference is made to your letter of November 18 with regard to extension of time in which to complete water systems under Applications 13209, 13619, and 14060.

Since these must be signed by the various Superintendents in the forms that you use, they will be submitted separately. In drawing up the one for Application 13209, the only one needing immediate attention, we have requested an extension of time to 1955, or 13 of the allowable 14 years. We should like to explain, however, that we do not expect to use all of that time unless the war is that long. The object is merely to carry the project in a suspended status until 2 or 3 years after the war without having to make requests for further extensions.

In all formal applications of this type we need copies for five offices. You sent only three copies of form L25 2M 9-42. Therefore, please send us twelve more copies of the form and advise us if there is any charge.

Yours very truly,

A. van V. Dunn,
Hydraulic Engineer.

cc: Director.
Regional Director, Region Two.
Regional Director, Region Three.
Supt., Rocky Mt. Nat. Park.
Supt., Zion Nat. Park.
Supt., S.W.Nat. Mons.

T. H. Humpherys
State Engineer

THE STATE OF UTAH
Office of State Engineer

C
O
P
Y

SALT LAKE CITY

January 6, 1941

U. S. Dep rtment of Interior
National Park Service
Estes Park, Colorado

Dear Sir: RE: APPROVED APPLICATION NO. 13209

Enclosed herewith find (1) Application No. 13209 which has been approved by me and (2) receipt for $2.50 paid by you as approval fee. The approved Application is your authority to proceed with actual construction work which, under Sections 100-3-10 and 100-3-12, Revised Statutes of Utah, 1933 as amended, must be begun within six months of the approval date, and diligently prosecuted to completion, the water being put to beneficial use and proof of appropriation made to State Engineer on or before December 25, 1942.

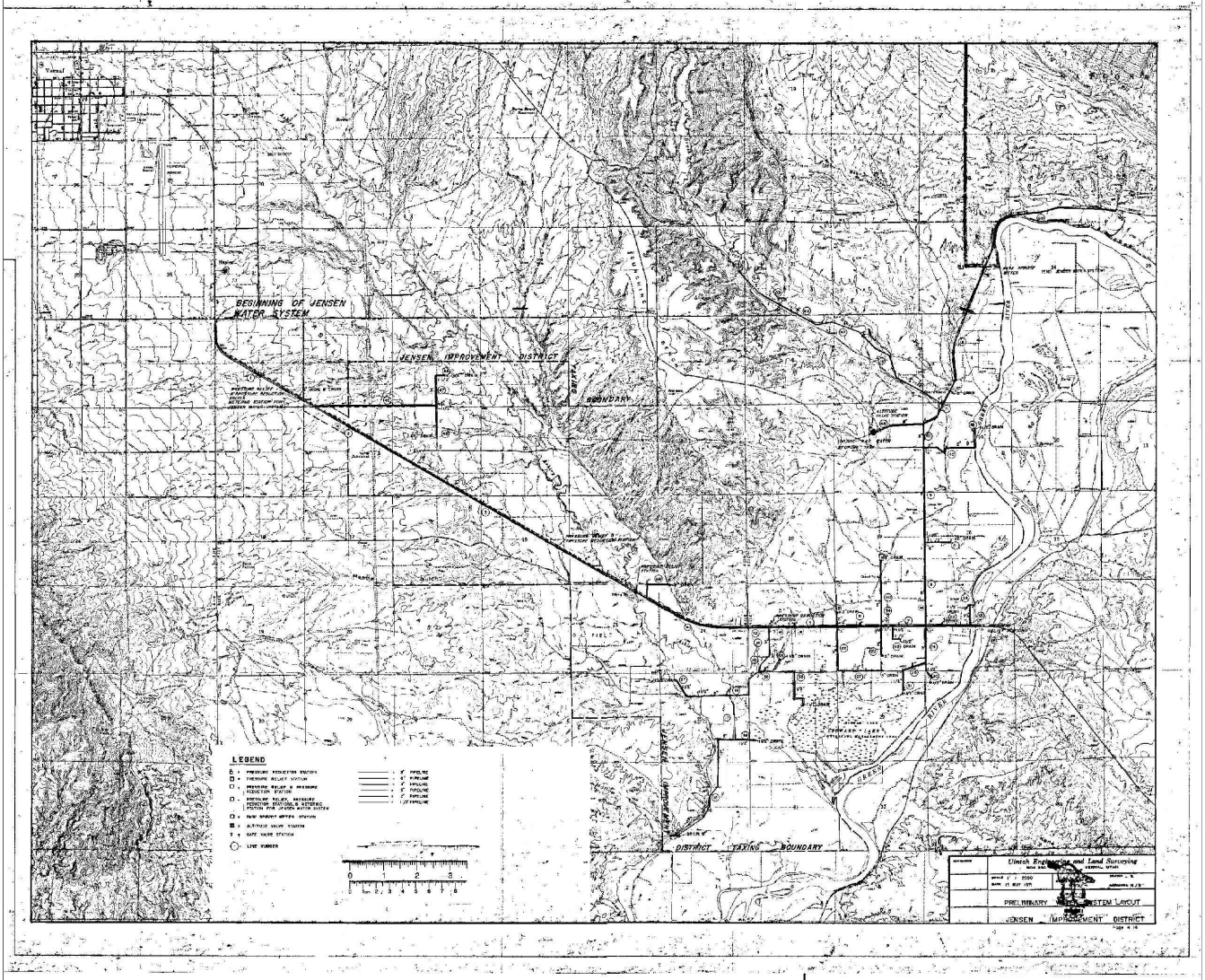
Failure on your part to comply with these requirements may result in forfeiture of your Application.

Yours very truly ,

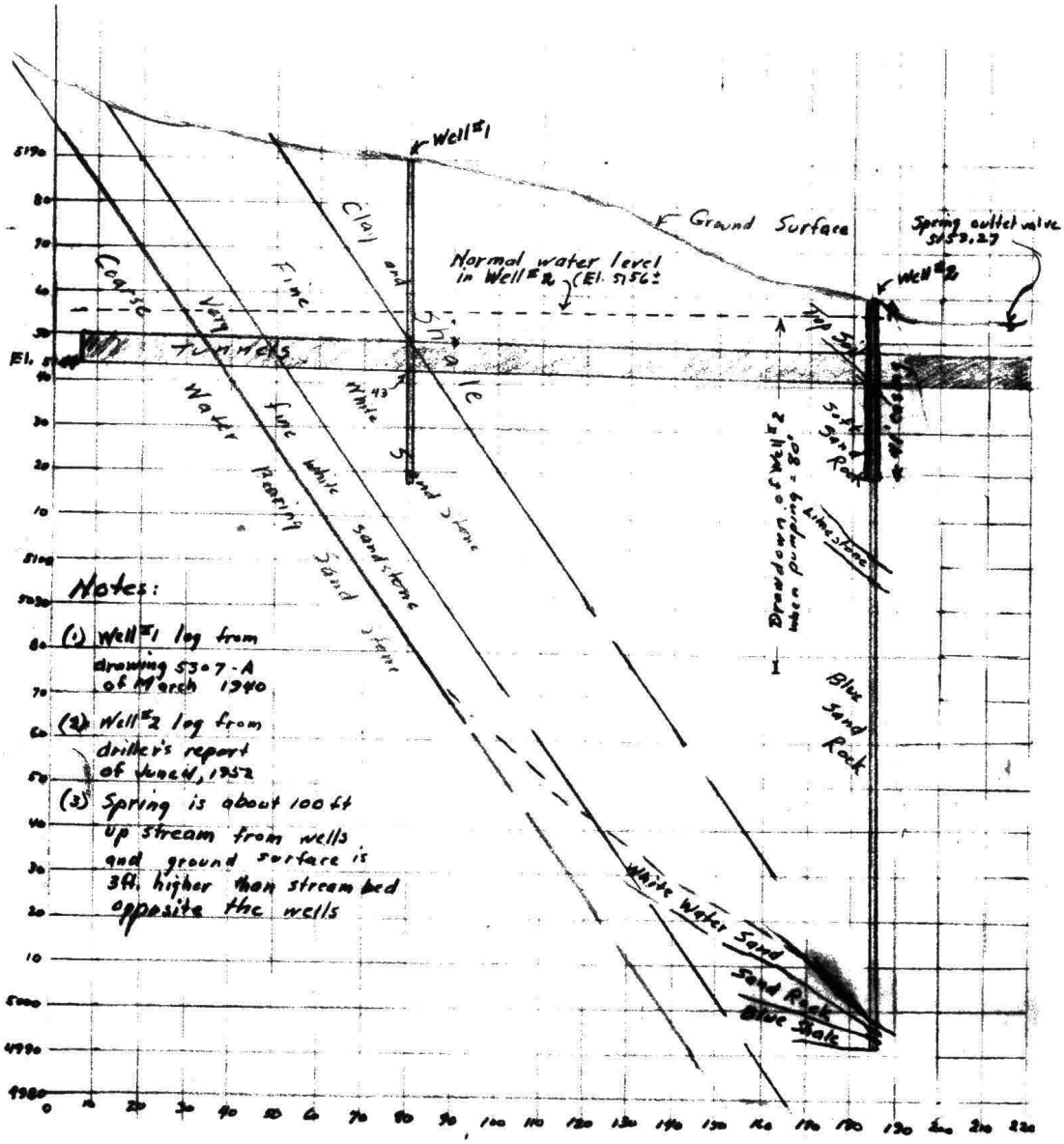
ADDRESS ALL COMMUNICATIONS TO: T. H. HUMPHERYS
mct STATE ENGINEER
Enc: approved Application & receipt 403 STATE CAPITOL
Salt Lake City, Utah

Maps and Miscellaneous Information

05-15-1971: map of the preliminary water system layout, jensen improvement district



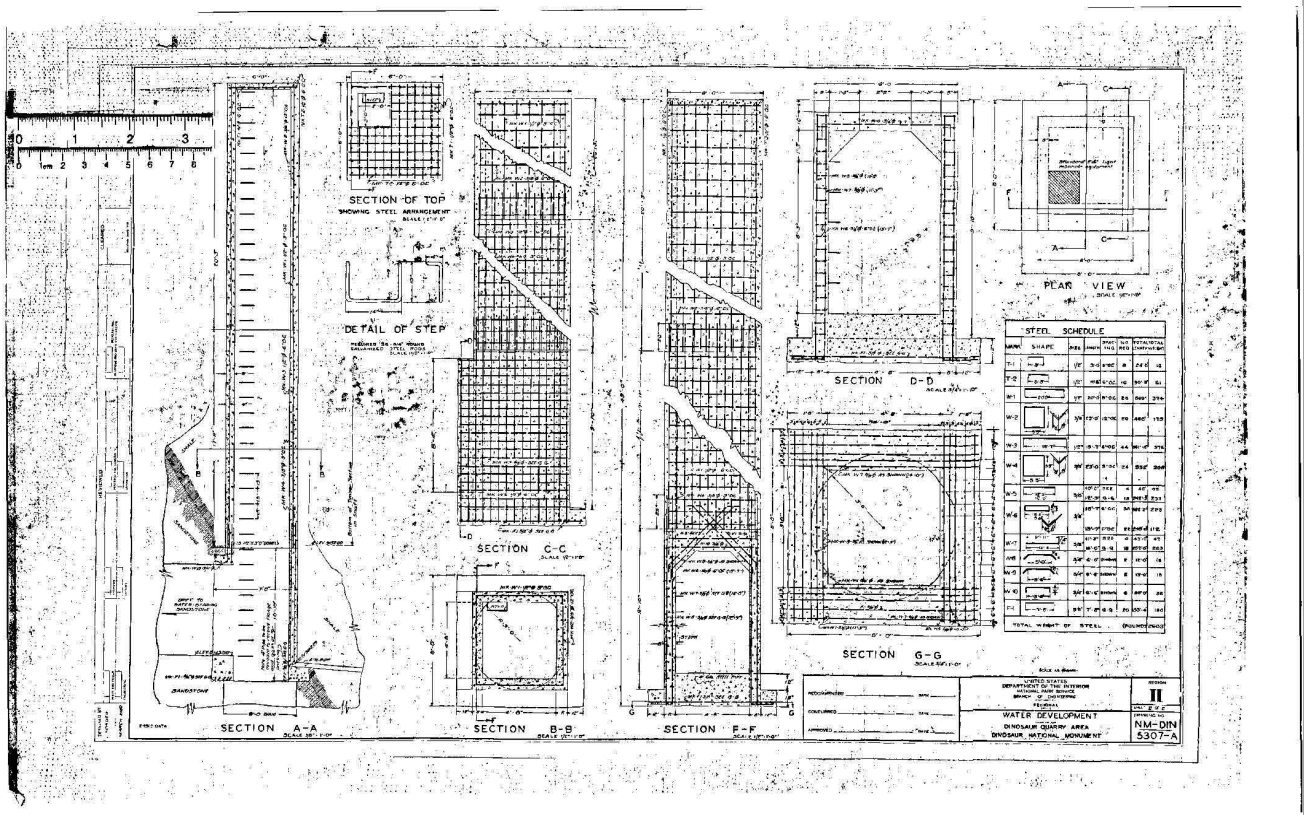
00-00-0000: section through wells 1&2

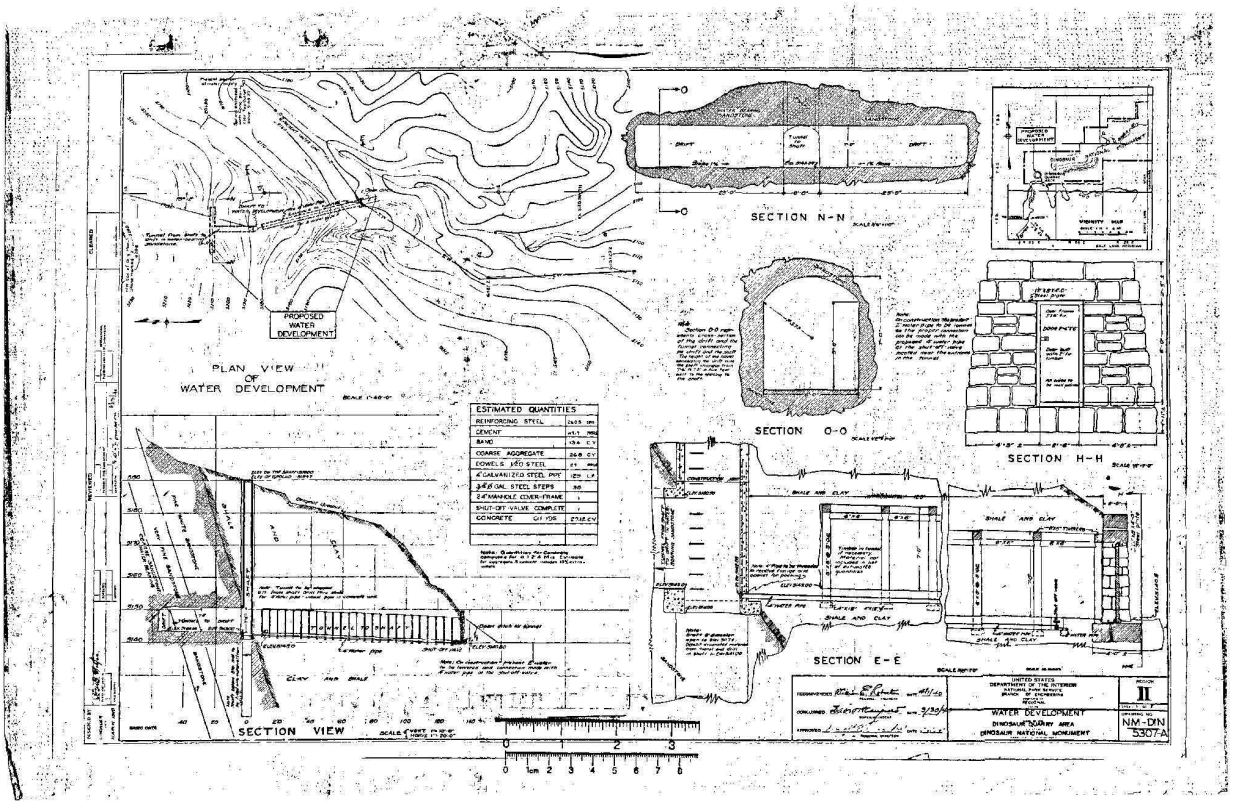


Section through Wells 1&2
Dinosaur National Monument
Scale: 1" = 30'

by A. van V. Dana
7/6/54

00-00-0000: water development map - step plans





Docket Information

Number of Documents in Docket 194

Documents Dated from 1/6/1941 to 1/26/1973

Docket Compiled: 3/9/2011