



# WATER-RIGHT DOCKET

## Theodore Roosevelt National Park

Docket No: 9

*SQUAW CREEK CAMPGROUND, NORTH UNIT*

### Preliminary Docket Information

00-00-0000: water right record

#### WATER RIGHT RECORD

Park: THRO

Docket Number:  
Federal #9

IDENTIFICATION NO: THRO, W, 31, 148, 99, B, F, 09,

DITCH/WATER SYSTEM: Squaw Creek Campground, North Unit

SOURCE OF SUPPLY: Well

LOCATION: NW $\frac{1}{4}$ NE $\frac{1}{4}$  Sec. 31, T148N, R99W

#### WATER RIGHT:

Appropriator: United States of America, National Park Service

Application/Permit Number: 1197

Certificate Record Number:

Date of Priority: June 19, 1964

Quantity of Water: .0089 c.f.s.

Purpose: Domestic and fire protection

Irrigated Land Description:

SUMMARY OF STATUS: This is a Federal water right consisting of a well

Well drilled in 1956.

Application for Appropriation of Water was filed on June 19, 1964. Approved July 23, 1964.

Document No. 174438

Office of State Engineer  
STATE OF NORTH DAKOTAWater License No. 1197

Permit No. 1197 Priority Date June 19, 1964  
 Name of Permit Holder National Park Service, United States of America, Department of the Interior  
 Address Medora, North Dakota  
 Source of Water Ground Water Supplies (North Unit, Squaw Creek Picnic Area Well)  
 Quantity of Water Approved in Permit 6.5 acre-feet Nature of Use Domestic & Fire protection  
 Date Application Approved and Permit Issued July 23, 1964  
 Date Certificate of Completion Issued October 19, 1964 Date Water Beneficially Used 1964

This is to certify that the holder(s) of the permit to divert and appropriate water as indicated above has completed construction of the works as set forth therein and evidenced by the Certificate of Completion issued by me on October 19, 1964, and that the holder(s) of said permit did, on the 31st day of July, 1964, submit proof of the application to beneficial use of 6.5 acre feet of water for the following purpose

Domestic & Fire protection

Now, therefore, by virtue of the authority vested in me by the laws of the State of North Dakota, I hereby grant and confirm to the National Park Service of Medora, North Dakota holder of said Permit No. 1197, a right dating from June 19, 1964 to appropriate and divert from at a point located in the NW 1/4 Sec. 31, Twp. 148N, Rge. 99W, a quantity of water limited to the amount that can be beneficially used herein, but not to exceed 6.5 acre feet annually for Domestic & Fire (purpose) protection and if purpose is irrigation, water is to be applied to the following lands to which this water right is appurtenant:

| Sec. | Twp. | Rge. | NE 1/4 |        |        |        | NW 1/4 |        |        |        | SW 1/4 |        |        |        | SE 1/4 |        |        |        | Total |
|------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
|      |      |      | NE 1/4 | NW 1/4 | SW 1/4 | SE 1/4 | NE 1/4 | NW 1/4 | SW 1/4 | SE 1/4 | NE 1/4 | NW 1/4 | SW 1/4 | SE 1/4 | NE 1/4 | NW 1/4 | SW 1/4 | SE 1/4 |       |
|      |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |
|      |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |
|      |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |
|      |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |

Estimated return flow to stream

This water right is subject to the limitation on the use of water as set forth in the laws of this State and to the rights of prior claimants recognized under the laws of North Dakota, and to the following additional limitations . . .

The right to use water for irrigation set forth herein is limited to the above described lands and is subject to cancellation for nonuse.

WITNESS my hand and seal at Bismarck, North Dakota, this 30th day of November, 1964.

(SEAL)

Milo W. Hoisveen  
 State Engineer  
 State of North Dakota

STATE OF NORTH DAKOTA)  
 )SS  
 COUNTY OF BURLEIGH )

On this 30th day of November, 1964, before me a notary public, personally appeared Milo W. Hoisveen, known to me to be the same person who executed the Water License and acknowledged to me that he executed the same.

Ernest J. Schuch  
 Notary Public

SWCC Form 113

"Buy North Dakota Products"

119  
 BACK 119 PAGE 54

BOOK 119 PAGE 542

Document No. 174428

CITY OF NORTH DAKOTA, } ss. OFFICE OF  
COUNTY OF MCKENZIE. } REGISTER OF DEEDS

I hereby certify that the within instrument was filed  
in this office for record on the 15 day of

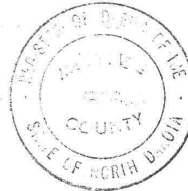
..... A. D. 1964, at  
1:00 P. M., and was duly recorded in

Book 119 of McKean on Page 541

By .....

150

Deft. Mrs. Russell Neil Morris Park  
Melrose, N. Dak.



RECORD OF WELL

Locate well on plat  
of section 6  
31

**SQUAW CREEK WELL**

- Location: State North Dakota County McKenzie  
Nearest P.O. Watford City, N. D. Direction from P.O. South  
Distance from P.O. 17 miles: NE  $\frac{1}{4}$  sec 31 T 148 N R 99W  
If in city, give street and number \_\_\_\_\_  
National Park Service, US of America
- Owner: Department of the Interior Address Medora, North Dakota  
Driller: Harris Drilling Company Address Bowman, North Dakota
- Situation: Is well on upland, in valley, or on hillside: Valley Floor
- Elevation of top of well: 1960 ft. Above the level of Sea  
(above or below) (Sea, depot, lake or stream)
- Type of well: Drilled; Kind of drilling rig used Jetting  
(dug, driven, bored or drilled) (solid tool, jetting, rotary)
- Depth of well: 433 ft.; year in which well was finished 1956  
Does well enter rock? \_\_\_\_\_; if so, at what depth? \_\_\_\_\_ ft.; kind of rock \_\_\_\_\_
- Diameter: At top 4 inches; at bottom \_\_\_\_\_ inches.
- Principal water bed: Unknown (No Log Available)  
(Gravel, sand, clay or rock. If rock, state kind)  
Depth to principal water bed \_\_\_\_\_ ft.; thickness of bed \_\_\_\_\_ ft.  
If other water supplies were found, give depth to each \_\_\_\_\_
- Casings: Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ & \_\_\_\_\_ ft.  
Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ & \_\_\_\_\_ ft.  
Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ & \_\_\_\_\_ ft.  
Packers (if any); Depth at which packers were used \_\_\_\_\_; Kind \_\_\_\_\_  
Screen or Strainer; Was well finished with screen? \_\_\_\_\_ Kind of screen \_\_\_\_\_  
length of screen \_\_\_\_\_ ft.; diameter \_\_\_\_\_ inches; size of openings \_\_\_\_\_
- Head: Does well at present overflow without pumping? No; did it overflow when not \_\_\_\_\_  
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 \_\_\_\_\_ ft. below surface.
- Pump: Is the well pumped? No; kind of pump \_\_\_\_\_  
size of capacity of pump \_\_\_\_\_; kind of power \_\_\_\_\_
- Yield: Natural flow at present (if any) 15 gallons per min.; original flow \_\_\_\_\_ gal.  
per min. - well has been pumped at \_\_\_\_\_ gallons per minute continuously for  
\_\_\_\_\_ hours; quantity of water ordinarily obtained from well \_\_\_\_\_ gal. per day.
- Use: For what purpose is the water used? Domestic and Fire Protection
- Quality of the water: Artesian - Soft; is there an analysis? Yes  
(hard, soft, fresh or salty, etc)
- Cost of well, not including pump: Unknown Temperature of water 55 °F

Name of person filling blank Einar L. Johnson  
District Park Ranger

Date October 20, 1964 Address Medora, North Dakota  
On \_\_\_\_\_  
the back of this sheet give the record of the beds through which the well passes

OFFICE OF STATE ENGINEER  
STATE OF NORTH DAKOTA

CERTIFICATE OF COMPLETION

Permit No.: 1197

Name of Permit Holder: National Park Service, United States of America-Department  
of the Interior

Address: Medora, North Dakota

Priority Date: June 19, 1964

Date Application Approved: July 23, 1964

Source of Water: Ground Water Supplies - (North Unit, Squaw Creek Picnic Area Well)

Points of Diversion: NW 1/4, Section 31, Township 148 North, Range 99 West

Quantity Allowed in Permit: 6.5 feet (acre)

Nature of Use of Water: Domestic and Fire Protection

This is to certify that the holder of the permit indicated above has fully complied with the provisions of the laws of the State of North Dakota relating to the proof of completion of works to divert water for beneficial use as set out and described in said permit and related application, and that said works have been constructed or installed and are adequate to store, divert and convey water to the place of intended use in accordance with the application, plans, maps and permit indicated above on file in the office of the State Engineer, with the following exceptions \_\_\_\_\_

Dated at Bismarck, North Dakota this 19th day of October, 1964.

/s/ Milo W. Hoisveen  
State Engineer  
State of North Dakota

(SEAL AFFIXED)

Name of Person Wendell C. Jones  
 Where Proposed Waterbury, N.D.  
 Date of Issue 11/9/64  
 Sent By \_\_\_\_\_  
 Location \_\_\_\_\_  
 Copy Sent WASO ☒ YES ☐ NO ☐

**NOTICE OF HEARING ON PETITION  
 FOR APPROPRIATION OF WATER  
 FROM GROUND-WATER SOURCES  
 (North Unit Headquarters Well)**

TAKE NOTICE. That National Park Service, United States of America, Department of the Interior, Medora, North Dakota has made application to the State Engineer of North Dakota for a permit to divert and appropriate water from the ground-water sources.

The petition prays for a permit to point on the ground-water sources in the NW1/4 Section 33, Township 148 North, Range 99 West for irrigation of .025 cubic feet per second of water and .002 cubic feet the average approximate amount per second of water for domestic use during the operating season, for each year said permit may remain in force, with an annual diversion of 3.8 acre-feet, for domestic, fire protection and irrigation a total of 2 acres for irrigation in McKenzie County, North Dakota, and as shown on the map accompanying the application.

TAKE NOTICE, further that the State Engineer will consider said application in his office in the State Capitol, Bismarck, North Dakota, on the 13th day of July, 1964, at the hour of 9:30 o'clock a.m., on that date, at which time and place, all persons interested may present their views in person or in writing.

Dated at Bismarck, North Dakota this 26th day of June 1964.

MILLO W. HOISVEEN,  
 State Engineer,  
 1301 Capitol Building,  
 Bismarck, North Dakota.  
 (July 2-8)

-mef-

**NOTICE OF HEARING ON PETITION  
 FOR APPROPRIATION OF WATER  
 FROM GROUND-WATER SOURCES  
 (North Unit,  
 Squaw Creek Picnic Area Well)**

TAKE NOTICE. That National Park Service, United States of America, Department of the Interior, Medora, North Dakota has made application to the State Engineer of North Dakota for a permit to divert and appropriate water from the ground-water sources.

The petition prays for a permit to point on the ground-water sources in the NW1/4 Section 31, Township 148 North, Range 99 West the average approximate amount of .0080 cubic feet of water per second of time during the operating season, for each year said permit may remain in force, with domestic use and fire protection McKenzie County, North Dakota, and as shown on the map accompanying the application.

TAKE NOTICE, further that the State Engineer will consider said application in his office in the State Capitol, Bismarck, North Dakota, on the 13th day of July, 1964, at the hour of 9:30 o'clock a.m., on that date, at which time and place, all persons interested may present their views in person or in writing.

Dated at Bismarck, North Dakota this 26th day of June 1964.

MILLO W. HOISVEEN,  
 State Engineer,  
 1301 Capitol Building,  
 Bismarck, North Dakota.  
 (July 2-8)

-mef-

*Wendell C. Jones*  
*11/9/64*  
*Bill Malt*  
*Coal (last)*  
*W. L. R*  
*main*

NOTICE OF HEARING ON PETITION  
FOR APPROPRIATION OF WATER FROM

GROUND - WATER SOURCES

North Unit, Squaw Creek Picnic Area Well

TAKE NOTICE, That

National Park Service, United States of America,

has made application to the State

Department of the Interior, Medora, N. Dak.

Engineer of North Dakota for a permit to divert and appropriate water from the

ground-water sources

the petition prays for a permit to divert and appropriate water from a  
point on the

in the ground-water sources

NE 1/4 Section 31, Township 14S North, Range 99 West  
the average approximate amount of                      cubic feet of water per second

of time during the operating season, for each year said permit may remain in

force, with an annual diversion of                      acre-feet, for                     

6.5

domestic use and fire protection

, and as shown on the map

McKenzie County, North Dakota  
accompanying the application.

TAKE NOTICE, further that the State Engineer will consider said applica-  
tion in his office in the State Capitol, Bismarck, North Dakota, on the                     

day of                     , 1964, at the hour of 9:30 o'clock 13th m.

on that date, at which time and place, all persons interested may present their

views in person or in writing.

Dated at Bismarck, North Dakota this                      day of                      1964.

26th

June

/s/ Milo W. Hoisveen, State Engineer  
1301 Capitol Building  
Bismarck, North Dakota



DO NOT COMPLETE THIS SIDE OF FORM — THIS SIDE FOR USE OF STATE ENGINEER

## PERMIT

This is to certify that I have examined the foregoing application and hereby approve the same ~~subject to prior rights; rate of withdrawal not to exceed 4 gallons per minute. Acres-foot and rate of withdrawal subject to notification by State Engineer. Failure to comply~~  
(If denied state reason, if approved state condition, if any, to approval)

~~with any order of the State Engineer may result in forfeiture of water right.~~

The amount of water to be appropriated shall be limited to the amount that can be used beneficially, not to exceed 6.5 acre feet each year.

1. Date of priority June 19, 1964
2. Date of hearing on application July 13, 1964
3. Date of approval by State Water Conservation Commission July 23, 1964
4. Construction to be initiated on or before July 1, 1965
5. Construction to be completed on or before July 1, 1967
6. Water shall be beneficially used on or before July 1, 1969

WITNESS my hand and seal this 29th day of July, 1964

/s/ Milo W. Holtsveen  
 State Engineer  
 Secretary, State Water Conservation Commission

PERMIT NO. 1197

Application for a Permit to Divert and Appropriate  
 the Water of the State of North Dakota

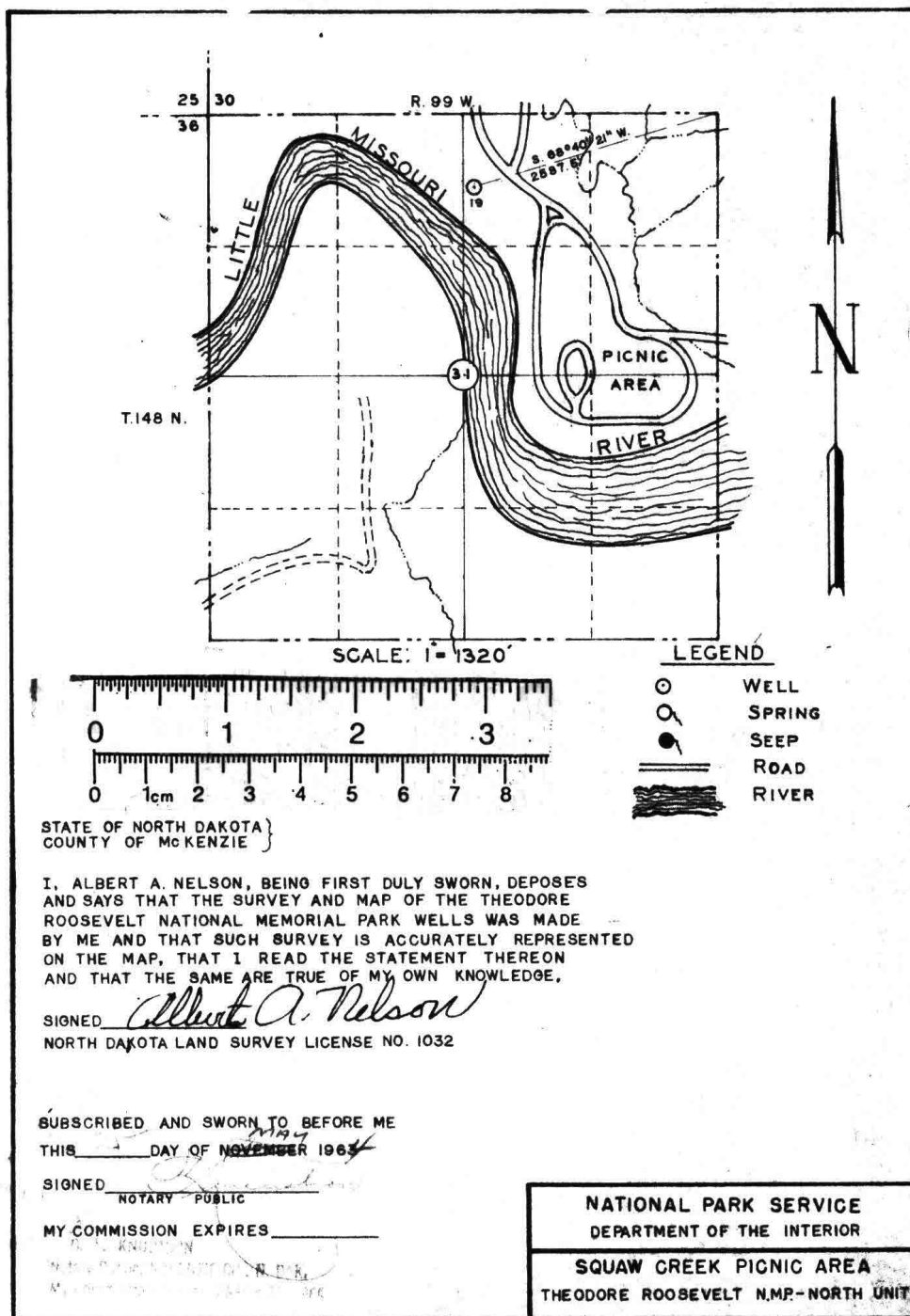
Applicant National Fuel Service  
 Address Madison, North Dakota  
 Point of Diversion in NE 1/4 48 1/4 of Section 21  
 Township 14S N., Range 99 W.  
 Source ground-water  
 Acres to be irrigated seventeen and five tenths

The State of North Dakota  
 State Engineer's Office

This instrument was received and filed for record on the 19th  
 day of July A. D. 1964 at 2:00 o'clock P. M.  
/s/ Milo W. Holtsveen  
 (State Engineer)

"BUY NORTH DAKOTA PRODUCTS"

RECEIVED JUL 24 1964



Supporting Hydro Data


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**Permit Number --- 01197****Permit Information**

**Priority Date:** 6/19/64  
**Use Type:** Domestic  
**Status Code:** Perfected

U.S. NATIONAL PARK SERVICE  
 MEDORA, ND

**Point of Diversion Information**  
**14809931AB**

| Beneficial Use    | Date                  | Year | Acre Feet | Acres | Rate |
|-------------------|-----------------------|------|-----------|-------|------|
| County            | McKenzie              |      |           |       |      |
| Basin             | Little Missouri River | 2002 | 0.8       | 0.0   | 7.5  |
| Aquifer           | Undefined             | 2001 | 0.7       | 0.0   | 8.0  |
| Status            | Active                | 2000 | 0.8       | 0.0   | 8.0  |
| Source            | Ground Water          | 1999 | 0.7       | 0.0   | 8.0  |
| App. Acre Feet    | 6.5                   | 1998 | 0.7       | 0.0   | 8.0  |
| App. Acres        | 0.0                   | 1997 | 0.6       | 0.0   | 8.0  |
| App. Pumping Rate | 4.0                   | 1996 | 0.5       | 0.0   | 8.0  |
| App. Storage      | 0.0                   | 1995 | 0.5       | 0.0   | 8.0  |
|                   |                       | 1994 | 0.6       | 0.0   | 8.0  |
|                   |                       | 1993 | 0.4       | 0.0   | 8.0  |
|                   |                       | 1992 | 1.0       | 0.0   | 8.0  |
|                   |                       | 1991 | 1.0       | 0.0   | 15.0 |
|                   |                       | 1990 | 1.0       | 0.0   | 8.0  |
|                   |                       | 1989 | 200.0     | 0.0   | 15.0 |
|                   |                       | 1988 | 2.0       | 0.0   | 15.0 |
|                   |                       | 1987 | 2.0       | 0.0   | 15.0 |
|                   |                       | 1986 | 2.0       | 0.0   | 15.0 |
|                   |                       | 1985 | 1.9       | 0.0   | 15.0 |
|                   |                       | 1984 | 2.0       | 0.0   | 15.0 |
|                   |                       | 1983 | 2.0       | 0.0   | 15.0 |

**NORTH DAKOTA STATE DEPARTMENT OF HEALTH**  
 Division of Laboratories  
 Bismarck, North Dakota

County McKenzie

**CHEMICAL ANALYSIS OF WATER**

Sample Number 63-1321 Date Received 11-7-63 Date Reported 11-19-63  
 Squaw Creek  
 Source 400' x 4" Drilled Well Section 31 Township 148N Range 99W  
 Submitted By E. L. Robinson Address Acting Supt., Medora, N. Dak.  
 Owned By Theodore Roosevelt Nat Park Address Medora, N. Dak.  
National Park Service

**ANALYSIS**

|                                          |                                                                                |                                                                           |                                                                                |      |               |
|------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------|------|---------------|
| TOTAL DISSOLVED SOLIDS                   | <input type="checkbox"/> Low<br><input type="checkbox"/> Fairly Low            | <input type="checkbox"/> Satisfactory<br><input type="checkbox"/> Average | <input checked="" type="checkbox"/> High<br><input type="checkbox"/> Very High | 1684 | mg/l          |
| TOTAL ALKALINITY (as CaCO <sub>3</sub> ) | <input type="checkbox"/> Low<br><input type="checkbox"/> Fairly Low            | <input type="checkbox"/> Satisfactory<br><input type="checkbox"/> Average | <input checked="" type="checkbox"/> High<br><input type="checkbox"/> Very High | 1235 | mg/l          |
| TOTAL HARDNESS (as CaCO <sub>3</sub> )   | <input checked="" type="checkbox"/> Low<br><input type="checkbox"/> Fairly Low | <input type="checkbox"/> Satisfactory<br><input type="checkbox"/> Average | <input type="checkbox"/> High<br><input type="checkbox"/> Very High            | 20   | mg/l          |
| IRON (Fe)                                |                                                                                |                                                                           |                                                                                |      | mg/l          |
| MANGANESE (Mn)                           |                                                                                |                                                                           |                                                                                |      | mg/l          |
| pH                                       |                                                                                |                                                                           |                                                                                |      |               |
| CALCIUM (Ca)                             |                                                                                |                                                                           |                                                                                |      | mg/l          |
| MAGNESIUM (Mg)                           |                                                                                |                                                                           |                                                                                |      | mg/l          |
| SODIUM (Na)                              | <input type="checkbox"/> Low<br><input type="checkbox"/> Fairly Low            | <input type="checkbox"/> Satisfactory<br><input type="checkbox"/> Average | <input type="checkbox"/> High<br><input checked="" type="checkbox"/> Very High | 475  | mg/l          |
| FLUORIDE (F)                             |                                                                                |                                                                           |                                                                                |      | mg/l          |
| CHLORIDE (Cl)                            | <input type="checkbox"/> Low<br><input type="checkbox"/> Fairly Low            | <input type="checkbox"/> Satisfactory<br><input type="checkbox"/> Average | <input type="checkbox"/> High<br><input type="checkbox"/> Very High            |      | mg/l          |
| SULPHATE (SO <sub>4</sub> )              | <input type="checkbox"/> Low<br><input type="checkbox"/> Fairly Low            | <input type="checkbox"/> Satisfactory<br><input type="checkbox"/> Average | <input type="checkbox"/> High<br><input type="checkbox"/> Very High            |      | mg/l          |
| BICARBONATE (HCO <sub>3</sub> )          |                                                                                |                                                                           |                                                                                | 1324 | mg/l          |
| CARBONATE (CO <sub>3</sub> )             |                                                                                |                                                                           |                                                                                | 90   | mg/l          |
| NITRATE (NO <sub>3</sub> )               |                                                                                |                                                                           |                                                                                | 4.4  | mg/l          |
| CONDUCTIVITY                             |                                                                                |                                                                           |                                                                                | 475  | ohms          |
| TOTAL HARDNESS                           |                                                                                |                                                                           |                                                                                | 0.1  | Grains/Gallon |

This water would be: ☐ Excellent ☐ Good ☐ Satisfactory ☒ Usable, but not desirable ☐ Undesirable  
 For a: ☒ Private Domestic Supply ☐ Municipal Supply

This water would be: ☐ Excellent for most plants under most conditions.  
☐ Good for irrigation but its effect on the soil, over a period of years, may prove harmful to the more sensitive plants.  
☒ May be injurious for irrigation and its effect on the soil, over a period of years, may prove harmful to all but the most tolerant plant life.  
☐ A water which would be unsatisfactory for irrigation and its effect on the soil would prove harmful to all but the most tolerant of plants.

This water: ☐ Would cause staining of laundry and plumbing fixtures due to its high iron or manganese content.  
☒ May prove harmful to individuals on salt-free diets. Please consult your family doctor.  
☐ May exert a laxative effect upon persons unaccustomed to its high sulphate content.

Statement: This analysis includes chemical content only, and does not determine the bacterial quality of the water.

For any further information, write to the  
 State Health Department, Bismarck, N. Dak.

Per. Theo M. Thowen Chemist

Other Supporting Information



Lynn Heiser/THRO/NPS  
07/19/2011 03:33 PM MDT

To: Jeff Hughes/FTCOLLINS/NPS@NPS  
cc:  
bcc:  
Subject: Re: THRO water rights - wells in the North Unit 

Jeff,

I apologize for not getting back to you sooner. Mainly just forgot.

Regardless, what I can find is that a new well was apparently drilled in 1982. This well was used until 2004 when a new one was drilled to the same depth of around 400' and about 10 to 20 feet away from the old one. I remember this to be accurate as I know where the old one was. They are/were in nearly the same location which according to the well driller's log is SW1/4, NE1/4 of Sec. 31 TWP148N, R99W. I will look some more for what if any well that existed there before. I did find some reference to the 1982 well being revamped in 1982 of a well that was drilled in the 50's.

Kind of fun to research this stuff but also aggravating as somewhere records should have been kept to reveal the history of the park, wells included.

Thanks  
Lynn

---

Lynn M. Heiser  
Chief Of Maintenance  
Fleet Manager

Theodore Roosevelt National Park  
P.O. Box 7  
Medora, North Dakota 58645

PH: 701-623-4730 (ext. 3413)  
FX: 701-623-4840  
lynn\_heiser@nps.gov

---



Jeff  
Hughes/FTCOLLINS/NPS  
07/19/2011 02:57 PM MDT

To Lynn Heiser/THRO/NPS@NPS  
cc  
bcc  
Subject Re: THRO water rights - wells in the North Unit

Hi Lynn,

I was wondering if you had any time to look into the water rights question I sent to you earlier. I have attached it below in case you can't find it right away. There is no hurry on this, however, it would be good to update our files while we have a student working on them this summer. Thanks! Jeff

\*\*\*\*\*  
Jeffrey C. Hughes, Hydrologist  
National Park Service  
Natural Resource Stewardship and Science  
1201 Oakridge Dr. Suite 250, Fort Collins, CO 80525  
(970) 225-3527 (direct)  
(970) 225-9965 (fax)  
jeff\_hughes@nps.gov  
\*\*\*\*\*

Lynn Heiser Jeff, I will get you some info when and if I get ba... 06/22/2011 08:55:26 AM



Lynn Heiser/THRO/NPS  
06/22/2011 08:55 AM MDT

To Jeff Hughes/FTCOLLINS/NPS@NPS  
cc  
Subject Re: THRO water rights - wells in the North Unit

Jeff,

I will get you some info when and if I get back in my South Unit office later this week but no later than next week. I think I can give you some helpful info. Juniper is the right name of the campground now, I believe there was a shallow well from the 60's in section 31, another drilled there in the mid 1970's, another to 400' in the early 1980's and then the current one in about 2002 or so. I will be back in touch once I can look at my contract files, they should help quite a bit.

Thanks

Lynn

---

Lynn M. Heiser  
Chief Of Maintenance  
Fleet Manager

Theodore Roosevelt National Park  
P.O. Box 7  
Medora, North Dakota 58645

PH: 701-623-4730 (ext. 3413)  
FX: 701-623-4840  
lynn\_heiser@nps.gov

Hi Lynn,

I work with the NPS, Water Resources Division, Water Rights Branch in Fort Collins. I have been involved with water-rights related work at Theodore Roosevelt NP for several years, most notably evaluating the impacts of the Medora Golf Course diversion on flows in the Little Missouri River. I have also been surveying stream cross sections in the North Unit on a (mostly) annual basis to evaluate how the channel changes with various sizes of peak flows. Should be a good one this year.

The Water Rights Branch has the responsibility of keeping the water rights records for all NPS water rights. While going through our records for THRO, I find 11 different dockets for water rights with little information contained within. I may try to see what you have in your files sometime while I am up there if that is alright. I'd make copies to update our files.

Now to why I am writing to you. I have some miscellaneous documentation for a well in the Juniper Campground in the North Unit. It is a Well Driller's Report for a well drilled in August, 1982 and located in the SW1/4 NW1/4 Sec. 31, T148N, R99W. The well log states the well is 400 feet deep.

We have two existing water right dockets for wells in the Squaw Creek Campground. Am I correct that this is now called the Juniper Campground? These wells were drilled in the 1950s or 60s and their locations are:

THRO Docket No. 1 (Squaw Creek Campground Well): NE1/4 NW1/4 Sec. 31, T148N, R99W. Maybe this well was drilled in 1956?  
THRO Docket No. 9 (Squaw Creek Campground, North Unit): NW1/4 NE1/4 Sec. 31, T148N, R99W. This has a ND Permit number (1197).

Please note they have slightly different locations.

Questions for you:

1. Are the above two dockets really for the same well? They seem to be very close.
2. Is it possible that the well log for the well drilled in 1982 is for a replacements well for one or both of the above wells?
3. If so, which one?
4. Or, are there really three wells drilled and in use in this campground?
5. Have any of these wells been abandoned?

I realize you are very busy and may not have time to get to this for awhile. However, when you do have some time, I would greatly appreciate it if you could help me figure this out so I can properly update the THRO water rights records.

Thank you very much Lynn. Please feel free to contact me if you have any questions about this.

Jeff

\*\*\*\*\*  
Jeffrey C. Hughes, Hydrologist  
National Park Service, Water Resources Division  
1201 Oakridge Dr. Suite 250  
Fort Collins, CO 80525  
(970) 225-3527 (direct)  
(970) 225-9965 (fax)  
jeff\_hughes@nps.gov  
\*\*\*\*\*

Form 10-174  
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

## FACE SHEET FOR COMPLETION REPORT

|                                                                                                                               |                                                      |                                        |
|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------|
| Park<br><b>Theodore Roosevelt National Memorial Park</b>                                                                      | Region<br><b>Midwest</b>                             | Work Order No.<br><b>2-WR-65B</b>      |
| Location in Park<br><b>At various locations within the North and South Units of Theodore Roosevelt National Memorial Park</b> | State(s)<br><b>North Dakota</b>                      | Fund Symbol<br><b>14x1035 (0343)</b>   |
|                                                                                                                               | County or Counties<br><b>Billings &amp; McKenzie</b> | Year Programmed<br><b>1963</b>         |
| <input type="checkbox"/> Contract and/or <input checked="" type="checkbox"/> Day Labor                                        |                                                      | PCP No.                                |
| Work Order Title<br><b>Filings for water rights with State Water Commission, carry-over from 1963 F.Y.</b>                    |                                                      | Master Plan No.                        |
|                                                                                                                               |                                                      | Master Plan Corrected By               |
|                                                                                                                               |                                                      | As Built Drawings By                   |
|                                                                                                                               |                                                      | Date Started<br><b>August, 1962</b>    |
|                                                                                                                               |                                                      | Date Completed<br><b>October, 1964</b> |

DESCRIPTION OF FIXED ASSETS  
(For completion by employee in charge of project)TOTAL COSTS  
(For completion by FFO)100.8 Utilities: Sewer Systems and Water Systems:

Water rights filing for 8 water wells located within Theodore Roosevelt National Memorial Park (6 wells in the South Unit and 2 wells in the North Unit).

|                 |                          |
|-----------------|--------------------------|
| Surveyor Fee    | \$ 36.00                 |
| Application Fee | <del>184.00</del> 160.00 |
| Notary Fee      | 12.00                    |
| Advertising Fee | 20.70                    |
| Filing Fee      | <u>24.00</u>             |
|                 | <del>276.70</del>        |
|                 | 252.70                   |

Filings For Wells:  
Peaceful Valley Picnic Area Well  
North Unit Headquarters Well  
Halliday Well  
Rasmussen Well  
Squaw Creek Campground Well  
Medora Headquarters Well  
Cottonwood Campground Well  
Peaceful Valley Headquarters Well  
or Peaceful Valley Ranch Well

Prorated Cost for  
Each Well:  
\$31.60

TOTAL

\$ 252.70  
~~276.70~~

| DISTRIBUTION |      | THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES |                |
|--------------|------|---------------------------------------------------------------------------------------------------------------------------------|----------------|
| No.          | To   | Submitted By:                                                                                                                   | Title:         |
| 2            | WASO | <i>Warren D. Hotchkiss</i>                                                                                                      | Superintendent |
| 2            | MRO  |                                                                                                                                 |                |
| 1            | Area |                                                                                                                                 |                |
|              |      | Approved By:                                                                                                                    | Title:         |
|              |      |                                                                                                                                 |                |
|              |      | COSTS VERIFIED BY:                                                                                                              | Title:         |
|              |      |                                                                                                                                 |                |
|              |      |                                                                                                                                 |                |

11360

Form 10-174A  
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

## COMPOSITION OF COST FOR COMPLETION REPORT

Work Order Number

2-WR-65B

Fund Symbol

14X1035 (0343)

Year Programmed

1963

Park  
Theodore Roosevelt National Memorial ParkRegion  
Midwest

Location in Park

At various locations within the North and South Units of Theodore Roosevelt NMP

Work Order Title

Filings for water rights with State Water Commission; carry-over from 1963 F.Y.

## COMPOSITION OF COST

## COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCIAL OFFICE

- (1) Personal Services.....
- (2) Travel.....
- (3) Contract Work.....
- (4) Supplies and Materials.....
- (5) Other Direct Expenses.....
- (6) Operation of Equipment.....
- (7) Depreciation of Equipment.....
- (8) Purchase of Construction Equipment.....
- (9) Purchase of Other Accountable Equipment.....
- (10) Other Costs:

152.70

~~276.70~~

(11) TOTAL COST CHARGED TO FIELD FUNDS

XXXXXXXXXX

152.70

~~276.70~~

## OTHER COSTS:

- (12) PS&S, AP, and/or Facilitating Services.....
- (13) Inventory and Other Non-Fund Costs.....

(14) GROSS WORK ORDER COSTS

XXXXXXXXXX

## LESS:

- (15) Residual Value of Construction Equipment on Line 8.....
- (16) Other Credits.....

(17) NET COST OF FIXED ASSETS

XXXXXXXXXX

152.70

~~276.70~~

Identify other costs and other credits by line item entry on an attached schedule, or explain in narrative

NARRATIVE PORTION OF COMPLETION REPORT  
ON  
WATER RIGHTS FILINGS  
IN  
THEODORE ROOSEVELT NATIONAL MEMORIAL PARK

Much of the information required to complete the eight (8) "Record of Well" forms attached is unavailable. An inspection was conducted of records in the Billings County Court House with no success. Evidently, water sources developed before the Park was established, [REDACTED] was accomplished without keeping a written record of progress.

From checking the files at Park Headquarters, it is noted that there was an interest in 1948 to obtain water rights for wells located within the Park. However, due to the lack of funds, this project did not get underway until 1962.

The completion costs of most of the wells could not be determined because the cost of the drilling operation had been included with the installation of water lines and other utilities.

Form 10-174  
(Rev. 8-56)

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
COMPLETION REPORT OF CONSTRUCTION PROJECT

2010

|                                                                                                   |                                                |                                                                             |                                                           |
|---------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------|
| REGION<br><b>Two</b>                                                                              | AREA<br><b>Theodore Roosevelt Nat Mem Park</b> | COUNTY<br><b>McKenzie</b>                                                   | STATE<br><b>North Dakota</b>                              |
| PROJECT OR JOB TITLE<br><b>Squaw Creek Campground Water System</b>                                |                                                |                                                                             | PCP NO. & I<br><b>U-16</b>                                |
| LOCATION IN AREA<br><b>Squaw Creek Campground - North Unit</b>                                    |                                                | MASTER PLAN NO.<br><b>NMP-TR-3007-A</b>                                     | BUILDING NO.                                              |
| WORKING DRAWING NO. AND TITLE<br><b>NMP-TR-3007-A, Water Supply System</b>                        |                                                |                                                                             |                                                           |
| APPROPRIATION TITLE AND SYMBOL<br><b>Construction, NPS, 14X1035</b>                               |                                                |                                                                             | WORK ORDER NO.<br><b>332.2</b>                            |
| CONTRACT NO.<br><b>14-10-232-141 (1)</b><br><b>14-10-232-148 (2)</b>                              |                                                | DATE WORK STARTED<br><b>5-2-56</b><br><b>7-5-56</b>                         | DATE WORK COMPLETED<br><b>5-18-56</b><br><b>9-28-56</b> ✓ |
| NAME OF CONTRACTOR<br><b>Harris Drilling Company</b><br><b>P. E. Thompson Plumbing-Heating Co</b> |                                                | ADDRESS<br><b>Fowman, North Dakota</b><br><b>Watford City, North Dakota</b> |                                                           |

## COST ANALYSIS

| CONSTRUCTION ITEMS                          | QTY. | UNIT COST IN PLACE | TOTAL COST IN PLACE  |
|---------------------------------------------|------|--------------------|----------------------|
| Personal Services                           |      |                    | 37.45                |
| Other Direct Expenses (see attachment)      |      |                    | 17.80                |
| Other Contractual Services (see attachment) |      |                    | <del>16,176.76</del> |
| Facilitating Services                       |      |                    | 164.53               |
| TOTAL                                       |      |                    | 16,396.54            |

COSTS AGREE WITH FIELD FINANCE OFFICE RECORDS - 9/26/57

C. D. Van Kirk, Supervisory Accountant

## SUMMARY OF EXPENDITURES

|                            |                       |                             |
|----------------------------|-----------------------|-----------------------------|
| PERSONAL SERVICES<br>37.45 | EQUIPMENT<br>-        | MATERIALS AND SUPPLIES<br>- |
| OTHER<br>17.80             | Facilitating Services | 164.53                      |

| CHANGE ORDERS                         |           |        |       |
|---------------------------------------|-----------|--------|-------|
| ORIGINAL CONTRACT AMOUNT (1) 3,736.50 | FIRST -   | SECOND | THIRD |
| (2) 14,251.00                         | (2) 75.00 |        |       |
| FINAL CONTRACT AMOUNT (1) 2,089.63    | FOURTH    | FIFTH  | SIXTH |
| <del>16,176.76</del> (2) 14,087.13    |           |        |       |

THIS PROJECT OR JOB HAS BEEN COMPLETED IN ACCORDANCE WITH  
APPROVED DRAWINGS, SPECIFICATIONS, AUTHORIZED CHANGES

|                                                                          |                               |
|--------------------------------------------------------------------------|-------------------------------|
| SUBMITTED BY (Name and title)<br><b>John W. Jay, Jr., Superintendent</b> | DATE<br><b>April 18, 1957</b> |
| APPROVED BY (Name and title)                                             | DATE                          |

(ATTACH NARRATIVE STATEMENT, PHOTOGRAPHS, AND "AS BUILT" DRAWINGS TO THIS FORM)

**Form 10-174**  
**(Rev. 8-56)**

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

## COMPLETION REPORT OF CONSTRUCTION PROJECT

|                                                                                        |                                                          |                                                  |                                |
|----------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------|--------------------------------|
| REGION<br><u>Two</u>                                                                   | AREA<br><u>Theodore Roosevelt National Memorial Park</u> | COUNTY<br><u>McKenzie</u>                        | STATE<br><u>North Dakota</u>   |
| PROJECT OR JOB TITLE<br><u>Squaw Creek Campground Water Supply System</u>              |                                                          | PCP NO.<br><u>U-16</u>                           |                                |
| LOCATION IN AREA<br><u>Squaw Creek Campground</u>                                      |                                                          | MASTER PLAN NO.                                  | BUILDING NO.                   |
| WORKING DRAWING NO. AND TITLE<br><u>NMP-TR-3007-A, Water Supply System</u>             |                                                          |                                                  |                                |
| APPROPRIATION, TITLE AND SYMBOL<br><u>Construction, National Park Service, 14X1035</u> |                                                          |                                                  | WORK ORDER NO.<br><u>332.2</u> |
| CONTRACT NO.<br><u>14-10-232-148</u>                                                   | DATE WORK STARTED<br><u>July 5, 1956</u>                 | DATE WORK COMPLETED<br><u>September 28, 1956</u> |                                |
| NAME OF CONTRACTOR<br><u>P. E. Thompson Plumbing and Heating</u>                       | ADDRESS<br><u>Watford City, North Dakota</u>             |                                                  |                                |

## COST ANALYSIS

| CONSTRUCTION ITEMS         | QTY. | UNIT COST<br>IN PLACE | TOTAL COST<br>IN PLACE |
|----------------------------|------|-----------------------|------------------------|
| See attached sheet         |      |                       |                        |
| Other Contractual Services |      |                       | \$14,087.13            |
|                            |      | TOTAL                 | \$14,087.13            |

## SUMMARY OF EXPENDITURES

|                   |           |                        |
|-------------------|-----------|------------------------|
| PERSONAL SERVICES | EQUIPMENT | MATERIALS AND SUPPLIES |
| OTHER             |           |                        |

|                          |               | CHANGE ORDERS |       |  |
|--------------------------|---------------|---------------|-------|--|
| ORIGINAL CONTRACT AMOUNT | FIRST 7/11/56 | SECOND        | THIRD |  |
| \$14,251.00              | add 375.00    |               |       |  |
| FINAL CONTRACT AMOUNT    | FOURTH        | FIFTH         | SIXTH |  |
| \$14,087.13              |               |               |       |  |

THIS PROJECT OR JOB HAS BEEN COMPLETED IN ACCORDANCE WITH  
APPROVED DRAWINGS, SPECIFICATIONS, AUTHORIZED CHANGES

|                                                   |      |
|---------------------------------------------------|------|
| SUBMITTED BY (Name and title)                     | DATE |
| S/Ralph M. Stratton, Supervising Highway Engineer |      |
| APPROVED BY (Name and title)                      | DATE |
| John W. Jay, Jr. Superintendent                   |      |

(ATTACH NARRATIVE STATEMENT, PHOTOGRAPHS, AND "AS BUILT" DRAWINGS TO THIS FORM)

COST ANALYSIS

| Construction Items                                        | Unit      | Quantity | Unit Cost<br>in place | Total Cost<br>in place |
|-----------------------------------------------------------|-----------|----------|-----------------------|------------------------|
| 2-inch Galvanized Steel pipe                              | lin. ft.. | 4283.5   | \$ 1.75               | \$7,496.15             |
| 3/4" Water hydrants, with stop                            | Each      | 4        | 30.00                 | 120.00                 |
| 3/4" Water hydrants, with stop                            | Each      | 2        | 35.00                 | 70.00                  |
| 3/4" Drain Valves and Corrugated metal<br>drain pits      | Each      | 2        | 30.00                 | 60.00                  |
| 3/4" Drain, Valves and Corrugated metal<br>service box    | Each      | 2        | 35.00                 | 70.00                  |
| 2-inch Curb Stops with Extension Box                      | Each      | 2        | 18.00                 | 36.00                  |
| Underground Steel Storage Tank, 10,000<br>gallon capacity | Each      | 1        | 2725.00               | 2,725.00               |
| Pump House                                                | Each      | 1        | 1260.00               | 1,260.00               |
| Pump and Driver                                           | Each      | 1        | 2158.00               | 2,158.00               |
| Wood Creek Crossing, pipe and fittings                    | Each      | 1        | 92.00                 | 92.00                  |
| <b>Total Contractual Services</b>                         |           |          |                       | <b>14,087.15</b> ✓     |

Theodore Roosevelt National Memorial Park  
SQUAW CREEK CAMPGROUND WATER SUPPLY SYSTEM (WELL)

|                                             |              |       |        |
|---------------------------------------------|--------------|-------|--------|
| Exploratory bore, Surface to 100 ft.        | 100 LF       | 1.10  | 110.00 |
| Exploratory bore, 100 ft. to 200 ft.        | 100 LF       | 1.20  | 120.00 |
| Exploratory bore, 200 ft. to 300 ft.        | 100 LF       | 1.25  | 125.00 |
| Exploratory bore, 300 ft. to 400 ft.        | 100 LF       | 1.25  | 125.00 |
| Exploratory bore, 400 ft. to 500 ft.        | 35 LF        | 1.30  | 45.00  |
| Reaming exploratory bore to 6-inch diameter | 365 LF       | 1.25  | 456.25 |
| 4-inch ID casing                            | 366.5 LF     | 1.75  | 641.38 |
| Bailing Test                                | 8 hours      | 10.00 | 80.00  |
| Developing well                             | 8 hours      | 10.00 | 80.00  |
| Pumping test                                | 27 1/2 hours | 10.00 | 275.00 |
| Reaming and Grouting upper 10 ft. of bore   | LS           | 31.50 | 31.50  |

|                        |       |
|------------------------|-------|
| Telephone Calls        | 15.10 |
| Equipment Amortization | 1.40  |
| P. C. Johnson          | 1.30  |

2,107.43

# Completion Report

## SQUAW CREEK CAMPGROUND WATER SUPPLY SYSTEM

The Squaw Creek Campground Water Supply System consists of a well, reservoir, and distribution system.

The well was drilled in May, 1956 by Harris Drilling Co. of Bowman, North Dakota. An exploratory 4 1/4" bore was drilled to a total depth of 433 feet. The hole was then reamed to 6" to a depth of 372 feet which was the top of the water bearing formation. Four inch ID casing was set to this depth and the well was tested. Results of a 24 hour pump test indicated the well would produce over 15 gpm for an extensive period of time of continuous pumping. Since this quantity was greater than the proposed rate of pumping for the supply system, an actual maximum rate was not determined. Chemical analysis of the water indicated a soft, highly alkaline quality which would be usable for domestic use but not for irrigation.

The contract for the pumping and storage facilities and the distribution system was awarded in June, 1956 to Thompson Plumbing and Heating of Watford City, North Dakota. Construction started early in July and was completed in September.

The pumping unit consists of a Peerless Hi-Lift pump and Wisconsin Air-cooled engine. The pump is made up of a #32 pumping element, 100 feet of 2 1/2" standard column, a 63 discharge head with a 2" discharge outlet, and a Type "A2" Gear-turbo head with a 1 to 1 gear ratio. This pump is rated at 13 gpm against a 200 foot head. The gear head and driver was connected by a 1" diameter shaft. The driver is a Wisconsin, Model ADM, air-cooled, gasoline motor. It is equipped with a battery ignition system, electric starter and generator, electric fuel pump, and a 300 gallon underground gasoline storage tank.

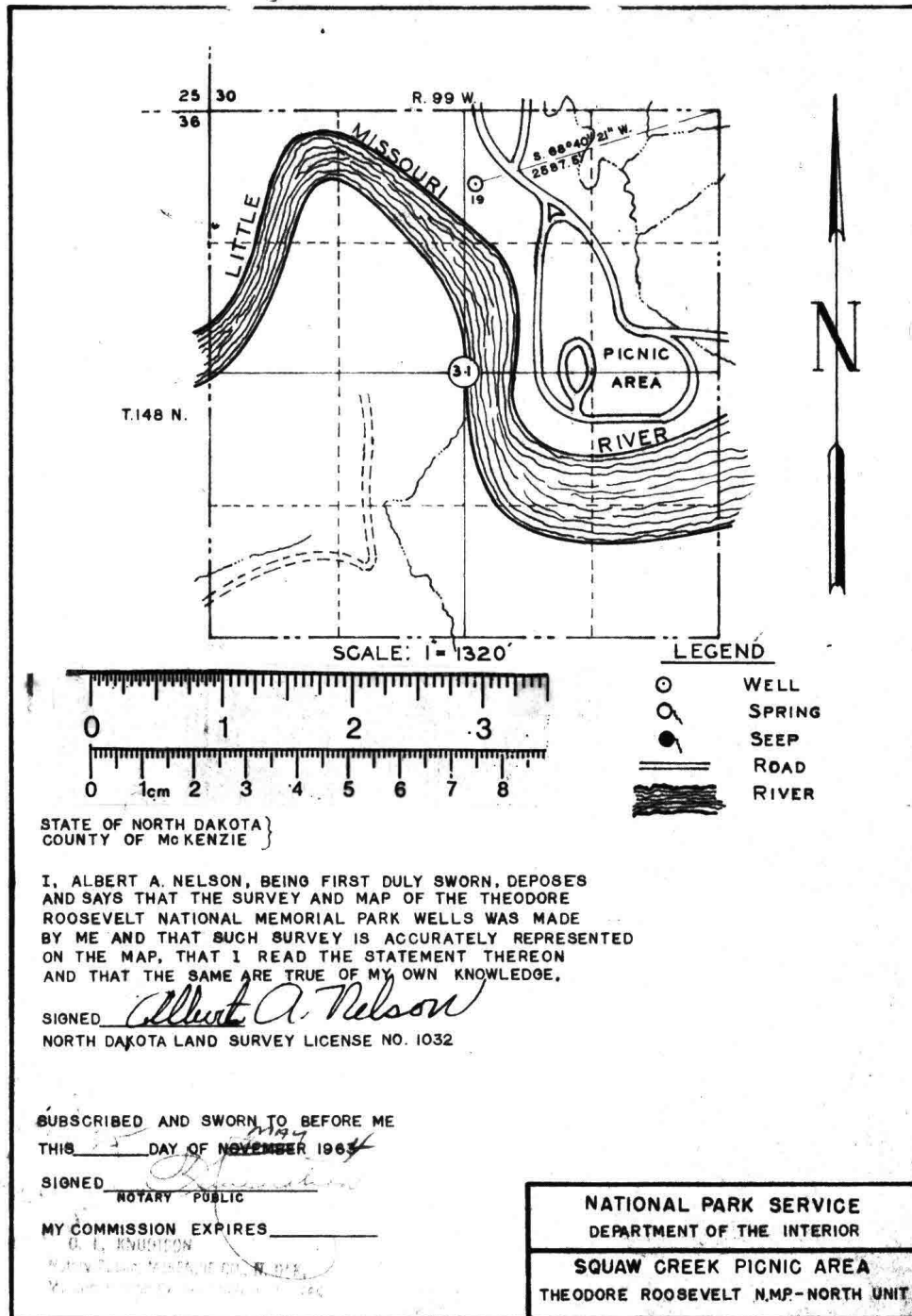
The pump and driver are housed in a 7'4" X 9'4" masonry block building with concrete floor, 20% mineral filled roll roofing on 1" T & G sheathing and metal door.

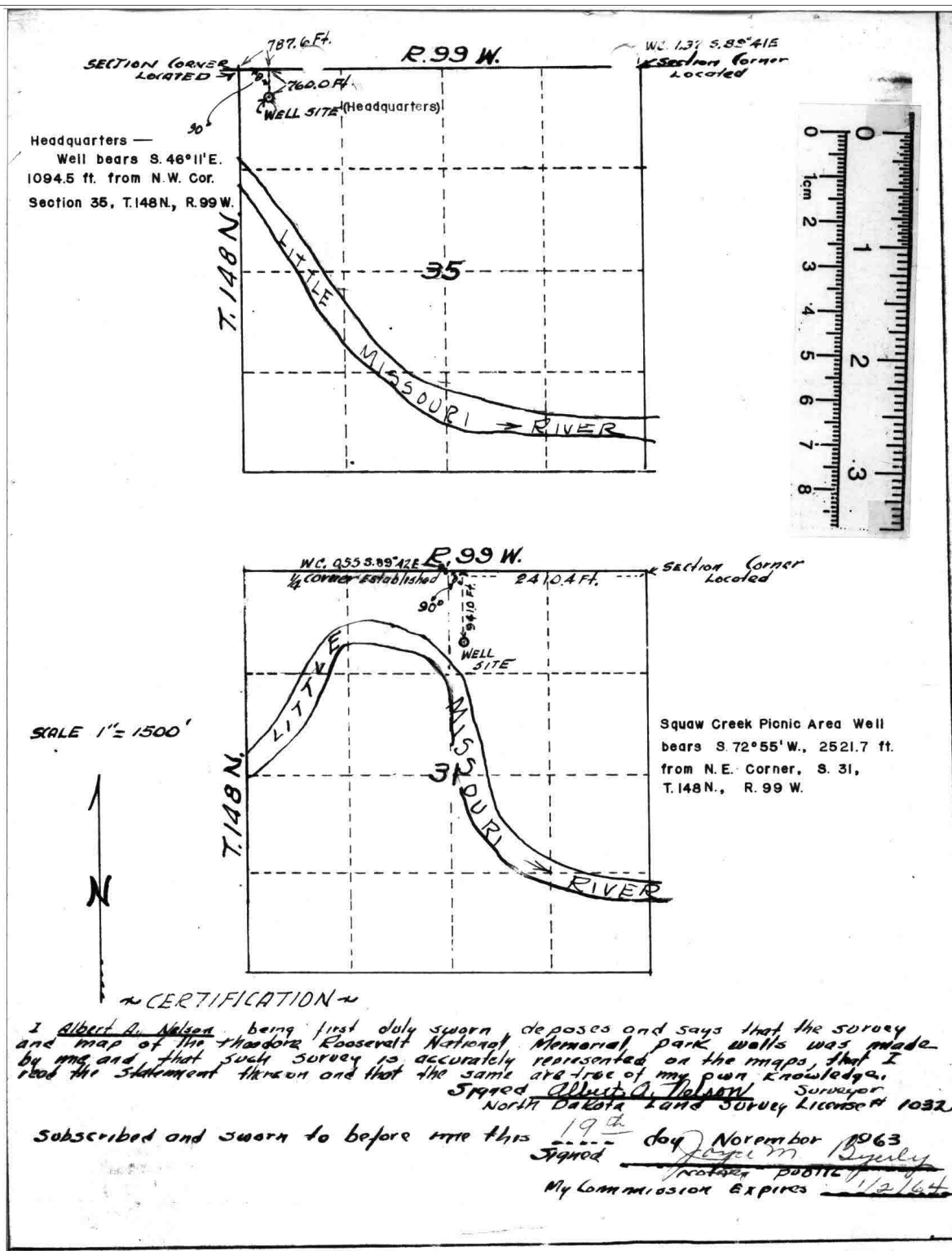
The Storage reservoir is a 10,000 gallon (9' diameter by 21' long) steel tank. It is constructed of 3/8" plate steel with butt welded joints. It is equipped with a 24" diameter manhole, water level sight gauge, 2" overflow, and 4" outlet and drain. The tank is buried in a side hill near the well approximately 75 feet above the campground and picnic area.

The distribution system consists of 4,283.5 feet of 2" galvanized steel pipe which serves six 3/4" hydrants. The pipe is laid to grade with a minimum cover of 3 feet. Drains are provided at the low points so that the line can be drained in the winter. All high points are at hydrants to prevent air locks on filling the line. Hydrant faucets are the spring loaded self-closing type. A small under-run in the estimated quantities was accomplished by discharging the drain line into a small natural drain rather than into the large draw as originally planned.

The system as constructed is a usable unit with sufficient capacity to

handle any foreseeable expansion. This includes increased visitor use and ...  
a supply for the presently programmed comfort stations. The total cost  
of construction for the system was





# Docket Information

Number of Documents in Docket 26

Documents Dated from 11/7/1963 to 7/19/2011

Docket Compiled: 3/28/2012