



# WATER-RIGHT DOCKET

## Acadia National Park

Docket No: 2

SAND BEACH WELL.

Supporting Hydro Data

05-27-1953: memorandum to regional director from chief regarding well record, sand beach area: contract 14-10-101-10

In reply refer to:  
LS4 ACAD-L

May 27, 1953

### Memorandum

To: Regional Director, Region One  
From: Chief, Water Resources Branch  
Subject: Well Record, Sand Beach Area, Acadia National Park

The memorandum of May 19 from Mr. Mulvany, transmitting copies of Contract 14-10-101-10 for installation of a deep well pump at the subject area, seems to be the only information we have on the well. We are not certain whether the well has been recently drilled, or the pump is to replace an old one in the well.

In any case, we should have a "Record of Well," for which we are attaching two forms. Please return one form with all available information added, or give us a reference to any previous record you have supplied. Since there are no sections, the section block in the upper right-hand corner should be used to show the well site and approximate ties to one or more local landmarks, such as buildings, road junctions, or campground road loops.

(SGD) A. VAN V. DUNN

A. van V. Dunn  
Chief, Water Resources Branch

In duplicate

Attachments 2

AvanVDunn:sh

In reply refer to:  
D5039

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
REGION ONE  
RICHMOND, VIRGINIA

JUL 2 1953

Memorandum

To: Director  
From: Regional Engineer, Region One  
Subject: Record of Well - Acadia National Park

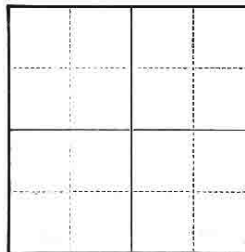
In reply to Mr. Dunn's memorandum of May 27, I attach hereto a completed Record of Well form for the Sand Beach well in Acadia NP. A contract was awarded this spring for a pump with which to equip this well.

(SIGNED)

W. E. O'Neil Jr.  
Regional Engineer

9-255  
(Jan. 1927)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WATER RESOURCES BRANCH

## RECORD OF WELL



1. Location: State Maine County Hancock  
 Nearest P. O. Bar Harbor Direction from P. O. \_\_\_\_\_  
 Distance from P. O. \_\_\_\_\_ miles; \_\_\_\_\_ 1/4 sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_  
 If in city, give street and number well at Sand Beach Locate well on plat of section.
2. Owner: Acadia National Park Address Bar Harbor, Maine  
 Driller: Ace Well Service Address Boothbay Harbor, Maine
3. Situation: Is well on upland, in valley, or on hillside? \_\_\_\_\_
4. Elevation of top of well: 60 ft. Above the level of sea  
(Above or below) (Sea, depot, lake, or stream)
5. Type of well: Drilled; kind of drilling rig used Air rotary  
(Dug, driven, bored, or drilled) (Solid tool, jetting, rotary, etc.)
6. Depth of well: 160 ft.; year in which well was finished 1967  
 Does well enter rock? yes; if so, at what depth? 88 ft.; kind of rock Granite
7. Diameter: At top 6 inches; at bottom 6 inches.
8. Principal water bed: Gray granite and felsite  
(Gravel, sand, clay, or rock. If rock, state kind)  
 Depth to principal water bed 150 ft.; thickness of bed 10 ft.  
 If other water supplies were found, give depth to each 105-120
9. Casings: Kind steel; size 6; length 90 ft.; between depths of 0 and 90 ft.  
 Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ and \_\_\_\_\_ ft.  
 Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ and \_\_\_\_\_ ft.
- Packers (if any): Depth at which packers were used \_\_\_\_\_; 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 15 ft. below surface.
11. Pump: Is the well pumped? \_\_\_\_\_; kind of pump \_\_\_\_\_;  
 size or capacity of pump \_\_\_\_\_; kind of power \_\_\_\_\_
12. Yield: Natural flow at present (if any) \_\_\_\_\_ gallons per minute; original flow \_\_\_\_\_ gallons per minute;  
 well has been pumped at 4 gallons per minute continuously for 1 hour;  
 quantity of water ordinarily obtained from well \_\_\_\_\_ gallons per day.
13. Use: For what purpose is the water used? \_\_\_\_\_
14. Quality of the water: \_\_\_\_\_; is there an analysis? yes U.S.G.S. 7-27-67  
(Hard or soft, fresh or salty, etc.)
15. Cost of well, not including pump: \_\_\_\_\_ Temperature of water 50 ° F.
- Name of person filling blank Glenn C. Prescott  
 Date August 10, 1967 Address Augusta, Maine

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

6-9842

# Sand Beac'

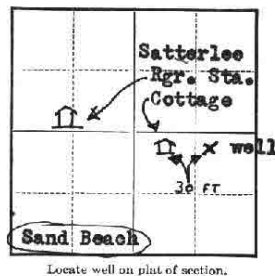
## LOG OF WELL

| KIND OF ROCK OR OTHER MATERIAL<br>(Give color and tell whether hard or soft)              | DEPTH, IN FEET |     | THICKNESS,<br>IN FEET | REMARKS<br>(Especially information as to water found) |
|-------------------------------------------------------------------------------------------|----------------|-----|-----------------------|-------------------------------------------------------|
|                                                                                           | From—          | To— |                       |                                                       |
| Sand and gravel                                                                           | 0              | 3   | 3                     |                                                       |
| Brown clay                                                                                | 3              | 5   | 2                     |                                                       |
| Blue marine clay                                                                          | 5              | 75  | 70                    |                                                       |
| Blue clay and very fine<br>sand and silt                                                  | 75             | 88  | 13                    |                                                       |
| Fine gray granite                                                                         | 88             | 105 | 17                    |                                                       |
| Gray granite                                                                              | 105            | 155 | 50                    | 1/2 gpm, 105-120                                      |
| Felsite                                                                                   | 155            | 160 | 5                     | 3 1/2 gpm, 150-160                                    |
| Total depth                                                                               |                | 160 |                       |                                                       |
| Pumping test July 18, 1967                                                                |                |     |                       |                                                       |
| Rate (gpm)                                                                                | Time (minutes) |     | Drawdown (feet)       |                                                       |
| 2                                                                                         | 85             |     | 12                    |                                                       |
| 4                                                                                         | 64             |     | 25                    |                                                       |
| A break-down of pumping equipment prevented our testing well at a higher rate of pumping. |                |     |                       |                                                       |
| THIS WELL WILL BE TESTED APRIL 1968 FOR FEASIBILITY OF USE                                |                |     |                       |                                                       |
| ANTHONY P. MANZUETTI, JR., INT. SUPT.                                                     |                |     |                       |                                                       |

9-255  
(Jan. 1927)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WATER RESOURCES BRANCH

# RECORD OF WELL



1. Location: State Maine County Hancock  
 Nearest P. O. Bar Harbor Direction from P. O. South  
 Distance from P. O. 4 miles;  $\frac{1}{4}$  sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_  
 If in city, give street and number \_\_\_\_\_
2. Owner: Acadia National Park Address Box 690, Bar Harbor, Maine  
 Driller: Paul F. Scribner Address Charleston, Maine
3. Situation: Is well on upland, in valley, or on hillside? Hillside
4. Elevation of top of well: 40 ft. above the level of mean sea level  
(Above or below) (Sea, depot, lake, or stream)
5. Type of well: drilled; kind of drilling rig used \_\_\_\_\_  
(Dug, driven, bored, or drilled) (Solid tool, jetting, rotary, etc.)
6. Depth of well: 83 ft.; year in which well was finished 1939-40  
 Does well enter rock? yes; if so, at what depth? 40 ft.; kind of rock granite
7. Diameter: At top 6 inches; at bottom 6 inches.
8. Principal water bed: Rock - granite  
(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 \_\_\_\_\_
9. Casings: Kind \_\_\_\_\_; size 6"; length 40 ft.; between depths of 0 and 40 ft.  
 Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ and \_\_\_\_\_ ft.  
 Kind \_\_\_\_\_; size \_\_\_\_\_; length \_\_\_\_\_ ft.; between depths of \_\_\_\_\_ and \_\_\_\_\_ ft.  
 Packers (if any): Depth at which packers were used \_\_\_\_\_; kind \_\_\_\_\_  
 Screen or Strainer: Was well finished with screen? \_\_\_\_\_; kind of screen \_\_\_\_\_  
Screen and pump 75 ft. below surface.  
 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 \_\_\_\_\_ ft. below surface.
11. Pump: Is the well pumped? Yes; kind of pump Deming Deep Well;  
 size or capacity of pump 3 h.p.; kind of power electric motor
12. Yield: Natural flow at present (if any) \_\_\_\_\_ gallons per minute; original flow \_\_\_\_\_ gallons per minute;  
 well has been pumped at 11 gallons per minute continuously for 1 hours;  
and water was depleted. Pump reduced to 7-8 gpm for 6 hrs. & held at 65 ft.  
 quantity of water ordinarily obtained from well \_\_\_\_\_ gallons per day.  
Seasonal fluctuation unknown.
13. Use: For what purpose is the water used? Toilets, drinking, washing.
14. Quality of the water: Hard and fresh.; is there an analysis? no.  
(Hard or soft, fresh or salty, etc.)
15. Cost of well, not including pump: \_\_\_\_\_ Temperature of water \_\_\_\_\_ ° F.  
 Name of person filling blank Frank R. Givens  
Frank R. Givens, Superintendent  
Acadia National Park, Bar Harbor, Maine

Date June 30, 1953

Address

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

0-9042

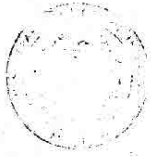
## LOG OF WELL

[illegible]

U. S. GOVERNMENT PRINTING OFFICE 6-9642

JUL 2 1953

## Other Supporting Information



IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
Acadia National Park  
Bar Harbor, Maine 04609

L54

February 5, 1968

Memorandum

To: Chief, Office of Land and Water Rights, WSC  
From: Superintendent, Acadia  
Subject: Test Well Drilling Contracts (1967 F.Y.)  
Contract #14-10-5-123-5 and Contract # Unnumbered

We have received the test well reports from the U. S. Geological Survey in Augusta, Maine, and submit same herewith. Please prepare one additional copy so we may return a set to that office. The information requested in your subject memorandum of January 17, 1968, is contained in these reports. Use of these wells is as follows:

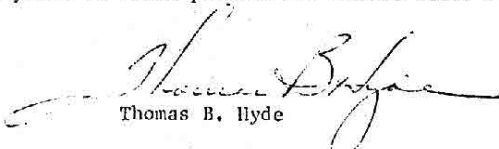
Thompson Island No. 1 - Recommendation is made that this well provide drinking water for the proposed Visitor Information Station at this location. Operation of toilets and related equipment will probably be provided by existing saline well serving Picnic Area comfort stations.

Thompson Island No. 3 - This well was plugged since water quality was unsatisfactory.

Sand Beach: This well will be connected in near future to replace unsafe dug well which serves the Sand Beach Residence occupied by a permanent employee.

Thunder Hole: This well will be connected this year to serve the Thunder Hole comfort station and will eventually replace the long surface pipeline from Sand Beach to Thunder Hole.

Cadillac Mountain: Although the test well drilled under contract was unsuccessful, maintenance funds were used to remove an apparent block and to deepen the existing well on the mountain. This well now provides adequate yield to serve present and future needs on the mountain.

  
Thomas B. Hyde

Encls.

cc: Regional Director, NERO



IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
Acadia National Park  
Bar Harbor, Maine 04609

*Handwritten:*  
Heldham  
Contract File  
Copy sent to  
Mrs. J. Read  
4-2-68 JZ

W14

February 1, 1968

Memorandum

To: Chief, Office of Land and Water Rights, WSC  
From: Superintendent, Acadia  
Subject: Findings of Fact - Test Well Drilling  
Contract No. 14-10-5-123-5

The following information is submitted to explain the excesses of drilling involved in the subject contract: Note: Please refer to statement in Item

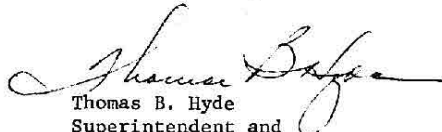
15. ESTIMATE OF QUANTITIES OF UNIT PRICE ITEMS: in the  
INSTRUCTIONS TO BIDDERS:

- No. 1 - Test Well, Cadillac Mountain: Estimated quantity for bid comparison was 300 L. F. and completed quantity was 355 L. F. Good success was evident at the 300 foot level in this hole, the hole was straight, there was some moisture apparent, and an old well within 1,000 feet of this site had water at this approximate level. Therefore, it was decided by the Contracting Officer to proceed below the 300 foot level. Finally, at 355 feet no adequate yield was obtained and drilling was halted. At the unit price bid, this gamble was considered well worthwhile with prospects good of bringing in a producing well.
- No. 2 - ~~Test well, Sand Beach~~: Estimated quantity was 100 L.F. and completed quantity was 160 L.F. After drilling through about 20 feet of alluvial material which was to be expected, blue clay was hit where all evidence would have predicted granite formation. The contractor encountered 84 feet of this clay and lost a bit which was never recovered. At about 100 feet bedrock was finally encountered. No adequate yield had been obtained at this point so the decision was made to continue

drilling into the bedrock. Adequate yeild was obtained at 160 feet and drilling was halted. If drilling had been stopped at 100 feet, we would have invested \$1,000 with no results. Thus the expenditure of an additional \$600 resulted in a producing well.

- No. 3 - Test well, Thunder Hole: Estimated quantity was 100 L.F. and completed quantity was 175 L.F. This drilling site was within 200 feet of the ocean and all drilling was in pink granite. Fissure flow of saline water was encountered during the first 100 feet of drilling but evidence indicated more fresh water was available. Consequently, the saline area was grouted off and drilling continued until an adequate yield of fresh was obtained. Again, at the 100 foot level an investment of \$1,000 would not have resulted in a usable well and a good fresh water producer was obtained by the expenditure of the additional \$750.

Ground water hydrology is a most uncertain gamble on Mount Desert Island and this is the reason for stating that estimated quantities are primarily to be used for comparing bids. At two of these three drilling sites the reasonable additional amount of funds produced adequate yield wells whereas adherence to estimated quantities would have resulted in three unusable holes. It was definitely in the best interest of the Government to continue drilling at each site.

  
Thomas B. Hyde  
Superintendent and  
Contracting Officer

cc: Regional Director, NERO



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

#3

Water Resources Division

August 10, 1967

Vichery-Hill Building  
Court Street  
Augusta, Maine 04330

Mr. Thomas B. Hyle  
Supt. Acadia National Park  
Bar Harbor, Maine 04605

Dear Tom:-

I am sorry I haven't been able to send you before a summary of the last test drilling at Acadia Park, but to keep peace in the family I had to take a week's vacation, and do some other things that had been neglected. You or Tony have most of the data, but perhaps you'd like my summary.

Well at Sand Beach

1. Depth: 160 feet
2. Depth to ledge: 88 feet
3. Static water level: 15 feet on July 27
4. Yield when tested by drill rig: 5 gpm

A pumping test was made on this well on July 18. It was pumped for 85 minutes at 2 gpm. The drawdown at the end of this period was about 12 feet. The pumping rate was then increased to 4 gpm and was pumped for 64 minutes. At the end of this period the drawdown was 25 feet, or expressed another way, the water level in the well was at 39 feet. The water level was still continuing to decline slowly at this rate of pumping. We then tried to increase the pumping rate to the capacity of the pump in an attempt to see what the well would produce when drawn completely down to the pump intake. A faulty control box prevented our achieving this objective. However, the test indicated a good yield with a small draw-down.

I am awaiting the chemical analysis from our Albany laboratory as the quality of the water seemed to be a little unusual as I mentioned to you over the telephone.

Letter from Glenn C. Prescott - For the District Chief, U S Geological Survey - Augusta, Maine



|                               |           |    |          |
|-------------------------------|-----------|----|----------|
| Number of Documents in Docket | 12        |    |          |
| Documents Dated from          | 5/27/1953 | to | 2/5/1968 |
| Docket Compiled:              | 1/28/2011 |    |          |