



WATER-RIGHT DOCKET

Lava Beds National Monument

Docket No: 1

WELL. NW ENTRANCE AND CAPTAIN JACK'S STRONGHOLD.

Preliminary Docket Information

07-11-1979: water right/source docket information

DOCKET (FILE) TITLE _____		DATE: July 11, 1979
REGION	Western	ANMA Lava Beds National Monument
SITE	Northwest Entrance and Captain Jack's Stronghold	
STATE	California	COUNTY Siskiyou DOCKET NO. WR #1
LOCATION	NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 18 & NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 15 T46N R4E	
REGIONAL BASIN	LOCAL BASIN	
ACQUIRED BY	Reservation	
APPLICATION	PERMIT	CERTIFICATE
ACTION DUE	PRIORITY	RESERVATION November 21, 1925
QUANTITY	USE Public Supply and Domestic	
STATUS	Active	SOURCE Ground Water - Well
REMARKS	Hydrologic Unit #18010204	
NARRATIVE:		
In 1935 a well was drilled at the northwest entrance station, to supply the station, the ranger residence nearby, and a campground. This system was the only source for that part of the monument until 1964. At that time a 48 foot well was drilled near Captain Jack's Stronghold to supply the visitor facilities there (exhibit area, etc.) At the present time both wells are in operation and there are no plans to supplant this system with any future development. Note: In the north part of the monument two test wells were drilled in 1966. The first, located in the Petroglyphs portion at SE$\frac{1}{4}$ SW$\frac{1}{4}$ Sec. 3 T46N R5E, was drilled to a depth of 173 feet and is a good producing site. It is unknown whether this source will be utilized for visitor use in the future. The second site was at NW$\frac{1}{4}$ SW$\frac{1}{4}$ Sec. 19 T46N R5E. This well was drilled to the water table but could not be drilled any deeper, and was abandoned.		
Completed by T. Kern Approved by _____		
<i>this docket contains the information on two wells: Northwest Entrance Well drilled: 1935 and Captain Jack's Stronghold Well drilled: 1964 (no hydrologic folders as of yet since sites have not been visited by water resources personnel) hydrologic information in docket was ver</i>		

REMARKS: _____

EAVA BEDS NATIONAL MONUMENT
BOX 867
TULELAKE, CALIFORNIA 96134

D2621

COMPLETION REPORT

CONTRACT NO. 14-10-0434-1500

DRILLING OF TEST WELL

CAPTAIN JACK'S STRONGHOLD

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

FACE SHEET FOR COMPLETION REPORT

Work Order No.

4-10-035 (1st Rev.) 9A

Fund Symbol

4-10-035 (0343)

Park Lava Beds National Monument	Region Western	Year Programmed 1964
Location in Park Captain Jack's Stronghold	State(s) California	PCP No.
	County or Counties Siskiyou	Master Plan No.
☒ Contract and/or ☐ Day Labor		Master Plan Corrected By
		As Built Drawings By

Work Order Title
To cover 1965 Fiscal Year expenditures for capital improvements for the acquisition of water rights and 1964 P.Y. unliquidated obligations. No. 9A, Drilling of Test Well

Date Started

October 22, 1964

Date Completed

November 5, 1964

DESCRIPTION OF FIXED ASSETS
 (For completion by employee in charge of project)

TOTAL COSTS
 (For completion by FFO)

100.8.1, Utilities, Water Systems,

Well (8" casing, 19' deep, 26 gpm)

Direct Cost \$1,796.00

TOTAL

\$

DISTRIBUTION	THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES		
No.	To		
1	WASO M&C w/nec	Submitted	Title: _____ Date: _____
2	WODC w/nec	By: <u>Charles F. Anderson</u>	Title: <u>Project Supervisor</u> Date: _____
1	Reg. Prog. w/nec	Approved	Title: _____ Date: _____
1	Area w/nec	By: <u>William J. Kennedy</u>	Title: <u>Superintendent</u> Date: _____
1	Reg. FPD w/o nec		Title: _____ Date: _____
2	Prop. Mgt. w/o nec	COSTS VERIFIED	Title: _____ Date: _____
		BY _____	

11360

NARRATIVE PORTION

Title: Drilling of Test Well

Location: Captain Jack's Stronghold, Lava Beds National Monument

Contractor: A. M. Jansen Drilling Co., 21075 S. W. Tualatin Valley Hwy.,
Aloha, Oregon

Contract No.: 14-10-0434-1500

Purpose: Captain Jack's Stronghold is one of the major points of interest in the Monument. With many people stopping and using the historic trail system, there is a need for a modern comfort station and drinking fountain. Therefore, it was necessary to first locate a nearby supply of potable water. This project satisfied this need.

Chronology of the Project:

The contractor's representative started setting up a cable tool rig on October 22, 1964, at the site agreed upon by the U. S. Geological Survey and the Western Regional Office. Drilling proceeded quite well, with excellent progress being made. Water was encountered at about 31 feet depth in a basalt formation. The well was continued to about 48 feet depth to provide for drawdown and pump placement. The well was tested under the direction of Charles Berkstresser of the U. S. Geological Survey, Sacramento, California. His report of the chemical analysis, as well as the pumping test is attached. The location of the well will be tied to the North Boundary Road survey, and will be shown in relation to the Park Boundary on a drawing which will be prepared for the comfort station project.

A photograph of the site, showing the capped well is attached.

Form 10-174A
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICEWork Order Number
1-11-05 B (1st rev.) 9A

COMPOSITION OF COST FOR COMPLETION REPORT

Fund Symbol
1471035 (0343)Park
Lava Beds National MonumentRegion
WesternYear Programmed
1964Location in Park
Captain Jack's StrongholdWork Order Title
Drilling Test Well

COMPOSITION OF COST

COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE

(1) Personal Services.....	\$	
(2) Travel.....		
(3) Contract Work	1,796.00	
(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:		
(11) TOTAL COST CHARGED TO FFO FUNDS	xxxxxxxxxx	\$ 1,796.00

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	\$

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

No "In Phase" photos taken.



Contract No. 14-10-0434-1500

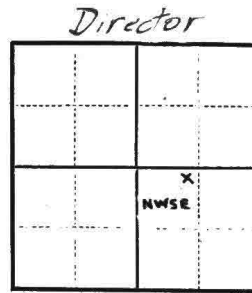
Drilling of Test Well, Captain Jack's Stronghold

Lava Beds National Monument

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

RECORD OF WELL

1. Location: State California County Siskiyou
Nearest P. O. Tulelake, California Direction from P. O. SW
NWSE $\frac{1}{4}$ sec. 18, T. 46 N., R. 4 E.



2. Owner: National Park Service Address Lava Beds Nat'l Monument, California
Driller: Malow Brothers Address Henley, Oregon
Site selected by: Mrs. Fred Whitworth, Eng. Address Crater Lake Nat'l Park, Oregon
3. Situation: Is well on upland, in valley, or on hillside? Slight elevation from valley floor.
4. Type of well: Drilled; kind of drilling rig used Unknown
(Dug, driven, bored, or drilled) (Solid tool, jetting, rotary, etc.)
5. Depth of well: 225' 7" ft.; year in which well was finished May 10, 1935
Does well enter rock? Yes; if so, at what depth? 175' ft.; kind of rock Basalt flow.
6. Depth to water: 66 1/2' ft.; Amount water rose above level where first struck Unknown ft.
7. Diameter: At top 10" Est. inches; at bottom 4" Est. inches.
8. Principal water bed: Sand
(Gravel, sand, clay, or rock. If rock, state kind)
Depth to principal water bed 203' ft.; thickness of bed 9' ft.
If other water supplies were found, give depth to each 70' in Blue Clay
9. Casings: Kind Cast Iron; size 2 1/2" Est. length 10' ft.; between depths of _____ and _____ 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 Unknown; kind _____
- Screen or Strainer: Was well finished with screen or perforated pipe? Yes; kind of screen Unknown;
length of screen _____ ft.; diameter _____ inches; size of openings _____
perforated pipe; size of perforations _____; How were perforations made; burned, drilled? _____
10. Head: Does well at present overflow without pumping? No; did it overflow when new? No
11. Pump: Is the well pumped? Yes; kind of pump Peerless Hi-Lift
size or capacity of pump Unknown; kind of power Electric
12. Yield: Natural flow at present (if any) 24 Est. gallons per minute; original flow 24 gallons per minute;
well has been pumped at unknown gallons per minute continuously for unknown hours;
quantity of water ordinarily obtained from well unknown gallons per minute
13. Use: For what purpose is the water used? House hold and drinking purposes
14. Quality of the water: Extremely hard; is there an analysis? Yes
(Hard or soft, fresh or salty, etc.)

Name of person filling blank Don b. Fisher
Date April 3, 1948 Address Lava Beds National Monument, California

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

LOG OF WELL

1968 Report

DRILLING AT CAPTAIN JACKS STRONGHOLD

In October and November 1964 a well was drilled in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, T. 46 N., R. 4 E., MDB&M, at a site about 140 feet north of the road into the monument and about 700 feet east of the exhibit area. As suggested in a memorandum by R. H. Dale dated August 30, 1962, the well was drilled in fractured basalt. The site was selected to avoid drilling into sedimentary materials of nearby Tule Lake Bed, because of the poor chemical quality of the ground water in those deposits as noted by R. H. Dale during his investigation of the area. The well was drilled to a measured depth of 47.6 feet below land surface. The driller noted water in the fractured basalt at 36-37 feet and 44-46 feet. Eight-inch casing was set from the land surface to 33 feet, leaving the hole uncased from 33 to 47.6 feet. The water level in the well was 29.33 feet below land surface on October 29, 1964, after completion of the well.

The well was bailed for 30 minutes, averaging 17 gpm (gallons per minute) with 4.2 feet of drawdown. A test pump was installed in the well and the well was pumped for 24 hours. The discharge rate ranged from 22 to 38 gpm during this period; the maximum sustained rate of discharge was about 25 gpm with a drawdown of 10.5 feet, for a specific capacity of 2.4 gpm/ft of drawdown. Water samples were collected for chemical analysis. With some allowance for deterioration in the well with age and use, the well probably can sustain pumping at a rate of about 20 gpm. Following is the driller's lithologic log of the well, a field log of pumping water-level measurements, and a graph showing rate of discharge and water-level measurements during drawdown and recovery.

PUMPING TEST AT NORTHWEST ENTRANCE

Well 46N/4E-18K1 at the northwest entrance to the monument was pumped for 40 minutes at 18 gpm. Drawdown stabilized at 1.2 feet after 5 minutes of pumping, for a specific capacity of 15 gpm/ft of drawdown. Water samples were collected for chemical analysis. The discharge rate could not be altered conveniently; consequently, the maximum sustained rate of discharge was not determined. However, the small drawdown suggests that the well can be pumped at a substantially higher rate.

Following is a field log of pumping and water-level measurements and a graph of water-level measurements during drawdown and recovery.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

In reply refer to:
L54-L

Manley BFM
Crowley 1/18

January 31, 1954
sent cc W.O. 2/8/54 BFM

File in Water Rights
Lava Beds - Docket 1

Memorandum

To: Regional Director, Region Four
From: Acting Superintendent, Lava Beds National Monument
Subject: Transmittal of Water Right Assembly Docket No. 1, Lava Beds

The following information is to be included in the Water Right Assembly Docket No. 1.

Northwest Entrance Well

Water system supplies one permanent employee residence year round and two temporary, seasonal use buildings. (One of the latter is a ten-man buckhouse.) One hydrant, one standpipe and two water fountains utilize this system.

Indian Well Water System

Three permanent employee year round residences, one campground, one seasonal use comfort station, two seasonal use residences, and one garage shop utilize the water system facilities. The campground serves fifteen (15) individual camp sites and temporary facilities for fifteen (15) picnic groups.

Raymond G. Knox
Raymond G. Knox
Acting Superintendent





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

In reply refer to:
L54-L

has seen
BFM
January 5, 1954
Wrote Supt 1/28 BFM
can you supply 3 copies
of map?
BFM

Memorandum

To: Regional Director, Region Four
From: Chief, Water Resources Branch
Subject: Water Rights, Lava Beds National Monument

Attached are two assemblies of Lava Beds Water Right Docket No. 1, with a record of a well which seems to be in the Northwest Entrance, or Gillem's Graveyard Area of Lava Beds. A map of the water system should be added to these assemblies and the one in the Washington Office. Prints of any existing map may be satisfactory, or a simple sketch may be made on a sheet about the size of legal paper.

The well should be tied to a section corner, and the map should include an outline of the developed areas of use. There should also be a statement concerning campground capacity and the number of rangers and their families served by the system.

A. van V. Dunn

A. van V. Dunn
Chief, Water Resources Branch

In duplicate

Attachments 2



