



WATER-RIGHT DOCKET

Organ Pipe Cactus National Monument

Docket No: 23

NPS TEST WELL # 2

State Water Rights Documentation

06-03-1982: registration of existing wells: file no. c(15-4) 5 dab

DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004

REGISTRATION OF EXISTING WELLS

INSTRUCTIONS ON BACK OF THIS FORM BEFORE COMPLETING
PRINT OR TYPE - FILE IN DUPLICATE

*Declaration: The United States gives this
confirmation to the State in the interest
of equity, and does not concede that the
State has power to regulate the rights of
the United States to the use of water.*

RECEIVED
JUN 9 1982
DEPT. OF
WATER RESOURCES

REGISTRATION FEE (CHECK ONE)

EXEMPT WELL (NO CHARGE) ☒

NON-EXEMPT WELL - \$10.00 ☐

FOR OFFICE USE ONLY

REGISTRATION NO. 55- 629149

FILE NO. C(15-4) 5 dab

FILED 6-9-82 AT 1:30

(DATE) (TIME)

INA _____

AMA _____

1. Name of Registrant:
National Park Service, Western Region, Division of Water Resources
450 Golden Gate Avenue, Box 36063, San Francisco, CA 94102
(Address) (City) (State) (Zip)

2. File and/or Control Number under previous groundwater law:
(File Number) _____ (Control Number) 35

3. a. The well is located within the NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 5,
of Township 15 S N/S, Range 4 W E/W, G & SRB & M, in the
County of Pima.

b. If in a subdivision: Name of subdivision _____
Lot No. _____, Address _____

4. The principal use(s) of water (Examples: irrigation - stockwater - domestic - municipal - industrial)
Unused

5. If for irrigation use, number of acres irrigated from well _____

6. Owner of land on which well is located. If same as Item 1, check this box ☒

(Address) (City) (State) (Zip)

7. Well data (If data not available, write N/A)

a. Depth of Well 180 feet

b. Diameter of casing None inches

c. Depth of casing None feet

d. Type of casing None

e. Maximum pump capacity N/A gallons per minute.

f. Depth to water Dry feet below land surface.

g. Date well completed _____
(Month) (Day) (Year)

8. The place(s) of use of water. If same as Item 3, check this box ☐
 $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$, Section _____ Township _____ Range _____
 $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$, Section _____ Township _____ Range _____
Organ Pipe Cactus -- NPS Test Well #2
Attach additional sheet if necessary.

9. DATE JUN 3 1982 SIGNATURE OF REGISTRANT _____ (Sgd) Gerard S. Witucki
GERARD S. WITUCKI
CHIEF, DIVISION OF WATER RESOURCES

Supporting Hydro Data

PERMANENT REFERENCE
Do Not Discard

NATIONAL PARK SERVICE

FORM 9-1642B
(DEC 68)

Well No. (C-15-4) 5 dab

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

MASTER CARD

Record by W. Werrell Source of data Field Date Aug 7 74 Preliminary Map: Tahoca NW-7½'
 State Ariz County Pima Sequential number: 1
 Latitude: 32° 08' 56" N Longitude: 111° 23' 91" W
 Lat-long accuracy: 1 T. 15 R. 4 Sec 5 NW NE SE 64 SR PM
 Local well number: C-15-04-05 DAB Other number: NPS Test #2
 Local use: NPS TEST 2 Owner or name: National Park Service
 Ownership: County: (F) Fed Gov't City, Corp or Co, Private, State Agency, Water Dist F
 Use of Air cond, Bottling, Comm, Dewater, Power, Fire, Dom, Irr, Med, Ind, P S, Rec, (U) Unused
 Water: (S) Stock, Instit, Unused, Repressure, Recharge, Desal-P S, Desal-other, Other
 Use of (U) Anode, Drain, Seismic, Heat Res, Obs, Oil-gas, Recharge, Test, Unused Withdraw, Waste, Destroyed U
 Well: (U) Anode, Drain, Seismic, Heat Res, Obs, Oil-gas, Recharge, Test, Unused Withdraw, Waste, Destroyed U
 DATA AVAILABLE: Well data 70 Freq. W/L meas.: 71 Field aquifer char. 72
 Hyd. lab. data: 73
 Qual. water data; type: 74
 Freq. sampling: 75 Pumpage inventory: 76 yes 77
 Aperture cards: 78
 Log data: 79

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 185 ft 185 Meas. Reported 6
 Depth cased: 185 ft Casing type: 6 Diam. 6 in
 Finish: (C) concrete, (F) gravel w. screen, (G) gravel w. horiz. gallery, end, (H) open perf., (I) screen, sd. pr., shored, (J) other, (K) open hole
 Method: (A) air bored, (B) cable dug, hyd jetted, (C) air reverse trenching, driven, drive wash, (D) rot., (E) percussion, rotary, (F) other
 Date Drilled: 1940 9:40 Pump intake setting: 34 ft 34
 Driller: Mr Cameron name (L) address 39 Deep 40
 Lift: (A) air, bucket, cent, jet, (B) multiple, (C) multiple, (D) none, piston, rot, submerg, turb, other Shallow 40
 Power: (type): diesel, elec, gas, gasoline, hand, gas, wind; H.P. 41 Trans. or meter no. 42
 Descrip. MP 43 ft below LSD, Alt. MP 44
 Alt. LSD: 2035 2035 Accuracy: USGS Topo - 20' Contours 45
 Water Level: Dry ft above MP; Ft below LSD DRY Accuracy: Reported 46
 Date meas: 47 Yield: 48 gpm 49 Method determined 50
 Drawdown: 41 ft Accuracy: 42 hrs 43 Pumping period 44
 QUALITY OF WATER DATA: Iron ppm 45 Sulfate ppm 46 Chloride ppm 47 Hard. ppm 48
 Sp. Conduct: 49 K x 10⁶ Temp. 50 °F 51 Date sampled 52
 Taste, color, etc. 53

Well No. (C-15-4) 5 dab

Well No. (C-15-4) 5 dabLatitude-longitude 32.08.56 ^N 112.39.15 ^W

HYDROGEOLOGIC CARD

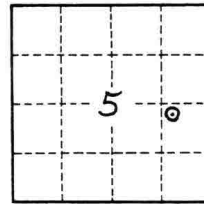
SAME AS ON MASTER CARD		Physiographic Province: <u>Basin & Range</u>		Section: <u>Sonoran</u>	
Desert <u>B</u>		Drainage Basin: <u>Gila River - Texas Hill to Dome</u>		Subbasin: <u>San Cristobal</u>	
(D) (C) (E) (F) (H) (K) (L) Topo of depression, stream channel, dunes, flat, hilltop, sink, swamp, well site: (Q) (P) (S) (T) (U) (V) offshore, <u>pediment</u> , hillside, terrace, undulating, valley flat					
MAJOR AQUIFER:		system _____ series _____		aquifer, formation, group _____	
Lithology: _____		Origin: _____		Aquifer Thickness: _____ ft	
Length of well open to: _____ ft		Depth to top of: _____ ft		_____ ft	
MINOR AQUIFER:		system _____ series _____		aquifer, formation, group _____	
Lithology: _____		Origin: _____		Aquifer Thickness: _____ ft	
Length of well open to: _____ ft		Depth to top of: _____ ft		_____ ft	
Intervals Screened:					
Depth to consolidated rock: _____ ft		Source of data: _____		_____	
Depth to basement: _____ ft		Source of data: _____		_____	
Surficial material: _____		Infiltration characteristics: _____		_____	
Coefficient Trans: _____ gpd/ft		Coefficient Storage: _____		_____	
Coefficient Perm: _____ gpd/ft ²		Spec cap: _____ gpm/ft		Number of geologic cards: _____	

On page 10 of memorandum from H. V. Peterson, USGS, to Paul Balch, NPS, dated July 29, 1942, this well is reported as being 185 feet deep.

Drilling was in alluvium for 165 feet, and in rock for the last 20 feet. The well was dry.

This was the second of three test or exploratory wells drilled by NPS in attempting to find sufficient potable water prior to the establishment of the monument headquarters.

See: Notes on NPS Test Wells.

Well No. (C-15-4) 5 dab

ORGAN PIPE CACTUS NATIONAL MONUMENT

Notes on National Park Service TEST WELLS

Organ Pipe Cactus National Monument was established in 1937, and Mr. William Supernaugh was designated as the park custodian (Superintendent). He remained at the park until the early 1950's. Mr. Supernaugh is now retired from the National Park Service and resides at Twenty-Nine Palms, California. He was telephoned in order to obtain background information on the water resources of the park, particularly the 500 foot test well drilled by the Service in the early 1940's. The Monument was mapped by the U.S. Geological Survey(USGS) several years after his departure from the area. A map of the Monument was sent to him and subsequent phone conversations were made. As a result of these conversations and later field trips to the area, the following information has been obtained regarding the three test wells drilled by the Service.

NPS Test Well #1

Mr. Supernaugh reports that in the early days of the park a small temporary wooden structure was built on the west side of the dirt road about 2-miles south of the northern boundary of the park. This structure served as office, storage area, and checking station for entrance to the park. The station had no water supply, so water was hauled in.

As plans for a permanent headquarters were formulated, it was considered advantageous to situate such in the nearby area of the checking station. As a first step in development of these plans it was decided to acquire a potable water supply before beginning construction. A drilling site for a test well was selected to the east of the checking station about 200 yards - across the dirt road. Drilling was in progress when Ross A. Maxwell, Regional III, Geologist, NPS, visited the monument in May, 1940 (see page 3 of his report). The boring was drilled to a total depth of 500 feet and was dry.

Regarding the location of this boring, Mr. Supernaugh reports that the location of the custodian's checking station was very near the south bank of Kuakatch Wash, being just south of the section boundary Section 27, and Section 34, T. 14 S., R. 5 W. Upon development of the present headquarters area, the temporary custodian's station was removed and the

area "cleaned up." The present paved highway was placed directly over the old dirt road and thus the well location is to the east of the present highway some 200 yards. Mr. Supernaugh believes the location of the well to be in the extreme NE corner of Section 34. He reports that upon abandonment of the site a rock was rolled over the hole. A pit of some sort was located immediately north of the well. A field examination of this area was conducted on August 8, 1974, with Mr. Bobby Gray. Mr. Gray is a lifetime resident of the area who remembers seeing the drill rig, but he was unable to identify the well site. Since the drilling of the well, several large flows are reported to have taken place in the wash. In addition, there now exists a long dirt dike along the south bank of the wash. The time when this dike was built is unknown, but the scraping of dirt required in its building may have altered the well site. Thus it appears that the exact location of this well cannot now be established. H.V. Peterson¹ (page 7) reports this well "4-miles south of the north boundary of the monument" - this is in contradiction to the location given by R.A. Maxwell and verbal confirmation by Mr. Supernaugh. However, this area was also examined (east side of the road and south of the wash at that approximate location) and no well site was identified. In conclusion, the extreme NE corner of Section 34, T. 14 S., R. 5 W., will be used as the location for this well.

NPS Test Well #2

Mr. Supernaugh reports that after abandonment of the first dry boring (NPS Test Well #1), the decision was made to drill another well about 4-miles to the east. This boring was drilled to a depth of 185 feet and was dry.

Mr. Supernaugh reports that both of the above borings (NPS Test #1 and #2) were drilled by a U.S. Soil Conservation Service cable tool rig which was made available to the Service. Mr. Supernaugh had hired Mr. Cameron to operate the rig.

The location of this boring was positively established with the help of Mr. Bobby Gray during a field trip to the area on August 8, 1974. Mr. Gray reports that in the mid-1950's he stopped by one day to examine the hole and noted that it was still standing open. Believing that the hole should be protected in some manner, he returned several days later and placed a concrete block over the hole. We found the block intact. The block is about 4-inches thick, and is 2.5 feet long on each side. The site is about 65 feet northeast of the turn in the Walls Well Road, being in Section 5, T. 15 S., R. 4 W.

¹Memorandum from H.V. Peterson, USGS Geologist to Paul Balch, July 29, 1942

Mr. Gray remembered discussions as to the selection of the drilling site, these were (1) closeness to the wash and (2) east of the volcanic ridge extending North of Montezumas Head. (The geologist/hydrologist who selected the site considered the possibility of the volcanics extending northward as a dike, buried in the alluvium. He chose to drill up gradient of this possible structure).

Upon failure of the above two test wells to find water, the plan to place the monument headquarters at the north end of the monument was dismissed.

NPS Test Well #3

Further exploratory drilling for a potable water source capable of supplying a monument headquarters was done in the southern portion of the monument. Test Well #3 was drilled about one-mile north of the present headquarters, east of the road, along the wash, as reported by Bobby Gray. It too was dry. Neither Mr. Gray nor Mr. Supernaugh remember the depth at which drilling ceased. Mr. Supernaugh recalls that bedrock was encountered at "a shallow depth."

Mr. Supernaugh reports that the site was selected because it is along a stream bed, in a pass between the Puerto Blanco Mountains and the small mountains to the northeast.

The exploratory drilling program continued. A site about one-mile south, along the wash was selected for the next boring. Drilling at this site produced water and the well is termed "National Park Service(NPS) Headquarters Well #1." Upon completion of the well, the monument headquarters was established in near proximity.

W. Werrell
Hydrologist, Water Resources Division
Western Region

Jan. 1975

ORGAN PIPE CACTUS NATIONAL MONUMENT

Additional Notes on National Park Service Test Wells

During my trip to Organ Pipe Cactus National Monument March 28 - April 2, 1981 some old material from park files was acquired. Regarding Test Well #1 and #2, an insite as to the specific drilling site is given in: Report on Water Situation at Organ Pipe Cactus National Monument by Chas M. Gould, November 2, 1939.

NPS Test Well #3

In September of 1980 I phoned Mr. William Supernaugh at his home in Twenty-Nine Palms, California to inquire further about the location of NPS Test Well #3. Information obtained beyond that given in my report of January 1975, Notes on National Park Service Test Wells, includes that the well was drilled quite close to the old road and west of the road -- this road is the old dirt road from Sonoyta to Ajo and follows the wash north from the headquarters. Further, this old dirt road lies to the west of the present highway.

During my visit to Organ Pipe, March 28 - April 2, 1981, I attempted to find the drilling site. The trace of an old dirt road, single lane, was found to the west of the highway about one mile north of the present headquarters. This road was followed for over one half a mile, as it roughly parallels the present highway. A site believed to be the drilling site was found.

The general site is marked by several pieces of cable -- the type probably used in a cable tool operation; what appears to be the side boards of an old flat bed truck; and several old tin cans. Additionally, a 30 gallon metal drum was buried with only the top showing -- this is believed to mark the exact drilling spot. To the west of the buried drum the faint trace of a shallow, dug ditch is seen. This was probably dug to allow drilling water to flow from the site -- a typical drilling practice.

From the park I phoned Mr. Supernaugh and described the above, being sure to add that the drum is buried 36 feet west of the old dirt road and that the main wash of the area is located approximately 50 feet east of the dirt road. Mr. Supernaugh was unable to remember if a drum was buried to mark the drilling spot. He remembers that the drilling was to the west of the road (the opposite direction as reported by Bobby Gray). At the conclusion of our conversation he stated that from the description of the general area, road, etc., "everything seems about right."

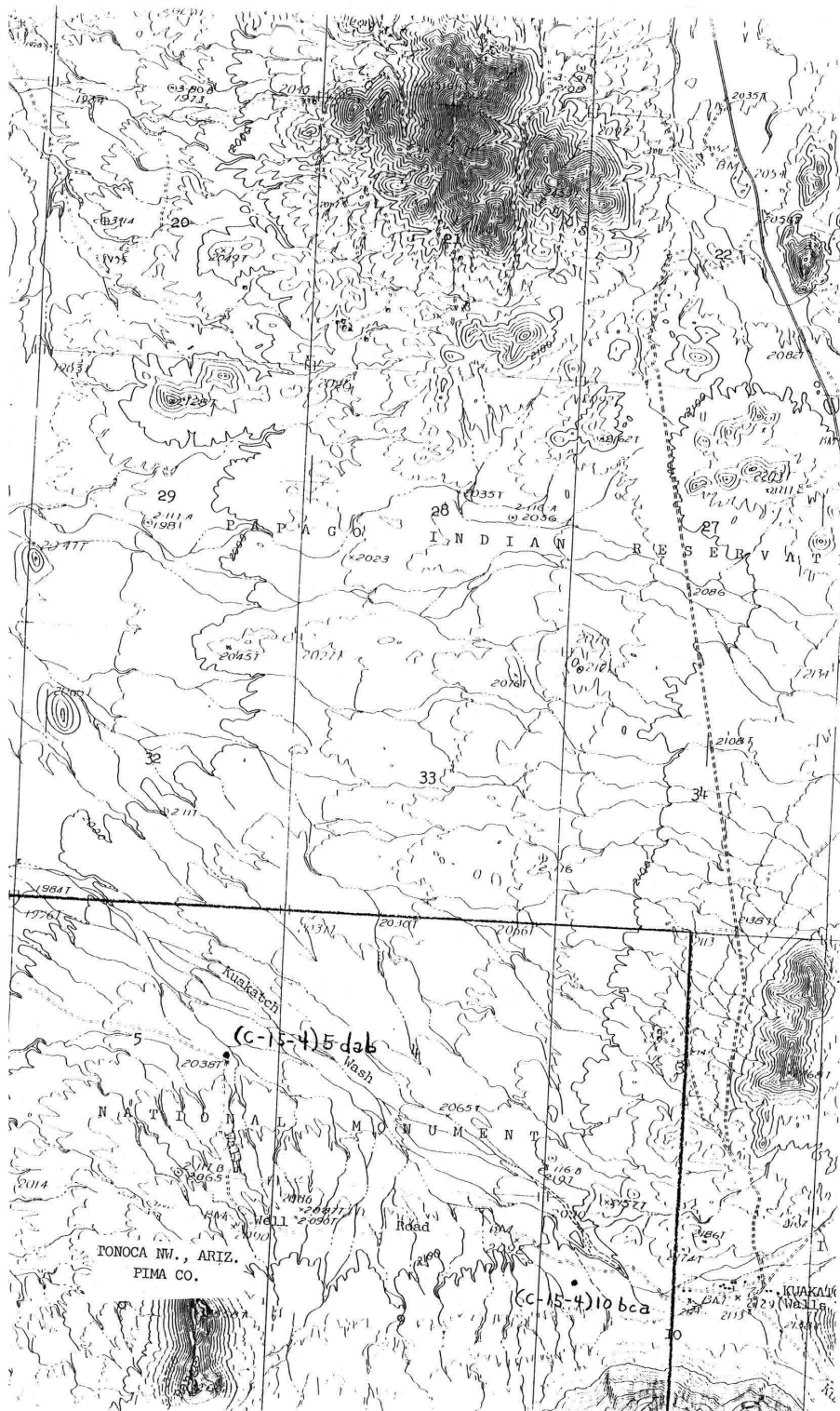
In conclusion, I believe that the site found represents the drilling site of NPS Test Well #3. Even though the drum was dug up and no boring found underneath, 40 years of time may well have sealed the upper few feet -- the drum was reburied.

On April 24, 1981 I was informed of the sudden death of Mr. Supernaugh, thus positive identification of the site is now impossible in that he was the only known person who could specifically remember the drilling site.

As a point of interest, Mr. Supernaugh added that the old dirt road we were referring to was actually the third such road that went north from the present headquarters. The first such road was from the headquarters to the northeast for about 2½ miles along the present Ajo Mountain Drive, and then almost straight north (shown on USGS 15' topo, Lukeville 1963 and Kino Peak 1963). The second road extended almost straight north from the headquarters, but went to the east of the volcanic mountains which is to the east of the above mentioned well drilling site. The third road went more or less right up the wash to the north. Mr. Supernaugh said that the third road was only used a short time before the present highway was built.

W. Werrell
Hydrologist, Water Resources Division
Western Region

April 28, 1981



Docket Information

Number of Documents in Docket 9
Documents Dated from 8/7/1974 to 6/3/1982
Docket Compiled: 6/3/2011