



WATER-RIGHT DOCKET

Organ Pipe Cactus National Monument

Docket No: 5

WELL NO. 4. HEADQUARTERS WATER SYSTEM

Preliminary Docket Information

06-10-1976: water right/source docket information

WATER RESOURCES/WATER RIGHT

DATE: June 10, 1976

WATER RIGHT/SOURCE DOCKET INFORMATION

REGION Western AREA Organ Pipe Cactus National Monument
SITE Headquarters Water System - Well No. 4
STATE Arizona COUNTY Pima DOCKET NO WR #5
LOCATION NW $\frac{1}{4}$, SW $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 17, T17S, R5W, G&SRB&M
REGIONAL BASIN Western Mexican Drainage LOCAL BASIN Rio Sonoita
ACQUIRED BY _____
APPLICATION _____ PERMIT _____ CERTIFICATE _____
ACTION DUE _____ PRIORITY _____ RESERVATION _____
QUANTITY _____ USE Domestic
STATUS Active SOURCE Well

REMARKS See WR #9 and #10

NARRATIVE: This docket pertains to Headquarters Well # 4 which was drilled on Nov. 1, 1957. This well was drilled as a standby well. Water usage is for employee and visitor domestic supply in the Headquarters area and the campground to the south. There is no evidence that any applications for state water rights were filed on this well.

Compiled by Kevin Kidder

Approved by W. Werrell

Page 1 of 1

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

REGISTRATION OF EXISTING WELLS

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

REGISTRATION FEE (CHECK ONE)
EXEMPT WELL (NO CHARGE) ☐
NON-EXEMPT WELL - \$10.00 ☒



FOR OFFICE USE ONLY

REGISTRATION NO. 55- 629689

FILE NO. C(17-5) 17 acb

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) _____ 35- _____
(Control Number)
3. a. The well is located within the NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 17,
of Township 17 S N/S, Range 5 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)
Domestic, public supply, fire protection.
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 430 feet
b. Diameter of casing 12 inches
c. Depth of casing 430 feet
d. Type of casing steel, perforated from 365 - 430 ft below land surface datum
e. Maximum pump capacity 50 gallons per minute.
f. Depth to water 310 feet below land surface.
g. Date well completed November 1, 1957
(Month) (Day) (Year)
8. The place(s) of use of water. If same as Item 3, check this box ☐
X $\frac{1}{4}$ X $\frac{1}{4}$ South $\frac{1}{2}$ Section 8 Township 17 S Range 5 W
X $\frac{1}{4}$ X $\frac{1}{4}$ SW $\frac{1}{4}$, Section 17 Township 17 S Range 5 W
Organ Pipe Cactus -- Headquarters Well #4
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

FORM NO 9-1904-A

SITE NO. (C-17-5) 17 bda

Recorded by B. JOHNSON
M. Harnley 5-22-75
L. Heindl 6-12-58

U.S. DEPT. OF THE INTERIOR
 GEOLOGICAL SURVEY
 WATER RESOURCES DIVISION
 GROUND WATER SITE INVENTORY
 SITE SCHEDULE

Date 4-26-79Check One ☒ English ☐ Metric Units

GENERAL SITE DATA (0)

Site Ident No 315658112481401 RG Number R=0 Transaction T=0 D M V

Site Type 2=C D H I M P T W Data 3=0 U L M Reporting Agency 4=USGS

Collector, drain, sinkhole, connector, multiple, pond, tunnel or well 5=WMD District 6=04 State 7=04 County (or town) Pima 8=019

Latitude 9=31 50 58 Longitude 10=112 28 14 Lat-Long Accuracy 11=S 0 T M

Local Number 12=C-17-05 17 BDA Land Net 13=NE 56 NW 17 T 17 S R 05 W G

Location Map 14=LUKEVILLE Scale 15=62500

Altitude 16=1679 Method of Measurement 17=A L M Accuracy 18=0.10

Topo Setting 19=D C E F H K L P S T U V W Hydrologic Unit (OWDC) 20=

Date of First Construction/Completion 21=11/00/1957 Use of Site 23=A D E G H M P R S T U W X Z

Use of Water 24=A B C D E F H I M N P S T U Y Z

Secondary Water Use 25= Tertiary Use 26= Depth of Hole 27=430 Depth of Well 28=430 Source of 29=D

Water Level 30=330 Date Measured 31=11/00/1957 Source 33=D

Method of Measurement 34=A C E G H L M R S T V Z

Site Status 37=D F G H P R S T V X Z

Source of Geohydrologic Data 36= Pump Used 35= Measuring Point 266= Measuring Point Date 267=

OWNER IDENTIFICATION (1)

R=158 T=0 D M Date of Ownership 159=11/00/1957

Name: Last 161=USPS First 162= Middle Initial 163=

OTHER SITE IDENTIFICATION NUMBERS (1)

R=189 T=A D M Ident 190= Assigner 191=

New Card Same R & T Ident 190= Assigner 191=

SITE VISIT DATA (1)

R=186 T=0 D M Date of Visit 187=06/12/1958 Name of Person 188=HEINDL L

FIELD WATER QUALITY MEASUREMENTS (1)

R=192 T=0 D M Date 193=06/12/1958 Geohydrologic Unit 195=

Temperature 196=00010 Degrees C 197=32

Conductance 196=00095 μ Mhos 197=

Other (STORET) Parameter 196= Value 197=

Other (STORET) Parameter 196= Value 197=

FOOTNOTES:

① Source of Data Codes:

S D O A R L G Z

reporting, driller, owner, other gov't, other logs, geologist, other reported, agency

NATIONAL G.W. FILE

NOTE: This record was originally in long, but test shows it is not now.

WELL CONSTRUCTION DATA (1)

R = 58 * T = 5 D M * Entry No 59 # 001 * Date of Construction Completion 60 = 11/00/1957 * Source of ① 64 = 0 *
 add, delete, modify
 Name of Contractor/Driller 63 = HENRY WL DRL *
 Method of Construction 65 = A B C D H J P R T V W Z *
 air, rotary, bored, cable, dug, hydraulic, jetted, air-per., reverse, trenching, driven, drive, other
 or augered, tool, rotary, cushion, rotary, wash
 Finish 66 = C F G H Ø P S T W X Z * Type of Seal 67 = B C G Z *
 porous, gravel w. gravel, horizontal, open, perforated, screen, sand point, walled, open, other
 concrete, part screen, gallery, and or slotted hole hole
 Bottom of Seal 68 = * Method of Development 69 = A B C J N P S Z * Number of Hours in Development 70 = *
 air lift, bailed, compressed, jetted, non-air, other, surged, other pump
 Special Treatment During Development 71 = C D E F H M Z *
 chemical, dry ice, explosives, deflocculant, hydrofracturing, mechanical, other

DIMENSIONS OF THE HOLE CONSTRUCTED (2)

R = 72 * T = A D M * Construction Entry No 59 # *
 add, delete, modify
 Top of Hole Segment Below LSD
 73 # * * * * *
 73 # * * * * *
 73 # * * * * *
 73 # * * * * *
 73 # * * * * *
 Bottom of Hole Segment below LSD
 74 = * * * * *
 74 = * * * * *
 74 = * * * * *
 74 = * * * * *
 74 = * * * * *
 Diameter of Hole Segment
 75 = * * * * *
 75 = * * * * *
 75 = * * * * *
 75 = * * * * *
 75 = * * * * *
 New Card for Each Hole Segment Same R, T & Field 5 9

CASING SCHEDULE (2)

R = 76 * T = 6 D M * Construction Entry No 59 # 001 * New Card for Each Casing With Same R, T & Field 5 9
 add, delete, modify
 Top of Casing Segment Below LSD
 77 # 0 * * * * *
 77 # * * * * *
 77 # * * * * *
 77 # * * * * *
 77 # * * * * *
 Bottom of Casing Segment Below LSD
 78 = 42.6 * * * * *
 78 = * * * * *
 78 = * * * * *
 78 = * * * * *
 78 = * * * * *
 Diameter of Casing Segment
 79 = 1.2 * * * * *
 79 = * * * * *
 79 = * * * * *
 79 = * * * * *
 79 = * * * * *
 Casing Material ⑤
 80 = 5 * * * * *
 80 = * * * * *
 80 = * * * * *
 80 = * * * * *
 80 = * * * * *
 Thickness of Casing
 81 = 3.75 * * * * *
 81 = * * * * *
 81 = * * * * *
 81 = * * * * *
 81 = * * * * *

OPENINGS SCHEDULE (2)

R = 82 * T = A D M * Construction Entry No 59 # *
 add, delete, modify
 Top of Section Below LSD 83 # * * * * *
 Bottom of Section Below LSD 84 = * * * * *
 Type of Openings ⑥ 85 = * * * * *
 Type of Material ⑦ 86 = * * * * *
 Diameter of Open Section 87 = * * * * *
 Width of Opening 88 = * * * * *
 Length of Opening 89 = * * * * *
 New Card for Each Open Section With Same R, T and Field 5 9
 (Openings Data) (Openings Data) (Openings Data)
 83 # * * * * * 83 # * * * * * 83 # * * * * *
 84 = * * * * * 84 = * * * * * 84 = * * * * *
 85 = * * * * * 85 = * * * * * 85 = * * * * *
 86 = * * * * * 86 = * * * * * 86 = * * * * *
 87 = * * * * * 87 = * * * * * 87 = * * * * *
 88 = * * * * * 88 = * * * * * 88 = * * * * *
 89 = * * * * * 89 = * * * * * 89 = * * * * *

FOOT NOTES:

① Source of Data Codes:

S D Ø A R L G Z
 reporting, driller, owner, other geol. other logs, geologist, other agency reported

⑤ Casing Material Codes

B C G I M P R S T U W Z
 brick, concrete, galv. wrought, other, PVC or, rock or, steel, tile, coated, wood, other iron iron metal plastic stone steel

⑥ Type of Openings Codes

F L M P R S T W X Z
 fracture, louvered, mesh, perforated, wire screen, sand, walled, open, other shuttered or slotted wound (unknown) point hole

⑦ Type of Material Codes for Open Sections

B C G I M P R S T Z
 brass or, concrete, galv. wrought, other, PVC or, stainless, steel, tile, other bronze iron iron metal plastic steel

PRODUCTION DATA (1)

R = 134 146 * T = 6 D M * Entry No 147# 001 * Date 148# 1 20 / 1957 *
flowing, pumped add, delete, mod

Discharge: 150# 30 * Source of Data 151# D *
Method of Measurement

152# B C E F M O P R T U V W Z *
bailler, current, estimated, flume, totaling, orifice, pitot-tube, reported, trajectory, venturi, volumetric, weir, other

Production Level 153# 330 * Static Level 154# 330 * Source of Data 155# D * Specific Capacity 272# *
Method of Measurement

156# A C E G H L M R S T V Z * Pumping Period 157# 24 *
airline, calibrated, estimated, pressure, calibrated, geophysical, manometer, reported, steel, electric, calibrated, other

LIFT DATA (1)

R = 42 * T = 6 D M * Type of Lift 43# A B C J P R S T U Z * Entry No 254# *
add, delete, modify

Pump Intake Setting 44# * Type of Power 45# D E G H L N W Z *
diesel, electric, gasoline, hand, LP gas, natural, windmill, other

Date 38# 06 / 12 / 1958 * Horsepower 46# *
month day year

MAJOR PUMP DATA (2)

R = 47 * T = A D M * Type of Lift 43# * Lift Entry No 254# * Manufacturer of Pump 48# *
add, delete, modify

Serial No of Pump 49# * Name of Power Company 50# *
Power Company Account No 51# * Power Meter No 52# * Pump Rating 53# *

Person or Company Who Maintains the Pump 54# * Additional Lift 255# * Rated Pump Capacity 268# *
(See LIFT DATA for codes of fields 43 and 56 below)

STANDBY POWER DATA (2)

R = 55 * T = A D M * Type of Lift 43# * Type of Power 56# * Horsepower 57# * Lift Entry No 254# *
add, delete, modify

AVAILABLE LOG DATA (1)

R = 198 * T = 6 D M * New Card for Each Log Type Same R & T

Type of Log 199# D * Begin Depth 200# 0 * End Depth 201# 430 * Source of Data 202# D *
add, delete, modify

WATER QUALITY DATA COLLECTION (1)

R = 114 * T = 6 D M * Begin Year 115# 1958 * End Year 116# * Source Agency 117# USGS *
add, delete, modify

Frequency of Collection 118# 4 * Network Site 257# * Type of Analyses 120# B *

WATER LEVEL DATA COLLECTION (1)

R = 121 * T = A D M * Begin Year 122# * End Year 123# * Source Agency 124# *
add, delete, modify

Frequency of Collection 125# * Network Site 258# *

WATER PUMPAGE/WITHDRAWAL DATA COLLECTION (1)

R = 127 * T = A D M * Begin Year 128# * End Year 129# * Source Agency 130# *
add, delete, modify

Frequency of Collection 131# * Network Site 259# * Method of Collection 133# C E M U Z *
calculated, estimated, metered, unknown, other

OTHER DATA AVAILABLE (1)

R = 180 * T = A D M * Type of Data 181# * Loc 182# C D Z * Format 261# F M P Z *
add, delete, modify

New Card Same R & T Type of Data 181# * Loc 182# C D Z * Format 261# F M P Z *
coolerator, district, other files, machine, published, other readable

FOOT NOTES:

① Source of Data Codes: S D G A R L G Z
reporting, driller, owner, other gov't, other logs, geologist, other agency reported

③ Frequency of Collection Codes: A B C D F I M G Q S W Z
annual, bi monthly, continuous, daily, semi, intermittent, monthly, one time, quarter, semi, weekly, other only annual annual

② Type of Log Codes: A B C D E F G H I J K L M N O P Q
time, collar, caliper, driller's, electric, fluid, geologist, magnetic, induction, gamma, dipmeter, laterlog, microlog, neutron, μ later, photo, radio, active

S T U V Z
sonic, temp, gamma, fluid, other gamma velocity

④ Type of Quality Analyses Codes: A B C D E F G H J K L M Z
physical, common, trace, pesticides, nutrients, sensory, codes, codes, codes, codes, all or, other chemical elements B&D B&E B&F D&E C,D&E most

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * T = A D M * Entry No 256 # * Depth to Top 91 = * Depth to Bottom 92 = *

Unit Identifier 93 = * Lithology 96 = * Lithologic Modifier 97 = *

AQUIFER DATA (2)

R = 94 * T = A D M * Geohydrologic Unit Entry No 256 # *

Date 95 # / / * Water Level 126 = * % Water Contributed 132 = *

month day year

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * T = A D M * Entry No 256 # * Depth to Top 91 = * Depth to Bottom 92 = *

Unit Identifier 93 = * Lithology 96 = * Lithologic Modifier 97 = *

AQUIFER DATA (2)

R = 94 * T = A D M * Geohydrologic Unit Entry No 256 # *

Date 95 # / / * Water Level 126 = * % Water Contributed 132 = *

month day year

PERTINENT REMARKS

R = 183 * T = A * 185 = * *

add 185 = * *

New Card Same R&T 185 = * *

NOTES:

R 5 W

1 9

17 17

S

FORM NO 9-1904-A

SITE NO

(c-17-5) 17 acb-4

Recorded by B. Johnson
(NPS RECORDS)U.S. DEPT. OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
GROUND WATER SITE INVENTORY
SITE SCHEDULEDate 1-26-76Check One ☒ English ☐ Metric Units

GENERAL SITE DATA (I)

Site Ident No 315655112490301 RG Number R-0 Transaction T-0 D M V *
 add, delete, modify, verified
 Site Type 2 C D H I M P T (W) * Data 3 C (U) L M * Reporting Agency 4 USGS *
 add, delete, modify, verified
 Project No. 5 WMD * District 6 04 * State 7 04 * County (or town) 8 019 *
 Latitude 9 31 56 55 * Longitude 10 11 2 49 03 * Lat Long Accuracy 11 5 (D) T M *
 add, delete, modify, verified
 Local Number 12 C-17-05 17ACBUNSRV (V) * Loc Loc 13 NWSWNE 17 T 175 R 05W (C) *
 add, delete, modify, verified
 Location Map 14 LUKEVILLE * Scale 15 62500 *
 add, delete, modify, verified
 Altitude 16 1662 * Method of Measurement 17 A L (M) * Accuracy 18 020 *
 add, delete, modify, verified
 Topo Setting 19 D C E F H K L O P S T U V W * Hydrologic Unit (OHDC) 20 T *
 add, delete, modify, verified
 Date of First Construction/Completion 21 11 00 1957 * Use of Site 23 A D E G H O M P R S T U (W) X Z *
 add, delete, modify, verified
 Use of Water 24 A B C D E F H I M N (P) R S T U V Y Z *
 add, delete, modify, verified
 Secondary Water Use 25 * Tertiary Use of Water 26 * Depth of Hole 27 430 * Depth of Well 28 430 * Source of Depth Data 29 A *
 add, delete, modify, verified
 Water Level 30 310 * Date Measured 31 11 30 1957 * Source 32 A *
 add, delete, modify, verified
 Method of Measurement 34 A C E G H L M (S) T V Z *
 add, delete, modify, verified
 Site Status 37 D F G H I P R S T V Y Z *
 add, delete, modify, verified
 Source of Geohydrologic Data 36 * Pump Used 35 * Measuring Point 266 * Measuring Point Date 267 / / *
 add, delete, modify, verified

OWNER IDENTIFICATION (I)

R-158 * T-0 (D) M V * Date of Ownership 159 11 00 1957 *
 add, delete, modify, verified
 Name: Last 161 PARK SERV. * First 162 NATIONAL * Middle Initial 163 *
 add, delete, modify, verified

OTHER SITE IDENTIFICATION NUMBERS (I)

R-180 * T-0 (D) M V * Ident 190 WELL NO. 4 * Assigner 191 NAT PARK SERV. *
 add, delete, modify, verified
 New Card Same R & T Ident 190 * Assigner 191 *

SITE VISIT DATA (I)

R-188 * T-0 (D) M V * Date of Visit 187 / / * Name of Person 188 *
 add, delete, modify, verified

FIELD WATER QUALITY MEASUREMENTS (I)

R-182 * T-0 (D) M V * Date 193 / / * Geohydrologic Unit 195 *
 add, delete, modify, verified
 New Card Same R thru 195
 Temperature 196 0 0 0 1 0 * Degrees C 197 *
 Conductance 198 0 0 0 9 5 * u/M/cm 197 *
 Other (STORET) Parameter 199 * Value 197 *
 Other (STORET) Parameter 199 * Value 197 *

FOOT NOTES:

① Source of Data Codes:

S D O A P L G Z
 holding other owner other govt other logs biological other species reported

(c-17-5) 17 acb-4

NPS #4

WELL CONSTRUCTION DATA (1)

R-58 T-0 D M S-9 001 Date of Construction Completion 80-11/00-957 Source of 1-64-A

Name of Contractor/Driller 63

Method of Construction 85 A B C D H J P R T V W Z

Finish 86 C F G H B P S T W X Z Type of Seal 87 B C G Z

Bottom of Seal 88 Method of Development 89 A B C J N P S Z Number of Hours in Development 70

Special Treatment During Development 71 C D E F H M Z

DIMENSIONS OF THE HOLE CONSTRUCTED (2)

R-72 T-0 D M S-9 001 Construction Entry No

New Card for Each Hole Segment Same R, T & Field S 9

Top of Hole Segment Below LSD	Bottom of Hole Segment below LSD	Diameter of Hole Segment
73 0	74 0	75 0
73 0	74 0	75 0
73 0	74 0	75 0
73 0	74 0	75 0
73 0	74 0	75 0

CASING SCHEDULE (2)

R-76 T-0 D M S-9 001 Construction Entry No

New Card for Each Casing With Same R, T & Field S 9

Top of Casing Segment Below LSD	Bottom of Casing Segment Below LSD	Diameter of Casing Segment	Casing Material	Thickness of Casing
77 0	78 428	79 12	80 5	81 0
77 0	78 0	79 0	80 0	81 0
77 0	78 0	79 0	80 0	81 0
77 0	78 0	79 0	80 0	81 0
77 0	78 0	79 0	80 0	81 0

OPENINGS SCHEDULE (2)

R-82 T-0 D M S-9 001 Construction Entry No

New Card for Each Open Section With Same R, T and Field S 9

Top of Section Below LSD	Bottom of Section Below LSD	Type of Openings	Type of Material	Diameter of Open Section	Width of Opening	Length of Opening
83 0	84 0	85 0	86 0	87 0	88 0	89 0
83 0	84 0	85 0	86 0	87 0	88 0	89 0
83 0	84 0	85 0	86 0	87 0	88 0	89 0
83 0	84 0	85 0	86 0	87 0	88 0	89 0
83 0	84 0	85 0	86 0	87 0	88 0	89 0

FOOT NOTES:

① Source of Data Codes: S D B A R L G Z

② Casing Material Codes: B C G I M P R S T U W Z

③ Type of Openings Codes: F L M P R S T W X Z

④ Type of Material Codes for Open Sections: B C G I M P R S T Z

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 88 * T = A D * Entry No. 256 # * Depth to Top 91 = * Depth to Bottom 92 = *

Unit Identifier 93 = * Lithology 96 = * Lithologic Modifier 97 = *

AQUIFER DATA (2)

R = 94 * T = A D M * Geohydrologic Unit Entry No. 256 # *
add, delete, modify

Date 95 # / / * Water Level 128 = * % Water Contributed 132 = *

month day year

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * T = A D M * Entry No. 256 # * Depth to Top 91 = * Depth to Bottom 92 = *

Unit Identifier 93 = * Lithology 96 = * Lithologic Modifier 97 = *

AQUIFER DATA (2)

R = 94 * T = A D M * Geohydrologic Unit Entry No. 256 # *
add, delete, modify

Date 95 # / / * Water Level 128 = * % Water Contributed 132 = *

month day year

PERTINENT REMARKS

R = 183 * T = A * 185 = *
add

new Card Same R&T 185 = *
 185 = *

NOTES:

R 5 W

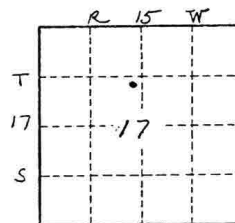
T	0
17	17
5	

Well No. _____

Latitude-longitude 31.56.58^N 112.48.14^W
d m s d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD
 Province: Basin & Range Section: Sonoran
 Desert B Drainage Basin: Subbasin:
 (D) (C) (E) (F) (H) (K) (L)
 Topo of depression, stream channel, dunes, flat, hilltop, sink, swamp,
 well site: (O) (P) (S) (T) (U) (V)
 offshore, pediment, 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
 MINOR
 AQUIFER: system series aquifer, formation, group
 Lithology: Origin: Aquifer Thickness: ft
 Length of well open to: ft Depth to top of: ft
 Intervals Screened:
 Depth to consolidated rock: ft Source of data:
 Depth to basement: ft Source of data:
 Surficial material: Infiltration characteristics:
 Coefficient Trans: xpd/ft Coefficient Storage:
 Coefficient Perm: gpd/ft² Spec cap: gpm/ft; Number of geologic cards:

Casing to 428'Water Level: 309' Reported 6-12-58Chief Aquifer: Malpais, sand & gravelFinish: 2" X 6"

Well No. (c-17-5) 17bda

Log

0-5 Topsoil & gravel
 5-155 Gravelly clay
 155-~~157~~²⁰⁵ Boulders, malpais
 205-247 Malpais, hard
 247-267 Malpais and sand
 267-280 Black malpais
 280-430 Black malpais,
 including sand &
 gravel.

Water struck @ 330' and
 rose immediately to 310'.

Driller's Log

0-5 Topsoil + gravel
 5-155 Gravelly clay
 155-205 Boulders, Malpais
 205-247 Malpais, hard
 247-267 Malpais and sand
 267-280 Black malpais
 280-430 Black malpais including sand
 and gravel. Water found
 at 330 feet

PERMANENT REFERENCE
 Do Not Discard

NATIONAL PARK SERVICE

 FORM 9-1642B
 (DEC. 68)

 Well No. (C-17-5) 17 acb

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

MASTER CARD

Record by W. Werrell Source of data Field Date July 11, 73 Preliminary Map: Nariz Mt. 2 NE, 7 1/2'
 State Arizona County Pima Sequential number 10
 Latitude: 31° 56' 58" N Longitude: 112° 48' 04" W
 Lat-long accuracy: 10' T. 17' R. 5' S. 17' NW, SW, NE, G&SR PM
 Local well number: C-17-05 17 ACB Other number: NPS # 4
 Local use: _____ Owner or name: National Park Service
 Owner or name: NATL PARK SER 4 Address: _____

Ownership: (C) County, (F) Fed Gov't, (M) City, Corp or Co, Private, State Agency, Water Dist _____
 Use of: (A) Air cond, Bottling, Comm, Dewater, Power, Fire, (H) Irr, (I) Med, Ind, P S, Rec, (W) Waste, Destroyed
 Water: (S) Stock, (T) Instat, (U) Unused, (V) Recharge, (X) Desal-P S, Desal-other, Other _____
 Use of: (A) Anode, (D) Drain, (G) Seismic, (H) Heat Res, (O) Obs, (P) Oil-gas, (R) Recharge, (T) Test, (U) Unused, (W) Withdraw, (X) Waste, Destroyed
 Well: _____

DATA AVAILABLE: Well data _____ Freq. W/L meas.: _____ Field aquifer char. _____
 Hyd. lab. data: _____
 Qual. water data: type: Partial
 Freq. sampling: _____ Pumpage inventory: yes _____ no _____ period: _____
 Aperture cards: _____
 Log data: Drillers log

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 430 ft Meas. 430 Meas. Driller
 Depth cased: 365 ft Casing type: Steel Diam. 12 in
 Finish: (C) concrete, (F) porous gravel, (G) gravel w. horiz. screen, (H) gravel w. horiz. screen, (I) gravel w. horiz. screen, (J) gravel w. horiz. screen, (K) gravel w. horiz. screen, (L) gravel w. horiz. screen, (M) gravel w. horiz. screen, (N) gravel w. horiz. screen, (O) gravel w. horiz. screen, (P) gravel w. horiz. screen, (Q) gravel w. horiz. screen, (R) gravel w. horiz. screen, (S) gravel w. horiz. screen, (T) gravel w. horiz. screen, (U) gravel w. horiz. screen, (V) gravel w. horiz. screen, (W) gravel w. horiz. screen, (X) gravel w. horiz. screen, (Y) gravel w. horiz. screen, (Z) gravel w. horiz. screen
 Method: (A) air bored, (B) cable, (C) cable, (D) cable, (E) cable, (F) cable, (G) cable, (H) cable, (I) cable, (J) cable, (K) cable, (L) cable, (M) cable, (N) cable, (O) cable, (P) cable, (Q) cable, (R) cable, (S) cable, (T) cable, (U) cable, (V) cable, (W) cable, (X) cable, (Y) cable, (Z) cable
 Drilled: (A) air bored, (B) cable, (C) cable, (D) cable, (E) cable, (F) cable, (G) cable, (H) cable, (I) cable, (J) cable, (K) cable, (L) cable, (M) cable, (N) cable, (O) cable, (P) cable, (Q) cable, (R) cable, (S) cable, (T) cable, (U) cable, (V) cable, (W) cable, (X) cable, (Y) cable, (Z) cable
 Date Drilled: Nov. 1, 1957 Pump intake setting: _____ ft
 Driller: Henry Well Drilling 450 E. Washington, Phoenix, Ariz
 Lift: (A) air, (B) bucket, (C) bucket, (D) bucket, (E) bucket, (F) bucket, (G) bucket, (H) bucket, (I) bucket, (J) bucket, (K) bucket, (L) bucket, (M) bucket, (N) bucket, (O) bucket, (P) bucket, (Q) bucket, (R) bucket, (S) bucket, (T) bucket, (U) bucket, (V) bucket, (W) bucket, (X) bucket, (Y) bucket, (Z) bucket
 Power: (A) diesel, (B) gas, (C) gas, (D) gas, (E) gas, (F) gas, (G) gas, (H) gas, (I) gas, (J) gas, (K) gas, (L) gas, (M) gas, (N) gas, (O) gas, (P) gas, (Q) gas, (R) gas, (S) gas, (T) gas, (U) gas, (V) gas, (W) gas, (X) gas, (Y) gas, (Z) gas
 (type): diesel, gas, gasoline, hand, gas, wind, H.P.
 Descrip. MP Top of 2" pipe ; 2.6 ft above LSD, Alt. MP _____
 Alt. LSD: 1655 ft Accuracy: USGS Tape - 20' Contours
 Water Level: 310 ft above MP; Ft. below LSD 310 Accuracy: Drillers log
 Date meas: Nov 1, 57 Yield: _____ gpm Method: _____
 Drawdown: _____ ft Accuracy: _____
 QUALITY OF WATER DATA: Iron 1.1 ppm Sulfate 53 ppm Chloride 82 ppm Hard. 106 ppm
 Sp. Conduct 720 K x 10⁶ Temp. 88 °F Date sampled Mar 26, 65

Taste, color, etc.

 Well No. (C-17-5) 17 acb

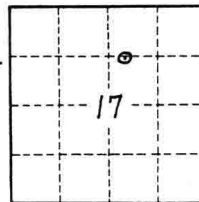
Well No. (C-17-5) 17 acbLatitude-longitude 31.56.58^N 112.48.04^W

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD ☐ Physiographic Province: Basin & Range 212 Section: Sonoran
 Desert B Drainage Basin: Western Mexican Drainage W.M.D. Subbasin: Rio Sonora 24
 Topo of well site: (D) depression, stream channel, dunes, flat, hilltop, sink, swamp, (E) (F) (H) (K) (L)
 (M) offshore, pediment, hillside, terrace, undulating, valley flat T
 MAJOR AQUIFER: system _____ series _____ aquifer, formation, group _____
 Lithology: _____ Origin: _____ Aquifer Thickness: _____ ft
 Length of well open to: _____ ft Depth to top of: _____ ft
 MINOR AQUIFER: system _____ series _____ aquifer, formation, group _____
 Lithology: _____ Origin: _____ Aquifer Thickness: _____ ft
 Length of well open to: _____ ft Depth to top of: _____ ft
 Intervals Screened: Torch cut slots 1/2" wide, 6" long & 12" apart from 365' to 425'
 Depth to consolidated rock: _____ ft Source of data: _____
 Depth to basement: _____ ft Source of data: _____
 Surficial material: _____ Infiltration Characteristics: _____
 Coefficient Trans: _____ gpd/ft² Coefficient Storage: _____
 Perm: _____ gpd/ft²; Spec cap: _____ gpm/ft; Number of geologic cards: _____

Drillers log:

Description	Depth	Thickness
Top soil and gravel	0-5	5
Gravelly clay	5-155	150
Boulders, malpais	155-205	50
Malpais, hard	205-247	42
Malpais and sand	247-267	20
Black malpais	267-285	18
Black malpais, including sand and gravel	285-430	145
		430



During drilling water was struck at 330 ft and rose 20 ft in the hole.

Casing was set to 428 ft, bottom was left open.

Township and Range location determined by projection.

Well No. (C-17-5) 17 acb

Headquarters Well #4

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Water Resources Branch

RECORD OF WELL

Organ Pipe Cactus National Monument - Well No. 4

1. Location: State Arizona County Pima
Nearest P.O. Ajo Direction from P.O. South 35 miles
Sec. 17 T. 17-S R. 5-W
2. Owner: National Park Service Address Organ Pipe Cactus National Monument, Ajo, Arizona
4150 E. Washington
Driller Henry Well Drilling Address Phoenix, Arizona
Site selected by Superintendent James M. Eden * Address Organ Pipe Cactus National Monument
3. Situation: Is well on upland, in valley, or on hillside? Valley
4. Type of well: Drilled
(Dug, driven, bored, or drilled)
Kind of drilling rig used: Solid Tool
(Solid tool, jetting, rotary, etc.)
5. Depth of well: 430 feet; year in which finished November 1957
Does well enter rock? No; if so, at what depth? ft.;
kind of rock
6. Depth to water: 330 ft.; amount water rose above level
where first struck 20 ft.
7. Diameter: At top 12 inches; at bottom 12 inches.
8. Principal water bed: Appears to be Malapai sand and Gravel
(Gravel, sand, clay, or rock. If rock, state kind)
Depth to principal water bed 330 ft.; thickness of bed unknown ft.
If other water supplies were found, give depth to each none
9. Casings: Kind Steel; size 12 I.D.; length 428 ft.;
between depths of and ft. No graduation
Kind ; size ; length ft.; ft. in casing size
between depths of and ft.
Kind ; size ; length ft.;
between depths of and ft.
- Packers (if any):
Depth at which packers were used None;
kind
- Screen or Strainer: Was well finished with screen or perforated
pipe? ; kind of screen ;
length of screen ft.; diameter inches;
size of openings .
perforated pipe; size of perforations 1/2" X 6"
How were perforations made; burned, drilled? burned

*On advice of qualified geologist and concurred in by WODC Project Supervisor
Donald Marley

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 No. 44, 30 gpm at 800 head
Kind of power Gasoline engine
12. Yield: Natural flow at present (if any) ***----- gallons per minute;
original flow ----- gallons per minute;
well has been pumped at 30 gpm gallons per minute;
continuously for 24 hours; quantity of water ordinarily
obtained from well ----- gallons per minute.
13. Use: For what purpose is the water used? Employee & visitor domestic
14. Quality of the water: Good - soft;
(Hard or soft, fresh or salty, etc.)
is there an analysis? No

Name of person filling blank:
James M. Eden, Superintendent

Date: November 5, 1957

Address: Organ Pipe Cactus National Monument

(Record of the beds through which the well passes and any other
facts not given above):

LOG OF WELL

Kind of rock or other material (Give color and tell whether hard or soft)	Depth in Feet		Thickness in Ft.	Remarks (Water Found)
	From	To		
Top soil & Gravel	0	5		
Gravelly clay	5	155		
Boulders	155	198		
Boulders	198	205		
Malapai	205	230		
Malapai, hard	230	247		
Malapai, sand	247	267		

Material	From	To	Thickness in Feet	Remarks
Malapai	267	280		
Black Malapai	280	430		water found at 330 ft.

Note:

The above information is copied directly from the driller's log and is not considered completely accurate as to materials and formations encountered. Frequent samples were taken and analysis and identification by the U. S. G. S. will be secured. Their report will be made a part of this file.

James M. Eden
Superintendent

Total depth of well 430 feet. Casing set to 428 from ground level.

Remarks:

Water was struck at approximately 330 feet and immediately raised in the hole to 310 feet. Drilling of an open hole (without casing) was then carried to 430 feet with no noticeable change in formations encountered. 12" I.D. casing, with hardened casing shoe, was set to a total depth of 428 feet. Very little driving was required in setting the casing except for the last 10 feet, which tightended up considerably. The casing is perforated from the 365 feet level to 425 feet with $\frac{1}{2}$ " wide by 6" long torch cuts spaced 12" apart vertically and staggered around the pipe to preserve the strength of the casing. The bottom of the casing is open.

After the drilling had been carried successfully through 100' feet of the water bearing strata, and with 120 feet of water standing in the well the decision was made to stop drilling without reaching the bottom of the aquifer. The encountering of an unfavorable formation or the loss of a string of drilling tools at this depth could have caused serious complications.

After casing was set and limited bailing and developing carried out the driller, as a part of his contract, installed the Government-owned Peerless Hi-lift Number 44 pump along with the gear-turbo head and gasoline engine power unit. The 24 hour pumping test was begun on October 31, with the water level standing in the well at 310 feet. During the 24 hour period the pump was operated at a uniform rate, of 30 GPM, without interruption. There was no drawdown at any time and at the end of the test the water level still stood at 310 feet.

Remarks; Continued

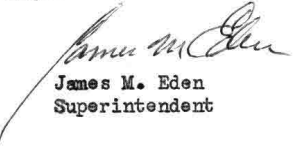
Indications are that this well is capable of a 100 gallon per minute delivery with no appreciable drawdown. We were not in a position to expend the additional \$1,500 to \$2,000 that would have been required to secure and install a test pump of larger capacity.

Progress on drilling, on days when there was no interruption for tool sharpening, varied from a minimum of 5 or 10 feet per day when large boulders were encountered to a maximum of 35 to 40 feet per 8 hour shift. A very heavy string of tools, with a 14" bit produced the best results.

Judging from the resistance encountered in driving the casing for the last few feet it will probably not be feasible to deepen this well by additional drilling and lowering of the 12" casing. It is quite feasible, however, to drill below the existing casing and step down to a smaller size at the 428 feet depth, should this ever become necessary at any time in the future.

The Peerless Hi-lift pump was set with the foot valve 365 feet below the surface. The airline for measuring the water level was terminated at 355 feet from the surface and is 3/8" copper tubing in 50 foot lengths with soldered type joints.

The most experienced driller on the project, one Johnny Anderson, characterized the drilling as "medium", from the standpoint of hardness of formation and difficulty of drilling.



James M. Eden
Superintendent

FORM W-3-1M-5-52

Headquarters Well #4
 LAND DEPARTMENT
 WATER DIVISION
 STATE OF ARIZONA

REPORT OF WELL DRILLER

EXCERPT OF 1945 GROUNDWATER LAW

Report of Well Driller must be prepared by the driller in all detail and filed with the State Land Commissioner as required by Section 7, Chapter 12, Senate Bill No. 3, First Special Session, 1945. This report should be in the mail within 30 days following completion of the well. Section 8 of the law provides: "Any person (includes any individual, firm, public or private corporation, or governmental agency) who shall fail or refuse to make any of the reports, give the notices required, or fail to cooperate with the State Land Commissioner or his representative, under the provisions of this Act, shall be guilty of a misdemeanor and shall be fined a sum not exceeding One Hundred Dollars."

1. OWNER United States Department of the Interior National Park Service
 Name
Organ Pipe Cactus National Monument Ajo, Arizona.
 Address
2. Lessee or Operator
 Name
 Address
3. DRILLER Henry Well Drilling (H.E. Henry)
 Name
4150 East Washington, Phoenix, Arizona.
 Address
4. Location of well: Twp. _____ Rge. _____ Section _____
33 Miles South of Ajo on State Highway 82, 1000 yds South from
Headquarters at Organ Pipe
5. Intention to Drill File No. _____

DESCRIPTION OF WELL

6. Total depth of hole 430 ft.
7. Type of casing 3/8" Wall drive pipe
8. Diameter and length of casing 12 in. from 0 to 428 in. from _____ to _____ in. from _____ to _____
9. Method of sealing at reduction points _____
10. Perforated from 365 to 425, from _____ to _____, from _____ to _____, from _____ to _____
11. Size of cuts 1/2" x 6" 12" apart Number cuts per foot _____
12. If screen was installed: Length _____ ft. Diam. _____ in. Type _____
13. Method of construction Drilled
 drilled, dug, driven, bored, jetted, etc.
14. Date completed November 1, 1957
 Month _____ Year _____
15. Depth to water 310 ft.
 If flowing well, so state.
16. Describe point from which depth measurements were made, and give sea-level elevation if available _____
17. If flowing well, state method of flow regulation _____

18. REMARKS: _____

DO NOT WRITE IN THIS SPACE
 OFFICE RECORD

Received _____ by _____
 Filed _____ by _____
 File No. _____

(Well Log to Appear on Reverse Side)

Form 10-174
(Rev. 8-56)

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

REGION Three	AREA Organ Pipe Cactus National Monument	COUNTY Pima	STATE Arizona
PROJECT OR JOB TITLE Expansion of Headquarters Water System		PCP NO. U-12-1	
LOCATION IN AREA Headquarters Area		MASTER PLAN NO. NM-OPC-2025-C	BUILDING NO.
WORKING DRAWING NO. AND TITLE NM-OPC-3022 Water System Improvements			
APPROPRIATION TITLE AND SYMBOL NM-OPC-3017 100,000-gallon Reservoir and Connecting Water Lines			
CONTRACT NO. 14X1035		DATE WORK STARTED September 2, 1958	DATE WORK COMPLETED January 20, 1961
NAME OF CONTRACTOR R's Construction Company and Consolidated Western Steel Div. of U.S. Steel		ADDRESS Cortez, Colorado 600 W. Grant St., Phoenix, Arizona	

COST ANALYSIS

CONSTRUCTION ITEMS	QTY.	UNIT COST IN PLACE	TOTAL COST IN PLACE
Personal Services			591.84
Contract 14-10-333-425			18,953.00
Contract 14-10-333-514			26,986.63
Supplies and Materials			101.97
Other Direct Expenses			994.00
FIELD FINANCE OFFICE CLEARANCE:			
		17.51%	47,627.44
			8,339.56
			55,967.00
Robert L. Giles, Regional Accountant February 15, 1961		8V-849	
		TOTAL	47,627.44 ✓

SUMMARY OF EXPENDITURES

PERSONAL SERVICES	MATERIALS AND SUPPLIES
591.84	101.97
OTHER 46,933.63	
~~85,309.33~~	

CHANGE ORDERS

ORIGINAL CONTRACT AMOUNT	FIRST	SECOND	THIRD
45,873.47	66.16		
FINAL CONTRACT AMOUNT	FOURTH	FIFTH	SIXTH
45,939.63			

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

SUBMITTED BY (Name and title) Monte E. Fitch, Jr., Superintendent	DATE January 31, 1961
APPROVED BY (Name and title) (SIGNED) Monte E. Fitch, Jr., Superintendent	DATE January 31, 1961

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

Narrative Statement
 Completion Report
 Water System Improvements
 Headquarters Area
 Organ Pipe Cactus National Monument, 1959 and 1960 FY

This project was accomplished in three phases under two separate contracts and a Day Labor Project. Each is described below:

Construction of 100,000-gallon Water Storage Tank and Connecting Water Lines

Plans and specifications for the above project were mailed from WODC on July 3, 1958, for distribution by the Regional Office, Region Three, and by the Superintendent at Organ Pipe Cactus National Monument, the bid opening date having been established as July 31, 1958. The project as advertised provided for construction of a 100,000-gallon steel water storage reservoir and approximately 350 lineal feet of 6-inch asbestos-cement water line, including all necessary excavation, embankment and backfill and such appurtenances as valves, and concrete thrust blocks and pipe anchors.

Four bids were received, the lowest of which was submitted by Consolidated Western Steel Division of United States Steel Corporation, 600 West Grant Street, Phoenix, Arizona, in the amount of \$17,478.00, 50% below the Engineer's Estimate of \$35,200.00.

from
 By letter of August 4, 1958, the Superintendent and Contracting Officer, Contract No. 14-10-333-425 was awarded to the above-mentioned low bidder. Notice to proceed was received by the contractor on August 18, 1958, thereby establishing the contract completion date as October 18, 1958. Contract operations were begun on September 3, 1958.

The work progressed in accordance with the plans and specifications and was generally of a very high standard of quality. Completion of the contract work was achieved on October 17, 1958, on which date a final inspection was made and the Acting Contracting Officer found the job complete and accepted the project.

Total contract payment amounted to \$18,953.00 or approximately 11% above the contract amount, the difference having been brought about by an overrun in the quantity of excavation required for preparation of the reservoir site.

Construction Items	Qty.	COST ANALYSIS	
		Unit Cost In Place	Total Cost In Place
1. Excavation for Preparation of Site	213 c.y.	25.00	5,325.00
2. 100,000-gallon steel reservoir in place	1 job	9,888.00	9,888.00
3. 6" AWWA Gate Valve, furn. & installed	1 ea.	110.00	110.00
4. 4" AWWA Gate Valve, furn. & installed	1 ea.	80.00	80.00
5. 6" Asbestos-Cement pipe, furn. & inst.	350 l.f.	9.00	3,150.00
6. Concrete Pipe Anchors, furn. & inst.	5 ea.	50.00	250.00
7. Concrete Thrust Blocks, furn. & inst.	3 ea.	50.00	150.00
8. Pressure reducing valves w/attachments	6 ea.	11.752	70.51
			<u>19,023.51</u>

Schedule No. 2, Well Area

1. 2" Steel Pipe removed to storage	2,030 l.f.	.53	1,075.90
2. 4" Asbestos-cement pipe furn. & inst.	2,030 l.f.	2.03	4,120.90
3. 4"x4"x2" Tapped Tee, furn. & inst.	1 ea.	103.50	103.50
4. 6"x6"x4" Cast Iron Tee, furn. & inst.	1 ea.	71.50	71.50
5. 4" Gate Valve, furn. & inst.	1 ea.	67.50	67.50
SUBTOTAL SCHEDULE NO. 2 WELL AREA			<u>5,439.30</u>

Schedule No. 3, Utility Area

1. 4" Asbestos-cement Pipe, furn. & inst.	275 l.f.	4.87	1,339.25
2. 6"x4" Reducer, furn. & inst.	1 ea.	20.40	20.40
3. 3/4" Hose Bib and Riser, furn. & inst.	1 ea.	4.50	4.50
SUBTOTAL SCHEDULE NO. 3, UTILITY AREA			<u>1,364.15</u>

Schedule No. 4, Residential Area

1. 6" Asbestos-cement Pipe, furn. & inst.	1,465 l.f.	3.63	5,317.95
2. 6" Gate Valves, furn. & inst.	2 ea.	84.50	169.00
SUBTOTAL SCHEDULE NO. 4, RESIDENTIAL AREA			<u>5,486.95</u>

TOTAL, ALL SCHEDULES	28,042.15
ADD CHANGE ORDER NO. 1	66.16
	<u>28,108.31</u>

LESS 4% on \$28,042.15, Contract Terms	<u>1,121.68</u>
--	-----------------

TOTAL CONTRACT PAYMENT	<u>26,986.63</u>
------------------------	------------------

Purchase and Erection of two Metal Pump Houses at Water Wells

Additional construction funds in the amount of \$1,470.00 were made available from Region Three reserves on August 24, 1960. This amount, with a balance from the above two phases, of \$154.49, provided \$1,624.49 for completing the project.

Quotations for furnishing two metal buildings 8' x 10' were solicited on July 14, 1960. Low quotation was furnished by Young Steel Buildings, Inc., 642 North 17th Avenue, Phoenix, Arizona.

Building materials were delivered to the site on October 12, 1960 and erection was started on November 14, 1960. Some difficulty was encountered due to plant fabrication errors. This was corrected and the building erection was completed on January 20, 1961.

Summary of Expenditures

1. Purchase of two metal buildings (PO 33-20-OPC)	\$994.00
2. Cement for foundation (Petty Cash)	31.46
3. Personal Services	591.84
TOTAL	<u>\$1,617.30</u>

Relocation and Installation of 50,000-Gallon Reservoir and Extension of Water Lines.

Plans and specifications for the above project were mailed from WODC on June 9, 1959 for distribution by the Regional Office, Region Three. The bid opening date was established as June 29, 1959. The project was advertised calling for relocation and installation of one 50,000-gallon steel storage reservoir, the removal to storage of 4,000-gallon steel reservoir and 3,770 lineal feet of two-inch steel pipe, and the installation of 5,017 lineal feet of four-inch and 1,465 lineal feet of six-inch asbestos-cement pipe together with necessary fittings.

Of three bids received, low bidder for this project was the L.R.'s Construction Company of Cortez, Colorado with a bid of \$26,920.47, or \$5,426.53 below the engineer's estimate.

By letter of June 30, 1959, from the Regional Administrative Officer and Contracting Officer, Contract No. 14-10-333-514 was awarded to the above mentioned low bidder. Notice to proceed was received by the contractor on July 17, 1959, thereby establishing the contract completion date as November 14, 1959.

The work progressed in accordance with the plans and specifications and was carried out in a satisfactory manner. Completion of the work under this contract was accomplished on September 1, 1959, on which date a final inspection was made by the contracting officer's representative and the Project Supervisor. The work was found to be complete and was accepted.

Total contract payment amounted to \$26,986.63. An additional cost of \$66.16 over the original contract amount was necessitated by a change in design made to protect pipe at a wash crossing and to permit connection to existing well pumps.

SUMMARY OF EXPENDITURES			
Construction Items	Qty.	Unit Cost in Place	Total Cost in Place
<u>Schedule No. 1 Campground</u>			
1. 50,000-gallon reservoir relocated & inst.	1	7,558.43	7,558.43
2. 4,000-gallon reservoir removed to storage	1	382.74	382.74
3. 4" Asbestos-cement pipe furn. & Inst.	2,712LF	2.435	6,603.72
4. 2" Steel pipe removed and reinstalled	680LF	.325	221.00
5. 2" Steel pipe removed to storage	1,060LF	.43	455.80
6. 3/4" Corporation Stop furn. & Inst.	1	3.30	3.30
7. 4"x4"x2"x2" Tapped Crosses, furn. & Inst.	3	33.50	100.50
8. 4"x4"x3/4"x3/4" tapped Cross. , Furn & Inst.	5	18.50	92.50
9. Float Valve, furn and Inst.	1	18.50	18.50
10. Concrete Thrust Block, Furn. & Inst.	2	100.13	200.26
11. 4" Gate Valves, furn. & inst.	2	57.50	115.00
SUBTOTAL, SCHEDULE NO. 1, CAMPGROUND AREA			15,751.75

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Organ Pipe Cactus National Monument
Box 38
Ajo, Arizona

March 9, 1959

Memorandum

To: Regional Director, Region Three
From: Superintendent, Organ Pipe Cactus National Monument
Subject: Pump Capacities as Measure of Water Right and Part of
Water System Design Record

We have received Acting Regional Chief of Operations Jerome C. Miller's memorandum of March 4, 1959, requesting information on wells and pump installations here as requested by the Washington Office. We maintain, in looseleaf notebook form, a current log on the area's pump installations and since this record contains considerably more information than the form attached to Mr. Miller's memorandum will accommodate we are taking the liberty of presenting all of the available data in this memorandum with the thought that someone there who knows exactly what is required can abstract the portion that is essential and have it entered on the form.

Well No. 1

Location: NE $\frac{1}{4}$, Sec. 17, T. 17 S., R. 5 W

Drilled: July, 1941 (water level 310 ft.)

Water Level: May 2, 1958 - 305 ft. Bottom of well 337'

Pump setting: 330 ft. (May 2, 1958)

Pump Installation

Electric Motor: Vertical, hollow shaft motor, Westinghouse, Volts 220-440 (operating on 220), H. P. 7.5, RPM 1690 (this is the operating speed of the pump), Serial 1237836, frame 204P, 24-12 Amps, 3 phase, F.38170. This motor was rebuilt from single phase by Daley Electric Company, Phoenix, Arizona, March, 1958

Peerless Hi-Lift pump - Pump unit (in bottom of well)
 Size 13, Serial R29000. Discharge head 6-B, 2"
 outlet. Column pipe - 2 1/2". Short, 1".

<u>Head data</u>	<u>Elevation</u>
Bottom of well	1325
Pump setting	1332
Water level (5-2-58)	1356
Ground level	1362
Bottom of storage tank	1905 (100,000 gal. tank)
Top of tank	1921
Total static head - 565 feet	

Total dynamic head at 20 gpm (approx.) 622
 (a considerable length of 2" pipe is involved)

Capacity

Actual: 20 gpm delivered to tank

Well No. 4

Location: NE 1/4, Sec. 17, T. 17 S., R 5 W

Drilled: Oct. & Nov. 1957 (water level 310 ft.)

Pump Setting: 365 feet.

Bottom of airline: 355 feet

Pump Installation

Engine - 4 cyl. gasoline, Waukesha Motor Co., Waukesha,
 Wisconsin, Model 1000, 5037H, No. 117572, (Plate
 on block) Model 100, 1800, 2 1/2 X 3-1/2, No.
 824316-116, Gov. sp. 2100 loaded - RPM. Brake
 horsepower at 2100 rpm - 15. Brake horsepower
 at 1800 rpm - 14. NOTE: pump is operated at
 1800 rpm.

Pump - Peerless Hi-Lift, Gear turbo Serial No. J1-9012
 03-1-1. Discharge head, Serial No. 92410, 2"
 outlet. Pump Unit - Model 14, Hi-Lift, Serial
 No. 113500, Part No. R20050. Column pipe is
 3", and 1".

<u>Head data</u>	<u>Elevation</u>
Bottom of Well	1232
Pump setting	1297
Water level (11-30-57)	1392
Ground level	1402 (approx.)
Bottom of storage tank	1905 (100,000 gal. tank)
Top of tank	1921
Total static head - 569 ft.	
Total dynamic head at 30 gpm (approx.) 634.8	
(a considerable length of 2" pipe is involved)	

Capacity

Actual: 30 gpm delivered to tank

I do not understand the "Design" heading used under Capacity and Head in the form sent with Mr. Miller's memorandum but perhaps someone there can determine what is required from the data we are furnishing.

Mr. Miller's memorandum quite properly points out that detailed information such as is included in this memorandum should be furnished on all completion reports. However, I am afraid that such reports have a tendency to become obsolete and consequently misleading, in a very short time and will never quite take the place of current area records. For instance; since completion of the pump installation on well No. 1 in 1954, the electric motor in that installation has been rewound to three phase and the size of the pump unit has been changed. Even since completion of the No. 4 installation in 1957, the construction of a new storage tank at a higher elevation has increased the head against both pumps. Work still to be accomplished this year will include increasing the size of the pump line to its intersection with the main, which will of course decrease the dynamic head.

If any additional information is needed please let us know.

James M. Eden
Superintendent

In duplicate

Copies to: D-5039
L-54
Water Rights Docket

start, saddle

South
well

Well No. 4 31° 56' 55" 112° 48' 13"

Location: NE $\frac{1}{4}$, Sec. 17, T.17 S., R 5 W

Drilled: Oct. & Nov. 1957 (water level 310 ft.) 12" casing

Pump Setting: 365 feet.

Bottom of airline: 355 feet

Pump Installation - REPLACED w/ 15 HP ELECTRIC MOTOR.

Engine - 4 cyl. gasoline, Waukesha Motor Co. Waukesha, Wisconsin,
Model 1CKU, 5037H, No. 117572, (Plate on block) Model 1CK, 158F,
2 $\frac{1}{2}$ X 3-1/8, No. 844316-516, Gov. sp. 2100 loaded - RPM. Brake horse-
power at 2100 rpm - 15. Brake horsepower at 1860 rpm. - 14, NOTE:
pump is operated at 1860 rpm.

Pump - Peerless Hi-life, Gear turbo Serial No. J1-9082 CB-1-1. Discharge
head, Serial No. 92418, 2" outlet. Pump unit - Model 44, Hi-Lift, Serial
No. R28966, Part No. V2665D, Column pipe is 3", shaft 1".

Head data

Elevation

Bottom of Well	1232
Pump setting	1297
Water level (11-30-57)	1352
Ground level	1662 (approx.)
Bottom of storage tank	1905 (100,000 gal. tank)
Top of tank	1921
Total static head - 569 ft. -	
Total dynamic head at 30 gpm (approx.) 634.8	
(a considerable length of 2" pipe is involved)	

(C-17-5) 17 a c b

Capacity

actual? 30 gpm delivered to tank

51.5 gpm

Signed
James M. Egan

Form 10-174
(Rev. 1/56)

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

REGION Three	AREA Organ Pipe Cactus National Monument	COUNTY Pima	STATE Arizona
PROJECT OR JOB TITLE Expansion of Water System, U-12-1 (Por.)			PCP NO. U-12-1 (Por.)
LOCATION IN AREA Headquarters Area		MASTER PLAN NO. NM-OPC-2025-C (sh. 1 of 2)	BUILDING NO.
WORKING DRAWING NO. AND TITLE Well Drilling - None NM-OPC-3013, Water & Sewer Systems, Res. Area			
APPROPRIATION TITLE AND SYMBOL 14-1035			ACCOUNT NO. 332.4
CONTRACT NO. 14-10-333-237 (Well Drilling)		DATE WORK STARTED August 6, 1957	DATE WORK COMPLETED May 7, 1958
NAME OF CONTRACTOR Henry Well Drilling		ADDRESS 4150 E. Washington, Phoenix, Arizona	

COST ANALYSIS

CONSTRUCTION ITEMS	QTY.	UNIT COST IN PLACE	TOTAL COST IN PLACE
Construction Contract - Drilling, casing & pump installation (see attached breakdown)	1 job		\$11,036.00
Supply Contract for pump parts			1,041.93
Day Labor (see attached breakdown)			
Supplies and materials			5,509.67
Other direct expenses			103.20
Personal services			2,031.24
Equipment depreciation			162.50
Facilitating services			263.00
		TOTAL	\$20,147.54

SUMMARY OF EXPENDITURES

PERSONAL SERVICES DL Por. \$2,031.24	EQUIPMENT DL-POR.	MATERIALS AND SUPPLIES DL-POR. \$ 6,518.60
OTHER ~~DL-POR.~~ \$11,597.70		

CHANGE ORDERS

ORIGINAL CONTRACT AMOUNT	FIRST	SECOND	THIRD
\$13,995.00	None		
FINAL CONTRACT AMOUNT	FOURTH	FIFTH	SIXTH
\$11,036.00			

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

SUBMITTED BY (Name and title) Donald S. Marley, Project Supervisor	DATE December 29, 1958
APPROVED BY (Name and title) James M. Eden, Superintendent	DATE December 29, 1958

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

Contract 14-10-333-237

Drill Well to accomodate 12" casing 430 lin. ft. @ \$15.00	6,450.00 ✓
Furnish, install and perforate 12" casing 428 lin. ft. @ \$8.25	3,531.00 ✓
Bailing test, 4 hours @ \$15.00	60.00 ✓
Develop well, 5 hours @ \$15.00	75.00 ✓
Install government-owned Peerless Hi-Lift pump. L. S.	810.00 ✓
Facilitating Services	<u>110.00</u> ✓
Total - Contract No. 14-10-333-237	\$11,036.00 ✓

Day Labor Portion Work Items

Well site work (ream and grout top 10' of bore, install pump block, connect pump to existing system)	215.20
Extension 6" main w/miscellaneous fittings (2,600 lin. ft. @ \$2.79)	6,164.91 /
Fire hydrants, 4 each @ \$191.00	764.00 /
Res. Services - 6 each (700 lin. ft.) @ \$154.25 each	925.50 /
Total day labor by park forces	\$8,069.61
Supply Contract for pump parts	<u>1,041.93</u>
Grand Total, day labor portion	\$9,111.54 /

Expansion of Water System, U-12-1 (For.)
Organ Pipe Cactus National Monument

As the first portion of this project during F. Y. 1958, the Henry Well Drilling Co., under Contract No. 14-10-333-237, drilled and cased a 12" well to 428'. This well, designated Well No. 4 for record purposes, was accepted from the Contractor on November 1, 1957.

As a part of the drilling contract, Henry Well Drilling installed the government owned Peerless Hi-lift pump that was furnished by the National Park Service. This pump had been secured as excess property from the Corps of Engineers and in order to fit it to the proposed application the purchase of additional column pipe, shafting, etc., was necessary. The unit is powered by a gasoline engine and delivers approximately 30 g.p.m. to the storage tank. A pre-tested length of 3/8" copper tubing was installed to serve as an air-line type water level measuring device.

Water supply mains and residence service lines were installed in the new residential area in accordance with Drawing No. NM-OPC-3013. Supply mains are 6" Ring-tite Transite with 4" Ring-tite branches to fire hydrants. House service lines to Residence Sites 18, 20, 24, 27, 23, and 25 are 1" copper tubing.

D-5039

Organ Pipe Cactus National Monument

December 21, 1957

AIR MAIL

Memorandum

To: Chief, Western Office, Division of Design and Const.
From: Superintendent, Organ Pipe Cactus
Subject: Water System Expansion, WUI2-1 (Per.), P. Y. 1958

The status of this project may now be reported as follows:

1. Well No. 4 drilled, cased, pump installed and test pumped. In this connection the pump installed was one already on hand but for which we purchased approximately \$1,000 worth of additional pipe, shaft sections, bearings, etc. to accommodate an increased depth setting. Total cost for this phase of the work was approximately \$11,926.
2. All ditches for expansion of the water distribution system in the residential area are completed. Cost approximately \$1,500.
3. Our Regional Property and Procurement Officer, Mr. Martinez, informed us by telephone on December 19 that Johns-Manville of San Francisco is low bidder for the Transite pipe, fittings, fire hydrants, etc. at a total figure of \$4,539.14. They promise 15 day delivery, which should put the materials on the job by January 6.
4. This leaves us a balance of approximately \$1,900 to install the pipe and backfill ditches. This amount is considered adequate.

The purpose of this memorandum is to assure you that we have every intention of completing this project and having water service lines to each residential site prior to beginning of construction of the residences. Mr. Lord of your office informs me that a tentative bid opening date of January 23 has been set for the housing construction.

James M. Edm
Superintendent

Copy to: Regional Director, Region Three

L54-L

December 5, 1957

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Section

Subject: Well No. 4, Docket 5, Headquarters Area, Organ Pipe Cactus

We have received the memoranda of November 19 and 25 from Mr. Canfield. Attached to the first were two copies of "Record of Well" (No. 4) on a copy of the form prepared some years ago by the Geological Survey. Attached to the second were two copies of the "Report of Well Driller".

With copies of this memorandum to the Superintendent and WDC, we are distributing six dividers for Organ Pipe Cactus Docket 5. The first should be placed just above the sketch map now at bottom of the assembly, and the divider "Part II", for Well No. 1 should be placed on top of that. We have no significant records for Well No. 1 at this time, although it is reported to be the one now in use. Parts III and IV should then be inserted over the records of Wells 2 and 3, respectively, above Part II.

We assume that you and the Superintendent have good copies of the "Record of Well (4)" and Well Driller's Report, of which Mr. Canfield forwarded copies on November 19 and 25, which should be placed above divider for Part IV, with the attached divider "Part V-Well 4" above. Part VI should be placed above the divider for Part V, with no intervening contents. I am leaving the old "Index" above divider for Part VI until we obtain more records.

We are sending copies of the Record of Well and Well Driller's Report to WDC for inclusion in its assembly of Docket 5.

On the folder for Docket 5, we are lettering in "Well No. 4" and "Priority November 1, 1957", under the similar data for Well No. 3.

As explained to Mr. Kell, while in Washington, sheet 1 of Drawing NM-OPC-2025C should be revised and prints should be supplied to replace the sketch in Part I of the four assemblies of Docket 5, and for the Geological Survey, as follows:

1. The dry well, No. 2, should be shown.

WESTERN OFF
DESIGN & CONSTR

DEC 9 1957

CHIEF
ADMIN. ASSIST.
PERSONNEL
PLANS & PROG.
SAFETY
ARCHITECT
ENGINEER
LAND. ARCH.
ACTION TAKEN-DATE

2. The projected section lines should be shown as accurately as possible.

3. Ground elevation should be given at each of the four wells. (Note that driller did not complete his report or answer question 16.)

It is disappointing to note in the "Record of Well (No. 4)" that no adequate pump test was made, particularly since this well has intercepted artesian water. No specification for well drilling should be issued without provision for such a test, with the driller to provide the necessary pump. The cost should ordinarily be included in the contract, whether the well is for "test" or "water supply" purposes. In this case we know the well now yields 30 gpm, and believe it might yield 100 gpm.

In part for water supply purposes, and in part for the pending appeal of the action of the State Land Commissioner on applications for appropriation of groundwater by the Gray Partnership, it is significant that we now have Well No. 4 under pressure, with water possibly subject to appropriation, that Wells 1 and 3 may also intercept the same underground channel with definable sides and bed, and that Well No. 2 is probably on higher ground and just not deep enough to determine whether the same source extends that far to the west of the center of the wash. There is also some question in my mind as to whether Well No. 1, or unpumped Well No. 2 may not be improperly cased and sealed to prevent seepage of water.

Although the driller's report does not make sense, and the Record of Well is not too clear, I assume that the casing of Well No. 4 was sealed just above the intercepted water, or that the driller is sure there is an impervious stratum thicker than the 20 feet that water rose in the well, and that there is also no chance for seepage in the lower 100 feet of the well. After we get surface elevations and all well locations we may have reason to justify plugging and reperforating several of the wells to preserve the source of supply.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Attachment

Copy to: ~~Superintendent~~, Organ Pipe Cactus, with dividers
✓ Chief, WDC, with dividers and copy of Record of Well and Well Driller's report

1958 - MAP 0140 (1432)

WR
Well #4

D-18 D

Organ Pipe Cactus National Monument

November 1, 1957

Air Mail

Memorandum

To: Regional Director, Region Three
From: Superintendent, Organ Pipe Cactus
Subject: Headquarters Utilities Master Plan Drawing No. NM-
CPC-2025-C.

We appreciate having Mr. Vint's telegram of October 30 advising that the above plan had been approved.

Since considerable concern has been expressed with regard to the adequacy of our water supply for the proposed headquarters development it is possible that Mr. Vint and other members of the Washington Office staff might be interested in the following very brief preliminary report on the progress of our new well:

The well entered the water strata at 330 feet and the water promptly raised in the hole to 310 feet. An open hole (without casing) was drilled to 430 feet. Casing was then set and driven to 425 feet. Our Peerless Hi-lift pump was installed by the drilling contractor. For the past 24 hours the well has been pumped continuously at the rate of 30 gallons per minute with no drawdown whatever. There is no question that the venture has been highly successful and it is quite likely that the additional proposed well shown on our Utilities Plans may not be needed.

Complete drilling logs, etc., will be furnished later.

/s/ James M. Eien
Superintendent

154-1

AUG 28 1957

Memorandum

To: Regional Director, Region Three
From: Acting Chief, Water Resources Section
Subject: Headquarters Wells, Docket 5, Organ Pipe Cactus

With copies of this memorandum, we are herewith distributing assemblies of the subject docket in accordance with our memorandum of August 1.

You will note that a water system plan is desired which does not have to conform with State Water Right requirements. It should, however, show control point T-2, mentioned in Mr. Elen's memorandum of July 17, the main water using facilities, and section lines. The latter should conform with those on item 1 of the Docket, and be designated as projected in unsurveyed land unless you have the basis for this or another subdivision.

SIGNED

Gordon W. Robertson
Acting Chief, Water Resources Section

Attachment

Copy to: Superintendent, Organ Pipe Cactus, w/c attachment
Chief, WDC (2), w/c attachment

WESTERN OFFICE	
DESIGN & CONSTRUCTION	
AUG 30 1957 A.M.	
CHIEF	
ADMIN. ASSIST.	
PERSONNEL	
PLANS & PROG.	
SAFETY	
ARCHITECT	
2 ENGINEER	112-5452
1 LAND. ARCH.	112-5452
3	112-5452
ACTION TAKEN-DATE	
none	

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AUG 3 1954
FILE
ADMINISTRATIVE
PERS. INFO
PLANS & PROG
SAFETY
ACRITIC
2 ENG. WSG/Y
FIND. ACCT.
1 - Brown
ACTION TAKEN - ON
how

Copy to: Superintendent, Organ Pipe, w/c attachment
Chief, WODC, w/c attachment

~~L-5h~~
~~(x) D-5039~~
COPY IN

Region Three
Santa Fe, New Mexico

JUL 23 1957

Memorandum

To: Director
From: Regional Chief of Operations
Subject: Plans and Specifications, Drilling of Water Well, Organ Pipe Cactus

In reply to Mr. Dunn's memorandum of July 11, there is attached a copy of Superintendent Eden's memorandum of July 17, which largely answers the questions raised in Mr. Dunn's memorandum of July 11.

Mr. Eden will be in the Regional Office the week of July 29 and the matter will be discussed with him during that time. Supplemental information will be supplied after the discussion, if it seems advisable.

(SIGNED)

David H. Canfield
Regional Chief of Operations

In duplicate

Attachment

Copy to: Supt., Organ Pipe Cactus
WODC, w/c Supt. Eden's memo ✓

WESTERN OFFICE	
DESIGN & CONSTRUCTION	
JUL 25 1957 A.M.	
CHIEF	
ADMIN. ASSIST.	
PERSONNEL	
PLANS & PROG.	
SAFETY	
ARCHITECT	
ENGINEER	mju
LAND. ACQ.	
ACTION TAKEN—DATE	
none	



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Organ Pipe Cactus National Monument

July 17, 1957

Memorandum

To: Regional Director, Region Three
From: Superintendent, Organ Pipe Cactus
Subject: Drilling of Water Well, Organ Pipe Cactus

SPC

Kell

We have received a copy of Mr. Dunn's memorandum of July 11 to you. The following will perhaps answer some of Mr. Dunn's questions:

1. Drilling of the new well does not entirely eliminate the possible need for test wells with NHP funds under Account 0140 (143.2). At least not until it has been completed and the yield determined. It is quite possible that Well No. 2 could be deepened as a test well.

2. Well No. 1, drilled about 1940, and for which there is no log, is located within a few feet of Bench Mark and control point T-2 as shown on Sheet No. 1, Drawing No. HM-GFC 2024, Topography, Headquarters Area, Organ Pipe Cactus National Monument. Well No. 2, drilled in 1953-54, on which a detailed log is available, is situated approximately 3,000 feet south of T-2. Well No. 3, on which bids are now being taken, will be located approximately 500 feet south of Well No. 1.

3. Whether Well No. 3 will be a supplemental well or a replacement well is a distinction that will be established by the success of the venture. At this point I prefer to think of it as a supplemental well.

4. We will see that copies of all pertinent documents relating to the drilling operation and test pumping are furnished to Mr. Dunn. We have copies of the Record of Well forms and will see that they are executed in addition to those required by the State.

James M. Egan
Superintendent

In duplicate

WESTERN OFFICE	
DESIGN & CONSTRUCTION	
MAY 28 1956 A.M.	
CHIEF	
ADMIN. ASSIST.	
PERSONNEL	
PLANS & PROG.	
SAFETY	
ARCHITECT	
ENGINEER	
LAND. ARCH.	
Memorandum	
To:	Director
From:	Assistant Regional Director
ACTION TAKEN - DATE	
None	

In reply refer to:
L54

Conroy

Region Three
Santa Fe, New Mexico

May 23, 1956

Subject: Water Resources and Water Right Funds for Investigations,
Account 347, Organ Pipe Cactus National Monument

The last time Superintendent Eden was in the Regional Office he discussed his diminishing water supply and the need for either deepening the present well or finding a new source of water for the headquarters area. It is our understanding that the present well is a 6" casing and the depth is 345 feet, with a 2½ or 3" column pipe to the Peerless Pump. Mr. Eden reports that the Peerless Pump representatives recommend that the pump should be set in not less than 100 feet of water. Because of the small size of the original well it is impractical or impossible to deepen the well by drilling inside the present casing and going deeper.

We have attached a copy of Mr. Eden's memorandum of May 18 and would like your advice regarding assistance from Mr. Heindel of the Groundwater Branch, U. S. Geological Survey in Tucson. The actual drilling or new construction should, of course, come from regular B.& U. Construction funds. However, the investigation studies for a proper source of supply could, we think, properly be charged to Account 347 if there are any funds available. Mr. Kell is in the process of revising the Region Three program based on allotments made to us to date and adjusting priorities of work to be accomplished before June 30. We may be able to furnish some of the estimated \$1,200 from 347 funds already allotted to this office but will be unable to finance the entire \$1,200. Please advise if you can furnish an additional amount to assist us in this work.

(SGD) HARTON L. BILL

Harton L. Bill
Assistant Regional Director

In duplicate
Attachment

Copy to: Chief, Western Office of Design and Construction
Supt., Organ Pipe Cactus

Maps and Miscellaneous Information

Number of Documents in Docket	43		
Documents Dated from	5/23/1956	to	6/3/1982
Docket Compiled:	6/3/2011		