

MICROFILMED

WELL DRILLER REPORT

This report should be prepared by the driller in all detail and filed with the Department within 30 days following completion of the well.

1. Owner HOWARD NEEDLES TAMMEN & BERGENDOFF
Name
9200 WARD PARKWAY KANSAS CITY MISSOURI 64141
Address

2. Lessee or Operator _____
Name
Address

3. Driller Sergent, Hauskins & Beckwith - Ralph E. Weeks
Name
3940 West Clarendon Avenue, Phoenix, Arizona 85019
Address

4. Location of well: T1N, R3E, Sec. 18, SE $\frac{1}{4}$, SW $\frac{1}{4}$, NE $\frac{1}{4}$ (Adjusted Location)

5. Permit No. 319
(if issued)

DESCRIPTION OF WELL

6. Total depth of hole 100 ft.

7. Type of Casing Steel & PVC

8. Diameter and length of casing 4 in. from 0 to 20', 2 in. to 100'.

9. Method of sealing at reduction points Steel surface casing grouted

10. Perforated from 70' to 100', from _____ to _____, from _____ to _____

11. Size of cuts 0.2' long, 0.03" wide Number of cuts per foot 2

12. If screen was installed: Length None ft. Diam _____ in. Type _____

13. Method of construction Drilled, Air
drilled, dug, driven, bored, jetted, etc.

14. Date started 1 28 83
Month day year

15. Date completed 1 28 83
Month day year

16. Depth to water 56.5 ft. (If flowing well, so state.)

17. Describe point from which depth measurements were made, and give sea-level elevation if available. Ground surface elevation = 1064.1'

18. If flowing well, state method of flow regulation _____

19. REMARKS: 4" steel casing was grouted
and extends above ground surface
1.5 feet. 2" PVC pipe extends
above ground 1.0 feet. Sand and
gravel was used as backfill below
the grouted surface casing.



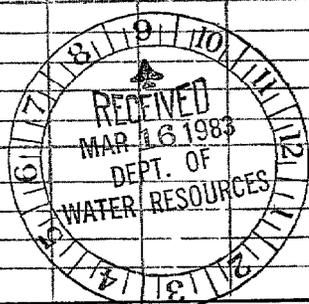
DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Registration No. 55-504686
Received _____ By _____
Entered 3-16-83 By _____
File No. A(1-3)18caa

PROJECT West Papago/Inner Loop Offsite Drainage Study
 JOB NO. E83-11 DATE 1-28-83

LOG OF TEST BORING NO. 3

RIG TYPE Becker Hammer Drill
 BORING TYPE 6 5/8" O.D. Pipe
 SURFACE ELEV. 1064.1'
 DATUM ADOT

Depth in Feet	Blows Per Foot	Graphical Log	Sample	Sample Type	Blows per foot 140 lb. 30" free-fall drop hammer	Dry Density Lbs. per cu. ft.	Moisture Content Per Cent of Dry Wt.	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
0	5	[Diagonal hatching]							slightly moist	SANDY CLAY, weakly to moderately lime cemented, low plasticity, brown to light brown
	6									
	12									
	22							CL		
	40									
5	44									
	34									
	24	[Circular pattern]							slightly moist	CLAYEY SAND, predominantly fine grained, moderately lime cemented, low plasticity, brown
	25									
	31							SC		
10	38									
	33									
	44		⊗ A							
	52									
15	32								slightly moist to moist	RIVER-RUN (SGC) SAND, GRAVEL & COBBLES, poorly graded, non-plastic, brown
	44									
	36									
	51									
	60									
	65									
20	52		⊗ A							
	130									
	70									
	57									
25	56									
	102									
	75									
	79									
	59									
30	60		⊗ A							
	50							GP		
	22									
	23									
	32									
35	48									
	107									
	82									
	98		⊗ A							
	165									
40	96									
	86									
	99									
	85									
	159									
45	100		⊗ A							
	90									
	113									
	125									
	115									
50	95									



note: sand lens at 31' to 33', some silt & trace of clay at 45' to 54'

REW

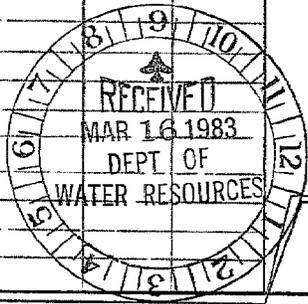
DEPTH	HOUR	DATE
56.5'	5:10p	1-28
55.4'	2:30p	2-8

SAMPLE TYPE
 A - Auger cuttings. B - Block sample
 S - 2" O.D. 1.38" I.D. tube sample.
 U - 3" O.D. 2.42" I.D. tube sample.
 T - 2" O.D. 1.38" I.D. Shelby tube

SERGEANT, HAUSKINS & BECKWITH
 CONSULTING GEOTECHNICAL ENGINEERS
 PHOENIX • ALBUQUERQUE • SANTA FE • SALT LAKE CITY

Depth in Feet	Blows Per Foot	Graphical Log	Sample	Sample Type	Blows per foot 140 lb. 30" free-fall drop hammer	Dry Density Lbs. per cu. ft.	Moisture Content Per Cent of Dry Wt.	Unified Soil Classification	REMARKS	VISUAL CLASSIFICATION
50	122								moist to saturated	note: cleaner at 54' to 62'
55	70									
55	74									
55	87									
55	57									
55	154									
55	107									
55	114									
55	82									
60	97									
60	133		⊗ A							
60	95									
60	95									
60	105									
65	166									
65	130									
65	104									
65	160									
65	196									
70	106									
70	268									
70	85									
70	90									
70	74									
75	46							GP		
75	57									
75	46									
75	35		⊗ A							
75	79									
80	121									
80	107									
80	58									
80	77									
80	74									
85	88									
85	74									
85	79									
85	199									
85	227									
90	170									
90	148		⊗ A							
90	120									
90	67									
90	87									
95	134									
95	84									
95	72									
95	88									
95	65									
100	78									

RECEIVED
 MAR 16 1983
 DEPT OF
 WATER RESOURCES



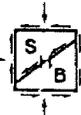
REW

note: set 2" PVC at 100', lower 30' slotted

Stopped hammer at 100'

GROUND WATER		
DEPTH	HOUR	DATE

SAMPLE TYPE
 A - Auger cuttings. B - Block sample
 S - 2" O.D. 1.38" I.D. tube sample.
 U - 3" O.D. 2.42" I.D. tube sample.
 T - 3" O.D. thin walled Shelby tube.



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 CONSULTING GEOTECHNICAL ENGINEERS
 PHOENIX • ALBUQUERQUE • SANTA FE • SALT LAKE CITY

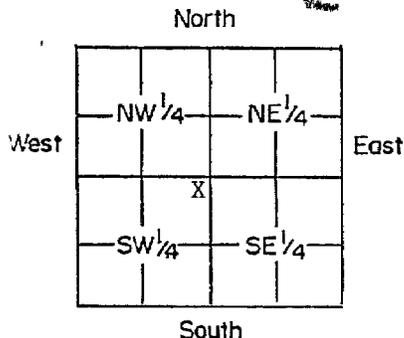
EXEMPT WELL
FILING FEE: \$10.00

DEPARTMENT OF WATER RESOURCES
NOTICE OF INTENTION TO DRILL OR DEEPEN
AN EXEMPT WELL

EXEMPT WELL

Section 45-596, Arizona Revised Statutes, provides that no person may not drill or cause to be drilled any well or deepen or replace an existing well without first filing a Notice of Intention to Drill with the Department on a form prescribed and furnished by the Department. The well shall be completed within one year after the date of filing. An exempt well means a well having a pump with maximum design capacity of not more than 35 gallons per minute which is used to withdraw groundwater. An exempt well may include the non-commercial irrigation of less than 2 acres of land.

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- Indicate Well Location by X
(Above diagram represents one
640 acre section)

WELL/LAND LOCATION:

1. Township T1N
2. Range R3E
3. Section 18
4. SE SW NE SW NE SW
10 acre sub-division
County Maricopa

Owner of Well:
Howard Needles Tammen & Bergendoff
Address
9200 Ward Parkway
Kansas City, Missouri 64141
City State Zip
Owner of Land:
State of Arizona
Department of Transportation
Address
206 South 17th Avenue
Phoenix, Arizona 85007
City State Zip

DESCRIPTION OF WELL:

8. Diameter 6"
Depth 100'
9. Type of Casing 2" PVC
& 4" Steel Surface Casing
10. Principal use of Water.
Monitoring only.

PLACE OF USE:

13. Township _____
14. Range _____
15. Section _____
16. Legal description of land
water is to be used on:

11. Other uses Intended

None
(If for non-commercial irrigation, state approximate area being cultivated.)

17. Design Pump Capacity

None

18. Action Requested:

Drill X
Deepen _____
Replace _____

19. This notice filed by:

Owner _____
Lessee _____
Driller X

12. Construction will start
about:
January 1983
Month Year

07
DO NOT WRITE IN THIS SPACE
OFFICE RECORD **ACD**
FILE NO A(1-3)18
FILED 1-21-83 BY EK
INPUT 1-26-83 BY u
DUPLICATE MAILED 1-24-83 BY EK
REGISTRATION NO 55-504686
AMA NON EXPANSION AREA PRF

Sergeant, Hauskins & Beckwith
Name
3940 West Clarendon
Address
Phoenix, Arizona 85019
City State Zip
20. Drillers Name:
Ralph E. Weeks
Sergeant, Hauskins & Beckwith
Name
3940 West Clarendon
Address
Phoenix, Arizona 85019
City State Zip
319
Department License Number

. Fill out this form in duplicate and mail to P.O. Box 2600, Phoenix, Arizona, 85002, or deliver to 99 East Virginia, Suite 100, Phoenix, Arizona 85004.
. If the Exempt Well is in fact a replacement (or deepening) well, state the registration number of the existing well.
. Construction standards for new and replacement wells and the deepening and abandonment of existing wells, shall be in accordance with Department Rules and Regulations.
. Norman H. Wetz, P.E., state that the construction will be under the direct and personal supervision of the well driller designated on this form and that the designated driller holds contractors license pursuant to ARS 45-595.

January 21, 1983
Date

Norman H. Wetz
Signature of Person Filing

WELL REGISTRATION NO. 55-504686

FILE (LOCATION) NO. A(1-3) 18CAA

DEPARTMENT OF WATER RESOURCES

15 South 15th Avenue
Phoenix, Arizona 85007

WARNING

CHANGE OF WELL INFORMATION

I request the following information be changed against the referenced well registration number: _____

**Change legal per
SE SW NE Completion Report to
S/B A(1-3) 18 ACD**

Date _____, 19 _____

Signature of Well Owner _____

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, _____, state that I am (no longer) the (new) owner of the well described below:

Township _____ Range _____ Section _____, _____

Registration #55- _____ File No. _____

ENTERED JAN 19 1990

Previous Owner _____

New Owner (PRINT NAME) _____

New Owner (SIGNATURE) _____

Address _____

Address _____

City _____ State _____ Zip _____

City _____ State _____ Zip _____

NOTE: ARS §45-593 requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within 30 days after changes take place.

NOTE: SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP OR WELL DATA SUCH AS PUMP CAPACITY, ETC.

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CHANGE OF WELL INFORMATION

Well Reg. No. 504686
File (location) No. A(1-3)18ACD

SEP 20 1990

I/we request the following well information be changed:

Date: _____, 19 _____
Signature of current Well Owner

(DO NOT CUT THIS FORM IN HALF)

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, THOMAS R. WARNE, state that I am (~~no longer~~) the (new)
(please print)
owner of the well described below:

Township 1N Range 3E Section 18; SE 1/4 SE 1/4 NE 1/4

Well Registration No. 55-504686 File (location) No. A01003018CAA

Tammen & Bergendoff
Previous Owner

ADOT
PRINT New Owner's Name

9200 Ward Parkway
Address

[Signature]
Signature of New Owner

Kansas City, MO 64141
City State Zip

2140 West Hilton Avenue
Address

DATED: _____

Phoenix AZ 85009
City State Zip

NOTE: A.R.S. §45-593.C. requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within thirty (30) days after changes take place.

SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP, CHANGES IN ADDRESS, OR CHANGE IN WELL DATA SUCH AS PUMP CAPACITY, CORRECTION OF LEGAL DESCRIPTION, CHANGE OF WELL DRILLER, PRIOR TO DRILLING THE WELL, IN ADDITION TO AMENDING INFORMATION PREVIOUSLY FILED.

* * * * *

ENTERED OCT 12 1990

MICROFILMED

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004



Registration No. 55-504686
Owner of
Well Site H NEEDLES TAMMEN & BERGENDOFF
File No. A(1-3)18caa

COMPLETION REPORT

1. Completion Report to be filed with the Department within 30 days after installation of pump equipment.
2. The tested pumping capacity of the well in gallons per minute for a non-flowing well should be determined by measuring the discharge of the pump after continuous operation for at least 4 hours and for a flowing well by measuring the natural flow at the land surface.
3. Drawdown of the water level for a non-flowing well should be measured in feet after not less than 4 hours of continuous operation and while still in operation and for a flowing well the shut-in pressure should be measured in feet above the land or in pounds per square inch at the land surface.
4. The static groundwater level should be measured in feet from the land surface immediately prior to the well capacity test.

LOCATION OF THE WELL

T1N, R3E, Sec. 18; SE $\frac{1}{4}$, SW $\frac{1}{4}$, NE $\frac{1}{4}$. Note: Adjustment of location as shown on exempt well card.

Date Well Completed 1-28-83 Depth of Well 100'

1. Well Test:
Test Pumping Capacity Not Tested Date Well Tested _____
(Gal. per min.)

Method of Discharge Measurement _____
(weir, orifice, current meter, etc.)

Static Groundwater Level _____ ft. Drawdown _____ ft.

Total Pumping Lift _____ ft. Drawdown _____ lbs.
(Flowing Well)

2. Equipment Installed:

Kind of Pump None
(turbine, centrifugal, etc.)

Kind of Power _____ H.P. Rating of Motor _____
(Elec., Nat. Gas, Etc.)

I HEREBY CERTIFY that the above statements are true to the best of my knowledge and belief.

RE Wink
Signature
3940 West Clarendon Avenue
Address

March 14, 1983
Date

Phoenix Arizona 85019
City State Zip

State of Arizona
DEPARTMENT OF WATER RESOURCES

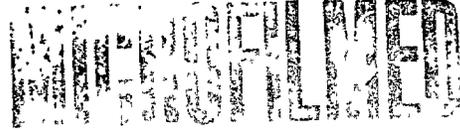
99 E Virginia Avenue, Phoenix, Arizona 85004



1/24/83

BRUCE BABBITT, Governor
WESLEY E. STEINER, Director

HOWARD NEEDLES TAMMEN & BERGENDOFF
9200 WARD PARKWAY
KANSAS CITY MISSOURI 64141



File No. A(1-3)8cdd A(1-3)17dbb A(1-3)5dcc
A(1-3)18caa A(1-3)7cad A(1-3)7abb
Registration No. 55-504683 55-504684 55-504685
55-504686 55-504687 55-504688

Dear Well Owner:

Enclosed for your records is a copy of the Notice of Intention to drill a well which you recently filed with this Department. This is returned as evidence of your compliance with ARS 45-596. Your driller has been mailed separately a Well Drilling Card, Well Drilling Report form and a Completion Report form.

In the event that you determine it necessary to change the location of the proposed well, you should obtain the written permission of the Department of Water Resources before proceeding with the drilling. A properly signed amended drilling card must be in the possession of the driller before drilling commences at a different location than originally authorized.

ARS 45-600 requires the driller to furnish this Department a complete and accurate log of the well within 30 days after completion of drilling and a Completion Report within 30 days after the installation of pumping equipment. You should insist and ensure that this is done.

For your future use, a Change of Well Information form is enclosed should it become needed. Per ARS 45-593, the person to whom a well is registered shall notify this Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep the well registration file current and accurate.

Very truly yours,


Richard A. Gessner
Chief, Operations Branch

RAG :ek
Enclosures

Think Conservation!

Office of Director 255 1554

Administration 255 1550, Water Resources and Flood Control Planning 255 1566, Dam Safety 255 1541,
Flood Warning Office 255 1548, Water Rights Administration 255 1581, Hydrology 255 1586.

MICROFILMED

STREET BALANCE & DEPOSIT
 31401 CLAYTON AVE
 PHOENIX AZ 85018

STATE OF ARIZONA
 DEPARTMENT OF WATER RESOURCES
 WATER RIGHTS ADMINISTRATION
 99 EAST VIRGINIA
 PHOENIX, ARIZONA 85004

HOWARD NEEDLES TAMEN & BERGENDOFF

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
55	504683
	THRU
55	504688

ACCOUNT NO.				INT. ACCT.	ITEM DESCRIPTION	RATE	\$ AMOUNT
FUND SOURCE	AGENCY	CHAPTER	DIV.				
					FILING FEE FOR NOTICE OF INTENTION TO DRILL	60.00	60.00
					(6) Exempt Wells		
					FILE#A(1-3); 17dbb Reg#55-504683	GUESTS	4
					A(1-3) 56cc Reg#55-504684	CH# 43	41185
					A(1-3) 56cc Reg#55-504685	50%	60.00
					A(1-3) 18cc Reg#55-504686	TAX	0.00
					A(1-3) 7ccad Reg#55-504687	TOTAL	60.00
					A(1-3) 7ald Reg#55-504688	GEN. CHG.	60.00
					CHECK# 41185	5000	1000

1/24, S3/ek

TOTAL \$ 60.00