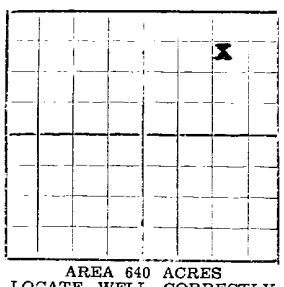
DUPLICATE

Form SG 108

N.



AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO STATE LAND OFFICE
SANTA FE, NEW MEXICO

DEPARTMENT OF THE STATE GEOLOGIST

WELL RECORD

Mail to State Geologist, Santa Fe, New Mexico, not more than ten days after completion of well. Indicate questionable data by following it with (?). Submit in duplicate.

Company Tide Water Oil Company Address Tulsa, Oklahoma

Send correspondence to F. Schneider Address Drawer "KK" Hobbs, New Mexico

Boone Hardin Well No. 4 in NE¼ of Sec. 19, T. 18s,

R. 38e, N. M. P. M., Hobbs Oil Field Lea County.

If State land the oil and gas lease is No. Assignment No.

If patented land the owner is Boone Hardin Address 1st, Nat'l Bank Seminole, Texas

The lessee is Tide Water Oil Company Address Tulsa, Okla

If not state or patented land, give status

Drilling commenced Dec. 18th, 1932 19 Drilling was completed Feb. 12th, 1933 19

Name of drilling contractor Moran Drilling Company, Address Wichata Falls, Texas

Elevation above sea level at top of casing 3660 feet.

The information given is to be kept confidential until 19

OIL SANDS OR ZONES

No. 1, from 4035' to 4227' No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from 90 to 109 No. 3, from to

No. 2, from [illegible] to [illegible] No. 4, from to

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
12½	50#	8	LW	214'3"	TP				Surface Pipe
7"OD	36#	10 8mls St		3966 ~~XXXX~~	Larkin Float				Oil String
		Shoe and 5 bottom joints are spot welded							
3"	9.3#	10	W.I.	4239'10"					Tubing

MUDDING AND CEMENTING RECORD

SIZE	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
12½	226	200-sax Encor	Haliburton	11#	Hole full
7"OD	3966	700-sax "	"	"	" "

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth Set

Adapters—Material Size

SHOOTING RECORD

SIZE	SHELL USED	EXPLOSIVE USED	QUANTITY	DATE	DEPTH SHOT	DEPTH CLEANED OUT

TOOLS USED

Rotary tools were used from 0 feet to 4231 feet, and from feet to feet

Cable tools were used from feet to feet, and from feet to feet

PRODUCTION

Put to producing Feb. 16th, 1933 19.

The production of the first 24 hours was 12,765 barrels of fluid of which 95 % was oil; 5 % emulsion; % water; and % sediment. Gravity, Be 36

If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in.

EMPLOYES

Elmer Haven, Driller Claud Watkins, Driller

Slim Giles, Driller , Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 21st day of Feb, 1933 Name F. Schneider

Postion Production Superintendent

FORMATION RECORD

FROM	TO	THICKNESS IN FEET	FORMATION
0	24		Caliche
24	30		Flint rock
30	90		Caliche & sand
90	109		Sand - water
109	118		Lime
118	140		Broken lime
140	212		Sand - water
212	225		Lime 12½" casing cemented at 226'
225	460		Red rock W/ 200-sax
460	480		Sandy lime
480	638		~~XXXXXXXXXXXXXXXX~~ Shale
638	793		Red bed & Shells
793	1023		Red bed
1023	1263		Redbed & hard shells
1263	1295		Hard sand
1295	1443		Red bed & shells
1443	1467		Broken lime
1467	1545		Sandy lime
1545	1650		Anhydrite - hard
1650	1705		Broken anhydrite
1705	2698		Salt
2698	2731		Anhydrite
2731	2793		White lime
2793	2896		Anhydrite
2896	2954		~~XXXXXXXXXXXXXXXX~~ Broken lime
2954	2996		Lime & anhydrite
2996	3063		Anhydrite
3063	3072		Lime
3072	3238		Anhydrite
3238	3260		Gyp & anhydrite
3260	~~XX~~3273		Salt & anhydrite
3273	3317		Anhydrite
3317	3377		Shale & anhydrite
3377	3565		Anhydrite
3565	3596		Broken Lime
3596	3640		Anhydrite 7" OD casing cemented at 3966'
3640	3697		Lime - hard W/ 700-sax
3697	3789		Sand & lime
3789	4064		Lime First pay - 4035'
4064	4103		Broken lime
4103	4128		Soft Brown Lime - Best pay.
4128	4138		Lime - hard
4138	4163		Broken lime
4163	4210		Lime
4210	4227		Soft Brown Lime - Best pay
4227	4231		Hard White Lime - Total depth.

FORM SG 101

V MEXICO STATE LAND OFFIC

Santa Fe, New Mexico

DEPARTMENT OF THE STATE GEOLOGIST

NOTICE OF INTENTION TO DRILL NEW WELL

Notice must be given to the State Geologist or to the proper Oil and Gas Inspector and approval obtained before drilling begins. If changes in the proposed plan are considered advisable a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval.

Hobbs, N. Mex., 11-26, 1932

Mr. E.H.Wells, State Geologist.

Dear Sir: You are hereby notified that it is our intention to commence the drilling of a well to be known as Boone Hardin "A" Well No. 4 in NE¼ of Sec. 19 T. 18s, R. 38e, N. M. P. M., Hobbs Oil Field Lea County

N.

AREA 640 ACRES
LOCATE WELL CORRECTLY

The well is 1700 feet (N.) (S.) of North line and 1300 feet (E.) (W.) of East line of Section 19-18-38

(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No.

Assignment No.

If patented land the owner is Boone Hardin

Address Seminole, Texas

The lessee is Tidal Oil Company Address Box 751, Tulsa, Okla.

The elevation of the derrick floor above sea level is 3660 feet. We propose to drill well with No. Rotary
Make of Drill

We propose to use the following strings of casing and to land or cement them as indicated.

Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented
12-1/2"	50#	S.H.	250'	Cemented W/ 200-sks.
9-5/8"	36#	New	2700'	Cemented W/ 600-sks.
7" OD	24#	New	3800'	Cemented W/ 300-sks.

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 3800' feet.

Additional information:

7" casing will be set at 3800', or as much deeper as found necessary when well is drilled.

Approved Nov 28, 1932
Except as follows:

State ~~Geologist~~ or Oil and Gas Inspector.

T. A. Blanchard

Sincerely yours,

TIDAL OIL COMPANY
Company or Operator.

By F. Schneider

Position Production Superintendent

Send communication regarding well to

Name F. Schneider

Address Drawer "KK", Hobbs, N. M.

FORM SG 106

2

NEW MEXICO STATE LAND OFFICE
OFFICE OF THE STATE GEOLOGIST
SANTA FE, NEW MEXICO

MISCELLANEOUS REPORTS ON WELLS

Submit this report in duplicate to the State Geologist or proper Oil and Gas Inspector within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of water shut-off, result of abandonment of well, and other important operations, even though the work was witnessed by the State Geologist or Oil and Gas Inspector. Reports on minor operations need not be signed and sworn to before a notary public, but such operations should be witnessed by an Oil and Gas Inspector if possible.

Indicate nature of report by checking below:

REPORT ON BEGINNING DRILLING OPERATIONS	XX	REPORT ON DEEPENING WELL	
REPORT ON RESULT OF SHOOTING WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF		REPORT ON REPAIRING WELL	
REPORT ON RESULT OF ABANDONMENT OF WELL			

Hobbs, [illegible] 7/6/32
PLACE DATE

Mr. [illegible] State Geologist,
Santa Fe, N. Mex.

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water Oil Company Bowers Unit Well No. 4 in the
COMPANY OR OPERATOR LEASE
[illegible] of Sec. 19, T. 18S, R. 37E, N. M. P. M.,
Hobbs Oil Field, Lea County.

The dates of this work were as follows: December 14th, 1932

Notice of intention to do the work was (was not) submitted on Form SG 101 on Nov. 18th, 1932, and approval of the proposed plan was (was not) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Began [illegible] on December 14th, 1932.

DUPLICATE

Subscribed and sworn to before me this 16 day of March, 1933.

Mary Frances Beal
NOTARY PUBLIC.

My commission expires 6/10/34.

I hereby swear or affirm that the information given above is true and correct.

Name F. Schneider P. L.
Position Production Superintendent
Representing Tide Water Oil Company
COMPANY OR OPERATOR.
Address Hobbs, New Mexico

Remarks:

[illegible]
NAME TITLE

[illegible]

Form S.G.103

NEW MEXICO STATE LAND OFFICE
Santa Fe, New Mexico

DEPARTMENT OF THE STATE GEOLOGIST

NOTICE OF TEST OF WATER SHUT-OFF

Notice must be given to the State Geologist or to the proper Oil and Gas Inspector at least five days before the test. It is desirable that a representative of the Department of the State Geologist witness the water shut-off before drilling into the productive sand whenever possible. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to sender. Submit this notice in duplicate.

Hobbs N. Mex., 12-21 19 32

Mr. E.M.Wells

State Geologist,
Santa Fe, New Mexico.

Dear Sir:

You are hereby notified that we intend to test the shut-off of water in Boone Harrin Well No. 4 in NE¼ of Sec. 19, T. 18s, R. 38e, N. M. P. M., Hobbs Oil Field Lea County, on Dec. 23 19 32 12½" 50# lb. casing was { ~~landed~~ cemented } in Red Bed formation at a depth of 226 feet on Dec. 21 19 32 200 sacks of Enoor cement were used.

The method used in placing the cement was as follows: Haliburton Process

Fluid level will be bailed to a depth of Dry feet and left undisturbed for at least 12 hours before your inspection.

Adjacent property owners have been notified as follows: Skelly Oil Company Gypsy Oil Company

Additional information:

Approved Dec 23 19 32

Except as follows:

T. A. Dondy
State ~~Geologist~~ or Oil and Gas Inspector.

Sincerely yours,
Tidal Oil Co.
Company or Operator.
By F. Schneider by Floyd Faul
Position Production Superintendent
Send communication regarding well to
Name Box C
Address Lease "KK" Hobbs-N.M.

FORM SG 106

2

NEW MEXICO STATE LAND OFFICE
OFFICE OF THE STATE GEOLOGIST
SANTA FE, NEW MEXICO

MISCELLANEOUS REPORTS ON WELLS

Submit this report in duplicate to the State Geologist or proper Oil and Gas Inspector within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of water shut-off, result of abandonment of well, and other important operations, even though the work was witnessed by the State Geologist or Oil and Gas Inspector. Reports on minor operations need not be signed and sworn to before a notary public, but such operations should be witnessed by an Oil and Gas Inspector if possible.

Indicate nature of report by checking below:

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF SHOOTING WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF	XX	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF ABANDONMENT OF WELL			

Hobbs, New Mexico (PLACE) 12/25/32 (DATE)

Mr. E. H. Wells State Geologist,

Santa Fe, N. Mex.

Following is a report on the work done and the results obtained under the heading noted above at the Tidal Oil Company (COMPANY OR OPERATOR) Boone Hardin (LEASE) Well No. 4 in the NE¼ of Sec. 19, T. 18s, R. 38e, N. M. P. M., Hobbs Oil Field, Lea County.

The dates of this work were as follows: December 21, 1932

Notice of intention to do the work was (~~XXXXXX~~) submitted on Form SG 103 on December 21, 1932, and approval of the proposed plan was (~~XXXXXX~~) obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Drilled plug and two feet of new hole and have satisfactory shut off.

Subscribed and sworn to before me this 26 day of December, 1932.

Mary Frances Beal (NOTARY PUBLIC.)

My commission expires June 10-34.

I hereby swear or affirm that the information given above is true and correct.

Name Frank Schnicke

Position Production Superintendent

Representing Tidal Oil Company (COMPANY OR OPERATOR.)

Address Drawer "KK" Hobbs, New Mexico

Remarks:

T. A. Blanchard (NAME) (TITLE)

FORM 3418

TIDE WATER COMPANIES

SUBJECT: Boone Hardin Well # 4

TO: Mr. J. D. Hunter
ATTENTION:
COPIES TO:

FROM: Hobbs Office

DATE: January 6th, 1933

Dear Sir:

In regard to our conversation of this morning regarding Boone Hardin Well # 4, and Gypsy Oil Company's Hardin # 2. In checking the formation on the two wells they run close together as far as we have gone. Top of anhydrite on our Hardin # 4 is 1545', and on Gypsy's well is 1580'. Top of salt on our well is 1705', and on Gypsy's well is 1700'.

If the Gypsy has success in cementing their pipe, we would like to have your permission to complete our well the same as they have theirs. We will core through the Bowers sand, and should we get any showing of oil or gas, we will run the 9-5/8" casing, if not, we would like to leave this string of casing out and set the7" on top of the lower pay and cement with 900-sax of cement.

Very truly yours,

F. Schneider

LL

DEPARTMENT OF THE STATE GEOLOGIST

STATE LAND OFFICE

SANTA FE, NEW MEXICO

MISCELLANEOUS REPORTS ON WELLS

Reports should be made within ten days of completing the work indicated and should be submitted in duplicate.

Indicate nature of report by checking.

Notice of intention to drill	Subsequent record of shooting
Notice of intention to change plans XX	Notice of intention to pull or otherwise alter casing
Notice of date for test of water shut-off	Notice of intention to abandon well
Report on result of test of water shut-off	Supplementary well history
Notice of intention to re-drill or repair well	Monthly report of operations
Notice of intention to shoot	

Mr. E. H. Wells, State Geologist, Santa Fe, New Mexico. Hobbs, N. Mex. 1/27/33

Following is a report giving the results of work done as indicated above at Boone Hardin Well No. 4 in NE¼ of Sec. 19 T. 18s R. 38e, N.M.P.M., Hobbs Oil Field Lea County.

DETAILS

State names of and expected depths to objective sands or producing horizon; show sizes, weights, and lengths of casing run or proposed; indicating mudding jobs, cementing points, water horizon, number of days operated, and total depth at end of month, and other important information.

As no oil or gas were found in upper oil & gas horizons in Boone Hardin # 4, we wish your approval of running only one string of (7" OD) casing and cementing just above lower pay with 700-sax of cement. Brown lime was tested for gas by Haliburton drill stem test, with packer set at 2880 and total depth of 3067'. Cored for Bowers sand from 3260' to 3273' — 3297' to 3302' and 3327 to 3340'

DUPLICATE

Approved 2-2-33 (Date)

J. O. Hunter (Name)

Title State Oil & Gas Insp.

Address

Company TIDE WATER OIL COMPANY

By F. Schneider

Title PRODUCTION SUPERINTENDENT

Address DRAWER "KK" HOBBS, N. M.

Hobbs, New Mexico
January 27th, 1933

Mr. J. D. Hunter,
Carlsbad, New Mexico

Dear Sir:

Attached is change of casing plans report on Boone Hardin # 4. Original and first copy for your files, second and third copies to be approved and returned to,

F. Schmidt

TIDE WATER OIL COMPANY
DRAWER "KK"
HOBBS, NEW MEXICO

LL

Tidal Hardin #4; Drilling 12½" hole to 2788'. Reduced to 8-1/8" at that depth and Plan on setting 7" O. D. for oil string. With 700 Sks.

TIDAL Hardin #4: HALLIBURTON TEST: Set wall packer 183' off bottom of 3067' or 2884' and tested for the gas from that depth to the bottom of the hole. Left the tested open for 8 min. and no gas was present. Unable to detect any gas. Fluid did not lower any in the hole when the tester was opened.

Form: S.G.103

NEW MEXICO STATE LAND OFFICE
Santa Fe, New Mexico

DEPARTMENT OF THE STATE GEOLOGIST

NOTICE OF TEST OF WATER SHUT-OFF

Notice must be given to the State Geologist or to the proper Oil and Gas Inspector at least five days before the test. It is desirable that a representative of the Department of the State Geologist witness the water shut-off before drilling into the productive sand whenever possible. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to sender. Submit this notice in duplicate.

Hobbs N. Mex., Feb. 2. 19 1933

Mr. E.H.Wells

State Geologist,
Santa Fe, New Mexico.

Dear Sir:

You are hereby notified that we intend to test the shut-off of water in Boone Hardin Well No. 4 in NE¼ of Sec. 19, T. 18, R. 38, N. M. P. M., Hobbs Oil Field Lea County, on Feb. 4th 19 33 7" OD 24# lb. casing was { ~~XXXXX~~ cemented } in Lime formation at a depth of ~~3665'~~ 3966 feet on ~~XXX~~ Jan 31, 1933 19 700 sacks of Encor cement were used.

The method used in placing the cement was as follows: Haliburton Process.

Fluid level will be bailed to a depth of Dry feet and left undisturbed for at least 12 hours before your inspection.

Adjacent property owners have been notified as follows: Skelly Oil Company
Gypsy Oil Company

Additional information:

DUPLICATE

Approved 2-3 19 33 Sincerely yours,

Except as follows:

TIDE WATER OIL COMPANY
Company or Operator.

By F. Schneider - by Floyd Powell

Position Production Superintendent

Send communication regarding well to

Name F. Schneider

Address Drawer "KK"
Hobbs, New Mexico

State ~~Geologist or~~ Oil and Gas Inspector.

FORM SG 106

2

NEW MEXICO STATE LAND OFFICE
OFFICE OF THE STATE GEOLOGIST
SANTA FE, NEW MEXICO

MISCELLANEOUS REPORTS ON WELLS

Submit this report in duplicate to the State Geologist or proper Oil and Gas Inspector within ten days after the work specified is completed. It should be signed and sworn to before a notary public for reports on beginning drilling operations, results of shooting well, results of test of water shut-off, result of abandonment of well, and other important operations, even though the work was witnessed by the State Geologist or Oil and Gas Inspector. Reports on minor operations need not be signed and sworn to before a notary public, but such operations should be witnessed by an Oil and Gas Inspector if possible.

Indicate nature of report by checking below:

REPORT ON BEGINNING DRILLING OPERATIONS		REPORT ON DEEPENING WELL	
REPORT ON RESULT OF SHOOTING WELL		REPORT ON PULLING OR OTHERWISE ALTERING CASING	
REPORT ON RESULT OF TEST OF WATER SHUT-OFF	X	REPORT ON REPAIRING WELL	
REPORT ON RESULT OF ABANDONMENT OF WELL			

Hobbs, N.M. (PLACE) 2/4/33 (DATE)

Mr. E. H. Wells State Geologist,
Santa Fe, N. Mex.

Following is a report on the work done and the results obtained under the heading noted above at the Tide Water Oil Company (COMPANY OR OPERATOR) Boone Hardin "A" (LEASE) Well No. 4 in the NE¼ of Sec. 19, T. 18 S, R. 38E, N. M. P. M., Hobbs Oil Field, Lea County.

The dates of this work were as follows: Feb 4th, 1933

Notice of intention to do the work was ~~(was not)~~ submitted on Form SG 103 on Feb 2nd, 1933, 19____, and approval of the proposed plan was ~~(was not)~~ obtained. (Cross out incorrect words.)

DETAILED ACCOUNT OF WORK DONE AND RESULTS OBTAINED

Hole was bailed dry and have satisfactory shut off.

7" OD casing cemented @ 3966' with 700 sax - Halliburton process

DUPLICATE

Subscribed and sworn to before me this 6 day of Feb, 1933.

Mary Frances Beal (NOTARY PUBLIC)

My commission expires June 10-34

I hereby swear or affirm that the information given above is true and correct.

Name [illegible]

Position Prod. Sup't.

Representing Tide Water Oil Company (COMPANY OR OPERATOR)

Address Drawer KK, Hobbs, N.M.

Remarks:

Witnessed test of February 5th, 1933

APPROVED [illegible]

[illegible] (NAME) (TITLE)

Carlsbad, New Mexico
March 13, 1933

Tidal Oil Company,
Drawer KK,
Hobbs, New Mexico. ATT: Mr. Lamb.

Dear Sir:

We do not have the following report on your Hardin #4 well which you have just completed.

REPORT OF BEGINNING DRILLING OPERATION on form SG106
GAS LINE CONNECTION REQUEST on form SG109

I am enclosing the proper forms for this, please make these out at your earliest convenience and forward them to this office, thank you.

Very truly yours,

J. D. Hunter,
Oil and Gas Inspector

Encl: Forms SG106
" SG109

P. S. We require two of the SG106 and three of the SG109, one of which will be returned upon approval. Should you need more approved copies we will be glad to return them.

Hunter.

Reports received as requested in this letter.

Form S6109

NEW MEXICO STATE LAND OFFICE
SANTA FE, NEW MEXICO

DEPARTMENT OF THE STATE GEOLOGIST
NEW MEXICO SCHOOL OF MINES
SOCORRO, NEW MEXICO

REQUEST FOR PERMISSION TO CONNECT WITH PIPE LINE

This request should be made in triplicate. Permission of the Commissioner of Public Lands should be obtained before connecting.

Hobbs N. Mex., March 16th 19 33

Mr. E. H. Wells
State Geologist,
Socorro, N. Mex.

Dear Sir:

Permission is requested to connect Boone Hardin Wells No. 4 in NE¼ of Sec. 12 T. 18s, R. 38e, N. M. P. M., Hobbs Field, Lea County, with the pipe line of the Shell Pipe Line Co.
Name of Pipe Line Company

Logs of the above wells were filed with the State Geologist Feb 16th 19 33
All other requirements have been complied with.

DUPLICATE

Yours truly,

THE GATES OIL COMPANY
Owner or Operator

By F. Schneider - P. S.
Position Production Superintendent
Address Hobbs, New Mexico

Permission is hereby granted to make pipe line connections requested above.

Commissioner of Public Lands.

Date 19

Approved Mar 20 19 33
E. H. Wells
State Geologist

Injection Profile
5/17/83

Tracer Log
3/27/84

[illegible]