STATE OF KANSAS STATE CORPORATION COMMISSION 200 Colorado Derby Building Wichata, Kansas 67202

WELL PLUGGING RECORD K.A.R.-82-3-117

NOTI

an

API NUMBER 15-163-04145-00-00

| LEĄŚE | NAME_ | Nettie | Unit | |
|-------|-------|--------|------|--|
| | | | | |

| - | | | |
|------|--------|-----|--|
| WELL | NUMBER | 4-8 | |

| ITPE OR PRIMI | WEEL HOLL | | | | Market Company | |
|---|-----------|-----|------|----|----------------|--------|
| ICE: Fill out completely and return to Cons. Div. | | Ft. | from | \$ | Section | Line |
| office within 30 days. | | * | | | | |
| | | Ft. | trom | E | Section | L 1110 |

| ASE OPERATOR Phillips Petroleum COmpany | SEC. 33 TWP.9S RGE. $17W$ (£ kor (W) |
|---|---|
| 71 | COUNTY Rooks |
| DRESS Rt #3 Box 20-A Great Bend, KS. 67530 | |
| IONE#(316) 793-8421 OPERATORS LICENSE NO. 5229 | Date Well Completed |
| paracter of Well Oil | Plugging Commenced |
| Oll, Gas, D&A, SWD, Input, Water Supply Well) | Plugging Completed 8-28-90 |
| ne plugging proposal was approved on | (date) |
| / | (KCC District Agent's Name). |
| ACO-1 filed?If not, is well log attached? | |
| oducing Formation Depth to Top | BottomT.D. 3555' |
| oducing formation | |
| now depth and thickness of all water, oil and gas formation | ns. |
| DIL, GAS OR WATER RECORDS CAS | SING RECORD |
| | Put in Pulled out |
| Formation Content From To Size F | Put in Fulled Sul |
| 8 5 / 8 " | 220' none |
| 5 1/2" | 220' none 3550' none |
| | |
| | |
| escribe in detail the manner in which the well was plugged, | , indicating where the mud fluid w |
| escribe in detail the manner in which the well was pluyyed, laced and the method or methods used in introducing it in | to the hole. It cement or biner pro |
| laced and the method or methods used in introducing it in ere used, state the character of same and depth place | d, from feet to real back so mixed 5 sacks hulls with |
| | |
| 300 sacks cement and shut in @300#, p | pressured annulis to 100 |
| 300 sacks 65/35 poz 10% gel. | |
| (If additional description is necessary, use BAC | K of this form.) |
| | |
| ame of Plugging Contractor <u>KELSO CASING PULLING, IN</u> | IC. License No. 6050 |
| 480 OT 1 (1999) | 01-18-00 |
| ddress P.O. Box 347 Chase, Kansas 67524 | 1 10 90 |
| AME OF PARTY RESPONSIBLE FOR PLUGGING FEES: Phillips | s Petroleum Company 1991 |
| TATE OF Kansas COUNTY OF Rice | , SS. GO JOLANNIA CHE DIVISION |
| TATE OF RailSas | Wichita Vanca- |
| R. Darrell Kelso (Elebove-described well, being first duly sworn on oath, says: | mplayee of Operator) or (Operator) |

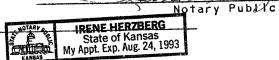
(Signature)

(Address) P.O. Box 347 Chase, KS. 67524

Sept. <u>,19 90</u> SUBSCRIBED AND SWORN TO before me this $\underline{-14}$ day of

My Commission Expires:

the same are true and correct, so help me God.



Date: May 9, 1990 Number: 00000004

P&A Procedure for Nettie Unit #4-08

Nettie Unit No. 4-08 C N/2 NE SW Sec. 33-T9S-R17W Rooks County, Kansas Nettie Field, Arbuckle & LKC Formation

Procedure # 41-99 Charge Code 80-7159 Lease Code 350125 W.I. 31.65017 % R.I. 27.52178 %

Elevation: 2104' GL, 2107' DF, 2110' KB

Casings: 8 5/8" set @ 220' w/ 150 sx cement.

5 1/2", 14#, set @ 3550' w/ 100 sx cement.

TD: 3555'

Open Hole: 3550' - 3555' (Arbuckle formation)

Note: Csg leak @ 1073' squeezed w/ 100 sx cement in 1966.

Csg leak @ 909' - 923' squeezed w/ 100 sx cement in 1976.

Csg leak @ 102' - 135' squeezed w/ 50 sx cement in 1984.

Csg leak @ 2260' - 2093' squeezed w/ 475 sx cement in 1984.

Csg leak @ 896' - 928' squeezed w/ 250 sx cement in 1985.

Top of anhydrite at 1372'. Cedar Hills, Dakota, and Anhydrite should all be isolated by these previous cement squeezes.

Objective: Plug and Abandon shut down well by filling casing with 65/35 pozmix-10% gel w/ 1/4 lb/sk flocele and 5 sx hulls.

Procedure:

- 1. Notify KCC representative 24 hours prior to beginning plugging operations (Hays office 628-1200).
- Determine depth of well with wireline to verify that cement will reach the bottom of the hole. If depths below 3550' are not reached, notify office for further instructions.
- 3. Conduct safety meetings with all personnel involved in operation. Move in and rig up Cementing Company. Pump into 5 1/2" casing with 350 sx cement & 5 sx hulls to fill casing from 3555' to surface. Shut in under pressure.
- 4. Rig up to 5 1/2" 8 5/8" annulus and pump into, if possible, with 50 sx cement and shut in under pressure.

(Total calc. 5 1/2" csg volume - 487 cu. ft., 20% excess, 1.7 cu. ft/sack yield, slurry density 13 lb/gal, water requirement - 9.13 gal/sk of mix, gives ~343 sx of 65/35 pozmix-10% gel w/ 1/4 lb/sk flocele to fill casing.)

Water requirement for 400 sx cement @ 4.6 sx/bbl = 87 bbls fresh water.

- 5. Check fillup in casings and outside of 8 5/8" csg. If necessary, fill to surface w/ redimix.
- Cut off casing 3' below ground level and weld on steel plate marked with "PPCo, well name, and date plugged."
- 7. Restore location.



GREAT BEND, KANSAS

DRILLING

COMPANY

February 27, 1961

Musicine Orilling Company 301 Union Center Wichits, Kansas

NETTIE UNIT 4-8

Re: Geological Report
Musgrove's #8 CARMICHAEL
C N/2 NE SW Sec. 33-9-17W
Rooks County, Kansas

Commenced: February 14, 1961 Completed: February 24, 1961

Contractor: Hellar Drilling Co., Inc.

Set 8-5/8" surface at 220' w/150 sx HA5Set 5-1/2" at 3550' w/100 sx common.

Cantilument

Ten foc. samples were saved from 1900 feet to 3200 feet. Five foot samples were saved from 3200 feet to the total depth. One foot drilling time was kept from 1900 feet to the total depth.

Samples were examined from 2900 feet to the total depth and drilling was witnessed from 3000 feet to the total depth by the undersigned.

Six drill stem tests were run during the drilling of the subject well. No electrical surveys were run.

Following are elevations, sample tops of formations encountered and sample descriptions of the more interesting zones:

ELSVATIOUS: Ground Level 2104'

Derrick Floor 2107'

Rotary Sushing 2110'

gall measurements are from Rotary Bushing Elevations)

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Musgrove's Carmichael #8
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FORMATION TOPS AND DATUMS

| Dakota Sand | (drillers) | 550' | (/1560) |
|------------------|------------|-------|---------|
| Anhydrite | 11 | 1372' | (|
| Topeka | (sample) | 29831 | (-878) |
| lleebnor | ta | 3208' | (-1098) |
| Toronto | t r | 3226' | (-1116) |
| Lansing | 11 | 3250' | (-1140) |
| Base/Kansas City | 5 8 | 3487' | (-1377) |
| -Simpson | †† | 35261 | (-1416) |
| Arbuckle | 11 | 3548' | (-1438) |
| Total Depth | (drillers) | 35551 | (-1445) |

SAMPLE DESCRIPTIONS

TOPEKA - 2988' (-878) Z(10

3028 to 3031
Limestone; buff, finely crystalline, poor intercrystalline porosity. Trace brown spotty to even staining with slight trace of free oil and light odor.

3154 to 3160

Limestone; buff-white, finely crystalline to granular, fair intercrystalline and pin point porosity. Spotty brown oil stain w/trace of free oil. No odor.

Limestone; buff, finely crystalline, weathered, fair vugular and intercrystalline porosity. Spotty to even light brown oil stain with good show free oil. Light odor.

DRILL STEM TEST #1 3153-3192' Open 1-1/4 hours, shut in 20 minutes. Blow-weak increasing to fair. Recovery - 310' muddy salt water w/few specks oil. IFP 0#, FFP 163#, IBHP 1020#, FBHP 930#, HH 1715#.

TORONTO - 3226' (-1116)

2227 to 3230 Limestone; buff, finely crystalline, fossiliferous, poor intercrystalline and vugular porosity. Trace of spotty to even brown stain.

LANSING - 3250' (-1190)

Limestone; buff, finely crystalline. Trace pin-point porosity. Very slight trace of spotty brown stain. Possibly cavings from above.

Long in the

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ARBUCKLE - 3548' (-1438)

3548 to 3551

Dolomite, gray to tan, fine to medium crystalline, fair intercrystalline and vugular porosity. Tiny rhombic texture in part. Spotty to even oil staining with good show heavy black oil, strong odor. Trace of dense, barren dolomite.

DRILL STEM TEST #5 from 3529 to 3551'. Open 1 hour, shut in 20 minutes. Weak surge and died. Recovered 33' mud with few specks oil. IFP 0#, FFP 0#, IBHP 783#, FBHP 530#, HH 1875#.

3551 to 3555

Dolomite, tan, finely crystalline, slight increase intercrystalline and vugular porosity. Spotty dark oil stain, show free oil. Good odor.

DRILL STEM TEST #6 from 3550 to 3555' Open one hour, shut in 20 minutes. Weak to strong blow. Recovered 595 feet gassy oil, 15 feet heavy gas cut oily mud. IBHP 28#, FFP 203#, IBHP 995#, FBHP 945#, HH 1845#.

STRUCTURAL COMPARISON WITH NEARBY WELLS

| Formation | Musgrove's | Musgrove's | Musgrove's | San Diego's |
|-----------|---------------|---------------|---------------|---------------|
| | Carmichael #8 | Carmichael #7 | Carmichael #5 | Schrandt #3 |
| | C N/2 NE SW | NW NW SE | C E/2 SW | C N/2 N/2 SW |
| | Sec. 33-9-17W | Sec. 33-9-17W | Sec. 35-9-17W | Sec. 33-9-17W |
| Heebner | -1098 | -1094 | -1098 | -1096 |
| Lansing | -1140 | -1138 | -1142 | -1140 |
| Arbuckle | -1438 | -1435 | -1432 | -1432 |

RECOMMENDATIONS

The Carmichael #8 was drilled to a total depth of 3555' penetrating 7 feet of Arbuckle Dolomite. Drill Stem Test #6 (3550 to 3555) recovered approximately 600 feet of free oil and recorded comparatively good bottom hole pressures of 995# to a final of 945#. Thus it was recommended by the undersigned that 5-1/2 inch casing be set 5 feet off bottom at 3550 and the Arbuckle Dolomite be tested further through open hole.

One Drill Stem Test was run in the Topeka and three Drill Stem Tests were run in the Lansing-Kansas City Section. These tests covered the better looking zones determined by previous production in the area and sample interpretation. All four of these tests were negative to oil production. On the basis of this information, we are not recommending any zones in the Lansing-Kansas City or Topeka for perforations.

Yours very truly,

Jerry A. Langrehr, Geologist

JAL/1fh