

RECORD OF FORMATIONS

| FORMATION | TOP | BOTTOM | REMARKS |
|--------------------------------|--------------|--------|---|
| Surface soil and clay | 0 | 25 | |
| Shale and shells | 25 | 235 | |
| Shale | 235 | 318 | Set and cemented 8-5/8" OD, 22.7#, 100' J. steel casing (A cond.) at 118' with 200 sacks of cement and 2% calcium chloride. Cement circulated. |
| Shale and shells | 318 | 815 | |
| Sand | 815 | 1230 | |
| Sand and shale | 1230 | 1395 | |
| Red bed | 1395 | 1653 | |
| Anhydrite | 1653 | 1687 | |
| Shale and shells | 1687 | 2120 | |
| Shale and broken lime | 2120 | 2420 | |
| Lime | 2420 | 2575 | |
| Lime with streaks of shale | 2575 | 2627 | |
| Shale | 2627 | 2745 | |
| Shale and shells | 2745 | 2835 | |
| Shale with streaks of lime | 2835 | 2955 | |
| Lime with streaks of shale | 2955 | 3025 | |
| Shale with streaks of lime | 3025 | 3170 | |
| Lime | 3170 | 3302 | |
| Medium crystalline lime | 3302 | 3306 | |
| Lime | 3306 | 3310 | Good porosity and saturation, dark live oil in samples |
| Lime | 3310 | 3445 | Run Halliburton drill stem test No. 1, packer set at 3299', used 11' anchor, open 1 hour, weak blow, recovered 35' rotary mud, no oil, RHP-1150 in 20 mins. |
| White, medium crystalline lime | 3445 | 3448 | TOP HEADLINE SHALE 3331' TOP TORONTO LIME 3352' TOP LANSING LIME 3383' |
| Lime | 3448 | 3450 | Slightly oolitic, fair porosity, spotted oil stain, odor in samples |
| White, medium crystalline lime | 3450 | 3453 | |
| Lime | 3453 | 3465 | Slightly oolitic, fair porosity, spotted oil stain, odor in samples |
| Lime | 3465 | 3542 | Run Halliburton drill stem test No. 2, packer set at 3437', used 28' anchor, open 1 hour, strong blow throughout test, recovered 75' of oil cut water, 465' of water, RHP-1280 in 20 minutes; IFF-257, IFF-290. |
| Fine crystalline lime, oolitic | 3542 | 3546 | Spotted, no saturation, good strong odor |
| Lime | 3546 | 3557 | Run Halliburton drill stem test No. 3, packer set at 3532', used 25' anchor, open 1 hour, blow throughout test, recovered 0' of free oil (24° gravity), 0' of heavy oil cut water, RHP-1300 in 20 minutes; IFF-257, IFF-290. |
| Lime | 3557 | 3565 | |
| Lime and shale | 3565 | 3635 | |
| Lime and shale | 3635 | 3651 | |
| Medium crystalline dolomite | 3651 | 3678 | Vugular porosity, slight oil staining, poor saturation. Run Halliburton drill stem test No. 4, packer set at 3653', used 25' anchor, open 1 hour, fair blow throughout test, recovered 0' of free oil (24° gravity), 0' of heavy oil cut water, RHP-1300 in 20 minutes; IFF-257, IFF-290. |
| TOTAL DEPTH | 3678' | | |

Set and cemented 1051' 5" of 5 1/2" OD, 14#, 8R thd., R-2, J-55, S.S. casing (A cond.); and 2655' 7" of 5 1/2" OD, 8R thd., 14#, R-2, R-40, S.S. casing (B cond.) at 3678' with 175 sacks of cement. Finished cementing at 10:00 a.m. 2/2/57, opened stage collar at 10:00 a.m. with 600-GP, spotted 143 barrels of oil behind 5 1/2" casing, oil circulated. Finished at 12:10 p.m. 2/2/57. Closed stage collar with 900-GP

Rigged up cable tools on February 5, swabbed and balled the hole dry to stage collar at 3064' and 5 1/2" casing tested dry. Drilled stage collar and swabbed the hole dry to 3643'. Drilled cement plug to 3676' and 5 1/2" casing tested dry. Ran Halliburton Collar Locator Survey.

PLUGGED BACK TOTAL DEPTH 3676'

Perforated 5 1/2" casing from 3668' to 3676' with 48 holes by Halliburton. Balled and tested 10 gallons of oil per hour, no water for 3 hours. Treated down 5 1/2" casing with 300 gallons of Dowell "XIV-32 W-17" acid as follows:

ACID TREATMENT NO. 1 - Between 3668' and 3676'

Treatment put in 2/6/57 by Dowell Inc., using 300 gallons of acid and 92 barrels of oil.

| TIME | OP | TP | REMARKS |
|---------|-----|----|----------------------|
| 3:16 pm | | | Start acid in casing |
| 3:18 pm | | | Acid in |
| 3:55 pm | | | Start to load hole |
| 4:30 pm | 250 | | Hole loaded |
| 4:50 pm | 100 | | |
| 5:20 pm | 150 | | |
| 5:50 pm | 250 | | |
| 7:12 pm | 150 | | Treatment completed |

Swabbed through 5 1/2" casing 2 hours, 92 barrels of oil used in treating, no water. Then swabbed 10 hours, 50 barrels of oil and no water. On February 7, swabbed through 5 1/2" casing 4 hours, 16 barrels of oil and no water.

460ph

Perforated 5 1/2" casing from 3655' to 3660' with 30 holes by Lane-wells, no change in fluid. Ran 2" tubing and set Halliburton HM packer at 3664'. Treated with 500 gallons of Dowell "XIV-32 W-17" acid as follows:

ACID TREATMENT NO. 2 - Between 3655' and 3660'

Treatment put in 2/7/57 by Dowell Inc., using 500 gallons of acid and 75 barrels of oil.

| TIME | OP | TP | REMARKS |
|---------|-----|------|--|
| 5:21 pm | | | Start oil to load hole |
| 5:40 pm | 600 | 600 | Hole full |
| 5:45 pm | | | Start acid in tubing |
| 5:51 pm | 250 | 0 | Acid in, start flush |
| 5:58 pm | 300 | 100 | Acid on bottom |
| 6:03 pm | 175 | Vac. | |
| 6:08 pm | 100 | Vac. | |
| 6:18 pm | 250 | 50 | |
| 6:28 pm | 275 | 100 | |
| 6:41 pm | 500 | 500 | Acid in formation, treatment completed |

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Pulled 2" tubing and packer and swabbed through 5 1/2" casing 2 hours, 75 barrels of oil used in treating, no water; then swabbed through 5 1/2" casing 2 hours, 16 barrels of oil and 2 barrels of acid water.

23 boph

Ran 2" tubing and rods and on February 8, FOB 8 hours on State Corporation Commission physical potential test, 60.84 barrels of oil and no water to establish 24 hour C.O.C. potential of 183 barrels. This potential allows 25 barrels per day for the remainder of February, 1957.

DIPOLE TEST DATA

| DEPTH | ANGLE OF DEFLECTION |
|-------|---------------------|
| 250' | 0 Degrees |
| 500' | 0 " |
| 750' | 0 " |
| 1250' | 0 " |
| 1500' | 0 " |
| 2250' | 0 " |
| 2500' | 1 " |
| 2750' | 1 " |
| 3000' | 0 " |
| 3250' | 0 " |
| 3500' | 0 " |

15-163-01035-00-00

sec

SKELLY OIL COMPANY

REPORT OF CHANGE IN WELL RECORD

Give complete description of all cleaning out, deepening, plugging back and fishing jobs, changes in casing, material lost in hole, etc., not recorded in original well record.

LEASE A. E. Arpin WELL NO. 1 DISTRICT Western Kansas

SEC. 5 T. 9S R. 20W COUNTY Roos Exp. JOB NO.

SURVEY BLOCK STATE Kansas

| CLEANING OUT RECORD | | | | | PLUGGING BACK OR DEEPENING RECORD | | | | |
|---------------------|--------------------|-------------------|---------------|--|-----------------------------------|--------------|-------------|-------------|--|
| Date commenced | April 19, 19 57 | | | | Date commenced | 19 | | | |
| Date completed | April 22, 19 57 | | | | Date completed | 19 | | | |
| Cleaned out from | to PB T.D. 3676 | | | | Plugged back or deepened from | to T.D. | | | |
| Prod. before | 16 bbls. oil | 0 bbls. water | 0 cu. ft. gas | | Prod. before | bbls. oil | bbls. water | cu. ft. gas | |
| Prod. after | 35 bbls. oil | Trace bbls. water | - cu. ft. gas | | Prod. after | bbls. oil | bbls. water | cu. ft. gas | |
| Kind of tools used: | Unit #8596 | | | | Kind of tools used: | | | | |
| Tools owned by: | Skelly Oil Company | | | | Tools owned by: | | | | |

ACID TEST SHOT RECORD

| Date | Size shot | Shot between | Size of shell | Put in by (Co.) | Length anchor | Distance below casing | Damage to casing or casing shoulder |
|---------|---------------|-----------------------|---------------|-----------------|---------------|-----------------------|-------------------------------------|
| 4/19/57 | 1000 gals. XX | 3655 Ft. and 3676 Ft. | | Dowell Inc. | | | |

CHANGES IN CASING RECORD

| SIZE | Wt. | Thds. | Where Set | PULLED OUT | | | LEFT IN | | | KIND | Cond'n | CEMENTING | |
|------|-----|-------|-----------|------------|------|-----|---------|------|-----|------|--------|------------|-----------------|
| | | | | Jts. | Feet | In. | Jts. | Feet | In. | | | Sacks Used | Method Employed |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Liner set at Length Perforated at
 Packer set at Size and kind

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Wichita, Kansas
Superintendent.

ACID RECORD

Date Commenced: May 28, 1957
Date Completed: June 2, 1957

FB TD-3676'

Production Before: 18 barrels of oil with trace of water
Production After: 28 barrels of oil and 2 barrels of water

Producing Formation: Arbuckle Lime

On May 28, 1957, pulled rods and tubing. Ran 2" tubing with two packers, top packer set at 3645', bottom at 3665'. Treated with 500 gallons of Halliburton 20% acid and 1500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 4 - Between 3668' and 3676'

Treatment put in 5/29/57 by Halliburton, using 2000 gallons of acid and 15 barrels of oil.

| TIME | CP | TP | REMARKS |
|---------|----|----|-------------------------|
| 2:28 pm | | | Start acid |
| 2:32 pm | | | Acid on bottom |
| 2:34 pm | | 0' | 300 gallons acid in |
| 2:45 pm | | 0' | 2000 gallons of acid in |

17 min

Closed bottom packer and treated with 500 gallons of 20% acid and 1500 gallons of 15% acid as follows:

ACID TREATMENT NO. 5 - Between 3655' and 3660'

Treatment put in 5/29/57 by Halliburton, using 2000 gallons of acid and 15 barrels of oil.

| TIME | CP | TP | REMARKS |
|---------|----|----|------------------------------|
| 2:49 pm | | | Start acid |
| 2:55 pm | | 0' | Acid on bottom |
| 3:06 pm | | 0' | Start flush |
| 3:12 pm | | 0' | Acid in, treatment completed |

23 min

Pulled 2" tubing and packers. On May 31, ran 2" tubing and rods and FOB 2 hours, 30 barrels of treating oil; then FOB 15 hours, 60 barrels of oil and 1/2 barrel of water.

On June 1, FOB 24 hours, 50 barrels of oil and 2 barrels of water. On June 2, FOB 24 hours, 28 barrels of oil and 2 barrels of water.

PLUGGED BACK TOTAL DEPTH 3676'

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SKELLY OIL COMPANY

CHANGE IN WELL RECORD

Give complete description of all cleaning out, deepening, plugging back and fishing jobs, changes in casing, material lost in hole, etc, not recorded in original well record.

LEASE NAME A. E. Arpin
 SEC. 5 T. 9S R. 20W
 BLOCK _____ SURVEY _____

WELL NO. 1 DISTRICT Platte
 COUNTY Boonville AFE NO. 5901
 STATE Kansas 5932

TYPE OF WORK TEST LANSING-KANSAS CITY ZONE PLUG AND ABANDON WELL

Date commenced July 12, 1965 Date completed September 24,
 Deepened from _____ to _____ Total Depth _____
 Plugged back from 3676' to Surface P.B.T.D. P & A
 Cleaned out from _____ to _____
 Production before 3 bbls. oil 0 bbls. water -- cu. ft.
 Production after _____ bbls. oil _____ bbls. water _____ cu. ft.
 Tools owned by: Plainville Well Ser.*** Kind used: Pulling Unit No. days rig time: 5
 Cost of Job \$ 2,383.00* Revised Estimated Payout (Mos.) No payout
 ***Southwest Casing Pulling Co. - Pulling Unit - 9 days

TREATMENT RECORD

| DATE | TYPE TREATMENT | INTERVAL TREATED | AMOUNT OF TREATMENT |
|----------------|----------------|--------------------|----------------------|
| <u>7/13/65</u> | <u>Acid</u> | <u>3536'-3540'</u> | <u>250 gals. MCA</u> |
| | | | |
| | | | |

CHANGES IN CASING RECORD

| STRINGS | SIZE | WHERE SET (Depth) | CEMENTING RECORD | | REMARKS |
|------------|------|----------------------|------------------|------------------------|------------|
| | | | Sacks Used | Top Cem't. Bh'd. Casg. | |
| Production | | | | | |
| Liner | | | | | Top liner; |

| SIZE | WT. | THDS. | KIND | COND. | LEFT IN | | | | PULLED OUT | | | | | |
|---------------|-------------|-----------|------------------|----------|-----------|-------------|----------|-------------|------------|-----------|-------------|----------|-------------|----------|
| | | | | | Jts. | LTM | | WTM | | Jts. | LTM | | WTM | |
| | | | | | | Feet | In. | Feet | In. | | Feet | In. | Feet | In. |
| <u>5-1/2"</u> | <u>11.4</u> | <u>8R</u> | <u>J55 R2 SS</u> | <u>C</u> | | | | | | <u>32</u> | <u>1044</u> | <u>0</u> | <u>1051</u> | |
| <u>5-1/2"</u> | <u>11.4</u> | <u>8R</u> | <u>H40 R2 SS</u> | <u>C</u> | | | | | | <u>28</u> | <u>917</u> | <u>0</u> | <u>923</u> | |
| <u>5-1/2"</u> | <u>11.4</u> | <u>8R</u> | <u>H40 R2 SS</u> | <u>D</u> | <u>39</u> | <u>1261</u> | <u>0</u> | <u>1274</u> | <u>6</u> | <u>14</u> | <u>455</u> | <u>6</u> | <u>458</u> | <u>0</u> |

PRODUCING FROM

FORMATION _____ thru OPEN HOLE PERFORATIONS _____ TOP _____ BOTTOM _____ Total No. Shots _____

REMARKS (Give review of work performed and any other comment of interest)

July 12, 1965, moved in and rigged up pulling unit of Plainville Oil Well Service to test Lansing-Kansas City formation. Pulled rods and tubing.

PERFORATION JOB NO. 3 - Lansing-Kansas City - 3536'-3540' (J zone)
5 1/2" casing perforated with 3 Type VCF-2 jet holes per foot by Lane-
Wells:

3536'-3540' - 4' - 12 holes - Fluid level 3260', no change

Ran 2" tubing with Howco RTTS packer and set retrievable bridge plug at 3564', pressured to 1000#; set packer at 3525'. Swabbed through 2" tubing; hole tested dry.

TREATMENT NO. 6 - (Acid) - 3536'-3540'

7/13/65 treated through tubing by Howco with 250 gallons MCA acid, maximum TP-1100#, PTP-650#, pressure declined to 0# in 30 minutes, flushed with 14 barrels water, average injection rate 20 gallons per minute, time 2 hours 40 minutes.

Swabbed 1 hour through 2" tubing, 14 barrels load water and 3 1/2 barrels acid water; then swabbed 2 hours through 2" tubing, 1 barrel oil and 2 barrels water per hour.

Shut down 8 hours, 1900' fluid in hole. July 14, swabbed through 2" tubing 1 hour, 2-1/4 barrels oil and 4-3/4 barrels water. Swabbed to bottom, then swabbed off bottom 7 hours, 3 barrels oil and 11 1/2 barrels water (last 5 hours averaged 1.74 barrels fluid, 0.35 barrels oil and 1.39 barrels water per hour).

Ran rods and POB 8 hours, 3536-3540', 14-40" SPM, 2 barrels oil and 9 barrels water. Moved out pulling unit July 14, 1965.

July 15, 1965, POB 24 hours, 12-48" SPM, 5 barrels oil and 20 barrels water.

July 16, 1965, POB 24 hours, 12-48" SPM, 3 1/2 barrels oil and 14 barrels water.

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