SIDE ONE

API NO. 15- 063-21, 294-W-W

STATE CORPORATION COMMISSION OF KANSAS DIL & GAS CONSERVATION DIVISION

| WELL COMPLETION FORM | County | Go | ve | | | | | | |
|--|--|---|--|--|---|--|---|---|-----------------------------|
| ACO-1 WELL HISTORY DESCRIPTION OF WELL AND LEASE | NE : | NW . | Se | c. <u>31</u> | _ Twp | <u>14</u> R | ge. <u>28W</u> | <u>x</u> | East West |
| Operator: License # <u>4797</u> | | | | | | | ast Corn | | |
| Name: _ Cascade Oil | 33 | 00 | | Ft. Wes | st from | Southea | st Corne | r of Sec | tion |
| Address P. O. Box 666 | | | | (NOTE: | Locate | well in | section #31- | plat be | low.) |
| | ŀ | | | | | | | | |
| City/State/Zip <u>Leavenworth, KS 66048</u> | ! | | | | | | | | |
| Purchaser: | Elevati | on: | Ground _ | | | КВ | l | | |
| Operator Contact Person:Douglas Schafer | Total D | epth | 43 | 281 | | PB | TD | | |
| Phone (<u>913</u>) <u>651–0405</u> | | | | 111 | | | 5280 | 1 | |
| Contractor: Name: Red Tiger Drilling | i nithiasio. | | | 1-0- | 1-1-1-1 | | 4950 4620 | | |
| License: 5302 | Sout | | | | 1 1 1 | | 4290 3960 | | |
| Wellsite Geologist: | 1) { 1) { 1) { 1) { | ₩ | <u> </u> | ┣ ┊╂┼ | | | 3630 3300 | N | |
| Designate Type of Completion X New Well Re-Entry Workover | MAP 0 7 1 | \ | 4, Kd 115 gi | | | | 2970 2640 2310 1980 | \mathbb{H} | |
| Oil SWD Temp. Abd. Gas Inj Delayed Comp. | VOOD W | - | 3 3 3 3 | | | | 1650 1320 990 | 1 4 | |
| x Dry Other (Core, Water Supply, etc.) | ATE | Š | | | | | 660 330 | | |
| If OWNO: old well info as follows: Operator: | ंत | | 25.88 4.55.05 | 3300 3300 2970 | 2310 | 990 | 1_1 | | |
| Well Name: | Amount | of Su | ırface Pi | pe Set | and Ceme | ented at | 268 | 3 | Feet |
| Comp. Date Old Total Depth | Multipl | le Sta | ige Cemen | ting Co | llar Use | ed? | Ye | :s | No |
| Drilling Method: Mud Rotary Air Rotary Cable | | | | | | | | | |
| 11-14-89 11-23-89 | Ì | | | | | | ated from | | |
| Spud Date Date Reached TD Completion Date | feet de | epth t | · <u> </u> | | w, | <u> </u> | | s: | x cmt. |
| INSTRUCTIONS: This form shall be completed in triplicate a Derby Building, Wichita, Kansas 67202, within 120 days 82-3-106 apply. Information on side two of this form will writing and submitted with the form. See rule 82-3-wireline logs and drillers time log shall be attached with form with all plugged wells. Submit CP-111 form with a conversion of a well requires filing of ACO-2 within 120 da | of the s be held of 107 for o this for Il tempor | spud d confid confid m. AL rarily | late of a lential f lentialit L CEMENT abandon | ny well or a pe y in ex ING TIC ed well: | Rui riod of cess of KETS MUS . An | le 82-3- 12 mont 12 mont ST BE At y recomp | -130, 8 ths if r ths. One TTACHED. | 32-3-107 requester copy o Submit | and d in fall CP-4 |
| All requirements of the statutes, rules and regulations promule with and the statements herein are complete and correct to t | | | | | gas indu | ustry ha | ive been t | fully con | mplied |
| Signature Jourse C. Schift | 2 1 | | F | Let | ter of (| | ntiality | Attache | 4 |
| Title Own Date Mo | | 190 | c _ | | | og Rece [:] imelog i | ived Received | | |
| Subscribed and sworn to before me this 3 day of Man 19 90. | -4 | | | .xcc | | tributi | | NGPA | |
| Notary Public | <u> </u> | | = | KGS | _ | Plu | 9 _ | Othe Specify | r |
| Date Commission Expires My Commission Expires May 5, 199 | <u>3 </u> | | | | | | | эрестту. | _ |

Form ACO-1 (7-89)

SIDE TUO

| Operator Name | Cascade Oil | <u> </u> | Lease Name | <u>Evans</u> | | Well # | 31-3 | |
|---|----------------------------------|---|--------------------|------------------|------------------------------------|-----------------|-------------------------------|--|
| | | East | County | Gove | | | · | |
| Sec. 31 Twp. 14 | _ Rge.2 <u>8W</u> _ | West | | | | · | | |
| interval tested, tim | ne tool open a s, bottom hole | and base of formation nd closed, flowing an temperature, fluid rec opy of log. | d shut-in pres | sures, whet | her shut-in pre | ssure read | ched static level, | |
| Drill Stem Tests Tak (Attach Additiona | | ⊠ Yes □ No | | | Formation Desc | ription | | |
| Samples Sent to Geol | ogical Survey | Yes No | | | ☐ Log ☐ | Sample | | |
| Cores Taken | | Yes No | Name | | Тор | Bott | om | |
| Electric Log Run (Sübmit Copy.) | | 🛛 Yes 🗌 No | See a | nttached | geological : | report | | |
| · | | · | | | | | | |
| CASING RECORD Used New Used Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | | |
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs./Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives | |
| surface | 12 4 | 8 5/8 | 20# | 268 | 60/40 poz | 160 | 2%gel, 3%cc | |
| | | <u> </u> | | | <u> </u> | | | |
| Shots Per Foot | PERFORATION Specify Footage | N RECORD ge of Each Interval Pe | rforated | | Fracture, Shot, d Kind of Mater | | ueeze Record Depth | |
| | Plugged | & Abandoned | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| TUBING RECORD | Size | Set At | Packer At | Liner Run | | Ņo | | |
| Date of First Produ | ction Produci | ng Method Flowing | Pumping G | as Lift [] | Other (Explain) | | | |
| Estimated Production Per 24 Hours | n Oil | Bbls. Gas | Mcf Wate | r Bbls. | Gas-Oil | Ratio | Gravity | |
| Disposition of Gas: | | METH | OD OF COMPLETE | ON | | P | roduction Interval | |
| Vented Sold (If vented, su | | | | ration Di | Dually Completed | J Comm | ingled | |
| · | · | ☐ Other | (Specify) | / i - * | | _ | | |

HALLEBURTON SERVICES

BULK MATERIALS DELIVERY

AND TICKET CONTINUATION FOR INVOICE AND \$78590

WELL NO. AND FARM CUSTOMER ORDER NO. Kansas 11-23=89 Evans Gove OWNER CONTRACTOR CHARGE TO №. B 847799 Red Tiger Cascade 0,1 Same MAILING ADDRESS DELIVERED FROM PREPARED BY Hays. Ks 50325 Kuhn ELIVERED TO RECEIVED B CITY & STATE RUCK NO. S Gove. Ks B. (DUSSWILLTE 51252 SECONDARY REF. OR PART NO. CODE UNITS 1 UNITS 2 PRICE REFERENCE AMOUNT DESCRIPTION MEAS. L D QTY. aty, İMEAS 185 Cu. Ft. Pozmix Cement6%Gel 604| 95 504-308 516.002**61**6 2 B Standard Cement 111 5.45 XX 506-105 516.00286 12 2 B Pozmix 'A' 2.88 213 74 506-121 516.00259 2 B n/c3sk Halliburton Gel @2% 507-277 516.00259 2 B Halliburton Gel@4% 91 00 <u>55|66</u> 46 507-210 890,50071 Flocele Blended . . . \mathcal{A}^{I} 199U Returned Mileage Charge CINSERANTION DIALING Ayighita Kansas TOTAL WEIGHT LOADED MILES TON MILES SERVICE CHARGE ON MATERIALS RETURNED CU. FEET 175 75 185 .95 500-207 В SERVICE CHARGE CU. FEET 16,956 500-306 2 В 356,076 .70 249 25 42 Mileage Charge TON MILES TOTAL WEIGHT LOADED MILES 1,389 73 № **B** 847799 CARRY FORWARD TO INVOICE SUB-TOTAL FORM 1911 - R6 REV. 8-85

ROBERT H. FEHLMANN 2561 South Brentwood Ct. Lakewood, Colorado 80227 (303) 986-3638

November 24, 1989

Cascade Oil P. O. Box 666 Leavenworth, Kansas 66048

Re: Geological Report

Cascade Oil Evans #31-3

MEMW Sec. 31-T14S-R28W Gove County, Kansas

SUMMARY:

Samples were examined from 3400' to 4328' (TD). The well was under geologic supervision from 3400' to total depth.

Contractor: Red Tiger Drilling - Rig #5

Tool Pusher: Walt Oden = (913) 483-2617 Rig Phone: Hays Mobil Unit = (913) 625-7997 Red Tiger Drilling, Wichita = (316) 263-2617

Geologist: Robert H. Fehlmann

2561 South Brentwood Ct. Lakewood, Colorado 80227

(303) 986-3638

Spud: November 14, 1989

Completed: November 23, 1989 - D&A

Elevations: KB = 2534

GL = 2529

Casing Record: 8-5/8" at 268'

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CONSERVATION DIVISION Wighita, Kansas

ORIGINAL

Formation Tops:

| Formation | <u>Depth</u> | Sea-Level Datum |
|--------------------------|--------------|-----------------|
| Anhydrite (Stone Corral) | 1940 | + 594 |
| Tarkio | 3237 | - 703 |
| Heebner | 3612 | -1078 |
| Toronto | 3616 | -1082 |
| Lansing/Kansas City | 3654 | -1120 |
| Base Kansas City | 3692 | -1428 |
| Marmaton | 3971 | -1437 |
| Pawnee | 4070 | -1536 |
| Ft. Scott | 4144 | -1610 |
| Cherokee | 4170 | -1636 |
| Mississippian | 4257 | -1723 |
| Log-Tech Total Depth | 4333 | -1799 |

All depths are Log-Tech measurements from KB.

Also see attached detailed tops comparison sheet.

<u>Drill Stem Test:</u> Trilobite Testing, Hays, Kansas (913) 625-4778

DST #1 - 3608-3675'

Open 30 min, shut-in 30 min, open 60 min, shut-in 90 min. Steadily increasing, good blow. Recovered 490' salt water with a show of oil in the tool.

HP: 1790-1778 SIP: 1128-1128

FP: 60/132 - 156/277Rw = .221 @ 45.5 deg. F.

Salinity = 55,000 ppm, 2200 ppm Cl.

Electrical Surveys: Log-Tech, Topeka, Kansas

RA Guard Log from 3200-4333' TD
Borehole Compensated Sonic Log from 250-4333' TD
Log Calculations: Rw = .07 Toronto to Mississippian,
Rw = .12 for Mississippian.

Note: The Driller's total depth was five (5) feet less than the Logger's total depth (4328' vs. 4333'). This accounts for part of the Sample Log vs. Electric Log Top differences. Strap at 3675' was 2.3 feet long.

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CONSERVATION DIVISION Wighits, Kansas

ORIGINAL

Porous Zones:

Toronto 3637-39'

Limestone, light tan-buff, micrite, tite, with weak dull yellow fluorescence, rare grains give fast strong, streaming bright yellow to milky cut. Most grains give very weak evaporation ring cut. Interbedded with buff, fossiliferous packstone with good pinpoint and intergranular porosity and no shows or cut. Yellow mineral fluorescence is present throughout.

Lansing/Kansas City

"A" Zone 3655-62'

Limestone, light tan to buff, interbedded tight micrite and packstone with fair to good porosity, rare oolites. Circulated sample had good pinpoint to vugular porosity which gave moderate to strong fast milky yellow cut. DST #1 of this zone and the Toronto above recovered 490' of formation salt water (55,000 ppm) with a show of oil in the tool.

"E/F" Zone 3755-59'

Limesetone, light brown to tan micrite and packstone interbedded. Some brown finely crystalline limestone. Black tar-like dead oil fills and lines many of the pores and vugs. The tar specks will not fluoresce, but cut with a strong yellow cut. The samples look wet with only residual oil shows. No test recommended.

Upper "G" Zone 3762-70'

Limestone, brown, oocastic, good porosity, no permeability, very weak crush evaporate cut ring. Samples look wet. No test recommended.

"G" Zone 3784-88'

Limestone, light tan to brown micrite and wackestone interbedded, dull yellow mineral fluorescence, some porous grains give a weak slow milky cut. Samples look wet. No test recommended.

"J" Zone 3886-88'

Limestone, light brown to tan micrite with poor to fair pinpoint and vugular porosity. Numerous black dead oil specks which give cut but won't fluoresce. Samples look wet. No test recommended.

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CONSERVATION DIVISION Wighita, Kansas

ORIGINAL

"L" Zone 3942-46'

Limestone, brown fossiliferous wackestone with poor porosity filled with black non-fluorescing oil specks. Samples look wet. No test recommended.

Mississippian 4296-4329'

Dolomite and dolomitic limestone, white to creamy gray, sucrosic to microcrystalline with fair intercrystalline porosity, very weak evaporate ring cut. Samples look wet. No test recommended.

All porous zones calculated wet from the electric logs. The "A" zone was the best looking zone for production potential, but tested 490' of formation salt water (55,000 ppm) with only a show of oil in the tool.

Apparently this well is too low structurally (± 23' low to Clinton #1 Evans producer) to trap hydrocarbons. Oil migrated through its porous zones updip - probably to the north and east toward the Clinton #1 Evans. The well was abandoned in the Mississippian at 4328' Driller's depth.

Recommendations:

- 1. Trade well data (logs, etc.) with:
 - A. Clinton Production for: #1 Evans, SENWSE Sec. 30-T14S-R28W (Producer) #2 Evans, W/2NESE Sec. 30-T14S-R28W
 - B. Dane Hansen Trust for: Well in NENWSW Sec. 30-T14S-R28W.
- Acquire and/or shoot seismic across Sec. 31-T14S-R28W.
- Tie seismic to the sonic log on the Cascade Evans #31-3 (synthetic seismogram).
- 4. Potential producing locations exist in the N/2, NE, and in the S/2 Sec. 31-T14S-R28W. Seismic and trade data will help evaluate this potential.

Respectfully,

Robert H. Fehlmann, Geologist 2561 South Brentwood Ct.

Lakewood, Colorado 80227

(303) 986-3638

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CONȘERVATION DIVIDIQU Wichita, Kansas MAR O

| (1990) | Cascade Oil #31-3 Evans NENW Sec. 31, T14S-R28W | | Comparison Key Well (KB=2552) | Log Top Difference Cascade Oil | |
|-------------------|---|--------------|-------------------------------|-----------------------------------|-------------|
| | | (KB=2534) | Sample Top | SESW 30-14S-28W | to |
| _ | Sample | RA Guard Log | to Log Top | Kan Ex Inc. | Kan Ex Inc. |
| Formation | Top | Тор | Difference | Evans #1 | (Key Well) |
| Anhydrite | 1935 (+ 599) | 1940 (+ 594) | + 5 | 1951 (+ 601) | - 7 |
| Heebner | 3608 (-1074) | 3612 (-1078) | + 4 | 3620 (-1068) | |
| Toronto · | 3610 (-1074) | 3616 (-1082) | + 6 | 3625 (-1073) | <u> </u> |
| Lansing/Kansas | • | 3010 (-1002) | 1 0 | 3023 (-1073) | _ , |
| "A" | 3650 (~1116) | 3654 (-1120) | + 4 | 3662 (-1110) | -10 |
| "B" | 3678 (-1144) | 3680 (-1146) | + 2 | 3690 (-1138) | - 8 |
| "D" | 3699 (~1165) | 3704 (-1170) | + 5 | 3712 (-1160) | -10 |
| "E/F" | 3734 (-1200) | 3734 (-1200) | 0 | 3742 (-1190) | -10 |
| "G ['] " | 3757 (-1223) | 3761 (-1227) | + 4 | 3770 (-1218) | - 9 |
| "G" | 3793 (-1259) | 3796 (-1262) | + 3 | 3870 (-1255) | - 7 |
| "H" | 3810 (~1276) | 3821 (-1287) | +11 | 3832 (-1280) | - 7 |
| "I" | 3840 (-1306) | 3840 (-1306) | 0 | 3852 (-1300) | - 6 |
| "J" | 3873 (-1339) | 3874 (-1340) | + 1 | 3888 (-1336) | - 4 |
| "K" | 3895 (-1361) | 3894 (-1360) | - 1 | 3970 (- 1355) | - 5 |
| "L" | 3935 (-1401) | 3926 (-1392) | - 9 | 3940 (-1388) | - 4 |
| BKC | 3966 (-1432) | 3962 (-1428) | ~ 4 | 3970 (~1418) | -10 |
| Marmaton | 3970 (-1436) | 3971 (-1437) | - 1 | 3978 (-1426) | -11 |
| Pawnee | 4073 (-1539) | 4070 (-1536) | - 3 | 4077 (-1525) | - 9 |
| Ft. Scott | 4153 (-1619) | 4144 (-1610) | - 9 | 4153 (-1601) | – 9 |
| Cherokee | 4194 (-1660) | 4170 (-1636) | -24 | 4185 (-1633) | - 3 |
| Miss. | 4290 (-1756) | 4257 (-1723) | -33 | 4262 (-1710) | -13 |
| TD | 4328 | 4333 | | • | 0 |

NOTE: Strap Difference at 3675' was +2.33'. We were actually at 3677.3', not 3675'.

Clinton #1 Evans, SENWSE 31-14S-28W has Anhydrite at 1968' and KB=2600'. Therefore Anhydrite there is (+614).