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DRILL IN 2/15/64

- Drilled shoe at 4377 @ 12:40 P.M. and drilled cement and cleaned out to 4378 @ 12:55 P.M.
18 gallons very slightly oily mud @ 12:55 (15 min.)
18 gallons slightly oily mud @ 1:05 P.M. (10 min.)
9 gallons slightly oily mud @ 1:20 P.M. (15 min.)
3 3/4 gallons oily mud @ 1:40 P.M. (20 min.)
Drilled and cleaned out cement to 4378 1/2 @ 2:10 P.M. to 2:20 P.M.
11 gallons oily mud @ 2:30 P.M. (50 min.)
Drilled and cleaned out cement to 4379 bottom rotary hole.
Corrections: R.T.D. 4377 = 4379 Pipe strap and log T.D. 4 1/2" casing @ 4377.
18 gallons heavy oily mud @ 3:10 P.M. (40 min.)
17 gallons heavy oily mud @ 3:18 P.M. (8 min.)
8 gallons oil and 1 gallon heavy oily mud @ 3:25 P.M. (7 min.)
Commenced deepening @ 3:55 P.M.
4379-4383 1/2 3:55 P.M. - 4:55 P.M. 70% dolomite, buff, finely to medium crystalline, poor to fair porosity with light stain to good saturation, 30% chert, white, bony, trace tripolitic, trace poor spotted porosity with light to fair spotted stain.
18 gallons heavy oily mud and 1/2 gallon oil 5:10 P.M. (1 hr. & 15 min.)
17 gallons heavy oily mud and 1 gallon oil @ 5:20 P.M. (10 min.)
17 gallons heavy oily mud and 1 gallon oil @ 5:27 P.M. (7 min.)
9 gallons heavy oily mud and 9 gallons oil @ 5:35 P.M. (8 min.)
17 gallons oil and 1 gallon mud @ 5:45 P.M. (10 min.)
17 1/2 gallons oil and 1/2 gallon mud @ 5:55 P.M. (10 min.)
18 gallons clean gassy oil @ 6:05 P.M. (10 min.)
Good show of gas. Could not bail hole dry.
4383 1/2-4385 1/2 6:10 P.M. - 6:35 P.M. 75% dolomite, finely crystalline, poor to fair porosity with light spotted stain to fair saturation. 10% chert, bony, trace poor spotted porosity with light spotted stain, 15% light green shale.
18 gallons oil (hole not dry) 6:45 P.M.
268' oil in 3 hrs. & 35 min. @ 7:30 P.M. after removing 81 1/2 gallons oil & 62 1/2 gallons oily mud.
720' oil in 12 hrs. @ 7:30 A.M. 2/16/64. (F.U. 458' in 12 hrs.)
2/16/64 Ran 2" tubing to 4382. Swab 14.21 barrels of oil, no water in 3 hrs. and 40 min. Swab .84 B.O.P.H. last 2 hrs.
2/17/64 Loaded hole with salt water. Acidized Miss. with 100 gallons 7 1/2% B.D.A. Max. press. 1000#, min. press. 500#, final press. 1000#, A.I.R. .01 B.P.M. Pressure drop 200# in 5 min. Total load to recover 65 B.W.
2/18/64 Total swab .59 B.O. and 64.3 B.W. in 12 hrs.
2/19/64 600' fluid overnight. Swab 9.24 B.O., no water in 4 hrs. Swabbed .84 B.O.P.H. last 2 hrs. Loaded hole with S.W. Acidized with 500 gallons 7 1/2% B.D.A. Max. press. 2000#, min. press. 1150#. Pressure drop to zero in 51 min. A.I.R. .15 B.P.M. 72 B.W. load to recover.
2/20/64 Swab 15.59 B.W./3 hrs. (shot 8 B.L.W.) Swab .84 B.O.P.H. for 2 hrs. Swab 4.41 B.O./6 hrs. Last 2 hrs. swab .71 B.O.P.H.
2/21/64 Frec Miss. form. with 500 gallons jelled acid blanket, 3000# sand, 2016 gallon S.W. flush. Press. 1825#. A.I.F. 1650. Press. to zero in 36 min. A.I.R. 5.0 B.P.H. down annulus. Total load 148 B.W.

DRILL IN (cont'd.)

2/24/64 Swabbed 46.40 B.O., 27.99 B.W./7 hrs. (2 barrels new water)
2/25/64 Pump 45.36 B.O., 34.64 B.W./14 hrs.
2/26/64 Pump 92.91 B.O., 39.81 B.W./24 hrs.
3/3/64 State Potential: Pump 131 B.O., 56 B.W./24 hrs.
Penetration Miss. 10 $\frac{1}{2}$ '. T.D. 4385 $\frac{1}{2}$ '.



V. J. Quick
Geologist

VJQ/ng

CHRONOLOGICAL DRILLING RECORD

Elev. 2236 KB

Date of Report	Total Depth	Description of Work Performed
1-23-64	506'	Location staked by Ness County engineer, 1980' from West Line and 660' from South Line (Gen. (SE SW) Section 6-20-21W, Ness County, Kansas. Offset. Contractor: Peel Brothers, Inc. J. O. 9-157129 Levelling location and digging pits.
1-24-64		Finished levelling location and digging pits. MIRR.
1-25-64		MIRR, RUR.
1-26-64		Spudded 12:15 PM 1-26-64. Drilled 12½" hole to 506' (sh). Ran 25 jts. (516.45') 8-5/8" OD 32# 8 rd. thd. grade "C" casing set below zero 11' and cemented at 506' with 300 cu. ft. Pozmix "A" (60%, 2% CC); plug down at 2:00 PM 1-27-64. Cement circ. (with plug at 150 WOC.
1-27-64		
1-28-64	1470'	Drilling 7-7/8" hole at 1470 (Anhy). Started drilling at 5:00 PM 1-27-64. Drlrs. top Anhy. 1433.
1-29-64	2392'	On trip (ls); dev. 1/4° at 500, 1000, 1500 and 2000'.
1-30-64	2875'	Drilling (sh & ls); dev. 1/2° at 2500'.
1-31-64	3236'	On trip (sh & ls); dev. 1/2° at 3000'; wt. 10.3, vis. 38; drill pi strapped, 1.99' short at 3049.
2-1-64	3560'	Drilling (ls & sh); wt. 10.3, vis. 40, WL 9.6 cc.
2-2-64	3790'	Drilling (ls & chalk); wt. 10.4, vis. 42, WL 9.0 cc.
2-3-64	3985'	Drilling (ls); wt. 10.5, vis. 42, WL 8.0 cc. Tops: Heebner 3734, Toronto 3754, Lansing 3782. (No elevation).
2-4-64	4073'	On trip; going back reaming to bottom, stuck approximately 4062'; wt. 10.4, vis. 45, WL 7 cc. 2236' KB elevation. Heebner 3734 (-1498), Toronto 3754 (-1518), Lansing 3782 (-1546). -1549 high to well to south.
2-5-64	4155'	Fish out of hole (ran Dia-Log, shot off, leaving 2 drill collars a bit in hold; ran hydraulic jars, knocked loose); conditioned hole; back to drilling at 8:45 PM. Drilling at 4155 (ls); wt. 10.3, vis 42, WL 5.4 cc.
2-6-64	4304'	DST #1 4286-4304, Ft. Scott, good show and odor; top 4284' (-2048)
2-7-64	4365'	Taking DST #2 4347-65, Conglomerate; wt. 10.3, vis. 45, WL 5.6 cc. DST #1 4286-4304', Ft. Scott, open 1 hr. (5-30-60-30), weak blow throughout test, recovered 25' rotary mud with specks of oil; ISIP 1229#/30 mins., IFP 9#, FFP 27#, FSIP 269#/30 mins. Temp. 111°. Base K. C. 4106 (-1870). Conglomerate 4351 (-2115).
2-8-64	RTD 4377'	Preparing to run Schlumberger logs; wt. 10.3, vis. 47, WL 8 cc. DST #2 4347-56, Congl., open 1 hr. (3-30-60-32), weak blow and die in 7 mins., recovered 30' drilling mud; ISIP 36#/30 mins., IFP 18# FFP 36#, FSIP 36#/32 mins. Drilled to 4377; top Miss. 4373 (-2137) 1' higher than offset. DST #3 4361-77, Miss., open 90 mins., (2-90-30), weak steady blow throughout, recovered 40' heavy oil-cut mud, 120' oil-cut mud; ISIP 1346#/30 mins., IFP 36#, FFP 90#, FSIP 1058#/30 mins. Temp. 112°. Conditioning hole.
2-9-64		Ran Schlumberger Laterolog with Gamma Ray and Microlaterolog with Resistivity; ran back with drill pipe to condition hole; ran 135 4½" OD 9.5# J-55 casing at 4375' KB, ran 750 gals. mud flush, cem. with 275 sx Pozmix A salt saturated; plug down at 12:20 AM 2-9-64 SLM float 4356; 4 -4½" centralizers at 4073, 4168, 4266 and 4344 (4377 Schlumberger).

CHRONOLOGICAL DRILLING RECORD

Date of Report	Total Depth	Description of Work Performed
2-10-64	4377'	WOC.
2-11-64	"	"
2-12-64	"	"
2-13-64	"	Waiting on unit.
2-14-64	"	MI unit.
2-15-64	"	Rigged up cable tools, swabbed hole dry; top float 4349½ SLM; drilled cement float and cement 4349½-4358.
2-16-64	4383½'	Drilled out cement 4358 to shoe 4377'. Corrected TD 4377' to 4379'. Top Miss. 4375 (-2139); drilled out 4379-4383½, 75% dolomite, 10% chert and 15% shale; fillup 268' oil in 3 hrs. 35 mins. Bailed 81 gals. oil and 62½ gals. oily mud.
2-17-64	"	Filled up 720' oil, no water, 15 hrs. 35 mins. or 452' fillup in 1 hrs. Ran 139 jts. 2" EUE 8 rd. thd. casing at 4382' with 3' perf. nipple and 1' seating nipple; swabbed 14.21 bbls. oil, no water, 3 hrs. 40 mins. Swabbed .84 bbls. oil/hr. last 2 hrs.
2-18-64	"	Swabbed 15.96 bbls. oil, no water, 7 hrs. Swabbed .84 bbl. per hr. last 2 hrs. Loaded hole with 63 bbls. salt water. <u>Acidized Miss.</u> open hole 4377-4383½ with 100 gals. 7½% BDA, max. pr. 1000#-500#, final pr. 1000#, AIR .01 B/M, treating time 2 hrs. 12 mins., pr. drop 25#/1 min., 200#/5 mins.; total load and treatment 65.5 bbls.
2-19-64	"	Swabbed 0 oil, 62.8 bbls. water, 5 hrs. " 0 oil, .84 bbl. water, 1 hr. " 0 oil, no water, 1 hr. " 8.35 gals. oil, 10.02 gals. water, 1 hr. " 8.35 gals. oil, 15.05 gals. water, 1 hr. " 23.38 gals. oil, 3.34 gals. water, 1 hr. " 26.72 gals. oil, no water, 1 hr. " total 1.59 bbls. oil, 64.31 bbls. water.
2-20-64	"	600' fluid in hole overnight. 600' fluid in hole overnight. Swabbed 9.24 bbls. oil, no water, 1 hrs. Swabbed .84 bbl. oil/hr. last 2 hrs. Loaded hole with 60 bbls. salt water. <u>Acidized Miss.</u> open hole 4377-4383½ with 500 gals. 7½% BDA, max. pr. 2000-1150-1350 final pr., pr. drop 250#/1 min., 800#/15 mins. to zero in 51 mins., AIR .15 BPM, treating time 1 hr. 27 mins. Total load and treatment 72 bbls. to recover.
2-21-64	"	Swabbed 48.43 bbls. water load, 2 hrs. Swabbed 15.59 bbls. water, 3 hrs. Total load recovered 64.02 bbl. (72 bbls. total to recover). Swabbed .84 bbls. oil/hr., 2 hrs.
2-22-64	"	Swabbed 4.41 bbls. oil next 6 hrs. Swabbed .71 bbl. oil/hr., 2 hrs. 580' fluid in hole. Swabbed 4.60 bbls. oil, no water, 2 hrs. Pulled out 5 jts. 2" EUE tubing to frac. <u>Fraced Miss.</u> open hole 4377-4383½ (Dowell), with 500 gals. gelled acid blanket, 3000 gal gelled 3% acid and 3000# 20-40 sand, 2016 gals. salt water flush, pr. 1825#, avg. treating pr. 1650-1550#, 225# drop in 1 min., 12C in 20 mins. to zero in 36 mins., through annulus, total load to recover 148 bbls., Set gel break-out, AIR 5.1 BPM.
2-23-64	"	3243' fluid in hole. Swabbed 124.95 bbls. fluid in 10 hrs., 48 bbls. oil, 76.95 bbls. water. Fluid 500' off bottom. 71 bbls. load to recover.

CHRONOLOGICAL DRILLING RECORD

Date of Report	Total Depth	Description of Work Performed
2-24-64	4383½'	3033' fluid in hole. Swabbed 109.50 bbls. fluid in 11 hr., 45.02 bbls. water and 64.48 bbls. oil. Swabbed 6.72 bbls./hr., 4 bbls. oil and 2.72 bbls. water last hr. 26 bbls. load to recover.
2-25-64	"	Swabbed 46.40 bbls. oil, 27.99 bbls. water, 7 hrs. Sp. gr. 1.027, 20,716 ppm chlorides, trace H ₂ S, 700 ppm sulfates. All load back (plus 2 bbls. over). Ran 173 (4325') 3/4" x 25' rods with 2x1½"x15' pump. (National pump.)
2-26-64	"	Pump kept hanging up; pulled rods and pump; ran 173 (4325') 3/4" x 25' rods with 2x1½"x15' Pacific 3-tube pump; pumped 45.36 bbls. oil 34.64 bbls. water (43.3%), 14 hrs. Bleeder sample this morning 27% water.
2-27-64	"	Pumped 132.72 bbls. fluid, 92.91 bbls. oil and 39.81 bbls. water, 24 hrs.
2-28-64	"	Pumped 63.36 bbls. fluid, 30% water, 12 hrs. 44.36 bbls. oil and 19.00 bbls. water. No tank room.
2-29-64	"	Shut down. To test 3-2-63.
3-1-64	"	Shut down.
3-2-64	"	On State potential. Pumped 66 bbls. fluid (5.5 bbls./hr.), 30% wt. 12 hrs. on pretest.
3-3-64	"	<u>State Physical Potential:</u> Pumped 131 bbls. oil, 56 bbls. water (30% wt.) 24 hrs. <u>Complete.</u> Allowable 31 bbls. oil/day.
		TD 4383½', 4½" casing at 4377', Miss. open hole 4377-4383½'. 4375
CC: Geological Dept., Wichita		

RITCHIE EXPLORATION, INC.

125 N. Market - Suite 1000
Wichita, Kansas 67202-1775
316-267-4375 FAX 316-267-3026

#1 O'Brien "A-P"
C SE SW
Section 6-20S-21W
Ness County, Kansas

ACID JOB

- 2-14-94 Bbl test: 82.87 BTF, 3% oil. Pressured pump up.
Dumped 300 gallons 15% SWIC heated acid and dumped
40 barrels water on top. Let set for two hours.
Fluid level at 500'. Dumped seven more barrels of
water, total of 47 barrels water. Will leave down 24
hours.
- 2-23-94 Bbl test: 14.2 BTF, 4% oil.

O'BRIAN "A" #1 MISCELLANEOUS CHRONOLOGICAL REPORT

1-06-87 -- FG rods. Working fluid level at 1672'.

MISCELLANEOUS CHRONOLOGICAL REPORT
OBRIEN "A" #1
NESS COUNTY, KANSAS

08-09-89 Dumped 300 gal 28% FE. BW 3 BO & 61 BWPD.
 AW 6 BO & 108 BWPD. TC \$475.00.

cc: Chrono Book
 Well File
 C. W. Horsman

O'BRIEN "A" #1

APRIL 1992

24th -

Acid job. 300 gal 28% NE acid. TCTD
\$500.00.

LEASE & WELL NO.: O'Brien AF #1
 Location: 660' FSL-1980' FSL Sec 6-20s-21 County: NCS 2
 Elevation -- G.L.: 2228' R.K.B.: 2236'
 Date Completed: February 15 1964
 Initial Potential: 131 bo + 56 bw -24
 Producing Formation: Mississippi Top: 4375(-2139)
 Current Production: 460 + 83 bw -24
 Accumulated Production: 60,493 bo + 554,791 bw
 Casing: 8 7/8" @ 507' w/ 300 sk 60/40 P₂ mix + 2% CaCl₂
 4 1/2" @ 4375' w/ 275 sk P₂ mix A + salt
 Total Depth: 4385 PBD: DV Tool:

5 1/8" @
 507'
 w/ 300 sk

WORKOVER RECORD: Completion: Drill out to 4385' Az w/
 100 gal 7 1/2% Az w/ 500 gal 7 1/2% Frac az
 w/ 3000 gal gelled acid & 3000 lb sand.
 IP: 131 bo + 56 bw

8-22-67 Dump ACID 250 gal XL-2 + 47 bsw
 BWO: 11 + 65 AWO: 23 + 92
 4-2-69 Dump ACID 250 gal XL-15% + 40 bsw
 BWO: 12 + 84 AWO: 17 + 99
 6-11-69 Dump ACID 300 gal XL-33 + 40 bsw
 BWO: 15 + 70 AWO: 17 + 103
 8-15-72 Dump ACID 250 gal 15%
 BWO: 9 + 73 AWO: 13 + 131
 9-10-73 Dump ACID 250 gal 15% MOD-202 + 40 bsw
 BWO: 6 + 100 AWO: 7 + 109
 4-9-75 Dump ACID 250 gal 20% MOD + 40 bsw
 BWO: 3 + 55 AWO: 9 + 101
 5-14-81 Dump ACID 300 gal MOD-202 + 40 bsw
 BWO: 3 + 75 AWO: 7 + 129

No other zones - FT Scott

4 1/2" @
 4375'
 w/ 275 sk

TD 4385'

4-27-83

WELL NO.: O'Brien A 1

Loc no: 660 FSL-1980 FSL Sec 2-20-21 County: NCS

Elevation -- G.L.: 2228' R.K.B.: 2250'

Date Completed: February 15, 1964

Initial Potential: 131 bo + 56 bw - 24

Producing Formation: Mississippi Top: 4375' (-2139)

Current Production: 460 + 83 bw - 24

Accumulated Production: 60,493 bo + 554,791 bw

Casing: 8 7/8" @ 507' w/ 300 sk 60/40 P₂ mix + 2% CaCl₂

4 1/2" @ 4375' w/ 275 sk P₂ mix A + salt

Total Depth: 4385 PBD: DV Tool:

WORKOVER RECORD: Completion: Drill out to 4385' Az w/ 100 gal 7 1/2% Az w/ 500 gal 7 1/2% - Frac Az w/ 3000 gal gelled acid & 3000 lb sand. IP: 131 bo + 56 bw

8-22-67 Dump ACID 250 gal XL-2 + 47 bw
BWO: 11 + 65 AWO: 23 + 92

4-2-69 Dump ACID 250 gal XL-15% + 40 bw
BWO: 12 + 94 AWO: 17 + 99

6-11-69 Dump ACID 300 gal XL-33 + 40 bw
BWO: 15 + 70 AWO: 17 + 103

8-15-72 Dump ACID 250 gal 15%
BWO: 9 + 73 AWO: 13 + 131

9-10-73 Dump ACID 250 gal 15% MOD-202 + 40 bw
BWO: 6 + 100 AWO: 7 + 108

4-9-75 Dump ACID 250 gal 20% MOD + 40 bw
BWO: 3 + 55 AWO: 7 + 101

5-14-81 Dump ACID 300 gal MOD-202 + 40 bw
BWO: 3 + 75 AWO: 7 + 129

No other zones - FT Scott

8 7/8" @
507'
w/ 300 sk

4 1/2" @
4375'
w/ 275 sk

TD 4385'

4-27-83

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien F Well No. 1 County Ness State KANSAS
 Contractor Feel Bros Inc Date 1-26-64
 Depth at 8 AM 4 PM Midnight
 Driller's 12-8A 8A-4P 4P-12 W. E. Cady

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
0	100	Clay & silt			
100	125	Shale & shells			
125	275	Silt & shells			
275	340	SAND			
340	500	SHALE & SHELLS			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

MUD RECORD

TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
		WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
1						
1						
1						
DRILL PIPE TRIPS		2			15	M200000
DEPTH	REASON	2			2	Lime
		2				
		3	630	52		
		3				
		3				

Size Hole _____ Pumo Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks:

8A-4P Remarks: Rig up 12 1/2" hole 5000 125 ft. 12:15 P.M.

4P-12 Remarks: 300 to 200 DRUG - 200 TO 1000 PIPE JET COLLAR TRIP - 1000 - JET COLLAR - OUT OF HOLE - 1000 TO 1100 RIG UP AND STARTED RUNNING 3/8" CASING -

CITIES SERVICE OIL COMPANY DAILY DRILLING REPORT

Lease *O'Brien "A"* Well No. *1* County *Ness* State *Kansas*

Contractor *Peel Bros. Inc.* Date *1-27-64*
Depth at *8 AM 506* *4 PM* Midnight *1700*
Driller's *12-8A Bohannon* *8A-4P Bill Flambert* *4P-12 W.C. Cady*

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
<i>536</i>	<i>910</i>	<i>SHALE & SHELLS</i>			
<i>910</i>	<i>1100</i>	<i>SAND</i>			
<i>1100</i>	<i>1200</i>	<i>SHALE & SHELLS</i>			

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
<i>1000</i>	<i>1/4</i>	<i>Sypho</i>	<i>1</i>						
			<i>1</i>						
			<i>1</i>						
DRILL PIPE TRIPS			<i>2</i>						
DEPTH	REASON		<i>2</i>						
			<i>2</i>						
			<i>3</i>						
			<i>3</i>						
			<i>3</i>						

Size Hole *7 7/8* Pump Pressure Midnight *900* Drill Pipe Wt. Midnight *54000*
Bit No. *1* Size *7 7/8* From *506* To *1200*

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				
<i>8 5/8</i>		<i>JV</i>			<i>516'</i>	<i>507</i>	<i>300</i>	<i>60-40 Hamit 2%</i>

12-8A Remarks: *Ran 25 hrs poor surface pipe set @ 507' in 2000 ft*
60-40 Pos mix 200 g-g. Cem. Cpe. Job 2042 2: AM
W.O.C.

8A-4P Remarks: *W.O.C. N: 001000*
Drilled Plug @ 2: PM

4P-12 Remarks: *DRILLED 5' CEMENT @ 6:00 CEMENT GOOD -*
Sypho @ 1000' - 1/4"

CITIES SERVICE OIL COMPANY DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas

Contractor Peel Bros. Inc. Date 1-28-64
 Depth at 8 AM 1470 4 PM 1835 Midnight 2240
 Driller's 12-8A Balancon 8A-4P Paul Flaudus 4P-12 W. L. Cady

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
1200	1433	Shale & Shells	1835	2240	Shale & lime
1433	1470	Anhydrite			
1470	1500	Flint			
1500	1835	Shale & Shells			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT
1500	2	S450
2000	W	

MUD RECORD

TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
		WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
1					5	balls
1						
1						
DRILL PIPE TRIPS		2				
DEPTH	REASON	2				
1536	TRIPPER BIT	2				
		3				
		3				
		3				

Size Hole 7 7/8 Pump Pressure Midnight 950# Drill Pipe Wt. Midnight 66000
 Bit No. 1 & 2 Size 7 7/8 From 5000 1536 To 1536

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Repair rig 3 1/2 hrs.

8A-4P Remarks: OK Rig Trip @ 1536 Run S450
Jet Bit 1536

4P-12 Remarks: Rig - Jet #1 Pit - Trip @ 2245 - Plugged Bit
Bit # 2 made 69' in 8 1/2 hrs.
Synho @ 2000 - 1/4"

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease *O'Brien A* Well No. *1* County *Ness* State *Kansas*

Contractor *Keel Bros. Inc.* Date *1-29-64*

Depth at *8 AM 2392* 4 PM *2595* Midnight *2690*

Driller's *12-8A Bohannon* 8A-4P *Earl Flanders* 4P-12 *W P Pugh*

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
<i>2240</i>	<i>2392</i>	<i>Lime + Shale</i>			
<i>2392</i>	<i>2595</i>	<i>Lime + Shale</i>			
<i>2595</i>	<i>2690</i>	<i>lime</i>			

SLOPE TESTS

DEPTH	DEGREE	INSTRUMENT
<i>1500</i>	<i>1/2</i>	<i>Syco</i>

MUD RECORD

TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
		WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
<i>1</i>					<i>5</i>	<i>sv. Halls</i>
<i>1</i>						
<i>1</i>						
<i>2</i>						
<i>2</i>						
<i>3</i>						
<i>3</i>						
<i>3</i>						

DRILL PIPE TRIPS

DEPTH	REASON
<i>2392</i>	<i>Plugged bit</i>
<i>2600</i>	<i>BIT</i>

Size Hole *7 7/8* Pump Pressure Midnight *1000* Drill Pipe Wt. Midnight *70,000*

Bit No. *3 & 4* Size *7 7/8* From *2235-2392* To *2392-2690*

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: *Jet pit Trip for plugged bit @ 2392 (going in hole w/bit #3 @ 2100)*

8A-4P Remarks: *OK Rig (B.C. 5/15) = 0 @ 7:30 PM Jet both pits*

4P-12 Remarks: *SERVICE RIG - JET #2 PIT - JET #1 PIT - TRIP @ 2690 BIT #4 MADE 270' IN 13 1/2 hr OUT ON DOUBLE*

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease *O'Brien "A"* Well No. *1* County *Ness* State *Kansas*

Contractor *Peel Bros. Inc.* Date *1-30-64*
 Depth at *8 AM 2875* 4 PM *3015* Midnight *3100*
 Driller's *12-8A Balaraman* 8A-4P *Earl Flanders* 4P-12 *W. L. Coyle*

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
<i>2690</i>	<i>2875</i>	<i>Lime & Shale</i>			
<i>2875</i>	<i>3015</i>	<i>Lime & Shale</i>			
<i>3015</i>	<i>3100</i>	<i>Lime & Shale</i>			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT
<i>3000</i>	<i>1/2</i>	<i>SXF0</i>

MUD RECORD

DEPTH	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
			WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
	<i>1</i>						
	<i>1</i>						
	<i>1</i>						
DRILL PIPE TRIPS							
	<i>2</i>					<i>10</i>	<i>Salt gel</i>
	<i>2</i>					<i>2</i>	<i>MZPCOPOL</i>
	<i>2</i>					<i>15</i>	<i>MU(B.I.E)</i>
<i>2982</i>						<i>15</i>	<i>STARCH</i>
<i>3039</i>						<i>7</i>	<i>hulls</i>
	<i>3</i>	<i>9:30</i>	<i>10-1</i>	<i>38</i>		<i>100%</i>	<i>PRES</i>
	<i>3</i>	<i>11:30</i>	<i>10-2</i>	<i>36</i>			
	<i>3</i>						

Size Hole *7 7/8"* Pump Pressure Midnight *1000* Drill Pipe Wt. Midnight *15621-20 7400*
 Bit No. *5 & 7* Size *7 7/8* From *2690 2982* To *2982-3100*

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: *Finish running in hole w/bit # 5 O.B. @ 11:30*

8A-4P Remarks: *CK Rig Jct Both Pits TRIP @ 2982*
Ready To Mud UP

4P-12 Remarks: *CHECK RIG - PULLED PLUGGED BIT - STRAP DRILL PIPE*

STRAP = 3049-39
BOARD = 3047-40
DIE = 1-79 NO CORR MADE

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas
 Contractor Peel Bros. Inc. Date 1-31-64
 Depth at 8 AM 3236 4 PM 3335 Midnight 3466
 Driller's 12-8A Bokannen 8A-4P Paul Landrum 4P-12 W.C. Coby

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
3100	3236	lime + shale			
3236	3335	lime + shale			
3335	3466	shale + lime			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

MUD RECORD

TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
		WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
1	12:00	10.4	37	?	3	Mylor gel
1	5:30	10.3	38		6	Salt-gel
1					2	Mucogel
2	2:00	10.2	42	9.7	3	Mylor gel
2					4	Salt gel
2				5 lbs DD	2	Hulls
3	4:00	10-3	39		2	Hulls
3	7:00	10-3	39		3	STARCH
3	10:00	10-3	39			

DRILL PIPE TRIPS

DEPTH	REASON
3236	Bit
3466	Bit

Size Hole 7 7/8 Pump Pressure Midnight 1000 Drill Pipe Wt. Midnight 77,000
 Bit No. 6-7 Size 7 7/8 From 3100-3236 To 3236-3466

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: CK Rig Trip @ 3236

8A-4P Remarks: CK Rig Out of Drilling Line Coin Hole 3/4 Bit #7
Q.B. @ 955 F.A.T

4P-12 Remarks: SERVICE RIG - TRIP FOR PLUGGED BIT @ 3466
REMOVED OUT OF HOLE

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas

Contractor Peel Bros. Inc. Date 2-1-64
 Depth at 8 AM 3560 4 PM 3650 Midnight 3745
 Driller's 12-8A Bobannon 8A-4P Earl Flandres 4P-12 W.C. Oaly

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
3466	3560	Lime + Shale			
3560	3650	Lime			
3650	3745	Chalk + Lime			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT
3500	74	Synho

MUD RECORD

TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
		WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
1	3:00	10.4	42	9.6	3	My-lagel
1	6:00	10.3	40			
1						
2		10.5	42	9	3	my-lagel
2					50.1	DD
2						
3		4.00	40	10-2	4	my-lagel
3		7.15	44	10-4	2	SALT GEL
3		10.00	41	10-4	1	MAGGEL

DRILL PIPE TRIPS

DEPTH	REASON
3466	Bit

Size Hole 7 7/8 Pump Pressure Midnight 800 Drill Pipe Wt. Midnight 78,000
 Bit No. 8 Size 7 7/8 From 3466 To 3745

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Pull bit #7 Pick up 2 D.C. O.C. w/bit #8 @ 2:20

Synho @ 3500 - 74°

8A-4P Remarks: OK Rig C.F. @ 3646 1 1/2 hr

1 1/2 hr Co Time W.D.P.

4P-12 Remarks: SERVICE Rig - CIRC. FOR SAMPLES @ 3690 - 1 hr. MIX MUD 7 hr.
 CIRC. FOR SAMPLES @ 3732 - 3/4 hr.
 CIRC. FOR SAMPLES @ 3742 - 1/2 hr.

2 1/2 hr Co Time W.D.P.

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease **O'Brien "A"** Well No. **1** County **Ness** State **Kansas**

Contractor **Peel Bros. Inc.** Date **2-2-64**
 Depth at **8 AM 3790** 4 PM **3890** Midnight **3943**
 Driller's **12-8A Bohannen** 8A-4P **Earl Flanders** 4P-12 **W. P. Paly**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
3745	3790	Lime + Chalk			
3790	3890	Lime Chalky			
3890	3943	Lime			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

MUD RECORD

TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
		WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
1	12:00	10.5	43	9	4	Mylojel
1	5:30	10.5	42			
1						
2	8:00	10.4	42		4	Mylojel
2	1:30	10.4	45	8.0	4	Saffol
2					5 gal	DD
3	4:00	10.5	43		4	Mylojel
3					4	bulks
3						

DRILL PIPE TRIPS

DEPTH	REASON
3762	Bit

Size Hole **7 7/8** Pump Pressure Midnight **900** Drill Pipe Wt. Midnight **80,000**
 Bit No. **8-9** Size **7 7/8** From **3745-3762** To **3762-**

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Bit trip @ 3762 C.F.S. 1 hr. before trip. Condition hole 1/2 hr after trip. Mix mud 1/4 hr. Strap D.P.

Strap 3768.21
 Hoop 3765.84
 D.C.S. 2.37 No corr.

1 3/4 hr. Co. Time w/D.P.

8A-4P Remarks: C.R.R. @ 3890 1 hr. To mix mud

1/4 hr Co. Time w/D.P.

4P-12 Remarks: Check R.R.
 C.R.R. @ 3943 - FOR SAMPLES - FOR TRIP 1 1/2 hr.
 Mix mud @ 3943 - 1/4

Co. Time w/D.P. - 1 3/4 hr.

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease **O'Brien "A"** Well No. **1** County **Ness** State **Kansas**

Contractor **Peel Bros. Inc.** Date **2-3-64**
 Depth at **8 AM 3985** **4 PM 4045** **Midnight 4073**
 Driller's **12-8A Bidannen** **8A-4P Carl Flanders** **4P-12 W. C. Poff**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
3943	3985	Lime			
3985	4045	Lime			
4045	4073	LIME			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

MUD RECORD

TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
		WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
1					4	My-logel
1	6:00	10.5	42	8		
1						
DRILL PIPE TRIPS						
DEPTH	REASON	WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
3943	Bit	10.3	38		4	My-logel
		10.5	47	7.0	3	Hiyeild
		10.5	45		6	Saltgel
		10.5	43			

Size Hole **7 7/8** Pump Pressure Midnight **800** Drill Pipe Wt. Midnight **82,000**
 Bit No. **10** Size **7 7/8** From **3943** To **4073**

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: **Trip @ 3943 Condition hole 1/2 hr. after trip. Mix mud 1/4 hr.**
O.B. dxlg. @ 2:15
3 1/2 hr. C. Time w/D.P.

8A-4P Remarks: **Bit Trip Circ 1/2 hr To Mix Mud**

4P-12 Remarks: **Check Trip**
CIRP. @ 4073 FOR SAMPLES BEFORE TRIP - MIX MUD 1/4
TRIP @ 4073 - REAMED 55' - STUCK 10' OFF BOTTOM
1 1/4 hr C. Time w/D.P.

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas

Contractor Peel Bros. Inc. Date 2-4-64

Depth of 8 AM 4073 4 PM 4073 Midnight 4093

Driller's 12-8A B. Shannon 8A-4P R. D. Hardin 4P-12 W. C. Cook

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
<u>4073</u>	<u>4093</u>	<u>LIME</u>			

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1		<u>10.4+</u>	<u>45</u>	<u>7</u>	<u>12</u>	<u>Salt-gel</u>
			1					<u>6</u>	<u>High-yield</u>
			1					<u>3</u>	<u>Myl-gel</u>
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3	<u>9:00</u>	<u>10-2</u>	<u>48</u>			
			3	<u>10:2</u>	<u>10-3</u>	<u>42</u>			

Size Hole 7 7/8 Pump Pressure Midnight 700 Drill Pipe Wt. Midnight 87,000

Bit No. 12 Size 7 7/8 From 4073 To 4093

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Work stuck pipe. Stuck @ 4071'

8A-4P Remarks: Work stuck pipe. Run if free point log. Back off
work. Hole out. Jars pulled. Fish loss coming out of
Hole and some.

4P-12 Remarks: Finish coming out of hole - Backed hole with
Bit #12 - RAN TO BOTTOM - CIRCLING
ON BOTTOM @ 7:45 - 8:45 TO 11:00 DR 12

1-M P. Time

CITIES SERVICE OIL COMPANY DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas

Contractor Peel Bros. Inc. Date 2-5-64

Depth at 8 AM 4155 4 PM 4202 Midnight 4245

Driller's 12-8A Behannen 8A-4P Earl Flaudus 4P-12 W. C. Cady

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
4093	4155	Lime			
4155	4202	Lime			
4202	4245	LIME			

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1	12:00	10.4	40	5.4	8	Salt-gel
			1	6:00	10.3	42		4	High-yield
			1					2	My-lo-gel
DRILL PIPE TRIPS			2	9:00	10.2	41		100' Res	6 Salt-gel
DEPTH	REASON		2		10.2	44	6.0	50' PD	3 Hi-yield
4202	TRIP FOR BIT		2					1 Halls	2 Mylo-gel
			3	7:00	10-1	42			
			3	8:00	10-3	43			
			3						

Size Hole 7 7/8 Pump Pressure Midnight Drill Pipe Wt. Midnight 82,000

Bit No. 12-13 Size 7 7/8 From 4093-4202 To No hole picked

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Mix mud 1/2 hr.

1/2 hr. Co. Time w/D.P.

8A-4P Remarks: CHK Rtg. Circ 1/2 hr To Mix Mud

0.45 1 hr 7 Trip @ 4202

1 1/2 hr Co Time w/D.P.

4P-12 Remarks: 3:00 TO - 5:10 FINISH TRIP - 5:10 TO - 5:40 PIPE TO COND. HOLE

5:40 TO - 9:50 DRIS - 9:50 TO - 11:00 WORK ON MUD PUMP

30 minutes

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas

Contractor Pool Bros. Inc. Date 2-6-64

Depth of 8 AM 4304 4 PM 4304 Midnight 4365

Driller's 12-8A Robinson 8A-4P Paul Flannery 4P-12 W.C. Cady

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
4245	4304	Limet Shale			
4304	4365	lime			

SLOPE TESTS

DEPTH	DEGREES	INSTRUMENT

MUD RECORD

DEPTH	TOUR	TIME	CHARACTERISTICS			CONDITIONERS		
			WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND	
	1	11:00	10.3	43	6	6	Salt-water	
	1	6:00	10.3	43		3	High-vis oil	
	1					2	Myl-in-ol	
DRILL PIPE TRIPS								
DEPTH	REASON	TOUR	TIME	WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
		2						
		2	D.P.					
		3	6:30	10-1	43	2		
		3	9:00	10-1 1/2	42	2		
		3	10:00	10-2	42			

Size Hole 7 1/8" Pump Pressure Midnight Drill Pipe Wt. Midnight
 Bit No. 13 Size 7 1/8" From 4245 To 4304

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Work on pump 11:00-12:00 Mix mad 1/2 hr.
C.E.S. @ 4304 - 1 1/4 hrs.
3/4 hrs. on time w/D.P.

8A-4P Remarks: B.F.C. 300 to 400 ft. - H₂O For DST = From 4276-4304
10:00 - 10:50 P.M. Shut in for DST. 1 hr Shut in for DST. 10:00 P.M. - 11:00 P.M. Shut in for DST. 12:29 P.M. J.F. 9" E.F. 07 [B.H.P.]

4P-12 Remarks: 300 to 400 Finish sand in hole with BIT #14 AFTER DST - MIX MUD
JET = 0.5"
1 1/4 hrs. on time w/D.P.

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas

Contractor Pool Bros. Inc. Date 2-7-64
 Depth at 8 AM 4365 4 PM 4368 Midnight 4377
 Driller's 12-8A Bohannon 8A-4P Bill Bohannon 4P-12 W.P. Daily

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION
<u>4365</u>					
<u>4365</u>	<u>4368</u>	<u>Lime</u>			
<u>4368</u>	<u>4377</u>	<u>LIME</u>			

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1	<u>12:00</u>	<u>10.2</u>	<u>41</u>	<u>5.6</u>	<u>10</u>	<u>Salt-sol</u>
			1	<u>7:00</u>	<u>10.3</u>	<u>45</u>		<u>5</u>	<u>High-yield</u>
			1					<u>2</u>	<u>Mix-lo-sol</u>
DRILL PIPE TRIPS			2		<u>10.3</u>	<u>46</u>	<u>7.7</u>	<u>10</u>	<u>Salt-sol</u>
DEPTH	REASON		2					<u>3</u>	<u>High-yield</u>
<u>4365</u>	<u>OST#2</u>		2					<u>3</u>	<u>Mix-lo-sol</u>
			3	<u>5:12</u>	<u>10-2</u>	<u>42</u>		<u>5</u>	<u>Salt-sol</u>
			3	<u>5:22</u>	<u>10-2</u>	<u>43</u>		<u>2</u>	<u>Mix-lo-sol</u>
			3	<u>7:00</u>	<u>10-2</u>	<u>44</u>			

Size Hole 7 1/2 Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. 14 Size 7 1/2 From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: C.F.S. @ 4365 1 1/2 hrs Mix mud 7 1/2 hr. Circ for DST #2
4347-4365

8A-4P Remarks: DST #1 From 4347-4365 Open 1 hr shut in 1 hr Pull DST
Wash 30' x 5" MUD TEST 36" I.P. 18" FF 96" R.H.P. 36"
Run in hole for DST. DR @ 12:15 10-5 Mix mud - condition for
the
C.F.S. @ 4368 1 1/2 hr

7 1/2 hrs for Time for D.P.

4P-12 Remarks: 300 10-5-5 AMOSK @ 4368 - 1/2 hr. - 340 10-5-5
Mix MUD 5 hr - Circ @ 4372 - For samples 1 1/2 hr
TRIP FOR DST #2 on bottom with tester 10 1/2 - TEST @ 10:15 TO 11:00
41-90 DST Test 10:15
10-5-5 AMOSK
7 1/2 hr for Time for 4P

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien "A" Well No. 1 County Ness State Kansas

Contractor Peel Bros. Inc. Date 2-8-64
 Depth at 8 AM 4377 4 PM _____ Midnight 4377
 Driller's 12-8A Bohannon 8A-4P Earl Flandus 4P-12 W P Rudy

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1	6:15	10.3	48	8	2	Silt
			1					4	High Solids
			1						Mud
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
4377	D.S.T. = 3		2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Tool open 10:58. Oper. 1 1/2 hrs. w/ steady weak blow throughout.
 F.S.T.P. 1/2 hr Pull time. Received 40' H.O. + G.C. mud - 126' O. + G.C. mud.
 I.S.I.P. 1346# I.F.P. 36# F.F.P. 90# B.H.P. 1058# Gain hole w/ bit
 Mix mud 5:10-5:30. Sec. & cond. hole to log 5:30-6:30
 8 hrs. S.T. time w/ D.P. 6:30-7:00 start out of hole - no log

8A-4P Remarks: 7:00 8:45 Pulled out Tail Log - Strap Pipe
 8:45 1:15 Logging 1 1/2 3:00 Run in Hole To Pipe

3 1/2 hrs Co Time w/ D.P.
 4 1/2 hrs Co Time w/ D.P.

4P-12 Remarks: CIRC - 1 1/2 hr To 4:00 hrs - LAY DOWN DRILL PIPE
 4:00 4:15 4:30
 1 1/2 hr Co Time w/ D.P.

CITIES SERVICE OIL COMPANY DAILY DRILLING REPORT

Lease O'Brien A Well No. 1 County Ness State Ks.

Contractor Pool Bros. Inc. Date 2-9-64

Depth at 8 AM 4 PM Midnight

Driller's 12-8A Robinson 8A-4P Robinson 4P-12

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____

Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Cement to 300 yds. Tearing down

8A-4P Remarks: Tear down

4P-12 Remarks: _____

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Typical

Lease **GRADYEN** Well (No. **A 1**) County **Ness** State **Kennecott**
 Contractor **B. W. H. Co. & Sons, Inc.** Date **2-14-1964**
 Depth at **10:00** AM **10:00** PM **11:00** PM **11:00** PM **11:00** PM **11:00** PM
 Driller's **12-8A** **8A-4P** **4P-12**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: *run in pipe up string up to 10' below hole bottom*
drilling string up about 10' below hole bottom

8A-4P Remarks: *use 2" = 4 1/2" drill pipe - cut 10'*

4P-12 Remarks:

CITIES SERVICE OIL COMPANY DAILY DRILLING REPORT

Lease O'Brien Well No. A-1 County Ness State Kan.
 Contractor Bill Hay Drilling Co Date 2-16-1964
 Depth at 7 AM 9 PM 12 Midnight
 Driller's 12-8A Charles Klingel 8A-4P 4P-12

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: From 12-8A
17 1/2" Casing - 12-8A
12-8A

12-8A
12-8A
12-8A

8A-4P Remarks: 12-8A
12-8A

4P-12 Remarks:

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease ORPIEN Well No. 1 County NESS State Kentucky
 Contractor Bill Hay, Jr. Co Date 2-17-1964
 Depth at 7 AM 7 1/2 PM 12:00 PM Midnight
 Driller's 12-8A Charles Klein 8A-4P 4P-12

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLcc	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: Run down 100' all oil in hole
run down 2 to 10'
run down 10' with 100 gal oil

8A-4P Remarks: run 8' down with 100 gal oil
run 5' down with 100 gal oil

4P-12 Remarks: _____

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'Brien Well No. A 1 County N.E.S.S. State Kanran
 Contractor E. P. Hart, Write = CO Date 9-18-1964
 Depth at 78 AM 174 PM 12 hrs. Pipe line Midnight
 Driller's 12-8A Charles Klingler 8A-4P 4P-12

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLcc	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: running bit down & testing

use 9' length case 2" oil pipe
use 2' of 1 1/2" O.S. pipe

8A-4P Remarks:

4P-12 Remarks:

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease **O'BRIEN** Well No. **A 1** County **NESS** State **Kennecott**
 Contractor **Roll Hay** Date **2-19-1964**
 Depth at **7:30 AM** **7:30 PM** Midnight
 Driller's **12-8A Chas King** **8A-4P** **4P-12**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: *Swabbing hole down & testing during well with 500 gal 7 1/2" mud Swabbing hole down to @ 3000'*

8A-4P Remarks: *use 6 inch pipe 2" out later use 2" 0.5" Rubber*

4P-12 Remarks:

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease O'BRIEN Well No. A 1 County NESS State Kansas
 Contractor Bill Hay & Son, Inc. CO Date 2-20-1964
 Depth at 7 1/2 AM 5 1/2 PM 12 hr Run Pipe time Midnight
 Driller's 12-8A Charles Klingler 8A-4P 4P-12

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: @ 1000' in hole finishing reworking hole
to ensure & testing

use 7 oil States level and 2"
use 2 set 7/16 O.S. Rubber 1

8A-4P Remarks:

4P-12 Remarks:

CITIES SERVICE OIL COMPANY DAILY DRILLING REPORT

Lease **O'BRIEN** Well No. **A1** County **NESS** State **Kansas**
 Contractor **Bill Hays Drilling Co** Date **2-21-1964**
 Depth at **7:30 AM** **4:40 PM** **10:00 PM** **Midnight**
 Driller's **12-8A Charles Klingler** **8A-4P** **4P-12**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole Pump Pressure Midnight Drill Pipe Wt. Midnight
 Bit No. Size From To

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: **580' ckt and run hole & cased & testing**
Grace well = sand case

8A-4P Remarks: **Dawell Co Did a Hail Free job**
uses 3000# sand 3500 gal Acid 3 3/4-10
10 1/2 2 2 1/2 1 1/2 1 1/2

4P-12 Remarks: **use 5 1/2 inch casing 2 1/2 inch status**
use bit 1 1/2 O.S. P. 1 1/2

CITIES SERVICE OIL COMPANY DAILY DRILLING REPORT

Lease **O'BRIEN** Well No **A1** County **NESS** State **Kansas**
 Contractor **Ball Hay Driller Co** Date **2-22-1964**
 Depth at **7:30 AM** **7:45 PM** **12 hrs. Rig Time** Midnight
 Driller's **12-8A Charles Klingler** **8A-4P** **4P-12**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: *Fluid down from top 11:50
 Drilling hole down & testing*

*Use 12 inch Cas. and 2 1/2" bit
 Use 0.5 Rubber 3 set*

8A-4P Remarks: _____

4P-12 Remarks: _____

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease **O'BRIEN** Well No. **A1** County **NES** State **Kenn**
 Contractor **Bill. Hay** Date **2-23-1964**
 Depth at **79 AM** **44 PM 12 hrs** **Midnight**
 Driller's **12-8A Charles Kingler** **8A-4P** **4P-12**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: *3000' haul in hole*
smacking hole down & testing

8A-4P Remarks: *were to run and 2" oil pipe*
were 2nd 9/16 O.S. Packer

4P-12 Remarks:

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

JBRLEN

Well No. A 1 County NESS State Kansas

Contractor Bill Haw. Wells Co Date 2-24-1964

Depth at 7:20 AM 7:40 PM 12 hrs. Rig time Midnight

Driller's 12-8A Charles Kingler 8A-4P 4P-12

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
DRILL PIPE TRIPS									
DEPTH	REASON								

Size Hole _____ Pump Pressure _____ Midnight _____ Drill Pipe Wt. _____ Midnight _____

Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: 2000' fluid in hole - swabbing bit down
& starting
from 7/4 Rate
not in pumping permit

8A-4P Remarks:
ADD 2 sacks (cont. to = oil & later
was 2 sacks 7/10 2 1/2 Rubber)

4P-12 Remarks:

CITIES SERVICE OIL COMPANY

DAILY DRILLING REPORT

Lease **OBRIEN** Well No. **A 1.** County **WESS** State **Kan**
 Contractor **Bill - Hay - White CO** Date **2-25-1964**
 Depth at **7:45 AM** **2:45 PM** **12 hr. Rig Time** Midnight
 Driller's **12-8A** **Chas. Hingle** **8A-4P** **4P-12**

FORMATION RECORD

FROM	TO	FORMATION	FROM	TO	FORMATION

SLOPE TESTS

MUD RECORD

DEPTH	DEGREES	INSTRUMENT	TOUR	TIME	CHARACTERISTICS			CONDITIONERS	
					WEIGHT	VIS.-SEC.	WLCC	AMOUNT	KIND
			1						
			1						
			1						
DRILL PIPE TRIPS			2						
DEPTH	REASON		2						
			2						
			3						
			3						
			3						

Size Hole _____ Pump Pressure Midnight _____ Drill Pipe Wt. Midnight _____
 Bit No. _____ Size _____ From _____ To _____

CASING RECORD

SIZE	WEIGHT	MAKE	MAKE		TALLY	CEMENTED AT	SACKS	KIND CEMENT
			F. COLLAR	SHOE				

12-8A Remarks: *Jump sand up*
pulling 3 1/4 pipe
Run 3 1/4 - Rods
Have 12-8A Rig

8A-4P Remarks:

4P-12 Remarks: