Caldwell	NE NW NW	25	55	29
Skelly Oil	955		-	core
C-608	360		-	
	1939			

written log

00041

Okay

CONFIDENTIAL

released

27-F-50

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES - ROLLA, MO.

COUNTY Caldwell LOG NUMBER

COMPANY OR OWNER Skelly Oil Company

FARM WELL NO. C-608

LOCATION NE NW NW SEC. 25 T. 55N R. 29W

CONTRACTOR Skelly Oil Company

DRILLER TOOL DR.

COMMENCED 9/28/39 COMPLETED

PRODUCTION PLOTTED

CASING RECORD

WATER RECORD

SOURCE OF LOG

ELEV. 955'

REMARKS 140' f NL & 1210' f WL

TOTAL DEPTH 360'

Filed in Chemistry building warehouse.

CHEM. ANAL. NO.

Skelly Sh. #6

FORMATION		THICK	DEPTH	FORMATION	THICK	DEPTH
Samples	0 - 150			Box 869		
Samples	150 - 330			Box 878		
Core	209 - 275			Box M-2		
Core	356 - 360			Box M-2		
See Tulsa list for cores 195-201; filed in core box C-609A						
Clay shale brown-gray		0	30.6			
Lime, white		30.6	—			

GINTER CHEMICAL LABORATORY
118 WEST CAMERON STREET
PHONE 3-5822
TULSA

R. L. GINTER, MANAGER

Core Hole C-608
Cen. NL NW4 Sec.
25-55N-29W
Caldwell County, Mo.

October 7, 1939.

No. 8418

Cored Sand 330-356: Sand with brown stain, 330-339 (9 feet)
Oil saturation 339-356 (17 feet)

Mr. J. E. Morero
The Skelly Oil Company
City

Subject: Core from well No. C-608

30-50% of this is drilling water

Joiken place.

Sample No	Permeability millidarcys	Porosity percent	Water Sat. percent	Oil Sat. percent	RESERVES Bbl/Acre/Ft.
3A-Can#1	179	25.8	61.0	6.7	135
6A-Can#1	82	24.9	61.0	9.8	190
10A-Can#1	30	21.9	67.0	15.5	260
11A-Can#1	58	23.7	63.0	12.2	225
13A-Can#1	68	24.0	55.0	11.2	210
2B-Can#2	329	22.4	50.5	31.0	540
4B-Can#2	13	16.1	62.0	28.4	355
6B-Can#2	8	15.0	64.0	36.0	415
8B-Can#2	13	18.1	53.5	32.4	455
11B-Can#3	82	24.7	47.0	34.0	650
14B-Can#3	184	25.8	42.5	34.2	685
17B-Can#3	94	23.5	45.5	31.2	570
19B-Can#3	51	22.4	43.0	34.6	600
2C-Can#4	37	20.6	52.5	30.2	485
6C-Can#4	98	22.6	41.0	27.2	475
8C-Can#4	162	25.8	41.0	34.2	685
11C-Can#4	276	27.5	34.2	27.2	580

Remarks:-

"The crude isolated from this sand is "heavy" and viscous and a commercial well is doubtful because of the lack of gas energy. On the basis of a viscosity of 10 centipoises and an average permeability of 100 millidarcys and a pressure in favor of flow of 15 pounds, a production per 10 feet of pay of 1 to 2 barrels could be expected per day."

A memorandum on the density of this oil and an approximation of it's viscosity will be mailed to your office this date.

Signed [signature]
R. L. Ginter

C-Cs

GINTER CHEMICAL LABORATORY
118 WEST CAMERON STREET
PHONE 3-5822
TULSA

R. L. GINTER, MANAGER

October, 7, 1-39.

r. J. E. Lorero
Skelly Oil Company
Skelly Bldg
City

In Re: Gravity and Viscosity of Oil in core from Well No. C-608

Gravity by pycnometer - 23 API

Viscosity Tests using a small pipette-

Oil Time @ 85F		363	seconds
Water "	"	4	"

Saybolt Time @ 85F (estimated) 2700 seconds
Absolute Viscosity (estimated) 540 centipoises

Signed R. L. Ginter

RG/Gs

Core Analysis, Polo Sand

Skelly Oil Company1 Core Hole C-608.
Center north line NW¼ Sec. 25, T. 55 N., R. 29 W.

Analyzed by Ginter Chemical Laboratory
118 West Cameron Street
Tulsa, Oklahoma

Sample No.	Permeability millidarcys	Porosity Percent	Water Sat.* percent	Oil Sat. percent	Reserves ** Bbl/Acre/Ft.
3A-Can#1	179	25.8	61.0	6.7	135
6A-Can#1	82	24.9	61.0	9.8	190
10A-Can#1	30	21.9	67.0	15.3	260
11A-Can#1	38	23.7	63.0	12.2	225
13A-Can#1	68	24.0	55.0	11.2	210
2B-Can#2	329	22.4	50.5	31.0	540
4B-Can#2	13	16.1	62.0	28.4	355
6B -Can#2	8	15.0	64.0	36.0	415
8B-Can#2	13	18.1	53.5	32.4	455
11B-Can#3	82	24.7	47.0	34.0	650
14B-Can#3	184	25.8	42.5	34.2	685
17B-Can#3	94	23.5	45.5	31.2	570
19B-Can#3	51	22.4	43.0	34.6	600
2C-Can#4	37	20.6	52.5	30.2	485
6C-Can#4	98	22.6	41.0	27.2	475
8C-Can#4	162	25.8	41.0	34.2	685
11C-Can#4	276	27.5	34.2	27.2	580

Average porosity = 22.6

* 30-50 percent of this is drilling water.
** Of oil in place.

Core, sand, with brown stain	330-339 feet.
Core, sand, oil saturation	339-356 feet.

The following remarks by R. L. Ginter accompanied the above analysis:

"The crude isolated from this sand is "heavy" and viscous and a commercial well is doubtful because of the lack of gas energy. On the basis of a viscosity of 10 centipoises and an average permeability of 100 millidarcys and a pressure in favor of flow of 15 pounds, a production per 10 feet of pay of 1 to 2 barrels could be expected per day."

Gravity of oil by pyonometer, 23° API
Viscosity tests using a small pipette:
Oil time @ 85° F, 365 seconds
Water time @ 85° F, 4 seconds
Soybolt time @ 85° F (estimated) 2700 seconds
Absolute Viscosity (estimated) 540 centipoises

RECORD OF DRILLING TIME

Well No. C-608

Depth From	Depth To	Drilling Time Began	Drilling Time Ended	Actual Drilling Time in Minutes	Remarks
0	1-6	6:25	6:25½	½	
1-6	3	25½	26	½	
3	4-6	26	26½	½	
4-6	6	28	28½	½	
6	7-6	28½	29	½	
7-6	9	29	30	1	
9	10-6	30	30½	½	
10-6	12	30½	31	1½	
12	13	31	32	1	
13	14-6	32	33	1	
14-6	16	33½	34	½	
16	17	34	35	1	
17	18-6	35	36	1	
18-6	20	36	37	1	
20	21-6	37	38	1	
21-6	23	38	38½	½	
23	24-6	38½	40	1½	
24-6	26	40	41	1	
26	27	42	43	1	Add rod
27	28-6	45	48	3	
28-6	30	48	51	3	
30	31-6	51	7:02	11	
31-6	33	7:02	20	18	Shut down 7:50 started up 8:15
33	34-6	20	50	30	Shut down 20 min. putting new
34-6	36	8:15	9:15	40	check jaws.
36	37	9:15	20	5	Shut down to remove shack for
37	38-6	55	11:00	35	picture, 40 min.
38-6	40	11:00	38	38	Pulled reamer at 11:49 and set
40	41-6	38	1:18	14	4" pipe back in hole at 1:15
41-6	43	1:18	21	3	
43	44-6	21	23	2	
44-6	46	23	24	1	
46	47-6	24	26	2	
47-6	49	26	28	2	
49	50-6	28	30	2	
50-6	52	30	32	2	
52	53	32	34	2	Add rod
53	54-6	34	55	21	Pulled fishtail in with Hughes
54-6	56	55	2:15	20	Rock bit
56	57-6	2:15	30	15	
57-6	59	30	41	11	
59	60-6	41	50	9	
60-6	62	50	56	6	
62	63	56	3:04	8	Add rod
63	64-6	3:04	15	11	
64-6	66	15	20	5	
66	67-6	20	24	4	
67-6	69	24	26	2	
69	70-6	26	30	4	
70-6	72	30	34	4	
72	73	34	36	2	Add rod

RECORD OF DRILLING TIME

Well No. C-608

Depth From	Depth To	Drilling Time Began	Drilling Time Ended	Actual Drilling Time in Minutes	Remarks
73	74-6	3:36	3:41	5	
74-6	76	41	44	3	
76	77-6	44	48	4	
77-6	79	48	52	4	
79	80-6	52	55	3	
80	82	4:07	4:10	3	4 to 12 tour
82	83	10	15	5	Run rock bit, cutting 3 7/8" hole
83	84-6	15	18	3	
84-6	86	18	22	4	
86	87-6	22	25	3	
87-6	89	25	28	3	
89	90	28	32	4	
90-6	92	32	34	2	
92	93	34	37	3	Add rod
93	94-6	37	41	4	
94-6	96	41	46	5	
96	97-6	46	50	4	
97-6	99	50	53	3	
99	100-6	53	57	4	
100-6	02	57	5:00	3	
02	03	5:00	03	3	Add rod
03	04-6	03	06	3	
04-6	06	06	09	3	
06	07-6	09	13	4	
07-6	09	13	16	3	
09	10-6	16	25	9	
10-6	12	25	40	15	
12	13	40	50	10	
13	14-6	50	6:03	8	
14-6	16	6:03	10	7	
16	17-6	10	15	5	
17-6	19	15	27	12	
19	20-6	27	38	11	
20-6	22	38	50	12	
22	23	50	7:00	10	
23	24-6	7:00	10	10	
24-6	26	10	21	11	
26	27-6	21	30	9	
27-6	29	30	43	13	
29	30-6	43	53	10	
30-6	32	8:07	8:22	15	
32	33	22	32	10	
33	34-6	32	42	10	
34-6	36	42	50	8	
36	37-6	50	54	4	
37-6	39	54	57	3	
39	40-6	57	9:01	4	
40-6	42	9:01	20	19	
42	43	21	25	4	Rod
43	44-6	26	30	4	Cutting 3 7/8" hole
44-6	46	30	36	6	"
46	47-6	36	42	6	

RECORD OF DRILLING TIME

Well No. C-608

Depth From	Depth To	Drilling Time Began	Drilling Time Ended	Actual Drilling Time in Minutes	Remarks
147-6	149	9:42	9:50	8	
49	50-6	50	10:00	5	
50-6	52	10:00	10	10	
52	53	10	20	10	
53	54-6	20	32	12	
54-6	56	44	52	8	
56	57-6	52	11:02	10	
57-6	59	11:02	12	10	
59	60-6	12	23	11	
60-6	62	23	32	10	
62	63	32	37	5	End 4 to 12 P.M. Tour
63	64-6	12:05	12:10	5	
64-6	66	10	22	12	
66	67-6	22	29	7	
67-6	69	29	48	19	
69	70-6	48	1:09	21	
70-6	72	1:09	17	8	
72	73	17	25	8	Add rod
73	74-6	25	40	15	
74-6	76	40	50	10	
76	77-6	50	56	6	
77-6	79	56	2:06	10	
79	80-6	12:06	12	6	
80-6	82	12	17	4	
82	83	17	36	3	Pulled rock bit 2:19 run in
83	84-6	36	37	1	small fishtail
84-6	86	37	38	1	
86	87-6	38	39	1	
87-6	89	39	39½	½	
89	90-6	39½	40	½	
90-6	92	40	41	1	
92	93	41	42	1	
93	94-6	42	42½	½	
94-6	95	42½	43	½	
95	96-6	3:00	02	2	Run in core barrel 2:45-3:00
96-6	98	3:02	04	2	
98	99-6	04	06	2	
99-6	201	06	08	2	
201	02-6	08	10	2	
02-6	04	10	11	1	
04	05	11	14	3	Pulled core barrel 3:15
05	06-6	45	50	5	
06-6	08	50	55	5	
08	09-6	55	58	3	
09-6	11	58	4:01	3	
11	12-6	4:01	04	3	Add rod
12-6	14	05	08	3	
14	15	08	09	1	Pulled core barrel - ran in
15	16	32	32½	½	fishtail
16	17-6	32½	33	½	
17-6	19	33	33½	½	
19	20-6	33½	34	½	

RECORD OF DRILLING TIME

Well No. C-608

Depth From	Depth To	Drilling Time Began	Drilling Time Ended	Actual Drilling Time in Minutes	Remarks
220-6	222	4:34	4:35	1	
22	23	35	36	1	Add rod
23	24-6	36	36½	½	
24-6	26	36½	37	½	
26	27-6	37	38	1	
27-6	29	38	38½	½	
29	30-6	38½	39	½	
30-6	32	39	40	1	Add rod
32	33	40	43	3	
33	34-6	43	44	1	
34-6	36	44	45	1	
36	37-6	45	45½	½	
37-6	39	45½	46	½	
39	40-6	46	46½	½	
40-6	42	46½	47	½	
42	43	47	47½	½	Add rod
43	44-6	48	48½	½	
44-6	46	48½	49	½	
46	47-6	49	50	1	
47-6	49	50	50½	½	
49	50-6	50½	51	½	
50-6	52	51	51½	½	
52	53	51½	52	½	Add rod
53	54-6	52	53½	½	
54-6	56	53½	54	½	
56	57-6	54	54½	½	
57-6	59	54½	55	½	
59	60-6	55	55½	½	
60-6	62	55½	56	½	
62	63	56	56½	½	Add rod
63	64-6	57	57½	½	
64-6	66	57½	58	½	
66	67-6	58	58½	½	
67-6	69	58½	59	½	
69	70-6	59	59½	½	
70-6	72	59½	5:00	½	
72	73	5:00	00½	½	Add rod
73	74-6	01	01½	½	
74-6	76	01½	02	½	
76	77-6	02	03	1	
77-6	79	03	03½	½	
79	80-6	03½	04	½	
80-6	82	04	04½	½	
82	83	04½	05	½	
83	84-6	05	07	2	
84-6	86	07	08	1	
86	87-6	08	09	1	
87-6	89	09	10	1	
89	90-6	10	12	2	
90-6	92	12	14	2	
92	93	14	15	1	Shut down to (?)
93	94-6	29	29½	½	

RECORD OF DRILLING TIME

Well No. C-608

Depth From	Depth To	Drilling Time Began	Drilling Time Ended	Actual Drilling Time in Minutes	Remarks
294-6	296	5:29½	5:30	½	
96	97-6	30	31	1	
97-6	99	31	31½	½	
299	300-6	31½	32	½	
300-6	02-6	32	32½	½	
02	03	32½	33	½	Add rod
03	04-6	34	34½	½	
04-6	06	34½	35	½	
06	07-6	35	35½	½	
07-6	09	35½	36	½	
09	10-6	36	36½	½	
10-6	12	36½	37	½	
12	13	37	37½	½	
13	14-6	38	38½	½	
14-6	16	38½	39	½	
16	17-6	39	40	1	
17-6	19	40	41	1	
19	20-6	41	43	2	
20-6	22	43	44	1	
22	23	44	45	1	
23	24-6	45	46	1	
24-6	26	46	47	1	
26	27-6	47	48	1	
27-6	29	48	49	1	
29	30	49	50	1	Pulled fishtail run in core bbl.
30	31-6	6:13	6:16	3	
31-6	33	16	20	4	Add rod
33	34-6	20	23	3	
34-6	36	23	25	2	
36	37-6	25	28	3	
37-6	39	28	31	3	
39	40	31	33	2	Pulled core barrel 6:35-6:54
40	41-6	54	57	3	
41-6	43	57	7:01	4	Add rod
43	344-6	7:01	04	3	
44-6	46	04	07	3	
46	47-6	07	09	2	
47-6	49	09	11	2	
49	50	11	20	2	Pulled barrel 7:12
50	51-6	20	45	2	
51-6	53	45	48	3	
53	54-6	48	52	4	Shut down 10 min. check drill
54-6	56	8:02	8:06	4	tract and gas up.
56	57-6	06	14	8	
57-6	59	14	50	30	
59	60	50	11:10		

T.D. 360'