GEOLOGICAL REPORT

LEBEN DRILLING, INC.

NO. 1 DEINES

NE NE SW SEC. 3-10S-26W

SHERIDAN COUNTY, KANSAS

C. W. SMITH

831 PETROLEUM BUILDING
WICHITA, KANSAS

BUS. HOBART 4-1921
RES. MURRAY 3-4405

C. W. SMITH
PETROLEUM GEOLOGIST

February 7, 1958

Leben Drilling, Inc.
905 Central Building
Wichita, Kansas

Re: Leben Drilling, Inc.
No. 1 Deines
NE NE SW Sec. 3-10S-26W
Sheridan County, Kansas

Gentlemen:

The following is a Geological Report, with a Time Log attached, on the above captioned well.

I was present during the drilling from 3800' to 4103', rotary total depth. Samples were examined from 3500' to rotary total depth.

All formation tops and zones of porosity and staining are based on rotary bushing measurements. Any corrections in measurements during the drilling of this well have been incorporated into this report.

Elevation	2587 DF --- 2590 RB
Anhydrite	2220 (+370)
Topeka	3590 (-1000)
Heebner	3812 (-1222)
Toronto	3832 (-1242)
Lansing-Kansas City	3850 (-1260)
Base of Kansas City	4083 (-1493)
Rotary Total Depth	4103 (-1513)

Structurally, the Leben No. 1 Deines ran 1' lower on top of the Lansing-Kansas City formation than the B & R No. 1 Lintel, dry hole, 1½ miles east, and 11' lower than the C-G No. 1 Flegler, small Lansing producer 2 miles southeast.

ZONES OF INTEREST

TOPEKA

There were no shows of oil in the Topeka formation.

LANSING-KANSAS CITY (Top 3850')

3855-3856 This zone, which has had shows of oil in the area, was developed in chalk in this well.

3894-3899 Dense, slightly fossiliferous limestone with scattered vugular porosity and solid hydrocarbon residue.

4030-4036 Buff, dense limestone with pin-point porosity. Trace of free oil. No odor.

DRILL STEM TEST NO. 1 — 4018-4035'. Open 1 hour. Weak blow for 4 minutes. Flush tool at 20 minutes. Recovered 12' mud with no show. Initial Bottom Hole Pressure -0- lbs.

4051-4056 — Oolitic limestone with abundant large vugs containing heavy, black, almost tarry oil. No odor.

DRILL STEM TEST NO. 2 — 4040-4061'. Open 1½ hours. Weak blow throughout. Recovered 65' of oil cut mud. Note: This "oil" was so heavy and thick it could best be described as "chunks" and "stringers" of this residual substance in the mud. IBHP 1380 lbs.; FBHP 220 lbs. Flow pressure -0- lbs.

There were no further shows in the Lansing-Kansas City formation. After drilling 20' past the Base of the Kansas City, it was recommended that this test be plugged and abandoned.

Sincerely,

C. W. Smith

CWSmcf

DRILLING INFORMATION ON THE NO. 1 DEINES

Contractor: Leben Drilling, Inc.
Tool Pusher: Dan Helmer

Drillers: Neal
Stanley
Wallace

Spud Date: 1-26-58
Surface Pipe: 8 5/8" @ 236' w/165 sacks

Date of RTD: 2-6-58
Casing: None

TOTAL FOOTAGE DRILLED PER DAY

Under surface at 4:00 p.m. on 1-27-58

1440'	at	7:30 a.m.	on	1-28-58
2245'	"	"	"	1-29-58
2660'	"	"	"	1-30-58
2980'	"	"	"	1-31-58
3245'	"	"	"	2-1-58
3480'	"	"	"	2-2-58
3720'	"	"	"	2-3-58
3825'	"	"	"	2-4-58
4035'	"	"	"	2-5-58
4060'	"	"	"	2-6-58
4103'	"	4:00 p.m.	"	2-6-58

BIT RECORD

Bits	Type	Footage
1	Smith 3C-DT2G Retip	236-1440
2	Sec. S-6 Retip	1440-1705
3	Sec. M-4-N Retip	1705-2230
4	HTC-OWV Retip	2230-2320
5	Reed-YS1 Retip	2320-2630
6	Reed-YS1	2630-2980
7	Smith 3C-SV2	2980-3245
8	Smith 3C-K2P	3245-3555
9	HTC-OWV	3555-3865
10	Reed-YH	3865-4035
11	HTC-W7	4035-4103

DRILLING TIME LOG

Leben Drilling, Inc.
No. 1 Deines

NE NE SW Sec. 3-10S-24W
Sheridan County, Kansas

Elevation: 2587 DF
2590 RB

DEPTH	MINUTES	REMARKS
	1 Foot Drilling Time from 3500' to RTD	
3500-3510	2-1-1-1-1-1-1-2-3-3	
3520	8-8-5-2-6-9-6-5-5-6	
3530	10-10-9-8-6-5-6-6-6-6	
3540	5-4-4-3-3-5-5-7-9-7	
3550	8-8-8-8-8-8-8-8-10-9	
3560	7-6-6-6-10-5-4-3-3-4	Trip @ 3555'
3570	6-8-7-8-7-8-8-7-6-4	
3580	3-4-7-6-6-6-7-8-10-7	
3590	4-4-3-3-3-3-2-3-2-3	
3590-3600	4-6-6-5-5-5-5-8-6-6	
3610	4-5-5-7-6-9-8-7-10-11	
3620	8-7-7-6-5-5-6-5-5-4	
3630	5-8-9-8-8-7-7-5-3-2	
3640	3-3-4-3-4-3-5-5-4-5	
3650	7-7-7-4-6-6-5-5-6-8	
3660	5-6-6-7-6-5-5-5-3-2	
3670	3-4-6-3-3-3-5-4-4-4	
3680	3-3-3-3-3-3-2-1-3-2	
3690	2-3-2-3-3-4-4-4-5-4	
3690-3700	4-5-5-5-6-5-6-5-5-6	
3710	9-6-6-8-6-6-5-5-4-4	
3720	3-4-2-3-2-2-3-3-3-4	
3730	5-9-8-7-8-7-5-5-7-7	
3740	6-6-4-4-4-6-9-10-9-8	
3750	9-7-7-4-4-4-6-6-6-5	
3760	4-4-5-5-5-6-9-8-8-6	
3770	8-8-6-7-2-2-1-2-3-3	
3780	4-4-4-4-4-5-8-17-8-9	
3790	6-6-6-7-5-7-7-7-4-4	
3790-3800	3-3-3-4-3-6-7-4-5-5	
3810	5-5-4-5-4-6-7-5-5-5	
3820	9-10-6-4-5-10-11-10-10-11	
3830	10-7-6-7-6-8-8-7-8-7	
3840	7-8-8-8-8-6-5-6-7-9	
3850	10-11-10-8-7-7-8-8-7-7	
3860	8-8-6-5-6-9-12-9-9-6	Trip @ 3865'
3870	7-8-9-15-12-5-6-8-8-9	
3880	9-6-8-9-7-8-8-8-7-5	
3890	6-6-8-10-9-9-6-6-6-5	

DRILLING TIME LOG

Leben Drilling, Inc.
No. 1 Deines

NE NE SW Sec. 3-10S-24W
Sheridan County, Kansas

Elevation: 2587 DF
2590 RB

DEPTH	MINUTES	REMARKS
3890-3900	5-6-5-6-5-8-7-8-10-10	
3910	14-10-10-10-10-10-10-10-10-10	
3920	9-9-12-9-9-10-10-12-10-7	
3930	9-11-10-10-10-10-10-9-8-8	
3940	7-7-7-9-8-7-5-5-8-12	
3950	7-9-9-10-10-12-9-10-8-9	
3960	10-10-9-10-9-10-9-9-10-9	Circ. ½ hr. @ 3946'
3970	10-10-9-9-9-9-8-8-10-10	
3980	9-10-11-10-6-9-10-10-11-10	
3990	10-6-9-9-10-10-9-5-4-6	
3990-4000	10-12-10-11-12-13-13-12-11-15	
4010	13-12-12-9-14-10-10-10-10-8	
4020	8-12-10-11-11-10-11-11-10-10	
4030	10-8-11-9-8-8-9-10-9-10	
4040	10-9-9-9-9-7-11-9-12-14	
4050	12-11-11-13-13-10-10-11-11-11	Circ. & DST @ 4035'
4060	12-10-7-7-6-9-13-14-15-12	
4070	12-11-11-13-15-19-16-11-11-12	
4080	13-12-11-11-11-12-13-14-12-13	Circ. & DST @ 4061'
4090	13-17-15-12-12-12-10-10-11-13	
4090-4100	12-10-12-9-3-3-4-7-6-5	
4103	5-5-5	

Rotary Total Depth - 4103'