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EARLOUGH ENGINEERING
CORE SUMMARY

Company Kewanee Oil Company Lease Daniels Well No. 129
Location 2360 feet West, 2240 feet South of NE Corner
Section 4 Twp. 21-S Rge. 21-E County Anderson State Kansas
Formation Cored Squirrel Sand Type Core Rotary, 3-inch
Date Cored 6-24-48 Date Shot _____ Date Completed _____

Depths: Started coring, shaly sand 695.0 ft.
 Top of oil sand 697.5 "
 Bottom of oil sand 702.1 "
 Net feet of oil sand 2.7 "
 Bottom of core, shale 715.5 "
 Total cored 20.5 "
 Feet analyzed 5.0 "

Shot Record:

Set Packer 695.0 Feet

Depth, Feet		Feet	Shell Diameter	Quarts Per Foot	Quarts Total
From	To				
698.	704.	6	4-1/2"	3.2	19.8

Plug back to 704.0 feet.

Completion Data:

Hrs. well stood after coring _____; Feet Fluid in Hole _____ (Oil _____ Water _____)

Clean-out time, hrs. _____; Initial production, bbls. day _____ (Oil _____ Water _____)

Remarks: This core shows only 2.7 net feet of oil sand and the sand section itself is very thin, indicating that this well is probably located very near the West edge of the sand stringer. It is believed, however, that the hole should be of some value as a water injection well.

PERMEABILITY Average permeability is 6.4 millidarcys and values range from 3.2 to 12 millidarcys. Permeability capacity is only 17 foot-millidarcys.

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POROSITY Average porosity is 17.0 percent which is relatively low, probably due to the shaly nature of the sand.

PERCENT SATURATION Average oil saturation is 43 percent and average core water saturation 39 percent.

OIL CONTENT Average oil content is 570 barrels per acre-foot, and values range from 470 to 680 barrels per acre-foot.

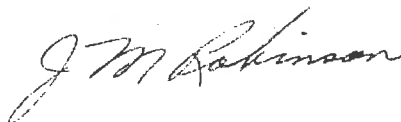
LABORATORY FLOODING TESTS Laboratory flooding tests yielded an average oil recovery of 252 barrels per acre-foot and average residual oil saturation was 24 percent.

CONCLUSIONS

1. Net feet of oil sand is only 2.7 feet located between 697.5 and 702.1 feet.
2. This well is probably located near the West edge of the sand stringer.
3. Although the sand section is small it was recommended that the hole be used as a water injection well inasmuch as edge wells oftentimes take water at rates well above that indicated by the foot-millidarcy capacity shown by the core.
4. Estimated oil recovery by water flooding is 600 barrels per acre from the area of which this core is representative.

Respectfully submitted

EARLOUGHER ENGINEERING



J. M. Robinson, Engineer

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RESULTS OF SATURATION TESTS

COMPANY Kewanee Oil Company

WELL Daniels No. 129

Sat. No.	Depth Feet	Porosity Per Cent	PER CENT SAT.			Avg. Oil Content Bbls./A. Ft.	FT. OF SAND		Total Oil Content Bbls./Acre
			Oil	Water	Total		Ft.	Cum.	
1	695.5	13.7	34.	53.	87.	360.	0.6*		
F-1	698.2	19.1	46.	--	--	680.	0.9	0.9	610.
3	699.9	13.1	58.	42.	100.	590.	0.7	1.6	410.
4	701.5	17.6	34.	35.	69.	470.	1.1	2.7	520.
F-4	702.3	17.6	19.	--	--	260.	0.4*		
5	704.1	13.7	39.	51.	90.	410.	0.6*		
* Not included in cumulative feet of sand.									

SUMMARY

DEPTH FEET		FEET OF SAND	AVG. POROSITY	AVG. OIL SAT.	AVG. WATER SAT.	AVG. OIL CONTENT BBLs./A. FT.	TOTAL OIL CONTENT BBLs./ACRE
FROM	TO						
697.5	702.1	2.7	17.0	43.	39.	570.	1,540.

EARLOUGHER ENGINEERING

RESULTS OF PERMEABILITY TESTS

COMPANY **Kewanee Oil Company**

WELL **Daniels No. 129**

Sample No.	Depth Feet	Permeability Millidarcys	FEET OF SAND		Capacity Ft. X Md.	Sample No.	Depth Feet	Permeability Millidarcys	FEET OF SAND		Capacity Ft. X Md.
			Ft.	Cum. Ft.					Ft.	Cum. Ft.	
1	695.2	0.5	0.6*			5	701.2	3.6	0.6	2.2	2.2
2	698.0	12.	0.9	0.9	11.	6	702.0	4.0	0.5	2.7	2.0
3	699.0	0.1	1.1*			7	703.9	0.2	0.3*		
4	699.6	3.2	0.7	1.6	2.2	8	704.3	0.6	0.3*		

* Not included in cumulative feet of sand.

SUMMARY

DEPTH FEET		FEET OF SAND	AVERAGE PERMEABILITY	CAPACITY FT. X MD.
FROM	TO			
697.5	702.1	2.7	6.4	17.

MOD

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REMARKS: 1 2

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REF ID: A68097 PAGE 11 OF 25

RESULTS OF LABO

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COMPANY

Kewanee Oil Company

LEASE _____

Depth	Factor	No.	297.
100.5	1	13	13
98.5	B-1	10	10
96.9	3	13	13
95.5	4	11	11
93.3	5-1	11	11
90.1	6	13	13

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Sec.	DEPTH, FEET		Net Ft. of Sand	Avg. Por.	Average Core Sat.		CORE OIL CONTENT		PE Avg Mds
	From	To			Oil	Water	Avg. B./A. Ft.	Total Bbl./Ac.	
	697.5	702.1	2.7	17.0	43.	39.	570.	1,540.	6.4

REMARKS: 1/ Unless otherwise noted, oil content and saturation before flooding equals flood pot oil recovery plus flood
2/ Oil recovery as B./A. Ft. Diff. equals B./A. Ft. oil content from adjacent saturation sample minus flood

LOADING TESTS

129

FLOOD POT RESIDUALS				OIL RECOVERY	
Saturation		Oil Content		Bbl./Ac.	
Oil	Water	B./A. Ft.	Bbl./Ac.	Diff.	Flood Pot
24.	66.	317.	860.	680.	900.

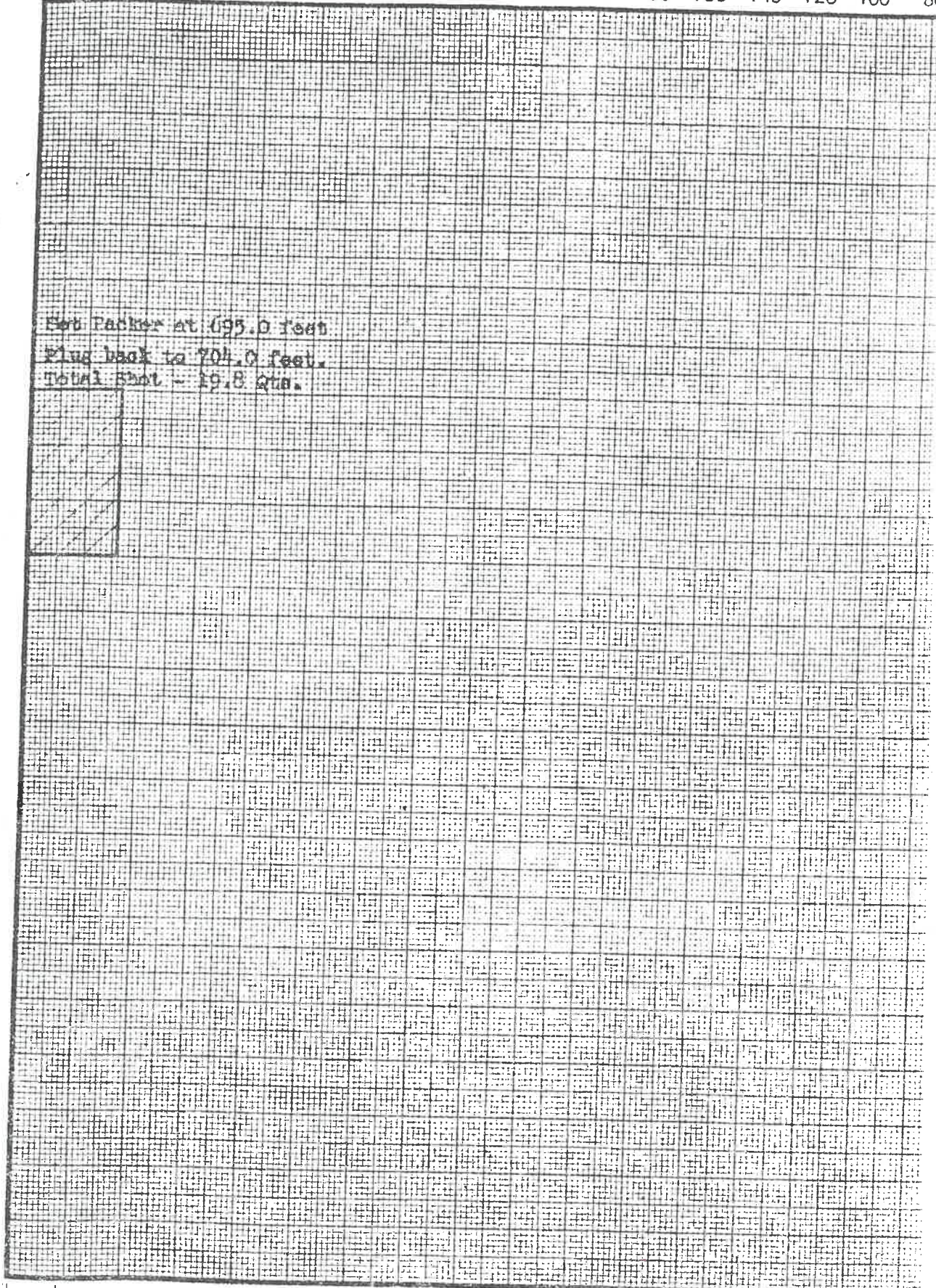
Content for flood sample.

0 2 4 340 320 300 280 260 240 220 200 180 160 140 120 100 80

COMPANY

Depth Feet	Sample No
695.0	1
698.0	2
699.0	3
700.0	4

Set Packer at 695.0 feet
 Plug back to 704.0 feet.
 Total shot - 19.8 qts.



Sec.	Sand	Depth, Feet		Net Ft. of Sand	Avg. Por.	Average Core Sat.		Core Oil Cont	
		From	To			Oil	Water	Avg. B./A Ft.	T Bbl
	Squirrel	697.5	702.1	2.7	17.0	43.	39	570.	1,

20 0 20 40 60 80 0 10 20 30 0 200 400 600 800 1000 1200

694
696
698
700
702
704
706
708
710
712
714
716

Shaded Area - Recoverable oil from laboratory flooding tests.

Capacity Ft. x Md.	Flood Pot Residuals			
	Saturation		Oil Content	
	Oil	Water	B./A Ft.	Bbl./Ac
17.	24.	66.	317.	860.

COMPANY KEWANEE OIL COMPANY
 LEASE DANIELS WELL NO. 129
 LOCATION 2360'W., 2240'S., of NE Corner
SEC. 4 T. 21S. R. 21E. COUNTY Anderson
 STATE Kansas DATE 7-8-48