

EARLOUGHER ENGINEERING

PETROLEUM CONSULTANTS - CORE ANALYSES

3316 EAST 21ST STREET

TULSA, OKLAHOMA

December 3, 1952

Schermerhorn Oil Corporation
714 First National Building
Tulsa, Oklahoma

Attention - Mr. H. A. Sherman

Re - Core Analysis
North Unit Well No. O-3
Sec. 4, T.21-S., R.21-E.
Anderson County, Kansas

Gentlemen:

Attached are results of analysis, together with profile and summary,
covering core received from your above well.

Yours very truly

EARLOUGHER ENGINEERING



R. C. Earlougher, Engineer

JMR 1
Encl 1
cc - Garnett Office

EARLOUGHER ENGINEERING
CORE SUMMARY

Company Schermerhorn Oil Corporation Lease North Unit Well No. O-3
Location 860 feet West of East Line, 580 feet North of South Line of NE/4
Section 4 Twp. 21-S Rge. 21-E County Anderson State Kansas
Formation Cored Bartlesville Sand Type Core No. 6 Baker Barrel
Date Cored 11-18-52 Date Shot _____ Coring Fluid Water

Depths:	Elevation, ground	973.0 feet
	Started coring, shale	700.5 "
	Top of oil sand	709.4 "
	Bottom of core, oil sand	733.5 "
	Net feet of oil sand cored	21.5 "
	Total cored	33.0 "
	Feet analyzed	24.2 "

Shot Record:

Set Packer _____ Feet

Depth, Feet		Feet	Shell Diameter	Quarts Per Foot	Quarts Total
From	To				

Completion Data:

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

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

Remarks: The Bartlesville section was cored with cable tools from 700.5 to 733.5 feet and core sampled by Earlougher Engineering. Coring was commenced in shale and completed in oil sand. It is doubtful that there is appreciable oil sand below the present total depth.

Results of analysis indicate 21.5 net feet of oil sand summarized in 2 sections based on variance in oil saturation. Section 1 represents the top 8.8 net feet of

(Continued following page)

sand having a relatively low average oil saturation of 25 per cent. Average oil saturation of the bottom 12.7 net feet of sand in section 2 is 35 per cent.

The over-all average oil saturation is 31 per cent, average core water saturation 39 per cent, average porosity 22.5 per cent and average permeability 83 millidarcys.

Laboratory water flooding tests on 2 samples showed a wide variation in oil recovery; one sample yielding a high recovery of 505 barrels per acre-foot and the other a low oil recovery of 85 barrels per acre-foot. Average residual oil saturation for these 2 samples was 25 per cent.

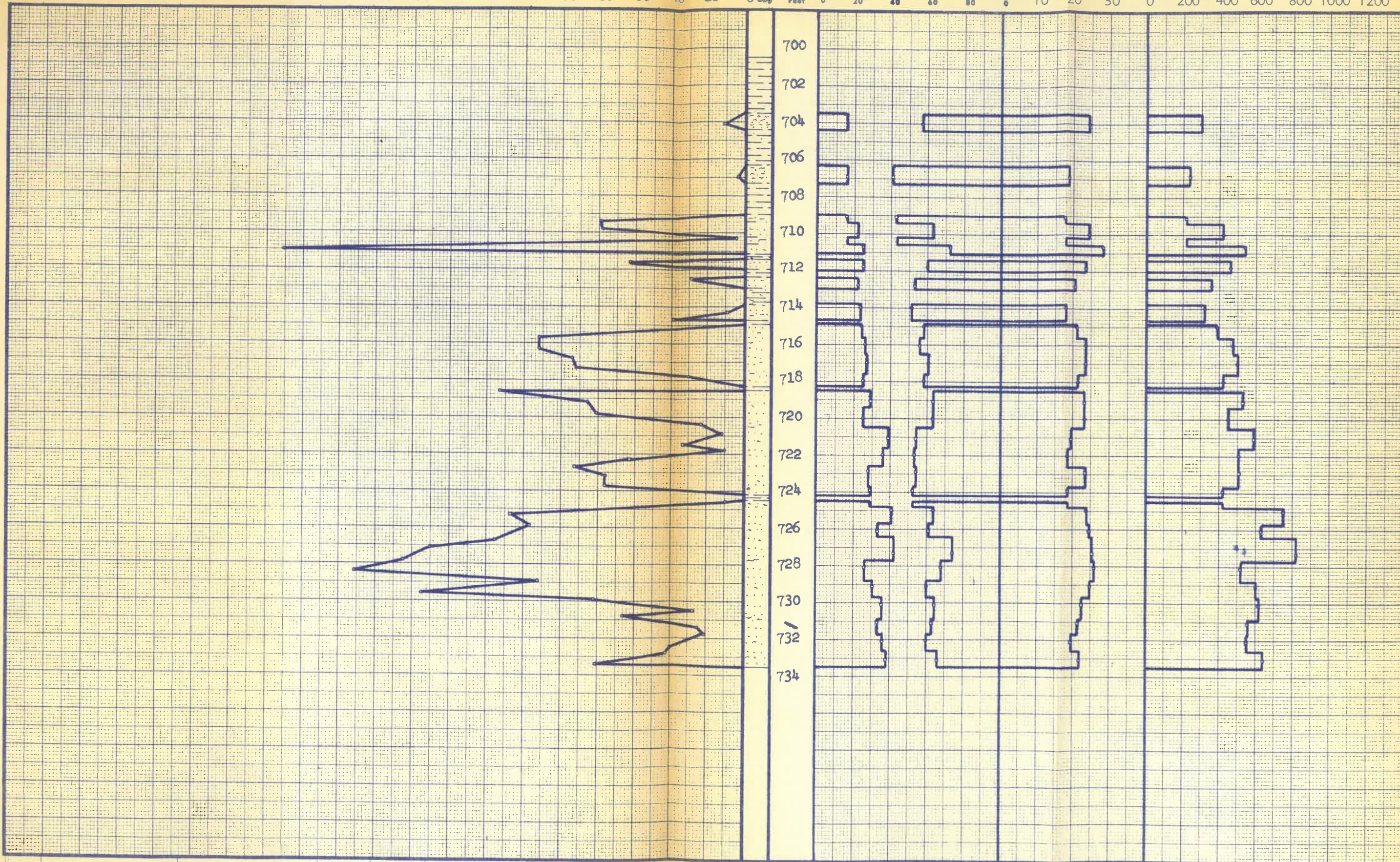
Estimated oil recovery by water flooding is 2,700 barrels per acre from the area of which this core is representative.

JMR 1

Recommended
Shot, Qts./Ft.

Permeability, Millidarcys

0 2 4 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 Fm. Log Depth Feet 80 60 40 20 0 Percent Oil Sat. 0 20 40 60 80 100 Percent Water Sat. 0 20 40 60 80 100 Percent Porosity 0 10 20 30 40 50 60 70 80 90 100 Oil Content, Bbls./A. Ft. 0 200 400 600 800 1000 1200



Sec.	Sand	Depth, Feet		Net Ft. of Sand	Avg. Por.	Average Core Sat.		Core Oil Content		Permeability		Flood Pot Residuals			
		From	To			Oil	Water	Avg. B./A.Ft.	Total Bbl./Ac.	Avg. Mds.	Capacity Ft. x Md.	Saturation		Oil Content	
												Oil	Water	B./A.Ft.	Bbl./Ac.
1	Dep'l. Oil Sd.	709.4	720.5	8.8	22.7	25.	40.	444.	3.910.	78.	680.				

COMPANY SCHMERHORN OIL CORPORATION
 LEASE NORTH UNIT WELL NO. 0-3
 LOCATION 860 ft. W. of E.L., 580 ft. N. of S.L. NE/4
 SEC. 4 T 21-S R 21-E COUNTY Anderson
 STATE Kansas DATE 12-3-52

EARLOUGHER ENGINEERING
SUMMARY OF CORE ANALYSES DATA

COMPANY Schermerhorn Oil Corporation

LEASE North Unit

WELL NO. 0-3

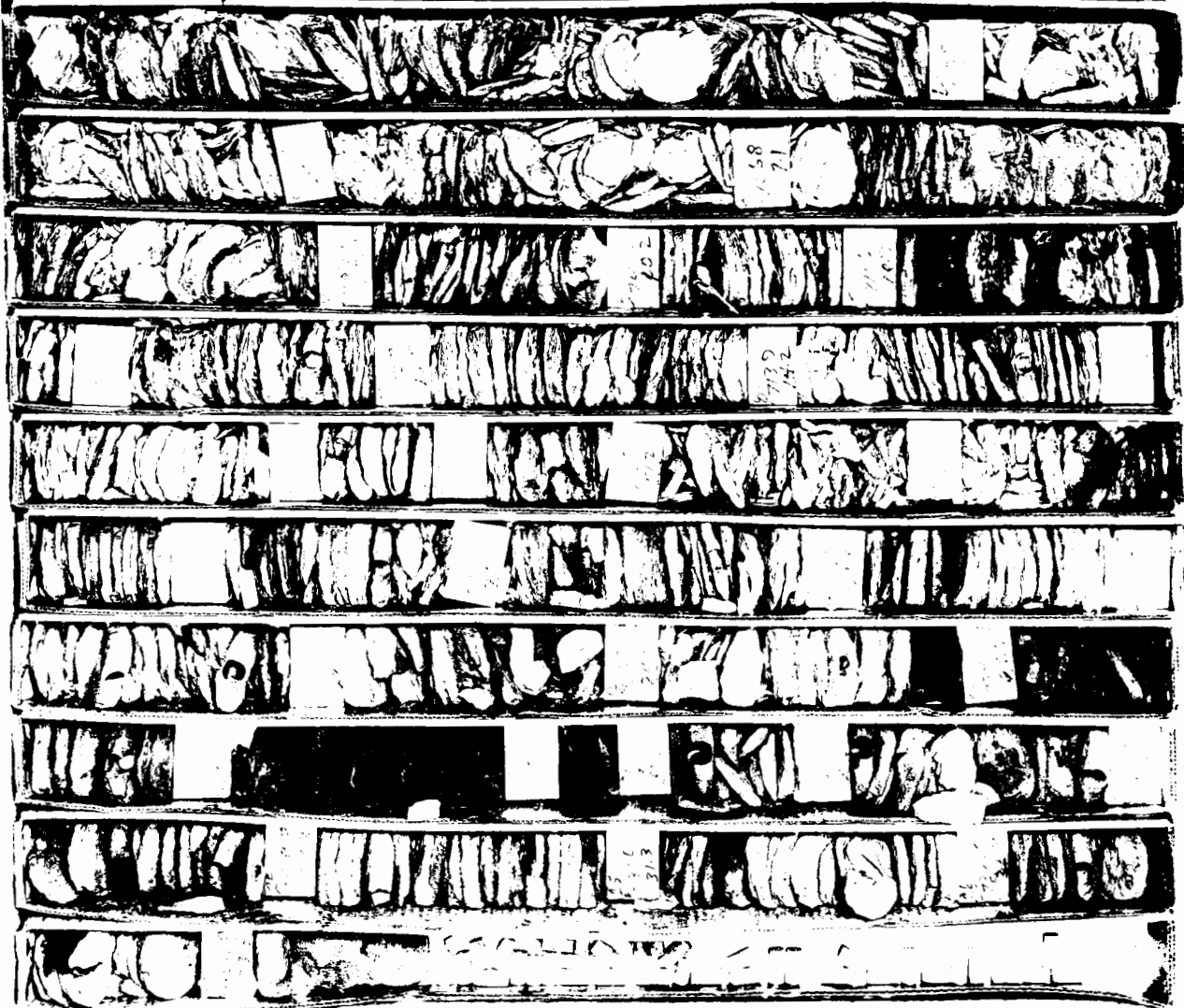
Sec.	Formation	Depth, Ft.		Net Ft. of Sand	Avg. Por.	Avg. Core Saturation		Core Oil Content		Permeability		Flood Pot Residuals				Oil Recovery Bbl./Acre	
		From	To			Oil	Water	Avg. B/A. Ft.	Total B/Ac.	Avg. Md.	Capacity Ft. x Md.	Saturation		Oil Content		Diff.	Flood Pot
												Oil	Water	B/A. Ft.	B/Ac.		
	<u>BARTLESVILLE</u>																
1	Depl Oil Sand	709.4	720.5	8.8	22.7	25.	40.	444.	3910.	78.	689.						
2	Oil Sand	<u>720.5</u>	<u>733.5</u>	<u>12.7</u>	<u>22.4</u>	<u>35.</u>	<u>39.</u>	<u>601.</u>	<u>7630.</u>	<u>86.</u>	<u>1094.</u>						
1-2	Oil Sand	709.4	733.5	21.5	22.5	31.	39.	537.	11540.	83.	1783.						

EARLOUGHER ENGINEERING
RESULTS OF SATURATION TESTS

COMPANY Schermerhorn Oil Corporation WELL North Unit 0-3

Sat. No.	Depth Feet	Porosity Per Cent	Per Cent Saturation			Avg. Oil Content Bbl./A. Ft.	Feet of Sand		Total Oil Content Bbl./Acre
			Oil	Water	Total		Ft.	Cum.	
1	704.0	24.4	16.	43.	59.	300.	0.9*		
2	706.9	18.9	16.	59.	75.	240.	1.0*		
3	709.1	17.6	16.	57.	73.	220.	0.8*		
4	710.0	24.5	22.	37.	59.	420.	0.8	0.8	340.
5	710.7	28.2	25.	28.	53.	540.	0.5	1.3	270.
6	711.8	23.5	25.	40.	65.	460.	0.6	1.9	280.
7	712.8	20.8	22.	47.	69.	360.	0.6	2.5	220.
8	714.0	17.9	23.	49.	72.	320.	0.9	3.4	290.
9	715.0	21.2	24.	42.	66.	390.	0.7	4.1	270.
10	716.0	23.8	26.	44.	70.	470.	0.9	5.0	420.
11	717.0	23.6	27.	39.	66.	500.	1.1	6.1	550.
12	718.0	21.4	25.	42.	67.	420.	0.7	6.8	290.
13	719.1	23.2	29.	37.	66.	530.	0.9	7.7	480.
14	720.0	23.4	25.	37.	62.	450.	1.1	8.8	500.
15	721.1	19.4	29.	46.	85.	590.	1.1	9.9	650.
16	722.0	18.5	36.	47.	83.	510.	1.0	10.9	510.
17	722.9	23.6	23.	46.	74.	510.	1.1	12.0	560.
18	723.9	18.7	29.	48.	77.	420.	0.8	12.8	340.
19	725.0	23.9	41.	37.	78.	750.	0.9	13.7	680.
20	726.1	24.5	33.	39.	72.	630.	0.7	14.4	440.
21	727.3	25.4	42.	26.	68.	820.	1.3	15.7	1,070.
22	728.1	25.9	26.	32.	58.	520.	1.1	16.8	570.
23	729.1	24.4	31.	40.	71.	600.	0.9	17.7	540.
24	730.1	22.4	36.	36.	72.	620.	1.2	18.9	740.
25	731.1	21.5	33.	37.	70.	560.	0.8	19.7	450.
26	732.1	19.7	36.	40.	76.	550.	0.9	20.6	500.
27	733.1	21.8	38.	34.	72.	640.	0.9	21.5	580.
* Not included in cumulative feet of sand.									

NORTH UNIT 0-3



EARLOUGHER ENGINEERING
RESULTS OF PERMEABILITY TESTS

COMPANY Schermerhorn Oil Corporation WELL North Unit 0-3

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	704.1	11.	0.9*			24	721.8	10.	0.3	10.2	3.0
2	704.7	-0-	0.5*			25	722.3	63.	0.7	10.9	44.
3	707.0	3.4	1.4*			26	722.7	93.	0.4	11.3	37.
4	709.4	79.	0.3	0.3	24.	27	723.2	76.	0.4	11.7	30.
5	709.8	78.	0.5	0.8	39.	28	723.7	76.	0.3	12.0	23.
56	710.3	4.1	0.4*			29	724.6	9.6	0.8	12.8	7.7
7	710.5	Cracked				30	725.3	127.	0.9	13.7	114.
8	711.0	251.	0.5	1.3	126.	31	725.9	117.	0.7	14.4	82.
9	711.6	63.	0.6	1.9	38.	32	726.7	135.	0.6	15.0	81.
10	712.5	29.	0.6	2.5	17.	33	727.1	170.	0.7	15.7	119.
11	714.3	9.1	0.5	3.0	4.6	34	727.8	185.	0.3	16.0	56.
12	714.7	39.	1.1	4.1	43.	35	728.4	211.	0.8	16.8	169.
13	715.7	112.	0.4	4.5	45.	36	728.9	112.	0.4	17.2	45.
14	716.3	112.	0.5	5.0	56.	37	729.6	175.	0.5	17.7	88.
15	716.8	94.	0.5	5.5	47.	38	729.9	82.	0.5	18.2	41.
16	717.3	92.	0.6	6.1	55.	39	730.5	27.	0.4	18.6	11.
17	717.8	30.	0.7	6.8	21.	40	730.8	66.	0.3	18.9	20.
18	718.6	133.	0.4	7.2	53.	41	731.4	25.	0.8	19.7	20.
19	719.2	86.	0.5	7.7	43.	42	731.8	21.	0.5	20.2	11.
20	719.8	81.	0.9	8.6	73.	43	732.5	40.	0.4	20.6	16.
21	720.4	23.	0.2	8.8	4.6	44	732.8	42.	0.5	21.1	21.
22	720.9	11.	0.6	9.4	6.6	45	733.4	81.	0.4	21.5	32.
23	721.5	33.	0.5	9.9	17.						

* Not included in cumulative feet of sand.