21-26-21E ✓

OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND · CHANUTE, KANSAS 66720 · PHONE (316) 431-2650

API: 15-001-21260

April 21, 1977

Sec. 21
H-11

George A. Hoffman
Box 537
Henderson, Kentucky 42420

Gentlemen:

Enclosed herewith are the results of tests run on the Rotary core samples taken from the Nelson (Lowe) Lease, Well No. H-11, Allen County, Kansas, and submitted to our laboratory on April 14, 1977.

This core is from a virgin territory and was sampled by a representative of the client.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Carl L. Pate

Carl L. Pate

CLP:gb
4 c to Henderson, Kentucky
1 c to Erie, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company George A. Hoffman Lease Nelson (Lowe) Well No. H-11

Location 750' FSL & 1600' FWL

Section 21 Twp. 26S Rge. 21E County Allen State Kansas

Name of Sand		Bartlesville
Top of Core	(Received)	636.0
Bottom of Core	(Received)	682.0
Top of Permeable Oil Sand		640.0
Bottom of Permeable Sand		677.0
Total Feet of Permeable Sand	(Analyzed)	38.0
Total Feet of Floodable Sand		

Distribution of Permeable Sand:

Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	4.0	4.0
1 - 5	18.0	22.0
5 - 10	4.0	26.0
10 - 20	4.0	30.0
20 - 40	4.0	34.0
40 & above	4.0	38.0

Average Permeability Millidarcys	14.7
Average Percent Porosity	18.7
Average Percent Oil Saturation	43.7
Average Percent Water Saturation	36.6
Average Oil Content, Bbls./A. Ft.	647.
Total Oil Content, Bbls./Acre	27,184.
Average Percent Oil Recovery by Laboratory Flooding Tests	
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	
Total Calculated Oil Recovery, Bbls./Acre	
Packer Setting, Feet	
Viscosity, Centipoises @	
A. P. I. Gravity, degrees @ 60 °F (Reported)	30.
Elevation, Feet	

- LOG -

Company George A. Hoffman Lease Nelson (Lowe) Well No. H-11

Depth Interval, Feet	Description
636.0 - 637.0	Light brown shaly sandstone.
637.0 - 640.0	Brownish gray finely laminated very shaly sandstone.
640.0 - 643.0	Light brown shaly sandstone.
643.0 - 649.0	Brown slightly shaly sandstone.
649.0 - 652.0	Brown laminated shaly sandstone.
652.0 - 655.0	Brown slightly shaly sandstone.
655.0 - 666.0	Brown slightly carbonaceous slightly shaly sandstone.
666.0 - 677.0	Dark carbonaceous slightly shaly sandstone.
677.0 - 681.0	Core not received.
681.0 - 682.0	Grayish light brown shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company George A. Hoffman Lease Nelson (Lowe) Well No. H-11

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	636.5	16.8	22	45	67	287	4.8	1.0	1.0	287	4.80
2	637.5	12.0	30	65	95	279	Imp.	1.0	2.0	279	0.00
3	638.5	10.5	29	65	94	236	Imp.	1.0	3.0	236	0.00
4	639.5	11.9	24	63	87	222	Imp.	1.0	4.0	222	0.00
5	640.5	17.0	41	51	92	541	2.6	1.0	5.0	541	2.60
6	641.5	16.6	58	39	97	747	1.4	1.0	6.0	747	1.40
7	642.5	15.6	31	53	84	375	0.96	1.0	7.0	375	0.96
8	643.5	18.7	38	38	76	551	29.	1.0	8.0	551	29.00
9	644.5	19.5	38	42	80	575	7.5	1.0	9.0	575	7.50
10	645.5	15.7	43	50	93	524	5.8	1.0	10.0	524	5.80
11	646.5	18.6	42	38	80	606	19.	1.0	11.0	606	19.00
12	647.5	19.6	31	42	73	471	29.	1.0	12.0	471	29.00
13	648.5	19.2	38	34	72	566	10.	1.0	13.0	566	10.00
14	649.5	17.2	47	42	89	627	5.6	1.0	14.0	627	5.60
15	650.5	16.9	35	49	84	459	0.99	1.0	15.0	459	0.99
16	651.5	16.8	32	47	79	417	4.2	1.0	16.0	417	4.20
17	652.5	23.9	41	35	76	760	77.	1.0	17.0	760	77.00
18	653.5	22.9	41	35	76	729	70.	1.0	18.0	729	70.00
19	654.5	21.3	45	27	72	744	107.	1.0	19.0	744	107.00
20	655.5	22.6	58	25	83	1017	32.	1.0	20.0	1017	32.00
21	656.5	22.2	51	25	76	879	44.	1.0	21.0	879	44.00
22	657.5	19.6	52	26	78	791	13.	1.0	22.0	791	13.00
23	658.5	21.8	60	33	93	1015	36.	1.0	23.0	1015	36.00
24	659.5	21.7	53	23	76	892	19.	1.0	24.0	892	19.00

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company George A. Hoffman Lease Nelson (Lowe) Well No. H-11

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
25	660.5	20.6	65	20	85	1039	1.8	1.0	25.0	1039	1.80
26	661.5	20.1	65	16	81	1014	0.94	1.0	26.0	1014	0.94
27	662.5	20.6	55	18	73	879	1.3	1.0	27.0	879	1.30
28	663.5	22.8	49	19	68	867	1.2	1.0	28.0	867	1.20
29	664.5	16.4	26	40	66	331	2.4	1.0	29.0	331	2.40
30	665.5	19.1	41	32	73	608	5.5	1.0	30.0	608	5.50
31	666.5	18.8	62	27	89	905	3.1	1.0	31.0	905	3.10
32	667.5	20.3	48	29	77	756	2.6	1.0	32.0	756	2.60
33	668.5	20.5	60	27	87	954	2.1	1.0	33.0	954	2.10
34	669.5	20.1	54	26	80	842	1.7	1.0	34.0	842	1.70
35	670.5	18.2	38	32	70	537	0.91	1.0	35.0	537	0.91
36	671.5	18.3	48	31	79	682	1.8	1.0	36.0	682	1.80
37	672.5	19.9	48	36	84	741	4.8	1.0	37.0	741	4.80
38	673.5	19.3	30	39	69	449	2.7	1.0	38.0	449	2.70
39	674.5	20.2	45	34	79	705	2.8	1.0	39.0	705	2.80
40	675.5	18.7	36	38	74	522	2.1	1.0	40.0	522	2.10
41	676.5	16.3	50	31	81	632	3.1	1.0	41.0	632	3.10
42	681.5	14.7	36	49	85	411	Imp.	1.0	42.0	411	0.00

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company George A. Hoffman Lease Nelson (Lowe) Well No. H-11

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
636.0 - 643.0	4.0	2.4	9.76
643.0 - 660.0	17.0	29.9	509.09
660.0 - 682.0	17.0	2.4	40.85
636.0 - 682.0	38.0	14.7	559.70

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
636.0 - 643.0	7.0	14.3	33.6	54.4	384	2,687
643.0 - 660.0	17.0	19.9	43.8	35.9	684	11,623
660.0 0 682.0	18.0	19.2	47.6	30.2	715	12,874
636.0 - 682.0	42.0	18.7	43.7	36.6	647	27,184

21-26-21E

NELSON, NO. H-11

WELL DATA:

Elevation: 1046.6'   Seating Nipple @ 649'

PBTD: 698'

Perforations: 12 holes - 638'-647'

23 holes - 652'-674'

September 27, 1994:

Using Kepley Well Service, pulled 1" and pump. Tore pump apart. Pulled 28 full joints, weighted anchor holddown. Ran steel line measurement to 697'. Left well down.

December 4, 1998:

Ran SLM, bottom @ 694'. Dug out casing at surface and welded on new nipple. Shut well in.