

Alford #1
SE/c SE/4 SW/4 Section 14-30S-19W
Kiowa County, Kansas
Lion Oil Refining Company

Commenced: June 10, 1944
 Completed: September 9, 1944

Surface clay	0	20	: Line	3905	3930
Shale and sand	20	70	Line, broken	3930	3970
Shale, shells and sand	70	150	Line	3970	4150
Red bed	150	225	Line, broken	4150	4240
Shale	225	400	Line	4240	4337
Sand	400	425	Line, broken	4337	4490
Salt and shall	425	525	Line	4490	4545
Salt	525	575	Line and chert	4545	4555
Red bed and shells	575	700	Line, slightly cherty	4555	4583
Sand and gravel	700	715	Line	4583	4596
Shale, red bed, chalkie lime	715	775	Broken lime	4596	4630
Red bed	775	835	Line	4630	4828
Shale and shells	835	898	Line, broken	4828	4855
Shale	898	930	Line	4855	4885
Shale and salt	930	960	Line and shale	4885	4927
Shale and sand	960	1020	Line	4927	5040
Red bed and sand strip	1020	1150	Line, Mississippi	5040	5052
Sand	1150	1220	Line	5052	5060
Vari-colored sticky shales	1220	1390	Line, Mississippi	5060	5100
Shale	1390	2045	Line	5100	5148
Shale and sandy shells	2045	2190	Line, broken	5148	5185
Shale and shells	2190	2335	Line, white	5185	5195
Shale and lime	2335	2350	Line	5195	5240
Lime	2350	2430	Line, cherty	5240	5248
Shale and lime	2430	2480	Line	5248	5264
Lime, broken	2480	2540	Chert and lime	5264	5283
Chat and chert	2540	2585	Line	5283	5320
Lime	2585	2635	Line and chert	5320	5353
Shale, lime, sandy	2635	2700	Line	5353	5360
Lime	2700	2740	Line, cherty	5360	5396
Shale and lime	2740	2785	Line	5396	5405
Sharp lime and shale	2785	2825	Line, hard	5405	5422
Lime and shale	2825	3025	Line, cherty	5422	5428
Lime, hard	3025	3055	Line	5428	5445
Lime and shale	3055	3085	Lime, soft	5445	5457
Lime	3085	3110	Line	5457	5466
Lime and shale	3110	3340	Line, hard	5466	5480
Shale and shells	3340	3400	Line	5480	5548
Shale and lime	3400	3455	Line, soft	5548	5562
Lime and shale	3455	3480	Line, broken	5562	5575
Lime and shale with stks of black shale	3480	3510	Line	5575	5585
Lime and shale	3510	3565	Cherty lime	5585	5675
Lime with shale breaks	3565	3600	Line, sandy	5675	5695
Lime and shale	3600	3635	Line	5695	5725
Lime	3635	3700	Line, Dolomite	5725	5729
Lime porous strips	3700	3715	Line	5729	5755
Shale	3715	3795	Sand and shale	5755	5790
Lime	3795	3850	Shale and lime	5790	5807
Shale and lime	3850	3885	Line	5807	5830
Lime with porous zones	3885	3905	Arbuckle	5830	5850
			TOTAL DEPTH	5850	

CASING RECORD: 10 5/4" casing set at 659' and cemented with 550 sacks cement.
 5 1/2" " " " 5113' and " " 225 " " "

STATE OF OKLAHOMA)
 COUNTY OF TULSA) ss

I hereby affirm that the above and foregoing is a true and correct copy of the log of your Alford #1 Well, located in the Southeast Corner of the Southeast Quarter of the Southwest Quarter of Section 14, Township 30 South, Range 19 West, Kiowa County, Kansas.

HELDREICH & PAYNE, INC.

By William B. ...
 Treasurer

Subscribed and sworn to before me, a Notary Public, this 9th day of October, 1944.

Lee Griffin
 Notary Public

My commission expires July 22, 1947.

PLUGGING
 FILE SEC 44-13-R19W
 BOOK PAGE 44 LINE 45