

15-033-20544

LEASE NAME #22 "K" LGK DST NO. #1 COMPANY Luff Exploration DATE Aug 13, 1983
 FOX TESTING • DRILL STEM TEST REPORT - OFFICE READINGS • DODGE CITY, KANSAS 67801
 P.O. BOX 1826 TICKET NO. 0977 TESTER Darrell Claphan (316) 225-0224

County Comanche State Ks. Sec 22 Twp 31 Rge 16W
 Formation Mississippian Interval 4902' to 4929' DST No. #1
 Total Depth 4929' Type Test Conventional Elevation 1962 K.B.
 Packer Depth 1.4897' - 6 3/4" 2.4902' - 6 3/4" 3.
 Anchor Length 27' Size 4.75
 Surface Choke 1" Bottom Choke 5/8" BHT 131°

Computed Pressures Given Times Computed Times
 Initial Hydrostatic 2386 psi 3:55 pm Tool on Bottom
 IFF 985 psi to 1510 psi 30 min. IFF 30 min.
 ISIP 1554 psi 60 min. ISIP 58 min.
 FFP 1551 psi to 1560 psi 90 min. FFP 87 min.
 FSIP 1560 psi 120 min. FSIP 117 min.
 Final Hydrostatic 2327 psi 8:55 pm Tool off Bottom

Recorders
 Top Depth 4904' No. 21946 Cap. 3925 lbs. (inside)
 Bottom Depth 4913' No. 3320 Cap. 5925 lbs. (outside)
 Straddle Depth _____ No. _____ Cap. _____ Below Straddle

Recovery
40' SLOSPWM 10% W; 90% M; Few oil specks
120' SLOSPWM 59% W; 40% M; Few oil specks
3090' SW Resistivity .024
3250' TOTAL FLUID CHLORIDES TOP 96,000
 ROT. 116,000

1st Blow Strong blow in 1 minute Decreasing
 2nd Blow Strong blow Decreasing

Sampler Data Gas Pressures - 2" Maria Well Tester
 1st flow min Gauge Orifice Gas Vol. MCF/D 2nd flow min Gauge Orifice Gas Vol. MCF/D
 Pressure 17 lbs psi
 Gas .06 cu ft
 Total Fluid 1600 cc
 Oil _____ cc
 Mud _____ cc
 Water 1600 cc
 Oil Gravity _____ °F
 Gas/Oil Ratio _____
 Chlorides 120,000

Recorder No.	#3320	Cap.	5925 lbs
0 min	985	0 min	1510
5 min	1044	5 min	1537
10 min	1183	10 min	1540
15 min	1296	15 min	1543
20 min	1400	20 min	1545
25 min	1456	25 min	1545
30 min	1510	30 min	1548
35 min		35 min	1548
40 min		40 min	1548
45 min		45 min	1548
50 min		50 min	1548
55 min		55 min	1551
60 min		60 min	1551
65 min		65 min	1551
70 min		70 min	1551
75 min		75 min	1551
80 min		80 min	1551
85 min		85 min	1551
90 min		90 min	1554
95 min		95 min	1554
100 min	5886	100 min	1554
105 min		105 min	1560
110 min		110 min	1560
115 min		115 min	1560
120 min		120 min	1560
125 min		125 min	1560
130 min		130 min	1560
135 min		135 min	1560
140 min		140 min	1560
145 min		145 min	1560
150 min		150 min	1560
155 min		155 min	1560
160 min		160 min	1560
165 min		165 min	1560
170 min		170 min	1560
175 min		175 min	1560
180 min		180 min	1560
185 min		185 min	1560
190 min		190 min	1560
195 min		195 min	1560
200 min		200 min	1560

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LEASE NAME KLCK DST NO. #2 COMPANY Luff Exploration Company DATE 8/14/83
FOX TESTING • DRILL STEM TEST REPORT - OFFICE READINGS • DODGE CITY, KANSAS 67001
P.O. BOX 1826 TICKET NO. 0978 TESTER Darrell Claphan (316) 225-0224

County Comanche State Ks. Sec 22 Twp 31 Rge 16W
Formation Mississippi Interval 4934' to 4963' DST No. #2
Total Depth 5000' Type Test Straddle Elevation 1962 K.B.
Packer Depth 14929' - 6 3/4" 2.4934' - 6 3/4" 3.4963' - 6 3/4" 4.
Anchor Length 29' Size 37' tailpipe 2.2 & 4.75 I.D.
Surface Choke 1" Bottom Choke 5/8" BHT 128°

Computed Pressures		Given Times		Computed Times	
Initial Hydrostatic	2382	psi	5:25 pm	Tool on Bottom	
IFP	90	psi to	15	min. IFP	15
ISIP	1329	psi	60	min. ISIP	63
FFP	128	psi to	90	min. FFP	84
FSIP	1292	psi	120	min. FSIP	120
Final Hydrostatic	2310	psi	10:10 pm	Tool off Bottom	

Recorders
Top Depth 4936' No. 21946 Cap. 3925 lbs. lbs. (inside)
Bottom Depth No. Cap. lbs. (outside)
Straddle Depth 4995' No. 3320 Cap. 5925 lbs. Below Straddle

Recovery
120' G.I.P.
60' OCM 7% oil; 92% mud; 1% gas;
120' O&GCM 7% oil; 78% mud; 15% gas;
120' SLOCM 2% oil; 55% mud; 43% water;
300' TOTAL FLUID 6" of 38 Gravity oil on top Resistivity .055
CHLORIDES 78,000
1st Blow Weak blow building 1/2" to 4"
2nd Blow Weak slowly building to good 1/2" to 8 1/2"

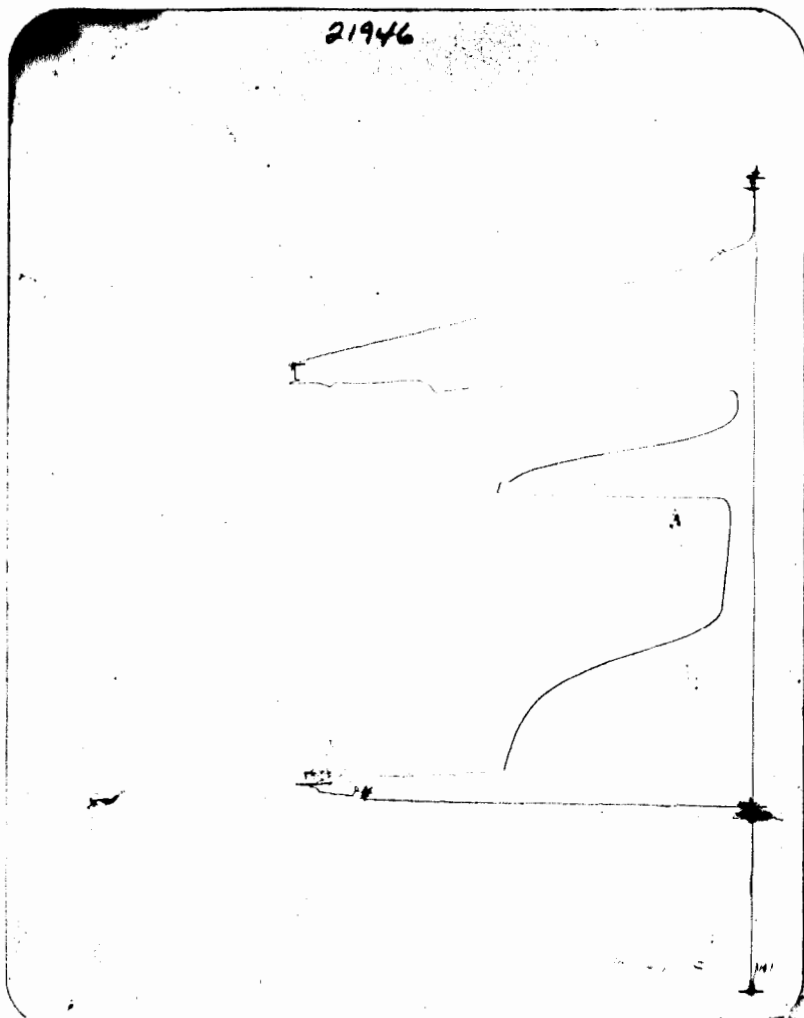
Sampler Data		Gas Pressures - 2" Maria Well Tester	
Pressure	12 lb. psi	Gas Vol. MCF/D	2nd flow Gauge min
Gas	.02	cu ft	
Total Fluid	870	cc	
Oil	50	cc	
Mud	520	cc	
Water	300	cc	
Oil Gravity	C	°	
Gas/Oil Ratio	78,000		
Chlorides			

Recorder No.	21946	Cap.	3925 lbs
0 min	90	0 min	168
5 min	100	5 min	180
10 min	112	10 min	194
15 min	132	15 min	216
20 min	168	20 min	242
25 min	214	25 min	284
30 min	266	30 min	322
35 min	330	35 min	368
40 min	408	40 min	424
45 min	507	45 min	488
50 min	617	50 min	549
55 min	733	55 min	609
60 min	845	60 min	676
65 min	943	65 min	739
70 min	1033	70 min	794
75 min	1121	75 min	841
80 min	1182	80 min	890
85 min	1223	85 min	933
90 min	1256	90 min	978
95 min	1319	95 min	1011
100 min	1323	100 min	1045
105 min	1329	105 min	1074
110 min		110 min	1100
115 min		115 min	1123
120 min		120 min	1141
125 min		125 min	1158
130 min		130 min	1172
135 min		135 min	1188
140 min		140 min	1200
145 min		145 min	1213
150 min		150 min	1223
155 min		155 min	1231
160 min		160 min	1241
165 min		165 min	1249
170 min		170 min	1256
175 min		175 min	1262
180 min		180 min	1268
185 min		185 min	1276
190 min		190 min	1282
195 min		195 min	1288
200 min		200 min	1292



22-31-16w⁸¹
22 'K' LGK

#2



LEASE NAME V-22 LGK DST NO. 3 COMPANY Luff Exploration Company DATE 8/18/83
FOX TESTING • DRILL STEM TEST REPORT - OFF-ICE READINGS • DODGE CITY, KANSAS 66001
P.O. BOX 1826 TICKET NO. 0979 TESTER Darrell Claphan (316) 225-0224

County Commanche State Ks. Sec 26 Twp 31s Rge 16W
Formation Viola Interval 5120' to 5195' DST No. 3
Total Depth 5365' Type Test Straddle Elevation 1962 K.B.
Packer Depth 15115'- 6 3/4" 2.5120' - 6 3/4" 3.5195' - 6 3/4" 4.5200' - 6 3/4"
Anchor Length 75' Size 170' tailpipe 2.2 & 4.75 I.D.
Surface Choke 1" Bottom Choke 5/8" BHT 130°

Computed Pressures		Given Times		Computed Times	
Initial Hydrostatic	2575	psi	2:30 am	Tool on Bottom	
FP	98	psi to	89	min.	19
SIP	1519	psi	60	min.	58
FP	101	psi to	92	min.	88
SIP	1296	psi	120	min.	115
Initial Hydrostatic	2480	psi	7:15 am	Tool off Bottom	

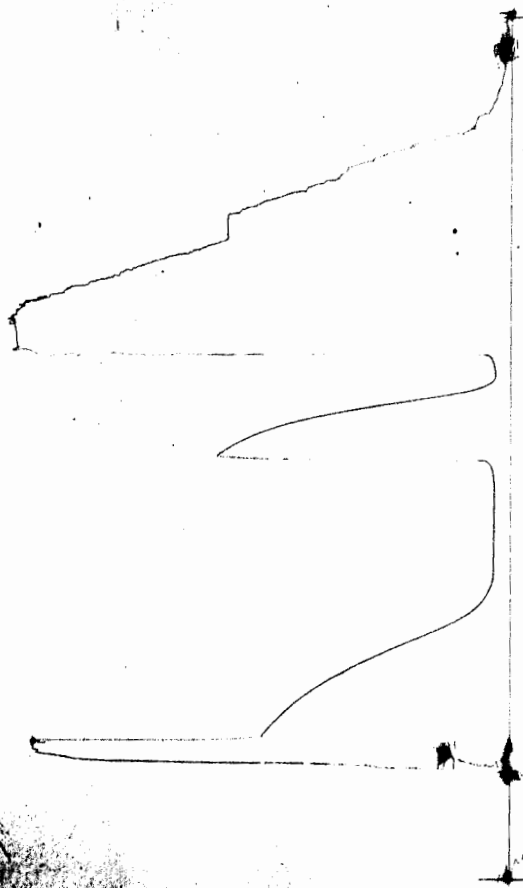
Recorders
Top Depth 5176' No. 21946 Cap. 3925 lbs. (inside)
Bottom Depth 5185' No. 3320 Cap. 5925 lbs. (outside)
Straddle Depth 5202' No. #1 Cap. Below Straddle

Recovery
40' Mud
First Blow Weak blow building 1/8" to 1/2"
2nd Blow No blow

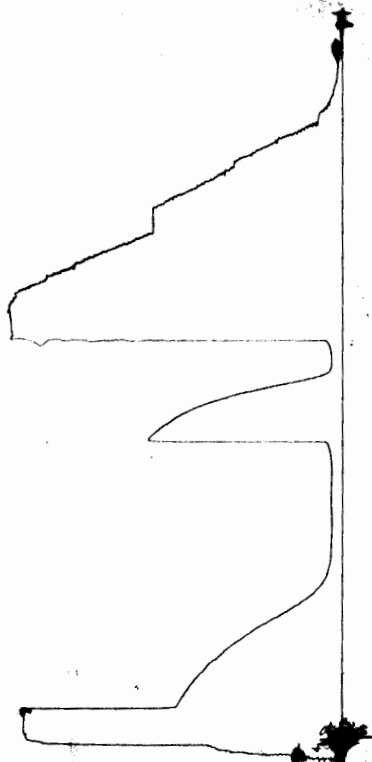
Sampler Data		Gas Pressures - 2" Meria Well Tester	
Pressure	4 lbs	Gas Vol.	Gas Vol.
Gas	cu ft	1st flow	2nd flow
Total Fluid	850 cc	min	min
Oil	cc	Gauge	Gauge
Mud	850 cc	Orifice	Orifice
Water	cc		
Oil Gravity	C		
Gas/Oil Ratio			
Chlorides			

Recorder No.		3320		Cap.		5925	
0 min	98	0 min	89	0 min	101	0 min	92
5 min	89	3 min	89	5 min	101	3 min	92
10 min	89	6 min	98	10 min	92	6 min	101
15 min	86	9 min	161	15 min	86	9 min	107
19 min	89	12 min	256	20 min	83	12 min	113
25 min		15 min	385	25 min	83	15 min	125
30 min		18 min	519	30 min	83	18 min	143
35 min		21 min	650	35 min	83	21 min	164
40 min		24 min	773	40 min	83	24 min	194
45 min		27 min	886	45 min	83	27 min	220
50 min		30 min	991	50 min	83	30 min	256
55 min		33 min	1083	55 min	83	33 min	295
60 min		36 min	1163	60 min	83	36 min	337
65 min		39 min	1216	65 min	83	39 min	385
70 min		42 min	1275	70 min	83	42 min	435
75 min		45 min	1329	75 min	86	45 min	492
80 min		48 min	1379	80 min	89	48 min	552
85 min		51 min	1424	85 min	89	51 min	600
90 min		54 min	1462	90 min	92	54 min	659
95 min		57 min	1501	95 min		57 min	707
100 min		58 min	1519	100 min		60 min	752
105 min		63 min		105 min		63 min	797
110 min		66 min		110 min		66 min	841
115 min		69 min		115 min		69 min	883
120 min		72 min		120 min		72 min	928
125 min		75 min		125 min		75 min	958
130 min		78 min		130 min		78 min	991
135 min		81 min		135 min		81 min	1035
140 min		84 min		140 min		84 min	1065
145 min		87 min		145 min		87 min	1091
150 min		90 min		150 min		90 min	1124
155 min		93 min		155 min		93 min	1154
160 min		96 min		160 min		96 min	1178
165 min		99 min		165 min		99 min	1198
170 min		102 min		170 min		102 min	1225
175 min		105 min		175 min		105 min	1243
180 min		108 min		180 min		108 min	1264
185 min		111 min		185 min		111 min	1284
190 min		114 min		190 min		115 min	1296
195 min		117 min		195 min		117 min	
200 min		120 min		200 min		120 min	

21946



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22-31-16w

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22'K'LGK

#3

