M-d

ARKLA NMA CORE TEST #4-C 1-3
SW/SW Sec 28-T14N-R25E, Apache Co

1-5/3

County APACHE

Area

Lease No.

Well Name ~~ARKLA NMA CORE TEST #4-C~~

Location SW/SW Sec 28 Twp 14N Range 25E Footage 660 FSL - 660 FWL

Elev 5498 Gr KB Spud Date 1-1-65 Completed Abandon 1/65 Total Depth 2488 +3010

Contractor

Drilled by Rotary
Cable Tool

Casing Size	Depth	Cement

Production Horizon

Initial Production

REMARKS

Elec Logs GRN-2

Applic. to Plug ___ Plugging Record ___ Completion Report ___

Sample Log
Sample Descript.
Sample Set
Core Analysis
DSTs

Water well accepted by

Bond Co. & No.

Bond Am't $ Cancelled Date Organization Report

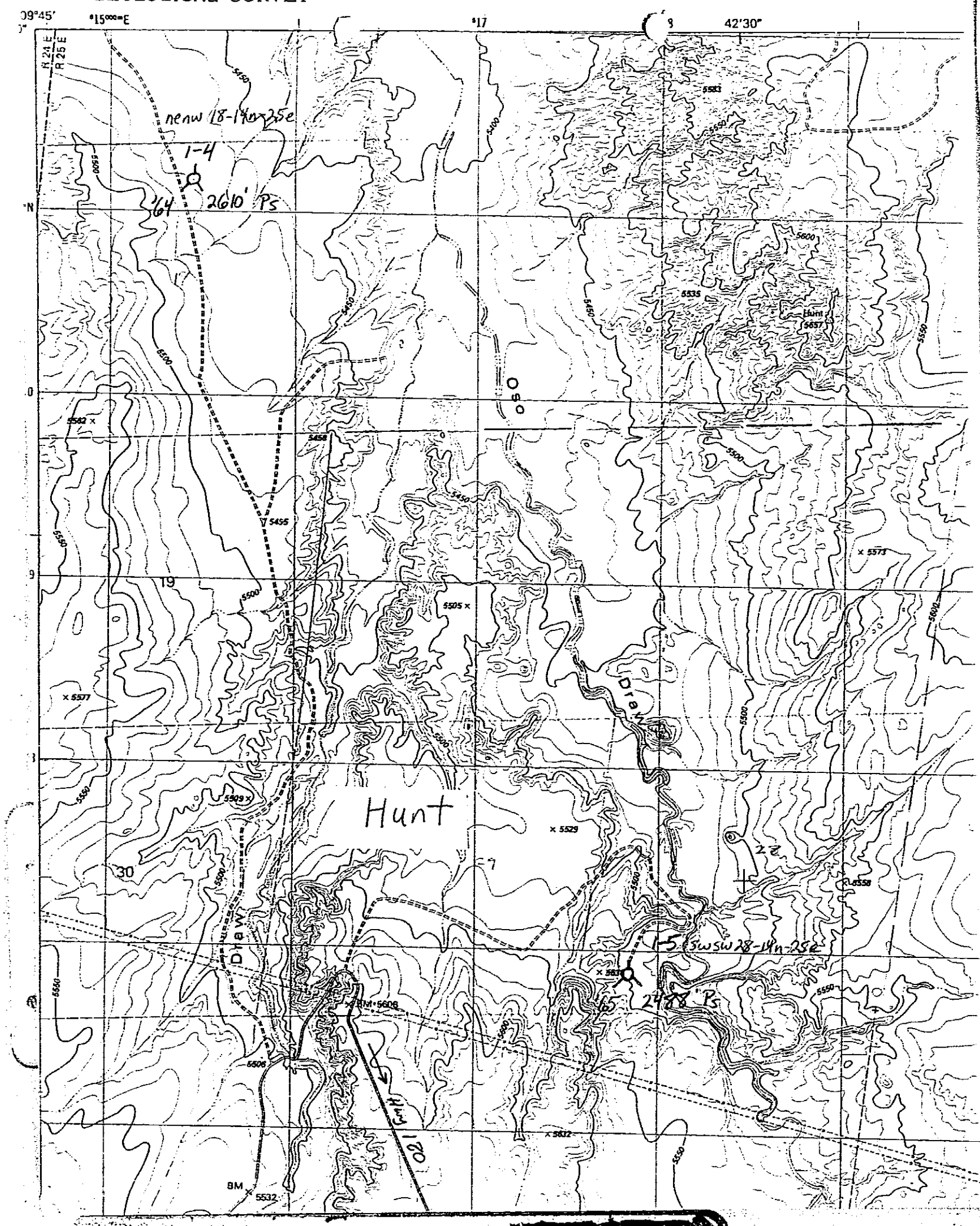
Filing Receipt Dated Well Book ___ Plat Book ___

API No. 02-001-00067 Loc. Plat ___ Dedication

Permit Number NONE Date Issued

1-5

GEOLOGICAL SURVEY



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PN 1-5

LITHOLOGIC DESCRIPTION

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WELL NAME: ARKLA EXPLORATION COMPANY No. 4 NMA CORE TEST

LOCATION: SECTION 28 T 14N, R 25E

ELEVATION: 5506 KB

00-10'	SPUD JAN. 1, 1965 PIECES OF SURFACE SD SHALE BRN 100%.
10-20'	SURFACE SAND 10%, SH COLOEED VERIGATED 80%, CHERT COLORED 10%.
20-30'	SHALE, VERIGATEB 90% COLORED CHERT 10%.
30-40'	SILTSTONE, LAVENDER-WHITE 80%. COLORED CHERT 20%.
40-50'	SILTSTONE, BRN-SANDY 90% VERIGATED SDY SH-10%.
50-60'	AA, AA, AA, 80% SD-WHITE, LARGE GRAIN CONG SUB ROUND.
60-70'	CONG SAND & SHALE BRN WHITE.
70-80'	SAME AA BECOMING MORE WHITE.
80-90'	DEC IN CONG SD INC IN CONG SH & SH RED BRN TREGREEN.
90-00'	MUDSTONE GRY.
100-10'	MUDSTONE PURPLE GREEN-WH.
10-20'	AA, AA, AA, 70% SAND GREEN VTG BLACK MINERAL FLECKS.
20-30'	SLT ST RED PCS COLORED CHERT.
30-40'	SLT ST & SH RED 100%.
40-50'	AA, AA, REDDISH ORG 100% PCS BLUEGREEN SLTY SD.
50-60'	AA, BEC CONG 70% SD GREEN SH CONG 30%.
60-70'	SD CONG HIGHLY ARG.
70-80'	SH SLT ST GREEN RED, 100%.
80-90'	SAME 90% BEC CONG 10%.
90-00'	SLT ST RED PURP.
200-10'	SD MED COURSE GRAIN CONG.
10-20'	AA, AA, 90% SH GRY PURP 10%.
20-30'	SD WH MED GRAIN SUB ROUND GLAUCONITIC BLK CARBONACEOUS FLECKS 80% SH MUROON 20%.
30-40'	AA, AA, AA 10% SH RED GRY MUR 90%.
40-50'	TRC ANHY SHY CONG SD MICA FLECKED.

50-60'	CONG SD & SHALE 60% ORG SH GRN HIGH INSTL CLAY CONTENT. SH RED GRN 40% TRC GYP.
60-70'	TRC GYP CONG SD RED WH BLK MICU FLECKS F-M GRAIN GLAUCONITIC 70% SH RED GRN 30%.
70-80'	AA, RED 60% SD GRN SLTY VTG 10% RED SHALE 30%.
80-90'	AA, AA, AA, SHALE RED 30% 10% GRN SH SD PCS COLORED CHERT.
90-00'	SH RED 60% SD 10% LARGE GRAIN HEAVY INST CLY SD 30% GRY-GRY GRN VFG DOLO.
300-05'	AA, 60% SD WH MG POORLY SORTED INSTL DY. TRC RED LM.
05-10'	SH RED 60% SD ORANGE FG TIGHT SUBROUND 30% PCS GRY GRN SLTY SD, 10MIN. SD 80% ORANGE AS ABOVE 20% SH AS ABOVE PCSLN SDY DNSE.
10-15'	AA, TRE SD WH MG SUB RD LM WH 10%.
15-20'	SD 90% AA, 10% SD WH TMG R CLEAR FROSTED INSTL CLY, PCS LM GRY DNSE.
20-23'	DOLD LT BUFF VF XYLN DNSE SDY 80% SD AS AA 10% SH 10% RED SLTY. CIRC 10 MIN SOME 90% SILTY, 10% SH MAROON, SD PCS MG INSTL CLY PYRITIC.
23-25'	AA, 60%, AA,AA, AA, 30%.
25-30'	SD WH MG R SUBR CLEAR INSTL CLY PYRITIC 80% DOLO AA, 10% SH 10%. CIRC 10 MIN, SD AS ABOVE & PK FREE PYRITE.
30-35'	AA, AA, AA, 90% SH RD 10%.
35-38'	AA, AA, AA, GYP 10%. CIRC 10 MIN, SAME.
38-40'	AA, MORE PYRITIC
40-45'	BECOMING MORE COARSE GRAINED. CIRC 10 MIN, SAME.
45-50'	AA.
50-00'	SAND SAME.
600-10'	AA, TRC GYP.
10-20'	AA, AA.
20-30'	AA, BECOMING PINK.
30-40'	SD PINK.
40-50'	AA, SH 10% GRY MAROON, TRC GYP.

50-60'	80% AA, V COARSE GRAIN PCS SH SD, AA, GYP 10%.
60-70'	70% AA, AA, 20% AA.
70-80'	AA, AA, AA, VERIGATED AA.
80-90'	50% AA, 40% RED SLTY AA.
90-00'	SAME.
700-10'	SD WH PK 60%, SH SDY SLTY 40%, TRC GYP.
10-20'	AA, 70% AA, 30% AA.
20-30'	SAME.
30-40'	SD WH PK 100%, SHALE TRACE.
40-50'	AA, REDDISH ORG CHERT RG, 100%.
50-60'	AA, AA, AA, TRC SH.
60-70'	SAME VERIGATED ARG.
70-80'	SD RED ORANGE TRC SH.
80-85'	SD AA, BEC ARGILLACEOUS, 100% PCS DOLO GRY FN XYLN.
85-90'	SD AA, 30% SLTST SDY RED.
90-95'	AA, RED ARG, 80% SH RED SLTY 20%.
95-00'	SD RED AA, ARG TIGHT & RED SLT SDY 100%.
800-05'	SAME TRC GYP, MUD STARTING TO BALL UP.
05-10'	ANHY & GYP.
10-15'	AA. 7" @ 813 W/25 SX, JAN. 5, 1965.
15-20'	SH RED SLTY SOFT, 95% GYP 5%, WH ALSO INCLUSIONS.
20-30'	AA,
30-40'	ANHY WH SOFT 90%, SHALE 10% AS ABOVE.
40-50'	50% AA, AA, AA, 50% RED SOFT SHALE.
50-60'	80% AA, & GYP WH GRY, 20% AA, AA, AA.
60-70'	90% AA.
70-80'	20% AA, 80% AA, AA, AA, & GREEN SH.
80-90'	10% AA, 90% AA, AA, REDDISH ORG SLTY.

90-00'	40% AA, 60% AA.
900-10'	50% AA, 50% AA.
10-20'	80% AA, 20%AA.

CORE #1 920-972, CORE 52' REC 40.½'

920-32'	12' BANDED ANHY LT TO DRK GRY.
32-32.5'	6" VR DK ANHY.
32.5-33'	6" GRN SLT STONE.
33-37'	4' RED CLAY STONE W/STREAK ANHY IN 37.
37-40'	3' ANHY DENSE LT TN.
40-40.5'	6" PINK ANHY.
40.5-47'	6'6" RED CLAYSTONE W/STRKS GRN SLY STNE.
47-60'	13' ANHY LT TO MED GRY BECOMMING MORE XLYN BELOW 55'.
60-60.5'	6" DOLO STRK. ON END RED CLY GYP.

CORE #2 REC 48' 972-1022

972-81'	9' SALT WHT W/10% SH INPURITIES.
81-88'	7' PINK SALT.
88-93'	5' SALT 10% IMPURITIES.
93-97'	4' PINK SALT.
97-99'	2' RED SH 90%, SALT 10%.
99-003'	4' SALT 80%, 20% IMPURITIES.
003-015'	12½' PINK SALT SCAT ANHY & SH BANDS.
015-020'	5' PINKISH RED SALT, 10-30% SH IMPURITIES.

CORE #3 1022-1074, REC 52'.

1022-27.5'	5½' PINKISH WHT SALT 5% IMPURITIES.
27.5-28.5'	1' SALT 20% SH 70%.
28.5-34.5'	6' WHT SALT W/STR & ANHY.

34.5-36'	1½' RED CLAYSTONE W/ANHY BAND @ 35.
36-46'	10' WHT SALT S/ORANGE CAST.
46-47'	1' ANHY W/SALT INCLUSIONS.
47-48'	1' RED & GRN CLAYSTONE W/SALT STRNGER.
48-50'	2' SALT W/20% IMPURITIES.
50-52'	7' SALT W/10-15% IMPURITIES & W/ANHY STRNGER.
52-62'	5' SALT PURE.
62-63'	1' ANHY W/SALT.
63-68'	5' SALT W/ANHY BAND @ 68, PNK TO WHT.
68-69'	1' RED PINK SALT W/ANHY STRNGERS.
69-70'	1' PINK SALT W/ANHY TR.
70-73'	3' RED SH 90% SALT 10%.
73-74'	AA, AA,

CORE # 4 1074-1126

75-83'	SALT 10%-20% BRN SHALE IMPURITIES 80-90%.
83-87½'	PK SALT 100%, TRC IMPURITIES FEW ANHY BANDS.
87½-91'	CLY ST RED GRN FEW SALT INCLUSTIONS.
91-94½'	SALT WH CRUMBLY 90%, 10% CLY IMPURITIES.
94½-1103'	AA, AA, & PK SCATTERED ANHY BANDS.
1103-05½'	SALT WH CRUMBLY 90%, 10% CLY IMPURITIES.
05½-09'	AA, AA, AA, 70%, 30% AA.
09-13'	SALT PK 90%, 10% SHALE IMPURITIES.
13-15'	AA, 10% SHALE 90%.
15-20'	AA, 90% AA, 10% ANHY BAND @ 20.
20-23'	AA, 80% AA, 20%.
23-26'	SALT 100% PK.

CORE TEST #4C

SAMPLES 1120-30'	PINK SALT 100%

30-40'	AA, AA, 50%, SH SLTY RED 50 TRC SD GREEN VFG.
40-50'	AA, AA, 70% AA, 20% ANHY 10% (GRY).
50-60'	AA, AA, 80% AA, 10% AA.
60-70'	AA, AA, 20% AA, 80%.
70-80'	AA, AA, 10% AA, 40% AA, 50%.
80-90'	PINK AND WHT, AA, AA, 90%, TRC SHALE AA, 10%.
90-00'	REDDISH PINK 90% SH RED 10% AA, TRACE.
1200-10'	AA, 80% AA, 20%.
10-20'	AA, 60% ANHY GRY 40%.
20-30'	AA, 20% SLT ST RED SDY DOLO 50% AA, AA, 30%.
30-40'	AA, AA, (AA, & SH AS ABOVE PCS GRN 80%) TRACE ANHY.
40-50'	AA, AA, (AA, AA,).
50-60'	AA, 10% (AA, 30%) ANHY 60% BUFF GRY.
60-70'	DOLOMITE, BRN TAN SLTY SOFT HARD DNSE BLKY 70% AA, 30% AA.
70-80'	(DOLO SAME AS ABOVE 20%) (CLAYSTONE & SLTS GRN 70%) 10%.
80-90'	SLTST & CLYST RED & GREEN 100%.
90-00'	SALT PK 10% AA, AA, 60%, ANHY 30%.
1300-10'	AA, 30% AA, AA, 70%.
10-20'	AA, 70% AA, AA, 30% TRACE ANHY.
20-30'	AA, 20% AA, AA, ABD RED 80% AA.
30-40'	SLT ST RED (PRED) & GREEN 100%.
40-50'	AA, & SHALE DOLO IMPT 30% SALT 70%, TRC ANHY.
50-60'	AA, 50% ANHY.
60-70'	SLT ST RED 20% ANHY 80% WH GRY.
70-80'	SALT PK 100% TRC ANHY, TRC SLT ST AS ABOVE.
80-90'	AA, 50%, CLY ST RED 40% ANHY 10%.
90-00'	AA, 10% SLT ST RED 90%.
1400-10'	AA, 20% AA, 80%.
10-20'	AA, AA, SLT ST & SH AA.

20-30'	AA, 60% AA, 40%.
30-40'	AA, AA, DOLO INPT. 10%, ANHY 90%.
40-50'	SALT 30% SLT ST RED 60% AA, 10%.
50-60'	AA, 10%, AA, 40% AA, 50%.
60-70'	AA, AA, 30% AA, 70%.
70-80'	SALT 90% AA 10%, TRACE ANHY.
80-90'	SALT PK 10% SLT ST RED 10%, ANHY GRY TAN 80%.
90-00'	AA, 20% SH& AA, 80%, TRC ANHY.
1500-10'	AA, AA, SHALE SH, RED 100%, ANHY TRACE.
10-20'	SALT PK 30% AA, 70%.
20-30'	AA, 80% AA, 20%.

CORE #5 1850-1902 RECOVER 52'

1850-54'	SHALE REDDISH BRN, 80%, SALT IN
54-54½'	AA, AA, 30%,AA, 70%.
54½-56'	AA, AA, 70%, AA, 30%.
56-57'	AA, AA, 90% AA, 10%.
57-60'	AA, AA, 10% AA, 90%.
60-62'	AA, AA, 70% AA, 30%.
62-63'	AA, AA, 50% AA, 50%.
63-67'	AA, AA, 70% AA, 30%.
67-69'	AA, AA, AA, PINK SALT 100%.
69-71'	AA, AA, 20% AA,AA, 80%.
71-72'	RED SILT ST 60% AA, AA, 40%.
72-74'	AA, AA, 100% AA, AA, TR.
74-75'	AA, AA, 50% AA, AA, 50%.
75-76'	AA, AA, 80% AA, AA, 20%.
76-78'	AA, AA, TR, AA, AA, 100%.
78-80'	AA, AA, WITH ANHY STR AA, AA, 100%.
80-82½'	AA, AA, 10% AA, AA, 90%.
82½-83'	SHALE 100%.

83-84'	AA, AA, 100%.
84-85'	AA, AA, 90% AA, AA, 10%.
85-92'	AA, AA, 100%.
92-93'	ANHY INCL, 100%.
93-94'	BANDED ANHY 100%.
94-95'	AA, AA, 100%.
95-98'	AA, AA, 10% AA, AA, 90%.
98-99'	ANHY 100%.
99-1902'	SHALE 100%.

CORE #6 1902-1954-REC 52'

02-04'	BANDED ANHY W/SALT INCL.
04-06'	SALT W/BANDED ANHY.
06-08'	ANHY.
08-13½'	SH RED, FEW SCATTERED ANHY & SALT INCL.
13½-15'	SALT 10% RED SHALE INPURITIES.
15-17½'	ANHY GRY.
17½-21'	SH RED GREEN W/ANHY INCL.
21-32'	SALT WH CRUMBLY W/SCATTERED BANDED ANHY & BLK SH LAMINATIONS.
32-37½'	ANHY HARD DNS GRY W/FW SALT INCL.
37½-48½'	SALT W/10% SH & ANHY INCL.
48½-50'	SALT & ANHY 50-50.
50-54'	GRY DNSE HARD, ANHY TRACE DOLO.
SAMPLE 54-60'	ANHY 80% DOLO 20%.
60-70'	DOLO TAN BRN XYLN DNSE, ANHY INCL.

CORE TEST #4C

1970-80'	DOLO TAN, BRN DNSE F XYLN SILTY.
80-90'	SAME AA, FEW BLACK SH LAMINATIONS, STN.
90-00'	AA.
2000-10'	AA, 50% SLT ST GRY GRN 50%.
10-20'	SH ST, GRY, GRY GRN, SANDY 100%.
20-30'	AA, TRC RED SLT ST.
30-40'	AA, SLT INC IN RED SLT ST.
40-50'	SLT ST & SH RED 100%.
50-60'	SAME, TRC ANHY.
60-70'	SLT ST, RED 80%, ANHY WH 20%, TRC SALT.
70-80'	ANHY 100%.
80-90'	SLT ST RED, 100% TRC SALT.
90-00'	AA, 10% SALT, 90%.
2100-10'	AA, 60% AA, 40%.
10-20'	SLT ST & SH RED 50% AA, 50%.
20-30'	AA, 60% AA, 40%.
30-40'	AA, 20% AA, 80%.
40-50'	AA, 70% AA, 30% ANHY TRC.
50-60'	AA, 100% AA.
60-70'	AA, 20% SALT 40 ANHY 40%.
70-80'	SHALE TRC GREEN, RED 20% AA, 80%.
80-90'	SLT ST AA, 50% AA, 50%.
90-00'	SLT ST & SH RED 20% AA, 80%.
2200-10'	SLT ST & SH DARK RED 70% AA, 30%.
10-20'	SH SLTY AA, 80% AA, 20%.
20-30'	AA, 60% AA, 40 %.
30-40'	AA, 80% AA, 20%.
40-50'	AA, 80% AA, 20%.

50-60'	AA, 50% AA, 50%.
60-70'	ANHY 80%, DOL DRK BRN SILTY W/BLK SH LAM 20%.
70-80'	SLT ST & SH. GREEN, GRN DOLO IN PT.
80-90'	AA, TRC ANHY.
90-00'	AA, RED & GREEN 90% SALT 10%.
2300-10'	SH & SLT ST RED 10% AA 90%.
10-20'	AA, 60% AA, 40%.
20-30'	SALT 80% SLT ST RED 20% TRC ANHY.
30-40'	AA, 20% AA 80%.
40-50'	TRC SLT 100%.SH ST.
50-60'	SLT ST RED 100%.
60-70'	SAME.
70-80'	SLT ST & SHALE RED 100%.
80-90'	AA, 90% SALT 10%.
90-00'	SH RED 30% AA, 70%.
2400-10'	AA, 5% AA, 95%.
10-20'	AA, 10% AA, 90%.
20-30'	AA, 15% AA, 85%.
30-40'	AA, 10% AA, 90%.
40-50'	AA, 10% AA, 90%.
50-60'	AA, 60% AA, 40%.
60-70'	SAME.
70-80'	SHALE RED 90% AA, 10%.
80-85'	AA 100%.
85-88'	SHALE RED AA.
CIRC. 20 MIN	SAME

CORE TEST NO. # 4C	CYCLE #1 TOTAL THICKNESS	%	CYCLE #2 TOTAL THICKNESS	%	CYCLE #3 TOTAL THICKNESS	%	CYCLE #4 TOTAL THICKNESS	%	CYCLE #5 TOTAL THICKNESS	%	SALT-1ST DOLO TOTAL THICKNESS	%	NOTES
INTERVAL	500' 1947-2447		162' 1785-1947		185' 1600-1785		339' 1261-1600		467 794-1261		961-1261		Cycle #5 Salt/clastics: 1.14 Evap/clastics: 1.80 Salt/anhy: 1.73
SANDSTONE	22	4.4											
SILTSTONE-SH	248	49.6	57	35.2	96	51.9	175	51.6	167	35.8	74	24.7	
DOLO & LIME	48	9.6	11	6.8	25	13.5	8	2.4	0	0	0	0	
ANHY	31	6.2	17	10.5	16	8.6	65	19.2	110	23.5	36	12.0	
SALT	151	30.2	77	47.5	48	25.9	91	26.8	190	40.7	190	63.3	
TOTAL=	500	100	162	100	185	99.9	339	100	467	100	300	100	

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LITHOLOGIC DESCRIPTION

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WELL NAME: ARKLA EXPLORATION COMPANY No. 4 NMA CORE TEST

LOCATION: SECTION 28 T 14N, R 25E

ELEVATION: 5506 KB

00-10'	SPUD JAN. 1, 1965 PIECES OF SURFACE SD SHALE BRN 100%.
10-20'	SURFACE SAND 10%, SH COLOEED VERIGATED 80%, CHERT COLORED 10%.
20-30'	SHALE, VERIGATED 90% COLORED CHERT 10%.
30-40'	SILTSTONE, LAVENDER-WHITE 80%. COLORED CHERT 20%.
40-50'	SILTSTONE, BRN-SANDY 90% VERIGATED SDY SH-10%.
50-60'	AA, AA, AA, 80% SD-WHITE, LARGE GRAIN CONG SUB ROUND.
60-70'	CONG SAND & SHALE BRN WHITE.
70-80'	SAME AA BECOMING MORE WHITE.
80-99'	DEC IN CONG SD INC IN CONG SH & SH RED BRN TREGREEN.
90-00'	MUDSTONE GRY.
100-10'	MUDSTONE PURPLE GREEN-WH.
10-20'	AA, AA, AA, 70% SAND GREEN VTG BLACK MINERAL FLECKS.
20-30'	SLT ST RED PCS COLORED CHERT.
30-40'	SLT ST & SH RED 100%.
40-50'	AA, AA, REDDISH ORG 100% PCS BLUEGREEN SLTY SD.
50-60'	AA, BEC CONG 70% SD GREEN SH CONG 30%.
60-70'	SD CONG HIGHLY ARG.
70-80'	SH SLT ST GREEN RED, 100%.
80-90'	SAME 90% BEC CONG 10%.
90-00'	SLT ST RED PURP.
200-10'	SD MED COURSE GRAIN CONG.
10-20'	AA, AA, 90% SH GRY PURP 10%.
20-30'	SD WH MED GRAIN SUB ROUND GLAUCONITIC BLK CARBONACEOUS FLECKS 80% SH MUROON 20%.
30-40'	AA, AA, AA 10% SH RED GRY MUR 90%.
40-50'	TRC ANHY SHY CONG SD MICA FLECKED.

50-60'	CONG SD & SHALE 60% ORG SH GRN HIGH INSTL CLAY CONTENT. SH RED GRN 40% TRC GYP.
60-70'	TRC GYP CONG SD RED WH BLK MICU FLECKS F-M GRAIN GLAUCONITIC 70% SH RED GRN 30%.
70-30'	AA, RED 60% SD GRN SLTY VTG 10% RED SHALE 30%.
80-90'	AA, AA, AA, SHALE RED 30% 10% GRN SH SD PCS COLORED CHERT.
90-00'	SH RED 60% SD 10% LARGE GRAIN HEAVY INST CLY SD 30% GRY-GRY GRN VFG DOLO.
300-05'	AA, 60% SD WH MG POORLY SORTED INSTL DY. TRC RED LM.
05-10'	SH RED 60% SD ORANGE FG TIGHT SUBROUND 30% PCS GRY GRN SLTY SD, 10MIN. SD 90% ORANGE AS ABOVE 20% SH AS ABOVE PCSLN SDY DNSE.
10-15'	AA, TRE SD WH MG SUB RD LM WH 10%.
15-20'	SD 90% AA, 10% SD WH TMG R CLEAR FROSTED INSTL CLY, PCS LM GRY DNSE.
20-23'	DOLO LT BUFF VF XYLN DNSE SDY 80% SD AS AA 10% SH 10% RED SLTY. CIRC 10 MIN SOME 90% SILTY, 10% SH MAROON, SD PCS MG INSTL CLY PYRITIC.
23-25'	AA, 60%, AA,AA, AA, 30%.
25-30'	SD WH MG R SUBR CLEAR INSTL CLY PYRITIC 80% DOLO AA, 10% SH 10%. CIRC 10 MIN, SD AS ABOVE & PK FREE PYRITE.
30-35'	AA, AA, AA, 90% SH RD 10%.
35-33'	AA, AA, AA, GYP 10%. CIRC 10 MIN, SAME.
38-40'	AA, MORE PYRITIC
40-45'	BECOMING MORE COARSE GRAINED. CIRC 10 MIN, SAME.
45-50'	AA.
50-00'	SAND SAME.
600-10'	AA, TRC GYP.
10-20'	AA, AA.
20-30'	AA, BECOMING PINK.
30-40'	SD PINK.
40-50'	AA, SH 10% GRY MAROON, TRC GYP.

50-60'	80% AA, V COARSE GRAIN PCS SH SD, AA, GYP 10%.
60-70'	70% AA, AA, 20% AA.
70-80'	AA, AA, AA, VERIGATED AA.
80-90'	50% AA, 40% RED SLTY AA.
90-00'	SAME.
700-10'	SD WH PK 60%, SH SDY SLTY 40%, TRC GYP.
10-20'	AA, 70% AA, 30% AA.
20-30'	SAME.
30-40'	SD WH PK 100%, SHALE TRACE.
40-50'	AA, REDDISH ORG CHERT RG, 100%.
50-60'	AA, AA, AA, TRC SH.
60-70'	SAME VERIGATED ARG.
70-80'	SD RED ORANGE TRC SH.
80-85'	SD AA, BEC ARGILLACEOUS, 100% PCS DOLO GRY FN XYLN.
85-90'	SD AA, 30% SLTST SDY RED.
90-95'	AA, RED ARG, 80% SH RED SLTY 20%.
95-00'	SD RED AA, ARG TIGHT & RED SLT SDY 100%.
800-05'	SAME TRC GYP, MUD STARTING TO BALL UP.
05-10'	ANHY & GYP.
10-15'	AA. 7" @ 813 W/25 SX, JAN. 5, 1965.
15-20'	SH RED SLTY SOFT, 95% GYP 5%, WH ALSO INCLUSIONS.
20-30'	AA,
30-40'	ANHY WH SOFT 90%, SHALE 10% AS ABOVE.
40-50'	50% AA, AA, AA, 50% RED SOFT SHALE.
50-60'	80% AA, & GYP WH GRY, 20% AA, AA, AA.
60-70'	90% AA.
70-80'	20% AA, 80% AA, AA, AA, & GREEN SH.
80-90'	10% AA, 90% AA, AA, REDDISH ORG SLTY.

90-00'	40% AA, 60% AA.
900-10'	50% AA, 50% AA.
10-20'	80% AA, 20%AA.

CORE #1 920-972, CORE 52' REC 40.½'

920-32'	12' BANDED ANHY LT TO DRK GRY.
32-32.5'	6" VR DK ANHY.
32.5-33'	6" GRN SLT STONE.
33-37'	4' RED CLAY STONE W/STREAK ANHY IN 37.
37-40'	3' ANHY DENSE LT TN.
40-40.5'	6" PINK ANHY.
40.5-47'	6'6" RED CLAYSTONE W/STRKS GRN SLY STNE.
47-60'	13' ANHY LT TO MED GRY BECOMMING MORE XLYN BELOW 55'.
60-60.5'	6" DOLO STRK. ON END RED CLY GYP.

CORE #2 REC 43' 972-1022

972-81'	9' SALT WHT W/10% SH INPURITIES.
81-88'	7' PINK SALT.
88-93'	5' SALT 10% IMPURITIES.
93-97'	4' PINK SALT.
97-99'	2' RED SH 90%, SALT 10%.
99-003'	4' SALT 80%, 20% IMPURITIES.
003-015'	12½' PINK SALT SCAT ANHY & SH BANDS.
015-020'	5' PINKISH RED SALT, 10-30% SH IMPURITIES.

CORE #3 1022-1074, REC 52'.

1022-27.5'	5½' PINKISH WHT SALT 5% IMPURITIES.
27.5-28.5'	1' SALT 20% SH 70%.
28.5-34.5'	6' WHT SALT W/STR & ANHY.

34.5-36'	1½' RED CLAYSTONE W/ANHY BAND @ 35.
36-46'	10' WHT SALT S/ORANGE CAST.
46-47'	1' ANHY W/SALT INCLUSIONS.
47-48'	1' RED & GRN CLAYSTONE W/SALT STRNGER.
48-50'	2' SALT W/20% IMPURITIES.
50-52'	7' SALT W/10-15% IMPURITIES & W/ANHY STRNGER.
52-62'	5' SALT PURE.
62-63'	1' ANHY W/SALT.
63-68'	5' SALT W/ANHY BAND @ 68, PNK TO WHT.
68-69'	1' RED PINK SALT W/ANHY STRNGERS.
69-70'	1' PINK SALT W/ANHY TR.
70-73'	3' RED SH 90% SALT 10%.
73-74'	AA, AA,

CORE # 4 1074-1126

75-83'	SALT 10%-20% BRN SHALE IMPURITIES 80-90%.
83-87½'	PK SALT 100%, TRC IMPURITIES FEW ANHY BANDS.
87½-91'	CLY ST RED GRN FEW SALT INCLUSTIONS.
91-94½'	SALT WH CRUMBLY 90%, 10% CLY IMPURITIES.
94½-1103'	AA, AA, & PK SCATTERED ANHY BANDS.
1103-05½'	SALT WH CRUMBLY 90%, 10% CLY IMPURITIES.
05½-09'	AA, AA, AA, 70%, 30% AA.
09-13'	SALT PK 90%, 10% SHALE IMPURITIES.
13-15'	AA, 10% SHALE 90%.
15-20'	AA, 90% AA, 10% ANHY BAND @ 20.
20-23'	AA, 80% AA, 20%.
23-26'	SALT 100% PK.

CORE TEST #4C

SAMPLES 1120-30'	PINK SALT 100%

30-40'	AA, AA, 50%, SH SLTY RED 50 TRC SD GREEN VFG.
40-50'	AA, AA, 70% AA, 20% ANHY 10% (GRY).
50-60'	AA, AA, 80% AA, 10% AA.
60-70'	AA, AA, 20% AA, 80%.
70-80'	AA, AA, 10% AA, 40% AA, 50%.
80-90'	PINK AND WHT, AA, AA, 90%, TRC SHALE AA, 10%.
90-00'	REDDISH PINK 90% SH RED 10% AA, TRACE.
1200-10'	AA, 80% AA, 20%.
10-20'	AA, 60% ANHY GRY 40%.
20-30'	AA, 20% SLT ST RED SDY DOLO 50% AA, AA, 30%.
30-40'	AA, AA, (AA, & SH AS ABOVE PCS GRN 80%) TRACE ANHY.
40-50'	AA, AA, (AA, AA,).
50-60'	AA, 10% (AA, 30%) ANHY 60% BUFF GRY.
60-70'	DOLOMITE, BRN TAN SLTY SOFT HARD DNSE BLKY 70% AA, 30% AA.
70-80'	(DOLO SAME AS ABOVE 20%) (CLAYSTONE & SLTS GRN 70%) 10%.
80-90'	SLTST & CLYST RED & GREEN 100%.
90-00'	SALT PK 10% AA, AA, 60%, ANHY 30%.
1300-10'	AA, 30% AA, AA, 70%.
10-20'	AA, 70% AA, AA, 30% TRACE ANHY.
20-30'	AA, 20% AA, AA, ABD RED 80% AA.
30-40'	SLT ST RED (PRED) & GREEN 100%.
40-50'	AA, & SHALE DOLO IMPT 30% SALT 70%, TRC ANHY.
50-60'	AA, 50% ANHY.
60-70'	SLT ST RED 20% ANHY 80% WH GRY.
70-80'	SALT PK 100% TRC ANHY, TRC SLT ST AS ABOVE.
80-90'	AA, 50%, CLY ST RED 40% ANHY 10%.
90-00'	AA, 10% SLT ST RED 90%.
1400-10'	AA, 20% AA, 80%.
10-20'	AA, AA, SLT ST & SH AA.

20-30'	AA, 60% AA, 40%.
30-40'	AA, AA, DOLO INPT. 10%, ANHY 90%.
40-50'	SALT 30% SLT ST RED 60% AA, 10%.
50-60'	AA, 10%, AA, 40% AA, 50%.
60-70'	AA, AA, 30% AA, 70%.
70-80'	SALT 90% AA 10%, TRACE ANHY.
80-90'	SALT PK 10% SLT ST RED 10%, ANHY GRY TAN 80%.
90-00'	AA, 20% SH& AA, 80%, TRC ANHY.
1500-10'	AA, AA, SHALE SH, RED 100%, ANHY TRACE.
10-20'	SALT PK 30% AA, 70%.
20-30'	AA, 80% AA, 20%.

CORE #5 1850-1902 RECOVER 52'

1850-54'	SHALE REDDISH BRN, 80%, SALT IN
54-54½'	AA, AA, 30%,AA, 70%.
54½-56'	AA, AA, 70%, AA, 30%.
56-57'	AA, AA, 90% AA, 10%.
57-60'	AA, AA, 10% AA, 90%.
60-62'	AA, AA, 70% AA, 30%.
62-63'	AA, AA, 50% AA, 50%.
63-67'	AA, AA, 70% AA, 30%.
67-69'	AA, AA, AA, PINK SALT 100%.
69-71'	AA, AA, 20% AA,AA, 80%.
71-72'	RED SILT ST 60% AA, AA, 40%.
72-74'	AA, AA, 100% AA, AA, TR.
74-75'	AA, AA, 50% AA, AA, 50%.
75-76'	AA, AA, 80% AA, AA, 20%.
76-78'	AA, AA, TR, AA, AA, 100%.
78-80'	AA, AA, WITH ANHY STR AA, AA, 100%.
80-82½'	AA, AA, 10% AA, AA, 90%.
82½-83'	SHALE 100%.

83-84'	AA, AA, 100%.
84-85'	AA, AA, 90% AA, AA, 10%.
85-92'	AA, AA, 100%.
92-93'	ANHY INCL, 100%.
93-94'	BANDED ANHY 100%.
94-95'	AA, AA, 100%.
95-98'	AA, AA, 10% AA, AA, 90%.
98-99'	ANHY 100%.
99-1902'	SHALE 100%.

CORE #6 1902-1954-REC 52'

02-04'	BANDED ANHY W/SALT INCL.
04-06'	SALT W/BANDED ANHY.
06-08'	ANHY.
08-13½'	SH RED, FEW SCATTERED ANHY & SALT INCL.
13½-15'	SALT 10% RED SHALE INPURITIES.
15-17½'	ANHY GRY.
17½-21'	SH RED GREEN W/ANHY INCL.
21-32'	SALT WH CRUMBLY W/SCATTERED BANDED ANHY & BLK SH LAMINATIONS.
32-37½'	ANHY HARD DNS GRY W/FW SALT INCL.
37½-48½'	SALT W/10% SH & ANHY INCL.
48½-50'	SALT & ANHY 50-50.
50-54'	GRY DNSE HARD, ANHY TRACE DOLO.
SAMPLE 54-60'	ANHY 80% DOLO 20%.
60-70'	DOLO TAN BRN XYLN DNSE, ANHY INCL.

CORE TEST #40

1970-80'	DOLO TAN, BRN DNSE F XYLN SILTY.
80-90'	SAME AA, FEW BLACK SH LAMINATIONS, STN.
90-00'	AA.
2000-10'	AA, 50% SLT ST GRY GRN 50%.
10-20'	SH ST, GRY, GRY GRN, SANDY 100%.
20-30'	AA, TRC RED SLT ST.
30-40'	AA, SLT INC IN RED SLT ST.
40-50'	SLT ST & SH RED 100%.
50-60'	SAME, TRC ANHY.
60-70'	SLT ST, RED 80%, ANHY WH 20%, TRC SALT.
70-80'	ANHY 100%.
80-90'	SLT ST RED, 100% TRC SALT.
90-00'	AA, 10% SALT, 90%.
2100-10'	AA, 60% AA, 40%.
10-20'	SLT ST & SH RED 50% AA, 50%.
20-30'	AA, 60% AA, 40%.
30-40'	AA, 20% AA, 80%.
40-50'	AA, 70% AA, 30% ANHY TRC.
50-60'	AA, 100% AA.
60-70'	AA, 20% SALT 40 ANHY 40%.
70-80'	SHALE TRC GREEN, RED 20% AA, 80%.
80-90'	SLT ST AA, 50% AA, 50%.
90-00'	SLT ST & SH RED 20% AA, 80%.
2200-10'	SLT ST & SH DARK RED 70% AA, 30%.
10-20'	SH SLTY AA, 80% AA, 20%.
20-30'	AA, 60% AA, 40%.
30-40'	AA, 80% AA, 20%.
40-50'	AA, 80% AA, 20%.

50-60'	AA, 50% AA, 50%.
60-70'	ANHY 80%, DOL DRK BRN SILTY W/BLK SH LAM 20%.
70-80'	SLT ST & SH. GREEN, GRN DOLO IN PT.
80-90'	AA, TRC ANHY.
90-00'	AA, RED & GREEN 90% SALT 10%.
2300-10'	SH & SLT ST RED 10% AA 90%.
10-20'	AA, 60% AA, 40%.
20-30'	SALT 80% SLT ST RED 20% TRC ANHY.
30-40'	AA, 20% AA 80%.
40-50'	TRC SLT 1[illegible] [illegible] ST.
50-60'	SLT ST RED 100%.
60-70'	SAME.
70-80'	SLT ST & SHALE RED 100%.
80-90'	AA, 90% SALT 10%.
90-00'	SH RED 30% AA, 70%.
2400-10'	AA, 5% AA, 95%.
10-20'	AA, 10% AA, 90%.
20-30'	AA, 15% AA, 85%.
30-40'	AA, 10% AA, 90%.
40-50'	AA, 10% AA, 90%.
50-60'	AA, 60% AA, 40%.
60-70'	SAME.
70-80'	SHALE RED 90% AA, 10%.
80-85'	AA 100%.
85-88'	SHALE RED AA.
CIRC. 20 MIN	SAME