ARKLA NMA CORE TEST 22, NAVAJO CO.
SE SE Sec 23-17N-R23E, No Permit 9-26

32 × 1

County Navajo

Area

Lease No.

Well Name ARKLA EXPLORATION COMPANY NMA CORE TEST #22

Location SE/SE Sec 23 Twp 17N Range 23E Footage 666' FSL 717' FEL

Elev ~~5597~~ 5590 Gr 5597 KB Spud Date 3-16-65 Completed Abandon Total Depth 1718

Contractor SoJourner Drilling Company

Casing Size	Depth	Cement

Drilled by Rotary
Cable Tool

Production Horizon

Initial Production

REMARKS

Elec Logs Neutron Log-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. 02-017-00269 Loc. Plat Dedication

Permit Number — Date Issued

9-26

32 × 1

DETAILED CORE DESCRIPTION

WELL NAME: AEC - #22 NMA

LOCATION:

ELEVATION:

1367'-70'	SALT WH CLEAR LARGE XYLS-CRUMBLY-85% (15% SLT, REDDISH ORG IMPURITIES).
70'-72'8"	SALT WH, XYLN CLEAR ORANGE CAST-(SCATTERED SPOTS W/SLT, REDDISH ORG IMP).
72'8"-75'	AA AA AA (SCATTERED VERTICAL JAGED HAIR LINE FRACS-FILLED W/ MILKY ANHY.
75'-75'1"	SALT ORANGE XYLN W/ANH GRY INCL & PINKISH SLT ST.
75'1"-77'11"	SALT WH-REDDISH CAST INTERMIXED W/REDDISH BROWN SLTY SH, FLECKS GREEN SHALE, 50-50% (CRUMBLY).
77'11"-78'	BISQUIT-WH SYLVITE-W/ORANGE HALITE-KCL.
78'-79'	SALT 30% - WH XYLN-SH RED 70%.
79'-80'	SALT 60% - WH XYLN-SH RED 40%.
80'-81'	AA 70% AA W/AA 30% & SH IN SUSPENSION.
81'-82'	AA 40%, AA 60%.
82'-82'1"	SH RED SILTY W/GREEN FLECKS AND 1/16" FRACS VERTICAL FILLED W/ ORANGE POLYHALITE.
82'1"-83'4"	SALT WH XYLN 40%-SH RED & IMP 60%.
83'4"-88'	SALT & SHALE 50-50%.
88'-89'	AA WH-XYLN PINKISH CAST 85%-15% RED SLTY SH IMP.
89'-91'	AA AA 90%, 10% AA.
91'-92'	AA AA 95%, 5% AA.
92'-94'	SALT WH-XYLN ORANGE CAST W/SCATTERED THIN VERT FRACS FILLED W/ANHY GRY.
94'-94'2"	ANHY GRY DNSE.
94'2"-94'4"	SALT WH ORANGE CAST ANHY INCL.
94'4"-94'8"	AA AA AA W/CG SD LIKE XYLS.
94'8"-96'3"	ANHY GRY DNSE-FEW GYP STRINGERS.
96'3"-1400'	AA AA SALT INCLSIONS & INSOL SALTS (PITHY IN APPEARANCE).
1400'-02'3"	SAME-SALT BEC ORG CAST INCREASE BY 10%.

DO NOT REMOVE FROM FILE

32×

02'3"-02'9"	SLT ST GREEN & ANH DRK DNS INTERMIXED.
02'9"-03'1"	SH-RED BROWNISH CLAYEY.
03'1"-06'	AA, W/SALT XYLN INCL, 1½" VERT FRAC FILLED W/ORG HALITE-KCL, W/1/8" WH SALT SYLVITE? STRAK ON EACH SIDE OF THIS FRACTURE, (1405.8-1406) FRACTURE DIMISHES TO NOTHING.
06'-07'	SALT WH-40%-SH-REDDISH BRN 60% INTERMIXED.
07'-10'	SALT 10-15% INCLUSION. SHALE REDDISH BROWN 85-90%, FRACTURE @ 1407.5" (1/32" ORANGE & WH SALT-HOT).
10'-12'	SALT WH-W/PKISH ORG CAST-XYLN, 5% IMPURITIES BRN SH.
12'-13'	AA ORANGE CAST, 5% AA.
13'-15'	AA, 10% AA.
15'-16'9"	SALT WH-85% W/15% BRN SHALE IMPURITIES.
16'9"-17'	SALT WH 30%-SH-70% BRN.
17'-17'5"	SALT WH-PKISH CAST XYLN-5% BRN SH IMP.
17'5"-19'	MISSING.
19'-21'	SALT PINKISH CAST CRUMBLY.
21'-22'9"	AA WH-XYLN.
22'9"-23'	ORANGE XYLM SALT/
23'-23'1"	AA & ANBY GRY.
23'1"-24'	SH-REDDISH BRN 90%, 10% SALT INCL W/VERT THIN FRAC FILLED W/ORG POLY HALITE SPECK GREEN SH STARTING TO INCREASE.
24'-25'	SAME-FRAC BEC SMALLER.
25'-26'	SALT 75%-WH-W/25% SHALE BRN IMP.
26'-27'3"	AA 40%, AA 60%. SHALE REDDISH BRN SLTY.
27'3"-27'7"	SH-RED W/SALT INCL & VERT FRACS 1/8"-1/2" FILLED W/WHITE SYLVANITE? @27'7" REMNANTS OF WH & ORG SALT BISQUIT.
27'7"-29'8"	SH 80% W/SALT INCLS AND VERTICAL HAIRLINE FRAC FILLED W/ORANGE AND WH KCL.
29'8"-29'10"	SALT WH CLEAR XYLN W/5% SH IMP.
29'10"-30'2"	SHALE RED CLYEY 80%-20% SALT INCL.
30'2"-31'4"	SALT WH-XYLN 90%-10% SH IMP.
31'4"-31'6"	SHALE RED CLYEY FLECKED W/GREEN SH, W/1/8" FRAC FILLED W/ORG AND WH KCL VERTICAL.

32×

31'6"-31'11"	SALT WH-XYLN 90%-10% SH IMP.
31'11"-33'	SHALE RED CLYEY 85-90%, SALT INCL 10%-VERT HAIRLINE FRACS W/WH ORG KCL.
33'-34'	SH-RED CLYEY 80% SALT WH 20% VERT FRAC 1/8" FILLED W/ORG & WH KCL @1433.4" (NEAR HORIZONTAL FRAC APPROX ½" FILLED W/ORG & WH KCL.
34'-35'	ALTERNATING SH & SALT-FRAC VERT IN SH W/KCL FEW GREEN SH BLEBS.
35'-36'	SALT WH-X/10% SH IMP-GREEN CLY BLEBS SCATTERED IN SALT. NOTE: EVIDENCE OF VERY MINUTE VERT FRACTS W/ORG KCL @ 35.9.
36'-37'8"	SALT WH-XYLN-ORG CAST THIN JAGED HORIZANTAL FRACTS FILLED W/ANHY, 1437.8 BEC MORE ORG CAST-XYLN STRUCTURE BEC MORE GRANULAR.
37'8"-39'	SAME, TRC SALT BEC LESS SOL.
39'-40'	AA ½"-¾" BANDS ANHY-SALT ON EDGES INCREASE.
40'-41'6"	SAME-ANHY BANDS THINNER CG SD TEXTURE, INCREASE.
41'6"-43'6"	CONTACK THIN BAND ANHY 1/16", SALT WH 70% XYLN-SH 30% RED.
43'6"-44'	SALT WH-REDDISH ORANGE CAST XYLN.
44'-45'3"	SALT WH-ORANGE CAST CG SD TEXTURE-MED SOLUABLE.
45'3"-45'5"	AA AA REDDISH ORG CAST SAME AS ABOVE.
45'5"-45'6"	K5 POINT 1/8" BAND WH ORANGE KCL, 7/8" BAND GREEN. ANHYDROUS SLT ST W/RED STREAKS-POSS CARNALITE.
45'6"-46'	SH-RED-80%-SALT 20%.
46'-46'5"	SALT & SHALE 50-50% SPECKS OF RED CORNALITE?THROUGHOUT, SHALE APPEARS TO BE IN SUSPENSION.
46'5"-47'	SHALE 95% RED SALT 5%, VERT FRACS HAIRLINE-PARTIALLY FILLED W/ CARNALITE.
47'-47½'	BISOUIT ORANGE AND WH-KCL.
47½'-49'	SHALE 80%-BROWN-SALT 20% WH PARTINGS OF CARNILITE VERT HAIRLINE FRACTS FILLED W/CARNALITE, 48.11'-49' INCREASE IN CARNALITE.
49-50'	POTASH TYPE ZONE W/CARNALITE, SYLVITE BLEBS-ORANGE KCL FLECKED W/GREEN CLY & INTERMIXED W/30% RED SHALE.
50'-50'7"	DECREASE IN POTASH MATERIAL INCREASE IN RED SHALE.
50'7"-50'73/8"	3/16" ORANGE & WH KCL BISQUIT.
50'73/8"-50'81/8"	SH RED CLAYEY.
50'81/8"-52'	SALT WH 80%, SH BRN IN SUSPENSION AND IN SEAMS (HORIZONTAL) TRC CARNALITE.
52'-53'	SALT CLEARING UP, SALT 90% WH W/10% SH IMP REDDISH BRN

32×

SCATTERED CARNALITE AND ORANGE KCL.

53'-54'	SH-30% RED W/INCL GREEN CLY, SALT WH W/ORANGE CAST 20%.
54-55'	SALT 90% WH XYLN W/RED CLY IMP TRC CARNALITE TRC GREEN CLY.
55'-56'	AA 85%, AA AA & GREEN CLY INCL SLT INC IN CARNALITE.
56'-57'	AA 90% AA AA ORG & RED IMP IN SUSP-10% GREEN SLTY CLY, APPEARS TO BE IN FRACTURES, TRC CARNALITE.
57'-58'	AA 95% SALT WH-5% IMP-SLT INC IN CARNALITE HAIRLINE GREEN CLY FILLED FRACS.
58'-59'	AA, AA, AA, AA.
59'-60'	CLEAR WH SALT W/SCATTERED DRK ORG IMP (CARNALITE?) AA.
60'-61'	AA ORANGE CAST TR GREEN CLY IMP.
61'-62'	SAME.
62'-63'	CLEAR WH SALT-LIGHT ORG CAST.
63'-63½'	ANHY GRY ONSE.
63½'-63'5½"	CLY RED W/MINUTE HAIRLINE VERT FRAC FILLED W/SALT.
63'5½"-64'	AA 90% W/10% SALT INCL.
64'-65'	SH & SALT 50-50% VERT HAIRLINE FRAC FILLED W/ORG SALT.
65'-66'	SH-RED-80%-SALT 20%, AA.
66'-67'	AA, 90%, 10% AA (SH FLECKED W/GREEN SH.
67'-68'	SALT WH 90% WH W/SH GRN IMPURITIES, 10% IN SUSPENSION.
68'-69'	AA 20%, SH BRN 80%.
69'-70'10"	SALT 85% SH REDDISH BRN 15%, IN SUSPENSION.
70'10"-75'	AA 95% WH W/ORANGE CAST-5% SCATTERED IMP ORANGISH BRN.
75'-82'2½"	SALT WH, ORANGE CAST 100% TRC IMP, SCATTERED HAIRLINE FRACS FILLED W/ANHY.
82'2½"-82'3"	ANHY BLUE GRY APPEARS BEDDED.
82'3"-82'10½"	SALT WH.
82'10½"-84'	SH RED CLYEY, 90%-(10% SALT INC HAIRLINE-1/16" FRACS FILLED W/ORG WH KCL.
84'-85'	AA 80% (20% AA AA).
85'-86'	AA 20% (80% AA AA).

32×

86'-88'	AA RED GREEN 15% (85% SALT INC).
88'-89'	AA W/SALT FILLED HAIRLINE FRACS 20% (80% SALT INC.)
89'-92'	SALT WH XYLN-ORG CAST W/SCATTERED HAIRLINE FRACS FILLED W/ANHY.
92'-94'7½"	AA.
94'7½"-95'6"	ANHY-GRY DNSE ON BOTH ENDS-80% SALT, 20% ANHY IN MIDDLE W/ REDDISH ORANGE CAST.
95'6"-97'	SH RED CLYEY CRUMBLY FEW SALT XYLN INCL & HAIRLINE FRAC FILLED W/SALT, 1496.1"-96.2½" BISQUIT W/PLAIN SALT (VERTICAL SPICULES)
97'-02'	SALT WH-ORANGE CAST-XYLN-TRC SCATT ANHY FILLED HAIRLINE FRACS.
02'-05'3"	AA 95%, 5% IMPS.
05'3"-05'11"	ANHY GRY W/SCATT INCL, 5% W/ORANGE CAST.
05'11"-07'2"	SHALE 80%, 20% SALT W/HAIRLINE FRAC FILLED W/SALT.
07'2"-11'	SALT WH, XYLN, 90%, 10% SH IMP REDDISH BRN.
11'-15'	SALT WH-XYLN W/PINK CAST-SCATTERED ANHY FILLED HAIRLINE FRAC.
15'-15'1¼"	ANHY GRY W/SCATTERED SALT CASTS.
15'1¼"-15'6½"	SALT WH DNSE ORANGE CAST W/ANHY STRINGER.
15'6½"-16'	SLT ST GREEN ORANGE SALT INCL.
16'-20'	SH RED CLAYEY W/THIN FRACS FILLED W/SALT KCL.
20'-21'	AA, LESS HOT.
21'-22'	60% SALT-40% SHALE RED.
22'-23'	AA.

32×

LITHOLOGIC DESCRIPTION

WELL NAME: #22 AmA

LOCATION:

ELEVATION:

DO NOT REMOVE FROM FILE

0-10'	90% CGL, 10% LS.
10-20'	20%, AA, 80% SH.RED.
20-30'	20% SD, 80% AA, AA.
30-40'	80% AA, 20% AA, AA.
40-50'	20% AA, 80% RED & GRN SH.
50-60'	80% CGL, 20% AA, AA.
60-70'	20% AA, 80% AA, AA, TRLS.
70-80'	100% RED & GRN SH.
80-90'	70% SD GY HD.
90-00'	60% CGL, 30% AA, AA, 10% LS.
100-10'	50% AA, 50% AA, AA.
10-20'	50% AA, 50% RED SH.
20-30'	40% SD 60% AA, AA.
30-40'	50% AA, 50% GRN SH.
40-50'	30% AA, 70% AA, AA, AA.
50-60'	40% AA, 60% BR AA, AA, AA.
60-70'	20% AA, 80% BR AA.
70-80'	100% CGL CHERT & QTZ.
80-90'	100% AA, AA, AA.
90-00'	100% AA, AA, AA.
200-10'	20% SD, 80% AA, AA, SH.
10-20'	30% AA, 70% BR GRN SH.
20-30'	10% CHERT 90% AA, AA, AA.
30-40'	100% BR GRN SH.
40-50'	100% BR PURP SH.
50-60'	100% AA, AA, GRN SH.
60-70'	100% AA, AA, AA.

32 x

70-80'	10% CGL, 90% AA, AA, AA.
80-90'	100% PURP GRN SH.
90-00'	100% AA, AA.
300-10'	100% AA, AA.
10-20'	100% AA, AA.
20-30'	90% AA, AA, 10% LS.
30-40'	80% AA, 20% AA, AA.
40-50'	10% CGL, 90% GRN SH.
50-60'	40% CGL, 60% GRN SH.
60-70'	100% GRN & PURP SH.
70-80'	100% GRN SH, T.C SH.
80-90'	100% AA, AA.
90-00'	100% GY & SH.
400-10'	10% CGL 90% GY & SH.
10-20'	30% F GY GRN SD, 70% GY & SH.
20-30'	60% AA, AA, AA, AA, 40% AA, AA, AA.
30-40'	60% AA, AA, AA, AA, TR CGL, 40% AA, SH.
40-50'	50% CGL 30% AA, AA, 1 % LS.
50-60'	50% CGL, 50% AA, AA.
60-70'	50% AA, 50% AA, AA.
70-80'	10% AA, 90% AA, GRN, AA, AA.
80-90'	100% AA.
90-00'	100% AA.
500-10'	30% RED SLTY SD 70% GRN & PURP SH.
10-20'	100% GRN SH.
20-30'	10% CGL, 90% AA, & PURP SH.
30-40'	100% GRN & PURP SH.
40-50'	20% CGL 80% GRN & PURP SH.
50-60'	10% VFGRN SD, 90% AA, AA, AA.
60-70'	20% CGL, 80% AA, AA, AA.

32×

70-80'	100% RED SH & SLT.
80-90'	60% RED SLTY SD 40% RED SH & SLT.
90-00'	80% AA, AA, AA, 20% AA, AA.
600-10'	70% AA, AA, AA, 30% AA, AA.
10-20'	80% AA, AA, AA, 20% AA, AA.
20-30'	10% AA, AA, AA, 90% AA, AA.
30-40'	30% AA, AA, AA, 70% AA, AA.
40-50'	30% AA, AA, AA, 70% GRN SH.
50-60'	30% AA, AA, AA, 70% AA, AA, RED SH.
60-70'	10% SGL, 40% RED SLTY SD, 50% RED & GRN SH.
70-80'	10% RED SLTY SD, 90% RED, GRN &PURP SH.
80-90'	30% AA, AA, AA, 70% AA, AA, AA, AA.
90-00'	20% RED & GRN VF SD 80% AA, AA, AA.
700-10'	70% SH RED & GRN 30% SLT RED.
10-20'	70% AA, AA, AA, 30% AA.
20-30'	AA.
30-40'	30% AA, AA, AA, 70% AA, AA.
40-50'	30% AA, AA, AA, 70% AA, AA.
50-60'	20% AA, AA, 70% AA, 10% LS BUFF.
60-70'	40% AA, AA, AA, 60% AA.
70-80'	80% SH RED, 20% AA.
80-90'	40% AA, AA, 60% AA.
90-00'	50% AA, AA, 50% AA.
800-10'	30% AA, AA, 70% AA.
10-20'	10% AA, AA, GRN, 90% SD F LT RED BR, SR.
20-30'	20% AA, AA, AA, 80% AA, AA, AA, AA, AA,.
30-40'	100% SD LT BR, BR WH M MCSE SLCGL.
860-1100'	AA.
1100-10'	80% LT BR M SD 20% RED SLT.
10-20'	90% AA, AA, 10% AA, AA.

32×

20-30'	90% AA, AA, 10% AA, AA.
30-40'	90% AA, AA, 10% AA, AA.
40-50'	100% AA,,AA,
50-60'	90% AA, AA, 10% RED SH.
60-70'	90% AA, AA, 10% AA, AA.
70-80'	90% AA, AA, 10% AA, AA.
80-90'	90% AA, AA, 10% AA, AA.
90-00'	90% AA, AA, 10% AA, AA.
1200-10'	90% AA, AA, 10% AA, AA.
10-20'	100% AA, AA,
20-30'	90% AA, AA, 10% AA, AA.
30-40'	100% AA, AA.
40-50'	90% AA, AA, 10% LS BUFF.
50-60'	80% AA, AA, 20% RED SLT.
60-70'	60% AA, AA, 40% AA, AA.
70-80'	50% AA, AA, 50% AA, AA.
80-90'	70% AA, AA, 30% AA, AA.
90-00'	10% WHT HD M SD 70% RED BR SD F-M, 20% RED SLT.
1300-10'	10% AA, AA, 40% AA, AA, AA, 50% AA, AA.
10-20'	10% AA, AA, 60% AA, AA, AA, 30% AA, AA.
20-30'	90% ANHY, 10% SD.
30-40'	100% ANHY.
40-50'	100% AA.
50-60'	50% AA, 50% SOFT RED SH.

CORE #1

1367-1419 LOST 1'7"; 1367-70 90% SALT 10% SH IMP; 70-75 SALT V LT ORANGE; 75-83 70% SALT 30% SH IMP; 83-89 80% AA, 20% AA, AA. 89-94½ 90% AA, 10% AA, AA, 2" LITHOGRAPHIC; ANHY @ 1394; 94½-96 DNS GRA ANHY; 96-1402'9" GRA ANHY W/SALT INCLS XLS; 02'9"-04 SH W/ORANGE SALT IN FISSURE; 04-05'9" 10% SALT, 90% SH W/ORANGEAA, AA, AA, AA, 1½" WIDE; 05'9"-09½ 20% SALT 80% SHALE; 09½-17'5" SALT 90% SH 10% ANHY INCLS.

32×

CORE #2

1419-1471 LOST 5 19-23 SALT ORANGE ELEBS; 23-24 SH W/ SALT INCLS; 24-27½ 70% SALT 30% SH; 27½-28 SH W/SALT INCLS; 28-30 70% SALT 30% SH; 30-34 20% SALT 80% SH; 34-35 80% SALT 20% SH; 35-41½ SALT LT ORANGE; 41½-43½ 70% SALT, 30% SH; 43½-46 SALT; 46-49 70% SH, 30% SALT; 49-51 SH, SALT INCLS; 51-63 SALT K5 ZONE; 63-67½ 70% SH 30% SALT; 67½-71 80% SALT 20% SH.

CORE #3

1471-1523 REC 53.8 1471-72 90% SALT, 10% SH IMP; 72-82½ SALT VLT ORANGE ANHY INCLS; 82½-86 70% SALT 30% SH; 86-88 80% SALT 20% SH; 88-95½ SALT W/ANHY INCLS; 95½-97 SH W/SALT INCLS; 97-1505 SALT W/ANHY INCLS V LT PINK; 05-06 GRY DNS ANHY; 06-15(2" ANHY) SALT V LT PINK W/ANHY INCLS; 15-19½ 6" SALT 3½ RED & GRN SH-SLT W/SALT INCLS; 19½-23 6" SALT 30% SH.

1523-30	30% SALT 70% RED SH ROTTEN.
30-40'	40% AA, 50% AA, AA, AA.
40-50'	30% AA, 70% AA, AA, AA.
50-60'	70% AA, 30% AA, AA, AA.
60-70'	70% AA, 30% AA, AA, AA.
70-80'	80% AA, 20% AA, AA, AA.
80-90'	80% AA, 20% AA, AA, AA.
90-00'	80% AA, 20% AA, AA, AA.
1600-10'	90% AA, 10% AA, AA, AA.
10-20'	70% AA, 10% AA, AA, AA, 20% ANHY.
20-30'	90% AA, 10% AA.
30-40'	100% AA.
40-50'	100% AA.
50-60'	100% AA.
60-70'	100% AA.
70-80'	60% AA, 20% RED SLT 20% ANHY.
80-88'	80% RED SLT 20% F RED SLTY SD.
88-96'	100% ANHY.
96-04'	100% DOLO DNSE DK BR VDK BR BLK.
1704-16'	90% GRA GRN DOLO SLT SOFT 10% ANHY.
16-18'	SALT.

32 ×

16

ARK EXPLORATION COMPANY

DRILLING RECORD

WELL NAME: NMA CORE TEST #22

WELL LOCATION: 666' FSL, 217' FEL, SEC 23-17N-23E

WELL ELEVATION: 5597 ' K.B.

CONTRACTOR: SOJOURNER DRILLING COMPANY

SPUD DATE: 2:00 P.M. 3-16-65

SIZE HOLE DRILLED: " TO '

TYPE DRILLING FLUID:

SURFACE CASING:
SIZE NONE " WT. #, NO. SACKS CEMENT
CEMENTING DEPTH: '

SIZE HOLE DRILLED: 8¾ '

TYPE DRILLING FLUID: GEL

INTERMEDIATE CASING:
SIZE 7 ", WT. 20 #, NO. SACKS CEMENT 30

CEMENTING DEPTH 1361

SIZE HOLE DRILLED OR CORED:
6¼ " FROM 1361 ' TO 1718 ' SEE BELOW
" FROM ' TO '
" FROM ' TO '
" FROM ' TO '

DRILL STEM TESTS:
DST #1 - 1342-1523'

NO. BITS USED: 1

ELECTRIC LOGS RAN:
TYPE McCULLOUGH GRN FROM 1718 ' TO 0 '
FROM ' TO '

ABANDONMENT PLUGS:
NO. SACKS CEMENT NONE FROM ' TO '
FROM ' TO '
FROM ' TO '

WAS CASING RECOVERED?
DEPTH SHOT LEFT IN WELL, TO BE RECOVERED LATER '
NO. FEET RECOVERED '
NO. FEET NOT RECOVERED '

DATE DRILLING RIG RELEASED: 3-29-65 11:00P.M.

COMPANY REPRESENTATIVE: JAMES S. BALDRY

SPECIAL NOTES: UNUSUAL DRILLING PROBLEMS ENCOUNTERED, ETC.
LOST MUD WHILE DRILLING -8¾" HOLE. TOOK EIGHT (8) BITS TO DRILL TO 1361 FEET.
DRILLED PLUG IN 7" AND DRILLED TO 1367' CORED 1367-1523. HOLE BLEW AND WHILE CORING
DST RUN. DRILLED 1523-1718.

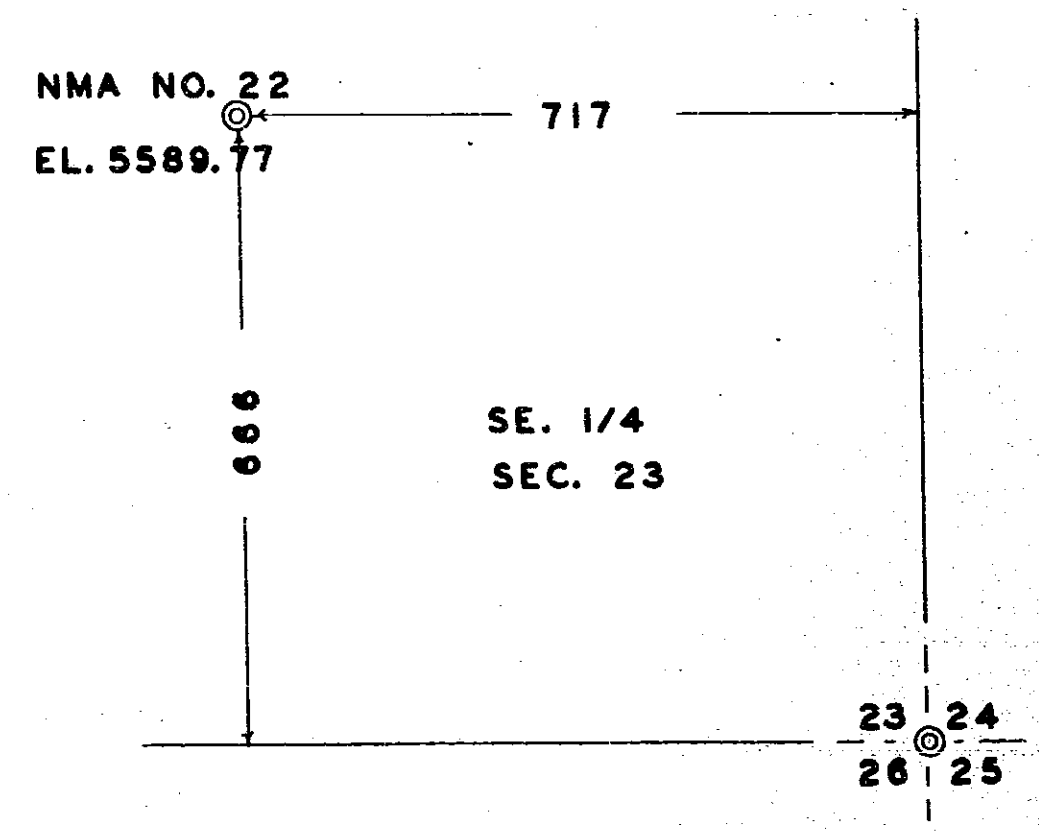
DO NOT REMOVE FROM FILE

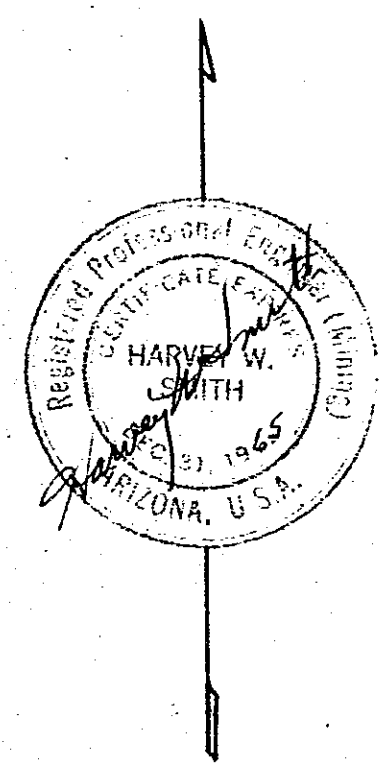
ARKANSAS LOUISIANA GAS CO.
HOLBROOK, ARIZONA
RECEIVED
APR 7 1965
GEOLOGICAL
DEPT.

9-26

2

32 × 1





ARKLA EXPLORATION COMPANY

HOLBROOK AREA PROJECT

NMA NO. 22 DRILL-SITE

SEC. 23, T.17N., R.23E., G.& S.R. B.& M.

APACHE COUNTY ARIZONA

SCALE 1"= 200' MAR. 15, 1965

SURVEYED BY: HARVEY W. SMITH, E.M.

REGISTERED MINING ENGINEER

U.S. MINERAL SURVEYOR

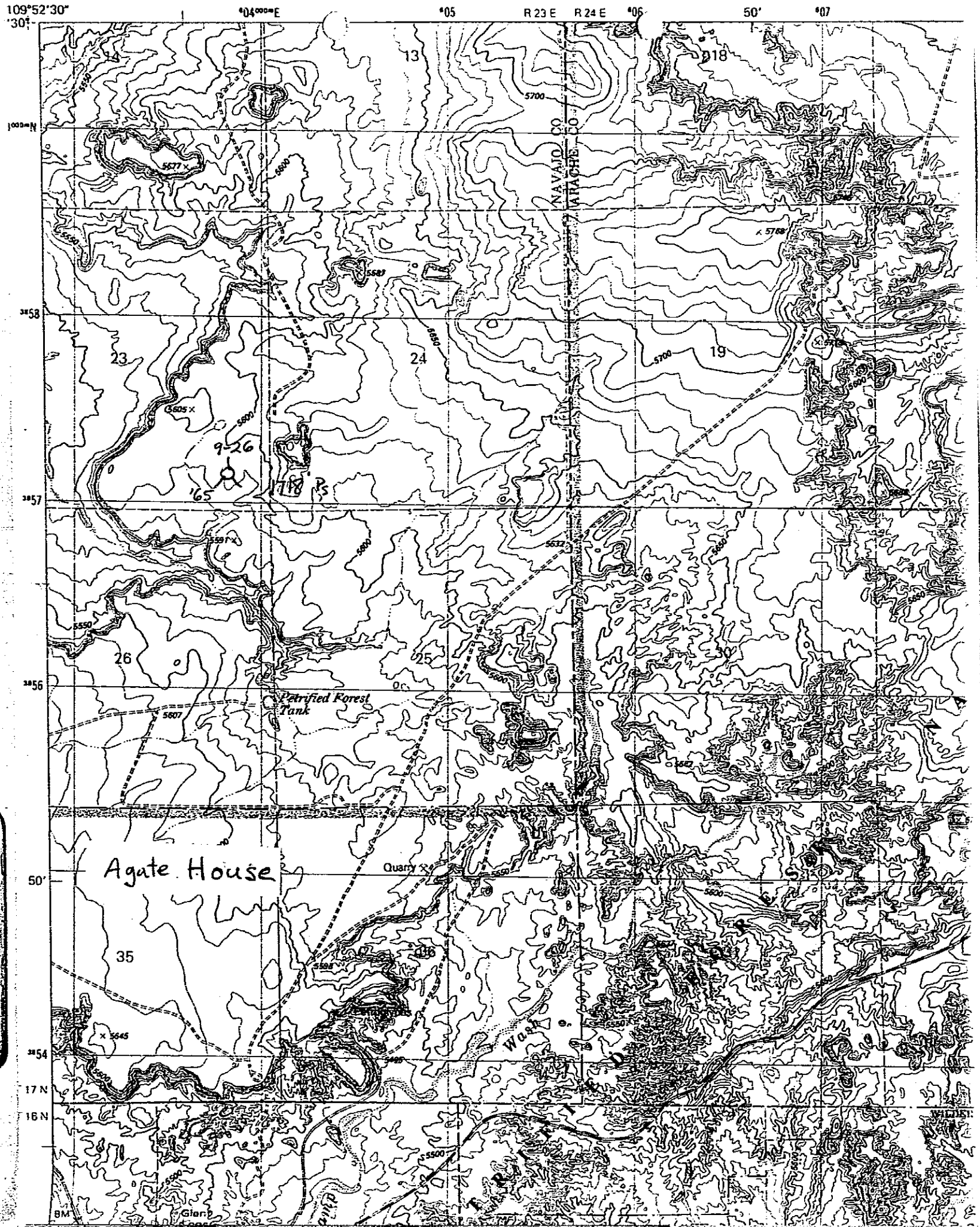
DO NOT REMOVE FROM FILE

4

9-26

32 × L

GEOLOGICAL SURVEY



32 × 1

File #9-26

Drill Stem Test Report

DO NOT REMOVE FROM FILE

Wilson Testers

P. O. Box 2199 • Phone DA 5-5829

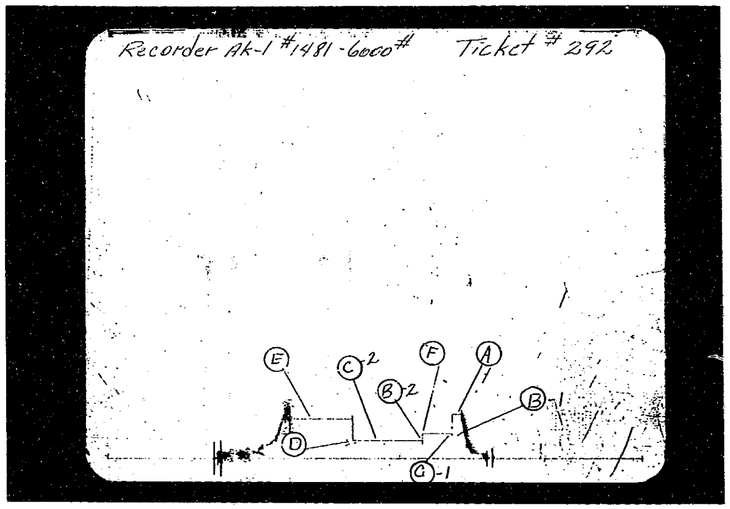
Farmington, New Mexico

NMA CORE TEST	22	1	ARKLA EXPLORATION CO.	HOLBROOK, ARIZONA
LEASE NAME	WELL NO.	TEST NO.	COMPANY	DISTRICT

COUNTY NAVAJO STATE ARIZONA

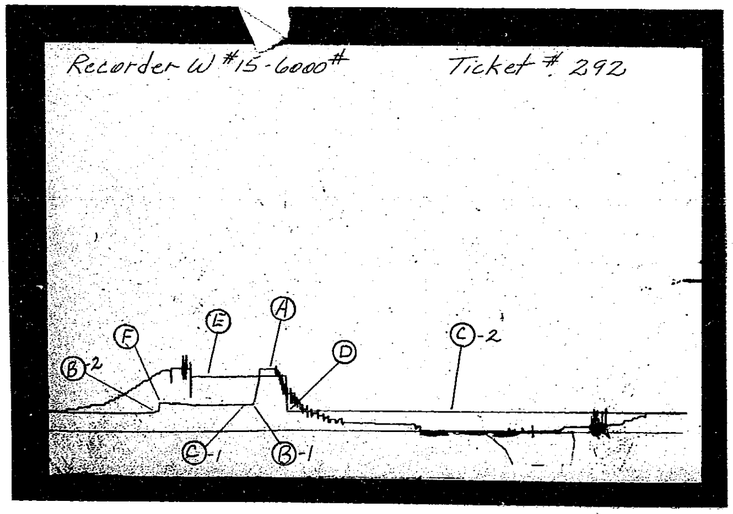
ARKANSAS LOUISIANA GAS CO.
HOLBROOK, ARIZONA
RECEIVED
APR 29 1965
GEOLOGICAL
DEPT.

32 × 1



PRESSURE DATA

	Pressure
(A) Initial Hydrostatic Mud	
(B) Initial Flow	
(C) Final Flow	
(D) Final Shut-In	
(E) Final Hydrostatic Mud	
(F) Initial Shut-In	



WILSON TESTERS

Date 3/29/65
Ticket No. 292
Wilson District Farmington, N.M.
Kind of Job Open Hole Conventional

INITIAL SHUT-IN TIME	80 MINUTES		
TOOL OPEN FLOW PERIOD 1ST 3 / 2ND 130 MINUTES			
FINAL SHUT-IN TIME	60 MINUTES		
TOP RECORDER DEPTH	1515	BLANKED OFF	No
RECORDER NO.	1481	24 HR. CLOCK	
PRESSURE READINGS	FIELD	OFFICE CORRECTED	
INITIAL HYDRO MUD PRESSURE	623	617	
INITIAL SHUT-IN PRESSURE	355	338	
INITIAL FLOW PRESSURE	237	243	
FINAL FLOW PRESSURE	237	243	
FINAL SHUT-IN PRESSURE	237	243	
FINAL HYDRO MUD PRESSURE	623	605	
CENTER RECORDER DEPTH		BLANKED OFF	
RECORDER NO.		HR. CLOCK	
PRESSURE READINGS	FIELD	OFFICE CORRECTED	
INITIAL HYDRO MUD PRESSURE			
INITIAL SHUT-IN PRESSURE			
INITIAL FLOW PRESSURE			
FINAL FLOW PRESSURE			
FINAL SHUT-IN PRESSURE			
FINAL HYDRO MUD PRESSURE			
BOTTOM RECORDER DEPTH	1521	BLANKED OFF	Yes
RECORDER NO.	15	Fast HR. CLOCK	
PRESSURE READINGS	FIELD	OFFICE CORRECTED	
INITIAL HYDRO MUD PRESSURE			
INITIAL SHUT-IN PRESSURE			
INITIAL FLOW PRESSURE			
FINAL FLOW PRESSURE			
FINAL SHUT-IN PRESSURE			
FINAL HYDRO MUD PRESSURE			
AMOUNT—TYPE OF CUSHION	None		

Contractor: Sojourne

HOLE AND TOOL DATA

Elevation	Tight Hole	Top Packer Depth	1337
Total Depth	1523	Bottom Packer Depth	1342
Hole Size	6¼	Size - Type Packer	5¼ B.T.
Rat Hole Size	None	Bottom Choke Size	3/4
Perforations	None	Surface Choke	1
Interval Tested	1342 To 1523	Amount of Air Chamber	None
Formation Tested	Tight Hole	I. D. & Length Drill Collars	2¼ X 171
Temperature	80 °F.	Drill Pipe Size	3½ X 1321

MUD DATA

Weight	Diesel	Viscosity	Diesel
All Depths Measured from	Kelly B.	No. Folders Reproduced	5

REMARKS: Purged tool 3 minutes.
Tool opened with strong blow of air.

RECOVERY: 480 feet of drilling fluid.

Test Approved By: J.S. Baldry
Tester: T.A. Wilson

LOCATION TIGHT HOLE
FIELD TIGHT HOLE
COUNTY APACHE
STATE ARIZONA

NMA CORE TEST — LEASE NAME
22 — WELL NO.
1 — TEST NO.
ARKLA EXPLORATION CO. — COMPANY
HOLBROOK, ARIZONA — DISTRICT

NMA CORE TEST 22, NAVAJO CO.
...3E, No Permit 9-26

32×

25×

WILSON TESTERS

PRESSURE DATA

COMPANY ARKLA EXPLORATION COMPANY

		TIME	PSI
INITIAL HYDRO MUD PRESSURE			617
1st	INITIAL FLOW	0 min	243
	FINAL FLOW	3 min	243
INITIAL SHUT-IN PRESSURE		80 min	338
2nd	INITIAL FLOW	0 min	243
	FINAL FLOW	130 min	243
FINAL SHUT-IN PRESSURE		60 min	243
FINAL HYDRO MUD PRESSURE			605

Date 3/29/65
Ticket No. 292
Lease NMA Core Test
Well No. 22 Test No. 1
Recorder No. 1481 Depth 1515
Capacity 6000#
24 Hr. Clock No. 6732
Temperature 80 °F.

PRESSURE BREAKDOWN

	1ST FLOW PRESSURE		INITIAL SHUT-IN		2ND FLOW PRESSURE		FINAL SHUT-IN	
	TIME	PSI	TIME	PSI	TIME	PSI	TIME	PSI
1	0	243	0	243	0	243	0	243
2	3	243	80	338	130	243	60	243
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
	3 MINUTE INTERVALS		80 MINUTE INTERVALS		130 MINUTE INTERVALS		60 MINUTE INTERVALS	

REMARKS No pressure build_up

32×

25×

NMA CORE TEST 22, NAVAJO CO.
...3E, No Permit 9-26

WILSON TESTERS

PRESSURE DATA

COMPANY ARKLA EXPLORATION COMPANY

		TIME	PSI
INITIAL HYDRO MUD PRESSURE			617
1st	INITIAL FLOW	0 min	243
	FINAL FLOW	3 min	243
INITIAL SHUT-IN PRESSURE		80 min	338
2nd	INITIAL FLOW	0 min	243
	FINAL FLOW	130 min	243
FINAL SHUT-IN PRESSURE		60 min	243
FINAL HYDRO MUD PRESSURE			605

Date 3/29/65

Ticket No. 292

Lease NMA Core Test

Well No. 22 Test No. 1

Recorder No. 1481 Depth 1515

Capacity 6000#

24 Hr. Clock No. 6732

Temperature 80 °F.

PRESSURE BREAKDOWN

	1ST FLOW PRESSURE		INITIAL SHUT-IN		2ND FLOW PRESSURE		FINAL SHUT-IN	
	TIME	PSI	TIME	PSI	TIME	PSI	TIME	PSI
1	0	243	0	243	0	243	0	243
2	3	243	80	338	130	243	60	243
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
	3 MINUTE INTERVALS		80 MINUTE INTERVALS		130 MINUTE INTERVALS		60 MINUTE INTERVALS	

REMARKS No pressure build_up

32 ×