[redacted]

P-W

ARKLA EXPLORATION NMA CORE TEST NO. 18
SE/NE Sec 27-T16N-R25E, Apache 1-18

County APACHE

Area

Lease No.

Well Name ARKLA EXP. COMPANY NMA CORE TEST NO. 18

Location SE NE Sec 27 Twp 16N Range 25E Footage 2500 FNL - 500 FEL

Elev 5778 Gr 5785± KB Spud Date 4-7-65 Completed Abandon 4-15-65 Total Depth 1747

Contractor Sojourner Drilling Company

Drilled by Rotary
Cable Tool

Casing Size	Depth	Cement

Production Horizon

Initial Production

REMARKS

Elec Logs NEUTRON LOG

Applic. to Plug ___ Plugging Record ___ Completion Report ___

Sample Log
Sample Descript.
Sample Set
Core Analysis
DSTs

Water well accepted by

Bond Co. & No.

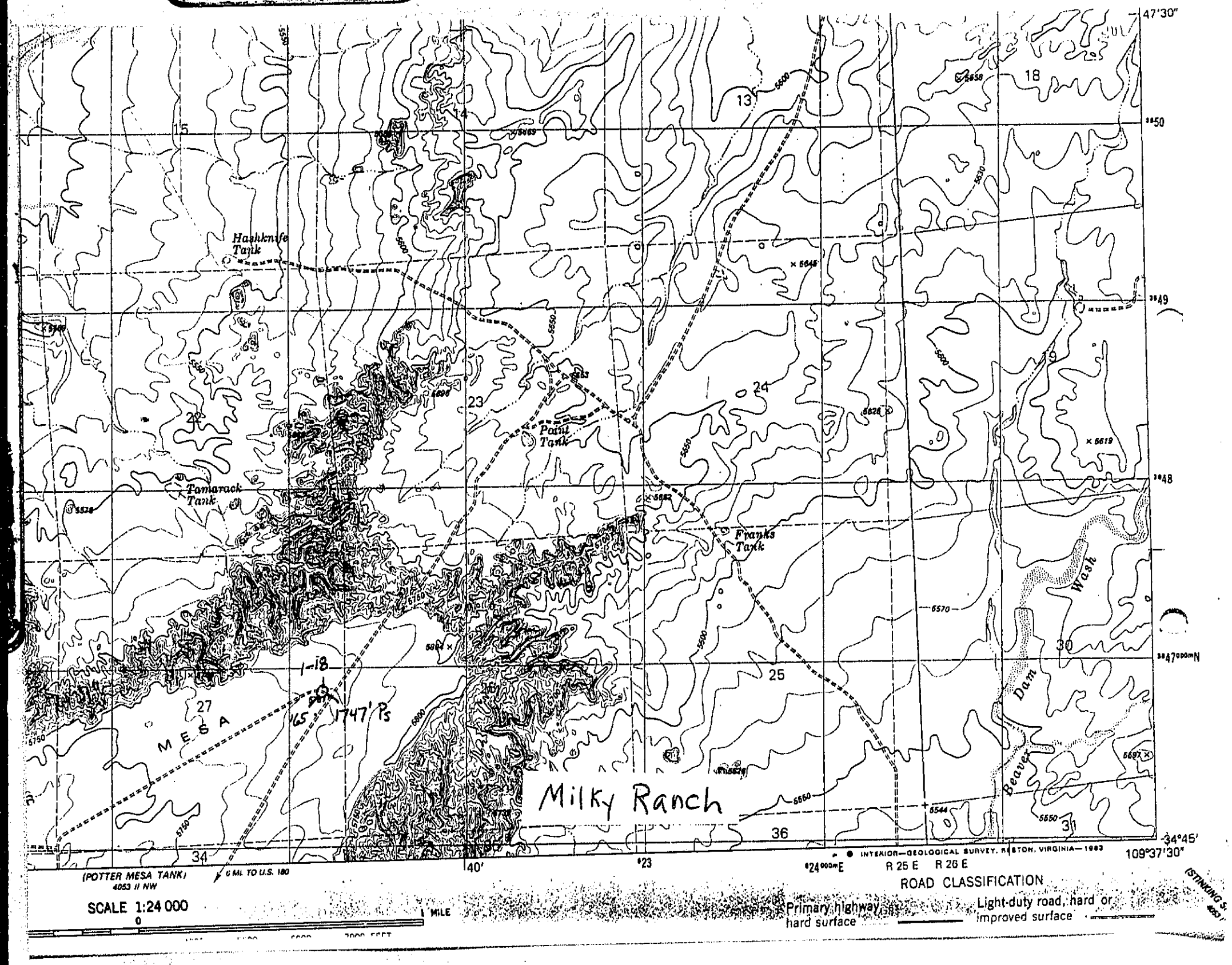
Bond Am't $ Cancelled Date Organization Report

Filing Receipt Dated Well Book ___ Plat Book ___

API No. 02-001-00074 Loc. Plat ___ Dedication

Permit Number NONE Date Issued

1-18



47'30"
Hashknife Tank
Tamarack Tank
Point Tank
Franks Tank
Beaver Dam Wash
MESA
1-18
1747' Ps
Milky Ranch
34°45'
109°37'30"
40'
R 25 E
R 26 E
INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1983
(POTTER MESA TANK)
4053 II NW
6 MI. TO U.S. 180
SCALE 1:24 000
1 MILE
ROAD CLASSIFICATION
Primary highway, hard surface
Light-duty road, hard or improved surface

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CA-20

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Page No.

CORE ANALYSIS RESULTS

Company ARKLA EXPLORATION COMPANY Formation File RP-3-1979
Well CORE HOLE TEST NO. 18 Core Type DIA. CONV. Date Report 4-13-65
Field WILDCAT Drilling Fluid WATER BASE MUD Analysts HUFF
County APACHE State ARIZONA Elev. Location

Lithological Abbreviations

SAND-SD SHALE-SH LIME-LM	DOLOMITE DOL CHERT-CH GYPSUM-GYP	ANHYDRITE-ANHY CONGLOMERATE-CONG FOSSILIFEROUS-FOSS	SANDY-SDY SHALY-SHY LIMY-LMY	FINE-FN MEDIUM-MED COARSE-CSE	CRYSTALLINE-XLN GRAIN-GRN GRANULAR-GRNL	BROWN-BRN GRAY-GY VUGGY-VGY	FRACTURED-FRAC LAMINATION-LAM STYLOLITIC-STY	SLIGHTLY-SL/ VERY-V/ WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	RESIDUAL SATURATION PER CENT PORE TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
1	893-94	49	14.5	0.0	85.7	Sandstone, fine grained, clean friable
2	894-95	187	15.2	0.0	91.5	Sandstone, fine grained, clean friable
3	895-96	248	22.6	0.0	90.4	Sandstone, fine grained, clean friable
4	896-97	156	21.5	0.0	86.1	Sandstone, fine grained, clean friable
5	897-98	173	19.6	0.0	93.9	Sandstone, fine grained, clean friable

SERVICE NO. 8

These analyses, opinons or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

WELL NAME: #18 11MA

LOCATION:

ELEVATION:

0-10'	30% BR SH 50% PURP, 20% SD CHERT.
10-20'	TR AA, 80% AA BR PURP 20% SD & CGL CHERT.
20-30'	90% PURP GRA REW ? 10% SD & CGL CHERT.
30-40'	100% AA, AA.
40-50'	TR BR, 100% AA, AA.
50-60'	10% AA, 80% AA, AA.
60-70'	100% AA PURP GRA TR CGL CHERT.
70-80'	10% LS BUFF, 90% PURP & BUFF SH CHERT.
80-90'	TR AA, AA, 70% BR SH, 30% PURP O.
90-00'	TR AA, AA, 40% AA, AA, 50% BUFF & PURP.
100-10'	100% LT BRN GRA GUMBO.
10-20'	70% RED PURP AA SH, 30% BUFF LS.
20-30'	30% AA, AA, 70% BR SH.
30-40'	100% BR SH.
40-50'	50% BR SH, 40% BR & LT GRN GRA REW ? 10% F SD GRN.
50-60'	70% GRA GRN VF SLTY SD 30% PURP SH.
60-70'	100% LT GRA GRN F-M SOFT SL CGL-MICA.
70-80'	100% AA, AA, GRA AA, AA, AA, AA.
80-90'	100% VLT GRA WHT F-M SL CGL SD TR LS.
90-00'	100% AA, AA, AA, AA, AA, TR LS.
200-10'	90% AA, AA, AA, AA, 10% LS CHERT.
10-20'	100% CSE SD-LS & CHERT CGL
20-30'	40% AA, AA, AA, AA, AA, 40% PURP & GRN SH 20% LS BUFF.
30-40'	60% AA, AA, AA, AA, 40% AA, AA, TR.
40-50'	100% CSE QTZ & CHERT-AMBER CGL TR LS.
50-60'	70% AA, AA, AA, AA, 30% PURP & VLT GRN SH.

DO NOT REMOVE FROM FILE

60-70'	100% PURP & BUFF SH.
70-80'	100% PURP.
80-90'	100% AA.
90-00'	100% AA.
300-10'	100% AA.
10-20'	80% AA, 20% RED SH.
20-30'	80% AA, 20% AA.
30-40'	80% AA, 20% AA.
40-50'	100% AA.
50-60'	100% PRUP SH.
60-70'	90% AA, 10% RED SH.
70-80'	90% AA, 10% AA.
80-90'	90% AA, 10% AA.
90-00'	80% AA, 20% AA.
400-10'	80% AA, 20% AA.
10-20'	80% AA, 20% AA.
20-30'	80% AA, 20% AA.
30-40'	90% AA, 10% LS NODS.
40-50'	70% AA, 30% LS CGL.
50-60'	100% AA,
60-70'	100% AA.
70-80'	100% AA.
80-90'	80% AA, 20% RED SLT.
90-00'	80% AA, 20% GRN SH.
500-10'	80% GRA SH, 20% AA.
10-20'	100% AA.
20-30'	100% AA.
30-40'	100% AA.
40-50'	100% AA.
50-60'	80% AA, 20% CSE CGL.

60-70'	90% AA, 10% AA.
70-80'	30% AA, 70% DK GRN SH LY SD.
80-90'	20% AA, 80% LT GRN VF SD.
90-00'	80% AA, 20% AA.
600-10'	20% AA, 20% RED SH 60% RED SLT.
10-20'	30% RED SH, 70% RED SLT.
20-30'	10% AA, 90% AA.
30-40'	20% AA, 80% AA.
40-50'	30% CSE RED SH LY CGL 20% AA, 20% AA.
50-60'	10% AA, 50% AA, 40% AA, AA.
60-70'	60% RED SH, 40% RED SLT.
70-80'	70% AA, AA, 30% AA, AA.
80-90'	90% AA, AA, 10% AA, AA.
90-00'	N.S.
700-10'	80% VF RED SD, 20% CGL.
10-20'	100% VF RED SLTY SD-F LT RED SLTY.
20-30'	90% AA, AA, AA, AA, 10% CGL CHERT.
30-40'	40% RED SH, 60% RED SLT & LT GRN SD VF.
40-50'	40% AA, 60% AA, AA.
50-60'	70% AA, 30% AA, AA, AA.
60-70'	70% AA, & SLT, 30% AA, AA, AA.
70-80'	40% AA, 60% AA, & AA, AA, AA.
80-90'	70% AA, AA, 30% AA, AA.
90-00'	20% AA, 80% AA, AA, AA, AA.
800-10'	N.S. GYP.
10-20'	30% RED SH 40% RED SLTY 30% GYP.
20-30'	20% AA, 80% AA, AA.
30-40'	40% AA, 40% AA, AA, 20% AA.
40-50'	40% AA, 60% AA, AA.
50-60'	40% AA, 60% AA, AA.

60-70'	20% AA, 70% AA, AA, 10% CGL.
70-80'	20% AA, 80% AA, MICAC.
80-90'	10% AA, 90% AA, AA.
90-00'	100% WHT BR WHT F-M LO SD CLEAR TO FROSTED. AA TO 1160.
1160-70'	100% LT BR F TR DK RED BR F-VF SLTY.
70-80'	50% AA, 50% RED SLT & SH.
80-90'	40% AA, 60% AA, AA.
90-00'	40% AA, 60% AA, AA.
1200-10'	40% AA, 60% AA, AA.
10-20'	40% AA, 60% AA, AA.
20-30'	100% WHT F VLT RED BR F.
30-40'	100% AA, AA.
40-50'	100% AA, AA.
50-60'	100% AA, AA.
60-70'	100% AA, AA.
70-80'	100% AA, AA.
80-90'	70% BR RED BR 20% RED SLT 10% WHT LS.
90-00'	40% AA, 20% AA, AA, & SH 40% AA, AA.
1300-10'	50% ANHY 50% AA, AA.
10-48'	No SAMPLES.
48-62'	ANHYDRITE, DOLOMITIC 1360-1362.

CORE #1 893-898 REC 5 FT.

L-LO C-F SL CGL. BR WHT F SOFT POROUS SD W/ SOME VERITICAL FRACTURING. SD WET-FRESH WATER.

CORE #2 1362-1414 REC 52'

1362-74 ANHY W/FEW RED SH PTNGS; 74-75 50% ANHY 50% SH; 75-76½ SH W/ANHY INCLS; 76½-78 SALT 10% SH IMP; 78-81 RED SH W/SALT INCLS; 81-83 ANHY DNS; 83-93 SALT; 93-94 60% RED SH 40% SALT; 94-99 70% SALT 30% SH; 99-02 60% SALT 40% SH; 02-06 70% SALT 30% SH; 06-11 90% SALT 10% SH; 11-14 ANHY W/ SALT XLS.

CORE #3 1414-146' 10" REC 53' 10"

1414-25 ANHY GRA DNS, SALT XLS; 25-26 RED SH; 26-37 SALT, 10% SH IMP; 37-42 SALT W/ORANGE BLEBS; 42-47 SALT 10% SH; 47-54½ SALT 20% SH IMP;

54½-61½ WHT SALT; 61½-62 ANHY; 62-67'10" SALT.

CORE #4 1468-1521

1468-71 SALT 40% SH; 71-72 90% SALT 10% SH; 72-73 30% SALT 70% SH; 73-77 77-85 SALT ORANGE BLEBS; 85-92 SALT 30% SH; 91-92 30% SALT 70% SH; 92-00 90% SALT 10% SH; 00-04 CLEAR SALT; 04-11 90% SALT 10% SH; 11-17½ CLEAR SALT; 17½19 ANHY SALT INCLS; 19-20½ SH W/SALT INCLS; 20½-21 SALT 20% SH.

ARKLA EXPLORATION COMPANY

Drilling Record

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WELL NAME: NMA CORE TEST #18

WELL LOCATION: 2500' FNL - 500 FEL SEC 27-16N-25E

WELL ELEVATION: 5285 ' KB

CONTRACTOR: SOJOURNER DRILLING COMPANY

SPUD DATE: 4-7-65 6:00PM

SIZE HOLE DRILLED: 13¾ " to 74 '

TYPE DRILLING FLUID: GEL

SURFACE CASING:
Size 10¾ ", Wt. 32.75 #, No. Sacks Cement 35
Cementing Depth: '

SIZE HOLE DRILLED: 8¾ "

TYPE DRILLING FLUID: GEL

INTERMEDIATE CASING:
Size 7 ", Wt. 20 #, No. Sacks Cement 25
Cementing Depth 1360

SIZE HOLE DRILLED OR CORED:
6¼ " from 1360 ' to 1747 ' SEE BELOW
" from ' to '
" from ' to '
" from ' to '

DRILL STEM TESTS:
NONE

NO. BITS USED: 5

ELECTRIC LOGS RAN:
Type McCULLOUGH GRN from 1747 ' to 0 '
from ' to '

ABANDONMENT PLUGS:
~~No. Sacks Cemented~~ NONE 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: 4-15-65 6:00 PM

COMPANY REPRESENTATIVE: J.S. BALDRY

SPECIAL NOTES: Unusual drilling problems encountered, etc.
DRILLED 1360-1362 - CORED 1362-1518
DRILLED 1518-1747

ARKANSAS LOUISIANA GAS
HOLBROOK, ARIZ.
RECEIVED
MAY 17 1965
GEOLOGICAL

1-18