P-W

ARKLA EXPLORATION NMA CORE TEST #99
SW/NE Sec 34-T16N-R23E, Navajo Co 9-21

32 x

County NAVAJO

Area

Lease No.

Well Name ARKLA EXPLORATION COMPANY NMA CORE TEST #99

Location SW/NE Sec 34 Twp 16N Range 23E Footage 3149 FWL 3066 FSL

Elev ~~5302~~ 5294.62 Gr 5302 KB Spud Date 7-6-65 Completed Abandon 7-18-65 Total Depth 942

Contractor

Casing Size	Depth	Cement

Drilled by Rotary
Cable Tool

Production Horizon

Initial Production

REMARKS

Elec Logs Gamma Ray-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. 02-017-00265 Loc. Plat ___ Dedication

Permit Number — Date Issued X

File 9-21

32 × 6

DETAILED CORE DESCRIPTION

WELL NAME: NMA # 99

LOCATION:

ELEVATION:

822-827.7-5.9	69" RED ANHYDRITIC SH-INCLS GRN SH.
827.7-833.5-5.10	54" RED ANHYDRITIC SH-INCLS GRN SH, & ANHY, 6" BKN SH & ANHY-6" ANHY DNS-4" SH.
833.5-838.9-5.8	16" ANHY SH-10" ANHY DNS-26" ANHY SH-3" SH GRN W/SELENITE INCLS-3" ANHY DNS.
838.9-844.5-5.10	70" ANHY DNS-AH & SELENITE INCLS.
844.5-850.3-5.10	70" ANHY DNS-SH INCLS & PTNGS-SELENITE XLS.
850.3-856-5.11	4" ANHY DNS-10" ANHY 10% SH-56" ANHY DNS-TRS SH-1" SH.
856-861.9-6.0	2" SH-16" ANHY SH PTNGS-10" ANHY 50% SH-7" ANHY DNS-37" SH W/ANHY INCLS.
861.9-867.6-5.7	27" SH W/ANHY INCLS-10" ANHY 40% SH-5" DNS ANHY-16" ANHY 30% SH-9" ANHY SH.
867.6-873.2-5.8	30" ANHY SH-38" ANHY DNS (PUERCO GRANDE).
873.2-878.8-5.8	68" ANHY, DNS.
878.8-884.4-5.7	48" ANHY DNS-TOP SALT 882.9-19" SALT 70% SH.
884.4-890-5.10	35" SH 30% SALT-3" SH-7" SALT 40% SH-25" SH 10% SALT.
890-895.7-5.7	32" SALT 20% SH-16" SALT 10% SH & ANHY? 7" SALT 20% SH & ANHY-5" SALT VLT ORNG-5% SH-7" SALT 20% SH.
895.7-901.3-5.10	5" SALT 20% SH-25" SALT 30% SH & 2" SALT 10% SH & ANHY? 38" SALT VLT ORNG TO CLEAR-TRS SH.
901.3-906.8-5.9	6" SALT CLEAR-9" SALT 10% SH-4" SALT 20% SH-9" SALT VLT ORNG-ORNG BLEBS-4" SALT 40% SH-3" GRN & RED SH (BISQUIT V THIN HOT-903.11) 7" SH 30% SALT-5" SALT 30% SH-6" SH 30% SALT-9" SALT 30% SH-4" SALT CLEAR-3" SALT 40% SH.
906.8-912.6-5.9	17" SH 30% SALT-24" SALT 40% SH-8" SALT 20% SH-9" SALT 30% SH-11" SALT 10% SH.
912.6-918.2-5.9	16" SH 30% SALT-12" SALT 30% SH & ANHY-6" SALT 10% SH-12" SALT 5% SH-23" SALT VLT ORNG-TR SH & ANHY?-(½" BISQUIT-LIKE MATERIAL-NOT HOT 912.7).
918.2-923.11-5.10	3" SALT 10% SH-ZONE OF ANHY? BANDS-A918.5-A-B 3½" B-C 53" - TOP ZONE 918.5 9" SALT HOT-RED & CLOUDY KCL-27" SALT LIGHT CLOUDY HOT-4" SALT-HOT-RED & CLOUDY-13" SALT LT CLOUDY-HOT-TR CLEAR HOT-11" SALT W/ANHY? BANDS & GRN SH INCL-RED & CLOUDY KCL-ANHY? & GRN SH ARE HOT-3" SALT 30% HOT GRN SH? TRS RED SH-HOT-KCL RED & CLOUDY.
1" CORR 924-929-5.5	13" SALT 10% RED & GRN SH HOT-KCL-4" SALT 5% SH -KCL-3" SALT 20%

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GRN & RED SH HOT-24" SALT V HOT RED & CLOUDY TRS GRN SH-8" SALT CLOUDY TO VLT ORNG-KCL-4" SALT LT CLOUDY-KCL-3" SALT ORNG-KCL-3" SALT VLT ORNG TO LT CLOUDY-KCL-3" SALT DK ORNG-KCL THIS 3" OF DK ORNG SALT WAS PROBABLY IMMEDIATELY ABOVE THE BISQUIT WHICH SHOULD HAVE BEEN AT ABOUT 929.1-.2

5" CORR	929-929.5 MISSING.
929.5-935-5.9	8" SALT 30% SH-8" SALT 50% SH-27" SALT 40% SH-6" SALT 20% SH-20" SALT 30% SH.
935-940.10-5.9	10" SALT 10% SH-10" SALT 30% SH-23" SALT 20% SH-11" SALT 10% SH & ANHY? 15" SALT VLT ORNG 5% ANHY? & SH.

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WELL NAME: AEC - NMA #99

LOCATION:

ELEVATION:

0-10'	100% SD VALLEY FILL.
10-20'	100% AA AA.
20-30'	100% AA AA.
30-40'	100% AA MF CGL W/CHERT.
40-50'	100% AA AA AA.
50-60'	50% AA AA, 50% SH RED.
60-70'	100% SH RED.
70-80'	100% AA.
80-90'	90% SH VF RED & GRN, 10% SH RED.
90-00'	80% AA AA, 20% AA.
100-10'	20% SD, 80% AA & SLT.
10-20'	40% AA AA, 60% AA AA.
20-30'	50% AA AA, 50% AA AA.
30-40'	40% AA AA 60% AA AA.
40-50'	100% SH RED & SLT, & GRN SLT.
50-60'	100% AA AA.
60-70'	10% GYP, 90% RED & GRN SH & SLT.
70-80'	10% AA, 30% SD AA, 60% AA AA.
80-90'	5% AA, 10% AA, 85% AA AA.
90-00'	100% RED & GRN SH & SLT.
200-10'	10% SD, 90% RED & GRN SH & SLT.
10-20'	20% GYP, 80% AA.
20-30'	5%AA, 10% SD, 85% RED & GRN SH & SLT.
30-40'	10% AA, 70% SD VF RED, 20% RED SLT.
40-50'	20% AA, 50% AA AA, 30% AA AA & SH.
50-60'	100% RED & GRN SH & SLT.

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60-70'	10% GYP, 20% LS, 70% RED & GRN SH & SLT.
70-80'	5% AA, 5% AA, 90% AA AA AA.
80-90'	100% RED & GRN SH & SLT.
90-00'	30% VF RED BR SD, 70% AA AA AA.
300-10'	60% AA, 40% AA AA AA.
10-20'	100% WHT MF SD-PYRITE.
330-730'	AA.
730-40'	90% SD MF LT RED BR, 10% SH.
40-50'	90% AA AA AA, 10% AA TRLS.
50-60'	60% AA AA, 30% AA, 10% LS.
60-70'	40% AA AA, 40% AA, 20% AA.
70-80'	30% RED SLT, 50% AA, 20% AA.
80-90'	20% AA SD, 60% SLT, 20% AA.
90-00'	100% SLT & SH, TR LS.
800-10'	80% AA AA, 20% AA.
10-20'	50% ANHY, 50% SLT & SH.

CORED TO T.D. @ 940'.

CORE #1 SH 822-874, REC 52'

822-32 ANHYDRITIC RED SH; 32-33 SHLY ANHY; 33-35 ANHY SH; 35-36½ ANHY W/SH PTNGS; 36½-38 ANHY SH; 38-59 DNS GRA ANHY W/SH INCLS; 59-70 RED SH W/ANHY INCLS; 70-74 ANHY(PUERCO.

CORE #2 SH 874-926, REC 51.4'.

874-83.6 ANHY (PUERCO); 83.6-90 SH 30% SALT; 90-94 SALT 10% SH; 94-98 SALT 20% SH; 98-02 SALT TRS ORNG IMP; 02-03½ SALT 10% ORNG IMP; 03½-05½ SALT 40% SH; 05½-06½ SALT 20% SH; 06½-11 SALT 40% SH; 11-12½ SALT-20% SH; 12½-14½ SH 30% SALT; 14½-19 SALT 20% SH & ANHY; 19-23 SALT TRS IMP, ANHY; 23-25.4 SALT HOT ZONE-GRN SH IMP.

CORE #3 925.4-942

925.4-29.4 HOT ZONE GRN SH IMP (BISQUIT 929.4); 929.4-34 SALT 40% SH, (BISCUIT 933); 34-39 SALT 30% SH; 39-40.10 SALT VLT ORNG 10% SH.

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ARKLA EXPLORATION COMPANY

Drilling Record

WELL NAME: NMA Core Test #99

WELL LOCATION: 3149-FWL- 3066 FSL Sec 34-16N-23E

WELL ELEVATION: 5302 ' KB

CONTRACTOR: Sojourner Drilling Company

SPUD DATE: 7-6-65 5:00 PM

SIZE HOLE DRILLED: 13¾ " to 72 '

TYPE DRILLING FLUID: Gel

SURFACE CASING:
Size 9 5/8 ", Wt. 32.75 #, No. Sacks Cement 62
Cementing Depth: 72 '

SIZE HOLE DRILLED: 8¾ "

TYPE DRILLING FLUID: Flo Sol (Lost mud while drilling)

INTERMEDIATE CASING:
Size 7 ", Wt. 20 #, No. Sacks Cement 475 (A)
Cementing Depth

SIZE HOLE DRILLED OR CORED:
6¼ " from 820 ' to 942 '
16 " from 926 ' to 931 ' (B)
" from ' to '
" from ' to '

DRILL STEM TESTS:
NONE

NO. BITS USED: 2

ELECTRIC LOGS RAN:
Type McCullogh Grn from 871 ' to 0 '
from ' to '

ABANDONMENT PLUGS:
No. Sacks Cement 100 from 871 ' to 671 '
50 from 400 ' to 200 '

WAS CASING RECOVERED?
Depth Shot ', ', '
No. Feet Recovered '
No. Feet Not Recovered 820 '

DATE DRILLING RIG RELEASED: 7-18-65 1:00 PM

COMPANY REPRESENTATIVE: James S. Baldry

SPECIAL NOTES: Unusual drilling problems encountered, etc.
(A) Cemented with 100 sacks ran temp, top cement 470 perf & recemented @ 450' - 100 sacks did not hold, recemented with 100 more sacks did not hold, recemented with 175 sacks - Held OK
(B) Underreamed hole to 16" at 926-931. Tried to set plugs in hole twice to whipstock-plugs would not hold, plugged well.

ARKANSAS LOUISIANA GAS CO.
WILLIAMSON, ARIZONA
RECEIVED
AUG 24 1965
GEOLOGICAL DEPT.

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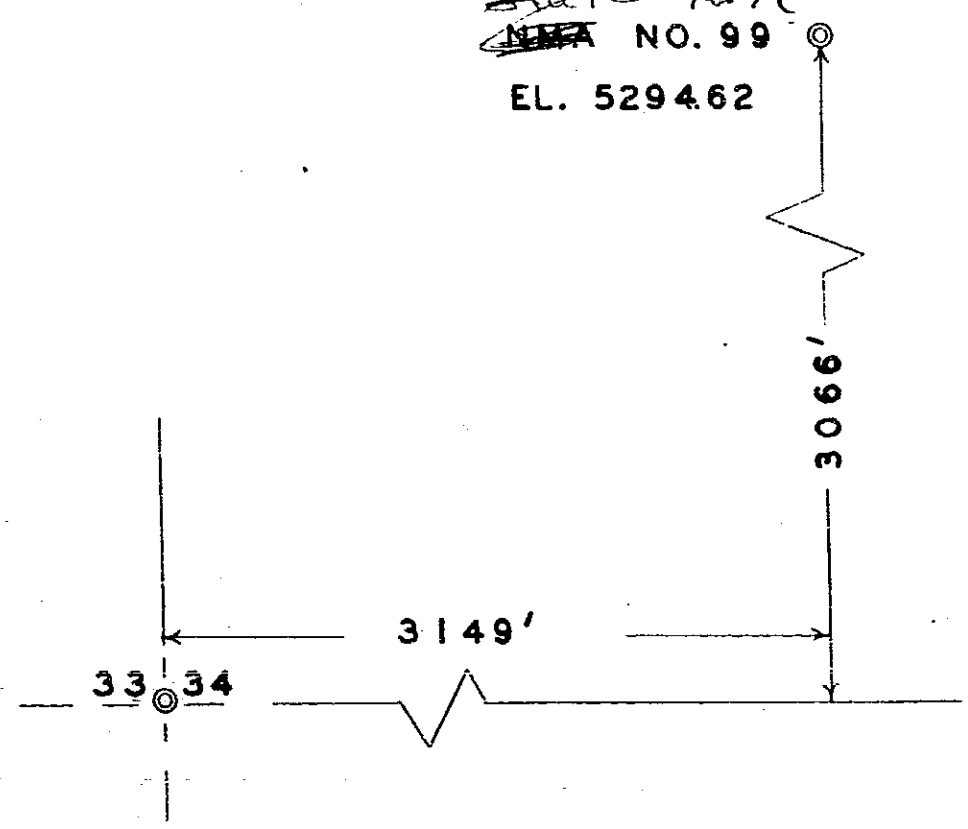

ARKLA EXPLORATION COMPANY

HOLBROOK AREA PROJECT

NO. 99 DRILL-SITE

SEC. 34, T.16N., R.23E., G.& S. R. B.& M.

NAVAHO COUNTY ARIZONA

SCALE 1"= 400' JULY 30, 1965

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

REGISTERED MINING ENGINEER

U. S. MINERAL SURVEYOR

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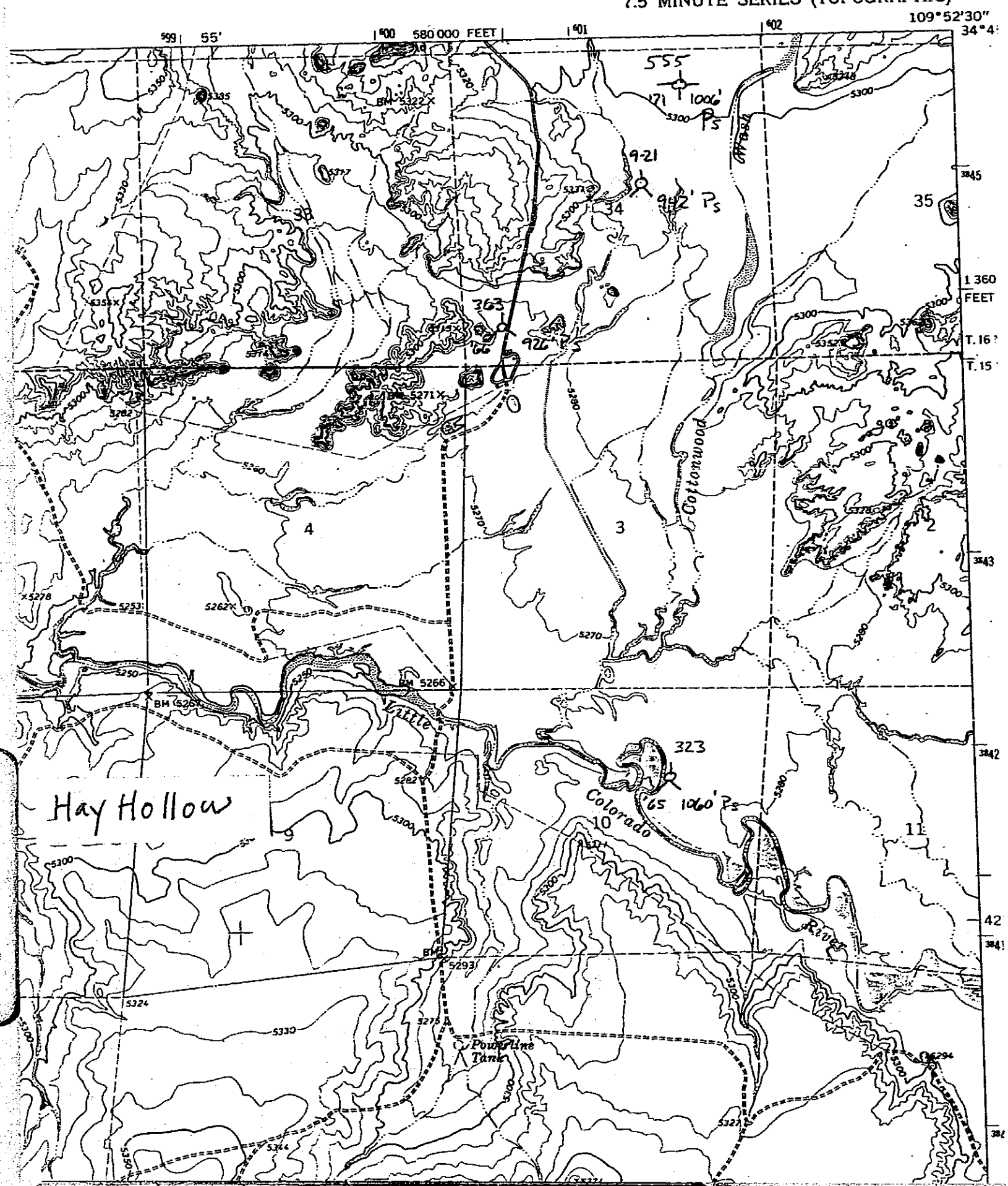
HAY HOLLOW QUADRANGLE
ARIZONA—NAVAJO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



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