

FRK. 1965 Glick + Haly

20th Century Petroleum
Statistics
DeBollis & McNaughton

Natural Gas, North Arkansas

Annual Production (Billions of CuFt.)	Reserves (Dec. 31) (Billions of CuFt.)
1900	
1901	
1902	.2 (?)
1903	.3 (?)
1904	.4 (?)
1905	.5 (?)
1906	.6 (?)
1907	.710,173 ✓
1908	2. ✓
1909	1. ✓
1910	2.8 ✓
1911	2.3 ✓
1912	1.5 ✓
1913	2.0 (?)
1914	2.0 (?)
1915	3.0 (?)
1916	4.0 (?)
1917	5.1 ✓
1918	5. ✓
1919	5.1 ✓
1920	8.9 (?)
1921	4.5 (?)
1922	4.5 (?)
1923	4.5 (?)
1924	4.5 (?)
1925	4.2 ✓
1926	3.5 (?)
1927	3.0 (?)

Natural Gas, North Arkansas (Cont)
 Annual Production (Billions of Cu.Ft.)
 Reserves (Dec 31)

1928	3.0(?)
1929	2.5(?)
1930	2.0(?)
1931	2.0(?)
1932	1.5(?)
1933	1.0?
1934	1.0?
1935	1.0?
1936	1.5?
1937	2.0?
1938	2.5?
1939	3.0?
1940	4.0(?)
1941	5.0(?)
1942	5.7 ✓
1943	5.6 ✓
1944	4.8 ✓
1945	5.1 ✓
1946	3.7 ✓
1947	4.8 ✓
1948	5.7 ✓
1949	6.9 ✓
1950	8.0 ✓
1951	8.2 ✓
1952	10.3 ✓
1953	11.7 ✓
1954	11.0 ✓
1955	12.3 ✓
1956	14.4 ✓
1957	17.0 ✓

(Aug, 1940)
 97.670

128.	—
189.	✓
221.	✓
233.	✓
238.	✓
274.	✓
513.	✓
618.	✓ (Factual Data Report)

Natural Gas -- South Arkansas

Annual Production
(Billions of Cu.Ft.)

Reserves (Dec 31)
(Billions of Cu.Ft.)

1920	0.1	?
1921	.5	?
1922	4.5	?
1923	¹⁰ 19.25	?
1924	31.0	?
1925	36.3	?
1926	40.0	?
1927	26.75	?
1928	19.0	?
1929	17.0	?
1930	16.5	?
1931	11.25	?
1932	8.25	?
1933	7.5	?
1934	7.5	?
1935	5.5	?
1936	6.75	?
1937	7.0	?
1938	18.25	?
1939	15.75	?
1940	18.0	?
1941	28.0	?
1942	38.0	✓
1943	47.7	✓
1944	61.0	✓
1945	58.1	✓
1946	40.6	✓

1, 199. - (May 10, 1941)

Natural Gas - South Arkansas

Annual Production (Billions of Cu. Ft.)	Reserves (Dec 31) (Billions of Cu. Ft.)
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1947	69.0 ✓		
1948	67.9 ✓		968. —
1949	60.8 ✓		908. —
1950	62.0 ✓		848. —
1951	59.1 ✓		878. —
1952	40.1 ✓		730. —
1953	27.6 ✓		783. —
1954	47.6 ✓ ✓ (Dobie)		794. —
1955	43.6 ✓ ✓ (Dobie)		779. —
1956	36.9 ✓		709. —
1957	34.1 ✓		682. —
	1158.75		

Oil & Gas-Condensate -- South Arkansas

Annual Production
(Millions of Barrels)

Reserves (Dec 31)
(Millions of Barrels)

1920	.839
1921	10.473
1922	12.712
1923	36.610
1924	46.028
1925	77.398
1926	58.332
1927	40.005
1928	32.096
1929	24.917
1930	19.702
1931	14.791
1932	12.051
1933	11.686
1934	11.182
1935	11.008
1936	10.469
1937	11.764
1938	18.180
1939	21.120
1940	25.573
1941	26.233
1942	26.581

Oil & Gas Condensate - South Ark. (cont)
 Annual Production Reserves (Dec 31)
 (Millions of Barrels) (Millions of barrels)

1943	27.533	
1944	29.305	278. —
1945	28.568	250. —
1946	28. —	
1947	29.85	
1948	31.65	
1949	29.9	
1950	30.9	
1951	29.85	
1952	29.35	340. —
1953	29.6	327. —
1954	29.124	376.734
1955	28.826	319.574
1956	29.968	410. —
1957	31.446	427.385

Sunday April 25, 1965

Left Denver, Colorado 8:30 AM Daylight
Saving time with Boyd R Haley

Arrived Bartlesville, Oklahoma 10:00 PM

Frank Holler
Boyd R Haley
Rascoe

Monday April 26, 1965

Visited Phillips Petroleum Co & talked
to Norman Mundorf - Got address
Don Adams, Phillips, 324 N. Robinson, ^{Oklahoma} City.

Visited Arkansas Western Gas Co in Fayetteville
Arkansas & talked to Joe Clark. Got
well samples.

Arrived Ft. Smith, Arkansas 8:00 PM

Tuesday April 27, 1965

Visited Arkansas Louisiana Gas Co &
talked to George Dillon.

Checked Long Pool - Brinkman well
Locality. 150' ± Morrow
exposed above water level

Checked Indian Creek Well locality.
Well starts in lower 10-20'
of Cane Hill. No Pitkin
outcrops found in the creek,
but could be a few feet.

Tuesday April 27, 1965
(cont)

Checked Falling Water Creek locality and found that the Pan American well starts 10'± above the Care Hill - Pitkin contact

Arrived Little Rock, Ark. 9:30 P.M.

Wednesday April 28, 1965

Met Charles Stone, Arkansas Geological Commission and arranged to leave boxes of samples @ the laboratory and go into the field.

Stop ①

19 3N 13W

Upper Stanley Sandstone along railroad + just south of the Tie Valley Fault Zone @ Palarm. Sandstone is v.f. to f. gr -- no medium or larger grains. Entire unit shows graded beds. Some sandstone beds as much as 6' thick. Fair bottom marks such as cabbage leaves, prod casts, load casts. Charles Stone says tops have worm trails, etc in vicinity. Sandstone is relatively clean looking, especially @ base of beds, but clay may be weathered out

Palarm Creek section
Stop 2 13 - 3N14W

Lower Hoka Fault Sliver $\frac{1}{4}$ to $\frac{1}{2}$ mile wide

Definitely fish-like

Drag marks N-S

Flute-casts - Source from South on SS, E, SE or S

Other markings may have many other directions

Grain size: Mostly fine but some to medium

Largely dirty, but some relatively clean

Plant fragments in siltstone - shale
SS beds as much as 5" thick

Stop 3 Junct Hwy 64 + Hwy 25 36-6N14W

Upper Traceable Three 150'±

Very fine grained dirty silty SS
except for a few beds or 3' units
of f- to med sd.

Beds as much as 1' thick but
nearly all 2" to 3" thick.

Interference ripple marks on top
of most beds. Shale pebbles on
top of many beds. Ripple marks
show E source. Drag marks E-W.

Base gradational through 5' to 10'.

Top gradational through 50' of
shale + SS

Photo 1

Photo 2

Stop 4 North of Stop 3 (on Hwy 25)
Middle Traceable Three

Not so well exposed
Grades upward into 30-50' siltstone
Unit 150' ± thick
Some 3' thick siltstone beds,
but mostly thin-bedded
Grades downward into 30-50' siltstone

Lower Traceable Three not well exposed
if at all on Hwy 25

Middle of anticline faulted,
Charles Stone says rocks in
middle are Lower Atoka -
Some med grained ss, but mostly
vf gr silty ss.
Some bottom markings + some
flow features

On Hwy 65, "lower Atoka" of
central part of anticline
contains some gtz granules

Stop 5

Quarry in SS ^{next} above Tracable 3
on road north of Victoria
Beds to 4' thick. Grain size f to med.
Much "white grain" mineral.
Many interference ripple marks
Cross laminations, shale pebbles

Thursday April 29

Stop 6 On road From Cabbot to Mountain Springs

Quarry in massive sandstone
100'± very nearly all massive - SS
Dirty, silty v.f. to C grained.
Massive beds to 10'±
On S edge of Mtn Springs quad
much ss exposed & some sh
May be 50% SS

Stop 7 1/2 Mile W of Floyd
Lower Traccable 3 well exposed
100'± in unit. Base very silty &
entire unit through 50'± is gradational
into shale below

Stop 8
"Lower Atoka SS"
Rests on thick unit (100' exposed)
of silty shale w/ much concentric
weathering.
Sandstone massive (to 5') to
med beds. Base of unit
w/ reasonably sharp ^{to sharp} contact
Grains v.f. to v.c. & some granules
Crinoids, brachs in several beds

Stop 9 Jackfork quarries in North Little Rock

Mostly fine, some medium grains
Beds to 3' thick

May be as much as 70% shale

Lower ss seems to grade into
shale northward.

Many major channels

Monday

Hwy 113 going north

- ① Traceable 3 beds South side
Fourche La Pave River
- ② Quarry in lower part T3 beds
South of Bigelow
- ③ Just South of Houston T-3 @
PR bump
- ④ Photos of lower Atoka along
road cut -
Sediments from S 15 E

Another @ S 20 W up the road
- ⑤ Perry - Perryville - N to S
Beds to 6' thick - v. f. to f. gr
Ripple marks on tops of beds
Graded beds - some bottom markings
channels to 5' deep
E-W direction

Shell - Oklahoma City

Stewart Jim Drexler
Sam McCullough Stewart
McGuire 4570
Martin Pwney

Basal Atoka 5203

F'ville 6620

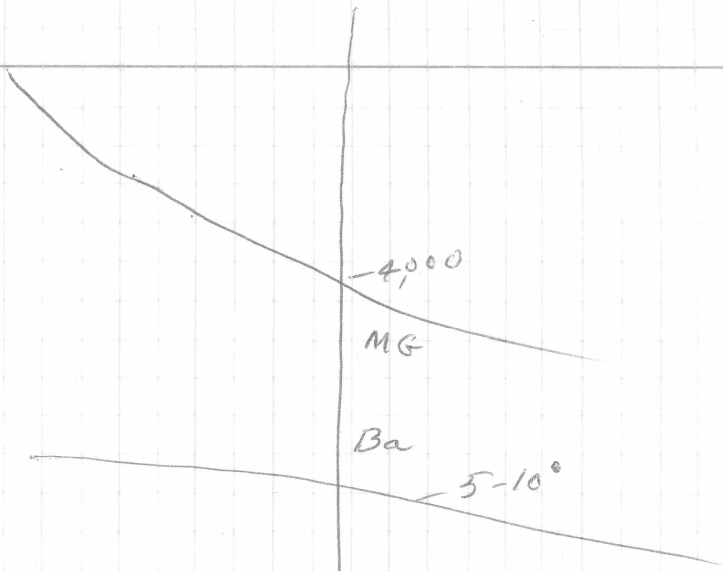
7900 8050 - Fish

Atkinson

McGuire 4229

Basal Atoka 4850 - 5220

F'ville 6230



Dipmeter shows 50° and additional dip in lower part