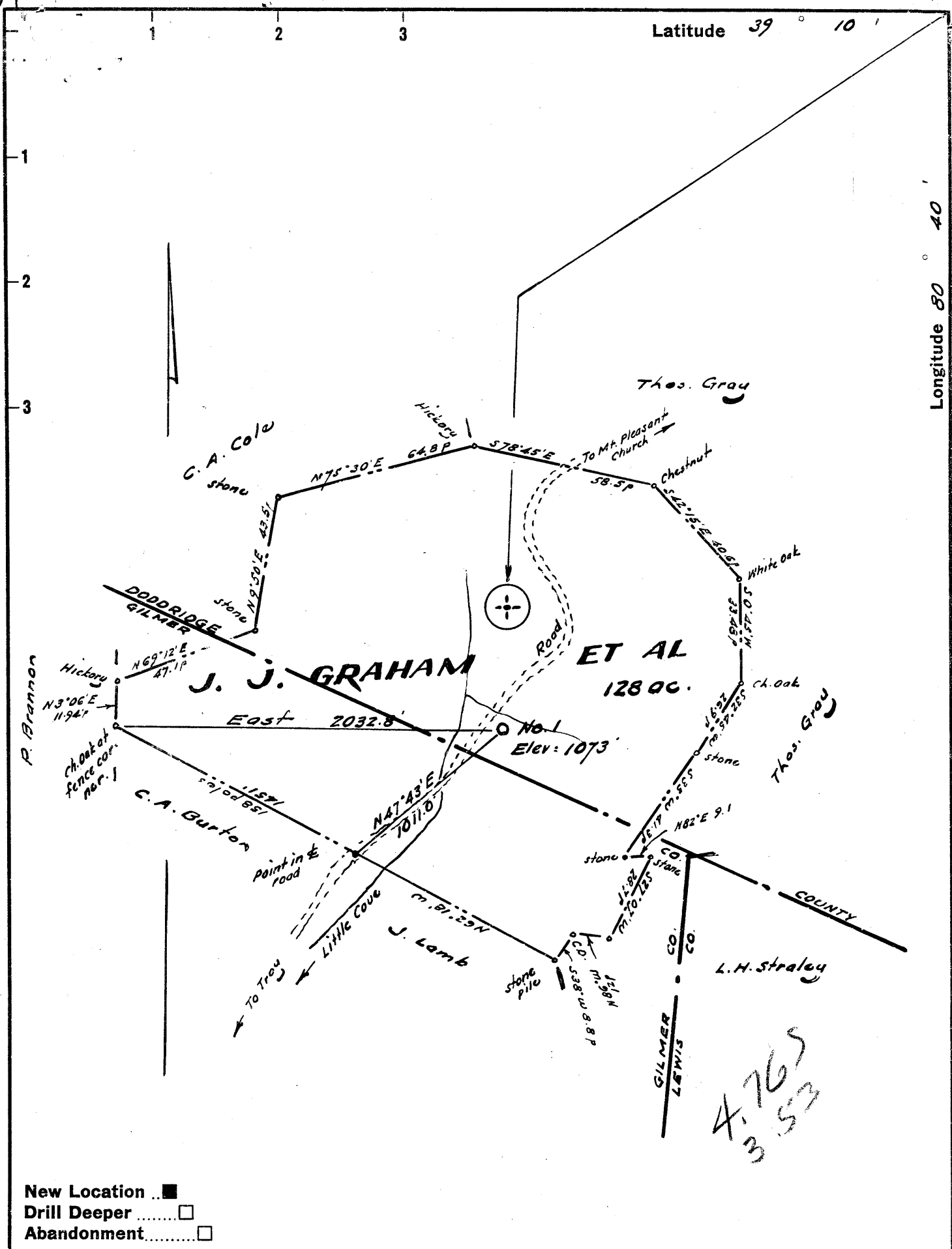


Latitude 39° 10'

Longitude 80° 40'



New Location ..
 Drill Deeper
 Abandonment

Company AMERICAN MUTUAL OIL CO.
 Address 380 Travel Center Bldg., 1640 Court Pl., Denver, 2, Colo.
 Farm J. J. Graham, et al
 Tract _____ Acres 128 Lease No. _____
 Well (Farm) No. One Serial No. _____
 Elevation (Spirit Level) 1073
 Quadrangle Radis NC
 County Doddridge District Cove
 Engineer W. H. [Signature]
 Engineer's Registration No. 1227
 File No. _____ Drawing No. _____
 Date May 1962' Scale 1" = 400' = 660'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. DOD- 779

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

4.765
 3.53



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 7

Quadrangle Wadis

Permit No. DOD-779

WELL RECORD

Oil or Gas Well O & G
(KIND)

Company American Mutual Oil Co.
Address 1640 Court Place
Farm J.J.Graham et al Acres 128
Location (waters) Little Cove
Well No. 1 Elev. 1074
District Cove County Doddridge
The surface of tract is owned in fee by Bryan
Pierce Address Troy, W. Va.
Mineral rights are owned by J. J. Graham 1/2
Ora Doaks 1/2 Address West Union
Drilling commenced 5-19-62
Drilling completed 6-22-62
Date Shot No From _____ To _____
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED No

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	480'	none	Size of
8 1/4	1992'	"	
6 3/4			Depth set
5 3/16			
4 1/2		2216'	Perf. top
2			Perf. bottom
Liners Used	None		Perf. top
			Perf. bottom

CASING CEMENTED 4 1/2" SIZE No. Ft. 2216' Date
100 sks. Cement 70 bbls HALLIBURTON
Gel ahead of cement
COAL WAS ENCOUNTERED AT none FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

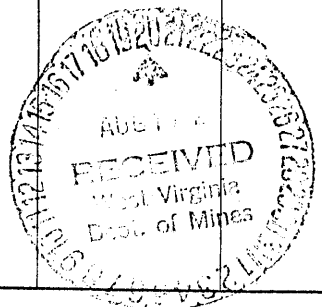
WELL FRACTURED W/50,000 # Sand & 1200 B Wtr.

RESULT AFTER TREATMENT 300,000 plus CFGPD plus 12 BOPD

ROCK PRESSURE AFTER TREATMENT 550# in 12 hrs.

Fresh Water none Feet _____ Salt Water none Feet _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale			0	7			
Gray Shale			7	20			
Red Rock			20	57			
6 Red Rock			57	65			Fresh water at 20 ft (1 BPD)
Light Gray Sand			65	75			
Red Rock			75	117			
Red Rock			117	125			
Dark Gray Sand			125	143			
Red and Gray Shale			143	152			
Red and Gray Shale			152	162			
Lime			162	175			
Red and Gray Shale			175	179			
Red and Gray Shale			179	194			
Lime			194	200			
Red and Gray Shale			200	207			
Red Rock			207	220			
Gray Shale			220	237			
Red and Gray Shale			237	267			
Red Rock			267	275			
Slate			275	300			
Slate			300	315			
Red Rock			315	365			
Gray Shale			365	388			
Sand			388	400			
Slate			400	416			
Red Rock			416	445			
Sand			445	460			
Blue Shale			460	490			
Sand			500	525			
Red Rock			525	545			



<u>Formation</u>	<u>Top</u>	<u>Bottom</u>	<u>PERMIT NO. DOD-779</u>
Blue Shale	545	565	
Sand	565	575	
Blue Sandy Shale	575	582	
Sand	582	615	
Slate	615	642	
Red Rock	642	665	
Gray Sand	665	700	
Blue Shale	700	702	
Shale	702	1010	
Gray Sand	1010	1055	
Sand	1055	1225	
Shale	1225	1245	
Sand	1245	1260	
Shale	1260	1377	
Sand	1377	1400	
Gray Shale	1400	1448	
Shale	1448	1508	
	1508	1519	sh, dk gy to blk mic some brn sh
	1519	1521	as above, hard mic, no brn sh
	1521	1528	as above mic with brn sh; tr of ss
	1528	1535	wht v ti; v fn gr, glauc
	1535-1542		as above
	1542	1548	60% sh dk gy mic some red & grn;
	1548	1552	ss as above calc
	1552	1564	as above
	1564	1569	95% ss, wht fn gy, v ti mic calc
	1569	1575	some lt. gy, 5% sh as above
	1575	1582	90% ss as above; 10% sh; red brn
	1582	1583	grn blk
	1583	1590	as above
	1590	1598	ss, fn gr, friable glauc, mic ang poor,
	1598	1605	sort calc, some sh
	1605	1615	as above
	1615	1622	sh lt. gy soft mic, some red & grn,
	1622	1628	sltst, lt, gy mic
	1628	1635	sh dk gy to blk, brn sh very hard mic
	1635	1646	as above some red sh soft & clayey
	1646	1650	some grn
	1650	1656	as above
	1656	1665	as above
	1665	1673	sh, dk gy to blk, tan mic, some red,
	1673	1679	some claystone
	1679	1687	as above
	1687	1695	as above
	1695	1705	as above mostly blk
			as above, more red sh
			as above
			sh as above with some intbd sltst lt
			gy mic
			as above
			as above, no sltst
			as above
			sh, dk gy to blk mic pyrite little red sh



<u>Formation</u>	<u>Top</u>	<u>Bottom</u>	
	1705	1714	sh, as above, more red sh tr to ss, pyrite
	1714	1723	70% sh, blk, 30% sand, wht to lt gray friable, glauc, fn to med gr, mic calc ang, poor sorting
	1723	1730	80% sand as above, 20% sh, gy & red
	1730	1738	sand as above, some sh, as above
	1738	1750	as above
	1750	1758	sh, gy very hard some intbd sltst
	1758	1762	90% sand wht fn to med gr glauc ang poor sorting, calc, 10% sh red and gr
	1762	1775	sand as above, some sh
	1775	1782	sand, as above, little sh
	1782	1792	sh, gy, very hard pyrite mic, some red sh
	1792	1801	sand, wht to lt gy, mic, calc, fn to med gr ang poor sorting
	1801	1806	85% sand as above, 15% sh, red & gy pyrite
	1806-1812		as above
	1812	1825	ss, v fn gr, to fn, v ti, lt gy, glauc mic poor sorting ang
	1825	1834	as above, some brn sh soft
	1834	1845	sh gy pyrite, some grn & red sh calc
	1845	1850	sh gy pyrite calc, 40% sh red, soft
	1850	1858	70% red sh pyrite calc, 30% gy sh pyrite
	1858	1865	40% red sh; 30% gy sh, 30% ss fn gr v ti calc ang lt gy
	1865	1873	80% red sh, 20% gy sh calc
	1873	1879	sh 70% gy, 30% red var mic calc
	1879	1890	80% red sh, 20% gy sh calc.
	1890	1897	sh red & gy calc some grn sh., some Ls tan
	1897	1900	as above
	1900	1910	sh gy calc some red sh, tr of grn sh & Ls
	1910	1916	Ls. dk brn, some lt. brn, some xl
	1916-	1926	as above
	1926	1936	70% Ls. as above; 30% sh var. red & gy calc.
	1936	1945	sh gy. hard calc. some ls.
	1945	1953	60% ss. fn. gr. wht v. ti; 40% sh gy
	1953	1960	Ls. lt to dk. brn. sug, xl, some sh. gy calc
	1960	1965	Ls. lt. to dk. brn sug, xl. pyrite
	1965	1971	Ls. tan, sug. xl pyrite
	1971	1980	Ls, as above
	1980	1987	Ls as above
	1987	1992	Ls as above
	1992	2001	Ls as above, some sh red blk tr grn calc pyrite
	2001	2010	Ls tan to dk brn sug xl no sh
	2010	2020	Ls as above
	2020	2026	Ls as above
	2026	2030	50% ss., wht fn gr v ti calc well sort, 30% Ls as above, 20% sh red & grn & gy pyrite
	2030	2037	sand fn to med gr fair rounding calc. good flour, some sh. red & grn gy; some Ls
	2037	2043	as above
	2043	2049	as above
	2049	2059	as above
	2059	2068	as above, no Ls pyrite
	2068	2075	as above
	2075	2081	as above



<u>Top</u>	<u>Bottom</u>	
2081	2085	60% Ls tan sug xl pyrite slightly dolo excell flour 40% sh gy soft
2085	2090	Ls as above excellent flour
2090	2096	Ls dk brn some grn sh sug xl
2096	2102	as above
2102	2108	as above
2108	2120	sh lt gry mic some ss wht to lt gy fn gr
2120	2128	70% sh as above; 30% sltst green sh gy mic pyr
2128	2135	as above
2135	2140	as above
2140	2148	sh lt gy some lt brn sh pyr mic tr of ss
2148	2153	as above; no ss
2153	2161	as above
2161	2168	as above
2168	2172	as, lt gy fn gr friable mic fair sorting
2172	2180	as above, little sh gy
2180	2185	as above, little sh gy & red
2185	2190	as above, pyr no sh
2190	2201	as above
2201	2204	as above, no pyr
2204	2210	as above
2210	2220	as above, tr of Ls
2220	2228	60% ss as above, 40% sltst., gy mic

