0.140

3.36 W

,01°08 LONGITUD

7'5 OG15 topo location
7.5' loc ______ 15' loc ______ (calc.)

Company Gitizens

Farm Geo Burner #1

Quad Sago 15'

County Upshur

District Meade

WELL LOCATION MAP File No. 097 - 70025

Map # 58 on Upshur County Report Map Property of the W. Va. Geological Survey Library

WEST VIRGINIA GEOLOGICAL SURVEY

VOLUME ONE A



PETROLEUM

AND

NATURAL GAS

PRECISE LEVELS

1904

By I. C. WHITE, State Geologist.

WEST VIRGINIA	GEOLOGICAL	SURVEY
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Black slate	00	
Hard gray sand	23	2260
Red reals and all II	15	2275
Red rock and shells	15	2290
Slate	25	2315
Good white sand	20	
Brown sand and red sand	20 50	2335
Black slate	90	2385
Black slate	15	2400
White slate	97	2497
		-10.

Some oil and gas "shows" were found at several horizons in this well, but nothing in commercial quantity. The Big Injun Sand appears to have been struck at 1580 feet where it has become quite limy and held some dark heavy oil. The Pittsburg coal probably belongs about 100 feet above the level of the derrick floor.

George Burner Well, No. 1. 70025

Near the West Virginia and Pittsburg R. R. Station, Sago. Authority, D. F. Bailey, Manager of the Citizens' Natural Gas Company. Derrick floor about 1435 feet above tide.

Soil	Feet		Feet.
Lime, white	. 0		
Slate or shale block	. 16		22
Slate or shale, black	. 22	-	37
Lime, white	. 37		41
Coal and slate	. 41		50
Lime, white	. 50		100
Sand, white	. 100	66	117
Lime, brown	117		121
Sand and lime, white and hard	121	"	190
Slate, black	. 190	"	207
Slate and sand, black	. 207	"	244
white	വെ	"	255
~iato, black, hard	955	"	371
cand, white, line	277	"	391
mile, while	201	"	400
vanu. wille, lille and nard	400	"	476
Side of Diack	4770	"	587
Zime, brown and hard	E0=	"	697
State, black	COM	"	712
coar and state	710	"	716
		"	726
		"	800
		"	840
		"	924
		"	955
Shale, red	955	"	1000

118	1161 1190 1210 1218 1223 1240 1275 1290 1305
un 180	1760
20 5 5 25 3 3 30 5 5 12 80 45 3	1780 1785 1810 1813 1843 1848 1860 1940 1985 1988
oot	2095
10 107	$2105 \\ 2212$

,		
Slate, black, hard1023	3 "	1031
Lime, white	66	1046
Shale, black, hard 1046	"	1054
Lime, whitish 1054	. "	1078
Shale, red 1078	66	1098
Dig Lime, white, hard 1000	"	1190
Sand, white, hard. 22' Sand, red, light 12' Sand, white 136' Big Injun 1190		1100
Sand, red, light 12' Big Injun 1190	"	1360
Sand, white136'	•	1000
Slate, black, sandy	"	1374
Sand, white	"	1410
State, light	"	1430
Sand, white	66	1510
Lime, white	"	1520
Red rock	66	1684
Sand	"	1703
Red rock	"	1744
Slate 1744	66	1770
Sand and shale (water)	"	1795
Red rock	"	1825
Sand1825	"	1834
Slate, black	66	1866
Lime, white	66	1878
Slate	"	1884
Lime, white	"	1900
Slate	"	1900
Slate	"	1933
Slate	"	1933
Slate, sandy, light	66	
Slate	"	1965
Slate	66	1980 2000
Slate, black	"	2000 2025
Bottom of well measured with steel line.		4040

"In five foot slaty sand a showing of gas was visible, and a small quantity is yet flowing around the plug. Probably enough to supply a dozen fires. In the Big Injun Sand (1190 to 1360) a showing of something resembling asphalt was found."

This well begins about fifteen feet below the Roaring Creek Coal, and 175 feet below the Upper Freeport seam which here underlies the Pittsburg coal bed by about 700 feet, thus giving an interval of 1890 feet between the latter stratum and the Big Injun Sand, the horizon of which is so unmistakable in the record. The well begins on the immediate top of the great Roaring Creek Sandstone which forms the line of immense pebbly cliffs

from this point to the Mr. David White of lates with the top of tic-like oil found in strata are so fissured uplifts, that practical caped. The little gas 1927 feet and is in the

It is possible that oil and gas in commer

LEWIS (

Lewis county lies Harrison, and hence i clinals which traverse the zone of low arches mained unfractured a cept as they have been Several of the largest to blow 10 to 20 milliodaily from Lewis counters could be induced to waste. Such inexcusabloudly for effective leproductive purposes the Lewis and adjoining continuous counters.

The effect of strucommercial quantity is Monongalia, Marion, have been found east very close to its wester in Fayette county, Penongalia) that it brings the top of the mountaidown southwestward, it elevates the Gantz Sariver where its crest particles.

.10231031 ...1031 1046 ..1046 1054 .10541078 ..1078 10981098 1190 1190 1360 .13601374 .13741410 .14101430...1430 1510 ..1510 1520 . . 1520 1684 ..16841703 ..1703 1744 ...1744 ...1770 .1795.1825183418341866.18661878.18781884 1900 .1900.19271933 .1933 1940 .19401965...1965 198066 ...1980200020002025 steel line.

of gas was visible, and a te plug. Probably enough in Sand (1190 to 1360) a alt was found."

below the Roaring Creek reeport seam which here out 700 feet, thus giving tter stratum and the Big unmistakable in the rectop of the great Roaring of immense pebbly cliffs from this point to the head of the Buckhannon river, and which Mr. David White of the United States Geological Survey correlates with the top of the Pottsville formation. The thick asphaltic-like oil found in the Big Injun Sand is evidence that the strata are so fissured in this eastern region close to the mountain uplifts, that practically all of the volatile hydro-carbons have escaped. The little gas still imprisoned in these beds was struck at 1927 feet and is in the *Venango series*.

It is possible that the western portion of Upshur may hold oil and gas in commercial quantity when tested still further.

LEWIS COUNTY WELL RECORDS.

Lewis county lies directly west from Upshur and south from Harrison, and hence is far enough removed from the *great* anticlinals which traverse Preston, Barbour and Upshur to lie within the zone of low arches, and gentle dips so that its strata have remained unfractured and its hydrocarbons still imprisoned, except as they have been extravagantly wasted by man's negligence. Several of the largest wells in the state have each been permitted to blow 10 to 20 millions of cubic feet of natural gas into the air daily from Lewis county, for months at a time, before their owners could be induced to shut them in and prevent this frightful waste. Such inexcusable methods in operating for oil and gas call loudly for effective legislative action in order to preserve for productive purposes the great wealth of gaseous fuel with which Lewis and adjoining counties have been dowered.

The effect of structure upon the presence of oil and gas in commercial quantity is finely illustrated in Lewis county. In Monongalia, Marion, Taylor and Harrison no gas or oil pools have been found east of the Chestnut Ridge anticlinal, or even very close to its western slopes. But this arch which is so great in Fayette county, Pennsylvania, (immediately north from Monongalia) that it brings the Hamilton beds of the Devonian into the top of the mountain with dips of 25° to 30° rapidly flattens down southwestward, so that at the Cheat river in Monongalia, it elevates the Gantz Sand only to water level, while at the Valley river where its crest passes into Taylor county near Valley Falls,

	Top.	Bottom.
	Feet.	Feet.
Sand, Gas	. 317	336
Coal, Lower Kittanning	348	353
Coal, Clarion	370	375
Unrecorded (water at 380'; 6 bailers per	:	
hour)	375	404
Sand, Second Cow Run	404	464
Sand, Salt	474	573
Sand, Salt	690	800
Sand, Salt		952
Sand, Salt	1012	1123
Sand, Salt	1128	1200
Red rock	1200	1225
Sand, hard, Maxton		1252
Little Lime	1279	1293
Red rock	1306	1321
Pencil Cave		1326
Big Lime	1326	1417
Sand, Big Injun	1417	1522
Sand, Squaw (water, 1570')		1619
Sand, Weir	1662	1772
Red rock (little gas, 1852')	1772	1919
Sand, Fifty-foot	1919	1947
Sand, Thirty-foot (gas, 1961-1967')		1981
Total depth		1994
*		TOOT

10'' casing, 146'; 8'' casing, 578'; $6\frac{1}{2}''$ casing, 1356'; packer set 65' from bottom; shot with 40 quarts of glycerine at 1960-1970'.

The George Burner No. 1 (58) Well, drilled along the Buckhannon River, at Sago, made a small amount of gas in the Fourth Sand. Its record, which was first published in Volume I(a), page 351, of the Survey, has been used in connection with the Sago Section, page 134, of the present Report. Concerning the result of the well, the following is quoted from the driller's log:

"In five-foot slaty sand (Fourth) a showing of gas was visible, and a small quantity is yet flowing around the plug. Probably enough to supply a dozen fires. In the Big Injun Sand (1190-1360') a showing of something resembling asphalt was found."

Prospective Oil and Gas Areas, Meade District.—The tests already drilled in Meade District and surrounding territory do not indicate that a large amount of gas will be found, but the following regions are indicated as the most hopeful: (1), The western portion of the District, between the Stonecoal and Frenchton Gas Fields, might reasonably be supposed to hold a further supply of gas, as some of the sands, particularly the Fourth, have been productive in both

Barbour, Upshur &w. pt. Randolph, Co geologic report, 1918 70025