

LATITUDE

39 4730

→ 0655  
75' 10c

80 35

LONGITUDE

LONGITUDE

7'5 OGIS topo location

7.5' 10c 0.31S  
0.75S

15' 10c 3.19S  
(calc.) 9.75W

Company \_\_\_\_\_

Farm \_\_\_\_\_

LOCATION MAP

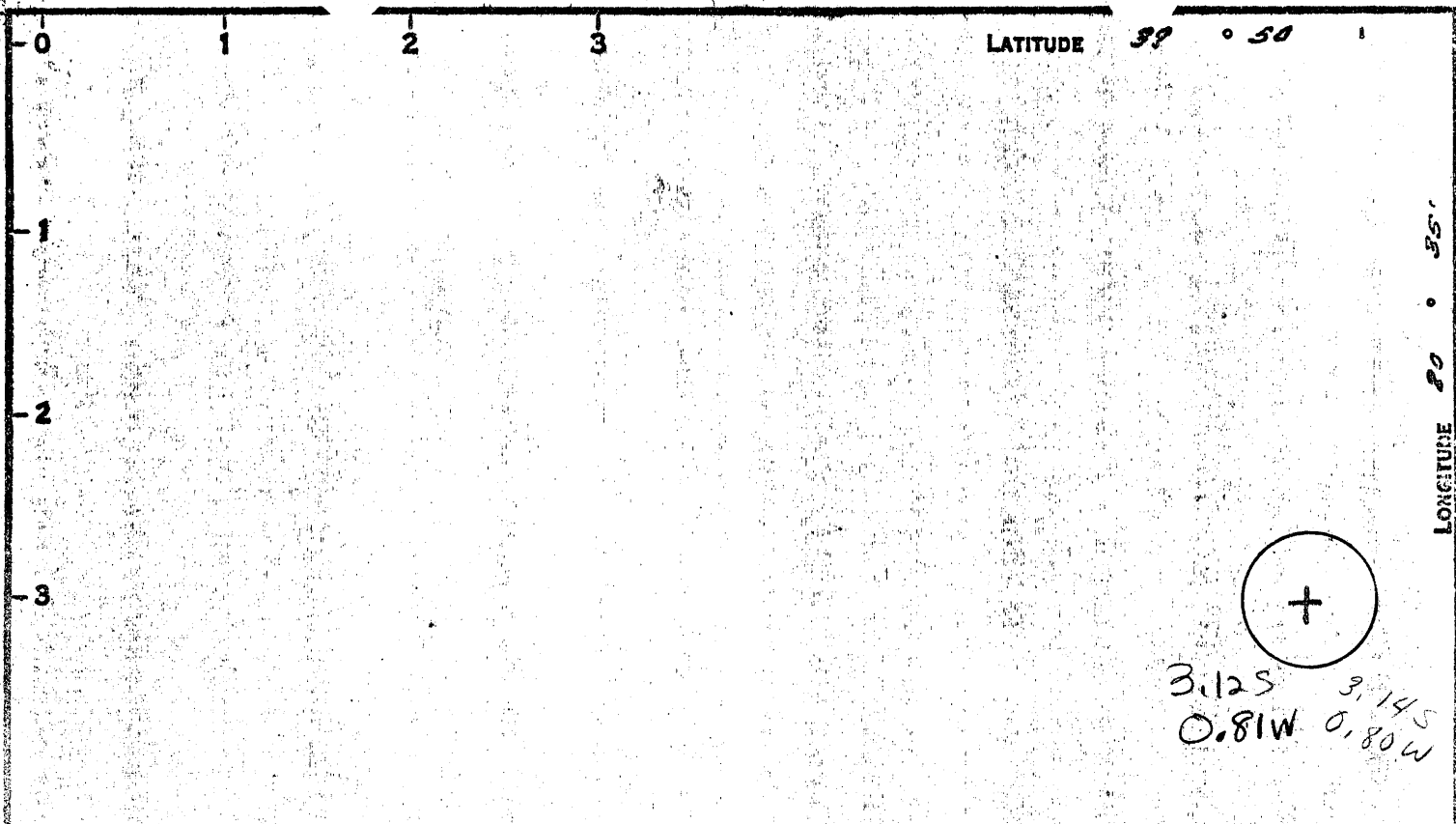
Quad Almeron

County \_\_\_\_\_

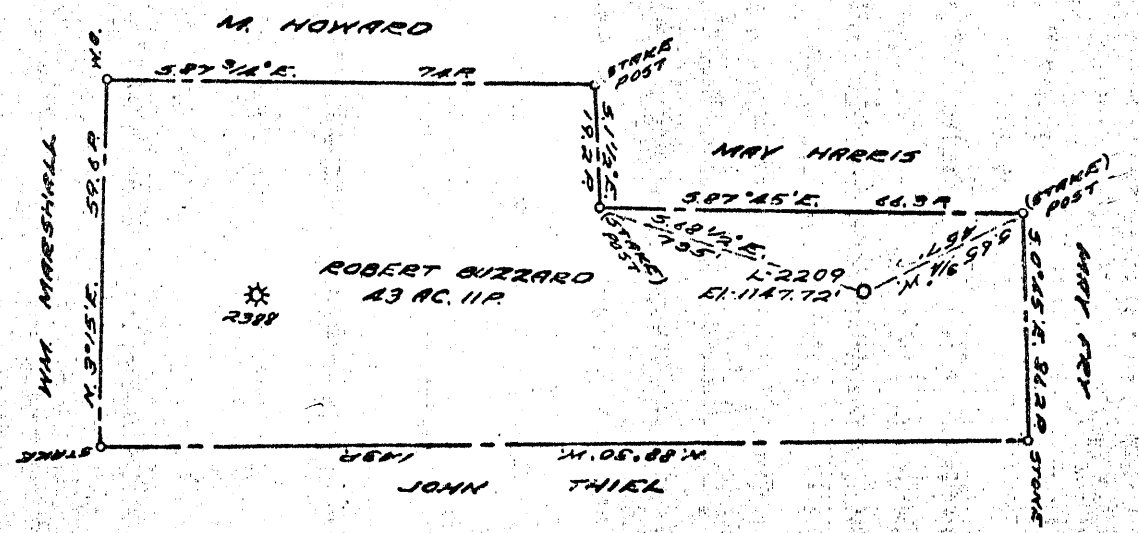
District Liberty

WELL LOCATION MAP

File No. Marshall 98



3,125 3,145  
0.81W 0,80W



COAL OWNED BY \_\_\_\_\_  
 RE-DRILL & RECONDITION FOR STORAGE  
 NEW LOCATION...   
 DRILL DEEPER...   
 ABANDONMENT...

**FRACTURE TO 8-29-69**

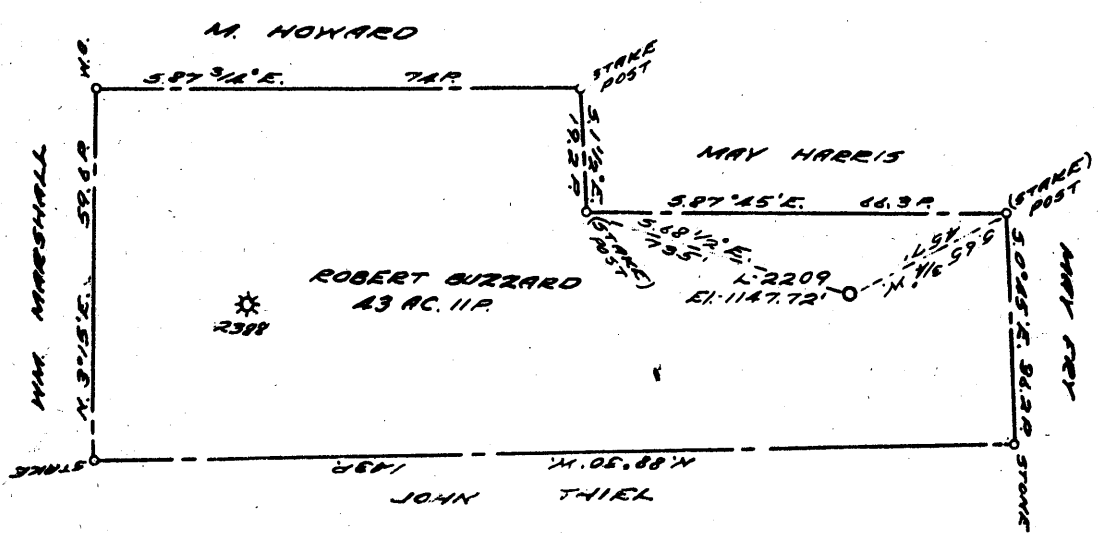
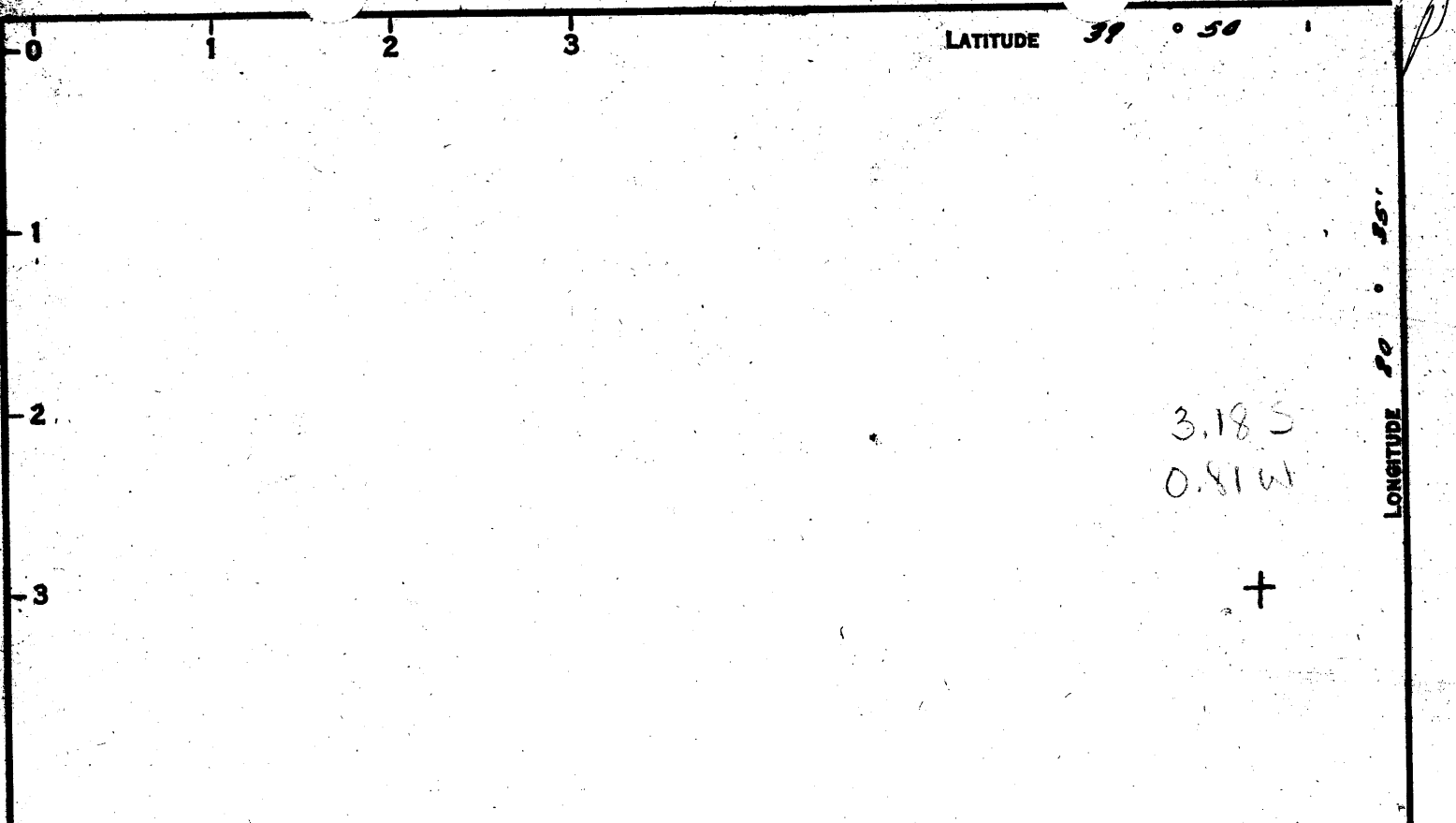
0-25-29

COMPANY THE MANUFACTURERS LIGHT & HEAT  
 ADDRESS 800 UNION TRUST BLDG, PGM, PA.  
 FARM ROBERT BUZZARD  
 TRACT \_\_\_\_\_ ACRES 43 LEASE No. 30861  
 WELL (FARM) No. 1 SERIAL No. 2209  
 ELEVATION (SPIRIT LEVEL) 1147.72'  
 QUADRANGLE CAMERON SC  
 COUNTY MARSHALL DISTRICT LIBERTY  
 ENGINEER Robert Thiel  
 ENGINEER'S REGISTRATION No. 361-E TEV.411  
 FILE No. \_\_\_\_\_ DRAWING No. Y-25-198  
 DATE 7-7-60 SCALE 1"=500'

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

**WELL LOCATION MAP** (Storage)  
 FILE No. MARS-98-Retrill  
Recondition-FRAC.

+ 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.



COAL OWNED BY \_\_\_\_\_  
 REDRILL & RECONDITION FOR STORAGE

NEW LOCATION...

DRILL DEEPER.....

ABANDONMENT.....

0-25-29

COMPANY THE MANUFACTURERS LIGHT & HEAT

ADDRESS 800 UNION TRUST BLDG. PGH. PA.

FARM ROBERT BUZZARD

TRACT \_\_\_\_\_ ACRES 43 LEASE No. 30861

WELL (FARM) No. 1 SERIAL No. 2209

ELEVATION (SPIRIT LEVEL) 1147.72'

QUADRANGLE CAMERON SC

COUNTY MARSHALL DISTRICT LIBERTY

ENGINEER Robert Thiel

ENGINEER'S REGISTRATION No. 361-E TEY+JK

FILE No. \_\_\_\_\_ DRAWING No. Y-25-198

DATE 7-7-60 SCALE 1"=500'

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

WELL LOCATION MAP (Storage)

FILE No. MARS-98-Redrill  
Recondition

+ 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.



RECEIVED

JAN 11 1972

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

OIL & GAS DEPT. OF MINE  
Rotary   
Spudder   
Cable Tools   
Storage

Quadrangle Cameron  
Permit No. MARS-98-RED.-ERAC.

WELL RECORD

Oil or Gas Well Gas  
(KIND)

Company Columbia Gas Transmission Corp.  
Address 800 Union Trust Bldg., Pgh., Pa.  
Farm Robert Buzzard Acres 43  
Location (waters) \_\_\_\_\_  
Well No. L-2209 Elev. 1147.72'  
District Liberty County Marshall  
The surface of tract is owned in fee by \_\_\_\_\_  
Address \_\_\_\_\_  
Mineral rights are owned by \_\_\_\_\_  
Address \_\_\_\_\_  
Fracture conditioning 10-24-69  
Drilling commenced \_\_\_\_\_  
Fracture conditioning 11-12-69  
Drilling completed \_\_\_\_\_  
Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
With after perforating--before fracturing!  
Open Flow 80 /10ths Water in 1 1/2" orifice \_\_\_\_\_ Inch  
\_\_\_\_\_/10ths Merc. in \_\_\_\_\_ Inch  
Volume 187 MCF/day \_\_\_\_\_ Cu. Ft.  
Rock Pressure 565 lbs. 17 hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED (DETAILS) \_\_\_\_\_  
WELL FRACTURED (DETAILS) Treatment-25,000 #sand; 20,600 gal. water; 100 gal. acid;  
Max. press-4000 psig; Avg. press-2507 psig; Injection Rate-33.1 bbls/min  
RESULT AFTER TREATMENT (Initial open Flow or bbls.) 1,720 MCF/day 1,720,000  
ROCK PRESSURE AFTER TREATMENT 580 psig HOURS 12  
Fresh Water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Big Injun Depth 1933-1943

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			Size of
10 3/4"	147'	147'	Depth set
8 5/8"	932'	1048'	
8 7/8"	1295'	1930'	
5 3/16			
4 1/2"	1952'	1952'	
3			Perf. top 1933 } <i>Big Injun</i>
2			Perf. bottom 1943 }
Liners Used			Perf. top _____
			Perf. bottom _____

Attach copy of cementing record.  
CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
Amount of cement used (bags) \_\_\_\_\_ See below  
Name of Service Co. \_\_\_\_\_ See below  
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Pittsburgh Coal			804	811			
Big Dunkard Sand			1290	1390			
Lower Maxton Sand			1850	1908			
Big Lime			1921				
Big Injun				2220			
Plugged back to				2200			
{ Above record for redrilling completed 11-22-60 on Permit No. MARS-98-RED. Set 4" Baker, Type 1-AA, Bridge plug at 1945-1947' and perforated from 1933' to 1943' with 4 shots/ft. 10-29-69 fractured well 11-4-69 New total depth _____ 1945 *before setting bridge plug open flow from lower zone at 1953' (Temp. Survey) 78 MCF/day R.P. 560 psig/110 days ZONE NOT FRACTURED ?							
					10-3/4" cemented with 120 sks.		
					8-5/8" 932' (new) set on top of 116 of original 8" and cemented with 250 sks.		
					7" 1295' (new) set on top of 635' of original 7" and cemented with 250 sks.		
					4 1/2" cemented 260 sks.		
					All work done by Well Service, Inc. in year 1960.		
					4 1/2" tubing pt. determined by Schlumberger Survey		



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

WELL RECORD

Quadrangle Cameron

Permit No. MARS-98-R

Storage

~~Storage~~

~~XXXX~~

Oil or Gas Well

(KIND)

Company The Manufacturers Light and Heat Co.  
Address 800 Union Trust Bldg., Pittsburgh 19, Pa.  
Farm Robert Buzzard Acres 43

Location (waters) \_\_\_\_\_  
Well No. L-2209 Elev. 1147.72'  
District Liberty County Marshall

The surface of tract is owned in fee by \_\_\_\_\_  
Address \_\_\_\_\_

Mineral rights are owned by \_\_\_\_\_  
Address \_\_\_\_\_

Drilling commenced June 30, 1960  
Drilling completed November 22, 1960  
Date Shot 11/28/60 From 1946 To 2200

With \_\_\_\_\_  
Open Flow /10ths Water in \_\_\_\_\_ Inch  
/10ths Merc. in \_\_\_\_\_ Inch

Volume \_\_\_\_\_ Cu. Ft.  
Rock Pressure 0 lbs. 72 hrs.

Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
Fresh water \_\_\_\_\_ feet

Salt water \_\_\_\_\_ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10 3/4"	147'	147'	Size of
8 1/2 5/8"	932'	1048'	
6 1/2 7"	1295'	1930'	Depth set
5 3/16			
3 4 1/2"	1946'	1946'	Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_

COAL WAS ENCOUNTERED AT 804 FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
		THICKNESS					
Pittsburgh Coal		7	804	811			
Big Dunkard Sand		100	1290	1390			
Lower Maxton Sand		58	1850	1908			
Big Lime			1921				
Big Injun Sand				2220			
Old 7" Casing		630	1300	1930			
Plug Back to Set 4 1/2" Packer Shoe				2200			
				1946			
Final Depth				2200			

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION  
WELL RECORD

Permit No. Mars-98  
Cameron Quad.

DRILLED DEEPER

Gas Well  
CASING & TUBING

Company	The Mfrs. Light and Heat Co.	5 3/16	2786'4"	2786'
Address	800 Union Trust Bldg., Pitts. Pa.			4"
Farm	Robert & Nettie Buzzard	Acres	43	
Location				
Well No.	1-2209	Elev.	1278	
District	Liberty	County	Marshall	
Surface	Robert Buzzard, Cameron, W. Va.			
Mineral	The Mfrs. Light and Heat Co.			
Address	800 Union Trust Bldg., Pitts. Pa.			
Commenced-Deeper-	Jan. 6, 1939			
Completed	Feb. 2, 1939			
Date Shot				
Open Flow	20/10ths Water in 1"			
Volume	167,000 Cu. Ft.			
Rock Press.	52#	Hrs.	not given	

Formation Color <sup>Hor</sup> 5 Top Base Result Formation Color <sup>Hor</sup> 5 Top Base Result

Formation Color	Hor	5	Top	Base	Result	Formation Color	Hor	5	Top	Base	Result
COMMENCED DRILLING					DEEPER 2071						
Big Injun Sand			1930		2250						
Lime Shells			2250		2550						
Gantz Sand			2550		2573						
Lime Shells			2573		2645						
Pink Rock			2645		2650						
Slate			2650		2744						
Stray Sand			2744		2770						
Shells			2770		2808						
Gordon Sand			2808		2842	Gas					
Slate			2842		2852	2812-2814					
Slate & Shells			2852		2880						
Fourth Sand			2880		2887						
Slate and Shells			2887		3050						
TOTAL DEPTH					3050						

3050  
2071  
979

WEST VIRGINIA DEPARTMENT OF MINES  
OIL AND GAS DIVISION

274

48-7

98

WELL RECORD

Permit No. Drilled in Feb. 1918

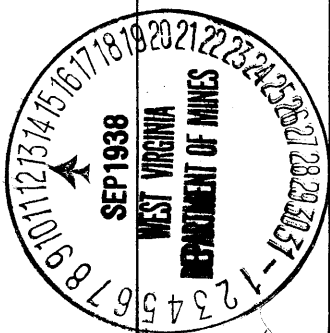
Oil or Gas Well Gas  
(Kind)

Company The Manufacturers Light & Heat Co.  
 Address 800 Union Trust Bldg., Pittsburgh, Pa.  
 Farm Robert Buzzard Acres 43  
 Location (waters) \_\_\_\_\_  
 Well No. 1 - 2209 Elev. 1278'  
 District Liberty County Marshall  
 The surface of tract is owned in fee by Robert Buzzard  
Cameron, W. Va. Address \_\_\_\_\_  
 Mineral rights are owned by The Mfrs. Light & Heat Co  
 Address Pittsburgh, Pa.  
 Drilling commenced Nov. 29th, 1917  
 Drilling completed Feb. 28th, 1918  
 Date shot \_\_\_\_\_ Depth of shot \_\_\_\_\_  
 Open Flow /10ths Water in \_\_\_\_\_ Inch  
 /10ths Merc. in \_\_\_\_\_ Inch  
 Volume \_\_\_\_\_ Cu. Ft.  
 Rock Pressure 325# lbs. 40 min. hrs.  
 Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
 Fresh water 709 feet 995 feet  
 Salt water \_\_\_\_\_ feet \_\_\_\_\_ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16.			Kind of Packer
13.			
10.	150		Size of
8 1/4	1058	1058	
6 5/8	1948	1948	Depth set
5 3/16			
3.			Perf. top
2.			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. FT. \_\_\_\_\_ Date \_\_\_\_\_  
 COAL WAS ENCOUNTERED AT 709 FEET 60 INCHES  
805 FEET 84 INCHES 1345 FEET 60 INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil Gas or Water	Depth Found	Remarks
Lime			100 ✓	150			
Slate			150 ✓	200			
Lime			200 ✓	300			
Sand			300 ✓	350			
Lime			350 ✓	400			
Slate			400 ✓	500			
Lime			500 ✓	600			
Slate			600 ✓	625			
Lime			625 ✓	709			
Mapletown Coal			709 ✓	714	Water		
Lime			714 ✓	805			
Pittsburgh Coal			805 ✓	812			
Lime			812 ✓	900			
Sand			900 ✓	935			
Slate			935 ✓	995			
Murphy Sand			995 ✓	1035	Water 1025		
Sand			1065 ✓	1095			
Sand			1110 ✓	1140			
Sand			1220 ✓	1230			
Sand			1305 ✓	1345			
Lower Freeport Coal			1345 ✓	1350			
Sand			1375 ✓	1390			
Sand			1450 ✓	1520			
Sand			1650 ✓	1670			
Maxon Sand			1860 ✓	1920	Gas 1902		
Pencil Cave			1920 ✓	1925	6 5/8 - 1948		
Big Lime			1925 ✓	1930			
Big Injun			1930 ✓		Gas 1935 to 1947		
Total depth				2071			



Drilled deeper to 3050'

