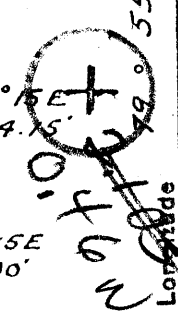
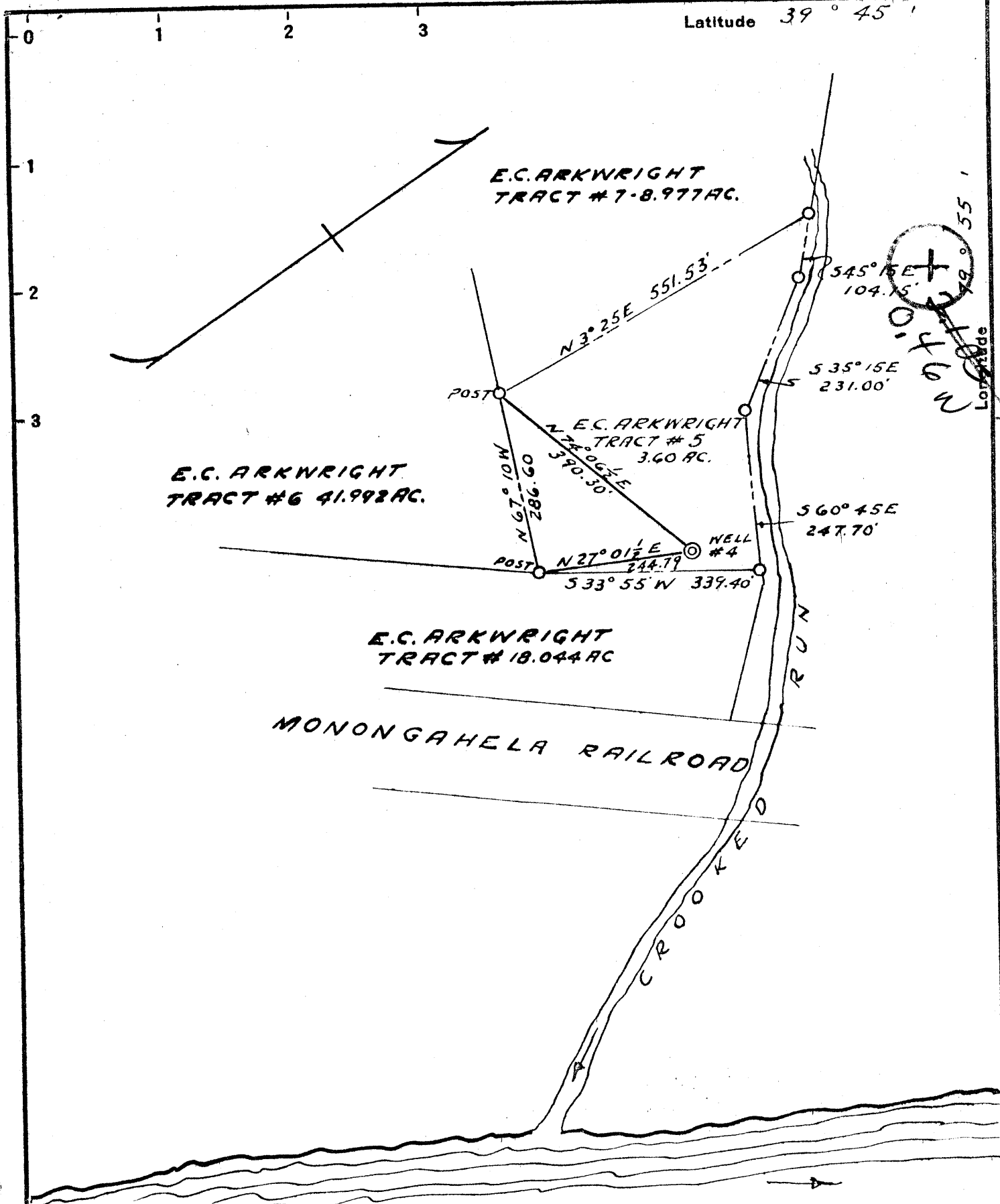


Latitude 39° 45'



New Location   
 Drill Deeper   
 Abandonment

MONONGAHELA RIVER

Company KEYSTONE GAS CO.  
 Address MELLON BANK & TRUST BLDG., CANNONSBURG, PA. 15317  
CITIZENS TRUST - CANNONSBURG, PA.  
 Farm E.C. ARKWRIGHT #5  
 Tract NO. 5 Acres 3.60 Lease No. \_\_\_\_\_  
 Well (Farm) No. 4 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 795.75  
 Quadrangle MORGANTOWN NW  
 County MONONGALIA District CASS  
 Engineer RALPH E. BAKER  
 Engineer's Registration No. 441  
 File No. 2-190 Drawing No. \_\_\_\_\_  
 Date AUG. 31 - 1955 Scale 1" = 200'

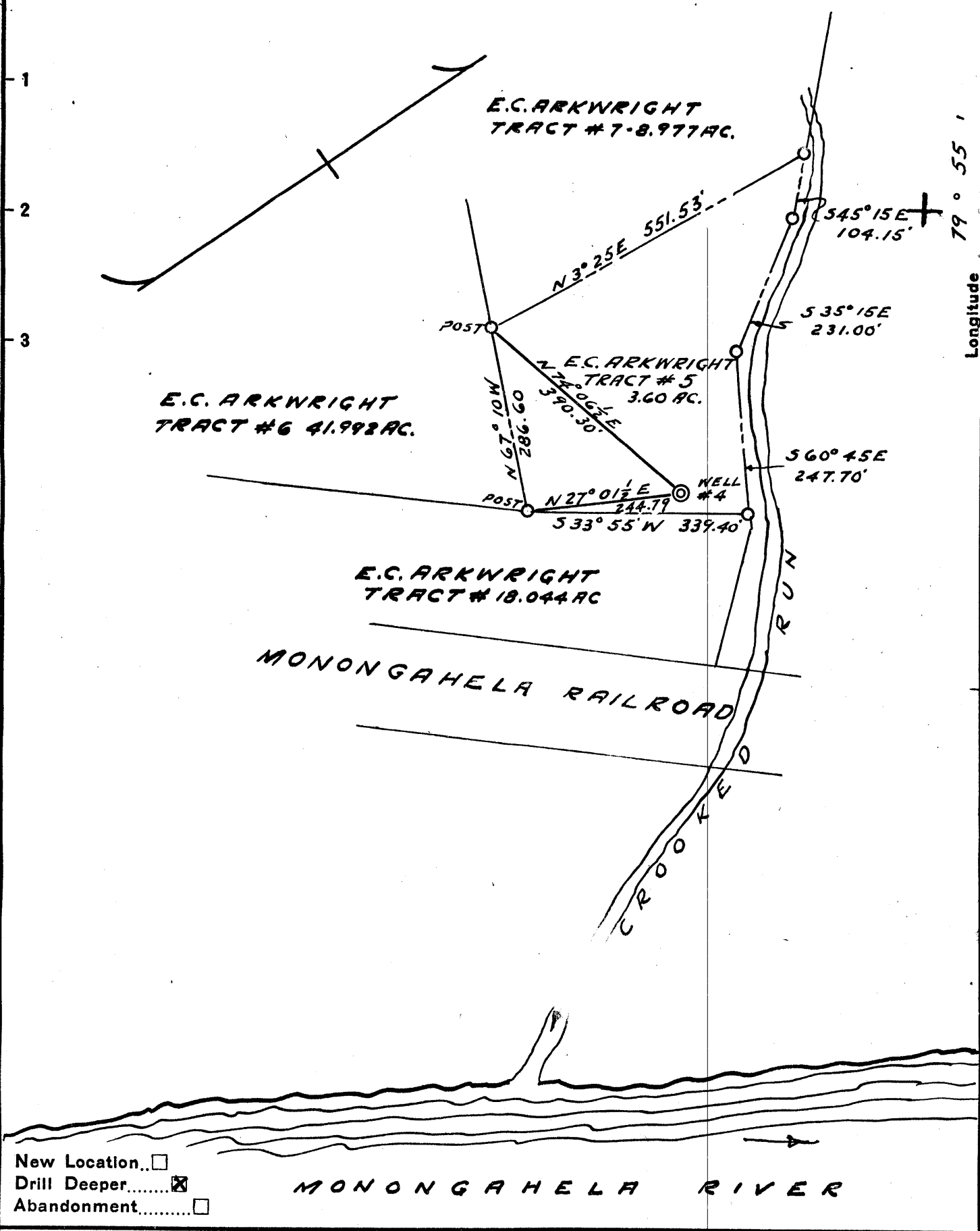
STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. MON-220-D-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.

Latitude 39° 45'

Longitude 79° 55'



New Location...   
 Drill Deeper...   
 Abandonment...

MONONGAHELA RIVER

Company KEYSTONE GAS CO.  
 Address CITIZENS TRUST, CANNONBURG PA.  
 Farm E.C. ARKWRIGHT #5  
 Tract No. 5 Acres 3.60 Lease No. \_\_\_\_\_  
 Well (Farm) No. 4 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 795.75  
 Quadrangle MORGANTOWN  
 County MONONGALIA District CASS  
 Engineer RALPH E. BAKER  
 Engineer's Registration No. 641  
 File No. 2-190 Drawing No. \_\_\_\_\_  
 Date AUG. 31-1955 Scale 1" = 200'

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

**WELL LOCATION MAP**  
 FILE NO. MON-220-D

+ 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.

68



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

*Morgantown*

WELL RECORD

Permit No. Mon-220-D

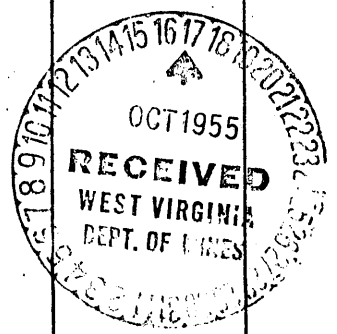
Oil or Gas Well Gas  
(KIND)

Company Keystone Gas Co.  
Address Canonsburg, Pa.  
Farm E.C. Arkwright Acres 3 (W. Va)  
Location (waters) Crooked Run  
Well No. 6160 Elev. 795.75  
District Cass County Monongalia  
The surface of tract is owned in fee by E.C. Arkwright  
Morgantown, W. Va. Address \_\_\_\_\_  
Mineral rights are owned by Ivan Pomeroy  
Address Dilliner, Pa.  
Drilling commenced August 31, 1955  
Drilling completed September 23, 1955  
Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_  
Open Flow 28 /10ths Water in 1 1/2 126M Inch  
28 /10ths Merc. in \_\_\_\_\_ Inch  
Volume 93,315 Cu. Ft.  
Rock Pressure 540 lbs. 48 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 <u>Gas</u>
16			<u>Anchor</u>
13			Size of <u>3" x 8"</u>
10	<u>150</u>	<u>150</u>	Depth set <u>1945</u>
8 1/4	<u>568</u>	<u>568</u>	Perf. top <u>1948</u>
6 1/2	<u>999</u>	<u>999</u>	Perf. bottom <u>1971</u>
5 3/16			Perf. top <u>2076</u>
3		<u>2110</u>	Perf. bottom <u>2098</u>
2			
Liners Used			

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_  
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime	white		1135	1135-bottom of Big		Injun	
Sand	light	hard	1200	1200			
Slate and shells			1320	1320	gas	1262	show
Lime			1320	1359			
Slate			1359	1420			
Lime shells			1420	1430			
Lime			1430	1467			
Sand			1467	1475			
Slate&shells			1475	1490	gas	1483	show
Lime			1490	1535			
Sand shells			1535	1541			
Sand			1541	1585			
Shells			1585	1600			
Sand			1600	1612			
Slate			1612	1626			
Sand			1626	1629			
Sand, shells & slate			1629	1655			
Redrock and shells			1655	1745			
Lime			1745	1763			
Sand			1763	1769			
Slate & shells			1769	1788			
Redrock & shells			1788	1803			
Redrock			1803	1875			
Gritty lime			1875	1880			
Lime shells			1880	1892			
Lime			1892	1940			
Sandy shells			1940	1951			
Sand			1951	1978			
Gritty lime			1978	2039	gas	1978	
Shells			2039	2047		1988	
Sand			2047	2064		1997	
Slate			2064	2080		2006	
Lime shells			2080	2090		2014	
			2090	2098			
						--total depth	2098 S.L.M.
							1135
							968



39°45'  
1-25  
Form OG-10



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

Rotary   
Spudder   
Cable Tools   
Storage  *5; HOLL*  
Oil or Gas Well  Gas  
(KIND)

Morgantown

Quadrangle

MON 220-D frac

Permit No.

WELL RECORD

Company Keystone Gas Company *15317*  
Address Mellon Bank Bldg., Canonsburg, Penna  
Farm E. C. Arkwright (tract 5) Acres 3 (W.Va.)  
Location (waters) Crooked Run  
Well No. 4 (Serial #60, corrected) Elev. 795.75  
District Cass County Monongalia  
The surface of tract is owned in fee by Jerry & John Pomeroy  
Address Morgantown, W. Va.  
Mineral rights are owned by as above  
Address

Drilling commenced August 31, 1955  
Drilling completed September 23, 1955  
Date Shot ----- From ----- To -----  
With -----

Open Flow ----- /10ths Water in ----- Inch  
----- /10ths Merc. in ----- Inch  
Volume 30,000 Cu. Ft.  
Rock Pressure 580 lbs. 72 hrs.  
Oil ----- bbls., 1st 24 hrs.

WELL ACIDIZED (DETAILS) -----

WELL FRACTURED (DETAILS) frac with 450 bbl. water, 27,300# sand, 73,557 SCF nitrogen, acid spearhead; av. treating press. 2900#, av. inj. rate 21.6 bpm, ISIP 1800#

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 1,250,000 MCFGPD - treatment completed Nov. 26, 1969  
ROCK PRESSURE AFTER TREATMENT not taken HOURS 250 MCFGPD

Fresh Water unk. Feet ----- Salt Water unk. Feet -----  
Producing Sand Fifth Depth 1982-2024'

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer <u>pulled</u>
13			Size of <u>-----</u>
10	150	150	Depth set <u>-----</u>
8 1/4	568	568	
8 3/4	999	999	
5 3/16			
4 1/2			
3	1982	1982	Perf. top <u>-----</u>
2			Perf. bottom <u>-----</u>
Liners Used			Perf. top <u>-----</u>
			Perf. bottom <u>-----</u>

Attach copy of cementing record.  
CASING CEMENTED 3" SIZE 1982 No. Ft. 11/11/69 Date  
Amount of cement used (bags) 100  
Name of Service Co. Dowell  
COAL WAS ENCOUNTERED AT unk. FEET ----- INCHES  
----- FEET ----- INCHES  
----- FEET ----- INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Well originally drilled in 1922 - no record							
Well deepened in 1955 - Permit # MON 220-D; see well record for Mon 220-D for formations and depths; no additional drilling done under Permit #MON 220-D frac							
<p>TD 2098</p> <p><b>RECEIVED</b></p> <p>FEB 13 1970</p> <p>OIL &amp; GAS DIVISION DEPT. OF MINES</p>							

OWWO; No new Footage drld.

FEB 23 1970