

Company OWENS, LIBBEY-OWENS GAS DEPT.
 Address BOX 4168 CHARLESTON, W. VA.
 Farm BULL CREEK COAL LAND CO.
 Tract _____ Acres 4000 Lease No. 16
 Well (Farm) No. 25 Serial No. 1158
 Elevation (Spirit Level) 830.45
 Quadrangle PEYTONA - NC
 County BOONE District PEYTONA
 Engineer [Signature]
 Engineer's Registration No. 1540
 File No. _____ Drawing No. _____
 Date FEB. 23, 1962 Scale 1" = 1000 FT.

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

WELL LOCATION MAP
 FILE NO. Boo-936

+ 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.

66238 Deep Well



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

Quadrangle Peytona

Permit No. Boo-936

WELL RECORD

Oil or Gas Well GAS
(KIND)

Company OWENS, LIBBEY-OWENS GAS DEPARTMENT

Address P. O. Box 4168, Charleston 4, W. Va.

Farm Bull Creek Coal Land Co. Acres 4,000

Location (waters) _____

Well No. 25 "B" (Serial No. 1158) Elev. 830.45'

District Peytona County Boone

The surface of tract is owned in fee by _____

Address _____

Mineral rights are owned by Bull Creek Coal Land Co.

197 Cleveland Ave. Address Buffalo 22, N. Y.

Drilling commenced August 23, 1962

Drilling completed September 14, 1962

Date Shot _____ 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 See Remarks

WELL FRACTURED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
20" 20"	17'	17'	Kind of Packer _____
13-3/8" 13-3/8"	266'1"	266'1"	Baker Tension
9-5/8" 9-5/8"	1379'7"	1379'7"	Size of _____
5-1/2" 5-1/2"	5063'2"	Pulled	2-3/8" x 4 1/2" x 5"
4-1/2" 4-1/2"	5146'10"	5146'10"	Depth set _____
2-3/8" 2-3/8"	5068'9"	Pulled	5083 to 5085'
2-3/8" 2-3/8"	5082'3"	Pulled	Perf. top 5091'
2-3/8" 2-3/8"	5086'4"	5086'4"	Perf. bottom 5095'
Liners Used _____			Perf. top _____
			Perf. bottom _____

CASING CEMENTED See Remarks SIZE _____ No. Ft. _____ Date _____

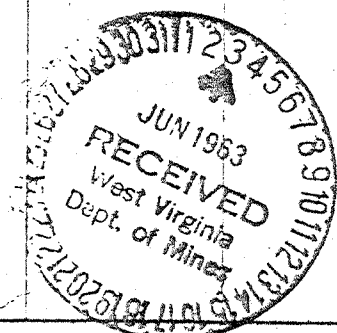
COAL WAS ENCOUNTERED AT 34 FEET 12 INCHES
609 FEET 36 INCHES FEET INCHES
FEET INCHES FEET INCHES

RESULT AFTER TREATMENT 125 MCF Newberg Sand

ROCK PRESSURE AFTER TREATMENT 1755 lbs. in 186 hrs.

Fresh Water 44 Feet 308 Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface	Yellow	Soft	0	8			
Sand	Light	Med.	8	17			Installed 17' of 20" conductor
Sand-Shale	White	Med.	17	34			
Coal	Black	Soft	34	35			
Sand	White	Med.	35	64			
Shale	Grey	Med.	64	109			
Sand-Shale	Grey	Med.	109	119			
Sand	White	Hard	119	159			
Sand	White	Hard	159	187			
Sand & Shale	Blue-White	Soft	187	266			8-27-62 Installed 13-3/8" casing at 266' Halliburton cemented in 13-3/8" casing with 50 sacks of high early, 100 sacks Columbia and 5 sacks of HA 5 cement. Water at 308'
Sand & Shale	Grey	Med.	266	384			
Sand	White	Hard	384	609			
Coal	Black	Soft	609	612			
Sand & Shale	White	Hard	612	644			
Shale	Grey	Med.	644	694			
Shale & Lime	Grey	Med.	694	729			
Sand & Shale	Grey	Med.	729	779			
Shale-Red Rock-							
Lime	Grey-Red	Med.	779	824			
Sand	White	Hard	824	916			
Red Rock-Shale	Red-Grey	Soft	916	950			
Sand-Shale	Grey	Med.	950	1046			
Lime	Dark	Med.	1046	1064			
Lime-Shale	Grey	Med.	1064	1088			
Shale	Grey	Med.	1088	1095			
Big Lime	Grey	Hard	1095	1298			



Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Red Injun - 309	Red	Med.	1298	1314			
Injun Sand	Grey	Hard	1314	1348			
Slate & Shells	Dark	Med.	1348	1379			9-1-62 Installed 9-5/8" casing at 1379' Halliburton cemented the 9-5/8" casing from 1050 to 1385' with 100 bags of Columbia Hi early cement.
Sandy Shale	Tan	Med.	1379	1450			
Shale	Grey	Med.	1450	1695			
Sand-Shale	Grey	Med.	1695	1740	Gas Snow	1700'	
Shale	Blue	Med.	1740	1760			
Sand & Shale	Grey	Med.	1760	1875			
Sand	Grey	Med.	1875	1885			
Shale	Grey	Med.	1885	1940			
Sandy Shale	White-Grey	Soft	1940	2270			
Sandy Shale & Shale	Grey	Soft	2270	2710			
Shale & Lime	Grey	Med.	2710	3245			
Shale	Blue-Grey	Soft	3245	4275			
Shale - Manganese	Black	Med.	4275	4320			
Corn. Lime	Grey	Med.	4320	4414			
Oriskany Sand	White	Hard	4414	4435			
Lime	Grey	Hard	4435	4950			
Sand	Tan	Med.	4950	4960			
Lime	Tan	Hard	4960	5000			
Lime	Tan	Hard	5000	5081			
Newberg Sand	White	Hard	5081	5093			
Newberg Sand	Tan	Hard	5093	5096			
Newberg Sand	Tan	Hard	5096	5098			
Sand & Shale	Tan	Hard	5098	5115			
Sand & Shale	Blue-White	Hard	5115	5144			
Shale	Blue	Hard	5144	5158			
			Total Depth 5158'				
					9-15-62 5 1/2" casing installed at 5063' to run electric logs.		
					9-17-62 Gas test made after hole was blown dry and before 5 1/2" was pulled out: 20/10 w 2 = 140 MCF (Newberg)		
					9-18-62 Schlumberger ran electric logs. Pulled 5063' of 5-1/2" casing.		
					9-19-62 Installed 5146'10" of 4 1/2" casing with a Baker cement float collar set at 512 and 6".		
					9-20-62 Halliburton cemented in the 4 1/2" casing with 250 sacks of Columbian Hi Early cement from 5160 to 4300'		
					11-29-62 Perforated 4 1/2" casing from 5091 to 509 with capsul and crack jet tool. Total 12 holes. Gas tested: 68 MCF		
					12-4-62 112 hr. rock pressure - 1680# Halliburton acidized the Newberg Sand with 300 gals. of MCA acid and 2,000 gals. of FE acid. Used 80 bbls. of water to flush acid.		
					12-6-62 Test 3:00 P.M. 127 MCF		
					1-16-63 Birdwell ran temperature and casing collar locator logs from surface to 506		

Date May 29, 1963

APPROVED OWENS, LIBBEY-OWENS GAS DEPARTMENT, Owner

By *A. H. Smith*
A. H. Smith, Mgnt. & Land, Engrg. & Geol.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION /A

Quadrangle Peytona

Permit No. Boo-936

WELL RECORD
(PAGE TWO)

Oil or Gas Well GAS
(KIND)

Company OWENS, LIBBEY-OWENS GAS DEPARTMENT
Address P. O. Box 4168, Charleston 4, W. Va.
Farm Bull Creek Coal Land Co. Acres 4,000
Location (waters) _____
Well No. 25 "B" (Serial No. 1158) Elev. 830.45'
District _____ County _____
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by _____
Address _____
Drilling commenced _____
Drilling completed _____
Date Shot _____ 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 _____
WELL FRACTURED _____

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

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

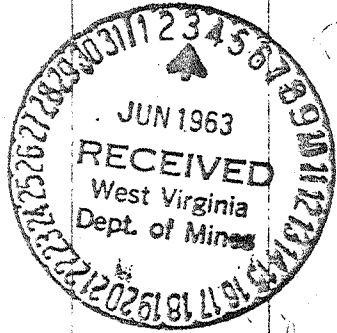
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

RESULT AFTER TREATMENT _____

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water _____ Feet _____ Salt Water _____ Feet _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
				5081 831 4750			Logs run found a hole in the 4 1/2" casing at 2427' 3-20-63 Installed 2434' of 2-3/8" tubing with a Baker Model A tension packer set from 2431'7" to 2434' Test: 104 MCF 2-26-63 Lowered 2-3/8" tubing to 5082' and reset Baker tension packer at that depth. Gas tested: 110 MCF 4-2-63 Halliburton acidized the Newberg Sand with 1,000 gals. 20% FE acid. Used 840 gals. of water to flush acid. 4-6-63 Pulled 5082'3" of 2-3/8" tubing. Part of the packer rubber left in hole. Test: 110 MCF 4-12-63 Re-installed 2-3/8" tubing at 5088' with a Baker Tension packer set from 5083' to 5085'. Set 8' of perforated tubing from 5083' to 5091' Gas test: 112 MCF 4-24-63 Dowell acidized the Newberg Sand with 1,000 gals. of XXFL acid.



(over)

2nd hole

Formation	Color	Hard or Soft	Top <i>1A</i>	Bottom	Oil, Gas or Water	Depth Found	Remarks
					<u>4-30-63</u> Test 8:00 A.M.	95 MCF	
					<u>5-9-63</u> Test:	107 MCF	

Date May 29, 1963

APPROVED OWENS, LIBBEY-OWENS GAS DEPARTMENT, Owner 3

By *A. H. Smith*
 A. H. Smith, Mgr. (Title Land, Engrg. & Geol.)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 3

Quadrangle Peytona
Permit No. Boo-936

WELL RECORD

Oil or Gas Well Oil
(KIND)

Company OWENS, LIBBEY-OWENS GAS DEPARTMENT
Address P. O. Box 4168, Charleston 4, W. Va.
Farm Bull Creek Coal Land Co. Acres 4,000
Location (waters) _____
Well No. 25 (Serial No. 1158) Elev. 830.45'
District Peytona County Boone
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by Bull Creek Coal Land Co.
44 Lyman Rd. Address Buffalo 26, N.Y.
Drilling commenced July 14, 1962
Drilling completed August 3, 1962
Date Shot _____ From _____ To _____
With _____
Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume Unable to test. Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____
WELL FRACTURED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
20" 20"	10'	10'	Kind of Packer _____
13-5/8"	264'	264'	
9-5/8" 9-5/8"	1378'4"	1378'4"	Size of _____
7" 7"	4962'	4962'	
6 3/8"			Depth set _____
5 3/16"			
3"			Perf. top _____
2"			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED (See Remarks) _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

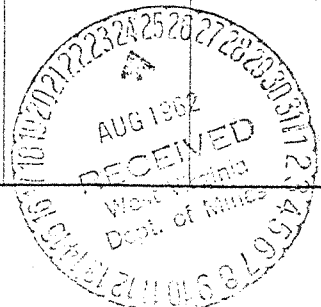
RESULT AFTER TREATMENT

ROCK PRESSURE AFTER TREATMENT

Fresh Water 50 Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface Sand	Yellow Light	Med. Med.	0 14	14 17	7-15-62		Installed 18' of 20" casing for conductor pipe. Dowell Division cemented in 20" casing with 33 bags of Portland cement and 100 lbs. of calcium chloride. Water at 50'
Sand	White	Hard	17	75			
Shale	Blue	Soft	75	105			
Sand	White	Hard	105	210			
Shale	Blue	Soft	210	215			
Sand	White	Hard	215	245			
Shale	Blue	Soft	245	290	6-17-62		Reamed 17 1/2" hole 16 hrs. from 0 to 123'
					6-18-62		Reamed 17 1/2" hole 16 hrs. from 125' to 270'
							Installed 13-5/8" casing on a shoe at 260'
							Dowell Division cemented in 13-5/8" casing with 168 sacks of Portland cement and 320 lbs. calcium chloride. Casing cemented to surface.
Sand	White	Hard	290	615			
Shale	Blue	Soft	615	620			
Sand	Grey	Hard	620	645			
Sand & Lime	--	--	645	685			
Shale	Dark	Soft	685	710			
Sand	White	Med.	710	745			

(over)



1st hole - mechanical failure - skidded

Formation	Color	Hard or Soft	Top 3	Bottom	Oil, Gas or Water	Depth Found	Remarks
Sand W/Shale	White-Blue	Hard	745	815			
Shale	Red	Soft	815	820			
Sand W/Shale	Grey	Soft	820	845			
	Blue						
Sand	White	Hard	845	885			
Sand	White	Hard	885	945			
Sand-Shale	Blue	Hard	945	980			
Red Rock	Red	Soft	980	990			
Shale-Red Rock	Red	Soft	990	1005			
Sand-Shale-							
Red Rock	--	Med.	1005	1055			
✓ Little Lime	Dark	Med.	1055	1103			
Shale	Dark	Soft	1103	1107			
✓ Big Lime	Light	Med.	1107	1220			
Sandy-Lime	Grey	Hard	1220	1245	Gas test	1220'	35 MCF
Lime	Grey	Hard	1245	1310			
Injun Sand	Red	Med.	1310	1345			
Shale	--	--	1345	1355	Test at	1388'	44.3 MCF
Sandy-Shale	Dark	Soft	1355	1760			
					Installed 9-5/8" casing at 1378' 4" (Ground level) Rotary measure, top of Kelly table 1388' Installed casing on a shoe and used 3 centralizers and one cement float collar. Dowell Division cemented the 9-5/8" casing with 115 sacks of Portland cement, 100 lbs. of flac, and 300 lbs. of salt. Top of cement outside the 9-5/8" casing approximately 1050' 7-26-62 Dowell Division squeezed cement with 70 sacks of cement. Drilled out cement from 1214' to 1395'		
Shale	Dark	Soft	1760	2055			
Shale	Blue	Soft	2055	2220			
Shale	Light	Grey	2220	2520			
Brown Shale	Brown	Soft	2520	4255			
Black Shale	Black	Soft	4255	4330			
Corn. Lime	Grey	Med.	4330	4425			
Lime & Sand							
(Oriskany)	Dark	Med.	4425	4450	Gas in Oriskany Sand	--	No Test
Lime	Dark	Med.	4450	4585			
Sand	White	Soft	4585	4600			
Shale	Dark	Soft	4600	4850			
Dolomite Lime	White	Soft	4850	4967	Test	4870'	27.1 MCF
No Returns	--	--	4967	4987	Test	4969'	11.0 MCF
					7-31-62 Stopped dusting due to water at 4960- 4967'. Blowing hole. No dust. Installed 7" casing at 4962' 8-1-62 Hole would not circulate. 8-2-62 Swedged 7" casing to 9-5/8" casing at top of hole. 8-3-62 Tools stuck at approximately 4964' 8-4-62 McCullough Tool Company used "Magna- Tector" or free point finder and deter- mined bit was stuck on bottom and drill pipe bound at approximately 4824' 7" casing collapsed.		
					Total Depth 4987' <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 10px auto;">519</div>		
					8-5-62 Shot off bit. 8-6-62 Shot off drill pipe. 8-9-62 to 8-19-62 Attempted to mill 7" casing 8-20-62 <div style="border: 1px solid black; padding: 2px; display: inline-block;">Decided to plug.</div>		

Date August 22, 1962

APPROVED OWENS, LIBBEY-OWENS GAS DEPARTMENT, Owner

By A. H. Smith, Mgr. (Title) Land, Engrg. & Geol.