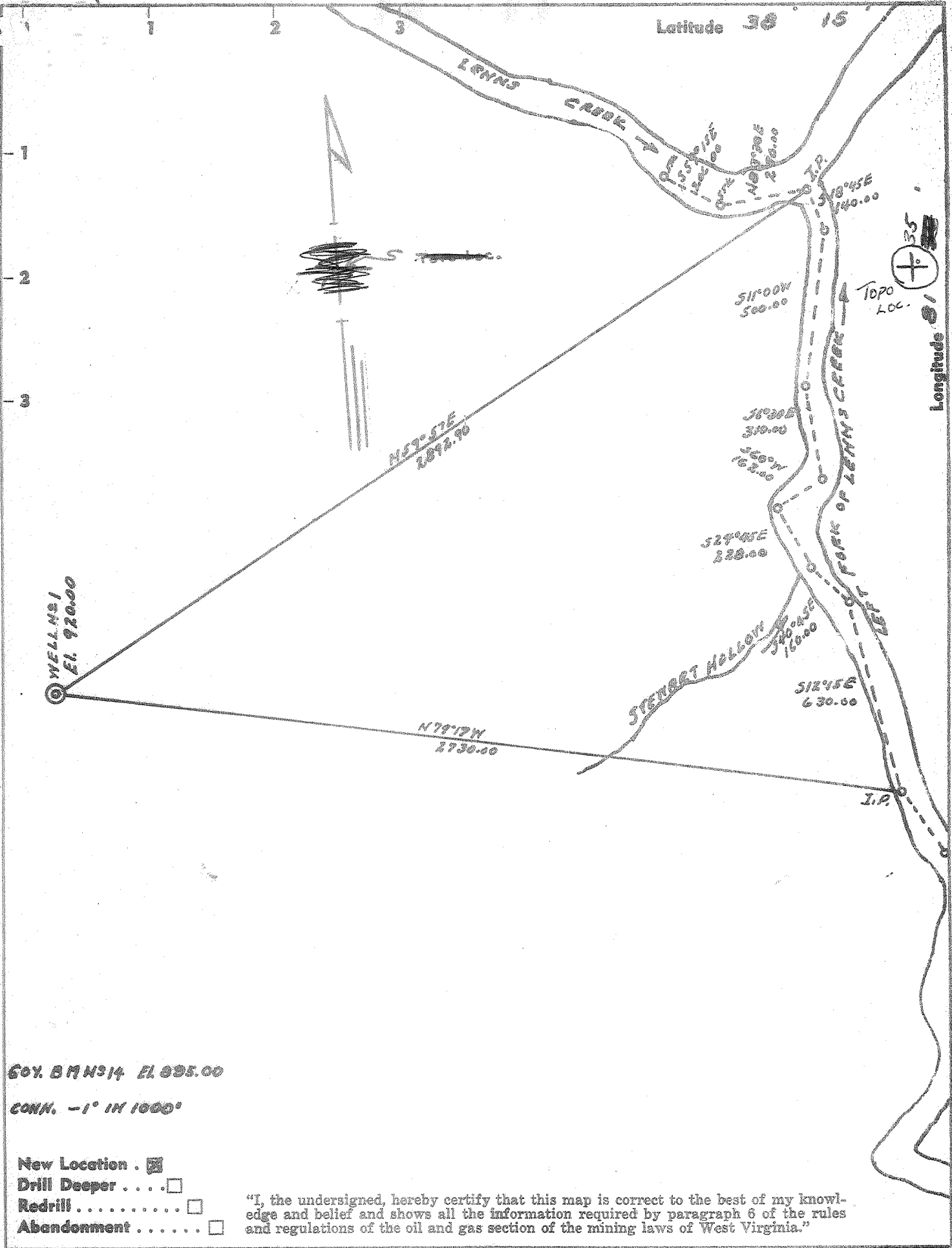


7-1-66-230



2.11 mi S  
0.25 mi W

60% B.M. H314 El. 935.00  
CONN. -1" IN 1000'

- New Location .
- Drill Deeper . . . . .
- Redrill . . . . .
- Abandonment . . . . .

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Company PAGE BOWER CONSTRUCTION COMPANY  
 Address 305 NELSON BLDG. CHARLESTON, W. VA. 25301  
 Farm MARRET  
 Tract Acres 1067.31 Lease No. \_\_\_\_\_  
 Well (Farm) No. 8 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 920.00  
 Quadrangle PAYTONA - NC  
 County KANAWHA District LOUREN  
 Engineer Geo. W. Miller  
 Engineer's Registration No. 1892  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date AUGUST 29 1966 Scale 1" = 400'

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

**WELL LOCATION MAP**  
 FILE NO. KAN- 2080

+ 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.

66 365

Deep Well  
(Kester) (Newburg)



Deep Well (Newburg)

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

Rotary   
Spodder   
Cable Tools   
Storage   
Oil or Gas Well  **Gas**

Quadrangle Peytona  
Permit No. KAN.2080

**WELL RECORD**

Company Pace-Bower Construction Co.  
Address 305 Nels Bldg, Charleston, W.Va.  
Farm Marmet Acres 2500  
Location (water) Lens Creek  
Well No. 4 Elev 869.96 G.L.  
District Loudon County Kanawha Elev 877.96 K.B.  
The surface of tract is owned in fee by L.K. Marmet  
One Morris Apts. Address Charleston, W.Va.  
Mineral rights are owned by Same as above

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size 13-3/8	32'	32'	Kind of Packer <b>Production</b>
9-5/8	1553.30	1553.30	Size of
7"	5675	5675	Depth set <u>5380</u>
5 3/16			<b>Schlumberger</b> Meas
3	5410.90	5410.90	Perf. top <u>4693</u>
2			Perf. bottom <u>4703</u>
Liners Used 1 1/2	4833.66	4833.66	Perf. top <u>5382</u>
			Perf. bottom <u>5391</u>

Drilling commenced 9/3/66  
Drilling completed 9/25/66  
Date Shot From To  
With  
Open Flow /10ths Water in Inch  
/10ths More, in Inch  
Volume Cu. Ft.  
Rock Pressure lbs. hrs.  
Oil bbls. 1st 24 hrs.  
WELL ACIDIZED See completion data  
WELL FRACTURED See completion Data

CASING CEMENTED 13-3/8 SIZE 32 No. Ft. 9/3/66 Date  
9-5/8-1553.30; 9/10/66; 7"-5675-9/29/66  
COAL WAS ENCOUNTERED AT FEET INCHES  
FEET INCHES FEET INCHES  
FEET INCHES FEET INCHES

RESULT AFTER TREATMENT Oriskany - 680 MCF; Newburg - 2,320 MCF  
ROCK PRESSURE AFTER TREATMENT Oriskany - 1457#; Newburg - 2,000#  
Fresh Water Feet Salt Water Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
<b>LITHOLOGY BASED ON GAMMA LOG</b>							
Fill			0	5			
Sandstone			5	41			
Shale			41	80			
Sandstone			80	115			
Shale			115	133			
Sandstone			133	135			
Shale			135	158			
Sandstone			158	199			Air and Foam 0-1548
Shale			199	256			Air 1548-5200
Sandstone			256	298			Mud 5200-5675
Shale			298	312			
Sandstone			312	372			
Shale			372	400			
Sandstone			400	403			
Shale			403	407			
Sandstone			407	465			
Shale			465	470			
Siltstone			470	510			
Shale			510	513			
Sandstone			513	541			
Shale			541	544			
Sandstone			544	635			
Shale			635	693			
Sandstone			693	715			
Shale			715	742			
Sandstone			742	787			
Shale			787	840			
Sandstone			840	896			

9  
August 1967

(over)

Formation	Color	Hard or Soft	Top 4	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shale			896	919			
Sandstone			919	922			
Shale			922	927			
Sandstone			927	943			
Shale			943	1022			
Siltstone			1022	1056			
Sandstone			1056	1079			
Shale			1079	1090			
Sandstone			1090	1132			
Shale			1132	1152			
Siltstone			1152	1154			
Shale			1154	1160			
Siltstone			1160	1163			
Shale			1163	1169			
Sandstone			1169	1188			
Shale			1188	1204			
Little Lime			1204	1279			
Big Lime			1279	1473			
Injun			1473	1503			
Shale			1503	4566			
Marcellus			4566	4597			
Onondaga			4597	4692			
Oriskany			4692	4708	960 MCF Natural		
Cherty Limestone			4708	4833	680 MCF After 48 hr. test		
Limestone			4833	4900			
Dolomite and Anhydrite			4900	5378			
Newburg			5378	5401	Gas		
Dolomite and Anhydrite			5401	5548			
Limestone			5548	5582			
Keefer			5582	5628			
Total depth				5676	Driller		
				5668	Logger		

Deepest fm. picked from log - Rose Hill @ 5634  
(F.C. - 1987)

5378	5378
4692	878
<u>686</u>	<u>4500</u>

Date August 7, 1967  
 APPROVED *[Signature]* Owner  
 By *[Signature]* (Title)

CHRONOLOGICAL SEQUENCE OF EVENTS:

- 9/3/66 Commenced drilling  
9/3/66 Ran 32' of 13-3/8 casing - cemented with 30 sacks cement and 3% CaCl (Dowell)
- 9/10/66 Birdwell Ran gamma ray 0-1544 and Density 1000-1544  
9/10/66 Ran 1553.30 of 9-5/8 casing with float shoe and four centralizers - set at 1548 K.B. Measurement. Cemented 9-5/8 casing with 100 sacks cement and 200#CaCl (Well Service)
- 9/25/66 Completed drilling  
9/25/66 Schlumberger logged well - Gamma Ray - Density 4500-5667 Induction 4500-5660
- 9/27/66 Drill Stem tested Newburg (Halliburton)
- 9/28/66 Drill Stem tested Oriskany (Halliburton)
- 9/29/66 Ran 5675 of 7" casing with 14 centralizers, guide shoe and differential. Fill up collar Cemented with 85 sacks cement; 20 gallons CW7 and 600 gallons "Cealment" (Dowell)
- 10/2/66 Ran cement bond log and collar locator (McCullough)  
10/2/66 Perforated Newburg - 5 (.47) Super Casing Jets at 5382 (Schlumberger Correlation)  
10/2/66 Perforated Newburg - 4 (.47) Super casing Jets at 5390 (Schlumberger Correlation) (McCullough)
- 10/4/66 Fraced Newburg (Dowell):  
500 gallons Mud acid (Spearhead)  
1000 gallons Dowell XF ( " )  
24,000# of 20/40 sand  
2,000# of 20/40 glass beads (During treatment)  
500# of 12/20 " " (Tail end of treatment)  
1248 BBL'S (Total Fluid)  
121,000 cubic feet of nitrogen  
5200# - Maximum pressure  
5163# - average pressure  
21.4 - Average liquid injection rate  
22.1 - Adjusted injection rate
- 10/5/66 Perforated Oriskany (McCullough):  
4693-98 (2 shots/ft.) with M3 Bullet Gun (1/2" hole)  
4698-4703 (1 shot/ft.) " " " " " "
- 10/66 Ran 5410.90 of 2" tubing with production packer at 5380.
- 11/66 Ran 4833.66 of 1 1/2" tubing
- 12/14/66 Acidized Oriskany with 2500 gallons Super X Acid (Dowell)  
Oriskany - 680 MCF-1457# (Halliburton)  
F.O.F. - 3,000 MCF Newburg-2,320 MCF-2,000#