

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all of the information required by the Paragraph 5 of the rules and regulations of the Oil and Gas Section of the mining laws of West Virginia."

3.41 S.  
1.80 W.  
8C (E-12)

Survey Accuracy - 1 to 1500  
 Mapping Accuracy - 1 to 200  
 New Location   
 Drill Deeper   
 Abandonment

Company	Phillips Petroleum
Address	Bartlesville, Okla.
Farm	Ferd Born, etal
Tract	Acres 168.266 Lease No. 73005
Well (Farm) No.	Born A-1 Serial No. 1
Elevation (Spirit Level)	2091.64
Quadrangle	Morgantown - S. C.
County	Monongalia District Clinton
Engineer	
Engineer's Registration No.	3165
File No.	Drawing No.
Date	6-12-64 Scale 1"-500'

STATE OF WEST VIRGINIA  
 Department of Mines  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 File No. MON-274

+ 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.

Samples 130-8000' DeepWell MI 15-E+F



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION 12

Rotary   
Spudder   
Cable Tools   
Storage

Quadrangle Morgantown

Permit No. MON-274

WELL RECORD

Oil or Gas Well Gas

(KIND)

Company Phillips Petroleum  
Address Drawer B, Bartlesville, Oklahoma  
Farm Ferd Born, et al Acres 168.266  
Location (waters) \_\_\_\_\_  
Well No. One (Born "A") Elev. 2091.64  
District Clinton County Monongalia  
The surface of tract is owned in fee by Della Born AKA Della Dalton Born, Rt. 3, Naomi Born, A Widow, Box 280, Morgantown, West Virginia, Box 104, Arthurdale, W. Va.  
Mineral rights are owned by Ferdinand Born, A Widower, Rt. 1, Reedsville, W. Va.

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10 11-3/4"	109'	109'	Size of
8 1/4 8-5/8"	966'	966'	
6 5/8 5-1/2"	8017'	8017'	Depth set
5 3/16			
3			Perf. top
2 1-1/2"	7750'		Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Drilling commenced 8-14-64  
Drilling completed 9-23-64  
Date Shot See Attach. 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 Attachment

WELL FRACTURED See Attachment

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

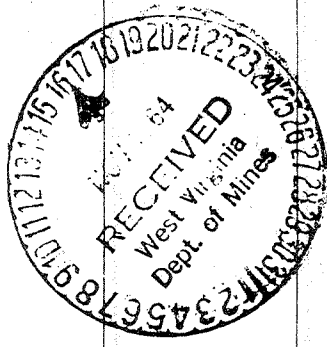
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

RESULT AFTER TREATMENT Tested 4,390 MCF

ROCK PRESSURE AFTER TREATMENT 2900# - 24 hrs.

Fresh Water \_\_\_\_\_ Feet Salt Water \_\_\_\_\_ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface Soil	(no Pottsville)		0	40	Frsh Wtr		
Sand		Hard	40	128	@ 30'		
Sand & Shale			128	192			11-3/4" Csg @ 120' w/175 sx reg.cmt.
Shale			192	196			
Coal			196	199			
Shl & Rd Rk			199	345			
Shale	Gray		345	410			
Sandy Shale	Gray		410	435			
Sand			435	440			
Shale	Red, Gray		440	485			
Shl & Rd Rk			485	608			
Sandy Shale	Gray		608	758	Sm Shw Gas @ 955'		8-5/8" Csg @ 982' w/125 sx reg.cmt.
Sand & Shale			758	1275			
Shale			1275	1490			
Shl & Rd Rk			1490	1740			
Sd, Shl, Rd Rk			1740	1915			
Sand & Shl			1915	2885	Sm Shw Gas @ 2800'		
Shl & Shells			2885	3140			
Sdy Shl & Lm			3140	3370			
Sand & Shl			3370	3565			
Shale			3565	3595			
Sandy Shale			3595	3655			
Shl & LmStks			3655	3715			
Shale			3715	3790			
Shl & LmStks			3790	3800			
Shl & Shells			3800	3850			
Sand			3850	3890			
Shl & LmStks			3890	3936			
Shl & Shells			3936	3965			



Formation	Color	Hard or Soft	Top 12	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shl & LmStks			3965	4045			
Shl & Shells			4045	4086			
Shl & LmStks			4086	4131			
Shale			4131	4180			
Shl & Sand			4180	4235			
Shl & LmStks			4235	4280			
Shl & Shells			4280	4324			
Lime & Shale			4324	4375			
Shl & Shells			4375	4420			
Shale			4420	4504			
Shl & LmStks			4504	4601			
Shale			4601	4720			
Sandy Shale			4720	4915			
Shale			4915	7054			
Lime			7054	7135	Shw Gas @ 7000'		Top Tulley Line @ 7054', Base @ 7135'.
Shale			7135	7195			
Shale & Lime			7195	7283			
Shale			7283	7479			
Lime			7479	7510	Onondaga Hustersville	7510	Top Onondaga Lm @ 7490', Top Chert @ 7510'.
Chert			7510	7760			
Sand			7760	7841	Oriskany	7821	Top of Oriskany Sand @ 7822'.
Lime			7841	8000	TD		
				PBTD 7964			
					Helderburg	7932	Helderburg Top @ 7921'.
							5-1/2" Csg @ 8000' w/236 sx reg.cmt blended w/86 sx Diacel D & 50# Flocele.
			Tulley 7054				
			Hamilton ~ 7180				
			Marcellus ~ 7385				
			Onow. 7490				

Date November 12, 19 64

APPROVED PHILLIPS PETROLEUM COMPANY, Owner

By A. T. Slagle  
A. T. Slagle (Title) Area Supt.

700-274

Perforations, Acidizing, Fracturing, and Cementing:

8-18-64 Ran 4 jts of 11-3/4" OD 42#, H-40, 8rd thd, Rge 2, ST&C, "1" Cond. casing. Pipe in hole less thds 108.51'. Set at 120'. Loaded 11-3/4" casing w/fresh water and circulated hole. Cemented w/175 sx regular bulk cement. Cement circulated.

8-21-64 Ran one 8-5/8" 8rd thd Baker float shoe, "1" Cond., 1.77', 30 jts 8-5/8" OD 24# J-55, 8rd thd, Rge 2, ST&C, SS, "1" Cond., less thds 966.09'. Set @ 982.21'. Loaded hole w/fresh wtr and circulated. Cemented w/125 sx regular bulk cement. Cmt circulated.

9-26-64 Ran one 5 1/2" OD 8rd thd Baker Guide shoe, "1" Cond., .95'; ran 1 jt of 5 1/2" OD 20#, N-80, 8rd thd, Rge 2, LT&C, SS, "2" Cond. Ran one 5 1/2" OD 8rd thd Baker automatic fill-up collar, "1" Cond., 1.63'. Ran 70 jts 5 1/2" OD 20#, N-80, 8rd thd, Rge 2, LT&C, SS, "2" Cond. Ran 121 jts 5 1/2" OD 20#, P-110, 8rd thd, Rge 3, LT&C, SS, "2" Cond. Ran 4 jts of 5 1/2" OD, 20#, P-110, 8rd thd, Rge 3, LT&C, SS, "1" Cond. Ran 13 jts 5 1/2" OD, 17#, N-80, 8rd thd, Rge 2, LT&C, SS, "2" Cond. Ran 2 jts of 5 1/2" OD 17#, N-80, 8rd thd, Rge 2, LT&C, SS, "1" Cond. Ran 2 jts 5 1/2" OD 20#, N-80, 8rd thd, Rge 2, LT&C, SS, "2" Cond. Total jts of pipe in hole 213. Pipe in hole less thds 8017.28'. Pipe set at 8000'. Cemented w/236 sx regular bulk cement, blended w/86 sx Diacel D and 50# Flocele. Cement circulated.

9-29-64 McCullough Tool perforated Oriskany w/super csg strip jet from 7868' to 7874', 6', four 1/2" jet holes per ft. Total of 24 holes. Went back in hole and perforated 7842' to 7854', 12', four 1/2" holes per ft. - 48 holes.

9-30-64 Opened well up. McCullough perforated Oriskany Sand 7827' to 7833' w/super strip jets. Four 1/2" holes per ft. Total of 24 holes.

10-1-64 Dowell rigged up frac lines to 5500#. Pumped 250 gals. 15% mud acid down 5 1/2" casing, followed w/178 BW. Sand fraced through perforations w/20,000# of 20-40 sand, 20,000 gals. gelled water. Used 3 qts of radioactive tracer material in frac water and 20 ball sealers. Used 10# of J-98 gel to 1,000 gals. water. Followed behind treatment w/200 flush water.

10-5-64 McCullough Tool perforated chert from 7776' to 7779' w/super dyna jet. Four 1/2" holes per ft, 3', 12 holes. Perforated from 7758' to 7768', 7735' to 7742' w/ four 1/2" holes per ft. Total of 17', 68 holes.

10-6-64 Dowell fraced chert. Spearheaded w/200 gals. 15% mud acid, followed behind acid w/175 bbls of gelled water w/3% acid. Pumped in 20 bbls breakdown fluid at 4500#. Sand fraced w/20,000# of 20-40 sand and 20,000 gals. of gelled water. Used 10# of J-98 gel to 1000 gals. of water w/3% acid mixture.

10-9-64 McCullough Tool perforated chert w/super dyna csg jet gun 7677' to 7692' w/ four 1/2" holes per ft, 15', 60 holes. Perforated chert 7670' to 7673' w/four 1/2" holes per ft, 3', 12 holes.

10-10-64 McCullough Tool perforated chert from 7663' to 7666' w/four 1/2" jet holes per ft, 3', 12 holes. Dowell tested frac lines to 5500#. Spearheaded w/200 gals. 15% mud acid dwn csg, followed behind acid w/175 bbls fresh wtr. Sand fraced with 19,000# of 20-40 sand, 18,000 gals. gelled water. Mixed 10# of J-98 gel to 1,000 gals. water w/3% acid mixture.

Perforations, Acidizing, Fracturing, and Cementing: (Continued)

10-12-64 McCullough perforated chert from 7584' to 7588', 7575' to 7580', 7567' to 7570', 7559' to 7564' w/four 1/2" holes per ft. Total of 17', 68 holes.

10-14-64 Dowell tested frac lines to 5500#. Spearheaded w/200 gals. 15% acid dwn csg, followed behind acid w/170 bbls frac acid. Sand fraced chert w/18,000# of 20-40 sand, 19,300 gals. gelled water. Used 10# J-98 gel to 1,000 gals. wtr w/3% acid.

10-23-64 Ran one 2-3/8" x 1-1/2" Baker Type G non-parted seating nipple w/one 2-3/8" x 1.8" Type J-4 expendable plug. Ran 204 jts of 1-1/2" OD 2.9#, J-55, Rge 2, streamlined tbg w/CS thd, "1" Cond. Ran one 1-1/2" CD x 2', 2.9#, J-55, w/CS thd crossover to 10rd thd EUE tbg sub, "2" Cond. Ran 47 jts of 1-1/2" OD 2.9#, J-55, EUE, 10rd thd, Rge 2, SS tbg, "2" Cond. Total pipe in hole less thds 7750'. Set at 7760'.