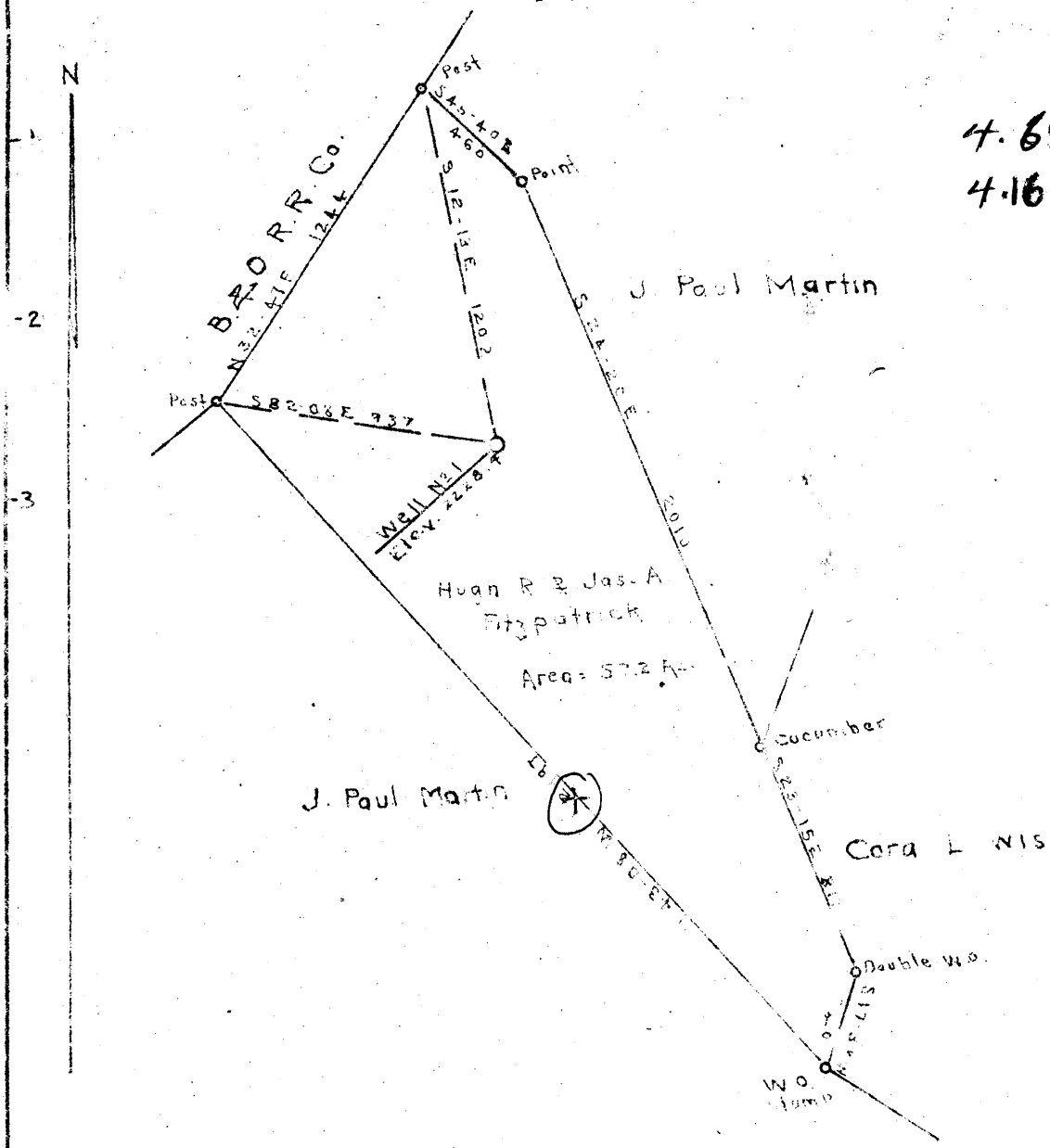


4 M

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Latitude 39 30

Longitude 79 30



4.675 39-30
 4.16 W 79-30

I, the undersigned hereby certify that this map is correct and shows all the information to the best of my knowledge and belief required by the Oil & Gas Section of the Mining Laws of West Virginia.

H. E. Wilhelm
 H. E. Wilhelm, Engr

Approved before a Notary Public this 15 day of December 1948

G. E. ...
 Notary Public

Commission expires Dec 31, 1950

Company	Norfolk Oil and Gas Corp.
Address	210 Park Way Pittsburgh Pa.
Farm	Hugh R. & Jas. A. Fitzpatrick
Tract 1	Acres 57.2 Lease
Well (Farm) No. 1	Serial No.
Quadrangle	Kingwood NE
County	Preston
District	Portland
Engineer	H. E. Wilhelm
Engineer Registration No.	38
File No.	Drawing No.
Date	November 30, 1948 Scale 1" = 600'

State of West Virginia
 Department of Mines
 Oil & Gas Division
 Charleston
 Well Location Map
 File No. **PRES-11**

+ Denotes location of Well on U.S. Topographic Map. Scale 1 to 62,500

Latitude & Longitude being represented by border lines as shown

- Denotes 1 inch space on border line of original drawing

6-0 2-70 Deep Well

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Pres 11

Gas Well
CASING & TUBING

Kingwood Quad.

Company

Nollem Oil & Gas Corp.

Address

210 East Parkway, Pittsburgh, Pa.

Farm

Hugh R and James A. Fitzpatrick A 57.2

Location

Well No.

1 Elev. 2228.4

10 293'4 293'4

District

Portland Preston County

8 1098' 1098'

Surface

6 5/8 5507' 5507'

Mineral

2 5654'5 5654'5

Commenced

Jan. 4, 1949

Completed

July 18, 1949

Perf. bot 5654'5

Not shot

Open flow

15/10ths W in 2"

Casing cemented 7"

Volume

184,000 C.F.

June 11

Rock Pressure

2100 lbs. 74 hrs.

Fresh Water

320' 3 blrs. 24 hrs. 1615'

Clay	0	60	No Packers used
Slate & Shells	60	503	Filled hole back to 5696
Sand	503	540	Lead plug 5698 to 5693 1/2
Slate & Shells	540	615	After completing tested well
Sand	615	640	7 days Well had 2 1/2 .6" bailers of
Slate & Shells	640	785	Salt Water
Sand	785	940	
Slate & Shells	940	1225	
Sand	1225	1242	
Slate & Shells	1242	1765	
Sand	1765	1787	
Slate	1787	1808	
Lime	1808	1837	
Slate & Shells	1837	1850	
Shale and Slate Brown	1850	1940	
Slate & Shells	1940	2045	
Lime	2045	2060	
Slate & Shells	2060	3138	
Lime	3138	3260	
Slate & Shells	3260	3795	
Shale Brown	3795	3815	
Slate & Shells Gr	3315	3815	
Lime	3815	4069	
Slate & Shells	4069	4375	
Shale Brown	4375	4455	
Slate & Shells	4455	4705	
Limey Shale Dark	4705	4850	
Tully Lime	4850	4863	
Slate & Shells Gr	4863	4920	
Shale Dark	4920	5165	
Lime Shells Gr	5165	5265	
Slate & Lime Shells Dk	5265	5417	
Crinkley Lime Dk	5417	5432	
Lime Lt	5432	5447	
Shale Black	5447	5482	
Break Brown	5482	5485	
Lime Onondag ⁹	5485	5505	
Chert	5505	5637	
Break	5637	5652	
Oriskany	5652	5802	
Lime Hard	5802	6055	
Lime Shale	6055	6080	
Lime Lt	6080	6155	
Lime Dark	6155	6221	

5485
2228

- 3257

5652
2228

- 3424

Gas 5527; 5530 to
5553 to 5555
5555 to 5562
5652 to 5653

Total depth ○ 6221

maybe deepened to 8547 ??

HUGH R. AND JAMES A. FITZPATRICK NO. 1 WELL.

Portland District, Preston County, W. Va.

By Nolle Oil & Gas Corp., 210 Park Way, Pittsburgh, Pa.

Located 4.20 mi. S. of 39° 30' and 4.20 mi. W. of 79° 30' - NE - Kingwood Quadrangle.

Elevation, 2228' L.

Permit Preston-11.

Drilling commenced Jan. 4, 1949; completed July 18, 1949.

Well was not shot.

Gas well; volume, 184,000 cu. ft.

Rock pressure, 2100 lbs., in 74 hrs.

Fresh water, 320'; 3 bbls. 24 hrs., 1615'.

No packers used. Filled hole back to 5696'. Lead plug, 5698-5693½'.

Well had 2½ 6" bailers of salt water.

Gas at 5527-5530', 5553-5555, 5555-5562; and 5652-5653'.

Section based on samples from 4839' to 6221'; examined by Russell R. Flowers.

Record to RCT from Flowers April 13, 1951.

Top. Bottom. Thickness.

4839 - 4850	11	Shale, grayish-black to black (highly carbonaceous) TULLY LIMESTONE, 13 FEET
4850 - 4863	13	Limestone, olive-gray to dark-gray, very fine textured, very shaly, pyritic in part (Tully, 4850 to 4863', from driller's log); a very large amount of grayish-black to black (carbonaceous) shale; some dark gray shale (probably most of the shale is cavings) HAMILTON AND MARCELLUS FORMATIONS, 622 FEET
4863 - 4875	12	Shale, medium-dark to dark-gray, calcareous with some very shaly limestone; a large amount of grayish-black to black shale
4875 - 4905	30	Shale, medium dark gray to grayish-black, some black (carbonaceous)
4905 - 4933	28	Shale, medium dark to dark-gray, some grayish-black; small amount of medium dark to dark-gray, highly calcareous shale
4933 - 4960	27	Shale, medium dark gray to grayish-black
4960 - 5004	44	Shale, dark-gray and grayish-black to black; a small amount of medium- to medium dark gray shale at the bottom
5004 - 5035	31	Shale, dark-gray to grayish-black, some medium dark gray, calcareous in part
5035 - 5070	35	Shale, medium dark to dark-gray, some grayish-black
5070 - 5160	90	Shale, dark-gray to grayish-black, silty in part; many of the fragments show slickensides
5160 - 5230	70	Shale, medium dark to dark-gray, silty in part; some grayish-black to black at 5195-5207'
5230 - 5245	15	Shale, medium dark to dark-gray, some grayish-black; a little olive-gray, shaly limestone
5245 - 5260	15	Shale, dark-gray to grayish-black, some medium light gray, some grayish-black and black (carbonaceous), trace of calcite
5260 - 5398	138	Shale, dark-gray to grayish-black and black, (carbonaceous), pyritic in part
5398 - 5427	29	Shale, grayish-black to black, highly carbonaceous, pyritic and calcareous, highly pyritic and highly calcareous in the lower part
5427 - 5447	20	Limestone (shaly) to a calcareous shale, medium light to medium dark gray, some olive-gray; some dark-gray to black shale
5447 - 5482	35	Shale, grayish-black to black, highly carbonaceous, pyritic with a little calcite

(OVER, p. 2)

Top.	Bottom.	Thickness.	
5482	- 5485	3	Siltstone, dark brownish gray, shaly, very highly micaceous in part (bentonitic? - brown break, 5482-5482' from driller's log); a very large amount of grayish-black to black, somewhat calcareous shale HUNTERSVILLE CHERT, 167 FEET
5485	- 5502	17	Limestone (shaly) to shale (calcareous), grayish-black to black; some grayish-black to black (carbonaceous) shale; a very small amount of dark grayish brown, shaly, highly micaceous siltstone (bentonitic?)
5502	- 5507	5	Limestone (very shaly) to shale (calcareous), dark-gray to grayish-black, highly dolomitic; a large amount of chert, medium- to medium dark gray (with light-gray spots), dolomitic; shaly in part
5507	- 5509	2	Chert, light- to medium-gray, some dark-gray (very silty and shaly), calcareous, somewhat dolomitic; some dark-gray to black shale (cavings)
5509	- 5512	3	Chert, medium-gray (translucent) to dark-gray and grayish-black (very shaly, silty), calcareous and dolomitic
5512	- 5519	7	Chert, medium-gray (translucent to opaque) with light-gray spots and dark-gray (shaly) streaks, calcareous and dolomitic, many of the pieces contain large numbers of sponge spicules (?)
5519	- 5525	6	Chert, very light gray (translucent to "dead") to medium-gray (somewhat shaly), calcareous and dolomitic
5525	- 5530	5	Chert, white to medium light gray, transparent and translucent (milky) to "dead", some of the chert contains large numbers of siliceous sponge spicules (?), somewhat dolomitic
5530	- 5542	12	Chert, white to light-gray (transparent to translucent and milky), mottled and speckled with dark-gray shaly material, somewhat dolomitic, highly fractured with glassy quartz and dark (shaly) material fillings; much of this chert contains many siliceous sponge spicules (?)
5542	- 5551	9	Chert, mottle very light to medium light gray (transparent to milky) and medium- to dark-gray (very shaly), highly fractured in part with glassy quartz and dark (shaly) material fillings, small amount is dolomitic, many of the fragments contain abundant spicules (siliceous); some dark-gray, very silty shale
5551	- 5571	20	Siltstone to chert (silty), light olive gray and medium light gray to medium-gray, some medium- to dark-gray (shaly)
5571	- 5576	5	Siltstone to chert (silty), medium-light to medium dark gray, some dark-gray (shaly), slightly dolomitic
5576	- 5589	13	Siltstone to chert, medium light to medium dark gray to dark-gray shale, silty to siliceous, slightly dolomitic
5589	- 5604	15	Siltstone to chert, medium light to medium-gray, small amount is dolomitic; some dark-gray, silty to siliceous shale
5604	- 5617	13	Chert, medium-gray (silty) to dark-gray and grayish-black (shaly to siliceous shale)
5617	- 5631	14	Chert to siliceous shale, dark-gray chert
5631	- 5647	14	Shale (siliceous) to shale, dark-gray to grayish-black, somewhat pyritic in the lower part
5647	- 5652	5	Shale, dark-gray to grayish-black, some grayish-black to black; some dark-gray to grayish-black; highly calcareous shale to shaly limestone, dolomitic; a small amount of chert; some pyrite

Top.	Bottom.	Thickness.	
ORISKANY SANDSTONE, 27? FEET			
5652 -	5656	4	Sandstone, light- to medium light gray, fine- to medium-grained, subrounded; some rounded (medium) grains, highly calcareous, contains dark-gray to black interstitial material (oil residue?)
5656 -	5666	10	Limestone, medium-gray (with dark-gray to grayish-black shaly streaks), very sandy, fine- to very fine grained, some medium (rounded grains)
5666 -	5668	2	Sandstone, light-gray, fine- to very fine grained, mostly subrounded quartz, some medium (rounded) grains, highly calcareous
5668 -	5679	11	Sandstone (fine) and siltstone, medium- to medium dark gray, very highly calcareous to a very sandy limestone, contains many medium to coarse (rounded quartz) grains, shaly in part; some grayish-black shale
HELDERBERG FORMATION, 542+ FEET			
5679 -	5688	9	Siltstone to sandstone (very fine), medium- to dark-gray, very shaly, very highly calcareous
5688 -	5692	4	Sandstone, light- to medium-gray (with dark-gray shaly spots), very fine to medium-grained, subround to sub rounded, very highly calcareous, slightly dolomitic
5692 -	5698	6	Siltstone to sandstone (very fine), medium- to dark-gray (very shaly), some fine (well-rounded quartz) grains, very highly calcareous
5698 -	5703	5	Sandstone, light- to medium light gray, very fine to fine-grained, with some medium grains, subrounded to rounded, very highly calcareous with some sandy limestone
5703 -	5711	8	Sandstone, light-gray, very fine to medium-grained, some coarse grains, subrounded to rounded, very fine to fine, with some medium grains in the lower part, highly calcareous
5711 -	5717	6	Siltstone to sandstone (fine with some medium grains), dark-gray to grayish-black, very shaly, highly calcareous
5717 -	5722	5	Siltstone to sandstone (very fine), medium- to dark-gray, some fine to medium quartz grains, very shaly, very highly calcareous
5722 -	5727	5	Sandstone, light- to medium-gray (shaly), fine- to coarse-grained, subrounded to rounded, silty in part, highly calcareous; some white calcite
5727 -	5732	5	Sandstone, light- to medium light gray, fine-grained, some medium grains, subrounded to rounded, very highly calcareous with some limestone
5732 -	5737	5	Sandstone, light- to medium-gray (rounded) grains, highly calcareous with limestone spots, shaly in part
5737 -	5744	7	Sandstone, medium light to medium-gray, very fine, with some fine grains, silty, contains dark-gray to grayish-black (silty shale) streaks, highly calcareous
5744 -	5750	6	Sandstone, light-gray, fine, calcareous
5750 -	5763	13	Limestone, medium- to dark-gray, (very shaly), with light-gray spots, very sandy (very fine), with some highly calcareous sandstone, some fine quartz grains in the lower part
5763 -	5768	5	Sandstone, light-gray, fine-grained, some medium and some very fine grains, highly calcareous to limestone (very sandy)
5768 -	5772	4	Limestone, light- to medium-gray (with dark-gray, shaly streaks) very silty, very sandy to a highly calcareous sandstone (very fine to medium-grained)

Top.	Bottom.	Thickness.	
5772	- 5787	15	Sandstone (very fine) highly calcareous) to limestone (very sandy), medium light to medium dark gray (with some dark-gray, shaly streaks), very silty, some fine (quartz, grains at the top; a very small amount of very light gray chert
5787	- 5791	4	Limestone (very sandy) to sandstone (very fine, calcareous), medium- to dark-gray (very shaly) with light-gray spots, very silty
5791	- 5802	11	Sandstone, medium light to medium dark gray, some dark-gray (very shaly), very fine grained, very silty, some medium grains in the lower part, very highly calcareous; trace of chert
5802	- 5817	15	Limestone, medium- to dark-gray, with light-gray spots, sandy (very fine to medium-grained) at the top, very sandy with spots of calcareous sandstone (mostly fine) in the lower part
5817	- 5824	7	Limestone, medium light to medium dark gray, very sandy (very fine to fine-grained)
5824	- 5830	6	Limestone, medium light to medium dark gray (with white to light-gray spots), very sandy (very fine to medium-grained), silty
5830	- 5862	32	Limestone, medium light to dark-gray (with white to light-gray spots), silty, sandy (very fine), some fine to medium grains, contains fossil fragments
5862	- 5877	15	Limestone, medium dark to dark-gray (with some light-gray spots) some dark-gray to grayish-black, (very shaly to shale), very silty, sandy (very fine), cherty, very cherty in the lower part
5877	- 5883	6	Limestone, brownish-gray to dark-gray (with light-gray spots), some grayish-black (very shaly), very silty and shaly, very cherty
5883	- 5892	9	Limestone, medium-gray to brownish- and grayish-black, very shaly to a very highly calcareous shale, silty, very cherty
5892	- 5944	52	Limestone (shaly) to shale (calcareous), brownish- to grayish-black (with light- to medium-gray spots), silty and somewhat cherty at the top, darker in color at the bottom
5944	- 5971	27	Shale (calcareous) to limestone, very shaly, brownish- and grayish-black to black (with some medium-gray spots)
5971	- 6080	109	Shale, grayish-black to black (with some medium-gray spots), calcareous to a very highly calcareous shale and shaly limestone; some of the shale at 6027-6035' and at 6065-6075' is discolored (too much heat in drying?)
6080	- 6090	10	Chert to limestone (cherty), light- to medium dark gray; a large amount of grayish-black to black shale (probably cavings)
6090	- 6096	6	Limestone, medium-gray (with light-gray spots and dark-gray, shaly streaks), very cherty; some grayish-black shale
6096	- 6107	11	Limestone, medium- to dark-gray (with light-gray spots), some grayish-black (very shaly), very silty (mostly tiny euhedral quartz crystals), cherty, contains some fossil fragments
6107	- 6115	8	Limestone, dark-gray to grayish-black, (with light- to medium-gray spots, very silty, mostly very small quartz crystals), cherty, somewhat shaly
6115	- 6132	17	Limestone, medium- to dark-gray (with light-gray spots), some grayish-black (shaly), the lower part has a calcite texture, very cherty, shaly and silty (tiny quartz crystals)

Top. Bottom. Thickness.

6132 - 6150	18	Limestone, grayish-black to black, brownish-black to grayish-black in the lower part, the residue contains a large amount of dark-brown colloidal material, silty, (tiny quartz crystals), somewhat dolomitic, a very small amount of chert
6150 - 6167	17	Limestone (very shaly) to a highly calcareous shale, brownish-and grayish-black, very silty, somewhat dolomitic
6167 - 6184	17	Shale (calcareous) to limestone (very shaly), dark-gray to grayish-black
6184 - 6221	37	Limestone (very shaly), to a calcareous shale, dark-gray, some grayish-black, a large shale content at the top, silty in the middle part; some moderate-brown to brownish-gray calcareous shale and limestone at 6200-6206' (probably discolored by heat?)
6221		Total depth