

DETAIL
NO SCALE

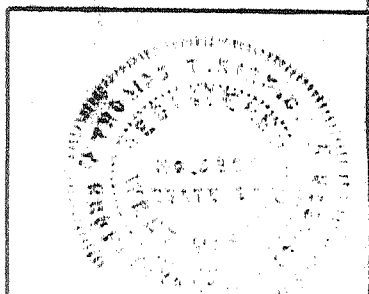
PROPERTY OWNERSHIP
(SURFACE)

- ① LEWIS G. HATHAWAY
- ② CLEO GAINER
- ③ FRANCES I. WALKER
- ④ STELLA FRAME, et al
- ⑤ DONALD GUNN
- ⑥ SMITH, SAYRE, et al
- ⑦ OTTO W. JARVIS
- ⑧ EMMANUEL VANNOY

"BENCH MARK"
U.S.G.S. STANDARD DISK
STAMPED NO. 7-JEA, IN N.W.
ABUTMENT OF BRIDGE OVER
PINE CREEK, 1.4 MILES NORTH
OF INTERSECTION OF CALHOUN
COUNTY ROUTES 16 AND 16 1/4,
300 FEET WEST OF INTERSECTION
OF CALHOUN COUNTY ROUTES
16 1/4 AND 85 1/2; ELEV. 800.70

LOWE ENGINEERS
Consulting Engineers
CHARLESTON, W.VA.

ACCURACY:
Stadia



- Fracture Before 6/5/29
- 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 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.
The accuracy of this survey is within the limits and as prescribed in Paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.

Company EXXON COMPANY
 Address Box 60626 New Orleans LA 70160
 Farm Lewis G. Hathaway
 Tract - Acres 81.84 Lease No. 34994 CNSL Nos.
Gainer, Lee 495484
 Well (Farm) No. ELPL No. 1
 Elevation (Spirit Level) 1206
 Quadrangle (7 1/2' Grantsville) Arnoldsburg-15'
 County Calhoun District Center
 Engineer Thomas J. Kirk
 Engineer's Registration No. 3698
 File No. CAL 2503 REV Drawing No. 1 of 1
 Date June 13, 1973 Scale 1" = 2,000'

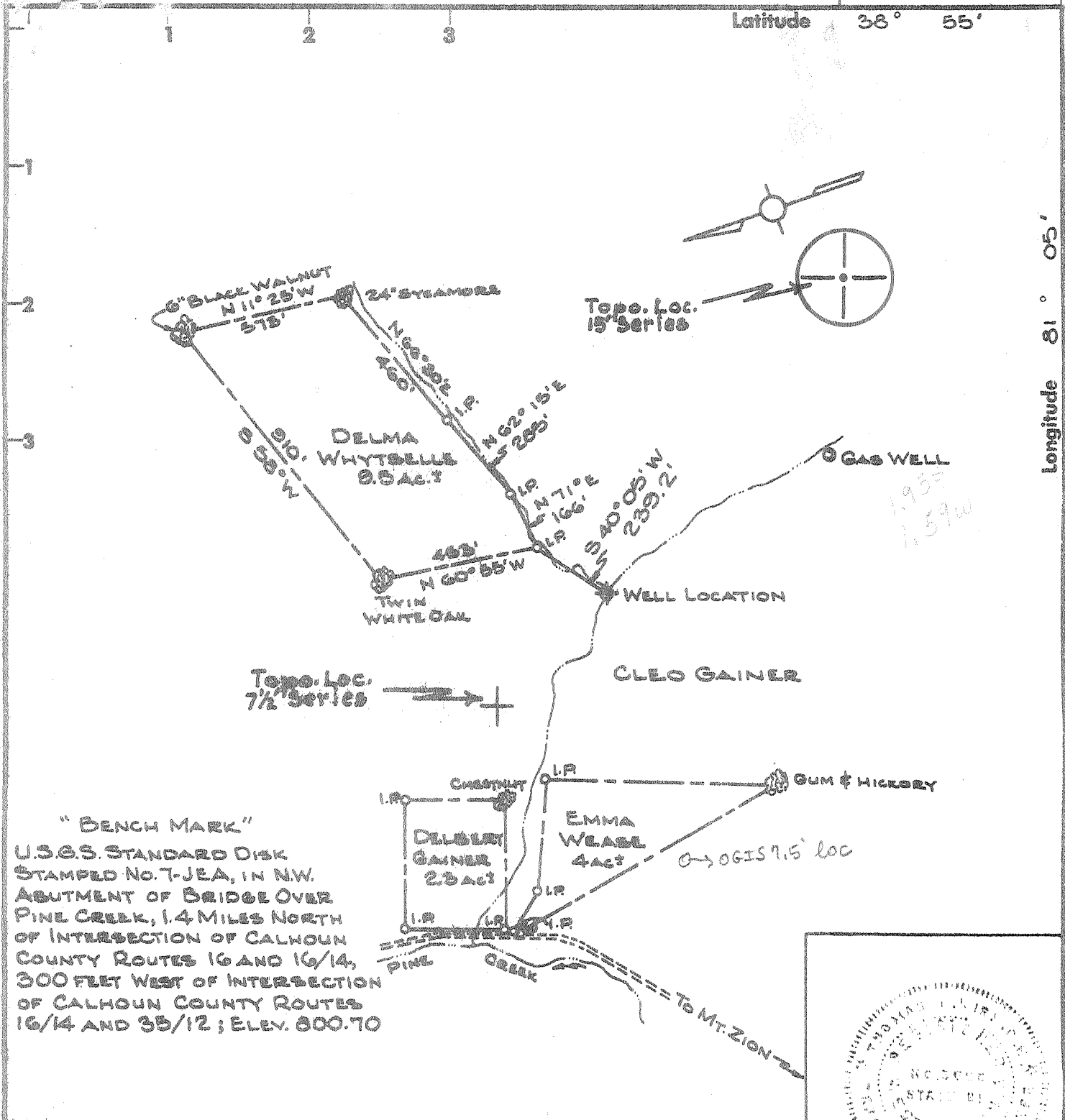
STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP
FILE NO. CAL-2503 Rev.

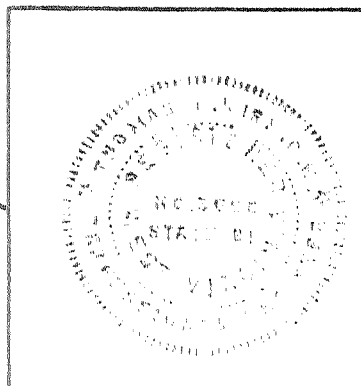
⊕ Denotes location of well on United States Topographic Maps, scale 1 to 24,000 latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

47-013



"BENCH MARK"
 U.S.G.S. STANDARD DISK
 STAMPED NO. 7-JEA, IN NW.
 ABUTMENT OF BRIDGE OVER
 PINE CREEK, 1.4 MILES NORTH
 OF INTERSECTION OF CALHOUN
 COUNTY ROUTES 16 AND 16/14,
 300 FEET WEST OF INTERSECTION
 OF CALHOUN COUNTY ROUTES
 16/14 AND 35/12; ELEV. 800.70



LOWE ENGINEERS
 Consulting Engineers
 CHARLESTON, W. VA.

ACCURACY:
 STADIA

Fracture	
Before 6/5/29	<input type="checkbox"/>
New Location	<input checked="" type="checkbox"/>
Drill Deeper	<input type="checkbox"/>
Redrill	<input type="checkbox"/>
Abandonment	<input type="checkbox"/>

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 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.
 The accuracy of this survey is within the limits and as prescribed in Paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.

Company EXXON CORPORATION
 Address Box 60626, New Orleans, LA. 70160
 Farm CLEO GAINER
 Tract --- Acres 346.1 Lease No. 34994
 Well (Farm) No. 1 Serial No. CLEO GAINER
 Elevation (Spirit Level) 778.0 C
 Quadrangle GRANTSVILLE (NE 1/4 ARNOLOSBURG)
 County CALHOUN District CENTER
 Engineer THOMAS T. KIRK
 Engineer's Registration No. 3698
 File No. --- Drawing No. 1 OF 2
 Date MAY 16, 1973 Scale 1" = 400'

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

WELL LOCATION MAP
 FILE NO. Cal-2503

See reversed plot

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000 latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

47-013

RECEIVED

JUN 28 1973

ATTACHMENT TO OIL AND GAS WELL PERMIT APPLICATION

OIL & GAS PERMITS
DEPT. OF MINES

Janet W. Parkers, widow

Virginia Withers Ast, single

Dorothy W. DeLong (sep. prop.)
(L. G. DeLong, her husband)

Mary W. Hooker Poling, widow

Rosamond H. Greathouse, single

Elizabeth Hooker Lee (sep. prop.)
(Ivan Lee, her husband)

Gladys B. Withers, widow

Virginia Withers Crawford (sep. prop.)
(Harold Crawford, her husband)

John S. Withers (sep. prop.)
(Jan Withers, his wife)

The parties listed above are represented by Mrs. Elizabeth H. Lee, attorney-in-fact for the John S. Withers heirs. Her address is 1028 Forest Road, Charleston, W. Virginia 25314.

Frances V. Bingham, widow

Richard C. Bingham (sep. prop.)
(Elizabeth E. Bingham, his wife)

Marjorie B. Nichols (sep. prop.)
(Robert J. Nichols, her husband)

The parties listed above are represented by Richard C. Bingham, attorney-in-fact for the C. E. VanDevender heirs. His address is 345 Mt. Lebanon Boulevard, Pittsburgh, Pennsylvania.



RECEIVED

JUL 25 1974

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

WELL RECORD

15' Arnoldsburg
Quadrangle 7 1/2' Grantsville, W. Va.

Permit No. CAL. 2503-Rev. P.

Rotary X Oil _____
Cable _____ Gas _____
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ Dry Hole
(Kind)

Company <u>EXXON CORPORATION</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P. O. Box 60626, New Orleans, LA 70160</u>	Size <u>26"</u>	<u>650</u>	<u>650</u>	<u>750</u> sks.
Farm <u>Louis G. Hathaway</u> Acres <u>358'</u>	Cond. <u>20"</u>	<u>2670</u>	<u>2670</u>	<u>2675</u> sks.
Location (waters) <u>Pine Creek</u> <u>K81238</u>	<u>13-10" 13-3/8"</u>	<u>11096</u>	<u>11096</u>	<u>1350</u> sks.
Well No. <u>Gainer-Lee Et Al No. 1</u> Elev. <u>Approx. 1203</u>	<u>9 5/8 10-3/4"</u>	<u>16975</u>	<u>15175</u>	<u>1800</u> sks.
District <u>Center</u> County <u>Calhoun</u>	<u>8 5/8</u>			
The surface of tract is owned in fee by <u>Louis G. Hathaway</u>	<u>7</u>			
Address <u>Grantsville, W. Va.</u>	<u>5 1/2</u>			
Mineral rights are owned by <u>Various</u>	<u>4 1/2</u>			
Address _____	<u>3</u>			
Drilling Commenced <u>8-9-73</u>	<u>2</u>			
Drilling Completed <u>6-11-74</u>	Liners Used			
Initial open flow _____ cu. ft. _____ bbls.				
Final production _____ cu. ft. per day _____ bbls.				
Well open _____ hrs. before test _____ RP.				

Attach copy of cementing record.

Coal was encountered at 370, 380, 1900, 1940 Feet _____ Inches
Fresh water (No fresh water below 2000') _____ Feet _____ Salt Water _____ Feet _____
Producing Sand _____ Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Greenbrier LS.	Tan	Hard	2090	2285		Slight Gas Show
Pocono	Tan-Brown	Hard	2285	2610		
Berea SS	(Absent)		-	-		
Devonian SH	Brown	Soft	2610	6246		Slight Oil Show
Onondaga	Lt. Brown-Gray	Hard	6246	6429		-5008
Oriskany	White-Clear	Hard	6429	6505		-5191
Hellerburg	Lt.-Dk. Gray	Hard	6505	6850		-5267
Salina	Dk. Gray-Brown	Hard	6850	7666		Show Sulfur Water -5812
Salt	White	Soft	7155	7235		-5917
Newburg SS	White-Clear	Hard	7666	7698		-6428 10,628
McKenzie	Dk. Gray-Black	Hard	7698	8050		-6460 1238
Lockport	Black					7370
Keefer SS	White-Gray	Hard	8050	8090		-6812
Rose Hill SH.	Gray-Green	Soft	8090	8591		-6852
Tuscarora SS	White-Gray	Hard	8591	8718		-7353
Juniata	Gray-Green	Hard	8718	10628		-7480
Martinsburg	Red					
Trenton	Dk. Gray-Brown	Hard	10628	11511		-9390
Black River	Dk.-Lt. Gray	Hard	11511	13510		-10,273
Wells Comb	Gray					

(Wall tops are from Electric Logs.)

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
St. Peter SS	Clear-White	Hard	13510	13550	-12,277	
Beekmantown	Lt.-Med. Gray	Hard	13550	14355	-12,312	
Copper Ridge	?		14355	15615	-13,117	
Conasauga	Lt.-Med. Gray-Brown	Hard	15615	20050	Salt Water -14,377	4435
Basement	White-Dk. Brown	Hard	20050	-	-18,812	
PRECAMBRIAN			TD	20,222		

13,550
1237
12,312

20,050
13,550
6,500

20,222
13,550
6,672 Knox to TD

20,050
13,550
6,500 Kn → B

13,550
10,628
2,922 Fr → Kn (2,954 ± Finch)

13,550
1200
12,350

Date July 19, 19 74

APPROVED [Signature] Owner
By Oil & Gas Accounting Supervisor



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

RECEIVED

JUL 25 1974

OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD 2

15' Arnoldsburg
Quadrangle 7 1/2' Grantsville, W. Va.
Permit No. CAL. 2503-Rev. P.

Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ Dry Hole
(Kind)

Company <u>EXXON CORPORATION</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P. O. Box 60626, New Orleans, LA 70160</u>	Size <u>26"</u>	<u>650</u>	<u>650</u>	<u>750 sks.</u>
Farm <u>Louis G. Hathaway</u> Acres <u>358'</u>	Cond. <u>20"</u>	<u>2670</u>	<u>2670</u>	<u>2675 sks.</u>
Location (waters) <u>Pine Creek</u>	<u>13-10"</u> <u>13-3/8"</u>	<u>11096</u>	<u>11096</u>	<u>1350 sks.</u>
Well No. <u>Gainer-Lee Et Al No. 1</u> Elev. <u>Approx. 1203</u>	<u>9 5/8"</u> <u>10-3/4"</u>	<u>16975</u>	<u>15175</u>	<u>1800 sks.</u>
District <u>Center</u> County <u>Calhoun</u>	<u>8 5/8"</u>			
The surface of tract is owned in fee by <u>Louis G. Hathaway</u>	<u>7</u>			
Address <u>Grantsville, W. Va.</u>	<u>5 1/2"</u>			
Mineral rights are owned by <u>Various</u>	<u>4 1/2"</u>			
Drilling Commenced <u>8-9-73</u>	<u>3</u>			
Drilling Completed <u>6-11-74</u>	<u>2</u>			
Initial open flow _____ cu. ft. _____ bbls.	Liners Used			
Final production _____ cu. ft. per day _____ bbls.				
Well open _____ hrs. before test _____ RP.				

Well treatment details:

Attach copy of cementing record.

Coal was encountered at 370, 380, 1900, 1940 Feet _____ Inches
Fresh water (No fresh water below 2000') Feet _____ Salt Water _____ Feet _____
Producing Sand _____ Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Greenbrier LS.	Tan	Hard	2090	2285	Slight Gas Show	(*All tops are from Electric Logs.)
Pocono	Tan-Brown	Hard	2285	2610		
Berea SS	(Absent)		-	-		
Devonian SH	Brown	Soft	2610	6246	Slight Oil Show	
Onondaga	Lt. Brown-Gray	Hard	6246	6429		
Oriskany	White-Clear	Hard	6429	6505		
Helderburg	Lt.-Dk. Gray	Hard	6505	6850		
Salina	Dk. Gray-Brown	Hard	6850	7666	Show Sulfur Water	
Salt	White	Soft	7155	7235		
Newburg SS	White-Clear	Hard	7666	7698		
McKenzie-Lockport	Dk. Gray-Black	Hard	7698	8050		
Keefer SS	White-Gray	Hard	8050	8090		
Rose Hill SH.	Gray-Green Red	Soft	8090	8591		
Tuscarora SS	White-Gray	Hard	8591	8718		
Juniata	Gray-Green Red	Hard	8718	10628		
Trenton	Dk. Gray-Brown	Hard	10628	11511		
Black River	Dk.-Lt. Gray	Hard	11511	13510		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
St. Peter SS	Clear-White	Hard	13510	13550		
Beekmantown	Lt.-Med. Gray	Hard	13550	14355		
Conasauga	Lt.-Med. Gray-Brown	Hard	15615	20050	Salt Water	
Basement	White-Dk. Brown	Hard	20050	-		
	TD		20,222			

Date July 19, 19 74

APPROVED *[Signature]* Owner

By Oil & Gas Accounting Supervisor
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

DEPT

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE June 25, 1973

Surface Owner Louis G. Hathaway
Address Grantsville, W. Virginia
Mineral Owner *
Address _____
Coal Owner None
Address --
Coal Operator --
Address --

Company Exxon Corporation
Address P.O. Box 60626, New Orleans, Louisiana
Farm Louis Hathaway Acres 81.84+ 7016
Location (waters) Pine Creek
Well No. Gainer-Lee et al #1 Elevation Approx. 120
District Center County Calhoun
15' Arnoldsburg
Quadrangle 7 1/2' Grantsville, W. Virginia

NE/4 Arnoldsburg 15' Quadrangle
N 3852.5 - W 8100/7.5
Approximately 81° 06' 5" longitude
38° 53' 0" latitude

Further identified as:
2.7 miles SSW of Grantsville, W. Virginia
immediately East of Pine Creek.

*See attached

INSPECTOR TO BE NOTIFIED Harry Holliday
Grantsville, W. Va. PH: 354-6731

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated September 10, 1918 by H. B. P. made to Consolidated Gas Supply Corporation and recorded on the _____ day of _____ 19____, in Calhoun County, Book 2 Page 1.
 NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours,

(Sign Name) [Signature]
Well Operator

P. O. Box 60626
Street
New Orleans,
City or Town
Louisiana 70160
State

THIS PERMIT MUST BE POSTED AT THE WELL SITE
All provisions being in accordance with Chapter 22,
of the W. Va Code, the location is hereby approved
for drilling. This permit shall expire if of
operations have not commenced by 10-28-73 Well Operator
[Signature]
Deputy Director - Oil & Gas Division

*SECTION 3. . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Helmerich & Payne NAME *W. M. Woodroge
 ADDRESS Utica at Twenty-First, Tulsa, Okla. ADDRESS 1200 Charleston National Plaza
 TELEPHONE 918-742-5531 ADDRESS Charleston, W. Virginia 25301
 ESTIMATED DEPTH OF COMPLETED WELL: 20,000 TELEPHONE 346-0441
 PROPOSED GEOLOGICAL FORMATION: Cambrian ROTARY X CABLE TOOLS _____
 TYPE OF WELL: OIL _____ GAS X COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16 20	None	660'	635 cu. ft.
13 - 10 16	None	3000	1411 cu. ft.
9 - 5/8 11-3/4	None	+11,000	1734 cu. ft.
8 - 5/8			
7			
5 1/2			
4 1/2			
3			Perf. Top
2			Perf. Bottom
Liners 9-5/8" Line		4000'	Perf. Top 442 cu. ft.
7" Line		6000'	Perf. Bottom 571 cu. ft.

APPROXIMATE FRESH WATER DEPTHS 600 FEET _____ SALT WATER Below 600 FEET _____
 APPROXIMATE COAL DEPTHS None _____
 IS COAL BEING MINED IN THE AREA? None BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

*Agent for process serving only.

NOT APPLICABLE

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
MAY 17 1973

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

Surface Owner Cleo Gainer
Address Rte. 1, Box 143, Grantsville, W. Va.
Mineral Owner Cleo Gainer 50%
Address Rte. 1, Box 143, Grantsville, W. Va.
Coal Owner None
Address -
Coal Operator -
Address -

DATE May 15, 1973
Company Exxon Corporation
Address P.O. Box 60626, New Orleans, Louisiana 70118
Farm Cleo Gainer Acres 352' 346
Location (waters) Pine Creek
Well No. 1 Elevation Approx. 750'
District Center County Calhoun
15 Quad. Arnoldsburg
Quadrangle Grantsville, W. Virginia
7 1/2' x 7'
NE/4 Arnoldsburg 15' Quadrangle
N 3852.5 - W 8100/7.5
Approximately 81° 06' 42" longitude
38° 53' 20" latitude

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for Drilling. This permit shall expire if operations have not commenced by 9/18/73.

Further identified as:
2.7 miles SSW of Grantsville W. Virginia immediately East of Pine Creek.

Robert E. Gainer
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated 6/26/1918 by Hope Natural Gas Co. made to Hope Natural Gas Co. and recorded on the 88 day of June 1960, in Calhoun County, Book 60 Page 88
 NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address - day - before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

*By Lee Gainer and A. L. Gainer, executors of the estate of S. W. Gainer, deceased.

Very truly yours,

(Sign Name) Robert E. Gainer
Well Operator

PERSONS TO BE NOTIFIED Mr. Harry Helling Address Box 221 PH: 354-6731 of Grantsville Well Operator W. Va. 26147

P. O. Box 60626
Street
New Orleans,
City or Town
Louisiana 70160
State

*SECTION 3. . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

Cal-2503 PERMIT NUMBER

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Helmerich & Payne NAME *W. M. Woodroe
 ADDRESS Utica at Twenty-First, Tulsa, Okla. ADDRESS 1200 Charleston National Plaza
 TELEPHONE 918-742-5531 TELEPHONE Charleston, W. Virginia 25301
 ESTIMATED DEPTH OF COMPLETED WELL: 20,000 ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Cambrian
 TYPE OF WELL: OIL _____ GAS X COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT HILL UP OR SACKS - CUBIC FT.
20 - 16 20	None	160	151 cu. ft.
13 - 10 16	None	3000	1411 cu. ft.
9 - 5/8 11 3/4	None	+11,000	1734 cu. ft.
8 - 5/8			
7			
5 1/2			
4 1/2			
3			Perf. Top
2			Perf. Bottom
Liners 9-5/8" Line		4000'	Perf. Top 442 cu. ft.
7" Line		600'	Perf. Bottom 571 cu. ft.

APPROXIMATE FRESH WATER DEPTHS 250 FEET _____ SALT WATER Below 250 FEET _____
 APPROXIMATE COAL DEPTHS None
 IS COAL BEING MINED IN THE AREA? None BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

*Agent for process serving only.

NOT APPLICABLE

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title

W VA CALHOUN 38.55.00 31.05.00 *PERMIT 2503
 EXXON CORP 12400 S 5300 W
 1206 GR CENTER I GAINER-LEE WD WD
 GRANTVIL-ARNLDSBG
 API 47-013- 04077-00
 D&A-CG
 08/09/1973 06/11/1974 ROTARY
 20000 BASEMENT HELMICK & PAYNE
 OTD 20222
 CSG 26 @ 650 W/ 750 20 FM/TD BASEMENT
 CSG 13 3/8 @ 11096 W/ 1350 10 3/4 @ 2670 W/ 2675 01 02
 LAT CHANGED FROM 38.05 @ 16975 W/ 1800 03 04
 WELL NAME CHANGED FROM CLEO GAINER
 LOG GREENBR 2090 884- POCOONO 2285 1079-
 LOG DEVON SH 2610 1404-
 LOG ONONDAGA 6246 5040- ORISKANY 6429 5223-
 LOG HELDERBG 6505 5299-
 LOG SALINA 6850 5644- SALT 7155 5949-
 LOG NEWBURG 7666 6460-
 LOG LOCKPORT 7698 6492- KEEFER 8050 6844-
 LOG ROSEHILL 8090 6884-
 LOG TUSCRORA 8591 7385- JUNIATA 8718 7512-
 LOG TRENTON 10628 9422-
 LOG BLACK RV 11511 10305- ST PETER 13510 12304-
 LOG BEEKMTWN 13550 12344-
 LOG CONSAUGA 15015 14409- BASEMENT 20050 18844-
 LOG BGREENBR 2285 1079- BPOCONO 2610 1404-
 LOG BDEVON SH 6246 5040-
 LOG BONONDAGA 6429 5223- BORISKANY 6505 5299-
 LOG BHELDERBG 6850 5644-
 LOG BSALT 7235 6029- BSALINA 7666 6460-
 47 2

LOG BNEWBURG 7698 6492-
 LOG BLOCKPORT 8050 6844- BKEEFER 8090 6884-
 LOG BROSEHILL 8591 7385-
 LOG BTUSCRORA 8718 7512- BJUNIATA 10628 9422-
 LOG BTRENTON 11511 10305-
 LOG BBLACK RV 13510 12304- BST PETER 13550 12344-
 LOG BBEFKMTWN 14355 13149-
 LOG BCONSAUGA 20050 18844-
 370- 370 COAL 380- 380 COAL
 1900- 1900 COAL 1940- 1940 COAL
 GREENBR GAS DEVON SH OIL
 SALINA WET CONSAUGA WET
 MAP QUAD ARNOLDSBURG ACRES 382
 EXXON CORP
 BOX 60626
 NEW ORLEANS LA
 GRANTSVILLE-ARNOLDSBURG FIELD PRODUCES FROM
 BIG INJUN AT 1900
 6 1/4 MI N OF TOWN OF ARNOLDSBURG
 06/01 LOC /1973/
 06/14 DROPPED FROM REPORT
 20222 TD
 COMP 6/11/74, D&A
 HOLDING FOR DATA
 03/17 REPLACEMENT FOR TEMP CT ISSUED 6/14/74

03/25/77
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