



LATITUDE 39° 25'  
10350' South  
10680' West

R.E. Phillips  
 and  
 R. Jackson  
 83+ ac of  
 392 ac.

15' 2.025  
 2.04 W  
 R.E. Phillips  
 and R. Jackson

39 23 15  
 80 57 20

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF  
 ACCURACY 1:200  
 PROVEN SOURCE OF  
 ELEVATION Road El. 862'

I THE UNDERSIGNED, HEREBY CERTIFY  
 THAT THIS PLAT IS CORRECT TO THE  
 BEST OF MY KNOWLEDGE AND BELIEF AND  
 SHOWS ALL THE INFORMATION REQUIRED  
 BY LAW AND THE REGULATIONS ISSUED  
 AND PRESCRIBED BY THE DEPARTMENT OF  
 MINES.  
 (SIGNED) William P. Masser  
 R.P.E. \_\_\_\_\_ L.L.S. 551

PLACE SEAL HERE

(+) DENOTES LOCATION OF  
 WELL ON UNITED STATES  
 TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



DATE 21 Nov., 19 80  
 OPERATOR'S WELL NO H-1178  
 API WELL NO.  
47 - 095 - 0881  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES

OIL AND GAS DIVISION  
 WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS", PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 865' WATER SHED McKim Creek  
 DISTRICT Meade COUNTY Tyler  
 QUADRANGLE Middlebourne, W. Va. 7 1/2' Quad 144 WC  
 SURFACE OWNER R.E. Phillips and R. Jackson ACREAGE 83+  
 OIL & GAS ROYALTY OWNER R.E. Phillips and R. Jackson LEASE ACREAGE 392  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR  
 STIMULATE \_\_\_\_\_ PLUS OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW  
 FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUS AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION Shale ESTIMATED DEPTH 4000'  
 WELL OPERATOR Haught, Inc DESIGNATED AGENT Warren Haught JAN 2 1981  
 ADDRESS Smithville, W. Va. 26178 ADDRESS Smithville, W. Va. 26178

6-6 Shiloh-Wick (86)

**RECEIVED**

MAR - 4 1981

Date: January 13, 1980

Operator's Well No. H-1178

API Well No. 095 - 0881  
State County Permit

OIL & GAS DIVISION OF WEST VIRGINIA  
DEPT. OF MINES, OIL AND GAS DIVISION

WELL OPERATOR'S REPORT 95  
OF

DRILLING, FRACING AND/OR STIMULATION, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_  
(If "Gas", Production \_\_\_ / Underground storage \_\_\_ / Deep \_\_\_ / Shallow X)  
LOCATION: Elevation: 865' Watershed: McKim Creek  
District: Meade County: Tyler Quadrangle: Middlebourne, WV 7 1/2'  
WELL OPERATOR Haight, Inc. R.E. Phillips & R. Jackson H-1178  
DESIGNATED AGENT Warren R. Haight  
Address Route 3 Box 14 Address Smithville, WV 26178  
Smithville, WV 26178

PERMITTED WORK: Drill X / Convert \_\_\_ / Drill deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate  
Plug off old formation \_\_\_ / Perforate new formation \_\_\_ /  
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON December 4, 19 80, OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Phillip L. Tracy  
Address P.O. Box 173  
\_\_\_\_\_, 19 \_\_\_\_\_ Middlebourne, WV 26149

GEOLOGICAL TARGET FORMATION: Shale Depth 3906 to 4408 feet  
Depth of completed well, 4408 feet Rotary X / Cable Tools \_\_\_  
Water strata depth: Fresh, \_\_\_ feet; salt, \_\_\_ feet.  
Coal seam depths: None Is coal being mined in the area? No  
Work was commenced December 20, 19 80, and completed January 1, 19 81

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Rands
Fresh water	8-5/8	K-55	20#	X		990	990'	110 sacks	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5#	X			4238'	475 sacks	Seams set
Tubing									
Liners									Perforations:
									Top Bottom
									3941 - 4156

OPEN FLOW DATA

Producing formation Dev. Shale Pay zone depth 3906 to 4408 feet  
Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
" Final open flow, 210 Mcf/d Final open flow, \_\_\_ Bbl/d  
Time of open flow between initial and final tests, \_\_\_ hours  
Static rock pressure, 580 psig (surface measurement) after \_\_\_ hours shut in  
(If applicable due to multiple completion--)  
Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
Final open flow, \_\_\_ Mcf/d Final open flow, \_\_\_ Bbl/d  
Time of open flow between initial and final tests, \_\_\_ hours  
Static rock pressure, \_\_\_ psig (surface measurement) after \_\_\_ hours shut in

MAR 23 1981

(Frac case)

[09-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Nitrogen Fraced by B.J. Hughes Production Services --2/13/81  
720,000 SCF 1000 Gal. Acid

Perforations: 26--3941--4156

WELL LOG

FORMATION	Color	Hard or Soft	95 Top Feet	Bottom Feet	Remarks Including indication of all free and salt water, coal, oil and gas
Red Rock			0	17	
Shale			17	98	
Red Rock			98	104	
Shale			104	190	
Red Rock			190	197	
Shale/Sand			197	250	
Red Rock			250	256	
Shale			256	280	
Red Rock			280	290	
Shale			290	381	
Red Rock			381	394	
Shale			394	404	
Red Rock			404	407	
Shale			407	425	
Red Rock			425	428	
Shale			428	432	
Red Rock			432	435	
Shale			435	446	
Red Rock			446	452	
Shale			452	456	
Red Rock			456	498	
Shale			498	524	
Red Rock			524	549	
Shale			549	629	
First Salt Sand			629	634	
Shale			634	679	
Second Salt Sand			679	687	
Shale			687	738	
Red Rock			738	770	
Shale			770	1136	
Red Rock			1136	1140	
Shale			1140	1174	
Sand			1174	1183	
Shale			1183	1265	
Max Sand			1265	1276	
Shale			1276	1295	
Little Lime			1295	1318	
Shale			1318	1864	
Sand			1864	2010	
Shale			2010	2100	
Sand			2100	2165	
Shale			2165	2600	
Sand			2600	2671	
Shale			2671	2902	
Sand			2902	2951	
Shale			2951	3300	
Sand			3300	3361	
Shale			3361	3600	
Sand			3600	3657	
Shale			3657	3891	
Sand			3891	3906	
Shale			3906	4408	T.D.

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the

Haught, Inc.  
Well Operator

By *Nanon R. Haught*

Its President

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

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas X /  
(If "Gas", Production X / Underground storage \_\_\_\_\_ Deep \_\_\_\_\_ Shallow X )  
LOCATION: Elevation: 865' Watershed: McKim Creek  
District: Meade County: Tyler Quadrangle: Middlebourne, W.V.

WELL OPERATOR Haight, Inc. DESIGNATED AGENT Warren R. Haight  
Address Route 3, Box 14 Address Smithville, WV 26178  
Smithville, WV 26178

OIL & GAS ROYALTY OWNER R.E. Phillips-R. Jackson COAL OPERATOR None  
Address c/o Ralph E. Phillips, Rt. 1 Box 93 Address \_\_\_\_\_  
New Martinsville, W.V. 26155

ACREAGE 392 COAL OWNER(S) WITH DECLARATION ON RECORD:  
SURFACE OWNER R.E. Phillips-R. Jackson Name \_\_\_\_\_  
Address c/o Ralph Phillips Rt. 1 Box 93 Address \_\_\_\_\_  
New Martinsville, WV 26155 Name \_\_\_\_\_  
ACREAGE 83+ Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
Name Columbia Gas Transmission Corp.  
Address P.O. Box 1273  
Charleston, WV. 24325

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Phillip L. Tracy  
Address P.O. Box 173  
Middlebourne, W.V. 26149

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_\_\_ / lease X / other contract \_\_\_\_\_ / dated December 15, 1979, to undersigned well operator from Ralph E. Phillips and Robert Jackson  
[If said deed, lease, or other contract has been recorded:]  
Recorded on December 28, 1979, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in Deed Book 222 at page 649. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Fracture or stimulate \_\_\_\_\_ /  
Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_ /  
Other physical change in well (specify) \_\_\_\_\_

---planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that an objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been sent by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines, Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 342-3092

RECEIVED

DEC - 1 1980

OIL & GAS DIVISION DEPT. OF MINES By Warren R. Haight President

BLANKET BOND

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Haught, Inc.  
Address Smithville, WV 26178

LOGICAL TARGET FORMATION, Shale  
Estimated depth of completed well, 4000' feet Rotary X / Cable tools \_\_\_\_\_  
Approximate water strata depths: Fresh, 75 feet; salt, \_\_\_\_\_ feet.  
Approximate coal seam depths: None Is coal being mined in the area? Yes \_\_\_\_\_ No X

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS ('Cable feet')	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor								-	Kinds
Fresh water	8 5/8	K-55	20#	X		200'	200'	75 sacks	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5#	X			4000'	100 sacks	Depths set
Logging									
Miners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-3, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-3a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

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 8-4-81.

[Signature]  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: \_\_\_\_\_, 19\_\_\_\_

By \_\_\_\_\_  
Its \_\_\_\_\_