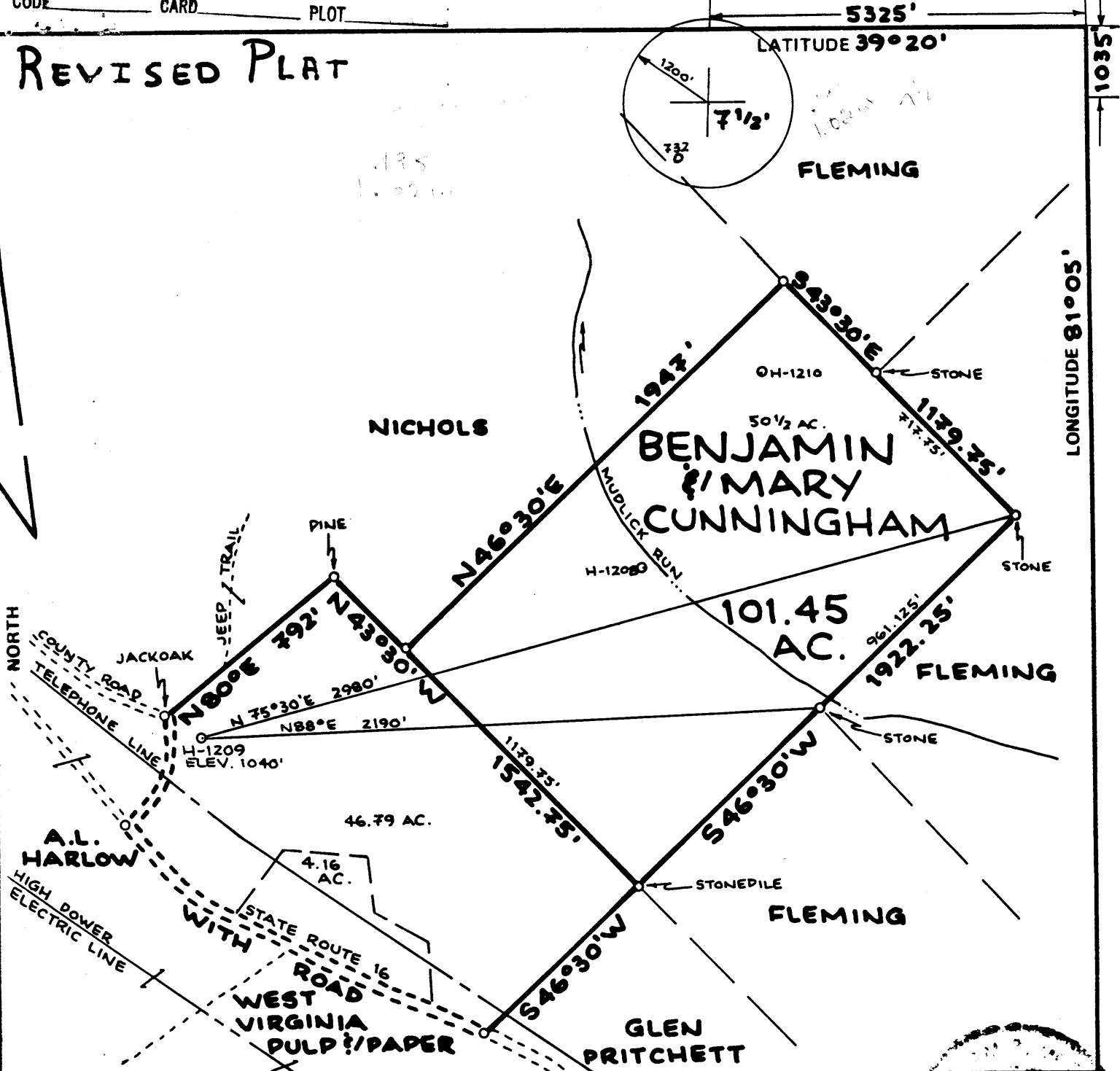


# REVISED PLAT



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE **1"=500'**  
 MINIMUM DEGREE OF ACCURACY **1:200**  
 PROVEN SOURCE OF ELEVATION **ROAD INT. ELEV. 1099'**

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. ...*  
 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 **31 AUGUST**, 19 **83**  
 OPERATOR'S WELL NO. **H-1209**  
 API WELL NO. **REVISED PLAT**  
**47 - 073 - 1443 - Frac**  
 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 **1040'** WATER SHED **MUDLICK RUN**  
 DISTRICT **MC/KIM** COUNTY **PLEASANTS**  
 QUADRANGLE **ELLENBORO 7 1/2' QUAD.**  
 SURFACE OWNER **BENJAMIN & MARY CUNNINGHAM** ACREAGE **46.79**  
 OIL & GAS ROYALTY OWNER **BENJAMIN & MARY CUNNINGHAM** ACREAGE **101.45**  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION **DEVONIAN SHALE** ESTIMATED DEPTH **4500'**  
 WELL OPERATOR **HAUGHT, INC.** DESIGNATED AGENT **WARREN R. HAUGHT**  
 ADDRESS **4424 EMERSON AVENUE** ADDRESS **4424 EMERSON AVENUE**  
**PARKERSBURG, W.VA. 26104** **PARKERSBURG, W.VA. 26104**

17 1984

1035' LONGITUDE 81° 05'

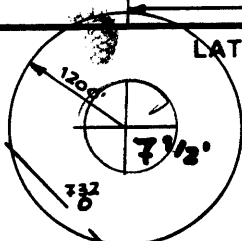
PLEAS 1443

# REVISED PLAT

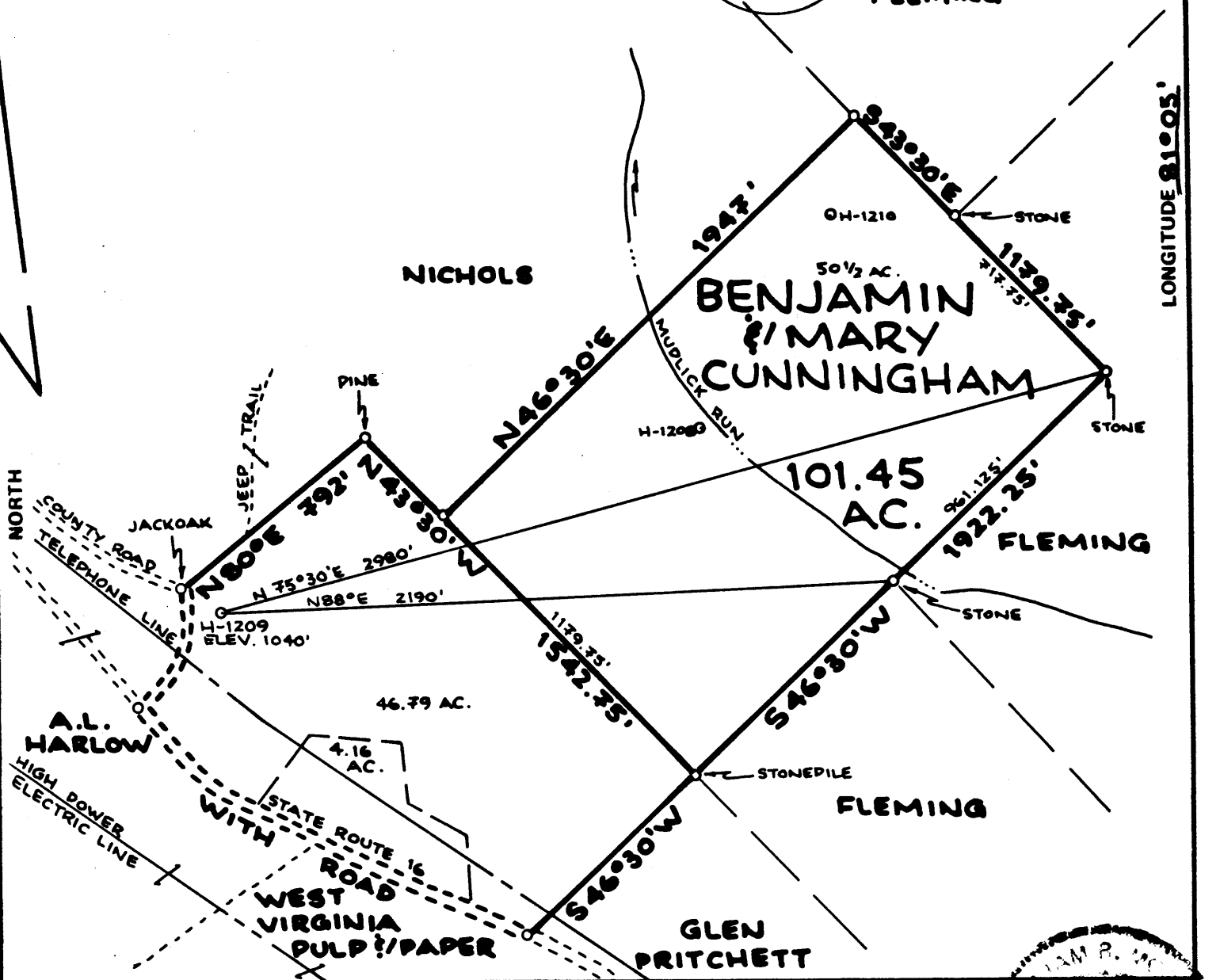
5325'

LATITUDE 39° 20'

1035'

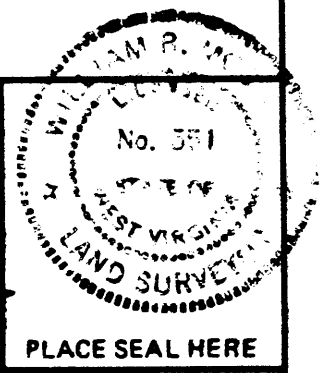


15' loc.  
0.195  
1.02W  
**FLEMING**




FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE **1"=500'**  
MINIMUM DEGREE OF ACCURACY **1:200**  
PROVEN SOURCE OF ELEVATION **ROAD INT. ELEV. 1099'**

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. Haught*  
R.P.E. \_\_\_\_\_ L.L.S. **551**



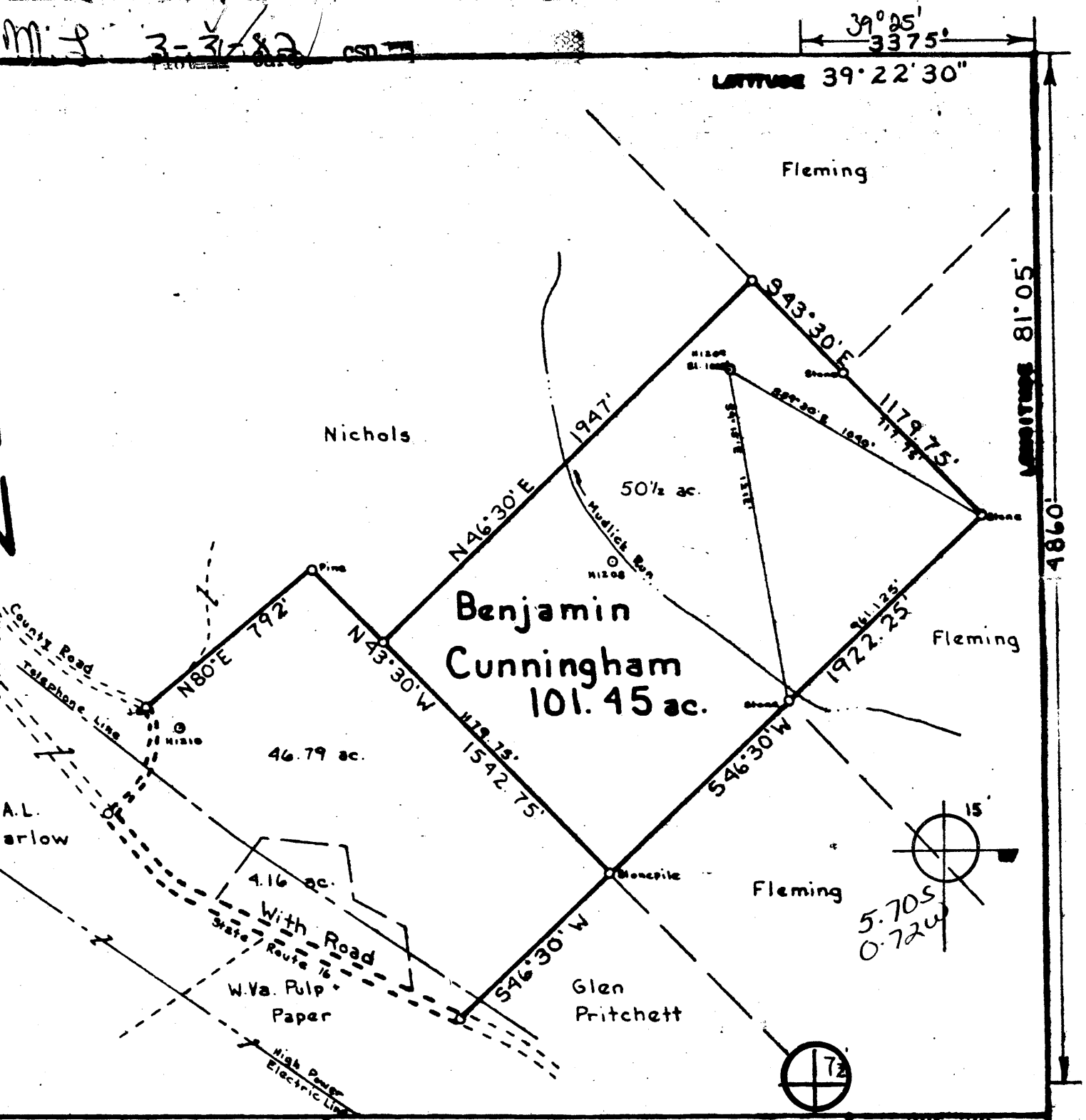
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
FORM IV-6 (8-78)  
WELL TYPE: OIL    GAS    LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
(IF "GAS,") PRODUCTION    STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW     
LOCATION: ELEVATION 1040' WATER SHED MUDLICK RUN  
DISTRICT MCKIM COUNTY PLEASANTS  
QUADRANGLE ELLENBOO 7 1/2' QUAD. St. Mary 15' SC  
SURFACE OWNER BENJAMIN & MARY CUNNINGHAM ACREAGE 46.79  
OIL & GAS ROYALTY OWNER BENJAMIN & MARY CUNNINGHAM ACREAGE 101.45  
LEASE NO. \_\_\_\_\_  
PROPOSED WORK: DRILL    CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 4500'  
WELL OPERATOR HAUGHT, INC. DESIGNATED AGENT WARREN R. HAUGHT  
ADDRESS 4424 EMERSON AVENUE ADDRESS 4424 EMERSON AVENUE  
PARKERSBURG, W.VA. 26104 PARKERSBURG, W.VA. 26104



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

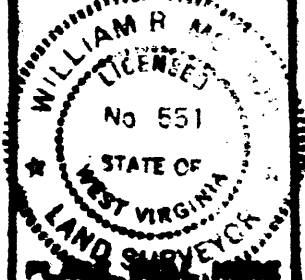
DATE 31 AUGUST, 19 83  
OPERATOR'S WELL NO. H-1209  
API WELL NO. 47-073-1443  
STATE COUNTY PERMIT

PLACE SEAL HERE



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION Road Int. 1099'

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 R. Moser  
 R.P.E. \_\_\_\_\_ L.L.S. 58



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



DATE 20 April 19 81  
 OPERATOR'S WELL NO. H-1209  
 API WELL NO. 47-073-1443  
 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 1002' WATER SHED Mudlick Run  
 DISTRICT McKim COUNTY Pleasants  
 QUADRANGLE Ellenboro, W.Va. 7th Quad. St. Marys 15'  
 SURFACE OWNER Benjamin + Mary Cunningham ACREAGE 50 1/2  
 OIL & GAS ROYALTY OWNER Benjamin + Mary Cunningham LEASE ACREAGE 101.45  
 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 REPLUS \_\_\_\_\_  
 TARGET FORMATION Devonian Shale ESTIMATED DEPTH 4500'  
 WELL OPERATOR Haught, Inc. DESIGNATED AGENT Warren Haught  
 ADDRESS Smithville, W.Va. 26178 ADDRESS Smithville, W.Va. 26178  
44 Hadden Run (372)

MAR 29 1981

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IV-35  
(Rev 8-81)

FEB 2 - 1983

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

State of West Virginia

Department of Mines  
Oil and Gas Division

Date December 14, 1982  
Operator's  
Well No. H-1209  
Farm Benjamin Cunningham  
API No. 47 - 073 - 1443

WELL OPERATOR'S REPORT  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: <sup>7.</sup> Oil  Gas  / Liquid Injection  / Waste Disposal  /  
(If "Gas," Production  / Underground Storage  / Deep  / Shallow  /)

LOCATION: Elevation: 1040 <sup>1040</sup> Watershed Mudlick Run  
District: McKim County Pleasants Quadrangle Ellenboro, WV

COMPANY Haught, Inc.

ADDRESS Rt. 3, Box 14 Smithville, WV 26178

DESIGNATED AGENT Warren R. Haught

ADDRESS Smithville, WV 26178

SURFACE OWNER Benjamin & Mary Cunningham

ADDRESS Pike Rd. St. Marys, WV 26170

MINERAL RIGHTS OWNER Benjamin & Mary Cunningham

ADDRESS Pike Rd. St. Marys, WV 26170

OIL AND GAS INSPECTOR FOR THIS WORK Robert A. Lowther ADDRESS Middlebourne, WV 26149

PERMIT ISSUED November 12, 1982

DRILLING COMMENCED 12-2-82

DRILLING COMPLETED 12-8-82

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1102'	1102'	192 sacks
7			
5 1/2			
4 1/2		4339'	530 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Marcellus Devonian Shale Depth 3944-4262 feet

Depth of completed well 4601' feet Rotary  / Cable Tools \_\_\_\_\_

Water strata depth: Fresh \_\_\_\_\_ feet; Salt \_\_\_\_\_ feet

Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3944-4262 <sup>?</sup> feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 200 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 8 hours

Static rock pressure 480 psig (surface measurement) after 12 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 Oil: 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

FEB 14 1983

(Continue on reverse side)

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

Fraced by Nowsco Well Service Nitrogen = 713,400 SCF Acid 15% 1000 Gal.  
15 Shote from 2974 to 3350 *Up. down diff*

Perforating by Allegheny Nuclear Surveys, Inc.  
14 holes from 3536 to 3556  
5 holes from 3804 to 3812 *Huron*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
R.R.	Red	Soft	0	15	
Shale	Gray	Soft	15	51	
R.R.	Red	Soft	51	58	
Shale	Gray	Soft	58	85	
R.R.	Red	Soft	85	89	
Shale	Gray	Soft	89	102	
R.R.	Red	Soft	102	107	
Shale	Gray	Soft	107	120	
R.R.	Red	Soft	120	126	
Shale	Gray	Soft	126	198	
Sand	White	Hard	198	286	
Shale	Gray	Soft	286	514	
Sand	White	Hard	514	537	
Shale	Gray	Soft	537	591	
Sand	White	Hard	591	608	
Shale	Gray	Soft	608	644	
Sand	White	Hard	644	656	
Shale	Gray	Soft	656	699	
R.R.	Red	Soft	699	704	
Shale	Gray	Soft	704	712	
R.R.	Red	Soft	712	716	
Shale	Gray	Soft	716	737	
R.R.	Red	Soft	737	744	
Sand	White	Hard	744	761	
Shale	Gray	Soft	761	802	
R.R.	Red	Soft	802	819	
Shale	Gray	Soft	819	861	
Sand	White	Hard	861	883	
Shale	Gray	Soft	883	969	
R.R.	Red	Soft	969	985	
Shale	Gray	Soft	985	1011	
Sand	White	Soft	1011	1041	
Shale	Gray	Soft	1041	1121	
R.R.	Red	Soft	1121	1134	
Sand	White	Hard	1134	1157	
Shale	Gray	Soft	1157	1262	
Sand	White	Hard	1262	1284	
Shale	Gray	Soft	1284	1425	
Coal	Black	Soft	1425	1430	

(Attach separate sheets as necessary)

Well Operator  
By: Warren R. Hought  
Date: 1/31/83

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 drilling of a well."

(Continued Ben Cunningham)

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET
Shale	Gray	Soft	1430	1479
Coal	Black	Soft	1479	1482
Shale	Gray	Soft	1482	1518
Sand	White	Hard	1518	1583
Shale	Gray	Soft	1583	1674
Sand	White	Hard	1674	1695
Shale	Gray	Soft	1695	1787
Sand	White	Hard	1787	1802
Lime <sup>8 1/2</sup>	White	Hard	1802	1888
Sand <sup>1 1/2</sup>	White	Hard	1888	1964
Shale	Gray	Soft	1964	2706
Sand	White	Hard	2706	2744
Shale	Gray	Soft	2744	2853
Sand	White	Hard	2853	2871
Shale	Gray	Soft	2871	2929
Sand	White	Hard	2929	2937
Shale	Gray	Soft	2937	3144
Sand	White	Hard	3144	3167
Shale	Gray	Soft	3167	3328
Sand	White	Hard	3328	3341
Shale	Gray	Soft	3341	3609
Sand	White	Hard	3609	3622
Shale	Gray	Soft	3622	3974
Sand	White	Hard	3974	3985
Shale	Gray	Soft	3985	4236
Sand	White	Hard	4236	4241
Shale	Gray	Soft	4241	

4601 T.P. Huron

4601  
2350  
225 1/2 Area

4601  
1002  
3599

FEB 14 1983

RECEIVED JUL 3 - 1985



OIL & GAS DIVISION DEPT. OF MINES

IV-35 (Rev 8-81)

RECEIVED MAY 23 1985 OIL & GAS DIVISION DEPT. OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date May 21, 1985 Operator's Well No. Cunningham H-1209 Farm Cunningham API No. 47 - 073 - 1443 FRAC

WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil xx / Gas xx / Liquid Injection     / Waste Disposal     / (If "Gas," Production XX / Underground Storage     / Deep     / Shallow XX /)

LOCATION: Elevation: 1040 Watershed ok on 75" top - KLA 11/15/85 Mudlick Run District: McKim County Pleasants Quadrangle Ellenboro

COMPANY Haight, Inc. ADDRESS 4424 Emerson Ave., Parkersburg, WV 26104 DESIGNATED AGENT Warren R. Haight ADDRESS Rt. #3 Box 14, Smithville, WV 26178 SURFACE OWNER Ben & Mary Cunningham ADDRESS Pike Rd., St. Marys, WV 26170 MINERAL RIGHTS OWNER Ben & Mary Cunningham ADDRESS Same

OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther ADDRESS     PERMIT ISSUED 12-4-84 DRILLING COMMENCED 12-14-84 RERWORK     DRILLING COMPLETED 2-5-85

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED CN

Table with 4 columns: Casing Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16, 13-10, 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2 and Liners used.

GEOLOGICAL TARGET FORMATION     Depth     feet Depth of completed well 4601' feet Rotary N/A / Cable Tools n/a Water strata depth: Fresh n/a feet; Salt n/a feet Coal seam depths: n/a Is coal being mined in the area? NO

OPEN FLOW DATA Producing formation Big Injun & Gordon Pay zone depth 1979-2804 feet Gas: Initial open flow     Mcf/d Oil: Initial open flow     Bbl/d Final open flow 40 Mcf/d Final open flow 1 Bbl/d Time of open flow between initial and final tests     hours Static rock pressure No Test psig (surface measurement) after     hours shut in (If applicable due to multiple completion--)

JUL 15 1985

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

400 sacks 20/40 sand foam frac  
15 holes (1975-2804)

Big Injun - Gordon

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas

(Attach separate sheets as necessary)

Haught, Inc.  
Well Operator

By: David C. Jackson Well Administrator

Date: May 21, 1985

Note: Regulation 2.02(i) provides as follows:  
"The term 'well' means any hole or opening in the earth, whether or not it is drilled, bored, or otherwise made, and whether or not it is cased, lined, or otherwise supported, and whether or not it is used for the production of oil, gas, or other hydrocarbon, or for the disposal of water, or for any other purpose."



(Obverse)

(Revised 3-81)



Farm Cunningham  
API # 47-073-1443  
Date February 15, 1982

STATE OF WEST VIRGINIA  
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil  / Gas  /

(If "Gas", Production  / Underground storage \_\_\_ / Deep \_\_\_ / Shallow  /

LOCATION: Elevation: 1002' Watershed: Mudlick Run  
District: McKim County: Pleasants Quadrangle: Ellenboro, WV 7 1/2

WELL OPERATOR Haught, Inc.  
Address Rt. 3 Box 14  
Smithville, WV 26178

DESIGNATED AGENT Warren R. Haught  
Address Smithville, WV 26178

OIL AND GAS  
ROYALTY OWNER Benjamin & Mary Cunningham  
Address Pike Road  
St. Marys, W. Va. 26170  
Acreage 50 1/2

COAL OPERATOR None  
Address \_\_\_\_\_

SURFACE OWNER Benjamin & Mary Cunningham  
Address Pike Road  
St. Marys, W. Va. 26170  
Acreage 50 1/2

COAL OWNER(S) WITH DECLARATION ON RECORD:  
NAME \_\_\_\_\_  
Address \_\_\_\_\_  
NAME \_\_\_\_\_  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
NAME Columbia Gas Transmission Corp.  
Address P.O. Box 1273  
Charleston, W. Va. 25325

COAL LESSEE WITH DECLARATION ON RECORD:  
NAME None  
Address \_\_\_\_\_

OIL AND GAS INSPECTOR TO BE NOTIFIED:  
NAME Phillip L. Tracy  
Address Rt. # 23  
Clendenin, W. Va. 25045  
Telephone 758-4573

RECEIVED

MAR 01 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_ / lease \_\_\_ / other contract  / dated May 12, 1980, to the undersigned well operator from Zedack Pethtel.

(If said deed, lease, or other contract has been recorded:)

Recorded on June 18, 1980, in the office of the Clerk of County Commission of Pleasants County, West Virginia, in Deed 156 Book at page 328. A permit is requested as follows:

PROPOSED WORK: Drill  / 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 any 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 receipt of this Application by the Dept. Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS  
CONSERVATION COMMISSION  
1613 WASHINGTON ST., E.  
CHARLESTON, WV 25311  
Telephone - 304/348-3092

Haught, Inc.  
Well Operator  
By: Warren R. Haught  
Its: 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 Rt. 3 Box 14

Smithville, WV 26178

GEOLOGICAL TARGET FORMATION Marcellus Devonian Shale

Estimated depth of completed well 4500' feet. Rotary X / Cable tools /

Approximate water strata depths: Fresh, feet; salt, feet.

Approximate coal seam depths: None

Is coal being mined in this area: Yes / No X /

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight, New, Used), FOOTAGE INTERVALS (For Drill, Left in Well), CEMENT FILL-UP OR SACKS (Cubic ft.), PACKERS (Kinds, Sizes, Depths set, 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-9, "Reclamation" applicable to the reclamation required by Code §22-4-12b and Regulation (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 §22-4-8a 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,

ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY

APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE

IF OPERATIONS HAVE NOT COMMENCED BY 11-9-82.

BY [Signature]

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 regularions.

Date: , 19 .

By: \_\_\_\_\_

Its: \_\_\_\_\_



1) Date: November 20, 19 84  
 2) Operator's Well No. Cunningham  
 3) API Well No. 47 - 073 - 1443 - FRAC  
 State County Permit

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES, OIL AND GAS DIVISION  
 APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil XX / Gas XX /  
 B (If "Gas", Production XX / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow XX /)
- 5) LOCATION: Elevation: 1002 Watershed: Mudlick Run  
 District: McKim County: Pleasants Quadrangle: Ellenboro 7.5
- 6) WELL OPERATOR Haught, Inc. 7) DESIGNATED AGENT Warren R. Haught  
 Address 4424 Emerson Ave. 2150<sup>0</sup> Address Rt #3 Box 14  
Parkersburg, WV 26104 Smithville, WV 26178
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Robert Lowther Name MMH Haught, Inc.  
 Address General ~~XXXXX~~ Delivery Address 4424 Emerson Ave.  
Middlebourne, WV 26149 Parkersburg, WV 26104
- 10) PROPOSED WELL WORK: Drill \_\_\_\_\_ / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate XX /  
 Plug off old formation \_\_\_\_\_ / Perforate new formation XX /  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Devonian
- 12) Estimated depth of completed well, 4601 feet  
 13) Approximate trata depths: Fresh, N/A feet; salt, N/A feet.  
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes \_\_\_\_\_ / No XX /

15) 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		
Conductor								
Fresh water	<u>8 5/8</u>					<u>1102 in well</u>	<u>192 sack</u>	DEPT. OF MINES RECEIVED OIL & GAS DIV. DEC 3 1986 Perforations: Top Bottom
Coal								
Intermediate								
Production	<u>4 1/2</u>					<u>4339 in well</u>	<u>530 sack</u>	
Tubing								
Liners								

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-073-1443-FRAC Date December 4, 19 84

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires December 4, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>74</u>	<u>MN</u>	<u>MN</u>	<u>MN</u>	<u>7003</u>

Margaret J. Hassel  
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File



1) Date: November 9, 19 82  
 2) Operator's Well No. H-1209  
 3) API Well No. 47 073 - 1443 - 000  
 State West Virginia County Putnam Permit Extension

DRILLING CONTRACTOR:

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil  / Gas   
 B (If "Gas", Production  / Underground storage  / Deep  / Shallow )
- 5) LOCATION: Elevation: 1002 Watershed: Hubbick Run  
 District: Putnam County: Putnam Quadrangle: Ellenboro, WV 72
- 6) WELL OPERATOR: Hubbick, Inc. 4424 Emerson Avenue Parkersburg, WV 26104  
 11) DESIGNATED AGENT: Walter H. Haught Rt. 3 Box 14 Smithville, WV 26170
- 7) OIL & GAS ROYALTY OWNER: Benjamin & Mary Cunningham Pike Road St. Marys, WV 26170  
 12) COAL OPERATOR: None
- 8) SURFACE OWNER: Benjamin & Mary Cunningham Pike Road St. Marys, WV 26170  
 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Name \_\_\_\_\_ Address \_\_\_\_\_  
 Name \_\_\_\_\_ Address \_\_\_\_\_
- 9) FIELD SALE (IF MADE) TO: West Virginia Gas Transmission Charleston, WV 25325  
 14) COAL LESSEE WITH DECLARATION ON RECORD:  
 Name \_\_\_\_\_ Address \_\_\_\_\_
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED: Robert A. Lowther General Delivery Middlebourne, WV 26149
- 15) PROPOSED WORK: Drill  / Drill deeper  / Redrill  / Fracture or stimulate   
 Plug off old formation  / Perforate new formation   
 Other physical change in well (specify) Marcellus Devonian Shale
- 16) GEOLOGICAL TARGET FORMATION: 4350
- 17) Estimated depth of completed well, \_\_\_\_\_ feet  
 18) Approximate water strata depths: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.  
 19) Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area? Yes  / No

RECEIVED  
NOV 12 1982  
OIL & GAS DIVISION  
DEPT. OF MINES

20) 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	3-5/8	X-55	20.7	X		1102'	1102'	Cement to surface	Kinds
Fresh water									Sizes
Coal									Depths set
Intermediate									Perforations:
Production	4-1/2	J-55	10.37	X		4300'	4300'	430 sacks	Top Bottom
Tubing									
Liners									

- 21) EXTRACTION RIGHTS  
 Check and provide one of the following:  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS  
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes  No
- If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)  
 24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed 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 at Charleston, West Virginia.

Notary: [Signature] Signed: Walter H. Haught, Sr. District Administrator  
 My Commission Expires: April 10, 1982 Its: \_\_\_\_\_

OFFICE USE ONLY  
 DRILLING PERMIT  
 Permit number \_\_\_\_\_ Date November 10, 19 82

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires \_\_\_\_\_ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
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Administrator, Office of Oil and Gas

Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.  
 "Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less than six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
- 15) Work that will be attempted—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.
- 16) Anticipated formation for which well will be completed
- 17) Self explanatory
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
  - (1) A brief description of the tract of land including the district and county wherein the tract is located;
  - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
  - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
  - (4) A brief description of the royalty provisions of each such lease or contract.
- 22) Code 22-4-11(d) and 22-4-11(e).
- 23) 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-9, "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 §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
- 24) The above named coal operator, coal owner(s), and coal lessee are hereby notified that any 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.

.....

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.

**WAIVER**

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 \_\_\_\_\_