

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: 1098' Watershed: Long Run
District: McKim County: Pleasants Quadrangle: Schultz, WV 7 1/2'

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

OIL & GAS ROYALTY OWNER Charles J. Pethtel COAL OPERATOR None
Address 5451 Ashford Road Address _____
Dublin, Ohio 43017

Acreage 128.47 COAL OWNER(S) WITH DECLARATION ON RECORD:
SURFACE OWNER same as above Name _____
Address _____
Acreage _____ Name _____

FIELD SALE (IF MADE) TO:
Name _____ Address _____
Address _____ Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip Lee Tracy Address _____
Address P. O. Box 173 - Dodd Street
Middlebourne, WV 26149

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___/ lease ___/ other contract X / dated August 27, 1979, to the undersigned well operator from Zedack Pethtel

[If said deed, lease, or other contract has been recorded:]
Recorded on April 22, 1980, in the office of the Clerk of the County Commission of Pleasants County, West Virginia, in Deed Book 155 at page 471. 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 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.

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.

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) 348-3092

RECEIVED

JUL 11 1980

BLANKET BOND

Haught, Inc. Well Operator
Warren R. Haught
By _____
President

OIL & GAS DIVISION
DEPT. OF MINES

PROPOSED WORK ORDER

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

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

GEOLOGICAL TARGET FORMATION, Devonian Shale

Estimated depth of completed well, 3500 feet Rotary Cable tools _____

Approximate water strata depths: Fresh, 50 feet; salt, _____ feet.

Approximate coal seam depths: None Is coal being mined in the area? Yes _____ No

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									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			3500.	100 sacks	Depths set
Tubing									
Liners									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 3-18-81.

[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.

BLANKET PERMIT

Date: _____, 19____

By _____
Its _____

Date July 3 19 80
Well No. H-1019
API No. 47 - 073 - 0897
state County Permit

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS

Company Name Haught, Inc. Designated Agent Warren R. Haught
Address Smithville, WV 26178 Address Smithville, Wv 26178
Telephone 477-3333 Telephone 477-3333
Landowner Charles J. Pethel Soil Cons. District Upper Ohio
Revegetation to be carried out by Warren Haught (Agent)
This plan has been reviewed by Upper Ohio SCD. All corrections
and additions become a part of this plan. 7/11/80 Renneth R. Mason
(Date) (SCD Agent)

Access Road	Location
Structure <u>Ditch Relief Culvert</u>	Structure <u>Interceptor Channell</u>
Spacing <u>200</u>	Material <u>Soil</u>
Page Ref. Manual <u>1.8</u>	Page Ref. Manual <u>1.11</u>
Structure <u>N/A</u> (B)	Structure <u>N/A</u> (2)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____
Structure <u>N/A</u> (C)	Structure <u>N/A</u> (3)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual _____



All structures should be inspected regularly and repaired if necessary.

Revegetation

Treatment Area I	Treatment Area II
Lime _____ Tons/acre or correct to pH <u>6.5</u>	Lime _____ Tons/Acre or correct to pH _____
Fertilizer <u>200</u> lbs/acre (10-20-20 or equivalent)	Fertilizer _____ lbs/acre (10-20-20 or equivalent)
Mulch <u>Hay</u> 2 Tons/Acre	Mulch _____ Tons/Acre
Seed <u>Kentucky 31 Fescue</u> 30 lbs/acre	Seed* _____ lbs/acre
<u>Red Clover</u> 5 lbs/acre	_____ lbs/acre
_____ lbs/acre	_____ lbs/acre

Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

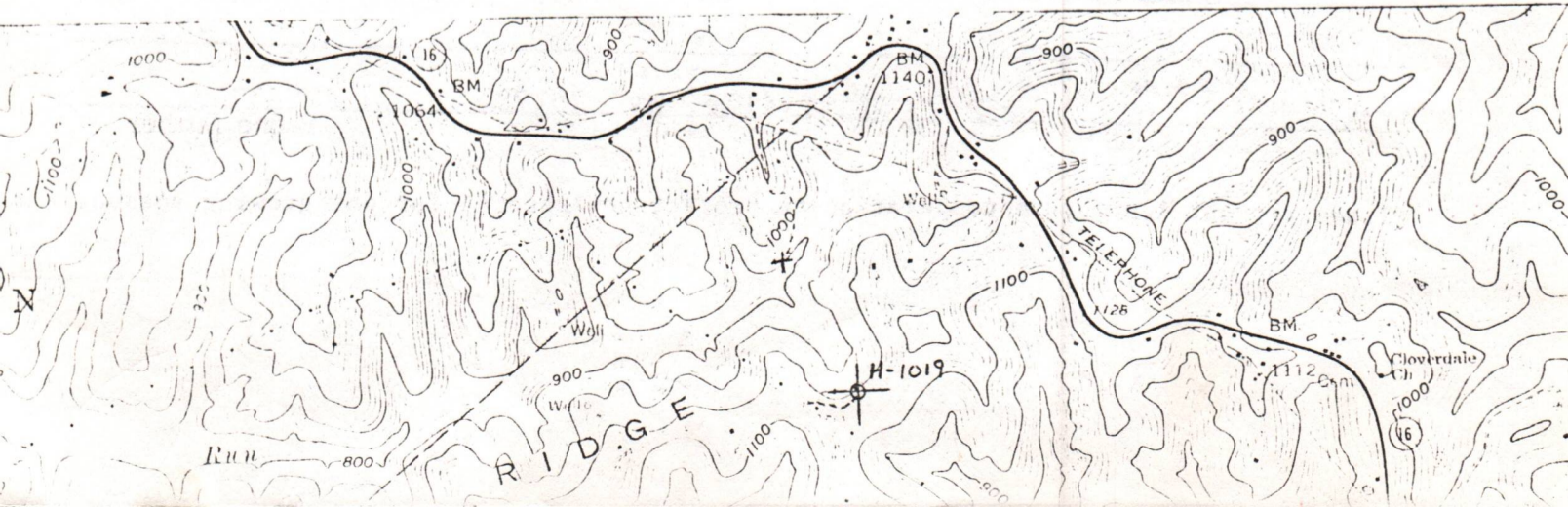
Attach or photocopy section of involved Topographic map. Quadrangle Schultz

Legend:  Well Site
 Access Road







RECEIVED

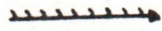





JUL 17 1980

OIL & GAS DIVISION
EPT. OF MINES

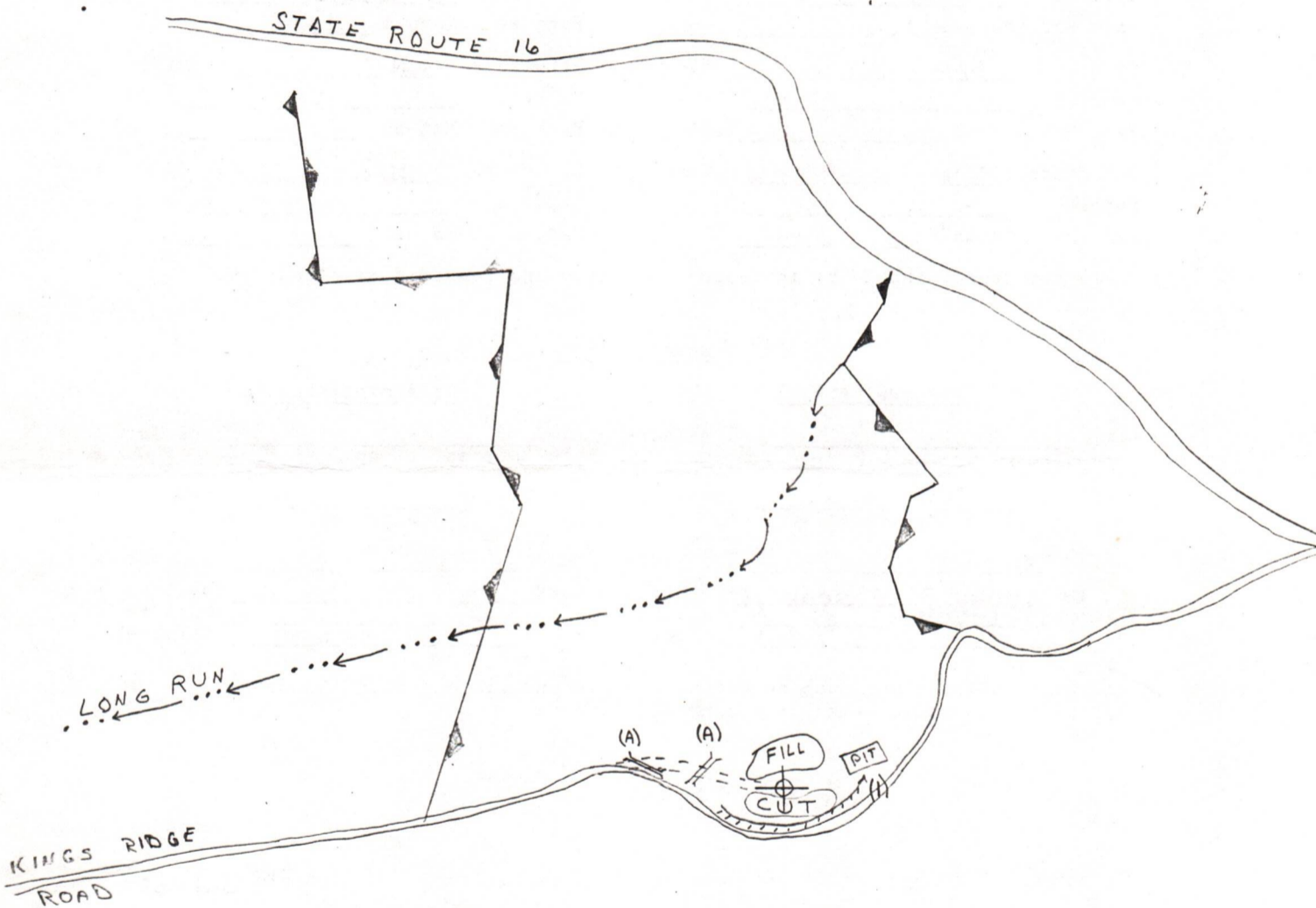


Well Site Plan

Legend: Property Boundary 
 Road 
 Existing Fence 
 Planned Fence 
 Stream 
 Open Ditch 

Diversion 
 Spring 
 Wet Spot 
 Building 
 Drain Pipe 
 Waterway 

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with first part of this plan. Include all natural drainage.



Comments: 5% Slope. Cut and Pile brush and trees before
grading well site.

Signature: Warren R. Haughton Smithville, Wv 26178 477-3333
 Agent Address Phone Number

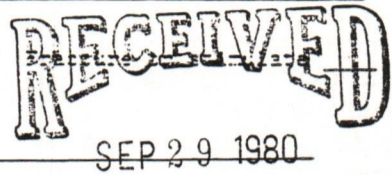
Please request landowners cooperation to protect new seeding for one growing season.

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

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

WELL TYPE: Oil / Gas / Liquid Injection _____ / Waste Disposal _____
(If "Gas", Production / Underground storage _____ / Deep _____ / Shallow /)
LOCATION: Elevation: 1098' / Watershed: Long Run
District: McKim / County: Pleasants / Quadrangle: Schultz, WV 7 1/2
WELL OPERATOR Haught, Inc. / Pethtel H-1019
DESIGNATED AGENT Warren R. Haught
Address Rt. 3 Box 14 / Address Smithville, WV 26178
Smithville, WV 26178

PERMITTED WORK: Drill / Convert _____ / Drill deeper _____ / Redrill _____
Plug off old formation _____ / Perforate new formation _____
Other physical change in well (specify) _____



PERMIT ISSUED ON July 18, 1980, OIL & GAS INSPECTOR FOR THIS AREA
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Phillip Lee Tracy DEPT. OF MINES
Address P.O. Box 173-Dodd Street
Middlebourne, WV 26149

GEOLOGICAL TARGET FORMATION: Devonian Shale / Depth 3555 to 4008 feet
Depth of completed well, 4008' feet / Rotary / Cable Tools _____
Water strata depth: Fresh, _____ feet; salt, _____ feet.
Coal seam depths: None / Is coal being mined in the area? No
Work was commenced August 20, 1980, and completed September 16, 1980

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								Kinds
Fresh water	8-5/8	K-55	20#	X		358'	358'	150 sacks
Coal								Sizes
Intermediate								
Production	4 1/2	J-55	10.5#	X			3968'	440 sacks
Tubing								Depths set
Liners								Perforations:
								Top Bottom
								3666 3920

OPEN FLOW DATA
Producing formation Devonian Shale / Pay zone depth 3555 to 4008 feet
Gas: Initial open flow, _____ Mcf/d / Oil: Initial open flow, _____ Bbl/d
Final open flow, 85 Mcf/d / Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 8 hours
Static rock pressure, 650 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 / 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

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

Nitrogen fraced by B.J. Hughes -- 9-2-80 -- 900,000 SCF Nitrogen
500 Gal. Acid

Perforations: 19--3666--3920

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks
					Including indication of all fresh and salt water, coal, oil and gas
Clay			0	15	
Red Rock/Sand			15	728	
Sand/Shale			728	875	
Shale			875	920	
Red Rock			920	923	
Sandy Shale			923	954	
Red Rock			954	964	
Shale			964	979	
Sand			979	993	
Red Rock			993	1004	
Sandy Shale			1004	1060	
Shale			1060	1080	
Sand			1080	1151	
Shale			1151	1218	
Sand			1218	1270	
Shale			1270	1425	
Sand			1425	1458	
Shale			1458	1482	
Sand			1482	1500	
Shale			1500	1660	
Sand			1660	1788	
Shale			1788	1817	
B. Lime			1817	1867	
Sand			1867	1990	
Shale/Sand			1990	2679	
Shale			2679	2743	
Sand			2743	2803	
Shale			2803	3015	
Sand			3015	3025	
Shale			3025	3087	
Sand			3087	3122	
Shale			3122	3207	
Sand			3207	3256	
Shale			3256	3510	
Sand			3510	3555	
Shale			3555	3690	
Sand			3690	3753	
Shale			3753	3787	
Sand			3787	3813	
Shale			3813	3878	
Sand			3878	4008	T.D.

OPE: 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."

Haight, Inc.
Well Operator

By Walter R. Haight
Its President



RECEIVED
AUG 23 1984
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
August 1, 1984

COMPANY Haught, Inc.
Route 3, Box 14
Smithville, West Virginia 26178

PERMIT NO 073-0897 (7/18/80)
FARM & WELL NO Charles J. Pethel#H-1019
DIST. & COUNTY McKim/Pleasants

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work	✓	
25.04	Prepared before Drilling to Prevent Waste	✓	
25.03	High-Pressure Drilling	✓	
16.01	Required Permits at Wellsite	✓	
15.03	Adequate Fresh Water Casing	✓	
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing	✓	
15.04	Adequate Cement Strenght	✓	
15.05	Cement Type	✓	
23.02	Maintained Access Roads	✓	
25.01	Necessary Equipment to Prevent Waste	✓	
23.04	Reclaimed Drilling Pits	✓	
23.05	No Surface or Underground Pollution	✓	
23.07	Requirements for Production & Gathering Pipelines	✓	
16.01	Well Records on Site	✓	
16.02	Well Records Filed	✓	
7.05	Identification Markings	✓	

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED R. H. Lowther
DATE Aug 21, 1984

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. H. v. B.
Administrator-Oil & Gas Division

September 13, 1984

TMS/chm

DATE

RECEIVED
 SEP 20 1980
 OFFICE OF THE
 DEPT. OF MINE

1.0 API well number: (If not available, leave blank. 14 digits.)	47-073- 0 -0897-0000			
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	103 Section of NGPA	Category Code		
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	4008'		feet	
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	Glenn L. Haught & Sons Name c/o Warren R. Haught Street Smithville, WV 26178 City State Zip Code			00 8265 Seller Code
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	McKim District Field Name Ritchie Pleasants County State		WV State	
(b) For OCS wells:	N/A Area Name		Block Number	
Date of Lease:				
 Mo. Day Yr. OCS Lease Number				
(c) Name and identification number of this well: (35 letters and digits maximum.)	Charles Pethel H-1019			
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	Shale			
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	Columbia Gas Transmission - <i>chg per letter from Mr. Haught</i> Consolidated Gas Supply Corporation Name			004228 Buyer Code
(b) Date of the contract:	Contract Applied For:			
 Mo. Day Yr.				
(c) Estimated annual production:	15 MMcf.			
	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	---	---	---	---
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	2.293	.277	.01	2.580
9.0 Person responsible for this application:	Warren R. Haught Agent & Co-Owner Name Title <i>Warren R. Haught</i> Signature 9-22-1980 Date Application is Completed 477-3333 Phone Number			

Agency Use Only
Date Received by Juris. Agency SEP 20 1980
Date Received by FERC

PARTICIPANTS:

DATE: FEB 19 1981

BUYER-SELLER CO

WELL OPERATOR: Glenn L. Haught & Sons

008265

FIRST PURCHASER: Columbia Gas Transmission Corp.

004228

OTHER:

W. Va. Department of Mines, Oil & Gas Division
 WELL DETERMINATION FILE NUMBER
800926.103.073: 0897
 Use Above File Number on all Communications
 Relating to Determination of this Well

Computer OK.
 CK map
 Gordon 2881-3150
 K 870 → 1300' TO 3820 not OK
 571 → 1000' TO 2120 OK shallower
 1015 → 1150' TO 4000' not OK shallower
 Qualifies J. Huggins

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING

- ITEM NO.
1. FERC -121 Items not completed - Line No. _____
 2. IV-1 Agent Warren R. Haught
 3. IV-2 Well Permit _____
 4. IV-6 Well Plat
 5. IV-35 Well Record Drilling Deepening _____
 6. IV-36 Gas-Oil Test: Gas Only _____ Was Oil Produced? _____ Ratio _____
 7. IV-39 Annual Production _____ years
 8. IV-40 90 day Production _____ Days off line: _____
 9. IV-48 Application for certification. Complete?
 - 10-17. IV Form 51 - 52 - 53 - ~~54~~ - 55 - 56 - 57 - 58 Complete? Affidavit Signed
 - 18-28. Other: Survey _____ Logs _____ Geological Charts _____
 Structure Map _____ 1: 4000 Map _____ Well Tabulations _____
 Gas Analyses _____
 - (5) Date commenced: 8-20-80 Date completed 9-16-80 Deepened _____
 - (5) Production Depth: 3555 - 4008
 - (5) Production Formation: Devonian Shale
 - (5) Final Open Flow: 85 M.
 - (5) After Frac. R. P. 650
 - (6) Other Gas Test: _____
 - (7) Avg. Daily Gas from Annual Production: _____
 - (8) Avg. Daily Gas from 90-day ending w/1-120 days _____
 - (8) Line Pressure: _____ PSIG from Daily Rep _____
 - (5) Oil Production: No From Completion Report _____
 - 17. Does lease inventory indicate enhanced recovery being done _____
 - 17. Is affidavit signed? Notarized?
 - Does official well record with the Department confirm the submitted information?
 - Additional information _____ Does computer program confirm? _____
 - Is Determination Objected to _____ By Whom? SB.

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

Date September 22, 1980

Operator's Well No. H-1019

API Well No. 47 - 073 - 0897
State County Permit

WELL CLASSIFICATION FORM
NEW ONSHORE PRODUCTION WELL

MGPA Section 103

DESIGNATED AGENT Warren R. Haught

ADDRESS Smithville, WV 26178

WELL OPERATOR Glenn L. Haught & Sons

LOCATION: Elevation 1098'

ADDRESS c/o Warren R. Haught, Agent

Watershed Long Run

Smithville, WV 26178 *Columbia*

Dist. McKim County Pleasants Quad. Schultz, WV 7 1/2'

GAS PURCHASER ~~Consolidated Gas Supply Corp~~ *Columbia*

Gas Purchase Contract No. Applied For

ADDRESS 445 West Main Street

Meter Chart Code _____

Clarksburg, WV 26301

Date of Contract _____

* * * * *

Date surface drilling was begun: August 20, 1980

Indicate the bottom hole pressure of the well and explain how this was calculated:

Bottom Hole Pressure - 650 Lbs

Bottom Hole Pressure was assumed to be equal to the maximum Rock Pressure of the well after hydraulic fracturing was completed and well was cleaned up.

AFFIDAVIT

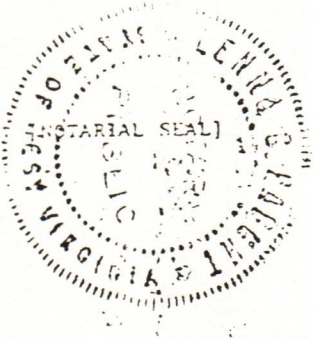
I, Warren R. Haught, having been first sworn according to law state that surface drilling of the well for which this determination is sought was begun on or after February 19, 1977; the well satisfies applicable state or federal well spacing requirements and the well is not within a proration unit, in existence at the time surface drilling began, which was applicable to the reservoir from which gas is or will be produced and which applied to any other well producing gas in commercial quantities or on which surface drilling began on or after February 19, 1977, and which was capable of producing gas in commercial quantities. I state, further, that I have concluded, to the best of my information, knowledge and belief, that the well for which this determination is sought is a new onshore production well and that I am not aware of any information not described in the application which is inconsistent with this conclusion.

Warren R. Haught

STATE OF WEST VIRGINIA,

COUNTY OF Ritchie, TO WIT:

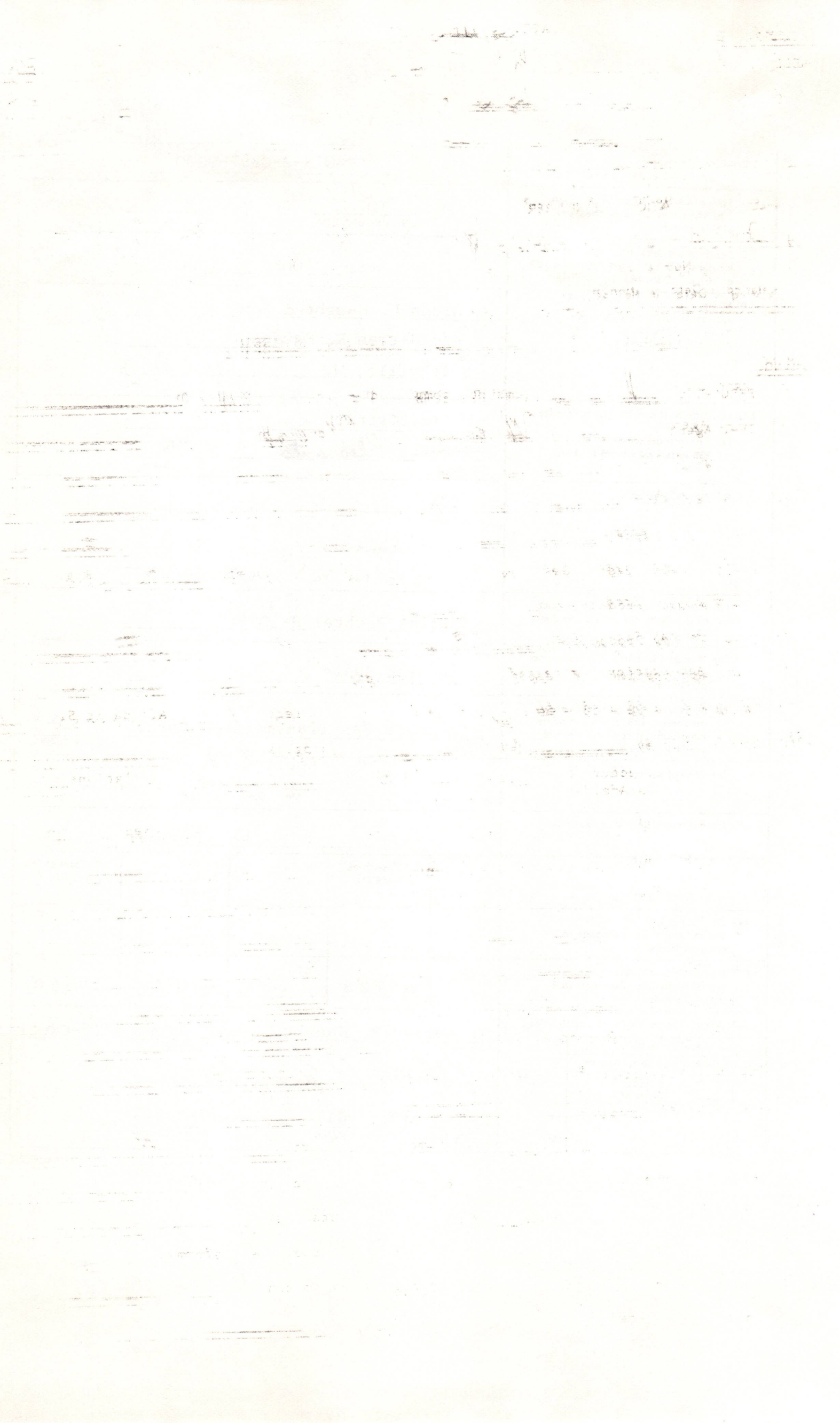
I, Lenna G. Haught, a Notary Public in and for the state and county aforesaid, do certify that Warren R. Haught, whose name is signed to the writing above, bearing date the 22 day of September, 1980 has acknowledged the same before me, in my county aforesaid. Given under my hand and official seal this 22 day of September, 1980. My term of office expires on the 18th day of May, 1986.



Lenna G. Haught
Notary Public

RECEIVED
FEB 4 1981
DEPT. OF MINE

1.0 API well number: (If not available, leave blank. 14 digits.)	47-073-2-0897-0000			
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	107 Section of NGPA	T	Category Code 3 Gas	
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	4008 feet			
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	Glenn L. Haught & Sons Name c/o Warren R. Haught		Seller Code	
	Street Smithville, WV	State WV	Zip Code 26178	
5.0 Location of this well: [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	McKim District Field Name Ritchie Pleasants		WV State	
(b) For OCS wells:	N/A Area Name		Block Number	
	Date of Lease: _____ Mo. Day Yr. OCS Lease Number			
(c) Name and identification number of this well: (35 letters and digits maximum.)	Charles Pethtel H-1019			
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	Devonian Shale			
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	Columbia Gas Transmission Corp. Name		Buyer Code	
(b) Date of the contract:	Applied For _____ Mo. Day Yr.			
(c) Estimated annual production:	15 MMcf.			
	(a) Base Price (\$/MMBTU)	(b) Tax	(c) All Other Prices [Indicate (+) or (-).]	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	---	---	---	---
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	4.726	.604	.01	5.340
9.0 Person responsible for this application:	Warren R. Haught Name		Agent & Co-Owner Title	
Agency Use Only Date Received by Juris. Agency FEB 4 1981 Date Received by FERC	_____ Signature		_____ Phone Number	
	Jan. 30, 1981 Date Application is Completed		477-3333	



PARTICIPANTS:

DATE: June 9 1981

BUYER-SELLER CODE

WELL OPERATOR: Haught, Inc. % Warren R. Haught

008270

FIRST PURCHASER: Columbia Gas Trans. Corp.

004030

OTHER: _____

1.3%

W. Va. Department of Mines, Oil & Gas Division
 WELL DETERMINATION FILE NUMBER
81-2-04-107-073-0897
 Use Above File Number on all Communications
 Relating to Determination of this Well

*Hold for tight formation definition
 Qualifies J. Muzzy*

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING

ITEM NO.

1. FERC -121 ✓ Items not completed - Line No. All 7.0

2. IV-1 Agent ✓ Warren R. Haught

3. IV-2 Well Permit ✓

4. IV-6 Well Plat ✓

5. IV-35 Well Record ✓ Drilling ✓ Deepening —

6. IV-36 Gas-Oil Test: Gas Only — Was Oil Produced? — Ratio —

7. IV-39 Annual Production — years

8. IV-40 90 day Production — Days off line: —

9. IV-48 Application for certification. Complete? ✓

10-17. IV Form 51 - 52 - 53 - 54 - 55 - 56 - 57 - 58 Complete? ✓ Affidavit Signed ✓

18-28. Other: Survey Logs Geological Charts —

Structure Map — 1: 4000 Map — Well Tabulations —
 Gas Analyses —

(5) Date commenced: 8-20-80 Date completed 9-16-80 Deepened —

(5) Production Depth: 3555-4008

(5) Production Formation: Devonian Shale

(5) Final Open Flow: 85 mcf

(5) After Frac. R. P. 630# 12 hrs.

(6) Other Gas Test: —

(7) Avg. Daily Gas from Annual Production: —

(8) Avg. Daily Gas from 90-day ending w/1-120 days —

(8) Line Pressure: — PSIG from Daily Report —

(5) Oil Production: — From Completion Report —

10-17. Does lease inventory indicate enhanced recovery being done No

10-17. Is affidavit signed? ✓ Notarized? ✓

Does official well record with the Department confirm the submitted information? yes

Additional information — Does computer program confirm? —

Is Determination Objected to — By Whom? —

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

Date July 2 1981

Operator's Well No. H-1019
API Well No. 17 - -73 - 0897
State County Permit

WELL CLASSIFICATION FORM
HIGH COST GAS WELL - DEVONIAN SHALE

MGPA Section 107

WELL OPERATOR Glenn L. Haught & Sons
ADDRESS C/o Warren R. Haught
Smithville, WV 26178
GAS PURCHASER Columbia Gas Trans. Corp.
ADDRESS P. O. Box 1273
Charleston, WV 25325

DESIGNATED AGENT Warren R. Haught
ADDRESS Rt. 3 Box 14
Smithville, WV 26178
LOCATION Elevation 1098'
Watershed Long Run
Dist McKim County Pleasants Shultz
Gas Purchase Contract No. AP-25283
Meter Chart Code
Date of Contract March 3, 1981

* * * * *

Date surface drilling began August 20, 1980

Indicate the bottom hole pressure of the well and explain how this was calculated.
Bottom Hole Pressure - 719 psig

$$Pws=Phs e^{-\frac{.01875 SG D}{Z T}}$$

Pwh = 650psig
SG = .7
D = 3793
Z = .892
T = 558

AFFIDAVIT

I, Warren R. Haught, having been first sworn according to law, state that, I have calculated the percentage of footage of the producing interval which is not Devonian shale as indicated by a Gamma Ray index of less than 0.7 if a Gamma Ray log described subparagraph (3)(i) or (3)(ii)(A) has been filed, or as indicated by the report described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high cost natural gas well.

Warren R. Haught

STATE OF WEST VIRGINIA.
COUNTY OF Ritchie TO WIT

I, Lenna G. Haught, a Notary Public in and for the state and county aforesaid do certify that Warren R. Haught whose name is signed to the writing above, bearing date the 2nd day of July, 1981, has acknowledged the same before me, in my county aforesaid

Given under my hand and official seal this 2nd day of July, 1981.
My term of office expires on the 18th day of May, 1986.

Lenna G. Haught
Notary Public

[NOTARIAL SEAL]



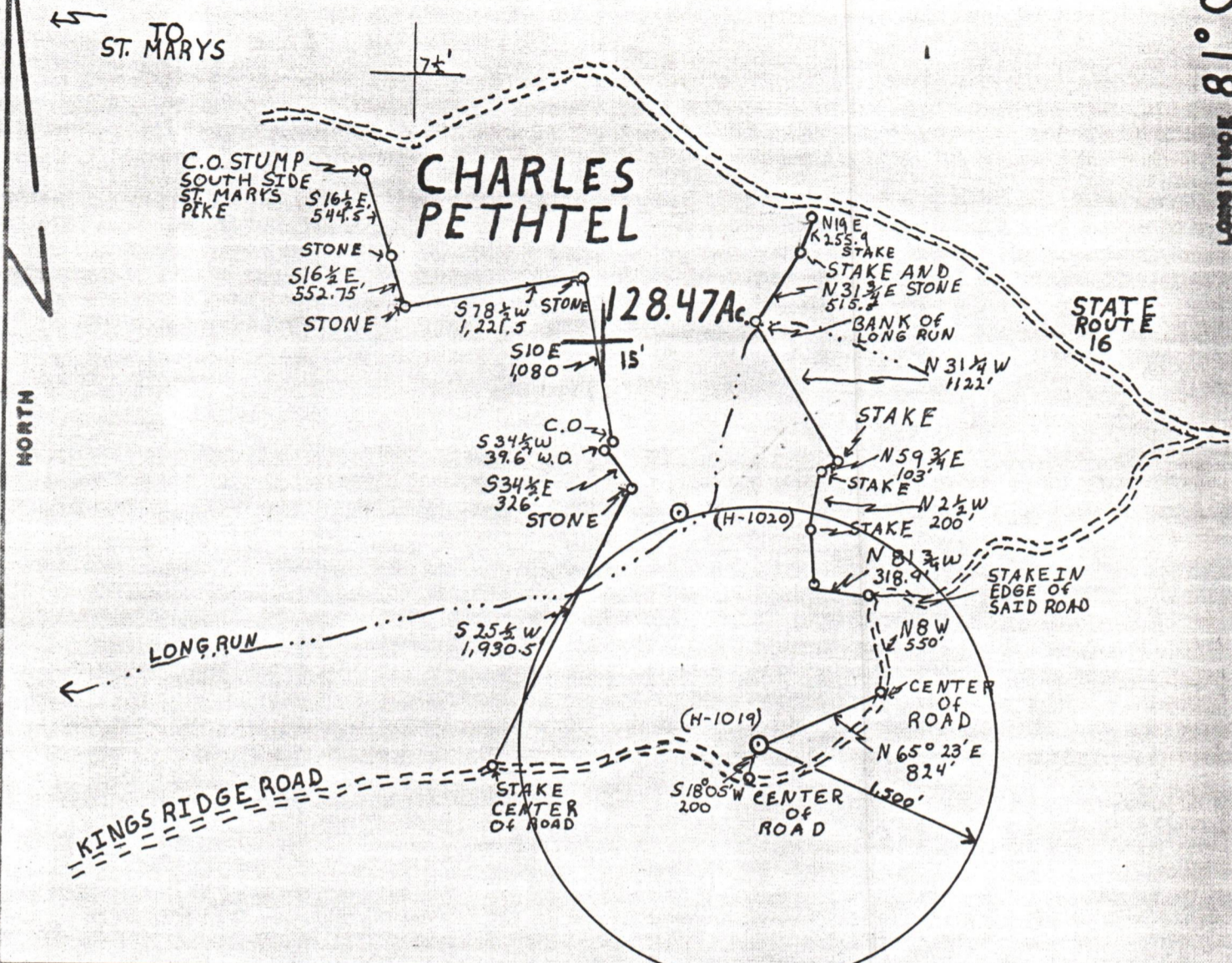
5-41

KF 7-14-80

(15) 39° 25'

LATITUDE 39° 22½'
4,010' SOUTH
10,320' WEST

LONGITUDE 81° 07½'
(15) 81° 05'



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION BM 1140

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) _____
 R.P.E. _____ L.L.S. _____

PLACE SEAL HERE

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



DATE 20 JUNE, 19 80
 OPERATOR'S WELL NO H-1019
 API WELL NO. 47 - 073 - 0897
 STATE COUNTY PERMIT
 G

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 1098' WATER SHED LONG RUN
 DISTRICT MCKIM COUNTY PLEASANTS
 QUADRANGLE SCHULTZ 7.5 ST. MARYS 15'
 SURFACE OWNER CHARLES J. PETHTEL ACREAGE 128.47
 OIL & GAS ROYALTY OWNER CHARLES J. PETHTEL LEASE ACREAGE 128.47
 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 DEVONIAN SHALE ESTIMATED DEPTH 3,500'
 WELL OPERATOR HAUGHT INC. DESIGNATED AGENT WARREN HAUGHT
 ADDRESS SMITHVILLE ADDRESS SMITHVILLE
 W. Va. 26178 W. VA. 26178