

RECEIVED

HD 6-13-80

Date: June 9, 1980

Operator's Well No. H-1015

API Well No. 47-085-4860  
State County Permit

4860

JUN 11 1980

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

OIL & GAS DIVISION  
DEPT. OF MINES  
OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas X /  
(If "Gas", Production X / Underground storage \_\_\_\_\_ Deep \_\_\_\_\_ Shallow X /)  
LOCATION: Elevation: 852' Watershed: Moyers Run  
District: Union County: Ritchie Quadrangle: Harrisville, WV 7 1/2'

WELL OPERATOR Haight, Inc.  
Address Route 3, Box 14  
Smithville, WV 26178

DESIGNATED AGENT Warren R. Haight  
Address Smithville, WV 26178

OIL & GAS ROYALTY OWNER J. T. Grubb  
Address Harrisville, WV 26362

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

ACREAGE 83  
SURFACE OWNER J. T. Grubb  
Address Harrisville, WV 26362  
ACREAGE 83

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

FIELD SALE (IF MADE) TO:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

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

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Kenneth Paul Goodnight  
Address Smithville, WV 26178

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 July 20, 1979, to the undersigned well operator from Dale Wolfe

[If said deed, lease, or other contract has been recorded:]  
Recorded on August 10, 1979, in the office of the Clerk of the County Commission of Ritchie County, West Virginia, in Lease Book 128 at page 138. 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

Haight, Inc.  
Well Operator  
By Warren R. Haight  
Its President

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

GEOLOGICAL TARGET FORMATION, Big Injun

Estimated depth of completed well, 2000 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		
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			2000'	100 sacks
Tubing								Depths set
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 3-1-81.

John B. Smith  
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

Date June 19 19 80  
 Well No. H-1015  
 API No. 47 - 085 - 4860  
 State County Permit

STATE OF WEST VIRGINIA  
OFFICE OF OIL AND GAS

Company Name Haight, Inc Designated Agent Warren R. Haight  
 Address Smithville, WV 26178 Address Smithville, WV 26178  
 Telephone 477-3333 Telephone 477-3333  
 Landowner J. T. Grubb Soil Cons. District Little Kanawha

Revegetation to be carried out by \_\_\_\_\_ (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan. 6-23-80 Jarrett Newlan  
 (Date) (SCD Agent)

Access Road	Location
Structure <u>Temporary Stream Crossing</u> (A)	Structure <u>Diversion Ditch</u> (1)
Spacing <u>N/A</u>	Material <u>Around Location</u>
Page Ref. Manual <u>1:18</u>	Page Ref. Manual <u>1:11 1:9</u>
Structure <u>Ditch (Drainage)</u> (B)	Structure _____ (2)
Spacing <u>N/A</u>	Material _____
Page Ref. Manual <u>1:3 1:11</u>	Page Ref. Manual _____
Structure _____ (C)	Structure _____ (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>500</u> lbs/acre (10-20-20 or equivalent)	Fertilizer _____ lbs/acre (10-20-20 or equivalent)
Mulch <u>Hay or Straw 1 1/2 to 2 1/2</u> Tons/Acre	Mulch _____ Tons/Acre
Seed* <u>Kentucky 31 Tall Fescue-35</u> lbs/acre	Seed* _____ lbs/acre
<u>Red Top</u> <u>5</u> lbs/acre	_____ lbs/acre
_____ lbs/acre	_____ lbs/acre

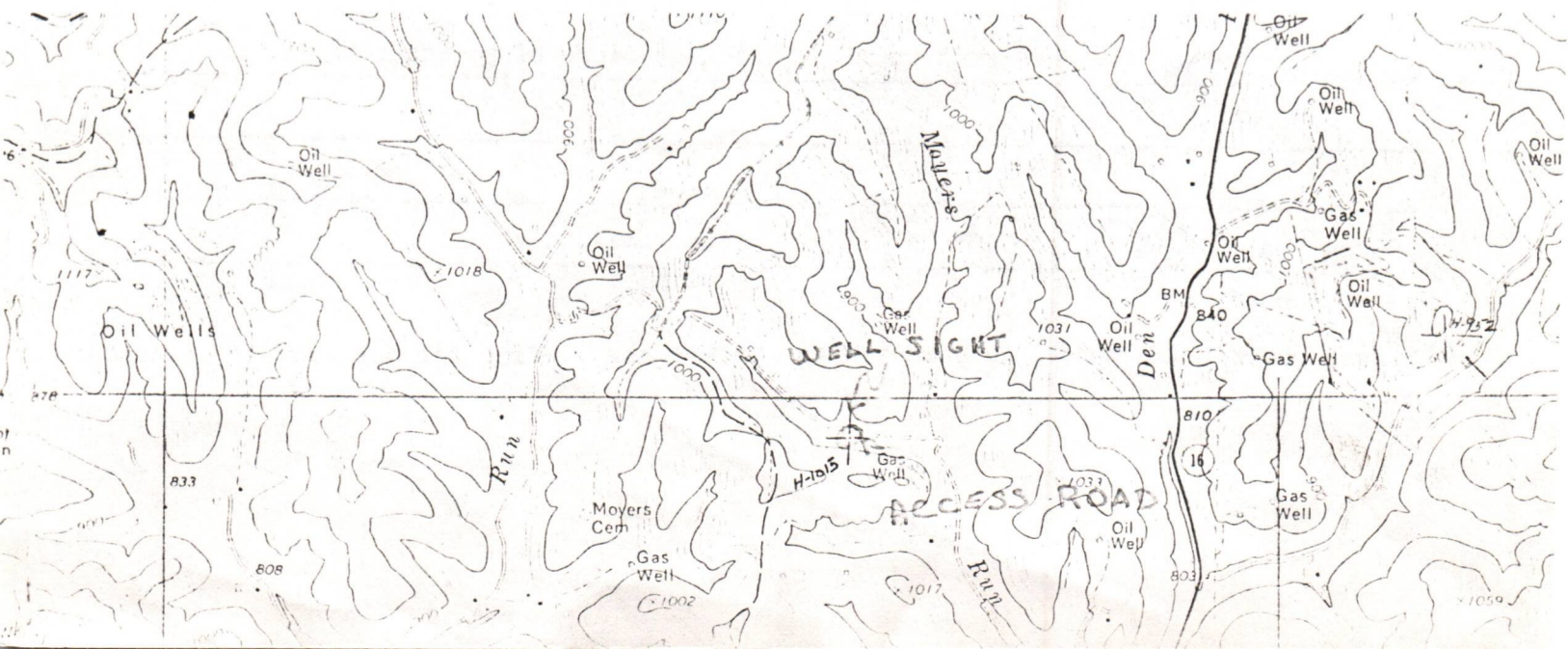
\*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

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Attach or photocopy section of involved topographic map. Quadrangle Harrisville

Legend:  Well Site  
 Access Road

OIL & GAS DIVISION  
DEPT. 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: No brush or trees on site. Average Slope of access road 1%.

Signature: Warren R. Haught Smithville, WV 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 X / Gas X / Liquid Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_  
(If "Gas", Production \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X /)  
LOCATION: Elevation: 852' Watershed: Moyers Run  
District: Union County: Ritchie Quadrangle: Harrisville, WV 7 1/2'  
WELL OPERATOR Haught, Inc. J. T. Grubb H-1015  
Address Rt. 3, Box 14 DESIGNATED AGENT Warren R. Haught  
Smithville, WV 26178 Address 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 June 1, 19 80, OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLES OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Kenneth Paul Goodnight  
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION: Big Injun Depth 1870 to 1935 feet  
Depth of completed well, 2025' 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 August 8, 19 80, and completed August 12, 19 80

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		246'	246'	75 sacks
Coal								Sizes
Intermediate								
Production	4 1/2	J-55	10.5#	X			1885'	100 sacks
Tubing								
Liners								Perforations:
								Top Bottom
								1848 1908

OPEN FLOW DATA

Producing formation Big Injun DEPT. OF MINES Pay zone depth 1870 to 1935 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, 8 hours  
Static rock pressure, 270 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.

Water Fraced by Halliburton on 9-9-80--453 Bbls. Water

20/40 Mesh Sand--18,000Lbs--80/100 Mesh Sand 6,000Lbs 500 Gal. Acid

Perforations: 12--1848--1908

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Surface Run					
Slate			250	280	
Red Rock			280	332	
Slate			332	363	
Sand/Slate			363	411	
Red Rock			411	424	
Red Rock/Slate			424	445	
Slate			445	498	
Sand			498	538	
Slate			538	552	
Sand			552	570	
Red Rock			570	580	
Slate			580	610	
Red Rock			610	618	
Sand			618	640	
Red Rock			640	750	
Slate			750	767	
Red Rock			767	800	
Slate			800	835	
Red Rock			835	900	
Slate			900	975	
Shale			975	1050	
Red Rock			1050	1080	
Slate			1080	1100	
Sand			1100	1195	
Slate			1195	1207	
Sand			1207	1215	
Slate			1215	1226	
Red Rock			1226	1248	
Sand			1248	1252	
Red Rock			1252	1273	
Sand			1273	1311	
Red Rock			1311	1322	
Sand			1322	1386	
Slate			1386	1415	
Sand			1415	1456	
Slate			1456	1567	
Sand/Slate			1567	1596	
Sand			1596	1633	
Slate			1633	1644	
Sand/Slate			1644	1691	
Slate			1691	1711	
Sand			1711	1769	
Lime			1769	1875	
Shale			1875	1879	
Sand			1879	1935	
Slate			1935	2025	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 Warren R. Haight

Its President

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

INSPECTOR'S WELL REPORT

Permit No. R.T. - 4860

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company <u>Haught Inc</u> Address _____ Farm <u>J.T. Grubb</u> Well No. <u>H-1015</u> District <u>UNION</u> County <u>Ritchie</u> Drilling commenced _____ Drilling completed _____ Total depth _____ Date shot _____ Depth of shot _____ Initial open flow _____ /10ths Water in _____ Inch Open flow after tubing _____ /10ths Merc. in _____ Inch Volume _____ Cu. Ft. Rock pressure _____ lbs. _____ hrs. Oil _____ bbls., 1st 24 hrs. Fresh water _____ feet _____ feet Salt water _____ feet _____ feet	CASING AND TUBING	USED IN DRILLING	Left in Well	PACKERS
	Size			Kind of Packer
	16			
	13			
	10			Size of _____
	8 1/4			
	6 3/4			Depth set _____
	5 3/16			
	3			Perf. top _____
	2			Perf. bottom _____
	Liners Used _____			Perf. top _____ Perf. bottom _____
CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____				
NAME OF SERVICE COMPANY _____				
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES				
_____ FEET _____ INCHES _____ FEET _____ INCHES				
_____ FEET _____ INCHES _____ FEET _____ INCHES				

Drillers' Names Haddock - (J.P.)  
Perit - Glenn L. Haught & Sons Rotary - Air  
Remarks: \_\_\_\_\_

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OIL & GAS DIVISION  
DEPT. OF MINES

8-8-80  
DATE

W. B. ... 505  
DISTRICT WELL INSPECTOR

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS WELLS DIVISION  
**INSPECTOR'S PLUGGING REPORT**

Permit No. \_\_\_\_\_ Well No. \_\_\_\_\_

COMPANY \_\_\_\_\_ ADDRESS \_\_\_\_\_

FARM \_\_\_\_\_ DISTRICT \_\_\_\_\_ COUNTY \_\_\_\_\_

Filling Material Used \_\_\_\_\_

Liner	Location	Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST

Drillers' Names \_\_\_\_\_

Remarks: \_\_\_\_\_

DATE \_\_\_\_\_ I hereby certify I visited the above well on this date.  
 \_\_\_\_\_  
 DISTRICT WELL INSPECTOR



6-1-80

INSPECTOR'S PERMIT SUMMARY FORM

WELL TYPE \_\_\_\_\_  
ELEVATION 852  
DISTRICT UNION  
QUADRANGLE HARRISVILLE 7.5  
COUNTY RITCHIE

API# 47-085-4860  
OPERATOR HAUGHT, INC  
TELEPHONE \_\_\_\_\_  
FARM J.T. GRUBB  
WELL # H-1015

SURFACE OWNER \_\_\_\_\_ COMMENTS \_\_\_\_\_ TELEPHONE \_\_\_\_\_  
TARGET FORMATION \_\_\_\_\_ DATE APPLICATION RECEIVED \_\_\_\_\_  
DATE STARTED \_\_\_\_\_  
LOCATION \_\_\_\_\_ NOTIFIED \_\_\_\_\_ DRILLING COMMENCED 8-8-80

WATER DEPTHS \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
COAL DEPTHS \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

CASING

Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up  
Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up  
Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up  
Ran \_\_\_\_\_ feet of \_\_\_\_\_ "pipe on \_\_\_\_\_ with \_\_\_\_\_ fill up

DEPARTMENT OF ENERGY  
OIL AND GAS

TD \_\_\_\_\_ feet on \_\_\_\_\_

PLUGGING

MAY 6 1986

Type	From	To	Pipe Removed

Pit Discharge date: \_\_\_\_\_ Type \_\_\_\_\_  
Field analysis ph \_\_\_\_\_ fe \_\_\_\_\_ cl \_\_\_\_\_  
Well Record received \_\_\_\_\_

Date Released 5-2-86

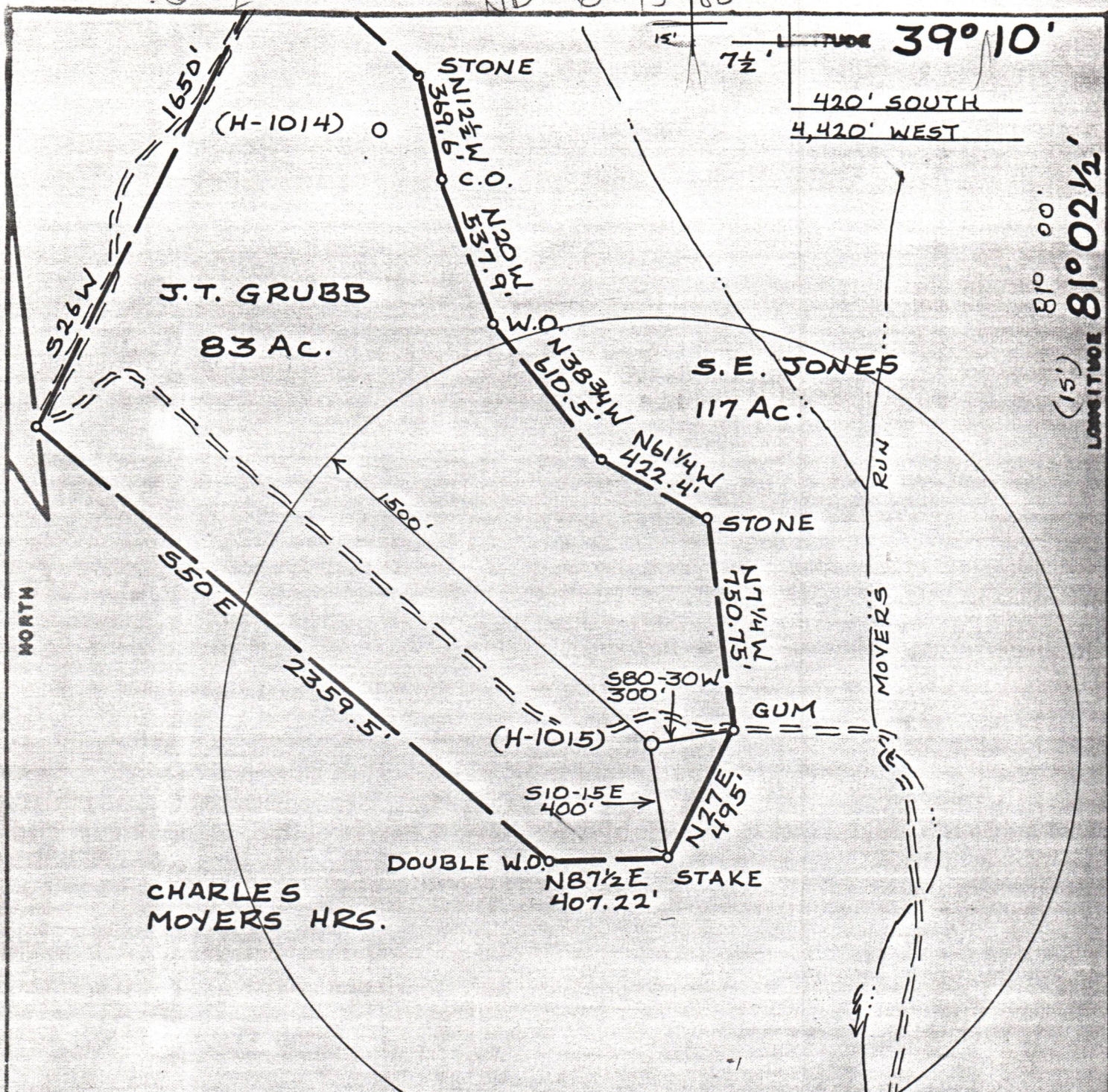
*Samuel M. Hersman*  
Inspector's signature

API# 47 085 - 4860

LIST ALL VISITS FOR THIS PERMIT

	DATE	TIME	PURPOSE	COMMENTS
1	8-8-80		visit by Paul Goodnight	(125-foot deep at visit)
2	5-2-86		visit by Samuel Hersman	- Made final
<del>3</del>				inspection
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Notes



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1"=500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION ROAD ELEV. 781'

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. Moore  
 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 MAY, 1980  
 OPERATOR'S WELL NO H-1015  
 API WELL NO. 47-085-4860  
 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 852' WATER SHED MOYERS RUN  
 DISTRICT UNION COUNTY RITCHIE  
 QUADRANGLE HARRISVILLE, W.VA. 7 1/2' QUAD.  
 SURFACE OWNER J.T. GRUBB ACREAGE 83  
 OIL & GAS ROYALTY OWNER J.T. GRUBB LEASE ACREAGE 83  
 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 BIG INTUN ESTIMATED DEPTH 2000'  
 WELL OPERATOR HAUGHT, INC. DESIGNATED AGENT WARREN HAUGHT  
 ADDRESS SMITHVILLE, W.VA. 26178 ADDRESS SMITHVILLE, W.VA. 26178