

Latitude 39° 10'

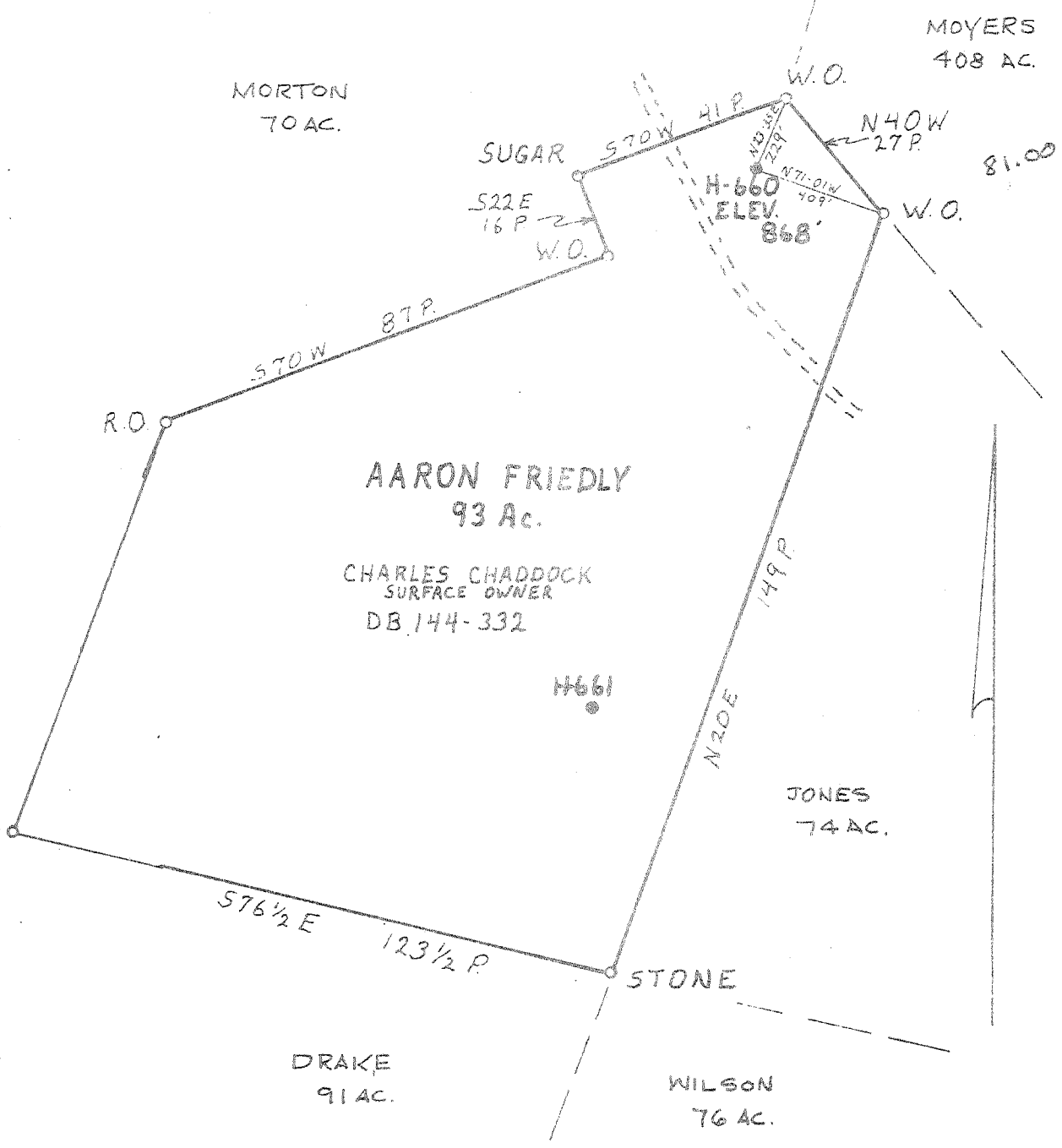
1520 S
10890 W



7 1/2'

30 09 45
80 04 30

(15') ~~80° 00'~~
Longitude ~~81° 02 1/2'~~



Source of Elevation ROAD ELEV. ELEV. 808'

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 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

William R. Mossor

Minimum accuracy, one part in 300

Company GLENN L. HAUGHT & SONS
 Address SMITHVILLE, W.VA. 26178
 Name AARON FRIEDLY, CHARLES CHADDOCK
 Acres 93 Lease No. _____
 Well No. H: 660 Serial No. _____
 Elevation (Spirit Level) 868' **EC**
 Township HARRISVILLE, W.VA. 7 1/2 QUAD.
 County RITCHIE District MURPHY
 Surveyor or Engineer WILLIAM R. MOSSOR
 Engineer's Registration No. L.L.S. #551
 File No. _____ Drawing No. _____
 Date 25 SEPT. 1978 Scale 1" = 30 P.

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

WELL LOCATION MAP
FILE NO. RIT - 4138

+ Denotes location of well on United States Topographic Maps, scale 1" to 62,500, latitude and longitude lines being represented by dotted lines as shown.

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

47-085



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

WELL RECORD 25

Quadrangle Harrisville, WV 7 1/2'

Permit No. RIT-4138 (47-085-4138)

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

Company Glenn L. Haight & Sons
Address Smithville, W. Va. 26178
Farm Aaron Friedly Acres 93
Location (waters) Dog Run
Well No. H-660 Elev. 868'
District Murphy County Ritchie
The surface of tract is owned in fee by Charles Chaddock
Address Rt. 1, Harrisville, W. Va. 26362
Mineral rights are owned by Leo Trader et al
Address Rt. 1, Harrisville, WV
Drilling Commenced 10-11-78
Drilling Completed 10-15-78
Initial open flow Show cu. ft. _____ bbls.
Final production 372,000 cu. ft. per day _____ bbls.
Well open 8 hrs. before test 630 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"			
9 5/8			
8 5/8	205'	205'	75 Sacks
7			
5 1/2			
4 1/2		1953'	105 Sacks
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Hydrafraced by Halliburton - 10-20-78 -- 1,000 Gal. Acid -- 940 Bbls.
Water -- 37000 Lbs. 20-40 Mesh Sand -- 14,000 Lbs. 80-100 Mesh Sand.

Coal was encountered at None Feet _____ Inches _____
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Big Injun Depth Perforations--12-- 1875-1928
9-- 1842-1850

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale	Blue	Soft	230	235		
Sand	Gray	Med.	235	238		
Shale	Gray	Soft	238	260		
Sand	Gray	Med.	260	269		
Shale	Gray	Soft	269	272		
Sand	White	Med.	272	282		
Shale	Gray	Soft	282	346		
Sand	Gray	Med	346	369		
Shale	Blue	Soft	369	407		
Sand & Shale	Gray	Med.	407	450		
Shale	Gray	Soft	450	465		
Sand	Dk. Gray	Med. Hd.	465	495		
Shale	Gray	Soft	495	505		
Sand	Gray	Med. Sft	505	510		
Red Rock	Red	Soft	510	545		
Shale	Gray	Soft	545	564		
Sand	Gray	Med. Hd.	564	600		
Shale	Gray	Soft	600	628		
Red Rock	Red	Soft	628	655		
Sand	Gray	Hard	655	660		
Shale	Gray	Soft	660	670		
Red Rock	Red	Soft	670	750		

(over)

* Indicates Electric Log tops in the remarks section.

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Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale	Gray	Soft	750	800		
Sand/Shale	White	Soft	800	818		
Shale	Gray	Soft	818	850		
Sand	Gray	Soft	850	862		
Red Rock	Red	Soft	862	915		
Shale	Gray	Soft	915	1020		
Sand	Gray	Med.	1020	1050		
Shale	Blue	Soft	1050	1075		
Sand	Gray	Med.	1075	1105		
Shale	Gray	Med.	1105	1173		
Sand	Gray	Med.	1173	1180		
Shale	Gray	Soft	1180	1218		
Sand	Gray	Med.	1218	1237		
Shale	Gray	Soft	1237	1295		
Sand	Gray	Med.	1295	1306		
Shale	Gray	Soft	1306	1355		
Sand	Gray	Med. Hard	1355	1400		
Shale	Gray	Soft	1400	1418		
Sand	Dk. Gry.	Hard	1418	1514		
Shale	Gray	Soft	1514	1600		
Shale & Sand	Gry.	Med.	1600	1610		
Sand	White	Hard	1610	1675		Gas & Oil @ 1630-1635
Shale	Gray	Med.	1675	1692		
Lime	Gray	Hard	1692	1718		
Shale	Gray	Soft	1718	1736		
Lime	Black	Hard	1736	1775		
Pencil Cave	Black	Soft	1775	1779		
Lime	Gry./Wh.	Hard	1779	1869		
Sand	White	Hard	1869	1931		
Shale	Dk. Gry.	Soft	1931	2000	T. D.	

Date November 13, 1978

APPROVED GLENN L. HAUGHT & SONS (Owner)

By Warren R. Haught
(Title) Partner



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
OCT 6 - 1978

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE October 5, 1978

Surface Owner Charles Chaddock
Address Rt.1, Harrisville, W. Va. 26362
Mineral Owner Leo Trader et als
Address Rt.1, Harrisville, W. Va. 26362
Coal Owner _____
Address _____
Coal Operator None
Address _____

Company Glenn L. Haught & Sons
Address Smithville, W. Va. 26178
Farm Aaron Friedly Acres 93
Location (waters) Dog Run
Well No. H-660 Elevation 868'
District Murphy County Ritchie
Quadrangle Harrisville, W. Va. 7 1/2' Quad.

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 2-6-79.

INSPECTOR
TO BE NOTIFIED Kenneth Paul Goodnight
ADDRESS Smithville, W. Va. 26178
PHONE 477-3660


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 May 6th 1977 by Dale Wolfe made to Warren R. Haught and recorded on the 10th day of May 1977, in Ritchie County, Book 123 Page 166
XX 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.

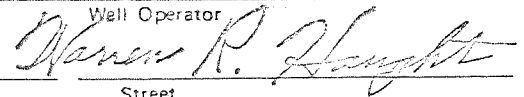
Very truly yours,

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

(Sign Name) GLENN L. HAUGHT & SONS

Address
of
Well Operator

BY: 
Street Smithville, W. Va. 26178
City or Town

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

RIT-4138 _____ PERMIT NUMBER

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

PROPOSED WORK ORDER TO XX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Glenn L. Haught & Sons NAME Warren R. Haught
 ADDRESS Smithville, W. Va. 26178 ADDRESS Smithville, W. Va. 26178
 TELEPHONE 304-477-3333 TELEPHONE 304-477-3333
 ESTIMATED DEPTH OF COMPLETED WELL: 2000' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Big Injun
 TYPE OF WELL: OIL _____ GAS XX 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			
13 - 10			
9 - 5/8			
8 - 5/8	200'	200'	75 Sacks
7			
5 1/2			
4 1/2		2000'	100 Sacks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 50 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS None _____
 IS COAL BEING MINED IN THE AREA? No 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.

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