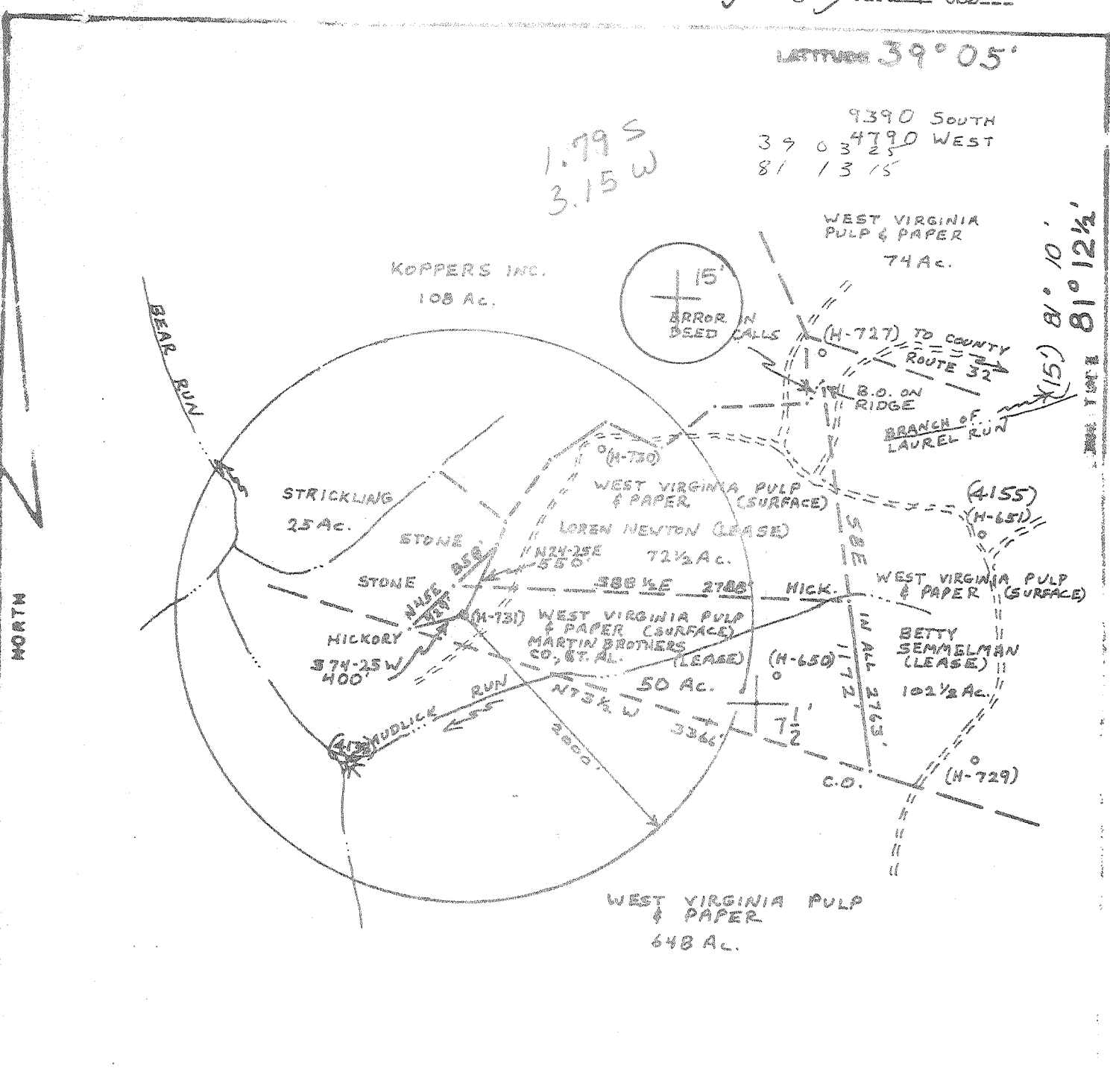


LATITUDE 39° 05'

9390 SOUTH
39 03 47.90 WEST
81 13 15

1.79 S
3.15 W



FILE NO. _____
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION HIGH KNOB, EL. 1092'

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. Massor
R.P.E. _____ L.L.S. 551

PLATE SEAL HERE

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



DATE 26 MARCH 1979
OPERATOR'S WELL NO. H-731
API WELL NO. 47 085 4251
STATE _____ COUNTY _____

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS", PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X)
LOCATION: ELEVATION 1036' WATER SHED MUDLICK RUN
DISTRICT MURPHY COUNTY RITCHIE
QUADRANGLE MACFARLAN, W.V.A. 7 1/2' QUAD., HARRISVILLE 15' SW
SURFACE OWNER WEST VIRGINIA PULP & PAPER ACREAGE 50
OIL & GAS ROYALTY OWNER MARTIN BROTHERS CO., ET AL. LEASE ACREAGE 50
LEASE NO. _____
PROPOSED WORK: DRILL X 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 BIG INJUN ESTIMATED DEPTH 2100'
WELL OPERATOR GLENN L. HAUGHT & SONS DESIGNATED AGENT WARREN HAUGHT
ADDRESS SMITHVILLE, W.V.A. 26178 ADDRESS SMITHVILLE, W.V.A. 26178

DEPARTMENT OF MINES, OIL AND GAS DIVISION

FORM IV-35
(Obverse)

Operator's
Well No. H-731

WELL OPERATOR'S REPORT

API Well No. 47-085-4251
State County Permit

[08-78]

OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X /)
LOCATION: Elevation: 1036' Watershed: Mudlick Run
District: Murphy County: Ritchie Quadrangle: Macfarlan, WV 7 1/2'
Martin Bros. #H-731
WELL OPERATOR Glenn L. Haught & Sons DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178 Address Smithville, WV 26178

PERMITTED WORK: Drill X / Convert ___ / Drill deeper ___ / Redrill ___
Plug off old formation ___ / Perforate new formation ___
Other physical change in well (specify) _____
JUL - 6 1979

Handwritten signature

PERMIT ISSUED ON April 9, 19 79
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED

OIL & GAS DIVISION
DEPT. OF MINES
OIL & GAS INSPECTOR FOR THIS WORK:
Name Kenneth Paul Goodnight
Address Smithville, WV 26178
477-3660

GEOLOGICAL TARGET FORMATION: Big Injun Depth 2025-2090 feet
Depth of completed well, 2150 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 May 7, 19 79, and completed May 12, 19 79

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	REMARKS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Kind
Fresh water	8 5/8	K-55	20#	X		200'	200'	75 Sacks
Production	4 1/2	J-55	10.5	X			2137'	105 Sacks
Intermediate								Sizes
Production								Depth set
Casing								Perforations:
Loggers								2065-2087

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 2025-2090 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Final open flow, 215 Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, 8 hours
Static rock pressure, 570 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

JUL 24 1979

(10/11/78)

[06-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
Hydrafraced by Halliburton - 5-15-79 -- 726 Bbls. Water -- 1,000 Gal.
Acid -- 28,000 Lbs. 20/40 Mesh Sand -- 10,000 Lbs. 80/100 Mesh Sand.

Perforations ---9---2065-87

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Sand & Slate			795	816	
Red Rock			816	845	
Sand			845	855	
Red Rock			855	875	
Slate			875	905	
Red Rock			905	925	
Sand			925	955	
Slate			955	976	
Red Rock			976	997	
Sand			997	1010	
Slate			1010	1021	
Sand			1021	1042	
Slate			1042	1063	
Sand			1063	1086	
Slate			1086	1111	
Sand			1111	1140	
Slate			1140	1163	
Sand			1163	1169	
Slate			1169	1208	
Sand			1208	1217	
Slate			1217	1228	
Sand			1228	1231	
Slate & Sand			1231	1250	
Slate			1250	1271	
Sand			1271	1293	
Slate			1293	1307	
Sand			1307	1313	
Slate			1313	1320	
Sand			1320	1331	
Slate			1331	1338	
Sand			1338	1552	
Slate			1552	1584	
Sand			1584	1598	
Slate			1598	1615	
Sand			1615	1640	
Slate			1640	1658	
Sand			1658	1708	
Slate			1708	1725	
Sand & Slate			1725	1747	
Sand			1747	1760	
Slate			1760	1775	
Sand			1775	1793	
Slate			1793	1807	
Sand			1807	1816	
Slate			1816	1825	
Sand			1825	1865	
Slate			1865	1870	
Sand			1870	1919	
B. Lime			1919	2025	
Sand			2025	2090	
Slate			2090	2150	T.D.

NOTE: Acculation 1.01(i) provided as follows:

Production from well log shall be made systematic, and all

Glenn L. Haught & Sons
Well Operator

By *Warren R. Haught*
Partner

[08-78]

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Glenn L. Haught & Sons
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Big Injun

Estimated depth of completed well, 2100 feet Rotary X / Cable tools /

Approximate water strata depths: Fresh, 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 (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			2100'	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-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.

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

If 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 12-09-79.

The Deputy Director of Oil & Gas Division 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