

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION Road Int. 753'

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) Phillip Morgan
 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 7 May, 19 81
 OPERATOR'S WELL NO Hickman
 API WELL NO. 47-095-0912
 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 805' WATER SHED Middle Island Creek
 DISTRICT Union COUNTY Tyler
 QUADRANGLE Middlebourne, W. Va. 7 1/2' Quad. W. Union NW
 SURFACE OWNER Kable E. Spencer ACREAGE 190
 OIL & GAS ROYALTY OWNER Charles Hickman + Kable Spencer LEASE ACREAGE 190
 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) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Shale ESTIMATED DEPTH 5600'
 WELL OPERATOR Lauderman O+G DESIGNATED AGENT Phillip Morgan MAY 21
 ADDRESS Box 266 ADDRESS Box 266
6-6 Paden City, W. Va. 26159 Paden City, W. Va. 26159 352

WELL OPERATOR'S REPORT
OF

[08-78]

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WICKMAN #1

WELL TYPE: Oil XXXX Gas XXXX Liquid Injection / Waste Disposal /
(If "Gas", Production / Underground storage / Deep / Shallow /)
LOCATION: Elevation: 805 Watershed: Middle Island Creek
District: Union County: Tyler Quadrangle: Middlebourn 7 1/2

WELL OPERATOR Lauderman Oil & Gas DESIGNATED AGENT Phillip Morgan
Address 311 South Fourth Avenue Address SAME
Paden City, WV 26159

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

PERMIT ISSUED ON 5/8/, 19 81.

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Robert Lowther
Address 3rd Street
Middlebourn, WV 26146

GEOLOGICAL TARGET FORMATION: Middle Devonian

Depth 4500

Depth of completed well, 4558 feet Rotary XXXX / Cable Tools

Water strata depths: Fresh, 80 feet; salt, 1600 feet.

Coal seam depths: No Coal Is coal being mined in the area? No

Work was commenced 5/9/, 19 81, and completed 5/18/, 19 81.

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								Runs
Fresh water	5/8"		20	XX		250	250	Cemented thru surface
Coal								Sizes
Intermediate								
Production	4 1/2"		10.5	XXX		4558	4558	Cemented thru pay zone set
Tubing								
Liners								Perforation

OPEN FLOW DATA

Producing formation Middle Devonian ~~Pay zone~~ Pay zone depth 4450

Gas: Initial open flow, Show Mcf/d Oil: Initial open flow, Show bbl/d

Final open flow, 450,000 Mcf/d Final open flow, 5 bbl/d

Time of open flow between initial and final tests, 24 hours

Static rock pressure: -1500 psig (surface measurement) after 24 hours shut in

(If applicable due to multiple completion--)

Second producing formation Pay zone depth

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

MAY 18 1981

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

4339 to 4342 4 shots
4068 to 4086 8

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all and salt water, coal, oil, etc.
Shale	Gray	0	90		
Sand	White	90	120		
Shale	Gray	120	450		
Rock	Red	450	685		
Lime	Gray	685	995		
Shale	Gray	995	1280		
Big Lime	Gray	1280	1650		
Big Injun	Gray	1650	1705		
Shale	Gray	1705	2215		
Shale	Brown	2215	2245		
Berea Sand	Gray	2245	2250		
Shale	Gray	2250	2455		
Thirty Foot Gordon Stray	Gray	2455	2515		
Shale	Gray	2515	2560		
Gordon Sand	Gray	2660	2680		
Shale Lime	Gray	2680	4320		
Middle Devonian	Gray	4320	4420		
Lime <i>Benson</i>	Gray	4420	4558	<i>4558</i>	

4558
2250
2308

(Attach separate sheets as complete as necessary.)

LAUDERMAN OIL & GAS DRILLING
Well Operator

By *Gullap Marjorie*
Assistant Service Coordinator

NOTE: Regulation 2.02(f) 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."

Date: 5-7-81
Farm
Name: C. D. HICKMAN

OIL AND GAS WELL PERMIT APPLICATION

API No. 47-095-4
State County

WELL TYPE: Oil / Gas
(If "Gas", Production ___ / Underground storage ___ / Deep ___ / Shallow ___)

LOCATION: Elevation: 805 Watershed: Middle Island Creek
District: UNION County: Tyler Quadrangle: _____

WELL OPERATOR Louderman Oil & Gas DESIGNATED AGENT Phillip Morgan
Address PO BOX 266 Address SAME
Madison City W. Va

OIL & GAS ROYALTY OWNER Charles D Hickman COAL OPERATOR N/A
Address Rt 2 Rolling Acres Address _____
New Martinsville WVA.

ACREAGE 190 COAL OWNER(S) WITH DECLARATION ON RECORD:
Name N/A
Address _____
Name _____
Address DEPT. OF MINES

SURFACE OWNER SAME Name _____
Address _____ Address DEPT. OF MINES
ACREAGE _____

FIELD SALE (IF MADE) TO: Name N/A
Address _____

OIL AND GAS INSPECTOR TO BE NOTIFIED:
Name Phillip T Racz Almond WVA
Phone 304-758 21573
The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease / other contract ___ / dated 10. March, 1971, to the undersigned well operator from Columbia Gas
(If said deed, lease or other contract has been recorded:)
Recorded on 14 March, 1976, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in 188 Book _____, at page 53. 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) _____

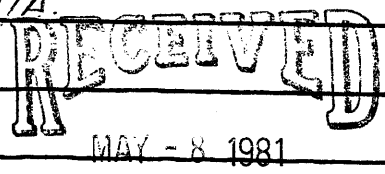
--planned as shown on the work order on the reverse side hereof.

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 the receipt of this Application by Department of Mines. 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 GEOLOGICAL LOGS DIRECTLY TO: OFFICE OF OIL AND GAS

BLANKET BOND

Louderman Oil & Gas
Phillip Morgan
Well Operator



PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Shance
Address MARIETTA, Ohio

GEOLOGICAL TARGET FORMATION, Btm of Ohio Shale

Estimated depth of completed well, 4900 feet Rotary X Cable tools

Approximate water strata depths: Fresh, 90 feet; salt, 1600 feet.

Approximate coal seam depths: N/A 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	<u>8 5/8</u>		<u>20</u>	<u>X</u>		<u>260</u>	<u>Permanently to SUR.</u>		
Coal									Sizes
Intermediate									
Production	<u>4 1/2</u>		<u>10.50</u>	<u>X</u>		<u>4900 feet</u>	<u>Permanently</u>		Depths set
Tubing						<u>FROM Btm to within</u>			
Liners						<u>1300 feet of SURFACE</u>			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

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 1-8-82.

Fred R. Ruppel
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