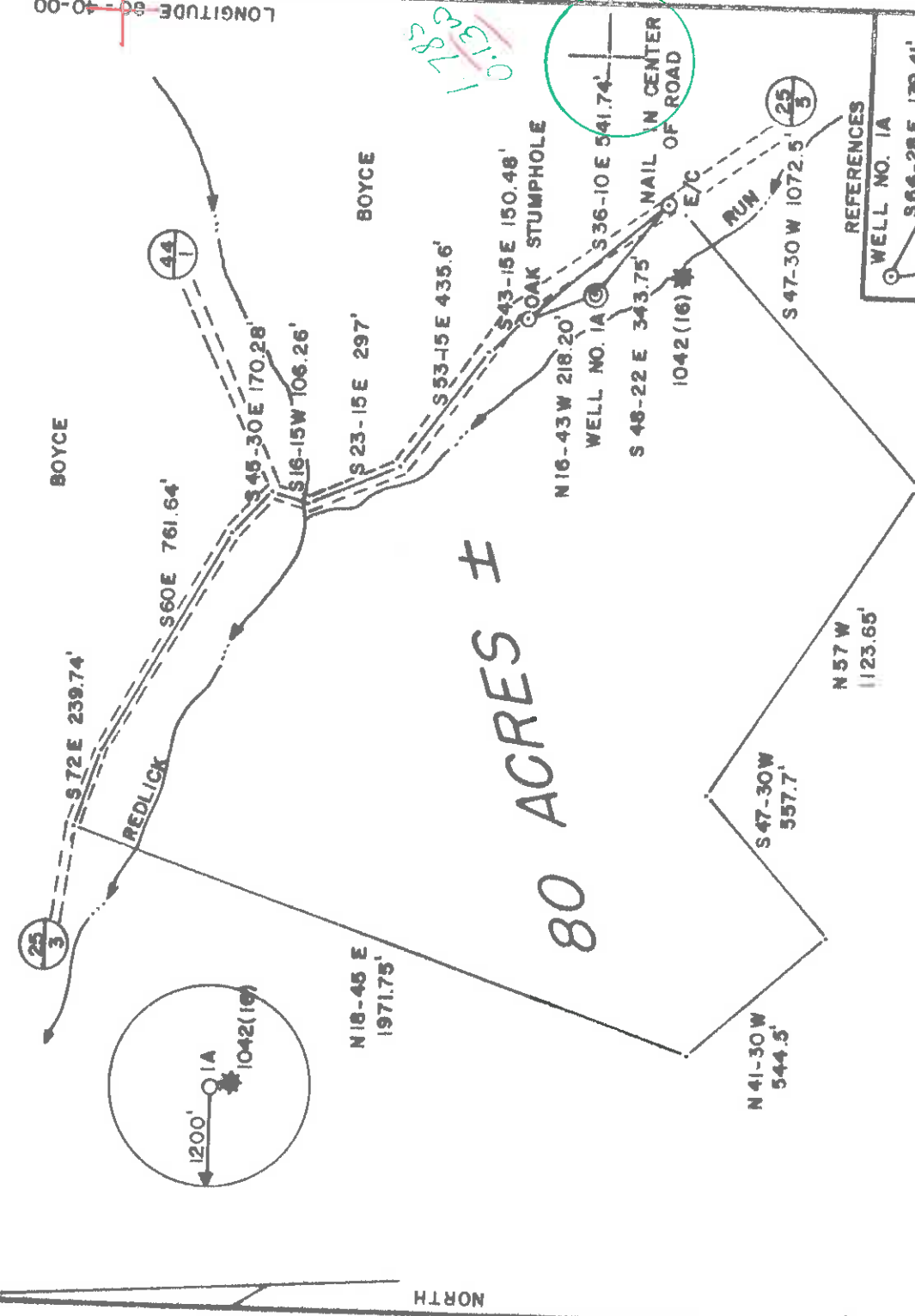


# DOUGLAS HEIRS LEASE

LATITUDE 39-15-00

650'

LONGITUDE 80-10-00



NORTH

0.1782  
1.1782

## WELL NO. 1A



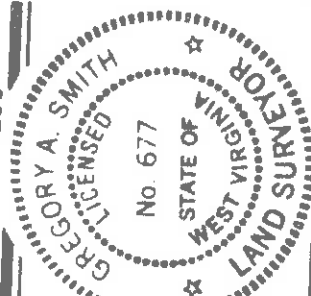
SMITH LAND SURVEYING

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 DATE DECEMBER 30, 1985  
 OPERATORS WELL NO. 1A  
 API WELL NO. \_\_\_\_\_

STATE 47 - COUNTY 017 - PERMIT 3485

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 ENERGY.

L.L.S. Gregory A. Smith  
 677



STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 19-3  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. = 1365' SCALE 1" = 500'

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 900' WATERSHED REDLICK RUN

DISTRICT NEW MILTON COUNTY DODDRIDGE  
 SURFACE OWNER MAYWARD BOYCE  
 OIL & GAS ROYALTY OWNER DOUGLAS HEIRS LEASE ACRES 80

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF

OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG

OTHER PHYSICAL CHANGE IN WELL (SPECIFY) 6-6 New Milton North (1444) TARGET FORMATION ELK

WELL OPERATOR UNITED OPERATING CO. DESIGNATED AGENT LYLE COFFMAN  
 ADDRESS SUITE 930 COMMERCE SQUARE ADDRESS 527 MORRIS RD  
CHARLESTON, WV 25301 GLENVILLE, WV 26351

017 3485

COUNTY NAME

PERMIT



**RECEIVED**  
DEPARTMENT OF ENERGY  
OIL AND GAS



IV-35  
(Rev 8-81)

FEB 4 1986

Date January 27, 1986  
Operator's Well No. #1A  
Farm Douglas Heirs  
API No. 47 - 017 - 3485

State of West Virginia  
Department of Energy  
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 X / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 900' Watershed: Redlick Run

District: New Milton County: Doddridge Quadrangle: New Milton 7.5'

COMPANY United Operating Company

ADDRESS 930 Commerce Square, Charleston, WV

DESIGNATED AGENT Jack L. Trittipio

ADDRESS 930 Commerce Square

SURFACE OWNER Hayward Boyce

ADDRESS Gen. Del., New Milton, WV

MINERAL RIGHTS OWNER Douglas Heirs

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK Mike

Underwood ADDRESS Rt. 2, Box 114, Salem, WV

PERMIT ISSUED December 31, 1985

DRILLING COMMENCED January 7, 1986

DRILLING COMPLETED January 12, 1986

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

GEOLOGICAL TARGET FORMATION Alexander

Depth of completed well 5357 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 20 feet; Salt N/A feet

Coal seam depths: N/A Is coal being mined in the area? NO

OPEN FLOW DATA

Co-mingled Weir, Speechley,  
Producing formation Balltown, Benson, Alexander Pay zone depth 5200 - 60 feet

\*Details on back

Gas: Initial open flow N/A Mcf/d Oil: Initial open flow N/A Bbl/d

Final open flow Est. 350 Mcf/d testing Final open flow N/A Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ 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 Oil: 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

FEB 10 1986

(Continue on reverse side)

Casing Tubing	Used in Drilling in Well	Left in Well	Cement fill up Cu. ft.
Size 20-16			
Cond. 1 3/4"			
1 3/4"	157	157	circulate
9 5/8			
8 5/8	1430	1430	circulate
7			
5 1/2			
4 1/2	0	5300	4000' fill up
3			
2			
Liners used			

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

1st stage (Upper) ~~we~~ 2230 - 2260 20 Ton CO<sub>2</sub> - 200 MSCF N<sub>2</sub>  
 2nd stage ~~we~~ 2390 - 2630 20 Ton CO<sub>2</sub> - 200 MSCF N<sub>2</sub>  
 3rd stage ~~we~~ 2650 - 2820 " " " "  
 4th stage ~~we~~ 3330 - 3500 " " " "  
 5th stage ~~we~~ 4106 - 4342 " " " "  
 6th stage ~~we~~ 4412 - 4450 " " " "  
 7th stage ~~we~~ 4508 - 4722 " " " "  
 8th stage ~~we~~ 4782 - 4904 40 Ton CO<sub>2</sub> - 400 MSCF N<sub>2</sub>  
 9th stage ~~we~~ 5050 - 5234 20 Ton CO<sub>2</sub> - 200 MSCF N<sub>2</sub>

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand - Shale	G	H	0	580	
Sand	G	H	580	640	
Sand - Shale	G	S	640	1070	
Sand	G	H	1070	1205	
Sand - Shale	G	S	1205	1876	
<sup>big</sup> Lime	G	H	1876	2012	
Injun <del>we</del>	G	H	2012	2066	
Shale	G	S	2066	2190	
Weir SS	G	S	2190	2262	
Shale w/ numerous sand stringers	G	S	2262	3330	
Siltstone Speechley			3330	3380	
Shale/Sand stringers			3380	4410	
Sand			4410	4450	
Shale - Sand			4450	4898	
Benson			4898	4904	
Shale - Sand			4904	5200	
<u>Alexander</u>			5200	5260	
Shale			5260	5350	ID No measurable gas or oil shows Natural

Top Down → 2336

(Attach separate sheets as necessary)

United Operating Company  
 Well Operator  
 By: [Signature]  
 Date: \_\_\_\_\_

Note: Regulation 2.02(i) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including sand, encountered in the drilling of a well."



1) Date: DEC. 30 1985  
2) Operator's Well No. DOUGLAS NO. 1A  
3) API Well No. 47-017-3485  
State County Permit

**RECEIVED**  
DEC 31 1985

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION  
APPLICATION FOR A WELL WORK PERMIT

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY Gas X

- 4) WELL TYPE: X Oil X Gas X  
5) LOCATION: B (If "Gas", Production X)  
Elevation: 900'  
District: NEW MILTON 899  
6) WELL OPERATOR: UNITED OPERATING CODE: 50800  
Address: SUITE 930 COMMERCE SQUARE  
CHARLESTON, WV 25301  
7) DESIGNATED AGENT: JACK LYLE T. COFFMAN  
Address: 527 NORRIS RD.  
GLENVILLE, WV 26351  
8) OIL & GAS INSPECTOR TO BE NOTIFIED  
Name: MIKE UNDERWOOD  
Address: ROUTE 2 BOX 114  
SALEM, WV 26426

Underground storage: REDLICK RUN Deep X Shallow X  
Watershed: DODDRIDGE  
County: NEW MILTON 7.5'  
9) DRILLING CONTRACTOR:  
Name: FRANK COFFMAN  
Address: SUITE 930  
Commerce Sq  
Charleston  
25301

10) PROPOSED WELL WORK: Drill X deeper X / Redrill X / Stimulate X  
Plug off old formation X / Perforate new formation X  
Other physical change in well (specify): ELK 436

11) GEOLOGICAL TARGET FORMATION: ELK 436  
12) Estimated depth of completed well, 5100' feet  
13) Approximate true depths: Fresh, 40' ±/00 feet; salt, N/A feet.  
14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes X No X

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	For drilling	Left in well		
Conductor	11 3/4	H-40	42	X	28' 150'	C.T.S.	AS REQUIRED
Fresh water	8 5/8	ERW	23	X	1100'	NO SURFACE CEMENT TO BE USED	AS REQUIRED
Coal					2100'	AS REQUIRED	AS REQUIRED
Intermediate							
Production Tubing	4 1/2	J-55	10.5	X	5100'	AS REQUIRED	AS REQUIRED
Lin...							

Perforations: Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-017-3485

Date December 31 19 85

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
Permit expires December 31, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>AW</u>	Agent: <u>AW</u>	Plat: <u>MMW</u>	Casing Fee: <u>5112</u>	WPCP Fee: <u>MMW</u>	S&E Fee: <u>MMW</u>	Other Fee: <u>MMW</u>
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NOTE: Keep one copy of this permit posted at the drilling location.

Director, Division of Oil and Gas

See the reverse side of the APPLICANT'S COPY for instructions to the well operator. File

