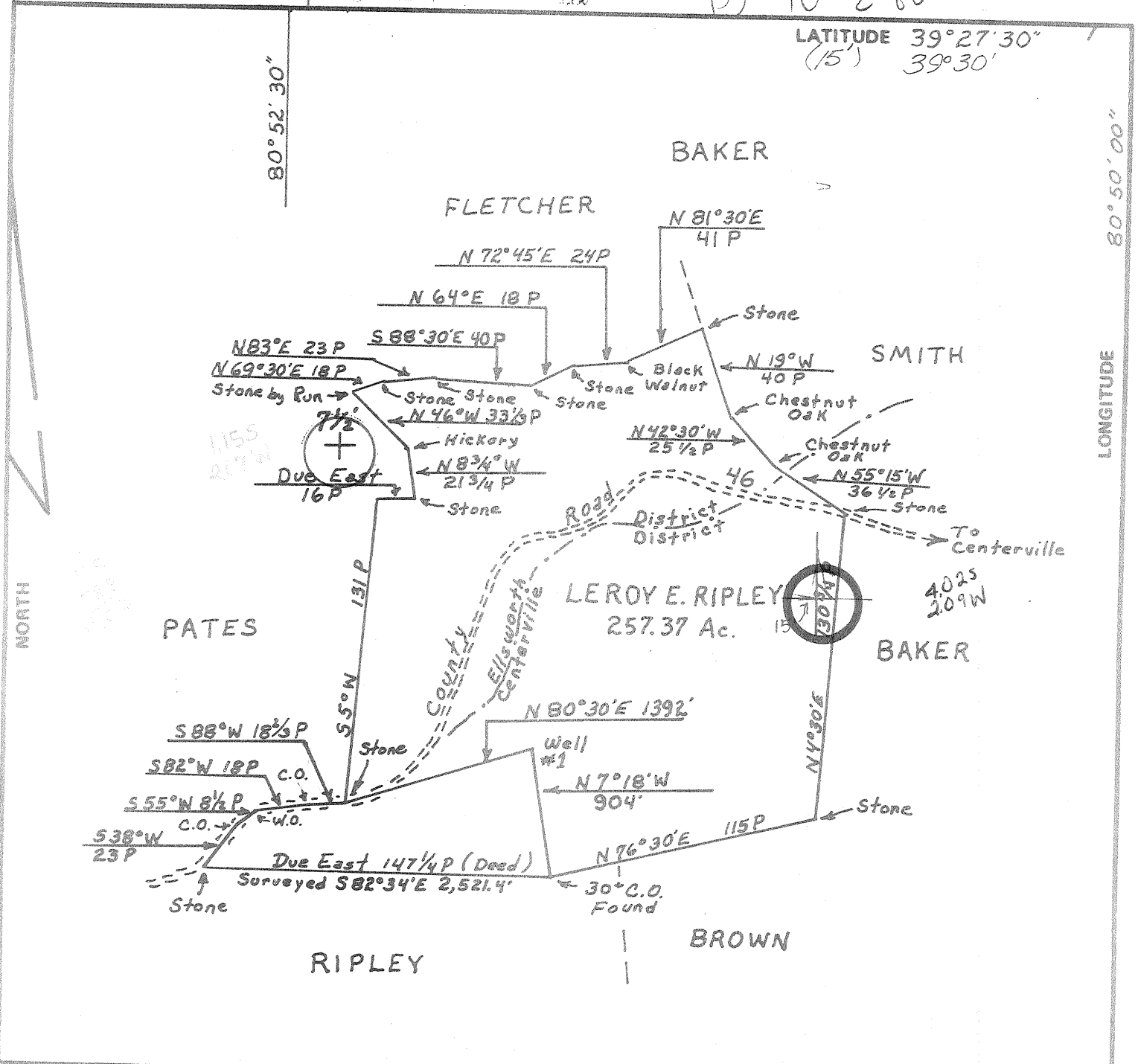


LATITUDE 39°27'30"  
(15') 39°30'



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION U.S.C.G.S. B.M. 718  
CENTERVILLE, W.VA.

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 F. Woodson  
 R.P.E. 5404 L.L.S. \_\_\_\_\_

PLACE SEAL HERE

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



DATE AUGUST 18, 1980  
 OPERATOR'S WELL NO. \_\_\_\_\_  
 API WELL NO. \_\_\_\_\_  
47 - 095 - 0868  
 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 995.0 WATER SHED MIDDLE ISLAND CREEK  
 DISTRICT CENTERVILLE COUNTY TYLER  
 QUADRANGLE SHIRLEY 7 1/2' WEST UNION 15' NC  
 SURFACE OWNER Leroy E. Ripley ACREAGE 257.37  
 OIL & GAS ROYALTY OWNER Leroy E. Ripley LEASE ACREAGE 257.37  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL \_\_\_\_\_ CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION OHIO SHALE ESTIMATED DEPTH \_\_\_\_\_  
 WELL OPERATOR W. F. Woodson DESIGNATED AGENT W. F. Woodson  
 ADDRESS \_\_\_\_\_ ADDRESS \_\_\_\_\_  
Middle Island Creek

OCT 17 1980



IV-35  
(Rev 8-81)

**RECEIVED**  
MAY 29 1987

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date 9/4/81  
Operator's  
Well No. #1  
Farm Leroy Ripley  
API No. 47 - 095 - 0868

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

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     /)

LOCATION: Elevation: 995 Watershed Middle Island Creek  
District: Centerville County Tyler Quadrangle Shirley

COMPANY Middle Island Construction, Inc.

ADDRESS Star Rt., Middlebourne, WV 26149

DESIGNATED AGENT Ronald L. Hoover

ADDRESS Middlebourne, WV 26149

SURFACE OWNER Leroy E. Ripley, Jr.

ADDRESS Alma, WV

MINERAL RIGHTS OWNER Leroy E. Ripley, Jr.

ADDRESS Alma, WV

OIL AND GAS INSPECTOR FOR THIS WORK    

P. Tracy ADDRESS Alma, WV

PERMIT ISSUED 10/1/80

DRILLING COMMENCED 10/14/80

DRILLING COMPLETED 11/6/80 ✓

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up (cu. ft.)
Size 20-16 Cond.	20'	20'	
13-10"			
9 5/8			
8 5/8	1076	1076	212 sack
7	1250'	0	
5 1/2			
4 1/2		4250	450 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Ohio Shale Depth 4250 feet

Depth of completed well 4250 feet Rotary X / Cable Tools    

Water strata depth: Fresh 85 feet; Salt NA feet

Coal seam depths: NA Is coal being mined in the area?    

OPEN FLOW DATA

Producing formation Berea Pay zone depth 2455 feet

Gas: Initial open flow 150 Mcf/d Oil: Initial open flow 0 bbl/d

Final open flow 50 Mcf/d Final open flow 0 bbl/d

Time of open flow between initial and final tests 12 hours

Static rock pressure 425 psig (surface measurement) after 24 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

MAY 29 1987

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

Plug set at 2500' & perforated zones were 6 shots from 2451 to 2453;  
9 shots from 2457 to 2460. Foam frac using 500 gal acid, 960 BBL  
water, 45,000 sand & 722,000 cf of nitrogen was used.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Clay	yellow	soft	0	11	
SS	grey	hard	11	70	
Shale	grey	soft	70	110	
Shale	red	soft	110	140	
SS	grey	hard	140	210	
Shale	grey	soft	210	340	
SS	brown	hard	340	410	
Shale	grey	soft	410	570	
SS	grey	hard	570	620	
Shale	grey	soft	620	810	
SS	grey	hard	810	890	
Shale	red	soft	890	910	
SS	brown	hard	910	1010	
Shale	grey	soft	1010	1050	
SS	grey	hard	1050	1083	
Shale	grey	soft	1083	1154	
SS	grey	hard	1154	1164	
Shale	grey	soft	1164	1196	
SS	grey	hard	1196	1210	gas sand
Shale	grey	hard	1210	1254	
SS	grey	hard	1254	1320	
Shale	grey	soft	1320	1395	
SS	grey	hard	1395	1456	1st salt sand
Shale	grey	soft	1456	1488	
SS	white	hard	1488	1603	2nd salt sand
Sand & shale	grey	hard	1603	1708	
SS	white	hard	1708	1722	3rd salt sand
Shale	grey	soft	1722	1778	
Sandstone	white	hard	1778	1788	Maxon
Pencil Cave	red	soft	1788	1825	
SS	grey	hard	1825	1855	
Big Lime Limestone	grey-hard		1855	1908	
Keener - SS	white	hard	1908	1953	
Big Injun	SS-white	hard	1903	2053	
Squaw	SS-white-grey	hard	2053	2096	
SS & Shale	grey	hard	2096	2316	
Weir	SS grey	hard	2316	2369	
Shale	grey	soft	2369	2448	
Berea	SS grey	hard	2448	2460	
Shale	grey	soft	2460	2498	

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MAY 29 1987

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Middle Island Construction, Inc.  
Well Operator

By: W. F. Warriner

Date: 9/18/81

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  
minerals, encountered in the drilling of a well."

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
SS	grey	hard	2498	2506	
Shale	grey	soft	2506	2586	
Gantz-SS	white	hard	2586	2611	
Shale	grey	soft	2611	2694	
50 Foot-SS	grey	hard	2694	2704	
Shale	grey	soft	2704	2774	
30 Foot, silt Stone	grey	hard	2774	2808	
Shale	grey	soft	2808	2876	
Gordon-Silt Stone	grey	hard	2876	2900	
Shale	grey	soft	2900	2972	
4th Sand-Siltstone	grey	hard	2972	2990	
Shale	grey	soft	2990	3030	
5th Sand-Siltstone	grey	hard	3030	3048	
Shale	brown	soft	3048	3200	
Shale	brown	soft	3200	3222	
Shale	brown	soft	3222	3395	
Speechly-Shale	brown	soft	3395	3430	
Shale	brown	soft	3430	3756	
Balltown-Sand & Shale	brown	soft	3756	3800	
Shale	brown	soft	3800	3923	
Riley-sand & shale	grey	hard	3923	3932	
Shale	brown	soft	3932	4130	
<i>Benson?</i> Elk-sand & shale	brown	soft	4130	4158	
TD-Shale	brown	soft	4158	4230	

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MAY 29 1987

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY -

JUN 08 1987

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. L. Ripley # 1

API Well No. 47 - 095 - 0868  
State County Permi

WELL TYPE: Oil X / Gas XX /  
(If "Gas", Production X / Underground storage \_\_\_ / Deep \_\_\_ / Shallow \_\_\_ /)

LOCATION: Elevation: 995 Watershed: Middle Island Creek  
District: Centerville County: Tyler Quadrangle: Whitley 7.5

WELL OPERATOR Middle Island Const., Inc.  
Address Star Route  
Middlebourne, WV 26149

DESIGNATED AGENT Ronald L. Hoover  
Address Star Route  
Middlebourne, WV 26149

OIL & GAS ROYALTY OWNER Lenny R. Ripley, Jr.  
Address Alma, WV

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

ACREAGE 257.37  
SURFACE OWNER None  
Address \_\_\_\_\_  
ACREAGE \_\_\_\_\_

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

FIELD SALE (IF MADE) TO:  
Name None  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Phillip Tracy  
Address Alma, WV

OIL & GAS DIVISION  
DEPT. OF MINES

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OCT - 1 1980

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_ / lease X / other contract \_\_\_ / dated July 15, 1979, to the undersigned well operator from Lenny R. Ripley, Jr.

[If said deed, lease, or other contract has been recorded:]  
Recorded on July 17, 1979, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in Deed Book 220 at page 17. 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: (204) 268-2000

Middle Island Construction Co., Inc.  
Well Operator  
W.F. Woodburn  
By William F. Woodburn  
Its Vice 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

GEOLOGICAL TARGET FORMATION, Ohio Shale

Estimated depth of completed well, 3900 feet Rotary  / Cable tools  /

Approximate water strata depths: Fresh, 150 feet; salt, 1600 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	16"	H40	38lbs		X	20		Kinds
Fresh water								
Coal								Sizes
Intermediate	8 5/8"	H40	23lbs	X			1100	to surf
Production	4 1/2"	J55	10 1/2 lbs	X			3900	tie into 85/8
Tubing	2"	erw	4.7	X			3900	
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 a part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

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 6-6-81.

*J. E. Haughey*  
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 \_\_\_\_\_