



Surface, Oil, & Gas: Glen G. & Nina M. Rastle, Vadis, W.V. 26445  
 Coal: Eastern Associated Coal Corp., Koopers Bldg. Pittsburgh, Pa.

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1 inch = 1000 feet  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION Jct. Rds. 2600' E of Location Elev. = 839

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) Mark C. Echard  
 MARK C. ECHARD  
 R.P.E. \_\_\_\_\_ L.L.S. 490

PLACE SEAL HERE

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



DATE DECEMBER 23  
 OPERATOR'S WELL NO. 710  
 API WELL NO. 47-017-2932  
 STATE WV COUNTY WV

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 1100' WATER SHED SAND FORK  
 DISTRICT COVE COUNTY DODDRIDGE  
 QUADRANGLE VADIS 7.5 of 15' WC  
 SURFACE OWNER GLEN G. & NINA M. RASTLE ACREAGE 176.9  
 OIL & GAS ROYALTY OWNER GLEN G. & NINA M. RASTLE LEASE ACREAGE 176.9  
 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 DEVONIAN SHALE ESTIMATED DEPTH 5700'  
 WELL OPERATOR CARSON PETROLEUM CORP. DESIGNATED AGENT MR. LOWELL M. JOHNSON  
 ADDRESS BOX 133 ADDRESS BOX 133  
SAND FORK, W.V. 26430 SAND FORK, W.V. 26430

6-6 New Milton South (307)

JAN 28 1987

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

Date February 25, 1981

FORM IV-35  
(Obverse)

Operator's  
Well No. Rastle #2  
API Well No. 47 - 017 - 2932  
State County Permit

[08-78,

WELL OPERATOR'S REPORT 3<sup>e</sup>  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal  /  
(If "Gas", Production  / Underground storage  / Deep  / Shallow  /)

LOCATION: Elevation: 1100' Watershed: Sand Fork  
District: Cove County: Doddridge Quadrangle: Vadis

WELL OPERATOR Carson Petroleum Corporation DESIGNATED AGENT Lowell M. Johnson  
Address P O Box 133 Address P O Box 133  
Sand Fork, WV 26430 Sand Fork, WV 26430

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

PERMIT ISSUED ON January 5, 1981 OIL & GAS INSPECTOR FOR THIS WORK:  
Name Steve Casey  
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED Address Jane Lew, WV  
\_\_\_\_\_, 19\_\_\_\_\_ 884-7470

GEOLOGICAL TARGET FORMATION: Elk Depth 5190 feet  
Depth of completed well, 5340' feet Rotary  / Cable Tools   
Water strata depth: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.  
Coal seam depths: None Is coal being mined in the area? No  
Work was commenced January 12, 1981, and completed January 15, 1981

LOGGING AND TUBING PROGRAM

LOGGING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Kinds
Fresh water	8 5/8					1213'	1213'	To surface
Intermediate								Sizes
Production	4 1/2						5290'	320 sks
Tubing								Deaths set
Packers								Perforations:
								Top Bottom

DEPT. OF MINES

1,443 MCF

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4874-5865 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, 0 Bbl/d  
Final open flow, \_\_\_\_\_ Mcf/d Final open flow, 0 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 Elk Alex Pay zone depth 4992-5190 feet

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, 0 Bbl/d  
Final open flow, 1,443,000 Mcf/d Final open flow, 0 Bbl/d

Time of open flow between initial and final tests, 14 hours

Static rock pressure, 1,060 psig (surface measurement) after 24 hours shut in

MAR 29 1981

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

Fractured February 9, 1981

Elk - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
1700 lb. breakdown  
490 bbls. water  
23.3 BPM at 1950 lb.

Benson - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
2300 lb. breakdown  
485 bbls. water  
16.2 BPM at 1200 lb.

Perforations - 4992 - 5190, 8 holes

Perforations - 4857 - 4865, 5 holes

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, Shale, Red Rock			0	1946	
Gray Shale			1959	1973	
Blue Monday Sand			1973	2000	
Big Lime			2000	2054	
Big Injun			2054	2154	
Gray Shale			2154	2194	
Weir Sand			2194	2287	
Gray Shale			2287	2402	
Gantz Sand			2402	2424	
Gray Shale			2424	2945	
Fifth Sand			2945	2951	
Gray Shale			2951	4863	
Benson Sand			4863	4893	
Gray Shale			4893	4978	
Leopold Sand			4978	5005	
Gray Shale			5005	5132	
Elk Sand			5132	5255	
Gray Shale			5255	5340	
Total Depth			5340		

(Attach separate sheets to complete as necessary)

Carson Petroleum Corporation  
Well Operator

By Lawell M. Johnson  
Its Agent

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 coal, encountered in the drilling of a well."



Rastle #2

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

JAN - 5 1981

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 January 2, 1981

Surface Owner Glen Rastle  
Address Vadis, WV  
Mineral Owner Glen Rastle  
Address Vadis, WV  
Coal Owner Eastern Assoc. Coal Corp.  
Address Koopers Building, Pittsburgh, PA  
Coal Operator N/A  
Address \_\_\_\_\_

Company Carson Petroleum Corporation  
Address P O Box 133, Sand Fork, WV 26430  
Farm Rastle Acres 176.9  
Location (waters) Sand Fork  
Well No. Two Elevation 1100'  
District Cove County Doddridge  
Quadrangle Vadis

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 9-8-81

Fred Burdette  
Deputy Director - Oil & Gas Division

INSPECTOR  
TO BE NOTIFIED Steve Casey  
ADDRESS Jane Lew  
PHONE 884-7470

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having title thereto, (or as the case may be) under grant or lease dated October 1980 by Consolidated Gas Supply Corp. made to Carson Petroleum Corporation and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in NOT OF RECORD County, Book \_\_\_\_\_ Page \_\_\_\_\_  
 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.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

Very truly yours, Carson Petroleum Corporation  
(Sign Name) Lawrence W. ...  
Well Operator

OFFICE OF OIL AND GAS  
1615 Washington Street, East  
Charleston, West Virginia  
Area Code 304 -348-3092 348-3096

Address \_\_\_\_\_  
of \_\_\_\_\_  
Well Operator \_\_\_\_\_  
P O Box 133 \_\_\_\_\_  
Street \_\_\_\_\_  
Sand Fork \_\_\_\_\_  
City or Town \_\_\_\_\_  
West Virginia 26430 \_\_\_\_\_  
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 be approved and the well operator authorized to proceed.

BLANKET BOND

47-017- 2932 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by Lawrence W. ...

