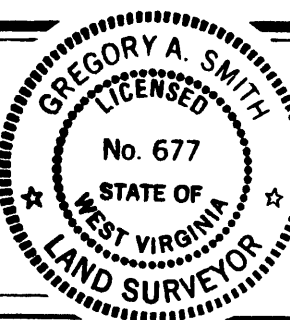


I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

L.L.S. Gregory A. Smith  
677



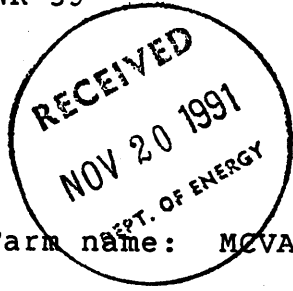
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE OCTOBER 8, 19 91  
OPERATORS WELL NO. CUNNINGHAM NO. 1A  
API WELL NO. 47 - 041 - 4109  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2750 (37-47)  
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1532' SCALE 1" = 500'

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1255' WATERSHED CARRION RUN  
DISTRICT COURT HOUSE COUNTY LEWIS QUADRANGLE PETERSON 7.5'  
SURFACE OWNER CLARENCE WILLIAM McVAY ACREAGE 69.88 BLIND NE  
ROYALTY OWNER W.S. CUNNINGHAM HEIRS ET. AL. LEASE ACREAGE 100  
PROPOSED WORK: LEASE NO. \_\_\_\_\_  
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) \_\_\_\_\_ TARGET FORMATION DEVONIAN SHALE  
ESTIMATED DEPTH 5000'

WELL OPERATOR PETROLEUM RESOURCES INC. 688 DESIGNATED AGENT JERRY MASONER  
ADDRESS P.O. BOX 1066 WESTON, WV. 26452 ADDRESS P.O. BOX 1066 WESTON, WV. 26452



State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Reviewed Tm6  
Recorded \_\_\_\_\_

Well Operator's Report of Well Work

Farm name: MCVAY, CLARENCE WILLIAM Operator Well No.: CUNNINGHAM 1-A

LOCATION: Elevation: 1255.00 Quadrangle: PETERSON

District: COURT HOUSE County: LEWIS  
Latitude: 1900 Feet South of 38 Deg. 57Min. 30 Sec.  
Longitude 8920 Feet West of 80 Deg. 30 Min. 0 Sec.

Company: PETROLEUM RESOURCES, INC.  
P.O. BOX 1066  
WESTON, WV 26452-1066

Agent: STANLEY N. MASONER

Inspector: TIM BENNETT  
Permit Issued: 10/22/91  
Well work Commenced: 10-28-91  
Well work Completed: 11-02-91  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary  Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) 4861'  
Fresh water depths (ft) 42'

Salt water depths (ft) No

Is coal being mined in area (Y/N)? N  
~~Is coal being mined in area (Y/N)?~~ None

| Casing & Tubing Size | Used in Drilling | Left in Well | Cement Fill Up Cu. Ft. |
|----------------------|------------------|--------------|------------------------|
| 8 5/8                | 667              | 667          | 200 sks                |
| 4 1/2                | 4820             | 4820         | 565 sks                |
|                      |                  |              |                        |
|                      |                  |              |                        |

**RECEIVED**

DEC 04 91

Division of Energy  
Oil and Gas Section

OPEN FLOW DATA

Producing formation Benson - Balltown Pay zone depth (ft) 4740-3174  
Gas: Initial open flow Show MCF/d Oil: Initial open flow None Bbl/d  
Final open flow 350 MCF/d Final open flow None Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 550 psig (surface pressure) after 72 Hours

Second producing formation Fifth Sand-Gordon pay zone depth (ft) 2736-2514  
Gas: Initial open flow Show MCF/d Oil: Initial open flow None Bbl/d  
Final open flow 350 MCF/d Final open flow None Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 550 psig (surface pressure) after 72 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PETROLEUM RESOURCES, INC.

By: Seyhm  
Date: 11-18-91

LEW 4109

FRACTURED 11-06-91

BENSON Perferated 4736' - 4740' 8 Holes  
Fractured with 486 bbls. Treated Water  
40,000# Sand, 500 gals Acid

BALLTOWN Perferated 3174' - 3690' 8 Holes  
Fractured with 416 bbls. Treated Water  
40,000# Sand, 750 gals. Acid

FIFTH SAND & Perferated 2514' - 2736' 8 Holes  
GORDON Fractured with 457 bbls. Treated Water  
30,000# Sand, 500 gals. Acid

| FORMATION    | TOP  | BOTTOM | FORMATION    | TOP  | BOTTOM |
|--------------|------|--------|--------------|------|--------|
| Fill         | 0    | 5      | Sand & Shale | 2510 | 2710   |
| RR           | 5    | 50     | Sand         | 2710 | 2970   |
| RR & Sand    | 50   | 190    | Sand & Shale | 2970 | 3490   |
| RR           | 190  | 250    | Sand         | 3490 | 3575   |
| Sand & Shale | 250  | 411    | Sand & Shale | 3575 | 3810   |
| RR           | 411  | 450    | Sand         | 3810 | 3875   |
| Sand & Shale | 450  | 561    | Sand & Shale | 3875 | 4710   |
| RR & Shale   | 561  | 577    | Benson       | 4710 | 4740   |
| Sand & Shale | 577  | 626    | Sand & Shale | 4740 | 4861   |
| RR & Shale   | 626  | 698    | TD           | 4861 |        |
| Sand & Shale | 698  | 895    |              |      |        |
| Sand         | 895  | 950    |              |      |        |
| Shale        | 950  | 1120   |              |      |        |
| Sand & Shale | 1120 | 1690   |              |      |        |
| Sand         | 1690 | 1705   |              |      |        |
| Sand & Shale | 1705 | 1731   |              |      |        |
| Sand         | 1731 | 1775   |              |      |        |
| Sand & Shale | 1775 | 1878   |              |      |        |
| Little Lime  | 1878 | 1895   |              |      |        |
| Shale        | 1895 | 1926   |              |      |        |
| Big Lime     | 1926 | 2090   |              |      |        |
| Sand         | 2090 | 2260   |              |      |        |
| Sand & Shale | 2260 | 2500   |              |      |        |
| Sand         | 2500 | 2510   |              |      |        |

RR = Red Rock.

2262

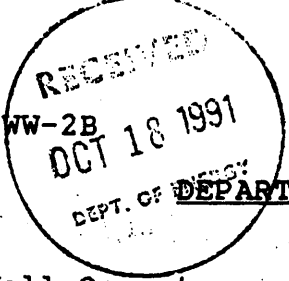
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Issued 10/22/91

041-4109 Expires 10/22/93

FORM NW-2B

Page \_\_\_ of \_\_\_\_\_



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

- 1) Well Operator: Petroleum Resources INC. 38300 (2) 541
- 2) Operator's Well Number: CUNNINGHAM 1-A 3) Elevation: 1255'
- 4) Well type: (a) Oil \_\_\_ / or Gas X /  
(b) If Gas: Production X / Underground Storage \_\_\_ /  
Deep \_\_\_ / Shallow X /
- 5) Proposed Target Formation(s): EIK<sup>688</sup> 1436
- 6) Proposed Total Depth: 5500' feet
- 7) Approximate fresh water strata depths: 100' - 400' 235'
- 8) Approximate salt water depths: NONE
- 9) Approximate coal seam depths: NONE
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_ / No X /
- 11) Proposed Well Work: Drill & Stimulate New well -
- 12) \_\_\_\_\_

CASING AND TUBING PROGRAM

| TYPE         | SPECIFICATIONS |       |                | FOOTAGE INTERVALS |                                    | CEMENT            |
|--------------|----------------|-------|----------------|-------------------|------------------------------------|-------------------|
|              | Size           | Grade | Weight per ft. | For drilling      | Left in well                       | Fill-up (cu. ft.) |
| Conductor    | 11 3/4         |       |                | .30'              | —                                  |                   |
| Fresh Water  |                |       |                |                   |                                    |                   |
| Coal         |                |       |                |                   |                                    |                   |
| Intermediate | 8 5/8          | H-40  | 20#            | 650'              | 650' <sup>CCT5</sup> 38CSR 18-11.3 | 200 SKS Neat      |
| Production   | 4 1/2          | J-55  | 10.5#          | 5400'             | 5400' 38CSR 18-11.1                | 700 SKS           |
| Tubing       |                |       |                |                   |                                    | 38CSR 18-11.1     |
| Liners       |                |       |                |                   |                                    |                   |

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond Security Blanket  Agent  
 (Type)



1) Date: 10-17-91  
2) Operator's well number CUNNINGHAM 1-A  
3) API Well No: 47 - 041 - 4109  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

|   |  |
|---|--|
| <p>4) Surface Owner(s) to be served:<br/>         (a) Name <u>Clarence William McVay</u><br/>         Address <u>WESTON WV 26452</u><br/>         _____<br/>         (b) Name _____<br/>         Address _____<br/>         _____<br/>         (c) Name _____<br/>         Address _____<br/>         _____</p> | <p>5) (a) Coal Operator:<br/>         Name _____<br/>         Address _____<br/>         _____<br/>         (b) Coal Owner(s) with Declaration<br/>         Name _____<br/>         Address _____<br/>         _____<br/>         Name _____<br/>         Address _____<br/>         _____<br/>         (c) Coal Lessee with Declaration<br/>         Name _____<br/>         Address _____<br/>         _____</p> |
| <p>6) Inspector _____<br/>         Address _____<br/>         _____<br/>         Telephone (304)- _____</p>   |  |

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_ on the above named parties, by:

- X Personal Service (Affidavit attached)
- \_\_\_\_ Certified Mail (Postmarked postal receipt attached)
- \_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Petroleum Resources INC  
 By: Sally Mason  
 Its: AGENT (OPERATION MGR)  
 Address PO. Box 1066  
WESTON WV 26452  
 Telephone (304) 269-4217

Subscribed and sworn before me this 17th day of October, 1991

Nancy L. Butcher Notary Public  
My commission expires February 16, 2000

