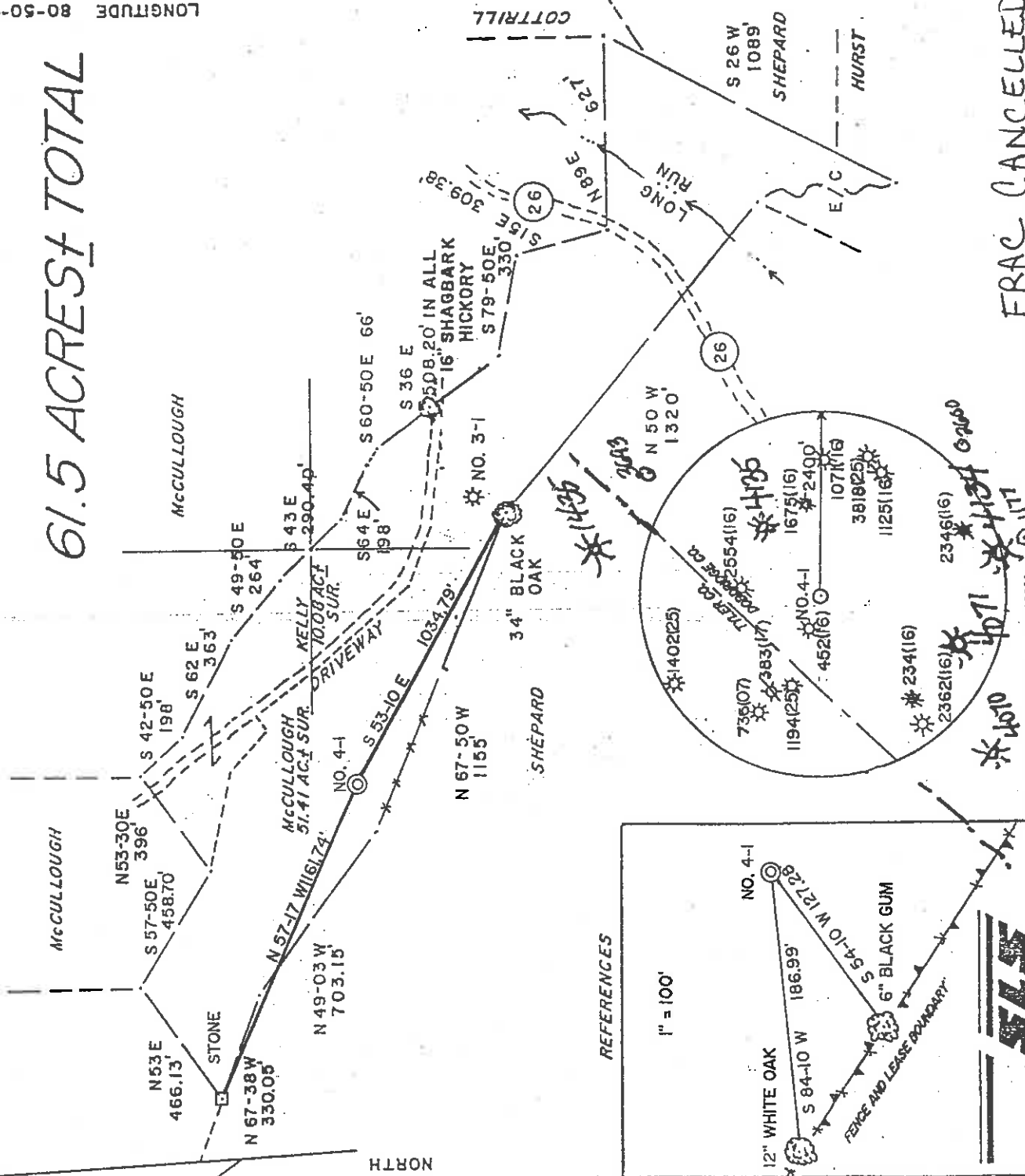


Jane 3/26/91  
McCULLOUGH  
10/29/97

WELL NO. 4-1

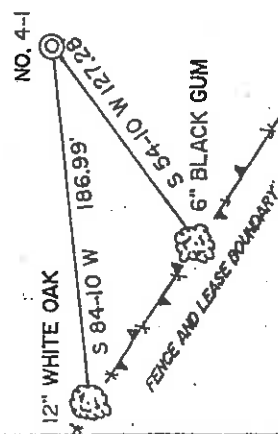
LEASE

61.5 ACRES ± TOTAL



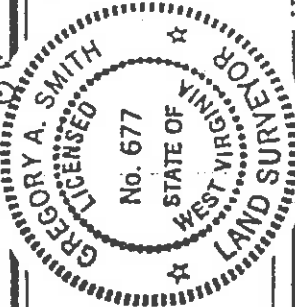
REFERENCES

1" = 100'



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 BY THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.

L.L.S. *Gregory A. Smith*  
677



FRAC CANCELLED

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE FEBRUARY 27, 19 91.  
OPERATORS WELL NO. McCULLOUGH NO. 4-1

API WELL NO. 47-017-3881-7  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200  
PROVEN SOURCE OF ELEVATION JUNCT. OF ROADS ELEV. 802'  
SCALE 1" = 500'FILE NO. 1907 (36-12)  
WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS #10 McJUNKIN ROAD NITRO, WEST VIRGINIA 25143-2506

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1068' WATERSHED LONG RUN DISTRICT CENTRAL COUNTY DODDRIDGE

SURFACE OWNER RICHARD F. McCULLOUGH QUADRANGLE WEST UNION 7.5' ACREAGE 51.41  
ROYALTY OWNER RICHARD F. McCULLOUGH LEASE ACRES 51.41 OF 61.5

PROPOSED WORK: Set Temp Plug/Emerge Tree, No. 4-1 Gordon, West Virginia, Lease No. 47-017-3881-7  
DRILL  CONVERT  DRILL DEEPER  RDRILL  FRITTURE OR STIMULATE  PLUG OFF OLD  
FORMATION PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER  
PHYSICAL CHANGE IN WELL (SPECIFY) "Production plug down" TARGET FORMATION ALEXANDER  
*Abandoned on 10/20/97. 5600 Production plug down.* ESTIMATED DEPTH 5900'

WELL OPERATOR DEVONIAN APPALACHIAN CO. INC. DESIGNATED AGENT ROBERT ANDERSON  
ADDRESS RT. 1 BOX 114 B MINERAL WELLS, WV. 26150  
ADDRESS RT. 1 BOX 114 B MINERAL WELLS WV. 26150

LATITUDE 39-20-00

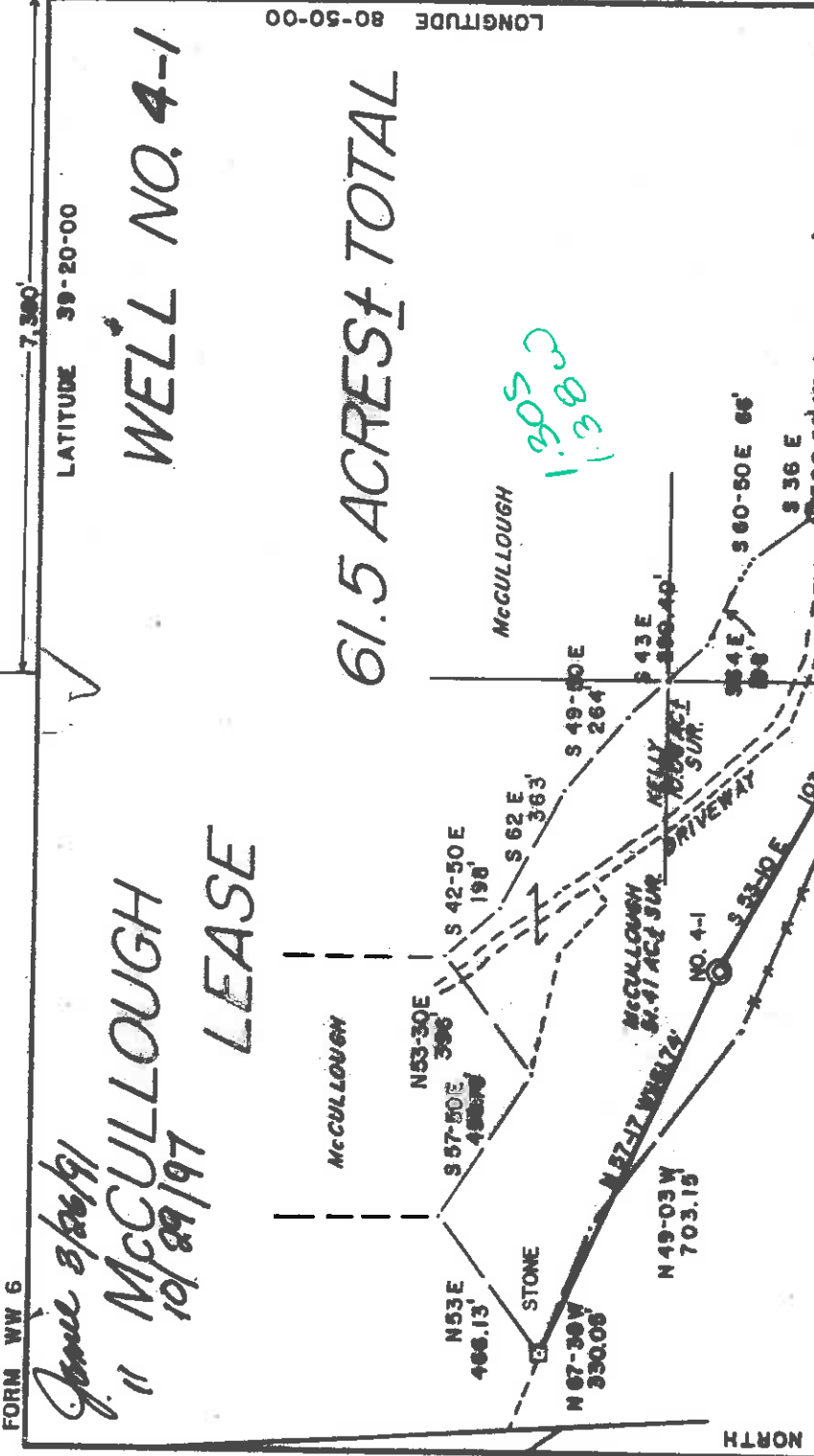
7.390

WELL NO. 4-1

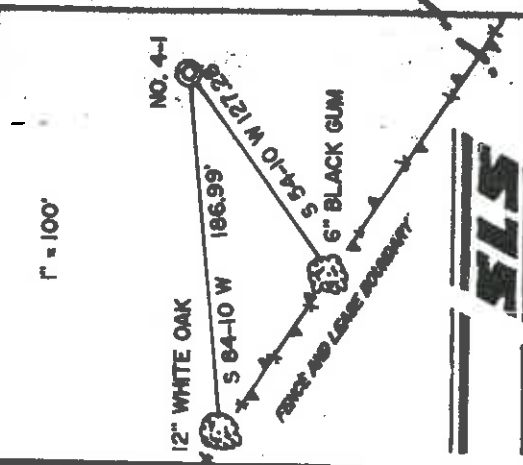
McCULLOUGH LEASE

61.5 ACRES TOTAL

LONGITUDE 80-50-00

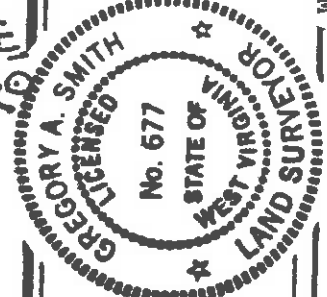


REFERENCES



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 FEBRUARY 27, 19 91  
OPERATORS WELL NO. McCULLOUGH NO. 4-1  
API WELL NO.

STATE 47 COUNTY 017 PERMIT 38817

MINIMUM DEGREE OF ACCURACY 1/200  
FILE NO. 1907 (136-12)  
SCALE 1"=500'  
PROVEN SOURCE JUNCT. OF ROADS ELEV. 802'

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1068'

DISTRICT CENTRAL COUNTY DODDRIDGE  
SURFACE OWNER RICHARD F. McCULLOUGH  
ROYALTY OWNER RICHARD F. McCULLOUGH

PROPOSED WORK: *Set Temp Plug Spurge Test*  
DRILL  CONVERT  DRILL DEEPER  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
FORMATION: *Set Temp Plug Spurge Test*

PHYSICAL CHANGE IN WELL (SPECIFY): *Well drilled in 1991, 11.5600 Production shut down*  
DESIGNATED AGENT ROBERT ANDERSON  
ADDRESS RT. 1 BOX 114 B MINERAL WELLS, WV. 26150

WELL OPERATOR DEVONIAN APPALACHIAN CO. INC.  
ADDRESS RT. 1 BOX 114 B MINERAL WELLS, WV. 26150

WEST VIRGINIA

DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
#10 MCJUNKIN ROAD  
NITRO, WEST VIRGINIA 25143-2506

DODD

3881

COUNTY NAME

PERMIT

QUADRANGLE WEST UNION 7.5'

ACREAGE 61.41

LEASE ACREAGE 61.41 OF 61.5

LEASE NO. *1907-136-12*

FRUTURE OR STIMULATE  PLUG OFF OLD

CLEAN OUT AND REPLUG

TARGET FORMATION ALEXANDER

ESTIMATED DEPTH 5900'

DESIGNATED AGENT ROBERT ANDERSON

ADDRESS RT. 1 BOX 114 B MINERAL WELLS WY. 26150







Wanted 3/26/91  
Expired 3/26/93

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

- 1) Well Operator: Devonian Appalachian Co., Inc. 3530 (1) 670
- 2) Operator's Well Number: McCullough #4-1 3) Elevation: 1068.
- 4) Well type: (a) Oil    / or Gas X /

(b) If Gas: Production X / Underground Storage    /

WR-35  
**RECEIVED**  
MAY 27 1991

26-Mar-91  
API # 47-17-03881

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

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY  
Well Operator's Report of Well Work  
FARM name: McCULLOUGH, RICHARD F. Operator Well No.: McCULLOUGH #4-1

LOCATION: Elevation: 1068.00 Quadrangle: WEST UNION  
District: CENTRAL County: DODDRIDGE  
Latitude: 6820 Feet South of 39 Deg. 20 Min. 0 Sec.  
Longitude 7380 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: DEVONIAN APPALACHIAN COMP  
ROUTE 1, BOX 114B  
MINERALWELLS, WV 26150-0114

Agent: ROBERT A. ANDERSON

Inspector: MIKE UNDERWOOD  
Permit Issued: 03/26/91  
Well work Commenced: 5/9/91  
Well work Completed: 5/17/91  
Verbal Plugging  
Permission granted on: N/A  
Rotary X Cable Rig  
Total Depth (feet) 5600'  
Fresh water depths (ft) 50'

Salt water depths (ft) 390', 401'  
1480'  
Is coal being mined in area (Y/N)? N  
Coal depths (ft): none reported

OPEN FLOW DATA

Producing formation Alex., Ben., Riley Pay zone depth (ft) 4522'

Gas: Initial open flow 2,500 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 900 MCF/d Final open flow 4 Bbl/d  
Time of open flow between initial and final tests 16 Hours  
Static rock pressure 1500 psig (surface pressure) after 30 Hours

Second producing formation  
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 pressure) after          Hours

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	30'	0	N/A
11 3/4"	132'	132'	88CSR
8 5/8	1491'	1431'	88CSR 1811.22
4 1/2	5600'	5367'	88CSR 1811.1

5194  
4977

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: DEVONIAN APPALACHIAN COMPANY, INC.

By: Robert A. Anderson  
Date: 5/27/91

MAY 31 1991

RECEIVED  
MDR 22 1991  
DEPT. OF ENERGY

1) Date: March 22 1991  
2) Operator's well number  
McCullough #4-1  
3) API well No: 47 - 017 - 3881  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:  
 (a) Name Richard F. McCullough  
 Address Rt. 1 Box 99  
Greenwood, WV. 26360  
 (b) Name Sarahlene McCullough  
 Address same  
 (c) Name \_\_\_\_\_  
 Address \_\_\_\_\_
- 5) (a) Coal Operator:  
 Name N/A  
 Address \_\_\_\_\_  
 (b) Coal Owner(s) with Declaration  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_
- (c) Coal Lessee with Declaration  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_
- 6) Inspector Mike Underwood  
 Address Rt. 2 Box 135  
Salem, WV. 26426  
 Telephone (304)-782-1043

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  
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:

- 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.

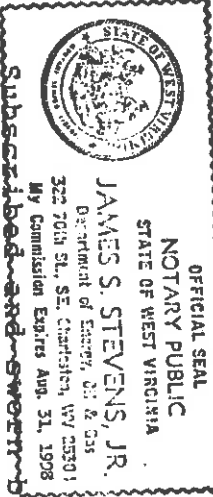
Well Operator Devonian Appalachian Co., Inc.

By: Bill D. Chawner  
Its: President  
Address Rt. 1 Box 114-B  
Mineral Wells, WV. 26150

Telephone (304)489-9314  
I certify me this 27 day of April, 1991

James S. Stevens, Jr. Notary Public

My commission expires \_\_\_\_\_



12041

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

1) Well Operator: Devonian Appalachion Co Inc 13530 ① 671

Operator's Well Number: McCalloughk #1-1 3) Elevation: 1068

24505

Well type: (a) Oil  or Gas  Approved 10/27/97  
Expires 10/27/99

Upper Sandstone Upper Riley 434  
Production  Underground Storage   
Deep  Shallow

Proposed Target Formation(s): Devonian Shales / Mississippian Shales

Proposed Total Depth: N/A feet

- 7) Approximate fresh water strata depths: N/A Cased well
- 8) Approximate salt water depths: N/A cased well
- 9) Approximate coal seam depths: N/A cased well
- 10) Does land contain coal seams tributary to active mine? Yes  No
- 11) Proposed Well Work: Plug off deeper reservoirs; cement shallow reservoirs; frac shallow reservoirs; remove plug.
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft. drilling	For drilling	Left in well	
Conductor	<u>existing well</u>		<u>see previous</u>			
Fresh Water	<u>1 1/4"</u>				<u>132' CTS</u>	
Coal	<u>9 5/8"</u>		<u>4392'</u>	<u>210'</u>		
Intermediate	<u>4 1/2"</u>		<u>Top of 4392'</u>	<u>to 1431'</u>		
Production			<u>5367'</u>			
Tubing						
Liners						

PACKERS : Kind \_\_\_\_\_ Sizes \_\_\_\_\_

1 1/2" Cement top on 4 1/2" at 4392' casing 42 up to 2100'  
5 1/2" pipe - light sand Gordon Basin near Upper Riley.  
Remove Kelly Corralle with standard Bronson Riley.

Plat  WW-9  WW-2B  Bond \_\_\_\_\_ Agent \_\_\_\_\_ (Type) \_\_\_\_\_



1) Date: 10-21-97  
2) Operator's well number Mr. Cullough KY-1  
3) API Well No: 47 - 017 - 3891-F  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Richard McCullough Name \_\_\_\_\_  
Address Box 59 Address \_\_\_\_\_  
Greenwood WV 26915  
(b) Name \_\_\_\_\_ (b) Coal Owner(s) with Declaration  
Address \_\_\_\_\_ Name \_\_\_\_\_  
(c) Name \_\_\_\_\_ Address \_\_\_\_\_  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Mike Underwood  
Address SALEM WV  
Telephone (304) - \_\_\_\_\_

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 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:  
\_\_\_\_\_ 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 Devinian Appalachia Co. Inc.

By: Robert J. Arlison  
Its: Permitter  
Address 4253 Fox Rd  
Telephone Kingsville WV 26048  
KINGSVILLE OHIO  
44019

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_  
My commission expires \_\_\_\_\_  
Notary Public