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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Earl Ray Tomblin , Governor  
Randy C. Huffman , Cabinet Secretary  
www.dep.wv.gov

Monday, August 15, 2016  
WELL WORK PERMIT  
Vertical / Plugging - 2

EXCO RESOURCES (PA), LLC  
260 EXECUTIVE DRIVE

CRANBERRY TOWNSHIP, PA 16066

Re: Permit approval for 33 (B-8)  
47-019-00952-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin  
Chief

Operator's Well Number: 33 (B-8)  
Farm Name: WHITE OAK LUMBER COMPANY  
U.S. WELL NUMBER: 47-019-00952-00-00  
Vertical / Plugging - 2  
Date Issued: 8/15/2016

Promoting a healthy environment.

08/19/2016

## PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

1) Date 7/10, 2016  
2) Operator's  
Well No. New River 33  
API Well No. 47-019-00952

STATE OF WEST VIRGINIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION OFFICE OF OIL  
AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil      / Gas   X   / Liquid injection      / Waste disposal      /  
(If "Gas, Production   X   or Underground storage     ) Deep      / Shallow   x  

5) Location: Elevation ~~1551~~ 1829 Watershed Dunloup Creek  
District Plateau County Fayette Quadrangle Oak Hill 7.5

6) Well Operator EXCO Resources (PA), LLC 7) Designated Agent Diana Stampler/C.T.Corp.  
Address PO Box 8. Address 5400 D Big Tyler Road  
Ravenswood, WV 26164 Charleston, WV 25301

Oil and Gas Inspector to be notified  
Name Terry Urban, PO Box 1207  
Address PO Box Clendenin WV 25045

9) Plugging Contractor  
Name R & R WELL SERVICE  
Address 42 LYNCH RIDGE  
WALTON, WV 25286

PHONE

10) Work Order: The work order for the manner of plugging this well is as follows:  
Check Rock pressure

Remove all equipment used to produce well  
Gel hole TD 1705 as per WR-35  
CEMENT 1705 TO 1605 across TD and Elevation  
Gel to 1206  
Cement 1256 to 1156 across 41/2 seat  
Freepoint, cut and pull 41/2csg  
Cement 100' across cut  
Gel to 979 to 887  
Cement 887 to 787 over 7" csg seat  
Gel to 450'

- WELL WAS NEVER FRACKED. IF IT WAS NEVER PERFORATED THEN TIH W/ 2 3/8" TUBING & SET 200' CIA PLUG FROM PLTD.
- GEL HOLE TO 800'.
- FREEPPOINT, CUT & TOOTH WITH 4 1/2" CASING.
- SET 100' CIA PLUG ACROSS CASING CUT @ PL 1000'.
- SET 100' CIA PLUG ACROSS 7" CASING SEAT FROM 887' - 787'.
- SPOT GEL IF NECESSARY & SET CIA PLUG FROM 420' TO 220' (COVER COAL)
- SET CIA PLUG FROM 100' TO SURFACE.
- SET MONUMENT.

Cement 450 to 200' over coal

Gel to 100'

Cement 100' to surface

set monument with proper API

Signature

Date 7-18-16

JWM

notification must be given to the district oil and gas inspector 24 hours before work is to begin. **08/19/2016**



WR-35  
Rev (5-01)

DATE: 11/30/2004  
API #: 47-1900952

19 00952P

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: **White Oak Lumber Co (New River)**  
LOCATION: Elevation: **GL 1801 KB 1808**

Operator Well No. **New River #33**  
Quadrangle: **Oak Hill**

District: **Plateau** County: **Fayette**  
Latitude: **7720** Feet South of **37** Deg. **55** Min. **00** Sec.  
Longitude: **9110** Feet West of **81** Deg. **07** Min. **30** Sec.

Company: **Energy Search Inc.**  
**88 Products Lane,**  
**Marietta, Ohio 45750**

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	13 3/8"	27'	27'	
Agent: <b>Mike McCown</b>	7"	837'	837'	160 sks
Inspector: <b>Rick Campbell</b>				
Date Permit Issued: <b>4/8/2002</b>	4 1/2"	1206'	1206'	90 sks
Date Well Work Commenced: <b>6/3/2002</b>				
Date Well Work Completed: <b>6/5/2002</b>				
Verbal Plugging:				
Date Permission granted on:				
Rotary xx Cable Rig				
Total Depth (feet):				
Fresh Water Depth (ft.): <b>90' 1" stream</b>				
Salt Water Depth (ft.): <b>N/A</b>				
Is coal being mined in area (N/Y)? <b>N</b>				
Coal Depths (ft.): <b>246-249; 321-323; 397-399</b>				

OPEN FLOW DATA

Producing formation Pay zone depth (ft)  
 Gas: Initial open flow MCF/d Oil: Initial open flow trace Bbl/d  
 Final open flow MCF/d Final open flow trace Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure psig (surface pressure) after \_\_\_\_\_ Hours

Second producing formation Pay zone depth (ft)  
 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

Formations:-**KB 1808**

**Base Pride Sh 1054**  
**Ravenciff 1083-1121**  
**Avis Lime 1121-1149**  
**TD 1705**

**Well has not been frac't**  
**Well is to be plugged**

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.

Signed: [Signature]  
By: Geologist  
Date: 11-30-2004

CAPACITY OF 6 1/2" HOSE

.2131 CFT / LIN FT  
OF 6 1/2" HOSE

08/19/2016



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west virginia department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Joe Manchin III, Governor  
Stephanie R. Timmermeyer, Cabinet Secretary  
www.wvdep.org

August 23, 2005

**FINAL INSPECTION REPORT**  
**WELL PERMIT RELEASED**

ENERGY SEARCH INC.,

The FINAL INSPECTION REPORT for the permit, API Well Number: 47-1900952, issued to ENERGY SEARCH INC., and listed below has been received in this office, and reclamation requirements approved. The well designated by the permit number below has been released under reclamation and will remain under your bond.

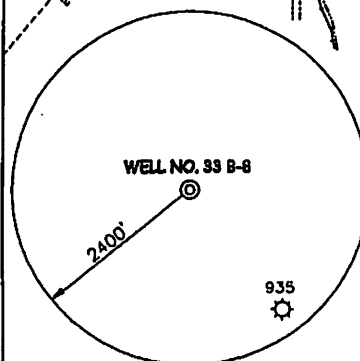
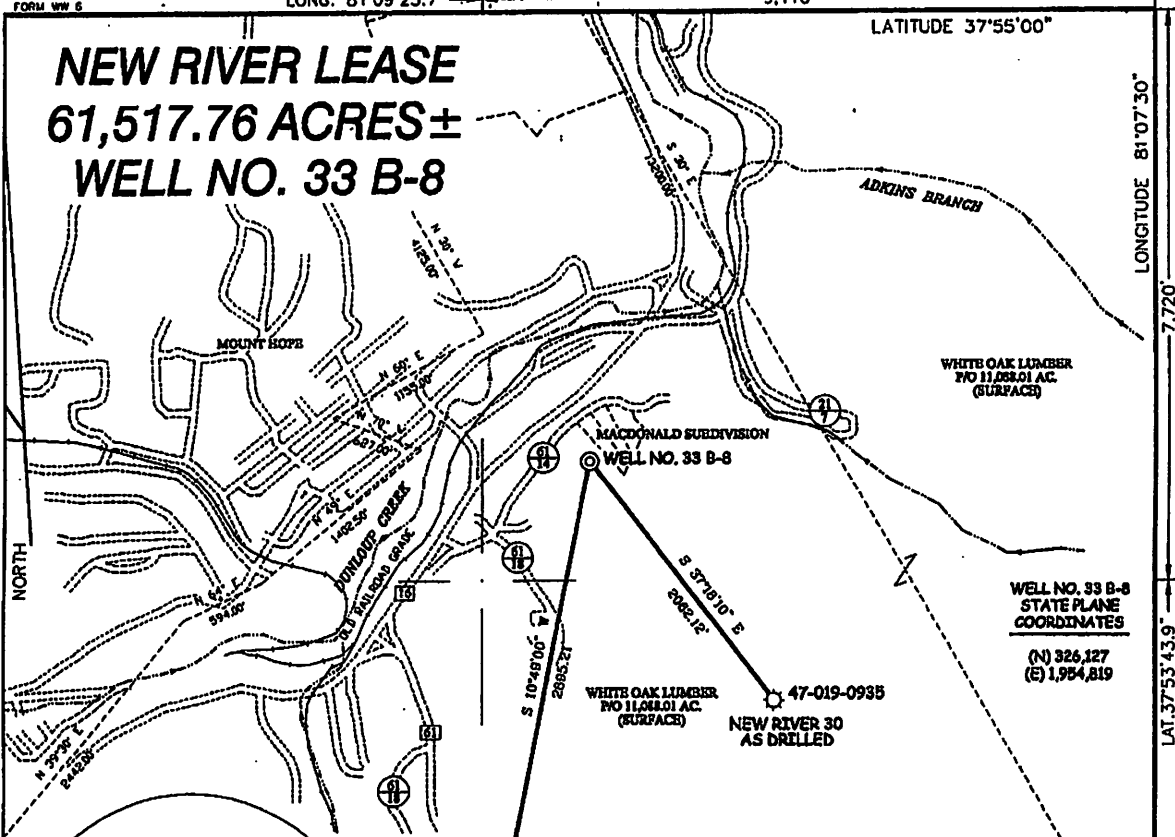
JAMES MARTIN  
Chief,  
Office of Oil and Gas

Operator: ENERGY SEARCH INC.  
Operator's Well No: 33 (B-8)  
Farm Name: WHITE OAK LUMBER COMPANY  
**API Well Number: 47-1900952**  
Date Issued: 04/08/2002  
Date Released: 08/23/2005

Promoting a healthy environment.

08/19/2016

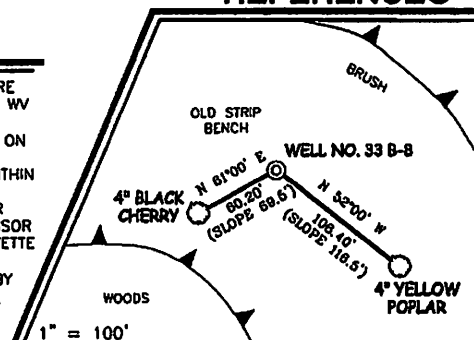
# NEW RIVER LEASE 61,517.76 ACRES± WELL NO. 33 B-8



### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 1-10-02.
3. LEASE BOUNDARIES NOT SHOWN WITHIN LIMITS OF THIS PLAT.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF FAYETTE COUNTY IN JANUARY 2002.
5. WELL LAT./LONG. ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE).

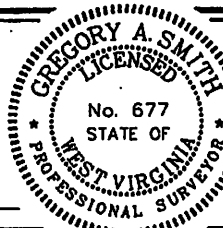
### REFERENCES



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 ENVIRONMENTAL PROTECTION.

P.S.  
677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE JANUARY 15, 2002

OPERATORS WELL NO. 33 (B-8)

API WELL NO. 47-19-00952

STATE 19 COUNTY 00952 PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 4143P33(114-45)  
PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 1,717' SCALE 1" = 1000'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

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

LOCATION : ELEVATION 1,801' WATERSHED DUNLOUP CREEK

DISTRICT PLATEAU COUNTY FAYETTE QUADRANGLE OAK HILL 7.5'

SURFACE OWNER WHITE OAK LUMBER ACREAGE 11,088.01±

ROYALTY OWNER NEW RIVER COMPANY LEASE ACREAGE 61,517.76±

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 MAXON/RAVENCLIFF  
ESTIMATED DEPTH 2,500'

WELL OPERATOR ENERGY SEARCH, INC. DESIGNATED AGENT FRANK ROTUNDA  
ADDRESS 280 SANDERS W. BLVD. SUITE 200 ADDRESS 1608 GREENMONT DRIVE  
KNOXVILLE, TN 37922 VIENNA, WV 26105

COUNTY NAME  
PERMIT

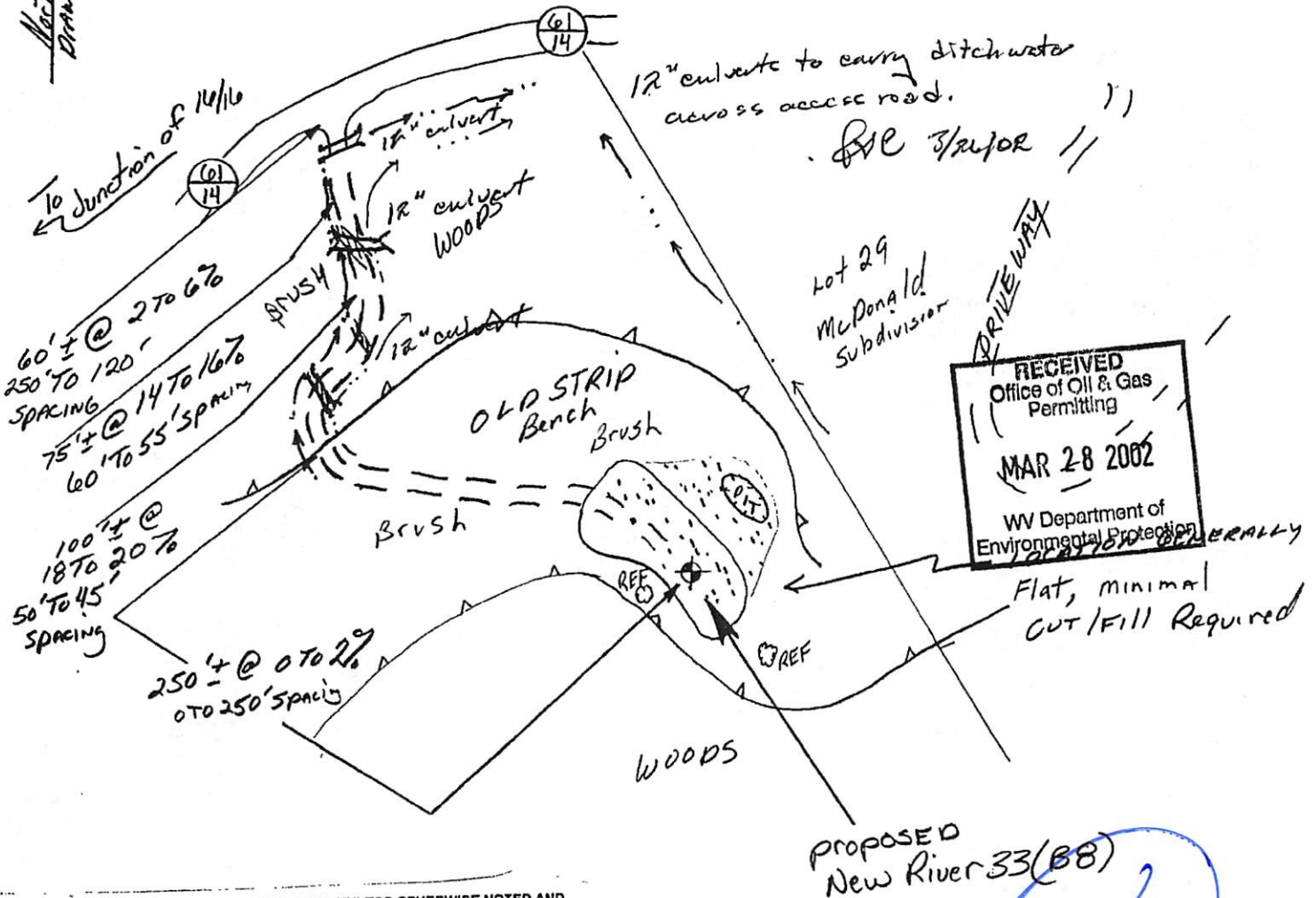
08/19/2016





Original  
Rev. Con

NOPIF on  
Alegging



RECEIVED  
Office of Oil & Gas  
Permitting  
MAR 28 2002  
WV Department of  
Environmental Protection

Flat, minimal  
CUT/FILL Required

PROPOSED  
New River 33(B8)

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN. ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.  
CUT & STACK ALL TIMBER 6" AND ABOVE.  
STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

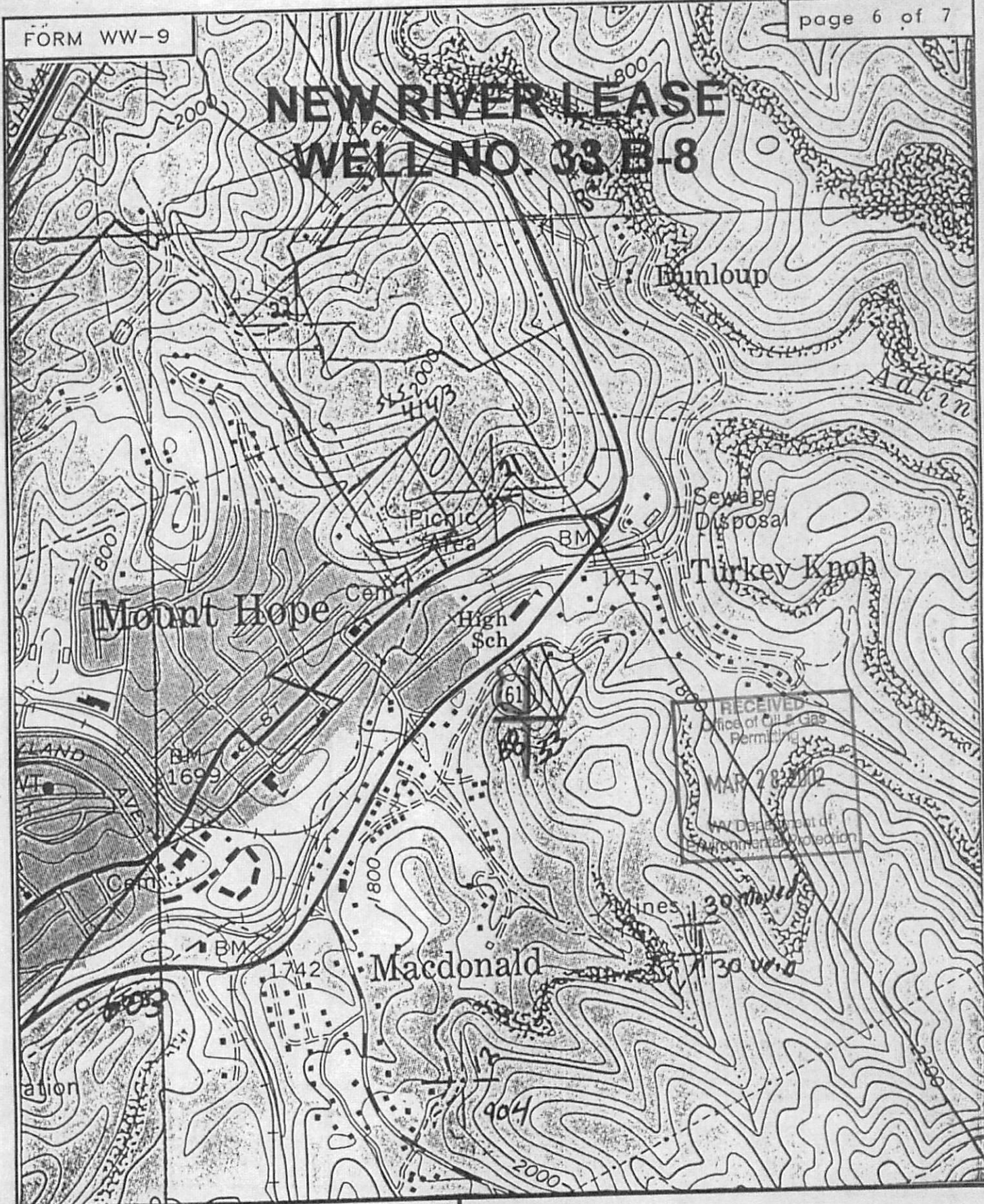
**SLS** SMITH LAND SURVEYING, INC.  
P.O. BOX 150, GLENVILLE, WV 26351

Phone (304) 462-5656 or 462-5634  
DRAWN BY *JS* DATE 1-11-02 FILE NO. 4143



FORM WW-9

# NEW RIVER LEASE WELL NO. 33 B-8



SMITH LAND SURVEYING  
P.O. BOX 150 GLENVILLE, WV. 26351

TOPO SECTION OF Oak Hill 7.5'

FILE NO. 4143 DATE 1/11/02 SCALE 1"=1000'

08/19/2016



WW-4A  
Revised 6-07

1) Date: 7/14 2016  
2) Operator's Well Number  
New River 33  
3) API Well No.: 47 - 019-00952 -

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

4) Surface Owner(s) to be served:  
(a) Name Arrow WV, INC ✓  
Address %Boy Scouts of America  
1325 West Walnut Hill Lane, Suite S406, Irving TX 75038  
(b) Name \_\_\_\_\_  
Address Meadow Creek Coal Corp. ✓  
263 White Oak Dr.  
Beckley WV 25801  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_

5) (a) Coal Operator Meadow Creek Coal Corp., 263 White Oak Dr. Beckley WV 25801 ✓  
(b) Coal Owner(s) with Declaration \_\_\_\_\_

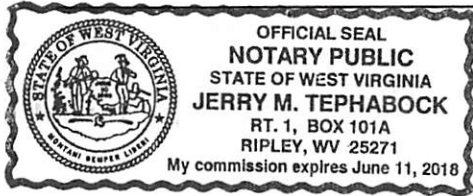
6) Inspector Terry Urban (c) Coal Lessee with Declaration \_\_\_\_\_  
Address PO Box 1207, Clendenin WV 25045  
Telephone 304 549 5915

**THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:**

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief



Well Operator EXCO RESOURCES (PA), LLC  
By: Randall Sheets *Randall Sheets*  
Its: Production Supervisor  
Address P O BOX 8  
RAVENSWOOD, WV 26164  
Telephone 304-273-5371

Subscribed and sworn before me this 18<sup>th</sup> day of July  
Jerry M. Tephabock Notary Public  
My Commission Expires 6/11/18

**Oil and Gas Privacy Notice**

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

STATE OF WEST VIRGINIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION OFFICE OF OIL  
AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EXCO Resources (PA), LLC OP Code 307860

Watershed (HUC 10) Sugar Creek Quadrangle Oak Hill 7.5

Elevation 1921 1829 7.8 County Fayette District Plateau

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes \_\_\_\_\_ No

Will a pit be used for drill cuttings? Yes \_\_\_\_\_ No  AWY WELL EFFLUENT WILL BE CONTAINED IN TANKS & DISPOSED OF PROPERLY.

If so, please describe anticipated pit waste: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes \_\_\_\_\_ No \_\_\_\_\_ If so, what ml.? \_\_\_\_\_

Proposed Disposal Method For Treated Pit Wastes:

- \_\_\_\_\_ Land Application
- \_\_\_\_\_ Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- \_\_\_\_\_ Reuse (at API Number \_\_\_\_\_ )
- \_\_\_\_\_ Off Site Disposal (Supply form WW-9 for disposal location)

Other (Explain no fluids are expected in return To be collected and Disposed (OFF SITE))

Will closed loop system be used? \_\_\_\_\_

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. \_\_\_\_\_

-If oil based, what type? Synthetic, petroleum, etc. \_\_\_\_\_

Additives to be used in drilling medium? \_\_\_\_\_

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. \_\_\_\_\_

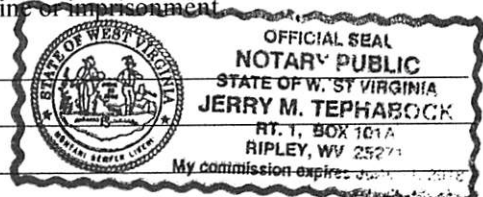
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) \_\_\_\_\_

-Landfill or offsite name/permit number? \_\_\_\_\_

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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 thereto 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 or imprisonment.

Company Official Signature Randall R. Sheets  
Company Official (Typed Name) Randall Sheets  
Company Official Title Production Supervisor



Subscribed and sworn before me this 18th day of July, 20 14

Jerry M. Tephahock Notary Public

My commission expires 6/11/18



Proposed Revegetation Treatment: Acres Disturbed \_\_\_\_\_ Prevegetation Ph 6.0  
0.5 \_\_\_\_\_

Lime \_\_\_\_\_ 2Tons/acre or to correct to pH \_\_\_\_\_

Fertilizer type \_\_\_\_\_ 10-20-20 \_\_\_\_\_

Fertilizer amount \_\_\_\_\_ 500 lbs/acre

Mulch \_\_\_\_\_ 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KENTUCKY FESCUE	40	SAME	
ALSIKE CLOVER	5		
ANNUAL RYE	16		

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

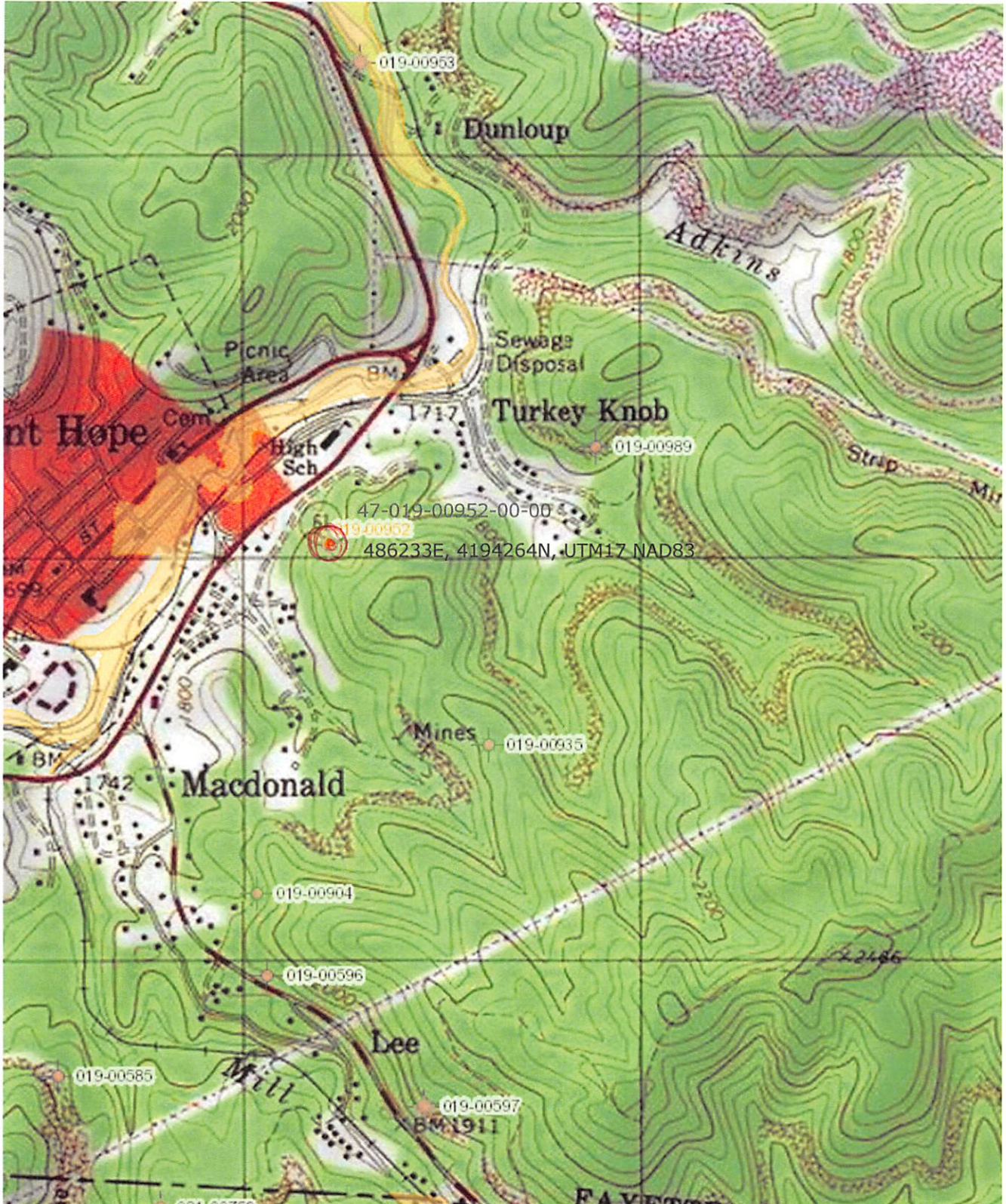
Plan Approved by: [Signature]

Comments: \_\_\_\_\_

Title: Inspector McLean Date: 7-18-16

Field Reviewed? (  ) Yes (  ) No





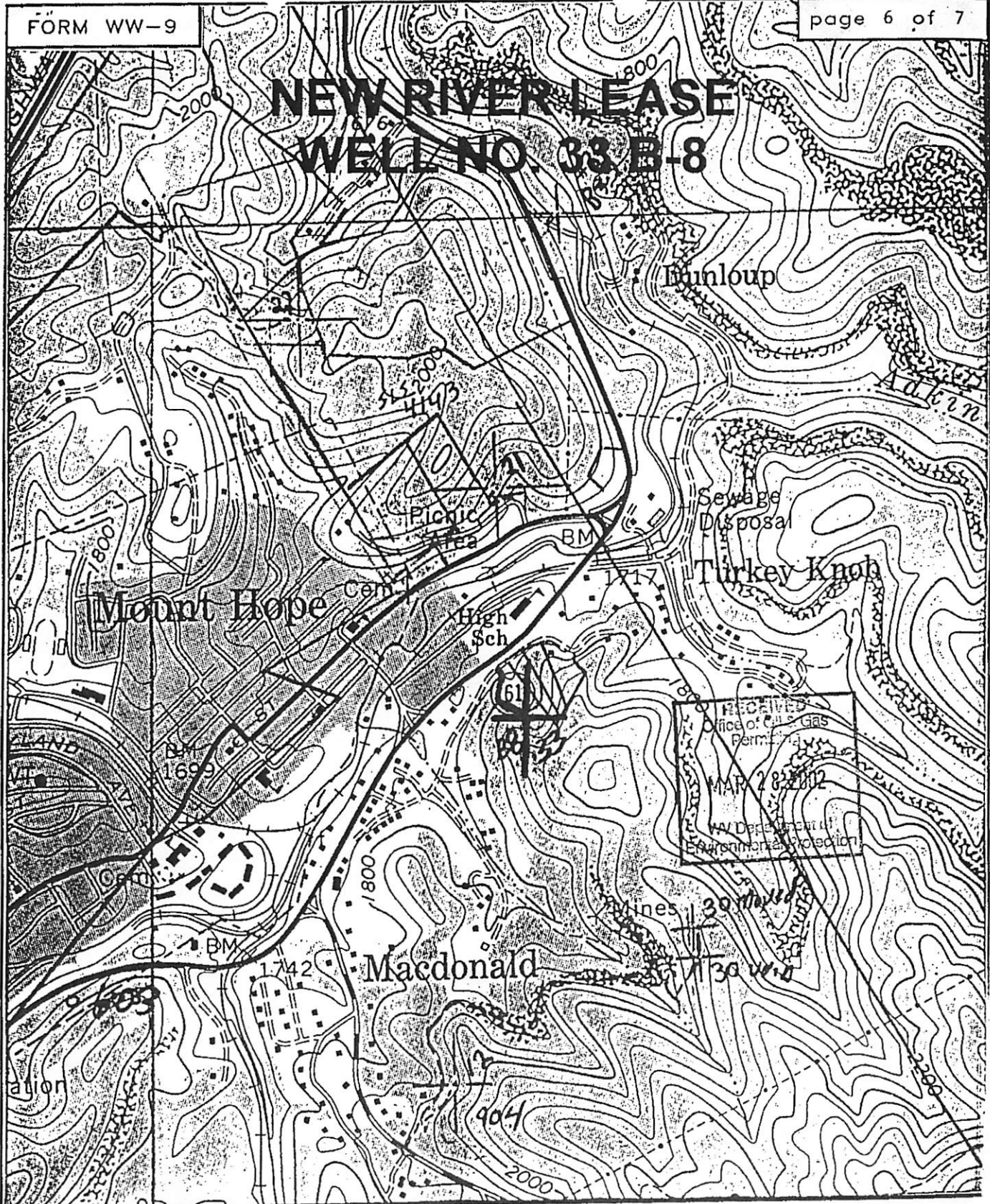
08/19/2016



FORM WW-9

page 6 of 7

# NEW RIVER LEASE WELL NO. 33 B-8



RECEIVED  
Office of Oil & Gas  
Permitting  
MAR 28 2002  
WV Department of  
Environmental Protection

**SLS**  
SMITH LAND SURVEYING  
P.O. BOX 150 GLENVILLE, WV. 26351

TOPO SECTION OF Oak Hill 7.5'  
FILE NO. 4143 DATE 1/11/02 SCALE 1"=1000'

08/19/2016



9527001

Pluteau  
53/58



