



**west virginia** department of environmental protection

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

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

April 28, 2014

**WELL WORK PERMIT**

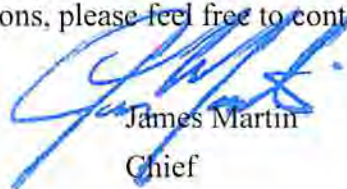
**Re-Work**

This permit, API Well Number: 47-3906327, issued to RESERVE OIL & GAS, INC., 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: YEAGER 2  
Farm Name: CENTRAL WV REGIONAL AIRPC  
**API Well Number: 47-3906327**  
**Permit Type: Re-Work**  
Date Issued: 04/28/2014

# 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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.

WW - 2B  
(Rev. 8/10)

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**WELL WORK PERMIT APPLICATION**

1) Well Operator: Reserve Oil & Gas, Inc.

310-324	Kanawha	Elk	Big Chimney
Operator ID	County	District	Quadrangle

2) Operator's Well Number: Yeager #2      3) Elevation: 675

4) Well Type: (a) Oil \_\_\_\_\_ or Gas x \_\_\_\_\_  
(b) If Gas: Production x / Underground Storage \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow x \_\_\_\_\_

5) Proposed Target Formation(s): Base of Lower Huron/Rhinestreet Proposed Target Depth: 4326

6) Proposed Total Depth: 4326 Feet Formation at Proposed Total Depth: Base of Lower Huron

7) Approximate fresh water strata depths: 210

8) Approximate salt water depths: 1230

9) Approximate coal seam depths: None

10) Approximate void depths,(coal, Karst, other): None

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)  
Install 4 1/2 casing and complete 2 stage frac  
*[Handwritten signature]*

**13) CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft			
Conductor	13 3/8			21'	Existing	
Fresh Water	9 5/8			336'	Existing	
Coal						
Intermediate	7			1730	Existing	
Production	4 1/2			4326		
Tubing						
Liners						

Packers: Kind: \_\_\_\_\_  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

**Received**      05/02/2014  
APR 16 2014

3906327R ✓

WR-35  
Rev. 8/23/13

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

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-039-06327 County Kanawha District Elk  
Quad Big Chimney Pad Name n/a Field/Pool Name n/a  
Farm name Central WV Regional Airport Well Number Yeager #2  
Operator (as registered with the OOG) Reserve Oil and Gas, Inc.  
Address 929 Charleston Road City Spencer State WV Zip 25276

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 592,885 (4348068) 38-3794784 Easting 1,798,012 (170448052) 21-5947549  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 785 GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
n/a

Date permit issued 12/19/2011 Date drilling commenced 08/27/2013 Date drilling ceased 09/06/2013  
Date completion activities began n/a Date completion activities ceased Office of Oil and Gas  
Verbal plugging (Y/N) n/a Date permission granted n/a Granted by n/a  
NOV 25 2013

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug  
FRESHWATER DEPTHS  
Freshwater depth(s) ft n/a Open mine(s) (Y/N) depths NO  
Salt water depth(s) ft 768, 1011 Void(s) encountered (Y/N) depths RECEIVED  
Coal depth(s) ft 1062 - 1065 Cavern(s) encountered (Y/N) depths Office of Oil and Gas  
Is coal being mined in area (Y/N) NO

OCT 15 2013  
Reviewed by:  
WV Department of Environmental Protection  
05/02/2014  
2006/2013

WR-35  
Rev. 8/23/13

API 47-039 - 06327 Farm name Central WV Regional Airport Well number Yeager #2

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	17 1/2	13 3/8	18.00	New	48.0	none	No, cement by hand to surface
Surface	12 1/4	9 5/8	336.00	New	26.0	1 at 84'	yes, 5 bbls to pit
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	8 3/4	7	1646.00	New	17.0	1 at 295'	yes, 5 bbls to pit
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Portland	7				GL	7
Surface	Type 1	120	14.8	1.4	168	GL	13
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	Type 1	225	14.8	1.4	315	GL	16
Tubing							

Drillers TD (ft) 4326      Loggers TD (ft) 4336  
 Deepest formation penetrated Devonian Shale      Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) \_\_\_\_\_

Check all wireline logs run       caliper     density     deviated/directional     induction  
     neutron     resistivity     gamma ray                     temperature     sonic

Well cored     Yes     No       Conventional     Sidewall                    Were cuttings collected     Yes     No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_  
13 2/8": no centralizers used  
9 5/8": 1 centralizer used at joint 6  
7": 3 centralizers used at joints: 10, 20, 34

WAS WELL COMPLETED AS SHOT HOLE     Yes     No      DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?     Yes     No      DETAILS \_\_\_\_\_

WERE TRACERS USED     Yes     No      TYPE OF TRACER(S) USED \_\_\_\_\_









3906327R

OK # 1046  
#550<sup>00</sup>

WW-2A  
(Rev. 6-07)

1). Date: \_\_\_\_\_  
2.) Operator's Well Number \_\_\_\_\_ Yeager #2 \_\_\_\_\_  
State \_\_\_\_\_ County \_\_\_\_\_ Permit \_\_\_\_\_  
3.) API Well No.: 47- 039 - 6327

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Central WV Regional Airport Authority W  
Address 100 Airport Road  
Charleston, WV 25311  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Terry Urban  
Address P.O. Box 1207  
Clendenin, WV 25045  
Telephone 304-549-5915

5) (a) Coal Operator  
Name None  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name None  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name None  
Address \_\_\_\_\_

**TO THE PERSONS 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 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

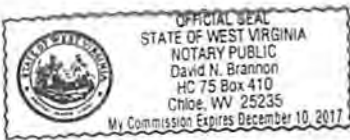
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties by:

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

I have read and understand Chapter 22-6 and 35 CSR 4, 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 Reserve Oil & Gas, Inc.  
By: J. Scott Freshwater  
Its: Vice President  
Address 929 Charleston Road  
Spencer, WV 25276  
Telephone 304-927-5228

Subscribed and sworn before me this 15<sup>th</sup> day of April, 2014

David N. Brannon Notary Public  
My Commission Expires December 10, 2017

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)

Received

05/02/2014

APR 16 2014

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Kanawha Operator Reserve Oil & Gas, Inc. Operator well number Yeager #2

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have FIFTEEN (15) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure a adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

- The Chief has the power to deny or condition a well work permit based on comments on the following grounds:
1) The proposed well work will constitute a hazard to the safety of persons.
2) The soil erosion and sediment control plan is not adequate or effective;
3) Damage would occur to publicly owned lands or resources;
4) The proposed well work fails to protect fresh water sources or supplies;
5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through \_\_\_ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Richard A. Atkinson III
Signature
Date
Richard A. Atkinson III
Print Name

Central WV Regional Airport Authority
By Director Date 4/16/14
Signature Date 4/16/14

05/02/2014

Received

APR 16 2014

**WW-2A Coal Waiver**

**COAL OPERATOR, OWNER, OR LESSEE WAIVER**

County Kanawha  
Operator Reserve Oil & Gas, Inc. Operator's Well Number Yeager #2

**INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE**

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0499 extension 1654

**WAIVER**

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 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.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Signature	Date		Company Name	
			By	
			Its	Date
			Signature	Date

*No known owner, operator  
or lessee of workable coalbed/seam  
on this tract.*

05/02/2014

**Received**

APR 16 2014

WW-2A1  
(Rev. 1/11)

Operator's Well Number Yeager #2

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Central WV Regional Airport Authority	Reserve Oil & Gas, Inc.	1/8	LB 259/889

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:  
By: Its:

Reserve Oil & Gas, Inc.  
J. Scott Freshwater  
Vice President

Received

05/02/2014

APR 16 2014

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Reserve Oil & Gas, Inc. OP Code \_\_\_\_\_

Watershed Elk River Quadrangle Big Chimney

Elevation 875 County Kanawha District Elk

Description of anticipated Pit Waste: Gell water, Drill Cuttings; freshwater

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

Will a synthetic liner be used in the pit? yes. If so, what mil.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:  
\_\_\_\_ Land Application  
\_\_\_\_ Underground Injection ( UIC Permit Number \_\_\_\_\_)  
x Reuse (at API Number \_\_\_\_\_)  
\_\_\_\_ Off Site Disposal (Supply form WW-9 for disposal location)  
\_\_\_\_ Other (Explain \_\_\_\_\_)

*No pit on  
sework /  
frac*

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

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

Additives to be used? \_\_\_\_\_

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

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

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust Soil/dirt

-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 [Signature]

Company Official (Typed Name) J. Scott Freshwater

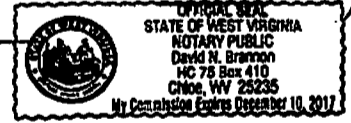
Company Official Title Vice President

RECEIVED  
Office of Oil & Gas  
DEC 13 2011  
WV Department of  
Environmental Protection

Subscribed and sworn before me this 7<sup>th</sup> day of December, 2014

David N. Brannon Notary Public

My commission expires December 10, 2017

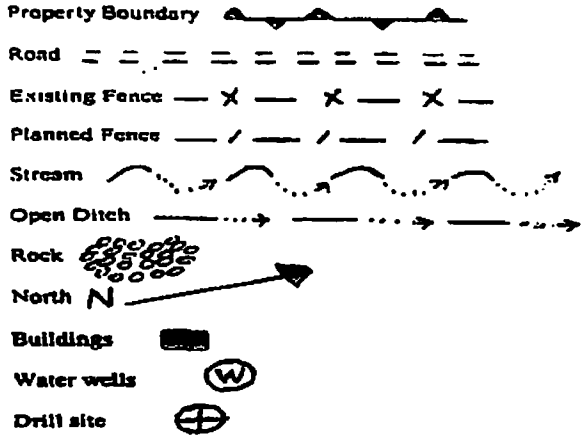


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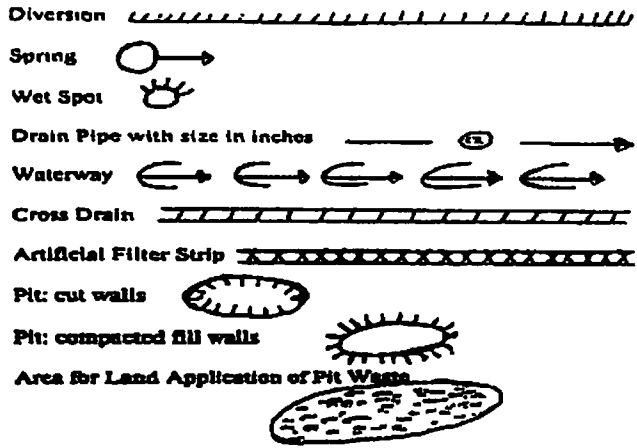
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Office of Oil and Gas  
WV Dept. of Environmental Protection

05/02/2014



LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1.5 Prevegetation pH 5.5

Lime \_\_\_\_\_ Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 0.25 lbs/acre (500 lbs minimum)

Mulch Hay/Straw 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	5	Ladino Clover	5
Red Top Clover	40	KY 31	40

Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]  
 Comments: Will use States BMPs and Excess Road

Title: Inspect 4/16/14 Date 4-16-14

Field Reviewed?  Yes  No

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Office of Oil and Gas  
 WV Dept. of Environmental Protection

05/02/2014

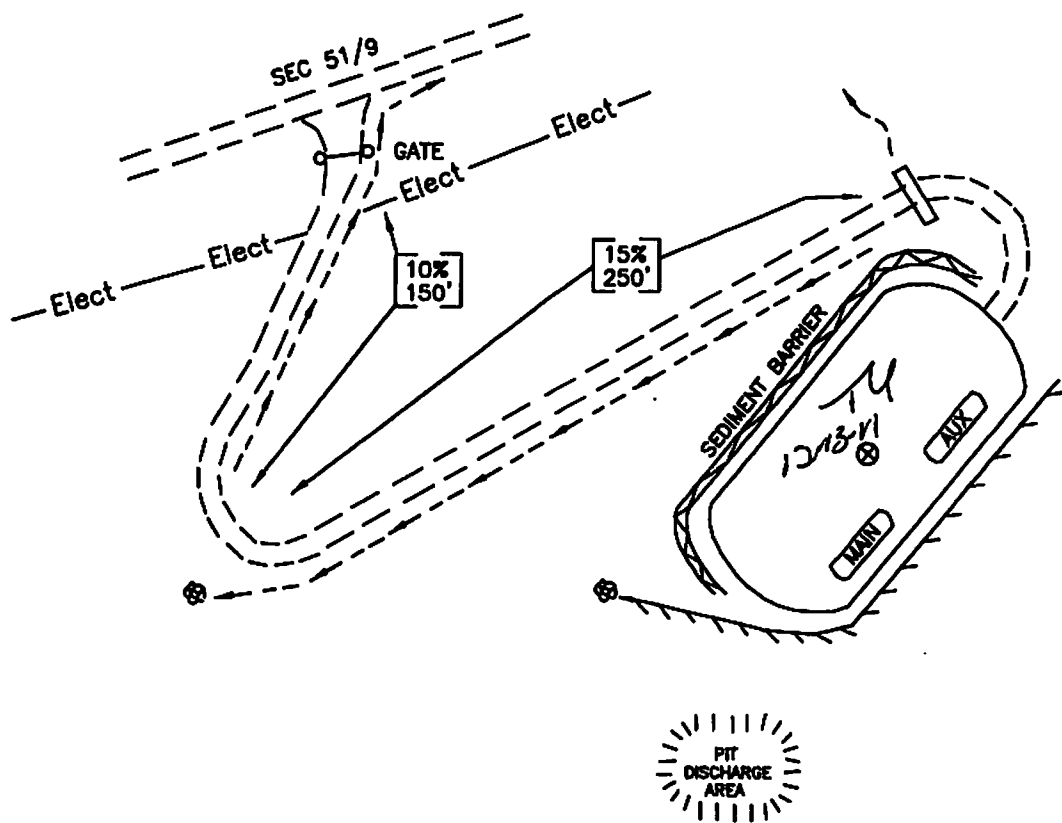
NOTE:

Any Trees 6" or larger in Diameter will be cut and piled. Brush will be used as Sediment Barriers. Temporary seed and mulch all slopes upon construction. Stone over all Culverts.

YEAGER #2

NOTE:

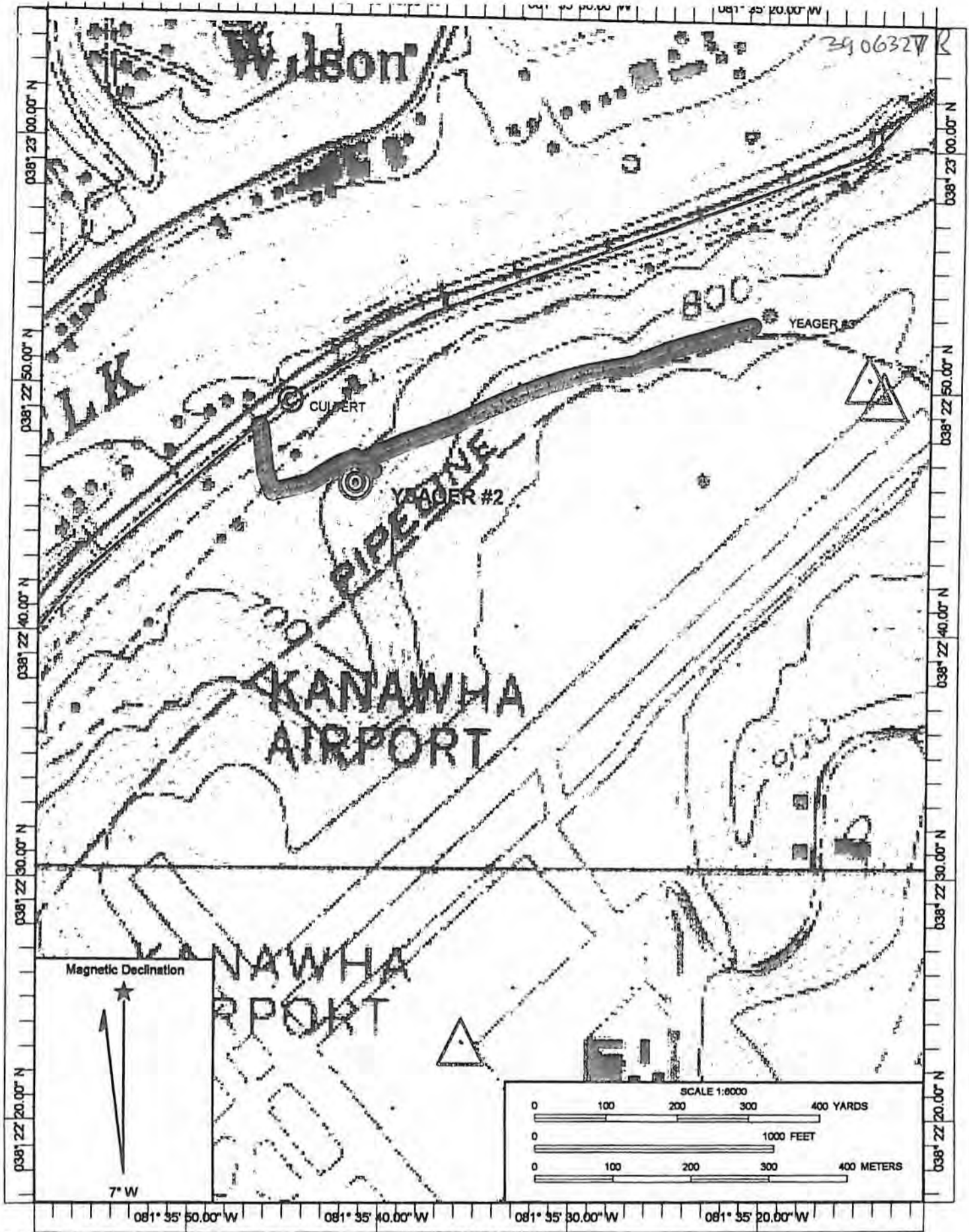
ALL ROAD SHOWN EXISTING FROM PREVIOUS CONSTRUCTION



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Office of Oil and Gas  
WV Dept. of Environmental Protection 03/02/2014



Datum: NAD83

Copyright (C) 1997, Maptech, Inc.

39-06327

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Office of Oil and Gas  
WV Dept. of Environmental Protection

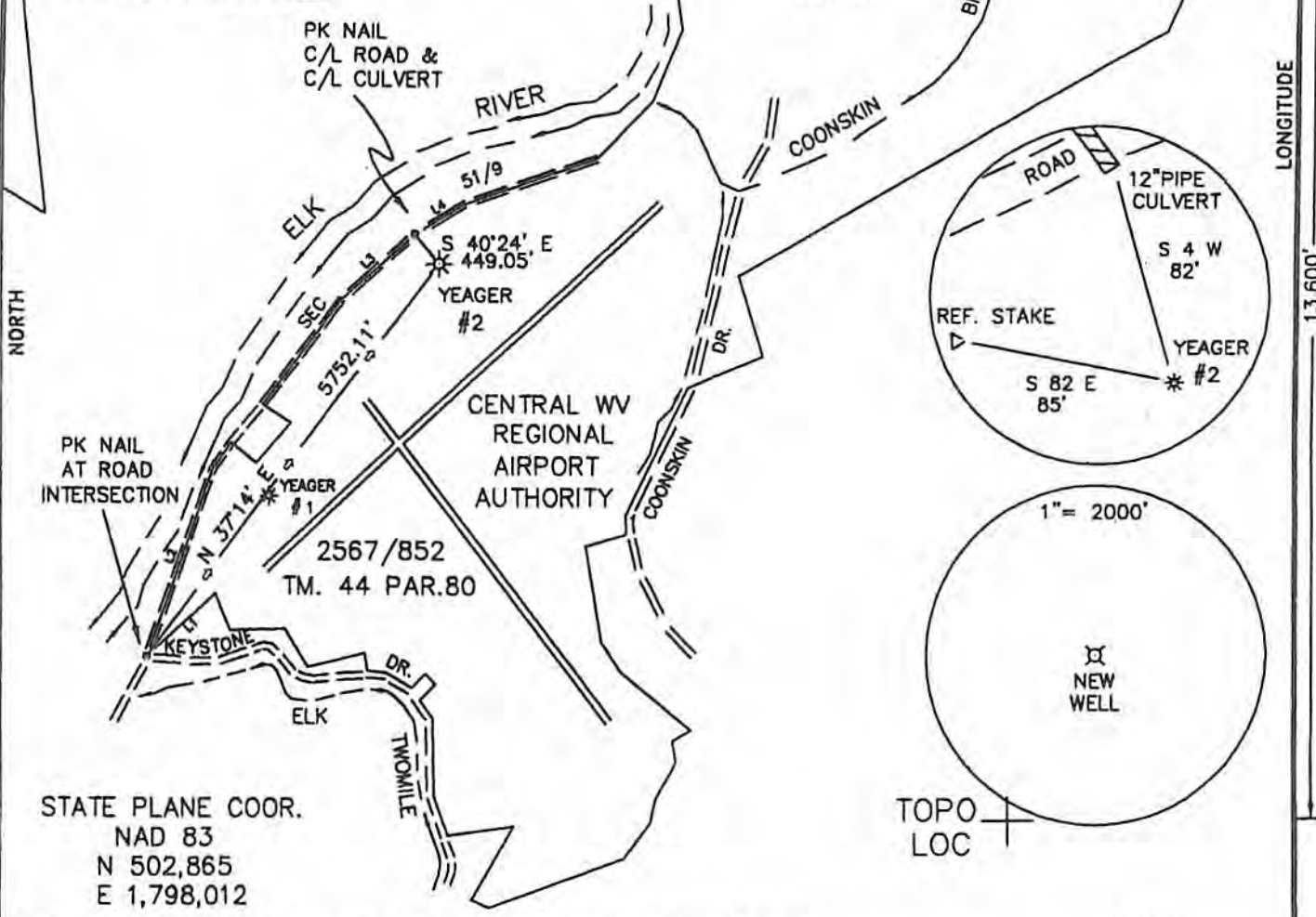
05/02/2014



UTM NAD 83  
 17 0448 052E  
 42 48088N  
 NAD 83  
 LAT. 38.3794784N  
 LONG. 81.5947549W

LATITUDE 38°25'00"  
 39106327R

LINE	BEARING	DISTANCE
L1	S 48°19'33" W	899.85
L2	N 22°12'10" E	2187.89
L3	N 42°28'22" E	1063.59
L4	N 59°41'13" E	568.08



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. 11-35  
 SCALE 1"=2000'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION GPS

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.  
 (SIGNED) *[Signature]*  
 R.P.E. \_\_\_\_\_ L.L.S. 851

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 Department of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE 11/16, 20 11  
 OPERATOR'S WELL NO. YEAGER #2  
 API WELL NO. \_\_\_\_\_  
47 - 39 - 06327R  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 675 WATER SHED ELK RIVER  
 DISTRICT ELK COUNTY KANAWHA  
 QUADRANGLE BIG CHIMNEY

SURFACE OWNER CENTRAL WV REGIONAL AIRPORT AUTHORITY ACREAGE 1214.61  
 OIL & GAS ROYALTY OWNER CENTRAL WV REGIONAL AIRPORT AUTHORITY LEASE ACREAGE 1214.61  
 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 BASE OF LOWER HURON/RHINESTREET ESTIMATED DEPTH 5500  
 WELL OPERATOR RESERVE OIL & GAS INC. DESIGNATED AGENT J. SCOTT FRESHWATER  
 ADDRESS 929 CHARLESTON ROAD ADDRESS 929 CHARLESTON ROAD  
SPENCER, WV 25276 SPENCER, WV 25276

Received

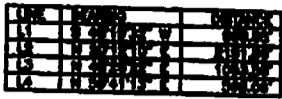
APR 16 2014

Office of Oil and Gas  
 WV Dept. of Environmental Protection

05/02/2014

UTM NAD 83  
17 0448 052E  
42 48088N

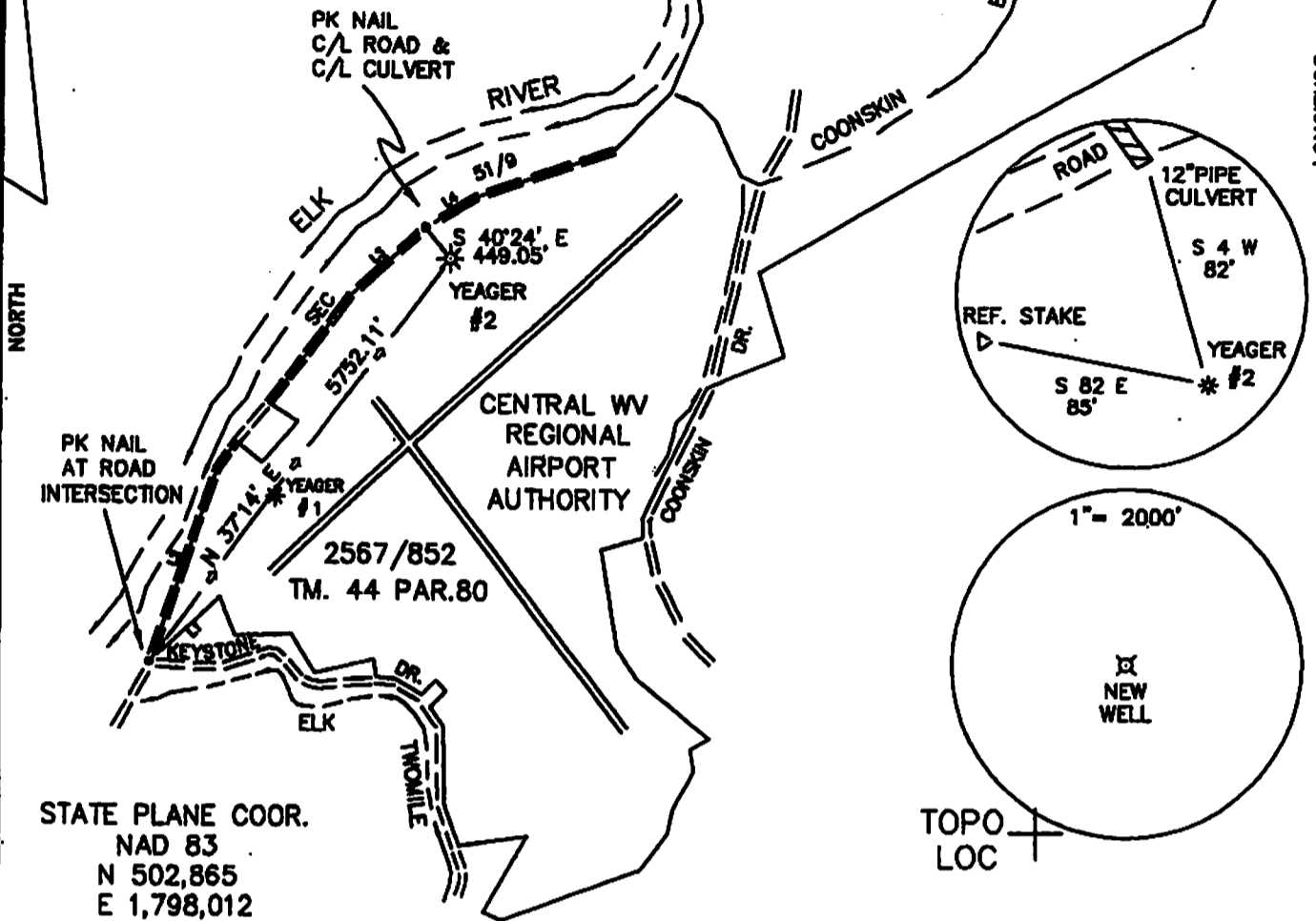
NAD 83  
LAT. 38.3794784N  
LONG. 81.5947549W



LATITUDE 38°25'00"  
3906327R

LONGITUDE 81°35'00"

13,600'



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

FILE NO. \_\_\_\_\_  
DRAWING NO. 11-35  
SCALE 1"=2000'  
MINIMUM DEGREE OF ACCURACY 1 IN 200  
PROVEN SOURCE OF ELEVATION GPS

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.  
(SIGNED) \_\_\_\_\_  
R.P.E. \_\_\_\_\_ L.L.S. 851

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
Department of Environmental Protection  
OFFICE OF OIL AND GAS

DATE 11/16, 20 11  
OPERATOR'S WELL NO. YEAGER #2  
API WELL NO. \_\_\_\_\_  
47 - 34 - 06327R  
STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_\_\_ GAS X LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
(IF "GAS") PRODUCTION X STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X

LOCATION: ELEVATION 675 WATER SHED \_\_\_\_\_ ELK RIVER  
DISTRICT ELK COUNTY KANAWHA  
QUADRANGLE BIG CHIMNEY

SURFACE OWNER CENTRAL WV REGIONAL AIRPORT AUTHORITY ACREAGE 1214.61  
OIL & GAS ROYALTY OWNER CENTRAL WV REGIONAL AIRPORT AUTHORITY LEASE ACREAGE 1214.61  
LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL X CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY): \_\_\_\_\_

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
TARGET FORMATION BASE OF LOWER HURON/RHINESTREET ESTIMATED DEPTH 5500  
WELL OPERATOR RESERVE OIL & GAS INC. DESIGNATED AGENT J. SCOTT FRESHWATER  
ADDRESS 929 CHARLESTON ROAD ADDRESS 929 CHARLESTON ROAD  
SPENCER, WV 25276 SPENCER, WV 25276

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WV Dept. of Environmental Protection

39 06327R

WW-2B1  
(5-12)

Well No. Yeager #2

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Standard Environmental  
Sampling Contractor \_\_\_\_\_

Well Operator Reserve Oil & Gas, Inc.  
Address 929 Charleston Road  
Spencer, WV 25276  
Telephone 304-927-5228

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

*See Attached from original permit.*

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05/02/2014

APR 16 2014



Reserve Oil and Gas, Inc.

Well Information / Potential Water Well Sample Data Sheet

Operator: Reserve Oil & Gas, Inc.

Lease Name and Number: Yeager #2

Comments

The initial mapping review of the area surrounding the proposed well site revealed the below listed surface owner (s) that were potentially utilizing groundwater (potable) for human consumption or other purposes within one thousand (1,000) feet of the proposed well site. The following landowners have been notified of the opportunity to request a water sample should it be necessary.

Please note that the following information is subject to change upon field inspection.

Individual Contacted or Notified

Owner / Occupant: Justin Underwood (304) 646-6012
Address: 73 Schenley Lane Charleston, WV 25311
Letter / Notice Date: 12/8/11
Comments: Renter didn't think had water well, said to call landlord listed above
Called 12/13/11 - has city water

Owner / Occupant: Pamela Grady
Address: 59 Schenley Lane
Letter / Notice Date: 12/8/11
Comments: City Water

Owner / Occupant:
Address: 33 Schenley Lane
Letter / Notice Date: 12/8/11
Comments: Posted notice on door

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Department of Environmental Protection

Owner / Occupant:
Address: 7 Schenley Lane
Letter / Notice Date: 12/8/11
Comments: Posted notice on door

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39-06327 R

Owner / Occupant: William Whitley  
Address: 1321 Barlow Drive, Charleston, WV  
Letter / Notice Date: 12/8/11  
Comments: City Water

Owner / Occupant:  
Address: 1317 Barlow Drive  
Letter / Notice Date: 12/8/11  
Comments: Posted notice

Owner / Occupant:  
Address: 1307 Wagner Drive Charleston, WV  
Letter / Notice Date: 12/8/11  
Comments: brick house end of road, posted notice

Owner / Occupant:  
Address: Wagner Drive  
Letter / Notice Date: 12/8/11  
Comments: 2 story yellow/red brick home; posted notice

Owner / Occupant:  
Address: Wagner Drive  
Letter / Notice Date: 12/8/11  
Comments: White block building; posted notice

Owner / Occupant: CJ Humphries  
Address: 1303 Wagner Drive  
Letter / Notice Date: 12/8/11  
Comments: City Water

Owner / Occupant: Richard Runyon  
Address: 1303 A Wagner Drive  
Letter / Notice Date: 12/8/11  
Comments: City Water according to Mr. Humphries above, other in law of Mr. Runyon.

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Office of Oil & Gas  
DEC 13 2011  
WV Department of  
Environmental Protection

Reserve Oil and Gas, Inc. • 929 Charleston Road • Spencer, WV 25276 • 1-304-927-5228 phone • 1-304-927-5068 fax

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Office of Oil and Gas  
WV Dept. of Environmental Protection  
05/02/2014

3906327R



west virginia department of environmental protection

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

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

December 19, 2011

*Original permit*

**WELL WORK PERMIT**

**New Well**

This permit, API Well Number: 47-3906327, issued to RESERVE OIL & GAS, INC., 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 all 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 drilling, 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: YEAGER 2  
Farm Name: CENTRAL WV REGIONAL AIRPC  
API Well Number: 47-3906327  
Permit Type: New Well  
Date Issued: 12/19/2011

**Promoting a healthy environment.**

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Office of Oil and Gas  
WV Dept. of Environmental Protection

05/02/2014