



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

June 26, 2014

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-1706526, issued to KEY OIL COMPANY, 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: TARGA / MAXWELL NO. 19

Farm Name: MORRIS, I.L. (IKE)

API Well Number: 47-1706526

Permit Type: Vertical Well

Date Issued: 06/26/2014

Promoting a healthy environment.

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

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 with 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.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

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

1) Well Operator KEY OIL COMPANY

306347	DODD-RIDGE	NEW MILTON	NEW MILTON
Operator ID	County	District	Quadrangle

2) Operator's Well Number: TARGA/MAXWELL #19

3) Elevation: 1150'

4) Well Type: (a) Oil or Gas

(b) If Gas: Production / Underground Storage _____
Deep _____ / Shallow

5) Proposed Target Formation(s): *SEE BELOW Proposed Target Depth: 3000'

6) Proposed Total Depth: 3000' Feet Formation at Proposed Total Depth: GORDON

7) Approximate fresh water strata depths: 125'

8) Approximate salt water depths: 1561'

9) Approximate coal seam depths: NONE REPORTED ON DRILLERS LOGS

10) Does land contain coal seams tributary to active mine? NO

11) Describe proposed well work in detail DRILL, STIMULATE, PRODUCE

*DLW
5-21-2014*

12) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor	13 3/8	ERW	48	35	0	
Fresh Water	9 5/8	ERW	29	168 180	168 180	70 SKS. TO SURFACE
Coal						
Intermediate	7	ERW	17	1284	1284	190 SKS. CTS
Production	4 1/2	J-55	10.5		2900	160 SKS.
Tubing						
Liners						

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Office of Oil and Gas

Packers: Kind _____
Sizes _____
Depths Set _____

MAY 30 2014

WV Department of
Environmental Protection

1). Date: April 11, 2014

2.) Operator's Well Number TARGA/MAXWELL #19
State 47- Count 017 Permit -

3.) API Well No.: 47- 017 -

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 I. L. MORRIS *W*
Address P O BOX 397
GLENVILLE, WV 26351
(b) Name _____
Address _____
(c) Name _____
Address _____

5) (a) Coal Operator
Name NONE
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
Name _____
Address _____

6) Inspector DOUGLAS NEWLON
Address 4060 DUTCHMAN ROAD
MACFARLAN, WV 26148
Telephone 304-932-8049

(c) Coal Lessee with Declaration
Name _____
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 KEY OIL COMPANY
By: [Signature]
Its: PRESIDENT
Address 22 GARTON PLAZA
WESTON, WV 26452
Telephone 304-269-7102

Subscribed and sworn before me this 11th day of APRIL, 2014

[Signature: Kerri Lipscomb]

Notary Public **RECEIVED**
Office of Oil and Gas

My Commission Expires November 16, 2022

Oil and Gas Privacy Notice

MAY 30 2014

WW-2A Surface Waiver

SURFACE OWNER WAIVER

1706526
CK 30641
65000

County DODDRIDGE Operator KEY OIL COMPANY
Operator well number TARGA/MAXWELL #19

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 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.

A. L. Moore
Signature

Date 5/13/14

Company Name

MAY 30 2014

By Its

Office of Oil and Gas
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WV Department of Environmental Protection

Print Name

Signature

Date

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
PORTER MAXWELL	MICHAEL MURPHY	1/8	14/236
TARGA DEVELOPMENT, INC.	KEY OIL COMPANY	1/8	343/173

**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: KEY OIL COMPANY
PRESIDENT

RECEIVED
 Office of Oil and Gas
 MAY 30 2014
 WV Department of
 Environmental Protection

WW-2B1

Well No. TARGA/MAXWELL NO. 19

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.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

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

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

<input checked="" type="checkbox"/>	Contractor Name	<u>Reliance Laboratories, Inc.</u>
<input type="checkbox"/>	Well operator's private laboratory	
	Well Operator	<u>Key Oil Company</u>
	Address	<u>22 Garton Plaza</u>
		<u>Weston, WV 26452</u>
	Telephone	<u>(304) 269-7102</u>

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 please indicate such.

****THERE APPEARS TO BE NO KNOWN WATER WELLS OR SPRINGS WITHIN 1000 FEET OF THE PROPOSED WELL LOCATION****

SEE PERMIT CONDITIONS

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Office of Oil and Gas

MAY 30 2014

WV Department of
Environmental Protection

WW-9
Rev. 5/10

Page _____ of _____
API Number 47 - 017 - _____
Operator's Well No. TARGA/MAXWELL NO. 19

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 Key Oil Company OP Code _____

Watershed Lick Run Quadrangle New Milton 7.5'

Elevation 1,150' County Doddridge District New Milton

Description of anticipated Pit Waste: Drill Water, Frac Blow Back & Various Formation Cuttings.

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

Will a synthetic liner be used in the pit? yes. If so, what ml.? 6 mil. 20 mil.

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

DCW
5-21-2014

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. _____
-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to 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
-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) Jan Chapman

Company Official Title President

Subscribed and sworn before me this 11th day of April, 2014

Kerri Lipscomb Notary Public

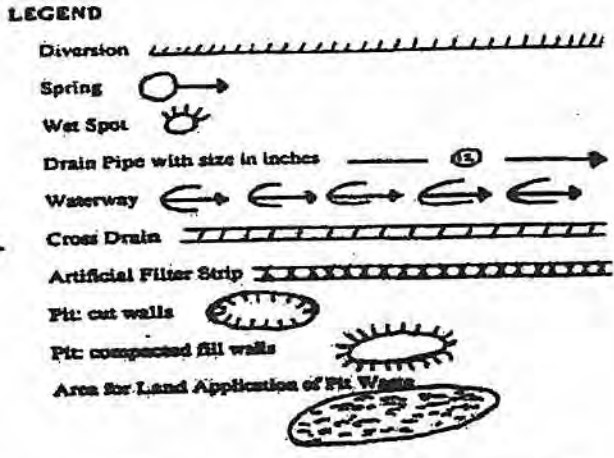
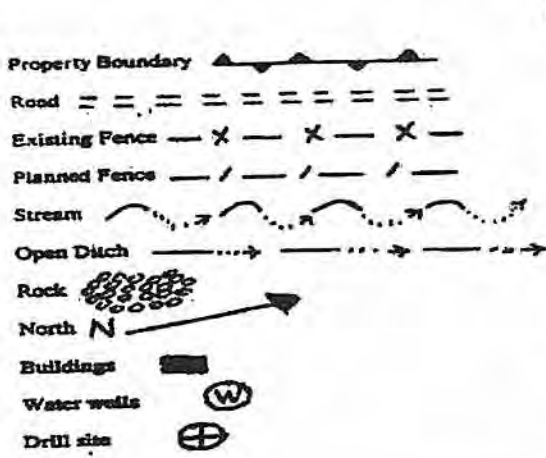
My commission expires November 16, 2022

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Office of Oil and Gas

MAY 30 2014

WV Department of
Environmental Protection





Proposed Revegetation Treatment: Acres Disturbed 2.3± Prevegetation pH 5.5

Lime 3 Tons/acre or to correct to pH 5.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch HAY 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
KY-31	40	KY-31	40
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15	ANNUAL RYE	15

Attach:
Drawing(s) of road, location, pit and proposed area for land application.
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Douglas Newlen
Comments: Proceed + Mulch install ETS to WV Dep regulations

Title: Oil + Gas Inspector

Date: 5-21-2014

Field Reviewed? Yes No

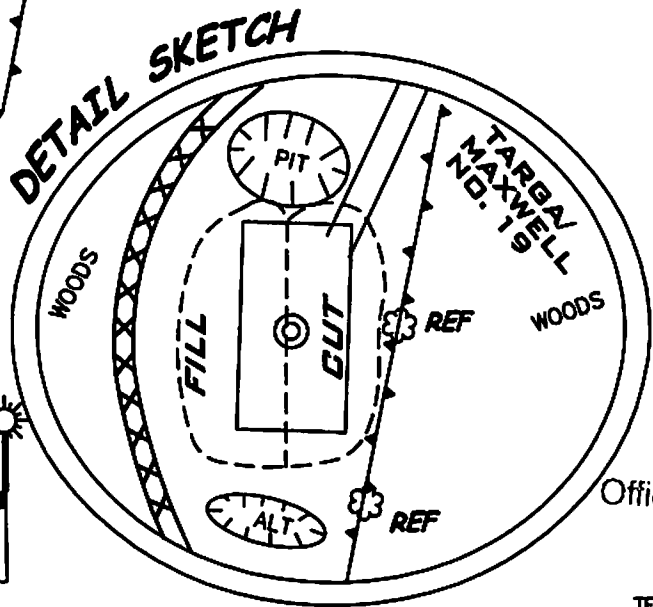
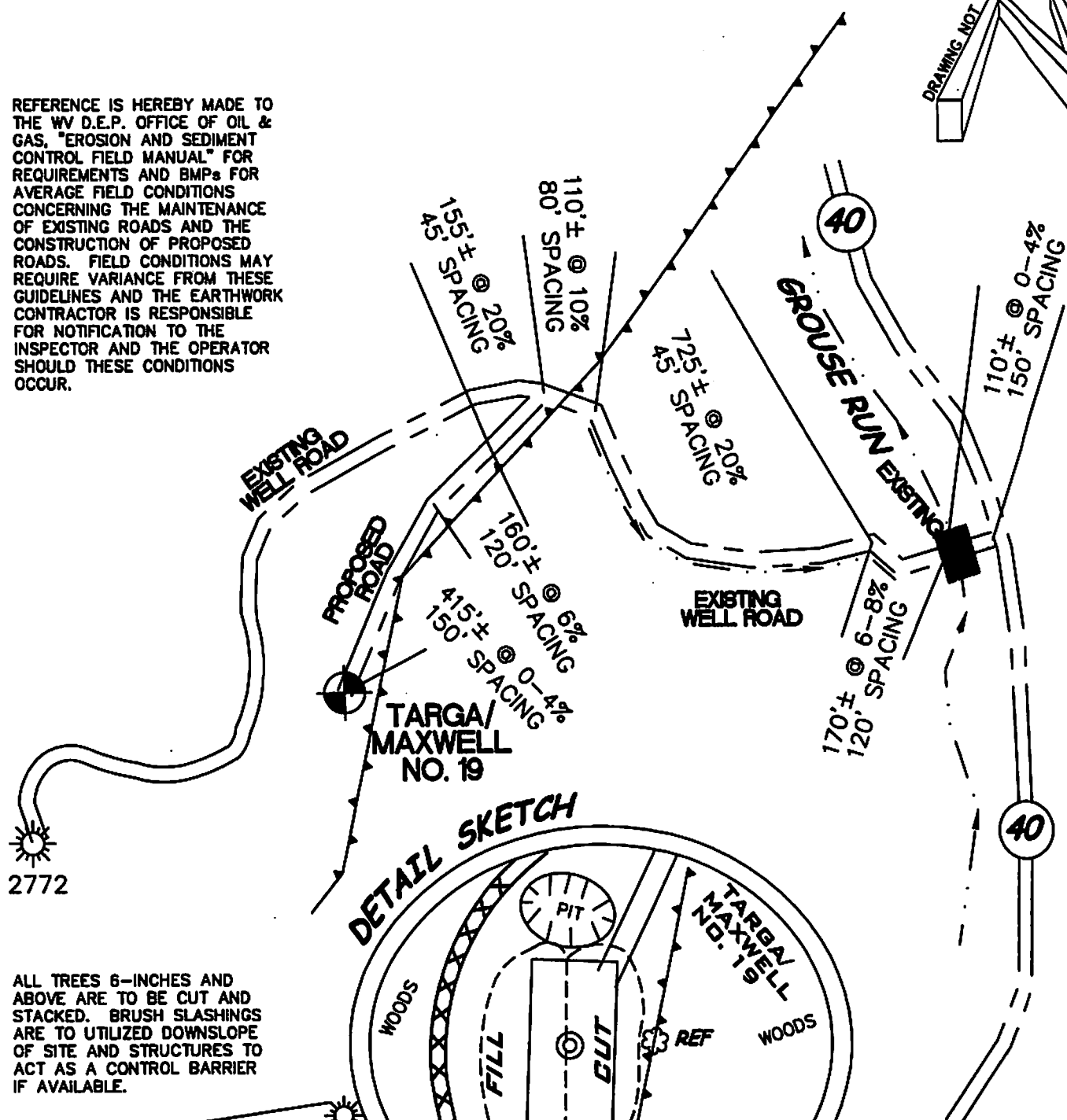
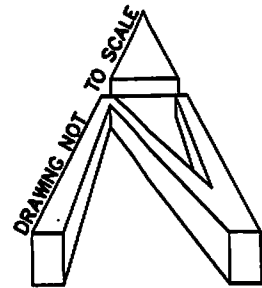
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Office of Oil and Gas

MAY 30 2014

WV Department of
Environmental Protection

TARGA MAXWELL NO. 19

REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.



ALL TREES 6-INCHES AND ABOVE ARE TO BE CUT AND STACKED. BRUSH SLASHINGS ARE TO UTILIZED DOWNSLOPE OF SITE AND STRUCTURES TO ACT AS A CONTROL BARRIER IF AVAILABLE.



ANGLE RIGHT
 LAND SURVEYING, LLC.
 P.O. BOX 681
 GRANTSVILLE, WV 26147
 (304) 354-0065
 angleright@frontiernet.net

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 Office of Oil and Gas

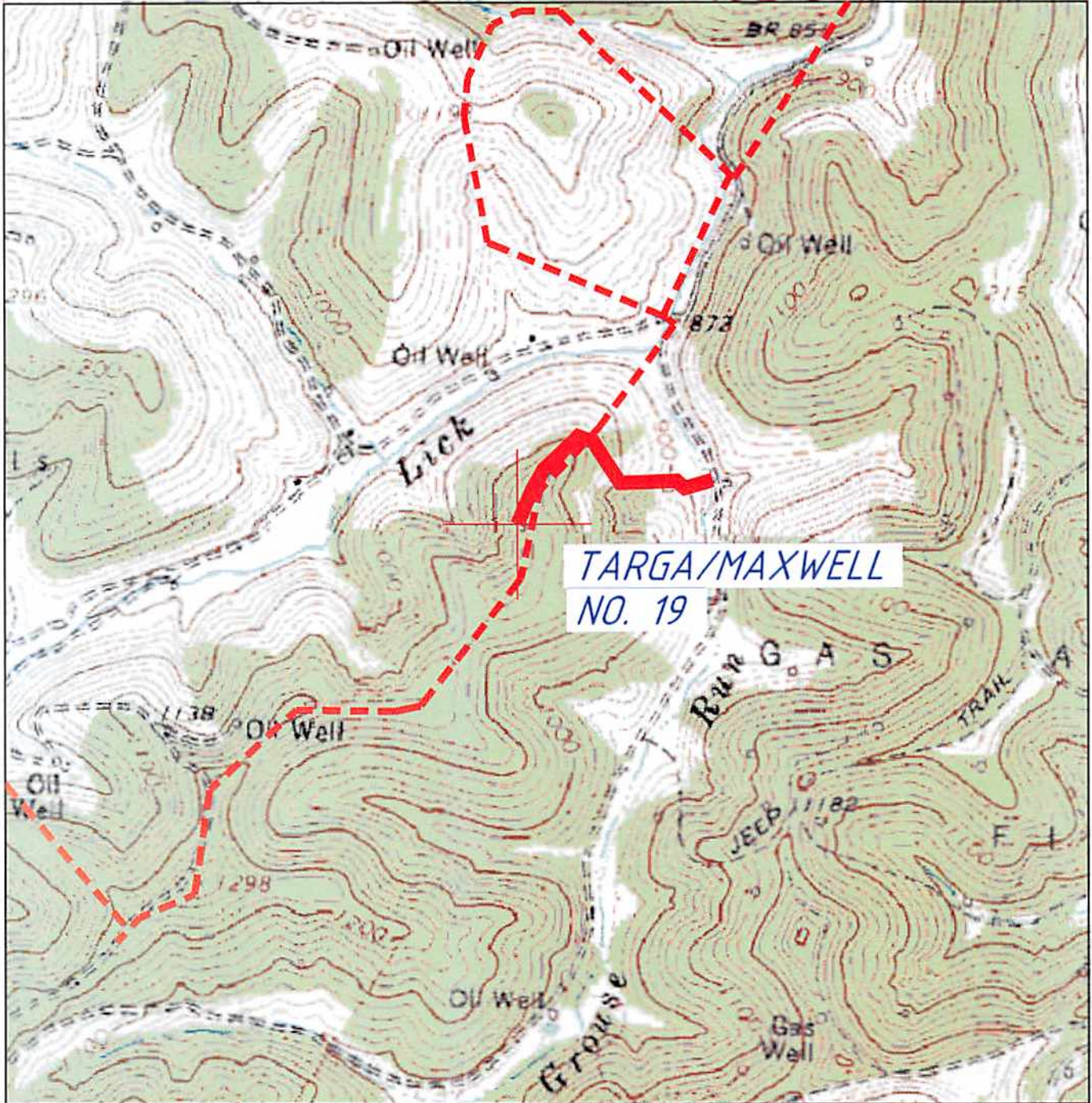
MAY 30 2014
 TEMPORARY SEED AND
 MULCH ALL SLOPES UPON
 WOODS RESTORATION
 Department of
 Environmental Protection

03/24/2014 080450

WW9

PAGE OF

TARGA/MAXWELL WELL NO. 19



ANGLE RIGHT LAND SURVEYING, LLC
 PO BOX 681
 GRANTSVILLE, WV 26147
 (304) 354-0065

080450

OPERATOR
 KEY OIL COMPANY
 22 GARTON PLAZA
 WESTON, WV 26452

TOPD SECTION
 NEW MILTON 7.5'
 SCALE:
 1"=1000'

WELL NAME
 TARGA/MAXWELL NO.19
 DATE:
 MAY 03/24/2014

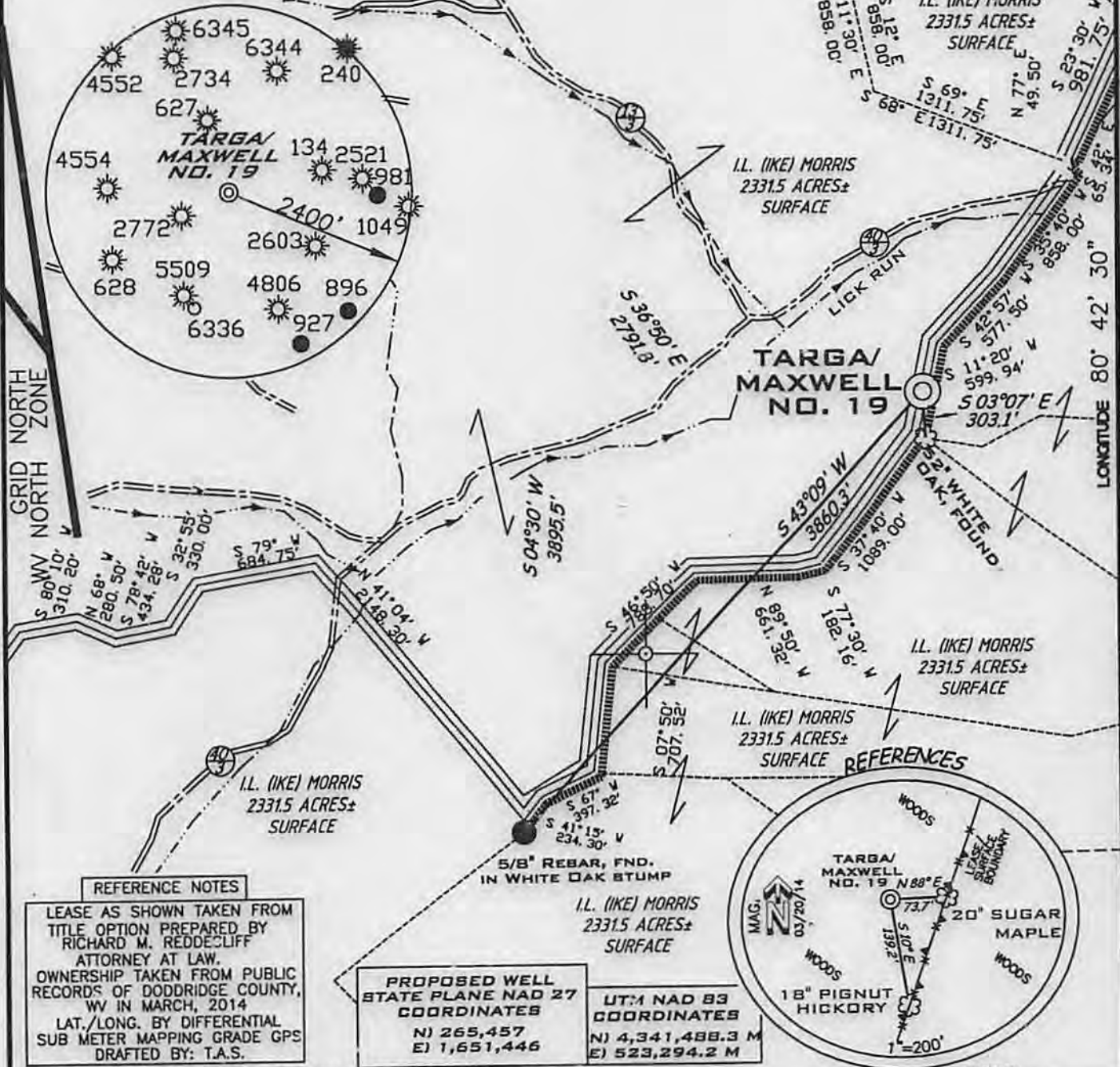
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 WV Department of
 Environmental Protection

SURVEYED LONG. 80° 43' 48.5"
NAD 83 DECIMAL LONG : 80.73014

6,225'

LATITUDE 39° 15' 00"

**TARGA/MAXWELL LEASE
1400 ACRES ±
WELL NO. 19**



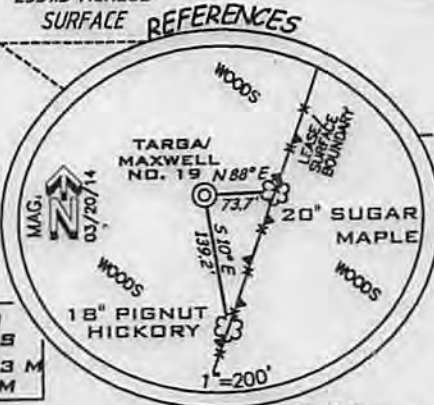
LONGITUDE 80° 42' 30"
SURVEYED LAT. 39° 13' 20.5"
NAD83 DECIMAL LAT: 39.22237

REFERENCE NOTES

LEASE AS SHOWN TAKEN FROM TITLE OPTION PREPARED BY RICHARD M. REDDECLIFF ATTORNEY AT LAW. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF DODDRIDGE COUNTY, WV IN MARCH, 2014. LAT./LONG. BY DIFFERENTIAL SUB METER MAPPING GRADE GPS. DRAFTED BY: T.A.S.

PROPOSED WELL STATE PLANE NAD 27 COORDINATES
N) 265,457
E) 1,651,446

UTM NAD 83 COORDINATES
N) 4,341,488.3 M
E) 523,294.2 M



FILE NUMBER 080450
DRAWING NUMBER WP19(W18-12)
SCALE 1"=1000'
MINIMUM DEGREE OF ACCURACY 1/200
PROVEN SOURCE OF ELEVATION SUB METER MAPPING GRADE GPS

I THE UNDERSIGNED HEREBY CERTIFY THAT THIS PLAN 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. 1006 *Terry A. Shreve*



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

DATE: MARCH 24, 2014
OPERATORS WELL NO. TARGA/MAXWELL No.19
API WELL NO. 47-017
STATE COUNTY PERMIT 06526

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF 'GAS') PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION ELEVATION '1,150' WATERSHED LICK RUN
DISTRICT NEW MILTON COUNTY DODDRIDGE
QUADRANGLE NEW MILTON 7.5 LEASE NUMBER
SURFACE OWNER I.L. (IKE) MORRIS ACREAGE 2331.5±
OIL & GAS ROYALTY OWNER PORTER MAXWELL SR. HEIRS ET AL LEASE ACREAGE 1400±
PROPOSED WORK: DRILL ___ X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ X PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) ___
TARGET FORMATION GORDON ESTIMATED DEPTH 3,000'
WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN
ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

form wv6
A.R.L.B