



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

August 28, 2013

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-10501370, issued to MOUNTAIN V 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: KITTLE #1 WV0461
Farm Name: SMITH, GARLAND V. ,.ET AL
API Well Number: 47-10501370
Permit Type: Vertical Well
Date Issued: 08/28/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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 § 22-6A-5a (12), 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. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the fill material shall be within plus or minus 2% (unless soil test results show a greater range of moisture content is appropriate and 95% compaction can still be achieved) of the optimum moisture content as determined by the standard proctor density test, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort. Each lift must meet 95 % compaction of the optimum density based on results from the standard proctor density test of the actual soils used in specific engineered fill sites. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
3. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
4. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
5. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
6. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
7. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

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

1) Well Operator Mountain V Oil & Gas, Inc. 105 05 439

310020	Wirt	Reedy	Liverpool 7.5'
Operator ID	County	District	Quadrangle

2) Operator's Well Number: Kittle #1 WV0461 Elevation: 1,095'

4) Well Type: (a) Oil _____ or Gas X
 (b) If Gas: Production X Underground Storage _____
 Deep _____ / Shallow X

5) Proposed Target Formation(s): Berea Proposed Target Depth: 2,900'

6) Proposed Total Depth: 2,900 Feet Formation at Proposed Total Depth: Berea

7) Approximate fresh water strata depths: 260' & 919', 1,100'

8) Approximate salt water depths: 1,100' & 1,570' & 2,073'

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 in Detail See attached addendum

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13 3/8"			42'	42'	Sand
Fresh Water	9 5/8"			350'	350'	CTS or 35 CSR 18 - 11.1
Coal						
Intermediate	7"			2250'	2250'	CTS or 35 CSR 18 - 11.1
Production	4 1/2"			2900'	2900'	See Addendum
Tubing						
Liners						

Packers: Kind
 Sizes
 Depths Set

[Handwritten Signature]

6-12-13

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Addendum to WW-2B
Kittle #1 WV0461 WV0460 API 47-105-0

12) Describe proposed well work in detail:

1. Construct the drilling location.
2. Drill a 16" hole to approximately 42'.
3. Run approximately 42' of 13-3/8" casing and fill around outside of casing with cuttings.
4. Drill a 12-1/4" hole to approximately 365'.
5. Run approximately 350' of 9-5/8" casing.
6. Cement the 9-5/8" casing back to surface.
7. Drill an 8-3/4" hole to the approximate depth of 2,275'.
8. Run approximately 2,250' of 7" casing.
9. Cement the 7" casing back to surface.
10. Drill a 6-1/4" hole to the estimated total depth of approximately 2,900'.
11. Run approximately 2,900' of 4-1/2" casing.
12. Cement the 4-1/2" casing back to a point above the anticipated perforations.
13. Perforate the Berea formation.
14. Frac the Berea formation with approximately 40,000# of 20/40 sand and 1,500 barrels of water.
15. Reclaim the drilling location.

Received

JUL 13 2006

OK # 44756
\$650 ^{FD}

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 Garland Van Smith ✓ A
Address 1 Green Hls
Ravenswood, WV 26164
(b) Name Roger Cain ET UX W
Address 9297 Windy Ridge Road
Sandyville, WV 25275
(c) Name _____
Address _____

5) (a) Coal Operator
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name Garland Van Smith ✓ A
Address 1 Green Hls
Ravenswood, WV 26164
Name _____
Address _____

6) Inspector Joe Taylor
Address 1478 Claylick Road
Ripley, WV 25271 ST
Telephone 304-380-7469

(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

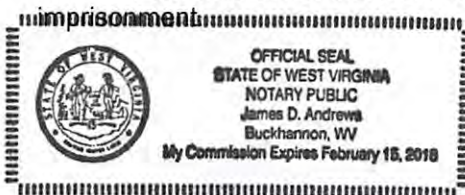
OR
X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through on the above named parties by:

- XX 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



Well Operator Mountain V Oil & Gas, Inc.
By: Mike Shaver [Signature]
Its: President
Address P.O. Box 470
Bridgeport, WV 26330
Telephone (304) 842-6320

Received

Subscribed and sworn before me this 8th day of August, 2013
Notary Public

My Commission Expires 2-15-2018

STATE OF WEST VIRGINIA
DIVISION 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 Mountain V Oil & Gas, Inc. OP Code _____

Watershed Enoch Fork Quadrangle Liverpool 7.5'

Elevation 1,095' County Wirt District Reedy

Description of anticipated Pit Waste: Drill Cuttings and Frac Flowback Water

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 What ml.? 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 _____)

Drilling Medium anticipated for this well? Air, Freshwater, oil based, etc. Air for vertical
-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used? _____

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 Division 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) Mike Shaver

Company Official Title President

Subscribed and sworn before me this 8th day of August, 20 13

[Signature] Notary Public

Received

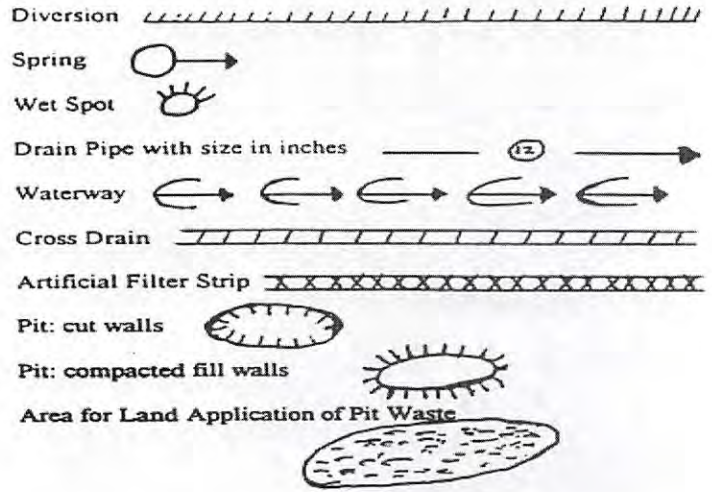
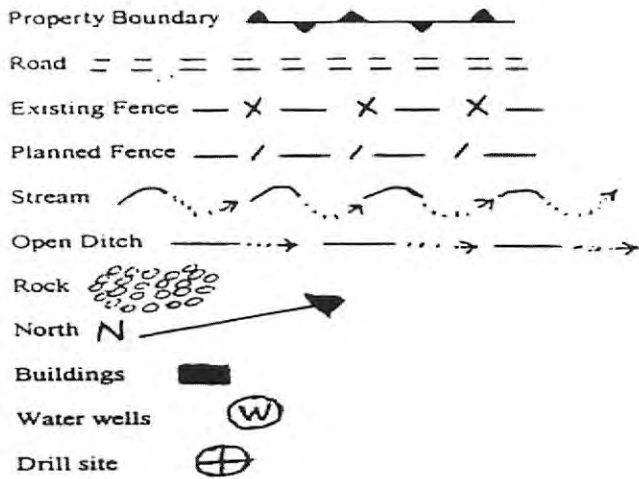
My commission expires 2-15-2018

[Signature]
8-12-13



AUG 13 2013

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 2.0 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/2 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
<u>Meadow Mix</u>		<u>40</u>	<u>Orchard Grass</u>		<u>15</u>
<u>Alsike Clover</u>		<u>5</u>	<u>Alsike Clover</u>		<u>5</u>
<u>Annual Rye</u>		<u>15</u>			

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: _____

Title: Inspector Date: 8-12-13

Field Reviewed? (X) Yes () No

Received

AUG 13 2013

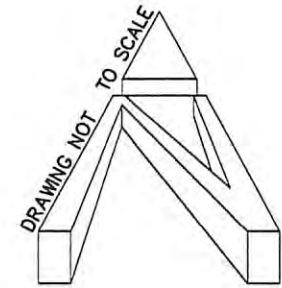
REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES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

INSTALL CULVERTS AS SHOWN ON RECLAMATION PLAN OR AS FIELD CONDITIONS REQUIRE.

ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.

KITTLE WELL NO. 1 WVO461

WW-9

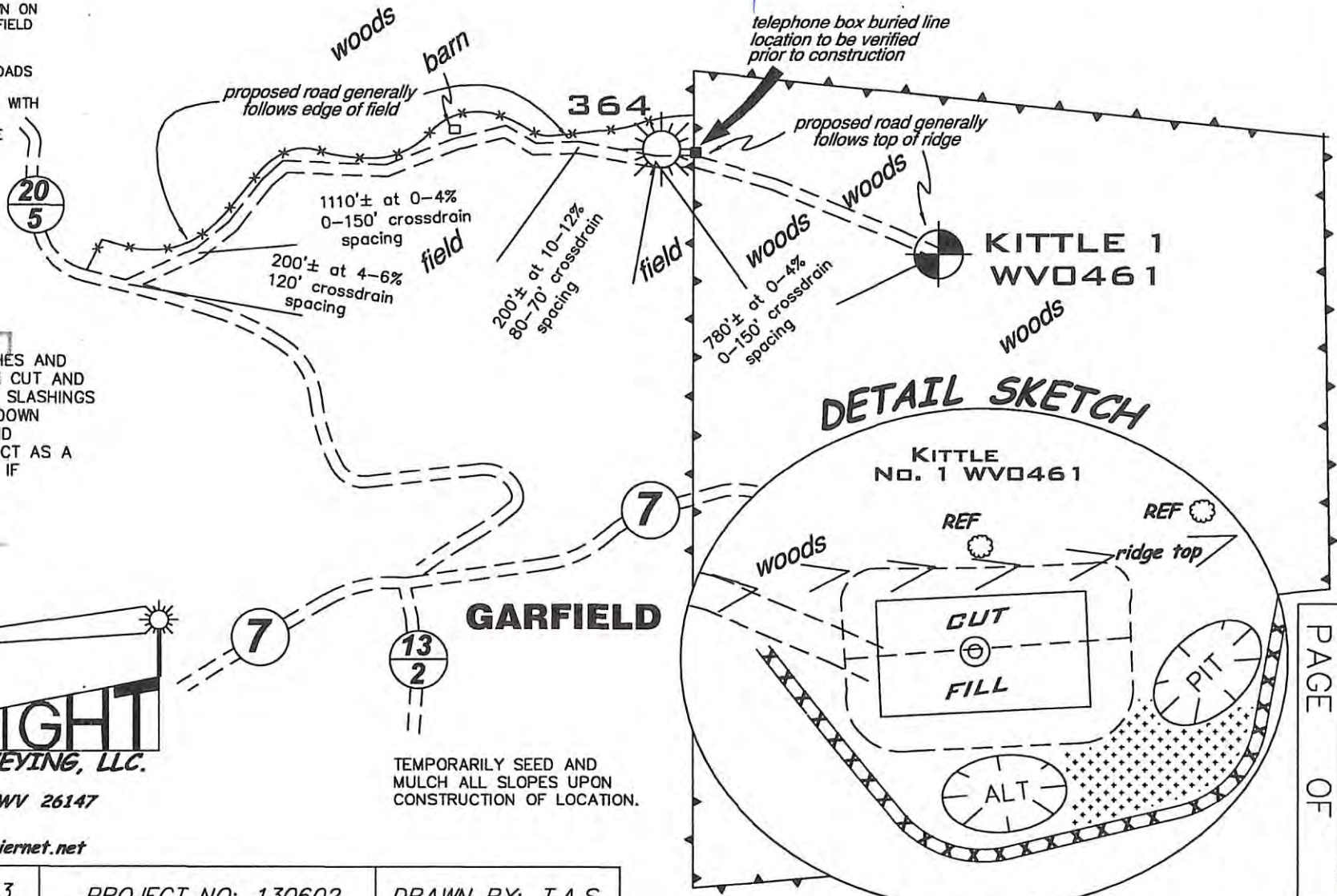


Handwritten signature and date: 5-12-13

telephone box buried line location to be verified prior to construction

WV Dept. of Environmental Protection
Office of Oil and Gas

CALL TREES 6-INCHES AND ABOVE ARE TO BE CUT AND STACKED. BRUSH SLASHINGS ARE TO UTILIZED DOWN SLOPE 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

DATE: 08/01/2013

PROJECT NO: 130602

DRAWN BY: T.A.S.

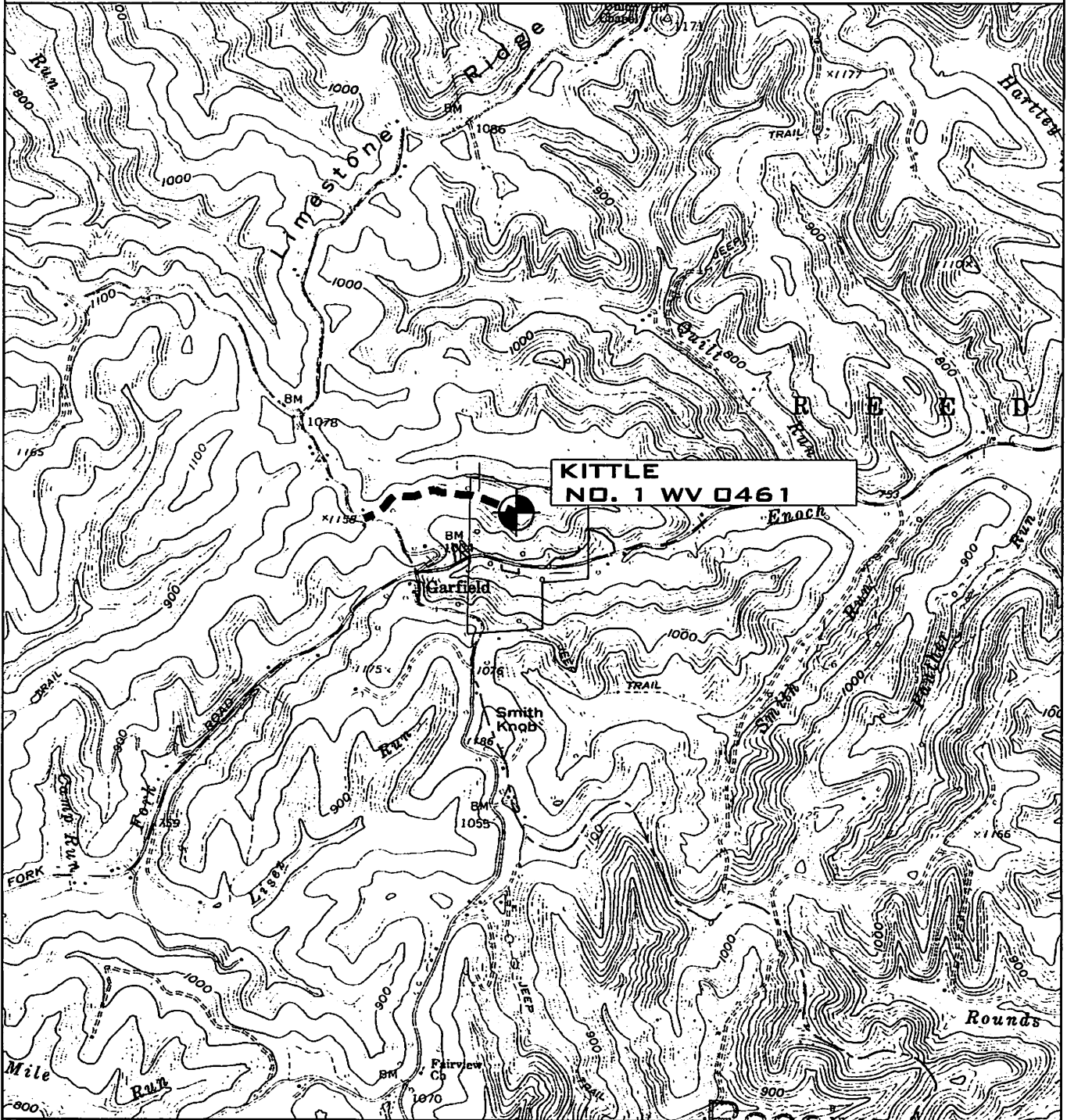
PAGE OF

10501370

WW9

KITTLE #1 WV 0461

PAGE OF



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ANGLE RIGHT LAND SURVEYING, LLC PO BOX 681 GRANTSVILLE, WV 26147 (304) 354-0085 130602	OPERATOR	TOPO SECTION	WELL NAME
	MOUNTAIN V OIL & GAS, INC. P.O. BOX 470 BRIDGEPORT, WV 26330	LIVERPOOL 7.5 13	KITTLE #1 WV 0461
		SCALE	DATE
		1"=2000'	08/01/2013

NAD 83 LAT: 38°57'25.7"
DECIMAL LAT: 38.95714

11,305'

LATITUDE 38° 57' 30"

KITTLE LEASE WELL NO. 1 WV0461 62.5± ACRES

R. CAIN
52.194 AC.
WIRT CTY
REEDY 10-07

E. KITTLE
40 AC.
WIRT CTY
REEDY 10-08

E. KITTLE
32.4 AC.
WIRT CTY
REEDY 10-09

E. KITTLE
39.25 AC.
WIRT CTY
REEDY 10-18

PROPOSED WELL
UTM NAD 83 ZONE 17
COORDINATES
(IN METERS)
N) 4,312,158.9 M
E) 453,249.4 M

R. CAIN
47.978 AC.
JACKSON CTY
RAVENSWOOD 10-17

D. RICHARDS
.97 AC.
WIRT CTY
REEDY 10-14.1

G. SMITH
38.809 AC.
WIRT CTY
REEDY 10-15

G. SMITH
9.506 AC.
WIRT CTY
REEDY 10-11

J. McKOWN
4.75 AC.
WIRT CTY
REEDY 10-42

R. SIMS
11.03 AC.
WIRT CTY
REEDY 10-14

G. SMITH
.32 AC.
WIRT CTY
REEDY 10-15.2

R. DENNIS
38.119 AC.
WIRT CTY
REEDY 10-17.1

D. WILKINSON
.506 AC.
WIRT CTY
REEDY 10-15.1

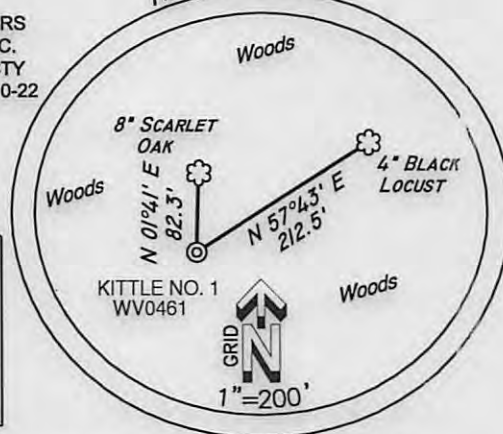
M. BUTLER
32.91 AC.
WIRT CTY
REEDY 10-16

T. WILKINSON
5.91 AC.
WIRT CTY
REEDY 10-21.1

W. AYERS
30.5 AC.
WIRT CTY
REEDY 10-22

REFERENCE NOTES
LEASE AS SHOWN TAKEN
FROM PLAT FOR API 4710500371
PREPARED BY L.F. DYE DATED
MARCH 29, 1958.
OWNERSHIP TAKEN FROM PUBLIC
RECORDS OF JACKSON &
WIRT COUNTY, IN JULY, 2013.
LAT./LONG. BY DIFFERENTIAL
SUBMETER MAPPING GRADE GPS

REFERENCES



WV SOUTH ZONE
GRID NORTH

LONGITUDE 81° 30' 00"

NAD 83 LON: 81°32'22.5"
DECIMAL LON: 81.53957



(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

FILE NUMBER	G130602(WB18-10)
DRAWING NUMBER	G130602_WP1
SCALE	1" = 500'
MINIMUM DEGREE OF ACCURACY	1/200
PROVEN SOURCE OF ELEVATION	SUBMETER MAPPING GRADE 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 ENVIRONMENTAL PROTECTION

P.S. 1006

Terry A. Shreve



WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE: JULY 30, 2013

OPERATORS WELL NO. NO. 1 / WV0461

API WELL NO. 47-105-01370
STATE COUNTY PERMIT

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

LOCATION ELEVATION 1,095' WATERSHED ENOCH FORK

DISTRICT REEDY COUNTY WIRT

QUADRANGLE LIVERPOOL 7.5' LEASE NUMBER

SURFACE OWNER GARLAND V. SMITH et al ACREAGE 38.809±

OIL & GAS ROYALTY OWNER GOLDY V. KITTLE et al LEASE ACREAGE 62.5±

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

PLUG & ABANDON ___ CLEAN OUT & REPLUG ___

TARGET FORMATION BEREA ESTIMATED DEPTH 2,900'

WELL OPERATOR MOUNTAIN V OIL & GAS, INC. DESIGNATED AGENT MIKE SHAVER

ADDRESS P.O. BOX 470, BRIDGEPORT, WV 26330 ADDRESS P.O. BOX 470, BRIDGEPORT, WV 26330

form ww6

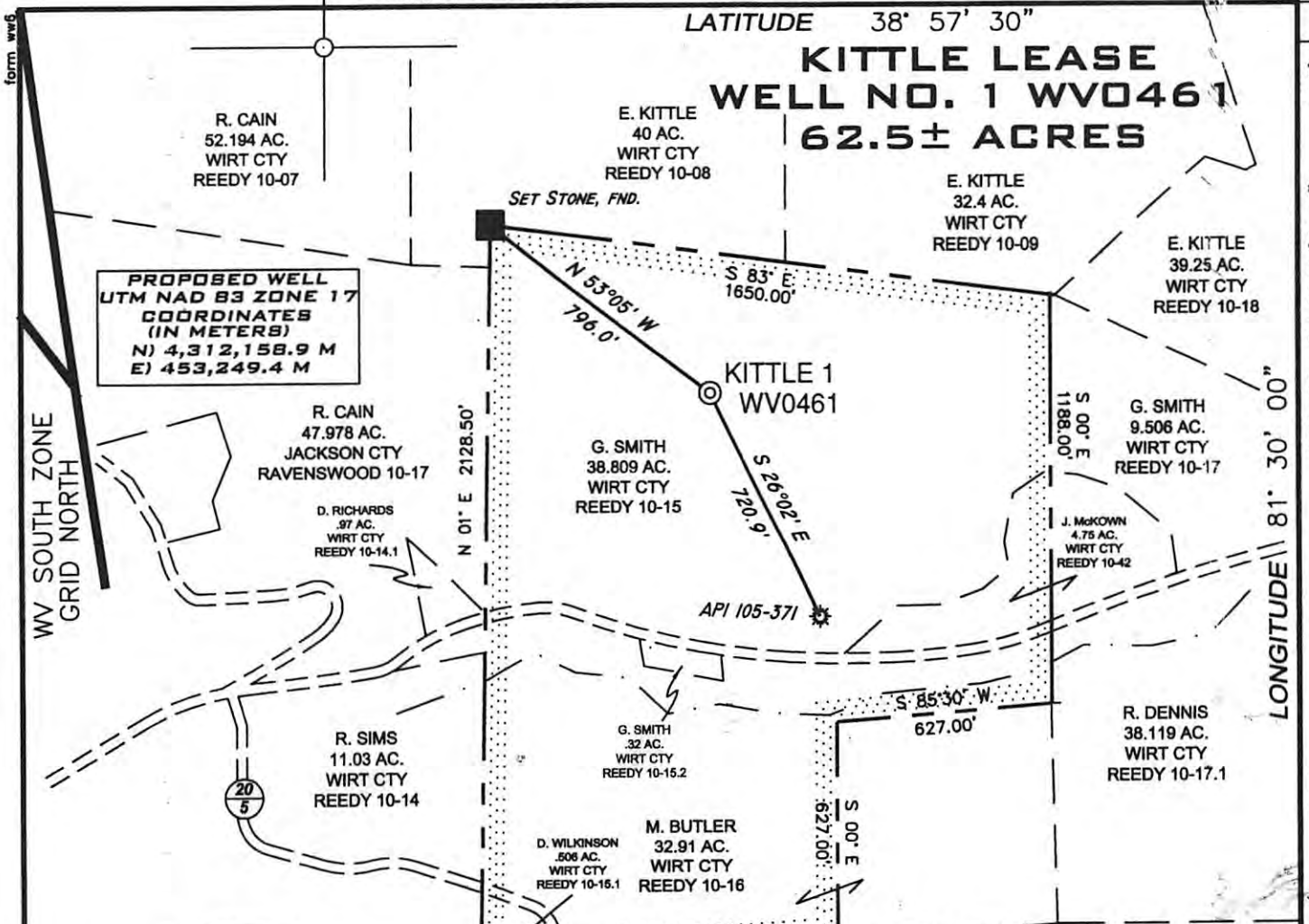
A.R.L.S

10501370

NAD 83 LAT: 38°57'25.7" 11,305'
DECIMAL LAT: 38.95714

LATITUDE 38° 57' 30"

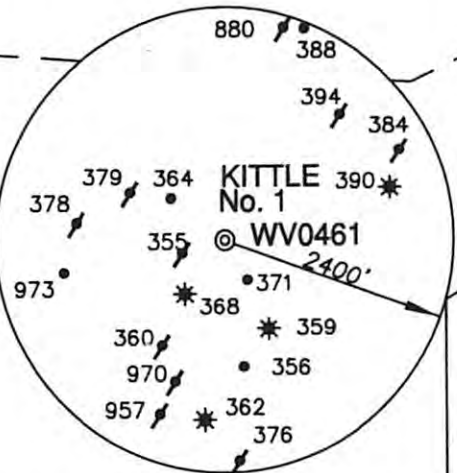
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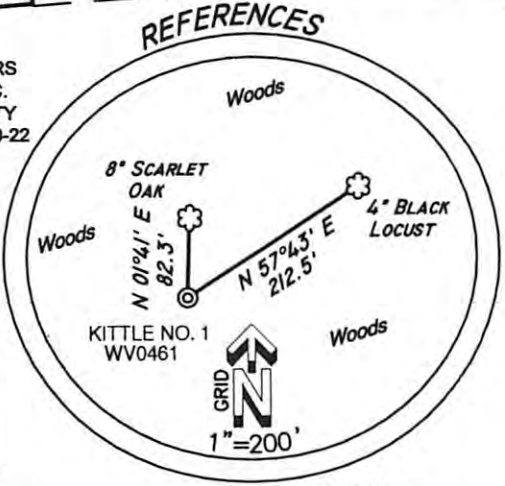
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DECIMAL LON: 81.53957

LONGITUDE 81° 30' 00"

WV SOUTH ZONE
GRID NORTH



REFERENCE NOTES
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 OWNERSHIP TAKEN FROM PUBLIC RECORDS OF JACKSON & WIRT COUNTY, IN JULY, 2013.
 LAT./LONG. BY DIFFERENTIAL SUBMETER MAPPING GRADE GPS



(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

FILE NUMBER G130602(WB18-10)
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P.S. 1006 *Terry A. Shreve*



WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

DATE: JULY 30, 2013

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

OPERATORS WELL NO. NO. 1 / WV0461
 API WELL NO. 47-105-01370
 STATE COUNTY PERMIT

LOCATION ELEVATION 1,095' WATERSHED ENOCH FORK

DISTRICT REEDY COUNTY WIRT
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 PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) ___

TARGET FORMATION BEREA ESTIMATED DEPTH 2,900'

WELL OPERATOR MOUNTAIN V OIL & GAS, INC. DESIGNATED AGENT MIKE SHAVER

ADDRESS P.O. BOX 470, BRIDGEPORT, WV 26330 ADDRESS P.O. BOX 470, BRIDGEPORT, WV 26330

form wv6

A.R.L.B